

**Trends in Finfish Landings
of Sport-Boat Anglers
in Texas Marine Waters
May 1974 - May 1992**

by
**Thomas A. Warren
Lee M. Green
and
Kyle W. Spiller**

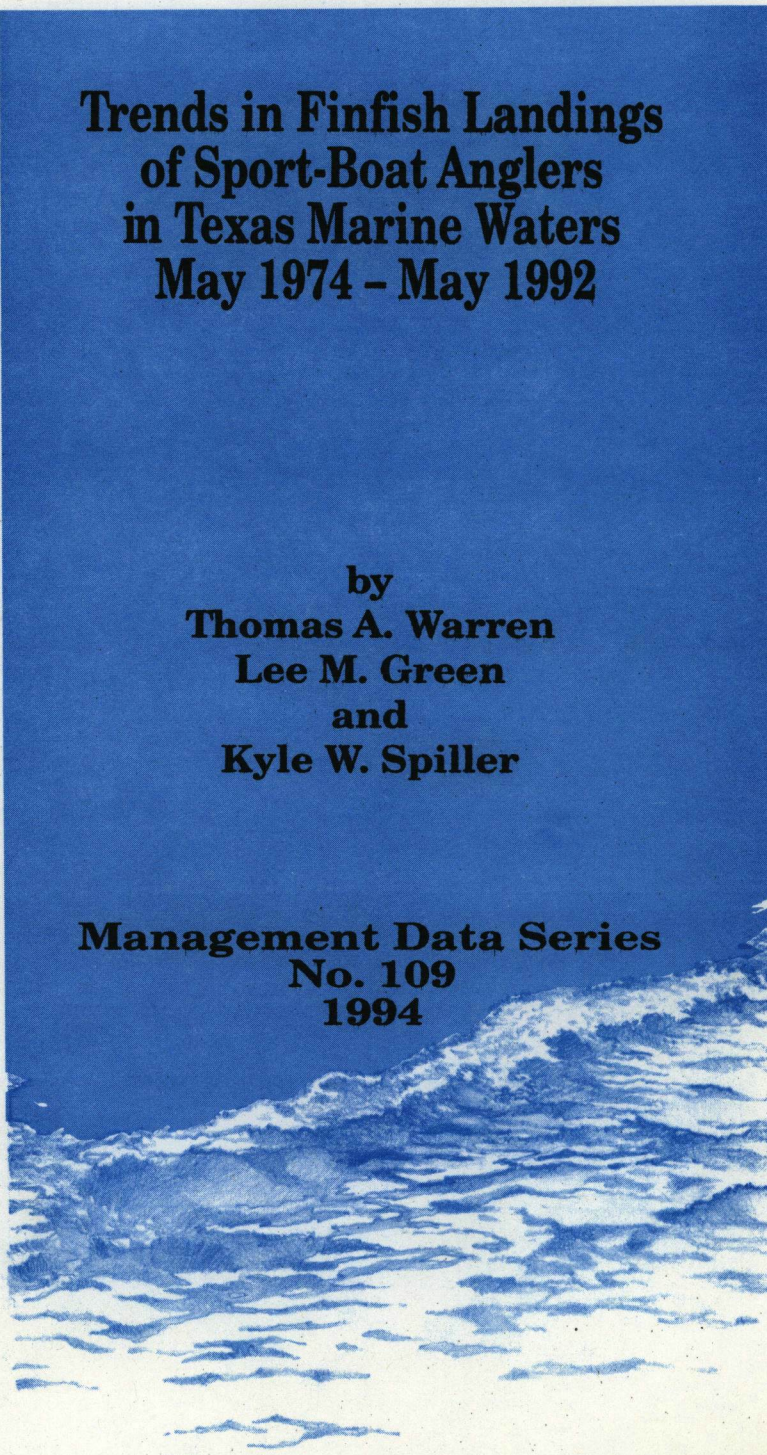
**Management Data Series
No. 109
1994**



**TEXAS
PARKS & WILDLIFE
DEPARTMENT**

**FISHERIES & WILDLIFE
DIVISION**

**4200 Smith School Road
Austin, Texas 78744**



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ACKNOWLEDGMENTS

We would like to thank each member of the Coastal Fisheries Branch field staff who conscientiously conducted interviews of anglers.

This study was jointly funded by the Texas Parks and Wildlife Department and the United States Department of Interior, Fish and Wildlife Service under DJ 15.605 (Project F-34-M-9).

ABSTRACT

Private-boat and party-boat anglers have been interviewed routinely at boat-access sites along the Texas coast by the Texas Parks and Wildlife Department (TPWD) since May 1974 and May 1983, respectively; almost 22,000 anglers were interviewed during 1991-92. Bay headboat anglers were interviewed routinely from May 1983 to May 1991 during on-board surveys. Sport-boat (private-boat and party-boat combined) fishing pressure and landings in 1991-92 exceeded 5.7 million man-h and 2.0 million fish. Sport-boat pressure and landings increased 15% and 36%, respectively, from 1990-91 to 1991-92. Sport-boat fishing in bays and passes accounted for 93% of the pressure and 95% of the landings in 1991-92; the remainder occurred in the Gulf of Mexico off Texas.

Private-boat pressure and landings in bays and passes increased to 5,043,200 man-h and 1,767,400 fish in 1991-92. Pressure (41%) and landings (34%) were greatest in the Galveston Bay system. Spotted seatrout (Cynoscion nebulosus) accounted for 29% of coastwide landings, followed by sand seatrout (Cynoscion arenarius) (22%), Atlantic croaker (Micropogonias undulatus) (14%), southern flounder (Paralichthys lethostigma) (10%) and red drum (Sciaenops ocellatus) (7%).

Party-boat pressure and landings in bays and passes increased to 333,200 man-h and 144,100 fish in 1991-92. Pressure (28%) was greatest in the lower Laguna Madre; landings (51%) were greatest in the Corpus Christi Bay system. Spotted seatrout (64%), red drum (19%) and southern flounder (6%) were the most often landed fishes.

Headboat surveys in bays and passes were terminated in May 1991. Pressure and landings decreased to 98,300 man-h and 52,900 fish from 1987-88 to 1990-91. During 1990-91, pressure (36%) and landings (45%) were greatest in the lower Laguna Madre area; sand seatrout and Atlantic croaker comprised 72% and 4% of the coastwide landings, respectively.

Private-boat pressure and landings in the Texas Territorial Sea (TTS) increased to 207,800 man-h and 39,400 fish in 1991-92. Pressure (56%) and landings (47%) were greatest off the Corpus Christi area. King mackerel (Scomberomorus cavalla), red snapper (Lutjanus campechanus) and Spanish mackerel (Scomberomorus maculatus) accounted for 36%, 16% and 12% of the landings, respectively.

Party-boat pressure in the TTS decreased to 9,000 man-h in 1991-92; landings increased to 2,700 fish. Most of the pressure (53%) and landings (59%) occurred off the lower Laguna Madre area. King mackerel represented 52% of the fish landed, followed by Spanish mackerel with 22%.

Private-boat pressure in the United States Exclusive Economic Zone (EEZ) off Texas decreased to 168,500 man-h in 1991-92; landings increased to 57,000 fish. Pressure (54%) was greatest off the Corpus Christi area; landings (42%) were greatest off the Matagorda area. Red snapper (48%), king mackerel (16%) and sand seatrout (6%) were the most often landed fishes.

Party-boat pressure and landings in the EEZ off Texas decreased to 12,000 man-h and 3,600 fish in 1991-92. Most of the pressure (58%) and landings (56%) occurred off the lower Laguna Madre area. King mackerel comprised 42% of the landings, followed by red snapper with 8%.

Standardized collection of sport-boat harvest data, in conjunction with fishery independent data, has enabled continuous monitoring of the status of marine finfish resources in Texas. The TPWD has implemented regulations based on data generated from this monitoring program.

INTRODUCTION

The Texas saltwater sport-boat fishery is an economically and biologically important segment of the total Texas coastal fishery. There were over 847,000 saltwater sport anglers in Texas during 1991 (Texas Parks and Wildlife Department 1993). Direct expenditures by these anglers translate into over two billion dollars of economic impact annually to the State of Texas (Texas Water Development Board 1987, United States Fish and Wildlife Service 1989). Landings data from saltwater sport-boat anglers are required to assess the needs for and the impact of saltwater fishing regulations, in order to maintain fish populations at desired levels.

The Texas Parks and Wildlife Department (TPWD) has conducted surveys of sport-boat anglers 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, 1984; McEachron and Matlock 1983; McEachron et al. 1981, 1984; Osburn and Ferguson 1985a, 1985b, 1986, 1987; Osburn et al. 1988; Maddux et al. 1989; Green et al. 1991a, 1991b; Campbell et al. 1991; and Weixelman et al. 1992). These surveys monitored landings per unit of effort (CPUE) and sizes of all species landed annually by sport-boat anglers in the Galveston, Matagorda, San Antonio, Aransas, Corpus Christi and upper and lower Laguna Madre bay systems, and in the Gulf of Mexico off Texas. The Sabine Lake system was added in May 1987.

This report includes annual pressure and landings estimates for private-boat (1974-92), party-boat (1983-92) and headboat (1983-91) fishing in Texas bays and passes; and private-boat (1982-92) and party-boat (1983-92) fishing in the Texas Territorial Sea (TTS) and in the United States Exclusive Economic Zone (EEZ).

MATERIALS AND METHODS

The survey year was divided into a high-use (15 May-20 November) and a low-use (21 November-14 May) season based on analyses of fishing pressure, landings and catch rates of private-boat anglers completing fishing trips (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. Bays: Marine waters shoreward of the barrier islands and pass entrances;
2. Passes: Openings connecting bays with the Gulf of Mexico;
3. TTS: Gulf of Mexico from the surf line to 16.7 km offshore, excluding the 1.6-km area around a pass; and
4. EEZ: 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 no guide was hired. Party-boat fishing was defined as fishing from a boat, operated by a guide, that carried ≤ 10 people for a fee. Headboat fishing was defined as fishing from a boat, operated by a guide and crew, that carried ≥ 11 people for a fee. Sport-boat fishing was defined as the sum of private-boat, party-boat, and bay and pass headboat fishing. Landings represent numbers of fish. All estimates are presented as a mean \pm 1SE.

Differences between estimates presented in this report and previous reports are due to updating of the data base; thus the most recent report is the most accurate.

Private-boat Fishing

Bay anglers were interviewed in all survey years. Beginning September 1977, all fishing parties (bay, pass and gulf) were interviewed; however, gulf fishing was not separated into TTS and EEZ fishing until May 1982. Estimates for TTS and EEZ fishing were made for areas of the Gulf rather than each bay system because of travel through common passes and use of common gulf areas by anglers launching their boats in 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 lower Laguna Madre.

To obtain fishing pressure estimates, TPWD personnel 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. Allowances were made for unrented slips and spaces based on information obtained from marina and boat-house operators. Relative fishing pressure estimates (% total bay system activity/site/day) were obtained by adjusting trailer and wet-slip boat counts; counts were adjusted for non-angling activity based on interviews at surveyed sites.

TPWD personnel were stationed at randomly selected boat-access sites (boat ramps and wet slips) on randomly selected weekdays and weekend days to collect landings data by interviewing fishing parties that had completed a trip. From May 1983 to May 1992, 31 weekend days and 66 weekdays were surveyed each high-use season in all bay systems except Sabine Lake (beginning May 1987) and San Antonio where 26 weekend days and 46 weekdays were surveyed; 12 weekend days and 24 weekdays were surveyed each low-use season in all bay systems. Numbers of days surveyed in years prior to May 1983 varied. 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. Based on daytime activity patterns determined during the first 2 years of the survey (Heffernan et al. 1976, Breuer et al. 1977), interviews were conducted from 1000 to 1800 hours to maximize the amount of data collected per unit of sampling effort

(McEachron et al. 1983). Efficiency was increased beginning 21 November 1984 by terminating weekend surveys at 1400, and beginning 21 November 1986 by terminating weekday surveys at 1600, if no fishing interviews were conducted prior to these times (Weixelman and Green 1984, Osburn and Weixelman 1989). Efficiency was increased further beginning 15 May 1991 by terminating weekend surveys at 1300 and weekday surveys at 1400 during high-use season. Beginning 21 November 1985, low-use season weekend and weekday surveys were not conducted when weather conditions reached a critical "bad" level based on nomographs relating air temperature, wind speed and precipitation to the number of interviews conducted in previous years (Spiller et al. 1988). These surveys were counted as zero-pressure days in the estimation procedure. Pressure estimates have been adjusted for percentage of missed angler interviews occurring during daylight hours before 1000 and after 1800 (TPWD unpublished data).

TPWD personnel recorded species (Galloway et al. 1972, Hoese and Moore 1977, Robins et al. 1980, Murdy 1983) 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 for total length to the nearest mm rather than being weighed. Mean total lengths prior to May 1983 were back calculated using weight-length regressions of the mean weight for each species in each bay system, season and day type (Harrington et al. 1979, TPWD unpublished data). Coastwide mean weights and mean lengths were weighted by the estimated number of fish landed in each bay system.

From May 1974 to May 1983, the boat owner's residential origin was recorded for all party members. Beginning May 1983, residential origin of each party member was recorded. When summarized, residential origin was classified as:

1. Coastal adjacent (i.e., Texas counties adjacent to bay system where interview occurred and within 80 km of surfline);
2. Coastal non-adjacent (i.e., Texas counties having a border within 80 km of surfline but not adjacent to bay system where interview occurred);
3. Non-coastal (i.e., Texas counties further than 80 km from surfline);
and
4. Out-of-state (i.e., states other than Texas and foreign countries).

Before May 1980, private-boat landings were estimated as the product of mean catch (landings) rate and fishing pressure in trip man-h (Heffernan et al. 1976). Since interview sites were randomly selected in proportion to total fishing pressure, this technique depended upon a roving clerk traveling around a bay system obtaining pressure counts at all sites during the survey period. In 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 was possible in the future (1979 was the

second gas shortage within a 4-year period), an alternate method of estimating landings and pressure that depended much less on 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 boat-access site (TPWD unpublished data). A roving clerk is still required to make pressure counts at boat-access sites; however, the objective is no longer to estimate total pressure at each site but to estimate the proportion of total pressure at each site. This new objective can be accomplished with fewer roves, and completed within a short time period (0800-1230 hours) when there is little change in boating activity. The new procedure reduces use of an automobile by 16% to 33% relative to that required by the old procedure, depending on the actual rove schedule adopted. A comparison of estimates made by selecting survey sites as strictly random samples and by selecting survey sites in proportion to the activity that occurred at each site was made by McEachron and Green (1984).

Landings (\hat{H}) were estimated separately for each area (bay, pass, TTS and EEZ) using the following equations:

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

where

D_i = total number of days that occurred in i th stratum (season and day type); and

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

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

where

n = total number of days sampled;

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

P_j = adjustment for parties missed by interviewers at site j (total number of parties seen divided by total number of parties interviewed); and

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

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

where

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

k = total number of sites.

Pressure (\hat{P}) was estimated separately for each area (bay, pass, TTS and EEZ) using the following equations:

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

where

D_i = total number of days that occurred in i th stratum (season and day type); and

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

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

where

n = total number of days sampled;

m_{ij} = total number of fishing trip man-h observed at site j in i th stratum;

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

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

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

where

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

k = 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 ratios of landings/day, fishing trip man-hours/day, estimated proportion of fishing activity/site and proportion of parties missed by interviewers (Mendenhall et al. 1971).

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

$$X_1 = 3X_2/2$$

where

X_1 = total number of weekend trip man-h; and

X_2 = total number of weekday trip man-h.

When weekday pressure estimates were not available the amount of pressure was estimated as:

$$X_2 = (X_1/2 + X_1)/2$$

where

X_1 = total number of weekend trip man-h; and

X_2 = total number of weekday trip man-h.

The pressure at sites with pass or gulf activity in the year being estimated, but no history of pass or gulf activity was set equal to the pressure at sites with historical data that had similar pressure during the year being estimated. Relative activity percents of boat ramps with pass or gulf history were adjusted to sum to 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 the years when no weekday surveys were conducted (May 1976-May 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 (Green et al. 1991b).

Annual estimates made from this survey 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 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, data from 1974-75 and 1975-76 have been combined and are referred to as 1974-76. Four bay systems were surveyed in 1974-75 (Galveston, San Antonio, Aransas and upper Laguna Madre) and three were surveyed in 1975-76 (Matagorda, Corpus Christi and lower Laguna Madre). Thereafter, all bay systems were surveyed each year.

Party-boat Fishing

From May 1983 to May 1992, party-boat anglers were interviewed whenever they were encountered during the routine boat-access site fishing surveys. Inclusion of marinas and boat-houses in the 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. 1984). Interview and estimation procedures are 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-use and low-use season basis. Beginning May 1983, boat-access sites were sampled in proportion to all fishing activity rather than just bay private-boat fishing activity (Osburn and Ferguson 1985b). Before the 1984-85 survey year, historical fishing activity data used did not include party-boats. Estimates 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.

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.

From May 1983 to May 1991, bay and pass headboats were randomly selected on 14 weekdays and 7 weekend days during both the high-use and low-use seasons in each of the Galveston (Galveston Bay), Corpus Christi (Aransas Bay/Corpus Christi Bay) and lower Laguna Madre areas.

Headboat surveys were conducted aboard the vessel. All retained fish were counted and identified. On each trip, up to 100 individuals of each species were measured for total length to the nearest mm. Number of anglers and fishing time (nearest 0.5 h) were also recorded. Total number of daylight trips made on each survey day was determined by contacting all inventoried headboat operators by phone or in person.

Landings (\hat{H}) were estimated using the following equations:

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

where

D_i = total number of days that occurred in i th stratum (season and day type); and

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

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

where

n = total number of days sampled;

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

t_i = mean number of trips/day by all boats in i th stratum;
and

e_{ij} = 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} = total number of trips made by headboat j on all surveyed days in i th stratum;

P_{ij} = mean number of people/trip fishing on headboat j ; and

k = total number of headboats.

Linear regression analysis revealed a positive correlation between number of fish landed and mean number of people/trip during the high-use but not the low-use season (Osburn and Ferguson 1985a). When no data on mean number of people/trip were available, the number was estimated by adjusting that boat's legal passenger capacity by the ratio of number of people/trip to passenger capacity of all surveyed headboats in the i th stratum. Linear regression analysis did not reveal a positive correlation between mean number of

people/trip and passenger capacity for either season ($P = 0.05$) (Osburn and Ferguson 1985a); however, correlation during the high-use season was significant at $P = 0.06$.

Use of e_{ij} to adjust trip catch (landings) rates is valid for proportional sampling (Kish 1965). Headboats were selected randomly for each survey day; however, when the operator of a selected headboat was contacted and found not to be making a trip on the survey day, surveyors continued contacting all headboat operators in a randomly assigned order until one making a trip was found. Thus more-active headboats were surveyed more often, resulting in de facto proportional sampling. Variances were calculated using ratio estimation (Mendenhall et al. 1971).

Procedures for calculating mean lengths and mean weights and classifying residential origin were similar to those described previously for private-boat anglers.

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 number of people/trip and mean number of trips/day (McEachron 1984). Total number of trips made during a specified time period in these earlier reports was determined by a telephone census of headboat operators.

RESULTS

Coastwide annual sport-boat fishing pressure and landings increased 15% and 36%, respectively, from about 5.0 million man-h and 1.5 million fish in 1990-91 to about 5.8 million man-h and 2.0 million fish in 1991-92 (Figure 1). Sport-boat fishing in bays and passes accounted for 93% of the pressure and 95% of the landings in 1991-92.

Almost 22,000 sport-boat anglers were interviewed during 1991-92. In bays and passes, 18,728 private-boat (Appendix A, Table A.1) and 1,238 party-boat (Appendix C, Table C.1) anglers were interviewed. In the TTS, 1,033 private-boat (Appendix E, Table E.1) and 50 party-boat (Appendix F, Table F.1) anglers were interviewed. In the EEZ, 814 private-boat (Appendix G, Table G.1) and 69 party-boat (Appendix H, Table H.1) anglers were interviewed.

Bays and Passes

Private-boat Fishing

Annual coastwide private-boat fishing pressure in bays and passes generally increased from 1976-77 through 1986-87 and declined thereafter until 1991-92 (Figure 2). Pressure increased 17% from 1990-91 to 1991-92. Landings generally decreased from 1974-76 until 1991-92 when they increased and were 36% greater than during 1990-91. A marked decrease in pressure and landings from 1983-84 to 1984-85 followed a major fish kill resulting from the winter

freeze of 1983-84. Pressure and landings declined 28% and 41%, respectively, from 1983-84 to 1984-85 (Appendix A, Tables A.2, A.3).

During the last 10 years, the Galveston Bay system accounted for a greater proportion of total private-boat pressure (35%) and landings (41%) in bays and passes than any other bay system (Figure 3). San Antonio Bay system, in contrast, accounted for only 5% and 4% of the annual coastwide pressure and landings, respectively. From 1990-91 to 1991-92, pressure increased in all bay systems except Corpus Christi, and landings increased in all bay systems except Sabine Lake (Appendix A, Tables A.2, A.3).

Texas bays and passes yielded an assortment of fishes to private-boat anglers during the last 10 years. The most numerous species was spotted seatrout (Cynoscion nebulosus) which made up 36% of all fish landed from bays and passes (Figure 4). The second most numerous species landed was sand seatrout (Cynoscion arenarius) (16%), followed by Atlantic croaker (Micropogonias undulatus) (13%), southern flounder (Paralichthys lethostigma) (8%), and red drum (Sciaenops ocellatus) (8%). Sheepshead (Archosargus probatocephalus), black drum (Pogonias cromis) and gafftopsail catfish (Bagre marinus) combined accounted for an additional 9% of the landings. The Galveston Bay system had the highest percentage of annual coastwide landings of Atlantic croaker, black drum, gafftopsail catfish, sand seatrout, sheepshead, southern flounder and spotted seatrout (Figures 5, 6). The lower Laguna Madre system yielded the second highest percentage of spotted seatrout. The largest percentage of red drum during the past ten years was from the lower Laguna Madre system, followed by the Aransas Bay system.

Annual coastwide landings of spotted seatrout in 1991-92 were 517,700 fish, representing the first increase in landings since 1987-88 (Figure 7; Appendix A, Table A.4). CPUE has been relatively low since 1984-85, remaining well below the high of 0.47 fish/man-h reported in 1976-77. Catch rates decreased from 1987-88 (0.15 fish/man-h) to 1990-91 (0.05 fish/man-h), then increased in 1991-92 (0.10 fish/man-h). Mean length and mean weight have increased since 1974-76. Spotted seatrout averaged 429 mm and 0.78 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Sand seatrout landings and CPUE declined through the 1980's to lows of 210,400 fish and 0.04 fish/man-h in 1989-90 (Appendix A, Tables A.3, A.4). Landings and CPUE increased thereafter to 393,700 fish and 0.08 fish/man-h in 1991-92. Mean length and mean weight have fluctuated, reaching lows of 270 mm and 0.22 kg in 1989-90 (Appendix A, Tables A.5, A.6). During 1991-92, sand seatrout averaged 284 mm and 0.26 kg.

Atlantic croaker was the third most landed fish during 1991-92 (Figure 4). Landings (244,000 fish) and CPUE (0.05 fish/man-h) in 1991-92 increased over those of 1990-91, and represent the first increases since 1987-88 (Appendix A, Tables A.3, A.4). Beginning in 1981-82, landings gradually increased until 1987-88, whereas CPUE remained constant. Atlantic croaker averaged 229 mm and 0.16 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Southern flounder landings increased in 1991-92 to 179,200 fish; CPUE increased to 0.04 fish/man-h (Figure 8). This is the second consecutive year

in which landings and CPUE increased over the previous year. Since 1981-82 landings and CPUE showed no consistent trend, except for recent declines which ended in 1990-91. Mean length and mean weight generally decreased through 1984-85; they generally increased thereafter. Southern flounder averaged 375 mm and 0.65 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Landings and CPUE of red drum in 1991-92 were 130,800 fish and 0.03 fish/man-h, respectively (Figure 9). These values are the first increases since 1986-87. Mean length and mean weight have steadily increased since 1979-80, but they decreased slightly in 1991-92. Red drum averaged 584 mm and 2.22 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Sheepshead landings have generally declined, reaching a 14-year low in 1989-90 (32,100 fish)(Figure 10). Landings increased in 1990-91, then decreased to 61,600 fish in 1991-92. CPUE has fluctuated since 1985-86; the 1991-92 value of 0.01 fish/man-h is lower than the previous year's 0.02 fish/man-h. Sheepshead mean length and mean weight have generally increased since 1981-82, averaging 397 mm and 1.15 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Landings of black drum declined 53% from 1982-83 to 1984-85, then remained at low levels through 1991-92 when 60,400 fish were landed (Figure 11). CPUE was 0.01 fish/man-h in 1991-92; it has been at this level since 1983-84 except for one year (Appendix A, Table A.4). Annual black drum mean length and mean weight have varied little, averaging 426 mm and 1.29 kg in 1991-92 (Appendix A, Tables A.5, A.6).

Gafftopsail catfish landings in 1991-92 were 15,600 fish. Since a dramatic decline in 1979-80, gafftopsail catfish landings have remained between 10,000 and 30,000 fish/year (Figure 12). CPUE has been 0.01 fish/man-h since 1979-80. Mean length and mean weight in 1991-92 were 475 mm and 1.13 kg, respectively (Appendix A, Tables A.5, A.6). Mean length and mean weight have declined during the past two years.

Residential origin of anglers, mean fishing party size and mean trip length have changed little from year to year (Appendix A, Tables A.2, A.8). During 1974-92, most private-boat fishing trips (59-66%) were made by anglers who lived in coastal counties adjacent to the bay system fished (Appendix A, Table A.8). Annual coastwide mean fishing party size and mean trip length during 1974-92 ranged from 2.3 to 2.7 people and from 5.2 to 7.1 h (Appendix A, Table A.2). There has been a general decrease in mean fishing party size since 1979-80.

Recreational fishing license sales and boat registrations have increased through the years (Figure 13). Over 1.7 million licenses were sold in 1990-91 (Appendix B, Table B.1). Saltwater fishing stamp sales decreased from 575,194 in 1991 to 553,228 in 1992 (Appendix B, Table B.2). Number of recreational boats registered statewide increased to a high of 607,204 boats in 1987, then decreased thereafter to 581,281 boats in 1992.

Party-boat Fishing

Annual coastwide party-boat fishing pressure in bays and passes has generally increased since 1984-85, reaching a high of 333,200 man-h in 1991-92 (Figure 14). Landings in 1991-92 of 144,100 fish were more than double those in 1990-91.

Pressure and landings during the last nine years were greatest in the lower Laguna Madre system (Figure 15). During 1983-92, 33% of the coastwide pressure and 35% of the landings occurred in the lower Laguna Madre system, compared to only 2% of coastwide pressure and landings in the San Antonio Bay system (Appendix C, Tables C.2, C.3). In 1991-92, the Corpus Christi Bay system accounted for 51% of the coastwide landings and 22% of the pressure. The lower Laguna Madre accounted for 27% of the coastwide landings and 28% of the pressure. The Aransas Bay system accounted for 23% of the coastwide landings and pressure.

During 1983-92, party-boat anglers landed more spotted seatrout and red drum than any other species from bays and passes (Figure 16). Spotted seatrout accounted for 64% of all landings in 1991-92; red drum accounted for 19% (Appendix C, Table C.3).

Landings of spotted seatrout dropped in 1984-85 to 50,000 fish, then generally increased through 1988-89 before declining sharply in 1990-91 to 39,100 fish. Landings increased to 92,800 fish in 1991-92 (Figure 17). Spotted seatrout CPUE increased from 0.16 fish/man-h in 1990-91 to 0.28 fish/man-h in 1991-92 (Appendix C, Table C.4). CPUE during June-August 1991 also increased (Appendix C, Table C.5). Mean length and mean weight also increased during 1991-92, reversing a 3-year decline (Appendix C, Tables C.6, C.7). Mean length was 446 mm and mean weight was 0.88 kg in 1991-92.

Red drum landings coastwide in 1991-92 were 28,000 fish, an increase over the 22,00 fish recorded in 1990-91 (Appendix C, Table C.3). Since 1983-84 the trend in landings has been an increase through time (Figure 18). Red drum CPUE decreased to 0.08 fish/man-h in 1991-92 (Appendix C, Table C.4). Mean length and mean weight have generally increased since 1983-84, but have changed little in the last five years (Appendix C, Tables C.6, C.7). The 1991-92 averages of 603 mm and 2.43 kg are slightly greater than the 1990-91 averages.

During 1983-92, 37-47% of anglers were from non-coastal counties (Appendix C, Table C.9). Annual coastwide mean fishing party size and mean trip length during 1983-92 ranged from 3.4 to 3.7 people and from 5.7 to 7.5 h (Appendix C, Table C.2).

Headboat Fishing

Annual coastwide fishing pressure and landings estimates for headboat anglers in bays and passes generally declined during 1983-91 reaching lows of 98,300 man-h and 52,900 fish in 1989-90 (Figure 19). Pressure and landings in 1990-91 remained at 1989-90 levels. Collection of headboat data ended in May 1991.

The Galveston Bay area accounted for most of the headboat pressure (45%) and landings (57%) during May 1983-May 1991 (Figure 20). The lower Laguna Madre area accounted for the least amount of pressure and landings (21%).

Sand seatrout and Atlantic croaker were the fishes most commonly landed by headboat anglers during 1983-91 (Figure 21). Sand seatrout and Atlantic croaker made up 66% and 15% of the landings, respectively. Sand seatrout were commonly landed in all areas, but Atlantic croaker were landed primarily in the Galveston Bay area (Appendix D, Table D.3).

Coastwide landings of sand seatrout reached an 8-year low of 32,800 fish in 1989-90, then increased to 37,900 fish in 1990-91 (Appendix D, Table D.3). CPUE in 1990-91 was 0.39 fish/man-h (Appendix D, Table D.4). Sand seatrout landed in 1990-91 averaged 269 mm and 0.21 kg (Appendix D, Tables D.5, D.6).

Coastwide Atlantic croaker landings decreased from 20,300 fish in 1988-89 to a low of 1,900 fish in 1990-91 (Appendix D, Table D.3). CPUE also decreased in 1990-91 (Appendix D, Table D.4). Atlantic croaker averaged 201 mm and 0.11 kg in 1990-91 (Appendix D, Tables D.5, D.6).

In all years, most headboat fishing trips (51-62%) were made by anglers from non-coastal counties and other states and countries (Appendix D, Table D.8). Annual coastwide mean fishing party size and mean fishing time ranged from 19.6 to 30.2 people and from 2.4 to 2.7 h during 1983-91 (Appendix D, Table D.2).

Texas Territorial Sea

Private-boat Fishing

Annual coastwide private-boat fishing pressure and landings varied in the TTS during 1982-92 (Figure 22). Pressure was greater in 1991-92 (207,800 man-h) than in 1990-91 (178,600 man-h). Landings were less in 1991-92 (39,400 fish) than in 1990-91 (45,200 fish). Coastwide in 1991-92, private-boat fishing in the TTS accounted for about 4% of the pressure and about 2% of the landings by sport-boat anglers (Table 1).

Annual private-boat pressure and landings in the TTS during the last 10 years were greatest offshore of the Corpus Christi and Matagorda Bay areas (Figure 23). The area offshore of Corpus Christi Bay accounted for 54% of the pressure and 25% of the landings, whereas the area offshore of Matagorda Bay accounted for 21% of the pressure and 48% of the landings. Both pressure and landings decreased off the Matagorda Bay area and increased off the Corpus Christi Bay area in 1991-92 compared to 1990-91 (Appendix E, Tables E.2, E.3).

The most commonly landed fishes in the TTS during 1982-92 were sand seatrout with 33% of all fishes landed, followed by king mackerel (Scomberomorus cavalla) with 17% and red snapper (Lutjanus campechanus) with 15% (Figure 24). During 1991-92, sand seatrout and red snapper landings were highest off the Matagorda Bay area; king mackerel landings were highest off the Corpus Christi Bay area (Appendix E, Table E.3).

Coastwide landings and CPUE of sand seatrout were lower in 1991-92 than in 1990-91. In 1991-92, landings (2,800 fish) were slightly higher than and CPUE (0.01 fish/man-h) was equal to the lowest levels recorded during the past ten years (Appendix E, Tables E.3, E.4). Sand seatrout mean length and mean weight decreased in 1991-92 to 310 mm and 0.33 kg (Appendix E, Tables E.5, E.6).

King mackerel landings in 1991-92 (14,000 fish), were more than double those in 1990-91 and the highest since 1982-83 (Figure 25). During the past ten years, the general trend has been a decrease in landings and CPUE until 1986-87, then an increase through 1991-92. Mean length and mean weight have decreased since 1989-90. King mackerel landed in 1991-92 averaged 945 mm and 8.37 kg (Appendix E, Tables E.5, E.6).

Landings of red snapper decreased by 44% and CPUE decreased by 50% from 1990-91 to 1991-92. Landings and CPUE in 1991-92 were 6,400 fish and 0.03 fish/man-h, respectively. Landings and CPUE varied little from 1983-84 through 1988-89, increased in 1989-90, then declined thereafter (Figure 26). Mean weight of red snapper in 1991-92 was 0.86 kg, the highest mean weight recorded to date; mean length was 381 mm which is equal to the highest mean length recorded in 1986-87 (Appendix E, Tables E.5, E.6).

During 1982-92, most private-boat fishing trips were made by anglers from adjacent coastal counties (37-55%) and non-coastal counties (28-43%) (Appendix E, Table E.8). During 1991-92, an increase in anglers from adjacent coastal counties and a decrease in anglers from non-adjacent coastal and non-coastal counties were observed. Annual coastwide mean fishing party size and mean trip length ranged from 2.7 to 3.0 people and from 5.9 to 6.4 h during 1982-92 (Appendix E, Table E.2).

Party-boat Fishing

Annual coastwide party-boat fishing pressure in the TTS decreased from 15,600 man-h in 1990-91 to 9,000 man-h in 1991-92 (Appendix F, Table F.2). Coastwide landings increased from 2,400 in 1990-91 to 2,700 in 1991-92 (Appendix F, Table F.3). The area off the lower Laguna Madre had 53% of the pressure and 59% of the landings (Appendix F, Tables F.2, F.3).

King mackerel (38%) and red snapper (13%) accounted for most of the TTS party-boat landings during 1983-92 (Figure 16). Sixty-five percent of the king mackerel landed in 1991-92 were landed off the lower Laguna Madre area; 35% were landed off the Corpus Christi area (Appendix F, Table F.3).

Coastwide landings of king mackerel during 1983-92 ranged from a high of 9,500 fish in 1983-84 to a low of 700 fish in 1986-87 (Appendix F, Table F.3). An estimated 1,400 king mackerel were landed in 1991-92. CPUE during 1991-92 was 0.15 fish/man-h, an increase over the 1989-90 value of 0.10 fish/man-h. CPUE of king mackerel during June-August 1991 also was greater than it was during 1990 (Appendix F, Table F.5). In general, CPUE of king mackerel over the past ten years has been variable (Appendix F, Table F.4). Mean length (899 mm) in 1991-92 increased slightly compared to 1990-91. Mean weight in 1991-92 was 6.96 kg, a decrease from 1990-91 (Appendix F, Tables F.6, F.7).

Red snapper were landed in only 5 years from 1983 to 1992 (Appendix F, Table F.3). Most recently, an estimated 100 fish, averaging 204 mm and 0.10 kg were landed in 1990-91 (Appendix F, Tables F.6, F.7).

During 1991-92, most fishing trips were made by anglers from non-coastal counties (55%); 29% of the trips were made by anglers from adjacent coastal counties (Appendix F, Table F.9). Annual coastwide mean fishing party size and mean trip length ranged from 3.4 to 5.0 people and from 5.5 to 8.2 h during 1983-92. Mean trip length decreased from 1990-91 (8.2 h) to 1991-92 (5.5 h) (Appendix F, Table F.2).

Exclusive Economic Zone

Private-boat Fishing

Annual coastwide fishing pressure by private-boat anglers in the EEZ declined from 1990-91 (234,800 man-h) to 1991-92 (168,500 man-h) (Figure 27). An estimated 57,000 fish were landed in 1991-92, a slight increase over 1990-91. During 1982-92, most pressure occurred offshore from the Corpus Christi (41%) and Galveston (32%) Bay areas; landings were greatest offshore from the Galveston (45%) and Matagorda (27%) Bay areas (Figure 28).

Red snapper accounted for 41% of the annual coastwide landings by private-boat anglers during 1982-92 (Figure 24). King mackerel and sand seatrout made up 14% and 12% of the landings, respectively. Most king mackerel (50%) were landed off the Corpus Christi Bay area, while most red snapper (44%) and sand seatrout (47%) were landed off the Galveston Bay area (Appendix G, Table G.3).

Coastwide landings of king mackerel in 1991-92 were 9,000 fish. Previous landings ranged from a high of 15,500 fish in 1982-83 to a low of 5,500 fish in 1988-89 (Figure 29). CPUE for 1991-92 (0.05 fish/man-h) decreased slightly from its 1990-91 value (0.06 fish/man-h) (Appendix G, Table G.4). From 1990-91 to 1991-92, mean length decreased from 935 to 915 mm and mean weight decreased from 8.17 to 7.33 kg (Appendix G, Tables G.5, G.6).

Coastwide landings and CPUE of red snapper increased in 1991-92 from the 10-year lows in 1990-91 (Figure 30). Most (83%) of the landings increase came from increased landings off the Matagorda Bay area (Appendix G, Table G.3). Mean length increased from 365 to 403 mm and mean weight increased from 0.75 to 1.18 kg from 1990-91 to 1991-92 (Appendix G, Table G.5, G.6).

Coastwide landings and CPUE of sand seatrout doubled from 1,500 fish and 0.01 fish/man-h in 1990-91 to 3,300 fish and 0.02 fish/man-h in 1991-92 (Appendix G, Table G.3). Averaging 330 mm and 0.41 kg, sand seatrout mean length and mean weight reached new highs in 1991-92 (Appendix G, Table G.5, G.6).

With the exception of 1984-85, most (44-56%) fishing trips during 1982-92 were made by anglers from adjacent coastal counties (Appendix G, Table G.8). During 1982-92, annual coastwide mean fishing party size and mean trip length

ranged from 3.0 to 3.3 people and from 7.3 to 8.1 h, respectively (Appendix G, Table G.2).

Party-boat Fishing

Annual coastwide fishing pressure by party-boat anglers in the EEZ during 1991-92 was 12,000 man-h, a decrease from 1990-91 (31,700 man-h) and the lowest pressure estimated during 1983-92 (Appendix H, Table H.2). Landings (3,600 fish) also were at their lowest recorded level in 1991-92. During 1991-92, most pressure and landings occurred offshore of the lower Laguna Madre area (Appendix H, Tables H.2, H.3).

King mackerel accounted for 26% of the annual coastwide party-boat landings in the EEZ during 1983-92; red snapper accounted for 13% (Appendix H, Table H.3).

Coastwide landings of king mackerel during 1991-92 were estimated at 1,500 fish (Appendix H, Table H.3). The greatest annual landings during the past nine years was in 1983-84, when the estimated coastwide landings were 13,500 fish. The CPUE of king mackerel in 1991-92 was 0.13 fish/man-h, which is the highest catch rate since 1984-85, and almost double the 1990-91 catch rate (Appendix H, Table H.4). King mackerel averaged 911 mm and 7.28 kg in 1991-92 (Appendix H, Tables H.5 and H.6).

Landings of red snapper in 1991-92 were 300 fish, which is 50% of the 1990-91 landings. CPUE of red snapper decreased slightly to 0.02 fish/man-h in 1991-92. In 1991-92, red snapper averaged 368 mm and 0.78 kg (Appendix H, Tables H.5, H.6).

During 1983-92, most (39-60%) anglers originated from non-coastal counties (Appendix H, Table H.8). Annual coastwide mean fishing party size and mean trip length during 1983-92 ranged from 3.9 to 5.0 people and from 7.0 to 8.7 h (Appendix H, Table H.2).

DISCUSSION

The TPWD is mandated by the Texas Legislature to develop long-term information on landings of marine species for determining the need for and impact of harvest regulations, and for recommending management strategies to maintain aquatic marine resources. Standardized collection of data on species composition, size and CPUE of finfish caught by sport-boat anglers in Texas bays and the Gulf of Mexico off Texas is used, in conjunction with standardized collection of fishery-independent data, to detect changes in relative abundance of marine finfish species through time.

Declines in spotted seatrout and red drum landings and catch rates during the 1970's and 1980's have led to increasingly restrictive size, possession and bag limits for these species (Texas Parks and Wildlife Department 1979, 1981, 1983, 1985, 1987, 1988, 1991). Similar actions have been taken in recent years for many species, including flounder (Paralichthys sp.), black drum and sheepshead. Such regulations have proven effective in altering the

size classes of fishes landed (Meador and Green 1986). Both spotted seatrout and red drum had notable increases in their coastwide landings and catch rates in 1991-92.

Sport-boat harvest data, along with fishery-independent data, continue to be used by management to implement regulations. Examples of regulations adopted by the Texas Parks and Wildlife Commission during 1991-92 include: 1) implementation of a 305-mm maximum size limit for mullet (Mugil sp.) to prevent depletion during October through January, thus maintaining spawning potential; 2) implementation of a zero-retention limit for tarpon (Megalops atlanticus) to prevent depletion; and 3) addition or modification of size, bag and possession limits for greater amberjack (Seriola dumerili), cobia (Rachycentron canadum), jewfish (Epinephelus itajara), lane snapper (Lutjanus synagris), red snapper and vermilion snapper (Rhomboplites aurorubens) to conform with federal regulations and to prevent depletion (Texas Parks and Wildlife Department 1993).

Although overshadowed by the private-boat fishery in terms of overall pressure and landings, the charter-boat (party-boat) fishery is a significant component of the total sport-boat fishery in Texas (Ditton et al. 1978). Catch rates of charter-boat anglers are appreciably greater than those reported for non-charter anglers (Trent 1977; McEachron 1984; Osburn and Ferguson 1985a, 1986) 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 are important factors underlying the need to continue monitoring pressure and landings of charter-boat anglers.

Size limits serve to conserve an adequate breeding stock for optimum yield, give anglers larger 'trophy' fish and ensure maximum yield with increased fishing pressure (Ricker 1945). Coastwide pressure and landings increased 15% and 36%, respectively, from 1990-91 to 1991-92. Such increases necessitate proactive management to maintain fish populations at optimal levels, and to safeguard the health of the marine ecosystem and the positive economic impact of the recreational fishing industry. Continued collection of data from Texas bays and the Gulf of Mexico off Texas enables biologically and economically sound regulations to be implemented. Maintenance of a standardized monitoring program is crucial to the continuance of a healthy sport fishery in the future.

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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 stratum (1983-1992).

Year	Area Stratum	High-use		Low-use		Annual*	
		Pressure	Landings	Pressure	Landings	Pressure	Landings
1983-1984							
	Bay and Pass						
	Private boat	4,465.7	2,089.4	1,180.3	387.9	5,646.0	2,477.3
	Party boat	206.8	240.7	44.3	22.2	249.9	261.8
	Headboat	162.1	129.1	28.6	7.6	190.7	136.6
	Total	4,834.6	2,459.2	1,253.2	417.7	6,086.6	2,875.7
	Territorial Sea						
	Private boat	311.5	29.0	32.5	7.7	344.0	32.7
	Party boat	46.5	20.7	0.0	0.0	46.5	20.7
	Total	358.0	49.7	32.5	7.7	390.5	53.4
	Exclusive Economic Zone						
	Private boat	197.2	76.7	23.5	8.4	220.7	81.3
	Party boat	117.1	33.5	0.0	0.0	117.1	33.5
	Total	314.3	110.2	23.5	8.4	337.8	114.8
	Grand Total*	5,506.9	2,619.1	1,309.2	433.8	6,814.9	3,043.9
1984-1985							
	Bay and Pass						
	Private boat	2,705.0	1,059.5	1,378.1	402.8	4,083.1	1,462.3
	Party boat	89.7	41.8	37.5	25.6	127.6	67.6
	Headboat	108.1	65.6	31.2	9.6	139.3	75.3
	Total	2,902.8	1,166.9	1,446.8	438.0	4,350.0	1,605.2
	Territorial Sea						
	Private boat	127.0	22.7	21.6	20.8	148.6	42.8
	Party boat	11.4	1.5	4.5	1.3	15.9	2.9
	Total	138.4	24.2	26.1	22.1	164.5	45.7
	Exclusive Economic Zone						
	Private boat	159.9	42.4	9.5	11.4	169.1	51.2
	Party boat	26.5	5.8	3.5	0.8	30.0	6.6
	Total	186.0	48.2	13.0	12.2	199.1	57.8
	Grand Total*	3,227.2	1,239.3	1,485.9	472.3	4,713.6	1,708.7

Table 1. (Cont'd.)

Year	Area	High-use		Low-use		Annual*	
		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	5.7	0.0	0.0	18.6	5.6
	Total	180.1	34.9	15.3	10.6	195.5	45.4
Exclusive Economic Zone							
	Private boat	253.1	50.9	14.4	21.1	267.5	72.1
	Party boat	18.0	8.8	0.0	0.0	18.0	8.8
	Total	271.1	59.7	14.4	21.1	285.5	80.9
	Grand Total*	4,029.8	1,595.1	2,363.5	594.7	6,393.3	2,189.7
1986-1987							
Bay and Pass							
	Private boat	4,020.0	1,720.4	2,350.8	718.7	6,370.8	2,439.2
	Party boat	151.3	97.5	62.4	42.8	213.7	140.3
	Headboat	90.7	90.7	18.2	5.7	108.9	96.5
	Total	4,262.0	1,908.6	2,431.4	767.2	6,693.4	2,676.0
Territorial Sea							
	Private boat	259.1	72.7	21.9	9.2	280.9	81.9
	Party boat	7.2	1.4	0.4	0.6	7.6	1.9
	Total	266.3	74.1	22.3	9.8	288.5	83.8
Exclusive Economic Zone							
	Private boat	171.1	36.1	17.7	16.6	188.7	52.6
	Party boat	41.2	12.5	3.2	0.8	44.4	13.3
	Total	212.3	48.6	20.9	17.4	233.1	65.9
	Grand Total*	4,740.6	2,031.3	2,474.6	794.4	7,215.0	2,825.7

Table 1. (Cont'd.)

Year	Area	High-use		Low-use		Annual*	
		Pressure	Landings	Pressure	Landings	Pressure	Landings
1987-1988							
	Bay and Pass		2,144.3	1,847.9	582.7	6,909.1	2,727.0
	Private boat	5,061.2		39.6	12.5	212.0	120.8
	Party boat	172.4	108.3	17.8	5.1	182.3	132.0
	Headboat	164.5	126.9	1,905.3	600.3	7,303.4	2,979.8
	Total	5,398.1	2,379.5				
	Territorial Sea						
	Private boat	268.7	42.4	17.3	4.3	285.9	46.7
	Party boat	20.1	6.4	0.0	0.0	20.1	6.5
	Total	288.8	48.8	17.3	4.3	306.0	53.2
	Exclusive Economic Zone						
	Private boat	182.2	48.9	21.3	24.6	203.5	73.5
	Party boat	138.6	25.8	2.3	1.5	140.8	27.3
	Total	320.8	74.7	23.6	26.1	344.3	100.8
	Grand Total*	6,007.7	2,503.0	1,946.2	630.7	7,953.7	3,133.8
1988-1989							
	Bay and Pass		1,591.9	1,588.0	549.9	5,885.8	2,141.8
	Private boat	4,297.8	115.9	63.5	37.8	252.1	153.7
	Party boat	188.6	99.9	14.3	4.0	120.2	104.0
	Headboat	105.9	1,807.7	1,665.8	591.7	6,258.1	2,399.5
	Total	4,592.3					
	Territorial Sea						
	Private boat	122.4	22.5	15.2	3.1	137.6	25.6
	Party boat	9.9	2.2	0.0	0.0	9.9	2.2
	Total	132.3	24.7	15.2	3.1	147.5	27.8
	Exclusive Economic Zone						
	Private boat	134.0	68.7	9.9	4.9	143.9	73.7
	Party boat	20.2	7.9	0.0	0.0	20.2	7.9
	Total	154.2	76.6	9.9	4.9	164.1	81.6
	Grand Total*	4,878.8	1,909.0	1,690.9	599.7	6,569.7	2,508.9

Table 1. (Cont'd.)

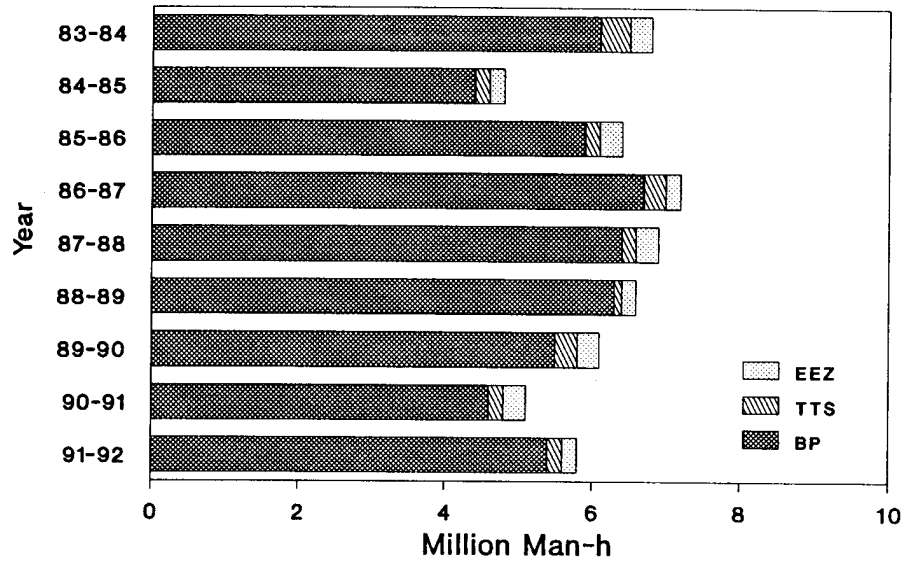
Year	Area	High-use		Low-use		Annual*	
		Pressure	Landings	Pressure	Landings	Pressure	Landings
1989-1990							
	Bay and Pass						
	Private boat	3,855.2	1,251.4	1,254.9	284.4	5,110.1	1,535.8
	Party boat	271.0	124.3	32.4	5.2	303.4	129.5
	Headboat	82.9	49.7	17.3	2.7	100.2	52.4
	Total	4,209.1	1,425.4	1,304.6	292.3	5,513.7	1,717.7
	Territorial Sea						
	Private boat	220.5	44.6	2.9	1.1	223.4	45.7
	Party boat	38.3	5.9	9.4	10.9	47.8	16.8
	Total	258.8	50.5	12.3	12.0	271.2	62.5
	Exclusive Economic Zone						
	Private boat	256.2	85.7	16.6	2.3	272.8	88.1
	Party boat	13.8	8.1	0.0	0.0	13.8	8.1
	Total	270.0	93.8	16.6	2.3	286.6	96.2
	Grand Total*	4,737.9	1,569.7	1,333.5	306.6	6,071.5	1,876.4
1990-1991							
	Bay and Pass						
	Private boat	3,153.9	981.6	1,155.2	319.0	4,309.0	1,300.6
	Party boat	197.4	53.7	43.1	16.0	240.5	69.8
	Headboat	77.5	42.4	20.8	10.5	98.3	52.9
	Total	3,428.8	1,077.7	1,219.1	345.5	4,647.8	1,423.3
	Territorial Sea						
	Private boat	171.6	41.3	6.9	3.8	178.6	45.2
	Party boat	15.6	2.4	0.0	0.0	15.6	2.4
	Total	187.2	43.7	6.9	3.8	194.2	47.6
	Exclusive Economic Zone						
	Private boat	228.9	51.8	5.9	2.0	234.8	53.8
	Party boat	31.7	13.0	0.0	0.0	31.7	13.0
	Total	260.6	64.8	5.9	2.0	266.5	66.8
	Grand Total*	3,876.6	1,186.2	1,231.9	351.3	5,108.5	1,537.7

Table 1. (Cont'd.)

Year	Area Stratum	High-use		Low-use		Annual*	
		Pressure	Landings	Pressure	Landings	Pressure	Landings
1991-1992							
	Bay and Pass						
	Private boat	3,546.9	1,336.7	1,496.3	430.7	5,043.2	1,767.4
	Party boat	260.6	113.6	72.6	30.6	333.2	144.1
	Total	3,807.5	1,450.3	1,568.9	461.3	5,376.4	1,911.5
	Territorial Sea						
	Private boat	200.5	35.1	7.3	4.3	207.8	39.4
	Party boat	9.0	2.7	0.0	0.0	9.0	2.7
	Total	209.5	37.8	7.3	4.3	216.8	42.1
	Exclusive Economic Zone						
	Private boat	154.8	33.5	13.7	23.5	168.5	57.0
	Party boat	11.6	3.6	0.4	0.0	12.0	3.6
	Total	166.4	37.1	14.1	23.5	180.5	60.6
	Grand Total*	4,183.4	1,525.2	1,590.3	489.1	5,773.7	2,014.2

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Pressure



Landings

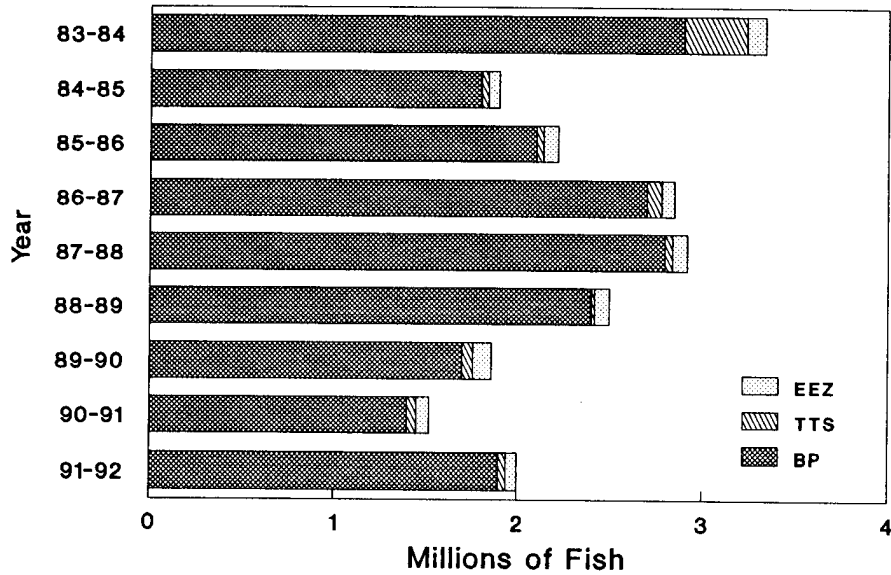


Figure 1. Annual coastwide sport-boat fishing pressure and landings in bays and passes (BP), the Texas Territorial Sea (TTS) and the Exclusive Economic Zone (EEZ), May 1983-May 1992.

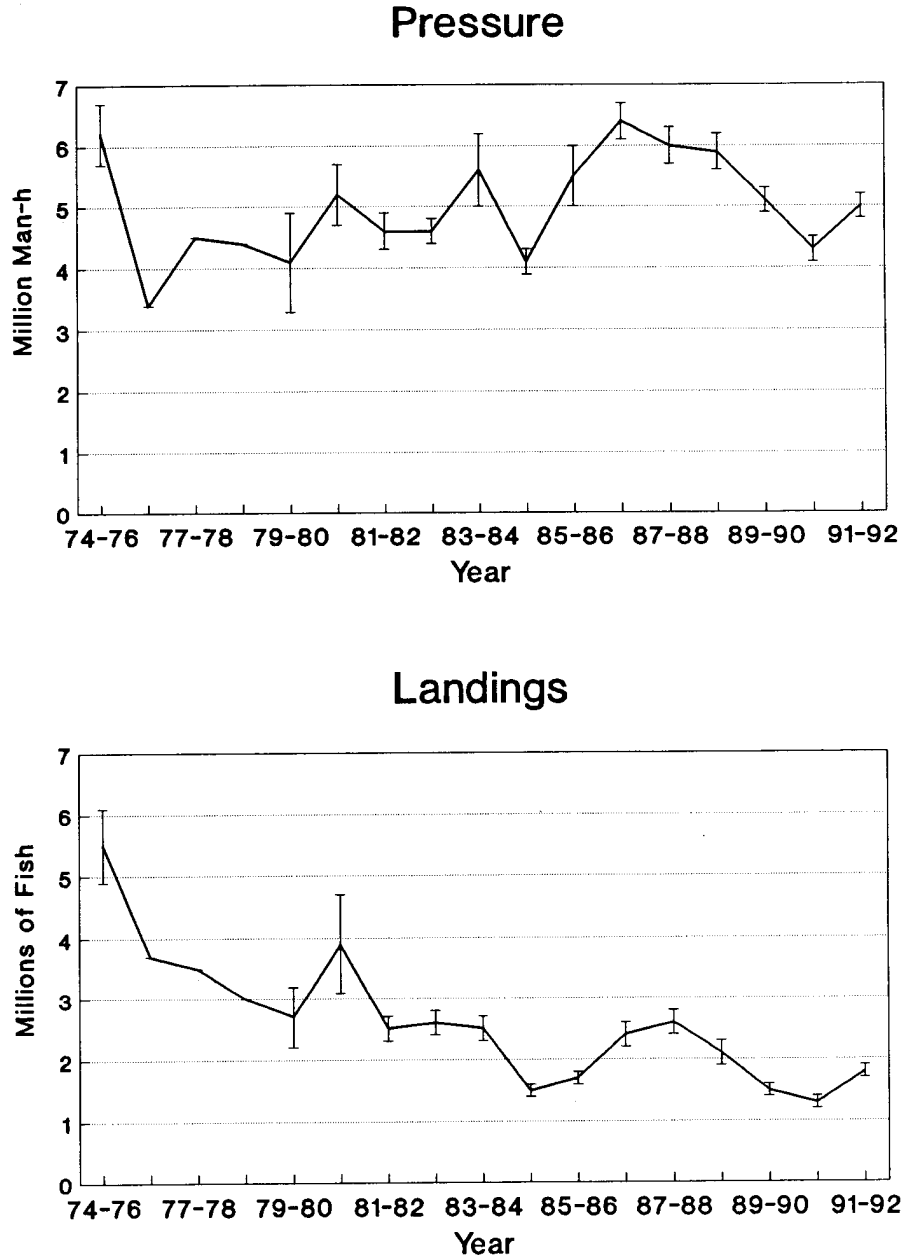


Figure 2. Annual coastwide private-boat fishing pressure (± 1 SE) and landings (± 1 SE) in Texas bays and passes, May 1974-May 1992.

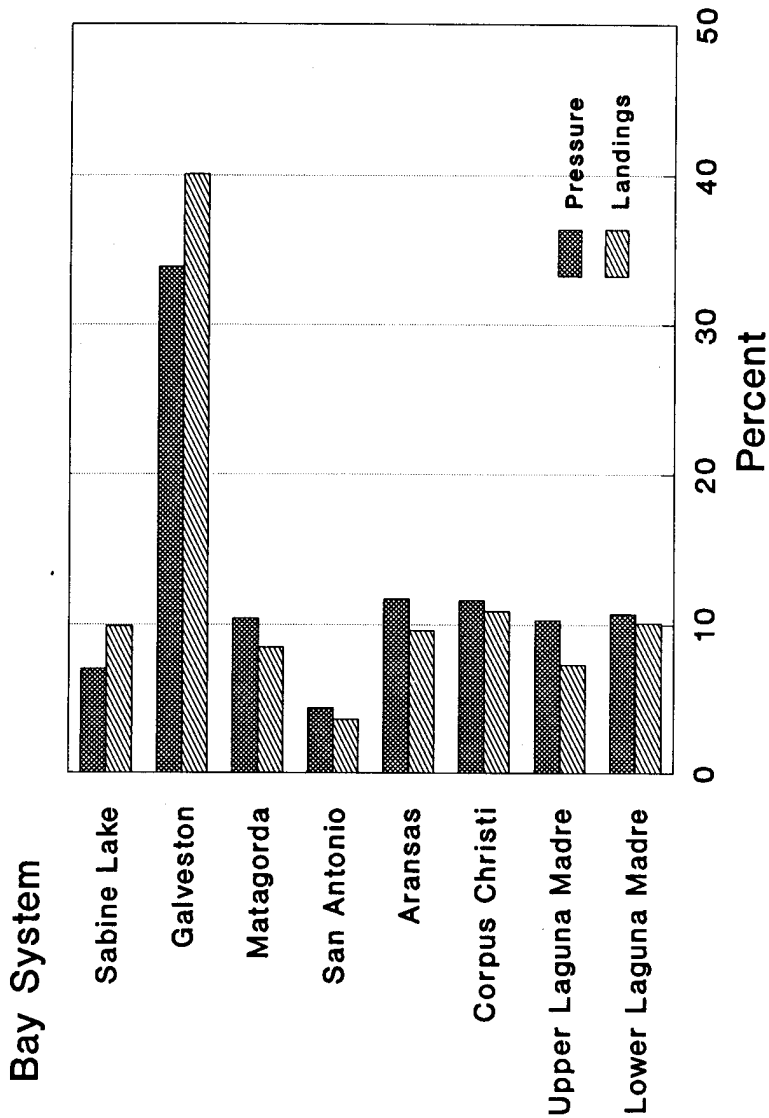


Figure 3. Distribution of annual coastwide bay and pass private-boat fishing pressure and landings among bay systems, May 1982-May 1992 (based on 5-year mean in Sabine Lake system and 10-year means in all other bay systems).

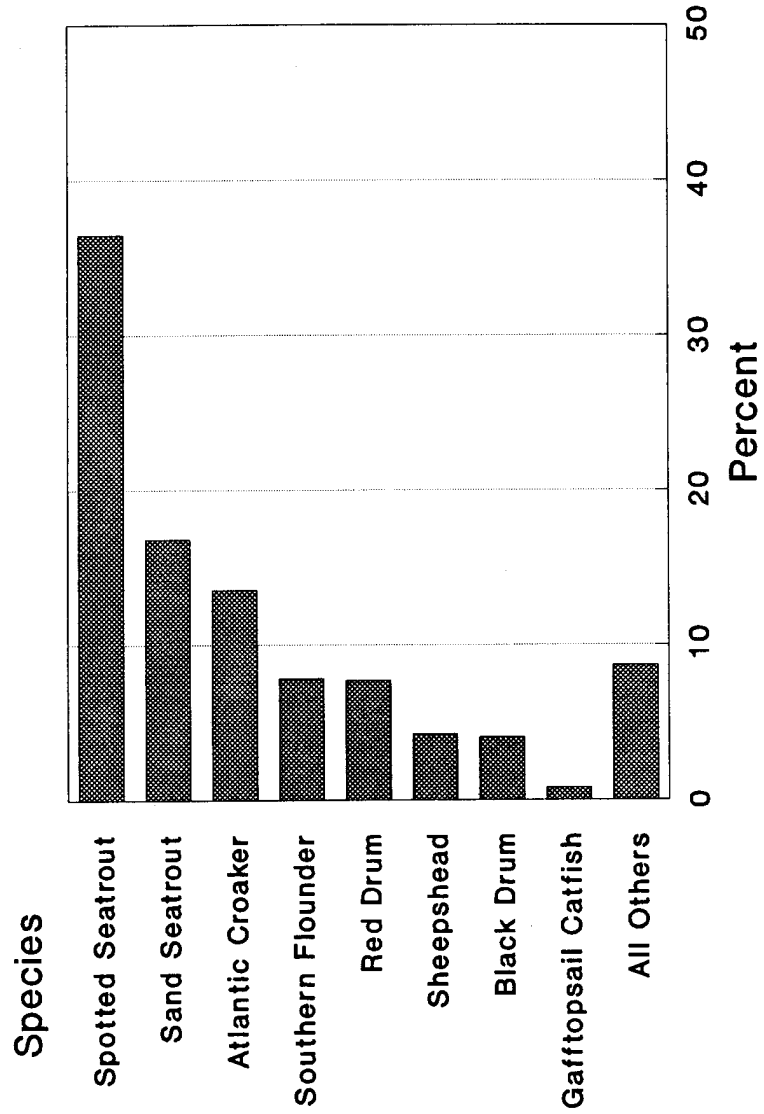


Figure 4. Species composition of annual coastwide bay and pass private-boat finfish landings, May 1982-May 1992 (10-year mean).

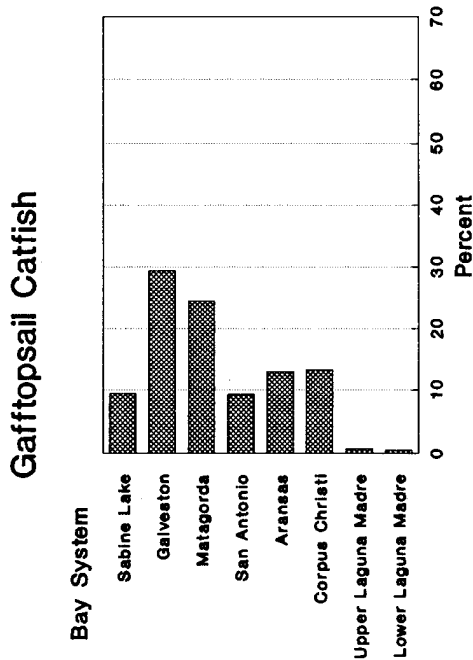
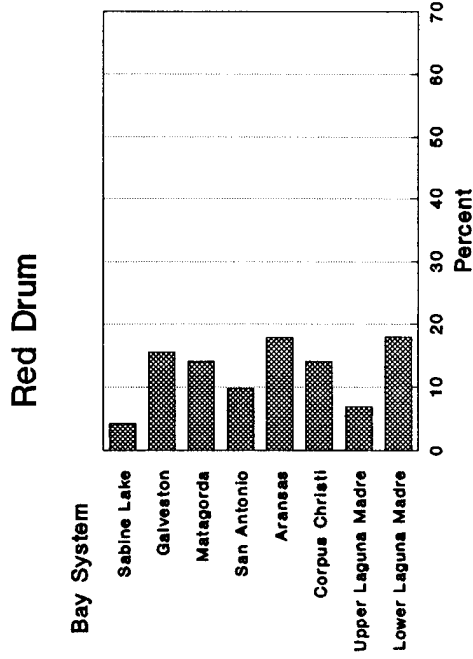
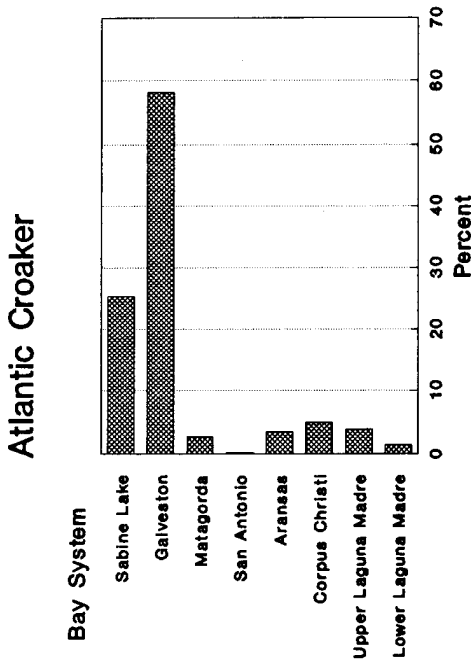
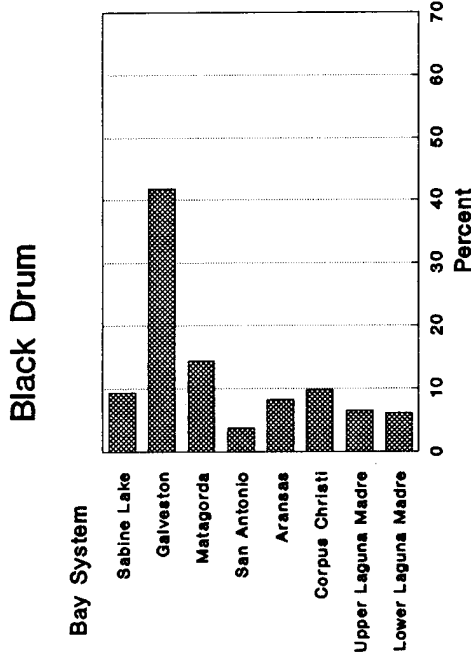


Figure 5. Distribution of annual coastwide bay and pass private-boat landings of selected finfishes among bay systems, May 1982-May 1992 (based on 5-year mean in Sabine Lake system and 10-year means in all other bay systems).

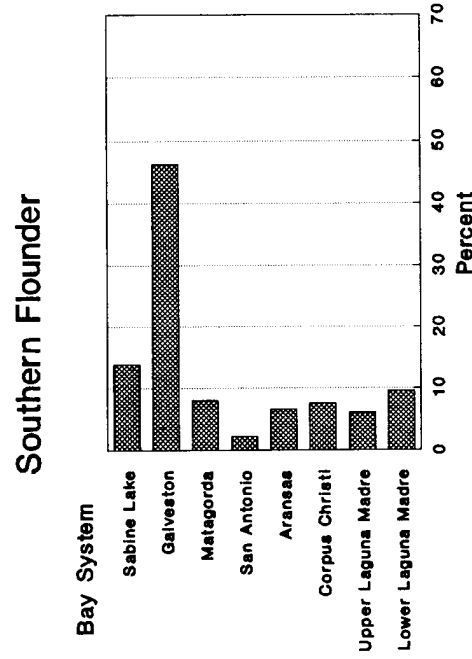
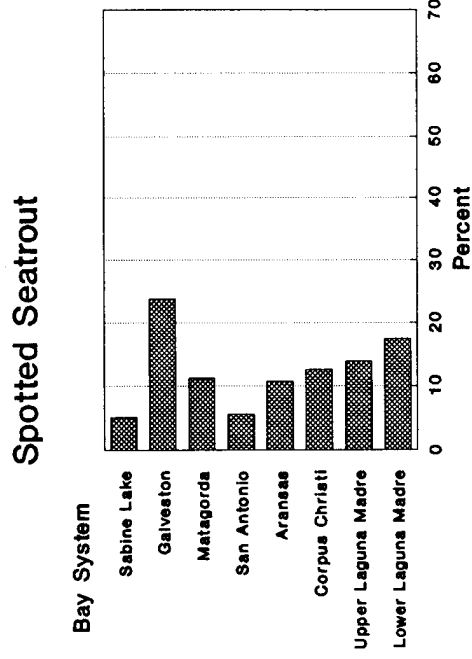
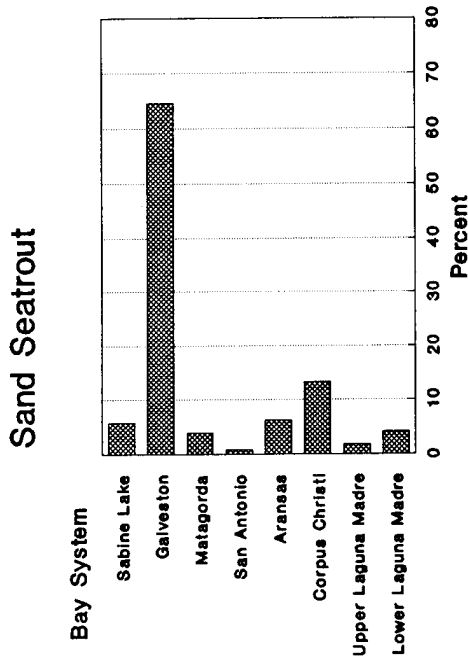
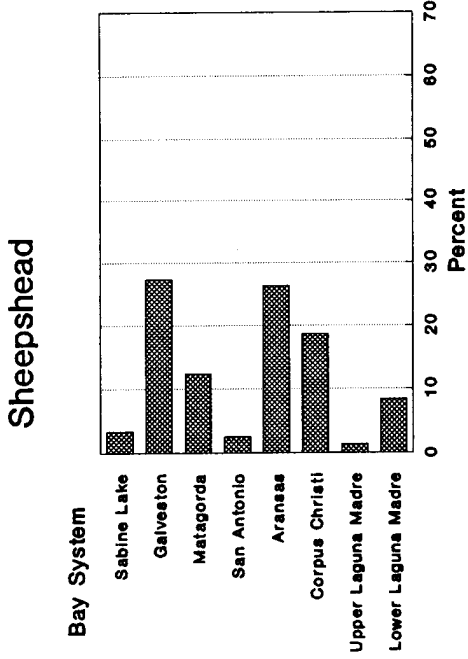


Figure 6. Distribution of annual coastwide bay and pass private-boat landings of selected finfishes among bay systems, May 1982-May 1992 (based on 5-year mean in Sabine Lake system and 10-year means in all other bay systems).

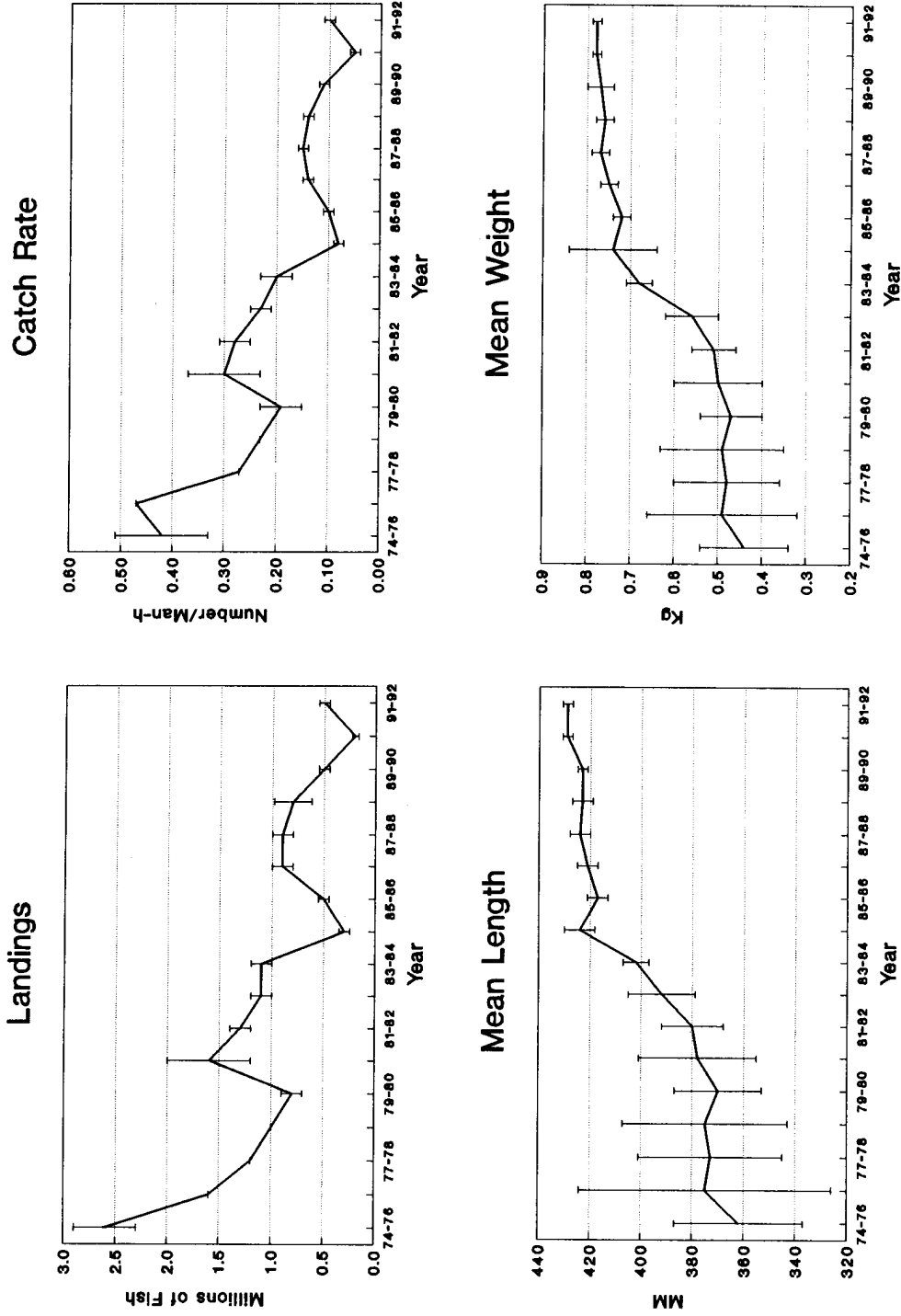


Figure 7. Annual coastwide statistics (± 1 SE) for spotted seatrout landed from bays and passes by private-boat fishermen, May 1974-May 1992.

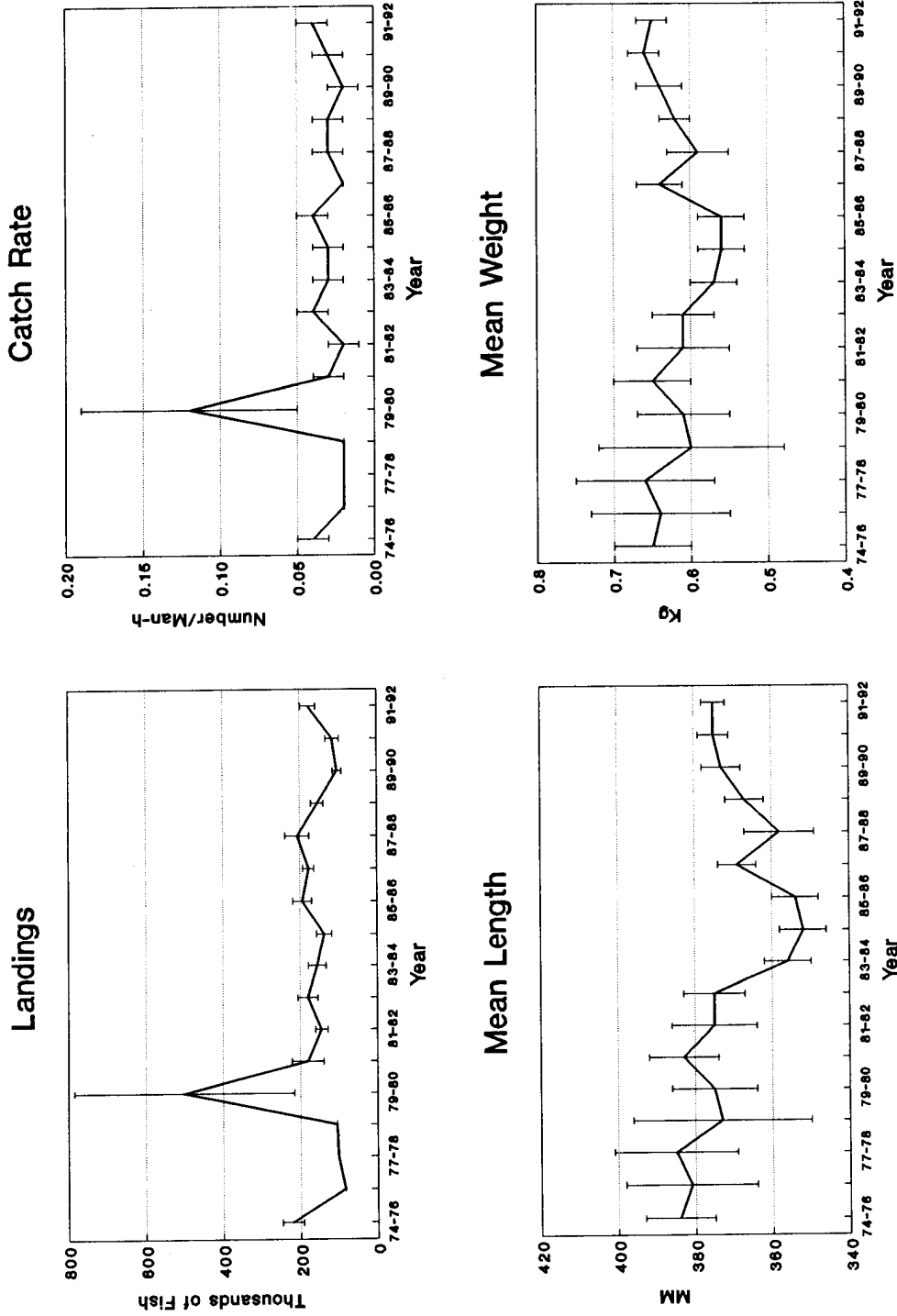


Figure 8. Annual coastwide statistics (± 1 SE) for southern flounder landed from bays and passes by private-boat fishermen, May 1974-May 1992.

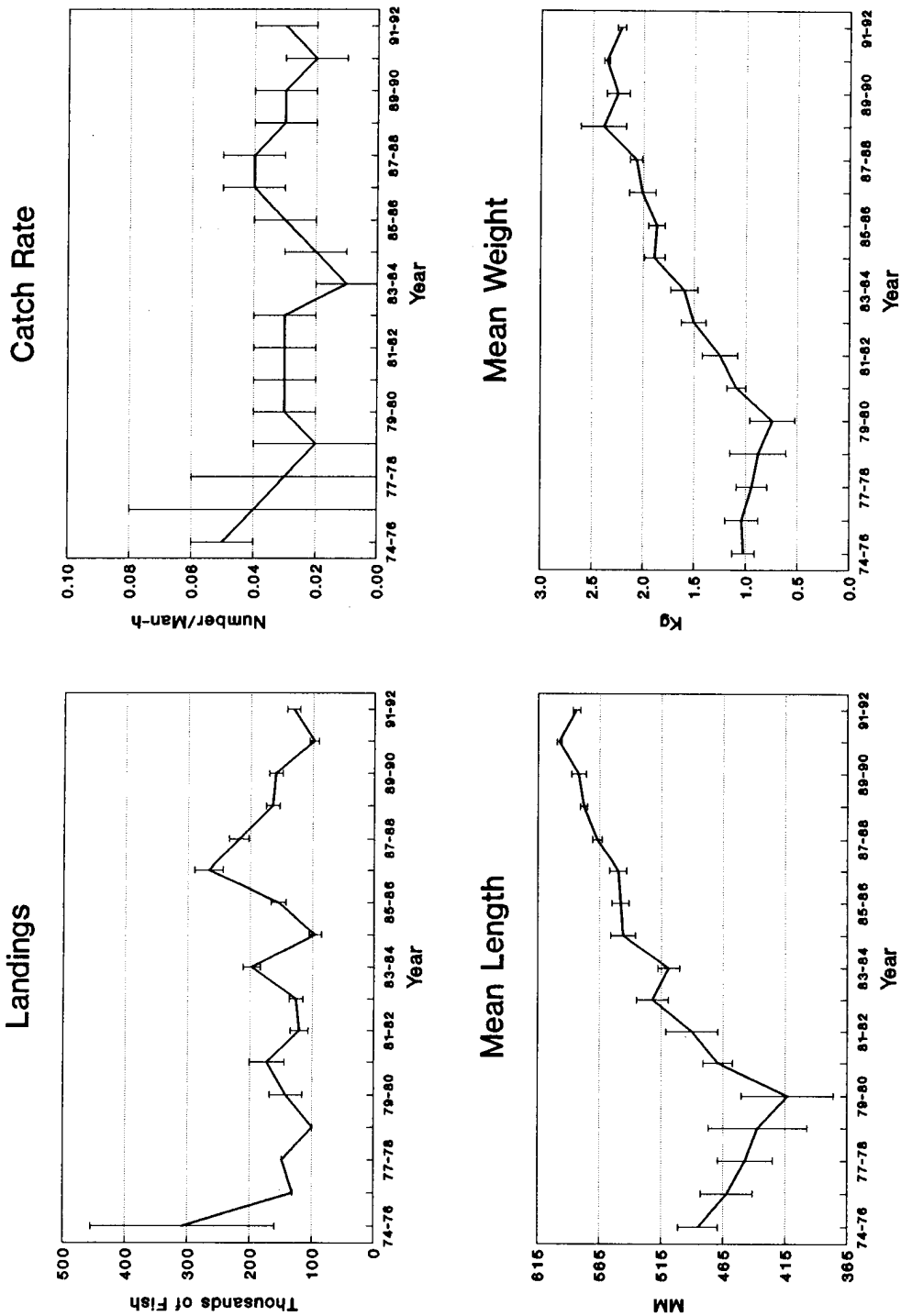


Figure 9. Annual coastwide statistics (± 1 SE) for red drum landed from bays and passes by private-boat fishermen, May 1974-May 1992.

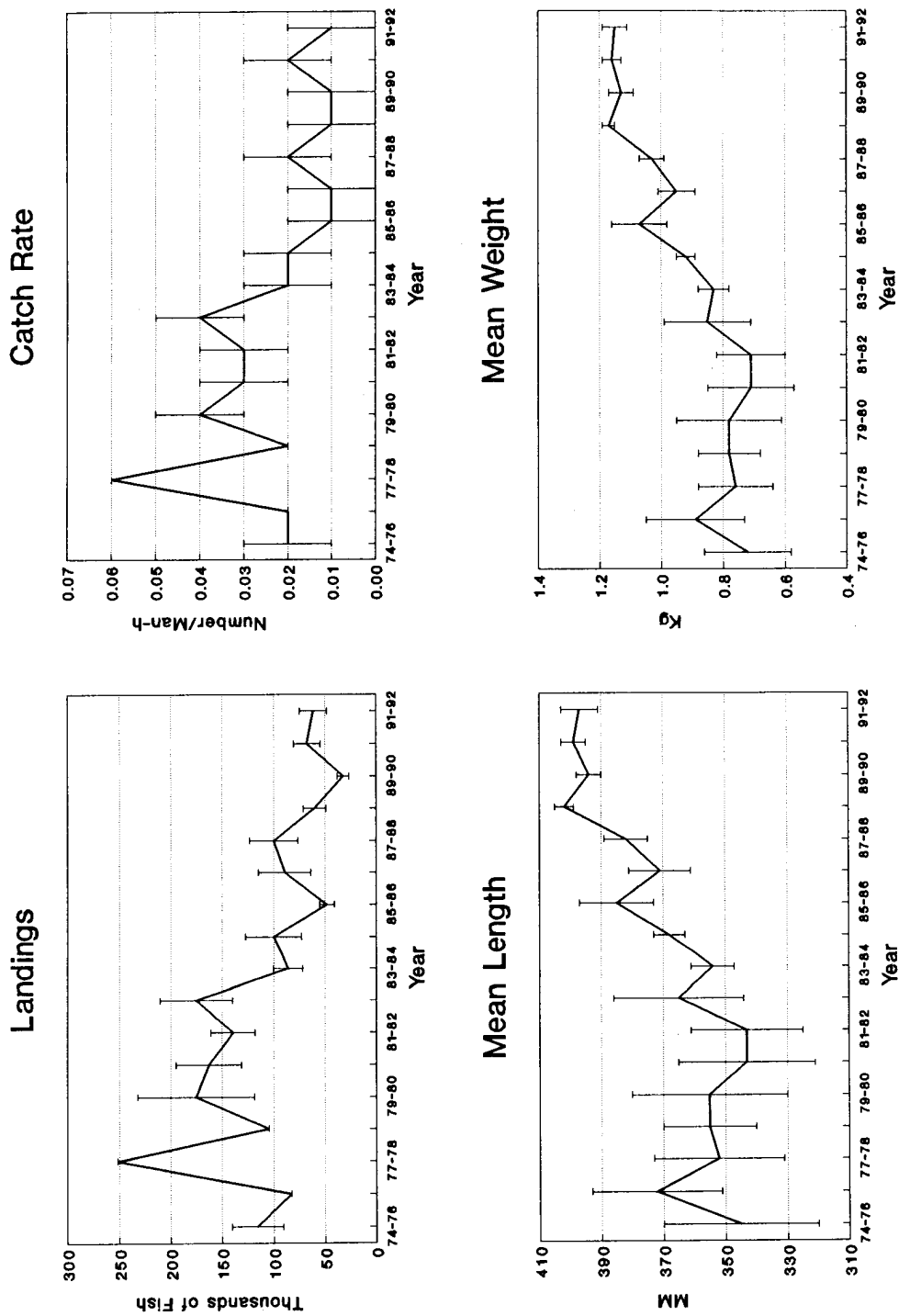


Figure 10. Annual coastwide statistics (± 1 SE) for sheephead landed from bays and passes by private-boat fishermen, May 1974-May 1992.

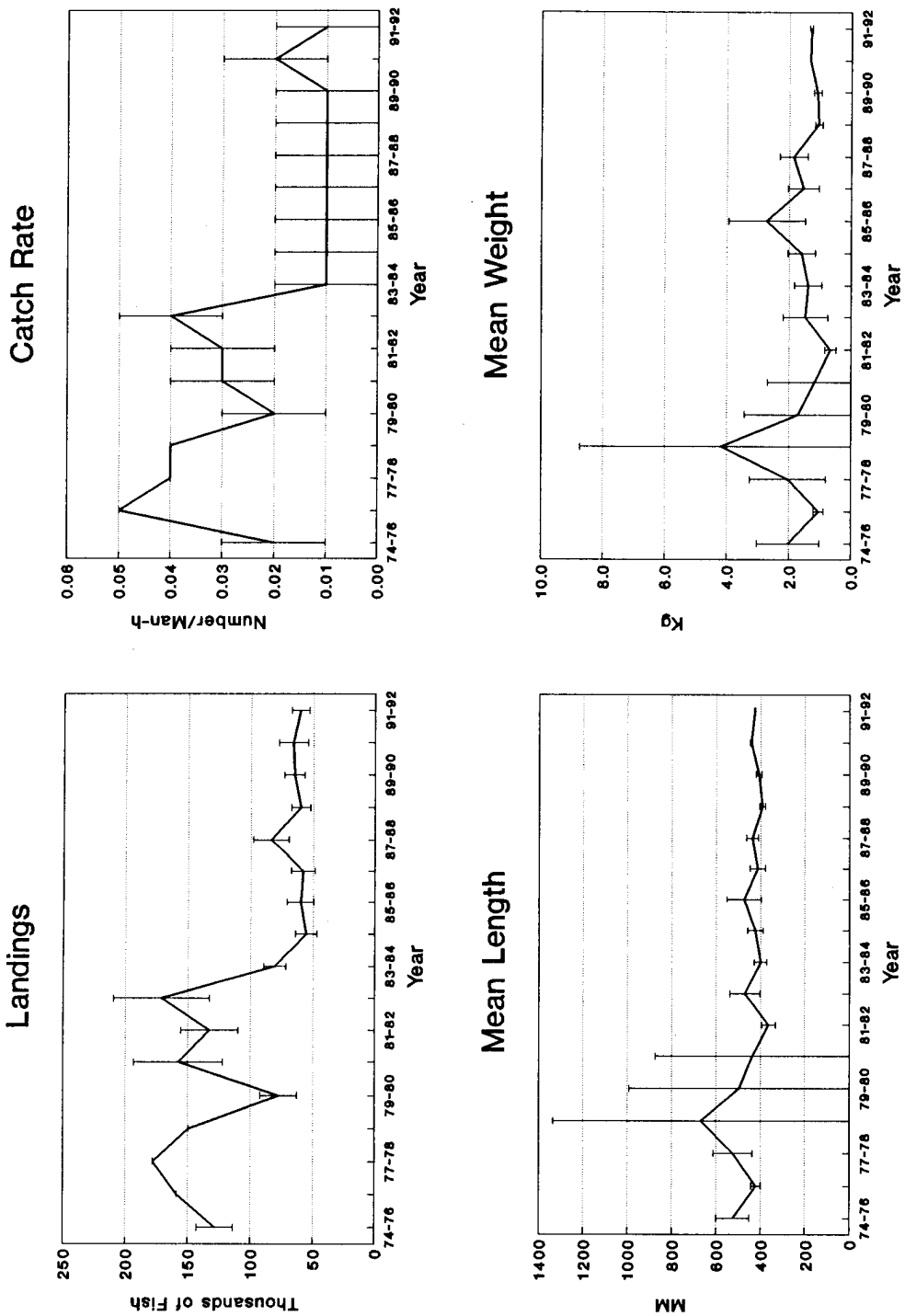


Figure 11. Annual coastwide statistics (± 1 SE) for black drum landed from bays and passes by private-boat fishermen, May 1974-May 1992.

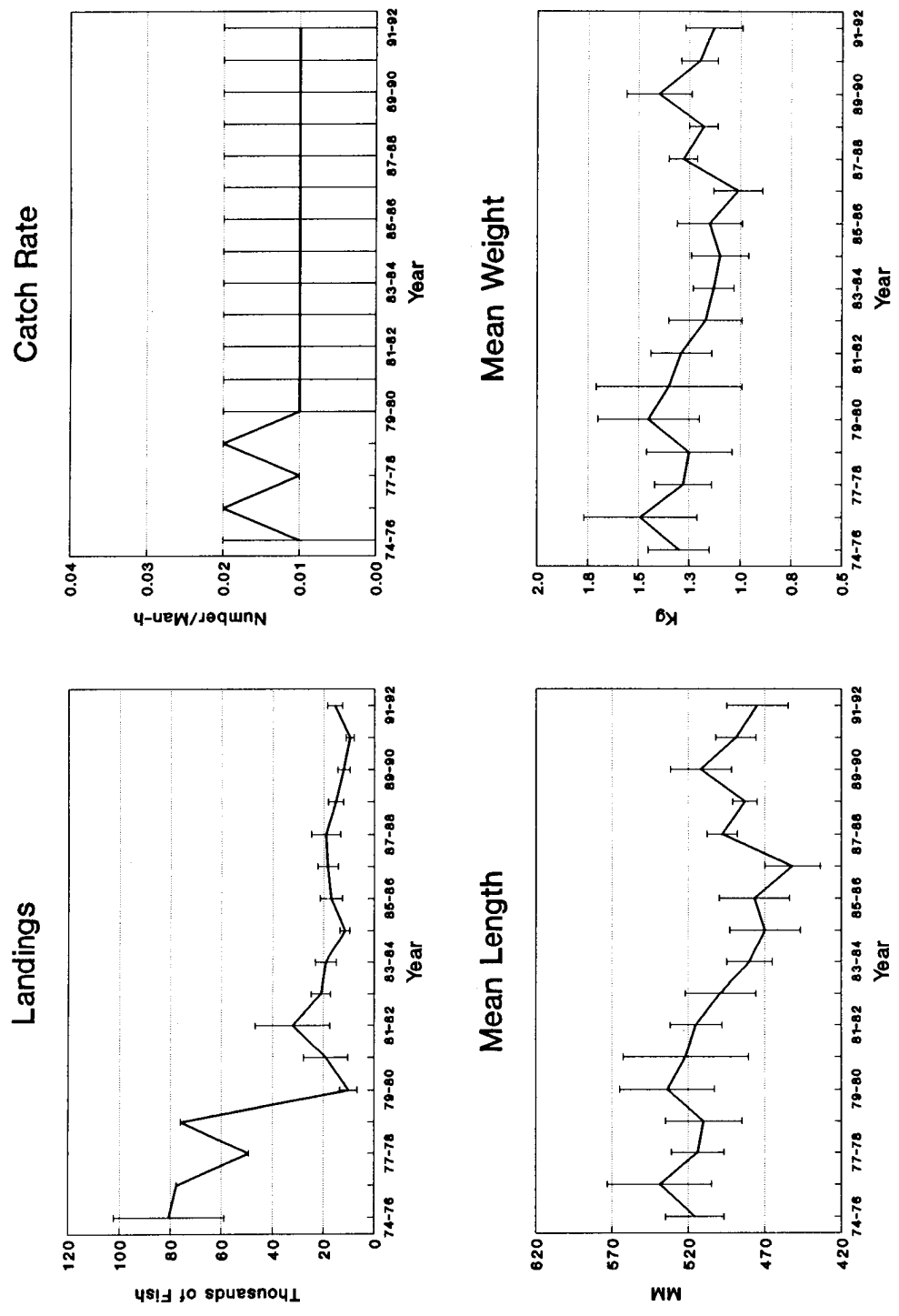


Figure 12. Annual coastwide statistics (± 1 SE) for gafftopsail catfish landed from bays and passes by private-boat fishermen, May 1974-May 1992.

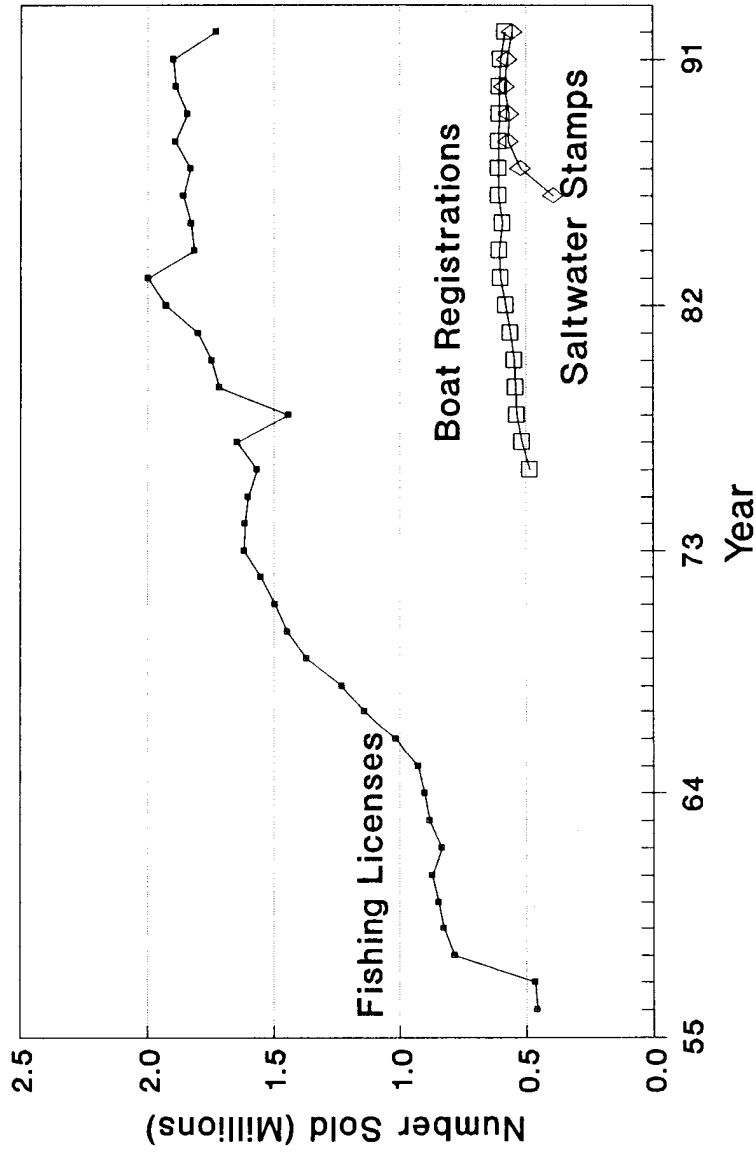


Figure 13. Number of recreational fishing licenses (1955-1992), boat registrations (1975-1992) and saltwater stamps (1986-1992) sold in Texas by fiscal year (1 September-31 August).

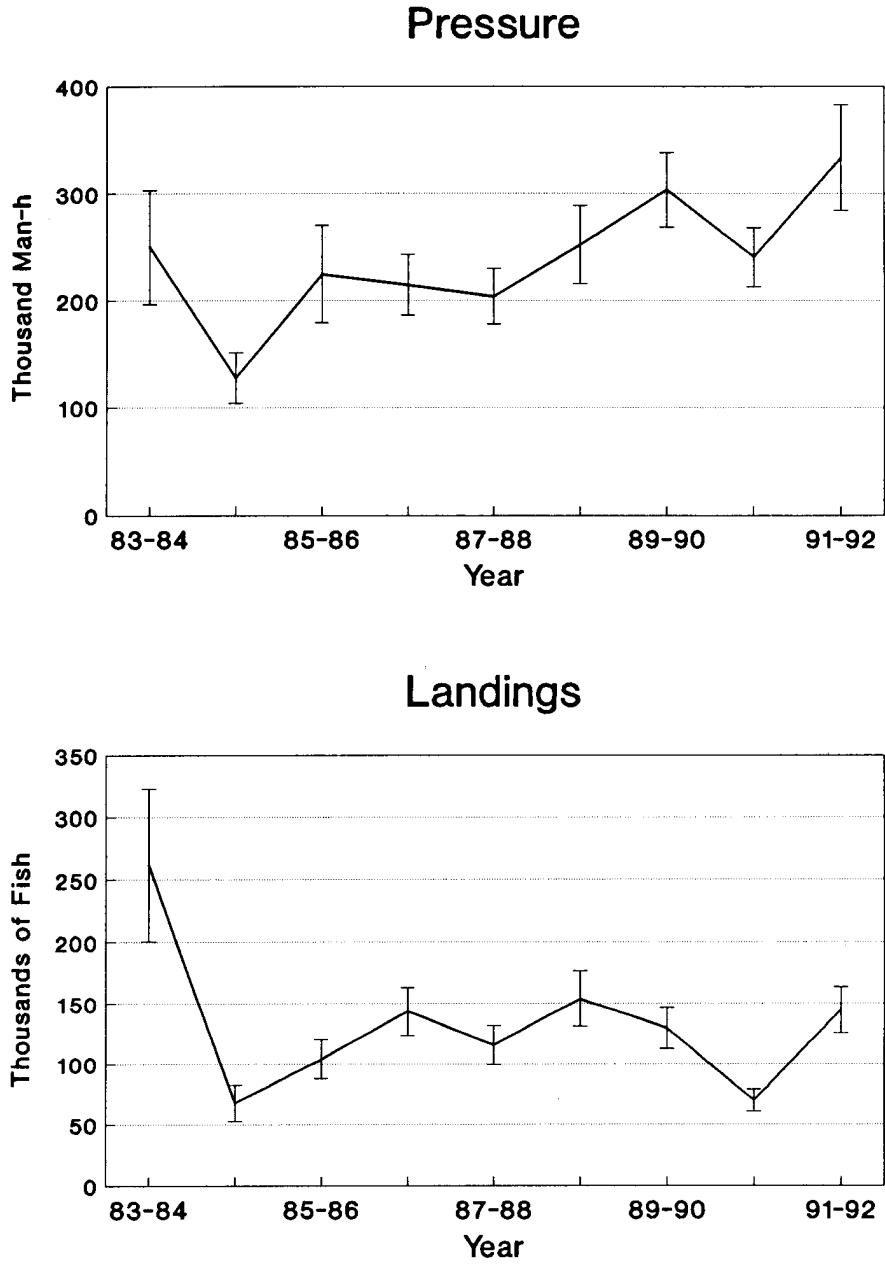


Figure 14. Annual coastwide party-boat fishing pressure (± 1 SE) and landings (± 1 SE) in Texas bays and passes, May 1983-May 1992.

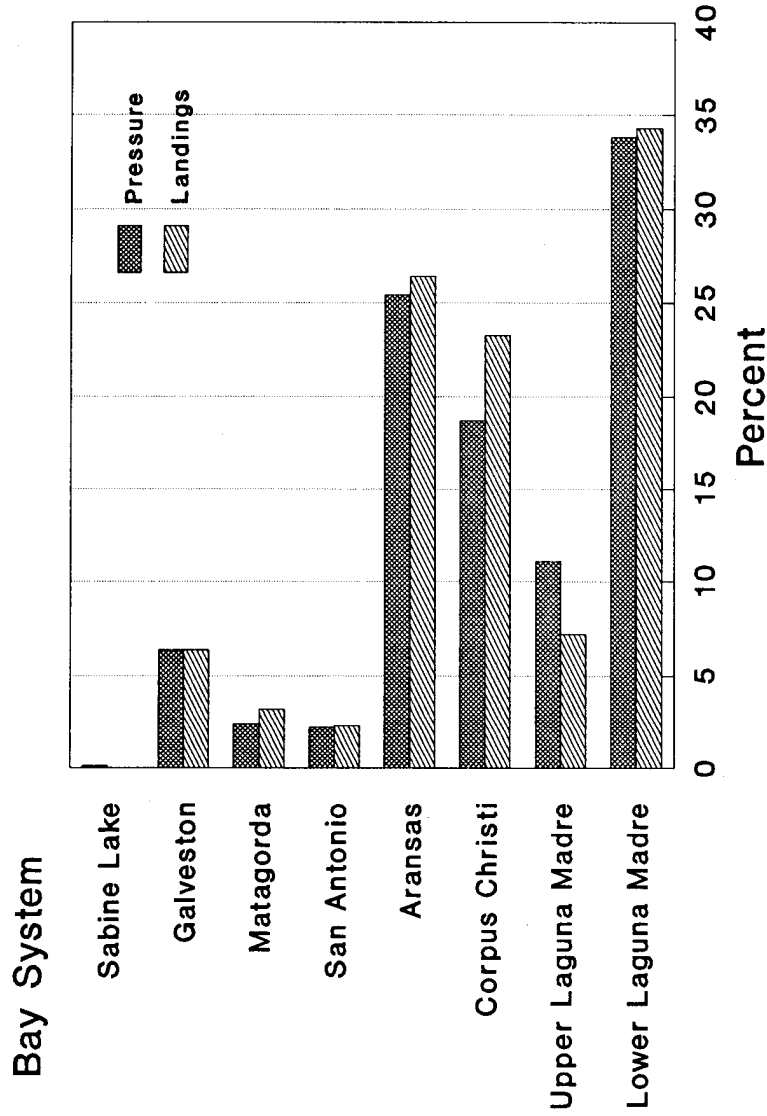
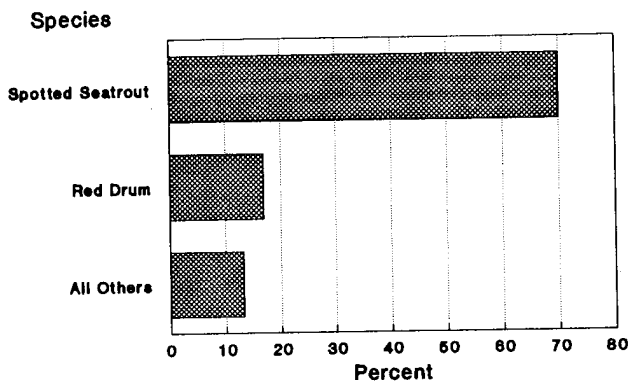
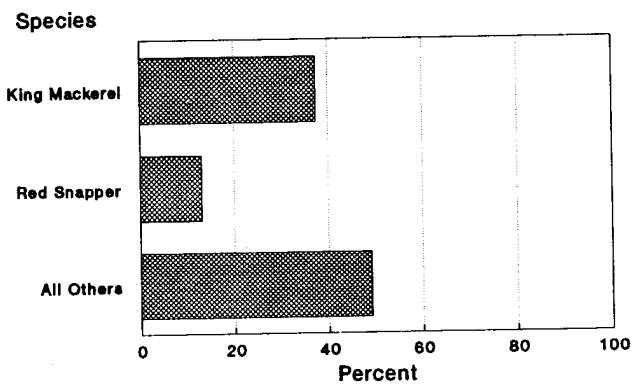


Figure 15. Distribution of annual coastwide bay and pass party-boat fishing pressure and landings among bay systems, May 1983-May 1992 (based on 5-year mean in Sabine Lake system and 9-year means in all other bay systems).

Bays and Passes



Texas Territorial Sea



Exclusive Economic Zone

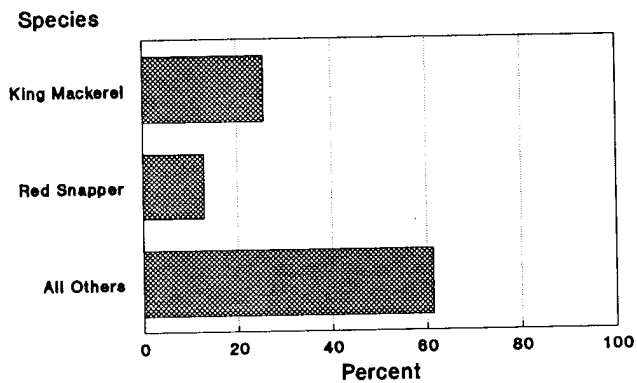


Figure 16. Species composition of annual coastwide party-boat finfish landings in bays and passes, the Texas Territorial Sea and the Exclusive Economic Zone, May 1983-May 1992 (9-year mean).

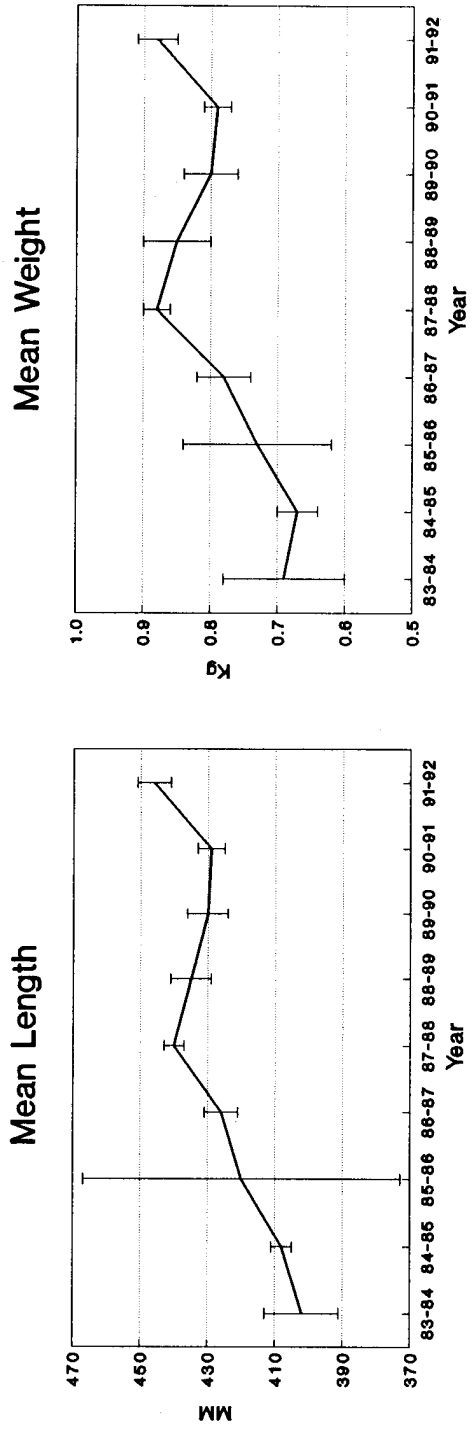
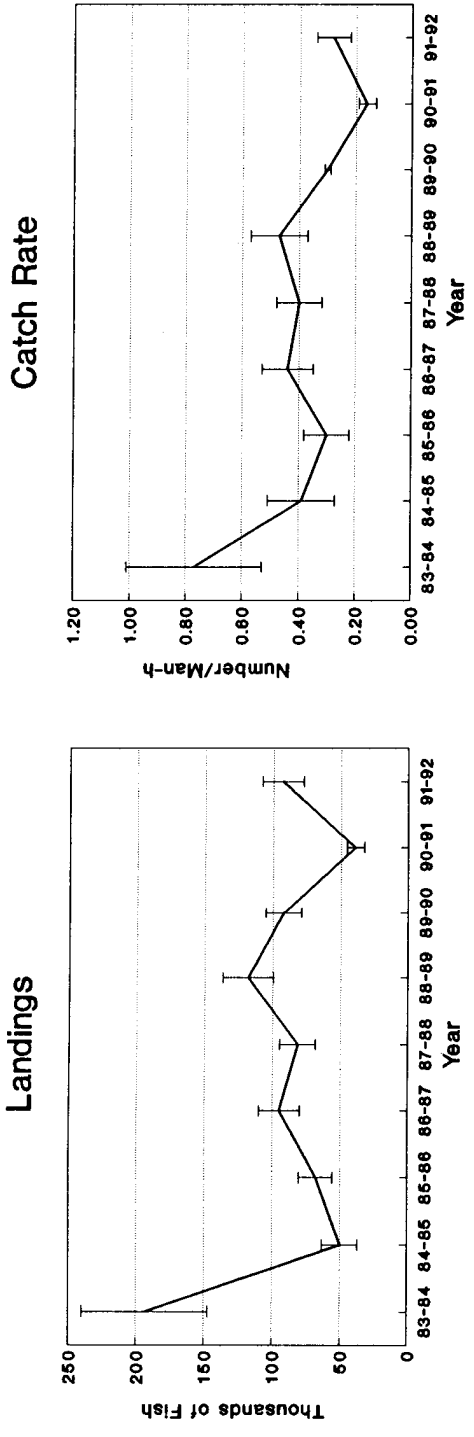


Figure 17. Annual coastwide statistics (± 1 SE) for spotted seatrout landed from bays and passes by party-boat fishermen, May 1983-May 1992.

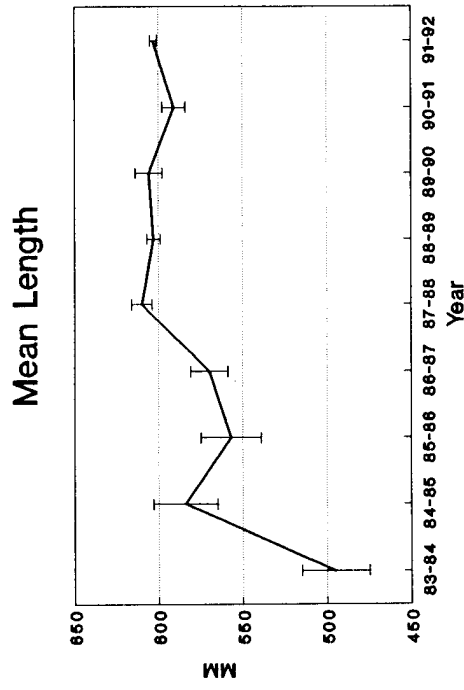
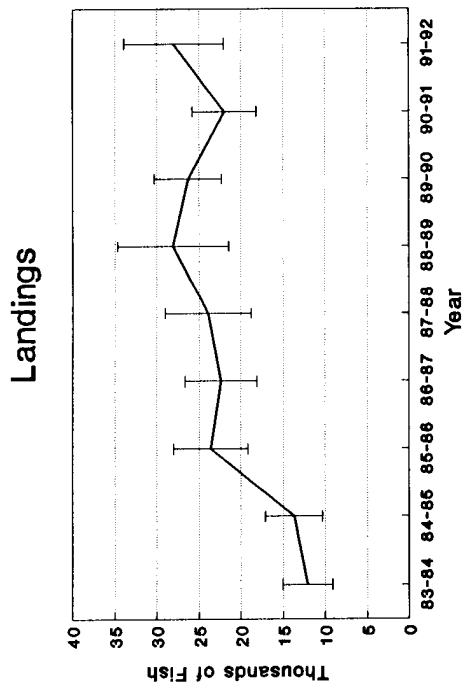
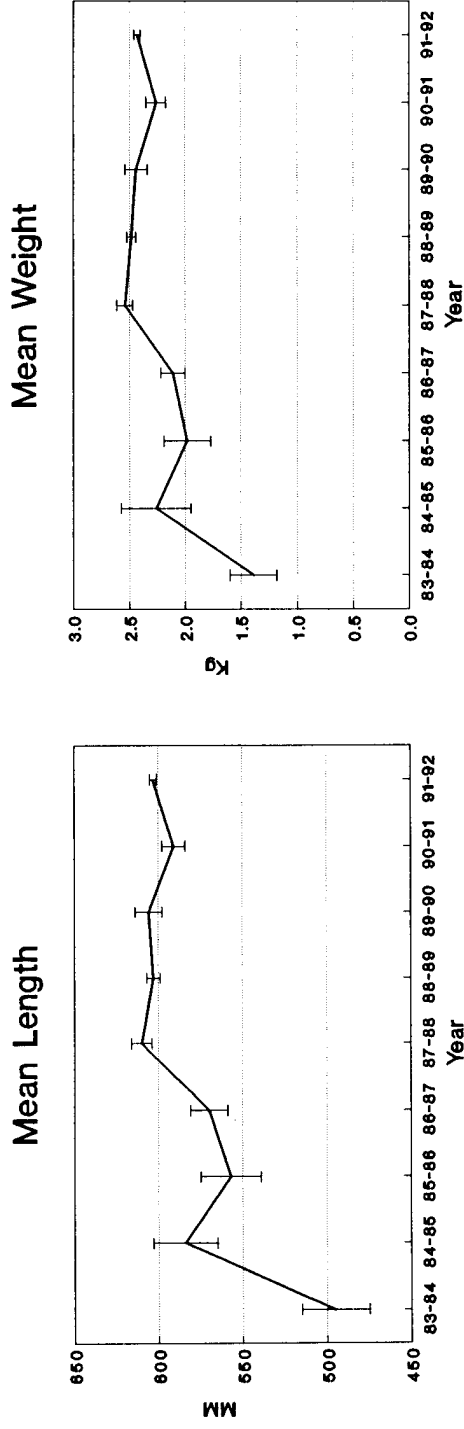
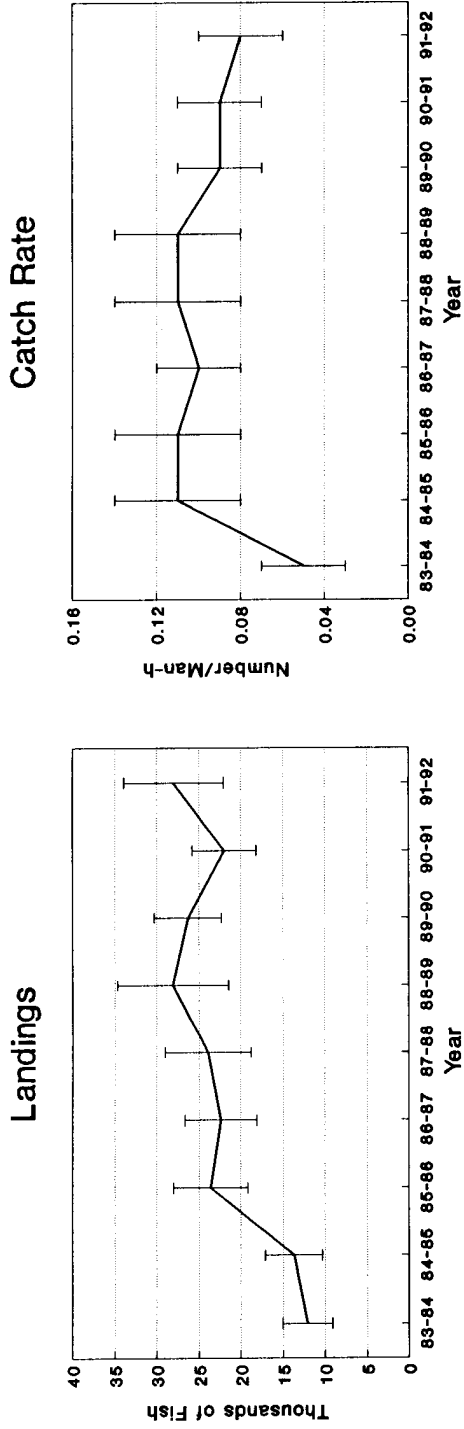


Figure 18. Annual coastwide statistics (± 1 SE) for red drum landed from bays and passes by party-boat fishermen, May 1983-May 1992.

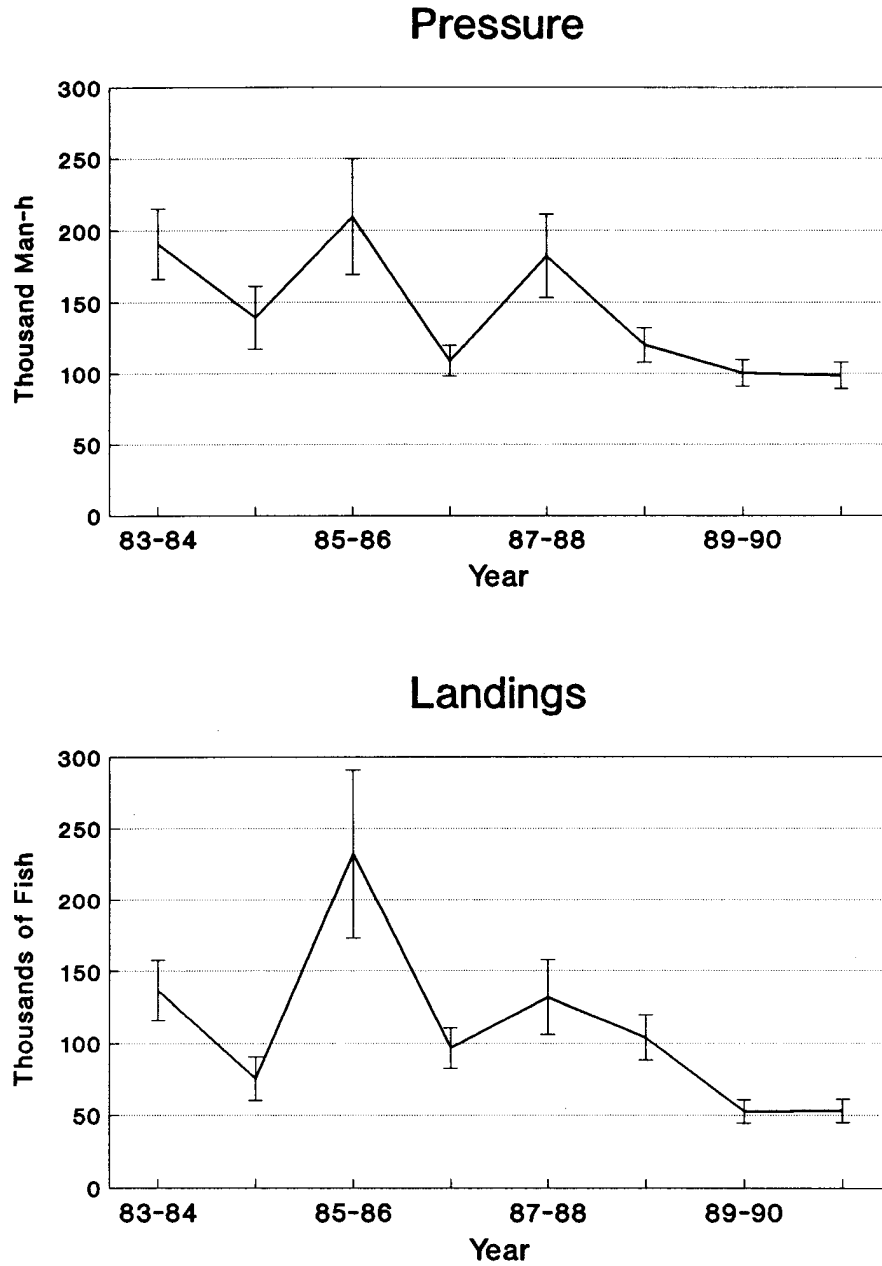


Figure 19. Annual coastwide headboat fishing pressure (± 1 SE) and landings (± 1 SE) in Texas bays and passes, May 1983-May 1991 (headboat surveys were discontinued in May 1991).

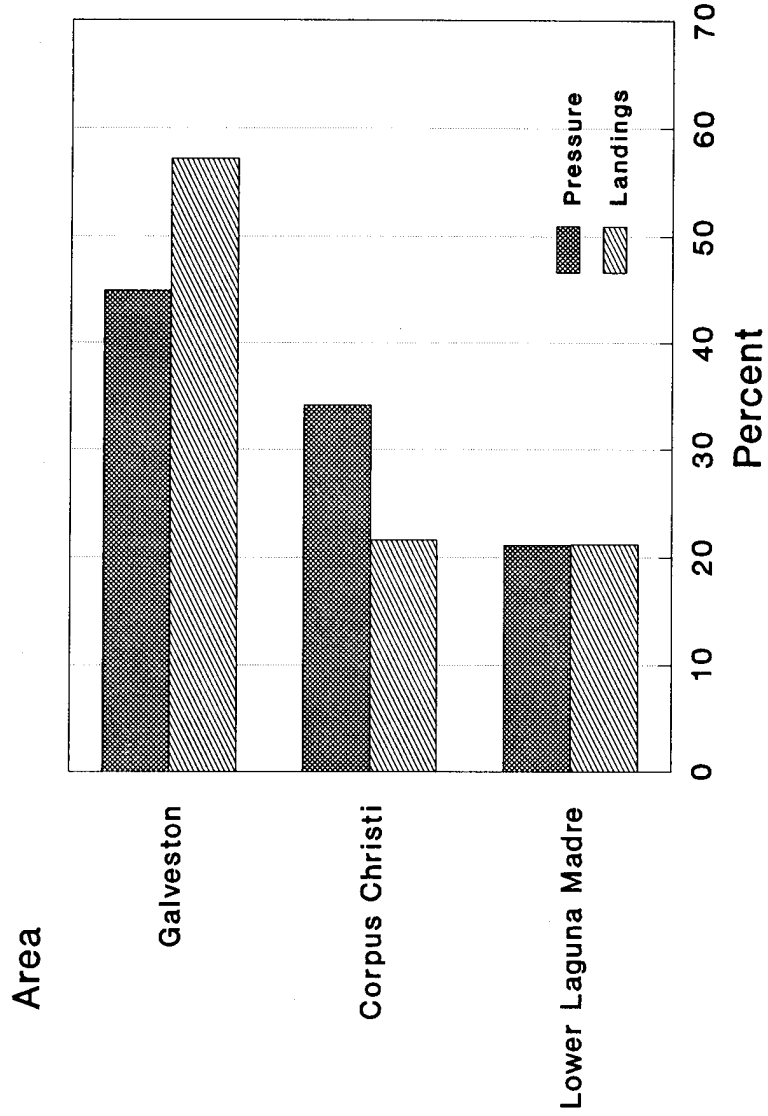


Figure 20. Distribution of annual coastwide bay and pass headboat fishing pressure and landings among areas, May 1983-May 1991 (8-year mean) (headboat surveys were discontinued in May 1991).

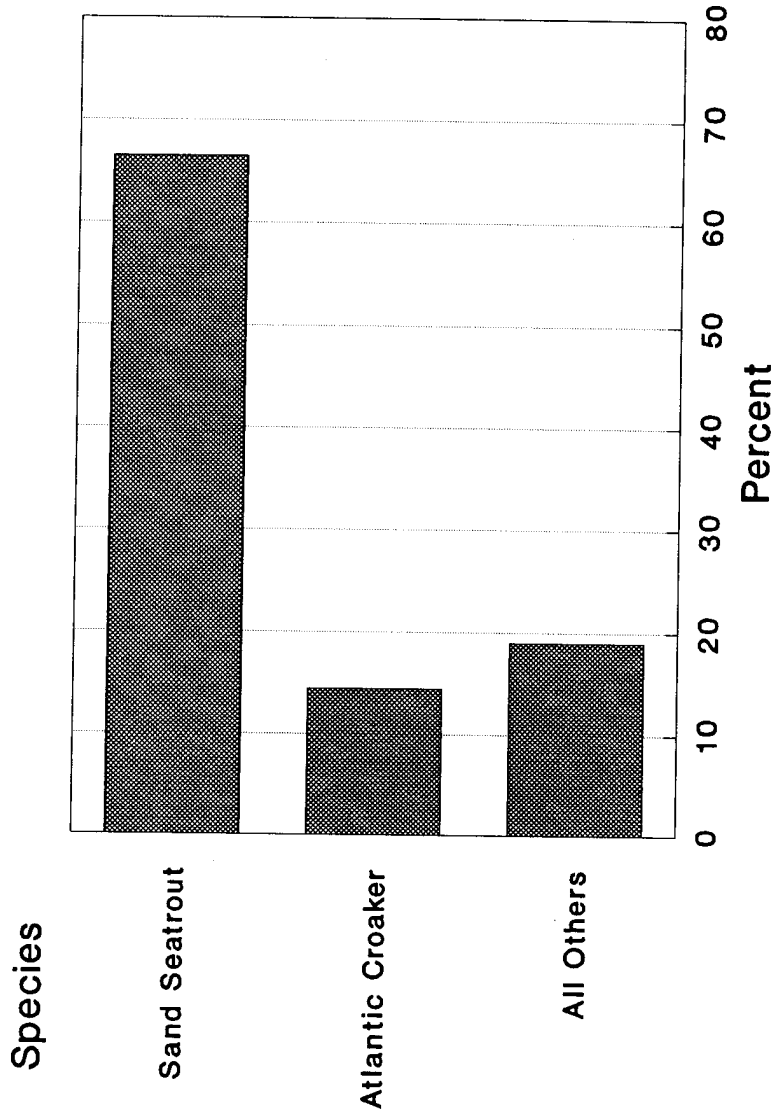


Figure 21. Species composition of annual coastwide bay and pass headboat finfish landings, May 1983-May 1991 (8-year mean)(headboat surveys were discontinued in May 1991).

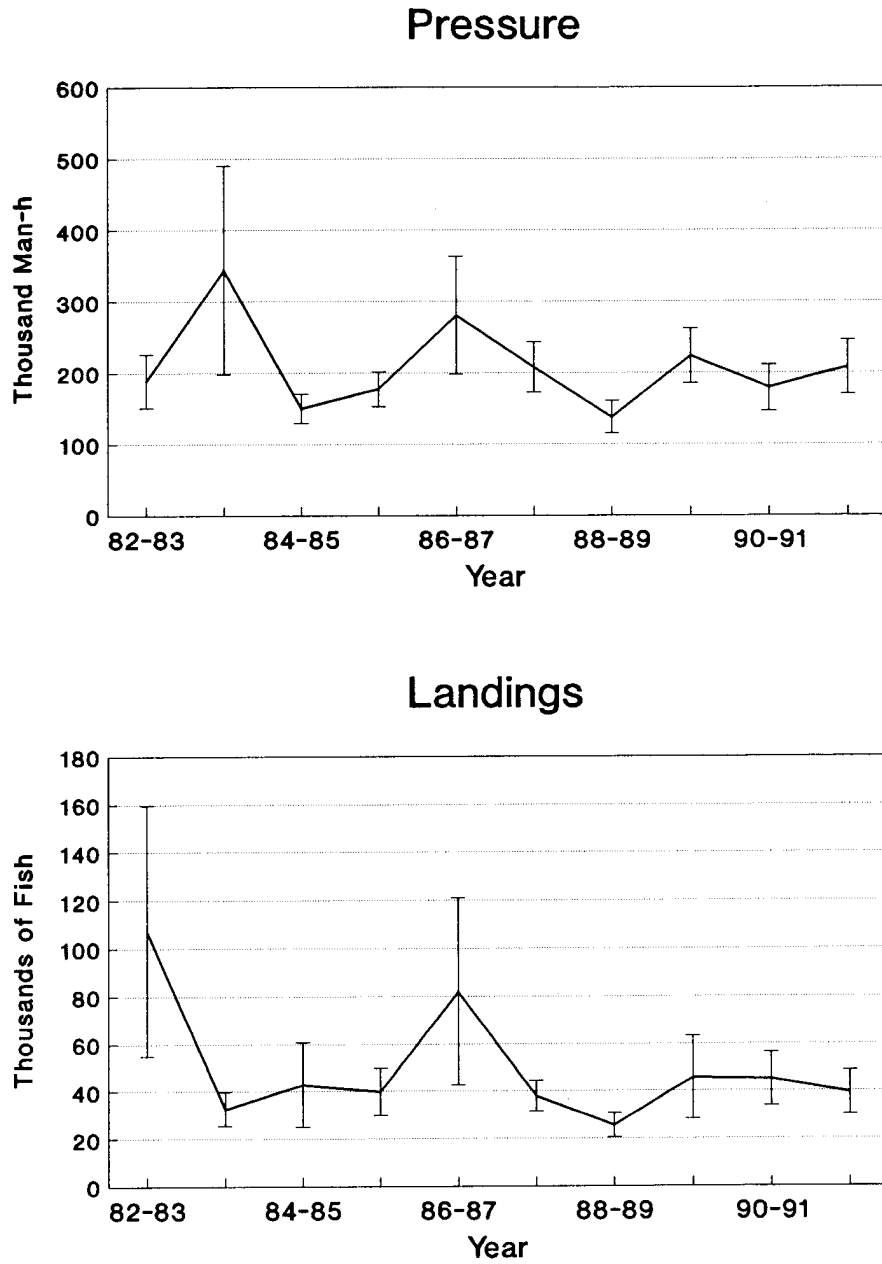


Figure 22. Annual coastwide private-boat fishing pressure (± 1 SE) and landings (± 1 SE) in the Texas Territorial Sea, May 1982-May 1992.

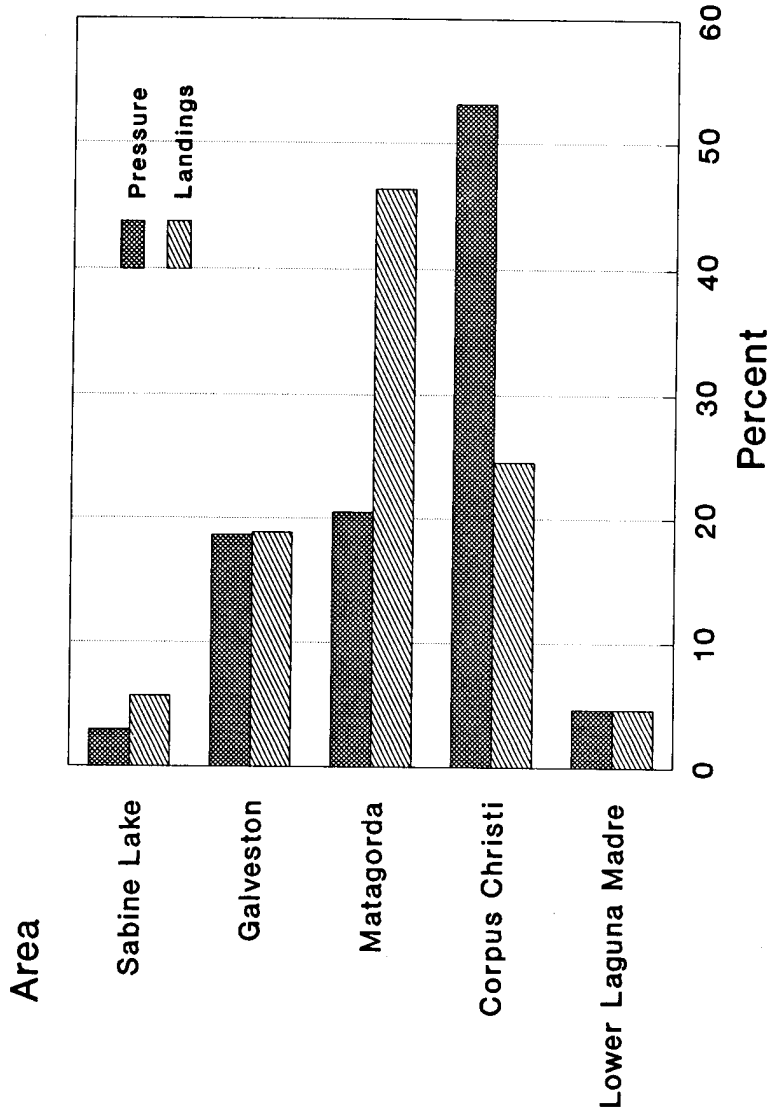


Figure 23. Distribution of annual coastwide Texas Territorial Sea private-boat fishing pressure and landings among areas, May 1982-May 1992 (based on 5-year mean in Sabine Lake area and 10-year means in all other areas).

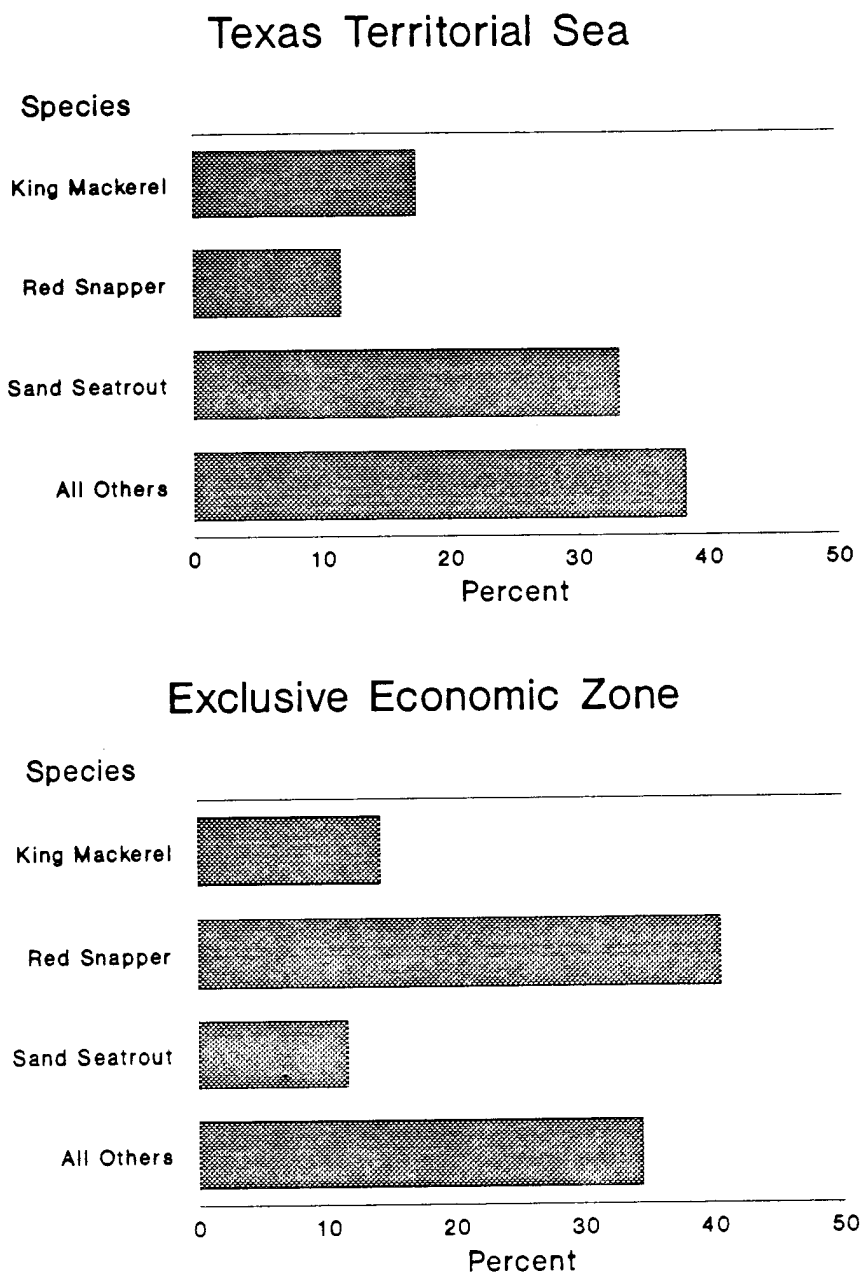


Figure 24. Species composition of annual coastwide Texas Territorial Sea and Exclusive Economic Zone private-boat finfish landings, May 1982-May 1992 (10-year mean).

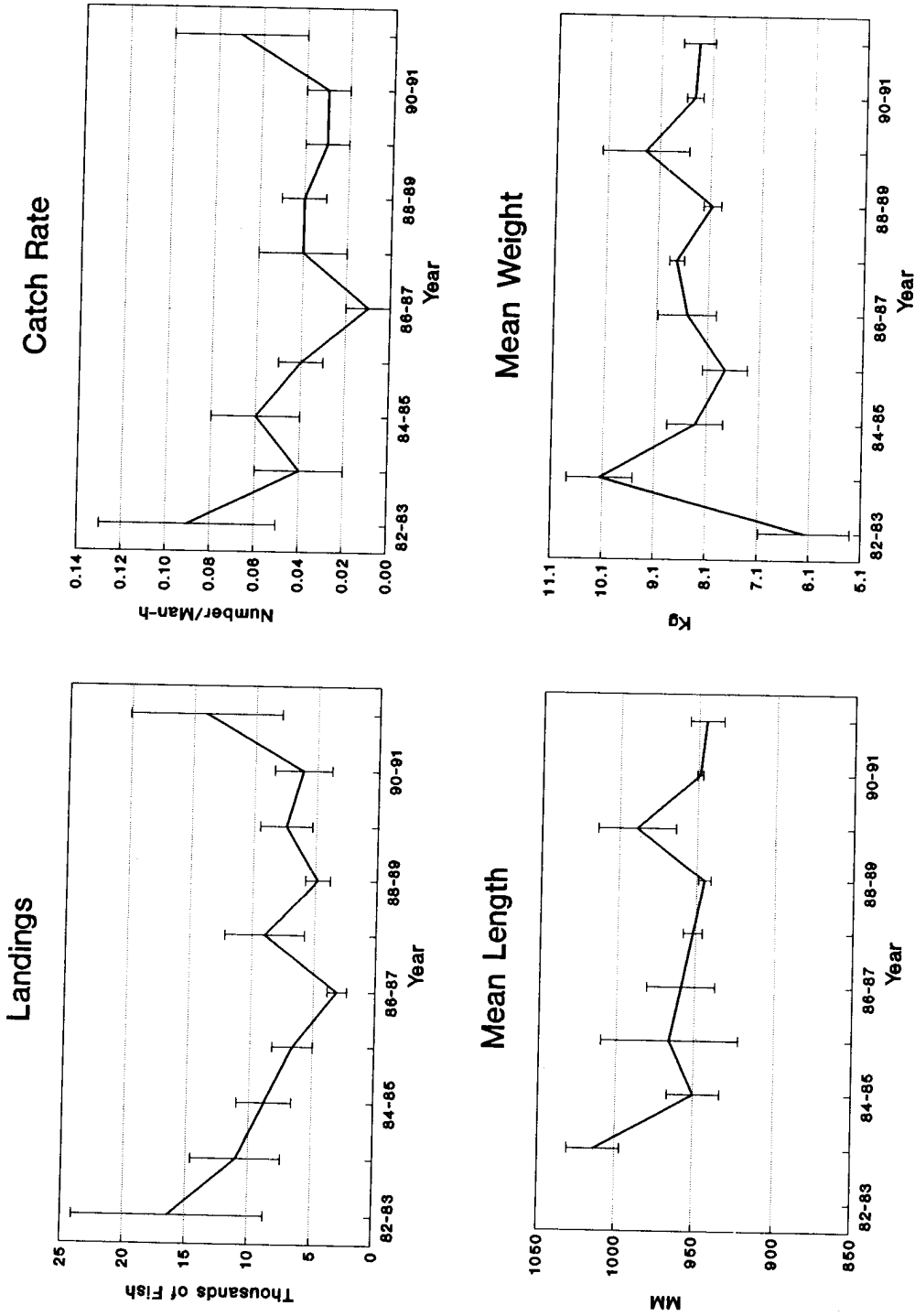


Figure 25. Annual coastwide statistics (± 1 SE) for king mackerel landed from Texas Territorial Sea by private-boat fishermen, May 1982-May 1992.

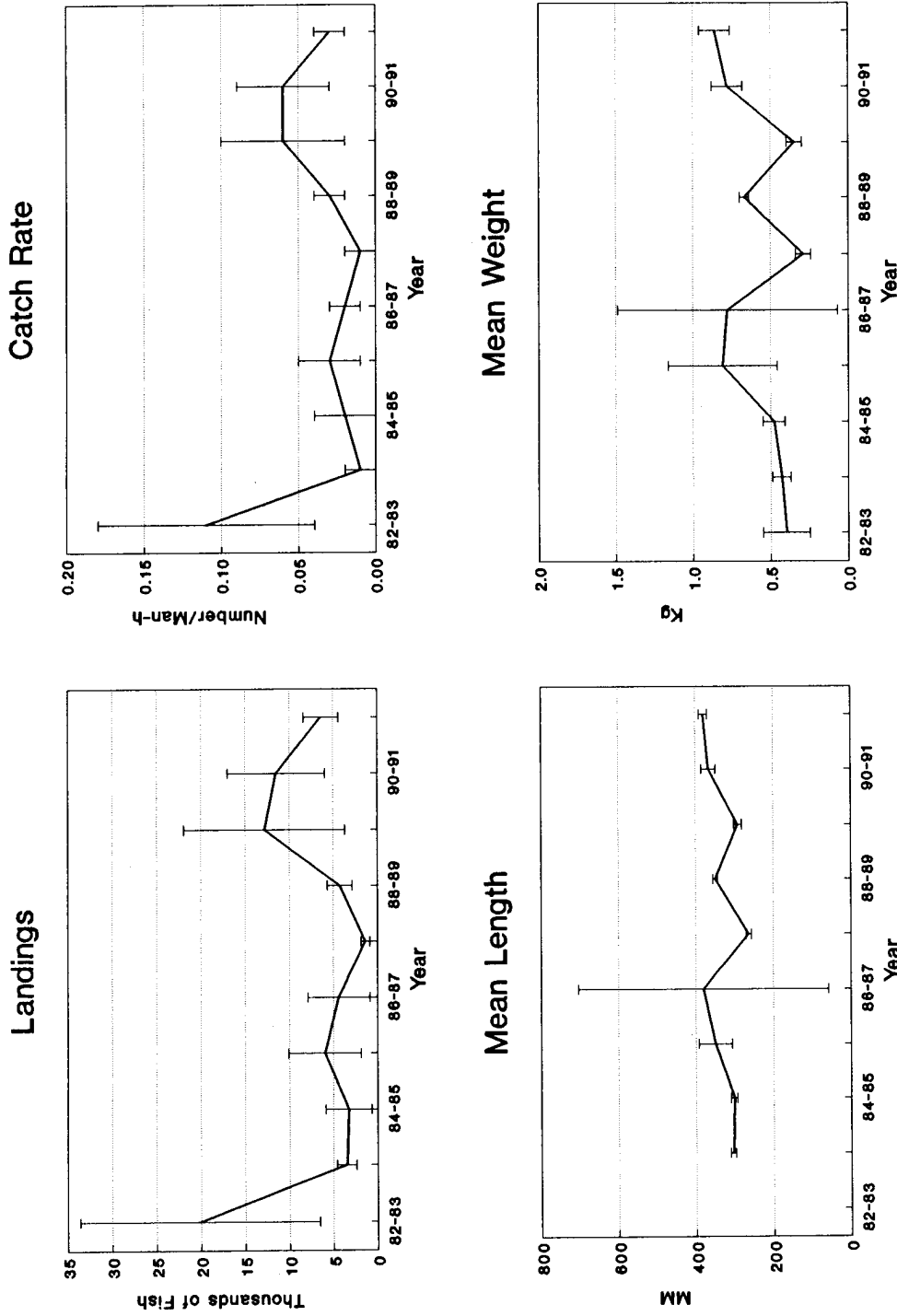


Figure 26. Annual coastwide statistics (± 1 SE) for red snapper landed from Texas Territorial Sea by private-boat fishermen, May 1982-May 1992.

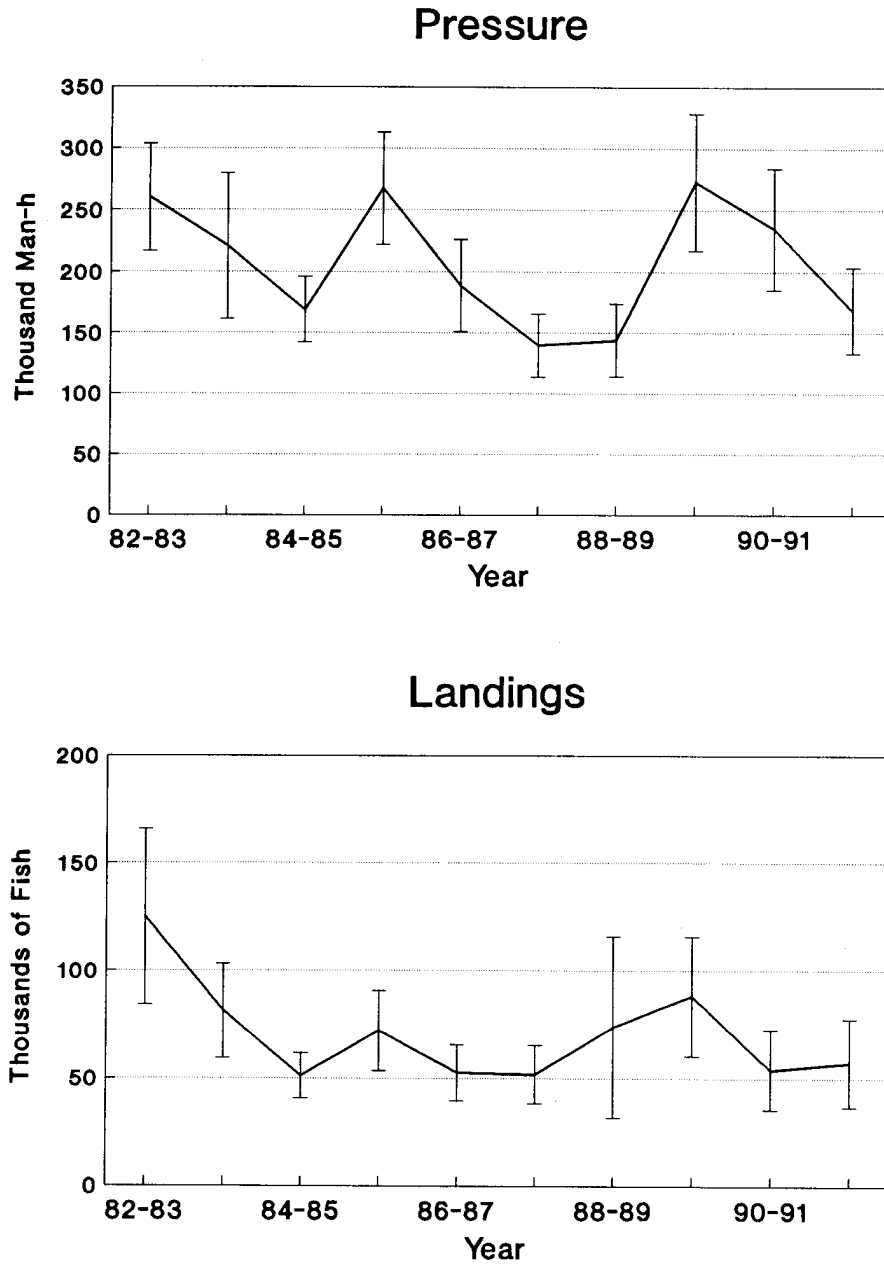


Figure 27. Annual coastwide private-boat fishing pressure (± 1 SE) and landings (± 1 SE) in the Exclusive Economic Zone, May 1982-May 1992.

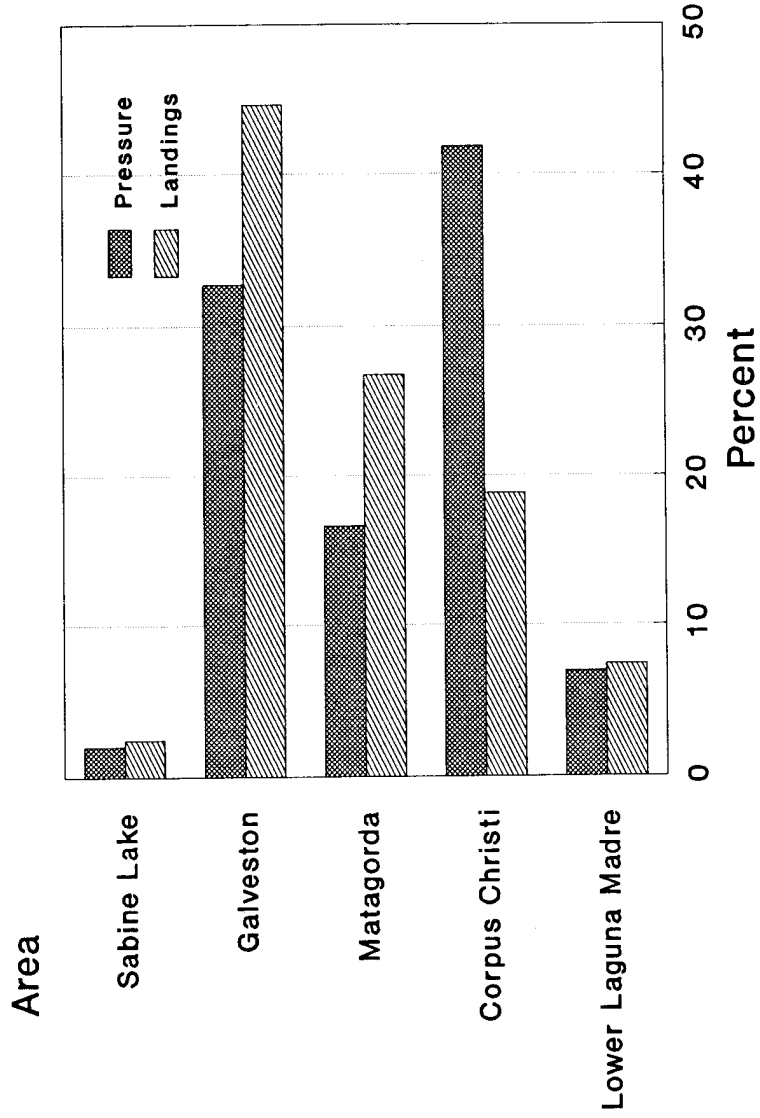


Figure 28. Distribution of annual coastwide Exclusive Economic Zone private-boat fishing pressure and landings among areas, May 1982-May 1992 (based on 5-year mean in Sabine Lake area and 10-year means in all other areas).

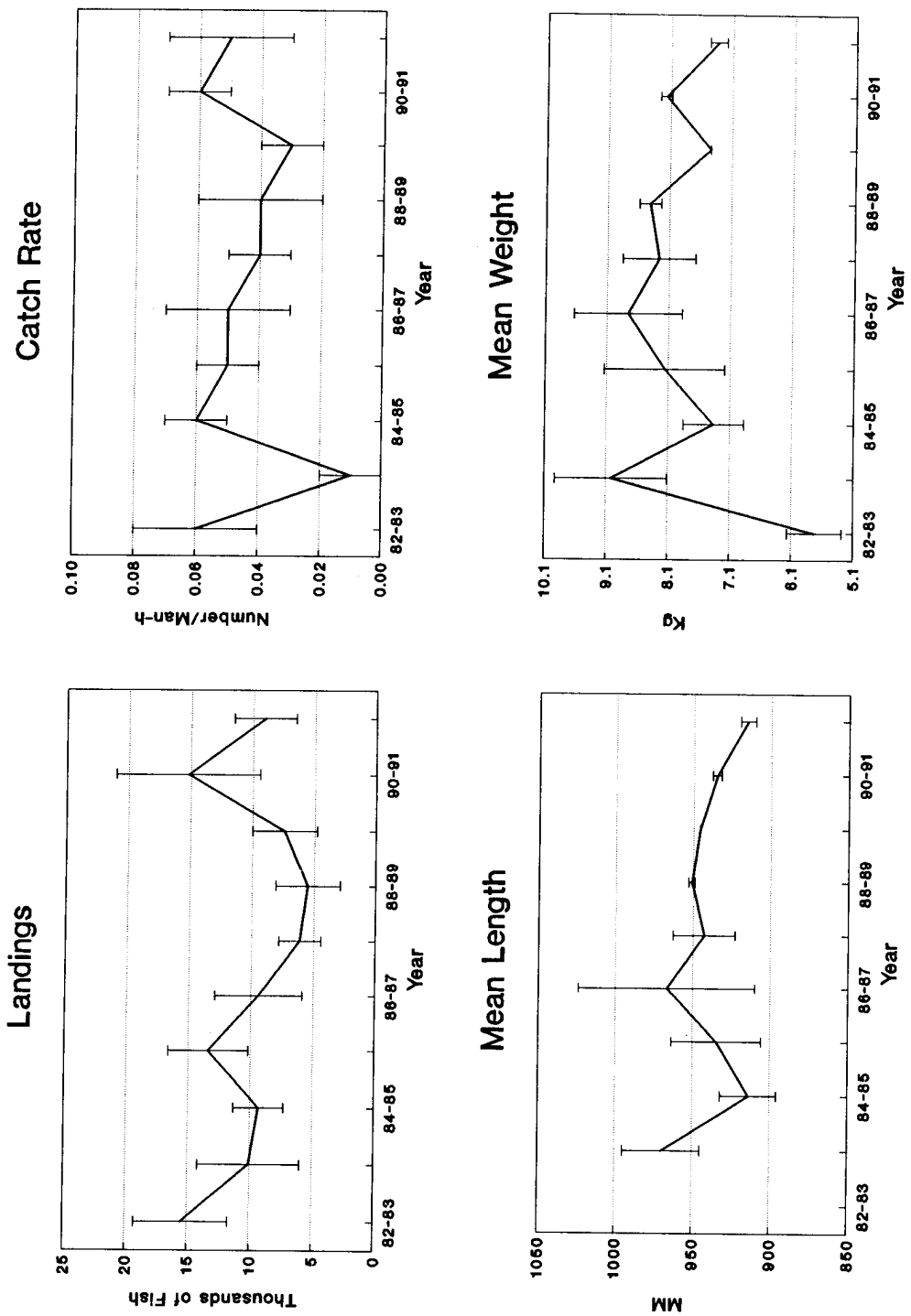


Figure 29. Annual coastwide statistics (± 1 SE) for king mackerel landed from Exclusive Economic Zone by private-boat fishermen, May 1982-May 1992.

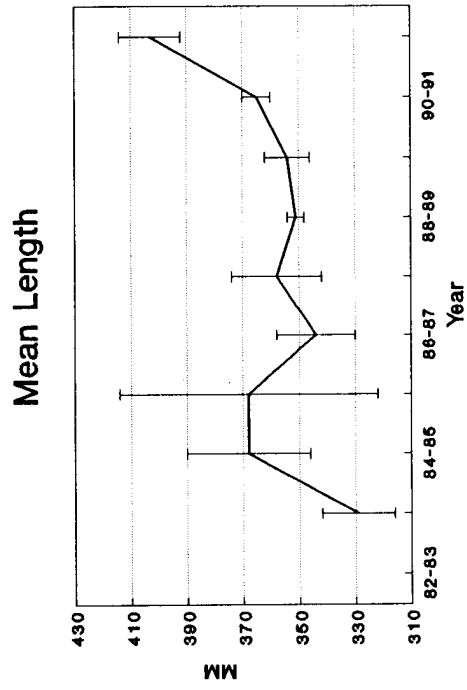
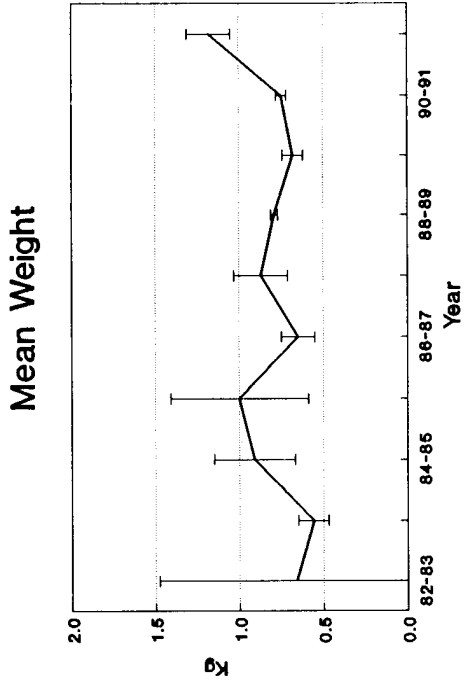
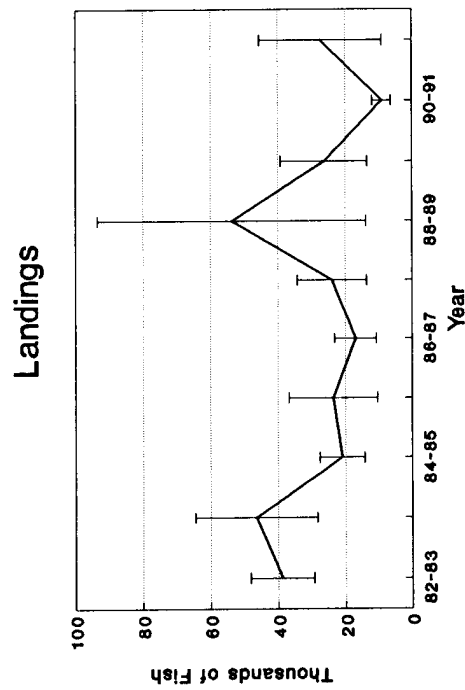
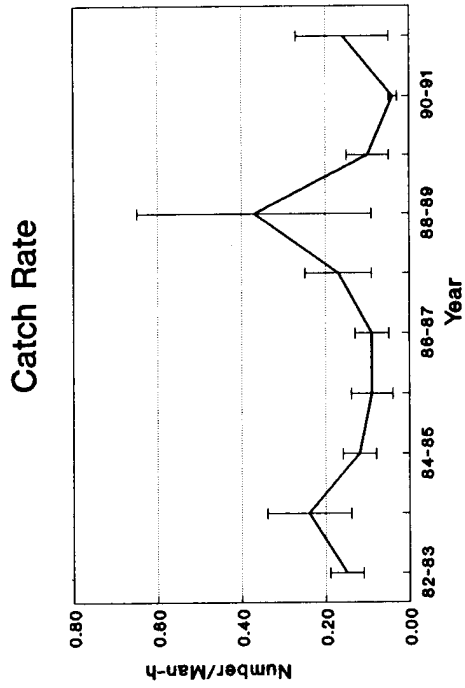


Figure 30. Annual coastwide statistics (± 1 SE) for red snapper landed from Exclusive Economic Zone by private-boat fishermen, May 1982-May 1992.

APPENDIX A: Private-boat fishing estimates for Texas bays and passes.

Table A.1. Number of days surveyed and number of private-boat fishermen interviewed (in parentheses) in Texas bays and passes by bay system and year (1974-1992).

Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
1974-76		34 (1357)	25 (264)	65 (2044)	35 (570)	28 (444)	41 (918)	27 (529)			255 (6126)
1976-77		44 (776)	34 (373)	21 (528)	22 (474)	31 (797)	23 (437)	32 (1105)			207 (4490)
1977-78		65 (1771)	31 (702)	32 (1261)	33 (659)	31 (652)	31 (622)	32 (1307)			255 (6974)
1978-79		64 (2349)	32 (702)	33 (1410)	32 (544)	32 (683)	33 (934)	32 (1011)			258 (7633)
1979-80		55 (1149)	42 (734)	65 (1914)	42 (451)	48 (1078)	41 (1024)	43 (1230)			336 (7580)
1980-81		65 (1638)	63 (747)	74 (1791)	66 (683)	63 (1401)	65 (1637)	64 (1388)			460 (9285)
1981-82		124 (1810)	124 (1120)	114 (2012)	124 (1386)	123 (2807)	124 (2300)	114 (2823)			847 (14258)
1982-83		133 (2727)	124 (1275)	118 (2342)	124 (1087)	124 (2445)	124 (3238)	114 (4079)			861 (17193)
1983-84		133 (1543)	133 (1884)	108 (2532)	133 (1856)	133 (2212)	133 (4233)	133 (3520)			906 (17780)
1984-85		133 (2907)	133 (2628)	108 (1773)	133 (1739)	133 (1805)	133 (1453)	133 (3274)			906 (15579)
1985-86		133 (2419)	133 (2456)	108 (1881)	133 (2739)	133 (2200)	133 (3509)	133 (3354)			906 (18558)
1986-87		133 (2702)	133 (2792)	108 (1975)	133 (2322)	133 (2349)	133 (3857)	133 (3847)			906 (19844)
1987-88	108 (2175)	133 (2746)	133 (2771)	108 (2414)	133 (2571)	133 (2388)	133 (3565)	133 (3407)			1014 (22037)
1988-89	108 (2524)	132 (2216)	131 (2699)	105 (2216)	130 (2781)	130 (2319)	131 (3491)	131 (3139)			998 (21385)
1989-90	108 (1587)	131 (2315)	132 (2156)	108 (1523)	133 (2786)	133 (2318)	133 (3156)	133 (2531)			1011 (18372)
1990-91	108 (1935)	133 (1993)	133 (1984)	108 (1246)	133 (2419)	133 (2041)	133 (1093)	133 (2195)			1014 (14906)
1991-92	108 (2307)	133 (2212)	133 (2762)	108 (1518)	133 (2900)	133 (2646)	133 (2392)	133 (1992)			1014 (18729)

Table A.2. Estimated private-boat fishing pressure (man-h x 1000) \pm 1SE, 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 year (1974-1992).

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
Sabine Lake			
1987-88	352.3 \pm 42.1	2.2	4.9
1988-89	494.6 \pm 73.2	2.2	5.0
1989-90	283.9 \pm 41.6	2.1	4.8
1990-91	367.1 \pm 48.0	2.2	4.9
1991-92	445.2 \pm 61.7	2.2	4.9
Galveston			
1974-76	2865.6 \pm 719.4	2.5	4.8
1976-77	1031.8	2.5	4.7
1977-78	2176.8	2.6	5.5
1978-79	1972.0	2.6	6.1
1979-80	2002.0 \pm 695.8	2.7	6.0
1980-81	2159.9 \pm 387.2	2.4	5.9
1981-82	1884.1 \pm 262.7	2.4	6.7
1982-83	1664.5 \pm 159.3	2.6	5.7
1983-84	2087.9 \pm 512.2	2.4	5.8
1984-85	1513.6 \pm 164.3	2.5	5.6
1985-86	1922.4 \pm 498.4	2.5	5.6
1986-87	2178.6 \pm 266.0	2.4	5.6
1987-88	2076.9 \pm 201.0	2.4	5.7
1988-89	2016.7 \pm 195.7	2.4	5.6
1989-90	1661.3 \pm 166.4	2.4	5.5
1990-91	1607.5 \pm 199.2	2.3	5.3
1991-92	1725.2 \pm 164.7	2.3	5.2
Matagorda			
1974-76	630.8 \pm 177.4	2.4	5.5
1976-77	364.3	2.8	4.6
1977-78	515.8	2.7	6.3
1978-79	602.3	3.0	6.9
1979-80	401.4 \pm 134.2	2.8	6.8
1980-81	637.2 \pm 180.1	2.6	7.9
1981-82	498.2 \pm 52.7	2.5	6.0

Table A.2. (Cont'd.)

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
Matagorda (Cont'd.)			
1982-83	393.0 ± 41.9	2.6	6.9
1983-84	662.6 ± 75.8	2.6	6.7
1984-85	517.0 ± 57.2	2.7	7.0
1985-86	558.7 ± 73.8	2.5	7.3
1986-87	813.1 ± 125.2	2.6	6.4
1987-88	633.3 ± 65.0	2.5	6.4
1988-89	598.0 ± 64.5	2.6	5.5
1989-90	528.1 ± 48.2	2.5	5.5
1990-91	352.5 ± 45.5	2.5	5.4
1991-92	573.1 ± 79.4	2.4	5.8
San Antonio			
1974-76	323.9 ± 45.7	2.5	5.3
1976-77	298.8	2.6	5.9
1977-78	306.2	2.7	6.5
1978-79	286.0	2.8	6.9
1979-80	228.8 ± 30.2	2.7	6.2
1980-81	229.4 ± 47.0	2.7	7.6
1981-82	185.3 ± 18.2	2.5	7.0
1982-83	283.7 ± 28.9	2.6	7.8
1983-84	271.3 ± 31.2	2.5	6.5
1984-85	142.8 ± 12.6	2.6	6.1
1985-86	186.9 ± 21.2	2.4	6.8
1986-87	245.7 ± 37.9	2.5	6.8
1987-88	416.6 ± 99.6	2.4	5.8
1988-89	227.8 ± 22.2	2.5	5.7
1989-90	208.6 ± 20.5	2.4	5.7
1990-91	170.6 ± 18.2	2.6	5.7
1991-92	252.4 ± 36.6	2.4	5.6

Table A.2. (Cont'd.)

Bay system Year	Pressure*	Mean fishing party size	Mean trip length
Aransas			
1974-76	533.3 ± 102.2	2.7	4.1
1976-77	402.2	2.7	5.4
1977-78	332.2	2.7	6.2
1978-79	317.3	2.8	5.5
1979-80	180.6 ± 33.1	2.7	6.2
1980-81	252.3 ± 38.8	2.4	4.9
1981-82	432.3 ± 46.1	2.5	5.2
1982-83	439.0 ± 56.8	2.5	5.4
1983-84	623.3 ± 132.2	2.7	5.2
1984-85	415.6 ± 57.8	2.5	4.6
1985-86	712.8 ± 69.5	2.4	5.1
1986-87	718.2 ± 82.7	2.4	5.0
1987-88	664.9 ± 60.2	2.5	5.0
1988-89	730.8 ± 63.6	2.4	5.2
1989-90	844.9 ± 128.1	2.4	5.1
1990-91	559.7 ± 89.8	2.4	5.0
1991-92	652.2 ± 86.2	2.3	5.0
Corpus Christi			
1974-76	266.7 ± 53.3	2.4	3.8
1976-77	211.8	2.7	4.3
1977-78	202.8	2.5	5.3
1978-79	314.1	2.6	4.8
1979-80	454.5 ± 224.1	2.7	4.4
1980-81	739.4 ± 231.8	2.5	4.5
1981-82	352.2 ± 34.3	2.4	4.5

Table A.2. (Cont'd.)

Bay system Year	Pressure*	Mean fishing party size	Mean trip length
Corpus Christi (Cont'd.)			
1982-83	451.8 ± 59.7	2.5	4.7
1983-84	762.4 ± 215.7	2.6	4.6
1984-85	540.4 ± 80.0	2.5	5.0
1985-86	609.2 ± 96.1	2.3	5.0
1986-87	652.5 ± 87.3	2.4	5.0
1987-88	640.1 ± 79.9	2.4	5.0
1988-89	765.7 ± 95.3	2.4	5.0
1989-90	620.1 ± 70.6	2.4	5.0
1990-91	648.6 ± 69.9	2.3	5.0
1991-92	637.3 ± 70.5	2.4	5.1
Upper Laguna Madre			
1974-76	727.1 ± 153.6	2.5	7.1
1976-77	428.0	2.6	8.2
1977-78	364.5	2.6	7.6
1978-79	362.8	2.7	7.7
1979-80	476.0 ± 57.4	2.6	6.7
1980-81	841.9 ± 145.1	2.7	12.3
1981-82	855.7 ± 146.2	2.7	11.1
1982-83	786.8 ± 77.6	2.6	10.1
1983-84	725.5 ± 67.3	2.6	10.9
1984-85	340.2 ± 61.9	2.7	8.1
1985-86	882.4 ± 137.9	2.5	10.0
1986-87	891.7 ± 100.0	2.5	10.5
1987-88	527.3 ± 52.6	2.4	5.8
1988-89	472.6 ± 54.0	2.4	6.2
1989-90	440.3 ± 72.3	2.4	5.8
1990-91	193.3 ± 34.1	2.4	5.1
1991-92	316.5 ± 40.6	2.4	5.6

Table A.2. (Cont'd.)

Bay system Year	Pressure'	Mean fishing party size	Mean trip length
Lower Laguna Madre			
1974-76	840.1 ± 179.0	2.6	5.8
1976-77	678.6	2.5	5.4
1977-78	587.4	2.6	7.6
1978-79	528.8	2.6	6.6
1979-80	403.5 ± 81.2	2.6	5.4
1980-81	384.9 ± 64.1	2.6	6.0
1981-82	342.8 ± 26.9	2.6	5.8
1982-83	561.6 ± 39.2	2.5	6.4
1983-84	512.5 ± 43.4	2.5	6.5
1984-85	613.1 ± 64.9	2.6	5.6
1985-86	605.6 ± 54.8	2.5	6.2
1986-87	871.1 ± 66.2	2.4	6.8
1987-88	710.0 ± 64.1	2.4	5.8
1988-89	579.5 ± 45.7	2.4	5.8
1989-90	522.8 ± 50.6	2.4	5.4
1990-91	409.8 ± 36.5	2.4	5.2
1991-92	441.3 ± 57.5	2.5	5.1
Coastwide			
1974-76	6187.5 ± 516.9	2.5	5.3
1976-77	3415.7	2.6	5.4
1977-78	4486.0	2.6	6.4
1978-79	4383.2	2.7	6.5
1979-80	4146.8 ± 751.1	2.7	6.0
1980-81	5245.0 ± 514.7	2.6	7.1
1981-82	4550.5 ± 312.3	2.5	6.5
1982-83	4580.4 ± 205.7	2.6	6.7
1983-84	5646.0 ± 582.7	2.5	7.0
1984-85	4083.1 ± 219.6	2.6	5.9
1985-86	5477.9 ± 538.8	2.4	6.7

Table A.2. (Cont'd.)

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
Coastwide (Cont'd.)			
1986-87	6370.8 ± 341.6	2.5	6.8
1987-88	6021.4 ± 268.9	2.4	5.6
1988-89	5885.8 ± 257.8	2.4	5.5
1989-90	5110.1 ± 247.7	2.4	5.4
1990-91	4309.0 ± 244.6	2.4	5.2
1991-92	5043.2 ± 236.5	2.3	5.3

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of bay system totals.

Table A.3. Estimated annual landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in Texas bays and passes by bay system, species and year (1974-1992).

Species Year	Bay system								Coastwide*
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Atlantic croaker									
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	88.0 ± 20.8	247.6 ± 46.2	9.6 ± 2.7	0.9 ± 0.4	11.7 ± 4.0	43.3 ± 12.3	12.7 ± 3.1	2.9 ± 0.8	416.9 ± 52.5
1988-89	107.2 ± 30.5	157.7 ± 49.9	13.7 ± 4.3	0.6 ± 0.2	19.8 ± 9.9	11.7 ± 5.2	8.6 ± 2.7	4.6 ± 1.5	323.9 ± 59.8
1989-90	77.0 ± 21.5	102.2 ± 20.2	2.2 ± 0.9	2.0 ± 1.8	3.4 ± 1.9	3.6 ± 2.1	7.1 ± 2.4	1.8 ± 0.6	199.0 ± 29.8
1990-91	64.9 ± 15.6	99.9 ± 37.1	4.6 ± 1.4	0.1 ± 0.1	2.0 ± 1.0	1.8 ± 0.6	2.8 ± 1.5	1.1 ± 0.5	177.2 ± 40.3
1991-92	56.3 ± 10.9	159.2 ± 40.0	5.8 ± 2.2	0.6 ± 0.3	5.3 ± 2.1	8.5 ± 4.9	5.0 ± 1.4	3.4 ± 1.7	244.0 ± 41.9
Black drum									
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	8.5 ± 2.8	37.8 ± 11.4	12.1 ± 3.9	9.9 ± 6.5	4.4 ± 1.8	3.6 ± 1.1	3.4 ± 1.0	3.8 ± 1.6	83.6 ± 14.2
1988-89	3.7 ± 0.8	19.8 ± 3.7	6.0 ± 1.7	1.2 ± 0.6	4.7 ± 1.2	9.3 ± 3.7	8.6 ± 4.2	6.5 ± 2.5	59.8 ± 7.6

Table A.3. (Cont'd.)

Species Year	Bay system										Coastwide*
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Black drum (Cont'd.)											
1989-90	8.5 ± 3.4	25.9 ± 6.4	5.5 ± 1.5	3.5 ± 1.2	6.1 ± 2.3	7.0 ± 1.6	5.0 ± 1.5	3.5 ± 1.3			65.0 ± 8.3
1990-91	7.6 ± 2.1	18.3 ± 4.4	6.2 ± 1.7	1.1 ± 0.8	12.5 ± 7.7	15.7 ± 6.8	1.8 ± 1.0	2.7 ± 0.8			65.8 ± 11.7
1991-92	11.3 ± 3.7	22.5 ± 4.8	3.5 ± 0.8	2.1 ± 1.2	5.5 ± 1.4	5.1 ± 1.6	7.7 ± 2.8	2.7 ± 0.8			60.4 ± 7.2
Gafftopsail catfish											
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
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	0.1 ± 0.1			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	1.5 ± 0.7	8.7 ± 5.2	3.9 ± 1.2	1.1 ± 0.6	2.9 ± 1.7	0.8 ± 0.4	0.0	0.2 ± 0.2			19.0 ± 5.7
1988-89	2.1 ± 0.6	5.3 ± 2.5	4.1 ± 1.1	1.5 ± 0.7	1.2 ± 0.6	0.9 ± 0.4	0.1 ± 0.1	<.1 ± <.1			15.2 ± 3.0
1989-90	0.3 ± 0.1	2.5 ± 1.3	4.2 ± 1.2	1.3 ± 0.5	3.0 ± 1.6	0.8 ± 0.3	<.1 ± <.1	0.0			12.2 ± 2.4
1990-91	1.6 ± 0.6	2.0 ± 0.9	2.0 ± 0.8	1.5 ± 0.5	1.0 ± 0.4	1.4 ± 0.6	0.2 ± 0.1	<.1 ± <.1			9.7 ± 1.6
1991-92	3.2 ± 1.4	4.0 ± 1.8	4.6 ± 1.6	0.5 ± 0.2	1.9 ± 0.8	1.1 ± 0.7	0.2 ± 0.2	0.1 ± 0.1			15.6 ± 3.0
Red drum											
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

Table A.3. (Cont'd.)

Species Year	Bay system								Coastwide'
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Red drum (Cont'd.)									
1982-83		27.1 ± 6.0	14.7 ± 3.4	14.4 ± 1.6	25.4 ± 7.0	8.5 ± 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 ± 6.0	20.3 ± 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	8.2 ± 2.2	31.0 ± 5.6	28.6 ± 5.2	35.0 ± 9.2	23.1 ± 3.4	31.5 ± 7.5	16.0 ± 2.5	44.7 ± 5.1	218.2 ± 15.7
1988-89	6.2 ± 1.2	26.4 ± 6.5	18.8 ± 3.0	11.4 ± 1.8	33.4 ± 4.7	24.5 ± 4.5	10.1 ± 1.4	33.1 ± 3.8	164.0 ± 10.7
1989-90	6.4 ± 1.7	30.1 ± 6.5	23.3 ± 5.1	17.7 ± 3.7	22.0 ± 3.8	25.2 ± 4.3	8.7 ± 1.5	25.9 ± 2.9	159.2 ± 11.4
1990-91	7.7 ± 2.2	16.0 ± 3.7	8.8 ± 1.4	6.5 ± 1.3	16.2 ± 3.3	23.2 ± 3.8	3.3 ± 0.9	15.8 ± 2.3	97.7 ± 7.3
1991-92	6.6 ± 1.1	10.7 ± 2.5	20.4 ± 5.5	15.7 ± 4.4	33.2 ± 5.1	26.0 ± 4.2	5.0 ± 0.7	13.4 ± 2.5	130.8 ± 10.3
Sand seatrout									
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	19.2 ± 8.9	268.0 ± 72.9	3.1 ± 1.1	1.4 ± 0.7	29.5 ± 8.9	58.0 ± 32.6	1.8 ± 1.0	8.0 ± 3.8	389.1 ± 80.9
1988-89	16.1 ± 4.4	221.6 ± 65.9	8.9 ± 3.2	3.1 ± 1.0	7.8 ± 3.2	36.9 ± 14.5	2.8 ± 1.6	2.0 ± 0.8	299.1 ± 67.8
1989-90	3.3 ± 1.8	191.4 ± 61.2	3.3 ± 1.1	1.4 ± 0.5	2.5 ± 0.8	2.2 ± 0.4	0.4 ± 0.2	5.8 ± 3.5	210.4 ± 61.3
1990-91	39.2 ± 12.4	207.5 ± 62.6	4.6 ± 1.8	3.0 ± 1.6	22.9 ± 20.5	14.0 ± 5.2	8.5 ± 3.8	14.1 ± 4.6	313.6 ± 67.6
1991-92	30.6 ± 11.4	242.0 ± 64.6	17.7 ± 6.2	2.4 ± 1.1	16.8 ± 5.4	47.7 ± 13.6	3.3 ± 1.0	33.1 ± 14.0	393.7 ± 69.0

Table A.3. (Cont'd.)

Species Year	Bay system										Coastwide ^a
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Sheepshead											
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	1.5 ± 0.5	19.9 ± 6.2	11.4 ± 4.2	0.9 ± 0.2	23.7 ± 11.7	32.2 ± 18.1	0.3 ± 0.1	10.1 ± 5.1			100.0 ± 23.4
1988-89	2.2 ± 0.9	16.1 ± 4.3	5.8 ± 1.8	1.0 ± 0.4	18.1 ± 7.4	16.2 ± 6.9	0.1 ± 0.1	0.6 ± 0.2			60.2 ± 11.2
1989-90	1.6 ± 0.8	11.7 ± 3.0	2.4 ± 0.8	0.6 ± 0.2	6.0 ± 2.2	5.1 ± 2.1	0.1 ± 0.1	4.6 ± 3.8			32.1 ± 5.8
1990-91	5.4 ± 2.7	19.0 ± 4.8	4.9 ± 1.4	0.7 ± 0.3	23.4 ± 11.0	9.1 ± 3.3	1.2 ± 0.5	3.4 ± 2.3			67.6 ± 13.0
1991-92	3.0 ± 1.0	31.5 ± 12.0	4.3 ± 1.0	0.6 ± 0.3	7.9 ± 2.8	10.6 ± 4.0	0.2 ± 0.1	3.8 ± 2.4			61.6 ± 13.3
Southern flounder											
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	32.2 ± 5.6	120.3 ± 30.1	14.3 ± 3.8	3.3 ± 0.9	5.5 ± 1.1	10.5 ± 3.1	6.4 ± 1.2	14.4 ± 3.1			207.0 ± 31.2

Table A.3. (Cont'd.)

Species Year	Bay system										Coastwide*
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Southern flounder (Cont'd.)											
1988-89	28.7 ± 5.8	81.7 ± 13.5	16.6 ± 5.0	2.7 ± 0.6	6.3 ± 1.2	8.4 ± 2.2	3.3 ± 0.6	7.4 ± 1.3	155.1 ± 15.8		
1989-90	14.4 ± 3.5	52.7 ± 9.3	7.0 ± 1.6	2.4 ± 0.8	6.6 ± 1.4	7.0 ± 2.5	8.8 ± 5.5	4.8 ± 0.8	103.8 ± 11.9		
1990-91	18.6 ± 3.5	70.8 ± 16.8	6.9 ± 1.5	0.6 ± 0.1	4.6 ± 1.1	9.4 ± 3.3	2.3 ± 0.7	3.3 ± 1.1	116.5 ± 17.6		
1991-92	28.0 ± 4.5	86.5 ± 17.8	13.2 ± 2.8	4.2 ± 0.9	13.5 ± 4.5	13.1 ± 2.8	11.2 ± 2.1	9.5 ± 1.6	179.2 ± 19.5		
Spotted seatrout											
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		
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	56.8 ± 14.6	202.4 ± 34.0	104.7 ± 14.1	74.7 ± 17.9	93.5 ± 14.7	116.7 ± 24.8	109.5 ± 17.0	137.1 ± 15.6	895.4 ± 57.0		
1988-89	51.8 ± 10.9	190.4 ± 41.1	84.6 ± 17.6	38.1 ± 6.8	92.9 ± 13.2	111.4 ± 23.8	125.5 ± 27.8	121.3 ± 11.3	816.1 ± 61.8		
1989-90	26.2 ± 5.5	200.8 ± 35.2	40.8 ± 8.7	25.5 ± 4.7	55.9 ± 8.2	80.5 ± 14.7	56.9 ± 15.6	60.0 ± 5.8	546.7 ± 43.9		
1990-91	17.7 ± 4.9	59.2 ± 15.5	11.1 ± 3.7	5.6 ± 1.4	24.6 ± 8.9	47.0 ± 12.2	11.9 ± 3.9	54.6 ± 12.2	231.9 ± 25.9		
1991-92	19.0 ± 5.5	78.5 ± 12.7	118.1 ± 41.5	34.9 ± 7.6	63.9 ± 17.9	67.9 ± 11.4	62.2 ± 10.6	73.1 ± 16.1	517.7 ± 52.8		
Other species											
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		

Table A.3. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide*	
Other species (Cont'd.)										
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	11.1	118.9	18.3	1.8	56.2	12.8	6.8	13.6	239.8	
1988-89	55.4	119.6	20.1	9.6	12.0	12.9	11.1	8.0	248.6	
1989-90	13.4	106.5	14.6	15.2	32.0	6.5	7.8	11.3	207.3	
1990-91	25.0	128.1	11.3	3.6	5.5	9.6	14.9	7.9	205.9	
1991-92	10.6	90.0	17.9	6.8	13.8	9.4	5.8	10.2	164.4	
All species combined*										
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 ± 59.5	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	
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	226.8 ± 36.4	1054.7 ± 152.2	206.2 ± 26.2	129.0 ± 31.3	251.0 ± 34.0	309.6 ± 53.0	156.9 ± 20.5	234.9 ± 23.3	2569.1 ± 176.3	
1988-89	273.5 ± 51.6	838.6 ± 149.0	178.6 ± 26.0	69.1 ± 10.0	196.3 ± 22.1	232.2 ± 40.1	170.2 ± 29.9	183.5 ± 15.5	2141.8 ± 169.9	
1989-90	151.3 ± 28.3	723.8 ± 112.0	103.3 ± 12.9	69.6 ± 12.4	137.6 ± 18.4	137.8 ± 19.0	94.8 ± 23.6	117.5 ± 10.3	1535.8 ± 122.6	
1990-91	202.5 ± 32.7	620.9 ± 122.8	60.5 ± 9.7	22.8 ± 3.5	112.7 ± 36.6	131.3 ± 24.8	46.8 ± 13.9	103.0 ± 15.5	1300.6 ± 136.5	
1991-92	168.5 ± 25.2	724.9 ± 114.8	205.4 ± 50.9	67.8 ± 11.8	161.6 ± 27.1	189.4 ± 25.9	100.5 ± 14.3	149.2 ± 33.4	1767.4 ± 138.8	

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Table A.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by private-boat fishermen in Texas bays and passes by bay system, species and year (1974-1992).

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Atlantic croaker									
1974-76		0.24 \pm 0.12	0.03 \pm 0.02	0.02 \pm 0.01	0.01 \pm <.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	<.01	0.02	0.10	0.08	0.03	0.19
1977-78		0.40	0.05	<.01	0.01	0.08	0.10	0.02	0.22
1978-79		0.24	0.04	0.01	<.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	0.03 \pm 0.02	0.22 \pm 0.12	0.01 \pm <.01	0.09 \pm 0.03
1980-81		0.17 \pm 0.10	0.08 \pm 0.04	0.01 \pm <.01	0.01 \pm <.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	<.01 \pm <.01	<.01 \pm <.01	0.12 \pm 0.06	0.03 \pm 0.01	0.01 \pm <.01	0.06 \pm 0.01
1982-83		0.12 \pm 0.02	0.02 \pm 0.01	<.01 \pm <.01	0.02 \pm 0.01	0.04 \pm 0.01	0.03 \pm 0.02	0.01 \pm <.01	0.05 \pm 0.01
1983-84		0.08 \pm 0.02	0.02 \pm 0.01	<.01 \pm <.01	0.06 \pm 0.03	0.05 \pm 0.02	0.04 \pm 0.01	0.01 \pm <.01	0.05 \pm 0.01
1984-85		0.14 \pm 0.03	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.02 \pm <.01	0.01 \pm <.01	0.01 \pm <.01	0.06 \pm 0.01
1985-86		0.11 \pm 0.04	0.02 \pm 0.01	<.01 \pm <.01	0.02 \pm 0.01	0.02 \pm 0.01	0.02 \pm <.01	0.01 \pm <.01	0.05 \pm 0.01
1986-87		0.15 \pm 0.05	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.02 \pm <.01	0.02 \pm <.01	0.01 \pm <.01	0.06 \pm 0.02
1987-88	0.25 \pm 0.07	0.12 \pm 0.02	0.02 \pm <.01	<.01 \pm <.01	0.02 \pm 0.01	0.07 \pm 0.02	0.02 \pm 0.01	<.01 \pm <.01	0.07 \pm 0.01
1988-89	0.22 \pm 0.07	0.08 \pm 0.03	0.02 \pm 0.01	<.01 \pm <.01	0.03 \pm 0.01	0.02 \pm 0.01	0.02 \pm 0.01	0.01 \pm <.01	0.06 \pm 0.01
1989-90	0.27 \pm 0.08	0.06 \pm 0.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01	0.01 \pm <.01	0.02 \pm 0.01	<.01 \pm <.01	0.04 \pm 0.01
1990-91	0.18 \pm 0.05	0.06 \pm 0.02	0.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01	0.04 \pm 0.01
1991-92	0.13 \pm 0.03	0.09 \pm 0.03	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.01 \pm 0.01	0.02 \pm 0.01	0.01 \pm <.01	0.05 \pm 0.01
Black drum									
1974-76		0.01 \pm <.01	0.03 \pm 0.02	0.01 \pm <.01	0.03 \pm 0.03	0.05 \pm 0.02	0.02 \pm 0.01	0.03 \pm 0.02	0.02 \pm <.01
1976-77		0.07	0.04	0.12	0.02	0.03	0.04	0.02	0.05
1977-78		0.05	0.05	0.03	0.02	0.03	0.02	0.02	0.04
1978-79		0.05	0.03	0.02	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 <.01	0.05 \pm 0.03	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 <.01	0.01 \pm <.01	0.01 \pm 0.01	0.01 \pm <.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	0.02 \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 <.01	0.02 \pm 0.01	0.02 \pm 0.01	0.01 \pm <.01	0.01 \pm <.01	0.04 \pm 0.01
1983-84		0.01 \pm <.01	0.03 \pm 0.01	0.01 \pm <.01	0.02 \pm 0.01	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01
1984-85		0.02 \pm <.01	0.03 \pm 0.01	0.01 \pm <.01	0.01 \pm 0.01	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01
1985-86		0.01 \pm <.01	0.02 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	0.02 \pm 0.01	0.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01
1986-87		0.01 \pm <.01	0.02 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01
1987-88	0.02 \pm 0.01	0.02 \pm 0.01	0.02 \pm 0.01	0.02 \pm 0.02	0.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01
1988-89	0.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.01 \pm <.01	0.02 \pm 0.01	0.01 \pm <.01	0.01 \pm <.01

Table A.4. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Black drum (Cont'd.)									
1969-90	0.03 ± 0.01	0.02 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1990-91	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.02 ± <.01
1991-92	0.03 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01
Gafftopsail catfish									
1974-76		0.01 ± 0.01	0.03 ± 0.02	0.01 ± <.05	0.02 ± 0.02	0.01 ± 0.01	0.00	0.00	0.01 ± <.01
1976-77		0.02	0.12	0.02	0.01	0.03	0.00	<.01	0.02
1977-78		<.01	0.06	0.02	0.01	0.01	0.00	0.00	0.01
1978-79		0.02	0.05	0.01	0.02	0.02	<.01	<.01	0.02
1979-80		<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	0.00	0.01 ± <.01
1980-81		0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1981-82		<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01	0.01 ± 0.01	0.05 ± 0.04	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1982-83		<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1983-84		<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1984-85		<.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985-86		<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1986-87		<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1988-89	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1989-90	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1990-91	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1991-92	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
Red drum									
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	0.03	0.02	0.06	0.07	0.02	0.01	0.03	0.03
1978-79	0.02	0.02	0.04	0.09	0.01	0.02	0.01	0.02	0.02
1979-80	0.02 ± 0.01	0.02 ± 0.01	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	0.03 ± 0.01	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	0.02 ± 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	0.02 ± <.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

Table A.4. (Cont'd.)

Species Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Red drum (Cont'd.)											
1983-84		0.01 ± <.01	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		0.01 ± <.01
1984-85		0.01 ± <.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		0.02 ± <.01
1985-86		0.01 ± <.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		0.03 ± <.01
1986-87		0.02 ± <.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		0.04 ± <.01
1987-88	0.02 ± 0.01	0.02 ± <.01	0.04 ± 0.01	0.08 ± 0.03	0.04 ± 0.01	0.05 ± 0.01	0.03 ± 0.01	0.06 ± 0.01	0.04 ± <.01		0.04 ± <.01
1988-89	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.03 ± 0.01	0.02 ± <.01	0.06 ± 0.01	0.03 ± <.01		0.03 ± <.01
1989-90	0.02 ± 0.01	0.02 ± <.01	0.04 ± 0.01	0.08 ± 0.02	0.03 ± 0.01	0.04 ± 0.01	0.02 ± <.01	0.05 ± 0.01	0.03 ± <.01		0.03 ± <.01
1990-91	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.04 ± 0.01	0.03 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.02 ± <.01		0.02 ± <.01
1991-92	0.02 ± <.01	0.01 ± <.01	0.04 ± 0.01	0.06 ± 0.02	0.05 ± 0.01	0.04 ± 0.01	0.02 ± <.01	0.03 ± 0.01	0.03 ± <.01		0.03 ± <.01
Sand seatrout											
1974-76		0.25 ± 0.16	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	0.01	0.14	0.53	0.05	0.04	0.25		
1977-78		0.16	0.06	0.01	0.04	0.24	0.02	0.09	0.11		
1978-79		0.34	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	<.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	<.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	0.01 ± 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	0.02 ± 0.01	0.05 ± 0.01	0.26 ± 0.06	0.01 ± <.04	0.03 ± 0.01	0.10 ± 0.01		
1983-84		0.08 ± 0.04	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	0.02 ± 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	0.02 ± <.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	<.01 ± <.01	0.03 ± 0.01	0.05 ± 0.02	<.01 ± <.01	0.02 ± <.01	0.06 ± 0.01		
1987-88	0.06 ± 0.03	0.13 ± 0.04	<.01 ± <.01	<.01 ± <.01	0.04 ± 0.01	0.09 ± 0.05	<.01 ± <.01	0.01 ± <.01	0.06 ± 0.01		
1988-89	0.03 ± 0.01	0.11 ± 0.03	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.05 ± 0.02	0.01 ± <.01	<.01 ± <.01	0.05 ± 0.01		
1989-90	0.01 ± 0.01	0.12 ± 0.04	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.04 ± 0.01		
1990-91	0.11 ± 0.04	0.13 ± 0.04	0.01 ± 0.01	0.02 ± 0.01	0.04 ± 0.04	0.02 ± 0.01	0.04 ± 0.02	0.03 ± 0.01	0.07 ± 0.02		
1991-92	0.07 ± 0.03	0.14 ± 0.04	0.03 ± 0.01	0.01 ± 0.01	0.03 ± 0.01	0.08 ± 0.02	0.01 ± <.01	0.08 ± 0.03	0.08 ± 0.01		
Sheepshead											
1974-76		0.01 ± <.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		0.02 ± 0.01
1976-77		0.02	0.06	0.01	0.03	0.03	0.01	0.02	0.02		0.02

Table A.4. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Sheepshead (Cont'd.)									
1977-78		0.08	0.05	0.02	0.04	0.02	0.01	0.02	0.06
1978-79		0.02	0.05	0.01	0.02	0.03	0.01	0.03	0.02
1979-80		0.04 ± 0.03	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	0.01 ± <0.01	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	0.03 ± 0.01	0.06 ± 0.02	0.06 ± 0.02	0.01 ± <0.01	0.05 ± 0.03	0.03 ± 0.01
1982-83		0.03 ± 0.01	0.05 ± 0.02	0.02 ± 0.01	0.04 ± 0.02	0.15 ± 0.07	0.01 ± <0.01	0.03 ± 0.01	0.04 ± 0.01
1983-84		0.01 ± <0.01	0.03 ± 0.02	0.01 ± <0.01	0.03 ± 0.01	<0.01 ± <0.01	<0.01 ± <0.01	0.02 ± 0.01	0.02 ± <0.01
1984-85		0.02 ± <0.01	0.03 ± 0.01	0.01 ± <0.01	0.10 ± 0.07	0.01 ± <0.01	<0.01 ± <0.01	0.02 ± 0.01	0.02 ± 0.01
1985-86		0.01 ± <0.01	0.01 ± <0.01	0.02 ± 0.01	0.03 ± 0.01	<0.01 ± <0.01	<0.01 ± <0.01	<0.01 ± <0.01	0.01 ± <0.01
1986-87	<0.01 ± <0.01	<0.01 ± <0.01	0.02 ± 0.01	0.01 ± <0.01	0.07 ± 0.04	0.01 ± <0.01	<0.01 ± <0.01	<0.01 ± <0.01	0.01 ± <0.01
1987-88	<0.01 ± <0.01	0.01 ± <0.01	0.02 ± 0.01	<0.01 ± <0.01	0.04 ± 0.02	0.05 ± 0.03	<0.01 ± <0.01	0.01 ± 0.01	0.02 ± <0.01
1988-89	0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	<0.01 ± <0.01	0.02 ± 0.01	0.02 ± 0.01	<0.01 ± <0.01	<0.01 ± <0.01	0.01 ± <0.01
1989-90	0.01 ± <0.01	0.01 ± <0.01	<0.01 ± <0.01	<0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	<0.01 ± <0.01	0.01 ± 0.01	0.01 ± <0.01
1990-91	0.02 ± 0.01	0.01 ± <0.01	0.01 ± <0.01	<0.01 ± <0.01	0.04 ± 0.02	0.01 ± 0.01	0.01 ± <0.01	0.01 ± 0.01	0.02 ± <0.01
1991-92	0.01 ± <0.01	0.02 ± 0.01	0.01 ± <0.01	<0.01 ± <0.01	0.01 ± 0.01	0.02 ± 0.01	<0.01 ± <0.01	0.01 ± 0.01	0.01 ± <0.01
Southern flounder									
1974-76		0.03 ± 0.01	0.06 ± 0.03	0.03 ± 0.01	0.05 ± 0.02	0.01 ± 0.01	0.08 ± 0.03	<0.01 ± <0.01	0.04 ± 0.01
1976-77		0.03	0.06	0.03	0.02	0.04	0.01	0.01	0.02
1977-78		0.02	0.04	0.03	0.04	0.02	0.01	0.02	0.02
1978-79		0.02	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	0.01 ± 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	0.03 ± 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	0.02 ± 0.01	0.02 ± 0.01	0.06 ± 0.03	0.01 ± <0.01	0.03 ± 0.01	0.02 ± <0.01
1982-83		0.06 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.02	0.02 ± <0.01	0.02 ± <0.01	0.05 ± 0.01	0.04 ± 0.01
1983-84		0.03 ± 0.01	0.04 ± 0.01	0.01 ± <0.01	0.03 ± 0.02	0.03 ± 0.01	0.01 ± <0.01	0.02 ± <0.01	0.03 ± 0.01
1984-85		0.05 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.01 ± <0.01	0.02 ± <0.01	0.03 ± <0.01
1985-86		0.04 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± <0.01	0.08 ± 0.03	0.04 ± 0.01
1986-87		0.03 ± <0.01	0.02 ± 0.01	0.03 ± 0.01	0.01 ± <0.01	0.02 ± <0.01	0.03 ± <0.01	0.04 ± <0.01	0.03 ± <0.01
1987-88	0.09 ± 0.02	0.06 ± 0.02	0.02 ± 0.01	0.01 ± <0.01	0.01 ± <0.01	0.02 ± <0.01	0.01 ± <0.01	0.02 ± <0.01	0.03 ± <0.01
1988-89	0.06 ± 0.01	0.04 ± 0.01	0.03 ± 0.01	0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	0.03 ± <0.01
1989-90	0.05 ± 0.01	0.03 ± 0.01	0.01 ± <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

Table A.4. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Southern flounder (Cont'd.)									
1990-91	0.05 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	<.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.03 ± <.01
1991-92	0.06 ± 0.01	0.05 ± 0.01	0.02 ± 0.01	0.02 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	0.04 ± <.01
Spotted seatrout									
1974-76		0.22 ± 0.09	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	0.33	0.76	0.68	0.87	0.71	0.47
1977-78		0.15	0.26	0.20	0.62	0.69	0.25	0.42	0.27
1978-79		0.20	0.17	0.09	0.52	0.33	0.15	0.34	0.23
1979-80		0.06 ± 0.03	0.11 ± 0.05	0.53 ± 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	0.26 ± 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	0.34 ± 0.06	0.37 ± 0.08	0.41 ± 0.08	0.28 ± 0.07	0.45 ± 0.06	0.28 ± 0.03
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	0.16 ± 0.03	0.18 ± 0.06	0.14 ± 0.02	0.18 ± 0.04	0.21 ± 0.04	0.19 ± 0.03	0.15 ± 0.01
1988-89	0.10 ± 0.03	0.09 ± 0.02	0.14 ± 0.03	0.17 ± 0.03	0.13 ± 0.02	0.14 ± 0.04	0.26 ± 0.07	0.21 ± 0.03	0.14 ± 0.01
1989-90	0.09 ± 0.02	0.12 ± 0.02	0.08 ± 0.02	0.12 ± 0.02	0.07 ± 0.01	0.13 ± 0.03	0.13 ± 0.04	0.12 ± 0.02	0.11 ± 0.01
1990-91	0.05 ± 0.02	0.04 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.02	0.07 ± 0.02	0.06 ± 0.02	0.13 ± 0.03	0.05 ± 0.01
1991-92	0.04 ± 0.01	0.05 ± 0.01	0.21 ± 0.08	0.14 ± 0.04	0.10 ± 0.03	0.11 ± 0.02	0.20 ± 0.04	0.17 ± 0.04	0.10 ± 0.01
Other species									
1974-76		0.03 ± 0.02	0.01 ± 0.01	0.02 ± 0.01	0.01 ± <.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 ± <.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 ± <.01	0.01 ± <.01	0.03 ± 0.01
1982-83		0.05 ± 0.01	0.02 ± <.01	0.02 ± <.01	0.05 ± 0.01	0.10 ± 0.03	0.01 ± 0.01	0.02 ± <.01	0.04 ± <.01
1983-84		0.03	0.03	0.04	0.06	0.03	0.01	0.02	0.03

Table A.4. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Other species (Cont'd.)										
1984-85		0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
1985-86		0.04	0.03	0.04	0.01	0.02	0.02	0.01	0.02	0.02
1986-87		0.04	0.02	0.02	0.04	0.01	0.01	0.03	0.01	0.03
1987-88	0.03	0.06	0.03	<.01	0.08	0.02	0.01	0.02	0.02	0.04
1988-89	0.11	0.06	0.03	0.04	0.02	0.02	0.01	0.01	0.02	0.04
1989-90	0.05	0.06	0.03	0.07	0.04	0.01	0.02	0.02	0.02	0.04
1990-91	0.11	0.08	0.03	0.02	0.01	0.02	0.08	0.02	0.02	0.05
1991-92	0.02	0.05	0.03	0.03	0.02	0.01	0.02	0.02	0.02	0.03
All species combined*										
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	0.88 ± 0.18
1976-77		1.44	0.60	0.64	1.06	1.53	1.08	0.88	1.08	1.08
1977-78		0.93	0.62	0.39	0.85	1.14	0.44	0.63	0.63	0.78
1978-79		0.93	0.49	0.25	0.64	0.67	0.40	0.48	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	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	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	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	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	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	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	0.32 ± 0.04
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	0.38 ± 0.04
1987-88	0.64 ± 0.13	0.51 ± 0.09	0.33 ± 0.05	0.31 ± 0.10	0.38 ± 0.06	0.48 ± 0.10	0.30 ± 0.05	0.33 ± 0.04	0.43 ± 0.04	0.43 ± 0.04
1988-89	0.55 ± 0.13	0.42 ± 0.08	0.30 ± 0.05	0.30 ± 0.05	0.27 ± 0.04	0.30 ± 0.06	0.36 ± 0.08	0.32 ± 0.04	0.36 ± 0.03	0.36 ± 0.03
1989-90	0.53 ± 0.12	0.44 ± 0.08	0.20 ± 0.03	0.33 ± 0.07	0.16 ± 0.03	0.22 ± 0.04	0.22 ± 0.06	0.22 ± 0.03	0.30 ± 0.03	0.30 ± 0.03
1990-91	0.55 ± 0.11	0.39 ± 0.09	0.17 ± 0.04	0.13 ± 0.02	0.20 ± 0.07	0.20 ± 0.04	0.24 ± 0.08	0.25 ± 0.04	0.30 ± 0.04	0.30 ± 0.04
1991-92	0.38 ± 0.08	0.42 ± 0.08	0.36 ± 0.10	0.27 ± 0.06	0.25 ± 0.05	0.30 ± 0.05	0.32 ± 0.06	0.34 ± 0.09	0.35 ± 0.03	0.35 ± 0.03

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Table A.5. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by private-boat fishermen in Texas bays and passes by bay system, species and year (1974-1992). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Atlantic croaker									
1974-76		0.18 \pm 0.07	0.24 \pm 0.18	0.24 \pm 0.11	0.15 \pm 0.02	0.27 \pm 0.10	0.33 \pm 0.11	0.30 \pm 0.09	0.23 \pm 0.08
1976-77		0.23 \pm 0.08	0.14 \pm 0.03	0.26 \pm 0.03	0.22 \pm 0.07	0.26 \pm 0.08	0.24 \pm 0.10	0.48 \pm 0.16	0.24 \pm 0.04
1977-78		0.22 \pm 0.09	0.14 \pm 0.10	0.37 \pm 0.12	0.27 \pm 0.14	0.21 \pm 0.11	0.29 \pm 0.06	0.23 \pm 0.04	0.22 \pm 0.06
1978-79		0.18 \pm 0.14	0.18 \pm 0.14	0.23 \pm 0.03	0.12 \pm 0.03	0.26 \pm 0.10	0.35 \pm 0.18	0.25 \pm 0.09	0.22 \pm 0.14
1979-80		0.20 \pm 0.12	0.18 \pm 0.11	0.30 \pm 0.07	0.13 \pm 0.08	0.20 \pm 0.06	0.25 \pm 0.06	0.22 \pm 0.06	0.21 \pm 0.06
1980-81		0.21 \pm 0.09	0.16 \pm 0.03	0.24 \pm 0.12	0.29 \pm 0.07	0.30 \pm 0.08	0.27 \pm 0.09	0.21 \pm 0.05	0.23 \pm 0.06
1981-82		0.18 \pm 0.04	0.16 \pm 0.02	0.14 \pm 0.11	0.26 \pm 0.02	0.32 \pm 0.18	0.27 \pm 0.05	0.28 \pm 0.04	0.27 \pm 0.09
1982-83		0.21 \pm 0.04	0.16 \pm 0.02	0.22 \pm 0.05	0.27 \pm 0.07	0.34 \pm 0.09	0.30 \pm 0.06	0.27 \pm 0.09	0.26 \pm 0.04
1983-84		0.22 \pm 0.03	0.17 \pm 0.01	0.17 \pm 0.01	0.36 \pm 0.02	0.31 \pm 0.02	0.33 \pm 0.01	0.26 \pm 0.02	0.26 \pm 0.02
1984-85		0.18 \pm 0.02	0.14 \pm 0.01	0.15 \pm 0.03	0.23 \pm 0.02	0.21 \pm 0.02	0.21 \pm 0.04	0.17 \pm 0.01	0.18 \pm 0.02
1985-86		0.16 \pm 0.01	0.15 \pm 0.01	0.23 \pm 0.05	0.24 \pm 0.01	0.18 \pm 0.01	0.24 \pm 0.01	0.16 \pm 0.01	0.17 \pm 0.01
1986-87		0.21 \pm 0.02	0.14 \pm 0.04	0.14 \pm 0.04	0.29 \pm 0.01	0.18 \pm 0.02	0.27 \pm 0.01	0.22 \pm 0.02	0.21 \pm 0.01
1987-88	0.16 \pm <.01	0.21 \pm 0.01	0.16 \pm 0.01	0.15 \pm <.01	0.28 \pm 0.03	0.24 \pm 0.02	0.30 \pm 0.02	0.02 \pm 0.02	0.20 \pm 0.01
1988-89	0.19 \pm 0.01	0.20 \pm 0.02	0.15 \pm 0.01	0.19 \pm 0.03	0.33 \pm 0.02	0.33 \pm 0.02	0.39 \pm 0.02	0.19 \pm 0.03	0.21 \pm 0.01
1989-90	0.25 \pm 0.02	0.19 \pm 0.01	0.18 \pm 0.02	0.16 \pm 0.03	0.17 \pm 0.01	0.19 \pm 0.04	0.40 \pm 0.04	0.15 \pm 0.01	0.22 \pm 0.02
1990-91	0.18 \pm 0.02	0.20 \pm 0.03	0.18 \pm 0.01	0.17 \pm 0.02	0.21 \pm 0.03	0.16 \pm 0.02	0.20 \pm 0.02	0.19 \pm 0.02	0.19 \pm 0.01
1991-92	0.18 \pm 0.01	0.14 \pm 0.01	0.17 \pm 0.01	0.14 \pm 0.03	0.22 \pm 0.02	0.26 \pm 0.02	0.20 \pm 0.01	0.17 \pm 0.04	0.16 \pm 0.01
Black drum									
1974-76		2.19 \pm 3.20	0.91 \pm 0.33	1.16 \pm 0.89	0.70 \pm 0.30	6.64 \pm 7.16	2.28 \pm 2.15	2.56 \pm 2.73	2.02 \pm 1.00
1976-77		0.83 \pm 0.55	0.43 \pm 0.11	6.18 \pm 12.18	0.94 \pm 0.40	2.57 \pm 2.78	1.43 \pm 1.50	4.30 \pm 5.07	1.04 \pm 0.16
1977-78		1.25 \pm 1.06	0.99 \pm 1.43	1.10 \pm 0.79	0.59 \pm 0.42	3.66 \pm 4.76	1.30 \pm 0.78	4.88 \pm 5.02	2.03 \pm 1.22
1978-79		4.22 \pm 10.20	1.65 \pm 1.30	5.94 \pm 5.92	0.44 \pm 0.16	1.77 \pm 1.14	2.50 \pm 1.71	7.24 \pm 8.50	4.18 \pm 4.56
1979-80		0.42 \pm 0.10	0.48 \pm 0.30	3.55 \pm 5.08	0.50 \pm 0.12	4.58 \pm 6.39	1.37 \pm 0.89	0.51 \pm 0.55	1.71 \pm 1.72
1980-81		2.63 \pm 5.16	0.38 \pm 0.22	0.92 \pm 1.04	0.50 \pm 0.08	0.70 \pm 0.36	0.70 \pm 0.18	0.51 \pm 0.27	1.17 \pm 1.51
1981-82		0.53 \pm 0.22	0.51 \pm 0.18	0.48 \pm 0.29	0.63 \pm 0.34	0.60 \pm 0.20	0.91 \pm 0.26	1.29 \pm 0.85	0.67 \pm 0.18
1982-83		1.63 \pm 1.67	0.42 \pm 0.16	3.57 \pm 3.57	0.46 \pm 0.14	0.81 \pm 2.28	1.05 \pm 0.37	0.99 \pm 0.51	1.47 \pm 0.72
1983-84		2.18 \pm 0.95	1.05 \pm 0.27	0.84 \pm 0.05	0.92 \pm 0.10	0.92 \pm 0.10	1.11 \pm 0.14	0.98 \pm 0.25	1.38 \pm 0.44
1984-85		1.82 \pm 0.32	1.99 \pm 0.88	0.46 \pm 0.10	0.69 \pm 0.10	0.84 \pm 0.07	0.69 \pm 0.11	1.51 \pm 0.65	1.59 \pm 0.44
1985-86		3.81 \pm 1.54	3.56 \pm 2.08	0.88 \pm 0.45	0.85 \pm 0.10	2.71 \pm 1.54	0.79 \pm 0.09	0.72 \pm 0.17	2.71 \pm 1.23
1986-87		1.79 \pm 0.57	1.59 \pm 0.58	1.09 \pm 0.28	1.27 \pm 0.37	0.74 \pm 0.10	1.25 \pm 0.34	0.99 \pm 0.38	1.53 \pm 0.50
1987-88	1.29 \pm 0.18	2.69 \pm 1.41	0.85 \pm 0.14	1.30 \pm 0.29	1.44 \pm 0.32	1.04 \pm 0.23	0.78 \pm 0.12	1.64 \pm 0.34	1.85 \pm 0.45

Table A.5. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Black drum (Cont'd.)									
1988-89	2.23 ± 0.33	0.92 ± 0.14	1.18 ± 0.15	1.32 ± 0.06	1.42 ± 0.25	0.73 ± 0.13	0.77 ± 0.09	1.12 ± 0.08	1.05 ± 0.12
1989-90	1.20 ± 1.28	0.86 ± 0.08	1.47 ± 0.26	1.11 ± 0.08	1.14 ± 0.13	1.47 ± 0.12	1.13 ± 0.12	1.03 ± 0.12	1.09 ± 0.12
1990-91	1.25 ± 0.09	0.96 ± 8.66	1.28 ± 0.13	1.83 ± 0.31	1.69 ± 0.24	1.38 ± 0.09	1.60 ± 0.31	1.38 ± 0.16	1.33 ± 2.23
1991-92	1.16 ± 0.09	1.36 ± 0.20	1.32 ± 0.16	1.64 ± 0.37	1.34 ± 0.08	1.09 ± 0.08	1.19 ± 0.16	1.38 ± 0.17	1.29 ± 0.05
Gafftopsail catfish									
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
1976-77		1.90 ± 0.64	1.55 ± 0.32	1.38 ± 0.20	1.47 ± 0.27	1.30 ± 0.43		0.22 ± <.01	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
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
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
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
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
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	1.17 ± 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	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	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	1.01 ± 0.12
1987-88	0.86 ± 0.17	1.29 ± 0.21	1.18 ± 0.06	1.06 ± 0.10	1.61 ± 0.10	1.73 ± 0.11		0.43 ± 0.01	1.28 ± 0.07
1988-89	1.09 ± 0.10	1.05 ± 0.13	1.11 ± 0.10	1.54 ± 0.10	1.39 ± 0.21	1.48 ± 0.24	0.63	0.34	1.18 ± 0.07
1989-90	0.45 ± 0.08	1.05 ± 0.07	1.37 ± 0.13	1.29 ± 0.11	1.91 ± 0.25	1.31 ± 0.21			1.40 ± 0.16
1990-91	1.05 ± 0.19	1.01 ± 0.25	1.24 ± 0.12	1.30 ± 0.09	1.23 ± 0.14	1.66 ± 0.17	1.57 ± 0.24	0.52	1.23 ± 0.09
1991-92	0.91 ± 0.10	0.79 ± 0.08	1.37 ± 0.17	1.23 ± 0.16	1.57 ± 0.18	1.27 ± 0.15	1.69 ± 0.00	0.64 ± 0.48	1.13 ± 0.14
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	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	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	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	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	0.74 ± 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	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	1.25 ± 0.17

Table A.5. (Cont'd.)

Species	Year	Bay system											
		Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide			
Spad drum (Cont'd.)													
	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	1.51 ± 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	1.60 ± 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	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	1.87 ± 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	1.90 ± 0.08			
	1987-88	1.83 ± 0.10	2.33 ± 0.20	2.05 ± 0.08	1.89 ± 0.05	2.21 ± 0.09	2.01 ± 0.08	1.93 ± 0.05	2.12 ± 0.03	2.07 ± 0.06			
	1988-89	2.29 ± 0.09	2.11 ± 0.14	4.00 ± 1.96	1.95 ± 0.04	2.26 ± 0.08	2.12 ± 0.04	2.31 ± 0.06	2.21 ± 0.04	2.39 ± 0.22			
	1989-90	2.00 ± 0.10	1.97 ± 0.06	2.01 ± 0.07	2.04 ± 0.04	2.41 ± 0.05	2.30 ± 0.06	2.40 ± 0.07	2.73 ± 0.45	2.25 ± 0.11			
	1990-91	2.22 ± 0.19	2.36 ± 0.13	2.49 ± 0.07	2.39 ± 0.07	2.31 ± 0.05	2.31 ± 0.05	2.58 ± 0.10	2.41 ± 0.04	2.36 ± 0.03			
	1991-92	2.37 ± 0.10	2.40 ± 0.31	2.22 ± 0.08	2.03 ± 0.05	2.30 ± 0.04	2.15 ± 0.06	2.11 ± 0.06	2.20 ± 0.05	2.22 ± 0.04			
Ind 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 ± 0.09			
	1976-77		0.36 ± 0.12	0.24 ± 0.05	0.22 ± <0.1	0.21 ± 0.01	0.33 ± 0.14	0.25 ± 0.06	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	0.35 ± 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	0.29 ± 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	0.23 ± 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	0.26 ± 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	0.28 ± 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	0.26 ± 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	0.28 ± 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	0.23 ± 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	0.24 ± 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			
	1987-88	0.25 ± 0.02	0.26 ± 0.01	0.22 ± 0.01	0.22 ± 0.01	0.23 ± 0.02	0.21 ± 0.01	0.38 ± 0.07	0.29 ± 0.02	0.25 ± 0.01			
	1988-89	0.24 ± 0.02	0.30 ± 0.01	0.25 ± 0.02	0.27 ± 0.01	0.25 ± 0.04	0.27 ± 0.04	0.37 ± 0.07	0.22 ± 0.03	0.29 ± 0.01			
	1989-90	0.23 ± 0.01	0.21 ± 0.01	0.25 ± 0.03	0.20 ± 0.02	0.22 ± 0.04	0.26 ± 0.04	0.31 ± 0.04	0.30 ± 0.02	0.22 ± <.01			
	1990-91	0.21 ± 0.01	0.27 ± 0.02	0.24 ± 0.01	0.24 ± 0.02	0.27 ± 0.01	0.26 ± 0.02	0.30 ± 0.01	0.26 ± 0.02	0.26 ± 0.01			
	1991-92	0.24 ± 0.01	0.25 ± 0.01	0.23 ± 0.02	0.27 ± 0.05	0.24 ± 0.01	0.25 ± 0.01	0.44 ± 0.03	0.29 ± 0.01	0.26 ± <.01			

Table A.5. (Cont'd.)

Species	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Sheepshead											
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
1987-88	0.80 ± 0.10	1.09 ± 0.03	0.94 ± 0.07	1.08 ± 0.09	1.01 ± 0.06	1.11 ± 0.02	1.66 ± 0.37	0.79 ± 0.06	1.03 ± 0.04		
1988-89	1.16 ± 0.08	1.18 ± 0.06	1.12 ± 0.13	1.13 ± 0.11	1.23 ± 0.04	1.13 ± 0.07	1.47 ± 0.28	1.20 ± 0.13	1.17 ± 0.02		
1989-90	1.24 ± 0.12	1.21 ± 0.01	1.11 ± 0.10	1.10 ± 0.10	1.09 ± 0.05	1.01 ± 0.05	1.62 ± 0.15	1.03 ± 0.09	1.13 ± 0.04		
1990-91	1.04 ± 0.13	1.18 ± 0.07	1.10 ± 0.10	1.17 ± 0.11	1.19 ± 0.05	1.07 ± 0.07	1.73 ± 0.19	1.09 ± 0.21	1.16 ± 0.03		
1991-92	1.04 ± 0.07	1.09 ± 0.07	1.15 ± 0.09	2.24 ± 0.25	1.33 ± 0.04	1.13 ± 0.04	1.63 ± 0.17	1.21 ± 0.11	1.15 ± 0.04		
Southern flounder											
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
1987-88	0.40 ± 0.01	0.62 ± 0.07	0.54 ± 0.03	0.63 ± 0.03	0.46 ± 0.03	0.50 ± 0.03	0.92 ± 0.04	0.80 ± 0.04	0.59 ± 0.04		

Table A.5. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aranzas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Southern flounder (Cont'd.)									
1988-89	0.51 ± 0.02	0.64 ± 0.02	0.60 ± 0.03	0.71 ± 0.04	0.57 ± 0.02	0.67 ± 0.03	0.79 ± 0.04	0.67 ± 0.04	0.62 ± 0.02
1989-90	0.62 ± 0.03	0.59 ± 0.02	0.65 ± 0.03	0.71 ± 0.03	0.67 ± 0.03	0.70 ± 0.04	0.81 ± 0.03	0.69 ± 0.04	0.64 ± 0.03
1990-91	0.56 ± 0.03	0.67 ± 0.04	0.17 ± 0.03	0.69 ± 0.09	0.65 ± 0.04	0.68 ± 0.04	0.73 ± 0.09	0.73 ± 0.04	0.66 ± 0.02
1991-92	0.56 ± 0.01	0.66 ± 0.03	0.74 ± 0.06	0.64 ± 0.03	0.63 ± 0.02	0.65 ± 0.02	0.74 ± 0.02	0.62 ± 0.02	0.65 ± 0.02
Spotted seatrout									
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
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
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
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
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
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
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
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	0.71 ± 0.04	0.84 ± 0.03	0.68 ± 0.02	0.68 ± 0.01	0.71 ± 0.02	0.77 ± 0.07	0.82 ± 0.02	0.79 ± 0.02	0.77 ± 0.03
1988-89	0.80 ± 0.04	0.82 ± 0.02	0.75 ± 0.02	0.68 ± 0.01	0.70 ± 0.02	0.67 ± 0.01	0.81 ± 0.02	0.80 ± 0.01	0.76 ± 0.02
1989-90	0.68 ± 0.03	0.74 ± 0.03	0.75 ± 0.03	0.72 ± 0.02	0.75 ± 0.02	0.78 ± 0.02	0.88 ± 0.02	0.75 ± 0.02	0.76 ± 0.02
1990-91	0.73 ± 0.03	0.76 ± 0.03	0.77 ± 0.02	0.75 ± 0.03	0.81 ± 0.03	0.77 ± 0.02	0.89 ± 0.03	0.78 ± 0.02	0.78 ± 0.01
1991-92	0.67 ± 0.02	0.81 ± 0.04	0.76 ± 0.02	0.73 ± 0.02	0.77 ± 0.02	0.77 ± 0.02	0.81 ± 0.02	0.83 ± 0.02	0.78 ± 0.01
All species combined ^a									
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

Table A.5. (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*										
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	0.41 ± 0.03	0.70 ± 0.09	0.86 ± 0.04	0.96 ± 0.05	0.90 ± 0.07	0.77 ± 0.06	0.89 ± 0.03	1.05 ± 0.03	0.77 ± 0.06	
1988-89	0.56 ± 0.04	0.61 ± 0.05	1.22 ± 0.27	0.91 ± 0.03	1.02 ± 0.06	0.83 ± 0.05	0.90 ± 0.02	1.04 ± 0.03	0.78 ± 0.10	
1989-90	0.55 ± 0.04	0.55 ± 0.04	1.19 ± 0.05	1.15 ± 0.04	1.16 ± 0.07	1.05 ± 0.05	0.98 ± 0.03	1.29 ± 0.14	0.80 ± 0.15	
1990-91	0.46 ± 0.05	1.30 ± 0.69	1.14 ± 0.08	1.34 ± 0.10	1.23 ± 0.08	1.15 ± 0.06	0.95 ± 0.09	1.24 ± 0.12	1.12 ± 0.14	
1991-92	0.54 ± 0.03	0.48 ± 0.04	0.91 ± 0.05	1.03 ± 0.06	1.15 ± 0.08	0.85 ± 0.06	0.86 ± 0.03	0.91 ± 0.05	0.72 ± 0.12	

*Includes "other" species.

Table A.6. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by private-boat fishermen in Texas bays and passes by bay system, species and year (1983-1992). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Atlantic croaker											
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	230 \pm 2	247 \pm 5	230 \pm 5	228 \pm 3	270 \pm 11	259 \pm 6	279 \pm 7	247 \pm 5			246 \pm 4
1988-89	240 \pm 4	247 \pm 6	222 \pm 7	236 \pm 16	287 \pm 4	289 \pm 6	298 \pm 7	240 \pm 13			249 \pm 5
1989-90	262 \pm 7	240 \pm 3	235 \pm 8	230 \pm 12	235 \pm 3	239 \pm 15	302 \pm 8	225 \pm 4			251 \pm 8
1990-91	238 \pm 6	242 \pm 10	242 \pm 4	234 \pm 9	247 \pm 11	227 \pm 12	246 \pm 7	240 \pm 8			240 \pm 1
1991-92	236 \pm 5	222 \pm 5	235 \pm 6	216 \pm 16	255 \pm 6	270 \pm 6	245 \pm 6	228 \pm 17			229 \pm 5
Black drum											
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	407 \pm 18	484 \pm 99	358 \pm 19	414 \pm 29	433 \pm 33	383 \pm 29	358 \pm 12	450 \pm 44			436 \pm 27
1988-89	489 \pm 21	371 \pm 15	408 \pm 19	451 \pm 7	442 \pm 23	357 \pm 20	365 \pm 11	418 \pm 8			391 \pm 13
1989-90	412 \pm 26	378 \pm 12	441 \pm 21	422 \pm 11	419 \pm 15	459 \pm 12	420 \pm 14	410 \pm 12			407 \pm 14
1990-91	429 \pm 10	409 \pm 37	432 \pm 15	477 \pm 34	471 \pm 21	452 \pm 9	462 \pm 31	449 \pm 14			441 \pm 5
1991-92	418 \pm 10	423 \pm 19	428 \pm 13	465 \pm 30	445 \pm 7	416 \pm 9	420 \pm 17	446 \pm 17			426 \pm 3
Gafftopsail catfish											
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	430 \pm 30	499 \pm 30	489 \pm 9	474 \pm 14	543 \pm 13	556 \pm 13		366 \pm 4			498 \pm 10
1988-89	471 \pm 13	471 \pm 16	475 \pm 17	533 \pm 14	489 \pm 22	519 \pm 38		341			483 \pm 8
1989-90	365 \pm 21	467 \pm 9	512 \pm 17	501 \pm 13	574 \pm 29	505 \pm 29	412				512 \pm 20
1990-91	453 \pm 30	458 \pm 38	494 \pm 18	501 \pm 11	496 \pm 18	546 \pm 22	540 \pm 30	386			489 \pm 13
1991-92	448 \pm 15	425 \pm 15	508 \pm 22	497 \pm 22	528 \pm 24	491 \pm 19	551 \pm 0	366 \pm 93			475 \pm 20

Table A.6. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Red drum									
1983-84		536 ± 22	513 ± 7	501 ± 7	497 ± 7	490 ± 9	516 ± 7	510 ± 7	509 ± 9
1984-85		555 ± 13	572 ± 10	533 ± 11	528 ± 11	524 ± 10	537 ± 13	563 ± 6	546 ± 10
1985-86		567 ± 19	562 ± 9	543 ± 6	544 ± 5	531 ± 6	537 ± 3	553 ± 5	548 ± 7
1986-87		561 ± 12	524 ± 5	517 ± 6	565 ± 8	551 ± 7	536 ± 7	561 ± 4	550 ± 7
1987-88	545 ± 10	583 ± 16	565 ± 7	554 ± 5	579 ± 8	562 ± 7	555 ± 5	574 ± 3	567 ± 4
1988-89	589 ± 8	570 ± 12	575 ± 15	560 ± 4	586 ± 7	574 ± 4	591 ± 5	583 ± 3	578 ± 3
1989-90	565 ± 9	564 ± 6	568 ± 6	571 ± 4	603 ± 4	593 ± 5	599 ± 6	594 ± 4	582 ± 6
1990-91	584 ± 8	597 ± 12	609 ± 6	601 ± 5	595 ± 4	594 ± 5	614 ± 8	603 ± 3	598 ± 2
1991-92	596 ± 10	582 ± 22	584 ± 8	570 ± 5	592 ± 3	579 ± 5	576 ± 5	584 ± 4	584 ± 3
Sand seatrout									
1983-84		281 ± 4	287 ± 10	291 ± 11	287 ± 8	304 ± 7	317 ± 4	298 ± 6	290 ± 6
1984-85		272 ± 8	284 ± 5	296 ± 13	281 ± 4	276 ± 5	292 ± 5	288 ± 4	275 ± 7
1985-86		276 ± 4	266 ± 5	280 ± 6	283 ± 9	249 ± 5	298 ± 7	286 ± 4	278 ± 5
1986-87		283 ± 4	285 ± 11	281 ± 9	280 ± 6	278 ± 3	297 ± 12	281 ± 4	282 ± 5
1987-88	282 ± 7	286 ± 2	274 ± 4	273 ± 4	274 ± 7	268 ± 4	319 ± 20	297 ± 6	283 ± 4
1988-89	277 ± 6	299 ± 5	284 ± 6	290 ± 3	278 ± 10	285 ± 13	317 ± 20	272 ± 12	295 ± 4
1989-90	270 ± 7	269 ± 4	285 ± 10	263 ± 10	269 ± 15	283 ± 17	302 ± 11	301 ± 8	270 ± 2
1990-91	270 ± 2	290 ± 8	282 ± 2	279 ± 7	290 ± 2	286 ± 7	302 ± 4	287 ± 6	287 ± 3
1991-92	280 ± 4	284 ± 4	276 ± 7	289 ± 18	280 ± 6	282 ± 4	339 ± 8	298 ± 5	284 ± 1
Sheepshead									
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	350 ± 15	391 ± 4	370 ± 10	388 ± 12	379 ± 8	394 ± 3	445 ± 35	394 ± 8	382 ± 7
1988-89	402 ± 10	401 ± 8	389 ± 15	391 ± 13	409 ± 4	398 ± 9	426 ± 36	402 ± 16	402 ± 3
1989-90	408 ± 16	404 ± 10	392 ± 13	392 ± 12	391 ± 6	384 ± 6	452 ± 18	383 ± 12	394 ± 4
1990-91	379 ± 20	399 ± 9	391 ± 12	400 ± 12	406 ± 7	390 ± 9	461 ± 18	391 ± 23	399 ± 4
1991-92	382 ± 10	388 ± 8	397 ± 11	503 ± 15	421 ± 5	399 ± 4	454 ± 18	405 ± 13	397 ± 6

Table A.6. (Cont'd.)

Species Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Southern flounder											
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	350 ± 7	367 ± 7	328 ± 7	340 ± 5	413 ± 5	398 ± 6			358 ± 9
1988-89	346 ± 4	372 ± 4	365 ± 6	383 ± 7	361 ± 5	377 ± 6	394 ± 7	377 ± 6			367 ± 5
1989-90	369 ± 5	365 ± 5	376 ± 6	387 ± 4	380 ± 4	386 ± 7	403 ± 5	383 ± 7			373 ± 5
1990-91	357 ± 4	377 ± 7	387 ± 5	377 ± 16	374 ± 6	381 ± 6	385 ± 14	388 ± 8			375 ± 4
1991-92	358 ± 2	377 ± 6	390 ± 9	374 ± 6	374 ± 4	377 ± 3	392 ± 3	371 ± 4			375 ± 3
Spotted seatrout											
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 ± 2			421 ± 4
1987-88	410 ± 8	438 ± 4	410 ± 3	411 ± 3	414 ± 4	423 ± 9	431 ± 4	427 ± 2			424 ± 4
1988-89	430 ± 6	433 ± 3	421 ± 4	411 ± 2	412 ± 3	408 ± 2	427 ± 3	429 ± 2			423 ± 4
1989-90	409 ± 5	420 ± 5	422 ± 4	418 ± 3	421 ± 3	425 ± 3	439 ± 3	423 ± 3			423 ± 2
1990-91	420 ± 6	426 ± 5	430 ± 4	425 ± 5	434 ± 5	428 ± 3	448 ± 5	428 ± 3			429 ± 2
1991-92	409 ± 4	434 ± 7	427 ± 3	422 ± 3	428 ± 3	427 ± 4	434 ± 3	438 ± 3			429 ± 2

Table A.7. Percent composition of "other" species caught by private-boat fishermen in Texas bays and passes by bay system (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Bay system											Coastwide*			
		Sabine Lake		Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre					
Alligator gar	<i>Lepisosteus spatula</i>	0.08				0.04	0.08									0.21
Atlantic cutlassfish	<i>Trichiurus lepturus</i>		0.13								0.08		0.08			0.34
Atlantic needlefish	<i>Strongylura marina</i>															0.04
Atlantic sharpnose shark	<i>Rhizoprionodon terraenovae</i>	0.21		0.08	0.29	0.97	0.29					0.08	0.04			1.90
Atlantic stingray	<i>Dasyatis sabina</i>			0.04	0.08	0.21						0.04	0.13			0.67
Bighead searobin	<i>Prionotus tribulus</i>			0.04		0.80	0.04									0.08
Blacktip shark	<i>Carcharhinus limbatus</i>	0.72		0.25	1.47							0.17		0.04		3.46
Blackwing searobin	<i>Prionotus rubio</i>															0.04
Blue catfish	<i>Ictalurus furcatus</i>	1.56	11.04		0.93	1.39										14.92
Bluefish	<i>Pomatomus saltatrix</i>	0.04	0.42		0.21	0.17	0.04					0.17	0.08	0.34		1.47
Bonnethead	<i>Sphyrna tiburo</i>			0.04	1.22	0.97						0.04				2.23
Bony fish sp.	Class Osteichthyes															0.04
Bull shark	<i>Carcharhinus leucas</i>				0.08	0.13										0.46
Channel catfish	<i>Ictalurus punctatus</i>	0.51	2.32													2.82
Cobia	<i>Rachycentron canadum</i>															0.04
Comb grouper	<i>Myxeroperca rubra</i>															0.04
Cownose ray	<i>Rhinoptera bonasus</i>				0.04											0.04
Crevalle jack	<i>Caranx hippos</i>	0.04	0.13		0.13	0.17	0.08					0.08				0.63
Dolphin	<i>Coryphaena hippurus</i>															0.08
Drum sp.	Family Sciaenidae		0.67													0.67
Finetooth shark	<i>Carcharhinus isodon</i>					0.29										0.29
Flathead catfish	<i>Pylodictis olivaris</i>	0.08	0.13			0.04										0.25
Florida pompano	<i>Trachinotus carolinus</i>			0.08	0.17	0.25						0.08		0.04		0.63
Freshwater drum	<i>Aplodinotus grunniens</i>	0.17	0.21													0.38
Gag	<i>Myxeroperca microlepis</i>															0.13
Gray triggerfish	<i>Balistes capriscus</i>						0.72									0.76
Gulf flounder	<i>Paralichthys albigutta</i>				0.13	0.25	1.43				0.97		1.60			6.53
Gulf kingfish	<i>Menticirrhus littoralis</i>		0.13			0.17							0.08			0.42
Gulf toadfish	<i>Opsanus beta</i>		0.04			0.04										0.08
Hammerhead shark sp.	Family Sphyrnidae															0.08
Hardhead catfish	<i>Arius felis</i>	4.00	4.68		1.81	1.39	0.55				0.67		0.80			14.66

Table A.7. (Cont'd.)

Common name	Scientific name	Bay system										Coastwide*	
		Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre				
Inshore lizardfish	<i>Synodus foetens</i>											0.04	0.04
King mackerel	<i>Scomberomorus cavalla</i>					0.38				0.63		0.04	0.25
Ladyfish	<i>Elops saurus</i>	0.04	0.80	0.13	0.34	0.21				0.59	0.25	0.08	0.08
Lane snapper	<i>Lutjanus synagris</i>				0.08	0.04							
Largemouth bass	<i>Micropterus salmoides</i>	0.29											
Lemon shark	<i>Negaprion brevirostris</i>				0.08								
Little tunny	<i>Euthynnus alletteratus</i>				0.21					0.17		0.04	
Longnose gar	<i>Lepisosteus osseus</i>	0.04											
Northern kingfish	<i>Menticirrhus saxatilis</i>				0.13								
Ocellated flounder	<i>Ancylorsetta quadricellata</i>				0.13								
Pigfish	<i>Orthopristis chrysoptera</i>	0.88	1.90	0.29	0.08	0.29				0.76	0.42	0.59	5.23
Pinfish	<i>Lagodon rhomboides</i>	0.04	1.22			0.38				0.42	4.55	0.08	6.70
Red snapper	<i>Lutjanus campechanus</i>	0.59	0.04	0.04	0.13	0.17				0.08		0.34	1.35
Requiem shark sp.	Family Carcharhinidae				0.34	0.04							0.46
Roughtail stingray	<i>Dasyatis centroura</i>	0.04											0.04
Scalloped hammerhead	<i>Sphyrna lewini</i>			0.04									0.04
Shark sp.	Order Lamniformes/Squaliformes		0.08										0.04
Silver perch	<i>Bairdella chrysoura</i>	0.13	0.76	0.67	0.04	0.13				0.97	0.04	0.04	0.08
Silver seatrout	<i>Cynoscion nothus</i>				2.15	0.13				0.04			2.78
Smallmouth bass	<i>Micropterus dolomieu</i>	0.04											2.32
Smooth puffer	<i>Lagocephalus laevis</i>										0.04		0.04
Southern kingfish	<i>Menticirrhus americanus</i>		5.35	2.65	1.10	0.13				0.55	0.08	3.46	0.04
Southern stingray	<i>Dasyatis americana</i>			0.08									13.32
Spanish mackerel	<i>Scomberomorus maculatus</i>	0.88	2.02	0.42	1.31	1.31				0.63		0.13	0.08
Spinner shark	<i>Carcharhinus brevipinna</i>		0.13		0.08	0.04							0.25
Spot	<i>Leiostomus xanthurus</i>											0.04	0.04
Stingray sp.	Family Dasyatidae									0.04			0.04
Striped bass	<i>Morone saxatilis</i>		0.08										0.08
Striped mullet	<i>Mugil cephalus</i>											0.04	0.04
Temperate bass sp.	Family Percichthyidae		0.25										0.25
Tripletail	<i>Lobotes surinamensis</i>					0.08							0.08
Warsaw grouper	<i>Epinephelus nigritus</i>											0.04	0.04
White bass	<i>Morone chrysops</i>		0.38									0.04	0.08
Yellow bullhead	<i>Ameiurus natalis</i>	0.04											0.04

*Due to rounding of numbers, coastwide percentages may not exactly equal sum of bay system percentages.

Table A.8. Residential origin (%) of private-boat fishermen in Texas bays and passes by bay system and year (1974-1992).

Bay System Year ^a	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88	94	3	2	1
1988-89	93	3	2	2
1989-90	95	3	1	1
1990-91	92	4	2	2
1991-92	93	3	3	1
Galveston				
1974-76	85	9	4	2
1976-77	91	6	3	0
1977-78	95	4	1	0
1978-79	96	0	2	0
1979-80	96	1	3	0
1980-81	98	1	1	0
1981-82	91	5	4	0
1982-83	94	3	3	0
1983-84	94	3	3	0
1984-85	92	3	5	1
1985-86	92	4	3	1
1986-87	89	7	3	1
1987-88	93	3	3	1
1988-89	94	2	3	1
1989-90	91	4	4	1
1990-91	94	2	2	2
1991-92	93	3	3	1
Matagorda				
1974-76	41	45	14	0
1976-77	49	38	13	1
1977-78	45	32	22	1
1978-79	50	27	21	0
1979-80	51	24	25	0
1980-81	51	25	24	0
1981-82	60	22	17	0
1982-83	55	25	19	1
1983-84	53	26	20	1
1984-85	47	25	26	1
1985-86	52	25	21	1

Table A.8. (Cont'd.)

Bay System Year*	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Matagorda (Cont'd.)				
1986-87	51	25	23	1
1987-88	49	28	22	1
1988-89	47	23	29	1
1989-90	51	27	21	1
1990-91	45	31	22	2
1991-92	51	27	21	1
San Antonio				
1974-76	45	25	29	1
1976-77	46	32	22	0
1977-78	40	29	31	1
1978-79	34	35	29	0
1979-80	40	25	35	0
1980-81	42	29	28	1
1981-82	45	27	28	1
1982-83	45	31	23	1
1983-84	41	34	24	2
1984-85	41	30	28	1
1985-86	45	28	26	0
1986-87	51	25	23	1
1987-88	49	26	24	1
1988-89	45	26	27	1
1989-90	43	32	24	1
1990-91	46	29	24	1
1991-92	49	28	23	0
Arkansas				
1974-76	26	9	47	18
1976-77	20	14	61	5
1977-78	22	21	52	6
1978-79	27	16	52	3
1979-80	39	16	42	3
1980-81	32	10	46	13
1981-82	25	14	45	16
1982-83	25	16	46	13
1983-84	23	15	51	11
1984-85	18	22	45	15

Table A.8. (Cont'd.)

Bay System Year ^a	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Arkansas (Cont'd.)				
1985-86	27	18	44	11
1986-87	22	19	46	13
1987-88	22	20	47	11
1988-89	23	20	48	9
1989-90	24	19	48	9
1990-91	24	25	40	11
1991-92	26	18	44	12
Corpus Christi				
1974-76	76	2	14	8
1976-77	66	3	23	8
1977-78	67	4	25	5
1978-79	63	3	23	9
1979-80	60	4	30	6
1980-81	50	2	30	17
1981-82	60	3	28	10
1982-83	53	4	36	8
1983-84	55	5	31	9
1984-85	54	6	31	9
1985-86	50	6	39	5
1986-87	58	4	33	5
1987-88	54	6	31	9
1988-89	53	6	35	6
1989-90	54	7	32	7
1990-91	58	7	30	5
1991-92	52	8	34	6
Upper Laguna Madre				
1974-76	74	2	20	4
1976-77	67	8	24	1
1977-78	71	6	21	2
1978-79	60	7	32	0
1979-80	69	6	23	3
1980-81	63	8	27	1
1981-82	69	10	19	3
1982-83	71	8	20	1
1983-84	69	10	19	2

Table A.8. (Cont'd.)

Bay System Year*	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Upper Laguna Madre (Cont'd.)				
1984-85	71	7	19	3
1985-86	72	8	17	3
1986-87	70	8	19	2
1987-88	70	10	18	2
1988-89	69	10	19	2
1989-90	67	10	21	2
1990-91	74	6	19	1
1991-92	74	8	15	2
Lower Laguna Madre				
1974-76	80	6	10	4
1976-77	83	4	7	5
1977-78	79	5	13	3
1978-79	79	5	12	2
1979-80	87	1	8	4
1980-81	80	4	9	8
1981-82	79	5	11	5
1982-83	75	6	11	7
1983-84	73	9	13	5
1984-85	68	10	16	6
1985-86	71	10	13	6
1986-87	70	10	14	6
1987-88	70	10	15	4
1988-89	66	13	18	4
1989-90	67	13	15	5
1990-91	66	13	17	4
1991-92	65	13	15	7
Coastwide				
1974-76	60	14	22	5
1976-77	66	12	19	3
1977-78	64	14	20	2
1978-79	63	14	20	1
1979-80	63	12	23	2
1980-81	61	12	22	5

Table A.8. (Cont'd.)

Bay System Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Coastwide (Cont'd.)				
1981-82	62	11	22	5
1982-83	62	13	21	4
1983-84	60	14	22	4
1984-85	59	14	22	5
1985-86	60	13	23	4
1986-87	61	13	22	4
1987-88	63	13	20	4
1988-89	61	13	23	3
1989-90	61	14	22	4
1990-91	61	15	20	4
1991-92	62	13	21	4

*Prior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

APPENDIX B: Total number of recreational fishing licenses sold in Texas.

Table B.1. Total number of recreational fishing licenses sold in Texas by fiscal year (1956-1992).

Fiscal year ^a (1 Sept-31 Aug)	Type of license										Total
	Resident fishing	Special resident fishing ^b	3-Day saltwater sportfishing ^c	14-Day resident sportfishing	Non-resident fishing	5-Day non-resident sportfishing	Resident combination hunting and fishing				
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										1,494,700
1972	1,551,143										1,551,143
1973	1,615,688										1,615,688
1974	1,168,512		28,383								1,614,059
1975	1,107,037	3	28,754								1,602,456
1976	1,089,827	2	33,863								1,565,767
1977	1,177,953	4	35,045								1,643,730
1978	857,978	1,208	62,236		30,492	40,366					1,440,020
1979	1,036,538	2,139	70,454		37,071	45,119					1,715,151
1980	1,019,481	2,693	76,443		32,753	41,949					1,745,468
1981	1,022,644	3,187	84,709		34,262	44,036					1,797,956
1982	1,069,370	3,424		74,141	29,582	76,378					1,926,107
1983	1,098,271	3,883		66,429	28,486	75,997					1,998,056
1984	981,870	3,950		51,770	31,123	56,125					1,815,775
1985	987,856	3,865		55,811	31,422	55,165					1,827,546
1986	1,056,587	4,084		46,898	34,234	52,602					1,858,065
1987	1,031,021	3,812		41,145	37,563	54,194					1,828,749

Table B.1. (Cont'd.)

Fiscal year ^a (1 Sept-31 Aug)	Type of license							Total
	Resident fishing	Special resident fishing ^b	3-Day saltwater sportfishing ^c	14-Day resident sportfishing	Non-resident fishing	5-Day non-resident sportfishing	Resident combination hunting and fishing	
1988	1,067,587	6,445	39,282	39,647	56,171	681,352	1,890,484	
1989	1,018,593	5,800	40,174	44,870	60,855	670,599	1,840,891	
1990	1,058,522	5,913	39,912	48,611	65,172	668,811	1,886,941	
1991	1,074,841	5,649	42,984	50,517	68,739	654,284	1,897,014	
1992	993,801	6,098	88,272	45,223	71,657	523,001	1,728,052	

^aFiscal year 1958 was the first year a fishing license was required to fish in salt water in Texas.

^bAvailable to any resident who is legally blind, a qualified disabled veteran or a licensed resident commercial fisherman for sportfishing.

^cWas issued to both residents and non-residents.

Table B.2. Total number of sport oyster boat licenses, sport shrimp trawl licenses, fish guide licenses, boat registrations and saltwater sportfishing stamps sold in Texas by fiscal year (1959-1992).

Fiscal year (1 Sep-31 Aug)	Sport oyster boat license	Sport shrimp trawl license	Fish guide license	Boat registration ^a	Saltwater sportfishing stamp ^b
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	8,701	628	561,657	
1982	218	7,384	773	580,055	
1983	266	6,753	884	598,900	
1984	286	5,240	787	603,761	
1985	289	4,664	777	593,174	
1986	251	3,737	833	607,119	390,545
1987	223	3,290	889	607,204	520,702
1988	186	2,810	957	606,969	569,648
1989	155	2,208	1,052	605,637	566,056
1990	174	1,822	1,119	605,787	585,262

Table B.2. (Cont'd.)

Fiscal year (1 Sep-31 Aug)	Sport oyster boat license	Sport shrimp trawl license	Fish guide license	Boat registration ^a	Saltwater sportfishing stamp ^b
1991	173	1,594	1,120	600,371	575,194
1992	179	1,240	1,145	581,281	553,228

^aInstantaneous number of boats registered at or near the end of a fiscal year.

^bThe saltwater sportfishing stamp was first offered for sale on 1 January 1986.

APPENDIX C: Party-boat fishing estimates for Texas bays and passes.

Table C.1. Number of days surveyed and number of party-boat fishermen interviewed (in parentheses) in Texas bays and passes by bay system and year (1983-1992).

Year	Bay system															
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide					
						Christi		Laguna Madre								
1983-84	133	(27)	133	(42)	108	(18)	133	(100)	133	(35)	133	(6)	133	(394)	906	(622)
1984-85	133	(23)	133	(9)	108	(10)	133	(32)	133	(44)	133	(2)	133	(334)	906	(454)
1985-86	133	(16)	133	(19)	108	(21)	133	(134)	133	(72)	133	(49)	133	(344)	906	(655)
1986-87	133	(12)	133	(47)	108	(54)	133	(141)	133	(64)	133	(108)	133	(331)	906	(757)
1987-88	108	(0)	133	(6)	108	(7)	133	(153)	133	(72)	133	(159)	133	(284)	1014	(701)
1988-89	108	(0)	132	(7)	105	(20)	130	(244)	130	(89)	131	(308)	131	(330)	998	(1001)
1989-90	108	(0)	131	(33)	108	(2)	133	(362)	133	(120)	133	(277)	133	(327)	1011	(1138)
1990-91	108	(6)	133	(13)	108	(10)	133	(277)	133	(117)	133	(74)	133	(344)	1014	(852)
1991-92	108	(2)	133	(42)	108	(0)	133	(381)	133	(183)	133	(285)	133	(300)	1014	(1238)

Table C.2. Estimated party-boat fishing pressure (man-h x 1000) \pm 1 SE, 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 year (1983-1992).

Bay system Year	Pressure'	Mean fishing party size	Mean trip length
Sabine Lake			
1987-88	0.0		
1988-89	0.0		
1989-90	0.0		
1990-91	1.8 \pm 1.2	3.0	6.5
1991-92	0.1 \pm 0.1	2.0	6.0
Galveston			
1983-84	21.8 \pm 10.4	3.4	7.1
1984-85	10.4 \pm 6.2	3.8	7.4
1985-86	10.7 \pm 9.0	4.0	9.0
1986-87	7.1 \pm 3.6	3.0	9.0
1987-88	3.8 \pm 2.7	3.0	8.0
1988-89	6.6 \pm 4.7	3.5	7.8
1989-90	32.2 \pm 18.7	3.0	6.8
1990-91	15.7 \pm 11.7	4.3	9.7
1991-92	28.8 \pm 18.1	3.2	6.0
Matagorda			
1983-84	20.8 \pm 8.5	4.2	5.2
1984-85	0.9 \pm 0.7	3.0	6.2
1985-86	5.3 \pm 3.7	3.8	5.2
1986-87	5.2 \pm 2.1	4.1	5.9
1987-88	4.9 \pm 3.4	2.3	8.6
1988-89	0.1 \pm 0.1	3.0	8.5
1989-90	4.5 \pm 2.7	4.3	5.5
1990-91	0.9 \pm 0.6	3.7	5.8
1991-92	8.8 \pm 4.8	4.1	6.6

Table C.2. (Cont'd.)

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
San Antonio			
1983-84	8.7 ± 5.1	3.6	8.1
1984-85	0.6 ± 0.5	3.3	4.5
1985-86	6.5 ± 3.4	3.5	5.9
1986-87	22.7 ± 14.5	4.0	6.4
1987-88	0.9 ± 0.7	3.5	7.2
1988-89	4.8 ± 2.6	3.3	9.0
1989-90	0.1 ± 0.1	2.0	4.0
1990-91	2.0 ± 1.4	5.0	7.8
1991-92	0.0		
Aransas			
1983-84	38.4 ± 12.8	3.9	4.9
1984-85	17.7 ± 8.2	3.2	5.4
1985-86	45.7 ± 10.7	2.9	6.7
1986-87	52.5 ± 10.6	3.4	6.7
1987-88	56.8 ± 13.1	3.4	6.4
1988-89	76.8 ± 14.4	3.5	7.0
1989-90	115.2 ± 20.3	3.9	7.2
1990-91	66.5 ± 13.0	3.8	7.0
1991-92	75.6 ± 14.3	3.9	7.1
Corpus Christi			
1983-84	62.4 ± 44.2	3.2	6.7
1984-85	22.0 ± 10.2	3.7	6.2
1985-86	32.4 ± 13.9	3.0	6.5
1986-87	18.1 ± 7.1	4.0	6.8
1987-88	42.5 ± 15.8	3.9	7.0
1988-89	46.7 ± 25.1	3.9	7.4
1989-90	46.3 ± 12.4	3.9	6.6

Table C.2. (Cont'd.)

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
Corpus Christi (Cont'd.)			
1990-91	57.9 ± 14.5	3.8	7.8
1991-92	73.8 ± 29.2	3.7	7.2
Upper Laguna Madre			
1983-84	0.4 ± 0.3	3.0	4.0
1984-85	0.4 ± 0.4	2.0	8.0
1985-86	42.7 ± 38.3	3.9	9.4
1986-87	27.7 ± 9.5	3.5	13.1
1987-88	28.7 ± 9.8	3.5	11.2
1988-89	46.5 ± 16.9	3.4	8.0
1989-90	29.6 ± 5.2	3.5	8.1
1990-91	10.2 ± 3.3	3.1	7.3
1991-92	51.8 ± 17.9	3.7	7.9
Lower Laguna Madre			
1983-84	97.4 ± 22.7	3.2	6.2
1984-85	75.6 ± 18.6	3.6	5.5
1985-86	81.4 ± 14.1	3.6	5.6
1986-87	80.5 ± 17.9	3.3	5.8
1987-88	66.2 ± 11.5	3.3	6.2
1988-89	70.7 ± 11.8	3.4	5.8
1989-90	75.4 ± 16.0	3.3	5.9
1990-91	85.5 ± 15.1	3.4	5.6
1991-92	94.4 ± 26.4	3.5	5.8
Coastwide			
1983-84	249.9 ± 53.3	3.4	6.1
1984-85	127.6 ± 23.6	3.6	5.7
1985-86	224.8 ± 45.6	3.4	6.3

Table C.2. (Cont'd.)

Bay system Year	Pressure ^a	Mean fishing party size	Mean trip length
Coastwide (Cont'd.)			
1986-87	213.7 ± 28.4	3.5	7.2
1987-88	204.0 ± 25.9	3.4	7.5
1988-89	252.1 ± 36.0	3.4	7.0
1989-90	303.4 ± 34.7	3.6	6.9
1990-91	240.5 ± 27.6	3.6	6.6
1991-92	333.2 ± 49.2	3.7	6.9

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of bay system totals.

Table C.3. Estimated annual landings of fishes (No. x 1000) ± 1 SE caught by party-boat fishermen in Texas bays and passes by bay system, species and year (1983-1992).

Species Year	Bay system										Coastwide'
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Atlantic croaker											
1983-84		0.1 ± 0.1	0.0	0.0	6.9 ± 6.9	11.6 ± 10.9	0.0	0.2 ± 0.1	0.2 ± 0.1	18.8 ± 12.9	
1984-85		<.1 ± <.1	0.0	0.0	0.0	0.1 ± 0.1	0.0	0.1 ± 0.1	0.1 ± 0.1	0.2 ± 0.1	
1985-86		0.0	0.2 ± 0.2	0.0	<.1 ± <.1	0.0	0.0	0.0	0.0	0.2 ± 0.2	
1986-87		0.0	0.0	0.0	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1	
1987-88	0.0	0.4 ± 0.4	0.0	0.0	0.0	0.0	0.1 ± <.1	0.0	0.0	0.4 ± 0.4	
1988-89	0.0	0.0	0.0	0.0	0.1 ± 0.1	<.1 ± <.1	0.1 ± <.1	0.1 ± 0.1	0.1 ± 0.1	0.2 ± 0.1	
1989-90	0.0	0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	<.1 ± <.1	0.1 ± <.1	0.0	0.0	0.2 ± 0.1	
1990-91	<.1 ± <.1	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.0	<.1 ± <.1	<.1 ± <.1	0.1 ± 0.1	
1991-92	0.0	0.6 ± 0.4	0.0	0.0	0.1 ± 0.1	<.1 ± <.1	0.1 ± 0.1	0.6 ± 0.4	0.6 ± 0.4	1.4 ± 0.6	
Black drum											
1983-84		<.1 ± <.1	0.0	0.0	0.1 ± 0.1	2.5 ± 1.8	0.0	2.5 ± 1.5	2.5 ± 1.5	5.1 ± 2.4	
1984-85		<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.1 ± 0.1	0.2 ± 0.2	0.0	0.5 ± 0.4	0.5 ± 0.4	0.8 ± 0.5	
1985-86		0.0	0.5 ± 0.5	0.0	0.3 ± 0.2	0.0	<.1 ± <.1	0.2 ± 0.2	0.2 ± 0.2	1.0 ± 0.5	
1986-87		<.1 ± <.1	<.1 ± <.1	0.0	0.1 ± 0.1	3.6 ± 3.4	0.1 ± 0.1	1.2 ± 1.1	1.2 ± 1.1	5.1 ± 3.5	
1987-88	0.0	0.0	0.4 ± 0.4	0.2 ± 0.2	<.1 ± <.1	<.1 ± <.1	0.1 ± <.1	0.2 ± 0.2	0.2 ± 0.2	0.9 ± 0.4	
1988-89	0.0	0.0	0.0	0.0	0.3 ± 0.2	0.5 ± 0.5	0.2 ± 0.1	0.1 ± <.1	0.1 ± <.1	1.0 ± 0.5	
1989-90	0.0	0.1 ± 0.1	0.0	0.0	1.0 ± 0.6	0.0	0.1 ± 0.1	0.6 ± 0.3	0.6 ± 0.3	1.7 ± 0.6	
1990-91	0.0	0.0	<.1 ± <.1	<.1 ± <.1	1.5 ± 0.8	1.6 ± 1.5	0.3 ± 0.2	0.4 ± 0.2	0.4 ± 0.2	3.8 ± 1.7	
1991-92	<.1 ± <.1	<.1 ± <.1	0.2 ± 0.1	0.0	0.5 ± 0.4	2.2 ± 1.1	1.1 ± 0.4	0.7 ± 0.5	0.7 ± 0.5	4.8 ± 1.3	
Gafftopsail catfish											
1983-84		0.0	0.3 ± 0.3	0.0	0.0	2.5 ± 2.3	0.0	<.1 ± <.1	<.1 ± <.1	2.9 ± 2.3	
1984-85		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	0.1 ± 0.1	0.0	0.0	0.0	0.1 ± 0.1	
1986-87		0.0	0.1 ± 0.1	0.4 ± 0.3	0.2 ± 0.2	0.0	0.0	0.0	0.0	0.7 ± 0.3	
1987-88	0.0	0.0	<.1 ± <.1	<.1 ± <.1	0.0	0.1 ± 0.1	<.1 ± <.1	0.0	0.0	0.1 ± 0.1	
1988-89	0.0	0.0	0.0	0.0	0.2 ± 0.2	0.1 ± 0.1	0.0	0.0	0.0	0.3 ± 0.2	
1989-90	0.0	0.0	0.0	0.0	0.3 ± 0.2	0.0	0.0	0.0	0.0	0.2 ± 0.2	
1990-91	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.0	0.0	0.0	0.0	0.1 ± 0.1	
1991-92	0.0	1.7 ± 1.7	0.0	0.0	0.1 ± <.1	0.0	0.0	0.0	0.0	1.7 ± 1.7	

Table C.3. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide'	
Red drum										
1983-84		0.2 ± 0.2	2.5 ± 1.8	0.5 ± 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	0.0	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	0.8 ± 0.7	8.5 ± 2.5	4.9 ± 2.9	0.3 ± 0.2	8.8 ± 2.0	23.6 ± 4.4	
1986-87		<1 ± <1	0.6 ± 0.3	0.8 ± 0.7	8.7 ± 3.2	3.3 ± 1.9	0.9 ± 0.5	8.0 ± 1.9	22.4 ± 4.3	
1987-88	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	7.4 ± 2.4	5.4 ± 4.0	1.7 ± 0.6	9.2 ± 2.0	23.9 ± 5.1	
1988-89	0.0	0.0	<1 ± <1	0.1 ± 0.1	8.7 ± 2.3	6.7 ± 5.4	2.1 ± 0.9	10.5 ± 2.8	28.1 ± 6.6	
1989-90	0.0	1.5 ± 1.5	0.1 ± 0.1	0.0	12.1 ± 2.6	2.4 ± 0.8	1.8 ± 0.5	8.3 ± 2.4	26.3 ± 4.0	
1990-91	0.0	2.3 ± 2.3	<1 ± <1	<1 ± <1	8.4 ± 2.2	4.9 ± 1.7	1.4 ± 0.6	4.9 ± 1.1	22.0 ± 3.8	
1991-92	0.0	0.2 ± 0.2	0.3 ± 0.2	0.0	10.4 ± 2.8	9.4 ± 3.6	2.0 ± 0.6	5.6 ± 3.7	28.0 ± 5.9	
Sand seatrout										
1983-84		<1 ± <1	6.8 ± 6.8	0.1 ± 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 ± <1	0.5 ± 0.5	0.0	0.4 ± 0.4	0.0	0.0	1.0 ± 0.6	
1985-86		2.5 ± 2.5	0.0	0.0	0.0	0.0	<1 ± <1	1.3 ± 0.8	3.9 ± 2.7	
1986-87		0.4 ± 0.3	<1 ± <1	0.4 ± 0.3	0.1 ± 0.1	0.7 ± 0.7	0.2 ± 0.2	0.0	1.8 ± 0.8	
1987-88	0.0	0.0	0.0	0.0	0.2 ± 0.2	1.2 ± 1.0	0.0	<1 ± <1	1.4 ± 1.0	
1988-89	0.0	1.2 ± 1.2	0.0	0.0	<1 ± <1	0.1 ± 0.1	0.1 ± <1	<1 ± <1	1.4 ± 1.2	
1989-90	0.0	1.8 ± 1.8	0.0	0.0	0.1 ± 0.1	<1 ± <1	0.0	0.0	1.9 ± 1.8	
1990-91	0.0	0.0	0.0	0.0	0.6 ± 0.5	0.3 ± 0.2	0.0	0.3 ± 0.2	1.1 ± 0.6	
1991-92	0.0	1.4 ± 0.7	0.1 ± 0.1	0.0	0.6 ± 0.5	0.3 ± 0.2	0.2 ± 0.1	0.9 ± 0.9	3.4 ± 1.3	
Sheepshead										
1983-84		0.0	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	0.3 ± 0.2	0.3 ± 0.2	
1985-86		0.0	0.0	0.0	<1 ± <1	0.0	0.0	<1 ± <1	0.1 ± 0.1	
1986-87		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	0.4 ± 0.2	
1988-89	0.0	0.0	<1 ± <1	0.0	0.0	0.5 ± 0.5	<1 ± <1	<1 ± <1	0.5 ± 0.5	
1989-90	0.0	0.0	0.0	0.0	<1 ± <1	0.0	<1 ± <1	0.2 ± 0.1	0.3 ± 0.1	
1990-91	0.0	0.0	0.2 ± 0.2	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.3 ± 0.2	
1991-92	0.0	0.0	0.3 ± 0.3	0.0	0.2 ± 0.2	0.2 ± 0.1	<1 ± <1	0.1 ± 0.1	0.9 ± 0.4	

Table C.3. (Cont'd.)

Species Year	Bay system										Coastwide'
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Southern flounder											
1983-84	0.0	0.2 ± 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	0.0	0.7 ± 0.6	0.1 ± 0.1	0.2 ± 0.2	2.3 ± 1.1	<.1 ± <.1	0.9 ± 0.6	2.1 ± 0.7	6.4 ± 1.6		
1986-87	0.0	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	0.4 ± 0.2	0.0	0.5 ± 0.2	0.7 ± 0.2	1.7 ± 0.4		
1988-89	0.0	0.6 ± 0.5	0.0	0.1 ± <.1	0.3 ± 0.1	0.1 ± 0.1	0.7 ± 0.3	0.8 ± 0.3	2.6 ± 0.7		
1989-90	0.0	3.6 ± 2.3	0.2 ± 0.2	0.0	0.3 ± 0.1	0.1 ± 0.1	0.2 ± <.1	1.4 ± 0.5	5.7 ± 2.3		
1990-91	0.7 ± 0.7	0.6 ± 0.5	0.0	0.0	0.3 ± 0.2	0.6 ± 0.4	0.1 ± 0.1	0.6 ± 0.2	2.8 ± 1.0		
1991-92	0.0	1.1 ± 0.7	<.1 ± <.1	0.0	0.9 ± 0.3	1.3 ± 0.7	1.5 ± 0.8	4.4 ± 2.8	9.3 ± 3.1		
Spotted seatrout											
1983-84	0.0	13.6 ± 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		
1984-85	0.0	4.0 ± 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	0.0	5.2 ± 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	0.0	2.6 ± 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	0.0	2.9 ± 2.1	1.5 ± 0.7	0.0	28.5 ± 8.7	19.8 ± 8.3	8.0 ± 2.3	20.7 ± 3.9	81.4 ± 13.0		
1988-89	0.0	8.1 ± 5.7	0.0	0.5 ± 0.3	38.2 ± 9.9	19.8 ± 7.6	22.3 ± 10.7	29.2 ± 6.1	118.1 ± 18.5		
1989-90	0.0	11.9 ± 5.6	0.1 ± 0.1	0.0	29.7 ± 7.2	20.8 ± 7.3	5.6 ± 1.5	23.8 ± 6.0	91.9 ± 13.2		
1990-91	0.0	0.3 ± 0.2	<.1 ± <.1	0.0	8.7 ± 3.3	7.0 ± 2.4	1.3 ± 0.6	21.7 ± 4.9	39.1 ± 6.5		
1991-92	<.1 ± <.1	2.9 ± 1.7	0.7 ± 0.3	0.0	19.5 ± 4.8	26.3 ± 10.8	17.7 ± 5.6	25.7 ± 7.5	92.8 ± 15.2		
Other species											
1983-84	0.0	0.0	0.3	<.1	0.8	1.0	0.0	0.6	2.8		
1984-85	0.1	0.0	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	2.7	1.9 ± 1.8	<.1	0.2 ± 0.1	5.1		
1988-89	0.0	0.0	<.1 ± <.1	<.1 ± <.1	0.6 ± 0.4	0.4	0.2 ± 0.1	0.3 ± 0.1	1.6		
1989-90	0.0	0.0	0.3	0.0	0.2 ± 0.2	0.4	0.1	0.2 ± 0.1	1.2		
1990-91	0.0	0.0	<.1	0.1 ± 0.1	<.1	0.1 ± 0.1	0.0	0.2 ± 0.1	0.4		
1991-92	0.1	<.1	0.2 ± 0.1	0.0	0.3	0.1 ± 0.1	0.2	0.9	1.8		

Table C.3. (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*										
1983-84		14.2 ± 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	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	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	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	0.0	3.3 ± 2.3	2.2 ± 1.2	0.3 ± 0.2	39.6 ± 10.5	28.4 ± 10.4	10.4 ± 2.8	31.2 ± 5.3	115.3 ± 16.2	
1988-89	0.0	10.0 ± 7.0	<.1 ± <.1	0.7 ± 0.4	48.4 ± 11.2	28.0 ± 12.4	25.6 ± 11.3	41.0 ± 7.8	153.7 ± 22.8	
1989-90	0.0	19.0 ± 8.7	0.8 ± 0.4	0.0	43.7 ± 8.6	23.8 ± 7.8	8.0 ± 1.8	34.5 ± 8.2	129.5 ± 16.8	
1990-91	0.0	3.1 ± 2.9	0.3 ± 0.3	0.1 ± 0.1	19.6 ± 4.5	14.6 ± 3.9	3.1 ± 1.2	28.2 ± 5.6	69.8 ± 8.8	
1991-92	<.1 ± <.1	8.0 ± 4.1	1.7 ± 0.7	0.0	32.6 ± 6.5	73.8 ± 29.2	22.9 ± 6.7	38.9 ± 10.7	144.1 ± 19.2	

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Table C.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by party-boat fishermen in Texas bays and passes by bay system, species and year (1983-1992). Blank = no fishermen interviewed.

Species	Bay system										
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide
						Christi	Laguna Madre				
Atlantic croaker											
1983-84		0.01 \pm 0.01	0.00	0.00	0.18 \pm 0.18	0.19 \pm 0.18	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.07 \pm 0.05
1984-85		<.01 \pm <.01	0.00	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01	<.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	0.00	0.00	<.01 \pm <.01
1986-87		0.00	0.00	0.00	0.00	0.00	0.00	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1987-88		0.10 \pm 0.10	0.00	0.00	0.00	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
1988-89		0.00	0.00	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1989-90		<.01 \pm <.01	0.01 \pm 0.01	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
1990-91	0.01 \pm 0.01	0.00	0.00	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
1991-92	0.00	0.02 \pm 0.02	0.00	0.00	<.01 \pm <.01	0.0	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	0.01 \pm 0.01	<.01 \pm <.01
Black drum											
1983-84		<.01 \pm <.01	0.00	0.00	<.01 \pm <.01	0.04 \pm 0.03	0.00	0.00	0.03 \pm 0.02	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	0.00	0.01 \pm <.01	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	0.00	<.01 \pm <.01	<.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	<.01 \pm <.01	0.02 \pm 0.01	0.02 \pm 0.01	0.02 \pm 0.02
1987-88		0.00	0.07 \pm 0.07	0.18 \pm 0.18	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
1988-89		0.00	0.00	0.00	<.01 \pm <.01	0.01 \pm 0.01	0.00	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
1989-90		<.01 \pm <.01	0.00	0.00	<.01 \pm <.01	0.03 \pm 0.03	0.00	0.03 \pm 0.02	0.03 \pm 0.02	0.00	0.02 \pm 0.01
1990-91	0.00	0.00	0.02 \pm 0.02	0.01 \pm 0.01	0.02 \pm 0.01	0.03 \pm 0.03	0.03 \pm 0.02	0.03 \pm 0.02	0.03 \pm 0.02	0.00	0.02 \pm 0.01
1991-92	0.08 \pm 0.08	<.01 \pm <.01	0.02 \pm 0.01	0.01 \pm 0.01	0.01 \pm 0.01	0.03 \pm 0.02	0.03 \pm 0.02	0.02 \pm 0.01	0.02 \pm 0.01	0.01 \pm 0.01	0.01 \pm <.01
Gafftopsail catfish											
1983-84		0.00	0.01 \pm 0.01	0.00	0.00	0.04 \pm 0.04	0.00	0.00	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	<.01 \pm <.01	0.00	0.00	0.00	<.01 \pm <.01
1985-86		0.00	0.00	0.00	0.00	<.01 \pm <.01	0.00	0.00	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	0.00	0.00	<.01 \pm <.01
1987-88		0.00	0.01 \pm 0.01	0.02 \pm 0.02	0.00	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1988-89		0.00	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	0.00	0.00	0.00	<.01 \pm <.01
1989-90		0.00	0.00	0.00	<.01 \pm <.01	0.00	0.00	0.00	0.00	0.00	<.01 \pm <.01
1990-91	0.00	0.00	0.00	0.00	<.01 \pm <.01	0.00	0.00	0.00	0.00	0.00	<.01 \pm <.01
1991-92	0.00	0.06 \pm 0.06	0.00	0.00	<.01 \pm <.01	0.00	0.00	0.00	0.00	0.00	0.01 \pm 0.01

Table C.4. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
Red drum									
1983-84		0.01 ± 0.01	0.12 ± 0.09	0.06 ± 0.04	0.04 ± 0.03	0.03 ± 0.03	0.00	0.06 ± 0.02	0.05 ± 0.02
1984-85		0.03 ± 0.03	0.19 ± 0.17	0.00	0.27 ± 0.18	0.12 ± 0.07	0.00	0.08 ± 0.03	0.11 ± 0.03
1985-86		<.01 ± <.01	0.04 ± 0.04	0.12 ± 0.11	0.18 ± 0.07	0.15 ± 0.10	<.01 ± <.01	0.11 ± 0.03	0.11 ± 0.03
1986-87		<.01 ± <.01	0.11 ± 0.07	0.04 ± 0.03	0.16 ± 0.07	0.18 ± 0.12	0.03 ± 0.02	0.10 ± 0.03	0.10 ± 0.02
1987-88		0.00	0.03 ± 0.02	0.12 ± 0.10	0.13 ± 0.05	0.13 ± 0.10	0.06 ± 0.03	0.14 ± 0.04	0.11 ± 0.03
1988-89		0.00	0.08 ± 0.08	0.02 ± 0.02	0.11 ± 0.04	0.14 ± 0.12	0.04 ± 0.02	0.15 ± 0.05	0.11 ± 0.03
1989-90		<.01 ± <.01	0.02 ± 0.02	0.00	0.10 ± 0.03	0.05 ± 0.02	0.06 ± 0.02	0.11 ± 0.04	0.09 ± 0.02
1990-91	0.00	0.14 ± 0.14	0.02 ± 0.02	0.02 ± 0.02	0.13 ± 0.04	0.09 ± 0.04	0.14 ± 0.08	0.06 ± 0.02	0.09 ± 0.02
1991-92	0.00	0.01 ± 0.01	0.04 ± 0.02	0.02 ± 0.02	0.14 ± 0.05	0.13 ± 0.07	0.04 ± 0.02	0.06 ± 0.04	0.08 ± 0.02
Sand seatrout									
1983-84		<.01 ± <.01	0.33 ± 0.33	0.01 ± 0.01	0.08 ± 0.05	0.15 ± 0.14	0.00	<.01 ± <.01	0.08 ± 0.04
1984-85		<.01 ± <.01	0.01 ± 0.01	0.82 ± 0.82	0.00	0.02 ± 0.02	0.00	0.00	0.01 ± <.01
1985-86		0.24 ± 0.24	0.00	0.00	0.00	0.00	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01
1986-87		0.05 ± 0.05	<.01 ± <.01	0.02 ± 0.02	<.01 ± <.01	0.04 ± 0.04	0.01 ± 0.01	0.00	0.01 ± <.01
1987-88		0.00	0.00	0.00	<.01 ± <.01	0.03 ± 0.02	0.00	<.01 ± <.01	0.01 ± <.01
1988-89		0.18 ± 0.18	0.00	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1989-90		0.06 ± 0.06	0.00	0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1990-91	0.00	0.00	0.00	0.00	0.01 ± 0.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1991-92	0.00	0.05 ± 0.04	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01
Sheepshead									
1983-84		0.00	0.00	0.00	0.01 ± 0.01	0.03 ± 0.02	0.00	0.01 ± <.01	0.01 ± 0.01
1984-85		0.00	0.00	0.00	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1985-86		0.00	0.00	0.00	<.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1986-87		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	0.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1988-89		0.00	0.08 ± 0.08	0.00	0.00	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1989-90		0.00	0.00	0.00	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1990-91	0.00	0.00	0.23 ± 0.23	0.00	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1991-92	0.00	0.00	0.03 ± 0.03	0.00	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01

Table C.4. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Southern flounder										
1983-84		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	0.02 ± 0.01
1984-85		0.00	0.00	0.00	0.01 ± 0.01	0.01 ± 0.01	0.06 ± 0.06	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1985-86		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	0.03 ± 0.01
1986-87		0.03 ± 0.03	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.09 ± 0.04	0.04 ± 0.02	0.03 ± 0.01	0.03 ± 0.01
1987-88		0.00	0.00	0.00	0.01 ± 0.01	0.00	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1988-89		0.10 ± 0.09	0.00	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1989-90		0.11 ± 0.09	0.05 ± 0.04	0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.02 ± <.01	0.02 ± <.01	0.02 ± <.01
1990-91	0.40 ± 0.40	0.04 ± 0.03	0.00	0.00	<.01 ± <.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1991-92	0.00	0.04 ± 0.03	<.01 ± <.01	0.00	0.01 ± <.01	0.02 ± 0.01	0.03 ± 0.02	0.05 ± 0.03	0.01 ± <.01	0.03 ± 0.01
Spotted seatrout										
1983-84		0.62 ± 0.41	0.50 ± 0.31	0.98 ± 0.90	1.17 ± 0.64	0.66 ± 0.63	0.00	0.77 ± 0.23	0.77 ± 0.23	0.77 ± 0.24
1984-85		0.39 ± 0.30	0.03 ± 0.03	0.71 ± 0.71	0.04 ± 0.03	0.12 ± 0.08	0.00	0.56 ± 0.21	0.56 ± 0.21	0.39 ± 0.12
1985-86		0.48 ± 0.46	1.20 ± 1.18	0.06 ± 0.05	0.35 ± 0.15	0.31 ± 0.18	0.05 ± 0.05	0.35 ± 0.10	0.35 ± 0.10	0.30 ± 0.08
1986-87		0.37 ± 0.28	0.42 ± 0.35	0.52 ± 0.42	0.46 ± 0.16	0.23 ± 0.14	0.28 ± 0.12	0.53 ± 0.17	0.53 ± 0.17	0.44 ± 0.09
1987-88		0.76 ± 0.66	0.30 ± 0.23	0.00	0.50 ± 0.19	0.47 ± 0.25	0.28 ± 0.12	0.31 ± 0.08	0.31 ± 0.08	0.40 ± 0.08
1988-89		1.22 ± 1.05	0.00	0.11 ± 0.09	0.50 ± 0.16	0.42 ± 0.27	0.48 ± 0.28	0.41 ± 0.11	0.41 ± 0.11	0.47 ± 0.10
1989-90		0.37 ± 0.26	0.03 ± 0.03	0.00	0.26 ± 0.08	0.45 ± 0.19	0.19 ± 0.06	0.32 ± 0.10	0.32 ± 0.10	0.30 ± 0.01
1990-91	0.00	0.02 ± 0.02	0.05 ± 0.04	0.00	0.13 ± 0.06	0.12 ± 0.05	0.12 ± 0.07	0.25 ± 0.07	0.25 ± 0.07	0.16 ± 0.03
1991-92	0.08 ± 0.08	0.10 ± 0.08	0.08 ± 0.05	0.00	0.26 ± 0.08	0.36 ± 0.20	0.34 ± 0.16	0.27 ± 0.11	0.27 ± 0.11	0.28 ± 0.06
Other species										
1983-84		0.00	0.01	<.01	0.02	0.02	0.00	0.01	0.01	0.01
1984-85		0.01	0.00	0.07	0.00	0.00	0.00	0.00	0.00	<.01
1985-86		0.00	0.00	0.00	0.00	0.01	<.01	<.01	<.01	<.01
1986-87		0.00	0.19	0.05	0.00	0.08	<.01 ± <.01	0.04	0.04	0.03
1987-88		0.00	0.04 ± 0.03	0.00	0.05 ± 0.05	0.04 ± 0.04	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.02
1988-89		0.00	0.31	0.00	0.01 ± <.01	0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01
1989-90		0.00	0.06	0.00	<.01 ± <.01	<.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01
1990-91	0.00	0.00	0.02	0.03 ± 0.03	0.00	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01	<.01
1991-92	0.00	<.01	0.03 ± 0.02	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01	<.01 ± <.01	0.01

Table C.4. (Cont'd.)

Species Year	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre		
All species combined ^a										
1983-84		0.65 ± 0.42	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	0.24 ± 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		0.80 ± 0.74	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		0.47 ± 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	0.44 ± 0.35	0.32 ± 0.30	0.70 ± 0.24	0.67 ± 0.34	0.36 ± 0.15	0.47 ± 0.11	0.56 ± 0.11	
1988-89		1.50 ± 1.30	0.47 ± 0.47	0.15 ± 0.10	0.63 ± 0.18	0.60 ± 0.39	0.55 ± 0.30	0.58 ± 0.15	0.61 ± 0.12	
1989-90		0.59 ± 0.41	0.17 ± 0.12	0.00	0.38 ± 0.10	0.51 ± 0.21	0.27 ± 0.08	0.46 ± 0.14	0.43 ± 0.07	
1990-91	0.41 ± 0.41	0.20 ± 0.19	0.34 ± 0.33	0.07 ± 0.07	0.30 ± 0.09	0.25 ± 0.09	0.30 ± 0.15	0.33 ± 0.09	0.29 ± 0.05	
1991-92	0.75 ± 0.75	0.28 ± 0.21	0.20 ± 0.12		0.43 ± 0.11	0.54 ± 0.26	0.44 ± 0.20	0.41 ± 0.16	0.43 ± 0.09	

^aDue to rounding of numbers, these totals may not exactly equal individual totals.

Table C.5. Mean catch rates of fishes (No./man-h) \pm 1 SE caught by party-boat fishermen in Texas bays and passes during June-August by species, bay system and year (1979-1991)*. Number in parentheses indicates number of interviews. Blank = no fishermen interviewed.

Bay system Year	Spotted seatrout	Other Species	All Species Combined ^b
Sabine Lake			
1987 (0)			
1988 (0)			
1989 (0)			
1990 (0)			
1991 (0)			
Galveston			
1979 (2)	0.88 \pm 0.01	0.19 \pm 0.19	1.07 \pm 0.18
1981 (13)	1.14 \pm 0.26	0.15 \pm 0.07	1.29 \pm 0.24
1982 (8)	1.49 \pm 0.37	0.35 \pm 0.31	1.83 \pm 0.42
1983 (3)	0.99 \pm 0.88	0.00	0.99 \pm 0.88
1984 (5)	0.36 \pm 0.31	0.06	0.42 \pm 0.35
1985 (3)	0.46 \pm 0.46	0.08	0.54 \pm 0.54
1986 (3)	0.52 \pm 0.41	0.10	0.62 \pm 0.49
1987 (1)	0.85 \pm 0.85	0.00	0.85 \pm 0.85
1988 (1)	1.23 \pm 1.23	0.03 \pm 0.03	1.27 \pm 1.27
1989 (3)	0.17 \pm 0.15	0.29	0.29 \pm 0.25
1990 (1)	0.02 \pm 0.02	0.05	0.08 \pm 0.08
1991 (3)	0.28 \pm 0.25	3.43	0.63 \pm 0.53
Matagorda^c			
1979 (0)			
1981 (0)			
1982 (13)	1.16 \pm 0.41	0.25 \pm 0.10	1.43 \pm 0.48
1983 (6)	0.40 \pm 0.29	0.74	1.14 \pm 0.92
1984 (3)	0.03 \pm 0.03	0.21	0.24 \pm 0.21
1985 (1)	0.00	0.00	0.00
1986 (5)	0.18 \pm 0.15	0.34	0.52 \pm 0.40
1987 (2)	0.67 \pm 0.58	0.20	0.88 \pm 0.76
1988 (1)	0.00	0.47 \pm 0.47	0.47 \pm 0.47

Table C.5. (Cont'd.)

Bay system Year	Spotted seatrout	Other Species	All Species Combined ^b
Matagorda (Cont'd.)			
1989 (1)	0.06 ± 0.06	0.06 ± 0.06	0.11 ± 0.11
1990 (1)	0.00	0.00	0.00
1991 (4)	0.06 ± 0.06	0.06	0.12 ± 0.11
San Antonio^c			
1979 (0)			
1981 (0)			
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
1988 (3)	0.10 ± 0.10	0.03	0.13 ± 0.12
1989 (0)			
1990 (1)			
1991 (0)	0.00	0.17	0.17 ± 0.17
Aransas^d			
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
1984 (1)	0.00	1.11 ± 1.11	1.11 ± 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	0.81 ± 0.36
1988 (35)	0.59 ± 0.25	0.14	0.72 ± 0.29
1989 (54)	0.32 ± 0.12	0.12	0.44 ± 0.15
1990 (38)	0.09 ± 0.05	0.16	0.25 ± 0.17
1991 (59)	0.17 ± 0.08	0.20	0.37 ± 0.14

Table C.5. (Cont'd.)

Bay system Year	Spotted seatrout	Other Species	All Species Combined ^b
Corpus Christi^d			
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
1988 (16)	0.56 ± 0.30	0.07	0.63 ± 0.33
1989 (18)	0.55 ± 0.33	0.04	0.59 ± 0.34
1990 (18)	0.08 ± 0.04	0.15	0.24 ± 0.11
1991 (23)	0.21 ± 0.14	1.63	0.37 ± 0.25
Upper Laguna Madre^d			
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 (16)	0.17 ± 0.11	0.05	0.21 ± 0.14
1988 (39)	0.27 ± 0.10	0.09	0.35 ± 0.13
1989 (42)	0.20 ± 0.06	0.08	0.28 ± 0.09
1990 (18)	0.02 ± 0.02	0.23	0.26 ± 0.15
1991 (39)	0.32 ± 0.11	0.11	0.43 ± 0.14
Lower Laguna Madre			
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

Table C.5. (Cont'd.)

Bay system Year	Spotted seatrout	Other Species	All Species Combined ^b
Lower Laguna Madre (Cont'd.)			
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	0.45 ± 0.14
1988 (37)	0.34 ± 0.14	0.20	0.54 ± 0.23
1989 (64)	0.30 ± 0.13	0.14	0.43 ± 0.18
1990 (50)	0.22 ± 0.07	0.10	0.31 ± 0.10
1991 (56)	0.27 ± 0.14	0.16	0.43 ± 0.20
Coastwide^c			
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 (90)	0.47 ± 0.14	0.16	0.63 ± 0.18
1988 (132)	0.50 ± 0.13	0.13	0.63 ± 0.16
1989 (182)	0.32 ± 0.08	0.11	0.42 ± 0.10
1990 (127)	0.19 ± 0.03	0.14	0.26 ± 0.06
1991 (184)	0.22 ± 0.07	0.17	0.39 ± 0.11

^a 1979-1982 data from McEachron (1984).

^b Due to rounding of numbers, these totals may not exactly equal individual totals.

^c Matagorda and San Antonio data were combined during 1979-1982.

^d Aransas, Corpus Christi and upper Laguna Madre data were combined during 1979-1982.

^e 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 C.6. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by party-boat fishermen in Texas bays and passes by bay system, species and year (1983-1992). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Atlantic croaker										
1983-84		0.24			0.46 \pm <.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		0.45		0.20	
1986-87							0.45		0.45	
1987-88		0.22					0.44 \pm 0.14		0.25 \pm 0.05	
1988-89					0.15	0.68	0.44 \pm 0.06	0.35	0.36 \pm 0.09	
1989-90		0.18				0.25	0.64 \pm 0.01		0.39 \pm 0.16	
1990-91	0.12					0.07		0.22	0.11 \pm 0.04	
1991-92		0.15			0.14	0.28	0.29 \pm 0.08	0.24 \pm 0.05	0.20 \pm 0.03	
Black drum										
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 0.69	
1988-89					1.09 \pm 0.33	1.16	2.76 \pm 0.66	2.06 \pm 0.26	1.45 \pm 0.32	
1989-90		0.50	1.70	1.02	1.01 \pm 0.10		3.14 \pm 1.22	2.17 \pm 0.57	1.47 \pm 0.42	
1990-91					1.18 \pm 0.16	2.37 \pm 0.06	1.63 \pm 0.27	1.96 \pm 0.50	1.79 \pm 0.37	
1991-92	1.86	0.79	1.37 \pm 0.44		0.90 \pm 0.19	1.15 \pm 0.24	1.52 \pm 0.26	2.11 \pm 0.39	1.36 \pm 0.17	
Gafftopsail catfish										
1983-84			0.70			1.76 \pm 0.01		3.60	1.65 \pm 0.09	
1984-85					0.72	0.67			0.72 \pm 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		0.97 \pm 0.23	
1988-89					1.68 \pm 0.40	0.46			1.40 \pm 0.44	

Table C.6. (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.)										
1989-90					1.59 ± 0.28					1.59 ± 0.28
1990-91					0.98 ± 0.18					0.98 ± 0.18
1991-92		1.66 ± 1.66			1.27 ± 0.16					1.64 ± 0.02
Red drum										
1983-84		0.84	1.44 ± 0.19	1.59 ± 0.22	1.31 ± 0.18	1.22 ± 0.51		1.44 ± 0.12		1.39 ± 0.21
1984-85		2.99 ± 0.30	2.17 ± 0.27		2.24 ± 0.57	2.52 ± 0.31		2.12 ± 0.09		2.26 ± 0.31
1985-86		1.55	1.71 ± 0.60	1.17 ± 0.16	1.80 ± 0.12	2.05 ± 0.34	1.85 ± 0.10	2.22 ± 0.20		1.98 ± 0.21
1986-87		1.41	1.86 ± 0.47	1.56 ± 0.50	2.00 ± 0.09	2.72 ± 0.34	1.57 ± 0.11	2.14 ± 0.19		2.11 ± 0.11
1987-88			3.18 ± 0.23	1.72 ± 0.41	2.68 ± 0.20	2.57 ± 0.12	2.50 ± 0.26	2.42 ± 0.17		2.54 ± 0.07
1988-89			4.50	1.62 ± 0.11	2.39 ± 0.07	2.46 ± 0.29	2.64 ± 0.21	2.54 ± 0.20		2.48 ± 0.04
1989-90		2.31 ± 0.34	3.01		2.59 ± 0.06	2.36 ± 0.07	2.45 ± 0.10	2.27 ± 0.07		2.44 ± 0.10
1990-91		1.94	4.19	2.06	2.25 ± 0.06	2.08 ± 0.08	2.46 ± 0.07	2.54 ± 0.11		2.26 ± 0.09
1991-92		2.46	2.39 ± 0.10		2.48 ± 0.11	2.37 ± 0.10	2.45 ± 0.16	2.44 ± 0.12		2.43 ± 0.03
Sand seatrout										
1983-84		0.47	0.27	0.26	0.23 ± 0.02	0.34 ± 0.01		0.23		0.30 ± 0.10
1984-85		0.23	0.41			0.32 ± 0.03				0.31 ± 0.06
1985-86		0.28					0.51	0.27 ± 0.05		0.28 ± 0.20
1986-87		0.23 ± 0.05	0.28	0.27 ± 0.12	0.32 ± 0.04		0.34 ± 0.08			0.27 ± 0.02
1987-88					0.70	0.22 ± 0.04		0.39		0.29 ± 0.10
1988-89		0.37			0.28	0.38	0.58 ± 0.15	0.23		0.37 ± 0.01
1989-90		0.31			0.32	0.33				0.31 ± <.01
1990-91					0.19 ± 0.01	0.22		0.31 ± 0.06		0.23 ± 0.04
1991-92		0.37 ± 0.13	0.32		0.33 ± 0.01	0.29 ± 0.02	0.38 ± 0.13	0.36		0.35 ± 0.01
Sheepshead										
1983-84					0.68	0.96 ± 0.17		0.62 ± 0.08		0.85 ± 0.22
1984-85								0.97 ± 0.20		0.97 ± 0.20
1985-86					0.98			0.69		0.85 ± 0.85

Table C.6. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Sheepshead (Cont'd.)									
1986-87			1.42 ± 0.20		2.64	0.52	0.98		2.38 ± 0.31
1987-88					0.55 ± 0.02	0.82			0.59 ± 0.06
1988-89			0.55			0.82	1.98	1.02	0.85 ± 0.04
1989-90			1.14		1.10		1.29	1.27 ± 0.31	1.25 ± 0.03
1990-91			1.14					1.88	1.35 ± 0.30
1991-92					1.50 ± 0.32	1.14 ± 0.17	1.38 ± 0.10	0.84	1.20 ± 0.12
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	0.59 ± 0.07	0.52 ± 0.07	0.52 ± 0.07
1986-87		1.22	0.51	0.40	0.88 ± 0.17	1.01 ± 0.08	0.78 ± 0.04	0.75 ± 0.03	0.79 ± 0.03
1987-88					0.53 ± 0.16		0.68 ± 0.06	0.84 ± 0.09	0.71 ± 0.09
1988-89		0.66 ± 0.13		0.58 ± 0.01	0.67 ± 0.10	0.53	0.89 ± 0.11	0.94 ± 0.06	0.80 ± 0.07
1989-90		0.73 ± 0.07	0.72 ± 0.04		0.80 ± 0.09	0.48 ± 0.06	0.77 ± 0.14	0.82 ± 0.04	0.75 ± 0.02
1990-91	0.53	0.80 ± 0.16			0.67 ± 0.08	0.76 ± 0.14	0.57 ± 0.04	0.80 ± 0.20	0.70 ± 0.06
1991-92		0.75 ± 0.07	0.52		0.56 ± 0.04	0.68 ± 0.05	0.73 ± 0.03	0.67 ± 0.04	0.68 ± 0.02
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	0.63 ± 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	0.76 ± 0.03	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	0.98 ± 0.09	0.89 ± 0.05	0.88 ± 0.02
1988-89		1.17 ± 0.54		0.88 ± 0.03	0.78 ± 0.07	0.81 ± 0.05	0.97 ± 0.10	0.79 ± 0.03	0.85 ± 0.05
1989-90		0.72 ± 0.11	0.40		0.82 ± 0.03	0.89 ± 0.06	0.95 ± 0.04	0.71 ± 0.03	0.80 ± 0.04
1990-91		1.16 ± 0.14	0.82 ± 0.22		0.85 ± 0.05	0.72 ± 0.04	0.88 ± 0.05	0.77 ± 0.03	0.79 ± 0.02
1991-92	0.36	0.85 ± 0.08	0.73 ± 0.06		0.86 ± 0.03	0.96 ± 0.06	0.87 ± 0.04	0.82 ± 0.02	0.88 ± 0.03

Table C.6. (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 ^a									
1983-84		0.93 ± 0.16	0.45 ± 0.08	0.47 ± 0.14	0.48 ± 0.08	0.60 ± 0.12	0.60 ± 0.60	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	0.75 ± 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	0.84 ± 0.05	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	1.19 ± 0.10	1.34 ± 0.08	1.21 ± 0.06
1988-89		0.93 ± 0.45	4.00	0.84 ± 0.10	1.22 ± 0.08	1.05 ± 0.12	1.13 ± 0.08	1.30 ± 0.12	1.17 ± 0.05
1989-90		0.63 ± 0.11	2.71 ± 1.00		1.46 ± 0.09	1.11 ± 0.07	1.27 ± 0.06	1.16 ± 0.06	1.19 ± 0.14
1990-91	0.40	1.43 ± 0.27	1.23 ± 0.27	1.70	1.55 ± 0.12	1.38 ± 0.11	1.77 ± 0.22	1.16 ± 0.09	1.35 ± 0.10
1991-92	0.60	0.65 ± 0.14	1.35 ± 0.16		1.52 ± 0.13	1.28 ± 0.07	1.06 ± 0.07	1.08 ± 0.12	1.21 ± 0.10

^aIncludes "other" species.

Table C.7. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by party-boat fishermen in Texas bays and passes by bay system, species and year (1983-1992). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species Year	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre		
Atlantic croaker										
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
1988-89					228	369	318 \pm 15	300		291 \pm 27
1989-90		244				270	361 \pm 1			299 \pm 40
1990-91	216					184		259		204 \pm 19
1991-92		229 \pm 3			226	280	275 \pm 22	259 \pm 16		246 \pm 11
Black drum										
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			404 \pm 299
1986-87		429	471 \pm 74		319 \pm 47	453 \pm 13		377 \pm 6		431 \pm 22
1987-88			364	392	419	440		508 \pm 21		444 \pm 50
1988-89					414 \pm 46	435		527 \pm 22		452 \pm 23
1989-90		328			409 \pm 13			517 \pm 49		448 \pm 38
1990-91			495	418	433 \pm 21	549 \pm 5		502 \pm 38		491 \pm 36
1991-92	510	384	440 \pm 50		395 \pm 24	427 \pm 27	456 \pm 26	514 \pm 51		443 \pm 15
Gafftopsail catfish										
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 34
1988-89					555 \pm 44	372				513 \pm 65
1989-90					544 \pm 34					544 \pm 34
1990-91					471 \pm 28					471 \pm 28
1991-92		550			512 \pm 21					549 \pm 2

Table C.7. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
Red drum									
1983-84		430	502 ± 16	520 ± 25	486 ± 18	476 ± 70		501 ± 13	495 ± 20
1984-85		647 ± 19	581 ± 26		583 ± 51	609 ± 27		570 ± 8	584 ± 19
1985-86		526	536 ± 64	476 ± 20	543 ± 11	561 ± 26	552 ± 17	576 ± 16	557 ± 18
1986-87		510	543 ± 44	517 ± 47	559 ± 6	626 ± 27	521 ± 12	572 ± 17	570 ± 11
1987-88			656 ± 17	539 ± 41	620 ± 16	617 ± 11	605 ± 21	598 ± 14	610 ± 6
1988-89			746	534 ± 12	596 ± 6	598 ± 21	617 ± 16	611 ± 17	603 ± 4
1989-90		596 ± 29	654		619 ± 5	600 ± 6	606 ± 9	591 ± 6	606 ± 8
1990-91		566	730	577	590 ± 5	575 ± 7	608 ± 6	613 ± 9	591 ± 7
1991-92		613	602 ± 9		607 ± 9	600 ± 8	603 ± 14	602 ± 9	603 ± 2
Sand seatrout									
1983-84		352	293	290	278 ± 6	315 ± 4		281	301 ± 107
1984-85		281	336			309 ± 9			308 ± 22
1985-86		296					361	290 ± 15	294 ± 202
1986-87		276 ± 17	300	287 ± 40	310 ± 13	273 ± 10	317 ± 23	333	291 ± 8
1987-88					401				292 ± 27
1988-89		324			298	330	371 ± 34	280	324 ± 3
1989-90		304			312	316			305 ± 1
1990-91					260 ± 3	274 ± 1		305 ± 22	275 ± 13
1991-92		316 ± 34	311		314 ± 4	300 ± 7	317 ± 34	320	316 ± 2
Sheepshead									
1983-84					337	376 ± 20		325 ± 14	359 ± 52
1984-85								374 ± 26	374 ± 26
1985-86					385	308	385	341	365 ± 365
1986-87			425 ± 26		543	362			517 ± 31
1987-88					312 ± 5	361		390	319 ± 12
1988-89			314		400	361	491		364 ± 5
1989-90							423	410 ± 33	409 ± 2
1990-91			398					482	422 ± 34
1991-92			400		443 ± 32	404 ± 20	433 ± 12	365	408 ± 14

Table C.7. (Cont'd.)

Species Year	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre		
Southern flounder										
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		378 ± 11	405 ± 14	382 ± 16
1988-89		380 ± 28		354 ± 4		380 ± 18	360 ± 0	407 ± 14	424 ± 9	400 ± 10
1989-90		389 ± 12	394 ± 8			399 ± 14	347 ± 14	396 ± 22	405 ± 7	393 ± 4
1990-91	357	406 ± 26				381 ± 15	396 ± 24	367 ± 8	392 ± 27	385 ± 9
1991-92		396 ± 11	358			361 ± 8	385 ± 9	393 ± 6	383 ± 8	384 ± 3
Spotted seatrout										
1983-84		474 ± 24	364 ± 4		362 ± 11		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	452 ± 12	442 ± 7	440 ± 3
1988-89		473 ± 72		445 ± 5		426 ± 11	429 ± 8	450 ± 12	429 ± 5	435 ± 6
1989-90		411 ± 19	350			433 ± 5	446 ± 9	448 ± 6	416 ± 5	430 ± 6
1990-91		496 ± 20	440 ± 43			441 ± 8	421 ± 7	446 ± 9	426 ± 5	429 ± 4
1991-92	338	442 ± 11	423 ± 12			445 ± 5	459 ± 10	445 ± 6	437 ± 4	446 ± 5

Table C.8. Percent composition of "other" species caught by party-boat fishermen in Texas bays and passes by bay system (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Bay system										Coastwide'				
		Sabine		Galveston		Matagorda	San Antonio		Aransas		Corpus Christi		Upper		Lower	
		Lake				Antonio	Aransas	Christi	Laguna	Madre	Laguna		Madre			
Blacktip shark	<i>Carcharhinus limbatus</i>			5.71			1.43								7.14	
Bluefish	<i>Pomatomus saltatrix</i>						2.86								2.86	
Bonnethead	<i>Sphyrna tiburo</i>			5.71									1.43		7.14	
Bony fish sp.	Class Osteichthyes										10.00				10.00	
Cownose ray	<i>Rhinoptera bonasus</i>												1.43		1.43	
Crevalle jack	<i>Caranx hippos</i>					4.29			1.43						5.71	
Florida pompano	<i>Trachinotus carolinus</i>								1.43						1.43	
Great hammerhead	<i>Sphyrna mokarran</i>														1.43	
Gulf flounder	<i>Paralichthys albigutta</i>													4.29	25.71	
Hardhead catfish	<i>Arius felis</i>													4.29	14.29	
King mackerel	<i>Scomberomorus cavalla</i>		10.00												10.00	
Pinfish	<i>Lagodon rhomboides</i>											1.43			1.43	
Southern kingfish	<i>Menticirrhus americanus</i>													2.86	5.71	
Spanish mackerel	<i>Scomberomorus maculatus</i>														1.43	
Striped mullet	<i>Mugil cephalus</i>													1.43	1.43	
Warsaw grouper	<i>Epinephelus nigritus</i>													2.86	2.86	

'Due to rounding of numbers, coastwide percentages may not exactly equal sum of bay system percentages.

Table C.9. Residential origin (%) of party-boat fishermen in Texas bays and passes by bay system and year (1983-1992). Blank = no fishermen interviewed.

Bay system Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88				
1988-89				
1989-90	50	33	17	0
1990-91	100	0	0	0
1991-92				
Galveston				
1983-84	89	0	11	0
1984-85	100	0	0	0
1985-86	100	0	0	0
1986-87	100	0	0	0
1987-88	83	0	0	17
1988-89	100	0	0	0
1989-90	85	0	15	0
1990-91	100	0	0	0
1991-92	83	5	7	5
Matagorda				
1983-84	31	48	21	0
1984-85	11	44	0	44
1985-86	63	11	26	0
1986-87	27	6	67	0
1987-88	20	15	55	10
1988-89	33	0	67	0
1989-90	12	24	53	12
1990-91	50	0	50	0
1991-92	36	29	31	4
San Antonio				
1983-84	28	44	28	0
1984-85	0	70	30	0
1985-86	33	24	43	0
1986-87	27	20	53	0

Table C.9. (Cont'd.)

Bay system Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
San Antonio (Cont'd.)				
1987-88	29	29	43	0
1988-89	65	25	10	0
1989-90	100	0	0	0
1990-91	70	20	10	0
1991-92				
Arkansas				
1983-84	10	28	60	3
1984-85	19	19	53	9
1985-86	19	11	66	3
1986-87	14	19	64	3
1987-88	28	23	42	7
1988-89	23	17	53	7
1989-90	25	19	53	3
1990-91	25	18	51	6
1991-92	25	24	47	4
Corpus Christi				
1983-84	14	9	77	0
1984-85	18	0	82	0
1985-86	31	22	47	0
1986-87	22	8	69	1
1987-88	31	6	62	1
1988-89	22	10	67	0
1989-90	34	15	47	3
1990-91	25	3	68	3
1991-92	35	8	51	6
Upper Laguna Madre				
1983-84	33	0	67	0
1984-85	50	0	0	50
1985-86	41	8	46	4

Table C.9. (Cont'd.)

Bay system Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Upper Laguna Madre (Cont'd.)				
1986-87	53	20	17	10
1987-88	40	16	39	5
1988-89	35	30	30	5
1989-90	43	23	29	5
1990-91	36	22	38	4
1991-92	41	20	34	4
Lower Laguna Madre				
1983-84	22	22	46	10
1984-85	32	21	37	9
1985-86	31	24	40	6
1986-87	39	20	36	5
1987-88	37	17	40	6
1988-89	38	21	31	10
1989-90	36	17	33	14
1990-91	40	25	23	12
1991-92	38	25	24	13
Coastwide				
1983-84	23	23	47	7
1984-85	32	19	40	9
1985-86	32	19	45	4
1986-87	34	18	44	4
1987-88	35	17	43	6
1988-89	33	22	39	6
1989-90	35	19	39	7
1990-91	34	20	39	7
1991-92	36	20	37	6

APPENDIX D: Headboat fishing estimates for Texas bays and passes.

Table D.1. Number of days surveyed and number of headboat fishermen interviewed (in parentheses) in Texas bays and passes by area and year (1983-1991*).

Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
1983-84	44 (1196)	43 (883)	45 (596)	132 (2675)	
1984-85	42 (1431)	42 (765)	42 (599)	126 (2795)	
1985-86	42 (1510)	41 (696)	42 (765)	125 (2971)	
1986-87	42 (1326)	42 (513)	42 (727)	126 (2566)	
1987-88	42 (1671)	42 (633)	42 (631)	126 (2935)	
1988-89	42 (1187)	42 (683)	42 (720)	126 (2590)	
1989-90	42 (1066)	41 (665)	38 (677)	121 (2408)	
1990-91	42 (1034)	42 (585)	42 (930)	126 (2549)	

*Headboat surveys were discontinued in May 1991.

Table D.2. Estimated headboat fishing pressure (man-h x 1000) \pm 1SE, mean fishing-party size (No. of fishermen) and mean fishing time (h) for headboat fishermen in Texas bays and passes by area and year (1983-1991).

Area	Year	Pressure ^b	Mean fishing party size	Mean fishing time	
Galveston	1983-84	76.1 \pm 18.7	41.2	2.4	
	1984-85	62.1 \pm 20.2	40.9	2.4	
	1985-86	107.1 \pm 38.3	43.1	2.5	
	1986-87	51.2 \pm 7.6	37.9	2.2	
	1987-88	88.5 \pm 15.9	49.1	2.3	
	1988-89	59.7 \pm 10.6	28.3	2.2	
	1989-90	38.1 \pm 6.3	24.2	2.1	
	1990-91	32.9 \pm 6.0	24.6	2.2	
	Corpus Christi	1983-84	80.8 \pm 14.8	24.5	2.6
		1984-85	48.2 \pm 8.3	23.2	2.7
1985-86		65.5 \pm 11.5	19.3	2.6	
1986-87		33.7 \pm 6.0	15.5	2.6	
1987-88		67.3 \pm 23.8	20.4	3.4	
1988-89		33.5 \pm 4.2	16.3	2.8	
1989-90		32.3 \pm 4.3	16.2	2.7	
1990-91		30.3 \pm 4.9	13.6	2.9	
Lower Laguna Madre		1983-84	33.8 \pm 5.4	18.1	2.5
		1984-85	29.0 \pm 4.3	16.6	2.3
	1985-86	36.9 \pm 6.2	23.2	2.7	
	1986-87	24.1 \pm 4.9	21.4	2.4	
	1987-88	26.5 \pm 5.1	19.7	2.4	
	1988-89	27.0 \pm 4.4	17.1	2.4	
	1989-90	29.8 \pm 5.1	17.8	2.4	
	1990-91	35.1 \pm 5.1	22.1	2.4	

Table D.2. (Cont'd.)

Area Year	Pressure ^b	Mean fishing party size	Mean fishing time
Coastwide			
1983-84	190.7 ± 24.4	27.3	2.5
1984-85	139.3 ± 22.2	26.8	2.5
1985-86	209.6 ± 40.5	28.6	2.5
1986-87	108.9 ± 10.8	25.2	2.4
1987-88	182.3 ± 29.1	30.2	2.7
1988-89	120.2 ± 12.2	20.6	2.5
1989-90	100.2 ± 9.2	19.6	2.4
1990-91	98.3 ± 9.3	20.1	2.6

^aHeadboat surveys were discontinued in May 1991.

^bDue to rounding of numbers, coastwide totals may not exactly equal sum of area totals.

Table D.3. Estimated annual landings of fishes (No. x 1000) \pm 1 SE caught by headboat fishermen in Texas bays and passes by area, species and year (1983-1991*).

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide ^b
Atlantic croaker				
1983-84	22.7 \pm 10.4	0.6 \pm 0.2	0.6 \pm 0.3	24.1 \pm 10.4
1984-85	12.3 \pm 4.4	<1 \pm <1	0.2 \pm 0.1	12.5 \pm 4.4
1985-86	20.7 \pm 5.7	1.1 \pm 0.5	0.7 \pm 0.4	22.5 \pm 5.7
1986-87	31.9 \pm 8.6	0.1 \pm 0.1	0.2 \pm 0.1	32.2 \pm 8.6
1987-88	9.3 \pm 2.6	0.4 \pm 0.2	0.2 \pm 0.1	9.9 \pm 2.7
1988-89	19.9 \pm 5.3	0.2 \pm 0.1	0.1 \pm 0.1	20.3 \pm 5.3
1989-90	4.5 \pm 1.6	0.0	0.2 \pm 0.1	4.7 \pm 1.7
1990-91	1.6 \pm 0.7	0.3 \pm 0.2	<1 \pm <1	1.9 \pm 1.7
Black drum				
1983-84	2.5 \pm 0.8	0.2 \pm 0.1	<1 \pm <1	2.8 \pm 0.8
1984-85	1.3 \pm 0.5	0.1 \pm <1	0.0	1.3 \pm 0.5
1985-86	1.2 \pm 0.4	0.2 \pm 0.1	0.0	1.4 \pm 0.4
1986-87	0.9 \pm 0.3	0.0	<1 \pm <1	0.9 \pm 0.3
1987-88	0.3 \pm 0.1	<1 \pm <1	<1 \pm <1	0.3 \pm 0.1
1988-89	<1 \pm <1	0.0	0.0	<1 \pm <1
1989-90	0.6 \pm 0.3	0.0	0.0	0.6 \pm 0.3
1990-91	0.4 \pm 0.2	0.1 \pm 0.1	0.0	0.4 \pm 0.2
Gafftopsail catfish				
1983-84	0.7 \pm 0.4	0.8 \pm 0.3	0.0	1.5 \pm 0.5
1984-85	0.4 \pm 0.2	0.9 \pm 0.4	0.0	1.2 \pm 0.5
1985-86	1.5 \pm 0.8	0.4 \pm 0.1	0.0	1.9 \pm 0.8
1986-87	0.4 \pm 0.2	0.7 \pm 0.3	0.0	1.1 \pm 0.3
1987-88	1.0 \pm 0.3	0.4 \pm 0.2	<1 \pm <1	1.4 \pm 0.4
1988-89	0.8 \pm 0.5	0.2 \pm 0.1	0.0	1.0 \pm 0.5
1989-90	0.7 \pm 0.3	0.4 \pm 0.2	0.0	1.1 \pm 0.4
1990-91	0.3 \pm 0.1	0.3 \pm 0.2	<1 \pm <1	0.6 \pm 0.2

Table D.3. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide ^b
Red drum				
1983-84	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1984-85	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1985-86	<.1 ± <.1	0.0	<.1 ± <.1	0.1 ± 0.1
1986-87	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1987-88	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
1988-89	0.0	0.0	0.0	0.0
1989-90	0.2 ± 0.1	0.0	0.0	0.2 ± 0.1
1990-91	0.2 ± 0.2	0.0	0.0	0.2 ± 0.2
Sand seatrout				
1983-84	26.1 ± 9.3	39.5 ± 8.4	8.2 ± 2.3	73.8 ± 12.7
1984-85	24.1 ± 10.5	5.8 ± 1.9	19.1 ± 4.6	49.0 ± 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 ± 22.7
1988-89	36.8 ± 11.0	13.3 ± 2.8	15.6 ± 3.3	65.7 ± 11.8
1989-90	12.3 ± 4.0	8.8 ± 2.3	11.7 ± 3.8	32.8 ± 6.0
1990-91	11.4 ± 5.6	10.4 ± 3.3	16.1 ± 3.1	37.9 ± 7.2
Sheepshead				
1983-84	0.1 ± <.1	0.0	0.2 ± 0.1	0.3 ± 0.1
1984-85	<.1 ± <.1	0.0	1.0 ± 0.9	1.1 ± 0.9
1985-86	0.0	0.1 ± 0.1	0.0	0.1 ± 0.1
1986-87	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1987-88	<.1 ± <.1	0.4 ± 0.4	0.0	0.4 ± 0.4
1988-89	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	0.0	0.0
1990-91	<.1 ± <.1	1.1 ± 0.5	0.0	1.1 ± 0.5

Table D.3. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide ^b
Southern flounder				
1983-84	0.1 ± <1	<1 ± <1	0.0	0.1 ± <1
1984-85	<1 ± <1	<1 ± <1	<1 ± <1	0.1 ± <1
1985-86	0.2 ± 0.1	0.6 ± 0.4	0.1 ± 0.1	0.9 ± 0.4
1986-87	0.2 ± 0.1	0.4 ± 0.3	0.1 ± 0.1	0.7 ± 0.3
1987-88	<1 ± <1	0.1 ± 0.1	0.1 ± <1	0.2 ± 0.1
1988-89	0.1 ± 0.1	0.1 ± 0.1	0.0	0.2 ± 0.1
1989-90	<1 ± <1	0.0	<1 ± <1	<1 ± <1
1990-91	0.1 ± 0.1	<1 ± <1	<1 ± <1	0.1 ± 0.1
Spotted seatrout				
1983-84	0.0	4.2 ± 3.4	0.1 ± 0.1	4.3 ± 3.4
1984-85	0.0	0.4 ± 0.3	0.3 ± 0.1	0.6 ± 0.3
1985-86	<1 ± <1	1.5 ± 0.9	0.6 ± 0.5	2.2 ± 1.1
1986-87	<1 ± <1	1.0 ± 0.6	<1 ± <1	1.1 ± 0.6
1987-88	<1 ± <1	0.6 ± 0.4	<1 ± <1	0.6 ± 0.4
1988-89	0.3 ± 0.2	0.4 ± 0.3	0.0	0.7 ± 0.3
1989-90	0.0	0.3 ± 0.2	0.0	0.3 ± 0.2
1990-91	0.0	0.0	<1 ± <1	<1 ± <1
Other species				
1983-84	10.7	3.4	15.6	29.7
1984-85	3.2	1.5	4.7	9.4
1985-86	8.6	3.7	7.0	19.3
1986-87	4.3	2.6	7.6	14.6
1987-88	8.3	1.9	5.9	15.9
1988-89	5.1	2.4	8.5	16.1
1989-90	4.0	2.1	6.6	12.7
1990-91	1.2	2.0	7.4	10.5

Table D.3. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide ^b
All species combined ^b				
1983-84	63.0 ± 16.5	48.8 ± 8.9	24.8 ± 9.8	136.6 ± 21.1
1984-85	41.3 ± 13.6	8.7 ± 2.1	25.3 ± 5.4	75.3 ± 14.8
1985-86	152.5 ± 57.5	49.4 ± 11.5	30.1 ± 6.3	232.0 ± 59.0
1986-87	63.7 ± 11.7	12.5 ± 2.8	20.3 ± 6.9	96.5 ± 13.9
1987-88	83.4 ± 22.6	28.3 ± 10.9	20.3 ± 5.1	132.0 ± 25.6
1988-89	63.1 ± 14.4	16.6 ± 3.1	24.3 ± 4.9	104.0 ± 15.5
1989-90	22.3 ± 5.6	11.6 ± 2.6	18.5 ± 5.1	52.4 ± 8.0
1990-91	15.1 ± 6.0	14.2 ± 3.3	23.6 ± 4.1	52.9 ± 8.0

^aHeadboat surveys were discontinued in May 1991.

^bDue to rounding of numbers, these totals may not exactly equal individual totals.

Table D.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by headboat fishermen in Texas bays and passes by area, species and year (1983-1991).

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker				
1983-84	0.30 \pm 0.15	0.01 \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 0.03
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 0.08
1987-88	0.10 \pm 0.04	0.01 \pm <.01	0.01 \pm <.01	0.05 \pm 0.02
1988-89	0.33 \pm 0.10	0.01 \pm <.01	<.01 \pm <.01	0.17 \pm 0.05
1989-90	0.12 \pm 0.05	0.00	<.01 \pm <.01	0.05 \pm 0.02
1990-91	0.05 \pm 0.02	0.01 \pm 0.01	<.01 \pm <.01	0.02 \pm 0.01
Black drum				
1983-84	0.03 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	0.02 \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	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
1988-89	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1989-90	0.02 \pm 0.01	0.00	0.00	<.01 \pm <.01
1990-91	0.01 \pm 0.01	<.01 \pm <.01	0.00	<.01 \pm <.01
Gafftopsail catfish				
1983-84	0.01 \pm 0.01	0.01 \pm <.01	0.00	0.01 \pm <.01
1984-85	0.01 \pm <.01	0.02 \pm 0.01	0.00	0.01 \pm <.01
1985-86	0.01 \pm 0.01	0.01 \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	<.01 \pm <.01	0.01 \pm <.01
1988-89	0.01 \pm 0.01	0.01 \pm <.01	0.00	0.01 \pm <.01
1989-90	0.02 \pm 0.01	0.01 \pm <.01	0.00	0.01 \pm <.01
1990-91	0.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01	0.01 \pm <.01

Table D.4. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Red drum				
1983-84	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1984-85	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985-86	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1986-87	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1988-89	0.00	0.00	0.00	0.00
1989-90	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1990-91	0.01 ± <.01	0.00	0.00	<.01 ± <.01
Sand seatrout				
1983-84	0.34 ± 0.14	0.49 ± 0.14	0.24 ± 0.08	0.39 ± 0.08
1984-85	0.39 ± 0.20	0.12 ± 0.04	0.66 ± 0.19	0.35 ± 0.10
1985-86	1.11 ± 0.59	0.57 ± 0.18	0.59 ± 0.17	0.85 ± 0.29
1986-87	0.50 ± 0.18	0.23 ± 0.08	0.51 ± 0.21	0.42 ± 0.10
1987-88	0.73 ± 0.25	0.37 ± 0.20	0.53 ± 0.19	0.57 ± 0.15
1988-89	0.62 ± 0.21	0.40 ± 0.10	0.58 ± 0.15	0.55 ± 0.11
1989-90	0.32 ± 0.12	0.27 ± 0.01	0.39 ± 0.14	0.33 ± 0.07
1990-91	0.35 ± 0.18	0.34 ± 0.12	0.46 ± 0.11	0.39 ± 0.08
Sheepshead				
1983-84	<.01 ± <.01	0.00	0.01 ± <.01	<.01 ± <.01
1984-85	<.01 ± <.01	0.00	0.04 ± 0.03	0.01 ± 0.01
1985-86	0.00	<.01 ± <.01	0.00	<.01 ± <.01
1986-87	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1988-89	0.00	0.00	0.00	0.00
1989-90	0.00	0.00	0.00	0.00
1990-91	<.01 ± <.01	0.04 ± 0.02	0.00	0.01 ± 0.01

Table D.4. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Southern flounder				
1983-84	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1984-85	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985-86	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01
1986-87	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± <.01
1987-88	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1988-89	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1989-90	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1990-91	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
Spotted seatrout				
1983-84	0.00	0.05 ± 0.04	<.01 ± <.01	0.02 ± 0.02
1984-85	0.00	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01
1985-86	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01
1986-87	<.01 ± <.01	0.03 ± 0.02	<.01 ± <.01	0.01 ± 0.01
1987-88	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01
1988-89	<.01 ± <.01	0.01 ± 0.01	0.00	0.01 ± <.01
1989-90	0.00	<.01 ± <.01	0.00	<.01 ± <.01
1990-91	0.00	0.00	<.01 ± <.01	<.01 ± <.01
Other species				
1983-84	0.14	0.04	0.46	0.16
1984-85	0.05	0.03	0.16	0.07
1985-86	0.08	0.06	0.19	0.09
1986-87	0.09	0.08	0.32	0.13
1987-88	0.09	0.02 ± 0.01	0.22	0.08
1988-89	0.09	0.07	0.32	0.13
1989-90	0.10	0.07	0.22	0.13
1990-91	0.04	0.06	0.21	0.11

Table D.4. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
All species combined ^b				
1983-84	0.83 ± 0.29	0.60 ± 0.15	0.74 ± 0.31	0.72 ± 0.14
1984-85	0.66 ± 0.30	0.18 ± 0.05	0.87 ± 0.22	0.54 ± 0.14
1985-86	1.42 ± 0.72	0.76 ± 0.22	0.82 ± 0.22	1.11 ± 0.35
1986-87	1.24 ± 0.29	0.37 ± 0.10	0.84 ± 0.33	0.89 ± 0.15
1987-88	0.94 ± 0.30	0.42 ± 0.21	0.77 ± 0.24	0.72 ± 0.18
1988-89	1.06 ± 0.30	0.50 ± 0.11	0.90 ± 0.23	0.86 ± 0.16
1989-90	0.59 ± 0.18	0.36 ± 0.09	0.62 ± 0.20	0.52 ± 0.09
1990-91	0.46 ± 0.20	0.47 ± 0.13	0.67 ± 0.14	0.54 ± 0.10

^aHeadboat surveys were discontinued in May 1991.

^bDue to rounding of numbers, these totals may not exactly equal individual totals.

Table D.5. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by headboat fishermen in Texas bays and passes by area, species and year (1983-1991). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker				
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 <.01
1988-89	0.10 \pm 0.02	0.13 \pm 0.02	0.14 \pm 0.03	0.10 \pm <.01
1989-90	0.10 \pm 0.01		0.15 \pm 0.02	0.10 \pm <.01
1990-91	0.11 \pm 0.01	0.08 \pm 0.02	0.14 \pm 0.04	0.11 \pm 0.01
Black drum				
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
1988-89	3.83			3.83
1989-90	1.89 \pm 0.10			1.89 \pm 0.10
1990-91	1.71 \pm 0.12	1.91 \pm 0.39		1.75 \pm 0.06
Gafftopsail catfish				
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		0.62 \pm 0.14
1987-88	0.89 \pm 0.10	1.23 \pm 0.19	0.98	1.02 \pm 0.14
1988-89	0.59 \pm 0.10	1.05 \pm 0.21		0.67 \pm 0.14
1989-90	1.17 \pm 0.14	1.07 \pm 0.23		1.13 \pm 0.04
1990-91	0.69 \pm 0.14	0.88 \pm 0.14	0.28	0.78 \pm 0.08

Table D.5. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Red drum				
1983-84	0.71			0.71
1984-85	3.83		1.12	3.83
1985-86	0.81			0.92
1986-87	0.32			0.32
1987-88	3.10 ± 0.19			3.10
1988-89				
1989-90	2.77 ± 0.42			2.77 ± 0.42
1990-91	3.40 ± 0.48			3.40 ± 0.48
Sand seatrout				
1983-84	0.23 ± 0.01	0.24 ± 0.01	0.27 ± 0.02	0.24 ± 0.01
1984-85	0.23 ± 0.01	0.23 ± 0.01	0.23 ± 0.01	0.23 ± 0.01
1985-86	0.18 ± 0.01	0.20 ± 0.01	0.23 ± 0.01	0.19 ± 0.01
1986-87	0.24 ± 0.01	0.20 ± 0.02	0.26 ± 0.01	0.24 ± 0.01
1987-88	0.20 ± 0.01	0.22 ± 0.01	0.22 ± 0.01	0.21 ± 0.01
1988-89	0.22 ± 0.02	0.21 ± 0.01	0.43 ± 0.21	0.27 ± 0.06
1989-90	0.19 ± 0.11	0.20 ± 0.01	0.22 ± 0.01	0.20 ± 0.01
1990-91	0.19 ± 0.01	0.21 ± 0.01	0.24 ± 0.01	0.21 ± 0.02
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		0.50	0.77	0.77
1987-88	2.00			0.54 ± 0.06
1988-89				
1989-90				
1990-91	2.02 ± 0.40	1.21 ± 0.05		1.23 ± 0.04

Table D.5. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
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
1988-89	0.43 ± 0.07	0.39 ± 0.14		0.41 ± 0.02
1989-90	0.98 ± <.01		0.35	0.67 ± 0.32
1990-91	0.38	0.67 ± 0.05	0.60 ± 0.15	0.48 ± 0.09
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
1988-89	0.70 ± 0.08	0.48 ± 0.03		0.57 ± 0.10
1989-90		0.43 ± 0.02		0.43 ± 0.02
1990-91				
All species combined^b				
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
1988-89	0.16 ± 0.02	0.17 ± 0.02	0.36 ± 0.19	0.21 ± 0.06
1989-90	0.34 ± 0.07	0.18 ± 0.02	0.25 ± 0.07	0.27 ± 0.05
1990-91	0.24 ± 0.06	0.50 ± 0.12	0.20 ± 0.02	0.29 ± 0.09

^aHeadboat surveys were discontinued in May 1991.

^bIncludes "other" species.

Table D.6. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by headboat fishermen in Texas bays and passes by area, species and year (1983-1991). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker				
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
1988-89	195 \pm 8	212 \pm 12	219 \pm 20	195 \pm 1
1989-90	199 \pm 4		224 \pm 13	200 \pm 2
1990-91	204 \pm 3	182 \pm 14	220 \pm 23	201 \pm 4
Black drum				
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		732 \pm 47
1986-87	664 \pm 62		894 \pm 7	668 \pm 62
1987-88	760 \pm 32	898 \pm 12	1018	775 \pm 21
1988-89	649			649
1989-90	507 \pm 10			507 \pm 10
1990-91	490 \pm 11	506 \pm 32		493 \pm 4
Gafftopsail catfish				
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
1988-89	385 \pm 17	463 \pm 34		299 \pm 23
1989-90	484 \pm 25	455 \pm 34		474 \pm 13
1990-91	406 \pm 21	448 \pm 22	318	426 \pm 18

Table D.6. (Cont'd.)

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
Red drum				
1983-84	408			408
1984-85	704			704
1985-86	425		473	442
1986-87	315			315
1987-88	656 ± 12			656 ± 12
1988-89				
1989-90	629 ± 30			629 ± 30
1990-91	674 ± 37			674 ± 37
Sand seatrout				
1983-84	275 ± 5	280 ± 5	291 ± 8	279 ± 5
1984-85	278 ± 6	276 ± 5	279 ± 3	278 ± 4
1985-86	254 ± 4	265 ± 3	278 ± 3	259 ± 4
1986-87	280 ± 4	265 ± 10	290 ± 2	280 ± 5
1987-88	262 ± 5	272 ± 5	273 ± 3	266 ± 4
1988-89	271 ± 7	270 ± 4	273 ± 3	271 ± 1
1989-90	257 ± 4	262 ± 4	271 ± 3	263 ± 4
1990-91	259 ± 4	266 ± 5	279 ± 3	269 ± 6
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
1988-89				
1989-90				
1990-91	492 ± 34	411 ± 4		413 ± 4

Table D.6. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
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	320	345 ± 48	316 ± 10	332 ± 11
1988-89	334 ± 17	314 ± 39		325 ± 10
1989-90	437		314	377 ± 61
1990-91	322	387 ± 10	371 ± 31	345 ± 20
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
1988-89	416 ± 15	373 ± 7		390 ± 21
1989-90		359 ± 5		359 ± 5
1990-91				

*Headboat surveys were discontinued in May 1991.

Table D.7. Percent composition of "other" species caught by headboat fishermen in Texas bays and passes by area (1990-1991). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Area				Coastwide ^b
		Galveston	Aransas	Corpus Christi	Lower Laguna Madre	
Atlantic sharpnose shark	<i>Rhizoprionodon terraenovae</i>	2.34				2.34
Atlantic spadefish	<i>Chaetodipterus faber</i>	0.13				0.13
Atlantic stingray	<i>Dasyatis sabina</i>	0.13		0.13		0.26
Barred grunt	<i>Conodon nobilis</i>			0.13		0.13
Bull shark	<i>Carcharhinus leucas</i>	0.13				0.13
Bluefish	<i>Pomatomus saltatrix</i>			0.13		0.13
Bonnethead	<i>Sphyrna tiburo</i>	1.82		0.13		2.08
Cownose ray	<i>Rhinoptera bonasus</i>			0.13		0.13
Crevalle jack	<i>Caranx hippos</i>			0.13		0.13
Gray triggerfish	<i>Balistes capriciscus</i>			0.39		0.78
Gulf kingfish	<i>Menticirrhus littoralis</i>			1.30		1.30
Hardhead catfish	<i>Arius felis</i>	1.30	0.13	1.04		2.99
King mackerel	<i>Scomberomorus cavalla</i>			0.26		0.26
Ladyfish	<i>Elops saurus</i>	0.26		0.26		0.78
Lane snapper	<i>Cutianus synagris</i>			0.13		0.13
Ocellated flounder	<i>Ancylosetta Quadracellata</i>			0.13		0.13
Pigfish	<i>Orthopristis chrysoptera</i>	0.39		0.13	9.64	10.16
Pinfish	<i>Lagodon rhomboides</i>	0.65		0.39		1.04
Puffer sp.	Family Tetraodontidae				0.26	0.26
Red snapper	<i>Lutjanus campechanus</i>				0.13	0.13
Smooth puffer	<i>Lagocephalus laevigatus</i>				0.13	0.13
Southern hake	<i>Urophycis floridana</i>	0.13				0.13
Southern kingfish	<i>Menticirrhus americanus</i>	3.65	0.13	10.55	61.46	75.78
Spanish mackerel	<i>Scomberomorus maculatus</i>			0.26		0.39

^aHeadboat surveys were discontinued in May 1991.

^bDue to rounding of numbers, coastwide percentages may not exactly equal sum of area percentages.

Table D.8. Residential origin (%) of headboat fishermen in Texas bays and passes by area and year (1983-1991*).

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Galveston				
1983-84	59	0	25	16
1984-85	64	1	17	17
1985-86	68	1	19	12
1986-87	68	0	19	14
1987-88	69	0	19	10
1988-89	71	1	17	11
1989-90	67	1	22	10
1990-91	55	1	30	15
Corpus Christi				
1983-84	20	6	58	15
1984-85	19	9	57	15
1985-86	17	12	55	17
1986-87	17	8	60	15
1987-88	20	9	61	10
1988-89	17	9	56	19
1989-90	23	5	55	18
1990-91	17	9	54	20
Lower Laguna Madre				
1983-84	10	10	48	33
1984-85	18	8	40	34
1985-86	17	12	41	31
1986-87	21	10	34	35
1987-88	14	8	43	34
1988-89	12	11	38	39
1989-90	15	12	36	37
1990-91	23	8	32	37
Coastwide				
1983-84	34	4	42	20
1984-85	42	5	33	20
1985-86	43	6	33	18

Table D.8. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1987-88	47	4	33	15
1988-89	40	6	33	21
1989-90	40	5	35	20
1990-91	35	5	36	24

*Headboat surveys were discontinued in May 1991.

APPENDIX E: Private-boat fishing estimates for the Texas Territorial Sea (TTS).

Table E.1. Number of days surveyed and number of private-boat fishermen interviewed (in parentheses) in the TTS by area and year (1982-1992).

Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1982-83		133 (53)	242 (393)	248 (974)	114 (116)	737 (1536)
1983-84		133 (27)	241 (324)	266 (510)	133 (94)	773 (955)
1984-85		133 (23)	241 (695)	266 (854)	133 (136)	773 (1708)
1985-86		133 (94)	241 (648)	266 (885)	133 (70)	773 (1697)
1986-87		133 (138)	241 (366)	266 (524)	133 (28)	773 (1056)
1987-88	108 (162)	133 (68)	241 (364)	266 (505)	133 (10)	881 (1109)
1988-89	108 (118)	132 (26)	236 (434)	260 (637)	131 (35)	867 (1250)
1989-90	108 (34)	131 (97)	240 (131)	266 (561)	133 (35)	878 (858)
1990-91	108 (80)	133 (76)	241 (296)	266 (489)	133 (45)	881 (986)
1991-92	108 (203)	133 (97)	241 (274)	266 (421)	133 (39)	881 (1034)

Table E.2. Estimated private-boat fishing pressure (man-h x 1000) \pm 1SE, mean fishing-party size (No. of fishermen) and mean trip length (h) for private-boat fishermen in the TTS by area and year (1982-1992).

Area	Year	Pressure ^a	Mean fishing party size	Mean trip length	
Sabine Lake	1987-88	9.7 \pm 3.1	2.5	5.9	
	1988-89	4.9 \pm 2.0	2.7	6.2	
	1989-90	2.7 \pm 1.1	2.7	6.3	
	1990-91	6.1 \pm 2.2	2.7	6.8	
	1991-92	11.4 \pm 3.0	2.7	6.3	
	Galveston	1982-83	41.7 \pm 34.6	3.2	6.8
1983-84		137.3 \pm 135.9	3.0	4.5	
1984-85		7.9 \pm 4.5	3.8	5.1	
1985-86		13.7 \pm 6.3	3.2	5.7	
1986-87		31.6 \pm 17.9	3.1	6.3	
1987-88		33.3 \pm 13.4	3.0	6.1	
1988-89		26.5 \pm 17.0	3.2	5.4	
1989-90		18.9 \pm 9.1	3.6	5.7	
1990-91		32.2 \pm 22.6	2.7	5.8	
1991-92		51.9 \pm 24.6	3.0	5.9	
Matagorda		1982-83	47.6 \pm 8.1	3.0	6.5
		1983-84	21.9 \pm 5.6	3.0	6.8
	1984-85	38.4 \pm 8.7	3.1	6.9	
	1985-86	35.4 \pm 6.5	3.0	7.3	
	1986-87	118.9 \pm 61.4	3.0	6.3	
	1987-88	31.3 \pm 6.6	3.0	7.3	
	1988-89	33.7 \pm 6.7	3.1	6.5	
	1989-90	46.8 \pm 19.9	3.0	6.4	
	1990-91	39.4 \pm 2.2	2.8	6.6	
	1991-92	20.5 \pm 4.8	2.6	6.0	

Table E.2. (Cont'd.)

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Corpus Christi			
1982-83	86.0 ± 8.4	3.0	5.7
1983-84	175.6 ± 52.4	3.0	5.8
1984-85	80.2 ± 16.7	3.0	5.3
1985-86	100.8 ± 19.2	2.9	5.7
1986-87	124.9 ± 52.3	2.7	5.7
1987-88	132.2 ± 32.2	3.1	5.8
1988-89	64.7 ± 12.5	3.0	5.7
1989-90	150.2 ± 31.1	3.0	5.6
1990-91	94.8 ± 19.0	2.8	5.8
1991-92	116.6 ± 29.0	2.7	5.9
Lower Laguna Madre			
1982-83	11.9 ± 3.1	3.0	6.7
1983-84	9.3 ± 2.6	2.9	5.8
1984-85	22.2 ± 7.9	2.8	5.1
1985-86	26.0 ± 12.0	2.9	7.3
1986-87	5.0 ± 2.4	2.9	6.3
1987-88	1.0 ± 0.6	2.5	6.2
1988-89	6.8 ± 3.4	2.7	9.6
1989-90	4.8 ± 1.6	2.5	8.8
1990-91	5.6 ± 2.1	2.4	5.3
1991-92	7.4 ± 2.6	2.8	5.1
Coastwide			
1982-83	188.2 ± 37.9	3.0	6.0
1983-84	344.0 ± 146.0	3.0	6.1
1984-85	148.6 ± 20.9	3.0	5.9
1985-86	176.9 ± 24.4	2.9	6.4
1986-87	280.9 ± 82.7	2.8	6.0

Table E.2. (Cont'd.)

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Coastwide (Cont'd.)			
1987-88	207.5 ± 35.6	2.9	6.3
1988-89	137.6 ± 22.5	3.0	6.2
1989-90	223.4 ± 38.1	3.0	5.9
1990-91	178.6 ± 32.1	2.8	6.1
1991-92	207.8 ± 38.5	2.7	6.0

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of area totals.

Table E-3. Estimated annual landings of fishes (No. x 1000) \pm 1 SE caught by private-boat fishermen in the TTS by area, species and year (1982-1992).

Species	Area					
	Sabine Lake	Galveston	Matagorda	Christi	Lower Laguna Madre	Coastwide ^a
Atlantic croaker						
1982-83		0.3 \pm 0.2	0.3 \pm 0.1	0.1 \pm <1	0.3 \pm 0.3	1.1 \pm 0.4
1983-84		0.1 \pm 0.1	0.1 \pm 0.1	0.0	0.0	0.1 \pm 0.1
1984-85		<1 \pm <1	0.2 \pm 0.1	<1 \pm <1	0.0	0.2 \pm 0.1
1985-86		0.1 \pm 0.1	0.8 \pm 0.7	0.0	0.0	0.8 \pm 0.7
1986-87		0.3 \pm 0.3	0.3 \pm 0.3	0.0	0.0	0.6 \pm 0.4
1987-88	0.5 \pm 0.3	0.0	<1 \pm <1	0.1 \pm 0.1	0.0	0.6 \pm 0.3
1988-89	<1 \pm <1	0.0	<1 \pm <1	0.1 \pm 0.1	0.0	0.2 \pm 0.1
1989-90	0.0	0.0	0.3 \pm 0.3	<1 \pm <1	0.0	0.3 \pm 0.3
1990-91	<1 \pm <1	0.5 \pm 0.4	0.2 \pm 0.2	<1 \pm <1	0.0	0.8 \pm 0.4
1991-92	<1 \pm <1	0.0	<1 \pm <1	0.0	0.0	<1 \pm <1
Atlantic sharpnose shark						
1982-83 ^b						
1983-84		0.0	<1 \pm <1	0.5 \pm 0.4	0.0	0.5 \pm 0.4
1984-85		0.0	<1 \pm <1	0.2 \pm 0.2	0.0	0.3 \pm 0.2
1985-86		<1 \pm <1	0.2 \pm 0.1	1.5 \pm 0.5	0.0	1.8 \pm 0.5
1986-87		0.1 \pm 0.1	1.1 \pm 0.8	0.8 \pm 0.4	0.0	2.0 \pm 0.9
1987-88	<1 \pm <1	0.1 \pm 0.1	0.2 \pm 0.1	1.7 \pm 1.1	0.0	2.0 \pm 1.1
1988-89	0.1 \pm <1	0.0	0.3 \pm 0.1	0.8 \pm 0.4	0.0	1.1 \pm 0.4
1989-90	0.0	0.1 \pm 0.1	0.1 \pm 0.1	1.4 \pm 0.6	0.0	1.6 \pm 0.6
1990-91	<1 \pm <1	<1 \pm <1	0.1 \pm 0.1	<1 \pm <1	0.0	0.2 \pm 0.1
1991-92	0.1 \pm 0.1	0.0	<1 \pm <1	0.0	0.0	0.1 \pm 0.1
Cobia						
1982-83		0.6 \pm 0.6	0.2 \pm <1	0.1 \pm <1	<1 \pm <1	0.9 \pm 0.6
1983-84		0.0	<1 \pm <1	<1 \pm <1	<1 \pm <1	0.1 \pm <1
1984-85		0.0	<1 \pm <1	0.1 \pm 0.1	<1 \pm <1	0.1 \pm 0.1
1985-86		<1 \pm <1	<1 \pm <1	<1 \pm <1	<1 \pm <1	0.1 \pm <1
1986-87		0.0	<1 \pm <1	<1 \pm <1	<1 \pm <1	0.1 \pm <1
1987-88	0.0	0.0	<1 \pm <1	<1 \pm <1	<1 \pm <1	0.1 \pm <1

Table E.3. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide*
Cobia (Cont'd.)						
1988-89	<1 ± <1	0.0	<1 ± <1	<1 ± <1	0.0	<1 ± <1
1989-90	<1 ± <1	0.0	0.0	0.1 ± 0.1	0.0	0.1 ± 0.1
1990-91	<1 ± <1	<1 ± <1	0.0	0.0	0.0	<1 ± <1
1991-92	<1 ± <1	0.0	0.1 ± <1	0.1 ± <1	0.1 ± 0.1	0.2 ± 0.1
King mackerel						
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	4.0 ± 3.0	0.6 ± 0.2	4.4 ± 1.2	0.0	9.0 ± 3.2
1988-89	0.0	0.3 ± 0.2	1.2 ± 0.5	3.2 ± 0.9	0.1 ± 0.1	4.8 ± 1.0
1989-90	0.0	0.4 ± 0.3	0.9 ± 0.7	5.9 ± 2.0	0.2 ± 0.2	7.4 ± 2.1
1990-91	<1 ± <1	1.0 ± 0.9	0.3 ± 0.2	4.1 ± 2.1	0.6 ± 0.4	6.1 ± 2.3
1991-92	<1 ± <1	2.3 ± 1.8	0.4 ± 0.1	11.0 ± 5.8	0.3 ± 0.1	14.0 ± 6.1
Red drum						
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	0.5 ± 0.2	0.0	0.0	0.6 ± 0.2
1988-89	0.1 ± <1	0.0	0.3 ± 0.1	0.0	0.0	0.4 ± 0.1
1989-90	0.0	<1 ± <1	0.2 ± 0.1	0.1 ± 0.1	0.0	0.3 ± 0.1
1990-91	<1 ± <1	<1 ± <1	0.6 ± 0.4	0.1 ± 0.1	0.0	0.8 ± 0.4
1991-92	0.2 ± 0.2	0.0	0.2 ± 0.1	0.6 ± 0.6	<1 ± <1	1.0 ± 0.6

Table E.3. (Cont'd.)

Species Year	Area					Coastwide'
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
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	0.1 ± <0.1	0.1 ± 0.1	0.9 ± 0.5	0.2 ± 0.1	<1 ± <1	1.4 ± 0.5
1988-89	0.3 ± 0.2	0.1 ± 0.1	3.4 ± 1.3	0.1 ± 0.1	0.4 ± 0.3	4.3 ± 1.4
1989-90	0.0	0.3 ± 0.2	9.0 ± 9.0	2.4 ± 1.0	1.1 ± 0.6	12.8 ± 9.1
1990-91	0.4 ± 0.4	5.8 ± 4.9	2.9 ± 1.8	1.6 ± 1.3	0.9 ± 0.6	11.5 ± 5.5
1991-92	1.7 ± 1.0	0.3 ± 0.2	1.9 ± 0.8	0.6 ± 0.3	1.7 ± 1.5	6.4 ± 2.0
Sand seatrout						
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	0.8 ± 0.4	0.0	0.5 ± 0.3	1.0 ± 1.0	0.0	2.3 ± 1.1
1988-89	1.5 ± 1.0	0.0	1.1 ± 0.8	<1 ± <1	0.0	2.6 ± 1.3
1989-90	<1 ± <1	<1 ± <1	4.5 ± 3.5	0.4 ± 0.3	0.0	4.9 ± 3.5
1990-91	1.5 ± 1.3	0.1 ± 0.1	1.5 ± 0.9	0.0	0.0	3.1 ± 1.6
1991-92	1.0 ± 0.5	0.0	1.5 ± 1.2	0.2 ± 0.2	0.0	2.8 ± 1.3
Spanish mackerel						
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

Table E.3. (Cont'd.)

Species Year	Area					Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Spanish mackerel (Cont'd.)						
1987-88	0.1 ± <1	<1 ± <1	0.3 ± 0.2	3.0 ± 1.3	<1 ± <1	3.4 ± 1.3
1988-89	0.1 ± <1	0.0	0.5 ± 0.4	0.1 ± <1	0.2 ± 0.1	0.9 ± 0.4
1989-90	<1 ± <1	0.6 ± 0.4	0.3 ± 0.3	5.4 ± 4.2	0.1 ± <1	6.3 ± 4.3
1990-91	0.7 ± 0.6	0.7 ± 0.6	0.7 ± 0.3	0.3 ± 0.2	0.1 ± 0.1	2.5 ± 0.9
1991-92	0.4 ± 0.2	0.3 ± 0.2	<1 ± <1	3.8 ± 2.0	0.4 ± 0.4	4.9 ± 2.0
Spotted seatrout						
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	4.2 ± 2.7	3.4 ± 2.3	<1 ± <1	0.0	9.0 ± 3.5
1988-89	0.3 ± 0.2	0.0	1.5 ± 0.5	0.2 ± 0.1	<1 ± <1	1.9 ± 0.6
1989-90	0.2 ± 0.1	0.0	0.1 ± 0.1	0.0	0.0	0.3 ± 0.1
1990-91	0.3 ± 0.3	0.9 ± 0.9	4.3 ± 3.6	0.0	0.0	5.5 ± 3.7
1991-92	0.4 ± 0.3	0.0	1.1 ± 0.4	0.1 ± 0.1	0.0	1.6 ± 0.5
Vermilion snapper						
1982-83 ^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
1988-89	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0

Table E.3. (Cont'd.)

Species Year	Area					Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
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	0.8	3.0	3.2	2.7	<.1 ± <.1	9.7
1988-89	0.4	0.4 ± 0.4	6.4	1.9	0.2 ± 0.2	9.3
1989-90	0.2	1.6	7.9	1.7	0.3	11.8
1990-91	0.6	1.7	9.8	2.5	0.1 ± 0.1	14.7
1991-92	1.6	1.5 ± 1.2	2.8	1.9	0.4 ± 0.3	7.3 ± 1.9
All species combined^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	3.7 ± 1.1	11.4 ± 4.9	9.7 ± 3.1	13.2 ± 2.9	0.1 ± 0.1	38.0 ± 6.6
1988-89	2.7 ± 1.1	0.8 ± 0.5	14.7 ± 4.6	6.4 ± 1.5	1.0 ± 0.6	25.6 ± 5.0
1989-90	0.5 ± 0.2	3.0 ± 1.8	23.3 ± 16.6	17.3 ± 5.1	1.7 ± 0.6	45.7 ± 17.5
1990-91	3.6 ± 1.7	10.8 ± 7.7	20.4 ± 7.6	8.6 ± 2.7	1.7 ± 0.8	45.2 ± 11.3
1991-92	5.5 ± 1.8	4.5 ± 3.2	8.3 ± 2.5	18.4 ± 7.7	2.8 ± 1.8	39.4 ± 9.1

^aDue to rounding of numbers, these totals may not exactly equal individual totals.

^bThis species is included in "other" species in this year.

Table E.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by private-boat fishermen in the TTS by area, species and year (1982-1992).

Species	Year	Area					
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker							
	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	<.01 \pm <.01	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	0.02 \pm 0.02	0.00	<.01 \pm <.01
	1986-87		0.01 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
	1987-88	0.05 \pm 0.03	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
	1988-89	<.01 \pm <.01	0.00	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
	1989-90	0.00	0.00	0.01 \pm 0.01	<.01 \pm <.01	0.00	<.01 \pm <.01
	1990-91	<.01 \pm <.01	0.02 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
	1991-92	<.01 \pm <.01	0.00	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
Atlantic sharpnose shark							
	1982-83*						
	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	0.01 \pm <.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	<.01 \pm <.01	0.01 \pm <.01	0.00	0.01 \pm <.01
	1988-89	0.01 \pm 0.01	0.00	0.01 \pm <.01	0.01 \pm 0.01	0.00	0.01 \pm <.01
	1989-90	0.00	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.00	0.01 \pm <.01
	1990-91	<.01 \pm <.01	0.00	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
	1991-92	0.01 \pm 0.01	0.00	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
Cobia							
	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	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
	1986-87		0.00	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01
	1987-88	0.00	0.00	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01

Table E.4. (Cont'd.)

Species Year	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Cobia (Cont'd.)							
1988-89	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1989-90	0.01 ± 0.01	0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± 0.00
1990-91	<.01 ± <.01	<.01 ± <.01	0.00	0.00	0.00	0.00	<.01 ± <.01
1991-92	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01
King mackerel							
1982-83		0.20 ± 0.19	0.05 ± 0.02	0.06 ± 0.02	0.03 ± 0.02	0.03 ± 0.02	0.09 ± 0.04
1983-84		0.00	0.05 ± 0.03	0.06 ± 0.03	0.06 ± 0.04	0.06 ± 0.04	0.04 ± 0.02
1984-85		0.00	0.02 ± 0.01	0.09 ± 0.03	0.03 ± 0.02	0.03 ± 0.02	0.06 ± 0.02
1985-86		0.03 ± 0.02	0.04 ± 0.02	0.05 ± 0.02	<.01 ± <.01	<.01 ± <.01	0.04 ± 0.01
1986-87		0.01 ± 0.01	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01
1987-88	0.00	0.12 ± 0.09	0.02 ± <.01	0.03 ± 0.01	0.00	0.00	0.04 ± 0.02
1988-89	0.00	0.01 ± 0.01	0.04 ± 0.02	0.05 ± 0.02	0.01 ± 0.01	0.01 ± 0.01	0.04 ± 0.01
1989-90	0.00	0.02 ± 0.02	0.02 ± 0.02	0.04 ± 0.02	0.05 ± 0.03	0.05 ± 0.03	0.03 ± 0.01
1990-91	<.01 ± <.01	0.03 ± 0.03	0.01 ± 0.01	0.04 ± 0.02	0.11 ± 0.08	0.11 ± 0.08	0.03 ± 0.01
1991-92	<.01 ± 0.01	0.04 ± 0.04	0.02 ± 0.01	0.09 ± 0.05	0.03 ± 0.02	0.03 ± 0.02	0.07 ± 0.03
Red drum							
1982-83		0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1983-84		0.00	0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1984-85		0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985-86		0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1986-87		0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	<.01 ± <.01	0.00	0.02 ± 0.01	0.00	0.00	0.00	<.01 ± <.01
1988-89	0.02 ± 0.01	0.00	0.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1989-90	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1990-91	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1991-92	0.02 ± 0.01	0.00	0.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01

Table E.4. (Cont'd.)

Species Year	Area							Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre			
Red snapper								
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 ± <.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	0.03 ± 0.02	<.01 ± <.01	0.03 ± 0.03			0.01 ± <.01
1988-89	0.06 ± 0.04	<.01 ± <.01	0.10 ± 0.04	<.01 ± <.01	0.06 ± 0.05			0.03 ± 0.01
1989-90	0.00	0.02 ± 0.01	0.19 ± 0.19	0.02 ± 0.01	0.23 ± 0.14			0.06 ± 0.04
1990-91	0.01 ± 0.01	0.18 ± 0.17	0.07 ± 0.05	0.02 ± 0.01	0.16 ± 0.12			0.06 ± 0.03
1991-92	0.15 ± 0.09	0.01 ± 0.01	0.10 ± 0.04	0.01 ± <.01	0.23 ± 0.21			0.03 ± 0.01
Sand seatrout								
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	0.02 ± 0.01	0.01 ± 0.01	0.00			0.01 ± 0.01
1988-89	0.31 ± 0.22	0.00	0.03 ± 0.02	<.01 ± <.01	0.00			0.02 ± 0.01
1989-90	0.01 ± 0.01	<.01 ± <.01	0.10 ± 0.08	<.01 ± <.01	0.00			0.02 ± 0.02
1990-91	0.24 ± 0.21	<.01 ± <.01	0.04 ± 0.02	0.00	0.00			0.02 ± 0.01
1991-92	0.04 ± 0.03	0.00	0.08 ± 0.06	<.01 ± <.01	0.00			0.01 ± 0.01
Spanish mackerel								
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	<.01 ± <.01			<.01 ± <.01
1986-87		0.04 ± 0.03	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01			<.01 ± <.01

Table E.4. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Other species						
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	0.09	0.10	0.02 ± 0.01	0.03 ± 0.02	0.05
1988-89	0.08	0.02 ± 0.02	0.19	0.03	0.03 ± 0.03	0.07
1989-90	0.08	0.08	0.17	0.01 ± <.01	0.07	0.05
1990-91	0.10	0.06	0.25	0.02	0.02 ± 0.01	0.06 ± 0.02
1991-92	0.15	0.03 ± 0.03	0.14	0.02	0.05 ± 0.04	0.04
All species combined^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		0.07 ± 0.05	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	0.38 ± 0.16	0.34 ± 0.19	0.31 ± 0.12	0.10 ± 0.03	0.08 ± 0.06	0.18 ± 0.04
1988-89	0.55 ± 0.31	0.03 ± 0.02	0.44 ± 0.16	0.10 ± 0.03	0.14 ± 0.10	0.19 ± 0.05
1989-90	0.17 ± 0.10	0.16 ± 0.11	0.50 ± 0.38	0.12 ± 0.04	0.35 ± 0.18	0.20 ± 0.08
1990-91	0.59 ± 0.34	0.34 ± 0.29	0.52 ± 0.24	0.09 ± 0.03	0.30 ± 0.17	0.25 ± 0.08
1991-92	0.48 ± 0.20	0.09 ± 0.07	0.41 ± 0.15	0.16 ± 0.08	0.37 ± 0.26	0.19 ± 0.01

^aThis species is included in other species in this year.

^bDue to rounding of numbers, these totals may not exactly equal individual totals.

Table E.5. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by private-boat fishermen in the TTS by area, species and year (1982-1992). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
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		0.23 \pm 0.03
1988-89	0.22 \pm 0.10		0.18 \pm 0.03	0.31 \pm 0.02		0.27 \pm 0.04
1989-90			0.27	0.14		0.26 \pm 0.02
1990-91	0.20	0.31 \pm 0.08	0.19 \pm 0.06	0.25		0.28 \pm 0.04
1991-92	0.15		0.15			0.15
Atlantic sharpnose shark						
1982-83*						
1983-84			7.53	5.89 \pm 0.10		5.94 \pm 0.32
1984-85			1.82 \pm 1.23	1.51 \pm 0.09		1.54 \pm 0.21
1985-86		4.79	4.85 \pm 1.09	5.70 \pm 0.48		5.58 \pm 0.62
1986-87		5.34 \pm 0.29	3.19 \pm 0.63	6.37 \pm 0.57		4.56 \pm 0.59
1987-88	2.79 \pm 0.04	6.08	4.52 \pm 1.98	5.97 \pm 0.59		5.82 \pm 0.20
1988-89	3.83 \pm 0.48		5.80 \pm 0.32	5.60 \pm 0.31		5.56 \pm 0.14
1989-90		0.73 \pm 0.29	5.96 \pm 1.05	6.12 \pm 0.47		5.87 \pm 0.39
1990-91	2.20	6.75	2.60 \pm 0.59	5.54		3.44 \pm 0.88
1991-92			2.78 \pm 2.65			2.78 \pm 2.65
Cobia						
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	16.80	6.17 \pm 4.20
1986-87			5.68 \pm 0.20	5.42	5.42	5.47 \pm 4.45

Table E.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1987-88			5.28 ± 1.18	6.55	7.66	5.87 ± 0.63
1988-89	6.49		12.94	6.62		10.32 ± 2.37
1989-90	14.40			3.32 ± 1.22		4.67 ± 2.37
1990-91	12.81 ± 3.44	24.57				16.16 ± 4.79
1991-92	7.67 ± 0.54		9.78	6.91 ± 2.21	12.14	9.60 ± 1.42
King mackerel						
1982-83		5.63	6.82 ± 1.25	6.39 ± 1.06	4.42 ± 1.61	6.19 ± 0.88
1983-84			9.70 ± 0.72	10.14 ± 0.61	11.28 ± 1.15	10.15 ± 0.64
1984-85			9.62 ± 0.61	8.42 ± 0.53	5.95 ± 0.56	8.32 ± 0.54
1985-86		9.16 ± 0.04	7.82 ± 0.54	7.61 ± 0.34	7.53	7.76 ± 0.44
1986-87		9.61 ± 0.49	9.66 ± 1.28	8.18 ± 0.46	9.01 ± 0.85	8.51 ± 0.57
1987-88		8.58 ± 0.21	8.44 ± 0.95	8.90 ± 0.61		8.73 ± 0.14
1988-89		7.00 ± 1.08	8.54 ± 0.80	8.00 ± 0.22	6.72 ± 0.68	8.06 ± 0.17
1989-90		7.30 ± 0.54	14.16 ± 1.15	8.86 ± 0.57	6.90 ± 0.18	9.37 ± 0.84
1990-91	5.24	7.85 ± 0.18	8.81 ± 1.14	8.58 ± 0.70	8.32 ± 1.01	8.44 ± 0.16
1991-92	2.89	7.49 ± 0.03	8.65 ± 0.71	8.66 ± 0.79	3.80 ± 1.06	8.37 ± 0.31
Red drum						
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			2.12 ± 0.17	3.38		2.14 ± 0.21
1987-88	2.14 ± 0.34		2.56 ± 0.26			2.52 ± 0.07
1988-89	2.45 ± 0.30		2.62 ± 0.28			2.59 ± 0.05
1989-90		2.61	2.42 ± 0.24	2.57		2.46 ± 0.04
1990-91	4.13 ± 2.50	1.38	2.66 ± 0.17	3.44 ± 0.53		2.84 ± 0.21
1991-92	1.17 ± 0.59		2.67 ± 0.21	1.57	1.89	1.70 ± 0.24

Table E.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
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	0.29 ± 0.05
1988-89	0.56 ± 0.13	0.37	0.70 ± 0.14	0.22 ± 0.02	0.64 ± 0.10	0.67 ± 0.04
1989-90		0.24 ± 0.05	0.32	0.30 ± 0.09	0.78 ± 0.12	0.35 ± 0.05
1990-91	0.63 ± 0.10	0.93 ± 0.25	0.72 ± 0.24	0.51 ± 0.14	0.58 ± 0.04	0.78 ± 0.10
1991-92	0.60 ± 0.04	0.59 ± 0.04	1.03 ± 0.41	0.92 ± 0.28	0.95 ± 0.19	0.86 ± 0.10
Sand seatrout						
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 ± 0.05
1988-89	0.30 ± 0.03		0.38 ± 0.05	0.32		0.33 ± 0.04
1989-90	0.35	0.45	0.27 ± 0.10	0.40 ± 0.03		0.28 ± 0.02
1990-91	0.45 ± 0.03	0.28 ± 0.05	0.40 ± 0.01			0.42 ± 0.02
1991-92	0.33 ± 0.01		0.33 ± 0.01	0.29 ± 0.04		0.33 ± 0.01
Spanish mackerel						
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			0.96 ± 0.32	1.45	1.76 ± 1.18

Table E.5. (Cont'd.)

Species Year	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Spanish mackerel (Cont'd.)							
1987-88	0.96 ± 0.17	1.09 ± 0.02	1.09 ± 0.26	0.45 ± 0.04	1.23	0.52 ± 0.09	
1988-89	1.07 ± 0.15		0.58 ± 0.11	1.49 ± 0.08	0.40 ± 0.09	0.66 ± 0.13	
1989-90	0.97	0.72 ± 0.09	0.48	0.60 ± 0.07	1.04 ± 0.46	0.61 ± 0.02	
1990-91	1.02 ± 0.06	0.42 ± 0.09	0.75 ± 0.04	1.06 ± 0.30	0.72 ± 0.15	0.77 ± 0.14	
1991-92	0.82 ± 0.01	1.21 ± 0.05	1.18	0.85 ± 0.08	1.05	0.89 ± 0.04	
Spotted seatrout							
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 ± 0.05	
1988-89	0.84 ± 0.13		0.87 ± 0.06	1.22 ± 0.09	0.92	0.90 ± 0.04	
1989-90	0.69 ± 0.12		0.97 ± 0.26			0.80 ± 0.13	
1990-91	0.70 ± 0.04	0.53 ± 0.13	0.87 ± 0.09			0.80 ± 0.09	
1991-92	0.83 ± 0.05		0.83 ± 0.08	0.92		0.84 ± 0.01	
Vermilion snapper							
1982-83*							
1983-84							
1984-85							
1985-86							
1986-87							
1987-88							
1988-89							
1989-90							
1990-91							
1991-92							

Table E.5. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
All species combined ^a						
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	2.59 ± 0.54	4.26 ± 1.07	2.15 ± 0.50	4.03 ± 0.88
1988-89	0.67 ± 0.18	1.78 ± 1.61	2.64 ± 0.36	6.09 ± 0.68	0.97 ± 0.32	3.20 ± 0.94
1989-90	1.71 ± 1.03	2.42 ± 0.58	2.30 ± 1.12	5.54 ± 0.72	1.62 ± 0.53	3.50 ± 1.11
1990-91	1.04 ± 0.29	1.53 ± 0.60	1.68 ± 0.38	5.02 ± 0.89	1.28 ± 0.66	2.21 ± 0.69
1991-92	0.68 ± 0.06	5.08 ± 0.53	1.95 ± 0.35	5.70 ± 0.75	2.21 ± 0.40	3.89 ± 1.18

^aMean weights are not available for this species for this year.

^bIncludes "other" species.

Table E.6. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by private-boat fishermen in the TTS by area, species and year (1983-1992). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
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
1988-89	242 \pm 34		239 \pm 14	284 \pm 7		269 \pm 15
1989-90			275	225		271 \pm 7
1990-91	251	284 \pm 25	241 \pm 20	264		272 \pm 13
1991-92	227		230			230 \pm 1
Atlantic sharpnose shark						
1983-84			1010	958 \pm 13		959 \pm 19
1984-85			651 \pm 119	500 \pm 37		516 \pm 24
1985-86		893	842 \pm 79	913 \pm 37		903 \pm 54
1986-87		919 \pm 14	613 \pm 108	959 \pm 25		766 \pm 70
1987-88	766 \pm 2	954	790 \pm 112	936 \pm 33		919 \pm 23
1988-89	821 \pm 42		930 \pm 17	928 \pm 15		923 \pm 8
1989-90		523 \pm 60	934 \pm 48	942 \pm 28		922 \pm 30
1990-91	721	982	720 \pm 34	930		779 \pm 62
1991-92			688 \pm 195			688 \pm 195
Cobia						
1983-84			1133 \pm 38	1325	800	1214 \pm 745
1984-85			1048 \pm 51	1071 \pm 44		1069 \pm 24
1985-86		788	968 \pm 32	785 \pm 216	1276	879 \pm 443
1986-87			895 \pm 7	887	877	888 \pm 723
1987-88			873 \pm 67	942	990	905 \pm 30
1988-89	939		1160	945		1071 \pm 81

Table E.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1989-90	1210			738 ± 85		796 ± 101
1990-91	1140 ± 106	1434				1224 ± 120
1991-92	990 ± 22		1070	893 ± 76	1146	1039 ± 67
King mackerel						
1983-84			997 ± 24	1014 ± 16	1044 ± 36	1014 ± 17
1984-85			992 ± 17	956 ± 19	842 ± 14	950 ± 17
1985-86		1549 ± 349	934 ± 20	926 ± 13	915	966 ± 44
1986-87		1005 ± 17	993 ± 46	947 ± 15	993 ± 32	959 ± 22
1987-88		944 ± 19	952 ± 31	960 ± 24		954 ± 6
1988-89		914 ± 46	956 ± 26	945 ± 8	903 ± 30	945 ± 4
1989-90		923 ± 23	1134 ± 31	974 ± 19	901 ± 9	989 ± 25
1990-91	835	948 ± 7	962 ± 38	951 ± 25	935 ± 31	949 ± 2
1991-92	687	921 ± 10	960 ± 20	955 ± 20	729 ± 67	945 ± 11
Red drum						
1983-84			574 ± 26		595	575 ± 67
1984-85			605 ± 8		725	610 ± 37
1985-86			540 ± 23			540 ± 23
1986-87			572 ± 15	680		573 ± 22
1987-88	572 ± 32		609 ± 22			606 ± 5
1988-89	606 ± 25		611 ± 23			610 ± 1
1989-90		625	604 ± 22	622		608 ± 5
1990-91	672 ± 124	507	623 ± 14	679 ± 37		632 ± 12
1991-92	456 ± 64		626 ± 17	526	562	532 ± 25
Red snapper						
1983-84			318 ± 3	255 ± 11	326 ± 14	305 ± 7
1984-85			308 ± 8	187 ± 20	244 ± 22	302 ± 9

Table E.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper (Cont'd.)						
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
1988-89	326 ± 25	303 ± 1	356 ± 22	255 ± 8	351 ± 23	350 ± 6
1989-90		257 ± 16	289	268 ± 28	376 ± 20	292 ± 10
1990-91	352 ± 12	395 ± 38	348 ± 28	320 ± 33	341 ± 10	367 ± 18
1991-92	352 ± 7	350 ± 8	388 ± 36	396 ± 34	402 ± 26	381 ± 11
Sand seatrout						
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
1988-89	300 ± 9		327 ± 11	311		312 ± 11
1989-90	321	348	281 ± 29	335 ± 7		285 ± 6
1990-91	341 ± 8	294 ± 34	334 ± 2			336 ± 3
1991-92	311 ± 1		312 ± 5	297 ± 13		310 ± 2
Spanish mackerel						
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
1988-89	587 ± 34		469 ± 25	665 ± 13	414 ± 25	484 ± 30
1989-90	567 ± 6	509 ± 21	451	476 ± 21	561 ± 71	480 ± 5
1990-91	580 ± 14	421 ± 35	516 ± 8	572 ± 65	508 ± 38	514 ± 37
1991-92	528 ± 22	613 ± 9	615	538 ± 17	586	546 ± 9

Table E.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Spotted seatrout						
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	420 ± 7	441 ± 53	438 ± 7	516		437 ± 3
1988-89	436 ± 17		444 ± 9	488 ± 20	444	447 ± 6
1989-90	411 ± 20		459 ± 39			430 ± 23
1990-91	413 ± 7	378 ± 31	445 ± 16			432 ± 17
1991-92	437 ± 7		440 ± 13	456		441 ± 2
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						

Table E.7. Percent composition of "other" species caught by private-boat fishermen in the TTS by area (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Area					Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Almaco jack	<i>Seriola rivoliana</i>			0.38			0.38
Atlantic spadefish	<i>Chaetodipterus faber</i>	3.39	0.19		0.94		4.52
Black drum	<i>Pogonias cromis</i>	1.32		3.20	0.19		4.71
Blacktip shark	<i>Carcharhinus limbatus</i>	3.77		6.21	0.38		10.36
Bluefish	<i>Pomatomus saltatrix</i>	3.58		2.45	0.94		6.97
Blue runner	<i>Caranx crysos</i>	2.82		0.19			3.01
Bluntnose stingray	<i>Dasyatis say</i>	0.19					0.19
Bonnethead	<i>Sphyrna tiburo</i>	0.94		0.56			1.51
Bull shark	<i>Carcharhinus leucas</i>			0.19			0.19
Crevalle jack	<i>Caranx hippos</i>	0.38	0.19		0.56		1.13
Dolphin	<i>Coryphaena hippurus</i>	3.77	2.45	0.56	5.46	0.75	12.99
Gafftopsail catfish	<i>Bagre marinus</i>	0.56		0.56			1.13
Gray triggerfish	<i>Balistes capricus</i>	0.94	0.19	0.56	6.40		8.10
Great barracuda	<i>Sphyræna barracuda</i>			0.19			0.19
Great hammerhead	<i>Sphyrna mokarran</i>			0.19			0.19
Greater amberjack	<i>Seriola dumerili</i>				0.56		0.56
Gulf flounder	<i>Paralichthys albigitta</i>				0.19		0.19
Gulf kingfish	<i>Menticirrhus littoralis</i>			0.19			0.19
Hardhead catfish	<i>Arius felis</i>	0.75					0.75
Knobbed porgy	<i>Calamus nodosus</i>			0.19			0.19
Ladyfish	<i>Elops saurus</i>	0.19		0.56			0.75
Lane snapper	<i>Lutjanus synaetis</i>			1.51	0.38		1.88
Little tunny	<i>Euthynnus alletteratus</i>	0.19	0.75	0.19	0.75	0.94	2.82
Pigfish	<i>Orthopristis chrysoptera</i>			2.07			2.07
Queen triggerfish	<i>Balistes vetula</i>	0.56					0.56
Remora	<i>Remora remora</i>				0.19		0.19
Requiem shark sp.	Family Carcharhinidae	1.13		1.13			2.26
Rock hind	<i>Epinephelus adscensionis</i>					0.38	0.38
Sheepshead	<i>Archosargus probatocephalus</i>	2.45		0.38			2.82
Silver seatrout	<i>Cynoscion nothus</i>			16.01			16.38
Silverstripe halfbeak	<i>Hyporhamphus unifasciatus</i>	0.56					0.56
Southern flounder	<i>Paralichthys lethostigma</i>	4.14		0.56			5.46
Southern kingfish	<i>Menticirrhus americanus</i>	1.51		1.32	0.75		2.82
Speckled worm eel	<i>Myrophis punctatus</i>	0.19					0.19
Spinner shark	<i>Carcharhinus brevipinna</i>				0.38		0.38

Table E.7. (Cont'd.)

Common name	Scientific name	Area					Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Striped burrfish	<i>Chilomycterus schoepfi</i>			0.19			0.19
Tripletail	<i>Lobotes surinamensis</i>	1.13		1.13			2.26
Warsaw grouper	<i>Epinephelus nigritus</i>			0.38			0.38

*Due to rounding of numbers, coastwide percentages may not exactly equal sum of area percentages.

Table E.8. Residential origin of private-boat fishermen in the TTS by area and year (1982-1992).

Area Year*	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88	92	5	2	1
1988-89	90	3	6	2
1989-90	94	0	6	0
1990-91	82	15	0	3
1991-92	92	4	0	3
Galveston				
1982-83	91	0	9	0
1983-84	96	0	0	4
1984-85	61	13	26	0
1985-86	95	0	5	0
1986-87	88	5	6	1
1987-88	93	3	3	1
1988-89	88	12	0	0
1989-90	97	0	1	2
1990-91	89	1	7	3
1991-92	89	0	7	4
Matagorda				
1982-83	50	23	26	1
1983-84	43	21	32	3
1984-85	55	15	30	0
1985-86	44	23	31	2
1986-87	48	15	37	1
1987-88	53	11	34	2
1988-89	49	22	28	2
1989-90	51	21	25	2
1990-91	39	22	38	1
1991-92	47	20	30	3

Table E.8. (Cont'd.)

Area	Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi					
	1982-83	28	10	56	6
	1983-84	29	17	50	4
	1984-85	23	20	54	3
	1985-86	28	13	56	5
	1986-87	29	16	50	5
	1987-88	14	23	57	6
	1988-89	27	17	55	1
	1989-90	21	23	50	6
	1990-91	19	27	51	3
	1991-92				
Lower Laguna Madre					
	1982-83	71	11	14	4
	1983-84	39	32	29	0
	1984-85	72	4	14	10
	1985-86	65	9	17	9
	1986-87	53	25	18	4
	1987-88	20	40	40	0
	1988-89	66	0	34	0
	1989-90	80	9	9	3
	1990-91	38	18	40	4
	1991-92	87	0	13	0
Coastwide					
	1982-83	39	13	43	4
	1983-84	37	20	41	3
	1984-85	41	17	40	3
	1985-86	40	16	42	3
	1986-87	44	14	38	3

Table E.8. (Cont'd.)

Area Year ^a	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Coastwide (Cont'd.)				
1987-88	43	15	38	4
1988-89	43	16	39	1
1989-90	40	18	37	5
1990-91	37	22	39	2
1991-92	55	14	28	3

^aPrior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

APPENDIX F: Party-boat fishing estimates for the Texas Territorial Sea (TTS).

Table F.1. Number of days surveyed and number of party-boat fishermen interviewed (in parentheses) in the TTS by area and year (1983-1992).

Year	Area					Corpus Christi		Lower Laguna Madre		Coastwide	
	Sabine Lake	Galveston	Matagorda	Christi	Lower Laguna Madre	Christi	Lower Laguna Madre				
1983-84		133	(12)	241	(13)	266	(31)	133	(26)	773	(82)
1984-85		133	(0)	241	(8)	266	(39)	133	(16)	773	(63)
1985-86		133	(0)	241	(0)	266	(51)	133	(28)	773	(79)
1986-87		133	(0)	241	(0)	266	(32)	133	(2)	773	(34)
1987-88	108	(0)	133	241	(12)	266	(32)	133	(0)	881	(44)
1988-89	108	(0)	132	236	(10)	260	(21)	131	(4)	867	(35)
1989-90	108	(0)	131	240	(19)	266	(25)	133	(20)	878	(64)
1990-91	108	(0)	133	241	(8)	266	(30)	133	(2)	881	(40)
1991-92	108	(10)	133	241	(0)	266	(21)	133	(19)	881	(50)

Table F.2. Estimated party-boat fishing pressure (man-h x 1000) ± 1SE, mean fishing-party size (No. of fishermen) and mean trip length (h) for party-boat fishermen in the TTS by area and year (1983-1992).

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Sabine Lake			
1987-88	0.0		
1988-89	0.0		
1989-90	0.0		
1990-91	0.0		
1991-92	0.1 ± 0.1	5.0	3.0
Galveston			
1983-84	2.0 ± 2.0	2.0	7.0
1984-85	0.0		
1985-86	0.0		
1986-87	0.0		
1987-88	0.0		
1988-89	0.0		
1989-90	0.0		
1990-91	0.0		
1991-92	0.0		
Matagorda			
1983-84	3.8 ± 3.5	3.2	4.6
1984-85	0.2 ± 0.2	4.0	3.0
1985-86	0.0		
1986-87	0.0		
1987-88	0.5 ± 0.3	4.0	6.5
1988-89	0.5 ± 0.4	5.0	6.5
1989-90	4.0 ± 3.2	6.3	8.7
1990-91	1.3 ± 1.2	4.0	10.2
1991-92	0.0		

Table F.2. (Cont'd.)

Area Year	Pressure'	Mean fishing party size	Mean trip length
Corpus Christi			
1983-84	25.3 ± 17.4	3.4	7.8
1984-85	10.3 ± 6.7	4.3	6.7
1985-86	13.4 ± 5.1	4.2	7.3
1986-87	7.2 ± 6.0	4.0	7.7
1987-88	13.0 ± 7.4	3.6	7.8
1988-89	7.0 ± 5.3	5.2	8.8
1989-90	33.8 ± 20.7	5.0	7.6
1990-91	13.8 ± 8.5	5.0	7.9
1991-92	3.6 ± 3.2	5.3	7.5
Lower Laguna Madre			
1983-84	15.3 ± 10.7	3.7	6.7
1984-85	5.4 ± 4.5	5.3	3.3
1985-86	5.2 ± 2.6	4.0	5.9
1986-87	0.4 ± 0.4	2.0	5.0
1987-88	0.0		
1988-89	2.4 ± 2.4	4.0	6.0
1989-90	9.9 ± 9.5	3.3	4.5
1990-91	0.6 ± 0.6	2.0	5.5
1991-92	4.8 ± 2.3	3.2	4.9
Coastwide			
1983-84	46.5 ± 20.9	3.4	6.8
1984-85	15.9 ± 8.1	4.5	5.5
1985-86	18.6 ± 5.7	4.2	6.8
1986-87	7.6 ± 6.0	3.8	7.4
1987-88	13.5 ± 7.4	3.7	7.5

Table F.2. (Cont'd.)

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Coastwide (Cont'd.)			
1988-89	9.9 ± 5.8	5.0	7.7
1989-90	47.8 ± 23.1	4.6	6.5
1990-91	15.6 ± 8.6	4.4	8.2
1991-92	9.0 ± 3.9	4.2	5.5

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of area totals.

Table F.3. (Cont'd.)

Species	Area						
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide'	
King mackerel							
1983-84		0.0	0.0	8.6 ± 5.7	0.9 ± 0.6	9.5 ± 5.8	
1984-85		0.0	<1 ± <1	0.8 ± 0.5	0.5 ± 0.5	1.3 ± 0.7	
1985-86		0.0	0.0	2.4 ± 1.1	0.3 ± 0.2	2.7 ± 1.1	
1986-87		0.0	0.0	0.7 ± 0.7	0.0	0.7 ± 0.7	
1987-88	0.0	0.0	0.0	3.1 ± 2.0	0.0	3.1 ± 2.0	
1988-89	0.0	0.0	<1 ± <1	0.4 ± 0.3	0.7 ± 0.7	1.1 ± 0.7	
1989-90	0.0	0.0	0.1 ± 0.1	3.2 ± 2.5	<1 ± <1	3.3 ± 2.5	
1990-91	0.0	0.0	0.2 ± 0.2	1.5 ± 1.0	0.0	1.7 ± 1.0	
1991-92	0.0	0.0	0.0	0.5 ± 0.5	0.9 ± 0.6	1.4 ± 0.8	
Red drum							
1983-84		0.0	0.3 ± 0.3	0.0	0.0	0.3 ± 0.3	
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	
1988-89	0.0	0.0	<1 ± <1	0.0	0.0	<1 ± <1	
1989-90	0.0	0.0	0.0	0.0	1.0 ± 1.0	1.0 ± 1.0	
1990-91	0.0	0.0	0.2 ± 0.2	0.0	0.0	0.2 ± 0.2	
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	
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	
1988-89	0.0	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1	
1989-90	0.0	0.0	0.4 ± 0.4	0.0	0.0	0.4 ± 0.4	
1990-91	0.0	0.0	0.0	<1 ± <1	0.0	<1 ± <1	
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	

Table F.3. (Cont'd.)

Species	Year	Area					Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
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
1988-89		0.0	0.0	0.0	0.0	0.0	0.0
1989-90		0.0	0.0	0.0	0.0	0.0	0.0
1990-91		0.0	0.0	0.0	0.0	0.0	0.0
1991-92		0.0	0.0	0.0	0.0	0.0	0.0
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	0.2 ± 0.2	0.4 ± 0.2	0.0	0.6 ± 0.3
1988-89		0.0	0.0	0.1 ± 0.1	0.3 ± 0.3	0.4 ± 0.4	0.8 ± 0.5
1989-90		0.0	0.0	0.4	0.3 ± 0.2	0.5 ± 0.5	1.3
1990-91		0.0	0.0	<.1 ± <.1	0.1 ± 0.1	<.1 ± <.1	0.2 ± 0.1
1991-92		<.1	0.0	0.0	0.3	0.1 ± 0.1	0.6
All species combined*							
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	4.4 ± 2.8	0.0	4.8 ± 2.8
1988-89		0.0	0.0	0.2 ± 0.2	0.8 ± 0.5	1.1 ± 1.1	2.2 ± 1.2

Table F.3. (Cont'd.)

Species Year	Area					Coastwide*
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined* (Cont'd.)						
1989-90	0.0	0.0	1.2 ± 0.8	4.2 ± 2.7	11.5 ± 11.0	16.8 ± 11.3
1990-91	0.0	0.0	0.6 ± 0.5	1.8 ± 1.1	0.1 ± 0.1	2.4 ± 1.2
1991-92	<.1 ± <.1	0.0	0.0	0.9 ± 0.8	1.6 ± 0.9	2.7 ± 1.2

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Table F.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by party-boat fishermen in the IIS by area, species and year (1983-1992). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92	0.00			0.00	0.00	0.00
Atlantic sharpnose shark						
1983-84		0.00		0.00	0.00	0.00 000
1984-85			0.00	0.00	0.00	0.00
1985-86				0.02 \pm 0.02	0.00	0.02 \pm 0.01
1986-87				0.04 \pm 0.03	0.00	0.03 \pm 0.03
1987-88			0.03 \pm 0.03	0.04 \pm 0.03		0.04 \pm 0.03
1988-89			0.02 \pm 0.02	0.02 \pm 0.02	0.00	0.02 \pm 0.02
1989-90			0.04 \pm 0.04	0.02 \pm 0.02	0.00	0.01 \pm 0.01
1990-91			0.00	0.01 \pm 0.01	0.00	0.01 \pm 0.01
1991-92	0.00			0.01 \pm 0.01	0.00	0.01 \pm 0.01
Cobia						
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	0.00	0.00
1986-87				0.00	0.00	0.00
1987-88			0.00	<.01 \pm <.01		<.01 \pm <.01
1988-89			0.00	0.00	0.00	0.00

Table F.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92	0.00			0.00	0.00	0.00
King mackerel						
1983-84		0.00	0.00	0.34 ± 0.29	0.06 ± 0.05	0.20 ± 0.14
1984-85			0.02 ± 0.02	0.08 ± 0.06	0.10 ± 0.10	0.08 ± 0.06
1985-86				0.18 ± 0.10	0.05 ± 0.04	0.14 ± 0.07
1986-87				0.10 ± 0.10	0.00	0.10 ± 0.10
1987-88			0.00	0.24 ± 0.18	0.00	0.23 ± 0.17
1988-89			0.05 ± 0.05	0.05 ± 0.04	0.29 ± 0.29	0.11 ± 0.09
1989-90			0.02 ± 0.02	0.09 ± 0.08	<.01 ± <.01	0.07 ± 0.06
1990-91			0.12 ± 0.12	0.11 ± 0.09	0.00	0.10 ± 0.08
1991-92	0.00			0.13 ± 0.13	0.19 ± 0.15	0.15 ± 0.10
Red drum						
1983-84		0.00	0.09 ± 0.09	0.00	0.00	0.01 ± 0.01
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
1988-89			0.02 ± 0.02	0.00	0.00	<.01 ± <.01
1989-90			0.00	0.00	0.10 ± 0.10	0.02 ± 0.02
1990-91			0.16 ± 0.16	0.00	0.00	0.01 ± 0.01
1991-92	0.00			0.00	0.00	0.00
Red snapper						
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

Table F.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper (Cont'd.)						
1986-87				0.00	0.00	0.00
1987-88			0.00	0.00	0.00	0.00
1988-89			0.25 ± 0.24	0.00	0.00	0.01 ± 0.01
1989-90			0.11 ± 0.11	0.00	0.00	0.01 ± 0.01
1990-91			0.00	<.01 ± <.01	0.00	<.01 ± <.01
1991-92	0.00			0.00	0.00	0.00
Sand seatrout						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92	0.00			0.00	0.00	0.00
Spanish mackerel						
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		0.02 ± 0.02
1988-89			0.00	0.00	0.00	0.00
1989-90			0.01 ± 0.01	0.01 ± 0.01	0.00	<.01 ± <.01
1990-91			0.00	<.01 ± <.01	0.00	<.01 ± <.01
1991-92	0.00			0.00	0.13 ± 0.09	0.07 ± 0.05

Table F.4. (Cont'd.)

Species Year	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Spotted seatrout							
1983-84		0.00	0.25 ± 0.24	0.00	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	<.01 ± <.01	<.01 ± <.01
1988-89			0.00		0.00	0.00	0.00
1989-90			0.00		0.00	1.00 ± 1.00	0.21 ± 0.21
1990-91			0.14 ± 0.14		0.00	0.00	0.01 ± 0.01
1991-92	0.00			0.00	0.00	0.00	0.00
Vermilion snapper							
1983-84		0.00	0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00	0.00
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	0.00
1988-89			0.00	0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00	0.00
1991-92	0.00			0.00	0.00	0.00	0.00
Other species							
1983-84		0.00	0.32	0.02 ± 0.02	0.03 ± 0.03	0.05	0.05
1984-85			0.00	0.02 ± 0.02	0.16 ± 0.16	0.07 ± 0.06	0.07 ± 0.06
1985-86				0.06 ± 0.04	0.21 ± 0.18	0.10 ± 0.06	0.10 ± 0.06
1986-87				0.05	1.50 ± 1.50	0.12 ± 0.10	0.12 ± 0.10
1987-88			0.42 ± 0.41	0.03 ± 0.02		0.03	0.03
1988-89			0.13 ± 0.12	0.04 ± 0.04	0.17 ± 0.17	0.08 ± 0.06	0.08 ± 0.06

Table F.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species (Cont'd.)						
1989-90			0.11	0.01 ± 0.01	0.05 ± 0.05	0.03 ± 0.02
1990-91			0.02 ± 0.02	0.01 ± 0.01	0.09 ± 0.09	0.01 ± 0.01
1991-92	0.03 ± 0.03			0.08 ± 0.08	0.02 ± 0.02	0.07
All species combined*						
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			0.77 ± 0.63	0.34 ± 0.26		0.35 ± 0.26
1988-89			0.46 ± 0.44	0.12 ± 0.10	0.46 ± 0.46	0.22 ± 0.16
1989-90			0.29 ± 0.26	0.12 ± 0.10	1.16 ± 1.15	0.35 ± 0.27
1990-91			0.44 ± 0.44	0.13 ± 0.10	0.09 ± 0.09	0.15 ± 0.11
1991-92	0.03 ± 0.03			0.24 ± 0.24	0.34 ± 0.22	0.30 ± 0.18

*Due to rounding of numbers, these totals may not exactly equal individual totals.

Table F.5. Mean catch rates of fishes (No./man-h) \pm 1 SE caught by party-boat fishermen in the Gulf of Mexico (TTS and EEZ combined) off Texas during June-August by species, area and year (1979-1991)*. Number in parentheses indicates number of interviews. Blank = no fishermen interviewed.

Area	Year	King mackerel	Red snapper	Spanish mackerel	Cobia	Atlantic ^b sharpnose shark	Other species	All species combined ^c
Sabine Lake								
	1987 (0)				0.00	0.00	0.03 \pm 0.03	0.03 \pm 0.03
	1988 (0)							
	1989 (0)							
	1990 (0)							
	1991 (10)	0.00	0.00	0.00	0.00	0.00	0.03 \pm 0.03	0.03 \pm 0.03
Galveston								
	1979 (5)	0.17 \pm 0.08	0.05 \pm 0.02	0.20 \pm 0.14	<.01	0.00	0.04	0.45 \pm 0.10
	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	0.72 \pm 0.11
	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	0.66 \pm 0.19
	1983 (1)	0.32 \pm 0.32	0.00	0.06 \pm 0.06	0.00	0.00	0.03	0.41 \pm 0.41
	1984 (0)							
	1985 (1)	0.09 \pm 0.09	0.15 \pm 0.15	0.02 \pm 0.02	0.00	0.00	0.06	0.32 \pm 0.32
	1986 (3)	0.10 \pm 0.10	0.00	0.01 \pm 0.01	0.00	<.01 \pm <.01	0.06 \pm 0.06	0.17 \pm 0.17
	1987 (3)	0.02 \pm 0.02	0.00	0.01 \pm 0.01	0.00	0.00	0.10 \pm 0.10	0.13 \pm 0.13
	1988 (0)							
	1989 (0)							
	1990 (0)							
	1991 (0)							
Matagorda								
	1979 (0)							
	1981 (0)							
	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	0.48 \pm 0.14
	1983 (5)	0.01 \pm 0.01	<.01 \pm <.01	0.00	0.00	0.00	0.60	0.61 \pm 0.58
	1984 (3)	0.04 \pm 0.04	0.00	0.00	0.00	0.00	0.50	0.54 \pm 0.50
	1985 (0)							
	1986 (3)	0.05 \pm 0.05	0.00	0.00	0.01 \pm 0.01	0.00	0.08 \pm 0.08	0.14 \pm 0.13

Table F.5. (Cont'd.)

Area Year	Atlantic ^a							All species combined ^c
	King mackerel	Red snapper	Spanish mackerel	Cobia	sharpnose shark	Other species		
Matagorda (Cont'd.)								
1987 (5)	0.01 ± 0.01	0.04 ± 0.04	<.01 ± <.01	0.00	<.01 ± <.01	0.04	0.10 ± 0.10	
1988 (3)	0.14 ± 0.12	0.46 ± 0.39	0.02 ± 0.02	0.00	0.18 ± 0.15	0.11	0.92 ± 0.71	
1989 (5)	0.05 ± 0.04	0.11 ± 0.08	0.01 ± 0.01	0.00	0.02 ± 0.02	0.19 ± 0.14	0.37 ± 0.25	
1990 (4)	0.06 ± 0.05	0.00	0.02 ± 0.02	0.00	0.01 ± 0.01	0.12	0.21 ± 0.18	
1991 (18)	0.08 ± 0.07	0.13 ± 0.12	0.03 ± 0.03	0.00	0.00	0.05 ± 0.04	0.28 ± 0.23	
Corpus Christi								
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	0.01 ± <.01	0.00	<.01 ± <.01	0.14	0.33 ± 0.23	
1984 (24)	0.18 ± 0.10	0.00	0.00	<.01 ± <.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)	0.21 ± 0.15	0.00	0.02 ± 0.02	<.01 ± <.01	0.03 ± 0.03	0.06 ± 0.05	0.33 ± 0.22	
1988 (13)	0.09 ± 0.06	0.00	<.01 ± <.01	0.00	0.02 ± 0.01	0.04 ± 0.03	0.15 ± 0.09	
1989 (4)	0.04 ± 0.04	0.00	0.01 ± 0.01	0.00	0.04 ± 0.04	0.02 ± 0.02	0.11 ± 0.09	
1990 (7)	0.14 ± 0.09	0.00	0.00	0.00	0.01 ± 0.01	0.19 ± 0.17	0.34 ± 0.25	
1991 (7)	0.18 ± 0.13	0.00	0.00	0.01 ± 0.01	0.01 ± 0.01	0.09 ± 0.07	0.29 ± 0.22	
Lower Laguna Madre								
1979 (0)								
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)	0.16 ± 0.15	1.05 ± 0.95	0.00	0.00	0.00	0.24 ± 0.20	1.45 ± 1.18	
1988 (4)	0.08 ± 0.07	0.34 ± 0.34	0.00	0.00	0.00	0.15 ± 0.12	0.57 ± 0.43	

Table F.5. (Cont'd.)

Area Year	Atlantic ^b							All species combined ^c
	King mackerel	Red snapper	Spanish mackerel	Cobia	sharpnose shark	Other species		
Lower Laguna Madre (Cont'd.)								
1989 (5)	0.03 ± 0.03	0.00	0.00	0.00	0.00	0.45 ± 0.31	0.48 ± 0.33	
1990 (6)	0.01 ± 0.01	0.00	0.02 ± 0.02	0.00	0.00	0.05 ± 0.04	0.09 ± 0.06	
1991 (31)	0.18 ± 0.12	0.00	0.01 ± 0.01	0.00	0.00	0.20 ± 0.14	0.39 ± 0.22	
Coastwide								
1979 (16)	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)	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	0.01 ± <.01	0.00	<.01 ± <.01	0.14	0.34 ± 0.19	
1984 (32)	0.16 ± 0.08	0.00	0.00	<.01 ± <.01	0.00	0.05	0.21 ± 0.10	
1985 (32)	0.11 ± 0.05	0.14 ± 0.10	<.01 ± <.01	<.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	<.01 ± <.01	0.09 ± 0.09	0.17 ± 0.15	
1988 (20)	0.09 ± 0.05	0.16 ± 0.15	<.01 ± <.01	0.00	0.02 ± 0.01	0.09 ± 0.05	0.35 ± 0.19	
1989 (14)	0.04 ± 0.03	0.03 ± 0.02	0.01 ± 0.01	0.00	0.03 ± 0.02	0.15 ± 0.07	0.25 ± 0.12	
1990 (17)	0.10 ± 0.05	0.00	0.01 ± <.01	0.00	<.01 ± <.01	0.15	0.27 ± 0.16	
1991 (99)	0.16 ± 0.08	0.01 ± 0.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.14	0.34 ± 0.14	

^a1979-1982 data from McEachron (1984).

^bIncludes all species of shark retained during 1979-82.

^cDue to rounding of numbers, these totals may not exactly equal individual totals.

Table F.6. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by party-boat fishermen in the TTS by area, species and year (1983-1992). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						
Atlantic sharpnose shark						
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		6.00 \pm 0.23
1988-89			2.93	6.57		6.39 \pm 0.35
1989-90			2.14	6.60		5.52 \pm 1.64
1990-91				5.63		5.63
1991-92				6.19		6.19
Cobia						
1983-84						
1984-85				19.50		19.50
1985-86						
1986-87						
1987-88				10.37		10.37
1988-89						

Table F.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1989-90						
1990-91						
1991-92						
King mackerel						
1983-84				9.04 ± 0.76	9.10 ± 0.42	9.05 ± 0.72
1984-85				5.46 ± 0.28	6.59 ± 6.59	5.90 ± 2.75
1985-86				8.55 ± 0.46	10.49	8.73 ± 1.40
1986-87				9.08 ± 0.13		9.08 ± 0.13
1987-88				7.98 ± 0.89		7.98 ± 0.89
1988-89			12.29	9.31	6.17	7.33 ± 1.22
1989-90			10.02	11.50 ± 2.13	6.45	11.43 ± 0.10
1990-91			9.58	6.92 ± 1.99		7.16 ± 0.45
1991-92				9.28 ± 0.29	5.71 ± 0.04	6.96 ± 1.62
Red drum						
1983-84			2.97			2.97
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91			2.29 ± 0.07		2.39	2.29 ± 0.07
1991-92						
Red snapper						
1983-84						
1984-85						
1985-86						
					0.31 ± 0.01	0.31 ± 0.01
					1.00	1.00

Table F.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper (Cont'd.)						
1986-87						
1987-88						
1988-89			0.40 ± 0.02			0.40 ± 0.02
1989-90			3.18			3.18
1990-91				0.10		0.10
1991-92						
Sand seatrout						
1983-84			0.35			0.35
1984-85						
1985-86						
1986-87						
1987-88			0.43			0.43
1988-89						
1989-90						
1990-91						
1991-92						
Spanish mackerel						
1983-84			1.00	1.55		1.54 ± 1.54
1984-85						
1985-86						
1986-87						
1987-88				1.11 ± 0.01		1.11 ± 0.01
1988-89				0.65		0.65
1989-90				0.58		0.58
1990-91					1.42 ± 0.18	1.42 ± 0.18
1991-92						

Table F.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Spotted seatrout						
1983-84			0.95 ± 0.03			0.95 ± 0.03
1984-85			1.56			1.56
1985-86						
1986-87			0.87			0.87
1987-88						
1988-89						
1989-90				0.76		0.76
1990-91			1.19 ± 0.14			1.19 ± 0.14
1991-92						
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						
All species combined*						
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 ± 0.01
1987-88			0.80	7.17 ± 0.74		6.63 ± 0.98

Table F.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined* (Cont'd.)						
1988-89			4.68 ± 0.71	7.62 ± 1.34	6.10	6.53 ± 0.63
1989-90			3.15 ± 0.09	9.67 ± 1.18	2.40 ± 1.96	4.26 ± 2.27
1990-91			3.23 ± 1.26	5.25 ± 1.88		4.77 ± 0.74
1991-92	0.05			8.54 ± 0.13	6.27 ± 1.33	6.55 ± 0.92

*Includes "other" species.

Table F.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1989-90				984 ± 23	990 ± 15	985 ± 22
1990-91				840 ± 11	896	862 ± 358
1991-92				973 ± 19	1045	980 ± 115
King mackerel						
1983-84				988 ± 3		988 ± 3
1984-85				940 ± 32		940 ± 32
1985-86				1003	873	920 ± 50
1986-87				1061 ± 61	893	1059 ± 3
1987-88		1078		888 ± 91		898 ± 18
1988-89		1030		984 ± 9	853 ± 1	899 ± 60
1989-90		996				
1990-91						
1991-92						
Red drum						
1983-84			651			651
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90			725		600	725
1990-91			591 ± 3			591 ± 3
1991-92						
Red snapper						
1983-84					287 ± 4	287 ± 4
1984-85						
1985-86					392	392

Table F.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper (Cont'd.)						
1986-87						
1987-88						309 ± 5
1988-89			309 ± 5			594
1989-90			594			204
1990-91				204		
1991-92						
Sand seatrout						
1983-84			320			320
1984-85						
1985-86						
1986-87						
1987-88						
1988-89			342			342
1989-90						
1990-91						
1991-92						
Spanish mackerel						
1983-84			580		674	673
1984-85						
1985-86						
1986-87						
1987-88				586 ± 10		586 ± 10
1988-89						
1989-90				501		501
1990-91				482		482
1991-92					650 ± 28	650 ± 28

Table F.7. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Spotted seatrout						
1983-84			464 ± 5			464 ± 5
1984-85			547			547
1985-86						
1986-87						
1987-88			451			451
1988-89						
1989-90					423	423
1990-91			493 ± 19			493 ± 19
1991-92						
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						

Table F.8. Percent composition of "other" species caught by party-boat fishermen in the TTS by area (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Area						Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Blacktip shark	<i>Carcharhinus limbatus</i>				9.68		9.68	
Bluefish	<i>Pomatomus saltatrix</i>				6.45		6.45	
Crevalle jack	<i>Caranx hippos</i>				16.13		16.13	
Gray triggerfish	<i>Balistes capricus</i>				3.23		3.23	
Gulf flounder	<i>Paralichthys albigutta</i>				3.23		3.23	
Little tunny	<i>Euthynnus alletteratus</i>				19.35	12.90	32.26	
Sailfish	<i>Istiophorus platyterus</i>					3.23	3.23	
Sheepshead	<i>Archosargus probatocephalus</i>				3.23		3.23	
Silver seatrout	<i>Cynoscion nothus</i>				16.13		16.13	
Southern flounder	<i>Paralichthys lethostigma</i>	3.23					3.23	
Spinner shark	<i>Carcharhinus brevipinna</i>				3.23		3.23	

*Due to rounding of numbers, coastwide percentages may not exactly equal sum of area percentages.

Table F.9. Residential origin (%) of party-boat fishermen in the TTS by area and year (1983-1992). Blank = no fishermen interviewed.

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88				
1988-89				
1989-90				
1990-91				
1991-92	90	10	0	0
Galveston				
1983-84	100	0	0	0
1984-85				
1985-86				
1986-87				
1987-88				
1988-89				
1989-90				
1990-91				
1991-92				
Matagorda				
1983-84	31	0	69	0
1984-85	100	0	0	0
1985-86				
1986-87				
1987-88	17	83	0	0
1988-89	50	0	50	0
1989-90	37	21	42	0
1990-91	50	0	50	0
1991-92				

Table F.9. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi				
1983-84	0	6	84	10
1984-85	8	8	56	28
1985-86	0	20	76	4
1986-87	0	3	75	22
1987-88	0	6	78	16
1988-89	62	0	19	19
1989-90	20	0	80	0
1990-91	30	27	37	7
1991-92	24	0	76	0
Lower Laguna Madre				
1983-84	15	15	42	27
1984-85	19	0	31	50
1985-86	46	4	36	14
1986-87	0	0	100	0
1987-88				
1988-89	0	0	100	0
1989-90	20	0	35	45
1990-91	0	0	100	0
1991-92	5	11	53	32
Coastwide				
1983-84	14	8	64	14
1984-85	22	5	43	30
1985-86	16	14	62	8
1986-87	0	3	76	21
1987-88	5	27	57	11

Table F.9. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Coastwide (Cont'd.)				
1988-89	51	0	37	11
1989-90	25	6	55	14
1990-91	32	20	42	5
1991-92	29	5	55	11

APPENDIX G: Private-boat fishing estimates for the United States Exclusive Economic Zone (EEZ) off Texas.

Table G.1. Number of days surveyed and number of private-boat fishermen interviewed (in parentheses) in the EEZ by area and year (1982-1992).

Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
1982-83		133 (169)	242 (537)	248 (620)	114 (105)	737 (1431)
1983-84		133 (122)	241 (366)	266 (321)	133 (78)	773 (887)
1984-85		133 (34)	241 (445)	266 (762)	133 (176)	773 (1417)
1985-86		133 (375)	241 (511)	266 (691)	133 (74)	773 (1651)
1986-87		133 (369)	241 (311)	266 (317)	133 (65)	773 (1065)
1987-88	108 (151)	133 (156)	241 (320)	266 (238)	133 (19)	881 (884)
1988-89	108 (54)	132 (51)	236 (293)	260 (175)	131 (41)	867 (614)
1989-90	108 (42)	131 (183)	240 (80)	266 (258)	133 (38)	878 (601)
1990-91	108 (47)	133 (315)	241 (168)	266 (398)	133 (28)	881 (956)
1991-92	108 (28)	133 (303)	241 (137)	266 (297)	133 (3)	881 (768)

Table G.2. Estimated private-boat fishing pressure (man-h x 1000) \pm 1SE, mean fishing-party size (No. of fishermen) and mean trip length (h) for private-boat fishermen in the EEZ by area and year (1982-1992).

Area	Year	Pressure ^a	Mean fishing party size	Mean trip length
Sabine Lake	1987-88	9.6 \pm 3.8	3.0	8.4
	1988-89	2.4 \pm 1.1	3.2	7.8
	1989-90	2.4 \pm 1.2	3.2	8.8
	1990-91	3.0 \pm 1.4	2.7	6.8
	1991-92	2.0 \pm 0.9	2.4	7.0
Galveston	1982-83	91.9 \pm 37.8	3.0	8.0
	1983-84	41.8 \pm 14.3	3.0	9.2
	1984-85	30.5 \pm 11.1	3.0	7.0
	1985-86	114.5 \pm 40.4	3.2	8.8
	1986-87	98.6 \pm 32.0	3.3	8.4
	1987-88	39.3 \pm 19.1	2.9	7.4
	1988-89	57.8 \pm 24.9	2.7	8.2
	1989-90	115.6 \pm 38.1	2.8	7.6
	1990-91	32.2 \pm 22.6	3.1	7.6
	1991-92	41.0 \pm 16.5	3.1	8.2
Matagorda	1982-83	69.7 \pm 6.9	3.1	8.1
	1983-84	28.8 \pm 8.6	3.1	7.5
	1984-85	29.4 \pm 6.0	3.2	7.9
	1985-86	38.5 \pm 9.7	3.2	7.4
	1986-87	32.3 \pm 8.5	3.3	8.6
	1987-88	44.4 \pm 10.4	3.2	8.3
	1988-89	30.9 \pm 8.0	3.3	8.0
	1989-90	14.9 \pm 6.6	3.1	7.4
	1990-91	25.8 \pm 7.8	3.2	7.8
	1991-92	22.1 \pm 9.6	3.2	7.4

Table G.2. (Cont'd.)

Area	Year	Pressure ^a	Mean fishing party size	Mean trip length
Corpus Christi				
	1982-83	79.4 ± 8.2	3.2	7.1
	1983-84	114.7 ± 52.9	3.2	7.6
	1984-85	84.6 ± 21.7	3.3	6.9
	1985-86	103.2 ± 18.1	3.3	7.7
	1986-87	39.4 ± 15.1	2.9	7.5
	1987-88	41.5 ± 13.7	3.0	7.4
	1988-89	34.2 ± 9.7	3.0	7.6
	1989-90	133.7 ± 40.0	3.1	7.3
	1990-91	127.5 ± 33.8	2.9	7.7
	1991-92	90.5 ± 29.3	3.0	8.0
Lower Laguna Madre				
	1982-83	17.9 ± 5.1	3.3	8.0
	1983-84	35.4 ± 20.1	2.6	7.8
	1984-85	24.5 ± 9.0	3.3	7.5
	1985-86	11.3 ± 4.6	3.7	7.7
	1986-87	18.0 ± 8.0	3.2	7.4
	1987-88	4.7 ± 2.5	2.1	11.7
	1988-89	7.7 ± 2.5	3.2	7.2
	1989-90	6.0 ± 2.4	2.9	10.7
	1990-91	2.5 ± 1.0	2.8	6.8
	1991-92	12.4 ± 5.6	3.1	6.9
Coastwide				
	1982-83	260.2 ± 43.6	3.2	7.6
	1983-84	220.7 ± 59.0	3.1	7.8
	1984-85	169.1 ± 26.7	3.2	7.3
	1985-86	267.5 ± 45.6	3.3	7.8
	1986-87	188.7 ± 37.3	3.2	8.1

Table G-2. (Cont'd.)

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Coastwide			
1987-88	139.6 ± 26.1	3.0	8.0
1988-89	143.9 ± 30.1	3.1	8.0
1989-90	272.8 ± 55.7	3.0	7.7
1990-91	234.8 ± 49.0	3.0	7.7
1991-92	168.5 ± 35.4	3.1	7.9

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of area totals.

Table G.3. Estimated annual landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in the EEZ by area, species and year (1982-1992).

Species	Area					Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Christi	Lower Laguna Madre	
Atlantic croaker						
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
1988-89	<1 ± <1	0.0	<1 ± <1	0.0	0.0	0.1 ± <1
1989-90	0.0	<1 ± <1	0.0	0.5 ± 0.5	0.0	0.5 ± 0.5
1990-91	<1 ± <1	0.0	0.0	0.0	0.0	<1 ± <1
1991-92	0.0	0.0	0.0	0.0	0.0	0.0
Atlantic sharpnose shark						
1982-83 ^b						
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	0.4 ± 0.3	0.3 ± 0.2	0.0	0.9 ± 0.4
1988-89	<1 ± <1	0.0	0.3 ± 0.1	0.3 ± 0.2	0.0	0.6 ± 0.2
1989-90	<1 ± <1	0.0	<1 ± <1	1.7 ± 1.3	<1 ± <1	1.8 ± 1.3
1990-91	<1 ± <1	<1 ± <1	0.2 ± 0.1	0.2 ± 0.2	0.0	0.5 ± 0.2
1991-92	<1 ± <1	<1 ± <1	0.2 ± 0.1	0.1 ± 0.1	<1 ± <1	0.4 ± 0.2
Cobia						
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	0.1 ± 0.1	<1 ± <1	0.0	0.3 ± 0.1

Table G-3. (Cont'd.)

Species Year	Area					Coastwide*
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1988-89	<1 ± <1	<1 ± <1	0.2 ± 0.1	<1 ± <1	<1 ± <1	0.3 ± 0.1
1989-90	<1 ± <1	<1 ± <1	0.1 ± 0.1	0.1 ± 0.1	<1 ± <1	0.2 ± 0.1
1990-91	<1 ± <1	0.1 ± 0.1	0.1 ± 0.1	<1 ± <1	0.0	0.2 ± 0.1
1991-92	<1 ± <1	0.1 ± 0.1	0.1 ± 0.1	<1 ± <1	<1 ± <1	0.2 ± 0.1
King mackerel						
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	2.1 ± 0.9	2.2 ± 1.0	0.1 ± 0.1	6.1 ± 1.7
1988-89	0.0	2.9 ± 2.5	0.8 ± 0.4	1.5 ± 0.7	0.3 ± 0.1	5.5 ± 2.6
1989-90	0.0	2.7 ± 1.8	0.3 ± 0.2	4.3 ± 1.9	0.1 ± 0.1	7.4 ± 2.6
1990-91	0.0	0.9 ± 0.8	0.8 ± 0.4	13.4 ± 5.7	0.1 ± 0.1	15.2 ± 5.8
1991-92	0.0	1.9 ± 1.3	0.9 ± 0.4	6.1 ± 2.1	0.1 ± <1	9.0 ± 2.5
Red drum						
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	0.1 ± 0.1	0.0	0.0	0.3 ± 0.2
1988-89	<1 ± <1	0.0	<1 ± <1	0.0	0.1 ± 0.1	0.1 ± 0.1
1989-90	<1 ± <1	0.0	0.0	0.0	0.0	<1 ± <1
1990-91	<1 ± <1	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
1991-92	<1 ± <1	0.0	0.0	0.0	0.0	<1 ± <1

Table G.3. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide*
Red snapper						
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	0.8 ± 0.4	4.7 ± 2.7	8.4 ± 4.1	9.4 ± 9.0	0.5 ± 0.4	23.9 ± 10.3
1988-89	0.7 ± 0.4	42.9 ± 39.8	6.1 ± 2.3	2.7 ± 1.3	1.3 ± 0.8	53.7 ± 39.9
1989-90	0.7 ± 0.4	14.0 ± 11.8	6.3 ± 3.3	4.2 ± 3.8	1.4 ± 0.8	26.7 ± 12.9
1990-91	0.3 ± 0.2	1.5 ± 0.8	4.9 ± 2.4	0.8 ± 0.5	1.6 ± 1.1	9.1 ± 2.8
1991-92	0.6 ± 0.3	4.1 ± 1.7	20.0 ± 18.1	1.0 ± 0.4	1.5 ± 1.1	27.3 ± 18.2
Sand seatrout						
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	0.6 ± 0.4	0.3 ± 0.3	0.0	0.0	1.3 ± 0.6
1988-89	<1 ± <1	<1 ± <1	0.2 ± 0.2	0.0	0.0	0.3 ± 0.2
1989-90	0.0	0.5 ± 0.4	0.4 ± 0.4	4.8 ± 4.8	0.0	5.8 ± 4.9
1990-91	0.1 ± 0.1	0.3 ± 0.3	1.1 ± 0.8	0.1 ± 0.1	0.0	1.5 ± 0.8
1991-92	3.0 ± 2.9	<1 ± <1	0.2 ± 0.2	<1 ± <1	0.0	3.3 ± 2.9
Spanish mackerel						
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

Table G.3. (Cont'd.)

Species Year	Area					Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
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	1.0	2.6	10.6	1.4 ± 0.7	0.3	15.9
1988-89	0.3	5.7	4.6	0.9 ± 0.3	0.3 ± 0.2	11.8
1989-90	0.2	34.8	1.3	7.6	0.5 ± 0.3	44.3
1990-91	0.1	4.1	3.4	2.5 ± 1.0	0.1 ± 0.1	10.2
1991-92	0.4	4.6	2.8	5.2 ± 2.0	2.2 ± 1.5	15.3
All species combined^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	2.8 ± 1.1	12.1 ± 4.8	22.2 ± 8.1	13.6 ± 9.6	0.9 ± 0.6	51.7 ± 13.5
1988-89	1.2 ± 0.6	51.7 ± 41.9	13.2 ± 4.4	5.5 ± 1.6	2.1 ± 1.1	73.7 ± 42.2
1989-90	1.1 ± 0.6	52.7 ± 25.2	8.6 ± 4.1	23.7 ± 10.7	2.0 ± 1.0	88.1 ± 27.7
1990-91	0.6 ± 0.3	23.5 ± 17.0	10.6 ± 3.8	17.2 ± 6.5	1.8 ± 1.1	53.8 ± 18.6
1991-92	4.3 ± 3.0	11.8 ± 4.7	24.2 ± 19.4	12.7 ± 3.4	3.8 ± 2.0	57.0 ± 20.5

^aDue to rounding of numbers, these totals may not exactly equal individual totals.

^bThis species is included in "other" species in this year.

Table G-4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by private-boat fishermen in the EEZ by area, species and year (1982-1992).

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
1982-83		<.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	0.00	0.00	<.01 \pm <.01
1984-85		0.00	<.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	<.01 \pm <.01	<.01 \pm <.01
1987-88	0.01 \pm 0.01	0.01 \pm 0.01	0.00	0.00	0.00	<.01 \pm <.01
1988-89	0.02 \pm 0.02	0.00	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1989-90	0.00	0.00	0.00	<.01 \pm <.01	0.00	<.01 \pm <.01
1990-91	<.01 \pm <.01	0.00	0.00	0.00	0.00	<.01 \pm <.01
1991-92	0.00	0.00	0.00	0.00	0.00	0.00
Atlantic sharpnose shark						
1982-83 ^b						
1983-84		<.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	0.06 \pm 0.06	0.01 \pm 0.01
1985-86		<.01 \pm <.01	<.01 \pm <.01	0.01 \pm <.01	0.00	0.01 \pm <.01
1986-87		<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01
1987-88	0.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	0.01 \pm 0.01	0.00	0.01 \pm <.01
1988-89	<.01 \pm <.01	0.00	0.01 \pm <.01	0.01 \pm 0.01	0.00	<.01 \pm <.01
1989-90	<.01 \pm <.01	0.00	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01	0.01 \pm <.01
1990-91	0.01 \pm 0.01	<.01 \pm <.01	0.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01
1991-92	<.01 \pm <.01	<.01 \pm <.01	0.01 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01
Cobia						
1982-83		<.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
1984-85		0.00	<.01 \pm <.01	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
1986-87		0.00	0.02 \pm 0.02	<.01 \pm <.01	0.00	<.01 \pm <.01
1987-88	0.01 \pm 0.01	<.01 \pm <.01	<.01 \pm <.01	<.01 \pm <.01	0.00	<.01 \pm <.01

Table G.4. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Cobia (Cont'd.)						
1988-89	<.01 ± <.01	0.00	0.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01
1989-90	0.1 ± 0.1	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1990-91	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1991-92	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
King mackerel						
1982-83		0.06 ± 0.04	0.08 ± 0.02	0.05 ± 0.01	0.04 ± 0.02	0.06 ± 0.02
1983-84		0.03 ± 0.02	0.04 ± 0.02	0.08 ± 0.05	<.01 ± <.01	0.01 ± <.01
1984-85		0.03 ± 0.02	0.05 ± 0.02	0.08 ± 0.03	0.02 ± 0.01	0.06 ± 0.01
1985-86		0.04 ± 0.02	0.10 ± 0.06	0.04 ± 0.01	0.01 ± <.01	0.05 ± 0.01
1986-87		0.06 ± 0.04	0.06 ± 0.04	0.02 ± 0.02	0.02 ± 0.02	0.05 ± 0.02
1987-88	0.01 ± 0.01	0.04 ± 0.03	0.05 ± 0.02	0.05 ± 0.03	0.03 ± 0.03	0.04 ± <.01
1988-89	0.00	0.05 ± 0.04	0.03 ± 0.01	0.04 ± 0.02	0.04 ± 0.02	0.04 ± 0.02
1989-90	0.00	0.02 ± 0.02	0.02 ± 0.02	0.03 ± 0.02	0.01 ± 0.01	0.03 ± 0.01
1990-91	0.00	0.01 ± 0.01	0.03 ± 0.02	0.10 ± 0.05	0.03 ± 0.03	0.06 ± 0.03
1991-92	0.00	0.05 ± 0.04	0.04 ± 0.03	0.07 ± 0.03	0.01 ± <.01	0.05 ± 0.02
Red drum						
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	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1988-89	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.01 ± 0.01	<.01 ± <.01
1989-90	0.01 ± 0.01	0.00	0.00	0.00	0.00	<.01 ± <.01
1990-91	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1991-92	0.01 ± 0.01	0.00	0.00	0.00	0.00	<.01 ± <.01

Table G.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
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	0.09 ± 0.05	0.12 ± 0.08	0.19 ± 0.10	0.23 ± 0.22	0.10 ± 0.09	0.17 ± 0.08
1988-89	0.28 ± 0.20	0.74 ± 0.70	0.20 ± 0.09	0.08 ± 0.04	0.16 ± 0.11	0.37 ± 0.28
1989-90	0.29 ± 0.21	0.12 ± 0.10	0.42 ± 0.27	0.03 ± 0.03	0.23 ± 0.15	0.10 ± 0.05
1990-91	0.10 ± 0.07	0.02 ± 0.01	0.19 ± 0.11	0.01 ± <.01	0.64 ± 0.48	0.04 ± 0.01
1991-92	0.30 ± 0.20	0.10 ± 0.06	0.90 ± 0.83	0.01 ± 0.01	0.13 ± 0.10	0.16 ± 0.11
Sand seatrout						
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	0.05 ± 0.03	0.01 ± 0.01	0.01 ± 0.01	0.00	0.00	0.01 ± <.01
1988-89	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.00	0.00	<.01 ± <.01
1989-90	0.00	<.01 ± <.01	0.03 ± 0.03	0.04 ± 0.04	0.00	0.02 ± 0.02
1990-91	0.02 ± 0.02	<.01 ± <.01	0.04 ± 0.03	<.01 ± <.01	0.00	0.01 ± <.01
1991-92	1.54 ± 1.47	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	0.00	0.02 ± 0.02
Spanish mackerel						
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

Table G.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
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	0.11	0.07	0.24	0.03 ± 0.02	0.06	0.11
1988-89	0.12	0.10	0.15	0.02 ± 0.01	0.04 ± 0.03	0.08
1989-90	0.09	0.30	0.08	0.06	0.08 ± 0.06	0.16
1990-91	0.01	0.05	0.13	0.02 ± 0.01	0.03 ± 0.02	0.04
1991-92	0.19	0.11	0.13 ± 0.08	0.06 ± 0.03	0.18 ± 0.14	0.09
All species combined^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	0.29 ± 0.16	0.31 ± 0.18	0.50 ± 0.21	0.34 ± 0.26	0.19 ± 0.15	0.37 ± 0.12
1988-89	0.50 ± 0.31	0.89 ± 0.76	0.43 ± 0.18	0.16 ± 0.06	0.27 ± 0.16	0.51 ± 0.31
1989-90	0.44 ± 0.31	0.46 ± 0.26	0.58 ± 0.35	0.18 ± 0.09	0.33 ± 0.21	0.32 ± 0.12
1990-91	0.20 ± 0.14	0.31 ± 0.24	0.41 ± 0.19	0.14 ± 0.06	0.72 ± 0.50	0.23 ± 0.09
1991-92	2.20 ± 1.70	0.29 ± 0.16	1.10 ± 0.92	0.14 ± 0.06	0.31 ± 0.20	0.34 ± 0.14

^aThis species is included in other species in this year.

^bDue to rounding of numbers, these totals may not exactly equal individual totals.

Table G.5. Annual mean weights of fishes (kg/fish) \pm 1 SE caught by private-boat fishermen in the EEZ by area, species and year (1982-1992). Blank = no fish weighed. No standard error = fish weighed on only one survey day.

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
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 \pm <.01
1987-88	0.12	0.25	0.13			0.22 \pm 0.04
1988-89	0.11		0.34			0.22 \pm 0.12
1989-90		0.14		0.06		0.67 \pm 0.01
1990-91	0.11					0.11
1991-92						
Atlantic sharpnose shark						
1982-83*			5.76	5.39 \pm 0.24		5.40 \pm 0.70
1983-84		5.34 \pm 0.08	3.17 \pm 0.72	8.62 \pm 0.88	7.70	7.37 \pm 5.75
1984-85		6.44 \pm 0.08	5.65 \pm 0.37	6.09 \pm 0.40		6.06 \pm 1.61
1985-86		6.18	5.72 \pm 1.89	5.74 \pm 0.74	7.69	6.11 \pm 2.88
1986-87		5.09 \pm 0.06	3.42 \pm 0.35	6.75 \pm 0.50		5.00 \pm 1.07
1987-88	5.82 \pm 0.44	5.73 \pm 0.12	4.41 \pm 0.84	6.79 \pm 0.43		5.68 \pm 1.00
1988-89	5.76		5.70 \pm 0.01	6.81 \pm 0.35	8.05	6.78 \pm 0.05
1989-90	6.16		4.58 \pm 0.39	6.10 \pm 0.60		5.38 \pm 0.61
1990-91	2.58	7.05	5.83 \pm 0.59	2.71 \pm 0.04	10.12	4.80 \pm 1.13
1991-92	2.38	7.11				
Cobia						
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

Table G.5. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Cobia (Cont'd.)						
1987-88	4.56 ± 2.19	10.65	9.92 ± 2.55	9.61 ± 2.20		8.00 ± 1.79
1988-89	4.11	12.44	7.68 ± 1.81	5.79	7.43 ± 0.23	7.87 ± 0.47
1989-90	4.30 ± 2.57	10.13	9.05	9.27 ± 1.79		8.66 ± 0.72
1990-91	7.44	21.94	13.68 ± 2.89	16.77		15.84 ± 2.41
1991-92	8.18	3.86 ± 0.13	4.87 ± 0.71	9.89 ± 1.49	6.44	5.22 ± 1.00
King mackerel						
1982-83		5.98 ± 1.27	5.76 ± 0.92	5.69 ± 0.42	3.40 ± 0.40	5.72 ± 0.44
1983-84		6.91 ± 1.35	9.91 ± 0.84	9.32 ± 0.83	5.62 ± 1.56	9.02 ± 0.91
1984-85		7.87 ± 1.10	8.15 ± 1.01	7.16 ± 0.24	6.48 ± 0.96	7.36 ± 0.49
1985-86		8.12 ± 1.09	7.81 ± 0.56	8.51 ± 1.17	7.14 ± 2.79	8.16 ± 0.98
1986-87		8.30 ± 0.64	10.87 ± 0.74	8.18 ± 0.61	6.84	8.76 ± 0.88
1987-88	5.36 ± 3.30	7.82 ± 0.27	9.30 ± 1.09	7.34 ± 0.74	13.37	8.26 ± 0.59
1988-89		8.18 ± 1.40	9.04 ± 1.35	8.45 ± 0.94	8.54 ± 3.87	8.41 ± 0.18
1989-90		7.65 ± 0.99	10.00 ± 1.20	7.95 ± 0.66	4.15	7.44
1990-91		7.08 ± 0.13	8.87 ± 0.79	8.20 ± 0.71	8.89 ± 2.11	8.17 ± 0.09
1991-92		6.84 ± 0.27	7.82 ± 0.57	7.38 ± 0.32	11.72 ± 5.35	7.33 ± 0.14
Red drum						
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			2.95 ± 0.18
1988-89	1.64 ± 0.24		2.94 ± 0.18		2.91	2.77 ± 0.19
1989-90	2.74					2.74
1990-91	7.22					3.32 ± 0.99
1991-92	4.46		2.76 ± 0.14			4.46

Table G.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
1982-83		0.44 ± 0.22	0.51 ± 0.14	0.57 ± 0.15	0.91 ± 0.53	0.66 ± 0.19
1983-84		0.45 ± 0.05	0.82 ± 0.24	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	0.58 ± 0.15	0.58 ± 0.05	1.21 ± 0.29	0.75 ± 0.25	0.56 ± 0.09	0.87 ± 0.16
1988-89	0.56 ± 0.10	0.79 ± 0.24	0.92 ± 0.18	0.63 ± 0.10	0.52 ± 0.01	0.79 ± 0.02
1989-90	1.04 ± 0.14	0.62 ± 0.11	0.82 ± 0.20	0.59 ± 0.08	0.72 ± 0.08	0.68 ± 0.06
1990-91	0.73 ± 0.28	0.83 ± 0.09	0.76 ± 0.07	0.54 ± 0.09	0.73 ± 0.07	0.75 ± 0.03
1991-92	0.72 ± 0.07	0.72 ± 0.09	1.30 ± 0.60	0.85 ± 0.12	1.25 ± 0.34	1.18 ± 0.13
Sand seatrout						
1982-83			0.43 ± 0.15	0.25 ± 0.44		0.39 ± 0.22
1983-84		0.39	0.40 ± 0.04			0.40 ± 0.04
1984-85		0.25 ± 0.04	0.50 ± 0.03	0.41		0.40 ± 0.40
1985-86		0.39 ± 0.08	0.51 ± 0.06			0.48 ± 0.06
1986-87		0.23 ± 0.08	0.37 ± 0.04			0.33 ± 0.05
1987-88	0.37 ± 0.03	0.36 ± 0.04	0.42 ± 0.02			0.38 ± 0.02
1988-89	0.22 ± 0.04	0.23	0.47 ± 0.09			0.43 ± 0.05
1989-90		0.13	0.17 ± 0.12	0.38		0.34 ± 0.05
1990-91	0.33	0.33	0.41 ± 0.05	0.33 ± 0.07		0.39 ± 0.02
1991-92	0.39 ± 0.01	0.71	0.52 ± 0.05	0.67 ± 0.03		0.41 ± 0.02
Spanish mackerel						
1982-83		0.94 ± 0.09	1.44 ± 0.17	0.31		1.00 ± 0.21
1983-84		1.48 ± 0.24	1.29 ± 0.09	1.14 ± 0.15	1.63	1.35 ± 0.23
1984-85		1.06 ± 0.02	0.68 ± 0.10	0.83 ± 0.09	0.62 ± 0.62	0.96 ± 0.06
1985-86		0.99	0.97 ± 0.09	1.10 ± 0.29	1.36 ± 0.40	1.00 ± 0.11
1986-87		0.90 ± 0.16	1.96	1.27		0.91 ± 0.17

Table G.5. (Cont'd.)

Species Year	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Spanish mackerel (Cont'd.)							
1987-88	0.77 ± 0.06	0.82 ± 0.10	1.29 ± 0.08	0.52 ± 0.19			0.82 ± 0.04
1988-89	1.02 ± 0.28		0.81 ± 0.23	1.65			1.13 ± 0.32
1989-90	0.75	0.96 ± 0.91	1.23 ± 0.23	0.45 ± 0.09			0.78 ± 0.19
1990-91	0.92 ± 0.12	1.11 ± 0.23	1.76	0.65 ± 0.09	0.69 ± 0.32		0.96 ± 0.17
1991-92	1.21 ± 0.30	0.98 ± 0.23	0.89 ± 0.10	1.05 ± 0.34	1.32 ± 0.20		1.01 ± 0.03
Spotted seatrout							
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	0.36 ± 0.04	0.50				0.52 ± 0.01
1988-89	0.99 ± 0.10	0.96	0.78 ± 0.07		0.55		0.84 ± 0.09
1989-90							
1990-91		0.76					0.76
1991-92	0.69	0.98					0.83 ± 0.14
Vermilion snapper							
1982-83*							
1983-84				0.24			0.24
1984-85				0.36			0.36
1985-86							
1986-87		0.19					0.19
1987-88			0.10	0.37			0.32 ± 0.07
1988-89			0.29 ± 0.03	0.18			0.29 ± 0.01
1989-90			0.26				0.22 ± 0.05
1990-91	0.13						
1991-92							

Table G-5. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
All species combined ^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	1.67 ± 0.44	2.77 ± 1.36	3.70 ± 0.53	4.19 ± 1.02	1.32 ± 0.86	3.45 ± 0.33
1988-89	0.85 ± 0.22	1.63 ± 0.37	2.47 ± 0.57	3.82 ± 0.83	2.11 ± 1.08	1.94 ± 0.31
1989-90	1.44 ± 1.31	2.26 ± 0.46	2.68 ± 0.50	4.18 ± 0.88		
1990-91	1.18 ± 0.31	5.00 ± 0.85	4.93 ± 0.96	5.83 ± 0.69	1.06 ± 0.38	5.08 ± 0.32
1991-92	0.77 ± 0.12	4.32 ± 1.14	3.97 ± 0.84	6.15 ± 0.59	2.90 ± 0.56	4.22 ± 0.57

^aMean weights are not available for this species in this year.

^bIncludes "other" species.

Table G.6. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by private-boat fishermen in the EEZ by area, species and year (1983-1992). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Atlantic croaker							
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 \pm <1
1987-88	210 \pm 2	269	217				255 \pm 17
1988-89	209		297				251 \pm 44
1989-90		226		175			177 \pm 4
1990-91	210						210
1991-92							
Atlantic sharpnose shark							
1983-84		918 \pm 3	940				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	722 \pm 68	965 \pm 33			846 \pm 81
1988-89	938		849 \pm 54	982 \pm 18			920 \pm 56
1989-90	958		937 \pm 0	982 \pm 14	1031		981 \pm 2
1990-91	738	994	866 \pm 22	954 \pm 26			910 \pm 35
1991-92	736	996	936 \pm 31	760 \pm 4	1098		874 \pm 63
Cobia							
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			944 \pm 94
1988-89	812	1155	966 \pm 70	906		981 \pm 10	978 \pm 19

Table G.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Cobia (Cont'd.)						
1989-90	791 ± 146	1082	1043	1040 ± 59		1014 ± 36
1990-91	981	1368	1177 ± 84	1270		1227 ± 56
1991-92	1011	790 ± 13	855 ± 42	1064 ± 50	937	860 ± 48
King mackerel						
1983-84		899 ± 45	998 ± 24	979 ± 22	837 ± 69	970 ± 25
1984-85		941 ± 41	932 ± 37	909 ± 9	875 ± 41	914 ± 18
1985-86		940 ± 35	932 ± 20	933 ± 29	869 ± 93	935 ± 29
1986-87		953 ± 26	1036 ± 21	945 ± 21	903	967 ± 57
1987-88	778 ± 162	935 ± 15	978 ± 35	910 ± 35	1130	943 ± 20
1988-89		953 ± 49	955 ± 42	951 ± 24	926 ± 143	951 ± 2
1989-90		908 ± 47	1013 ± 33	938 ± 26	927	946
1990-91		905 ± 5	965 ± 27	935 ± 25	979 ± 76	935 ± 3
1991-92		898 ± 11	938 ± 18	916 ± 13	1040 ± 174	915 ± 5
Red drum						
1983-84			546 ± 33			546 ± 33
1984-85		675	598 ± 22			635 ± 217
1985-86		623	540 ± 55			616 ± 576
1986-87		666	626 ± 28			638 ± 218
1987-88	621	660 ± 2	621 ± 34			646 ± 15
1988-89	535 ± 26		649 ± 13		644	633 ± 17
1989-90	635					635
1990-91	873		634 ± 12			665 ± 53
1991-92	745					745
Red snapper						
1983-84		312 ± 12	356 ± 28	334 ± 20	350 ± 11	329 ± 13
1984-85		288 ± 2	355 ± 18	379 ± 42	367 ± 12	368 ± 22

Table G.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper (Cont'd.)						
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	329 ± 28	325 ± 7	393 ± 30	347 ± 43	342 ± 17	358 ± 16
1988-89	340 ± 23	349 ± 38	372 ± 12	346 ± 19	337 ± 2	351 ± 3
1989-90	402 ± 24	344 ± 19	372 ± 20	347 ± 18	368 ± 12	354 ± 8
1990-91	358 ± 45	373 ± 12	368 ± 10	321 ± 22	372 ± 13	365 ± 5
1991-92	374 ± 12	358 ± 12	413 ± 50	385 ± 13	419 ± 28	403 ± 11
Sand seatrout						
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	323 ± 10	320 ± 15	335 ± 6			325 ± 4
1988-89	277 ± 17	280	338 ± 14			328 ± 12
1989-90		232	251 ± 6	326		312 ± 18
1990-91	315	313	335 ± 13	312 ± 19		329 ± 6
1991-92	327 ± 1	403	360 ± 9	395 ± 7		330 ± 4
Spanish mackerel						
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	632 ± 13	453 ± 68		535 ± 10
1988-89	580 ± 57		513 ± 41	688		582 ± 67
1989-90	527	568 ± 1	621 ± 41	427 ± 28		517 ± 52
1990-91	548 ± 26	585 ± 41	705	492 ± 21	498 ± 85	553 ± 33
1991-92	595 ± 57	558 ± 44	552 ± 26	569 ± 60	637 ± 33	563 ± 5

Table G.6. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Spotted seatrout						
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
1988-89	463 ± 15	462	435 ± 13		387	440 ± 14
1989-90						
1990-91		432				432
1991-92	416	452				433 ± 18
Vermilion snapper						
1983-84				281		281
1984-85				319		319
1985-86						
1986-87		262				262
1987-88			217	312		296 ± 27
1988-89			296 ± 11	259		295 ± 2
1989-90	233		286			272 ± 20
1990-91						
1991-92						

Table G.7. Percent composition of "other" species caught by private-boat fishermen in the EEZ by area (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Area					Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic bonito	<i>Sarda sarda</i>		0.12				0.12
Barracuda sp.	Family Sphyraenidae		0.12				0.12
Black drum	<i>Pogonias cromis</i>	0.70		0.12			0.93
Blackfin tuna	<i>Thunnus atlanticus</i>		0.23			0.12	0.35
Blacktip shark	<i>Carcharhinus limbatus</i>		0.47				1.63
Blue runner	<i>Caranx crysos</i>	0.93	0.12			0.12	1.98
Bluefish	<i>Pomatomus saltatrix</i>	0.35	1.17				1.87
Bonnethead	<i>Sphyrna tiburo</i>		0.12				0.12
Bony fish sp.	Class Osteichthys		1.05				1.05
Bull shark	<i>Carcharhinus leucas</i>		0.35				0.35
Crevalle jack	<i>Caranx hippos</i>	0.23	0.35				0.93
Dolphin	<i>Coryphaena hippurus</i>	0.35	32.09			2.68	57.41
Dolphin sp.	Family Coryphaenidae						0.93
Gray snapper	<i>Lutjanus griseus</i>		0.12				0.12
Gray triggerfish	<i>Balistes capricus</i>	0.93	0.35				7.70
Great barracuda	<i>Sphyraena barracuda</i>						0.82
Greater amberjack	<i>Seriola dumerili</i>	0.23	0.12				3.38
Gulf kingfish	<i>Menticirrhus littoralis</i>	0.47					0.47
Inshore lizardfish	<i>Synodus foetens</i>						0.12
Ladyfish	<i>Elops saurus</i>	1.05					1.05
Lane snapper	<i>Lutjanus synagris</i>		0.23				1.63
Lemon shark	<i>Negaprion brevirostris</i>	0.12					0.12
Little tunny	<i>Euthynnus alletteratus</i>	0.47	0.47				3.85
Pigfish	<i>Orthopristis chrysoptera</i>	0.12				2.22	0.12
Pompano dolphin	<i>Coryphaena equisetis</i>						0.12
Rainbow runner	<i>Elagatis bipinnulata</i>						0.12
Red hind	<i>Epinephelus guttatus</i>						0.23
Requiem shark sp.	Family Carcharhinidae	0.82	0.23				1.05
Rock hind	<i>Episphelus adscensionis</i>						0.35
Sea bass sp.	Family Serranidae						1.17
Sharksucker	<i>Echeneis naucrates</i>						0.23
Sheepshead	<i>Archosargus probatocephalus</i>	0.12					0.12

Table G.7. (Cont'd.)

Common name	Scientific name	Area					Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Silver seatrout	<i>Cynoscion nothus</i>		0.12	0.47	0.47		1.05
Snapper sp.	Family Lutjanidae			4.08			4.08
Southern flounder	<i>Paralichthys lethostigma</i>		0.70				0.70
Spinner shark	<i>Carcharhinus brevipinna</i>		0.23		0.35		0.58
Tomtate	<i>Haemulon aurolineatum</i>		0.12				0.12
Wahoo	<i>Acanthocybium solandri</i>				0.12		0.12

*Due to rounding of numbers, coastwide percentages may not exactly equal sum of area percentages.

Table G.8. Residential origin of private-boat fishermen in the EEZ by area and year (1982-1992).

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88	90	5	1	4
1988-89	87	2	11	0
1989-90	79	10	10	2
1990-91	96	4	0	0
1991-92	96	0	4	0
Galveston				
1982-83	100	0	0	0
1983-84	87	0	10	3
1984-85	93	7	0	0
1985-86	89	1	10	1
1986-87	85	2	9	3
1987-88	92	1	5	1
1988-89	94	4	2	0
1989-90	95	2	4	0
1990-91	93	1	5	1
1991-92	89	1	7	3
Matagorda				
1982-83	61	18	21	0
1983-84	43	25	29	3
1984-85	49	17	33	0
1985-86	54	18	27	1
1986-87	42	20	37	1
1987-88	39	28	31	2
1988-89	48	18	34	0
1989-90	50	25	25	0
1990-91	44	3	22	1
1991-92	46	31	21	2
Corpus Christi				
1982-83	28	16	55	1
1983-84	26	26	44	3
1984-85	18	17	62	2
1985-86	24	13	60	2
1986-87	27	23	49	1

Table G.8. (Cont'd.)

Area Year*	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi (Cont'd.)				
1987-88	23	13	62	2
1988-89	33	15	51	1
1989-90	26	24	45	4
1990-91	17	35	45	3
1991-92	24	22	53	2
Lower Laguna Madre				
1982-83	85	6	9	0
1983-84	60	8	29	3
1984-85	69	16	14	1
1985-86	66	9	16	8
1986-87	62	12	26	0
1987-88	68	21	11	0
1988-89	83	5	5	7
1989-90	47	26	26	0
1990-91	79	14	7	0
1991-92	51	9	23	17
Coastwide				
1982-83	54	14	32	1
1983-84	44	21	32	3
1984-85	38	17	44	1
1985-86	50	12	37	2
1986-87	53	14	31	2
1987-88	53	15	29	2
1988-89	53	14	32	1
1989-90	55	17	26	2
1990-91	53	21	24	2
1991-92	56	14	27	3

*Prior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

APPENDIX H: Party-boat fishing estimates for the United States Exclusive Economic Zone (EEZ) off Texas.

Table H.1. Number of days surveyed and number of party-boat fishermen interviewed (in parentheses) in the EEZ by area and year (1983-1992).

Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1983-84		133 (10)	241 (10)	266 (68)	133 (35)	773 (123)
1984-85		133 (0)	241 (6)	266 (68)	133 (31)	773 (105)
1985-86		133 (6)	241 (0)	266 (35)	133 (41)	773 (82)
1986-87		133 (12)	241 (30)	266 (13)	133 (60)	773 (115)
1987-88	108 (0)	133 (17)	241 (37)	266 (31)	133 (34)	881 (119)
1988-89	108 (0)	132 (0)	236 (14)	260 (40)	131 (18)	867 (72)
1989-90	108 (0)	131 (0)	240 (13)	266 (4)	133 (14)	878 (31)
1990-91	108 (0)	133 (0)	241 (15)	266 (21)	133 (32)	881 (68)
1991-92	108 (0)	133 (0)	241 (29)	266 (14)	133 (26)	881 (69)

Table H.2. Estimated party-boat fishing pressure (man-h x 1000) \pm 1SE, mean fishing-party size (No. of fishermen) and mean trip length (h) for party-boat fishermen in the EEZ by area and year (1983-1992).

Area Year	Pressure'	Mean fishing party size	Mean trip length
Sabine Lake			
1987-88	0.0		
1988-89	0.0		
1989-90	0.0		
1990-91	0.0		
1991-92	0.0		
Galveston			
1983-84	8.3 \pm 5.9	5.0	8.0
1984-85	0.0		
1985-86	3.5 \pm 3.5	6.0	11.0
1986-87	15.7 \pm 14.9	4.0	10.3
1987-88	124.7 \pm 117.7	4.2	6.8
1988-89	0.0		
1989-90	0.0		
1990-91	0.0		
1991-92	0.0		
Matagorda			
1983-84	1.7 \pm 1.4	5.0	6.2
1984-85	0.5 \pm 0.5	6.0	10.5
1985-86	0.0		
1986-87	1.3 \pm 1.0	7.5	8.5
1987-88	5.3 \pm 3.9	7.4	9.6
1988-89	1.2 \pm 0.7	4.7	8.8
1989-90	3.7 \pm 2.3	4.3	10.2
1990-91	1.9 \pm 1.4	5.0	9.5
1991-92	2.4 \pm 1.2	5.8	9.8
Corpus Christi			
1983-84	101.1 \pm 45.9	4.2	7.8
1984-85	21.2 \pm 7.5	4.0	8.1

Table H.2. (Cont'd.)

Area Year	Pressure ^a	Mean fishing party size	Mean trip length
Corpus Christi (Cont'd.)			
1985-86	7.0 ± 4.0	3.9	7.4
1986-87	9.0 ± 6.3	4.3	9.8
1987-88	3.5 ± 2.4	3.1	8.0
1988-89	11.3 ± 5.9	4.0	8.4
1989-90	4.8 ± 4.8	4.0	9.0
1990-91	20.1 ± 12.2	4.2	8.6
1991-92	2.7 ± 1.6	5.6	7.9
Lower Laguna Madre			
1983-84	6.0 ± 3.4	3.2	10.6
1984-85	8.2 ± 4.8	5.2	5.9
1985-86	7.5 ± 2.8	3.7	6.2
1986-87	18.4 ± 8.1	4.6	6.4
1987-88	6.9 ± 3.2	3.8	6.7
1988-89	7.8 ± 4.7	6.0	6.8
1989-90	5.3 ± 3.1	3.5	5.8
1990-91	9.7 ± 3.9	4.0	6.1
1991-92	6.9 ± 2.7	3.3	6.5
Coastwide			
1983-84	117.1 ± 46.4	4.0	8.7
1984-85	30.0 ± 8.9	4.4	7.7
1985-86	18.0 ± 6.0	3.9	7.0
1986-87	44.4 ± 18.1	5.0	7.7
1987-88	139.3 ± 117.8	4.2	7.7
1988-89	20.2 ± 7.6	4.5	8.2
1989-90	13.8 ± 6.2	3.9	7.9
1990-91	31.7 ± 12.9	4.2	7.5
1991-92	12.0 ± 3.4	4.5	7.8

^aDue to rounding of numbers, coastwide totals may not exactly equal sum of area totals.

Table H.3. Estimated annual landings of fishes (No. x 1000) ± 1 SE caught by party-boat fishermen in the EEZ by area, species and year (1983-1992).

Species Year	Area					Coastwide*
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
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
1988-89	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1989-90	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0
Atlantic sharpnose shark						
1983-84	0.0	0.0	0.0	0.4 ± 0.4	0.0	0.4 ± 0.4
1984-85	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1986-87	<.1 ± <.1	0.0	0.0	0.1 ± 0.1	0.0	0.1 ± 0.1
1987-88	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1988-89	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	0.0	0.2 ± 0.1
1989-90	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1991-92	0.0	0.0	0.1 ± <.1	<.1 ± <.1	0.0	0.1 ± 0.1
Cobia						
1983-84	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1985-86	0.0	0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1986-87	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
1988-89	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1

Table H.3. (Cont'd.)

Species Year	Area						Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
King mackerel							
1983-84		1.6 ± 1.6	0.1 ± 0.1	11.7 ± 5.6	0.2 ± 0.1	13.5 ± 7.4	
1984-85		0.0	<.1 ± <.1	4.2 ± 2.2	<.1 ± <.1	4.2 ± 4.2	
1985-86		0.3 ± 0.3	0.0	0.0	<.1 ± <.1	0.8 ± 0.5	
1986-87		1.6 ± 1.6	<.1 ± <.1	1.0 ± 0.9	0.7 ± 0.7	3.4 ± 1.9	
1987-88		3.0 ± 2.5	0.1 ± <.1	0.4 ± 0.3	0.2 ± 0.2	3.7 ± 2.6	
1988-89	0.0	0.0	0.1 ± 0.1	0.9 ± 0.5	0.1 ± 0.1	1.0 ± 0.5	
1989-90	0.0	0.0	0.3 ± 0.2	0.1 ± 0.1	0.2 ± 0.2	0.6 ± 0.3	
1990-91	0.0	0.0	<.1 ± <.1	2.0 ± 1.1	0.2 ± 0.1	2.3 ± 1.1	
1991-92	0.0	0.0	0.1 ± 0.1	0.7 ± 0.4	0.8 ± 0.4	1.5 ± 0.6	
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	
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	
1991-92	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1	
Red snapper							
1983-84		0.0	<.1 ± <.1	0.0	3.3 ± 2.0	3.3 ± 2.0	
1984-85		0.0	0.0	0.0	0.2 ± 0.2	0.2 ± 0.2	
1985-86		0.5 ± 0.5	0.0	2.6 ± 2.3	0.5 ± 0.4	3.7 ± 2.4	
1986-87		0.0	<.1 ± <.1	0.0	1.0 ± 1.0	1.1 ± 1.0	
1987-88	0.0	0.0	0.2 ± 0.2	0.0	1.8 ± 1.3	2.0 ± 1.3	
1988-89	0.0	0.0	0.5 ± 0.3	0.0	3.5 ± 3.5	4.0 ± 3.5	
1989-90	0.0	0.0	0.4 ± 0.3	0.0	0.0	0.4 ± 0.3	
1990-91	0.0	0.0	0.0	0.6 ± 0.6	0.0	0.6 ± 0.6	
1991-92	0.0	0.0	0.3 ± 0.2	0.0	0.0	0.3 ± 0.2	

Table H.3. (Cont'd.)

Species Year	Area						Coastwide ^a
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Vermilion snapper							
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
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-91	0.0	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	11.4 ± 11.3	0.2	0.7 ± 0.6	5.4 ± 2.9	17.6	
1988-89	0.0	0.0	<.1 ± <.1	1.5 ± 1.3	1.1 ± 1.0	2.6 ± 1.6	
1989-90	0.0	0.0	0.9 ± 0.7	4.3 ± 4.3	1.9 ± 1.1	7.2 ± 4.5	
1990-91	0.0	0.0	<.1 ± <.1	9.1 ± 6.1	0.8 ± 0.4	9.8 ± 6.1	
1991-92	0.0	0.0	0.1	0.2 ± 0.2	1.2 ± 0.7	1.5	
All species combined^a							
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	16.9 ± 15.2	0.4 ± 0.3	1.1 ± 0.9	7.4 ± 3.2	25.9 ± 15.5	
1988-89	0.0	0.0	0.8 ± 0.5	2.4 ± 1.4	4.7 ± 3.6	7.9 ± 3.9	
1989-90	0.0	0.0	1.6 ± 1.1	4.4 ± 4.4	2.1 ± 1.2	8.1 ± 4.7	
1990-91	0.0	0.0	0.1 ± 0.1	11.7 ± 7.0	1.2 ± 0.5	13.0 ± 7.0	
1991-92	0.0	0.0	0.7 ± 0.3	1.0 ± 0.7	2.0 ± 0.9	3.6 ± 1.2	

^aDue to rounding of numbers, these totals may not exactly equal individual totals.

Table H.4. Annual mean catch rates of fishes (No./man-h) \pm 1 SE caught by party-boat fishermen in the EEZ by area, species and year (1983-1992). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
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
1987-88		0.00		0.00	0.00	0.00
1988-89			0.01 \pm 0.01	0.00	0.00	<.01 \pm <.01
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92			0.00	0.00	0.00	0.00
Atlantic sharpnose shark						
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		0.01 \pm 0.01	0.00	<.01 \pm <.01
1987-88		0.00		0.00	0.00	<.01 \pm <.01
1988-89			<.01 \pm <.01	0.01 \pm 0.01	0.00	0.01 \pm 0.01
1989-90			0.12 \pm 0.10	0.00	0.00	0.00
1990-91			0.02 \pm 0.02	0.00	0.00	<.01 \pm <.01
1991-92			0.02 \pm 0.02	0.01 \pm 0.01	0.00	0.01 \pm 0.01
Cobia						
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	<.01 \pm <.01	0.00	0.00	<.01 \pm <.01
1987-88		0.00	0.00	0.00	0.00	0.00
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92			0.00	0.01 \pm 0.01	0.00	<.01 \pm <.01

Table HL4 (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
King mackerel						
1983-84		0.19 ± 0.19	0.03 ± 0.03	0.11 ± 0.08	0.03 ± 0.02	0.12 ± 0.07
1984-85			0.05 ± 0.05	0.20 ± 0.12	0.01 ± 0.01	0.14 ± 0.08
1985-86		0.09 ± 0.09		0.06 ± 0.06	<0.01 ± <0.01	0.04 ± 0.03
1986-87		0.10 ± 0.10	0.02 ± 0.02	0.12 ± 0.11	0.04 ± 0.04	0.08 ± 0.05
1987-88		0.02 ± 0.02	0.01 ± 0.01	0.11 ± 0.10	0.03 ± 0.03	0.03 ± 0.02
1988-89			0.07 ± 0.07	0.08 ± 0.06	0.01 ± 0.01	0.05 ± 0.03
1989-90			0.08 ± 0.07	0.03 ± 0.03	0.03 ± 0.03	0.04 ± 0.03
1990-91			0.02 ± 0.02	0.10 ± 0.08	0.02 ± 0.01	0.07 ± 0.04
1991-92			0.05 ± 0.04	0.25 ± 0.20	0.11 ± 0.07	0.13 ± 0.06
Red drum						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92			0.01 ± 0.01	0.00	0.00	<0.01 ± <0.01
Red snapper						
1983-84		0.00	<0.01 ± <0.01	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	0.01 ± 0.01
1988-89			0.41 ± 0.34	0.00	0.45 ± 0.45	0.20 ± 0.18
1989-90			0.10 ± 0.09	0.00	0.00	0.03 ± 0.02
1990-91			0.00	0.03 ± 0.03	0.00	0.02 ± 0.02
1991-92			0.13 ± 0.10	0.00	0.00	0.02 ± 0.02

Table H.4 (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Sand seatrout						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92			0.00	0.00	0.00	0.00
Spanish mackerel						
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	0.00	0.02 ± 0.02
1988-89			<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1989-90			0.02 ± 0.02	0.00	0.00	<.01 ± <.01
1990-91			<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.01 ± <.01
1991-92			0.03 ± 0.03	0.00	0.01 ± 0.01	0.01 ± 0.01
			0.03 ± 0.02			
Spotted seatrout						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	0.00	0.00	0.00
1991-92			0.00	0.00	0.00	0.00

Table H.4 (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Vermilion snapper						
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
1988-89			0.00	0.00	0.00	0.00
1989-90			0.00	0.00	0.00	0.00
1990-91			0.00	<.01 ± <.01	0.00	<.01 ± <.01
1991-92			0.00	0.00	0.00	0.00
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	0.20 ± 0.19	0.78 ± 0.51	0.13
1988-89			0.04 ± 0.03	0.13 ± 0.12	0.14 ± 0.13	0.13 ± 0.09
1989-90			0.25 ± 0.21	0.90 ± 0.90	0.37 ± 0.28	0.52 ± 0.37
1990-91			<.01 ± <.01	0.45 ± 0.36	0.08 ± 0.05	0.31 ± 0.22
1991-92			0.05	0.09 ± 0.09	0.17 ± 0.12	0.13
All species combined^a						
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	0.32 ± 0.29	1.08 ± 0.64	0.19 ± 0.17
1988-89			0.67 ± 0.51	0.21 ± 0.16	0.60 ± 0.52	0.39 ± 0.23
1989-90			0.43 ± 0.35	0.92 ± 0.92	0.40 ± 0.30	0.59 ± 0.40
1990-91			0.07 ± 0.06	0.58 ± 0.45	0.12 ± 0.07	0.41 ± 0.26
1991-92			0.29 ± 0.19	0.37 ± 0.29	0.29 ± 0.16	0.31 ± 0.13

^aDue to rounding of numbers, these totals may not exactly equal individual totals.

Table H.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
King mackerel						
1983-84		9.33	14.24	9.55 ± 0.73	5.49 ± 0.93	9.49 ± 1.81
1984-85			7.76	9.97 ± 1.87	4.83	9.90 ± 1.93
1985-86		5.68		8.33	13.34	7.43
1986-87		4.69	9.32	10.52 ± 1.38	3.85	6.40 ± 1.88
1987-88		7.03 ± 5.27	9.94 ± 1.02	7.33 ± 0.36	5.89 ± 1.29	7.04 ± 0.11
1988-89			13.84	8.32 ± 0.93	5.84	8.51 ± 0.60
1989-90			11.06 ± 1.68	6.72	10.45	9.95 ± 1.14
1990-91			11.34	7.71 ± 2.06	5.04 ± 1.38	7.53 ± 0.34
1991-92			9.22 ± 3.32	9.06 ± 0.48	5.38 ± 0.65	7.28 ± 1.50
Red drum						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92			2.59 ± 0.20			2.59 ± 0.20
Red snapper						
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	0.83 ± 0.24
1988-89			2.36 ± 1.43		2.40	2.39 ± <.01
1989-90			0.54			0.54
1990-91				0.67		0.67
1991-92			0.78 ± 0.31			0.78 ± 0.31

Table H.5. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Sand seatrout						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						
Spanish mackerel						
1983-84		1.01		1.12 ± 0.05		1.06 ± 0.59
1984-85					1.04	1.04
1985-86		1.94			1.83	1.90
1986-87		0.38				0.38
1987-88		1.07	1.37	0.44		1.07
1988-89			1.52 ± 0.43	0.97		1.18 ± 0.26
1989-90			1.07			1.07
1990-91			0.57	0.51	0.81 ± 0.16	0.74 ± 0.08
1991-92			1.02 ± 0.06		1.06	1.03 ± 0.02
Spotted seatrout						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						

Table H.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91				0.25		0.25
1991-92						
All species combined ^a						
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
1988-89			3.79 ± 1.16	7.85 ± 0.89	2.57 ± 0.51	4.31 ± 1.84
1989-90			7.76 ± 0.59	6.70	10.40	7.86 ± 1.11
1990-91			1.34 ± 1.44	7.61 ± 3.36	3.53 ± 1.30	7.17 ± 0.63
1991-92			2.60 ± 1.21	8.41 ± 0.56	4.89 ± 0.53	5.42 ± 1.24

^aIncludes "other" species.

Table H.6. Annual mean total lengths of fishes (mm/fish) \pm 1 SE caught by party-boat fishermen in the EEZ by area, species and year (1983-1992). Blank = no fish measured. No standard error = fish measured on only one survey day.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
1983-84			327			327
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						
Atlantic sharpnose shark						
1983-84						
1984-85					864	864
1985-86				940 \pm 9		940 \pm 9
1986-87						750
1987-88			750 \pm 47			
1988-89			830 \pm 47	1002		886 \pm 76
1989-90						
1990-91			649			649
1991-92			903 \pm 68	825		872 \pm 38
Cobia						
1983-84						
1984-85						
1985-86						
1986-87			981 \pm 49			981 \pm 49
1987-88						
1988-89						
1989-90						
1990-91						
1991-92				937		937

Table H.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
King mackerel						
1983-84		974	1136	990 ± 23	832 ± 40	985 ± 139
1984-85			941	1001 ± 62	812	825 ± 75
1985-86		853		953	1130	919
1986-87		798	979	1039 ± 40	752	867 ± 78
1987-88		840 ± 254	1017 ± 39	906 ± 12	857 ± 63	851 ± 13
1988-89			1130	958 ± 32	865	962 ± 19
1989-90			1048 ± 43	905	1038	1014 ± 37
1990-91			1072	916 ± 85	794 ± 71	907 ± 16
1991-92			975 ± 126	986 ± 19	834 ± 31	911 ± 62
Red drum						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92			623 ± 16			623 ± 16
Red snapper						
1983-84			530		354	355
1984-85					407	407
1985-86		454			340 ± 32	398 ± 245
1986-87			511		419	421 ± 5
1987-88			512 ± 10		363 ± 23	376 ± 25
1988-89			442 ± 105		540	528 ± 20
1989-90			340			340
1990-91				366		366
1991-92			369 ± 38			368 ± 38

Table H.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Sand seatrout						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						
Spanish mackerel						
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
1988-89			662 ± 71	575		608 ± 41
1989-90			594			594
1990-91			476	461		516 ± 19
1991-92			580 ± 13		592	584 ± 6
Spotted seatrout						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
1988-89						
1989-90						
1990-91						
1991-92						

Table H.6. (Cont'd.)

Species Year	Area				Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	
Vermilion snapper					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
1988-89					
1989-90					
1990-91				285	
1991-92					285



Table H.7. Percent composition of "other" species caught by party-boat fishermen in the EEZ by area (1991-1992). Values represent percentages of the observed coastwide total of "other" species.

Common name	Scientific name	Area						Coastwide*
		Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Black drum	<i>Pogonias chromis</i>			1.92				1.92
Blackfin tuna	<i>Thunnus atlanticus</i>					17.31		17.31
Blacktip shark	<i>Carcharhinus limbatus</i>			7.69				7.69
Cero	<i>Scuromoromus regalis</i>			1.92				1.92
Crevalle jack	<i>Caranx hippos</i>					1.92		1.92
Dolphin	<i>Coryphaena hippurus</i>			7.69		9.62		28.85
Gag	<i>Mycteroperca microlepis</i>			1.92				1.92
Gray triggerfish	<i>Balistes capriscus</i>			3.85				3.85
Great barracuda	<i>Sphyrna barracuda</i>			1.92				1.92
Little tunny	<i>Euthynnus alletteratus</i>			1.92			28.85	30.77
Smooth puffer	<i>Lagacephalus laevigatus</i>			1.92				1.92

*Due to rounding of numbers, coastwide percentages may not exactly equal sum of area percentages.

Table H.8. Residential origin (%) of party-boat fishermen in the EEZ by area and year (1983-1992). Blank = no fishermen interviewed.

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88				
1988-89				
1989-90				
1990-91				
1991-92				
Galveston				
1983-84	100	0	0	0
1984-85				
1985-86	100	0	0	0
1986-87	100	0	0	0
1987-88	88	0	12	0
1988-89				
1989-90				
1990-91				
1991-92				
Matagorda				
1983-84	30	20	50	0
1984-85	0	100	0	0
1985-86				
1986-87	67	0	33	0
1987-88	16	51	32	0
1988-89	14	0	71	14
1989-90	46	23	31	0
1990-91	33	7	60	0
1991-92	41	21	34	3
Corpus Christi				
1983-84	4	13	66	16
1984-85	9	24	60	7
1985-86	11	17	54	17
1986-87	0	0	100	0
1987-88	6	0	90	3

Table H.8. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi (Cont'd.)				
1988-89	18	28	52	2
1989-90	25	0	75	0
1990-91	38	14	48	0
1991-92	32	39	29	0
Lower Laguna Madre				
1983-84	23	26	51	0
1984-85	26	0	61	13
1985-86	10	22	54	15
1986-87	7	0	76	17
1987-88	35	0	47	18
1988-89	33	0	61	6
1989-90	0	29	36	36
1990-91	19	19	62	0
1991-92	19	12	50	19
Coastwide				
1983-84	20	16	55	9
1984-85	13	21	57	9
1985-86	17	18	50	15
1986-87	31	0	60	9
1987-88	29	16	49	6
1988-89	21	15	58	6
1989-90	23	23	39	16
1990-91	28	15	57	0
1991-92	31	21	39	9

PWD RP V3400-415 (10/94)

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