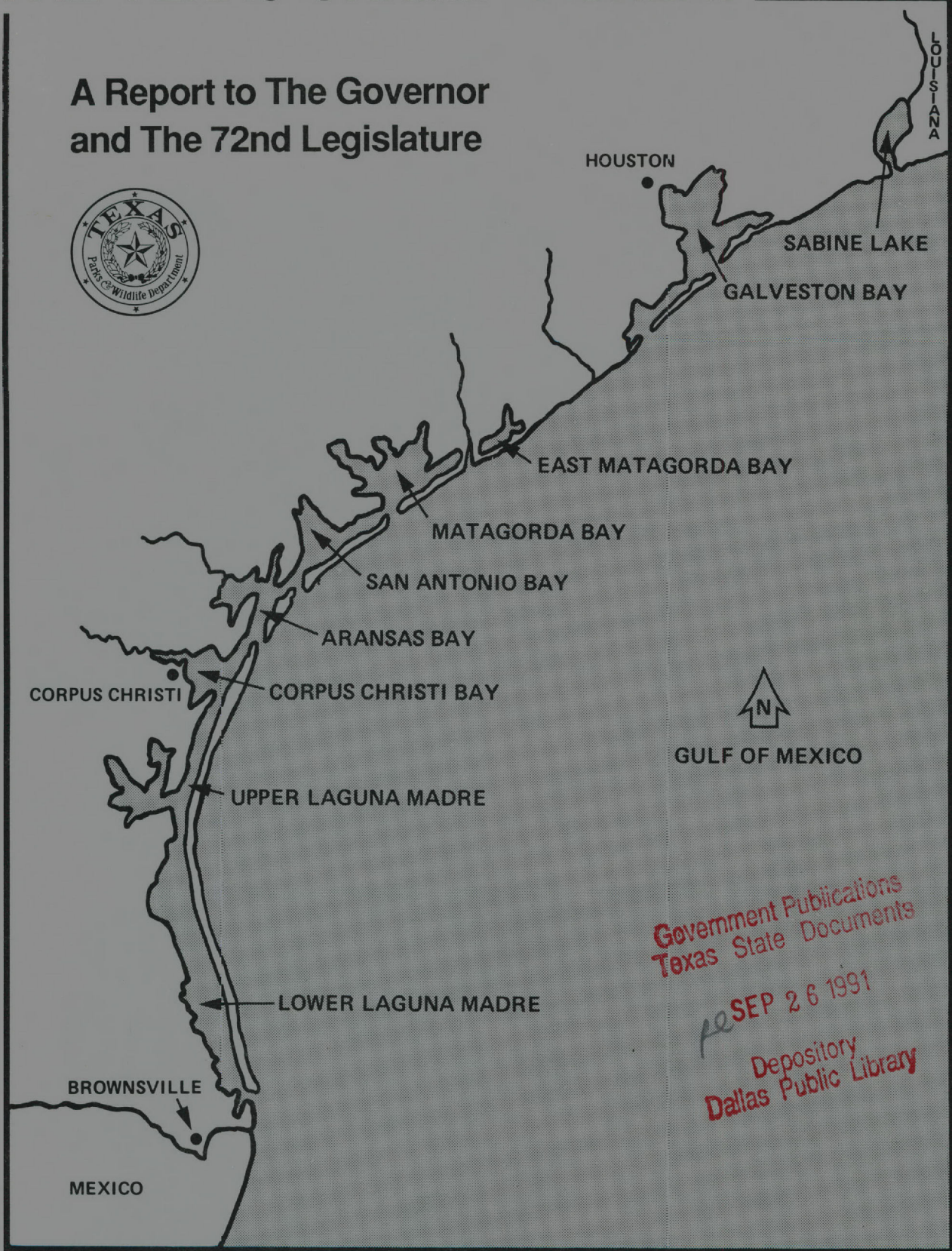


P400.3  
Sh 86  
1991

# THE TEXAS SHRIMP FISHERY

A Report to The Governor  
and The 72nd Legislature



Government Publications  
Texas State Documents

SEP 26 1991

Depository  
Dallas Public Library





**TEXAS**  
**PARKS AND WILDLIFE DEPARTMENT**  
4200 Smith School Road • Austin, Texas 78744 • 512-389-4800

ANDREW SANSOM  
Executive Director

**COMMISSIONERS**

CHUCK NASH  
Chairman, San Marcos

GEORGE C. "TIM" HIXON  
Vice-Chairman  
San Antonio

BOB ARMSTRONG  
Austin

LEE M. BASS  
Ft. Worth

HENRY C. BECK, III  
Dallas

DELO H. CASPARY  
Rockport

JOHN WILSON KELSEY  
Houston

BEATRICE CARR PICKENS  
Dallas

A.R. (TONY) SANCHEZ, JR.  
Laredo

January 1991

Honorable Ann Richards  
Governor of Texas  
State Capitol Building  
Austin, Texas 78711

The Honorable Members of the  
Seventy-second Legislature  
State Capitol Building  
Austin, Texas 78711

Ladies and Gentlemen:

I hereby respectfully submit a report on the Texas shrimp fishery.  
This report is submitted pursuant to the provisions of Section  
77.006(b), of the Texas Parks and Wildlife Code.

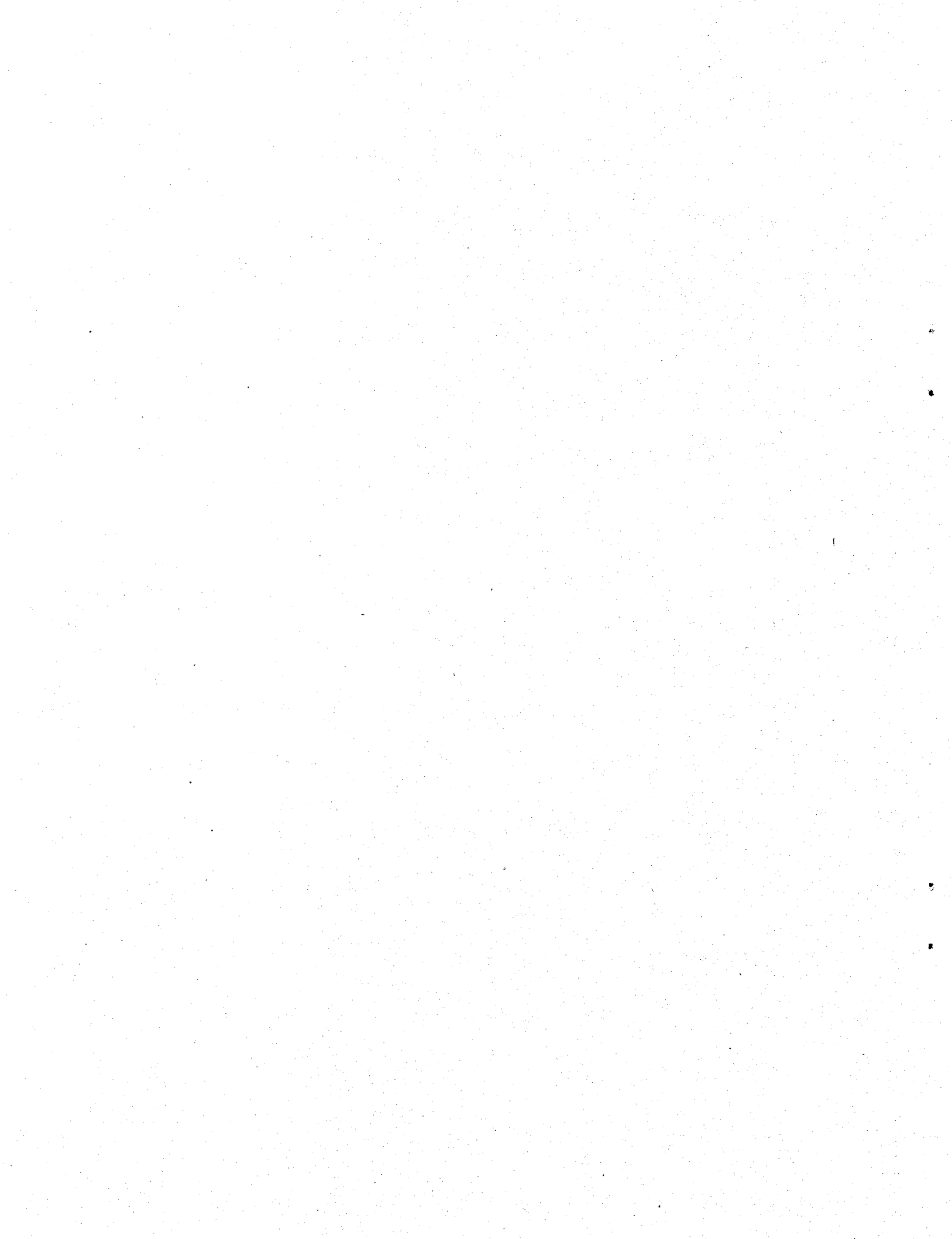
Your support of the Texas Parks and Wildlife Department programs  
is very much appreciated.

Sincerely,

  
Andrew Sansom  
Executive Director

AS:CEB:dc

cc: Commissioners



## INTRODUCTION

Marine shrimp, with reported landings of 351.1 million pounds<sup>1</sup> worth \$467.6 million in 1989, continued to support one of the most valuable commercial food fisheries in the United States<sup>2</sup>. The Gulf of Mexico shrimp harvest of 228.4 million pounds worth 374.0 million in 1989 exceeded that of any other coastal region in volume and value. Shrimp constitute Texas' most valuable commercial food fishery with 1989 landings of 73.3 million pounds and a value to the fishermen of \$142.1 million (Figure 1). The total economic impact of shrimp landings in the marketing system is considered to be at least a half billion dollars to the Texas economy.

Brown shrimp (Penaeus aztecus), white shrimp (P. setiferus) and pink shrimp (P. duorarum) make up the bulk of Gulf coast landings. The principal species landed in Texas is the brown shrimp, which generally makes up about 70-80% of the total landings for food. Texas has consistently led all other states in the value of shrimp landed in its ports since the discovery of previously unfished stocks in the Gulf in the late 1940's and subsequent development of the brown shrimp fishery. The dockside value of brown shrimp and pink shrimp in 1989 was \$119.8 million.

White shrimp, second in importance in Texas, support a large food fishery in the shallow Gulf and in the bays on the upper coast. Reported landings have fluctuated between 9.9 and 28.0 million pounds since 1962, with 10.9 million pounds valued at \$22.3 million landed in 1989.

---

<sup>1</sup>All weights in this report are expressed in whole weight (heads-on). Values are based on price received at the dock (ex-vessel price).

<sup>2</sup>Fisheries of the United States, 1989. 1990. U.S. Department of Commerce, Current Fishery Statistics No. 8900.

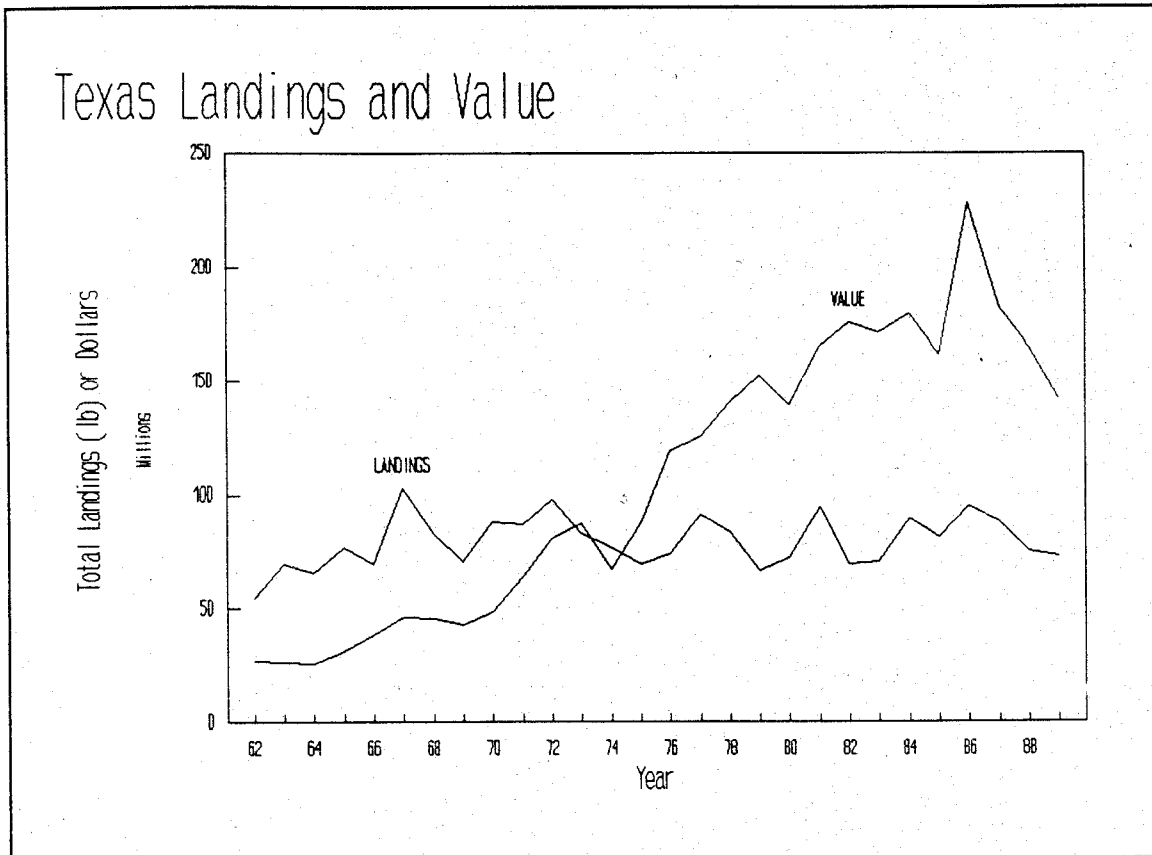


Figure 1. Annual Texas landings and ex-vessel value of penaeid shrimp.

Pink shrimp (an important food and bait shrimp in south Texas), seabob (*Xiphopenaeus kroyeri*), rock shrimp (*Sicyonia brevirostris*), royal red shrimp (*Hymenopenaeus robustus*) and roughback shrimp (*Trachypenaeus* sp.) are landed in relatively small quantities.

This report reviews the current status and recent developments which affect the Texas shrimp fishery.

## SHRIMP LIFE CYCLE

The life cycles of brown shrimp and white shrimp include Gulf and bay phases. Both species spawn in the Gulf of Mexico. Generally brown shrimp spawn during fall-spring in depths greater than 60 feet while white shrimp spawn during late spring-summer in depths less than 60 feet. The young shrimp go through several larval stages as they are carried shoreward by winds and currents. By the time the young shrimp reach tidal passes and enter protected "inside" waters, they are in a transparent, shrimplike postlarval stage and are 1/4 to 1/2 inch long.

Postlarvae drift or migrate to shallow bays, tidal creeks and marshes (nursery areas) where food and protection necessary for growth and survival are available. There they grow, acquire color and become bottom dwellers. If conditions in nursery areas are favorable, the young shrimp grow rapidly and soon move to the deeper water of the major bays.

The time shrimp spend in estuaries is usually 2-4 months; the season differs among species. When shrimp reach juvenile and subadult stages (3-5 inches long), they migrate from the bays to the Gulf of Mexico where they mature and complete their life cycle. Characteristically, there is one major influx of brown shrimp which enters the bays in early spring and begins gulfward migration in May or June. Postlarval white shrimp begin entering the bays as the juvenile brown shrimp are leaving. White shrimp generally remain in bays longer and grow larger than brown shrimp before they begin emigrating to the shallow Gulf in the fall.

## MANAGEMENT

Shrimp Monitoring Program

The Department's shrimp monitoring program is designed to assess the status of the resource and tracks the life cycle of the shrimp. Randomly selected (unbiased) stations are sampled along shorelines of bays to determine recruitment of young shrimp from the Gulf to the bays, in the deeper portion of bays to determine recruitment to the bay shrimping grounds, and in Gulf of Mexico waters where shrimp complete their life cycle. Water and weather data are collected with each biological sample to determine current hydrological and meteorological conditions which may affect abundance, growth and distribution. In 1982, the sampling system was improved and made more efficient by doubling the area sampled without an increase in the number of personnel. During 1986, a new field station was established in Port Arthur and cooperative agreements with Louisiana enable TPWD to sample bay and Gulf waters in the Sabine Lake area for the first time.

In 1983, the Legislature provided the Department funding for construction of four vessels to broaden sampling in the state's Gulf waters. These vessels were fully operational in 1985. In January 1987, an additional vessel was added to sample the Gulf waters off Sabine Lake. Two smaller vessels have been added to the research fleet to increase sampling efficiency and additional vessels are being planned. In addition, the Department cooperates with the other Gulf states and the National Marine Fisheries Service in annual Gulf-wide sampling through the Southeast Area Monitoring and



Assessment Program (SEAMAP) to gather baseline data on shrimp, bottomfish, ichthyoplankton and associated water and weather data.

Data from the Department's monitoring program are used to determine the closing and opening dates of the annual closure of the state's Gulf waters to shrimping. The closure is set by statute for June 1-July 15 but, based on sound biological data, may be changed by the Texas Parks and Wildlife Commission (or Executive Director) to an earlier, later or longer season not to exceed 60 days. Since 1960, the season dates have been modified ten times including six straight years from 1981 through 1986 (Table 1). The purpose of the closure is to delay the harvest of small shrimp emigrating from the bays until they reach a larger, more valuable size and to reduce discarding and waste of the smaller sizes.

Table 1. Year, date and duration of modifications to the normal June 1-July 15 closed Gulf shrimping season<sup>a</sup>.

Year	Date		Duration (days)
	Closing	Opening	
1967	May 17	July 1	45
1972	May 17	July 1	45
1976	May 17	July 16	60
1981	May 22	July 16	55
1982	May 25	July 14	50
1983	May 27	July 15	49
1984	May 16	July 6	51
1985	May 20	July 8	49
1986	May 10	July 2	53
1990	May 15	July 8	54

<sup>a</sup>In 1975 the maximum length of the closed season was increased from 45 to 60 days. The minimum length remained at 45 days. Closing and opening times after 1981 were 30 minutes after sunset instead of 12:01 a.m.

In addition to monitoring the status of the resource and recommending the Gulf seasonal closure, the Department is making improvements in the

collection of landings data which include the bait and recreational shrimp fisheries.

Knowledge of the status of the resource is fundamental to any fishery. However, computer models using the best scientific data available are necessary to predict stock abundance and to evaluate the effects of alternate management strategies. The Department cooperated with Texas A&M University, Department of Agricultural Economics, to fine-tune a bioeconomic model which provides valuable biological and economic information on the Texas shrimp fishery and on the impacts of various management proposals.

#### THE TEXAS SHRIMP FLEET

Shrimp are sought for both food and bait and most are captured by towing trawls (nets) behind boats. There are four types of shrimp licenses that may be purchased in Texas--three for commercial shrimp vessels (Gulf, bay and bait) and one for recreational shrimpers (Figure 2). The commercial Gulf and bay boat licenses allow the capture of larger shrimp as food during certain seasons in Gulf and bay waters. The commercial bait boat license permits the harvest of smaller shrimp for the bait industry. The recreational (sport trawl) license permits the taking of both food and bait shrimp for non-commercial use.

The size of the shrimp fleet generally increased until 1973 when higher costs of operation due to fuel prices caused a decline. Since 1976, the number of commercial shrimp boat licenses generally increased through 1984, then decreased from 1985 through 1989. Sales of the sport trawl license tags have shown a steady decline since 1979 when the daily poundage limit for sport

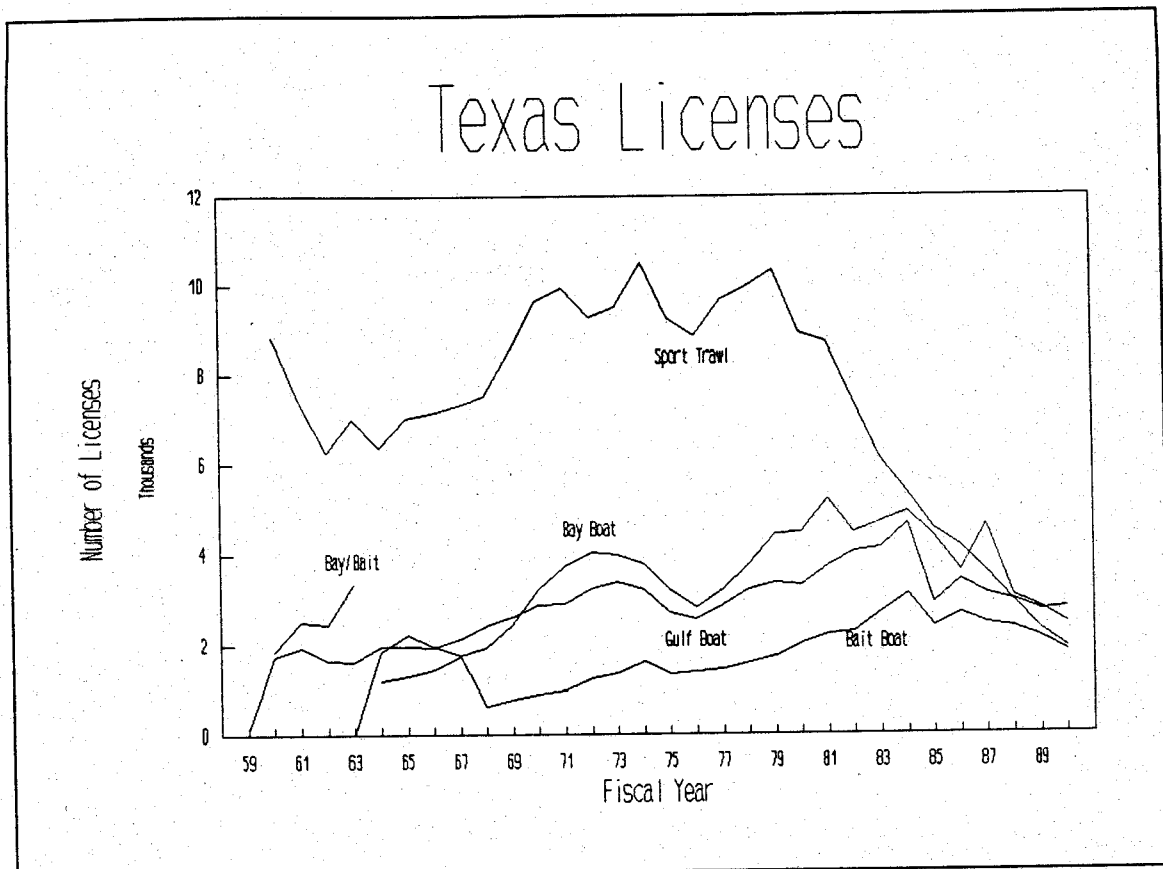


Figure 2. Number of Texas shrimp boat licenses sold by year.

shrimpers in bays was decreased from 100 pounds to 15 pounds.

There has been a trend toward decreasing size of both brown shrimp and white shrimp caught in Texas. Since total production is not increasing significantly in the Gulf fishery, the share of the total catch per boat is decreasing--resulting in more effort at higher costs for less product.

The smaller return per vessel may be aggravated further by changes in economics. Imports of shrimp are increasing substantially due to the development of mariculture, especially in South America and China. If demand for shrimp does not increase at the same rate as supply, prices received by shrimpers may be affected. The decline in prices received by fishermen is evident for the past few years (Figure 1) and is probably an affect of

imports. A growing interest in Texas aquaculture can be seen by examining license sales in recent years. From 1975 through 1989 the number of Shellfish Culture licenses sold in Texas ranged from 4 to 33. The number sold during 1990 was 28. During 1990 approximately 1.3 million pounds of aquaculturally produced shrimp, valued at \$3.1 million, were harvested in Texas.

#### TEXAS SHRIMP FISHERY MANAGEMENT PLAN

Senate Bill 609, 69th Regular Session, provided the Texas Parks and Wildlife Department authority to regulate the catching, possession, purchase and sale of shrimp. However, the Department could not assume that authority until it had developed and adopted a shrimp management plan and this authority was only effective until September 1, 1991.

The Legislature also established an interim committee made up of Legislators, Texas Parks and Wildlife Commissioners and members of the public to review plan development. The Department formulated plan outlines and assigned staff members sections of the plan for literature research and writing. In January-February 1986, the Department met with three shrimping organizations and an environmental group to obtain their views and input. The Department held seven public hearings along the coast during June through August 1986 to obtain input for plan development. During September 1989, 24 public hearings were held throughout the State to solicit additional public comment on the proposed plan.

Public comments indicate that current management is adequate but needs to be clarified, simplified and made more easily enforceable. Proposed

changes primarily concerned modification of items contained in current statutes dealing with means, manners, devices, places, closed areas, closed seasons, and sizes. There was also a general desire that any major changes from current law be done gradually.

Prior to legislation providing for TPWD regulation of shrimp and oysters, there were three studies completed on the shrimp fishery in Texas. Two of these were conducted by the Texas Coastal and Marine Council on the bay shrimping and oyster industries and the other was an interim study by the 68th Texas Legislature on the shrimping industry. Reports from these studies were used as background documents in plan development.

Comments from the public, the various organizations and reports by the Texas Coastal and Marine Council and the 68th Texas Legislature indicate that provisions in current law are adequate to form the basis for future regulation and enhancement of the fisheries. The Legislature's policy statement taken from the Shrimp Conservation Act of 1959 provides a guide for management of shrimp and was incorporated into the management plan for shrimp. Input from 32 public hearings and other sources were considered before the final plan was drafted. The Texas Parks and Wildlife Commission, after appropriate review, adopted a fisheries management plan for Texas shrimp in November 1989.

The Texas Shrimp Management Plan states that as specifics of the plan are developed through adopting of rules and regulations by the Texas Parks and Wildlife Commission it is vital to have the continued input of all individuals and groups interested in the shrimp resources of Texas. To accomplish this, the Commission Chairman appointed a seven member Shrimp Advisory Committee consisting of two representatives from the bay shrimp industry, one representative of the bait shrimp industry, three representatives of the Gulf

shrimp industry and one representative of the sportsman/conservationist interest group to assist the Texas Parks and Wildlife Department staff with the preparation and formulation of rules and regulations necessary to carry out the Shrimp Plan.

The seven member advisory committee met several times during the spring of 1990 to develop proposals that were presented in 24 statewide public hearings during April 1990. The Commission reviewed the public comments, modified several proposals, and adopted new proclamations that went into effect on 14 May 1990.

Major provisions included: (1) remove the exception to prohibited shrimping in the Gulf of Mexico during the summer closure that allowed shrimping within depths of four fathoms or less for white shrimp, (2) set the Gulf of Mexico closed shrimping season from 30 minutes after sunset on May 15 through 30 minutes after sunset on July 15, (3) prohibit night shrimping in all inside water of the state all year except during February 1 through April 15 when night shrimping would be allowed in major bays south of the Colorado River, (4) restrict shrimping during the Spring Open Season (May 15 to July 15) to the period between 30 minutes before sunrise to 2:00 p.m. and increase daily bag limit from 300 to 600 pounds, and (5) require that a vessel possessing on board or displaying a Bait Shrimp Boat license be limited to the applicable regulations established for operations of commercial bait shrimping. Additional regulations simplified and standardized existing regulations (Appendix A).

An additional member from the bait shrimp industry was added to the Shrimp Advisory Committee in July 1990 to assist the Department in managing the bait shrimp resources of Texas. In September 1990, the Committee reviewed

results of the new shrimping regulation from the fishermen's perspective and felt they had been very successful.

Appendix A. Shrimp Management Proclamation



## SHRIMP MANAGEMENT PROCLAMATION

### 1. Introduction.

The Texas Parks and Wildlife Commission in a public hearing held April 12, 1990 adopted new §§57.660-57.662 concerning the management of shrimp in Texas.

The rules were adopted with changes from that published in the March 13, 1990 issue of the Texas Register (15 TexReg 1374-1377). The revisions, as adopted, were derived from public comments received by the Department. The changes as adopted include: no change in the current schedule of expiration of the Grandfather provision found in Parks and Wildlife Code §77.094(b) which allows selected shrimp harvesting operations in nursery areas, no change in the northern boundary of the Laguna Madre relative to its definition as a bait bay, and establishment of an area of the upper Laguna Madre from Marker 17 to Marker 57 wherein shrimp may be harvested from 1:00 a.m. to thirty (30) minutes before sunrise only, with a beam trawl only and only in the Gulf Intracoastal Waterway.

### 2. Justification for the Rules.

These regulations contain measures which will prevent overfishing while achieving, on a continuing basis, the optimum yield for the fishery, manage shrimp throughout their range, promote efficiency in utilizing shrimp resources, minimize costs, avoid unnecessary duplications in administration, and enhance enforcement. The foregoing constitute findings by the Commission which support the need for the proposed proclamation. The rules also are consistent with and will initiate the implementation of the Texas Shrimp Fishery Management Plan adopted by the Commission on November 2, 1989.

### 3. How the Section Will Function.

There will be fiscal implications to the state, local governments and small businesses as a result of the adoption of these rules. The impacts will largely be determined by the abundance of shrimp available to the bay and gulf fishery which varies from year to year.

The combined effects of the proposed rules should either cause no significant change or will reduce the state's enforcement costs. The closing of open areas, the simplifying of current times and the prohibition of night shrimping except from February 1 to April 15 and in the upper Laguna Madre exception area should enhance the efficiency of law enforcement officials in monitoring the activities of shrimpers in state waters.

There will be minimal costs associated with the adoption of the proposed rules. Small businesses who are forced to comply will incur costs associated with this compliance, i.e. costs associated with upgrading live shrimp holding facilities to insure that shrimp will be available for sportsmen arriving before legal bait shrimp harvest can commence on a given day, cost associated with the displaying on board a vessel of an identification number which may be visible to enforcement officials from the air, and delaying harvest of shrimp in the Gulf of Mexico for a sixty day period.

There will be several benefits associated with the adoption of these proposed rules. Gulf shrimpers harvesting efficiency and catch per effort should increase from the closure of the zero to four fathom zone and the remainder of the outside water on May 15. Bay shrimpers should increase their efficiency by increasing their catch per effort due to the closure of night shrimping, by the protection of spawning white shrimp within the four fathom zone, by increasing the legal bag limit in the Spring Open Season from 300 to 600 pounds of shrimp, and by establishing a Late Winter Open Season in the inside water of the state in the major bays from the Colorado River in Matagorda County to the northern boundary of the upper Laguna Madre for Bay Shrimp Boat license holders.

#### 4. Summary of Comments.

Comments made by the public concerning the proposed rules were presented to the Texas Parks and Wildlife Commission. During April 2-5, 1990, twenty-four (24) public hearings were held throughout the state, including one hearing in each of the eighteen (18) coastal counties. Approximately 735 people attended the public hearings with 283 people offering comments. Notice of the hearings was published in local newspapers in each county. In addition, a news release concerning the hearings and proposed changes was distributed to the city-state editors and the outdoor writers in 156 newspapers through a special mailout of the Department and the weekly news release packet. Information was also provided to the Associated Press (state) and Texas State Radio networks the U.S. Coast Guard Notice to Mariners transmission, the County Extension Marine Agents of the Texas A&M University System and to each member of the Texas Legislature. Individuals contacting the Department were also sent copies of the proposals and meeting schedule as requested. A video news release was prepared by the Department and distributed to both the ABC and NBC regional television network feeds. A week before public hearings were scheduled to be held, a final news release on the time and place for the public hearings was sent from the Department to 111 television stations and 677 radio stations across the state.

On April 12, 1990, the Commission held a public hearing in Austin to receive additional public comments on the proposed regulations. During the period of public comment, approximately 36 letters, 58 telephone calls, three groups of petitions, and one resolution were received by the Department staff for review by the Commission. At the April 12, 1990 hearing, approximately 27 people made public comments with two additional petitions submitted by Galveston Bay bait shrimp house owners expressing concern for the availability of bait shrimp as a result of the proposed regulations and the Center for Marine Conservation calling for the requirement of turtle excluder devices on shrimp trawls.

Comments ranged from support for all the proposals to total objection to the proposals. Specific comments in opposition to the proposals included: (1) the Shrimp Advisory Committee did not represent the various groups within the shrimp fishery with primarily concern voiced by bait shrimp house owners/operators, (2) there was an inadequate period for comment on the proposals, (3) the industry was not alerted that the Shrimp Advisory Committee would be drafting proposed rule changes to the shrimp management regime, (4) closure of the gulf on May 15 would have a negative impact on certain areas of the fishery, (5) the closure of the 0-4 fathom zone in the outside waters would have a negative economic impact on certain areas of the fishery and force more vessels into the inside water during the Spring Open Season, (6) the prohibition of night shrimping for bait would reduce the availability or increase the price of live bait to sport fishermen, (7) the elimination of the Laguna Madre exception which allows night shrimping year around would create a significant reduction of bait in that area since shrimp can only be caught at night with harvesting methods currently in use, (8) the requirement to shrimp only during the day in the upper Laguna Madre would require a shift to a bottom trawl which is claimed to be more destructive to the ecosystem with more bycatch, (9) the establishment of that portion of the upper Laguna Madre north of the Kennedy Causeway in Nueces County as a major bay would create an environmentally detrimental situation, (10) the end date for the Late Winter Open Season should be April 30 or May 1, (11) the Laguna Madre should be established as a major bay and with allowance for only daytime shrimping in that area, (12) the legal bait shrimping hours should begin 2 1/2 hours prior to sunrise on Saturdays and Sundays, (13) the hours for operation during the Spring Open Season should not be changed, (14) there should be no poundage limit imposed on shrimp taken during the Spring Open Season, (15) the requirement to maintain 50% of the shrimp alive while fishing under the Bait Shrimp Boat license should be removed, (16) the grandfather provision which allows bait shrimp dealers adjacent to a shrimp nursery area to operate two boats in the nursery area should be continued, (17) only pushnets should be allowed in the

Laguna Madre, (18) only night shrimping should be allowed in the Laguna Madre, (19) the display of vessel registration numbers should not be required, (20) a 30' maximum length limitation should be placed on bait shrimp vessels operating in the Laguna Madre, (21) a limited entry system for bait shrimp boats should be imposed, (22) the sale of bait shrimp should be limited to bait shrimp dealers only, (23) the Department was trying to utilize shrimp resources for special interest groups, (24) the shrimp regulations should be based on conservation goals and not law enforcement needs, (25) the proposals are contrary to the shrimp management plan, (26) both daytime and nighttime shrimping should be allowed in the Laguna Madre, (27) a representative of the upper and lower Laguna Madre should be added to the Shrimp Advisory Committee, (28) the diversity of the Texas coast does not allow standardized regulations to work, (29) the data on which the proposed changes are being made is over 20 years old and action should be delayed until current data are available, (30) pollution and other man made changes in the environment are the major factors impacting the shrimp resource, (31) the Shrimp Advisory Committee should hold public hearings to get input before proposals are made, (32) the Texas coast should be divided into 4 divisions and applicable regulations made for each division, (33) the Department does not have the authority to terminate the grandfather provision in nursery areas, (34) the outside water should be closed from the shoreline out to 7 fathoms at all times to protect the small shrimp, (35) the actions to implement new regulations were being done too hastily, (36) no change should be made to the current shrimping regulations, (37) only a time restriction should be used to control the Spring Open Season, not a poundage limit, (38) most impact on small brown shrimp and roe white shrimp takes place at and around the gulf passes therefore these areas should be protected, (39) changes should have been made 10-15 years ago and now laws should be left alone, (40) East Matagorda Bay should be established as a nursery area, (41) a 100 pound per day bag limit on white shrimp taken from the 0-4 fathom area should be imposed and the area should be left open, (42) proposals should be delayed to get more input from the bait shrimp industry, (43) the start date for the Late Winter Open Season should be the first or second week in April and the closing date should be the end of April or mid May, (44) if the grandfather provision is eliminated the Arroyo Colorado and the mouth of the Colorado River should be defined as bait bays, (45) a count law should be imposed on shrimp taken from the outside water, (46) a larger net with smaller mesh should be allowed to catch seabobs, (47) shrimping in the bays from the period May 15 to July 15 should be prohibited, (48) the use of a 50 foot trawl with 1 1/2 inch mesh should be allowed and bays should be closed to shrimping all year except during the period May 15 to July 15, (49) the use of a 10 to 15 foot trawl with 2X4 foot otter trawl

doors should be required for the taking of live shrimp for bait, (50) a requirement that a 2 1/4 inch stretched mesh bag be used in the 0-4 fathom area should be imposed and that the area should be left open, (51) boats shrimping in major bays or bait bays for live bait for a live bait outlet should be allowed to shrimp beginning at 2:00 a.m. from May 15 through July 15, (52) vessels shrimping under a bait license for a live bait dealer during the Spring Open Season should be allowed to operate until 30 minutes after sunset, (53) those qualified live bait dealers currently adjacent to nursery areas who have no reasonable access to open waters should be allowed to operate one boat in the nursery area, (54) the plan for managing shrimp should be scrapped and restructured with more conservation of marine resources in mind, (55) turtle excluder devices (TEDs) should be required in shrimp trawls, and (56) increase daily bag limit in the Spring Open Season to 750 pounds with no daytime cutoff.

Petitions were received through the postal system and the field public hearings from various bait house operators, the Texas Shrimp Association and the Help Endangered Animals Ridley Turtles (H.E.A.R.T.). The petitions from the bait house operators expressed opposition to the proposed rules because of the projected impact on bait house operations and availability of live bait, the petitions from the Texas Shrimp Association supported all of the proposals, and the petitions from H.E.A.R.T. requested that turtle excluder devices be required in shrimp trawls.

All public comments received are available for public inspection at the Texas Parks and Wildlife Department headquarters complex, 4200 Smith School Road, Austin, Texas 78744, telephone 1-800-792-1112, extension 4863 or 512-389-4863.

##### 5. Names of Those Making Comments For and Against the Rules.

Ten groups made comments for and against the rules. The Texas Shrimp Association (T.S.A.) agreed with the proposed rules and stated the importance of the regulations in enhancing the economics of the shrimp industry, reducing the bycatch of shrimp trawling and providing protection for sea turtles. Professional Involvement of Seafood Concerned Enterprises (P.I.S.C.E.S.) expressed concerns on many provisions of the recommendations. Specifically P.I.S.C.E.S. recommended that the 0-4 fathom area be left open with an imposition of certain gear requirements, that the extended gulf closure be delayed for further study, that provisions be made to allow a certain amount of night shrimping in certain areas and at certain times, that the 2:00 p.m. cutoff time in the Spring Open season not apply to bait shrimpers, and that the grandfather provision not be terminated. The G.C.C.A. expressed support of the proposals but suggested some corrective amendments which would alter some provisions of the proposals and allow the continuation of night shrimping in the Laguna Madre, an early start time for bait shrimping on Saturday and Sunday

mornings, maintaining the current bait bay status of the Laguna Madre and limiting the length of a shrimp vessel operating in the Laguna Madre to 30 feet. The Lone Star Chapter of the Sierra Club expressed concern for the economic impact on the live bait shrimp industry if the proposed rules were adopted and this activity was curtailed. H.E.A.R.T. expressed concern that the plan for the management of shrimp did not reflect an adequate amount of conservation interest and suggested that the plan be redone to reflect a stronger environmental perspective with the Department's Resource Protection Division given an active role. The Audubon Society expressed support for the regulations, but urged consideration be given for trawl bycatch reduction and protection of sea turtles to include a requirement for turtle excluder devices in shrimp trawls. The Sportsmen Conservationist of Texas supported the proposals but recommended that if the grandfather provision was terminated that areas such as the Arroyo Colorado be considered for bait bay status and that another representative of the bait shrimp industry be added to the Shrimp Advisory Committee. The Houston Underwater Clubs expressed concern for a diminishing resource and urged a requirement for turtle excluder devices (TED) to be used in shrimp trawls. Comments were also made on behalf of the Texas Gulf Coast Council of Diving Clubs which also stressed protection of sea turtles by incorporation of TEDs in shrimp trawls. The Center for Marine Conservation expressed their desire for sea turtle protection, presented the Commission with a petition during the April 12 public hearing and called for the requirement for use of TEDs. The Galveston Bay Foundation forwarded to the Department a resolution urging the Commission to adopt the proposed Texas Shrimp Fishery Management Plan while continuing to study the conflicts in the bait shrimp industry.

During the period of public comment a resolution was received from the City of Galveston registering the opposition of the City Council to the proposal to limit shrimping which in the position of the Council would have an adverse impact on the shrimping and bait shrimp industries as well as recreation and sport fishing on Galveston Island.

In addition to the public input noted above, during the period for public comment, the Department staff met on four occasions with groups from the shrimp industry. Three of these meetings were with groups which expressed concerns for the potential impact of the proposed regulations on the live bait industry and one meeting was a presentation to the Texas Shrimp Association at its annual convention.

6. Reasons Why Agency Disagrees with Comments.

The agency disagrees with the comments above as follows (using the same numbering system as in 4. above): (1) The Shrimp Advisory Committee consisted of 7 members representing various sectors of the shrimp industry and the recreational/conservationist community. Of the representatives of the shrimp industry, 3 members were from the inside water shrimp fishery with one member specifically assigned to represent the bait industry, 3 members were from the outside water shrimp fishery and one member was from a sportsman-conservationist association. On a geographic basis, one member was from the Galveston area, one member from the Freeport area, one member from the Palacios area, one member from the Seadrift area, one member from the Rockport area, one member was from the Brownsville/Port Isabel area and the sportsman/conservationist was from the Austin area; (2) comments on current and potential proposed changes to the current shrimp management regime have been taken at various times during the period since authority was granted to the Commission. The proposals made represent a recognition of the concerns addressed in previous hearings and comments made to the Agency as well as recommendations made by the Shrimp Advisory Committee which was a balanced membership of people knowledgeable of the shrimp fishery; (3) there is no requirement that the Shrimp Advisory Committee had to notify the shrimp industry that they may be considering changes to the shrimp management regime; (4) positive benefits have been documented for the closure of the Gulf of Mexico under the state's jurisdiction from June 1 to July 15 which has occurred since 1959, with an authority added at a later date to add 15 days on to the statutory 45 day closure allowing for the closure to begin as early as May 15; (5) the exception to the closed Gulf season in the 0-4 fathom zone leads to the harvest and waste of small brown shrimp as bycatch since only white shrimp can be retained and gravid white shrimp which congregate in the near shore area causing economic harm; (6) documentation available to the Agency indicates that with the possible exception of the upper Laguna Madre, bait will be available if proper holding facilities are located at live bait houses; (7) an exception to the night shrimping prohibition was granted for the upper Laguna Madre in the adopted regulations; (8) the Agency agrees with this comment as reflected in an amendment to the proposed regulations; (9) the Agency agrees with this comment as noted in the amendment to the proposed regulations; (10) this shrimping period is directed toward pink shrimp and information available to the Agency indicates that small brown shrimp begin to occur in the major bays after April 15, and therefore allowance for a later closure of the Late Winter Open Season could contribute to a considerable bycatch of these small shrimp; (11) the Laguna Madre has been historically a bait bay due to its shallow water except for the

channelization which has taken place, therefore an elevation to major bay status would not be environmentally sound; (12) initiation of bait shrimp operations 2 1/2 hours prior to that proposed would undermine the management regime allowing for greater catches and more enforcement difficulties; (13) termination of shrimping operations at 2:00 p.m. will reduce the overall fishing pressure while increasing the catch per unit of effort for the fisherman; (14) while the Texas Shrimp Management Plan calls for a time limit rather than a bag limit as a harvest control method within the Spring Open Season, due to concerns for overexploitation with a time limitation only imposed, a bag limit during this season was also proposed and adopted; (15) the requirement to maintain 50% of the shrimp alive is an attempt to insure that shrimp caught as bait are sold as bait; (16) the Agency agrees with this comment as indicated by the amendment to the proposed rules; (17) the Agency agrees with this comment for the area in the upper Laguna Madre as indicated by the amendment to the proposed rules; (18) the Agency agrees with this comment in the upper Laguna Madre as indicated by the amendment to the proposed rules; (19) the display of vessel registration numbers will enhance and economize enforcement efforts; (20) a limitation of 30 feet on the size of vessels to be used for shrimping in the Laguna Madre would have very little, if any, effect on current shrimping operations; (21) the Commission does not have the authority to implement a limited entry system for the bait shrimp industry at this time; (22) under current statutes the sale of bait shrimp is restricted to a bonafide bait-shrimp dealer or a sport fisherman; (23) the principal interest of the Agency in the management of shrimp is directed by the Texas Shrimp Management Plan adopted by the Commission on November 2, 1989; (24) shrimp proclamations issued by the Commission must comply with Parks and Wildlife Code §77.007 which requires both conservation and enforcement considerations; (25) each of the adopted regulations are in compliance with the Texas Shrimp Management Plan adopted by the Commission on November 2, 1989; (26) under the best scientific information available, there appears to be a unique area in the upper Laguna Madre wherein night shrimping should be allowed; (27) during the public hearing on April 12, 1990 the Commission directed that an additional representative of the bait shrimp industry be added to the Shrimp Advisory Committee; (28) to achieve the management objectives regulations should be standardized as much as possible; (29) while the studies showing that a relatively comparable amount of shrimp can be taken in the lower Laguna Madre during either day or night were conducted in the early 1970's, for the upper laguna Madre which was the focus of the concern, additional samples were taken in this area indicating that during the sampling period the major shrimp availability was at night; (30) while pollution may well have a major impact on the health of the shrimp population, this is not the subject of these



regulations; (31) the Shrimp Advisory Committee was organized for the purpose of advising the Agency staff which in turn held public hearings; (32) division of the Texas coast for the purpose of developing unique regulations for each area would contribute immeasurably to the complexity, expense and enforcement cost of the regulations; (33) while the Commission does have the authority to regulate places of shrimping and therefore has the authority to prohibit access to a nursery area, as noted in the amendment to the proposed rules chooses not to terminate the grandfather provisions in nursery areas; (34) within the focus of the current rule making process, time did not allow for consideration of an extension of the 7 fathom closure, but this provision might well be considered under later proclamations; (35) to effect the current shrimp harvesting season, it is imperative that the proposed regulations become effective on or before May 15, 1990; (36) based on input from the Shrimp Advisory Committee, the Gulf of Mexico Fishery Management Council and various interest groups, the need to modify current shrimp regulations is justified; (37) while the Texas Shrimp Management Plan recommends a time period as a preferred method to control harvest in the Spring Open Season, the uncertainty and potential to create a radical change in the shrimp harvesting industry warranted a daily bag limit be adopted in conjunction with a daily time limitation; (38) small brown shrimp and gravid white shrimp need to be protected throughout the 0-4 fathom area and trawling in passes is already prohibited; (39) the recent receipt of authority to regulate shrimp by the Commission has not allowed action which could have been made earlier if such authority existed; (40) with information available to the Department at this time it does not appear that East Matagorda Bay should be established as a nursery area; (41) the Texas Shrimp Management Plan recommends that management of shrimp be conducted as much as feasible through the use of closed areas and times, not bag limits; (42) a delay of the proposals would greatly reduce their effectiveness in the upcoming shrimping season; (43) while some variation exists, the dates on the Late Winter Open Season provided maximum opportunity to harvest pink shrimp while not impacting small brown shrimp which begin to appear in mid-April; (44) inasmuch as the grandfather provision for shrimping in nursery areas is allowed to continue until its programmed termination, the request to consider areas as bait bays is not necessary; (45) the Texas Shrimp Management Plan does not recommend a count size to control harvesting of shrimp, but rather recommends a time and area restriction; (46) the proposals did not consider the seabob fishery; (47) a prohibition of bay shrimping from the period May 15 to July 15 would cause a major disruption in the bay shrimp fishery; (48) the closure of the bays except for the period of May 15 to July 15 would cause a major disruption in the shrimp fishery; (49) a requirement of significant gear modifications

would cause a major disruption in the shrimp fishery at this time; (50) at this time a closure rather than gear modification is the preferred method to protect the resources in the 0-4 fathom zone of outside water; (51) an early morning initiation of shrimping activity for bait would continue the abuses in this fishery; (52) extension of the 2:00 p.m. cutoff of shrimping activity during the Spring Open Season for bait shrimping would continue the abuses that are found in that fishery and reduce the effectiveness of the management regime; (53) the Commission does not have the authority to selectively limit entry into the nursery area; (54) the management plan was adopted by the Commission on November 2, 1989 and is the focus of shrimp management in the state; (55) the Federal government remains in the process of implementing regulations to require turtle excluder devices in shrimp trawls with the provisions of state regulations focusing on the closure of areas and restrictions on harvesting time as a positive action to reduce trawl bycatch to include sea turtles and (56) a major increase of the daily bag limit in the Spring Open Season with no effort limitation would cause a major disruption in the shrimp harvesting industry.

Briefly restated, the factual bases of the rules are contained in Texas Shrimp Management Plan, the Texas Shrimp Fishery Management Plan Source Document and additional information obtained during the public comment process.

#### 7. Statutory Authority; Interpretation of How Provisions Authorize or Require the Section.

The rules are adopted under the authority of Texas Parks and Wildlife Code Chapter 77, Subchapter A, §77.004 and §77.007, which provide the Texas Parks and Wildlife Commission with authority to regulate the catching, possession, purchase, and sale of shrimp subsequent to its approval and adopting of a shrimp management plan and economic impact analysis. The Texas Shrimp Fishery Management Plan and Texas Shrimp Fishery Management Economic Impact Analysis were approved and adopted by the Commission on November 2, 1989.

#### **§57.660. Definitions.**

Notwithstanding Parks and Wildlife Code, §77.001 (4 and 14):

Bait bays--also include that portion of Chocolate Bay, West Bay and the Old Brazos River lying north of the Gulf Intracoastal Waterway in Brazoria County.

**§57.661. General Rules.**

(a) Notwithstanding Texas Parks and Wildlife Code, §77.061(a)(1), §77.065, and §77.067, it is unlawful for any person to take or attempt to take shrimp in the outside water during the period from 30 minutes after sunset on May 15 to 30 minutes after sunset on July 15 or during the period as altered under the authority of Texas Parks and Wildlife Code, §77.062.

(b) Notwithstanding any other provisions of the Texas Parks and Wildlife Code, §77.061(e) applies to commercial shrimp boats operating in the outside or inside water at all times of the year.

(c) Notwithstanding Parks and Wildlife Code, §77.068(a)(1) and (3), it is unlawful for any person to take or attempt to take shrimp for noncommercial use in outside water by any means except an individual bait shrimp trawl, cast net, or minnow seine not larger than 20 feet in length that is manually operated without the use of any mechanical means or devices.

(d) Notwithstanding Parks and Wildlife Code, §77.089(a) and §77.090, it is unlawful for any person to take or attempt to take non-commercial shrimp in inside water by any means except an individual bait shrimp trawl, cast net, or minnow seine not larger than 20 feet in length that is manually operated without the use of any mechanical means or devices.

(e) Notwithstanding Parks and Wildlife Code, §77.081, §77.088 and §77.091 a licensed commercial bay shrimp boat operator may catch an unlimited amount of shrimp with a legal trawl as described in Parks and Wildlife Code, §77.093 in the major bays south of the Colorado River at any time during the period 30 minutes after sunset to 30 minutes before sunrise from February 1 through April 15.

(f) Notwithstanding the Parks and Wildlife Code, §77.088, §77.089, §77.090, §77.091, §77.094, and §77.097, during the period May 15 through July 15 it is unlawful for any person to take or attempt to take shrimp from the inside water except between the hours of 30 minutes before sunrise to 2:00 p.m. or fail to have the otter trawl doors or other spreading device on the deck of the vessel and the trawl bag untied from 2:00 p.m. one day until 30 minutes before sunrise on the next day.

(g) Notwithstanding any provision of Chapter 77, Subchapter E, or the Parks and Wildlife Code, it is unlawful to take or attempt to take shrimp from inside water from 30 minutes after sunset to 30 minutes before sunrise except as provided in Subsections (e), (f) and (h) of these rules.

(h) Notwithstanding Subsections (f) and (g) of these rules:

(1) Boats licensed as commercial bait shrimp boats may take shrimp only with a beam trawl and only between the hours of 1:00 a.m. and 30 minutes before sunrise in that portion of the Gulf Intracoastal Waterway, exclusive of its tributaries, between the locations of the current channel Marker 17 and channel Marker 57 (as indicated on the most current United States Coastal Survey Charts on the effective date of these rules) in the Laguna Madre in Nueces County; and

(2) It is unlawful for any person to take or attempt to take shrimp with a trawl at any other time or in any other place in the Laguna Madre north of a line starting on the mainland at the most northeasterly point on the north side of the entrance to Whiteley Channel then proceeding in a straight line to the north end of Pita Island; then continuing on a line to the southern most point on the westerly most spoil island bordering the north side of the New Humble Channel (commonly referred to as Hap's Channel); then continuing on a line along the north edge of the New Humble Channel (commonly referred to as Hap's Channel) to its junction with the Gulf Intracoastal Waterway; then continuing on a straight line to the Nueces/Kleberg County line marker on Padre Island.

(i) Notwithstanding Parks and Wildlife Code, §77.092(a), §77.094, and §77.095(a), during the period May 15 through July 15, the operator of a boat licensed as a commercial bay shrimp boat or as both a commercial bay shrimp boat and a commercial bait shrimp boat may catch not more than 600 pounds of shrimp per boat per calendar day in major bays and may possess or have on board a boat in the inside water or unload or attempt to unload at any point in this state not more than 600 pounds of shrimp. During the period May 15 through July 15, it is unlawful for any boat licensed as both a commercial bay shrimp boat and a commercial bait shrimp boat to take or attempt to take shrimp in both a major bay and any other water within the same calendar day or take more than 600 pounds of shrimp in a calendar day.

(j) Notwithstanding Parks and Wildlife Code, Chapter 77, a person who displays or has on board a boat, a bait shrimp boat license plate commits an offense if the person:

(1) possesses on board shrimp exceeding the daily limit of 200 pounds;

(2) fails to maintain at least 1/2 of the shrimp on board in a live condition except as authorized in Parks and Wildlife Code, §77.095(b);

(3) uses any trawl other than a bait shrimp trawl as defined in Parks and Wildlife Code, §77.096;

(4) operates a trawl or fails to have the spreading devices on deck and the trawl bag untied at a time other than authorized by these rules; or

(5) unloads at a place other than authorized in Parks and Wildlife Code, §77.098.

**§57.662. Penalty for Violation.**

The penalties for violation of this subchapter are prescribed by Chapter 77, Texas Parks and Wildlife Code.

