Trends in Relative Abundance and Size of Selected Finfishes and Shellfishes Along the Texas Coast: November 1975–December 1990

by
James A. Dailey
Joseph C. Kana
and
Lawrence W. McEachron

Management Data Series
No. 74
1991

TEXAS
PARKS & WILDLIFE
DEPARTMENT

FISHERIES & WILDLIFE
DIVISION

4200 Smith School Road
Austin, Texas 78744

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ACKNOWLEDGMENTS

We thank each member of the Texas Parks and Wildlife Department, Coastal Fisheries staff who conscientiously collected and recorded data. This study was conducted with partial funding from the U.S. Department of Interior, Fish and Wildlife Service under DJ 15.605 (Project F-34-M), previous projects under PL 88-309 and the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service under PL 99-659 (Project 2-IJ-13).

ABSTRACT

The objective of coastal monitoring projects is to determine the status of marine resources for management and harvest purposes.

Trends in relative abundance and size of finfishes and shellfishes have been monitored since 1975 using a standardized fishery independent sampling program in Texas bay systems. Bag seines were used along bay and gulf shorelines, gill nets along bay shorelines, beach seines along gulf shorelines, and trawls in bay water ≥1.0 m deep and in the Texas Territorial Sea (gulf water ≥1.8 m deep). Oyster dredges were used to sample bay "reef" areas.

Comparisons of 1989 to 1990 data revealed spring gill net catch rates for red drum decreased whereas fall catches remained the same; gill net catches for spotted seatrout remained the same; black drum gill net catch increased in spring, but decreased in fall; annual bag seine catch rates decreased for spotted seatrout, but increased for black drum and red drum; coastwide brown shrimp catch rates increased in bag seines and decreased in bay and gulf trawls; white shrimp catch rates increased in bag seines and in bay trawls and declined in gulf trawls, and catch rates of blue crab increased in bag seines, bay trawls and gulf trawls. Highest catches of market Eastern oysters occurred during August and December of 1990. The 1990 data were used for management decisions and to measure effects of catastrophic events.

INTRODUCTION

Monitoring program data are used to determine relative abundance and size of finfishes and shellfishes to allocate and regulate harvest in Texas bays. Eastern oyster populations have been monitored in Galveston Bay since 1951 (Hofstetter 1977). Penaeid shrimp populations have been monitored in at least some bays since 1958 (Benefield and Baker 1980). Blue crab populations have been monitored in Texas bay systems since 1977 (Hammerschmidt 1982). The Texas Parks and Wildlife Department (TPWD) initiated a standardized fishery independent monitoring program in 1975 using gill nets, in 1977 using bag seines, in 1982 using trawls in bays, in 1984 using oyster dredges in "reef" bay areas, in 1985 using trawls in the gulf, and in 1987 using beach seines to monitor trends and to assess relative abundance and size of finfishes and shellfishes. Gill net sets during spring (15 April-15 June) and fall (15 September-15 November), and monthly bag seine, trawl, oyster dredge, and beach seine samples provide a statistically consistent and cost efficient method for obtaining information on juvenile, sub-adult, and adult finfish and shellfish populations.

The objectives of the present study were to:

1. determine and monitor trends in species composition, size and relative abundance of selected finfishes and shellfishes in the coastal bay systems and in the gulf off Texas.

2. publish the results in a report which will assist resource managers to effectively manage selected finfishes and shellfishes.

Differences in the information in this report compared to previous versions are due to updating the data base. The present report should be considered the most accurate to date.

MATERIALS AND METHODS

Monofilament gill nets (183 m long; 1.2 m deep with separate 45.7-m sections of 7.6-, 10.2-, 12.7- and 15.2-cm stretched mesh tied together in ascending mesh size) have been used in nine Texas bay systems since November 1975; Sabine Lake was incorporated April 1986 (Figure 1). Bag seines (18.3 m long; 1.8 m deep with 1.3-cm stretched nylon multifilament mesh in the 1.8 m wide central bag with remaining webbing 1.9-cm stretched mesh) have been used in the nine bays since October 1977; East Matagorda Bay was added February 1983 and Sabine Lake January 1986. Trawls (6.1 m wide at mouth with 3.8-cm stretched mesh throughout, and doors 1.2 m long and 0.6 m tall) have been used in the nine bays since January 1982; Sabine Lake was added January 1986 and East Matagorda Bay April 1987. Trawls, identical to those used in the bays, have been used in the Texas Territorial Sea ($\leq$16.7 km from shore) since January 1986 in five gulf areas (Figure 1): 24.1 km either side of each of the Sabine Pass jetties (Sabine), Galveston jetties (Galveston), Matagorda jetties (Port O'Connor), Aransas Pass jetties (Port Aransas), and 48.2 km north from the Texas-Mexico border (Port Isabel). Oyster dredges [8-tooth Louisiana style: 46 cm wide, 25 cm tall with a 36-cm deep bag (6 bottom rows of linked metal rings 5 cm in diameter; four top rows of 7.6-cm mesh webbing

made of 0.8-cm nylon rope)] have been used in eight bays since January 1986. Bag seines and beach seines (60.9-m long; 1.8-m deep with 7.6-cm stretched #12 monofilament mesh) have been used since October 1987 along gulf beach shorelines in five areas: Sabine Pass-Bolivar Peninsula, Galveston Island-Follets Island-Surfside Beach, Matagorda Peninsula, Matagorda Island-San Jose Island, and Mustang Island-South Padre Island (Figure 1).

Prior to September 1984, sites for setting gill nets during spring (15 April-15 June) and fall (15 September-15 November) and for sampling with bag seines (monthly) were randomly selected from about 100 stations in each bay system (McEachron and Green 1985). Beginning September 1984, gill net, bag seine, and beach seine sites were randomly selected from grids (1 minute longitude by 1 minute latitude) that contained ≥15.2 m of shoreline. Each selected grid was subdivided into 144 5-second "gridlets". All "gridlets" that contained shoreline were used to randomly choose sample sites.

Prior to fall 1981, no less than eight nor more than 16 overnight gill net sets occurred in each season in each bay system. Since fall 1981, 45 gill nets were set overnight during each season in each bay system except East Matagorda Bay. In East Matagorda Bay, eight sets were made in each season. Not less than three nor more than seven gill nets were set each week during each season except in East Matagorda Bay. No more than nine stations were duplicated each season. Prior to September 1984, two gill nets were set in East Matagorda Bay during the first and last two fullest weeks of each month. Beginning fall 1984, two gill nets were set in East Matagorda Bay during each week of the fall and spring seasons. Gill nets were set perpendicular to shore with the smallest mesh shoreward; they were set within 1 h before sunset and were retrieved within 4 h after the following sunrise. Total fishing time was recorded (nearest 0.1 h). Each sampling week extended from 1 h before sunset on Sunday through 4 h after sunrise the following Sunday.

Prior to October 1981, six bag seine samples were collected each month in each bay system. During October 1981 through August 1984 10 bag seine samples were collected each month in each bay system; half of the samples were collected during each of the first and last two fullest weeks of each month (McEachron and Green 1985). Beginning September 1984, five stations were sampled during the 1st-15th and during the 16th-31st of each month. During April 1988 through December 1989, 6 bag seine samples were collected during the 1st-15th and during the 16th-31st of each month in each bay system. Beginning January 1990, 8 bag seine samples were collected during the 1st-15th and during the 16th-31st of each month in each bay system. No station was duplicated in a month. Bag seines were pulled parallel to shore for a distance of 15.2-30.5 m prior to September 1984. Beginning September 1984, all bag seines were pulled 15.2 m. Between October 1987 and November 1989, three bag seine samples were collected during the 1st-15th and during the 16th-31st of each month along gulf beach shoreline areas; beginning 1990 monthly samples were only collected during April-November. No station was duplicated. The rectangular surface area sampled (nearest 0.01 ha) was estimated using distance pulled and length of extension of the bag seine.

Between October 1987 and November 1989, 3 beach seine samples were collected during each of the 1st-15th and 16th-31st of each month. No station

was duplicated. Beginning 1990 monthly samples were only collected during May-November. Beach seine samples were pulled parallel to gulf shorelines in the same direction as the long-shore current for 30.5 m. The rectangular surface area sampled (nearest 0.01 ha) was estimated using distance pulled and length of extension of the beach seine.

Trawls were used in bays which were stratified into two zones: Zone 1 (upper bay nearest mouths of rivers) and Zone 2 (lower bay farthest from rivers). Trawl sites in each zone were randomly selected from bay grids (1-minute longitude by 1-minute latitude) that contained water ≥1 m deep in at least 1/3 of the grid and which were known to be free of obstructions. Five stations were sampled in each of Zone 1 and Zone 2 in each bay system during the 1st-15th and during the 16th-31st of each month except in the East Matagorda Bay and upper and lower Laguna Madre systems. In East Matagorda Bay all water was designated as Zone 1; in both upper and lower Laguna Madre all water was designated as Zone 2. No station was duplicated in a month. Trawls were pulled in a circular motion near the center of each grid. All tows were 10 minutes long.

Gulf trawl sites in each area were randomly selected from gulf grids in the TTS (Figure 1) that contained water ≥1.8 m deep in at least 1/3 of the grid and which was known to be free of obstructions. Eight stations were sampled in each area during the 1st-15th and during the 16th-31st of each month. No station was duplicated in a month. Trawls were pulled linearly, parallel to the fathom curve; direction of tow (north or south) was randomly chosen for the initial tow and alternated on subsequent tows. All tows were 10 minutes long.

Trawls were used during daylight in the gulf off Sabine Pass, Galveston, Port O'Connor, Port Aransas, and Port Isabel during June and November 1990 in conjunction with the Southeast Area Monitoring and Assessment Program (SEAMAP). Detailed descriptions of the gear, sample stations, and sample procedures are reported by Stuntz et al. (1984).

Catch rates for each species or category of species were calculated by dividing total number captured by total hours fished (gill net, trawl, and oyster dredge) or ha sampled (bag seine and beach seine) from all samples in a season (gill net) or month (bag seine, beach seine, trawl, and oyster dredge) for each bay system. Fishes greater than 204 mm long were eliminated from bag seine catch rate calculations based on the findings of McEachron and Green (1986). Live Eastern oysters were grouped into spat (5-25 mm), small oysters (26-75 mm), and market oysters (≥76 mm). Coastwide catch rates were weighted by the length of each bay system's shoreline (gill net, bay bag seine), by the amount of surface area with water ≥1 m deep (Matlock and Ferguson 1982) in each bay system (bay trawl), by total number of trawlable grids (gulf trawl), by number of "reef" grids (oyster dredge), or by number of gulf shoreline grids (beach seine and beach bag seine). Bay bag seine, trawl, oyster dredge, beach seine and beach bag seine annual catch rates were calculated from monthly means (unweighted by sample size).

Mean fish and blue crab total lengths in gill nets were calculated for each of the four mesh sizes in each sample. Mean lengths for the combined

meshes were calculated by weighting mean lengths in each mesh by the proportion of species caught in each mesh. Coastwide total lengths for each species in all gears were weighted according to the catch rate in each bay system.

Surface salinity, water temperature, dissolved oxygen, and turbidity were measured at the set and pickup for each gill net and prior to each bag seine and beach seine sample. Bottom salinity, water temperature, and turbidity were measured prior to each trawl and oyster dredge sample. Beginning January 1987 turbidity values were measured in Nephelometric Units (NTU) instead of Jackson Turbidity Units (JTU). Means for these parameters were calculated for each season (gill net) and for each month (bag seine, trawl, oyster dredge, and beach seine).

RESULTS

Gill Net

Highest spring coastwide red drum (Sciaenops ocellatus) catch rates (0.8/h) occurred in 1980, 1986 and 1988 (Table 1; Figure 2). Lowest catch rates occurred during 1977-79 (0.3/h).

The highest fall coastwide catch rate for red drum (1.0/h) occurred in 1979; lowest catch rates (0.5/h) occurred in 1982 and 1983 (Table 2; Figure 3). Generally, fall catch rates from upper Laguna Madre (0.2-0.7/h) have been consistently lower than in any other bay system.

The spring coastwide spotted seatrout (Cynoscion nebulosus) catch rate was highest (1.1/h) in 1976 (Table 1; Figure 2). Lowest catch rates occurred in 1979 and 1984 (0.3/h). Catch rates in the lower Laguna Madre (0.6-3.4/h) were generally higher than in any other bay system.

The highest fall coastwide spotted seatrout catch rate (0.7/h) occurred in 1976 (Table 2; Figure 3). All catch rates since 1977 have ranged from 0.2 to 0.4/h.

The spring coastwide black drum (Pogonias cromis) catch rate was highest (1.0/h) in 1983 (Table 1; Figure 2). It was lowest (0.3/h) in 1978.

The highest fall coastwide black drum catch rate (1.3/h) occurred in 1989 (Table 2; Figure 3). Lowest catch rates (0.3/h) occurred in 1979 and 1984. East Matagorda Bay and upper and lower Laguna Madre catch rates (0.1-2.4/h) were generally higher than in any other bay system.

Fall and spring coastwide southern flounder (Paralichthys lethostigma) and sheepshead (Archosargus probatocephalus) catch rates were both $\leq$0.3/h each year (Tables 1 and 2).

Atlantic croaker (Micropogonias undulatus) spring and fall coastwide catch rates were $\leq$0.4/h during all years (Tables 1 and 2; Figures 2 and 3).

Spring and fall coastwide blue crab (Callinectes sapidus) catch rates were ≤0.2/h in all years (Tables 1 and 2).

Spring and fall coastwide finfish mean lengths did not vary over about 125 mm among years for any species (Tables 1 and 2; Figures 4 and 5).

Bay Bag Seine

Coastwide red drum catch rates were highest (26/ha) during 1981 and lowest (6/ha) in 1984 (Table 3; Figure 6). Mean coastwide lengths have fluctuated between 50 and 60 mm TL (Figure 7).

Coastwide spotted seatrout catch rates were highest (15/ha) in 1982 and lowest (4/ha) in 1984 (Table 3; Figure 6). Mean coastwide lengths have fluctuated between 40 and 60 mm TL (Figure 7).

Coastwide black drum catch rates were highest (102/ha) in 1990 (Table 3; Figure 6). Lowest catch rate (1/ha) was recorded in 1986. Coastwide mean lengths fluctuated between 50 and 90 mm TL (Figure 7).

Highest coastwide sheepshead catch rate (6/ha) occurred in 1979; all other catch rates were ≤3/ha (Table 3).

Coastwide southern flounder catch rates were highest in 1990 (12/ha). All other catch rates ranged from <1-8/ha (Table 3).

Coastwide Atlantic croaker catch rates were highest in 1982 (471/ha) and lowest (27/ha) in 1989 (Table 3; Figure 6). Galveston Bay generally had highest catch rates (36-1,812/ha). Mean coastwide lengths fluctuated between 50 and 60 mm TL (Figure 7).

Coastwide blue crab catch rates fluctuated from 49/ha in 1978 to 113/ha in 1985 (Table 3; Figure 8). Coastwide mean lengths fluctuated between 25 and 30 mm TL (Figure 9).

Highest annual brown shrimp (Penaeus aztecus) coastwide catch rate (694/ha) occurred in 1990 (Table 3; Figure 8). Mean coastwide lengths fluctuated between 55 and 65 mm TL (Figure 9).

The highest coastwide pink shrimp (P. duorarum) catch rate (28/ha) occurred during 1988 (Table 3). Highest catch rates generally occurred in Aransas and Corpus Christi Bays.

Highest coastwide annual white shrimp (P. setiferus) catch rate (1,277/ha) occurred during 1982 (Table 3; Figure 8). Coastwide mean lengths have fluctuated between 50 and 60 mm TL (Figure 9).

Coastwide monthly bag seine catch rates during August-December 1991 indicated seasonal peaks in abundance which were unique for each species (Appendix A, Table A.1.A and A.1.B).

Bay Trawl

Coastwide annual blue crab bay trawl catch rates ranged from 15/h in 1984 to 22/h in 1988 (Table 4; Figure 10). Coastwide mean lengths have generally declined (Figure 11).

Coastwide brown shrimp catch rates were highest (44-49/h) during 1987-89 (Table 4; Figure 10). Coastwide mean lengths ranged from 80-100 mm TL (Figure 11).

Coastwide pink shrimp catch rates were ≤4/h in all years (Table 4). Highest catch rates were generally reported in Aransas Bay.

Coastwide white shrimp catch rates decreased from 47/h in 1982 to 21/h in 1990 (Table 4; Figure 10). Mean coastwide lengths fluctuated between 90 and 100 mm TL (Figure 11).

Coastwide monthly bay trawl shellfish catch rates during January-December 1990 indicated seasonal peaks in abundance varied among species (Appendix A, Tables A.1.B and A.2).

All select finfish species coastwide and monthly catch rates and mean lengths varied among species, among bays, among years, and among months (Table 4; Figures 10 and 11; Appendix A, Table A.2).

Gulf Trawl

Coastwide blue crab gulf trawl catch rates were ≤4/h in all years (Table 5; Figure 12). The Sabine area generally had highest catch rates (2-15/h). Coastwide monthly catch rates were highest (14/h) during May (Appendix A, Table A.3). Mean coastwide total lengths have generally declined (Figure 13).

Coastwide brown shrimp catch rates ranged from 9/h to 58/h in all years (Table 5; Figure 12). Coastwide monthly catch rates were highest (182/h) during June (Appendix A, Table A.3). Coastwide mean lengths fluctuated between 100 and 110 mm TL (Figure 13).

Coastwide annual pink shrimp catch rates were ≤2/h in all years (Table 5). Coastwide monthly catch rates were highest (5/h) during March (Appendix A, Table A.3).

Coastwide annual white shrimp catch rates decreased from 24/h in 1985 and 1986 to 10/h in 1990 (Table 5; Figure 12). Coastwide monthly catch rates were highest (32/h) during December (Appendix A, Tables A.3). Mean coastwide lengths ranged from 100 to 120 mm TL (Figure 13).

Select shellfish species coastwide and monthly catch rates and mean lengths varied among species, among gulf areas, and among months (Table 5; Figures 12 and 13; Appendix A, Tables A.3.A and A.3.B).

Oyster Dredge

Coastwide catch rates of Eastern oyster spat ranged from 491/h in 1984 to 1,511/h in 1989 (Table 6; Figure 14). Coastwide monthly catch rates were highest during June-December (Appendix A, Table A.1.B and Table 4).

Coastwide catch rates of small Eastern oysters ranged from 789/h in 1986 to 1,523/h in 1990 (Table 6; Figure 14). Coastwide monthly catch rate was highest in October (Appendix A, Table A.1.B and Table 4). Mean coastwide lengths fluctuated around 50 mm TL (Figure 15).

Coastwide catch rates of market Eastern oysters were lowest in 1990 (183/h); they ranged from 237-674/h in all other years (Table 6; Figure 14). Coastwide monthly catch rates in 1990 were highest (231/h) during August and December (Appendix A, Table A.1.B and Table 4). Coastwide mean lengths fluctuated around 90 mm TL (Figure 15).

Beach Seine

Select finfish and shellfish species coastwide and monthly catch rates and mean lengths varied among species, among gulf areas and among months (Table 7; Appendix A, Table A.5). Striped mullet (Mugil cephalus) generally had highest catch rates.

Beach Bag Seine

Coastwide and monthly catch rates and mean lengths of individual select finfish and shellfish species varied among species, among gulf areas and among months (Table 8; Appendix A, Table A.6). Generally, striped mullet, hardhead catfish (Arius felis), blue crab and white shrimp had highest catch rates.

Hydrologic Data

Hydrologic data varied among months, among bay systems and among gulf areas (Appendix B, Tables B.1-B.21). Bay salinities were generally higher in upper Laguna Madre than in any other bay. Gulf salinities were generally higher off Port Isabel and Port Aransas. Water temperatures followed seasonal trends.

Seamap

Summer

Catch rates of brown shrimp by depth zone ranged from 850/h in 19-37 m to 16/h in 74-91 m during 1990 (Appendix C, Table C.1). Brown shrimp were predominately caught in water $\leq$55 m deep.

White shrimp were caught primarily in water from 0-18 m deep during all years (Appendix C, Table C.1). Catch rates ranged from 4/h-41/h in all years.

Pink shrimp were captured in waters from 0-55 m deep (0-195/h) during all years (Appendix C, Table C.1). They were caught predominately in waters 0-37 m deep.

Blue crab were caught primarily in the 0-18 m zone (Appendix C, Table C.1). Catch rates ranged from 3-20/h in all years.

Fall

During fall, brown shrimp were caught in all depth zones, with highest catch rates (21-93/h) in 19-55 m (Appendix C, Table C.2). White shrimp and pink shrimp were predominately caught in waters 0-37 m deep. Blue crab catch rates were $\leq$2/h in all years.

DISCUSSION

The TPWD is mandated by the Texas Legislature and the TPWC to investigate the supply, economic value, environment, breeding habits, sex ratios, effects of fishing, and other factors or conditions causing increases or decreases in the supply of finfishes and shellfishes in Texas waters. Long-term trend data based on independent standardized monitoring programs are necessary to assess changes in relative abundance of these populations. Data in the present report can be used to determine long-term trends in abundance and stability of finfishes and shellfish populations in Texas coastal waters and implement management regulations.

Effective management of marine species populations requires knowledge of the relationship between spawning and subsequent adult abundance (Cushing 1970, Gulland 1977). Since it has been possible to detect changes in annual abundances with bag seines and gill nets, it may be possible to determine stock recruitment relationships utilizing these gears. To determine these relationships, it is imperative that the standardized monitoring program used by the TPWD be maintained.

Information from the TPWD standardized monitoring program have documented effects of natural catastrophes on marine populations. Changes in relative abundance for several species was observed following the freeze of 1983-84 (McEachron et al. 1984) and the red tide of 1986 (Hammerschmidt 1987). To determine effects of natural events in the Texas coastal ecosystem, standardized monitoring programs used by the TPWD should be maintained.

Shrimp data were used to recommend dates for the closure of Texas gulf waters to shrimping (Bryan 1985, 1986, 1988). Oyster data were used to implement oyster season closures in Galveston Bay from 9 December 1986-19 February 1987 and in all other bays (except San Antonio) from 13 January-19 February 1987 (TPWD unpublished data). Oyster data were used to establish the oyster transplant season in Galveston Bay (TPWD unpublished data). All of

these data were used to develop management plans for shrimp and oysters as mandated by the Texas Legislature, and will be used for blue crabs and selected finfishes.

Relative abundance of juvenile finfishes and shellfishes are not uniform throughout the year. Periods of high relative abundance in bag seines were subjectively determined for red drum, spotted seatrout, black drum, sheepshead, southern flounder, and Atlantic croaker (McEachron and Green 1986). The 1990 monthly bag seine, trawl, oyster dredge, and beach seine catches in the present report also indicate specific periods of high abundance for these species and for brown shrimp, white shrimp, pink shrimp, blue crab, and Eastern oyster. A more efficient method of estimating abundance from year to year (estimate having the highest precision for effort expended) would be to identify and pool data for months which do not have significantly different catch rates. It is recommended that periods of high abundance in bay bag seines, trawls, and oyster dredges be statistically determined for each of the species for the appropriate gear and that these "seasonal" catch rates be considered for presentation in future reports.

LITERATURE CITED

Benefield, R. L., and W. B. Baker, Jr. 1980. Studies of shrimp populations in selected coastal bays of Texas. Management Data Series Number 13. Texas Parks and Wildlife Department, Coastal Fisheries Branch. Austin, Texas.

Bryan, C. E. 1985. Closure dates for the 1984 Texas gulf shrimping season. Management Data Series Number 82. Texas Parks and Wildlife Department, Coastal Fisheries Branch. Austin, Texas.

Bryan, C. E. 1986. Prediction of the closure dates for the 1983 Texas gulf shrimping season. Proceedings Shrimp Yield Prediction Workshop, Texas Agricultural and Mechanical University Sea Grant College, TAMU-SG-110.

Bryan, C. E. 1988. Closure dates for the 1985 Texas gulf shrimping season. Management Data Series Number 127. Texas Parks and Wildlife Department, Coastal Fisheries Branch. Austin, Texas.

Cushing, D. H. 1970. Fisheries biology: a study in population dynamics. University of Wisconsin Press. Madison, Wisconsin.

Gulland, J. A. 1977. The management of marine fishes. University of Washington Press. Seattle, Washington.

Hammerschmidt, P. C. 1982. Population trends and commercial harvest of the blue crab (Callinectes sapidus, Rathbun) in Texas bays, September 1974-August 1979. Management Data Series Number 38. Texas Parks and Wildlife Department, Coastal Fisheries Branch. Austin, Texas.

Hammerschmidt, P. C. 1987. Tide of the red death. Texas Parks and Wildlife Magazine. XXXXV(9):10-15.

Hofstetter, R. P. 1977. Trends in population levels of the American oyster Crassostrea virginica Gmelin on public reefs in Galveston Bay, Texas. Technical Series Number 24. Texas Parks and Wildlife Department. Austin, Texas.

Matlock, G. C., and M. F. Osborn (Ferguson). 1982. Shallow-water surface areas and shoreline distances on the Texas coast. Management Data Series Number 37. Texas Parks and Wildlife Department, Coastal Fisheries Branch. Austin, Texas.

McEachron, L. W., and A. W. Green. 1986. Assessment of annual relative abundance and mean length of six marine fishes in Texas coastal waters. Proceedings of the 38th Southeastern Association of Fish and Wildlife Agencies. 38:506-519.

McEachron, L. W., G. Saul, J. Cox, C. E. Bryan, and G. Matlock. 1984. Fish kill. Texas Parks and Wildlife Magazine. XXXXII(4):10-13.

Stuntz, W. E., C. E. Bryan, K. Savastano, R. S. Waller, and P. A. Thompson. 1984. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1982. Gulf States Marine Fisheries Commission. Ocean Springs, Mississippi.

Table 1. Mean catch rates (No./h) and mean total lengths (mm) of selected fishes and blue crab caught with gill nets (all meshes combined) by bay system during spring 1976-90. Blank indicates no measurment taken; ND = no data.

Species	Year	Bay system																			
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Red drum	1976	ND		<.1	310	ND		1.0	429	1.0	410	1.0	451	0.6	412						
	1977	ND		0.3	450	0.2	418	0.1	467	0.3	380	0.4	409	0.4	401	0.1	509	1.2	458	0.7	435
	1978	ND		0.1	394	0.4	429	0.5	485	0.2	400	0.2	444	0.3	461	0.1	438	0.5	442	0.3	426
	1979	ND		0.2	480	0.1	466	0.2	414	0.2	421	0.4	423	0.3	479	0.2	495	0.5	462	0.3	460
	1980	ND		0.9	449	0.4	451	1.1	387	0.7	400	0.4	373	1.0	430	0.2	477	0.3	452	0.3	448
	1981	ND		0.3	431	0.2	465	0.2	408	0.6	396	0.4	399	0.3	424	0.8	415	0.6	438	0.8	418
	1982	ND		0.9	474	0.4	436	0.5	425	0.4	408	0.4	430	0.5	469	0.3	412	1.0	438	0.4	420
	1983	ND		0.9	474	1.0	475	0.6	411	0.7	402	0.5	385	0.4	427	0.3	496	1.0	497	0.6	464
	1984	ND		0.9	482	0.7	446	0.1	430	0.2	513	0.3	419	0.8	457	0.2	479	0.8	479	0.6	444
	1985	ND		0.6	538	0.5	514	0.2	457	0.2	465	0.4	463	0.6	457	0.3	436	0.7	514	0.5	473
	1986	0.4	520	1.4	497	0.8	456	0.8	463	0.6	454	0.5	395	0.7	463	0.3	505	0.6	508	0.4	500
	1987	0.2	516	0.6	497	0.6	501	0.9	465	0.7	451	0.6	493	0.6	463	0.3	474	1.0	493	0.8	474
	1988	0.3	498	0.7	492	0.9	473	0.7	434	1.1	470	0.5	436	0.6	495	0.4	519	1.1	508	0.7	483
	1989	0.5	480	0.7	478	0.7	492	0.6	452	0.7	438	0.7	438	0.5	469	0.6	550	1.2	499	0.8	481
	1990	0.5	509	0.5	529	0.8	568	0.4	483	0.3	474	0.5	494	1.0	505	0.4	545	0.9	517	0.7	476
Spotted seatrout	1976	ND		<.1	530	ND		0.3	422	0.5	382	0.2	538	0.8	534	0.5	515				
	1977	ND		0.2	516	2.0	434	0.2	381	0.9	392	3.3	465	0.4	365	<.1	405	3.4	457	1.1	453
	1978	ND		0.2	523	0.4	441	0.6	409	1.4	408	1.0	422	0.4	372	1.2	442	1.5	422	0.8	422
	1979	ND		0.2	515	0.4	426	0.3	490	0.1	436	0.1	435	0.5	437	0.9	474	1.4	503	0.7	456
	1980	ND		0.1	419	0.8	402	0.6	426	0.9	402	0.4	507	0.3	524	0.4	442	0.6	525	0.3	495
	1981	ND		0.4	483	1.8	416	0.4	406	0.7	453	0.2	465	0.3	506	0.5	473	0.9	497	0.5	449
	1982	ND		0.4	491	0.9	454	0.5	456	0.8	440	0.8	468	0.5	445	0.4	423	2.2	471	0.8	456
	1983	ND		0.4	510	1.7	441	0.7	452	0.8	444	0.7	435	0.8	489	0.8	481	2.5	485	0.9	472
	1984	ND		0.3	498	0.7	468	0.3	439	0.3	483	0.6	447	0.7	478	0.7	509	1.3	500	0.7	476
	1985	ND		0.5	506	0.6	467	0.3	424	0.3	457	0.2	435	0.2	473	<.1	483	0.7	475	0.3	472
	1986	0.3	460	0.5	449	1.0	432	0.5	441	0.4	426	0.4	430	0.4	471	0.1	427	1.4	485	0.5	473
	1987	0.2	339	0.6	449	0.7	436	0.4	434	0.4	447	0.4	430	1.0	447	0.4	449	1.5	488	0.7	456
	1988	0.2	386	0.7	459	0.8	456	0.5	430	0.5	435	0.5	456	0.9	478	0.4	490	1.9	508	0.7	474
	1989	0.2	441	0.6	481	0.5	494	0.5	428	0.6	459	0.6	463	0.7	487	0.4	514	1.1	485	0.6	474
	1990	0.1	441	0.5	457	0.6	510	0.3	432	0.6	480	0.5	442	1.1	447	0.2	468	1.3	455	0.6	456
Black drum	1976	ND		0.2	290	ND		0.8	418	1.0	306	0.9	389	0.6	360	0.5	352	0.9	387	0.7	366
	1977	ND		0.4	388	0.3	262	0.5	518	1.0	314	1.2	316	0.5	347	0.4	376	0.9	428	0.7	374
	1978	ND		0.2	439	0.4	344	0.2	300	0.1	306	0.4	358	0.4	325	0.1	398	0.8	395	0.3	373
	1979	ND		0.3	292	0.7	328	0.5	415	<.1	370	0.3	323	0.1	374	0.3	371	0.9	413	0.4	371
	1980	ND		0.4	314	1.0	272	0.9	355	0.4	263	1.0	320	0.3	352	0.7	384	0.4	452	0.6	341
	1981	ND		0.8	418	0.8	312	0.3	301	0.4	352	0.8	362	0.1	379	1.1	390	0.9	391	0.7	381
	1982	ND		0.6	343	0.8	294	0.5	363	0.7	317	1.1	300	0.4	339	0.7	374	1.2	400	0.8	347
	1983	ND		0.9	337	2.7	364	0.6	355	0.6	323	1.2	340	0.9	370	1.0	400	1.6	441	1.0	372
	1984	ND		0.6	373	1.0	391	0.2	368	0.2	460	0.1	559	0.5	414	0.6	442	0.6	459	0.4	417
	1985	ND		0.5	346	0.4	313	0.3	478	0.1	426	0.2	396	0.2	342	0.8	361	0.4	372	0.4	374
	1986	0.2	374	0.5	383	0.6	345	0.3	402	0.1	313	0.4	316	0.6	369	0.7	418	0.4	464	0.4	387
	1987	0.2	399	0.6	449	0.7	436	0.4	434	0.4	447	0.5	456	0.9	478	0.4	490	1.9	508	0.5	474
	1988	0.1	410	0.4	380	0.7	375	0.4	390	0.4	339	0.4	375	0.8	444	0.6	397	0.3	451	0.5	396
	1989	0.2	326	0.6	350	1.8	378	0.4	412	0.3	363	0.6	371	0.4	406	1.0	426	0.4	408	0.6	386
	1990	0.2	378	0.5	372	1.5	393	0.8	341	0.3	330	0.6	336	0.6	411	1.4	418	0.7	410	0.7	381

Table 1. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Sheepshead	1976	ND		0.0		ND		0.1	420	0.3	341	0.6	342	0.0		0.3	367	0.3	318	0.2	345
	1977	ND		<.1	338	<.1	234	0.1	280	0.2	308	<.1	232	0.1	294	0.1	380	0.1	336	0.1	311
	1978	ND		0.0		0.4	296	<.1	278	0.1	313	0.2	354	0.2	356	0.2	394	0.2	358	0.1	350
	1979	ND		<.1	305	0.1	297	<.1	391	<.1	402	0.1	320	0.5	362	0.1	370	0.2	340	0.1	350
	1980	ND		<.1	353	0.3	347	0.1	334	0.1	320	0.2	352	0.2	322	0.2	369	0.3	343	0.2	345
	1981	ND		<.1	393	0.2	326	<.1	453	0.6	335	0.3	349	0.1	319	0.2	390	0.6	325	0.2	342
	1982	ND		0.1	332	0.0		0.1	330	0.2	354	<.1	326	0.2	343	0.2	361	0.6	326	0.2	336
	1983	ND		0.1	313	0.4	311	0.1	373	0.2	372	0.1	349	0.3	370	0.2	392	0.4	342	0.2	354
	1984	ND		0.1	351	0.3	354	<.1	387	0.2	398	<.1	401	0.2	379	0.1	385	0.2	348	0.1	370
	1985	ND		<.1	352	0.2	372	<.1	337	<.1	409	<.1	382	0.1	424	<.1	427	0.1	353	0.1	382
	1986	<.1	372	<.1	372	0.2	356	<.1	369	0.1	417	<.1	305	0.1	388	<.1	427	0.1	370	<.1	382
	1987	<.1	364	<.1	361	0.2	314	<.1	340	<.1	447	<.1	342	<.1	350	<.1	403	0.2	313	0.1	366
	1988	0.0		<.1	405	0.1	350	<.1	357	<.1	342	0.1	348	0.1	371	<.1	407	0.1	369	<.1	366
	1989	0.0	529	0.1	384	0.3	324	<.1	371	<.1	379	<.1	350	0.2	412	<.1	371	0.2	371	0.1	374
	1990	<.1	364	<.1	378	0.3	364	<.1	400	<.1	444	<.1	372	0.2	388	<.1	358	0.1	396	0.1	387
Southern flounder	1976	ND		0.0		ND		0.0		0.1	335	0.0		0.0		0.0		0.2	350	<.1	345
	1977	ND		<.1	351	0.1	358	<.1	328	<.1	208	0.1	358	<.1	430	0.0		<.1	345	<.1	347
	1978	ND		<.1	249	0.1	352	<.1	330	0.1	279	<.1	338	0.1	338	<.1	345	0.1	344	<.1	323
	1979	ND		<.1	451	0.1	348	<.1	290	0.1	388	<.1	291	0.1	373	<.1	320	0.2	366	0.1	354
	1980	ND		0.1	344	0.1	325	0.1	307	<.1	292	0.1	292	0.1	316	<.1	364	0.1	364	0.1	330
	1981	ND		<.1	244	<.1	340	<.1	270	<.1	291	<.1	368	0.1	332	0.1	348	0.1	338	<.1	322
	1982	ND		0.1	343	<.1	319	<.1	307	<.1	305	0.1	299	0.1	361	0.1	337	0.1	350	0.1	332
	1983	ND		0.1	366	0.1	318	0.1	327	<.1	333	<.1	329	0.1	385	0.1	359	0.1	371	0.1	357
	1984	ND		0.1	338	0.1	388	<.1	317	<.1	321	<.1	310	0.1	377	<.1	344	<.1	355	<.1	342
	1985	ND		0.1	349	0.1	348	<.1	346	0.1	329	<.1	347	0.1	353	0.1	346	0.1	336	0.1	344
	1986	<.1	294	<.1	345	0.2	329	<.1	358	<.1	316	<.1	357	<.1	395	0.1	354	0.1	370	0.1	354
	1987	<.1	364	<.1	338	0.1	330	<.1	304	0.1	345	<.1	336	<.1	333	0.1	407	<.1	401	<.1	353
	1988	<.1	292	0.1	367	0.1	349	<.1	354	<.1	350	<.1	334	<.1	353	<.1	400	<.1	360	<.1	359
	1989	<.1	288	<.1	347	0.1	362	<.1	318	<.1	317	<.1	340	<.1	381	<.1	402	<.1	392	<.1	349
	1990	<.1	309	<.1	351	0.1	360	<.1	354	<.1	350	<.1	311	<.1	347	<.1	333	0.1	410	<.1	358
Atlantic croaker	1976	ND		0.2	298	ND		0.1		0.2	332	0.0		1.0	277	0.0		0.8	333	0.3	306
	1977	ND		0.3	268	0.1	255	0.0		<.1	227	<.1	285	1.0	264	0.4	297	0.2	269	0.2	271
	1978	ND		0.1	247	<.1	270	<.1	293	<.1	250	<.1	248	0.1	281	0.2	281	0.1	276	0.1	268
	1979	ND		0.2	260	<.1	257	<.1	263	0.0		0.0		0.1	265	0.1	298	0.2	308	0.1	279
	1980	ND		0.1	268	0.1	250	0.0		<.1	254	<.1	240	0.1	272	0.2	312	0.1	286	0.1	286
	1981	ND		0.1	264	0.1	250	<.1	276	0.0		0.1	289	0.1	266	0.3	302	0.1	277	0.1	282
	1982	ND		0.2	268	0.1	258	<.1	270	<.1	265	<.1	261	0.1	285	0.2	313	0.4	347	0.1	308
	1983	ND		0.3	268	0.1	278	<.1	273	<.1	277	<.1	286	0.2	265	0.2	289	0.4	314	0.1	286
	1984	ND		0.1	265	<.1	322	<.1	225	<.1	298	<.1	260	<.1	262	<.1	304	<.1	285	<.1	266
	1985	ND		0.2	273	<.1	318	<.1	260	<.1	184	<.1	115	0.1	265	0.2	267	0.1	261	0.1	266
	1986	0.1	259	0.4	271	0.1	250	<.1	245	<.1	250	<.1	292	0.3	255	0.2	297	0.1	288	0.1	272
	1987	<.1	263	0.2	260	<.1	242	<.1	236	<.1	268	<.1	246	<.1	282	<.1	3.9	<.1	251	0.1	263
	1988	0.1	259	0.1	265	<.1	226	<.1	278	0.0		<.1	260	0.1	261	0.1	337	<.1	296	<.1	276
	1989	0.1	268	0.1	264	<.1	250	0.0		0.0		<.1	262	<.1	284	<.1	342	0.0	283	<.1	274
	1990	<.1	278	0.1	269	0.1	264	<.1	268	<.1	283	<.1	276	<.1	267	<.1	245	<.1	272	<.1	269

Table 1. (Cont'd.)

Species	Year	Bay system																	
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Sand seatrout	1976	ND		<.1	195	ND		0.0		0.0		0.0		0.3	266	0.0		0.0		<.1	244
	1977	ND		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
	1978	ND		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
	1979	ND		<.1	217	0.0		0.0		<.1	209	0.0		<.1	284	<.1	333	<.1	245	<.1	231
	1980	ND		0.0		0.0		0.0		0.0		0.0		<.1	312	0.0		0.0		<.1	312
	1981	ND		0.0		0.0		<.1	270	<.1	378	0.0		0.0		0.0		0.0		<.1	318
	1982	ND		0.0		0.0		<.1	171	0.0		<.1	230	<.1	286	<.1	390	<.1	295	<.1	274
	1983	ND		<.1	302	0.0		<.1	227	0.0		0.0		<.1	337	0.0		0.0		<.1	291
	1984	ND		<.1	200	0.0		<.1	180	<.1	236	0.0		<.1	247	0.0		0.0		<.1	210
	1985	ND		<.1	356	0.0		<.1	172	0.0		0.0		0.0		<.1	296	<.1	269	<.1	259
	1986	<.1	277	<.1	209	0.0		0.0		0.0		0.0		<.1	232	0.0		0.0		<.1	215
	1987	0.0		<.1	536	0.0		0.0		0.0		0.0		<.1	261	0.0		0.0		<.1	478
	1988	0.0		<.1	218	0.0		<.1	279	0.0		0.0		<.1	232	0.0		<.1	238	<.1	234
	1989	0.0		<.1	199	0.0		0.0		0.0		0.0		0.0		0.0		0.0		<.1	203
	1990	0.0		<.1	198	0.0		<.1	234	<.1	268	0.0		<.1	89	0.0		<.1	270	<.1	208
Gafftop-sail catfish	1976	ND		6.4	504	ND		0.5	494	2.3	456	0.0		0.0		0.0		0.0		1.8	496
	1977	ND		0.2	480	0.4	506	0.9	556	3.3	538	3.1	506	0.0		0.0		0.0		1.0	524
	1978	ND		0.3	539	0.1	546	1.1	546	1.8	496	0.1	545	<.1	436	0.0		0.0		0.5	521
	1979	ND		0.3	520	0.5	534	0.4	553	0.4	534	0.5	544	0.2	551	0.0		0.0		0.3	539
	1980	ND		0.2	511	0.2	566	0.5	554	1.2	547	0.4	552	0.1	598	0.0		0.0		0.3	546
	1981	ND		0.2	514	0.3	480	0.8	541	0.5	537	1.4	541	0.1	521	<.1	577	0.0		0.4	536
	1982	ND		0.4	513	0.2	496	0.4	544	1.4	540	0.9	542	0.3	530	<.1	534	<.1	372	0.5	535
	1983	ND		0.2	544	<.1	475	0.3	537	2.0	530	0.9	537	0.1	536	<.1	575	0.0		0.5	534
	1984	ND		0.2	527	<.1	580	1.0	529	1.1	530	0.6	550	0.2	532	<.1	472	<.1	211	0.4	533
	1985	ND		0.3	532	<.1	467	0.4	517	0.8	537	0.1	557	0.1	507	<.1	413	<.1	388	0.2	530
	1986	0.2	490	0.4	515	0.3	468	0.3	533	0.5	554	0.4	529	0.4	534	<.1	374	0.0		0.3	528
	1987	<.1	509	0.4	552	0.1	507	0.2	539	0.1	565	0.2	567	0.2	550	<.1	532	<.1	518	0.2	551
	1988	0.1	538	0.2	511	0.1	530	0.5	531	0.3	563	0.2	562	0.2	550	0.0		<.1	428	0.2	537
	1989	<.1	494	0.3	536	0.1	535	0.6	530	0.4	557	0.1	569	0.1	533	0.0		<.1	428	0.2	537
	1990	<.1	518	0.8	528	0.2	460	0.8	534	0.6	555	0.4	546	0.4	554	0.0		0.0		0.4	537
Gulf menhaden	1976	ND		0.2	261	ND		0.1	250	0.1	275	0.0		0.0		0.0		0.0		0.1	261
	1977	ND		2.5	251	0.6	299	0.1	245	0.1	233	0.3	247	2.6	255	<.1	282	<.1	229	0.9	253
	1978	ND		0.3	242	<.1	194	0.2	245	1.2	258	0.0		0.2	263	1.2	264	<.1	246	0.4	256
	1979	ND		1.2	251	0.0		0.1	251	<.1	132	<.1	241	0.1	255	0.2	260	0.0		0.3	251
	1980	ND		<.1	193	0.0		<.1	252	0.1	287	<.1	271	<.1	257	0.6	269	<.1	253	0.1	265
	1981	ND		0.4	260	0.0		0.2	254	0.1	252	0.2	254	0.1	243	0.1	246	0.1	244	0.2	255
	1982	ND		0.4	254	0.0		<.1	248	0.3	252	0.1	249	<.1	250	0.4	268	<.1	303	0.2	257
	1983	ND		0.8	252	0.0		0.2	251	0.2	243	0.1	244	0.1	248	0.1	304	0.1	252	0.3	252
	1984	ND		0.5	254	0.0		0.1	251	0.2	279	0.2	246	0.1	257	<.1	284	<.1	265	0.2	256
	1985	ND		0.8	253	<.1	281	0.5	242	0.3	243	0.4	250	0.6	250	<.1	244	0.8	260	0.5	252
	1986	0.1	279	1.3	251	<.1	226	0.1	242	0.1	244	0.2	245	0.4	258	<.1	252	<.1	253	0.4	251
	1987	<.1	348	1.2	245	<.1	227	<.1	241	<.1	226	<.1	226	0.2	242	<.1	240	0.1	253	0.3	245
	1988	<.1	278	0.1	244	0.0		0.2	244	<.1	278	<.1	236	0.1	253	<.1	257	<.1	290	0.1	249
	1989	<.1	269	1.4	249	0.0		<.1	232	<.1	226		187	0.1	235	0.0		0.0		0.3	248
	1990	<.1	270	1.6	242	<.1	237	0.1	216	<.1	263	<.1	255	<.1	237	<.1	308	<.1	239	0.4	242

Table 1. (Cont'd.)

Species	Year	Bay system																			
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Hardhead catfish	1976	ND		3.1	318	ND		0.4	296	1.5	315	2.3	336	0.7	291	0.0		0.2	333	1.4	320
	1977	ND		2.2	332	0.3	309	1.8	316	0.8	322	0.4	305	1.2	323	0.8	295	0.4	321	1.2	321
	1978	ND		2.1	338	0.3	318	0.2	295	1.0	317	0.3	346	0.6	317	1.0	283	0.7	306	0.9	322
	1979	ND		3.2	335	0.3	330	0.6	315	0.5	333	0.5	325	0.4	327	0.5	298	0.4	295	1.0	328
	1980	ND		2.7	331	1.0	319	0.2	316	0.8	328	0.3	342	0.4	326	0.3	291	0.6	332	0.9	329
	1981	ND		1.6	335	1.1	341	1.6	328	1.1	327	0.9	346	0.7	346	0.9	295	0.7	315	1.1	329
	1982	ND		3.6	334	1.4	339	0.9	329	2.0	333	1.0	337	1.0	347	0.9	318	1.8	337	1.8	334
	1983	ND		4.0	333	0.9	338	0.5	319	1.5	341	0.8	346	1.4	338	1.8	311	1.6	338	1.8	333
	1984	ND		2.3	343	0.5	336	1.0	326	2.0	334	1.2	346	1.4	340	1.4	318	1.5	334	1.6	336
	1985	ND		3.4	337	1.2	340	1.2	332	1.6	344	0.9	345	2.2	342	1.4	307	1.0	337	1.8	336
	1986	0.8	320	3.3	334	1.8	345	1.4	326	1.3	343	0.6	351	1.4	333	0.7	319	1.4	364	1.6	338
	1987	0.1	333	4.2	334	1.6	332	1.0	349	0.8	358	0.6	360	0.9	355	0.6	318	1.6	375	1.6	344
	1988	0.3	323	3.6	341	1.2	328	0.9	339	1.4	352	0.6	358	2.6	354	1.0	325	1.5	367	1.7	346
	1989	0.2	318	4.5	329	1.6	306	1.4	352	2.9	354	1.2	341	1.5	361	0.7	331	1.6	354	2.1	340
	1990	0.2	320	5.5	334	3.7	328	2.3	339	3.1	352	2.0	349	2.2	343	0.9	320	1.2	340	2.7	339
Pinfish	1976	ND		0.0		ND		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
	1977	ND		0.0		0.0		0.0		<.1	222	0.0		0.0		0.0		0.0		<.1	222
	1978	ND		0.0		0.0		0.0		<.1	196	0.0		0.0		<.1	204	<.1	165	<.1	187
	1979	ND		0.0		0.0		0.0		<.1		<.1	226	<.1	305	0.0		0.0		<.1	256
	1980	ND		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
	1981	ND		0.0		<.1	230	0.0		<.1	246	0.0		0.0		<.1	190	<.1	200	<.1	214
	1982	ND		0.0		<.1	205	<.1	217	<.1	216	<.1	230	0.1	233	0.1	208	<.1	220	<.1	219
	1983	ND		<.1	210	0.0		0.0		0.0		<.1	160	<.1	248	<.1	209	<.1	199	<.1	217
	1984	ND		0.0		0.0		0.0		0.0		<.1	125	<.1	162	<.1	310	0.0		<.1	255
	1985	ND		0.0		0.0		0.0		0.0		<.1	237	<.1	178	<.1	178	<.1	165	<.1	179
	1986	0.0		0.0		0.0		<.1	150	0.0		<.1	174	<.1	168	<.1	252	0.0		<.1	196
	1987	0.0		0.0		0.0		0.0		0.0		<.1	160	<.1	234	<.1	164	<.1	184	<.1	186
	1988	0.0		0.0		0.0		0.0		0.0		<.1	244	<.1	302	<.1	162	0.0		<.1	241
	1989	0.0		<.1	200	0.0		<.1	162	0.0		<.1	206	<.1	255	<.1	223	<.1	180	<.1	209
	1990	0.0		<.1	173	0.0		0.0		0.0		<.1	181	<.1	174	0.0		0.0		<.1	175
Spot	1976	ND		0.4	218	ND		0.0		0.0		0.0		0.3	233	0.0		0.1	230	0.1	222
	1977	ND		0.1	227	<.1	233	0.0		0.1	230	0.1	226	0.6	219	0.2	228	0.1	215	0.1	223
	1978	ND		<.1	225	<.1	256	<.1	232	0.1	242	<.1	259	0.2	214	0.1	227	0.1	234	0.1	228
	1979	ND		0.0		<.1	259	<.1	250	0.0		<.1	245	<.1	233	0.1	238	0.1	252	<.1	246
	1980	ND		0.0		<.1	233	0.0		<.1	239	0.0		0.1	247	0.1	234	<.1	234	<.1	239
	1981	ND		<.1	250	<.1	230	<.1	240	0.0		<.1	268	<.1	222	0.1	223	<.1	241	<.1	235
	1982	ND		<.1	244	0.0		<.1	260	<.1	244	<.1	249	0.1	234	0.5	231	0.1	237	0.1	234
	1983	ND		0.1	240	<.1	234	0.1	238	0.1	248	<.1	235	0.1	235	0.2	232	0.1	239	0.1	238
	1984	ND		<.1	247	<.1	288	<.1	291	<.1	255	<.1	253	0.1	248	0.1	234	<.1	238	<.1	253
	1985	ND		<.1	234	0.0		<.1	235	<.1	238	<.1	240	<.1	220	0.1	220	<.1	240	<.1	228
	1986	<.1	250	<.1	233	<.1	249	<.1	240	<.1	232	<.1	224	0.1	216	0.1	238	>.1	230	<.1	232
	1987	<.1	233	<.1	238	0.0		<.1	241	<.1	230	<.1	245	<.1	233	<.1	224	<.1	236	<.1	233
	1988	<.1	232	<.1	228	<.1	252	<.1	241	<.1	233	<.1	272	<.1	234	0.1	226	<.1	232	<.1	232
	1989	<.1	233	<.1	228	<.1	249	<.1	244	<.1	249	<.1	237	0.1	227	<.1	229	<.1	225	<.1	232
	1990	<.1	248	<.1	240	<.1	234	<.1	243	<.1	233	<.1	251	0.1	244	<.1	243	<.1	226	<.1	240

Table 1. (Cont'd.)

Species	Year	Bay system																			
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Striped mullet	1976	ND		0.1	385	ND		0.2	322	0.2	338	0.6	366	0.0		<.1	375	0.0		0.2	358
	1977	ND		0.2	322	0.0		0.2	314	0.9	317	0.8	319	0.1	340	0.2	368	0.2	345	0.3	323
	1978	ND		0.0		0.1	327	0.4	336	0.2	334	0.2	327	0.2	366	<.1	327	0.1	354	0.2	338
	1979	ND		0.2	320	0.1	336	0.1	341	0.7	343	0.2	339	0.1	333	0.1	404	0.1	354	0.2	341
	1980	ND		0.1	343	<.1	338	0.4	335	0.2	328	0.1	337	0.1	320	0.2	379	0.2	356	0.2	343
	1981	ND		<.1	318	0.1	345	<.1	336	<.1	341	0.1	336	0.1	321	0.2	353	0.2	353	0.1	344
	1982	ND		0.2	344	0.2	295	0.2	326	0.2	330	0.2	333	0.2	344	0.2	359	0.3	361	0.2	341
	1983	ND		0.2	350	0.1	346	0.1	346	0.2	341	0.2	341	0.1	351	0.2	367	0.2	368	0.2	352
	1984	ND		0.2	344	0.2	340	0.3	328	0.2	337	0.4	337	0.1	336	0.6	352	0.5	347	0.3	342
	1985	ND		0.2	340	0.2	339	0.3	332	0.1	328	0.3	340	0.1	338	0.2	380	0.1	339	0.2	342
	1986	<.1	326	0.2	350	0.2	321	0.2	330	0.1	328	0.2	336	0.1	340	0.1	368	0.1	341	0.1	340
	1987	<.1	312	0.2	366	0.1	319	0.2	343	0.2	348	0.2	354	0.1	336	0.1	402	0.2	359	0.2	357
	1988	<.1	327	0.1	344	0.2	333	0.1	323	0.2	348	0.1	343	0.1	350	0.1	371	0.1	364	0.1	348
	1989	<.1	323	0.2	348	0.4	339	0.2	337	0.1	356	0.1	356	0.1	344	0.1	400	0.1	372	0.2	354
	1990	<.1	325	0.2	341	0.3	342	0.4	342	0.2	357	0.2	340	0.2	340	0.4	389	0.4	353	0.3	354
Other finfishes	1976	ND		0.3	619	ND		1.6	360	0.4	619	0.9	486	2.4	351	0.1	356	0.0		0.7	423
	1977	ND		2.5	320	0.2	479	1.9	524	0.7	504	0.5	712	0.8	363	0.4	363	0.4	388	1.2	416
	1978	ND		1.6	345	0.2	283	1.5	456	1.7	505	0.4	535	0.7	308	0.5	400	0.9	407	1.1	414
	1979	ND		1.0	403	0.2	402	1.2	419	1.1	520	0.6	510	0.4	341	0.2	342	0.3	445	0.7	439
	1980	ND		0.4	520	0.2	309	1.5	521	0.7	537	0.5	515	0.3	337	0.2	364	0.2	530	0.6	506
	1981	ND		0.8	351	0.9	277	1.6	459	2.1	483	0.9	475	0.5	323	0.5	329	0.6	416	1.0	425
	1982	ND		1.2	414	0.7	348	2.1	516	0.8	557	1.1	494	0.6	436	1.3	384	0.8	407	1.0	467
	1983	ND		1.0	419	0.5	312	1.2	525	0.9	529	0.9	510	1.1	445	0.2	375	0.6	406	0.9	467
	1984	ND		0.7	424	0.3	328	1.2	600	1.1	587	0.8	531	1.2	403	0.2	392	0.4	467	0.8	505
	1985	ND		0.9	434	0.4	556	1.7	577	0.6	813	0.8	658	0.5	410	0.4	373	0.4	440	0.8	547
	1986	2.7	514	1.2	381	0.4	294	1.3	579	0.2	661	0.5	580	0.7	350	0.2	482	0.4	440	0.8	475
	1987	1.2	607	0.7	389	0.3	458	0.8	547	0.3	521	0.6	539	0.2	443	0.1	480	0.3	394	0.5	484
	1988	1.3	548	0.7	426	0.5	512	1.0	406	0.8	613	0.5	568	1.0	347	0.2	423	0.4	465	0.7	466
	1989	1.3	568	0.6	437	0.8	385	1.3	513	1.1	621	0.8	478	0.8	380	0.1	481	0.3	499	0.7	501
	1990	1.4	560	0.6	426	0.5	382	1.6	585	0.9	662	0.6	530	1.0	403	0.2	513	0.5	494	0.8	530
Total finfishes	1976	ND		11.1	429	ND		5.2	394	7.6	391	9.5	415	6.2	332	1.1	378	7.1	419	7.3	408
	1977	ND		8.8	316	4.3	395	5.9	442	8.2	428	8.1	428	7.6	297	3.8	366	4.3	395	6.7	377
	1978	ND		5.0	357	2.4	359	4.8	437	7.7	409	2.0	406	3.4	343	4.6	365	5.0	406	4.6	390
	1979	ND		6.8	345	2.5	396	3.4	409	3.2	453	3.2	433	2.7	393	2.2	360	3.2	411	3.8	387
	1980	ND		5.0	380	4.2	347	5.4	428	5.2	422	3.1	405	2.8	387	3.9	368	3.5	419	4.3	400
	1981	ND		4.6	369	5.5	363	5.3	408	6.1	417	6.0	432	2.8	634	4.2	353	6.5	406	5.2	396
	1982	ND		8.1	378	4.7	368	5.3	435	6.8	411	5.8	417	4.6	400	4.5	367	8.8	394	6.4	397
	1983	ND		9.0	369	7.6	384	4.5	417	7.2	422	5.5	404	5.5	397	5.0	373	7.5	409	6.6	394
	1984	ND		6.2	389	3.7	397	4.3	449	5.6	431	3.9	432	4.8	397	3.2	369	4.6	412	4.7	410
	1985	ND		7.6	381	3.8	408	5.2	446	4.1	479	3.6	452	5.0	368	3.6	350	5.2	384	5.1	404
	1986	4.9	432	9.3	377	5.4	381	5.0	425	3.5	422	3.2	418	5.7	371	2.9	387	5.2	425	5.3	398
	1987	2.0	517	8.7	373	4.3	384	4.0	430	2.9	420	3.4	431	3.9	420	3.0	432	5.9	434	4.8	408
	1988	2.5	472	6.7	385	4.6	401	4.5	411	4.7	444	3.0	436	6.4	390	3.2	407	5.4	436	4.8	411
	1989	2.6	474	9.0	365	7.4	396	5.1	428	6.4	437	4.2	403	4.4	402	2.8	432	4.7	425	5.5	403
	1990	2.5	485	10.5	367	8.2	403	6.6	432	6.1	448	5.1	4.0	6.8	410	3.5	405	5.2	424	6.5	405

Table 1. (Cont'd.)

Species	Year	Bay system																	
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Blue crab	1983	ND		0.2	151	0.3	154	0.1	151	0.2	142	0.3	142	0.2	151	0.1	156	0.2	145	0.2	147
	1984	ND		0.2	150	0.4	135	0.1	143	0.2	137	0.2	142	0.3	147	0.3	145	0.2	142	0.2	144
	1985	ND		0.3	149	0.5	151	0.2	144	0.3	136	0.2	141	0.2	149	0.3	141	0.2	158	0.2	147
	1986	0.2	146	0.3	151	0.6	133	0.2	140	0.1	135	0.1	144	0.1	154	<.1	147	0.1	148	0.2	145
	1987	0.3	152	0.3	139	0.3	138	0.1	138	0.2	140	0.1	155	0.1	151	<.1	137	0.1	142	0.1	141
	1988	0.3	154	0.1	148	0.1	159	<.1	135	<.1	141	<.1	150	0.1	145	<.1	115	0.1	152	0.1	147
	1989	0.2	157	0.1	137	0.4	128	<.1	136	<.1	128	<.1	131	<.1	149	<.1	72	<.1	147	0.1	136
	1990	0.2	154	0.2	141	0.3	129	<.1	138	0.2	135	0.1	135	0.2	140	<.1	114	0.1	139	0.1	138

Table 2. Mean catch rates (No./h) and mean total lengths (mm) of selected fishes and blue crab caught with gill nets (all meshes combined) by bay system during fall 1975-90. Blank indicates no measurment taken; ND = no data.

		Bay system																			
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
Species	Year	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Red drum	1975	ND		1.2	403	ND		1.2	337	1.0	326	0.8	339	0.4	330	0.3	424	0.7	474	0.9	372
	1976	ND		1.0	509	0.3	487	0.5	415	1.6	406	0.4	395	0.5	460	0.4	442	1.3	465	0.9	452
	1977	ND		0.6	445	0.9	390	0.8	435	1.0	386	0.6	392	0.5	427	0.2	364	0.4	448	0.6	416
	1978	ND		0.3	429	0.7	376	1.0	395	0.6	484	1.0	401	0.4	429	0.3	455	0.4	493	0.6	412
	1979	ND		0.8	386	0.7	403	1.4	353	1.9	376	0.9	378	0.8	352	0.5	387	0.5	449	1.0	378
	1980	ND		0.5	436	0.8	473	0.6	434	0.9	411	1.1	386	0.7	370	0.5	454	0.6	449	0.7	419
	1981	ND		0.5	429	0.6	405	0.6	390	0.7	373	0.8	403	0.6	396	0.3	515	0.8	488	0.6	422
	1982	ND		0.6	440	0.9	401	0.6	390	0.5	360	0.4	386	0.2	417	0.2	456	0.5	440	0.5	413
	1983	ND		0.6	436	0.8	394	0.5	418	0.6	407	0.4	410	0.3	448	0.2	486	0.7	509	0.5	440
	1984	ND		0.9	451	1.1	551	0.2	382	0.6	383	0.5	377	0.8	400	0.7	457	0.7	472	0.6	436
	1985	ND		0.9	421	1.2	420	0.8	394	1.3	385	0.8	427	0.7	436	0.3	460	0.9	478	0.8	423
	1986	0.4	481	0.7	468	0.8	453	0.8	403	1.2	441	0.9	454	0.5	450	0.4	486	0.9	495	0.8	456
	1987	0.4	449	0.5	459	0.9	446	0.8	372	1.2	473	0.6	459	0.4	424	0.3	527	1.5	532	0.7	467
	1988	0.4	399	0.8	437	1.5	485	0.8	418	1.1	457	0.8	454	0.5	458	0.3	520	1.3	522	0.8	463
	1989	0.4	461	0.6	479	1.1	511	0.4	402	1.1	468	0.7	423	0.6	476	0.3	533	1.1	520	0.7	475
	1990	0.4	500	0.3	488	0.9	497	0.5	408	1.0	458	1.0	477	0.8	432	0.7	553	1.0	534	0.7	482
Spotted seatrout	1975	ND		0.2	447	ND		0.6	419	1.1	389	0.7	474	0.4	479	0.2	455	0.8	413	0.6	427
	1976	ND		0.4	463	1.0	451	0.4	437	0.7	427	0.2	448	0.6	387	0.2	455	2.4	431	0.7	433
	1977	ND		0.2	501	0.3	461	0.4	455	0.5	387	0.1	485	0.2	483	0.6	412	0.8	464	0.4	449
	1978	ND		0.3	544	0.3	400	0.8	406	0.5	387	0.1	383	0.2	417	0.4	431	0.5	437	0.4	432
	1979	ND		0.2	449	0.1	385	0.6	418	0.2	439	0.1	476	0.2	413	0.1	434	0.4	472	0.2	438
	1980	ND		0.4	476	0.2	418	0.3	406	0.2	435	0.2	446	0.3	465	0.2	434	0.5	490	0.3	457
	1981	ND		0.2	483	0.8	419	0.4	437	0.3	428	0.2	442	0.4	437	0.2	469	0.7	486	0.4	457
	1982	ND		0.3	456	0.4	468	0.3	430	0.4	428	0.2	458	0.2	458	0.4	435	0.5	453	0.3	445
	1983	ND		0.3	464	0.5	420	0.3	438	0.5	425	0.2	459	0.3	435	0.3	459	0.6	476	0.4	452
	1984	ND		0.4	465	0.3	459	0.2	430	0.2	420	0.1	453	0.2	467	0.1	400	0.4	458	0.2	453
	1985	ND		0.3	470	0.3	418	0.4	439	0.2	430	0.2	438	0.4	432	0.2	443	0.6	475	0.3	453
	1986	0.2	395	0.4	438	0.4	444	1.3	431	0.4	432	0.3	442	0.4	464	0.3	437	1.0	472	0.4	444
	1987	0.1	410	0.2	459	0.5	425	0.6	425	0.3	422	0.3	452	0.5	461	0.2	456	0.7	461	0.4	445
	1988	0.1	420	0.5	444	0.6	432	0.3	439	0.4	438	0.3	430	0.4	442	0.2	428	0.8	479	0.4	449
	1989	0.1	430	0.3	441	0.4	447	0.2	435	0.4	457	0.3	446	0.4	474	0.1	464	0.6	460	0.3	453
	1990	<.1	399	0.2	460	0.5	461	0.2	427	0.2	479	0.3	459	0.5	474	0.1	505	0.5	477	0.3	467
Black drum	1975	ND		0.4	366	ND		0.9	326	0.5	315	0.8	290	0.4	358	1.2	422	1.0	454	0.7	367
	1976	ND		0.3	337	0.6	305	0.9	344	1.2	325	0.6	376	0.3	366	1.0	503	2.4	419	0.9	388
	1977	ND		0.4	384	0.5	371	0.5	338	0.7	336	0.4	341	0.3	365	0.8	406	2.2	410	0.7	383
	1978	ND		0.4	383	1.0	346	0.5	383	0.3	306	0.5	311	0.1	383	0.8	425	0.4	377	0.4	372
	1979	ND		0.2	398	0.1	410	0.2	404	0.4	361	0.3	380	0.4	308	0.4	391	0.5	423	0.3	387
	1980	ND		0.8	391	0.9	341	0.7	306	1.2	298	0.9	340	0.5	370	0.6	365	1.0	400	0.8	353
	1981	ND		0.3	408	0.4	343	0.4	383	0.5	315	0.5	341	0.4	357	0.5	390	0.8	384	0.5	369
	1982	ND		0.6	355	2.4	346	0.6	352	1.0	296	1.1	337	0.6	369	0.9	388	1.9	387	1.0	356
	1983	ND		0.2	381	1.0	361	0.6	375	0.6	328	0.6	345	0.7	406	0.5	422	0.9	418	0.6	381
	1984	ND		0.4	405	0.7	348	0.2	386	0.3	269	0.2	329	0.2	376	0.4	438	0.4	442	0.3	389
	1985	ND		0.8	379	0.6	363	0.4	357	0.3	295	0.4	325	0.2	363	0.9	389	0.5	435	0.5	372
	1986	0.4	360	0.7	380	0.6	303	0.6	351	0.4	342	0.5	357	0.3	388	0.5	317	0.5	441	0.5	379
	1987	0.3	378	0.4	376	1.5	376	0.4	383	0.3	364	0.5	370	0.2	384	0.4	403	0.6	465	0.4	393
	1988	0.2	355	0.5	387	1.2	339	0.7	346	1.0	334	0.7	330	0.7	337	1.5	405	0.6	422	0.8	368
	1989	0.5	324	2.0	384	1.4	358	0.8	351	1.0	337	1.4	373	1.3	416	1.5	421	1.2	401	1.3	383
	1990	0.3	342	0.4	375	0.8	368	0.6	362	1.0	298	1.0	334	0.6	398	1.0	431	1.0	423	0.8	372

Table 2. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Sheeps-head	1975	ND		<.1	362	ND		0.1	316	0.2	291	1.1	296	0.2	376	0.3	409	0.1	352	0.3	323
	1976	ND		<.1	331	0.2	308	0.2	273	0.4	329	1.0	255	0.1	328	0.2	360	0.4	341	0.3	297
	1977	ND		<.1	342	0.3	316	0.1	314	0.2	321	0.5	267	0.2	335	0.2	406	0.3	356	0.2	323
	1978	ND		0.1	308	0.2	307	0.1	342	0.5	371	0.6	306	0.2	361	0.2	376	0.1	300	0.2	337
	1979	ND		<.1	335	0.2	352	0.1	312	0.4	362	0.8	318	0.2	339	0.1	395	0.2	349	0.2	338
	1980	ND		0.1	283	0.1	309	<.1	353	0.7	296	0.6	307	0.2	361	0.2	382	0.4	330	0.3	316
	1981	ND		<.1	321	0.1	277	0.2	292	0.3	335	0.2	322	0.1	343	0.1	382	0.3	332	0.2	327
	1982	ND		0.1	330	0.3	332	0.1	313	0.1	296	0.2	350	0.1	365	0.2	383	0.3	330	0.1	339
	1983	ND		<.1	342	0.5	345	0.1	338	0.2	302	0.1	355	0.1	361	0.2	395	0.3	340	0.2	346
	1984	ND		<.1	369	0.3	383	<.1	369	<.1	427	<.1	436	<.1	383	0.1	417	0.1	333	0.1	379
	1985	ND		<.1	380	0.2	379	<.1	374	<.1	362	<.1	326	<.1	352	<.1	435	0.1	369	<.1	369
	1986	<.1	340	<.1	359	0.1	297	0.1	336	0.1	329	0.1	304	0.1	359	<.1	407	0.1	351	0.1	336
	1987	<.1	402	0.1	387	0.1	366	0.1	352	0.1	371	0.2	360	0.1	340	<.1	386	0.2	342	0.1	355
	1988	0.0		<.1	368	0.1	340	0.1	358	0.1	346	0.1	304	<.1	354	<.1	398	0.2	382	0.1	359
	1989	<.1	299	0.1	371	0.2	343	<.1	324	0.1	341	0.1	329	0.1	361	<.1	422	0.2	371	0.1	357
	1990	<.1	303	<.1	418	0.3	354	<.1	332	<.1	417	<.1	360	<.1	367	<.1	422	0.1	403	<.1	385
Southern flounder	1975	ND		<.1	317	ND		0.1	323	0.1	250	0.1	309	0.2	380	0.1	448	0.1	338	0.1	342
	1976	ND		<.1	365	0.5	321	<.1	296	0.2	363	0.1	304	0.2	351	0.1	347	0.1	389	0.1	348
	1977	ND		0.2	331	0.2	342	<.1	322	0.2	312	0.2	368	0.1	383	<.1	491	<.1	353	0.1	342
	1978	ND		0.1	359	0.1	354	<.1	310	0.1	310	0.1	377	0.2	372	<.1	354	<.1	335	0.1	352
	1979	ND		<.1	348	0.1	331	0.1	338	0.2	388	0.1	336	0.1	347	0.1	396	0.2	366	0.2	363
	1980	ND		0.2	345	0.3	369	0.2	330	0.1	325	0.1	359	0.2	367	<.1	363	0.2	400	0.1	354
	1981	ND		0.1	326	0.1	351	0.1	335	0.1	311	0.1	356	0.1	348	0.1	387	0.1	358	0.1	346
	1982	ND		0.2	345	0.3	354	0.1	350	0.2	311	0.1	360	0.1	353	0.1	349	0.2	354	0.2	346
	1983	ND		0.1	348	0.2	350	0.1	324	0.2	342	<.1	335	0.1	367	0.1	345	0.1	389	0.1	351
	1984	ND		0.1	341	0.2	364	<.1	328	0.1	322	0.1	323	0.1	328	0.1	326	0.1	293	0.1	326
	1985	ND		0.1	340	0.2	370	0.1	333	0.1	330	0.1	336	0.1	337	0.2	347	0.1	331	0.1	339
	1986	0.1	299	0.1	363	0.1	376	0.1	346	0.1	377	<.1	348	0.1	371	0.1	368	0.2	363	0.1	361
	1987	0.1	335	0.1	336	0.1	350	0.1	308	0.1	345	0.1	394	0.1	337	<.1	381	0.1	402	0.1	351
	1988	<.1	346	0.1	350	0.2	353	0.1	365	0.1	342	0.1	372	<.1	350	<.1	419	0.1	387	0.1	363
	1989	<.1	324	0.1	349	0.2	362	0.1	328	0.1	353	0.1	342	<.1	336	<.1	392	0.1	382	0.1	352
	1990	<.1	325	0.1	326	0.2	340	0.1	326	0.1	324	0.1	344	0.1	333	0.1	279	0.1	340	0.1	326
Atlantic croaker	1975	ND		<.1	245	ND		0.0		0.1	312	0.2	338	0.4	321	0.1	314	0.1	343	0.1	323
	1976	ND		0.2	262	0.1	248	0.3	263	0.4	296	0.2	314	0.6	320	0.5	329	0.3	326	0.3	301
	1977	ND		0.1	291	0.1	275	0.2	274	0.2	290	0.8	307	0.6	350	0.7	345	0.2	340	0.3	319
	1978	ND		0.1	274	0.1	248	0.2	255	0.1	242	0.5	314	0.4	296	0.4	283	<.1	331	0.2	288
	1979	ND		<.1	271	0.2	248	0.1	287	0.2	270	0.2	303	0.5	326	0.1	316	0.2	331	0.2	305
	1980	ND		0.2	284	0.1	262	0.2	261	0.1	264	0.2	320	1.7	320	0.1	302	0.2	298	0.3	303
	1981	ND		0.2	279	0.2	254	0.1	273	0.2	268	0.7	328	0.8	320	0.2	323	0.4	320	0.3	310
	1982	ND		0.4	282	0.4	256	0.1	277	0.2	278	0.4	328	1.0	327	0.4	338	0.3	330	0.4	310
	1983	ND		0.3	275	0.4	261	0.2	263	0.5	286	0.3	309	1.0	320	0.1	312	0.5	314	0.4	299
	1984	ND		0.2	274	0.2	259	0.2	259	0.2	252	0.1	261	0.5	274	0.1	264	0.2	270	0.2	268
	1985	ND		0.6	272	0.4	258	0.1	254	0.1	261	0.3	268	0.6	279	0.2	307	0.3	281	0.3	274
	1986	0.2	296	0.4	281	0.1	261	0.2	253	0.2	256	0.3	280	1.4	305	0.1	322	0.3	299	0.4	289
	1987	0.1	287	0.8	288	0.1	252	0.3	253	<.1	253	0.2	283	1.5	323	0.1	321	0.3	322	0.4	298
	1988	0.2	276	0.6	291	0.1	267	0.3	255	0.2	255	0.3	301	0.8	317	0.1	357	0.3	318	0.3	295
	1989	0.1	284	0.6	271	0.2	257	0.2	250	0.2	262	0.2	266	0.3	317	<.1	324	<.1	308	0.2	273
	1990	0.2	283	0.4	286	0.2	270	0.1	261	<.1	260	0.1	261	0.3	290	<.1	298	0.1	264	0.2	280

Table 2. (Cont'd.)

Species	Year	Bay system																	
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Sand seatrout	1975	ND		0.2	309	ND		0.3	291	0.0		<.1	308	<.1	288	0.0		0.0		0.1	299
	1976	ND		0.1	293	0.1	297	<.1	301	0.0		0.0		0.2	301	<.1	398	0.0		0.1	307
	1977	ND		0.1	312	0.0		<.1	321	0.0		0.0		0.0		<.1	377	0.0		<.1	315
	1978	ND		<.1	303	0.0		<.1	184	0.0		0.0		0.0		0.0		0.0		<.1	254
	1979	ND		<.1	252	0.0		<.1	256	<.1	211	0.0		0.1	294	<.1	268	0.0		<.1	272
	1980	ND		0.1	302	0.0		<.1	220	0.0		0.0		0.0		0.0		<.1	326	<.1	299
	1981	ND		<.1	252	<.1	238	<.1	242	<.1	175	<.1	226	<.1	247	<.1	335	<.1	305	<.1	255
	1982	ND		0.1	299	<.1	246	<.1	250	<.1	250	<.1	297	<.1	290	<.1	265	<.1	305	<.1	288
	1983	ND		<.1	306	<.1	235	<.1	274	<.1	240	<.1	297	<.1	278	0.0		<.1	291	<.1	291
	1984	ND		0.1	308	<.1	315	<.1	284	<.1	282	<.1	277	<.1	296	0.0		<.1	301	<.1	302
	1985	ND		0.1	280	<.1	255	<.1	252	<.1	332	<.1	237	<.1	262	0.0		<.1	325	<.1	279
	1986	<.1	281	<.1	304	<.1	239	<.1	254	<.1	254	<.1	206	<.1	250	<.1	249	<.1	279	<.1	288
	1987	<.1	300	0.1	285	<.1	220	<.1	240	0.0		0.0		<.1	250	0.0		<.1	338	<.1	276
	1988	<.1	230	0.1	302	<.1	249	<.1	251	<.1	291	0.0		<.1	319	0.0		<.1	328	<.1	301
	1989	<.1	215	<.1	316	<.1	241	<.1	234	<.1	237	0.0		<.1	229	0.0		<.1	293	<.1	272
	1990	<.1	254	<.1	290	<.1	252	<.1	258	<.1	260	0.0		<.1	267	<.1	277	<.1	296	<.1	277
Gafftop-sail catfish	1975	ND		0.0		ND		0.1	571	<.1	493	<.1	552	0.1	575	0.0		0.0		<.1	567
	1976	ND		0.1	482	0.0		0.2	526	0.4	498	<.1	587	<.1	475	0.0		0.0		0.1	509
	1977	ND		<.1	516	0.0		<.1	499	0.2	526	<.1	385	<.1	600	0.1	529	0.0		<.1	516
	1978	ND		0.0		0.0		<.1	514	<.1	543	0.0		0.1	551	0.0		0.0		<.1	534
	1979	ND		0.0		0.2	542	0.0		0.1	499	<.1	533	0.0		0.0		<.1	282	<.1	511
	1980	ND		0.1	550	0.0		<.1	478	0.3	509	0.1	522	0.1	517	0.0		0.0		0.1	525
	1981	ND		0.1	492	0.0		<.1	505	<.1	542	0.1	511	0.1	523	0.0		<.1	379	<.1	507
	1982	ND		<.1	423	<.1	616	<.1	520	0.3	527	0.1	533	<.1	545	<.1	541	0.0		0.1	517
	1983	ND		<.1	492	0.1	473	<.1	498	0.3	514	0.1	544	0.1	532	0.0		<.1	408	0.1	514
	1984	ND		<.1	517	0.1	474	0.1	510	0.3	507	0.1	521	<.1	488	0.0		<.1	315	0.1	509
	1985	ND		0.1	525	0.1	482	<.1	498	0.1	546	0.1	556	0.1	519	<.1	556	<.1	511	0.1	528
	1986	0.1	462	<.1	521	<.1	473	<.1	474	0.2	485	0.1	532	<.1	514	0.0		<.1	356	<.1	495
	1987	<.1	423	0.1	491	0.1	527	<.1	512	<.1	519	0.1	542	<.1	528	0.0		<.1	390	<.1	514
	1988	<.1	370	<.1	515	<.1	534	0.2	521	0.1	544	0.1	538	0.1	521	<.1	495	<.1	325	0.1	525
	1989	<.1	321	<.1	480	<.1	485	0.2	509	0.1	549	<.1	547	0.1	384	0.0		<.1	358	0.1	524
	1990	<.1	465	0.1	504	0.1	499	0.2	499	<.1	509	0.1	583	<.1	549	0.1	598	<.1	429	0.1	513
Gulf menhaden	1975	ND		0.5	272	ND		1.7	302	0.4	221	0.2	307	0.5	284	0.3	280	0.1	312	0.5	286
	1976	ND		2.7	240	<.1	270	0.3	246	0.3	275	0.1	267	0.5	275	0.2	304	0.1	275	0.8	255
	1977	ND		3.0	246	<.1	248	0.2	244	0.1	240	<.1	237	2.0	254	1.4	258	0.1	211	1.0	249
	1978	ND		0.6	249	0.5	249	<.1	241	0.1	239	0.6	242	1.4	250	0.2	254	0.0		0.4	248
	1979	ND		0.1	249	0.1	231	0.4	250	<.1	235	0.1	251	0.3	251	0.1	261	<.1	294	0.1	252
	1980	ND		0.3	253	0.0		<.1	260	0.1	255	0.1	245	<.1	243	0.6	249	0.1	325	0.2	254
	1981	ND		0.7	259	<.1	260	0.1	246	0.1	242	0.1	238	0.3	255	0.7	262	0.1	273	0.3	258
	1982	ND		0.6	251	<.1	310	<.1	246	0.1	243	<.1	238	0.8	255	0.1	264	<.1	239	0.2	252
	1983	ND		1.7	257	0.1	248	<.1	249	0.2	239	0.2	246	0.2	258	<.1	290	<.1	250	0.5	255
	1984	ND		1.0	256	0.2	255	0.4	248	0.4	246	0.6	251	0.5	284	0.2	273	0.2	295	0.5	259
	1985	ND		1.5	249	<.1	233	0.1	254	0.1	249	0.1	263	0.5	260	0.2	281	0.1	279	0.4	253
	1986	0.2	246	1.5	244	0.1	233	0.3	239	0.1	244	0.2	249	0.9	263	<.1	249	<.1	262	0.5	247
	1987	0.1	244	1.8	250	0.0		0.1	244	0.0	278	<.1	250	0.2	259	<.1	256	<.1	278	0.4	250
	1988	0.2	268	0.8	244	<.1	206	0.2	233	0.1	241	<.1	252	0.1	264	<.1	249	0.1	317	0.2	247
	1989	0.2	253	0.8	245	<.1	236	0.2	231	<.1	240	<.1	276	<.1	252	0.0		<.1	253	0.2	244
	1990	0.1	256	1.3	253	<.1	247	0.6	224	<.1	251	0.1	214	<.1	294	0.0		<.1	226	0.4	247

Table 2. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Length	Galveston No./h	Length	East Matagorda No./h	Length	Matagorda No./h	Length	San Antonio No./h	Length	Aransas No./h	Length	Corpus Christi No./h	Length	Upper Laguna Madre No./h	Length	Lower Laguna Madre No./h	Length	Coastwide No./h	Length
Hardhead catfish	1975	ND		0.8	318	ND		0.2	309	0.5	320	0.2	303	0.3	325	0.5	307	0.3	298	0.4	314
	1976	ND		0.7	347	<.1	322	0.2	283	0.8	310	0.2	289	0.3	300	0.4	291	0.5	292	0.4	314
	1977	ND		0.6	338	<.1	331	0.1	305	0.2	321	0.1	323	0.2	322	0.3	309	0.7	320	0.3	325
	1978	ND		1.4	340	0.1	304	0.2	283	0.1	318	0.2	337	0.3	318	0.4	285	0.6	341	0.5	330
	1979	ND		1.5	350	0.2	338	0.2	321	0.7	338	0.2	348	0.3	331	0.4	291	0.4	335	0.6	340
	1980	ND		0.7	333	0.4	329	0.1	331	0.7	316	0.3	326	0.3	353	0.4	294	0.5	330	0.4	326
	1981	ND		1.0	341	0.3	319	<.1	313	1.0	345	0.4	345	0.4	347	0.2	312	0.7	348	0.6	340
	1982	ND		1.7	341	0.4	334	0.2	332	0.8	342	0.3	347	0.3	346	0.6	305	0.8	331	0.7	336
	1983	ND		1.1	344	0.4	337	0.4	331	0.6	326	0.4	353	0.5	342	1.0	317	0.9	352	0.7	339
	1984	ND		1.6	330	1.3	322	0.8	326	1.0	337	0.6	340	0.4	342	0.9	307	0.9	329	1.0	329
	1985	ND		1.0	329	0.5	327	0.7	346	0.9	355	0.5	354	0.5	349	0.7	313	0.9	317	0.8	335
	1986	<.1	335	0.2	338	0.4	342	0.5	336	1.0	351	0.6	355	0.4	356	0.5	299	0.8	353	0.7	342
	1987	0.1	320	0.7	337	0.5	320	0.8	343	0.9	358	0.3	355	0.4	369	0.3	314	0.5	366	0.6	346
	1988	0.2	315	1.2	337	1.0	338	1.1	341	1.1	351	0.5	349	0.7	347	0.4	318	1.0	340	0.9	341
	1989	0.1	326	1.0	353	0.9	328	1.1	346	1.4	351	0.7	334	0.5	362	0.4	313	1.0	358	0.9	348
	1990	0.3	325	1.0	332	1.1	339	1.2	339	1.4	363	0.6	351	0.5	367	0.4	303	0.9	360	0.9	345
Pinfish	1975	ND		0.0		ND		0.0		0.0		0.0		<.1	180	<.1	178	0.0		<.1	179
	1976	ND		0.0		0.1	199	0.0		0.2	212	0.0		<.1	212	<.1	240	<.1	220	<.1	212
	1977	ND		0.0		0.0		0.0		0.0		<.1	210	0.0		0.1	277	0.1	209	<.1	250
	1978	ND		<.1	238	<.1	168	0.0		0.1	222	<.1	247	<.1	217	<.1	190	<.1	230	<.1	221
	1979	ND		0.0		0.0		<.1	181	0.0		0.0		<.1	224	<.1	155	<.1	218	<.1	210
	1980	ND		<.1	157	0.0		0.0		0.0		0.0		0.2	238	<.1	186	0.0		<.1	221
	1981	ND		<.1	221	0.0		<.1	230	<.1	177	<.1	214	<.1	231	<.1	231	<.1	206	<.1	218
	1982	ND		<.1	207	<.1	227	<.1	202	<.1	187	<.1	217	0.1	241	<.1	217	<.1	239	<.1	220
	1983	ND		<.1	192	<.1	202	<.1	178	<.1	187	<.1	174	0.2	236	0.1	185	<.1	209	<.1	206
	1984	ND		<.1	154	0.0		<.1	194	<.1	154	<.1	179	<.1	224	<.1	190	<.1	172	<.1	183
	1985	ND		<.1	192	<.1	170	<.1	193	<.1	206	<.1	162	<.1	189	<.1	182	<.1	182	<.1	185
	1986	<.1	51	<.1	200	<.1	211	<.1	150	0.0		<.1	218	<.1	176	<.1	188	<.1	143	<.1	183
	1987	0.0		<.1	176	<.1	226	<.1	177	<.1	143	<.1	177	0.3	225	<.1	181	<.1	191	<.1	202
	1988	0.0		<.1	204	<.1	220	<.1	171	<.1	165	<.1	169	<.1	228	<.1	206	<.1	185	<.1	200
	1989	0.0		<.1	188	<.1	205	<.1	182	<.1	180	<.1	172	<.1	223	<.1	160	<.1	240	<.1	191
	1990	0.0		<.1	194	<.1	224	<.1	242	<.1	184	<.1	228	<.1	210	<.1	192	<.1	246	<.1	206
Spot	1975	ND		0.0		ND		<.1	305	<.1	245	0.1	247	0.9	245	0.4	267	0.2	236	0.2	251
	1976	ND		0.4	236	<.1	260	0.2	229	0.3	236	<.1	238	0.3	228	0.2	236	0.5	257	0.3	240
	1977	ND		0.2	234	<.1	257	<.1	256	0.2	240	0.1	243	0.3	231	0.2	252	0.4	250	0.2	243
	1978	ND		0.1	226	0.1	234	0.4	236	0.1	267	0.1	259	0.2	248	0.3	256	0.1	223	0.2	244
	1979	ND		0.0		0.0		<.1	260	<.1	274	<.1	295	<.1	257	0.1	246	0.2	249	<.1	257
	1980	ND		0.1	235	<.1	222	0.4	235	0.1	246	<.1	217	0.3	244	0.1	240	<.1	250	0.1	238
	1981	ND		0.1	240	0.2	237	<.1	240	<.1	253	<.1	264	0.1	244	0.2	243	0.1	237	0.1	243
	1982	ND		0.3	238	<.1	246	0.1	232	0.1	245	0.1	241	0.5	260	0.2	240	0.2	246	0.2	245
	1983	ND		0.2	242	0.2	245	<.1	243	0.2	246	0.1	246	0.3	263	0.1	235	0.2	244	0.2	246
	1984	ND		0.1	238	0.1	242	0.1	240	0.1	241	0.1	240	0.4	251	<.1	230	<.1	231	0.1	243
	1985	ND		0.3	233	<.1	229	0.1	234	0.1	237	0.1	237	0.3	240	0.5	230	0.3	231	0.2	233
	1986	0.1	233	0.2	237	0.1	239	0.1	238	0.1	231	0.1	237	0.5	241	0.1	229	0.2	243	0.2	239
	1987	0.1	233	0.2	235	<.1	230	0.1	220	<.1	225	0.1	232	0.4	249	<.1	238	0.1	236	0.1	236
	1988	0.1	237	0.2	237	<.1	242	0.2	232	<.1	246	0.1	234	0.5	257	0.1	240	0.2	245	0.2	243
	1989	<.1	234	0.2	236	0.1	240	0.2	238	0.2	250	0.1	234	0.4	260	<.1	233	0.2	234	0.2	242
	1990	0.1	232	0.1	240	<.1	240	0.1	238	<.1	251	0.1	234	0.1	239	<.1	244	0.1	233	0.1	239

Table 2. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Striped mullet	1975	ND		0.3	331	ND		0.4	347	0.6	322	2.5	328	1.0	382	0.3	358	0.5	345	0.7	339
	1976	ND		0.3	346	0.2	320	0.3	349	1.6	331	0.5	360	0.3	342	0.6	402	2.0	397	0.7	367
	1977	ND		0.2	345	0.2	380	0.4	330	0.9	343	0.3	321	0.4	371	0.3	396	0.6	354	0.4	348
	1978	ND		0.2	423	0.6	330	0.6	342	0.5	322	1.1	336	0.1	364	0.1	364	0.3	387	0.4	347
	1979	ND		0.1	351	0.1	338	0.3	340	0.7	344	0.7	344	0.3	353	0.6	410	0.3	365	0.4	357
	1980	ND		0.2	363	<.1	319	0.2	343	0.6	357	0.6	357	0.3	340	0.3	360	0.4	346	0.3	353
	1981	ND		0.1	395	0.1	349	0.1	332	0.6	341	0.5	334	0.3	353	0.3	364	0.9	363	0.4	352
	1982	ND		0.2	376	0.4	329	0.3	330	0.4	341	0.8	331	0.2	345	0.1	348	0.4	372	0.4	347
	1983	ND		0.2	370	0.2	335	0.2	339	0.3	334	0.5	350	0.2	347	0.3	383	0.6	375	0.3	358
	1984	ND		0.4	362	0.7	328	0.3	331	0.5	350	0.6	342	0.4	357	0.5	376	0.4	356	0.5	352
	1985	ND		0.2	338	0.2	326	0.2	323	0.5	355	0.3	343	0.2	342	0.3	397	0.3	375	0.3	354
	1986	<.1	328	0.1	377	0.3	328	0.1	337	0.4	369	0.2	356	0.2	358	<.1	370	0.6	359	0.2	359
	1987	<.1	325	0.2	375	0.4	333	0.7	319	1.1	360	0.6	348	0.3	338	0.1	391	0.4	382	0.5	351
	1988	<.1	331	0.2	362	0.4	344	0.4	326	0.4	347	0.4	365	0.3	370	0.4	409	0.4	396	0.3	366
	1989	<.1	329	0.2	349	0.2	334	0.2	328	0.3	350	0.4	348	0.2	359	0.3	394	0.4	366	0.3	357
	1990	0.1	334	0.4	341	0.3	368	0.2	344	0.8	369	0.7	358	0.2	353	0.2	337	0.4	383	0.4	361
Other finfishes	1975	ND		1.4	505	ND		1.0	461	0.6	438	1.1	415	1.0	358	0.5	383	1.0	365	1.0	439
	1976	ND		1.0	397	0.1	316	1.4	483	1.1	493	1.6	420	1.0	380	0.2	439	1.1	380	1.0	428
	1977	ND		0.5	563	0.2	322	2.7	408	2.0	346	0.4	473	1.1	321	0.4	311	0.9	379	1.1	397
	1978	ND		0.5	311	0.2	293	1.2	365	2.0	463	0.6	403	0.2	325	0.5	443	0.8	403	0.8	393
	1979	ND		0.6	386	<.1	540	0.9	371	0.6	418	0.5	514	0.4	330	0.2	360	0.6	410	0.5	403
	1980	ND		0.4	375	0.1	314	0.6	376	1.1	315	0.6	323	0.3	295	0.3	424	0.2	388	0.5	350
	1981	ND		0.9	371	0.5	344	0.6	469	0.9	468	1.0	455	1.1	403	0.2	397	0.6	415	0.7	421
	1982	ND		1.0	353	0.7	319	1.1	491	1.0	491	0.8	437	0.8	386	0.3	380	0.7	422	0.8	422
	1983	ND		1.2	412	1.7	286	1.5	415	1.0	420	0.8	574	1.8	367	0.1	394	0.6	417	1.1	418
	1984	ND		1.1	393	0.8	308	1.6	515	0.3	633	0.8	679	0.7	412	0.1	441	0.6	526	0.8	491
	1985	ND		1.0	369	0.4	341	0.7	516	0.5	582	0.3	719	0.3	429	0.1	376	0.5	435	0.6	460
	1986	0.8	482	0.8	373	1.1	455	1.3	499	0.6	529	0.6	483	0.6	339	0.1	465	0.5	407	0.7	447
	1987	0.8	549	0.9	358	0.3	438	0.9	350	1.2	507	0.3	464	0.5	331	0.1	449	0.4	448	0.6	412
	1988	1.0	462	1.0	342	1.2	434	1.1	424	1.3	496	0.9	551	0.8	350	<.1	366	0.5	407	0.9	429
	1989	0.8	485	1.0	362	0.5	434	0.8	436	0.8	535	0.6	447	1.4	314	0.1	447	0.5	398	0.7	407
	1990	0.8	471	0.8	383	0.3	329	0.6	371	0.6	554	0.5	567	1.1	449	0.2	446	0.3	503	0.6	445
Total finfishes	1975	ND		5.1	396	ND		6.6	355	4.9	339	7.9	345	5.7	343	4.3	374	4.8	394	5.5	365
	1976	ND		7.2	334	4.0	385	4.9	388	9.1	365	5.0	363	5.0	349	5.1	383	11.1	400	6.8	369
	1977	ND		6.2	334	3.2	362	5.4	389	6.2	348	3.6	344	5.8	326	5.2	343	6.5	381	5.5	353
	1978	ND		4.0	342	4.0	325	5.0	359	5.1	383	5.2	341	3.8	322	3.6	358	3.1	395	4.3	355
	1979	ND		3.5	367	2.0	372	4.3	350	5.6	368	3.8	372	3.5	327	2.6	367	3.5	393	3.7	365
	1980	ND		4.0	371	2.9	375	3.3	346	6.1	342	4.8	350	5.0	336	2.5	354	4.2	390	4.3	357
	1981	ND		4.2	357	3.3	355	3.0	384	4.8	358	4.4	375	4.8	364	3.1	357	5.5	388	4.2	369
	1982	ND		6.2	346	6.2	354	3.7	372	5.1	360	4.5	366	5.1	338	3.5	363	5.9	381	5.0	360
	1983	ND		6.0	350	6.2	341	4.0	378	5.3	352	3.9	396	5.8	356	3.0	362	5.5	399	4.9	367
	1984	ND		6.5	364	5.7	379	4.4	369	3.9	362	3.8	399	4.2	347	3.1	373	4.2	406	4.6	373
	1985	ND		7.1	335	4.5	366	3.7	380	4.2	376	3.3	396	4.0	358	3.4	362	4.6	390	4.6	364
	1986	2.6	395	6.0	349	4.4	390	5.4	387	4.7	408	4.0	378	5.3	347	2.4	381	5.2	404	4.7	377
	1987	2.2	430	5.8	334	4.7	390	5.0	323	5.2	428	3.3	391	4.9	353	1.6	406	4.6	444	4.4	374
	1988	2.5	371	6.2	346	6.5	398	5.5	361	5.8	393	4.3	382	5.0	358	3.1	396	5.7	410	5.2	374
	1989	2.2	394	6.8	363	5.2	387	4.3	361	5.6	402	4.7	374	5.4	388	2.9	417	5.2	408	5.0	382
	1990	2.4	401	5.2	343	4.9	387	4.2	345	5.5	399	4.5	400	4.5	398	2.7	433	4.5	431	4.4	384

Table 2. (Cont'd.)

Species	Year	Bay system																	
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Blue crab	1983	ND		0.1	136	0.3	153	0.1	151	0.1	138	0.2	146	0.2	146	0.3	146	0.3	146	0.2	144
	1984	ND		0.1	151	0.1	140	0.1	147	0.1	147	0.2	145	0.2	141	0.2	138	0.2	148	0.1	145
	1985	ND		0.1	149	0.1	154	<.1	142	0.1	139	0.1	141	0.1	143	0.2	147	0.1	148	0.1	145
	1986	0.2	150	<.1	146	<.1	144	<.1	161	0.1	146	<.1	138	0.1	144	<.1	147	0.1	149	0.1	147
	1987	0.2	154	0.1	140	0.1	158	0.2	154	0.3	153	0.1	158	0.1	157	0.3	157	0.1	152	0.2	153
	1988	0.2	155	0.1	144	0.2	150	<.1	137	0.1	138	0.1	145	0.1	147	<.1	129	<.1	152	0.1	147
	1989	<.1	157	<.1	136	<.1	144	<.1	139	<.1	133	<.1	148	<.1	159	0.0		<.1	152	<.1	143
	1990	0.2	146	0.1	149	0.1	144	0.2	144	0.1	144	<.1	149	0.1	138	0.1	129	0.2	142	0.1	144

Table 3. Annual mean catch rate (No./ha) and mean total lengths (mm) of selected fishes and shellfishes caught with 18.3-m bag seines by bay system during 1977-90. Blank indicates no measurement taken; ND = no data.

Species / Year	Bay system																			
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./h	Length
FINFISHES																				
Red drum																				
1977[a]	ND		20	35	ND		8	51	85	51	14	44	1	41	0		1	39	18	46
1978	ND		3	67	ND		4	43	13	51	4	94	3	67	11	58	17	52	7	58
1979	ND		17	62	ND		6	92	11	67	4	92	18	85	27	66	15	64	14	70
1980	ND		59	74	ND		8	68	28	50	5	88	16	75	4	82	15	72	23	70
1981	ND		26	52	ND		9	86	29	53	30	38	40	46	5	46	45	56	26	52
1982	ND		53	62	ND		9	76	19	102	26	103	21	62	1	55	16	89	24	76
1983	ND		47	67	11[b]	66	4	70	7	99	12	98	7	88	2	59	41	92	20[b]	78
1984	ND		13	66	6	70	2	108	12	56	4	100	4	80	2	52	4	73	6	69
1985	ND		3	131	10	106	7	96	7	114	19	82	9	67	1	61	17	69	9	86
1986	19	66	8	87	8	86	2	78	6	105	1	117	4	98	3	84	22	94	7	90
1987	6	99	45	58	47	61	16	88	15	89	9	59	7	71	2	117	32	63	21	66
1988	13	78	8	78	27	79	3	114	6	89	10	78	9	49	4	66	21	63	10	73
1989	61	44	3	59	24	47	4	92	10	82	8	65	4	83	1	54	18	69	9	63
1990	5	62	18	53	27	50	14	51	19	50	43	40	20	57	4	32	25	39	20	46
Spotted seatrout																				
1977[a]	ND		35	87	ND		39	84	50	73	1	99	7	84	16	83	5	85	23	82
1978	ND		35	52	ND		6	86	11	69	8	50	4	59	14	93	2	52	14	61
1979	ND		37	79	ND		3	83	12	70	7	68	12	53	14	80	2	86	14	75
1980	ND		17	72	ND		3	84	21	71	11	74	11	79	3	56	<1	60	10	73
1981	ND		16	85	ND		6	110	9	68	13	70	12	65	4	73	6	84	10	80
1982	ND		37	82	ND		7	99	19	62	15	76	4	75	5	78	3	76	15	79
1983	ND		26	84	4[b]	101	7	73	8	72	14	81	4	79	4	101	4	80	11[b]	82
1984	ND		6	71	2	85	4	77	1	83	10	74	1	54	1	88	5	98	4	77
1985	ND		5	80	24	73	11	87	4	64	24	61	3	50	9	70	2	78	9	70
1986	2	67	2	85	17	66	5	71	5	78	12	60	4	68	1	72	2	58	5	68
1987	2	92	22	73	14	68	3	82	19	70	13	69	10	76	1	104	3	63	11	72
1988	7	88	6	88	14	75	5	96	7	67	28	68	7	65	5	65	3	87	9	74
1989	5	63	6	79	14	80	6	69	20	61	16	71	6	71	4	50	2	56	8	68
1990	3	69	5	56	10	74	8	66	8	61	14	61	13	65	2	54	1	86	7	63
Black drum																				
1977[a]	ND		0		ND		11	147	6	179	1	142	1	150	0		0		3	156
1978	ND		36	95	ND		9	112	22	110	2	165	1	122	4	106	0		13	102
1979	ND		40	83	ND		12	106	5	97	1	85	8	89	6	140	18	98	16	92
1980	ND		4	93	ND		4	102	0		2	100	2	75	3	95	1	142	3	97
1981	ND		12	122	ND		11	110	2	141	5	141	2	113	11	44	6	130	8	108
1982	ND		4	124	ND		5	138	9	90	7	94	1	109	<1	155	2	117	4	110
1983	ND		23	91	3[b]	123	3	118	1	132	2	145	2	108	2	107	<1	141	6[b]	98
1984	ND		8	108	1	103	3	156	0		1	140	0		1	82	<1	91	2	115
1985	ND		4	141	3	83	3	113	1	122	<1	124	1	68	6	86	0		2	112
1986	2	141	2	107	5	85	0		1	149	0		<1	96	2	78	1	145	1	110
1987	0		1	106	0		4	130	1	118	0		6	74	44	63	1	89	6	72
1988	2	146	5	107	5	94	6	126	2	132	2	128	2	112	8	90	2	158	4	114
1989	0		4	124	8	87	3	109	1	125	3	116	1	110	11	77	4	150	4	108
1990	3	128	4	99	41	75	14	117	6	123	2	127	15	64	833	45	7	126	102	49

Table 3. (Cont'd.)

Species / Year	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./h	Length
Sheepshead																				
1977[a]	ND		0		ND		2	128	0		0		0		0		0		<1	128
1978	ND		0	ND			<1	86	<1	68	1	54	1	59	1	122	2	61	1	70
1979	ND		15	66	ND		1	94	6	63	2	56	13	41	0		1	50	6	61
1980	ND		1	114	ND		1	163	1	41	1	51	0		0		1	60	1	86
1981	ND		1	158	ND		2	68	0		1	95	1	41	0		1	92	1	101
1982	ND		1	174	ND		0		3	67	<1	62	<1	50	0		0		1	90
1983	ND		1	23	<1[b]	93	<1	50	1	102	<1	67	<1	99	0		3	52	1[b]	52
1984	ND		0		<1	178	<1	90	1	30	<1	36	<1	30	0		0		<1	43
1985	ND		2	20	1	58	<1	157	3	39	1	35	0		0		2	57	1	43
1986	0		<1	114	<1	32	<1	203	1	48	1	50	0		0		1	73	<1	80
1987	0		0		1	91	<1	94	<1	53	0		0		0		1	47	<1	64
1988	0		<1	60	2	69	<1	124	2	58	1	55	3	35	0		<1	40	1	56
1989	1	91	<1	59	1	35	1	116	25	40	0		0		0		<1	89	3	44
1990	<1	153	1	126	1	36	1	79	<1	85	<1	115	0		0		1	48	<1	86
Southern Flounder																				
1977[a]	ND		0		ND		1	171	0		0		0		0		0		<1	171
1978	ND		9	40	ND		<1	43	4	67	<1	98	1	44	<1	128	1	46	3	42
1979	ND		1	85	ND		<1	135	2	85	0		1	122	2	46	1	38	1	71
1980	ND		10	54	ND		1	38	2	55	0		3	64	1	43	5	38	4	51
1981	ND		5	57	ND		7	79	2	53	2	90	1	67	1	66	11	55	4	64
1982	ND		9	67	ND		3	82	6	56	18	37	2	62	1	53	13	39	8	51
1983	ND		10	46	1[b]	75	2	54	3	58	6	39	1	34	0		3	45	4[b]	46
1984	ND		2	83	2	69	1	78	1	67	3	62	3	45	1	86	1	64	2	69
1985	ND		4	58	5	78	3	112	1	43	7	55	5	55	<1	71	2	67	3	64
1986	2	83	4	83	6	70	19	66	2	78	4	64	2	54	1	79	12	44	6	63
1987	2	47	20	51	9	54	1	62	3	44	1	103	1	37	1	69	3	56	6	53
1988	15	66	14	61	3	76	3	85	3	69	5	48	1	65	<1	60	5	60	6	63
1989	10	74	3	62	10	60	3	67	10	51	24	38	8	53	<1	106	2	62	7	50
1990	12	68	22	59	12	55	15	48	11	50	3	55	12	47	4	67	9	51	12	54
Atlantic croaker																				
1977[a]	ND		20	96	ND		0		0		1	36	11	50	1	181	4	83	6	88
1978	ND		320	61	ND		239	59	10	100	37	73	1	30	11	86	29	38	122	61
1979	ND		463	52	ND		109	74	52	49	7	76	25	65	3	92	221	44	162	53
1980	ND		1,085	55	ND		82	69	17	89	16	56	24	49	1	40	198	42	290	54
1981	ND		528	57	ND		24	94	26	73	26	42	20	55	1	112	32	46	136	58
1982	ND		1,812	61	ND		165	74	68	67	142	61	32	54	<1		49	53	471	62
1983	ND		888	55	56[b]	79	236	66	67	80	63	62	6	61	2	86	49	51	254[b]	58
1984	ND		807	59	210	64	483	60	25	83	150	68	1,160	61	4	102	133	59	402	60
1985	ND		242	64	121	63	299	72	13	88	46	78	4	76	11	87	87	42	122	66
1986	126	74	148	77	198	68	2,138	52	18	99	12	72	12	78	<1	89	62	57	364	55
1987	79	70	335	54	110	56	207	78	33	47	9	81	4	40	<1	60	10	62	113	61
1988	154	68	485	53	160	51	60	80	13	66	3	50	8	50	0		15	63	125	56
1989	111	56	36	77	190	45	22	56	9	49	18	62	10	61	0		9	38	27	59
1990	97	67	316	51	117	46	82	67	24	32	58	65	14	59	2	78	46	62	103	55

Table 3. (Cont'd.)

Species / Year	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./h	Length
Sand seatrout																				
1977[a]	ND		0		ND		11	61	0		0		0		0		0		2	61
1978	ND		13	58	ND		3	59	0		0		<1	54	0		0		4	58
1979	ND		35	58	ND		14	70	2	75	<1	33	1	77	0		0		10	61
1980	ND		8	61	ND		7	82	<1	64	<1	89	<1		0		0		3	69
1981	ND		21	60	ND		2	72	0		0		1	76	0		<1	78	5	61
1982	ND		47	57	ND		12	67	<1	35	<1	76	<1	73	0		<1	65	13	58
1983	ND		67	53	10[b]	59	30	64	<1	47	1	70	2	53	0		0		15[b]	56
1984	ND		49	55	7	66	22	54	0		0		0		0		8	41	15	54
1985	ND		11	60	8	59	12	71	0		<1	67	1	82	0		<1	60	5	65
1986	6	71	9	50	4	60	9	64	0		0		<1	57	0		0		4	57
1987	4	63	16	58	10	61	14	65	1	61	0		0		0		0		6	61
1988	5	54	5	53	38	40	6	66	<1	69	0		0		0		0		3	52
1989	9	54	43	55	10	66	4	68	<1	31	0		<1	106	0		0		10	56
1990	24	52	75	46	10	59	13	56	1	36	0		0		0		0		19	47
Gulf menhaden																				
1977[a]	ND		21	76	ND		0		0		0		1	58	0		0		5	76
1978	ND		533	31	ND		3,963	47	169	64	3,310	44	2	41	44	42	71	29	1,249	44
1979	ND		122	53	ND		867	43	0		817	38	335	38	6	37	1	31	312	41
1980	ND		14,717	46	ND		115	50	24	52	48	30	7	49	4	40	54	31	3,343	46
1981	ND		196	45	ND		348	51	52	41	355	48	9	41	721	42	11	38	246	45
1982	ND		4,732	49	ND		820	48	1,025	37	137	33	1,068	36	9	31	130	32	1,455	47
1983	ND		4,971	66	1,324[b]	44	809	44	67	42	16	34	619	33	2	30	5	47	1,312[b]	62
1984	ND		1,822	44	470	48	1,260	45	1,084	42	840	39	552	52	128	49	69	56	923	44
1985	ND		486	42	243	43	3,819	50	866	45	48	39	122	37	62	44	20	49	812	48
1986	3,049	48	3,024	38	1,502	37	10,076	52	612	36	27	34	11	46	36	44	12	36	2,333	48
1987	633	47	264	50	785	49	3,550	60	35	40	68	36	11	34	32	63	18	27	637	57
1988	600	40	2,625	45	438	41	363	60	<1	43	80	30	<1	44	14	31	81	35	660	45
1989	526	48	781	42	386	51	187	45	53	37	44	37	11	43	2	45	72	39	245	43
1990	774	49	5,106	43	640	44	527	56	797	71	943	35	869	32	21	38	<1	38	1,487	44
Hardhead catfish																				
1977[a]	ND		1	192	ND		2	108	15	91	0		0		6	105	1	114	3	106
1978	ND		12	114	ND		20	107	11	104	2	88	1	72	6	88	3	84	9	105
1979	ND		43	126	ND		16	116	5	148	1	119	8	154	4	116	10	120	16	125
1980	ND		42	118	ND		13	122	1	107	1	134	2	88	<1	83	1	87	12	118
1981	ND		14	119	ND		34	126	10	99	1	100	4	105	5	76	4	95	12	116
1982	ND		32	103	ND		47	121	16	96	8	85	3	108	1	84	3	106	18	108
1983	ND		70	113	26[b]	111	48	119	7	116	4	96	1	103	2	90	1	125	25[b]	114
1984	ND		32	94	21	124	38	88	16	94	24	97	7	82	5	72	14	96	22	92
1985	ND		36	86	10	118	29	115	2	112	19	101	2	85	9	74	3	134	17	97
1986	17	122	24	125	38	112	54	127	30	103	15	96	<1	104	<1	62	11	94	22	116
1987	4	105	38	107	70	104	49	111	6	94	<1	107	<1	150	0		3	88	18	107
1988	5	109	21	97	17	129	27	118	1	122	5	113	4	91	0		41	88	15	102
1989	16	73	30	124	42	118	34	106	25	98	3	86	3	113	<1	85	14	94	18	109
1990	1	140	6	123	26	125	60	106	9	95	8	89	8	88	1	73	64	80	22	96

Table 3. (Cont'd.)

Species / Year	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./h	Length
Pinfish																				
1977[a]	ND		0		ND		32	114	24	105	22	105	66	93	167	102	13	101	39	103
1978	ND		116	55	ND		24	61	77	75	54	74	133	69	41	84	7	64	65	65
1979	ND		73	75	ND		43	79	60	79	47	85	81	61	14	122	1	107	47	77
1980	ND		151	38	ND		16	50	363	58	167	66	250	61	17	88	153	59	152	56
1981	ND		270	55	ND		68	69	131	70	107	85	267	67	40	84	132	75	151	66
1982	ND		144	67	ND		34	66	603	55	448	67	265	62	100	73	349	57	261	61
1983	ND		138	65	61[b]	61	115	80	514	49	642	68	532	66	25	82	211	67	279[b]	64
1984	ND		245	59	180	64	107	71	172	66	457	62	214	54	146	79	120	77	212	64
1985	ND		362	55	401	65	209	71	396	55	274	66	234	67	133	68	261	66	280	62
1986	64	74	183	61	676	64	117	58	161	66	696	59	304	58	245	62	329	63	287	61
1987	8	72	50	64	227	57	44	68	442	63	321	67	463	58	42	56	340	64	206	63
1988	7	84	128	61	372	62	43	77	242	63	589	62	983	54	312	59	660	60	357	60
1989	24	75	80	62	359	58	308	53	607	61	300	63	361	57	60	70	251	61	254	60
1990	37	75	182	58	499	61	251	65	552	52	609	55	566	57	392	62	660	60	414	58
Spot																				
1977[a]	ND		56	100	ND		23	118	0		2	170	12	100	0		1	125	18	105
1978	ND		407	52	ND		187	49	361	48	80	55	310	47	227	59	149	52	253	51
1979	ND		352	42	ND		21	64	201	44	58	60	210	55	107	70	57	59	156	49
1980	ND		269	57	ND		76	56	256	51	100	61	95	58	86	59	165	48	160	55
1981	ND		331	52	ND		154	57	135	64	97	54	121	61	115	63	220	67	185	58
1982	ND		404	62	ND		143	58	467	52	623	54	225	60	180	58	340	66	350	58
1983	ND		459	57	50[b]	64	95	58	171	47	350	56	135	55	57	60	526	63	273[b]	58
1984	ND		236	53	96	61	146	58	249	46	644	56	564	58	493	66	948	67	430	60
1985	ND		179	62	158	59	216	59	274	44	254	64	228	55	80	77	169	54	197	58
1986	118	65	135	68	319	56	825	51	102	58	258	51	160	60	114	55	614	54	314	54
1987	19	80	264	60	383	60	83	58	203	49	476	58	359	49	17	70	307	47	240	55
1988	44	82	229	69	210	66	116	64	132	54	361	59	158	65	212	54	270	59	209	62
1989	96	52	87	63	256	58	173	59	264	62	253	53	158	62	271	50	151	64	183	58
1990	16	70	222	62	525	54	330	57	691	51	566	52	831	49	685	57	851	55	525	54
Striped mullet																				
1977[a]	ND		31	140	ND		129	106	129	117	27	132	179	156	15	158	62	103	74	126
1978	ND		56	120	ND		26	124	126	66	68	103	122	76	53	94	105	81	74	90
1979	ND		135	89	ND		93	99	273	66	152	103	202	135	16	102	383	53	174	81
1980	ND		90	117	ND		16	107	41	121	61	102	49	88	57	70	95	85	61	100
1981	ND		229	57	ND		42	92	249	84	205	81	80	85	31	63	161	98	152	76
1982	ND		128	66	ND		553	118	181	77	177	85	29	110	24	86	43	94	174	98
1983	ND		85	94	62[b]	104	26	136	57	64	110	106	37	61	15	99	44	84	58[b]	94
1984	ND		51	95	33	110	34	53	69	73	99	57	142	52	154	68	265	96	106	77
1985	ND		75	110	199	89	49	92	22	134	95	58	22	62	70	53	119	81	72	84
1986	84	103	34	134	20	144	23	86	37	93	22	91	62	67	23	57	41	66	35	92
1987	48	98	244	56	60	89	33	96	63	115	127	73	141	56	94	37	72	103	116	76
1988	42	80	115	115	69	90	44	64	16	116	84	50	189	49	64	62	27	125	74	80
1989	61	68	41	96	40	61	20	82	10	147	77	47	131	49	61	33	78	68	56	61
1990	43	88	194	71	151	81	21	71	47	100	156	41	322	44	226	59	114	89	144	63

Table 3. (Cont'd.)

Species / Year	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./h	Length
Other finfishes																				
1977[a]	ND		776	51	ND		220	72	2,797	45	1,315	62	2,510	54	1,575	60	743	53	1,273	54
1978	ND		2,562	52	ND		379	82	866	67	1,471	58	936	64	869	56	522	50	1,218	57
1979	ND		1,814	60	ND		450	69	2,745	55	1,999	63	1,277	64	1,157	67	1,657	79	1,591	64
1980	ND		2,090	68	ND		289	79	1,134	69	994	65	1,031	63	1,939	62	382	62	1,180	66
1981	ND		1,682	67	ND		384	82	1,136	56	1,179	64	1,657	63	856	62	637	63	1,094	64
1982	ND		1,546	68	ND		278	88	1,967	54	3,419	53	946	65	1,034	52	393	57	1,393	59
1983	ND		1,554	74	470[b]	75	481	80	1,249	54	2,839	58	814	59	620	59	490	61	1,268[b]	65
1984	ND		1,329	61	591	65	524	77	1,058	61	1,239	61	704	59	880	52	340	65	897	62
1985	ND		585	70	737	69	494	82	609	60	1,727	56	759	50	1,152	50	775	58	846	60
1986	287	77	343	76	535	72	1,225	69	874	51	1,246	54	280	61	1,128	45	563	62	767	59
1987	346	69	931	65	798	63	307	83	521	65	1,006	53	354	57	778	44	790	54	692	59
1988	258	64	704	67	667	60	236	87	963	54	1,981	60	980	54	1,652	46	1,020	65	990	59
1989	323	64	1,042	68	761	60	593	71	962	60	1,333	55	1,312	52	1,950	43	1,740	53	1,185	56
1990	304	75	1,036	65	891	55	767	69	1,306	52	1,566	50	1,243	55	3,216	42	1,204	50	1,351	53
Total finfishes																				
1977[a]	ND		954	59	ND		489	88	3,106	52	1,384	64	2,788	60	1,780	67	830	59	1,464	61
1978	ND		4,103	53	ND		4,855	67	1,671	65	5,038	64	1,515	66	1,282	62	908	54	3,030	61
1979	ND		3,149	60	ND		1,635	71	3,375	57	3,096	60	2,191	70	1,355	69	2,368	72	2,518	64
1980	ND		18,543	86	ND		632	77	1,879	66	1,407	68	1,490	67	2,116	63	1,070	59	5,242	82
1981	ND		3,334	63	ND		1,093	83	1,781	61	2,020	66	2,213	64	1,792	54	1,267	70	2,028	65
1982	ND		8,950	68	ND		2,077	78	4,381	56	5,021	57	2,596	66	1,355	58	1,342	61	4,188	65
1983	ND		8,725	71	2,078[b]	63	1,857	80	2,147	55	4,059	63	2,160	59	734	62	1,378	68	3,528[b]	68
1984	ND		4,601	59	1,617	66	2,625	62	2,687	58	3,466	62	3,353	52	1,817	60	1,907	71	3,019	60
1985	ND		1,994	63	1,921	68	5,152	82	2,200	65	2,514	60	1,389	56	1,534	55	1,458	60	2,383	68
1986	3,776	69	3,916	71	3,329	63	14,493	73	1,849	60	2,294	57	841	62	1,554	51	1,672	61	4,146	69
1987	1,153	67	2,230	64	2,484	63	4,312	79	1,344	65	2,030	58	1,357	55	1,012	46	1,578	60	2,073	66
1988	1,153	62	4,346	71	2,024	63	913	83	1,391	58	3,150	54	2,343	56	2,271	50	2,143	65	2,464	63
1989	1,243	62	2,157	67	2,097	59	1,362	69	1,997	62	2,079	55	2,006	56	2,360	45	2,341	56	2,010	59
1990	1,319	67	7,187	58	2,951	59	2,106	68	3,470	57	3,968	55	3,913	52	5,385	48	2,981	59	4,207	57
SHELLFISHES																				
Blue crab																				
1977[a]	ND		103	43	ND		31	46	52	46	95	56	56	38	16	58	9	63	56	47
1978	ND		66	52	ND		10	38	52	51	57	62	33	43	98	61	19	60	49	55
1979	ND		106	52	ND		27	51	76	49	84	62	152	43	90	48	61	54	83	51
1980	ND		122	54	ND		24	56	119	45	65	52	80	38	65	40	176	46	95	48
1981	ND		58	53	ND		44	44	51	54	85	45	86	40	42	58	167	35	75	44
1982	ND		101	48	ND		31	51	108	42	193	48	52	49	35	54	175	42	102	46
1983	ND		148	43	15	77	35	34	105	40	145	43	48	40	36	59	112	33	94	41
1984	ND		88	58	58	60	58	42	42	46	61	50	62	42	37	61	80	46	64	51
1985	ND		144	49	107	54	56	46	41	42	141	38	184	37	73	52	152	34	113	42
1986	37	79	90	55	86	55	58	53	62	46	30	48	77	40	23	45	91	41	63	49
1987	23	68	163	41	87	38	36	51	64	55	35	35	80	47	50	59	72	44	77	45
1988	44	64	160	46	138	31	29	36	48	42	54	35	89	44	38	43	78	37	78	42
1989	50	45	85	48	121	30	45	25	74	31	56	34	72	43	22	41	31	35	59	38
1990	67	47	141	44	94	46	75	31	98	30	83	35	150	42	37	51	68	40	94	39

Table 3. (Cont'd.)

Species / Year	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./h	Length
Brown shrimp																				
1977[a]	ND		139	46	ND		64	52	200	49	229	54	99	58	9	63	200	53	137	51
1978	ND		540	50	ND		167	63	102	63	152	60	258	56	188	68	120	53	245	56
1979	ND		482	58	ND		194	66	69	63	438	63	499	61	53	59	155	59	285	61
1980	ND		495	52	ND		143	68	553	60	386	60	183	62	64	64	234	56	314	58
1981	ND		719	57	ND		157	74	310	64	355	60	679	53	102	76	1,008	58	490	59
1982	ND		915	64	ND		207	64	606	51	505	54	428	57	62	63	565	61	510	60
1983	ND		484	60	100	76	248	66	310	57	530	60	295	56	58	65	532	50	360	58
1984	ND		623	64	294	65	198	56	244	66	730	66	291	58	82	61	389	63	393	64
1985	ND		522	60	413	59	364	63	306	56	755	61	370	55	288	70	1,007	56	525	59
1986	605	74	166	58	558	63	524	67	137	65	231	63	204	58	193	66	627	54	318	62
1987	401	70	1,162	58	388	56	445	64	158	60	464	62	293	60	417	56	963	58	611	59
1988	248	61	516	62	570	57	208	61	206	53	357	58	394	64	757	73	461	62	416	63
1989	110	70	519	59	889	56	369	54	739	55	726	51	522	54	167	58	411	59	493	56
1990	127	69	356	56	723	61	477	61	482	56	1,005	60	592	62	77	74	2,128	59	694	59
Pink shrimp																				
1977[a]	ND		0		ND		0		12	41	0		0		48	77	0		7	69
1978	ND		0		ND		0		<1	100	<1	63	0		26	77	0		3	77
1979	ND		0		ND		0		0		0		58	51	12	78	<1	106	7	57
1980	ND		0		ND		0		6	42	13	50	58	55	10	60	2	75	10	55
1981	ND		0		ND		0		28	54	87	44	67	54	8	62	6	49	24	49
1982	ND		0		ND		0		0		124	47	67	46	7	61	3	52	26	48
1983	ND		0		0		0		9	51	50	56	31	47	12	54	0		12	53
1984	ND		0		0		<1	25	1	73	15	48	26	48	14	65	<1	79	6	53
1985	ND		0		0		0		0		18	59	8	49	8	76	0		4	61
1986	0		0		<1	73	0		<1	68	15	39	25	49	6	43	3	65	5	46
1987	0		0		0		<1	32	0		11	52	60	52	14	50	0		8	52
1988	0		0		0		0		<1	38	135	49	106	50	<1	55	6	54	28	50
1989	0		0		0		0		1	52	45	42	64	46	20	59	0		14	47
1990	0		0		<1	131	<1	72	<1	36	99	49	106	48	4	48	15	51	24	49
White shrimp																				
1977[a]	ND		1,586	55	ND		1,054	102	115	47	26	63	84	57	36	85	23	57	554	69
1978	ND		858	66	ND		554	70	130	61	92	49	62	52	21	55	130	53	335	65
1979	ND		1,720	61	ND		543	70	212	56	99	64	817	52	5	53	143	47	608	61
1980	ND		571	64	ND		522	68	291	57	133	61	141	69	62	71	18	45	288	64
1981	ND		1,393	62	ND		805	59	66	64	183	50	173	51	19	56	264	61	527	60
1982	ND		3,560	58	ND		1,750	64	661	51	297	43	369	54	14	51	326	50	1,277	58
1983	ND		1,524	50	348	70	394	65	135	64	129	53	135	42	7	71	218	52	478	53
1984	ND		1,543	59	409	65	1,438	71	166	56	408	53	311	63	17	58	625	58	755	62
1985	ND		307	61	552	61	584	63	37	44	239	44	33	53	6	73	204	54	242	58
1986	308	73	1,389	62	173	65	675	66	140	66	287	44	101	58	2	48	175	49	491	61
1987	682	68	972	53	577	61	579	67	90	54	111	65	152	61	8	37	121	61	386	58
1988	796	63	482	66	429	66	341	68	168	52	425	47	155	61	73	51	534	73	361	63
1989	614	61	559	55	76	59	384	78	145	52	631	60	372	59	2	68	194	54	356	60
1990	425	65	1,698	54	690	57	451	63	335	58	821	50	537	67	35	40	368	49	704	55

[a]Data for October - December only.
[b]East Matagorda Bay data are only for February-September 1983. Coastwide values do not include East Matagorda Bay data.

Table 4. Annual mean catch rate (No./ha) and mean total lengths (mm) of selected fishes and shellfishes caught with 6.1-m trawls in Texas bay systems during 1982-90. Blank indicates no measurement taken; ND = no data.

		Bay system																			
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide[b]	
Species	Year	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
FINFISHES																					
Atlantic croaker	1982[a]	ND		43		ND		102		10		87	75	110		37		28		62	75
	1983	ND		30	131	ND		31	117	18	110	44	106	43	149	15	157	32	154	30	127
	1984	ND		15	126	ND		30	104	22	87	52	83	120	121	15	137	44	138	35	112
	1985	ND		20	124	ND		41	110	17	105	33	101	42	138	13	151	24	148	27	119
	1986	10	157	31	123	ND		52	114	44	105	57	96	83	125	14	139	28	153	42	117
	1987	25	139	26	117	17[c]	133	126	103	146	96	87	100	50	129	7	152	44	122	70	106
	1988	45	135	56	98	13	131	43	121	90	109	100	102	38	125	5	137	21	138	55	109
	1989	45	145	36	116	4	98	75	120	88	102	71	99	40	127	2	158	19	131	52	115
	1990	40	113	36	109	12	113	79	118	50	97	45	92	55	125	12	129	66	123	50	112
Black drum	1982[a]	ND		<1	259	ND		0		<1	221	<1	166	2	235	<1	264	0		<1	238
	1983	ND		<1	274	ND		<1	199	<1	192	<1	201	1	347	1	266	<1	440	<1	283
	1984	ND		<1	168	ND		0		0		<1	251	<1	341	1	202	<1	544	<1	258
	1985	ND		<1	242	ND		0		0		<1	403	<1	315	1	280	0		<1	268
	1986	<1	226	<1	233	ND		0		0		0		<1	334	<1	236	<1	335	<1	250
	1987	<1	278	<1	246	0[c]		0		<1	200	0		<1	186	1	247	<1	160	<1	231
	1988	1	271	<1	271	<1	192	<1	170	<1	154	<1	204	<1	299	1	197	0		<1	256
	1989	2	260	<1	274	<1	192	0		<1	267	<1	170	<1	356	2	212	<1	418	<1	258
	1990	1	272	<1	254	<1	146	<1	930	<1	114	<1	173	<1	560	97	109	<1	169	5	115
Gafftop-sail catfish	1982[a]	ND		<1		ND		4		3		3		1	138	1	193	0		2	141
	1983	ND		<1	137	ND		1	132	2	123	2	135	<1	175	0		0		1	133
	1984	ND		<1	139	ND		1	144	5	121	2	109	<1	218	<1	131	<1	196	1	126
	1985	ND		<1	154	ND		2	137	2	128	3	128	1	150	0		<1	210	1	134
	1986	0		1	126	ND		2	134	5	128	2	121	<1	92	<1	158	0		1	128
	1987	<1	174	<1	145	1[c]	143	2	138	9	122	2	124	<1	132	<1	183	<1	175	2	127
	1988	0		<1	149	1	135	3	14	3	131	3	127	<1	14	0		0		1	124
	1989	<1	299	<1	126	<1	139	1	134	4	136	4	139	<1	156	0		0		1	137
	1990	0		1	218	1	127	1	137	4	130	2	143	<1	173	0		0		1	159
Gulf menhaden	1982[a]	ND		12		ND		10		11		24		2		<1		<1		10	
	1983	ND		7	103	ND		10	109	17	76	3	89	3	104	1	87	0		8	96
	1984	ND		3	98	ND		3	93	23	58	45	44	4	82	6	76	<1	59	9	61
	1985	ND		18	112	ND		10	109	27	79	12	92	2	119	4	106	0		14	101
	1986	<1	121	17	95	ND		4	79	18	64	8	55	1	156	<1	49	0		9	84
	1987	3	101	20	95	15[c]	84	12	101	34	77	22	62	1	128	<1	92	0		16	88
	1988	3	94	22	80	1	96	16	96	11	99	4	106	1	124	1	58	<1	110	13	88
	1989	3	79	14	107	7	97	3	111	21	103	3	65	7	115	<1	60	<1	78	9	105
	1990	5	68	11	94	2	94	4	121	24	85	19	102	2	97	2	85	<1	111	10	95

Table 4. (Cont'd.)

Species	Year	Bay system																				Coastwide[b]	
		Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre					
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length			No./h	Length
Hardhead catfish	1982[a]	ND		1		ND		3		2		8		29		25		6				7	
	1983	ND		1	177	ND		2	183	2	206	8	125	26	191	12	205	5	196			5	184
	1984	ND		1	186	ND		2	169	1	199	5	128	21	186	7	215	5	193			4	182
	1985	ND		2	159	ND		4	149	1	165	4	144	14	171	5	207	5	176			4	165
	1986	4	178	8	167	ND		3	147	1	187	9	149	18	172	2	233	10	207			7	170
	1987	5	186	4	176	4[c]	168	7	155	5	171	5	186	19	173	3	207	2	205			6	173
	1988	10	210	3	150	3	182	11	164	7	166	10	161	16	167	3	205	2	180			7	167
	1989	4	213	7	183	2	160	14	162	9	156	11	154	26	163	2	224	2	203			11	167
	1990	3	234	3	198	2	173	8	191	7	192	5	194	19	202	1	222	4	213			7	197
Pinfish	1982[a]	ND		1		ND		7		5		2		85		44		39				17	
	1983	ND		1	121	ND		6	110	14	106	38	106	119	124	20	133	45	109			22	119
	1984	ND		1	121	ND		6	107	7	96	39	96	25	113	67	108	73	111			15	107
	1985	ND		1	120	ND		9	111	23	104	53	110	48	118	18	133	48	110			18	113
	1986	4	117	2	118	ND		10	101	18	98	55	103	100	116	32	109	95	108			25	109
	1987	<1	126	1	122	5[c]	113	13	103	32	91	83	106	130	121	12	131	56	113			30	112
	1988	4	126	2	114	5	107	18	111	92	104	139	100	272	115	20	112	65	100			59	109
	1989	1	117	2	121	9	98	16	113	53	103	82	103	463	117	16	110	81	104			75	114
	1990	3	109	5	107	5	103	34	109	64	101	109	101	164	107	104	77	282	101			61	102
Red drum	1982[a]	ND		0		ND		<1		<1	230	<1	102	<1	649	<1	619	0				<1	402
	1983	ND		0		ND		0		<1	319	<1	224	0		0		<1	280			<1	242
	1984	ND		<1	583	ND		<1	305	<1	344	<1	142	<1	81	<1	241	<1	401			<1	304
	1985	ND		0		ND		<1	56	0		<1	54	<1	276	<1	475	<1	90			<1	292
	1986	<1	212	0		ND		0		<1	35	<1	78	0		<1	630	<1	340			<1	289
	1987	<1	405	<1	34	0[c]		0		0		0		<1	399	0		0				<1	154
	1988	<1	272	<1	53	0		0		0		<1	23	0		0		0<1	308			<1	72
	1989	<1	254	<1	44	0		<1	42	0		0		<1	525	0		<1	68			<1	72
	1990	0		<1	320	0		0		<1	53	0		0		<1	40	<1	342			<1	268
Sand seatrout	1982[a]	ND		4		ND		5	165	<1	141	3	126	14	147	1	201	5	164			5	161
	1983	ND		3	134	ND		4	132	<1	108	3	111	9	158	<1	196	1	164			3	140
	1984	ND		2	147	ND		1	121	<1	115	1	107	4	141	0		1	161			1	138
	1985	ND		4	127	ND		3	126	<1	136	1	119	7	144	1	160	1	117			3	131
	1986	1	152	3	141	ND		2	117	<1	112	<1	133	5	148	0		<1	154			2	137
	1987	2	121	2	110	2	112	5	114	1	99	1	94	9	134	<1	156	<1	160			3	118
	1988	1	140	3	107	1	117	2	126	<1	123	2	107	3	125	<1	109	<1	128			2	115
	1989	2	102	10	96	<1	81	3	111	1	110	4	85	12	143	0		2	152			6	109
	1990	1	110	5	109	1	96	3	119	<1	117	1	113	3	124	0		2	102			3	113

Table 4. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide[b] No./h	Coastwide[b] Length
Sheeps-head	1982[a]	ND		<1	295	ND		0		<1	119	<1	85	<1	345	1	366	1	241	<1	290
	1983	ND		<1	344	ND		0		<1	113	<1	138	<1	365	1	358	<1	248	<1	323
	1984	ND		<1	339	ND		<1	147	0		<1	157	<1	342	<1	402	<1	300	<1	314
	1985	ND		<1	341	ND		<1	102	<1	112	<1	143	<1	259	<1	412	<1	80	<1	242
	1986	1	215	<1	451	ND		0		0		<1	122	<1	288	<1	356	1	160	<1	228
	1987	<1	279	<1	356	0[c]		<1	111	<1	124	<1	115	<1	299	<1	377	<1	156	<1	255
	1988	<1	332	<1	423	0		<1	112	<1	80	<1	95	<1	155	<1	247	<1	152	<1	238
	1989	1	252	<1	253	<1	104	<1	120	<1	120	<1	116	<1	251	<1	518	<1	366	<1	240
	1990	3	248	<1	343	0		0		<1	89	<1	99	0		0		<1	234	<1	274
Southern flounder	1982[a]	ND		<1	158	ND		<1	169	1	155	1	186	1	181	2	203	<1	279	1	176
	1983	ND		<1	175	ND		<1	196	<1	120	1	180	<1	242	<1	203	<1	161	<1	180
	1984	ND		<1	193	ND		<1	194	<1	153	2	148	<1	175	1	145	<1	168	<1	160
	1985	ND		<1	234	ND		<1	202	1	147	1	152	1	221	1	197	<1	261	<1	191
	1986	<1	141	1	161	ND		<1	165	1	141	1	144	1	184	1	262	<1	212	1	166
	1987	1	168	<1	231	<1[c]	154	<1	191	1	160	1	167	<1	171	0		<1	183	<1	181
	1988	1	144	<1	195	<1	132	<1	148	1	118	2	168	<1	214	<1	226	<1	205	<1	157
	1989	2	173	<1	166	<1	181	<1	194	1	130	1	169	<1	193	<1	348	<1	211	1	168
	1990	2	119	<1	174	<1	161	<1	166	2	121	1	136	1	167	1	190	1	170	1	145
Spanish mackerel	1982[a]	ND		0		ND		<1	326	0		0		0		0		0		<1	326
	1983	ND		0		ND		0		0		0		0		0		0		0	
	1984	ND		0		ND		1	202	0		0		0		0		0		<1	202
	1985	ND		0		ND		<1	171	0		0		<1	233	0		0		<1	183
	1986	0		0		ND		0		0		0		0		0		0		0	
	1987	0		0		0[c]		<1	60	0		0		<1	138	0		0		<1	138
	1988	<1	170	<1	163	0		0		0		0		0		0		0		<1	163
	1989	<1	90	<1	118	0		<1	184	0		0		<1	149	0		0		<1	125
	1990	1	159	<1	201	0		<1	153	0		<1	169	<1	235	0		0		<1	190
Spot	1982[a]	ND		9		ND		26		5		68		33		10		4		19	
	1983	ND		6	120	ND		17	122	5	112	18	118	36	140	2	163	6	135	12	127
	1984	ND		8	115	ND		34	107	35	84	131	91	74	112	82	118	10	108	39	103
	1985	ND		13	121	ND		20	118	13	110	60	116	215	132	24	137	19	129	41	126
	1986	6	120	14	120	ND		29	121	21	99	92	106	115	129	6	118	5	135	34	119
	1987	9	134	11	127	12	119	38	115	34	97	86	117	122	125	4	158	13	112	37	119
	1988	24	113	14	117	5	107	42	127	116	108	151	116	235	127	4	140	18	118	66	120
	1989	19	130	11	123	6	111	85	118	73	105	97	127	240	136	6	129	18	119	68	125
	1990	6	130	8	117	12	95	94	119	117	96	165	101	164	113	71	110	104	104	78	109

Table 4. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide[b] No./h	Coastwide[b] Length
Spotted seatrout	1982[a]	ND		<1	173	ND		0		<1	232	<1	163	<1	187	1	166	<1	142	<1	171
	1983	ND		<1	288	ND		<1	155	<1	168	2	207	<1	327	2	188	<1	200	<1	212
	1984	ND		<1	418	ND		<1	174	<1	252	<1	237	<1	385	<1	351	<1	236	<1	329
	1985	ND		<1	286	ND		<1	171	<1	156	1	156	<1	171	1	146	<1	218	<1	188
	1986	<1	187	<1	259	ND		<1	193	<1	170	<1	162	1	176	<1	151	1	196	<1	201
	1987	<1	147	<1	134	<1[c]	162	<1	143	1	166	1	164	<1	163	1	206	<1	198	<1	167
	1988	<1	188	<1	172	<1	166	<1	249	<1	159	2	166	<1	175	<1	176	<1	95	<1	172
	1989	<1	227	<1	142	<1	128	<1	174	<1	190	1	168	<1	214	1	186	1	139	<1	173
	1990	<1	334	<1	118	0		0		<1	119	<1	176	<1	123	<1	114	0		<1	150
Striped mullet	1982[a]	ND		<1		ND		<1		1		2		2	212	1	311	<1		1	232
	1983	ND		1	204	ND		<1	131	2	137	3	209	1	211	2	323	1	331	1	210
	1984	ND		1	244	ND		<1	204	<1	174	1	192	1	209	6	287	1	307	1	250
	1985	ND		2	195	ND		<1	163	<1	136	7	158	<1	168	1	243	<1	254	2	181
	1986	<1	187	4	255	ND		<1	116	<1	157	<1	158	1	226	<1	278	<1	266	1	250
	1987	1	168	2	292	<1[c]	158	<1	200	4	145	1	171	1	192	0		0		1	210
	1988	2	239	2	294	<1	167	<1	138	1	130	<1	156	3	185	<1	334	0		1	243
	1989	5	183	5	249	1	164	<1	237	1	188	<1	187	2	206	0		<1	365	2	234
	1990	<1	234	1	192	<1	133	<1	141	<1	136	1	155	<1	239	<1	292	0		<1	180
Other finfishes	1982[a]	ND		17	197	ND		35	104	9	23	51	69	93	113	192	204	70	219	43	146
	1983	ND		13	103	ND		90	80	46	73	52	86	69	121	114	82	52	137	52	90
	1984	ND		15	112	ND		34	95	11	73	33	77	44	92	13	65	35	138	24	96
	1985	ND		22	98	ND		25	103	11	84	62	60	51	116	27	67	50	131	29	96
	1986	2	171	15	94	ND		25	101	11	83	35	85	52	125	30	77	47	130	23	101
	1987	7	87	16	108	8[c]	116	38	94	34	93	64	69	38	117	36	85	40	136	31	96
	1988	15	89	33	84	18	109	51	104	40	91	99	83	60	115	40	80	60	126	47	95
	1989	14	66	25	94	12	93	66	111	42	96	72	88	65	127	24	65	72	124	46	105
	1990	18	88	22	105	6	96	48	101	35	86	34	98	55	118	79	43	103	134	42	106
Total finfishes	1982[a]	ND		88	199	ND		193	139	48	176	270	119	371	166	313	232	153	180	171	167
	1983	ND		63	126	ND		162	99	107	93	175	108	308	139	171	115	143	139	139	116
	1984	ND		46	123	ND		111	104	104	82	311	86	294	124	197	123	169	130	134	108
	1985	ND		82	117	ND		115	114	96	101	236	99	380	129	96	127	149	128	143	117
	1986	28	151	96	122	ND		127	112	118	97	261	104	378	132	86	109	188	132	151	117
	1987	53	136	83	121	64[c]	117	242	107	302	100	354	101	370	131	84	117	157	126	200	112
	1988	101	131	138	101	49	122	186	118	363	107	512	108	630	127	76	104	167	119	259	113
	1989	98	137	111	119	44	105	265	122	295	106	347	109	357	133	53	103	197	121	272	122
	1990	85	122	94	116	41	108	282	118	304	102	381	106	464	123	368	88	564	119	259	113

Table 4. (Cont'd.)

Species	Year	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide[b] No./h	Coastwide[b] Length
SHELLFISHES																					
Blue crab	1982[a]	ND		28	91	ND		5	99	17	81	29	66	7	97	9	148	10	100	17	89
	1983	ND		24	88	ND		10	86	21	80	40	81	2	96	7	113	12	97	18	86
	1984	ND		19	92	ND		4	88	8	82	31	81	8	88	24	106	50	86	15	90
	1985	ND		30	79	ND		10	85	19	76	23	72	5	115	21	103	36	86	21	81
	1986	6	132	28	79	ND		13	85	19	85	25	78	14	88	8	100	15	85	19	83
	1987	5	135	19	78	28[c]	87	10	77	40	93	18	84	6	95	8	108	19	88	17	86
	1988	5	137	9	71	13	91	3	77	89	75	57	63	7	88	7	98	18	84	22	74
	1989	9	135	25	66	51	63	6	80	50	74	24	68	2	94	2	107	9	77	19	72
	1990	6	98	31	72	15	79	4	90	39	69	17	71	14	96	5	93	33	91	21	76
Brown shrimp	1982[a]	ND		23	90	ND		25	94	17	101	54	80	40	90	40	101	6	61	27	91
	1983	ND		12	99	ND		26	100	31	99	57	91	8	99	8	102	9	66	21	97
	1984	ND		13	102	ND		7	102	58	96	106	80	50	103	25	108	6	74	30	94
	1985	ND		33	75	ND		24	89	27	90	67	81	24	96	16	108	11	63	30	83
	1986	<1	99	15	94	ND		28	99	69	98	111	96	42	95	7	108	15	64	34	96
	1987	4	92	24	88	7[c]	76	47	91	93	85	101	88	66	94	8	100	5	70	46	89
	1988	3	85	24	84	10	91	32	100	124	91	138	86	17	89	6	93	3	73	44	90
	1989	8	84	27	84	47	97	39	91	156	90	105	90	16	88	5	92	9	63	49	89
	1990	1	54	11	85	40	100	26	96	104	92	78	90	28	88	12	91	27	79	34	92
Pink shrimp	1982[a]	ND		<1	94	ND		<1	113	<1	96	7	89	2	100	1	96	0		1	93
	1983	ND		<1	95	ND		1	112	5	95	9	94	2	103	1	113	1	88	2	99
	1984	ND		0		ND		<1	76	<1	72	3	86	3	109	<1	94	<1	71	1	97
	1985	ND		<1	88	ND		<1	104	3	98	4	100	5	96	4	107	1	98	2	100
	1986	0		<1	118	ND		2	114	4	103	11	101	12	103	1	109	<1	70	3	104
	1987	0		<1	111	2[c]	102	4	95	2	92	6	84	12	101	1	107	2	72	3	95
	1988	0		1	79	<1	110	2	89	6	86	20	82	8	93	<1	76	2	77	4	85
	1989	0		<1	90	<1	94	1	102	8	93	14	91	8	95	<1	85	1	80	3	93
	1990	0		<1	84	0		<1	106	1	97	23	88	4	97	3	71	3	85	3	90
White shrimp	1982[a]	ND		88	93	ND		39	86	14	99	16	95	26	101	17	110	4	61	47	92
	1983	ND		78	93	ND		20	102	13	96	19	100	14	111	6	112	2	86	37	95
	1984	ND		60	98	ND		15	99	8	99	39	106	24	106	11	126	10	109	32	100
	1985	ND		62	99	ND		21	110	23	91	17	106	22	104	6	120	1	105	33	101
	1986	14	105	45	95	ND		60	98	15	96	13	101	19	98	3	108	5	57	34	97
	1987	23	101	37	97	22[c]	92	16	97	42	87	10	94	15	99	2	105	2	76	25	95
	1988	39	107	21	91	8	95	16	98	41	93	16	91	12	95	3	102	<1	79	20	95
	1989	29	87	29	89	11	98	9	97	43	99	7	98	9	100	3	97	<1	114	20	94
	1990	50	90	14	98	14	103	16	115	47	97	13	108	22	98	21	100	1	113	21	100

[a]Values incude May-Dec only.
[b]1986 values include Sabine Lake; 1987 values include East Matagorda.
[c]Values include Apr-Dec only.

Table 5. Annual mean catch rates (No./h) and mean total lengths (mm) of select finfishes and shellfishes caught with 6.1-m trawls in the Texas Territorial Sea during 1985-90. Blank indicates no measurement taken; ND = no data.

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
FINFISHES													
Atlantic croaker	1985[a]	ND		22	145	42	139	17	145	9	149	23	142
	1986	44[b]	134	45	126	98	136	43	130	9	132	49	132
	1987	9	114	110	119	65	131	28	134	<1	157	44	124
	1988	79	122	78	118	89	132	23	130	2	128	55	125
	1989	64	115	117	117	75	128	28	128	6	137	60	121
	1990	175	117	139	111	69	125	65	135	4	127	91	122
Black drum	1985[a]	ND		0		0		<1	825	0		<1	825
	1986	0[b]		0		<1	900	0		0		<1	900
	1987	<1	851	<1	760	<1	680	<1	680	0		<1	741
	1988	0		<1	752	0		0		0		<1	752
	1989	<1	698	0		<1	506	0		0		<1	631
	1990	0		<1	528	0		0		0		<1	528
Gafftopsail catfish	1985[a]	ND		<1	165	<1	156	<1	136	0		<1	160
	1986	13[b]	121	<1	118	<1	115	<1	176	0		3	121
	1987	3	116	0		<1	158	<1	134	0		<1	118
	1988	2	118	<1	169	<1	168	0		<1	180	<1	126
	1989	2	144	1	123	<1	546	<1	187	0		<1	143
	1990	3	119	<1	123	0		0		0		1	119
Gulf menhaden	1985[a]	ND		2	150	1	159	1	151	0		1	152
	1986	4[b]	125	2	147	<1	180	<1	197	0		1	135
	1987	3	132	5	135	1	146	<1	159	0		2	136
	1988	5	124	10	57	6	107	<1	122	0		4	87
	1989	1	137	1	144	<1	131	<1	177	<1	51	1	138
	1990	2	133	4	136	1	122	<1	162	0		1	134
Hardhead catfish	1985[a]	ND		2	157	3	143	8	157	<1	256	4	154
	1986	4[b]	164	5	163	2	156	8	156	<1	211	4	160
	1987	3	131	6	148	4	145	4	161	<1	180	4	148
	1988	8	187	2	155	11	122	4	172	<1	206	5	152
	1989	6	180	3	164	7	144	4	141	7	147	5	155
	1990	6	158	2	157	3	168	2	227	<1	159	3	170

Table 5. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Southern flounder	1985[a]	ND		0		<1	280	<1	137	0		<1	199
	1986	1[b]	162	<1	255	<1	184	<1	311	0		<1	173
	1987	<1	226	<1	197	0		<1	179	<1	168	<1	191
	1988	<1	204	0		<1	214	<1	225	0		<1	214
	1989	0		0		<1	210	<1	298	0		<1	239
	1990	<1	187	0		<1	212	<1	164	<1	250	<1	197
Spanish mackerel	1985[a]	ND		0		0		0		0		0	
	1986	<1[b]	200	0		0		0		0		<1	200
	1987	<1	93	<1	183	0		<1	258	0		<1	203
	1988	<1	166	<1	178	<1	182	<1	110	<1	200	<1	180
	1989	<1	206	<1	172	<1	175	<1	175	0		<1	182
	1990	<1	174	1	176	<1	225	<1	192	0		<1	180
Spot	1985[a]	ND		3	132	20	130	21	141	1	142	11	136
	1986	3[b]	124	8	128	7	124	25	123	2	125	9	124
	1987	5	140	9	126	4	125	22	129	<1	170	8	129
	1988	4	115	7	116	23	128	23	122	3	110	12	123
	1989	6	120	27	108	18	124	48	121	4	121	21	118
	1990	9	123	25	121	3,870	125	93	117	4	112	843	125
Spotted seatrout	1985[a]	ND		0		0		<1	140	0		<1	140
	1986	<1[b]	163	<1	172	<1	165	0		0		<1	165
	1987	<1	178	0		0		0		0		<1	178
	1988	0		<1	65	<1	110	0		0		<1	88
	1989	<1	98	0		<1	173	0		0		<1	134
	1990	<1	110	<1	160	<1	122	<1	144	0		<1	132
Striped mullet	1985[a]	ND		0		0		0		0		0	
	1986	0[b]		0		0		0		0		0	
	1987	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	<1	243	<1	217	<1	232	0		0		<1	228
	1990	0		0		0		0		0		0	
Other finfishes	1985[a]	ND		108	109	111	106	170	106	113	97	125	105
	1986	85[b]	112	139	111	101	114	210	115	58	106	119	113
	1987	127	89	152	98	146	111	165	106	79	95	135	101
	1988	52	102	170	97	230	106	232	101	43	99	148	102
	1989	76	99	109	99	228	113.	256	108	78	102	151	107
	1990	231	112	175	103	1,024	192	153	109	67	100	340	119

Table 5. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Total finfishes	1985[a]	ND		148	119	188	118	227	114	130	101	174	114
	1986	159[b]	122	207	118	215	123	292	119	72	110	190	120
	1987	158	98	289	111	229	118	226	114	80	96	199	110
	1988	153	120	273	104	379	114	291	106	52	103	234	110
	1989	178	114	301	111	350	118	356	113	106	108	261	114
	1990	478	121	355	113	5,556	180	337	115	80	103	1,422	157
SHELLFISHES													
Blue crab	1985[a]	ND		<1	105	1	134	1	127	<1	144	<1	127
	1986	4[b]	96	6	105	1	141	1	145	1	123	3	110
	1987	3	96	1	112	2	105	<1	142	<1	140	1	106
	1988	2	85	<1	104	1	113	1	128	<1	160	1	105
	1989	4	61	2	72	1	130	<1	134	<1	146	1	78
	1990	15	80	4	63	1	118	1	126	1	127	4	84
Brown shrimp	1985[a]	ND		7	103	7	125	47	109	18	106	20	109
	1986	10[b]	107	13	99	6	114	10	105	6	110	9	105
	1987	7	104	24	104	9	108	14	106	1	118	11	106
	1988	15	102	5	109	24	103	28	106	<1	116	15	105
	1989	33	103	50	96	56	105	140	95	12	94	58	98
	1990	34	101	10	108	72	107	58	114	20	106	39	108
Pink shrimp	1985[a]	ND		<1	120	<1	130	1	119	1	108	1	16
	1986	0[b]		<1	124	2	110	4	105	3	118	2	111
	1987	0		0		1	114	5	102	1	124	1	108
	1988	<1	87	0		1	108	7	103	1	125	2	106
	1989	0		<1	105	1	103	7	100	4	117	2	105
	1990	0		<1	104	1	101	2	118	3	117	1	114
White shrimp	1985[a]	ND		53	110	26	124	11	126	1	105	24	115
	1986	41[b]	101	53	101	15	120	8	124	2	137	24	105
	1987	26	105	14	109	16	112	8	119	1	121	13	110
	1988	14	105	17	100	19	110	9	116	<1	133	12	107
	1989	21	102	25	106	22	108	14	113	1	122	17	107
	1990	18	104	11	115	15	118	6	136	2	136	10	115

[a]Values include Feb-Dec only off Port Aransas and Aug-Dec only off all other areas.
[b]Values include Jun-Dec only.

Table 6. Annual mean catch rates (No./h) and mean total lengths (mm) by size class[a] of Eastern oyster caught with 46.0-cm wide dredges on "reef" stations in Texas bay systems during 1984-90. Blank indicates no measurment taken; ND = no data.

Size class	Year	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Spat	1984	ND		491		ND		ND		ND		ND		ND		ND		ND		491	
	1985	ND		891		ND		ND		ND		ND		ND		ND		ND		891	
	1986	26		1,010		2,186		764		499		551		107		ND		1,135		739	
	1987	232		1,054		1,609		654		66		4,269		167		ND		866		1,127	
	1988	225		1,440		907		938		439		1,769		61		ND		78		953	
	1989	402		1,322		1,191		2,009		1,864		3,071		436		ND		134		1,511	
	1990	803		2,147		1,547		1,289		1,117		1,611		184		ND		844		1,414	
Small	1984	ND		1,705	47	ND		ND		ND		ND		ND		ND		ND		1,705	47
	1985	ND		2,096	54	ND		ND		ND		ND		ND		ND		ND		2,096	54
	1986	120	61	1,316	54	944	53	382	51	565	58	1,273	51	323	48	ND		148	49	789	53
	1987	334	56	1,070	51	1,928	46	555	51	240	55	2,499	50	503	51	ND		22	38	939	50
	1988	995	56	1,500	53	829	49	579	52	235	42	2,184	52	406	59	ND		28	42	1,026	52
	1989	444	57	1,086	47	637	46	705	48	1,985	50	2,278	49	474	46	ND		5	40	1,092	48
	1990	886	47	2,996	45	725	49	417	48	1,401	53	1,495	45	713	42	ND		147	46	1,523	46
Market	1984	ND		447	91	ND		ND		ND		ND		ND		ND		ND		447	91
	1985	ND		674	88	ND		ND		ND		ND		ND		ND		ND		674	88
	1986	190	97	617	88	485	93	212	92	444	92	191	86	116	98	ND		27	86	355	90
	1987	282	95	370	91	228	90	167	91	258	93	411	86	117	94	ND		3	85	271	91
	1988	519	94	397	89	94	86	201	91	23	89	401	87	145	89	ND		16	95	273	89
	1989	432	94	232	90	75	89	177	90	414	90	282	85	101	91	ND		5	107	237	90
	1990	358	96	179	88	109	88	114	89	445	88	99	83	80	91	ND		4	90	183	89

[a]Spat (5-25 mm), small (26-75 mm), market (≥76 mm).

Table 7. Seasonal (May-Nov) mean catch rates (No./h) and mean total lengths (mm) of select finfishes and shellfishes caught with 60.9-m beach seines in 5 Texas gulf shoreline areas during 1987-90. Blank indicates no measurement taken.

Species	Year	Gulf-17		Gulf-18		Gulf-19		Gulf-20		Gulf-21		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
FINFISHES													
Atlantic croaker	1987[a]	3	267	<1	306	<1	239	0		0		1	267
	1988	2	264	1	257	<1	249	0		<1	292	1	262
	1989	3	257	<1	267	<1	205	0		0		1	255
	1990	<1	260	<1	250	0		0		<1	230	<1	259
Black drum	1987[a]	1	344	<1	215	1	287	<1	249	1	236	1	293
	1988	1	240	1	226	1	281	<1	272	0		1	253
	1989	1	286	4	262	1	249	1	236	<1	216	2	256
	1990	2	318	2	243	2	300	2	276	1	280	2	292
Gafftopsail catfish	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		0		0	
	1990	<1	331	0		0		0		0		<1	331
Gulf menhaden	1987[a]	0		0		0		0		0		0	
	1988	7	158	1	166	<1	197	<1	197	<1	226	2	159
	1989	0		<1	158	1	63	0		0		<1	69
	1990	0		<1	214	0		<1	237	<1	234	<1	232
Hardhead catfish	1987[a]	2	368	0		<1	340	<1	380	0		<1	367
	1988	16	330	2	325	2	312	1	340	0		4	328
	1989	3	324	1	299	2	338	1	342	<1	326	2	330
	1990	7	329	1	333	3	344	1	352	<1	532	3	337
King mackerel	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		0		0	
	1990	0		0		0		0		0		0	
Pinfish	1987[a]	0		0		0		0		0		0	
	1988	0		0		<1	155	<1	154	0		<1	155
	1989	0		0		<1	155	<1	118	<1	142	<1	133
	1990	0		<1	155	<1	152	<1	166	0		<1	160
Red drum	1987[a]	0		0		1	336	<1	340	<1	345	<1	338
	1988	<1	460	<1	324	<1	527	<1	305	<1	702	<1	459
	1989	<1	552	<1		<1	370	<1	547	<1	352	<1	484
	1990	0		<1	501	<1	389	<1	344	<1	355	<1	384

Table 5. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
King mackerel	1985[a]	ND		<1	173	0		<1	124	0		<1	142
	1986	0[b]		<1	159	0		0		0		<1	159
	1987	0		0		<1	120	<1	200	0		<1	131
	1988	0		0		0		0		0		0	
	1989	0		0		<1	161	<1	164	0		<1	162
	1990	0		<1	201	<1	233	0		0		<1	210
Pinfish	1985[a]	ND		<1	124	3	109	4	110	1	135	2	112
	1986	<1[b]	98	2	104	2	105	4	107	2	103	2	105
	1987	0		<1	100	3	111	3	115	<1	112	1	113
	1988	<1	93	<1	112	8	105	8	110	3	105	4	107
	1989	<1	100	<1	108	3	116	7	110	6	105	3	109
	1990	<1	86	1	111	4	110	18	105	2	98	5	105
Red drum	1985[a]	ND		0		0		<1	84	0		<1	84
	1986	0[b]		0		0		0		0		0	
	1987	0		0		<1	948	0		<1	42	<1	520
	1988	0		0		0		0		0		0	
	1989	0		<1	1110	0		0		0		<1	1,110
	1990	<1	61	0		0		0		0		<1	61
Red snapper	1985[a]	ND		0		0		2	85	7	89	2	88
	1986	0[b]		0		<1	152	1	95	<1	103	<1	100
	1987	0		<1	68	<1	88	1	122	<1	83	<1	107
	1988	0		0		0		1	111	1	106	<1	109
	1989	0		<1	74	2	87	4	87	3	90	2	88
	1990	0		0		<1	94	3	105	2	113	1	106
Sand seatrout	1985[a]	ND		10	141	6	168	3	140	<1	221	5	150
	1986	5[b]	164	4	141	3	151	1	174	0		3	154
	1987	7	131	6	133	5	134	2	162	<1	108	4	135
	1988	3	148	5	114	11	129	1	184	<1	137	4	130
	1989	22	133	41	110	16	127	8	147	2	123	18	122
	1990	50	136	8	126	7	139	2	130	1	118	14	135
Sheepshead	1985[a]	ND		0		0		0		0		0	
	1986	0[b]		0		0		0		0		0	
	1987	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		<1	510	<1	510
	1990	0		<1	196	0		0		0		<1	196

Table 7. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Sand seatrout	1987[a]	1	328	0		0		0		0		<1	328
	1988	<1	322	1	276	<1	298	0		<1	286	<1	297
	1989	0		<1	353	0		0		0		<1	353
	1990	<1	291	<1	284	<1	287	0		0		<1	287
Sheepshead	1987[a]	0		0		0		0		0		0	
	1988	<1	416	<1	445	<1	292	<1	288	0		<1	366
	1989	0		0		0		<1	370	0		<1	370
	1990	0		<1	375	<1	312	<1	322	<1	298	<1	344
Southern flounder	1987[a]	0		1	250	0		<1	313	0		<1	262
	1988	<1	279	1	261	<1	203	<1	207	<1	434	<1	265
	1989	<1	375	<1	276	0		<1	270	0		<1	319
	1990	<1	264	1	220	<1	226	<1	193	<1	217	<1	231
Spanish mackerel	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		<1	392	<1	392
	1989	0		<1	606	0		0		0		<1	606
	1990	0		0		<1	415	<1	477	<1	521	<1	486
Spot	1987[a]	2	244	2	248	<1	248	2	214	0		1	235
	1988	3	245	1	235	<1	225	1	243	<1	237	1	242
	1989	<1	210	1	230	<1	277	<1	230	2	236	1	237
	1990	<1	319	<1	224	<1	246	1	212	1	238	<1	227
Spotted seatrout	1987[a]	1	408	<1	403	1	397	<1	516	0		<1	417
	1988	3	410	2	430	1	397	<1	440	<1	469	2	414
	1989	1	419	3	431	1	418	1	428	<1	445	1	426
	1990	2	440	2	416	<1	431	<1	457	1	473	1	437
Striped mullet	1987[a]	13	393	5	358	1	351	5	343	17	349	7	368
	1988	19	362	32	342	7	344	14	356	5	346	14	351
	1989	39	370	28	344	3	334	1	360	8	341	15	358
	1990	44	350	52	336	5	333	6	349	6	376	21	344
Other finfishes	1987[a]	1	211	1	213	2	177	1	176	1	177	2	187
	1988	1	217	2	221	32	58	24	91	5	335	16	82
	1989	3	98	10	101	11	139	34	61	4	227	12	97
	1990	2	165	5	169	4	240	7	185	3	235	4	203
Total finfishes	1987[a]	23	327	9	305	6	266	10	295	18	332	12	312
	1988	54	322	44	326	43	141	40	189	11	343	41	237
	1989	52	341	48	288	20	218	39	100	15	298	34	254
	1990	59	337	63	314	16	309	18	269	13	323	32	319

Table 7. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
SHELLFISHES													
Blue crab	1987[a]	<1	118	<1	159	0		0		0		<1	129
	1988	2	117	1	143	<1	138	<1	138	<1	126	11	125
	1989	2	137	2	135	<1	140	0		<1	153	1	137
	1990	5	139	7	136	<1	129	<1	132	<1	128	2	137

[a]Values include Oct-Nov only.

Table 8. Seasonal (May-November) mean catch rates (No./h) and mean total lengths (mm) of select finfishes and shellfishes caught with 18.3-m bag seines in 5 Texas gulf shoreline areas during 1987-90. Blank indicates no measurement taken.

Species	Year	Gulf-17		Gulf-18		Gulf-19		Gulf-20		Gulf-21		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
FINFISHES													
Atlantic croaker	1987[a]	0		0		0		0		0		0	
	1988	29	37	1	62	1	64	0		0		7	39
	1989	3	32	0		0		0		0		1	32
	1990	1	171	1	54	0		<1	22	2	157	1	127
Black drum	1987[a]	0		0		0		0		0		0	
	1988	1	111	1	104	<1	168	0		1	182	1	132
	1989	2	170	0		0		0		0		1	170
	1990	4	154	6	142	1	114	0		0		2	143
Gafftopsail catfish	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		0		0	
	1990	0		0		0		0		0		0	
Gulf menhaden	1987[a]	0		0		4	48	0		0		1	48
	1988	2	93	22	87	5	87	28	37	0		10	63
	1989	2	86	6	76	9	100	0		2	74	5	92
	1990	3	59	0		5	57	1	83	17	81	5	68
Hardhead catfish	1987[a]	133	77	0		0		0		0		31	77
	1988	12	66	13	108	2	101	0		0		5	85
	1989	123	131	104	128	3	142	0		0		44	130
	1990	12	124	27	145	0		0		0		7	136
King mackerel	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		2	67	<1	67
	1989	0		0		0		0		0		0	
	1990	0		0		3	48	0		0		1	48
Pinfish	1987[a]	0		0		1	85	0		0		<1	85
	1988	0		1	100	1	122	0		103	105	12	105
	1989	0		0		<1	69	0		0		<1	69
	1990	0		0		1	97	<1	52	2	133	1	101
Red drum	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		0		0	
	1990	0		0		0		0		0		0	

Table 8. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Sand seatrout	1987[a]	0		0		0		0		0		0	
	1988	0		12	48	1	61	0		0		2	50
	1989	11	44	0		0		0		0		3	44
	1990	0		0		<1	124	0		0		<1	124
Sheepshead	1987[a]		0		0		0		0		0		0
	1988	0		0		<1	40	0		0		<1	40
	1989	0		0		<1	27	0		0		<1	27
	1990	0		0		0		0		0		0	
Southern flounder	1987[a]	0		0		0		0		0		0	
	1988	0		5	107	1	126	0		0		1	112
	1989	1	114	10	91	0		0		0		2	95
	1990	0		2	107	1	183	0		0		1	151
Spanish mackerel	1987[a]	41	50	0		0		0		0		9	50
	1988	0		1	59	2	53	0		2	110	1	64
	1989	0		6	37	0		8	60	0		2	51
	1990	0		1	25	2	35	0		0		1	34
Spot	1987[a]	0		0		0		0		0		0	
	1988	0		1	80	0		0		52	91	6	91
	1989	0		0		1	78	0		2	104	<1	89
	1990	1	182	0		1	86	<1	66	0		1	119
Spotted seatrout	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		0		0		0		0		0	
	1990	0		0		0		0		0		0	
Striped mullet	1987[a]	7	26	0		0		2	100	14	146	4	84
	1988	50	97	36	115	22	59	1	31	0		24	88
	1989	253	86	42	90	15	187	1	93	3	191	69	95
	1990	49	66	86	79	3	170	10	32	5	155	27	75
Other finfishes	1987[a]	162	63	449	60	469	73	667	45	2,127	81	614	69
	1988	952	63	6,180	88	2,316	56	1,673	49	3,004	87	2,503	71
	1989	2,017	85	2,625	69	3,516	67	9,505	58	1,152	80	3,880	66
	1990	1,097	75	1,001	68	1,272	54	3,062	46	1,056	106	1,492	60
Total finfishes	1987[a]	344	66	449	60	475	73	668	45	2,142	83	659	69
	1988	1,046	65	6,271	96	2,351	58	1,702	48	3,164	84	2,572	73
	1989	2,412	95	2,795	75	3,590	68	9,527	59	1,158	80	4,009	69
	1990	1,167	76	1,125	71	1,291	55	3,075	46	1,081	105	1,538	61

Table 8. (Cont'd.)

Species	Year	Sabine		Galveston		Port O'Connor		Port Aransas		Port Isabel		Coastwide	
		No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
SHELLFISHES													
Blue crab	1987[a]	0		0		0		0		3	24	<1	22
	1988	14	101	1	25	4	83	0		0		5	93
	1989	33	95	65	34	2	108	0		0		17	63
	1990	11	85	52	90	1	113	1	24	0		10	89
Brown shrimp	1987[a]	0		0		0		0		0		0	
	1988	7	52	0		3	76	0		1	46	3	60
	1989	7	56	0		0		0		0		2	56
	1990	0		47	76	0		0		0		7	76
Pink shrimp	1987[a]	0		0		0		0		0		0	
	1988	0		0		0		0		0		0	
	1989	0		1	85	0		0		0		<1	85
	1990	0		0		0		0		0		0	
White shrimp	1987[a]	11	78	16	71	71	69	2	72	0		29	70
	1988	35	64	6	77	2	61	<1	45	1	69	10	65
	1989	38	58	4	70	20	65	2	52	0		16	61
	1990	8	75	9	57	0		<1	59	0		3	67

[a]Values include Oct-Nov only.

Figure 1. Texas gulf shoreline and Texas Territorial Sea (TTS).

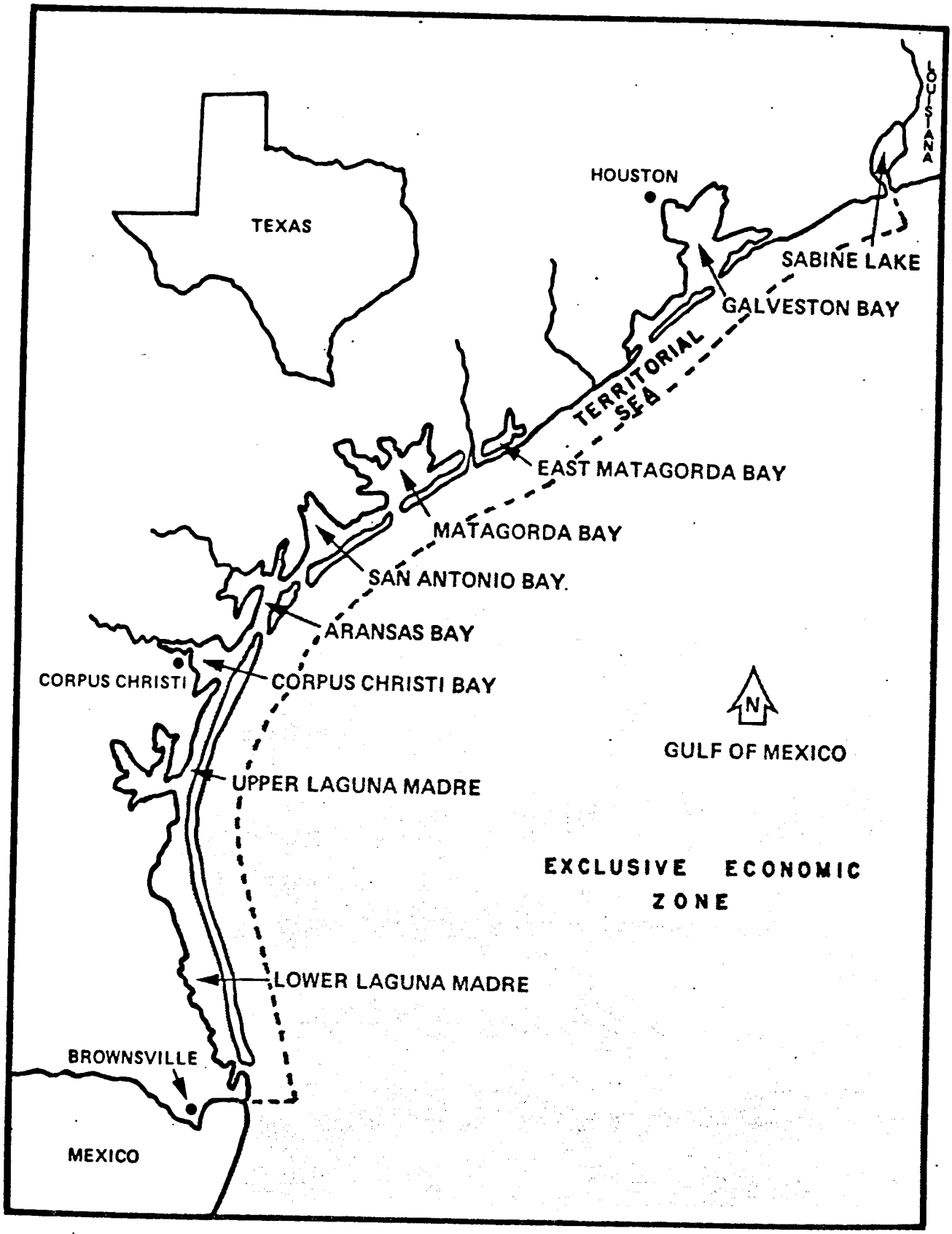
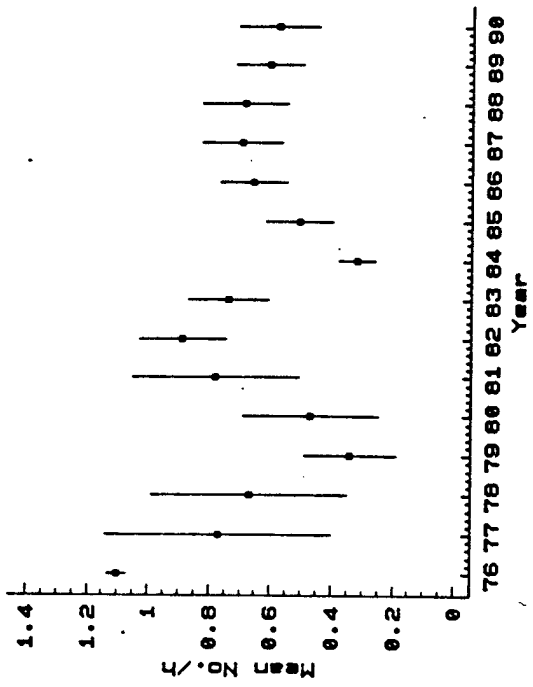
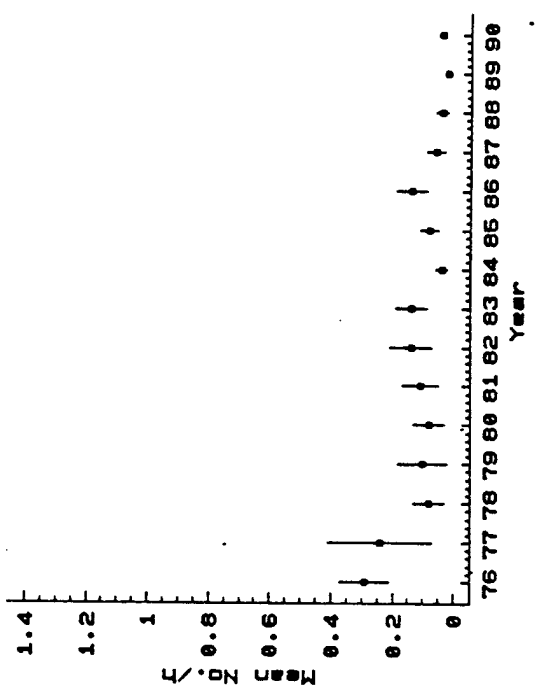
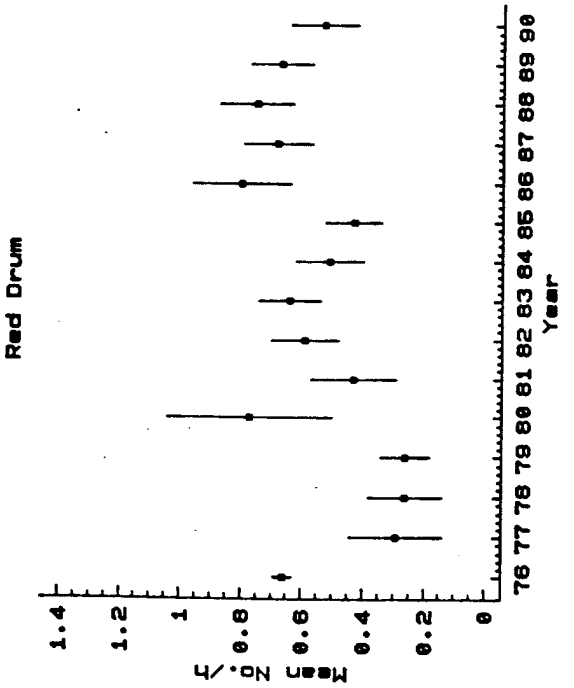

LOUISIANA
HOUSTON
TEXAS
SABINE LAKE
GALVESTON BAY
TERRITORIAL SEA
EAST MATAGORDA BAY
MATAGORDA BAY
SAN ANTONIO BAY
ARANSAS BAY
CORPUS CHRISTI
CORPUS CHRISTI BAY
N
GULF OF MEXICO
UPPER LAGUNA MADRE
EXCLUSIVE ECONOMIC ZONE
LOWER LAGUNA MADRE
BROWNSVILLE
MEXICO

Figure 2. Spring gill net mean catch rates (no./h ± 1SE) for red drum, black drum, spotted seatrout and Atlantic croaker during 1976-90.


Spotted Seatrout
Mean No./h
1.4
1.2
1
0.8
0.6
0.4
0.2
0
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Atlantic Croaker
Mean No./h
1.4
1.2
1
0.8
0.6
0.4
0.2
0
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Red Drum
Mean No./h
1.4
1.2
1
0.8
0.6
0.4
0.2
0
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

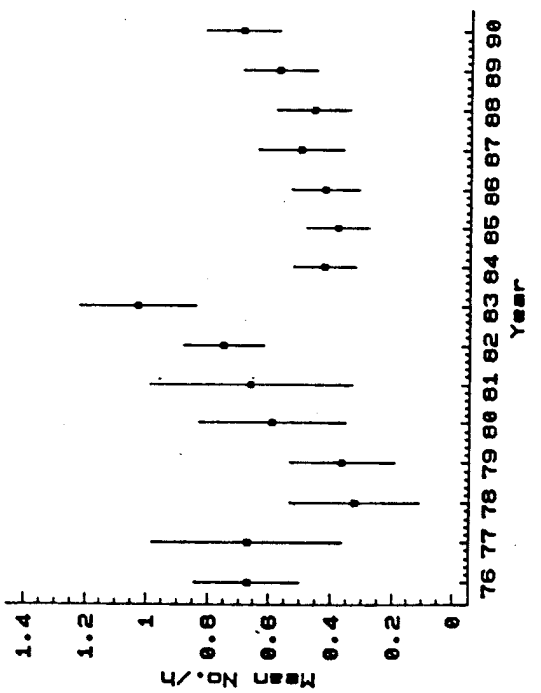
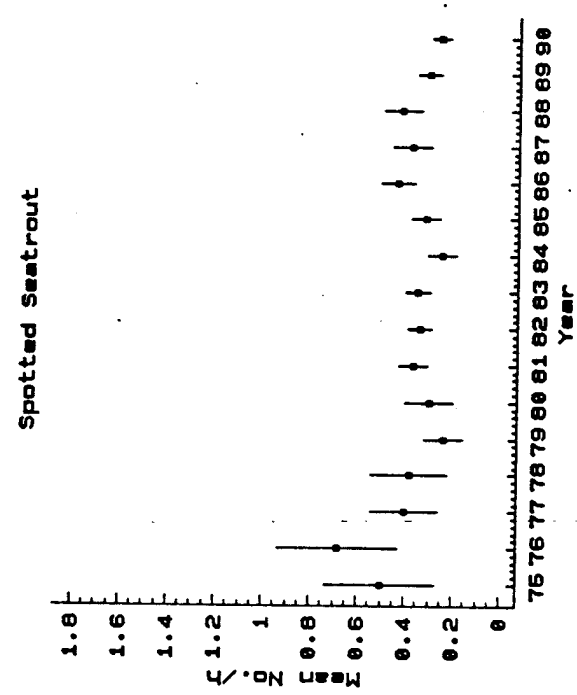
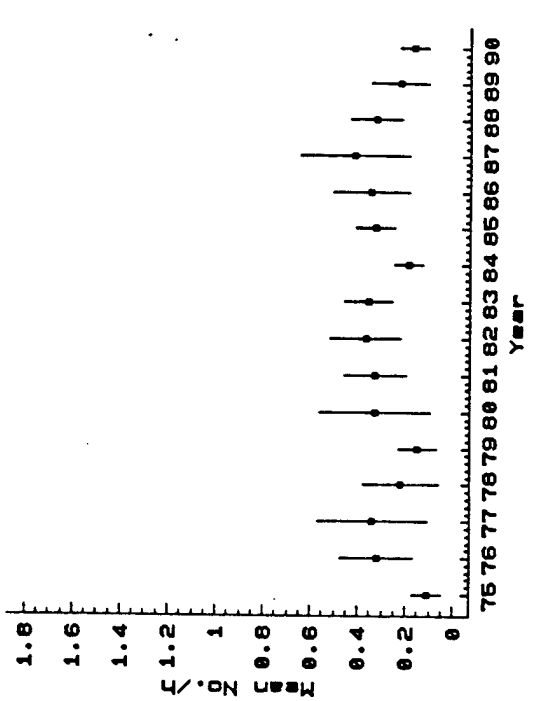
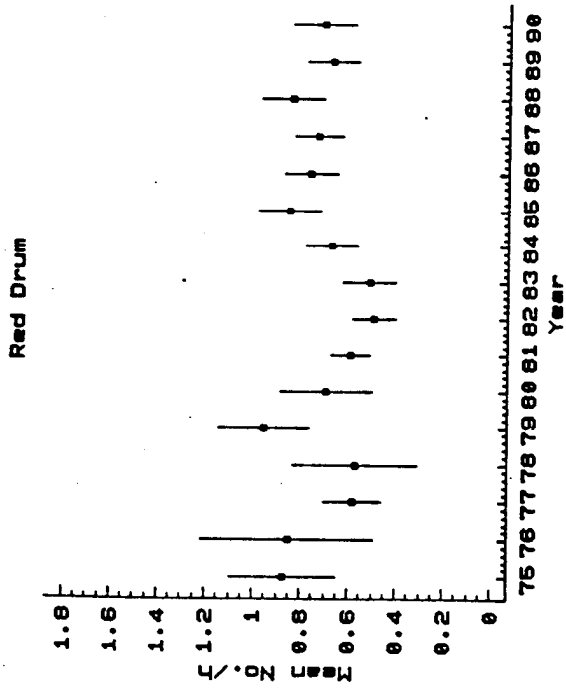

Black Drum
Mean No./h
1.4
1.2
1
0.8
0.6
0.4
0.2
0
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 3. Fall gill net mean catch rates (no./h ± 1SE) for red drum, black drum, spotted seatrout and Atlantic croaker during 1975-90.


Spotted Seatrout
Mean No./h
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Atlantic Croaker
Mean No./h
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Red Drum
Mean No./h
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

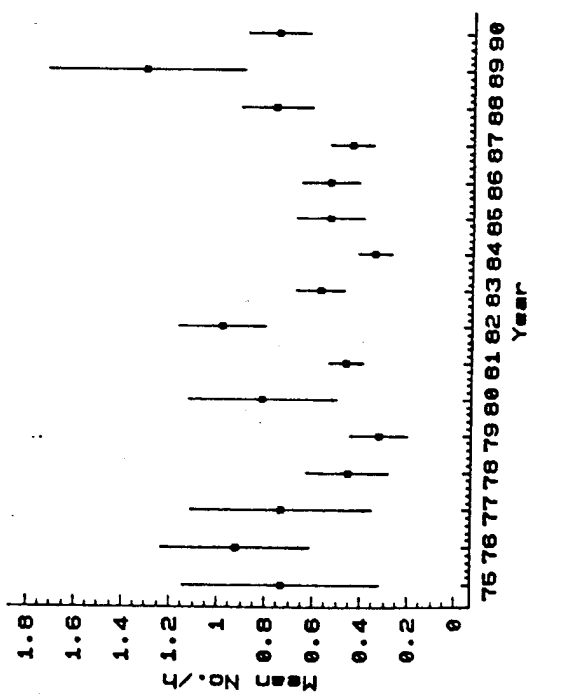
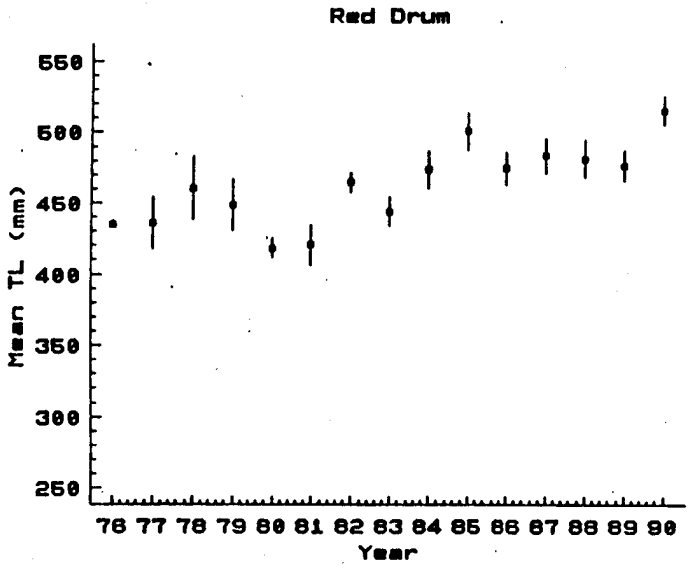
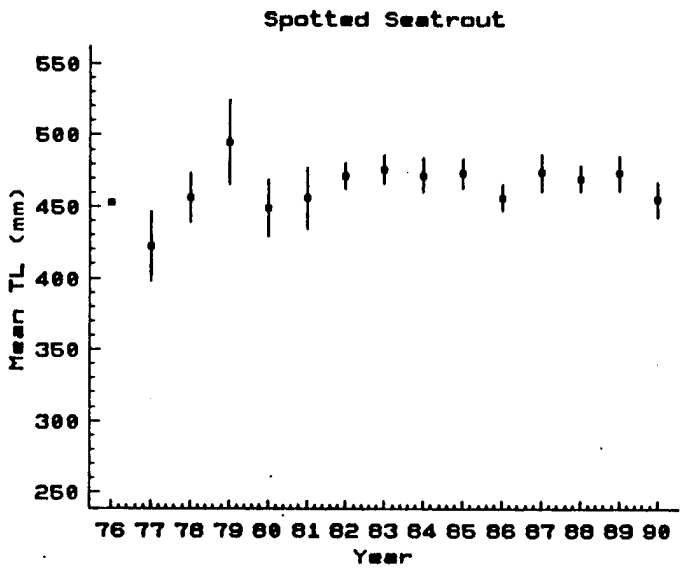
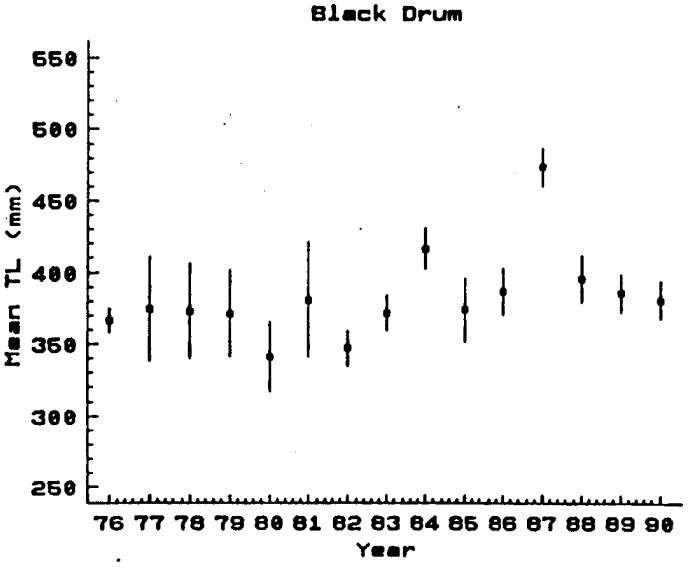

Black Drum
Mean No./h
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 4. Spring gill net mean total lengths (mm ± 1SE) for red drum, black drum, spotted seatrout and Atlantic croaker during 1976-90.


Red Drum
Mean TL (mm)
550
500
450
400
350
300
250
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Spotted Seatrout
Mean TL (mm)
550
500
450
400
350
300
250
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Black Drum
Mean TL (mm)
550
500
450
400
350
300
250
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

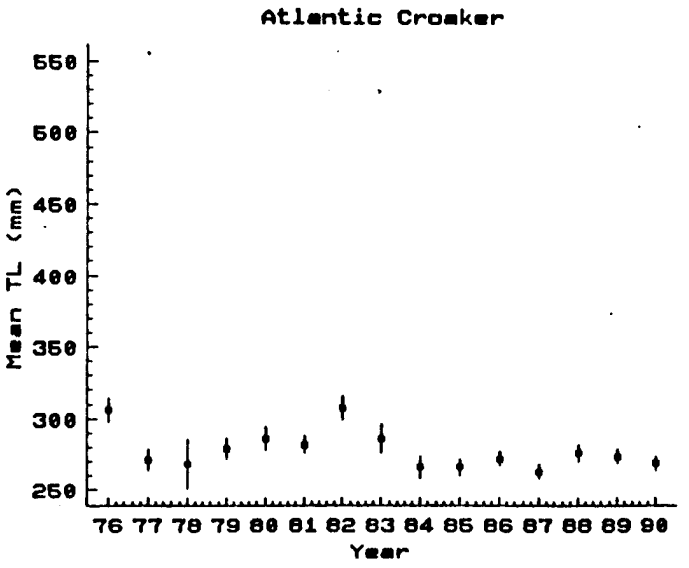
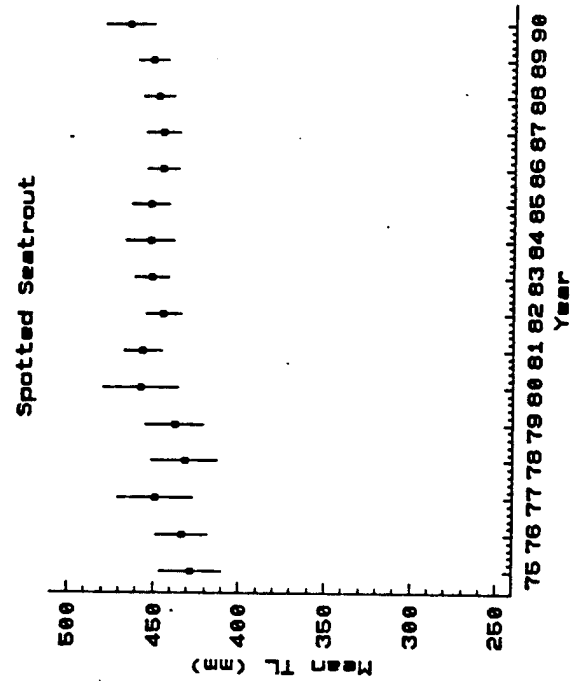
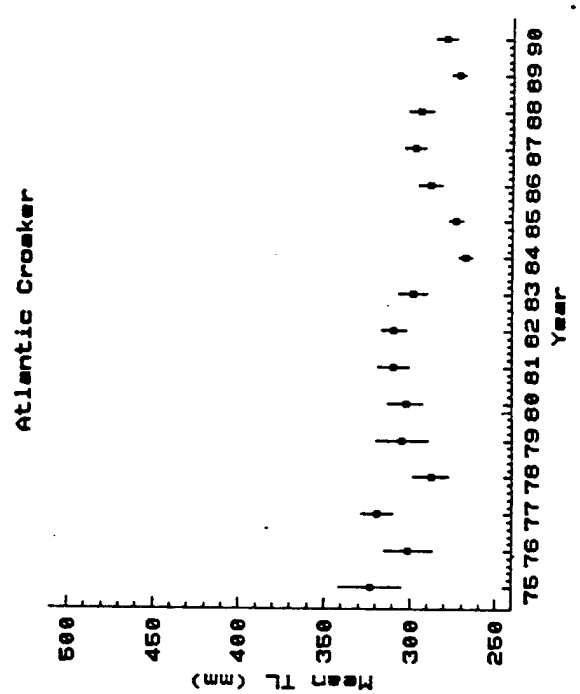
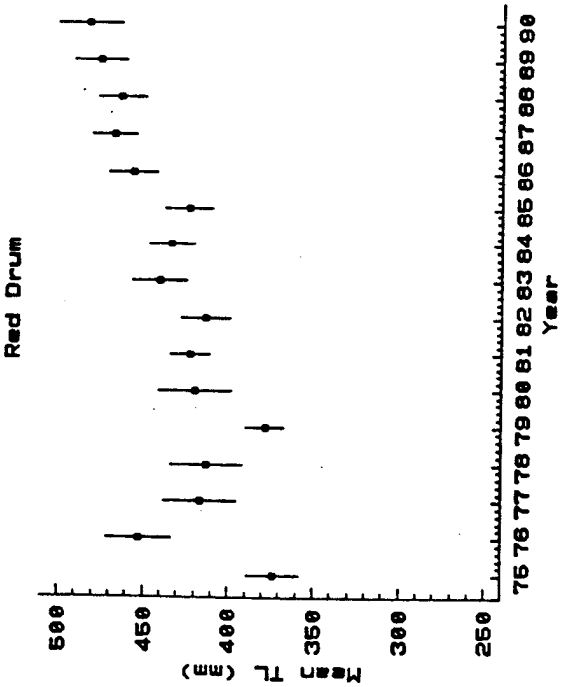

Atlantic Croaker
Mean TL (mm)
550
500
450
400
350
300
250
76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 5. Fall gill net mean total lengths (mm ± 1SE) for red drum, black drum, spotted seatrout and Atlantic croaker during 1975-90.


Spotted Seatrout
Mean TL (mm)
500
450
400
350
300
250
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Atlantic Croaker
Mean TL (mm)
500
450
400
350
300
250
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Red Drum
Mean TL (mm)
500
450
400
350
300
250
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

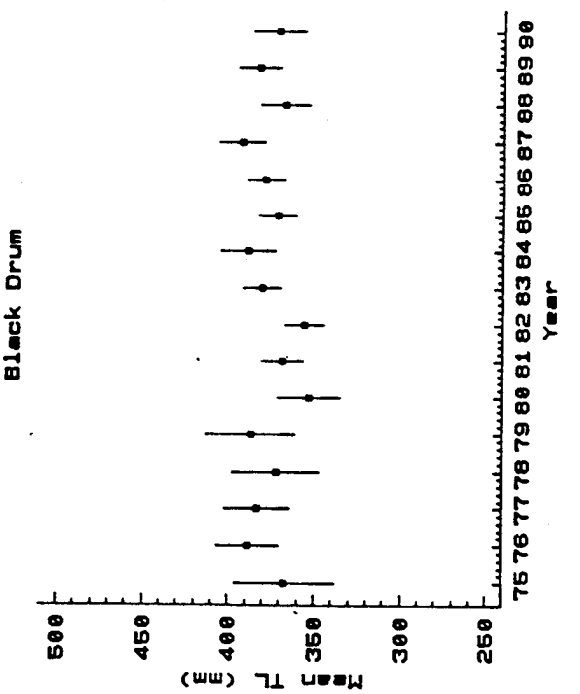
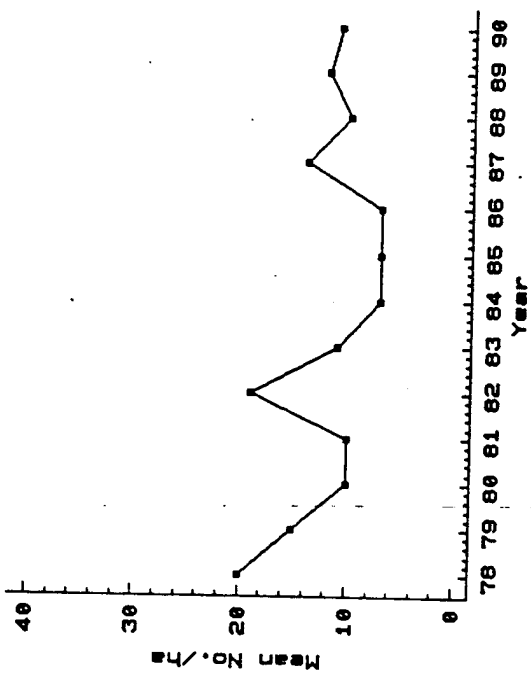
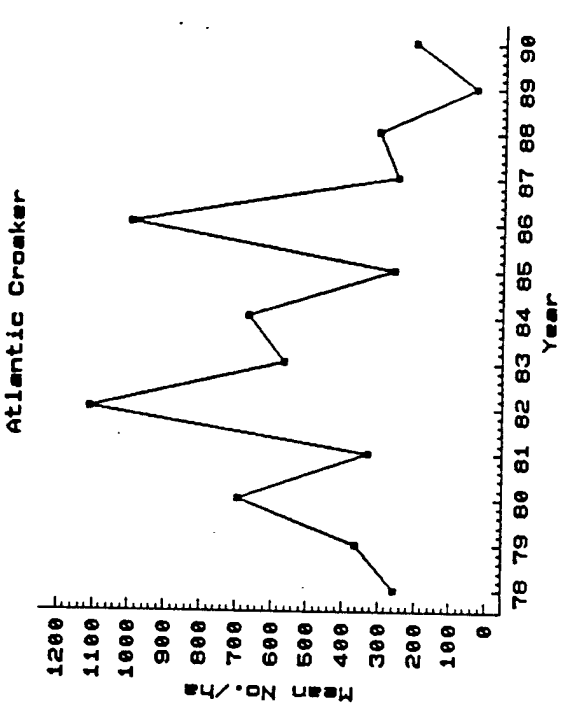
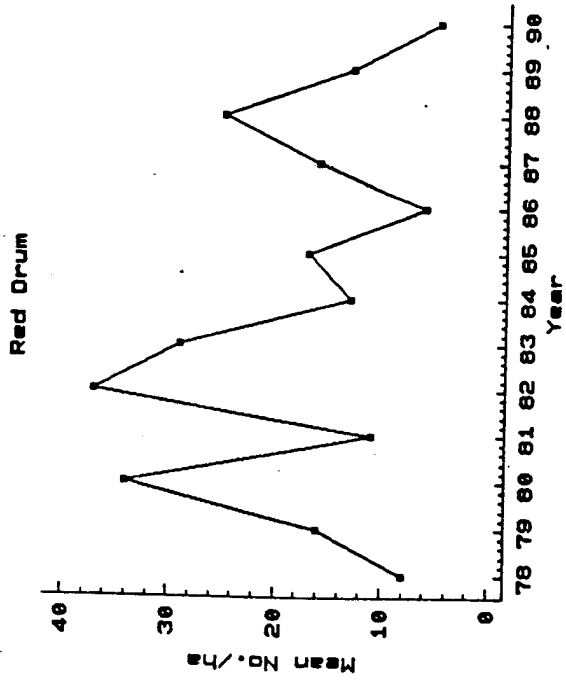

Black Drum
Mean TL (mm)
500
450
400
350
300
250
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 6. Seasonal bag seine mean catch rates (no./ha) for juvenile red drum (Nov-Mar), black drum (Jun-Jul), spotted seatrout (Jul-Nov) and Atlantic croaker (Feb-May) during 1978-90. Red drum and spotted seatrout ≤75 mm, black drum ≤110 mm and Atlantic croaker ≤85 mm are considered to be young-of-the-year.


Spotted Seatrout
Mean No./ha
0
10
20
30
40
78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Atlantic Croaker
Mean No./ha
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Red Drum
Mean No./ha
0
10
20
30
40
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

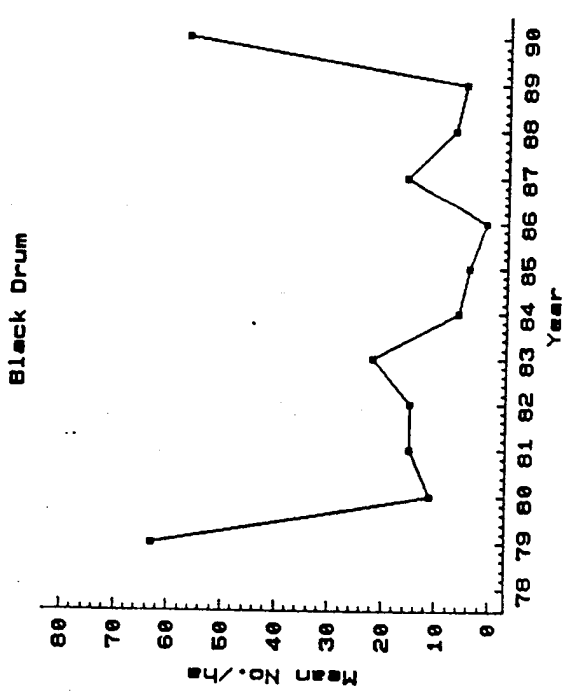
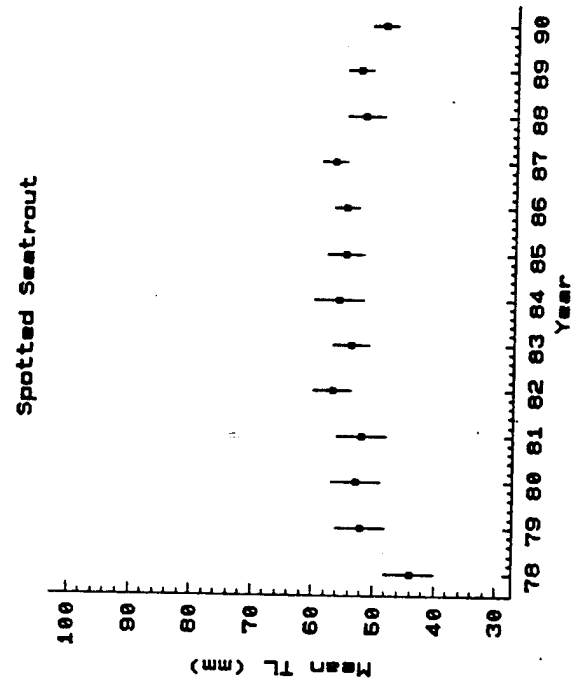
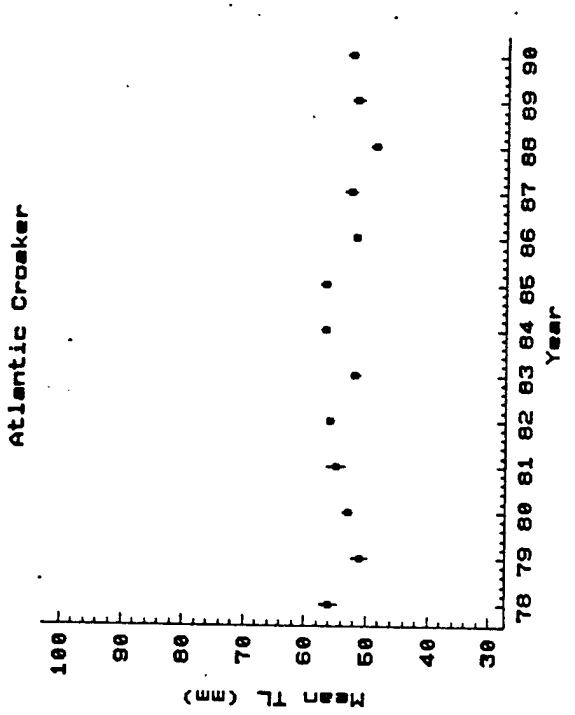
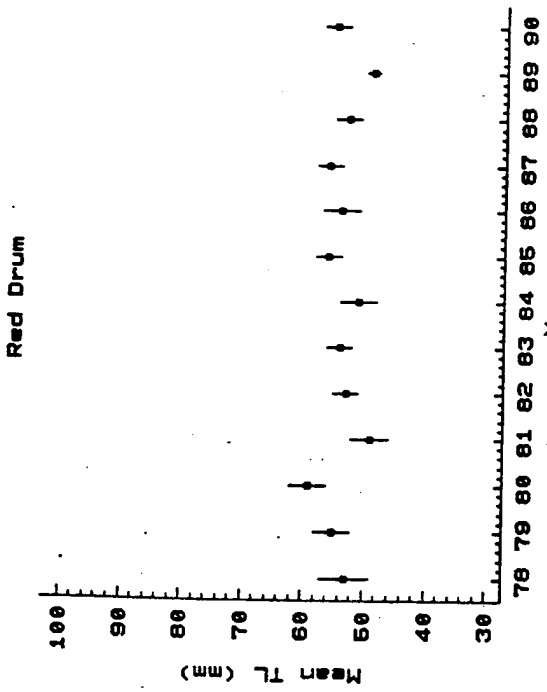

Black Drum
Mean No./ha
0
10
20
30
40
50
60
70
80
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 7. Seasonal bag seine mean total lengths (mm ± 1SE) for red drum (Nov-Mar), black drum (Jun-Jul), spotted seatrout (Jul-Nov) and Atlantic croaker (Feb-May) during 1978-90.


Spotted Seatrout
Mean TL (mm)
100
90
80
70
60
50
40
30
78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Atlantic Croaker
Mean TL (mm)
100
90
80
70
60
50
40
30
78 79 80 81 82 83 84 85 86 87 88 89 90
Year


Red Drum
Mean TL (mm)
100
90
80
70
60
50
40
30
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

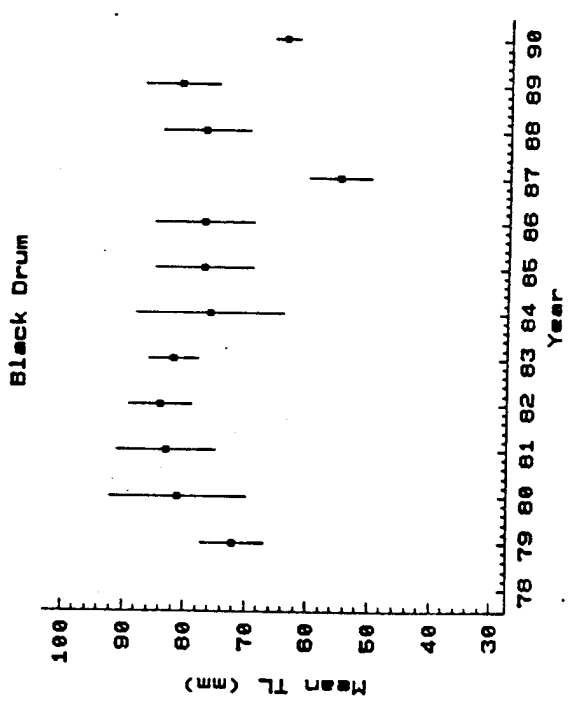
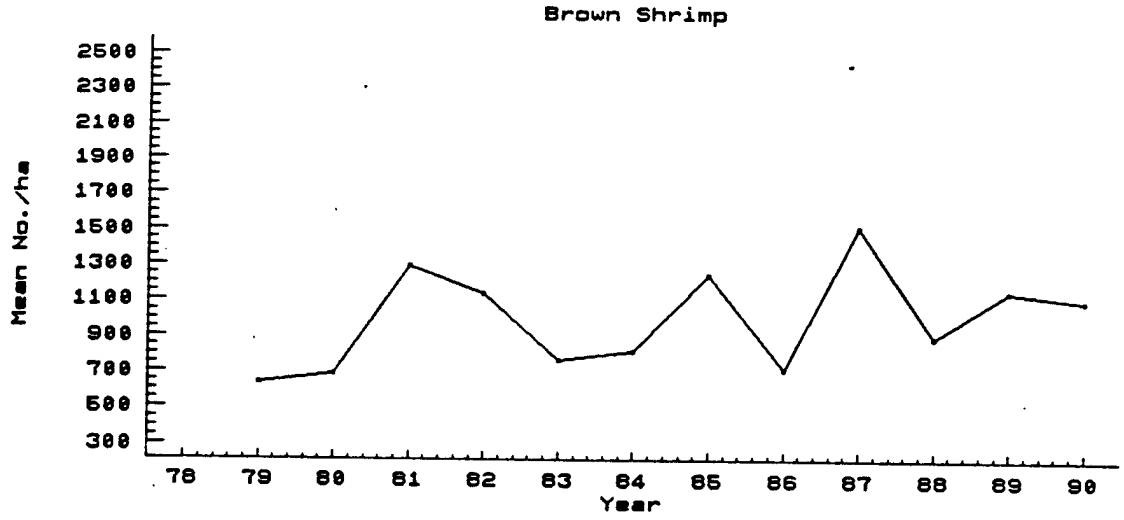

Black Drum
Mean TL (mm)
100
90
80
70
60
50
40
30
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 8. Seasonal bag seine mean catch rates (no./ha) for juvenile brown shrimp (Apr-Jul), white shrimp (Jul-Nov) and blue crab (Mar-Jun) during 1978-90. Brown and white shrimp ≤82 mm and blue crab ≤42 mm are considered to be young-of-the-year.


Brown Shrimp
Mean No./ha
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
78 79 80 81 82 83 84 85 86 87 88 89 90
Year


White Shrimp
Mean No./ha
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

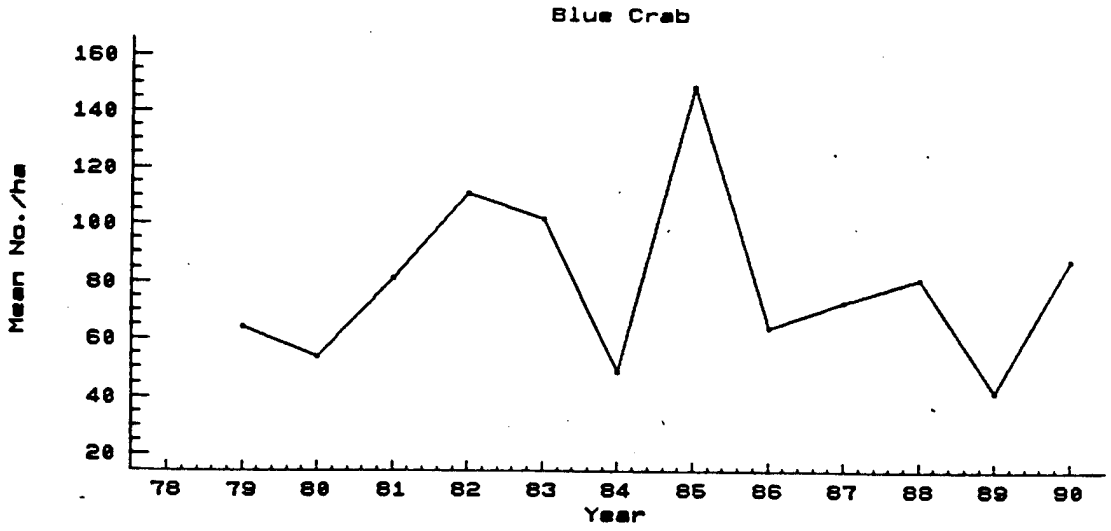
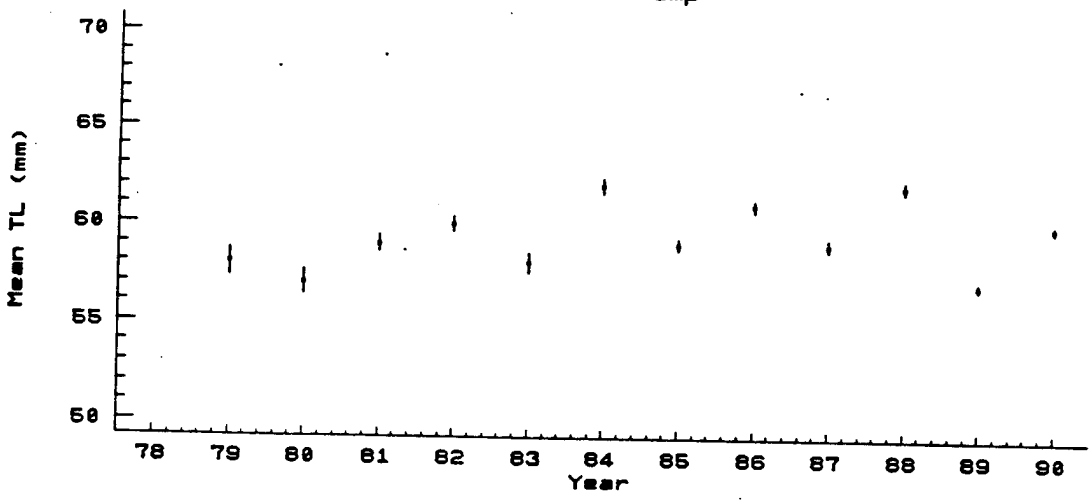
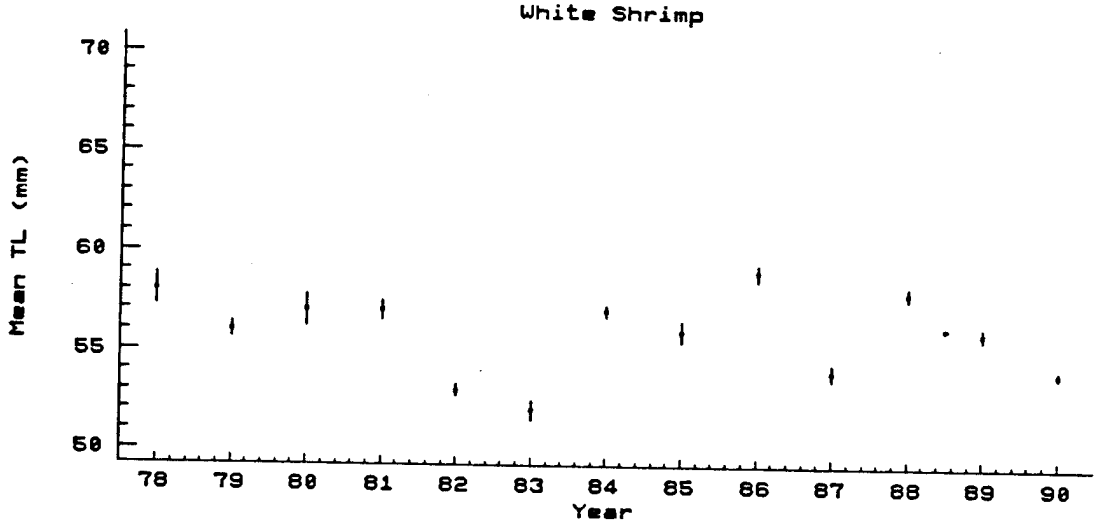

Blue Crab
Mean No./ha
160
140
120
100
80
60
40
20
78 79 80 81 82 83 84 85 86 87 88 89 90
Year

Figure 9. Seasonal bag seine mean total lengths (mm ± 1SE) for brown shrimp (Apr-Jul), white shrimp (Jul-Nov) and blue crab (Mar-Jun) during 1978-90.

Brown Shrimp



White Shrimp



Blue Crab

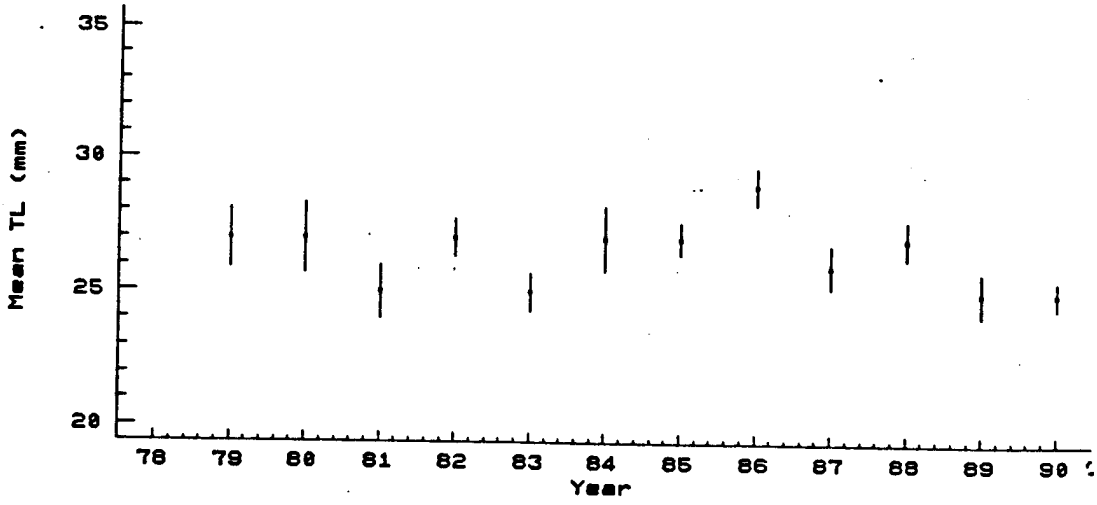
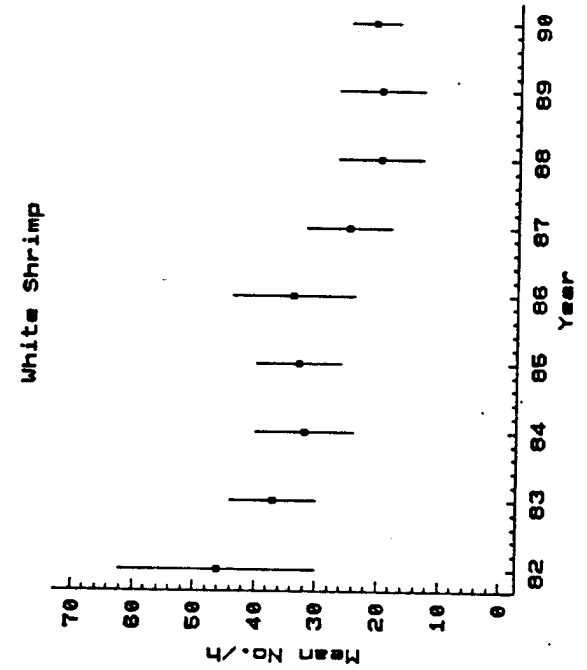
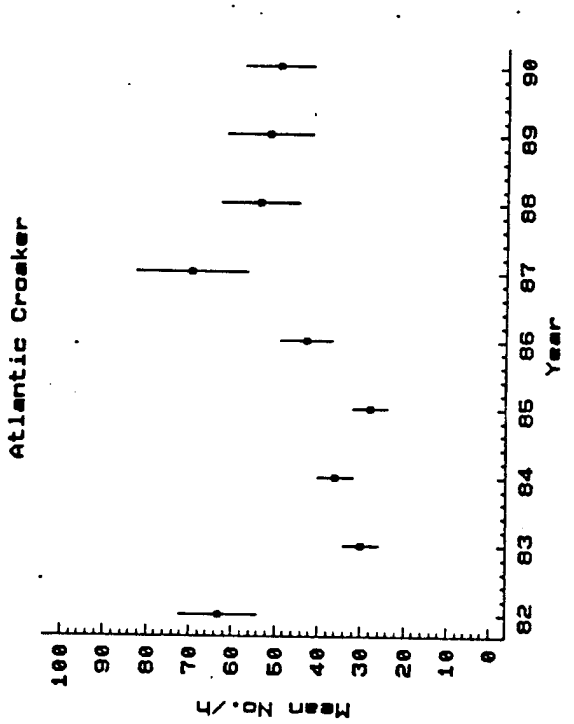
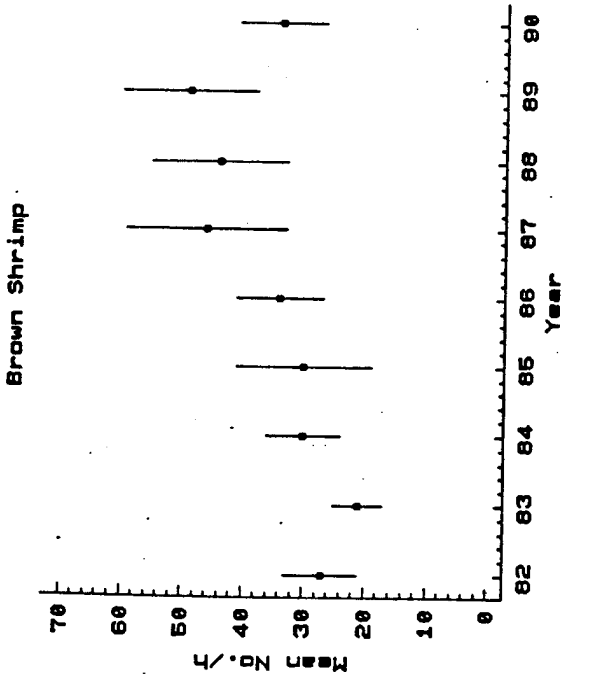


Figure 10. Annual bay trawl catch rates (no./h ± 1SE) for brown shrimp, white shrimp, blue crab and Atlantic croaker during 1982-90.


White Shrimp
Mean No./h
Year
0
10
20
30
40
50
60
70
82
83
84
85
86
87
88
89
90


Atlantic Croaker
Mean No./h
Year
0
10
20
30
40
50
60
70
80
90
100
82
83
84
85
86
87
88
89
90


Brown Shrimp
Mean No./h
Year
0
10
20
30
40
50
60
70
82
83
84
85
86
87
88
89
90

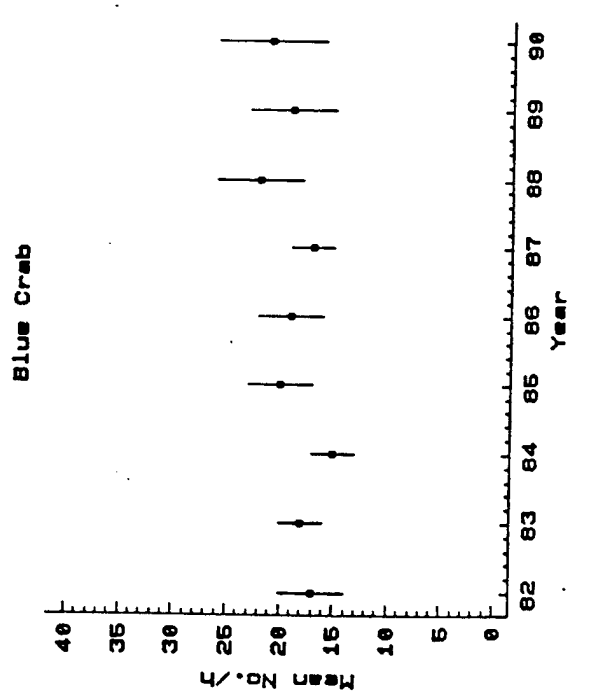
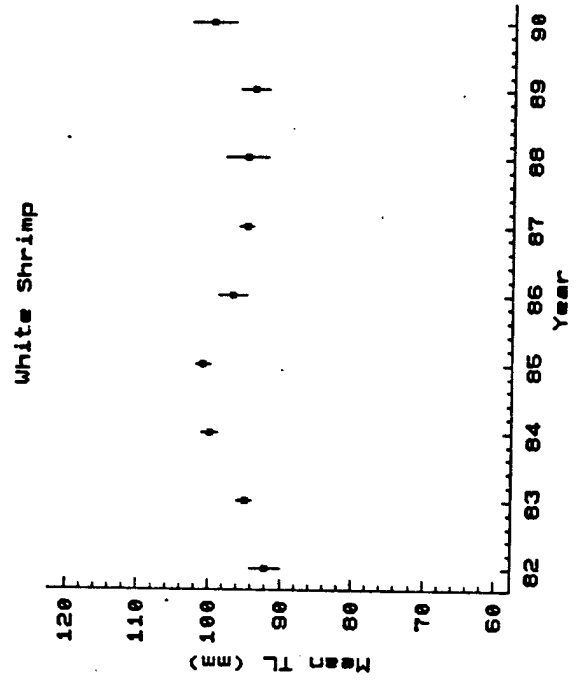
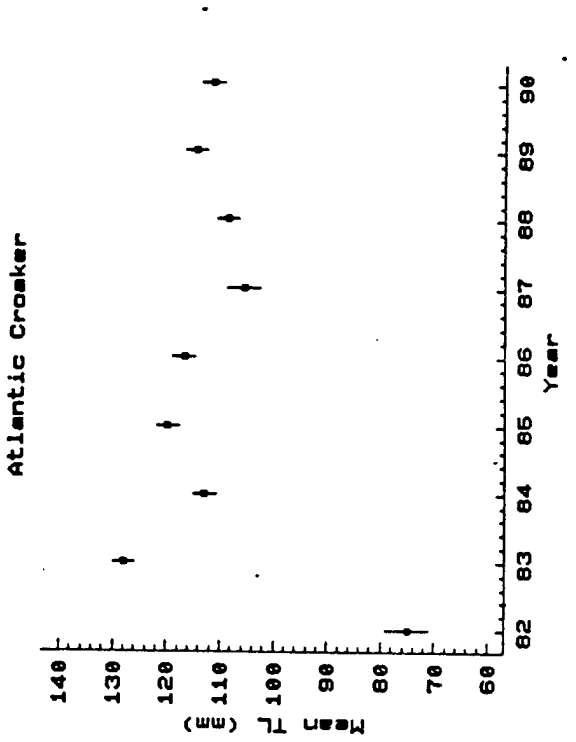
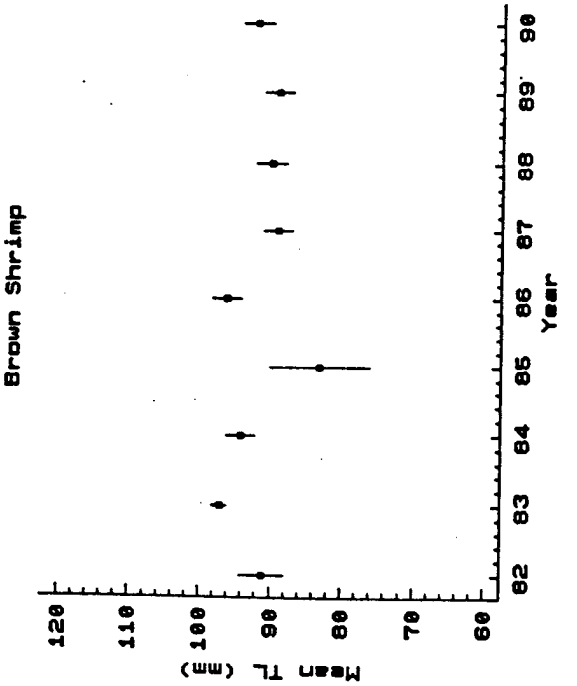

Blue Crab
Mean No./h
Year
0
5
10
15
20
25
30
35
40
82
83
84
85
86
87
88
89
90

Figure 11. Annual bay trawl mean total lengths (mm ± 1SE) for brown shrimp, white shrimp, blue crab and Atlantic croaker during 1982-90.


White Shrimp
Mean TL (mm)
120
110
100
90
80
70
60
82
83
84
85
86
87
88
89
90
Year


Atlantic Croaker
Mean TL (mm)
140
130
120
110
100
90
80
70
60
82
83
84
85
86
87
88
89
90
Year


Brown Shrimp
Mean TL (mm)
120
110
100
90
80
70
60
82
83
84
85
86
87
88
89
90
Year

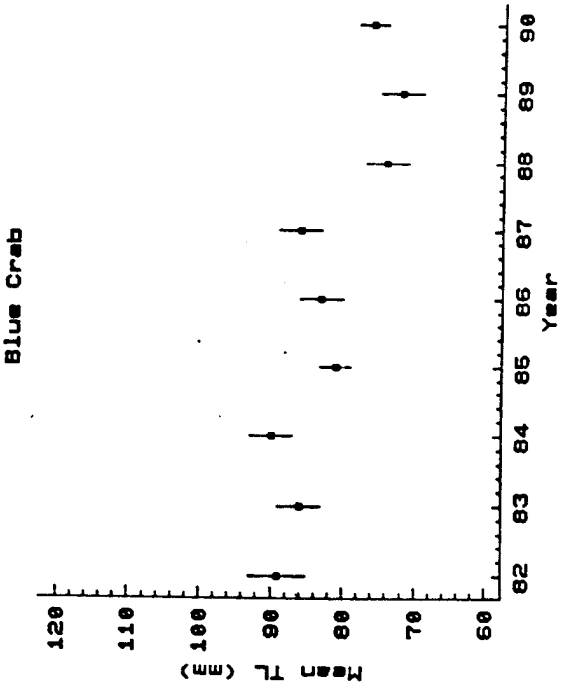
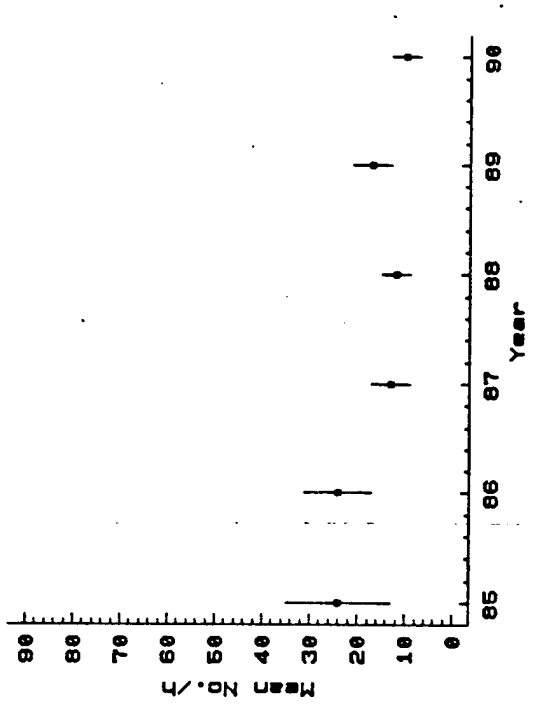
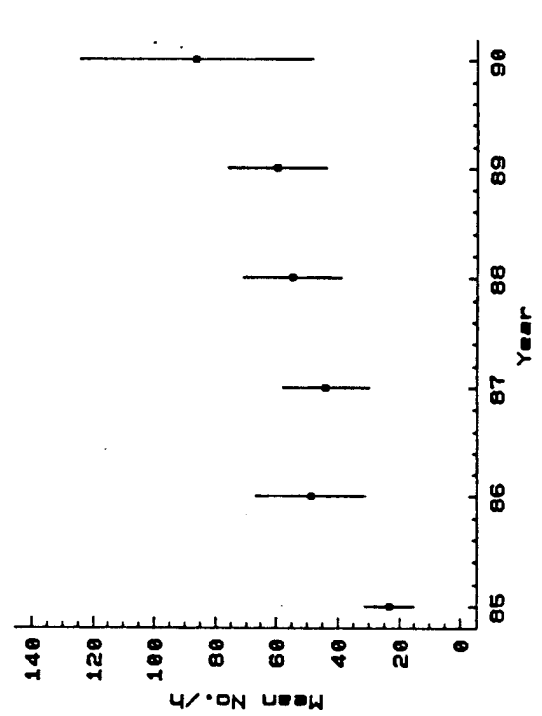
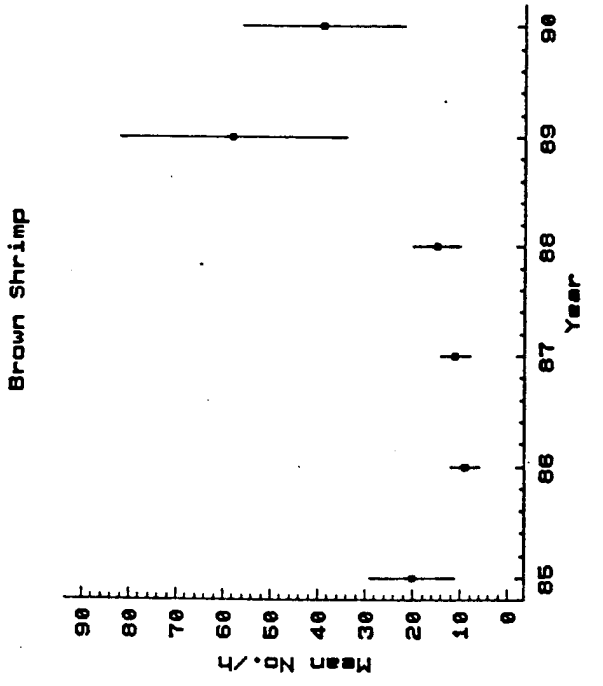

Blue Crab
Mean TL (mm)
120
110
100
90
80
70
60
82
83
84
85
86
87
88
89
90
Year

Figure 12. Annual gulf trawl mean catch rates (no./h ± 1SE) for brown shrimp, white shrimp, blue crab and Atlantic croaker during 1982-90.


White Shrimp
Mean No./h
Year
0
10
20
30
40
50
60
70
80
90
85
86
87
88
89
90


Atlantic Croaker
Mean No./h
Year
0
20
40
60
80
100
120
140
85
86
87
88
89
90


Brown Shrimp
Mean No./h
Year
0
10
20
30
40
50
60
70
80
90
85
86
87
88
89
90

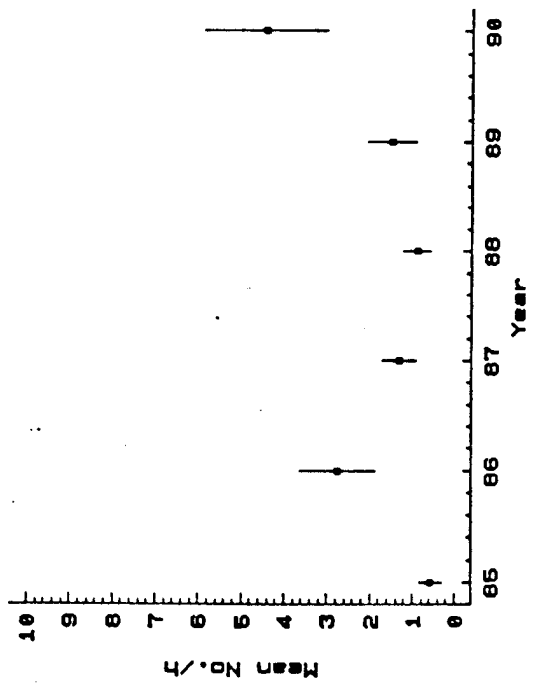
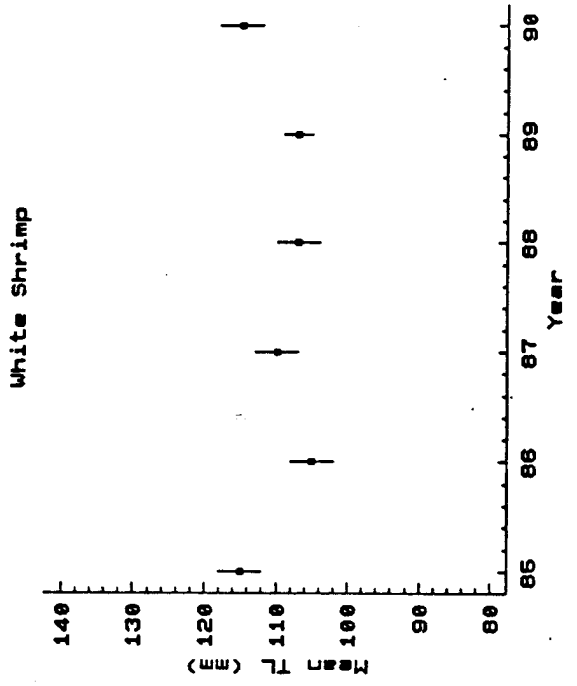
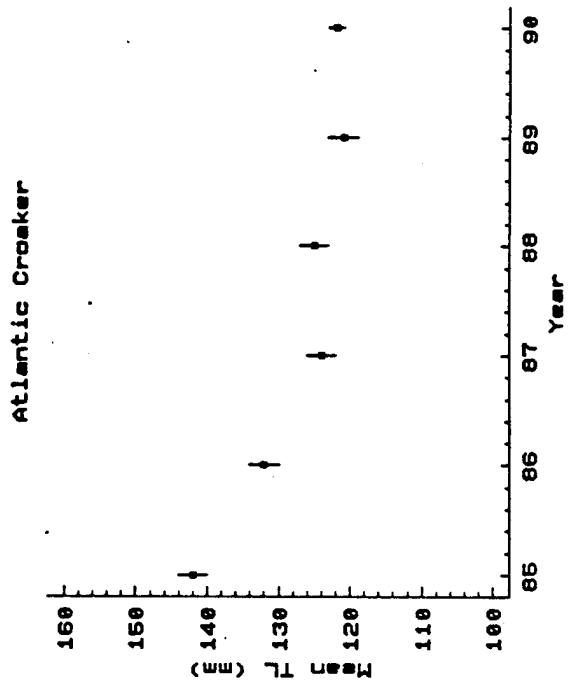
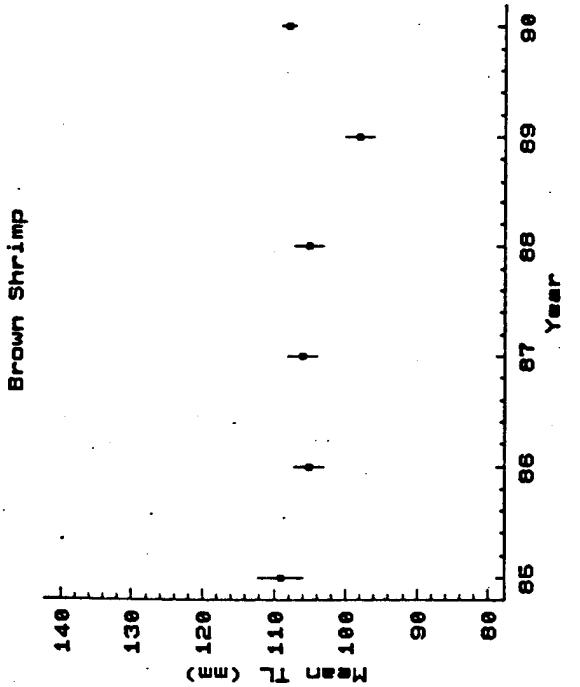

Blue Crab
Mean No./h
Year
0
1
2
3
4
5
6
7
8
9
10
85
86
87
88
89
90

Figure 13. Annual gulf trawl mean total lengths (mm ± 1SE) for brown shrimp, white shrimp, blue crab and Atlantic croaker during 1982-90.


White Shrimp
Mean TL (mm)
Year
140
130
120
110
100
90
80
85
86
87
88
89
90


Atlantic Croaker
Mean TL (mm)
Year
160
150
140
130
120
110
100
85
86
87
88
89
90


Brown Shrimp
Mean TL (mm)
Year
140
130
120
110
100
90
80
85
86
87
88
89
90

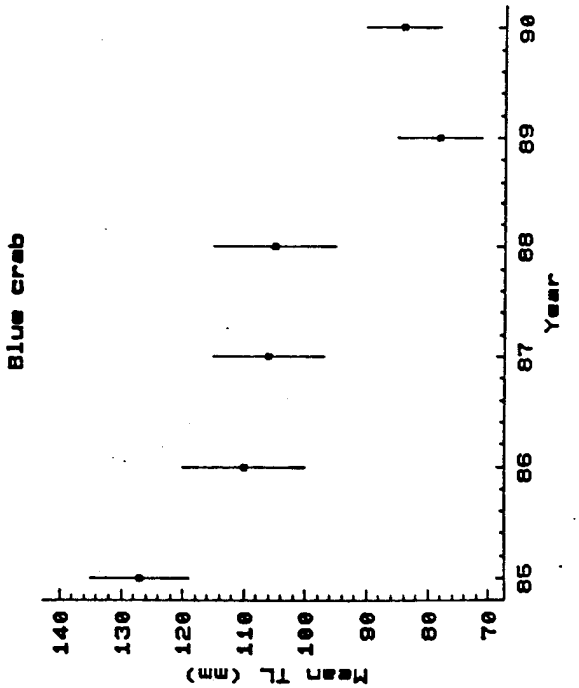
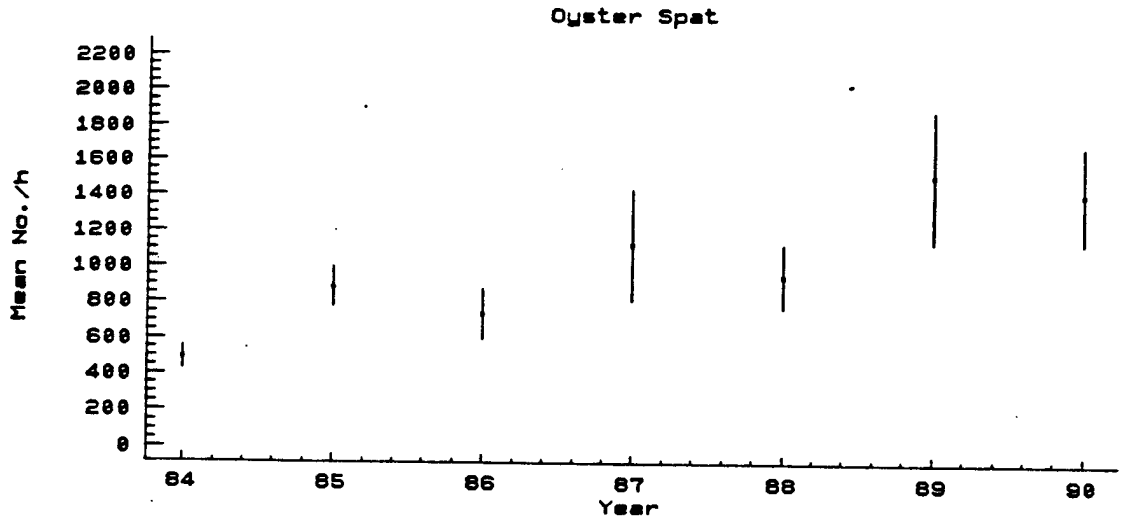
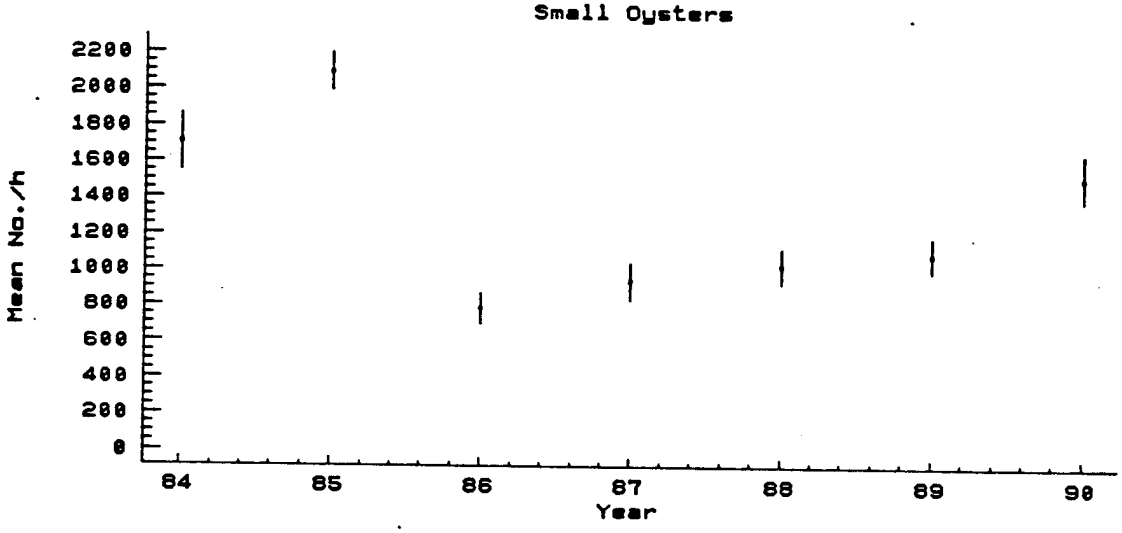

Blue crab
Mean TL (mm)
Year
140
130
120
110
100
90
80
70
85
86
87
88
89
90

Figure 14. Annual mean catch rates (no./h) for Eastern oyster spat (≤25 mm), small oysters (26-75 mm) and market oysters (≥76 mm) during 1984-90.


Oyster Spat
Mean No./h
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
84
85
86
87
88
89
90
Year


Small Oysters
Mean No./h
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
84
85
86
87
88
89
90
Year

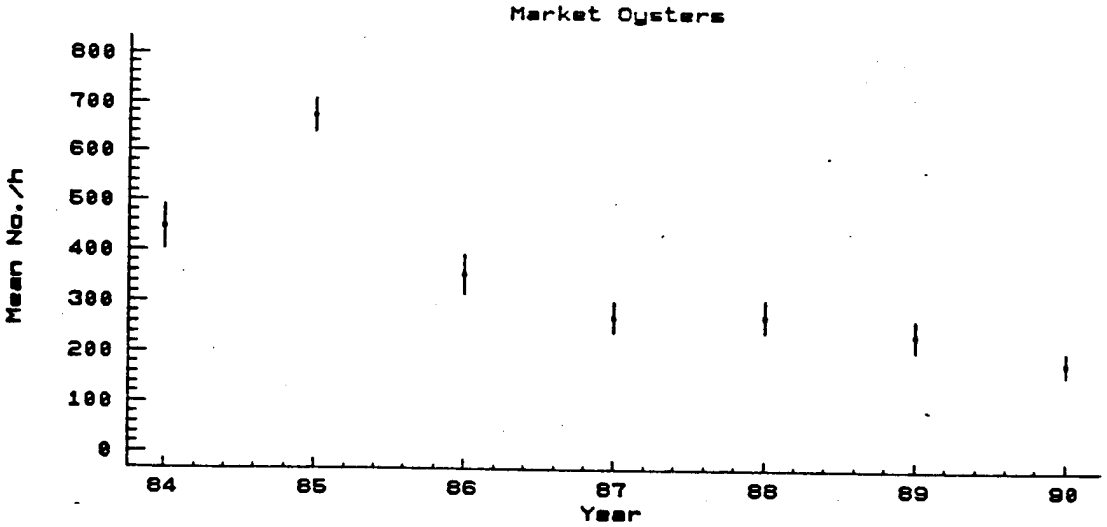
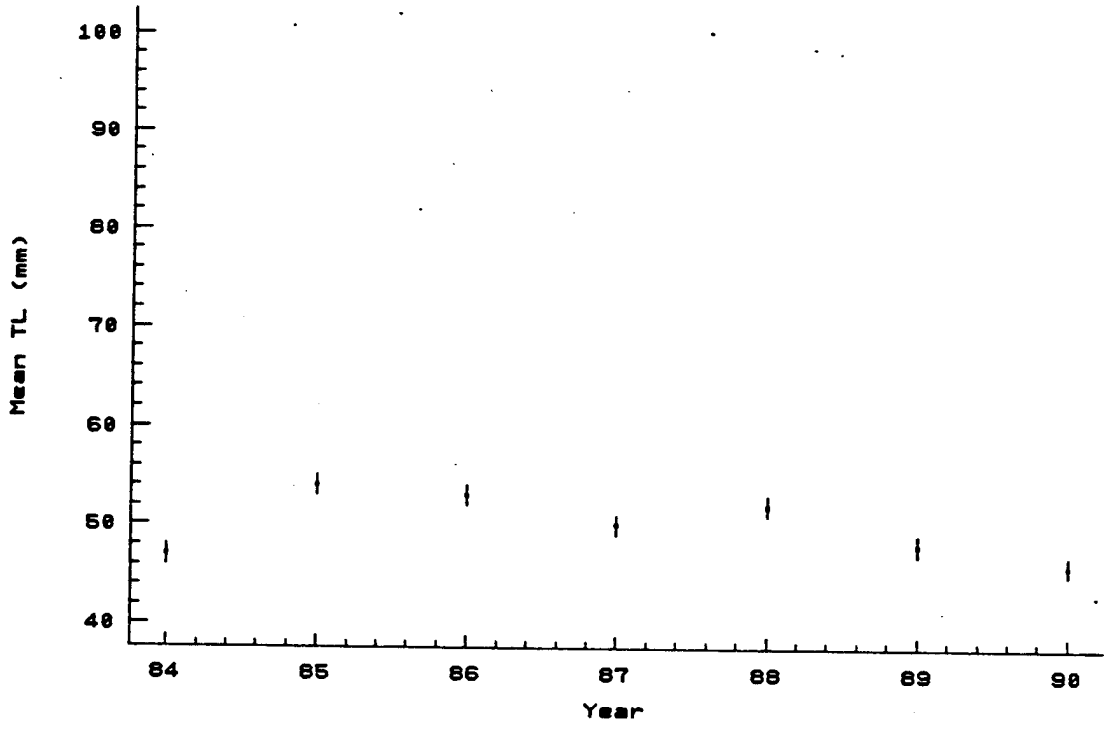
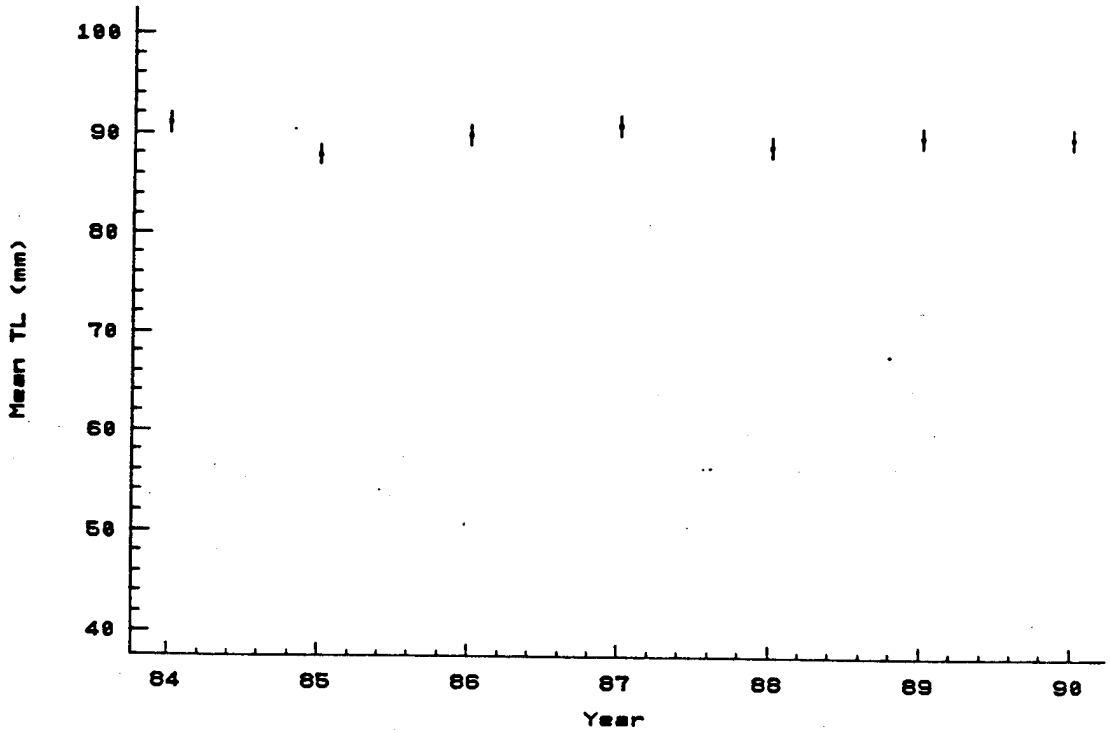

Market Oysters
Mean No./h
800
700
600
500
400
300
200
100
0
84
85
86
87
88
89
90
Year

Figure 15. Annual mean total lengths (mm ± 1SE) for small and market Eastern oysters during 1984-90.

Small Oysters



Market Oysters



Appendix A. Monthly mean catch rates (No./h) and mean total lengths (mm) of selected finfishes and shellfishes caught by gear type, sampling period and bay system.

Table A.1.A. Mean abundances (No./ha) and mean total lengths (mm) of selected finfishes and shellfishes caught with bag seines by bay system during 1990. Blank indicates no measurement taken.

Species / Month	Bay system																	
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length	No./ha	Length
FINFISHES																				
Red drum																				
Jan	17	52	0		0		0		0		0		0		0		0		1	52
Feb	2	67	0		0		0		10	93	4	82	42	75	0		0		5	79
Mar	4	96	12	89	8	101	8	103	2	115	2	111	58	66	0		19	117	12	88
Apr	2	105	0		0		0		0		0		4	136	0		0		<1	130
May	0		4	173	2	198	2	198	2	180	2	148	6	149	0		0		2	169
Jun	0		0		0		0		0		0		2	193	0		0		<1	193
Jul	0		0		0		0		4	39	0		0		0		0		<1	39
Aug	0		0		0		0		0		0		0		0		0		0	
Sep	0		0		0		0		0		0		0		0		0		0	
Oct	0		0		8	41	0		0		10	37	0		0		0		2	37
Nov	2	56	0		46	40	6	39	73	34	292	34	27	31	4	29	138	25	70	32
Dec	29	60	194	48	265	49	150	47	138	52	210	46	98	39	44	33	144	42	148	46
Spotted seatrout																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	0		0		0		0		0		0		0		0		0		0	
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		4	98	6	37	0		21	51	6	55	0		0		4	50
Jul	0		4	22	0		2	124	0		10	54	8	40	0		0		3	49
Aug	2	93	4	60	15	55	29	65	4	101	12	68	4	45	19	49	2	89	11	63
Sep	0		19	54	48	73	4	140	25	56	35	51	75	68	0		2	81	20	63
Oct	23	64	25	44	52	79	52	59	56	61	67	59	31	57	2	57	0		34	58
Nov	6	78	10	101	2	94	4	98	15	61	27	88	10	80	2	98	2	89	10	86
Dec	0		0		0		0		0		0		21	77	2	52	0		2	74
Black drum																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		2	185	0		0		0		940	23	0		106	26
Apr	0		2	191	0		4	174	0		0		100	50	7,173	43	0		819	43
May	0		4	52	35	77	10	68	19	76	2	91	21	61	535	59	0		68	60
Jun	2	108	23	79	317	62	23	95	2	123	2	70	4	91	115	65	10	116	34	72
Jul	6	112	8	103	25	105	33	92	15	141	2	124	44	79	619	59	67	128	92	71
Aug	4	136	6	121	81	95	15	118	12	136	2	100	4	105	323	70	6	123	46	79
Sep	15	129	8	139	4	116	35	134	2	156	6	110	0		177	86	0		129	100
Oct	4	140	0		21	116	35	133	15	110	10	162	0		67	99	0		17	117
Nov	2	151	0		10	115	15	131	12	166	0		8	119	31	96	0		8	120
Dec	0		0		2	125	0		0		0		0		17	94	0		2	96

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Sabine Lake Length	Galveston No./ha	Galveston Length	East Matagorda No./ha	East Matagorda Length	Matagorda No./ha	Matagorda Length	San Antonio No./ha	San Antonio Length	Aransas No./ha	Aransas Length	Corpus Christi No./ha	Corpus Christi Length	Upper Laguna Madre No./ha	Upper Laguna Madre Length	Lower Laguna Madre No./ha	Lower Laguna Madre Length	Coastwide No./ha	Coastwide Length
Sheepshead																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	0		0		0		0		0		0		0		0		0		0	
May	2	153	4	114	0		0		0		0		0		0		0		0	
Jun	0		0		6	36	4	53	0		0		0		0		0		1	117
Jul	0		0		0		0		0		0		0		0		2	29	1	44
Aug	0		0		0		0		2	82	0		0		0		6	38	1	38
Sep	0		0		0		0		0		2	115	0		0		2	95	<1	89
Oct	0		0		0		2	132	2	88	0		0		0		0		<1	115
Nov	0		0		0		0		0		0		0		0		0		1	113
Dec	2	152	0		0		0		0		0		0		0		0		0	
Southern flounder																			<1	152
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	12	37	98	34	54	31	71	30	62	46	10	40	65	40	4	45	69	40	56	36
Mar	17	55	54	53	73	48	73	44	12	45	8	44	38	51	10	51	29	48	36	49
Apr	23	67	25	63	6	86	17	62	44	42	2	52	12	47	25	61	6	75	19	57
May	25	52	15	85	0		15	83	6	90	10	63	21	47	0		2	86	10	72
Jun	8	76	42	73	6	62	2	114	0		2	68	4	56	2	155	0		10	77
Jul	19	58	15	111	4	141	4	92	2	80	0		2	55	2	118	2	106	5	99
Aug	21	90	2	81	0		0		0		4	90	0		0		0		2	88
Sep	8	84	8	140	0		4	174	2	124	0		2	114	0		4	181	4	144
Oct	4	157	2	125	4	190	0		0		0		2	105	0		0		1	136
Nov	0		0		0		0		0		0		0		0		0		0	
Dec	2	155	0		0		0		2	182	0		0		2	126	0		1	154
Atlantic croaker																				
Jan	71	35	104	31	50	37	6	35	2	36	0		2	30	0		0		27	32
Feb	162	40	1,288	41	588	37	121	43	2	36	0		0		0		229	41	341	41
Mar	196	51	1,377	58	119	52	148	57	2	80	44	45	0		0		73	57	336	57
Apr	198	64	165	69	60	84	256	66	0		300	74	123	47	0		123	70	147	68
May	156	74	117	72	106	77	102	81	21	80	90	92	27	71	17	76	50	86	74	79
Jun	175	78	138	90	25	102	90	104	10	124	62	92	12	107	2	91	25	72	63	92
Jul	81	91	33	94	6	115	29	123	0		15	115	4	148	0		23	100	20	104
Aug	87	113	25	126	6	181	42	124	0		4	131	2	151	0		0		16	124
Sep	21	112	8	148	4	124	12	180	0		2	169	0		0		19	126	7	145
Oct	4	149	2	139	2	24	4	156	4	23	2	153	0		0		6	141	3	123
Nov	8	30	452	38	81	38	17	32	44	27	140	24	0		0		0		123	35
Dec	6	35	88	34	354	40	154	38	198	23	42	34	0		0		0		81	33

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./ha	Length
Sand seatrout																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	12	38	268	43	8	54	19	51	0		0		0		0		0		60	43
May	38	39	398	39	0		56	54	8	36	0		0		0		0		94	40
Jun	112	42	102	65	19	56	46	62	0		0		0		0		0		33	61
Jul	62	58	23	67	15	67	12	67	0		0		0		0		0		9	65
Aug	12	93	4	72	40	55	4	41	0		0		0		0		0		3	63
Sep	8	120	69	49	21	59	2	35	0		0		0		0		0		16	51
Oct	33	64	35	63	10	50	21	55	0		0		0		0		0		12	61
Nov	10	61	0		10	84	0		0		0		0		0		0		7	71
Dec	0		0		0		0		0		0		0		0		0		0	
Gafftopsail catfish																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	0		0		0		0		0		0		0		0		0		0	
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		0		0		0		0		0		0		0		0	
Jul	0		0		0		25	108	0		0		0		0		0		0	
Aug	0		0		0		8	121	0		0		0		0		0		4	108
Sep	0		0		0		0		0		0		0		0		0		1	121
Oct	0		0		0		0		0		0		0		0		0		0	
Nov	0		0		0		0		0		0		0		0		0		0	
Dec	0		0		0		0		0		0		0		0		0		0	
Gulf menhaden																				
Jan	10	35	44	30	0		0		0		0		0		4	35	0		10	31
Feb	138	36	42	40	0		2	30	0		2	36	3,169	30	88	42	2	38	300	31
Mar	83	41	367	29	0		308	29	6	31	498	29	335	36	133	36	0		236	30
Apr	860	36	2,298	40	1,033	39	969	42	40	29	569	31	6,129	31	17	30	0		1,302	36
May	2,281	39	52,723	40	4,646	41	2,525	52	2,079	40	9,498	35	646	50	0		0		13,172	40
Jun	1,719	39	4,040	61	1,154	53	919	45	2,669	45	358	50	25	46	0		0		1,435	54
Jul	2,142	56	254	63	71	37	12	50	6	60	388	42	94	65	2	72	0		200	54
Aug	2,033	68	200	73	769	59	1,152	75	4,744	100	0		12	44	0		0		855	90
Sep	8	81	1,306	101	0		408	106	0		0		15	47	2	57	0		333	102
Oct	4	90	0		0		29	85	19	67	0		2	82	0		0		7	79
Nov	0		0		2	72	0		0		0		0		0		0		<1	72
Dec	10	31	2	31	0		0		0		0		0		2	31	0		1	31

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Sabine Lake Length	Galveston No./ha	Galveston Length	East Matagorda No./ha	East Matagorda Length	Matagorda No./ha	Matagorda Length	San Antonio No./ha	San Antonio Length	Aransas No./ha	Aransas Length	Corpus Christi No./ha	Corpus Christi Length	Upper Laguna Madre No./ha	Upper Laguna Madre Length	Lower Laguna Madre No./ha	Lower Laguna Madre Length	Coastwide No./ha	Coastwide Length
Hardhead catfish																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		115	129	15	129
Apr	0		0		17	115	123	107	0		15	117	2	103	0		0		0	
May	6	140	29	117	17	131	17	147	6	175	0		6	107	0		0		20	108
Jun	4	133	4	139	33	133	19	136	4	140	0		4	124	0		6	180	6	141
Jul	2	152	6	167	29	146	67	137	2	48	0		4	95	0		371	63	60	78
Aug	0		17	109	135	121	140	89	62	83	44	72	40	74	0		162	83	65	87
Sep	0		15	127	77	119	269	102	19	105	25	95	19	88	0		106	80	65	98
Oct	0		0		8	130	92	105	10	97	12	102	19	103	0		2	93	18	104
Nov	0		0		0		0		0		0		0		0		10	73	1	73
Dec	0		0		0		0		0		0		0		0		0		0	
Pinfish																				
Jan	0		0		0		0		0		0		10	28	0		0		1	28
Feb	0		25	33	71	33	15	30	38	32	23	25	408	34	177	29	96	31	85	32
Mar	6	39	144	39	52	40	200	33	1,212	37	814	30	323	31	44	39	721	53	434	38
Apr	2	39	112	42	510	54	802	49	2,265	42	692	46	983	49	202	47	679	52	703	46
May	81	65	1,129	54	1,535	62	665	62	1,619	53	2,496	50	1,244	54	256	57	1,529	58	1,236	54
Jun	233	71	404	65	3,112	60	790	70	923	76	1,475	58	1,712	67	404	60	1,979	58	1,060	63
Jul	54	84	231	67	500	71	198	90	171	76	406	73	756	64	1,777	63	1,227	67	592	67
Aug	42	90	56	97	150	83	258	98	167	85	558	78	825	58	296	69	648	68	337	73
Sep	19	105	46	110	31	96	56	123	140	93	662	75	198	65	894	67	173	81	264	76
Oct	2	113	10	121	8	98	19	126	79	92	100	87	173	67	321	71	312	69	119	75
Nov	2	118	2	94	0		6	94	4	134	65	80	54	67	254	73	223	70	81	73
Dec	0		19	30	23	27	8	65	4	24	12	39	8	50	83	62	329	70	60	64
Spot																				
Jan	0		0		0		0		0		0		29	24	0		942	32	123	32
Feb	6	34	2	122	2,358	45	852	38	1,235	38	258	28	1,648	37	996	42	1,096	41	772	39
Mar	94	57	735	50	640	45	454	41	2,950	47	2,725	43	2,954	40	3,150	48	3,435	50	1,997	46
Apr	31	92	462	58	821	57	642	59	2,031	50	1,104	49	2,288	52	981	59	1,931	60	1,154	55
May	35	74	938	64	1,217	60	831	58	1,017	58	1,771	61	671	58	485	59	1,250	67	983	62
Jun	12	81	179	67	629	59	633	65	719	63	340	60	1,394	63	675	73	810	65	579	65
Jul	4	90	138	77	325	64	206	76	206	82	144	71	206	65	806	67	398	79	272	73
Aug	0		77	80	165	79	81	78	98	92	262	21	702	64	371	74	156	77	202	74
Sep	6	103	104	95	48	96	229	96	10	98	56	93	40	73	506	73	148	91	145	85
Oct	6	104	12	115	50	84	15	124	21	91	27	87	25	72	98	82	15	89	28	90
Nov	2	114	17	110	44	103	12	126	0		94	96	8	80	115	84	29	108	37	96
Dec	0		2	123	0		0		0		10	96	2	113	31	86	4	112	6	94

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./ha	Length
Striped mullet																				
Jan	10	86	52	55	8	131	0		2	88	67	28	402	29	385	28	31	150	102	35
Feb	17	91	81	34	19	39	83	31	0		390	31	706	31	581	31	0		209	31
Mar	4	44	931	37	17	56	25	32	6	75	1,106	31	1,869	35	610	36	4	172	579	35
Apr	4	151	25	74	17	104	15	122	12	60	12	57	44	72	65	50	2	181	24	70
May	15	146	188	72	446	55	2	37	35	71	15	96	458	56	98	63	508	78	176	69
Jun	173	59	285	85	425	89	50	97	200	86	106	84	98	70	212	78	338	63	200	79
Jul	88	70	238	104	275	90	21	79	29	100	85	92	35	101	127	112	185	109	121	102
Aug	106	107	75	113	473	85	23	114	67	113	19	106	52	94	115	110	162	109	87	105
Sep	42	118	235	117	31	133	25	99	42	110	12	122	156	131	315	97	106	121	124	112
Oct	31	137	25	117	50	97	2	178	4	140	12	116	35	108	75	111	21	132	25	116
Nov	17	120	75	120	27	100	2	197	23	124	21	118	10	153	110	140	2	166	37	128
Dec	6	122	115	113	23	113	0		142	119	21	106	0		12	132	23	136	28	117
Other finfishes																				
Jan	281	56	1,481	54	1,610	42	1,183	48	1,550	42	1,910	42	1,140	48	1,673	38	748	41	1,360	46
Feb	67	66	1,096	63	94	67	492	53	1,135	34	560	38	885	52	3,329	44	1,996	32	1,218	45
Mar	150	61	338	76	71	39	54	79	1,173	59	569	53	1,546	61	9,523	40	1,240	52	1,664	46
Apr	98	82	360	64	121	73	419	91	1,242	57	183	71	1,050	59	5,481	38	1,531	58	1,215	50
May	238	100	1,267	53	725	53	2,085	71	546	74	419	72	571	56	2,967	46	975	53	1,226	58
Jun	296	74	1,046	70	3,871	50	1,335	66	2,833	50	9,208	46	1,846	52	4,585	42	1,800	49	3,012	50
Jul	221	60	1,646	71	567	73	504	84	1,346	50	2,490	57	1,760	55	2,154	54	1,546	58	1,524	60
Aug	312	99	317	92	867	77	856	76	687	62	962	50	1,033	67	1,779	46	1,235	56	886	61
Sep	208	93	2,479	67	290	73	975	74	273	62	304	80	1,146	58	2,256	51	562	67	1,174	64
Oct	473	77	735	58	444	63	431	81	612	65	594	65	1,223	54	1,217	38	535	68	710	59
Nov	494	69	310	69	917	63	200	71	473	60	371	54	1,415	59	475	41	779	58	549	59
Dec	108	71	1,354	66	1,117	50	667	66	3,800	50	1,217	57	1,300	45	1,352	40	1,498	43	1,677	51
Total finfishes																				
Jan	390	52	1,681	48	1,669	42	1,190	48	1,554	42	1,977	41	1,583	43	2,062	35	1,710	45	1,623	43
Feb	404	45	2,631	49	3,183	43	1,635	43	2,483	38	1,248	34	6,923	41	5,175	39	3,602	42	3,002	42
Mar	554	53	3,958	50	979	46	1,273	42	5,365	51	5,767	43	7,123	46	14,410	40	5,521	52	5,399	45
Apr	1,231	64	3,719	49	2,594	57	3,265	69	5,633	48	2,877	52	10,735	48	13,954	45	4,273	62	5,463	51
May	2,877	60	56,818	56	8,729	57	6,310	63	5,358	60	14,302	61	3,671	59	4,358	52	4,315	61	17,053	57
Jun	2,735	56	6,262	73	9,602	60	3,917	68	7,360	59	11,575	50	5,108	61	5,996	51	4,971	59	6,438	60
Jul	2,679	59	2,596	75	1,817	75	1,115	89	1,781	59	3,540	61	2,915	61	5,488	63	3,825	74	2,904	68
Aug	2,623	91	783	92	2,700	80	2,608	85	5,844	73	1,869	66	2,675	66	2,902	58	2,375	65	2,511	73
Sep	335	100	4,298	78	554	86	2,021	94	512	74	1,106	78	1,650	69	4,150	65	1,121	79	2,182	77
Oct	585	82	848	62	658	75	702	88	823	69	835	71	1,510	58	1,779	53	892	71	974	66
Nov	1,246	77	867	58	1,140	62	262	75	644	59	1,008	53	1,633	61	1,002	68	1,173	57	917	61
Dec	162	68	1,775	67	1,783	48	979	56	4,283	59	1,512	58	1,429	45	3,346	42	1,998	56	2,026	55

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./ha	Length
SHELLFISHES																				
Blue crab																				
Jan	77	32	25	38	17	27	2	32	48	15	15	14	71	17	6	18	2	22	24	23
Feb	298	30	352	26	15	32	50	23	79	32	75	26	244	42	0		206	30	159	29
Mar	117	39	456	48	162	33	165	23	188	25	81	23	162	38	27	23	148	31	197	38
Apr	44	49	100	30	117	55	360	22	290	26	62	29	298	33	27	46	117	46	164	29
May	46	67	100	64	127	50	54	33	73	55	71	50	175	49	19	38	15	44	72	53
Jun	52	111	140	46	231	46	81	48	67	41	108	41	140	49	110	49	19	62	100	47
Jul	44	66	148	62	110	56	31	89	42	47	71	54	231	58	110	47	54	44	94	57
Aug	42	84	44	90	150	57	10	95	21	62	98	56	67	54	54	67	119	51	60	63
Sep	38	58	94	48	25	34	54	51	21	64	154	29	167	38	38	84	23	43	74	44
Oct	23	56	21	109	54	49	31	39	121	28	35	35	117	40	8	64	50	54	48	45
Nov	12	86	102	26	62	36	25	38	117	26	162	26	71	32	4	36	31	34	73	48
Dec	10	37	110	33	60	33	31	16	115	23	60	30	60	28	40	47	31	39	65	30
Brown shrimp																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		4	34	169	28	22	28
Mar	0		71	38	33	34	29	34	0		25	26	0		0		18,317	58	2,367	58
Apr	156	64	552	49	1,244	57	535	52	1,483	45	2,238	46	938	59	67	55	3,454	63	1,239	54
May	842	70	2,590	57	3,012	61	3,023	61	1,775	63	6,598	66	3,935	65	35	88	1,033	70	2,672	63
Jun	483	67	729	61	2,421	64	1,477	68	435	70	804	69	685	65	446	74	669	57	816	65
Jul	25	86	71	66	294	73	115	73	233	55	208	75	206	56	2	75	560	61	186	64
Aug	2	89	81	56	675	56	156	61	148	56	281	54	213	52	265	85	208	56	191	60
Sep	2	52	8	58	106	59	8	38	554	48	915	56	240	53	48	54	231	54	248	53
Oct	6	62	146	62	229	53	246	52	1,002	59	279	54	385	53	19	65	431	59	316	57
Nov	10	58	19	59	296	68	133	46	104	49	667	54	494	51	0		315	58	217	54
Dec	0		2		362	50	6	39	54	38	44	55	6	49	35	34	146	55	48	49
Pink shrimp																				
Jan	0		0		0		0		0		0		0		4	41	0		<1	41
Feb	0		0		0		0		0		0		8	38	0		0		1	38
Mar	0		0		0		0		4	36	6	54	0		0		0		1	47
Apr	0		0		0		0		0		0		0		2	82	0		<1	82
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		0		0		0		0		12	37	0		0		1	37
Jul	0		0		0		0		0		6	34	160	58	0		0		15	57
Aug	0		0		2	131	0		0		94	48	290	59	21	56	90	49	52	54
Sep	0		0		0		0		0		723	51	35	39	4	38	4	40	101	50
Oct	0		0		0		2	72	0		94	43	165	45	6	45	0		28	44
Nov	0		0		0		0		0		173	46	408	44	0		88	54	70	46
Dec	0		0		0		0		0		98	50	199	39	8	28	0		31	43

Table A.1.A. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./ha	Length	Galveston No./ha	Length	East Matagorda No./ha	Length	Matagorda No./ha	Length	San Antonio No./ha	Length	Aransas No./ha	Length	Corpus Christi No./ha	Length	Upper Laguna Madre No./ha	Length	Lower Laguna Madre No./ha	Length	Coastwide No./ha	Length
White shrimp																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	117	59	0		0		0		0		0		0		0		0		0	
May	0		0		0		0		12	30	0		0		0		0		4	59
Jun	525	55	1,060	47	285	44	856	47	244	51	3,775	43	177	53	31	35	375	55	974	46
Jul	177	62	1,352	56	1,833	54	1,617	62	360	57	3,758	56	3,298	69	0		2,002	39	1,669	57
Aug	427	74	1,344	54	965	72	352	87	218	68	188	59	669	70	362	40	1,044	53	661	59
Sep	629	68	5,300	50	2,440	55	248	83	588	58	700	59	752	66	10	53	493	71	1,536	54
Oct	2,383	65	3,600	50	1,927	60	2,060	64	1,727	62	250	50	1,267	64	4	48	260	57	1,578	57
Nov	400	64	4,306	52	669	52	238	62	831	51	933	42	83	45	4	94	58	51	1,205	51
Dec	446	64	3,415	68	162	51	44	49	46	39	252	48	200	72	8	48	179	52	822	66

Table A.1.B. Mean catch rates of select shellfishes caught with bay bag seine, trawl and oyster dredge during January-August 1991.

Gear / Species / Month	Bay system: Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
BAG SEINE (No./ha)										
Blue Crab										
Jan	19	38	83	19	15	6	4	0	0	17
Feb	188	110	63	169	62	104	81	33	33	93
Mar	23	625	196	56	729	313	121	6	610	360
Apr	19	212	90	183	998	225	210	42	138	259
May	48	73	90	40	100	40	275	185	50	94
Jun	115	285	71	58	52	125	171	35	48	122
Jul	35	194	98	21	96	69	138	77	60	97
Aug	54	71	96	10	160	60	208	46	38	76
Brown Shrimp										
Jan	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	4	169	22
Mar	0	70	31	29	0	25	0	0	18,317	2,367
Apr	140	558	1,244	533	1,481	2,238	938	67	3,454	1,239
May	848	2,589	3,013	2,523	1,775	6,598	3,935	35	1,033	2,599
Jun	483	729	2,421	1,475	435	804	685	446	667	815
Jul	25	71	294	114	233	208	206	2	560	186
Aug	2	79	675	156	148	281	212	265	208	191
Pink shrimp										
Jan	0	0	2	0	0	0	2	0	0	1
Feb	0	0	0	0	0	0	23	0	0	2
Mar	0	0	0	0	0	2	23	0	0	2
Apr	0	0	0	0	0	6	2	4	0	1
May	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	25	10	25	7

Table A.1.B. (Cont'd.)

Gear / Species / Month	Bay system: Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
BAG SEINE (Cont'd.)										
White shrimp										
Jan	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0
Apr	133	0	0	0	0	0	0	0	0	0
May	0	0	0	0	12	0	0	0	0	5
Jun	525	1,060	285	856	244	3,771	177	31	375	973
Jul	177	1,352	1,831	1,621	360	3,758	3,298	0	2,002	1,670
Aug	427	1,344	965	354	210	188	669	362	1,044	661
TRAWL: BAY (No./h)										
Blue crab										
Jan	6	1	0	4	193	34	2	1	4	29
Feb	15	23	9	9	83	6	<1	4	16	22
Mar	11	5	32	8	185	232	5	2	43	71
Apr	6	25	123	19	80	91	10	2	122	36
May	16	53	117	12	78	66	19	10	39	40
Jun	3	11	25	12	64	32	6	4	91	22
Jul	9	4	7	5	36	51	25	4	54	17
Aug	6	3	6	4	32	32	9	14	19	11
Brown shrimp										
Jan	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0
Mar	0	1	0	1	0	12	12	0	8	3
Apr	0	1	2	3	194	63	14	14	238	65
May	1	111	180	186	386	344	151	80	10	175
Jun	12	10	47	89	377	285	38	10	44	100
Jul	2	12	253	24	86	12	76	10	4	31
Aug	0	<1	5	6	26	30	10	6	2	9

Table A.1.B. (Cont'd.)

Gear / Species / Month	Bay system: Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
TRAWL: BAY (Cont'd.)										
Pink shrimp										
Jan	0	0	0	4	1	4	4	0	1	2
Feb	0	<1	1	3	27	38	1	0	1	7
Mar	0	0	1	3	33	94	5	3	15	13
Apr	0	<1	9	9	40	123	16	29	4	20
May	0	<1	0	1	1	12	25	3	0	4
Jun	0	0	0	1	0	<1	0	2	5	1
Jul	0	0	0	0	0	0	0	0	2	1
Aug	0	0	0	0	0	0	0	1	0	<1
White shrimp										
Jan	1	0	0	1	0	0	1	0	0	<1
Feb	0	1	0	4	0	0	1	0	0	1
Mar	9	14	1	1	0	1	2	0	0	5
Apr	1	11	3	2	<1	2	0	0	0	3
May	11	6	2	8	0	<1	<1	0	0	4
Jun	0	<1	4	0	6	2	35	0	0	5
Jul	17	52	98	11	33	2	32	2	0	28
Aug	71	11	11	77	130	22	11	23	0	44
OYSTER DREDGE: BAY (No./h)										
Eastern oyster spat (5-25 mm)										
Jan	838	1,176	468	336	345	2,823	103	ND	69	1,036
Feb	350	651	573	159	705	673	286	ND	175	561
Mar	688	455	186	268	750	1,295	14	ND	350	568
Apr	300	257	504	359	1,014	2,577	114	ND	1,075	794
May	1,200	478	664	573	954	1,936	0	ND	338	792
Jun	962	1,579	2,864	4,709	1,714	168	0	ND	3,050	1,644
Jul	1,050	2,382	2,436	682	1,673	1,264	322	ND	0	1,648
Aug	1,012	2,169	1,100	3,568	2,100	3,355	240	ND	200	2,220

Table A.1.B. (Cont'd.)

Gear / Species / Month	Bay system: Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
OYSTER DREDGE: BAY (No./h)										
Small Eastern oyster (26-75 mm)										
Jan	588	1,584	614	418	1,964	1,195	359	ND	0	1,250
Feb	125	1,800	323	382	3,068	1,241	1,737	ND	38	1,636
Mar	225	2,002	1,009	432	2,373	1,005	640	ND	75	1,491
Apr	38	3,855	641	245	1,859	1,441	281	ND	0	2,042
May	1,250	4,576	1,027	177	1,250	1,127	392	ND	25	2,185
Jun	1,538	2,019	659	409	882	1,191	604	ND	12	1,247
Jul	675	1,764	559	327	1,195	1,659	604	ND	0	1,260
Aug	1,100	1,721	223	486	645	1,473	608	ND	62	1,116
Market Eastern oyster (≥76 mm)										
Jan	250	150	77	105	305	132	9	ND	0	153
Feb	225	70	41	114	564	173	221	ND	25	197
Mar	300	68	109	95	650	77	92	ND	0	188
Apr	225	389	105	41	268	41	24	ND	0	212
May	262	133	145	132	205	41	78	ND	12	128
Jun	275	74	150	159	400	77	51	ND	0	150
Jul	850	96	82	132	414	245	129	ND	0	197
Aug	462	241	118	118	600	41	110	ND	0	242

Table A.2. Monthly mean catch rates (No./h) and mean total lengths (mm) of select finfishes and shellfishes caught with 6.1-m trawls in Texas bay systems during January-December 1990. Blank indicates no measurement taken.

Species / Month	Bay system																			
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
FINFISHES																				
Atlantic croaker																				
Jan	1	154	8	43	0		2	31	0		0		0		0		0		3	42
Feb	44	133	9	71	2	61	4	67	1	60	12	53	2	47	1	47	1	90	7	85
Mar	37	116	41	81	0		11	84	76	74	17	58	7	87	0		28	97	30	81
Apr	55	108	145	102	85	114	164	99	239	98	93	86	36	93	2	85	52	108	129	99
May	66	133	66	115	33	108	351	120	161	105	118	93	124	116	1	84	234	112	154	115
Jun	14	99	67	116	1	134	231	126	28	116	45	94	93	128	3	133	49	114	92	122
Jul	149	95	46	117	15	124	109	128	32	128	40	113	238	128	22	111	114	125	85	123
Aug	41	114	6	133	2	138	40	134	16	132	66	124	87	138	28	131	84	128	34	132
Sep	31	131	27	137	1	144	15	152	<1	157	14	136	49	151	28	131	86	137	25	141
Oct	31	135	8	163	0		2	147	2	158	18	145	7	158	38	137	71	142	12	147
Nov	5	135	6	159	<1	21	<1	100	<1	103	4	105	4	133	16	134	64	142	7	142
Dec	8	44	3	113	0		19	57	49	57	120	64	12	58	5	144	6	134	23	64
Black drum																				
Jan	1	355	<1	435	0		<1	930	0		0		0		1	249	0		<1	546
Feb	1	423	1	242	0		0		0		0		<1	950	0		0		<1	357
Mar	7	304	<1	232	0		0		0		0		0		2	76	0		1	236
Apr	1	261	0		0		0		0		0		0		115	48	0		6	49
May	1	296	0		0		0		0		0		<1	169	4	60	0		<1	111
Jun	0		<1	88	0		0		<1	114	0		0		11	101	0		1	100
Jul	1	151	0		0		0		0		0		0		192	102	0		10	103
Aug	2	278	0		0		0		0		0		0		185	115	2	162	10	117
Sep	<1	204	0		0		0		0		0		0		89	118	<1	190	5	119
Oct	4	212	0		0		0		0		1	175	0		226	116	0		12	118
Nov	<1	214	<1	95	0		0		0		<1	163	0		142	123	0		8	123
Dec	0		1	340	<1	146	0		0		0		0		192	125	0		11	133
Gafftopsail catfish																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		2	272	0		0		0		0		0		0		0		1	272
Mar	0		8	238	0		<1	128	0		0		0		0		0		3	235
Apr	0		<1	380	0		0		0		0		0		0		0		<1	380
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		<1	95	0		0		<1	602	0		0		0		0		<1	238
Jul	0		2	176	8	121	2	106	27	114	5	119	0		0		0		5	122
Aug	0		2	147	3	145	10	136	23	140	10	144	0		0		0		7	140
Sep	0		0		0		3	165	1	173	1	153	0		0		0		<1	165
Oct	0		0		0		<1	171	<1	203	2	175	<1	173	0		0		<1	181
Nov	0		0		0		0		0		<1	202	0		0		0		<1	202
Dec	0		0		0		0		0		0		0		0		0		0	

Table A.2. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Gulf menhaden																				
Jan	0		5	101	1	96	2	93	<1	64	0		0		0		0		2	98
Feb	0		6	106	2	91	0		0		31	40	1	88	0		0		4	69
Mar	2	57	39	93	0		0		2	53	3	47	1	27	0		0		13	91
Apr	2	55	4	113	1	68	2	121	20	49	4	58	0		0		4	113	5	74
May	6	62	3	95	7	94	1	150	12	61	5	93	9	52	4	84	0		5	75
Jun	27	57	7	63	2	80	6	119	41	95	16	90	3	42	5	87	0		12	86
Jul	1	70	34	80	6	93	<1	117	8	96	11	95	3	129	6	69	1	102	14	83
Aug	12	91	8	105	3	96	3	114	41	77	21	106	6	155	2	72	0		11	95
Sep	0		8	114	2	118	14	125	31	98	22	115	4	128	5	95	0		12	112
Oct	1	126	<1	101	0		14	128	98	88	95	121	2	122	6	95	0		24	104
Nov	0		3	115	2		2	123	12	88	4	115	0		2	97	0		3	102
Dec	5	72	21	107	0		3	94	20	98	15	127	<1	116	<1	81	0		12	106
Hardhead catfish																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		3	261	1	321	2	130	3	178	32	109	1	368	0		1	171	2	209
Mar	4	229	8	223	2	202	13	230	11	201	3	289	28	188	4	216	1	176	11	213
Apr	5	196	5	175	4	193	17	185	15	208	11	207	16	166	0		3	173	10	186
May	9	199	1	139	4	160	14	181	6	258	6	191	12	173	4	233	14	108	7	191
Jun	6	280	3	195	4	170	7	168	8	237	7	197	51	262	2	241	3	212	10	235
Jul	4	244	6	201	4	158	6	222	7	216	5	235	32	193	2	176	7	224	9	105
Aug	4	249	3	175	2	154	12	183	13	164	8	193	35	173	2	181	4	242	10	178
Sep	5	253	3	219	3	144	6	204	7	168	4	176	19	182	2	271	1	211	6	195
Oct	2	241	3	161	1	175	6	218	12	134	6	143	26	187	0		6	224	8	177
Nov	0		<1	106	0		10	154	2	156	1	142	3	210	0		2	238	3	158
Dec	0		<1	97	0		2	229	1	232	1	203	<1	189	0		6	203	1	209
Pinfish																				
Jan	0		<1	128	0		<1	91	0		0		66	107	0		1	117	8	107
Feb	0		1	118	0		4	113	8	96	2	91	31	112	56	26	6	86	9	83
Mar	0		0		0		36	102	13	103	14	83	104	110	0		27	93	24	105
Apr	0		<1	131	0		25	110	4	118	108	101	143	113	2	46	81	97	34	108
May	0		7	94	1	86	14	115	75	84	115	106	102	117	35	72	116	90	42	101
Jun	2	87	20	84	3	99	27	99	43	92	61	85	396	102	339	63	289	87	98	90
Jul	16	92	8	98	12	87	152	104	168	99	342	99	359	102	238	85	394	95	154	99
Aug	9	110	3	113	2	94	81	113	164	101	147	102	257	104	289	81	494	102	116	101
Sep	7	142	2	117	6	102	26	123	65	107	200	103	132	107	36	102	620	104	72	107
Oct	2	150	14	131	24	105	35	119	89	105	240	104	164	120	93	88	315	112	79	111
Nov	0		8	134	9	118	4	119	122	107	56	105	99	115	135	93	828	101	75	105
Dec	0		0		3	117	2	121	12	107	18	112	108	107	29	94	216	107	26	107

Table A.2. (Cont'd.)

Species / Month	Bay system																			
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Red drum																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		<1	53	0		0		0		0		0	
Apr	0		0		0		0		0		0		0		0		0		<1	53
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		0		0		0		0		0		0		0		0	
Jul	0		<1	594	0		0		0		0		0		0		0		0	
Aug	0		0		0		0		0		0		0		0		0		<1	594
Sep	0		0		0		0		0		0		0		0		<1	326	<1	326
Oct	0		0		0		0		0		0		0		0		<1	348	<1	348
Nov	0		0		0		0		0		0		0		0		<1	351	<1	351
Dec	0		<1	47	0		0		0		0		0		<1	40	0		<1	40
															0		0		<1	47
Sand seatrout																				
Jan	0		0		0		1	120	0		0		0		0		0		<1	120
Feb	0		<1	78	0		1	93	0		0		<1	171	0		5	116	1	105
Mar	0		2	120	0		1	133	1	100	0		1	168	0		0		1	125
Apr	0		2	135	0		2	147	0		0		0		0		1	109	1	138
May	0		17	97	2	57	4	82	1	100	1	84	1	186	0		1	195	7	97
Jun	1	111	11	101	1	73	10	99	1	113	2	110	3	95	0		8	64	7	99
Jul	5	111	18	95	2	67	11	126	0		1	143	25	110	0		6	132	12	106
Aug	2	97	<1	141	0		<1	109	0		1	155	6	149	0		<1	98	1	140
Sep	3	154	<1	146	1	149	<1	162	<1	135	<1	151	1	193	0		0		<1	159
Oct	6	93	4	169	<1	132	1	128	<1	174	<1	80	2	165	0		0		2	153
Nov	<1	89	3	146	<1	182	3	173	<1	81	M1	80	0		0		0		2	151
Dec	0		<1	221	0		<1	169	<1	107	1	98	<1	130	0		0		<1	167
Sheepshead																				
Jan	0		1	327	0		0		0		0		0		0		2	338	<1	330
Feb	1	183	1	364	0		0		0		0		0		0		0		<1	350
Mar	2	172	0		0		0		0		<1	99	0		0		0		<1	158
Apr	8	204	<1	495	0		0		0		0		0		0		0		<1	270
May	4	192	0		0		0		0		0		0		0		0		<1	192
Jun	2	189	0		0		0		0		0		0		0		0		<1	189
Jul	5	211	0		0		0		<1	69	0		0		0		0		<1	188
Aug	4	325	0		0		0		0		0		0		0		0		<1	325
Sep	4	246	0		0		0		0		0		0		0		0		<1	246
Oct	4	269	<1	262	0		0		<1	93	0		0		0		0		<1	248
Nov	5	342	<1	349	0		0		<1	97	0		0		0		<2	133	<1	279
Dec	1	387	0		0		0		0		0		0		0		0		<1	387

Table A.2. (Cont'd.).

Species / Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Southern flounder																				
Jan	0		0		0		<1	253	1	162	0		0		0		1	273	<1	214
Feb	6	160	0		0		0		1	171	0		0		0		0		<1	164
Mar	0		1	277	0		0		3	139	1	107	<1	280	0		1	99	1	161
Apr	1	166	0		0		0		2	95	1	112	0		1	291	1	123	<1	119
May	0		1	131	0		1	118	3	97	2	107	3	140	1	160	2	130	2	122
Jun	1	114	1	197	0		1	204	1	96	4	163	2	164	2	171	1	167	1	168
Jul	1	98	1	170	1	161	1	166	9	109	<1	130	6	172	0		1	240	2	139
Aug	4	84	0		0		0		2	103	<1	171	0		2	188	3	160	<1	127
Sep	11	95	<1	122	0		0		<1	181	0		2	154	4	198	1	266	1	142
Oct	6	124	0		0		0		2	188	5	133	<1	179	0		2	172	1	149
Nov	0		0		0		0		1	137	1	148	0		0		<1	142	<1	140
Dec	1	184	<1	212	0		<1	151	0		<1	175	<1	302	0		0		<1	203
Spanish mackerel																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		0		0		0		0		0		0		0		0		0	
Apr	0		0		0		0		0		0		0		0		0		0	
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		0		<1	154	0		0		0		0		0		0	
Jul	6	159	1	159	0		0		0		0		0		0		0		<1	154
Aug	<1	189	3	215	0		0		0		<1	169	<1	235	0		0		1	159
Sep	0		0		0		0		0		0		0		0		0		1	213
Oct	<1	136	<1	179	0		<1	150	0		0		0		0		0		0	
Nov	0		0		0		0		0		0		0		0		0		<1	163
Dec	0		0		0		0		0		0		0		0		0		0	
Spot																				
Jan	1	154	1	124	0		89	128	4	129	4	103	1	145	0		0		21	128
Feb	16	133	9	136	1	35	30	38	7	138	20	52	55	132	1	38	5	108	19	128
Mar	4	157	17	147	0		35	140	44	99	105	79	256	147	1	50	56	86	59	130
Apr	4	150	1	143	22	87	90	130	350	84	154	90	74	103	37	105	141	94	93	98
May	9	120	16	97	101	95	218	117	240	88	183	82	414	108	1	53	111	91	151	103
Jun	6	106	17	84	0		266	110	164	89	150	82	112	115	12	111	195	95	117	102
Jul	6	112	13	115	9	94	217	109	175	94	154	89	822	104	104	96	74	95	189	103
Aug	6	128	6	119	2	105	45	122	115	103	159	101	93	109	97	112	75	106	58	109
Sep	6	121	6	118	5	111	10	127	25	111	209	110	22	112	146	109	222	109	43	111
Oct	11	142	4	124	5	112	31	119	149	113	623	111	66	124	215	112	42	121	96	113
Nov	4	135	8	132	<1	107	13	134	94	124	47	126	9	132	86	114	207	114	35	122
Dec	2	125	2	138	3	101	89	130	26	126	166	128	49	115	147	113	120	121	55	124

Table A.2. (Contd.)

Species / Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Spotted seatrout																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	1	471	0		0		0		0		0		<1	144	0		0		<1	282
Apr	0		0		0		0		0		0		0		0		0		0	
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		0		0		0		0		0		0		1	31	0		<1	31
Jul	0		0		0		0		0		0		0		0		0		0	
Aug	0		0		0		0		0		0		0		0		0		0	
Sep	0		0		0		0		0		0		<1	45	0		0		<1	45
Oct	0		0		0		<1	135	<1	153	0				0		0		<1	142
Nov	0		<1	118	0		0		<1	198	0				<1	197	0		<1	153
Dec	0		0		0		<1	85	0		<1	180			0		0		<1	130
Striped mullet																				
Jan	2	248	1	180	0		0		<1	179	0		0		1	158	0		1	188
Feb	0		1	172	0		<1	139	0		0		0		0		0		<1	167
Mar	1	258	1	297	0		0		<1	187	0		<1	157	0		0		<1	270
Apr	0		1	26	0		0		0		0		0		0		0		<1	26
May	0		0		0		0		0		0		0		0		0		0	
Jun	0		<1	162	0		0		0		0		0		0		0		<1	162
Jul	0		0		0		0		<1	105	0		<1	209	0		0		<1	155
Aug	0		0		0		0		0		0		1	275	0		0		<1	275
Sep	0		0		0		0		<1	134	<1	146	1	231	<1	377	0		<1	203
Oct	<1	148	<1	155	0		<1	145	<1	167	2	172	0		<1	342	0		<1	171
Nov	0		<1	293	2	130	<1	141	0		6	152	<1	160	0		0		<1	179
Dec	0		1	210	<1	142	0		4	130	<1	136	<1	394	0		0		<1	172
Other finfishes																				
Jan	1	37	6	56	0		50	62	5	50	17	49	14	45	51	29	4	83	19	62
Feb	7	205	19	75	2	205	34	84	15	71	19	57	26	64	424	35	31	116	2	94
Mar	9	128	34	85	2	158	56	76	25	89	49	78	58	112	1	138	55	148	39	85
Apr	4	79	25	178	5	147	81	94	26	86	27	107	29	117	12	33	110	141	39	150
May	4	108	13	200	6	137	65	113	19	95	36	110	26	137	68	43	102	139	34	85
Jun	12	63	20	140	5	79	109	121	27	69	30	63	69	137	46	54	93	127	51	127
Jul	45	89	20	98	16	89	70	119	105	73	48	108	188	121	26	95	195	128	72	108
Aug	29	95	43	86	4	101	75	127	34	120	44	95	84	121	77	81	176	144	60	111
Sep	47	86	31	79	5	143	35	137	22	107	41	139	38	132	145	36	154	129	44	105
Oct	47	73	13	106	4	90	37	86	49	94	35	128	86	120	11	41	109	129	38	101
Nov	1	40	28	105	10	65	43	73	35	127	19	99	21	100	72	57	178	130	38	94
Dec	9	56	12	74	8	30	44	70	57	61	41	92	18	92	22	28	34	146	29	76

Table A.2. (Cont'd.)

Species / Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Upper Laguna Madre No./h	Upper Laguna Madre Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Total finfishes																				
Jan	5	200	23	88	1	96	145	107	10	88	21	61	81	97	52	33	8	179	54	93
Feb	75	146	51	116	8	117	76	108	35	102	85	53	117	117	482	31	49	112	88	114
Mar	66	153	150	114	4	183	154	111	175	99	192	84	456	134	8	147	168	112	182	110
Apr	78	123	184	131	116	113	381	115	656	96	398	105	298	114	168	70	394	111	319	116
May	99	137	124	118	154	105	667	119	526	97	468	99	691	120	117	61	580	114	402	115
Jun	72	101	147	111	15	109	658	119	314	97	314	88	728	128	422	67	639	105	390	116
Jul	238	105	147	107	74	104	567	119	533	102	606	103	1,674	121	591	95	790	117	552	115
Aug	114	121	76	107	17	117	266	128	408	111	456	113	569	124	682	101	839	126	310	121
Sep	115	120	78	112	25	124	109	139	154	112	497	116	271	131	456	102	1,086	121	211	121
Oct	116	117	48	136	35	107	127	115	403	107	1,028	121	355	131	588	108	546	129	273	124
Nov	16	196	58	125	24	94	76	102	269	121	141	117	135	118	455	101	1,282	121	172	121
Dec	26	83	44	114	15	70	161	105	170	81	364	96	190	106	395	109	382	120	158	95
SHELLFISHES																				
Blue crab																				
Jan	2	118	6	61	4	82	1	89	18	70	5	38	0		0		3	57	5	66
Feb	20	45	16	58	4	34	1	70	77	53	18	43	3	73	0		7	67	18	64
Mar	6	72	14	62	6	90	3	55	119	67	15	42	21	60	5	52	26	63	25	63
Apr	2	202	157	65	29	58	11	69	90	66	60	58	15	77	11	61	78	71	75	66
May	4	76	73	77	59	76	13	96	38	78	36	83	42	91	4	68	77	100	43	82
Jun	10	119	91	83	45	85	6	105	25	90	27	94	18	101	5	90	47	89	41	86
Jul	5	148	4	102	22	89	2	125	16	85	7	99	39	116	15	108	65	106	13	107
Aug	5	146	3	88	8	100	4	138	11	89	11	112	15	122	9	115	42	102	8	109
Sep	8	119	<1	70	2	148	<1	92	14	99	4	101	3	99	4	120	16	102	4	100
Oct	2	105	2	107	1	60	1	140	7	74	7	93	2	90	1	134	25	99	4	96
Nov	2	182	3	66	1	39	1	77	16	94	6	69	3	101	3	110	14	107	5	90
Dec	2	70	5	58	2	132	3	51	36	61	10	57	5	124	<1	128	1	124	8	64
Brown shrimp																				
Jan	0		0		0		0		0		0		0		0		0		0	
Feb	0		0		0		0		0		0		0		0		0		0	
Mar	0		1	86	0		1	148	0		12	32	12	25	0		8	61	3	41
Apr	0		1	109	2	65	3	66	190	82	61	58	14	62	14	55	234	80	42	77
May	1	93	109	99	176	94	182	93	377	91	337	88	148	86	78	90	9	72	171	92
Jun	12	115	10	96	46	102	87	102	370	96	279	98	37	92	9	100	43	89	98	97
Jul	2	115	10	101	250	103	23	101	84	107	12	106	74	103	10	110	4	62	30	104
Aug	0		<1	99	5	120	6	110	29	99	30	107	10	105	6	97	2	57	9	103
Sep	0		<1	76	0		2	93	3	95	4	98	7	64	2	98	6	67	2	82
Oct	<1	78	<1	90	0		2	92	70	80	60	91	4	84	0		7	59	15	83
Nov	0		0		2	53	<1	103	42	92	79	91	8	97	26	101	4	80	14	92
Dec	0		<1	94	0		2	102	87	92	63	93	18	101	4	92	1	83	19	93

Table A.2. (Cont'd.)

Species / Month	Bay system																	
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length	No./h	Length
Pink shrimp																				
Jan	0		0		0		1	78	<1	82	1	54	1	92	0		0		<1	78
Feb	0		0		0		0		0		1	96	1	87	1	78	1	73	<1	86
Mar	0		0		0		2	105	3	83	3	83	16	109	1	108	0		3	104
Apr	0		0		0		2	112	3	111	54	109	6	98	4	103	11	98	6	107
May	0		0		0		1	118	0		176	81	1	114	1	101	0		14	81
Jun	0		<1	84	0		0		<1	97	0		0		0		0		<1	88
Jul	0		0		0		0		0		0		1	88	0		0		<1	88
Aug	0		0		0		0		0		0		<1	148	0		0		<1	148
Sep	0		0		0		0		0		1	93	2	53	0		0		<1	63
Oct	0		0		0		0		0		6	72	1	95	<1	76	<1	112	<1	79
Nov	0		0		0		0		3	98	5	91	6	81	25	63	16	73	3	75
Dec	0		0		0		<1	93	<1	97	35	96	16	95	0		4	98	5	96
White shrimp																				
Jan	1	74	0		0		1	81	0		0		0		0		0		<1	80
Feb	0		5	98	0		4	99	0		0		1	105	0		0		2	99
Mar	0		14	103	1	106	1	122	0		1	22	1	116	0		0		5	104
Apr	1	86	11	113	3	112	2	123	<1	41	2	125	0		0		0		4	114
May	11	111	6	132	2	165	7	158	0		<1	145	<1	165	0		0		4	140
Jun	0		<1	75	4	84	0		6	87	1	70	35	72	0		0		5	74
Jul	17	98	41	99	96	101	11	112	33	99	2	102	31	115	2	95	0		25	103
Aug	71	102	11	121	11	135	76	124	128	102	21	111	11	111	22	104	0		43	113
Sep	59	111	2	83	6	125	5	126	98	101	11	131	49	105	22	102	1	96	24	105
Oct	192	97	25	96	30	102	23	115	123	95	51	109	32	108	95	97	1	133	50	100
Nov	8	81	31	85	20	89	36	99	100	94	36	111	82	93	77	103	2	130	48	94
Dec	238	73	17	85	0		29	101	77	87	36	98	18	95	38	99	5	106	39	87

Table A.3.A. Monthly mean catch rates (No./h) and mean total lengths (mm) of select finfishes and shellfishes caught with 6.1-m trawls in the Texas Territorial Sea during January-December 1990.

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
FINFISHES													
Atlantic croaker	Jan	36	60	12	49	1	152	1	105	0		10	161
	Feb	16	91	18	55	0		0		0		7	71
	Mar	53	83	49	71	15	75	0		0		24	77
	Apr	211	93	233	96	31	105	6	108	0		98	95
	May	875	109	778	109	22	122	69	122	28	125	357	102
	Jun	357	123	277	120	7,116	124	304	125	14	120	1,692	124
	Jul	472	140	265	131	508	140	368	137	9	138	328	138
	Aug	21	158	27	144	58	144	18	139	1	154	26	146
	Sep	52	156	19	152	13	159	19	149	1	141	19	154
	Oct	1	151	0		2	149	0		0		1	149
	Nov	0		0		2	127	0		0		<1	127
	Dec	2	119	0		1	143	<1	50	0		1	117
Black drum	Jan	0		<1	145	0		0		0		<1	145
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		<1	912	0		0		0		<1	912
Gafftopsail catfish	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	<1	218	0		0		0		0		<1	218
	Jun	0		0		0		0		0		0	
	Jul	35	115	2	123	0		0		0		7	116
	Aug	2	147	0		0		0		0		<1	147
	Sep	<1	168	0		0		0		0		<1	168
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
Gulf menhaden	Jan	<1	140	0		0		0		0		<1	140
	Feb	0		0		0		0		0		0	
	Mar	10	129	9	123	0		0		0		4	126
	Apr	3	137	0		<1	151	0		0		1	138
	May	4	146	11	141	1	162	0		0		3	143
	Jun	1	161	10	149	0		1	162	0		3	151
	Jul	3	101	12	127	3	111	0		0		4	120
	Aug	<1	132	<1	132	3	108	0		0		1	113
	Sep	1	119	4	140	0		0		0		1	135
	Oct	0		0		0		0		0		0	
	Nov	1	165	0		<1	211	0		0		<1	175
	Dec	0		1	185	0		0		0		<1	185
Hardhead catfish	Jan	0		0		0		3	371	3	179	1	264
	Feb	0		0		17	165	6	199	1	100	5	170
	Mar	0		15	153	3	105	0		0		4	146
	Apr	1	236	1	237	0		0		0		1	236
	May	1	217	0		1	286	0		0		<1	241
	Jun	6	260	1	244	1	232	4	215	0		2	240
	Jul	19	170	1	201	1	202	3	203	0		5	177
	Aug	15	176	1	224	1	194	1	240	0		4	185
	Sep	10	115	1	174	2	226	2	242	0		3	152
	Oct	24	122	0		1	163	4	205	0		6	135
	Nov	<1	94	6	108	1	202	1	203	0		2	134
	Dec	0		0		3	123	0		0		1	123
King mackerel	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		1	206	0		0		0		<1	206
	Aug	0		0		<1	233	0		0		<1	233
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		<1	190	0		0		0		<1	190

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
Pinfish	Jan	0		0		3	87	3	101	5	103	2	99
	Feb	0		0		3	108	19	106	5	90	5	103
	Mar	0		1	136	0		0		1	109	<1	122
	Apr	0		0		0		0		<1	107	<1	107
	May	0		0		1	130	<1	98	2	93	1	104
	Jun	1	94	3	107	10	103	40	100	6	95	12	100
	Jul	1	78	5	110	7	109	100	102	<1	84	22	103
	Aug	0		0		18	115	35	106	0		11	109
	Sep	0		0		6	117	10	122	1	108	3	120
	Oct	0		0		<1	131	4	129	0		1	130
	Nov	0		0		1	104	4	117	0		1	115
	Dec	0		0		1	111	4	120	1	132	1	120
Red drum	Jan	1	61	0		0		0		0		<1	61
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	
Red snapper	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		<1	111	<1	111
	Mar	0		0		0		0		1	76	<1	76
	Apr	0		0		<1	85	0		2	103	<1	100
	May	0		0		1	120	13	109	4	113	4	111
	Jun	0		0		0		3	119	3	120	1	119
	Jul	0		0		0		1	144	4	132	1	135
	Aug	0		0		<1	63	<1	145	1	143	<1	129
	Sep	0		0		0		4	85	<1	171	1	92
	Oct	0		0		3	89	16	103	1	112	4	102
	Nov	0		0		0		2	93	<1	85	<1	92
	Dec	0		0		0		1	69	2	59	1	63

Table A.3.A. (.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
Sand seatrout	Jan	7	115	8	117	24	162	2	128	1	84	9	142
	Feb	4	158	4	153	6	155	1	159	3	146	4	154
	Mar	7	113	1	85	4	197	2	202	3	103	3	144
	Apr	5	158	35	109	5	136	0		<1	116	9	117
	May	18	131	14	142	6	145	<1	212	<1	117	8	138
	Jun	146	152	7	108	7	82	0		<1	150	32	147
	Jul	323	136	7	126	1	133	17	107	<1	181	68	135
	Aug	2	140	7	169	<1	195	1	176	0		2	165
	Sep	26	151	2	154	5	163	<1	242	0		7	154
	Oct	1	170	<1	160	3	204	0		0		1	189
	Nov	17	85	7	128	7	72	1	217	<1	76	7	93
	Dec	47	100	4	150	15	123	1	181	0		13	110
Sheepshead	Jan	0		<1	196	0		0		0		<1	196
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	
Southern flounder	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		<1	250	<1	250
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	1	176	0		1	214	<1	140	0		<1	185
	Jun	<1	209	0		0		<1	187	0		<1	198
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		<1	208	0		0		<1	208

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
Spanish mackerel	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		1	179	0		<1	175	0		<1	178
	Jul	2	174	8	176	1	225	<1	209	0		2	181
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		1	130	0		0		0		<1	130
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	
Spot	Jan	3	134	8	125	132	134	46	138	1	138	39	134
	Feb	13	136	1	140	11	145	22	134	3	141	10	138
	Mar	2	142	1	133	2	178	0		0		1	156
	Apr	16	145	8	98	1	160	11	124	1	114	7	128
	May	61	115	183	117	29	134	64	121	29	108	74	118
	Jun	12	114	71	129	46,157	125	374	113	9	108	9,837	125
	Jul	6	132	24	126	47	117	379	116	1	117	91	117
	Aug	0		1	118	24	131	49	117	0		15	122
	Sep	0		0		32	130	171	118	0		40	120
	Oct	0		0		1	172	1	148	0		<1	160
	Nov	0		0		1	148	1	148	0		<1	148
	Dec	0		<1	158	2	156	3	150	1	153	1	153
Spotted seatrout	Jan	1	110	<1	160	<1	122	1	144	0		<1	132
	Feb	0		0	0	0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
Striped mullet	Jan	0		0		0		0		0		0	
	Feb	0		0		0		0		0		0	
	Mar	0		0		0		0		0		0	
	Apr	0		0		0		0		0		0	
	May	0		0		0		0		0		0	
	Jun	0		0		0		0		0		0	
	Jul	0		0		0		0		0		0	
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		0		0	
	Oct	0		0		0		0		0		0	
	Nov	0		0		0		0		0		0	
	Dec	0		0		0		0		0		0	
Other finfishes	Jan	35	79	64	65	143	102	65	97	61	105	75	91
	Feb	67	93	65	87	118	92	64	87	22	96	68	92
	Mar	121	98	163	82	269	99	174	96	49	104	158	98
	Apr	404	116	137	97	507	111	148	107	86	95	260	101
	May	84	143	150	125	450	126	241	112	97	96	208	133
	Jun	286	216	147	127	9,588	212	215	114	158	108	2,182	211
	Jul	159	112	181	142	515	149	535	109	67	96	295	113
	Aug	19	94	121	111	251	122	72	111	42	100	104	109
	Sep	1,278	96	118	105	82	134	114	119	100	96	333	102
	Oct	67	104	791	95	71	113	68	114	44	105	214	109
	Nov	102	76	40	94	161	101	78	121	38	112	85	89
	Dec	149	81	122	92	140	110	58	117	37	84	102	89
Total finfishes	Jan	82	76	93	77	303	116	120	117	72	108	136	78
	Feb	100	101	90	86	153	107	111	105	35	106	99	93
	Mar	192	97	238	87	293	100	176	98	54	103	194	93
	Apr	641	114	415	98	545	111	165	108	94	95	377	106
	May	1,044	122	1,134	122	511	127	389	116	160	103	655	121
	Jun	808	176	518	132	62,877	184	942	119	190	109	13,762	179
	Jul	1,019	132	506	137	1,083	146	1,404	113	82	103	824	133
	Aug	60	136	158	121	355	126	177	116	45	103	163	125
	Sep	1,368	99	134	111	139	137	320	123	103	97	407	111
	Oct	93	111	793	95	80	117	93	118	46	105	227	115
	Nov	120	79	53	100	175	100	86	123	39	111	96	100
	Dec	198	86	128	97	162	113	68	118	40	85	120	97

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
SHELLFISHES													
Blue crab	Jan	43	39	1	39	0		0		0		9	39
	Feb	1	59	<1	29	1	4	0		0		1	47
	Mar	8	42	19	44	0		0		0		5	43
	Apr	12	82	19	71	1	61	1	159	0		7	72
	May	61	93	6	86	0		2	94	0		14	93
	Jun	34	98	1	69	3	132	4	123	1	133	9	103
	Jul	15	130	2	125	5	124	7	129	8	119	7	127
	Aug	0		<1	156	3	135	1	138	3	144	2	140
	Sep	0		0		0		<1	165	1	138	<1	148
	Oct	<1	48	<1	53	0		0		0		<1	51
	Nov	<1	74	<1	76	0		0		0		<1	75
	Dec	1	50	0		0		0		0		<1	50
Brown shrimp	Jan	<1	102	0		0		0		<1	91	<1	97
	Feb	0		1	105	4	105	0		0		1	105
	Mar	0		<1	111	1	110	0		3	123	<1	120
	Apr	<1	100	3	83	1	104	3	90	2	75	2	86
	May	244	98	45	107	42	99	78	100	205	106	120	102
	Jun	112	108	54	111	585	106	106	111	26	100	182	107
	Jul	1	98	<1	113	2	109	1	116	<1	120	1	114
	Aug	0		8	104	53	117	1	102	2	129	14	116
	Sep	0		0		6	106	4	113	<1	137	2	109
	Oct	3	82	0		1	120	0		<1	122	1	95
	Nov	<1	100	0		12	101	7	114	2	107	4	106
	Dec	0		<1	70	4	101	9	112	1	112	2	107
Pink shrimp	Jan	0		0		<1	118	1	121	4	113	1	114
	Feb	0		<1	108	0		<1	105	0		<1	107
	Mar	0		0		8	85	1	119	17	120	5	109
	Apr	0		1	102	5	122	15	114	0		4	115
	May	0		0		<1	129	5	116	9	115	3	116
	Jun	0		0		<1	88	0		1	134	<1	118
	Jul	0		0		0		4	130	0		1	130
	Aug	0		0		0		0		0		0	
	Sep	0		0		0		0		<1	110	<1	110
	Oct	0		0		0		0		0		0	
	Nov	0		0		<1	112	<1	134	10	114	2	114
	Dec	0		0		0		3	119	1	108	1	117

Table A.3.A. (Cont'd.)

Species	Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	Port O'Connor No./h	Port O'Connor Length	Aransas No./h	Aransas Length	Port Isabel No./h	Port Isabel Length	Coastwide No./h	Coastwide Length
White shrimp	Jan	30	95	15	81	16	104	15	93	7	117	17	96
	Feb	6	128	10	129	43	113	7	92	1	100	14	114
	Mar	8	113	40	114	23	108	3	148	4	146	16	115
	Apr	16	106	4	129	5	154	3	163	<1	138	6	125
	May	11	128	7	152	3	161	11	159	2	156	7	147
	Jun	2	111	2	182	1	172	16	168	4	164	5	164
	Jul	3	131	1	120	3	181	3	170	0		2	158
	Aug	0		0		10	154	0		0		2	154
	Sep	7	101	<1	147	2	149	2	169	0		2	125
	Oct	4	106	1	108	2	140	0		0		1	118
	Nov	40	103	42	113	21	118	<1	154	1	141	21	111
	Dec	88	101	6	109	52	111	10	124	1	116	32	106

Table A.3.B. Mean catch rates of select shellfishes caught with Gulf trawls during January-August 1991.

Bay system / Month	Species			
	Blue crab	Brown shrimp	Pink shrimp	White shrimp
Sabine Lake				
Jan	10	<1	0	31
Feb	22	0	0	6
Mar	45	0	0	9
Apr	46	<1	0	16
May	68	248	0	12
Jun	24	115	0	2
Jul	0	45	0	3
Aug	3	0	0	0
Galveston				
Jan	3	0	<1	15
Feb	2	2	0	28
Mar	9	<1	3	41
Apr	28	3	0	4
May	26	46	0	7
Jun	7	55	0	2
Jul	1	5	0	1
Aug	0	8	0	0
Port O'Connor				
Jan	0	0	0	16
Feb	0	4	0	44
Mar	1	1	3	24
Apr	1	1	6	5
May	4	43	6	3
Jun	1	395	1	1
Jul	1	156	0	3
Aug	1	54	0	10
Port Aransas				
Jan	0	0	0	15
Feb	<1	0	<1	7
Mar	0	0	27	3
Apr	3	4	19	3
May	7	80	15	11
Jun	<1	108	1	16
Jul	13	503	0	3
Aug	4	2	0	0

Table A.3.B. (Cont'd.)

Bay system / Month	Species			
	Blue crab	Brown shrimp	Pink shrimp	White shrimp
Port Isabel				
Jan	0	.3	<1	7
Feb	0	0	1	1
Mar	0	4	1	4
Apr	0	3	0	<1
May	0	209	0	2
Jun	<1	26	0	4
Jul	1	4	13	0
Aug	<1	2	<1	0
Coastwide				
Jan	3	1	<1	17
Feb	5	1	<1	19
Mar	11	1	7	17
Apr	16	2	5	5
May	21	124	4	7
Jun	11	137	<1	5
Jul	3	142	3	2
Aug	2	13	<1	2

Table A.4. Monthly mean catch rates (No./h) and mean total lengths (mm)[a] by size[b] of Eastern oyster caught with 46.0-cm wide dredges on "reef" stations in Texas bay systems during January-December 1990.

Size[b] / Month	Bay system: Sabine Lake No./h	Sabine Lake Length	Galveston No./h	Galveston Length	East Matagorda No./h	East Matagorda Length	Matagorda No./h	Matagorda Length	San Antonio No./h	San Antonio Length	Aransas No./h	Aransas Length	Corpus Christi No./h	Corpus Christi Length	Lower Laguna Madre No./h	Lower Laguna Madre Length	Coastwide No./h	Coastwide Length
Spat																		
Jan	825		1,235		419		350		360		2,991		108		690		980	
Feb	340		688		606		175		736		715		298		175		512	
Mar	702		475		112		345		801		1,370		14		347		551	
Apr	297		272		626		542		1,073		2,729		300		1,032		773	
May	1,212		492		788		681		1,012		1,958		0		37		779	
Jun	1,000		1,659		3,080		5,254		1,773		182		18		3,210		2,059	
Jul	1,042		2,480		2,601		724		1,737		1,340		342		0		1,507	
Aug	1,022		2,249		1,156		3,776		2,385		3,554		247		200		2,270	
Sep	1,060		4,612		1,173		1,568		1,190		784		144		75		2,089	
Oct	477		3,425		2,454		713		591		487		212		2,160		1,568	
Nov	250		4,170		1,329		1,091		1,113		1,791		454		1,988		2,029	
Dec	1,407		4,008		4,223		243		635		1,414		70		217		1,855	
Small																		
Jan	590	47	1,598	41	654	47	441	44	2,169	53	1,268	47	375	40	0		1,098	45
Feb	125	55	1,880	43	347	49	401	52	3,187	50	1,319	46	1,820	46	37	45	1,393	46
Mar	225	57	2,099	43	1,068	52	458	47	2,513	54	1,064	45	669	44	75	62	1,290	47
Apr	37	64	4,069	46	675	51	260	48	1,965	51	1,521	45	294	43	0		1,769	47
May	1,241	43	4,699	46	1,043	53	192	52	1,321	50	1,154	45	405	48	25	60	1,958	47
Jun	1,530	37	2,117	45	695	52	440	51	930	56	1,257	44	655	45	25	57	1,218	46
Jul	669	47	1,744	49	583	48	347	49	1,262	60	1,755	49	600	44	0		1,104	50
Aug	1,134	43	1,785	52	298	48	504	55	687	57	1,555	42	635	40	62	47	1,083	49
Sep	804	46	2,825	45	540	53	255	42	672	56	2,803	47	303	47	0		1,456	46
Oct	1,009	41	5,072	44	703	50	586	40	538	56	880	43	1,174	36	1,100	46	2,098	43
Nov	1,999	52	3,905	45	973	48	456	45	491	49	1,517	46	890	37	375	40	1,834	45
Dec	1,265	58	4,155	44	1,124	42	664	50	1,078	51	1,855	42	717	40	62	47	1,978	45
Market																		
Jan	247	98	131	94	82	85	112	89	494	89	136	81	10	97	0		161	91
Feb	225	100	80	89	48	91	123	90	597	91	176	87	228	94	25	81	184	91
Mar	300	90	73	98	115	89	99	94	684	88	81	79	95	95	0		171	90
Apr	225	94	407	89	113	86	44	96	285	89	46	88	26	108	0		198	90
May	272	105	136	86	154	88	144	89	217	89	40	83	86	85	12	121	137	90
Jun	283	92	79	98	161	93	166	90	426	91	84	82	55	82	0		152	91
Jul	856	96	97	89	81	84	139	85	440	83	259	83	116	87	0		226	88
Aug	429	102	251	87	58	91	136	88	630	86	46	84	115	89	0		231	90
Sep	484	101	64	82	66	89	38	88	371	86	153	80	57	90	0		139	90
Oct	241	89	251	89	129	82	25	87	433	90	82	85	57	88	12	76	175	89
Nov	201	92	338	84	190	87	131	87	249	95	65	84	43	91	0		195	87
Dec	535	92	240	86	107	86	211	91	509	86	20	81	67	90	0		231	88

[a]All oysters except spat were measured.
[b]Spat (5-25 mm), small (26-75 mm), market (≥76 mm).

Table A.5. Monthly mean catch rates (No./ha) and mean total lengths (mm) of select finfishes and shellfishes caught with 60.9-m beach seines in 5 Texas gulf shoreline areas during May-November 1990.

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
FINFISHES												
Atlantic croaker												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	1	271	0		0		0		0		<1	271
Aug	4	257	0		0		0		0		<1	257
Sep	0		0		0		0		0		0	
Oct	0		<1	250	0		0		<1	230	<1	240
Nov	0		0		0		0		0		0	
Black drum												
May	0		<1	491	0		2	357	<1	605	<1	390
Jun	2	319	2	313	1	301	1	379	2	326	1	321
Jul	1	275	<1	194	3	276	1	322	<1	270	2	277
Aug	3	276	2	196	3	284	<1	227	0		2	266
Sep	0		3	230	2	255	3	221	4	219	2	234
Oct	1	317	1	215	2	391	4	227	0		2	305
Nov	7	346	<1	241	1	329	1	305	0		2	335
Gafftopsail catfish												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	<1	331	0		0		0		0		<1	331
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Gulf menhaden												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		<1	214	0		0		0		<1	214
Oct	0		0		0		<1	237	2	234	<1	235
Nov	0		0		0		0		0		0	
Hardhead catfish												
May	10	342	0		2	320	<1	282	0		3	336
Jun	13	302	3	337	9	346	3	352	0		7	327
Jul	4	342	0		6	347	1	356	0		3	346
Aug	15	332	1	344	1	330	1	336	<1	532	4	335
Sep	1	288	1	213	3	358	2	357	0		2	345
Oct	0		0		<1	319	<1	367	0		<1	350
Nov	0		0		0		0		0		0	

Table A.5. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
King mackerel												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Pinfish												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		<1	172	0		<1	172
Sep	0		<1	155	<1	157	<1	153	0		<1	156
Oct	0		0		<1	141	1	166	0		<1	160
Nov	0		0		0		0		0		0	
Red drum												
May	0		0		0		0		0		0	
Jun	0		<1	680	0		<1	450	<1	364	<1	456
Jul	0		<1	323	<1	311	<1	315	<1	347	<1	324
Aug	0		0		<1	430	<1	327	0		<1	402
Sep	0		0		<1	365	0		0		<1	365
Oct	0		0		<1	383	0		0		<1	383
Nov	0		0		<1	405	0		0		<1	405
Sand seatrout												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	<1	291	<1	259	<1	287	0		0		<1	279
Sep	0		<1	333	0		0		0		<1	333
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Sheepshead												
May	0		0		0		0		0		0	
Jun	0		<1	376	0		0		0		<1	376
Jul	0		<1	388	<1	247	0		1	298	<1	302
Aug	0		0		<1	378	<1	322	0		<1	354
Sep	0		1	383	0		0		0		<1	383
Oct	0		0		0		0		0		0	
Nov	0		<1	318	0		0		0		<1	318

Table A.5. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
Southern flounder												
May	0		0		0		0		0		0	
Jun	0		<1	251	0		0		0		<1	251
Jul	<1	233	1	222	0		0		0		<1	227
Aug	0		2	190	<1	226	<1	167	0		<1	188
Sep	0		0		0		<1	167	<1	203	<1	223
Oct	2	272	2	221	0		0		<1	231	<1	255
Nov	0		2	242	0		0		0		<1	242
Spanish mackerel												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		<1	415	0		<1	393	<1	405
Oct	0		0		0		<1	477	<1	585	<1	550
Nov	0		0		0		0		0		0	
Spot												
May	0		0		0		<1	239	0		<1	239
Jun	0		1	211	<1	344	0		1	225	<1	245
Jul	0		0		0		0		5	223	<1	223
Aug	<1	319	<1	234	0		0		3	236	<1	250
Sep	0		<1	220	0		0		0		<1	220
Oct	0		<1	255	<1	148	8	211	0		2	209
Nov	0		0		0		0		<1	347	<1	347
Spotted seatrout												
May	1	451	4	415	<1	507	0		0		1	442
Jun	6	424	<1	486	1	404	2	482	<1	383	2	431
Jul	1	447	1	432	<1	399	<1	415	2	421	1	431
Aug	4	403	4	385	<1	463	1	410	<1	485	2	410
Sep	0		2	409	1	416	<1	568	<1	515	<1	431
Oct	<1	478	<1	487	0		0		<1	620	<1	521
Nov	1	558	<1	434	0		<1	390	0		<1	517
Striped mullet												
May	5	380	94	340	2	330	3	341	4	283	16	343
Jun	4	369	92	343	14	328	6	348	1	342	20	341
Jul	84	358	20	328	12	334	24	346	11	373	32	351
Aug	88	339	40	323	<1	325	0		<1	375	26	335
Sep	74	345	60	325	4	344	0		1	376	27	338
Oct	43	359	21	339	<1	358	2	388	2	400	14	356
Nov	5	368	22	354	2	359	2	366	22	376	8	364

Table A.5. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
Other finfishes												
May	0		1	161	1	215	2	317	1	292	1	243
Jun	1	150	2	174	1	243	2	276	3	188	1	212
Jul	9	142	5	141	1	217	2	244	3	201	4	166
Aug	2	203	8	188	3	195	3	212	2	182	3	195
Sep	1	293	14	158	6	210	18	158	3	298	8	182
Oct	1	241	2	215	20	259	19	181	3	286	11	234
Nov	0		1	260	<1	442	1	183	7	226	<1	258
Total finfishes												
May	16	364	99	370	6	317	7	335	6	379	21	350
Jun	25	339	101	338	26	335	14	362	8	276	32	337
Jul	101	336	29	289	24	323	30	334	24	316	43	328
Aug	116	327	59	276	10	287	6	264	6	284	40	311
Sep	76	343	83	275	17	289	24	191	9	296	40	298
Oct	48	348	28	314	25	275	36	211	9	350	31	295
Nov	13	377	27	339	4	369	4	300	29	338	12	349
SHELLFISHES												
Blue crab												
May	3	125	9	102	1	114	0		0		2	111
Jun	16	140	31	143	<1	127	2	135	2	128	9	141
Jul	8	149	4	124	<1	148	0		0		3	144
Aug	0		6	150	<1	157	0		<1	128	<1	149
Sep	1	167	<1		<1	143	<1	110	0		<1	156
Oct	2	138	0		0		0		0		<1	138
Nov	6	132	0		0		0		0		1	132

Table A.6. Monthly mean catch rates (No./ha) and mean total lengths (mm) of select finfishes and shellfishes caught with 18.3-m bag seines in 5 Texas gulf shoreline areas during May-November 1990.

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Len
FINFISHES												
Atlantic croaker												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		5	138	0		0		0		<1	138
Aug	6	171	0		0		0		0		1	171
Sep	0		3	30	0		0		0		<1	30
Oct	0		0		0		0		11	157	<1	157
Nov	0		0		0		3	22	0		<1	22
Black drum												
May	0		0		0		0		0		0	
Jun	0		15	102	5	99	0		0		4	101
Jul	0		0		3	143	0		0		<1	143
Aug	22	154	11	170	0		0		0		7	158
Sep	0		7	175	0		0		0		<1	175
Oct	0		4	176	0		0		0		<1	176
Nov	0		0		0		0		0		0	
Gafftopsail catfish												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Gulf menhaden												
May	7	52	0		18	54	0		0		8	53
Jun	0		0		19	59	0		33	88	10	70
Jul	7	62	0		0		0		0		2	62
Aug	6	63	0		0		3	81	6	197	2	100
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		78	70	9	70
Nov	0		0		0		3	86	0		<1	86
Hardhead catfish												
May	0		0		0		0		0		0	
Jun	0		163	145	0		0		0		23	145
Jul	47	120	0		0		0		0		11	120
Aug	22	131	0		0		0		0		5	131
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	

Table A.6. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
King mackerel												
May	0		0		2	38	0		0		<1	38
Jun	0		0		14	55	0		0		5	55
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		5	32	0		0		2	32
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Pinfish												
May	0		0		0		0		0		0	
Jun	0		0		5	65	0		0		1	65
Jul	0		0		0		3	52	0		<1	52
Aug	0		0		0		0		0		0	
Sep	0		0		5	129	0		0		2	129
Oct	0		0		0		0		11	133	<1	133
Nov	0		0		0		0		0		0	
Red drum												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Sand seatrout												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		2	124	0		0		<1	124
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Sheepshead												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	

Table A.6. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
Southern flounder												
May	0		14	85	2	141	0		0		3	100
Jun	0		3	174	2	193	0		0		1	186
Jul	0		0		0		0		0		0	
Aug	0		0		2	204	0		0		<1	204
Sep	0		0		2	195	0		0		<1	195
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Spanish mackerel												
May	0		0		0		0		0		0	
Jun	0		0		17	35	0		0		6	35
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		4	25	0		0		0		<1	25
Nov	0		0		0		0		0		0	
Spot												
May	0		0		2	84	0		0		<1	84
Jun	0		0		5	86	3	66	0		2	81
Jul	0		0		0		0		0		0	
Aug	6	182	0		0		0		0		1	182
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Spotted seatrout												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Striped mullet												
May	160	51	5	62	0		74	28	0		54	45
Jun	100	120	496	76	7	177	0		17	129	97	90
Jul	0		10	148	0		0		0		1	148
Aug	17	93	0		10	180	3	112	17	182	9	141
Sep	0		7	157	5	139	0		0		3	146
Oct	0		4	164	0		0		0		<1	164
Nov	53	39	0		0		3	25	0		13	38

Table A.6. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
Other finfishes												
May	1,113	54	1,729	48	1,551	44	2,963	35	1,006	89	1,669	46
Jun	2,533	72	941	69	1,843	56	3,253	42	1,544	62	2,096	58
Jul	2,193	72	1,290	57	2,595	52	4,064	49	1,206	83	2,431	57
Aug	606	134	1,778	75	1,195	64	7,713	46	583	54	2,247	58
Sep	533	55	737	94	721	62	1,130	60	150	70	691	65
Oct	950	73	487	71	874	50	1,440	47	2,667	163	1,136	84
Nov	53	73	361	84	202	65	760	49	240	84	295	63
Total finfishes												
May	1,280	52	1,748	49	1,576	45	3,037	34	1,006	89	1,732	46
Jun	2,633	74	1,619	81	1,917	57	3,257	42	1,594	64	2,246	61
Jul	2,247	73	1,305	58	2,597	53	4,067	49	1,206	83	2,447	58
Aug	683	134	1,789	76	1,210	66	7,720	47	606	58	2,275	60
Sep	533	55	753	95	738	63	1,130	60	150	70	699	66
Oct	950	73	500	72	874	50	1,440	47	2,767	158	1,149	84
Nov	107	56	361	84	202	65	770	49	240	84	309	62
SHELLFISHES												
Blue crab												
May	0		210	93	4	96	0		0		31	94
Jun	0		137	84	0		0		0		19	84
Jul	7	77	5	42	3	146	3	31	0		4	80
Aug	17	82	6	166	0		0		0		5	96
Sep	33	93	3	99	0		0		0		8	94
Oct	33	84	4	134	0		0		0		8	88
Nov	0		0		0		3	18	0		<1	18
Brown shrimp												
May	0		0		0		0		0		0	
Jun	0		281	76	0		0		0		39	76
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	
Pink shrimp												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		0		0		0		0		0	
Sep	0		0		0		0		0		0	
Oct	0		0		0		0		0		0	
Nov	0		0		0		0		0		0	

Table A.6. (Cont'd.)

Species / Month	Bay system: Gulf 17 No./ha	Gulf 17 Length	Gulf-18 No./ha	Gulf-18 Length	Gulf-19 No./ha	Gulf-19 Length	Gulf-20 No./ha	Gulf-20 Length	Gulf-21 No./ha	Gulf-21 Length	Coastwide No./ha	Coastwide Length
White shrimp												
May	0		0		0		0		0		0	
Jun	0		0		0		0		0		0	
Jul	0		0		0		0		0		0	
Aug	0		44	46	0		0		0		6	46
Sep	0		0		0		0		0		0	
Oct	17	53	0		0		0		0		4	53
Nov	33	83	29	71	0		3	59	0		12	78

Appendix B. Hydrological summary for gill net, bay and beach bag seine, bay and gulf trawl, oyster dredge and beach seine samples.

Table B.1. Mean surface salinity (o/oo) at sampled gill net sites by bay system during spring and fall, 1975-90. ND = no data.

	Bay system																					
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
Year	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
1975	ND	ND	ND	14.9	ND	ND	ND	20.8	ND	18.0	ND	16.7	ND	16.0	ND	34.3	ND	25.0	ND	20.3
1976	ND	ND	12.2	15.9	ND	19.8	14.0	19.0	29.4	14.6	15.0	9.9	18.0	16.1	35.0	22.7	29.0	23.8	20.6	17.4
1977	ND	ND	10.9	25.7	14.6	18.5	18.0	15.4	12.5	19.2	6.8	19.9	16.0	33.8	24.8	39.4	29.3	31.0	16.2	25.4
1978	ND	ND	20.6	22.0	22.2	18.9	22.0	14.4	24.0	13.6	22.0	13.4	30.0	25.8	41.2	38.6	32.2	17.1	26.3	20.2
1979	ND	ND	5.7	12.6	12.8	11.8	9.5	9.9	7.2	13.5	7.4	6.9	17.6	23.1	33.5	28.4	29.5	26.1	14.4	16.1
1980	ND	ND	13.4	23.7	17.3	24.9	15.1	22.9	20.7	18.6	18.7	21.6	29.5	27.2	37.8	24.7	31.8	33.0	22.2	24.3
1981	ND	ND	27.1	9.5	29.7	15.9	20.4	13.8	23.2	9.6	19.4	8.0	30.9	21.3	29.1	23.9	29.7	31.3	25.6	15.9
1982	ND	ND	12.6	20.3	14.5	25.1	12.4	23.0	17.0	27.2	11.9	25.6	22.7	33.1	24.4	39.5	25.9	36.1	17.1	27.9
1983	ND	ND	14.4	11.4	19.1	12.6	19.6	11.8	19.3	17.4	22.4	7.5	30.0	24.5	40.0	34.0	33.5	31.0	24.0	18.1
1984	ND	ND	21.7	18.7	23.7	15.6	24.0	18.7	27.4	29.4	22.5	26.4	31.8	33.9	39.0	44.4	35.2	22.9	27.6	25.9
1985	ND	ND	18.5	22.8	15.1	23.4	11.0	23.6	13.1	23.6	13.1	23.6	22.5	29.9	34.8	39.5	32.5	31.8	20.0	26.9
1986	11.7	13.0	15.4	20.8	25.2	13.8	23.5	22.0	20.9	21.8	21.5	24.7	30.9	37.0	41.8	46.8	33.7	38.0	24.8	27.6
1987	8.2	14.3	19.7	21.5	16.2	14.4	16.1	20.6	12.3	16.5	16.7	13.4	32.8	33.2	28.8	37.6	28.2	34.2	20.6	23.6
1988	7.8	12.1	18.3	21.8	24.3	27.1	25.4	32.4	23.8	23.0	21.3	24.8	33.6	36.8	42.3	47.9	32.8	31.0	26.0	29.1
1989	5.5	8.7	15.9	14.8	25.7	25.9	26.5	28.4	26.5	29.9	30.8	34.3	35.3	36.9	47.2	52.7	30.3	38.3	27.6	30.4
1990	2.0	10.4	12.4	19.3	19.7	27.8	19.6	25.3	23.7	24.3	27.0	22.2	31.5	27.0	41.6	51.9	31.2	39.0	23.9	27.9

Table B.2. Mean surface water temperature (C) at sampled gill net sites by bay system during spring and fall, 1975-90. ND = no data.

	Bay system																					
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
Year	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
1975	ND	ND	ND	20.2	ND	ND	ND	21.1	ND	22.4	ND	22.7	ND	23.3	ND	22.7	ND	24.0	ND	22.1
1976	ND	ND	28.5	17.2	ND	14.5	28.5	24.9	28.0	24.2	29.0	24.1	26.0	24.2	29.0	18.6	26.5	19.8	25.0	21.2
1977	ND	ND	24.6	21.4	25.4	22.7	24.9	22.8	25.2	23.0	24.8	22.6	25.4	23.1	25.7	21.9	27.0	24.9	25.3	22.7
1978	ND	ND	26.7	21.1	26.0	23.5	26.2	23.9	25.2	24.0	26.6	23.9	27.7	23.5	27.0	23.1	27.1	24.2	26.6	23.2
1979	ND	ND	26.9	22.9	27.4	23.6	27.3	24.0	27.5	24.7	27.2	24.5	27.1	24.7	28.2	25.5	27.6	25.9	27.4	24.4
1980	ND	ND	25.9	24.4	26.1	22.9	26.1	24.6	27.0	23.3	26.7	22.8	27.0	24.1	29.0	27.2	28.8	25.6	27.0	24.5
1981	ND	ND	26.4	25.6	26.8	24.4	25.1	24.9	26.6	25.2	27.2	25.0	26.8	25.4	26.6	25.8	26.6	26.3	26.4	25.4
1982	ND	ND	26.2	24.5	27.1	24.7	27.3	24.5	25.8	25.2	26.2	23.8	26.4	24.0	27.6	24.7	27.6	25.4	26.7	24.6
1983	ND	ND	25.6	25.3	25.8	26.2	24.9	25.6	25.6	25.5	26.1	25.3	26.5	25.6	27.4	27.0	26.5	26.8	26.0	25.8
1984	ND	ND	26.6	25.3	25.7	26.4	25.0	25.2	26.0	25.0	25.8	25.2	26.2	25.1	27.3	25.9	27.4	26.9	26.3	25.5
1985	ND	ND	27.8	25.4	28.6	25.4	27.3	25.0	26.3	27.4	27.5	25.7	26.4	25.6	27.6	26.2	28.3	27.1	27.4	26.0
1986	27.0	26.2	26.6	215.3	27.2	23.6	26.5	25.2	27.5	25.2	28.0	24.2	26.5	24.5	26.4	26.4	28.0	26.0	27.0	25.2
1987	25.7	23.7	26.4	23.8	26.9	24.5	26.4	25.2	26.7	26.5	26.4	24.9	25.9	24.8	27.6	26.2	25.2	25.1	26.4	25.0
1988	25.4	26.2	25.3	25.8	25.9	26.5	25.1	26.9	24.9	27.3	26.7	25.9	24.4	25.8	26.6	27.4	27.4	27.5	25.8	26.6
1989	25.0	24.8	25.7	24.0	27.7	25.8	26.4	24.3	26.6	24.1	26.6	24.1	26.8	25.5	26.5	26.4	27.4	27.0	26.5	24.9
1990	23.3	25.7	24.6	23.8	27.4	26.1	26.8	24.7	25.6	25.2	27.0	25.0	25.7	26.3	27.7	27.0	27.5	26.3	26.2	25.3

Table B.3. Mean surface turbidity at sampled gill net sites by bay system during spring and fall, 1975-90. ND = no data.

	Bay system																			
	Sabine Lake		Galveston		East Matagorda		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide	
Year	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Jackson Turbidity Units																				
1975	ND	ND	ND	57	ND	ND	ND	29	ND	40	ND	24	ND	21	ND	41	ND	30	ND	37
1976	ND	ND	91	66	ND	91	80	32	5	22	24	65	118	70	24	54	24	37	54	52
1977	ND	ND	81	67	117	32	39	80	52	19	44	55	172	46	39	46	40	31	65	51
1978	ND	ND	79	43	20	14	67	67	61	18	65	45	47	40	61	60	40	41	61	44
1979	ND	ND	146	72	39	29	74	64	76	21	67	44	65	52	57	33	33	89	80	55
1980	ND	ND	102	72	75	50	85	33	44	17	47	35	59	33	45	58	62	69	68	48
1981	ND	ND	53	67	58	65	62	65	47	24	43	60	57	39	243	46	126	66	85	56
1982	ND	ND	66	59	86	56	76	46	35	28	89	32	52	38	54	32	131	78	74	47
1983	ND	ND	57	60	50	25	55	43	43	31	43	41	39	42	49	37	49	63	49	46
1984	ND	ND	45	35	29	25	36	48	46	40	40	41	53	39	71	57	115	92	56	49
1985	ND	ND	25	29	62	35	53	49	52	49	47	44	56	41	72	41	100	61	55	43
1986	45	28	31	34	55	37	57	31	49	31	37	36	62	26	61	85	50	57	48	41
Nephelometric Units																				
1987	30	18	18	17	43	19	28	19	26	15	11	6	22	6	14	11	23	12	21	13
1988	21	11	16	11	31	15	16	19	22	21	13	16	24	10	18	14	26	29	19	17
1989	25	9	12	8	16	22	36	15	30	12	22	8	18	12	12	9	45	13	24	11
1990	16	8	9	13	25	14	26	15	38	15	21	13	16	11	24	11	28	14	22	13

Table B.4. Mean surface salinity (o/oo) at sampled bag seine sites by bay system during 1990.

	Bay system								
Month	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Jan	8.0	20.3	26.5	28.6	27.4	31.0	33.4	47.1	39.2	30.0
Feb	0.4	19.2	26.9	27.4	24.8	29.1	33.4	51.8	36.1	28.9
Mar	0.6	14.7	24.0	24.8	23.4	28.9	33.2	41.1	32.4	25.7
Apr	3.6	9.9	19.6	18.7	24.9	25.8	31.8	43.9	30.4	23.4
May	2.0	10.3	14.5	22.2	18.5	27.0	33.0	45.3	32.7	23.8
Jun	7.5	8.5	19.2	24.9	22.3	31.2	36.3	45.4	35.8	25.9
Jul	1.8	14.3	23.8	21.7	22.2	23.0	37.0	46.0	35.1	25.5
Aug	8.5	18.9	28.0	23.4	17.5	23.9	25.8	56.3	38.2	27.2
Sep	7.5	25.2	28.4	25.7	21.0	25.4	25.9	46.2	35.6	28.0
Oct	9.8	18.2	27.1	25.8	28.1	23.1	33.5	48.5	37.7	28.3
Nov	13.1	18.2	23.8	28.5	24.2	22.0	35.2	50.9	38.5	28.6
Dec	11.1	20.7	28.0	28.7	26.2	26.3	34.4	50.4	39.5	30.0

Table B.5. Mean surface temperature (C) at sampled bag seine sites by bay system during 1990.

Month	Bay system									
	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	C.. wide
Jan	13.1	14.0	14.1	15.6	14.8	16.8	16.5	19.2	18.1	.0
Feb	13.0	16.4	18.6	17.3	15.4	18.2	17.8	21.2	19.6	7.7
Mar	15.2	18.8	20.4	19.1	20.3	21.2	21.8	20.9	21.6	0.1
Apr	20.6	21.8	24.8	23.5	22.7	24.7	23.3	23.4	23.7	3.2
May	21.0	25.9	27.9	27.2	26.4	26.0	24.8	27.3	27.0	6.2
Jun	23.7	30.4	30.9	29.3	30.3	30.1	31.0	30.3	31.0	0.0
Jul	26.1	29.1	29.8	27.9	26.9	28.0	29.7	30.2	29.7	8.7
Aug	31.3	29.8	30.3	29.9	30.6	28.7	30.6	29.8	30.3	0.0
Sep	29.2	27.3	27.3	29.1	27.8	28.3	30.3	30.5	28.7	.6
Oct	25.4	22.8	23.6	27.2	26.4	27.1	25.3	23.0	26.8	.3
Nov	21.1	21.4	21.0	19.0	19.9	21.1	21.7	19.4	23.0	.8
Dec	14.3	16.6	18.9	16.2	14.8	17.0	17.3	20.4	19.4	.2

Table B.6. Mean surface turbidity (NTU) at sampled bag seine sites by bay system during 1990.

Month	Bay system									
	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Jan	15	44	21	12	25	11	13	19	7	21
Feb	62	54	18	19	34	13	18	38	26	32
Mar	32	36	30	46	26	19	22	15	26	29
Apr	37	27	30	40	43	24	29	19	85	37
May	32	33	40	28	63	49	18	22	16	33
Jun	13	20	22	42	31	21	33	29	22	27
Jul	14	23	37	36	24	24	20	12	19	23
Aug	4	32	39	21	38	15	21	18	15	23
Sep	16	22	33	39	23	22	25	15	13	23
Oct	13	20	21	33	23	11	14	18	16	20
Nov	9	31	19	18	14	15	11	15	15	18
Dec	10	18	17	13	21	18	26	26	19	19

Table B.7. Monthly mean bottom salinity (o/oo) at sampled oyster dredge "reef" sites in Texas bay systems during January-December 1990. No samples were collected in upper Laguna Madre.

	Bay system								
Month	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Lower Laguna Madre	Coastwide
Jan	13.2	20.6	27.6	29.0	25.7	30.6	33.3	34.5	25.5
Feb	2.0	16.7	27.7	27.4	27.8	29.9	32.6	39.0	23.4
Mar	0.1	14.1	25.6	25.4	25.9	27.2	31.8	35.0	21.2
Apr	3.5	9.3	23.6	20.5	24.2	26.2	29.6	34.5	18.4
May	1.7	6.7	19.9	20.1	22.7	26.7	27.3	33.5	16.8
Jun	5.3	9.3	21.2	23.2	23.5	28.0	32.0	39.2	19.5
Jul	16.1	16.2	24.5	23.4	22.8	29.6	36.2	36.7	23.2
Aug	17.6	19.9	27.7	21.5	20.6	22.6	20.2	40.0	21.6
Sep	12.7	22.0	26.7	23.6	23.8	25.7	31.4	42.5	24.2
Oct	14.1	17.7	29.1	27.5	23.4	21.9	35.5	43.5	23.7
Nov	20.0	18.0	28.9	27.5	24.7	22.4	32.4	46.0	24.3
Dec	17.5	19.1	28.6	29.0	25.3	24.0	34.9	42.0	25.1

Table B.8. Monthly mean bottom temperature (C) at sampled oyster dredge "reef sites in Texas bay systems during January-December 1990. No samples were collected in upper Laguna Madre.

	Bay system								
Month	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Lower Laguna Madre	Coastwide
Jan	11.5	12.7	12.8	13.8	13.5	12.6	15.1	19.3	13.4
Feb	12.3	15.6	16.4	15.4	15.7	15.8	16.2	20.5	15.6
Mar	14.1	18.5	18.3	19.1	19.3	18.4	19.2	21.1	18.5
Apr	17.8	20.7	22.3	21.2	21.4	21.0	22.3	25.8	21.1
May	19.8	26.5	27.2	25.0	24.7	26.0	26.8	29.1	25.6
Jun	25.9	29.6	30.3	29.6	29.4	29.2	29.0	30.9	29.2
Jul	28.8	28.3	29.4	28.4	27.9	27.4	29.3	29.0	28.4
Aug	29.6	29.9	30.2	29.5	29.9	29.9	29.2	29.7	29.7
Sep	27.5	28.2	26.0	27.0	28.2	28.9	27.8	29.1	27.9
Oct	25.5	22.9	24.8	25.7	22.2	26.3	22.1	25.8	24.1
Nov	18.5	16.8	20.6	19.7	21.7	22.2	21.6	22.7	19.6
Dec	14.8	14.3	17.5	14.5	16.4	16.0	17.4	16.3	15.4

Table B.9. Monthly mean bottom turbidity (NTU) at sampled oyster dredge "reef" sites in Texas bay systems during January-December 1990. No samples were collected in upper Laguna Madre.

Month	Bay system								
	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Lower Laguna Madre	Coastwide
Jan	4	6	7	10	11	6	10	10	8
Feb	27	30	10	20	19	8	10	15	20
Mar	40	13	23	36	36	13	12	17	23
Apr	22	12	32	31	44	44	19	22	26
May	21	18	27	38	30	42	13	8	26
Jun	6	19	35	22	24	19	12	30	20
Jul	8	16	33	23	28	10	19	27	19
Aug	2	14	33	20	19	9	12	7	15
Sep	6	10	12	15	10	17	10	4	11
Oct	3	10	13	16	35	8	14	32	15
Nov	3	9	14	9	27	17	9	11	12
Dec	6	13	7	9	13	20	12	6	12

Table B.10. Monthly mean bottom salinity (o/oo) at sampled bay trawl sites in Texas bay systems during January-December 1990.

Month	Bay system									
	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Jan	9.0	21.1	28.7	28.4	26.0	31.4	33.5	46.6	41.2	27.2
Feb	0.7	16.2	27.4	29.5	24.6	29.7	32.6	49.9	37.7	25.1
Mar	0.0	12.7	25.6	26.5	22.4	28.4	32.6	47.1	35.2	22.7
Apr	0.0	8.9	23.5	21.8	19.9	26.7	31.1	46.8	31.6	19.7
May	0.0	4.4	20.1	22.6	14.8	25.6	30.0	46.4	32.2	17.5
Jun	1.4	6.8	19.7	24.8	21.8	28.0	29.5	46.2	35.4	19.9
Jul	8.3	14.7	24.5	26.3	22.0	30.2	34.9	47.7	35.5	24.2
Aug	6.5	20.0	26.2	22.4	14.5	22.4	28.0	48.4	38.0	23.0
Sep	8.4	20.9	26.2	27.7	19.5	28.0	31.2	48.0	39.3	25.6
Oct	10.3	18.1	28.3	28.5	23.2	25.9	33.3	57.7	36.8	25.6
Nov	10.0	17.3	28.8	28.5	24.2	24.0	33.2	50.4	37.0	25.2
Dec	10.3	18.4	29.5	29.6	23.5	24.7	34.1	56.9	37.6	26.3

Table B.11. Monthly mean bottom temperature (C) at sampled bay trawl sites in Texas bay systems during January-December 1990.

	Bay system									
Month	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Jan	9.6	12.6	14.3	13.7	13.1	12.7	14.1	16.5	17.0	13.4
Feb	13.5	15.5	16.2	15.7	15.3	15.9	15.9	19.2	18.4	15.8
Mar	13.7	18.2	18.4	18.6	19.1	18.8	19.0	19.5	19.6	18.5
Apr	21.2	21.5	22.4	21.3	21.8	21.6	23.1	22.4	23.9	21.8
May	23.1	26.1	27.8	25.2	23.2	25.1	24.3	27.9	25.6	25.2
Jun	27.1	29.5	30.0	29.4	29.4	29.4	29.6	29.5	29.6	29.4
Jul	28.5	28.1	28.8	28.1	27.4	27.5	28.9	29.2	27.6	28.1
Aug	29.5	29.7	29.9	29.5	30.0	30.0	29.5	29.6	29.2	29.7
Sep	28.9	28.7	28.3	27.5	29.2	27.0	29.3	29.6	28.8	28.6
Oct	23.3	22.9	23.2	26.0	22.0	24.6	23.6	20.2	25.3	23.1
Nov	19.7	16.6	20.0	19.3	21.3	22.1	19.7	20.4	22.6	19.2
Dec	14.8	13.4	16.8	15.4	16.8	15.2	17.8	19.0	17.2	15.4

Table B.12. Monthly mean bottom turbidity (NTU) at sampled bay trawl sites in Texas bay systems during January-December 1990.

	Bay system									
Month	Sabine Lake	Galveston	East Matagorda	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Jan	7	5	8	7	7	7	9	21	6	7
Feb	35	46	10	8	20	12	6	22	10	24
Mar	24	14	9	12	46	24	17	21	8	19
Apr	25	10	18	28	46	30	22	21	19	23
May	33	19	55	19	33	20	13	10	12	20
Jun	11	17	24	14	18	27	13	17	20	17
Jul	7	19	43	16	20	12	8	5	10	15
Aug	5	20	33	19	47	14	9	9	7	20
Sep	3	30	11	15	11	10	11	10	9	18
Oct	8	10	9	15	26	8	14	14	21	14
Nov	4	9	12	8	30	13	7	11	12	11
Dec	4	11	8	10	17	35	8	13	8	13

Table B.13. Monthly mean bottom salinity (o/oo) at sampled gulf trawl sites in the Texas Territorial Sea during January-December 1990.

Month	Sabine Lake	Galveston	Port O'Connor	Port Aransas	Port Isabel	Coastwide
Jan	29.1	34.1	30.2	33.8	35.9	32.6
Feb	26.7	29.1	30.2	33.0	32.0	30.2
Mar	24.9	18.9	23.1	30.8	31.3	25.6
Apr	18.3	24.3	27.1	29.2	32.8	26.3
May	19.9	25.8	25.6	28.4	31.7	26.0
Jun	24.8	34.1	34.1	32.3	34.8	32.1
Jul	25.3	30.7	34.4	35.0	34.7	32.0
Aug	26.7	35.9	33.9	34.5	35.1	33.2
Sep	28.5	32.8	36.1	35.0	35.9	33.7
Oct	27.1	31.1	33.6	33.7	35.4	32.2
Nov	27.1	29.2	31.4	31.8	33.4	30.5
Dec	26.7	28.7	29.1	31.3	32.8	29.7

Table B.14. Monthly mean bottom temperature (C) at sampled gulf trawl sites in the Texas Territorial Sea during January-December 1990.

Month	Sabine Lake	Galveston	Port O'Connor	Port Aransas	Port Isabel	Coastwide
Jan	8.6	11.0	12.4	11.6	14.3	11.6
Feb	12.0	12.1	15.1	14.5	15.8	13.9
Mar	13.0	17.8	18.1	17.1	17.6	16.8
Apr	15.8	17.0	20.4	20.1	19.7	19.0
May	25.8	25.6	24.9	22.6	21.8	24.2
Jun	28.4	27.5	25.5	26.0	23.5	26.2
Jul	28.1	29.1	27.6	28.0	25.0	27.6
Aug	29.2	29.5	28.7	29.1	28.0	28.9
Sep	28.6	29.1	28.4	28.6	26.8	28.3
Oct	25.6	25.8	26.6	27.6	26.6	26.4
Nov	19.7	20.3	21.5	22.3	22.9	21.3
Dec	17.2	16.5	18.4	19.1	17.5	17.7

Table B.15. Monthly mean bottom turbidity (NTU) at sampled gulf trawl sites in the Texas Territorial Sea during January-December 1990.

Month	Sabine Lake	Galveston	Port O'Connor	Port Aransas	Port Isabel	Coastwide
Jan	7	8	4	9	5	6
Feb	4	4	4	10	2	5
Mar	5	14	9	5	3	8
Apr	17	11	6	4	2	8
May	4	6	4	3	5	8
Jun	23	8	12	10	4	12
Jul	13	18	4	8	3	9
Aug	4	17	18	4	4	10
Sep	5	9	6	6	3	6
Oct	3	6	11	4	2	6
Nov	10	8	7	11	3	8
Dec	8	20	7	5	2	9

Table B.16. Monthly mean shoreline salinity (o/oo) at sampled 60.9-m beach seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	14.5	17.6	24.8	26.7	35.2	22.9
Jun	25.0	25.1	29.8	31.5	35.0	28.9
Jul	27.4	29.0	32.5	34.4	35.0	31.5
Aug	30.0	34.2	34.3	32.2	35.9	33.8
Sep	13.8	31.3	35.5	33.3	38.3	29.8
Oct	25.5	26.1	30.6	29.9	35.8	29.2
Nov	25.6	23.4	30.4	31.0	33.8	28.8

Table B.17. Monthly mean shoreline temperature (C) at sampled 60.9-m beach seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	20.1	24.3	26.2	23.1	25.6	24.3
Jun	30.1	28.2	29.5	28.9	27.7	29.1
Jul	30.9	29.6	28.6	29.0	28.3	29.3
Aug	30.2	29.8	29.5	29.6	29.8	29.8
Sep	31.5	29.7	28.0	29.2	28.3	29.3
Oct	24.2	24.1	21.3	27.3	26.0	24.0
Nov	19.8	19.5	20.7	20.6	23.5	20.6

Table B.18. Monthly mean shoreline turbidity (NTU) at sampled 60.9-m beach seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	41	17	36	18	24	30
Jun	47	42	35	12	13	32
Jul	63	41	18	10	8	29
Aug	43	40	12	28	7	24
Sep	30	24	23	13	5	21
Oct	37	39	17	9	3	22
Nov	63	16	48	16	12	38

Table B.19. Monthly mean shoreline salinity (o/oo) at sampled 18.3-m bag seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	14.8	17.0	24.4	26.9	35.2	22.8
Jun	24.7	25.6	29.8	31.8	33.8	28.8
Jul	27.4	30.0	32.9	34.9	35.0	31.8
Aug	32.2	34.2	31.9	32.5	35.9	32.8
Sep	24.5	31.0	35.8	35.9	38.3	32.8
Oct	26.7	26.0	30.7	30.4	35.8	29.6
Nov	25.4	23.6	30.6	31.0	33.8	28.8

Table B.20. Monthly mean shoreline temperature (C) at sampled 18.3-m bag seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	21.2	24.4	26.7	23.4	25.6	24.4
Jun	29.9	28.6	29.7	29.0	27.7	29.2
Jul	31.0	29.8	28.6	29.3	28.3	29.4
Aug	30.5	30.2	29.6	29.7	29.8	29.9
Sep	31.5	30.2	28.0	29.5	28.3	29.4
Oct	23.7	24.5	21.5	27.4	26.0	24.0
Nov	20.0	19.6	20.7	20.8	23.5	20.7

Table B.21. Monthly mean shoreline turbidity (NTU) at sampled 18.3-m bag seine sites in 5 Texas gulf areas during May-November 1990.

Month	Gulf-17	Gulf-18	Gulf-19	Gulf-20	Gulf-21	Coastwide
May	24	16	38	14	24	26
Jun	46	41	34	12	13	32
Jul	51	47	17	9	8	27
Aug	45	40	12	22	7	25
Sep	33	23	28	8	5	23
Oct	40	42	18	10	3	23
Nov	62	19	49	20	12	39

Appendix C. Summary of SEAMAP samples by year and depth zone for brown shrimp, white shrimp, pink shrimp and blue crab off Texas during 1982-90.

Table C.1. Mean catch rates (No./h) and mean size (mm) of select shellfishes caught during SEAMAP[a] sampling off Texas during June-July 1982-90. Blanks indicate no measurement taken.

Year	Depth (m)	Samples (No.)	Brown shrimp		White shrimp		Pink shrimp		Blue crab	
			No./h	Length	No./h	Length	No./h	Length	No./h	Length
1982	0-18	22	1,222	108	15	173	161	136	8	
	19-37	50	1,427	115	0		20	138	1	
	38-55	29	138	145	0		<1	126	0	
	56-73	5	117	179	0		0		0	
	74-91	3	79	182	0		0		0	
1983	0-18	28	254	99	20	153	195	127	8	
	19-37	47	1,445	119	1	167	87	121	4	
	38-55	24	304	132	0		1	118	1	
	56-73	8	66	156	0		0		0	
	74-91	2	71	168	0		0		0	
1984	0-18	16	733	116	30	174	4	151	6	
	19-37	40	1,594	116	1	168	3	150	0	
	38-55	16	544	131	0		0		0	
	56-73	12	194	138	0		0		0	
	74-91	5	86	151	0		0		0	
1985	0-18	30	450	98	41	168	15	135	20	
	19-37	40	1,362	112	2	167	10	131	4	
	38-55	14	150	127	0		<1	127	0	
	56-73	5	154	144	0		0		0	
	74-91	1	36	179	0		0		0	
1986	0-18	35	250	98	33	165	18	116	11	
	19-37	43	809	108	0		42	130	10	
	38-55	10	311	124	0		0		0	
	56-73	5	176	136	0		0		0	
	74-91	3	49	147	0		0		0	
1987	0-18	74	189	103	15	159	24	115	3	
	19-37	56	606	107	3	162	19	108	7	
	38-55	17	26	142	0		<1	180	2	
	56-73	8	16	177	0		0		1	
	74-91	7	11	177	0		0		0	
1988	0-18	75	227	106	4	166	22	110	5	
	19-37	50	309	113	0		2	127	2	
	38-55	17	18	126	0		0		0	
	56-73	7	4	180	0		0		0	
	74-91	7	3	198	0		0		0	
1989	0-18	85	556	101	16	167	51	116	6	111
	19-37	54	928	118	4	126	24	116	1	144
	38-55	12	212	129	0		<1	135	0	
	56-73	8	40	140	0		0		0	
	74-91	7	11	159	0		0		0	

Table C.1. (Cont'd.)

Year	Depth (m)	Samples (No.)	Brown shrimp		White shrimp		Pink shrimp		Blue crab	
			No./h	Length	No./h	Length	No./h	Length	No./h	Length
1990	0-18	74	279	113	17	171	18	126	5	127
	19-37	48	850	123	1	156	62	122	2	81
	38-55	16	202	136	0		<1	135	1	79
	56-73	10	76	140	0		0		0	
	74-91	8	16	154	0		0		<1	164

[a]Data presented here were collected by R/V OREGON II (NMFS) in conjunction with TPWD research vessels. The data were made available by the Southeast Area Monitoring and Assessment Program (SEAMAP). Samples collected with 12.2-m trawl, except 6.1-m trawl by TPWD vessels since 1987. Data normalized to 12.2-m trawl by NMFS.

Table C.2. Mean catch rates (No./h) and mean size (mm) of select shellfishes caught during SEAMAP[a] sampling off Texas during November 1986-90. Blanks indicate no measurement taken.

Year	Depth (m)	Samples (No.)	Brown shrimp		White shrimp		Pink shrimp		Blue crab	
			No./h	Length	No./h	Length	No./h	Length	No./h	Length
1986	0-18	12	71		77		26		0	
	19-37	34	93		15		2		1	
	38-55	26	68		0		0		0	
	56-73	12	41		0		0		0	
	74-91	4	22		0		0		0	
1987	0-18	65	20		89		18		0	
	19-37	40	50		7		2		<1	
	38-55	12	21		0		0		0	
	56-73	2	6		0		0		0	
	74-91	1	0		0		0		0	
1988	0-18	77	21		98		9		0	
	19-37	49	48		15		12		0	
	38-55	16	44		0		1		0	
	56-73	10	15		0		0		0	
	74-91	7	8		0		0		0	
1989	0-18	78	21	100	137	102	16	124	2	45
	19-37	60	68	140	23	117	10	123	<1	83
	38-55	20	71	169	<1		1	124	<1	94
	56-73	7	43	173	0		0		<1	74
	74-91	9	5	185	0		0		0	
1990	0-18	64	18	105	56	129	11	137	<1	70
	19-37	59	69	140	5	159	7	126	<1	87
	38-55	22	60	168	<1	185	1	129	1	75
	56-73	9	34	173	0		0		1	74
	74-91	6	7	190	0		0		0	

[a]Data presented here were collected with 12.2-m trawl by R/V OREGON II (NMFS) and with 6.1-m trawl by TPWD research vessels. The data were made available by the Southeast Area Monitoring and Assessment Program (SEAMAP). Data normalized to 12.2-m trawl by NMFS.

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