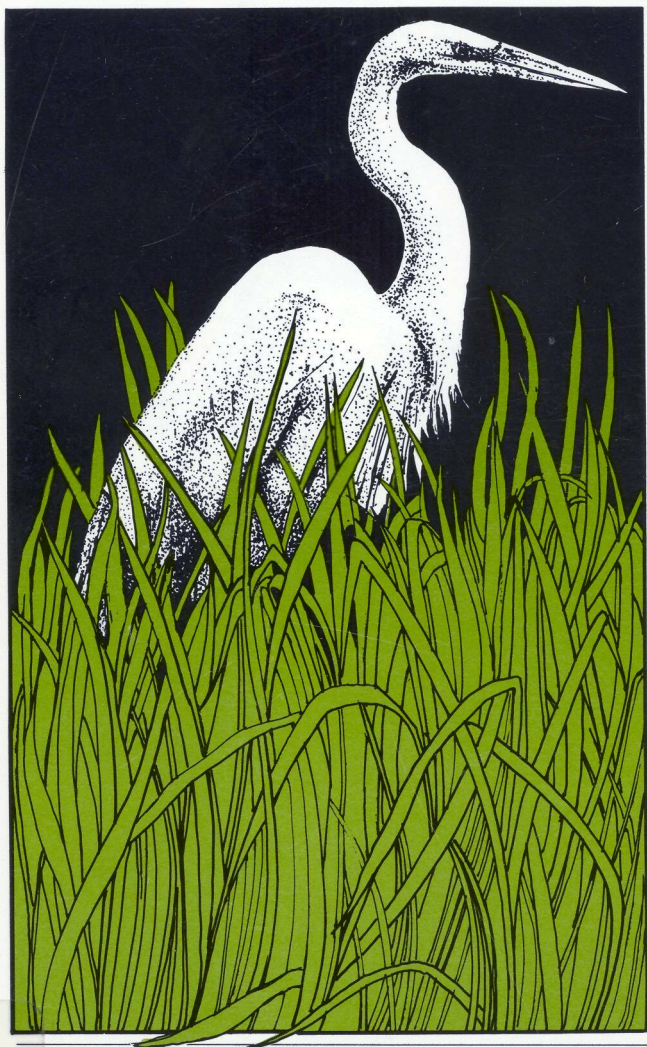


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# GALVESTON BAY

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RECREATIONAL USER'S



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# HANDBOOK

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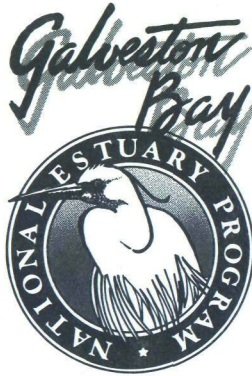
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Property of  
Galveston Bay Collection  
TAMU at Galveston-Library

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# **GALVESTON BAY** RECREATIONAL USER'S **H A N D B O O K**

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**Published by the Galveston Bay National Estuary Program**

**in cooperation with**

**United States Coast Guard • United States Environmental Protection Agency  
Region 6 • Texas Department of Health • Texas General Land Office • Texas  
Parks and Wildlife Department • Texas Water Commission • Brazoria,  
Chambers, Galveston, and Harris Counties**

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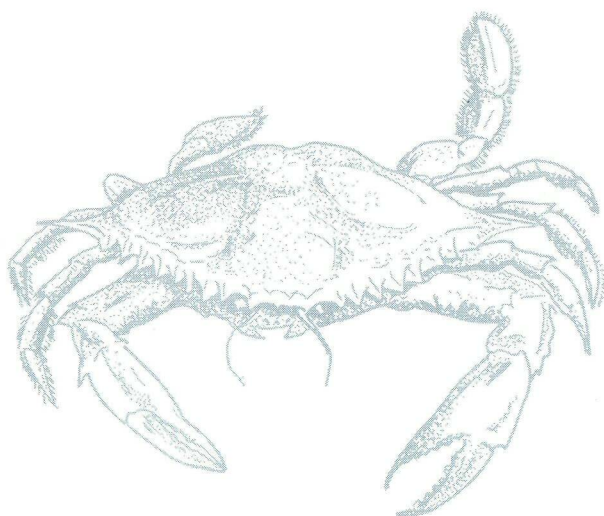
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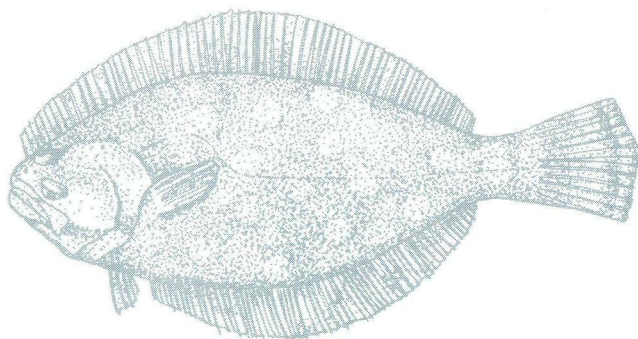
# FOREWORD

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The Galveston Bay National Estuary Program developed this handbook by listening to comments about the Galveston Bay System. We found that people want more opportunities to use the Bay for recreation and relaxation purposes. The Bay Area Handbook is a guide for enjoying the Bay. We are confident that once you see all the Galveston Bay System has to offer, you will want to become active in protecting the Bay's future.

The handbook includes guides to recreational activities with information that will help you use the Bay responsibly. Since an increasing number of people use the Bay, responsible behavior from every individual is essential to survival of a healthy and productive Bay.

At the end of the handbook is a survey form. Please fill it out to let us know what you think of the handbook. We also would like you to participate in the Galveston Bay National Estuary Program and have included space to identify your interests.



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# INTRODUCTION

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## TO GALVESTON BAY

If you live in the greater Houston area, chances are you have enjoyed the benefits of the Galveston Bay System. This doesn't require living near, fishing or sailing on, working next to, or any direct contact at all with the Bay. If you live in the Galveston Bay watershed — as do over seven million Texans, from Dallas to the shoreline communities of the Bay — then you benefit from Galveston Bay by virtue of its receiving and diluting what goes down your drain and what is washed off your yard when it rains.

Galveston Bay is a vital resource where the fresh water from the Trinity and San Jacinto rivers and the many local streams and bayous meets the salt water of the Gulf of Mexico. The Bay serves as a mixing pool where brackish water, coupled with the Bay's shallow depth and rich habitat, provide an important nursery area for marine life. This environment is called an estuary.

Galveston Bay is the largest estuary in Texas and the seventh largest in the country. It provides seventy percent of oyster landings and forty-five percent of the recreational catches in the state each year. Shrimping is a vital industry, as is recreational boating and fishing. Almost 5,000 ships annually pass through the Bay to the Port of Houston. Fifty percent of all U.S. petrochemicals are produced along the shores of Galveston Bay. Not counting the jobs inside the refineries or the product sold there, Galveston Bay accounts for about three billion dollars in direct and indirect economic benefit to the region each year.

Ironically, its attractiveness, the very thing that draws people to live, work and play near or on the bay, may ultimately be its downfall. The Bay system is beginning to show the wear and tear of

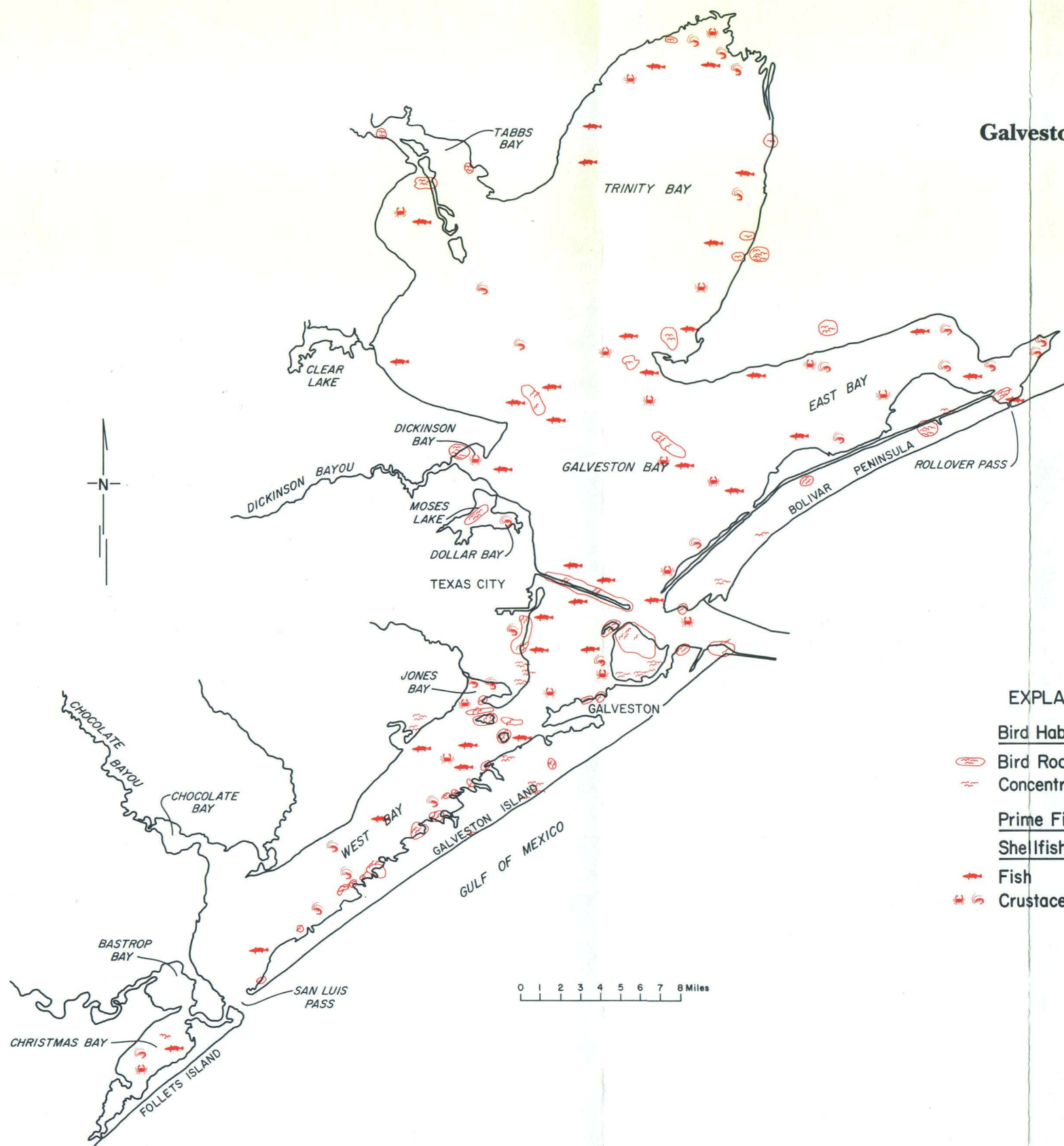


being surrounded by the fourth largest metropolitan area in the United States. Sea grasses are disappearing, fresh water inflow is being reduced to provide more water to cities, and the over-harvesting of fisheries threatens entire species found in the Bay and the Gulf.

If we want to continue to enjoy the Bay for recreation and relaxation, we must develop the ability to prevent degradation of the Bay. The Galveston Bay National Estuary Program is preparing a plan to provide this ability. Join with others who are working with the Estuary Program, and you can help ensure the continued benefits of Galveston Bay.

Galveston Bay is a recreational bonanza available to everyone. If we treat it with respect, it won't disappear.

# Galveston Bay Map



## EXPLANATION

### Bird Habitats

- Bird Rookeries
- Concentrations of Birds

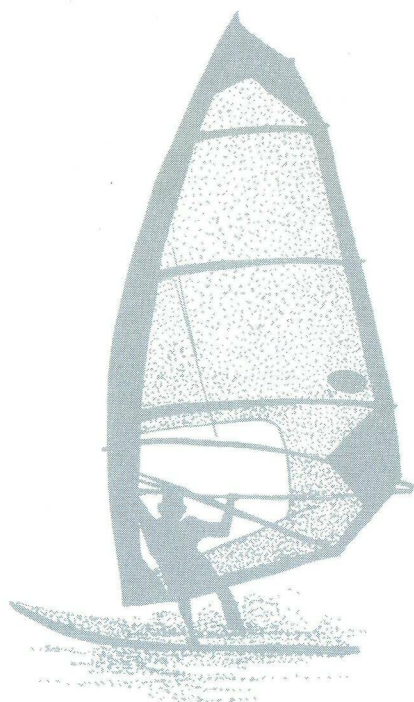
### Prime Fish and Shellfish Grounds

- Fish
- Crustaceans

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# **R**ECREATIONAL --- USES OF THE BAY

Galveston Bay is a recreation playground. Whether you prefer boating or just watching boats go by, Galveston Bay has something to offer you. The following pages provide information on parks, fishing, boating and bird-watching – some of the most popular activities on Galveston Bay.

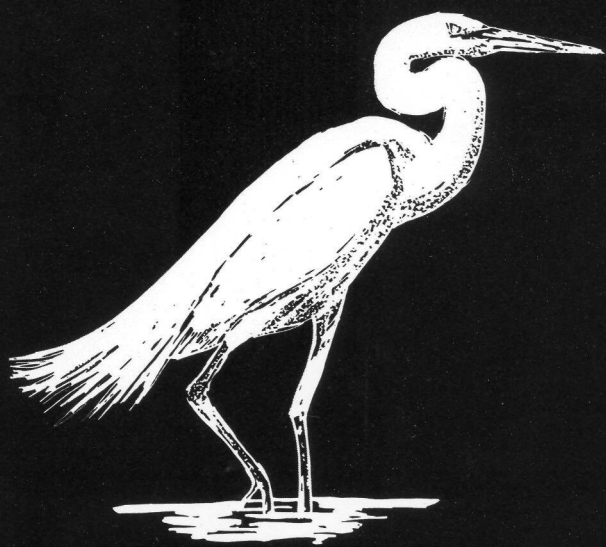




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# PARKS

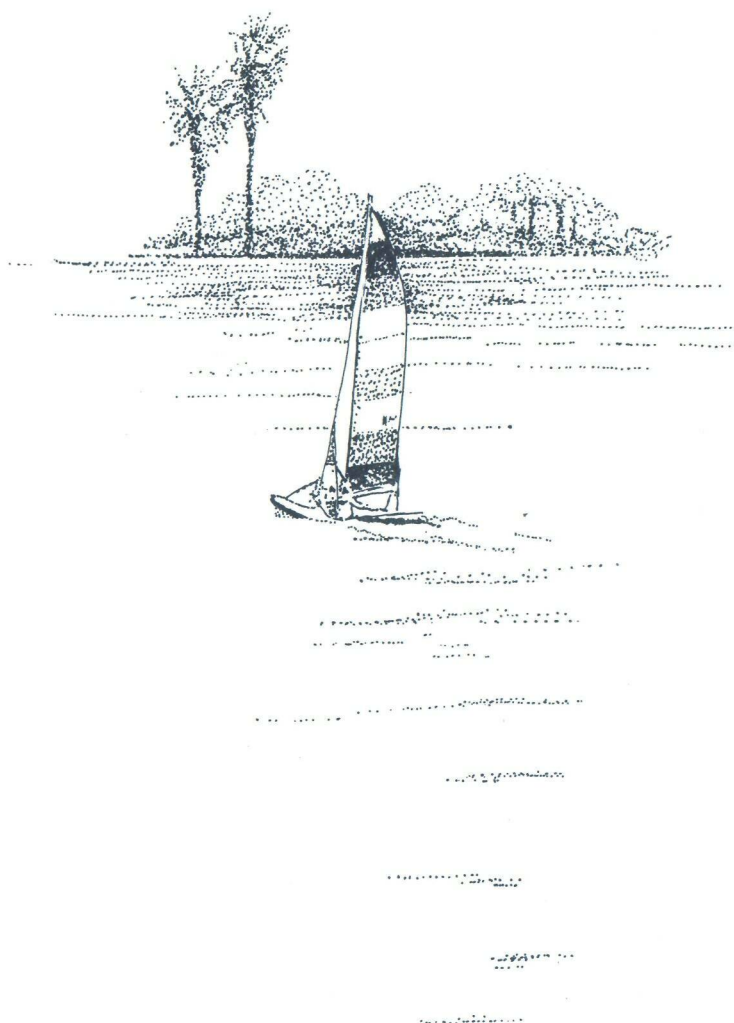
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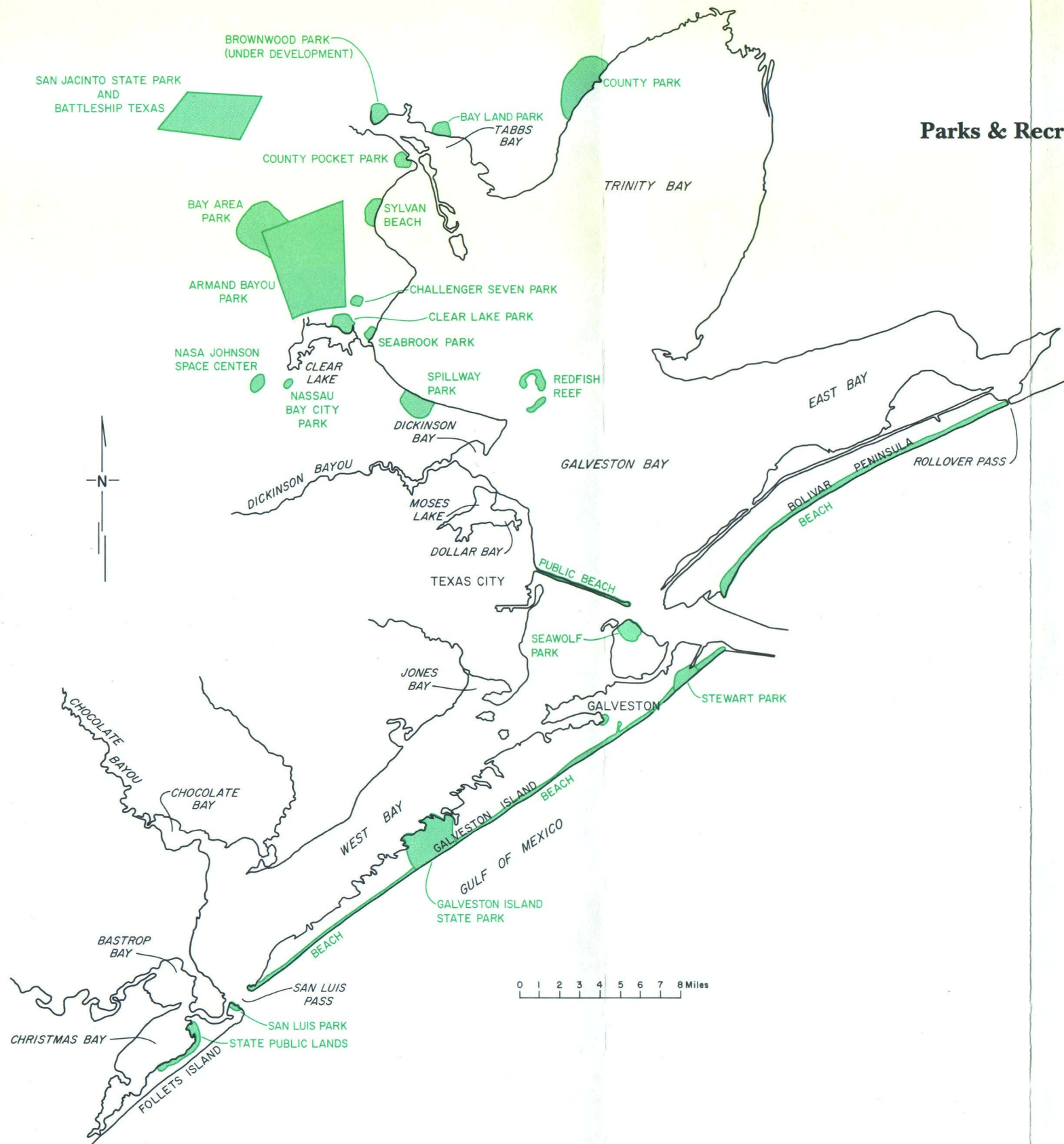
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Family activities abound in and around the bay. Cities, counties, the state and federal governments all provide recreational areas for public enjoyment around Galveston Bay. The map on page 11 shows the location of recreational areas. For more information on picnic facilities, playgrounds, athletic fields, and other recreational facilities, contact your local parks and recreation department.

Of course, the natural beauty of the parks near Galveston Bay provide an excellent backdrop for scenic walks to relax and enjoy the quality of life provided by the water.



## Parks & Recreation Area Map

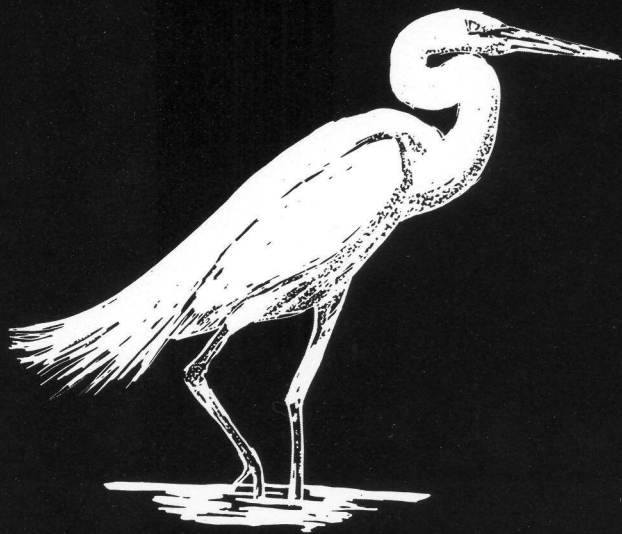




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# FISHING

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Galveston Bay is a fisher's paradise. The bay is home to many species and a full stringer is a common sight. In fact, forty-five percent of the recreational landings in Texas come from Galveston Bay. If you enjoy fishing, you should spend some time on one of the bays in the Galveston Bay System. If you don't know if you like fishing, a trip out on the bay with a rod can be very relaxing. Either way, you'll most likely enjoy yourself.

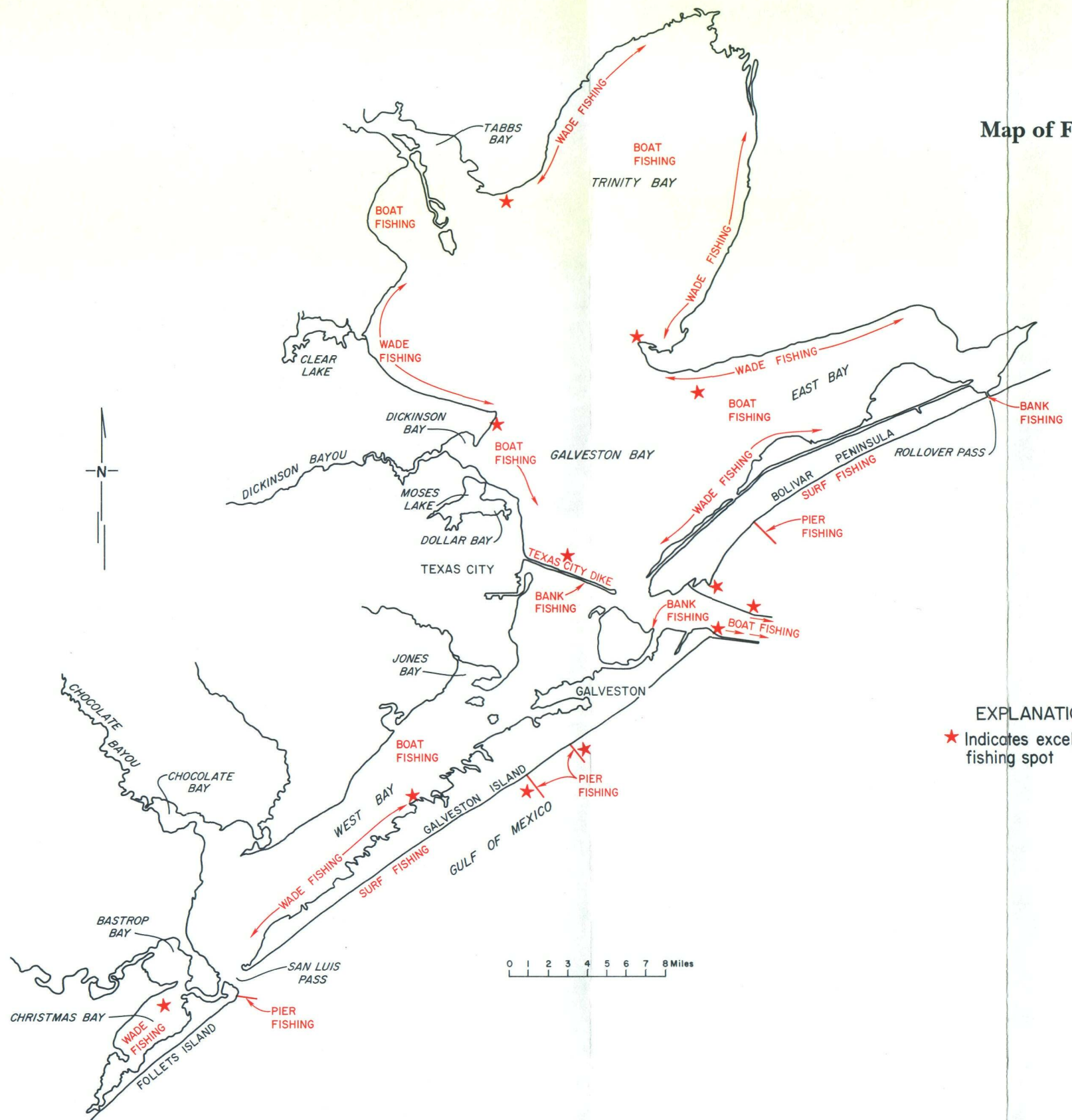
This handbook identifies the top five sport fish in our area and includes drawings along with basic information on each fish. The Texas Parks and Wildlife Department can provide you with information on many of Texas' saltwater fish. Many TPWD publications can be obtained free of charge. *Texas Parks and Wildlife Magazine* is available at a reasonable charge. Call 1-800-937-9393 for more information about the magazine.

We surveyed some experienced fishers of Galveston Bay and took note of some of their favorite fishing sites. Many of these sites have easy access without the need for a boat. There are no guarantees, but these areas have worked in the past. See the map on page 17.

Like most good things, there are a few rules to saltwater fishing. The chart on page 25 will provide you with the current Texas size, bag and possession limits for the five most popular sport fish. These limits change, therefore you should contact the local Texas Parks and Wildlife representative or your local bait shop for the most current information.

*For more information on fishing in Galveston Bay, contact the Gulf Coast Conservation Association or any of the other fishing organizations. Ask your bait shop how to get in touch with these organizations.*

## Map of Fishery



### EXPLANATION

★ Indicates excellent fishing spot

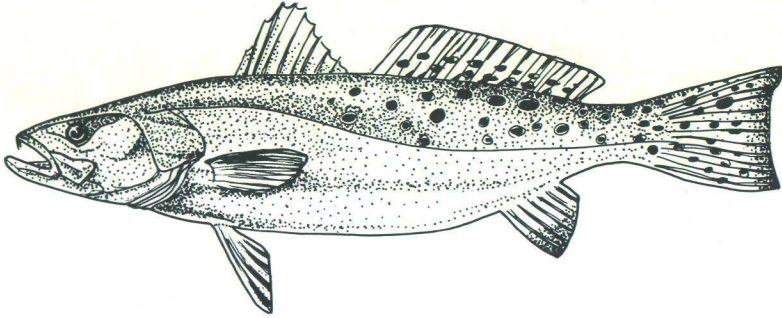


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## The Top Five Gamefish

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### Speckled Trout (*Cynoscion nebulosus*)



The spotted seatrout, (*Cynoscion nebulosus*) commonly called the speckled trout, is one of the most popular sport fish along the Texas coast. It occurs in the western Atlantic and Gulf of Mexico, ranging from Massachusetts to the Yucatan Peninsula. This fish is a member of the croaker family (Sciaenidae) and is "first cousin" to the Atlantic croaker, red drum, black drum, and sand seatrout. Its abundance, willingness to hit natural and artificial baits, and fine eating qualities make the species extremely popular with rod and reel fishers.

The speckled trout reaches sexual maturity at two years of age. Eggs number from 100,000 in small fish to over one million in large females. Spawning occurs inside the bay's vicinity of grass beds where the newly hatched young find food and shelter. Speckled trout have a protracted spring and summer spawning period, which peaks during May-July. Two, three and four year-old fish form the bulk of the spawning population.

Once male speckled trout reach sexual maturity, they suffer higher natural mortality rates than females. With females living to be nine to ten years old, most large speckled trout caught are female.

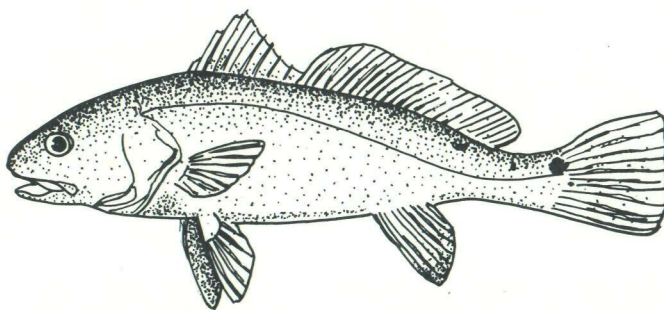
Speckled trout are opportunistic carnivores whose feeding habits vary with size. Small trout feed primarily on small crustaceans, like shrimp. Medium size trout feed on shrimp and small fish. Large fish feed almost exclusively on other fishes such as mullet, pinfish, pigfish and menhaden.

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Most speckled trout movement seems in response to water temperature and spawning. They are most common in the shallow bays like Galveston during spring and summer. As water temperatures decline during the fall, fish move into deeper bay waters and the Gulf of Mexico.

During warm weather, fish shallow areas in the morning and late in the evening. Speckled trout also form large schools which then feed together on shrimp or fish. This activity often attracts gulls and terns which hover above the fish. Anglers who find the "birds working" will usually also find successful fishing. Speckled trout are excellent tablefare.

### **Red Drum (*Sciaenops ocellatus*)**



The red drum (*Sciaenops ocellatus*), more commonly known as "redfish" or "reds", is a highly prized gamefish. Redfish are found from Massachusetts to Key West where they are known as channel bass. They are also found along the Gulf Coast from Florida to Tuxpan, Mexico.

Red drum are members of the croaker family. Their cousins include the Atlantic croaker, spotted seatrout, and black drum. The most distinguishing mark on the red drum is a large black spot on the upper part of the tail base. Reds sometimes have multiple spots, but it is extremely rare for them to have no spots.

Red drum are fast growing fish reaching approximately eleven inches and one pound in their first year. In the second year they average seventeen to twenty-two inches and three and one-half pounds. In the third year, fish average twenty-two to twenty-four inches and between



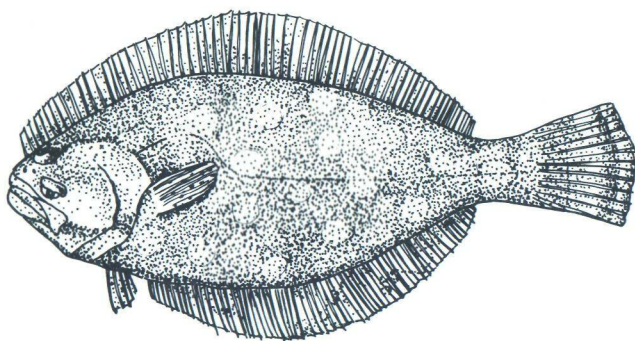
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six and eight pounds. The record red drum, caught in the Atlantic, is eighty-three pounds. The Texas record is currently fifty-one and a half pounds.

Red drum reach sexual maturity between their third and fourth years when they are about thirty inches long. They spawn in the Gulf of Mexico, possibly near the mouths of passes. On the Texas Coast, spawning occurs generally from mid-August through mid-October. Eggs hatch within twenty-four hours, and tidal currents carry them into the bays. The larval red drum seek quiet, shallow water with grassy or muddy bottoms. As they mature, they move from the bays to the Gulf of Mexico where they remain the rest of their lives. They may make infrequent visits to the bays.

Juvenile fish feed primarily on small crabs, shrimp, and marine worms. As they grow older they feed in the water column when the opportunity arises. While red drum prefer shallow waters along the edge of bays, they can live in fresh water and have been found many miles up river. One attractive characteristic of this fish is its willingness to take most kinds of bait, both natural and artificial. The best natural baits are live shrimp, small finger mullet, Atlantic croaker and small live blue crab.

## **Southern Flounder (*Paralichthys lethostigma*)**



Southern flounder (*Paralichthys lethostigma*) occurs from North Carolina to Boca Chica on the Texas coast and Mexico. They are most numerous west of the Mississippi River. They are compressed laterally and spend most of their life lying or swimming along the bottom



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on their side. A small body cavity and no air bladder aid the flounder in maintaining its position on the bottom.

Adult southern flounder leave the bays during the fall for spawning in the Gulf of Mexico, at depths of fifty to one hundred feet. They spawn for the first time when they are two years old, producing buoyant eggs. The young fish enter the bays during late winter and early spring. At this time they are about one-half inch in length and seek shallow grassy areas near the gulf passes.

Small flounder grow rapidly and may reach twelve inches in length by the end of their first year. Males seldom exceed twelve inches, but females grow faster than males and often reach a length of twenty-five inches. Most flounder taken by fishermen are females between twelve and sixteen inches long, weighing between one to one and a half pounds. These fish are in their second year of life. The record flounder in Texas was thirteen pounds and was taken in 1976 from Sabine Lake.

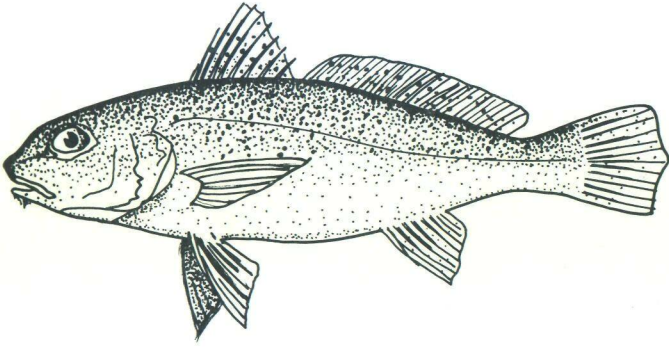
Most of the adults leave the bays and enter the Gulf for spawning during the winter. Some remain behind and spend the winter in the bays. Those in the Gulf will reenter the bays in the spring, but this influx is gradual and does not occur with the concentrations found in the fall immigration. While the juvenile fish feed mainly on crustaceans, as they grow older, fish become a more important part of their diet.

Flounder are taken by rod and reel or by gig. When fishing with a rod and reel, light tackle offers both the greatest sport and the best chance for catching flounder. Both artificial lures and natural bait can be used. Flounder do show a decided preference for live bait over dead bait.

While rod and reel is the more common method, "floundering" or gigging offers an exciting challenge for this species. The flounder's habit of entering the shallows at night to feed makes it vulnerable to this technique. Flounder giggers will need the skills of fishers as well as those of the hunters.

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## Atlantic Croaker (*Micropogonias undulatus*)

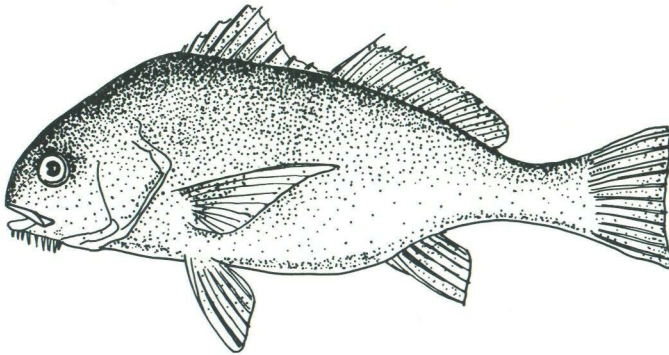


Atlantic croaker (*Micropogonias undulatus*), known on the Texas Coast as the golden croaker, occurs in great abundance in the Texas bays. It is found from Massachusetts to central Mexico. Its body shape is similar to that of a red drum, to which it is closely related. Atlantic croakers have rows of small barbels on each side of their lower jaws and are silver or gray colored as juveniles. As they mature they become a brownish-bronze color. The average weight is less than half a pound, and the maximum is about five pounds. Juveniles are widely distributed in all Texas bays, year around. The name croaker is derived from the fish's ability to create croaking sounds. Preferred natural foods are small crustaceans, shellfish, and worms. The best bait is a small piece of peeled shrimp fished on the bottom.

A favorite season of sport fishers to catch larger golden croakers is during the fall run when the fish migrate from the bays to the Gulf to spawn. The golden croakers caught during this run are larger and provide excellent tablefare. Golden croakers are one of the major sport fish in the Galveston Bay area, accounting for about twenty-five percent of the total sport harvest.

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## **Black Drum (*Pogonias cromis*)**



The black drum (*Pogonias cromis*), is known by several other names locally. It is a member of the croaker family and is related to the Atlantic croaker, red drum, and spotted seatrout. A characteristic of this fish is the ability to produce croaking or drumming sounds with the air bladder; hence the name croaker and drum. The black drum is found from New York through the Gulf states and on into Mexico. It is most abundant along the Texas Coast and is found in all bays and inshore waters of the Gulf.

The fish thrive in water so shallow that their backs can be exposed, as well as in the Gulf waters more than one hundred feet deep. In some bays, around some jetties in the Gulf, and in some channels, large drum gather in schools before spawning. In February and March, catches of these 30-40 pound fish make the local sports columns of the newspapers.

Some compare the landing of a forty pound drum with the raising of a sunken log, but there are many devotees of this kind of fishing in Texas. New state regulations, however, prevent possession of a black drum over thirty inches in length. Many sport fishers enjoy the challenge of catching a thirty to forty pound fish even if they return it to the bay.

Black drum will spawn in either the bay or the Gulf, or in the connecting passes. Spawning occurs mainly in February, March, or April with some later spawning occurring in June and July. Fish grow to a length of six inches in the first year, twelve inches in the second and sixteen inches the third. Increases of about two inches a year occur thereafter.



Young drum feed on marine worms, small crustaceans and small fish. Larger drum eat small crabs, worms, algae, small fish and mollusks. The fish use barbels to locate food by feel and smell. Drum have no canine teeth like those of a speckled trout, but highly developed pharyngeal teeth are used to crush mollusks and crabs before swallowing.

Black drum fishing can be enjoyed by almost anyone, at any time. Anyone can catch a drum regardless of experience or cost of equipment. Seldom are black drum taken on artificial bait since they feed mostly by feel and smell. Use cut fish, squid and shrimp; peeled shrimp tails are the most popular. Drum will often mouth the bait for some time before swallowing it. It is good practice to wait until the fish moves off with the bait and then jerk the rod up to set the hook.

## TEXAS SIZE, BAG AND POSSESSION LIMITS

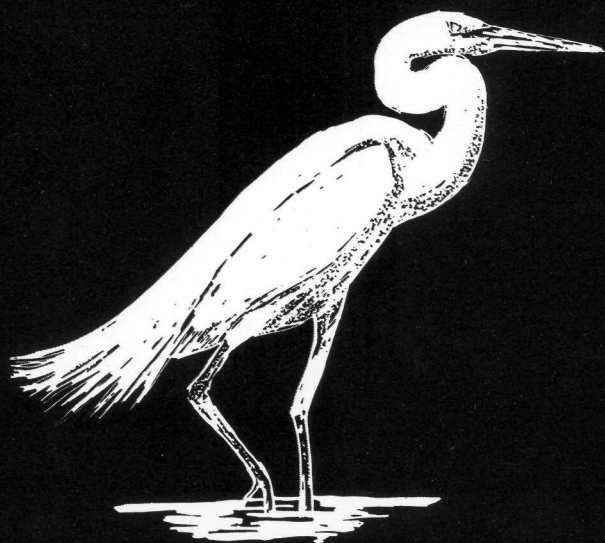
These limits are provided only as a current indicator of state limitations. For the most accurate information, contact Texas Parks and Wildlife Department or your local bait store.

Species	Size	Bag	Possession
Speckled Trout	Min. 14 inches (until September 1)	10/day	20 total
Redfish	Min. 20 inches	3/day	6 total Max 28 inches
Flounder	Min. 12 inches	20/day	40 total
Golden Croaker	<i>No Size, Bag or Possession Limits apply</i>		
Black Drum	Min. 12 inches Max. 30 inches	5/day	10 total

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# BOATING

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There are several places you can launch a boat. The map on page 31 gives you the approximate location of public boat ramps available throughout the Galveston Bay system.

There are more than 600,000 boats operating in Texas waters, and an untold number of canoes, sailboats, rowboats and other types of watercraft. Many of our waterways are crowded, and therefore hazardous. So, the boat operator must accept not only the responsibility for personal and passenger safety, but for damage done by his or her boat and its wake.

In this handbook, we are providing some basic information about boating in the Galveston Bay system. For a more comprehensive look at boating in Texas, call the Texas Parks and Wildlife Department, the United States Coast Guard, or the United States Power Squadrons.

Boating is fun. Safe boating is even more fun...and it makes good sense.



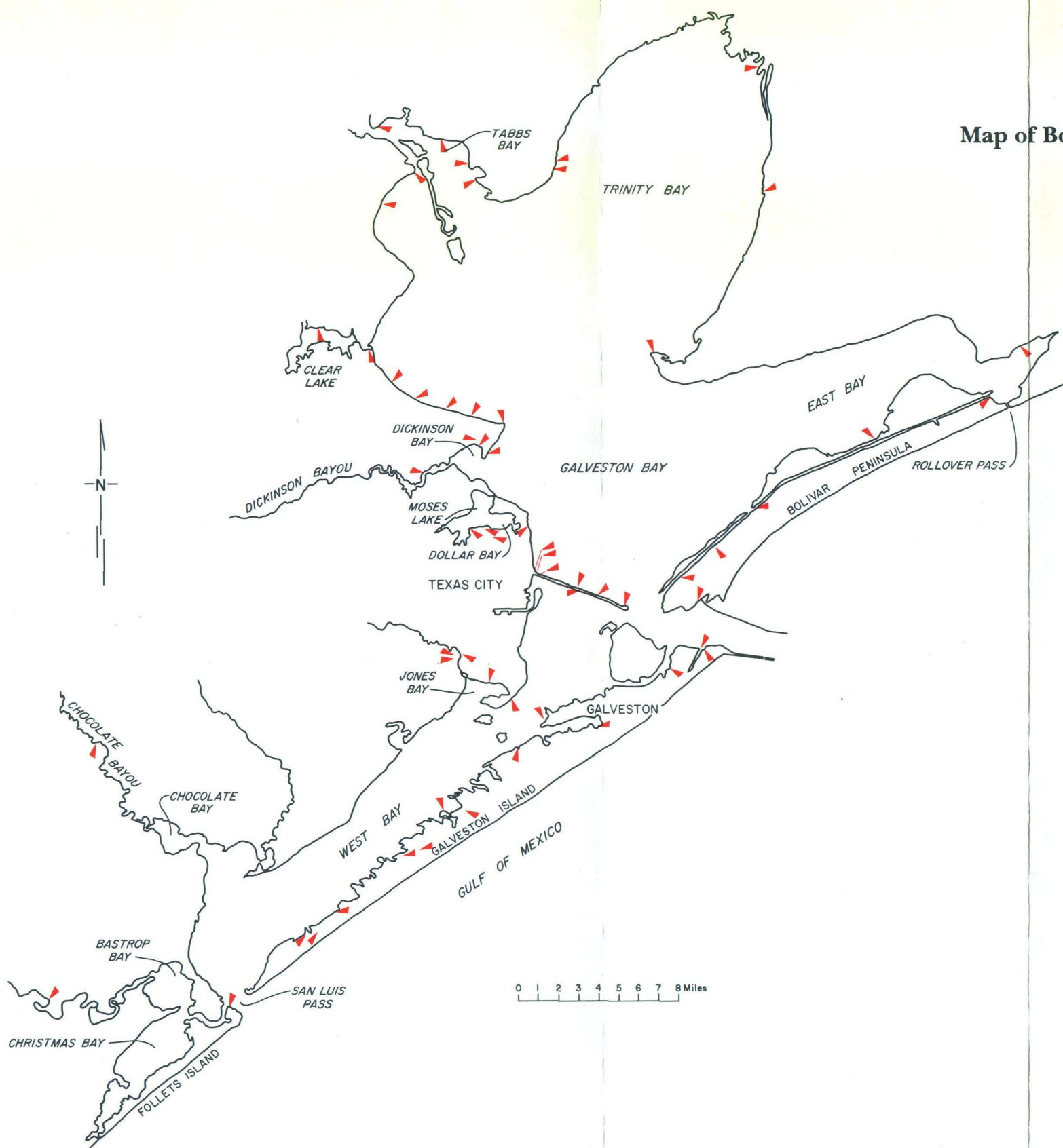
## **Boating on the Gulf Coast and Galveston Bay**

All the dangers that confront the freshwater boater are magnified when boating on the Gulf Coast and Texas' bays. When the wind hits the unobstructed expanse of the gulf, waves build dangerously high in a short period. Also, the distances involved handicap rescue efforts.

Boat traffic can be very congested in the Galveston Bay system — especially in the Houston Ship Channel area. The coastal waterways are often shallow and filled with shell reefs and rocks. Because of this, much of the traffic, from small skiffs to huge barges, use marked channels.

When traveling in these channels the recreational boater must stay alert when overtaking or meeting a large ship, barge or string of barges. These vessels are difficult to maneuver, so they have the right of way and they expect the recreational boater to stay clear. Also, they may have trouble seeing small craft from some angles.

## Map of Boat Launches



# Federal Waterway Marking System

Port Side  
Odd Numbers



Lighted Buoy  
(Green Light  
Only)

or



Can Buoy  
(Unlighted)

Starboard Side  
Even Numbers



Lighted Buoy  
(Red Light  
Only)

or

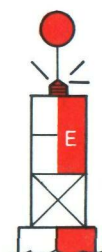


Nun Buoy  
(Unlighted)

Lateral Aids Marking the sides  
of channels as seen when  
entering from seaward

No numbers.  
May be  
lettered.

Safe Water Aids marking mid-  
channels and fairways



Lighted  
(White Light)

Spherical  
Buoy  
(Unlighted)



Preferred  
Channel to  
Starboard



Lighted Buoy  
(Green Light  
Only)

or



Can Buoy  
(Unlighted)

Preferred  
Channel to  
Port



Lighted Buoy  
(Red Light  
Only)

or



Nun Buoy  
(Unlighted)

Preferred Channel Aids (Mark  
bifurcations. No numbers. May  
be lettered.)



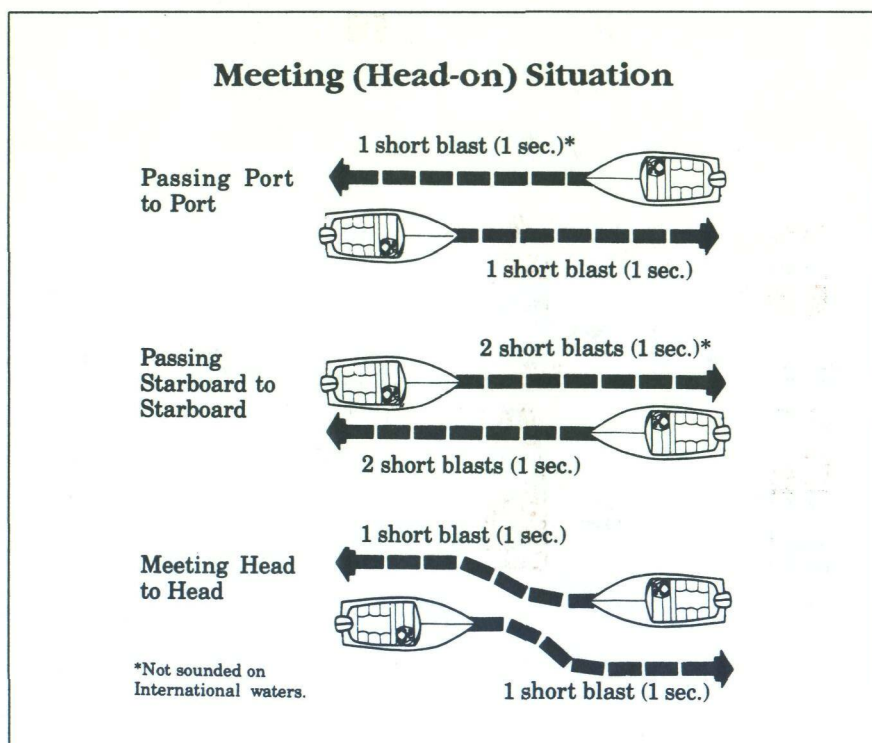
## Registration

Texas requires all undocumented motorboats principally used on Texas waters to be numbered. Applications for numbers are available from Texas Parks and Wildlife Department Offices or other designated agents, including your local county tax assessor/collector. There is a fee for registering your boat. The fee currently runs twelve to thirty dollars depending on the boat's size. For the current price structure, contact the office where you intend to apply for your number. The registration will be valid for two years.

If you change your address after you register, you should inform the Texas Parks and Wildlife Department within fifteen days after you move. Law requires all motorboats, regardless of length or horsepower, to be registered.

## The Rules of the Nautical Road

Much like driving on our highways, there are rules that every boat operator must follow. The charts listed below will give you some idea of these requirements. If you have questions about specific guidelines for safe driving on the water, direct them to the Texas Parks and Wildlife Department, or the U.S. Coast Guard. Do not take chances — operate your boat with knowledge.



## Overtaking

Stand-on (Privileged)  
Vessel Being Overtaken

### Inland Rules

"I want to pass you on your port side."

2 short blasts (1 sec.)

"Proceed."

2 short blasts (1 sec.)

### International Rules

"I am altering my course to port."

2 short blasts (1 sec.)

### Inland Rules

"I want to pass you on your starboard side."

1 short blast (1 sec.)

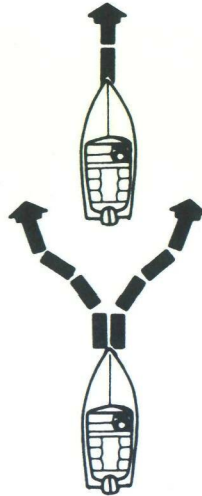
"Proceed."

1 short blast (1 sec.)

### International Rules

"I am altering my course to starboard."

1 short blast (1 sec.)



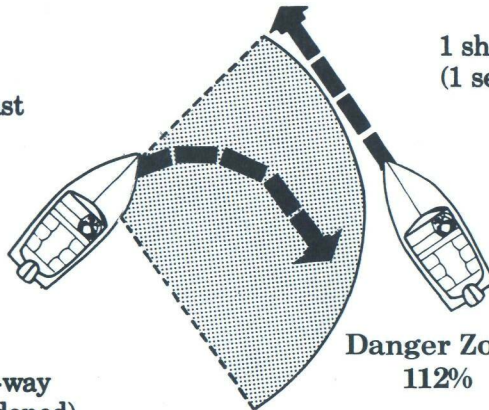
Give-way (Burdened)  
Vessel Overtaking

## Crossing Situation

Stand-on (Privileged Vessel)  
holds course and speed.

1 short blast  
(1 sec.)

1 short blast\*  
(1 sec.)



Give-way  
(Burdened)  
Vessel

Danger Zone  
112%

\*Not sounded on  
International waters.

---

## Right of Way on the Water

One of the most frequently asked questions by new boaters is, “who has the right of way when another boat is approaching?” There are specific rules for this, but a good rule is: it is best to avoid hampering the progress of any large vessel even if you think you have the right of way. This is especially true in the Galveston Bay system. Not only should you be prepared for oncoming boats, but as larger vessels approach, take caution of their wake. Even a slow moving large vessel can create a substantial wake. Also, be careful of barges and tug boats as they cannot maneuver quickly. Don’t take chances, boat smart.

The boating right of way rules are:

1. A power driven vessel underway shall keep out of the way of:
  - \* A vessel not under command (unable to maneuver)
  - \* A vessel restricted in her ability to maneuver
  - \* A vessel engaged in fishing
  - \* A sailing vessel
2. A sailing vessel underway shall keep out of the way of:
  - \* A vessel not under command
  - \* A vessel restricted in her ability to move
  - \* A vessel engaged in fishing
3. A vessel engaged in fishing when underway shall, as far as possible, keep out of the way of:
  - \* A vessel not under command
  - \* A vessel restricted in her ability to maneuver.

**Note that a “vessel engaged in fishing” does not include boats fishing with trolling lines or other apparatus that does not restrict maneuverability.**

## Safety Equipment

### Personal Flotation Devices

Every recreational vessel must carry at least one U.S. Coast Guard-approved personal flotation device (PFD) — such as a life jacket — for each person on board. All PFD’s carried on board must be service-



## Personal Flotation Devices



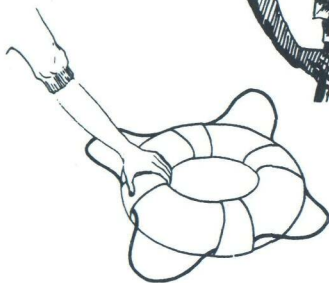
**Type I —  
Offshore Lifejacket**



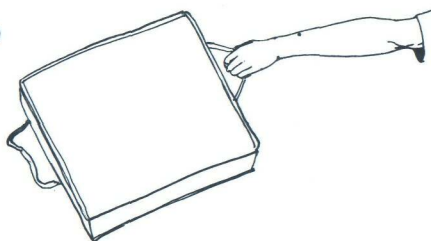
**Type II —  
Near-shore Lifejacket**



**Type III —  
Flotation Aide**



**Type IV —  
Throwable Device**



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able, readily accessible, and of appropriate size for the intended wearer. All straps and buckles must be attached and functional. "Readily accessible" means that the PFD can be reached immediately in an emergency. Never keep any PFD under lock and key while you are using your boat. Make certain your passengers always know the location of these important life saving devices and that they wear them while boating.

Children under 13 years of age are required to wear a Coast Guard approved PFD while the boat is underway if the boat is less than 26 feet in length.

When shopping for a PFD look for and read the U.S. Coast Guard approval label. The label states important features about the device, including its adequacy for the intended purpose.

## **Visual Distress Equipment**

All recreational boats, when used on coastal waters and the territorial seas, up to a point where a body of water is less than two miles wide, must be equipped with distress signals. The following are exempt from the requirements for day signals and need only to carry night signals when operating at night:

- \* Recreational boats less than sixteen feet in length
- \* Boats participating in organized events such as races, regattas or marin parades
- \* Open sailboats less than twenty-six feet in length not equipped with propulsion machinery
- \* Manually propelled boats

Pyrotechnic visual distress signals must be Coast Guard approved, in serviceable condition and stowed ready and accessible. They are marked with a date showing the serviceable life and this date must not have passed. Launchers produced before January 1, 1981, intended for use with approved signals, are not required to be U.S. Coast Guard approved.

U.S. Coast Guard approved pyrotechnic visual distress signals and associated devices include:

- \* Pyrotechnic red flares, hand held, or aerial
- \* Pyrotechnic orange smoke, hand held or floating
- \* Launchers for aerial red meteors or parachute flares.

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Non-pyrotechnic visual distress signaling devices must carry the manufacturer's certification that they meet the U.S. Coast Guard's requirements. They must be in serviceable condition and stowed to be readily accessible. This group includes:

- \* Orange distress flag
- \* Electric distress signal

No single signaling device is ideal under all conditions and for all purposes. So, consider carrying several types. For example, an aerial flare can be seen over a long distance on a clear night. However, for closer work, a hand-held flare may be more useful.

## **Fire Extinguisher**

All mechanically propelled vessels less than twenty-six feet must carry one B-I U.S. Coast Guard approved fire extinguisher. The fire extinguisher is not required on outboard motorboats less than twenty-six feet in length, if the construction of the boats will not permit the entrapment of explosive or flammable gases or vapors, and if fuel tanks are not permanently installed.

Although most outboards are exempt from fire extinguisher requirements, certain types of construction or closed spaces may necessitate the carriage of a fire extinguisher. If you have any doubts, carry a fire extinguisher. Someone in need of assistance may find it handy. The U.S. Coast Guard minimum equipment requirements for motorboats are shown in the chart below.



## U.S. Coast Guard Minimum Requirements for Motorboats

Equipment	Class A (less than 16 ft.) (less than 4.9 m)	Class 1 (16 to less than 26 ft.) (4.9 to less than 7.9 m)	Class 2 (26 to less than 40 ft.) (7.9 to less than 12.2 m)	Class 3 (40 to less than 65 ft.) (12.2 to less than 19.8 m)
Back-Fire Flame Arrestor	One approved device on each carburetor of all gasoline engines installed after April 25, 1940, except outboard motors.			
Ventilation (Boats built before August 1, 1980)	At least two ventilator ducts fitted with cowls or their equivalent for the purpose of properly and efficiently ventilating the bilges of every closed engine and fuel tank compartment of boats constructed or decked over after April 25, 1940, using gasoline as fuel or other fuels having a flash point of 110° or less.			
Ventilation (Boats built on August 1, 1980 or later.	At least two ventilator ducts for the purpose of efficiently ventilating every closed compartment that contains a gasoline engine and every closed compartment containing a gasoline tank, except those having permanently installed tanks which vent outside the boat and which contain no unprotected electrical devices. Also, engine compartments containing a gasoline engine having a cranking motor must contain power operated exhaust blowers which can be controlled from the instrument panel.			
Personal Flotation Devices (PFDs)	One approved Type I, II, III or IV PFD for each person on board or being towed on water skis, etc.	One approved Type I, II or III device aboard for each person on board or being towed on water skis, etc.; and, in addition, one throwable Type IV device.		
Bell, Whistle	Every vessel less than 12 meters (39.4 ft.) in length must carry an efficient sound producing device.		Every vessel 12 meters (39.4 ft.) but less than 20 meters (65.6 ft.) in length must carry a whistle and a bell. The whistle must be audible for 1/2 nautical mile. The mouth of the bell must be at least 200 mm (7.87 inches) in diameter.	
Visual Distress (Required on coastal waters only.)	Must only carry approved visual distress signals for nighttime use.	Must carry visual distress signals approved for both daytime use and nighttime use. Note: All boats carrying six or more passengers for hire must meet these requirements also.		
Fire Extinguisher Must say Coast Guard Approved.	At least one B-1 type of approved hand portable fire extinguisher. (Not required on outboard motorboats less than 26 feet (7.9 meters) in length and not carrying passengers for hire if the construction of such motorboats will not permit the entrapment of explosive or flammable gases or vapors and if fuel tanks are not permanently installed.)		At least two B-1 type approved portable fire extinguishers; OR at least one B-11 type approved portable fire extinguisher.	At least three B-1 type approved portable fire extinguishers; OR at least one B-1 type plus one B-11 type approved portable fire extinguisher.
NOTE: When fixed fire extinguishing system is installed in machinery space(s) it will replace one B-1 type portable fire extinguisher.				

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## **Navigation Lights**

The charts shown below demonstrate the lighting requirements between sunset and sunrise. If you plan to operate your vessel during these times, please observe safe and proper lighting practice.

## **Anchor**

All mechanically propelled vessels should carry an anchor and anchor line that is heavy enough and strong enough to provide safe anchorage. Select the appropriate type anchor for your boat size and the type bottom you expect to be anchoring in. If you have any questions about type and size, ask your local marina sales store.





## **Other Safety Concerns**

### **Alcohol**

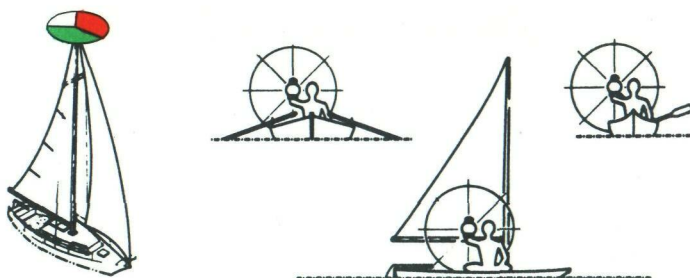
Coast Guard studies show that as many as fifty percent of all boating accidents may be alcohol related. It is against the law to operate a vessel in Texas under the influence of alcohol. You can suffer legal consequences for doing so. More importantly, you can injure yourself, your friends, and others by not being responsible. Remember, operating your boat on the water is like driving your car on the highway. Don't drink and drive either place.

### **Precautionary Planning**

One of the great pleasures of boating is the freedom you have when you get out on the water. But make plans before you leave to listen for weather updates and wind advisories, and to heed them. While boating is a relatively safe activity, make everyone feel more comfortable by observing official warnings and letting someone know where you plan to go boating that day. It's not a big task, and it can help the Coast Guard locate you on the water in case of an accident or if you are stranded.

Lights (Ranges and Arcs)			
Location of Lights On Vessel	Visible Range in Miles		Arc in Degrees
	Less than 39.36 ft.	39.36 ft. or more	
 Masthead light	2	3	225
 All-around light	2	2	360
 Sidelights	1	2	112.5
 Sternlight	2	2	135

### Lights for Non-powered Vessels





## Power Driven Vessels

Figure 1

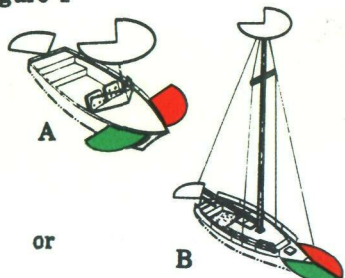
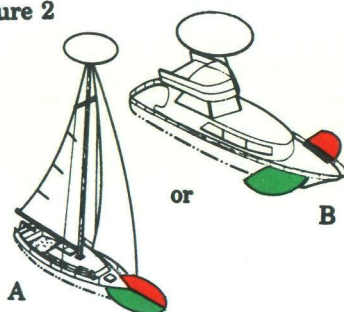


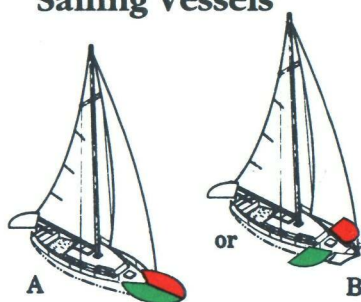
Figure 2



Note: A sailing vessel operating under machinery alone, or under sail and machinery power is considered a power-driven vessel. Only vessels less than 65.6 feet (20 meters) in length may show the required sidelights as a combined lantern.

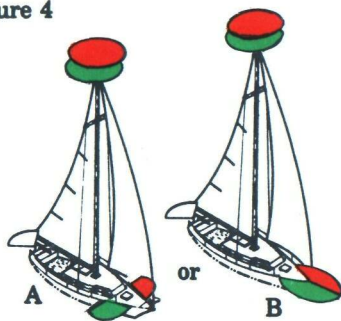
## Sailing Vessels

Figure 3



(Mandatory)

Figure 4



(Optional red over green)

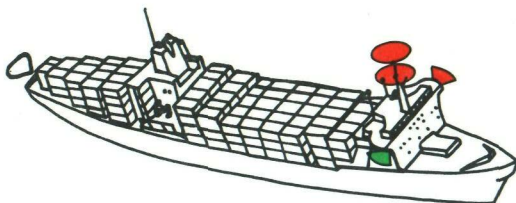
Figure 5

(Optional combined lantern)

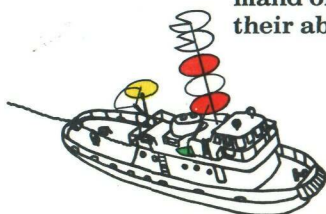


Combined Tricolor Light

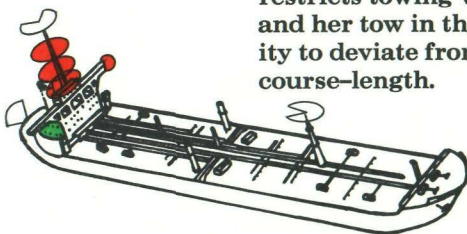
## Large Vessel Navigation Lights



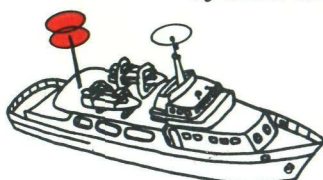
Vessels not under command or restricted in their ability to maneuver.



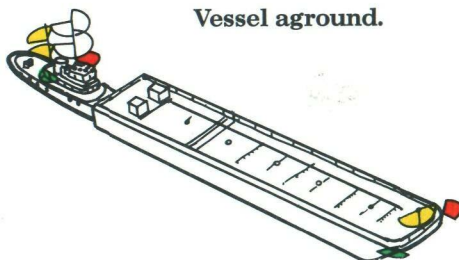
Vessel engaged in towing operation which severely restricts towing vessel and her tow in their ability to deviate from their course-length.



Vessels constrained by their draft.



Vessel aground.



Vessel being pushed ahead, not being part of a composite unit.

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## **Weight Maximums**

Never overload your boat. It was designed for a certain maximum occupancy or weight. Trust the manufacturers and don't take chances.

## **Operation Information**

Operate your boat so it will not endanger others and it can be stopped safely within the clear distance ahead. When passing near marinas, fishing areas, swimming areas, a vessel servicing a buoy, or places similar in nature – reduce your speed. Skippers are responsible for damage caused by their wakes.

Do not interfere with navigation by obstructing a channel or fairway. Avoid anchoring in heavily traveled areas, and don't block launching areas. You should not moor to buoys unless they are designed for that purpose. Mooring to a navigation buoy or regulatory marker is illegal.

## **Accident Reporting**

If any of the following conditions are met, a vessel operator must submit an accident report to Texas Parks and Wildlife Department within thirty days:

1. a person dies in accident
2. a person is injured
3. property damage is more than five hundred dollars.

The accident report is confidential and is not admissible in court as evidence.

## **Observing the Rules and Regulations**

Many rules and regulations have been covered in this section. Texas Parks and Wildlife Department Game Wardens, U.S. Coast Guard personnel, and many local and county authorities have regulatory and enforcement responsibilities on Texas waters.

While the goal is to allow boaters to have fun, they are expected to act responsibly. If you are in violation of safety rules or negligently



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operating your vessel, your trip can be terminated by these enforcement agencies. This means your vessel will be returned to the closest dock until the situation is corrected.

Some examples of negligent operation include:

- \* Excessive speed in a congested area
- \* Excessive speed in stormy conditions
- \* Operating under the influence of drugs or alcohol
- \* Operating in a swimming area
- \* Towing water skiers where obstructions exist or a fall might cause them to hit another vessel
- \* Operating in the vicinity of dams when known to be hazardous
- \* Cutting through a regatta or marine parade.

## Trash Disposal

Pleasant natural surroundings are one of the prime enjoyments of bay boaters. With good boating habits, Galveston Bay can continue to be one of the nation's best as well as one of its busiest boating venues. **Never dispose of any trash overboard or upon beaches or marshlands. Soft drink and beer cans do not provide excellent habitat on the bay bottom. Stow your trash and dispose of it when you return to shore.**

It is illegal for any vessel to dump plastic trash anywhere in the ocean or navigable waters of the United States. Annex V of the Marpol Treaty is an International Law for a cleaner, safer marine environment. Violation of these requirements may result in civil penalty up to \$25,000, fine and imprisonment. The U.S. Coast Guard will board vessels to check for holding tanks and disposal.

In U.S. lakes, rivers, bays, and sounds it is illegal to dump the following:

**3 miles from shore - ILLEGAL TO DUMP - Plastic and Garbage, Paper, Metal, Rags, Crockery, Glass, Dunnage, Food**

**3 to 12 miles from shore - ILLEGAL TO DUMP - Plastic, Dunnage, lining & packing materials that float (also if not ground to less than one inch), Paper, Crockery, Rags, Metal, Glass, Food**

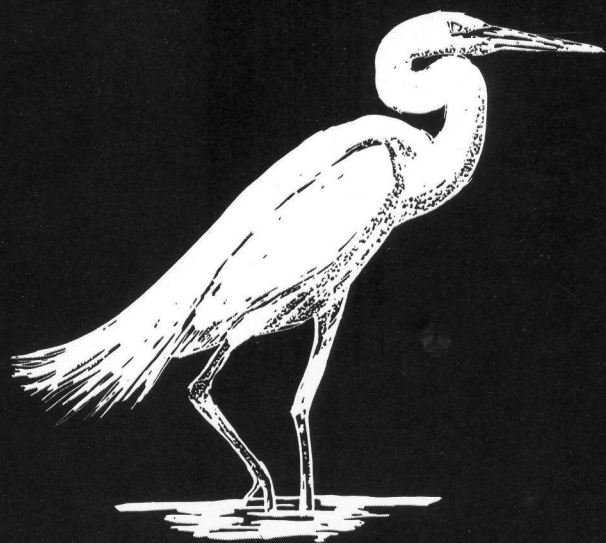
**12 to 25 miles from shore - ILLEGAL TO DUMP - Plastic, Dunnage, lining & packing materials that float**

**Outside 25 miles - ILLEGAL TO DUMP - Plastic**

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# Bird-Watching

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## Birds of Galveston Bay

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The Galveston Bay System is an important area for birds of all types. Bird watchers can sight many unique species during the migratory seasons in the area. While many of us only think of gulls around the bay, several endangered or threatened species have been sighted in the bay area.

Of course, birds to some may mean ducks and hunting. Others enjoy sighting a particular species, and recording it on their list. The graceful motions of birds have been enjoyed by many boaters and photographers.

The list of birds you can see in the Gulf Coast region is far too extensive for us to include in this handbook. What we have included is the Audubon Society's list of common birds with some line art pictures.

If you are on your boat out in West Bay, take some time to go by Deer Island with a pair of field glasses and see how many of our species you can identify. Deer Island is an important protected rookery for birds. You don't have to get very close to hear the sounds of the many species that make up the island's population. And remember, the vital habitat of Deer Island has three million people living nearby. But, don't forget, Deer Island is for birds only - stay in your boat and off the island.

Other types of habitat are important to the coastal bird's life. They need a place to rest, forage and raise their young. But they are reliant on the other natural settings around the bay. The same marshes that are nurturing grounds for small marine life, provide a food source for many of the coastal birds.

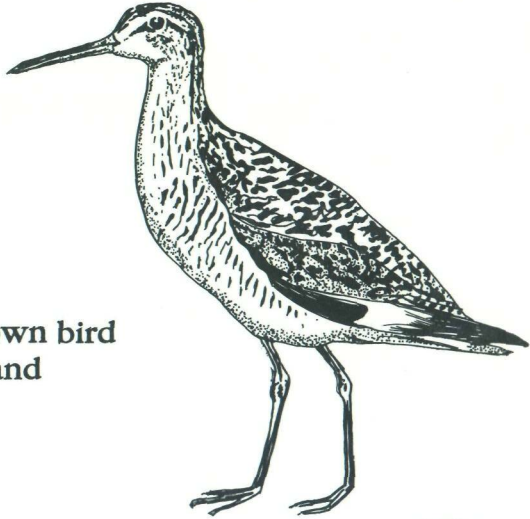


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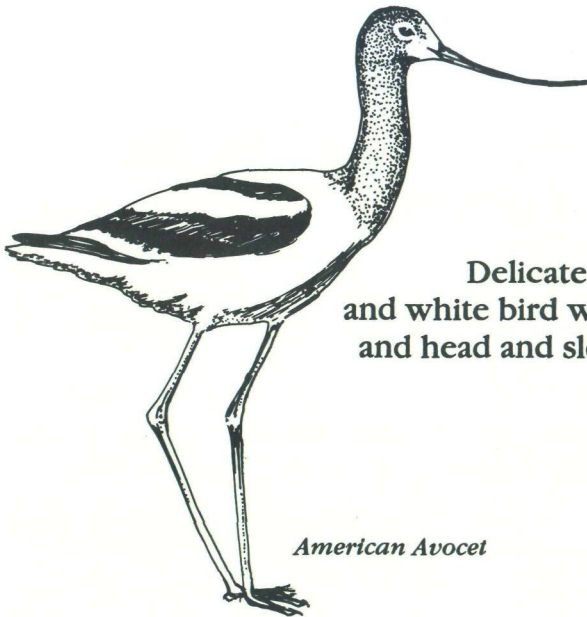
## Shorebirds

### Willet

Medium sized gray/brown bird with distinctive black and white wing pattern



*Willet*



**American Avocet**  
Delicate, long-legged, black and white bird with cinnamon neck and head and slender upturned bill

*American Avocet*

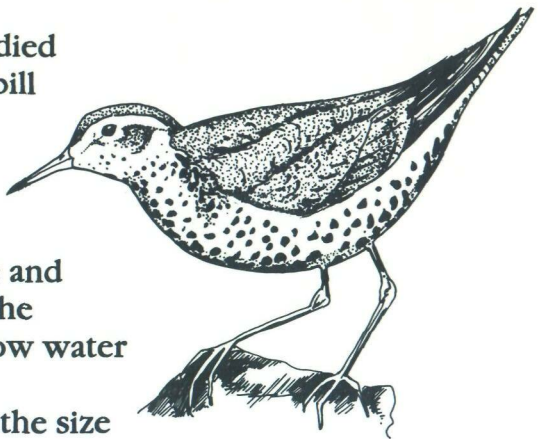
### Oystercatcher

Medium sized, stocky-bodied bird with long stout red bill and black head and bib

### Sandpiper

(and "peeps")

Small, short-legged white and tan bird that is found in the swash zone or very shallow water



*Spotted Sandpiper*

Similar birds up to twice the size of those above include Plovers, Dunlins, Dowitchers, and Curlews.

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## Waders

### Egrets

Long legged, long-necked, long-billed and found in several varieties

**Great Egret** - Large white bird with yellow bill, black legs

**Snowy Egret** - much smaller white bird with black bill, black legs and yellow feet

**Reddish Egret** - Red head and neck with gray/blue body, slightly larger than snowy egret with two toned bill (reddish near base and dark near tip)

**Cattle Egret** - similar to snowy egret but with stubby yellow bill



*Reddish Egret*



*Great Blue Heron*

## Hérons

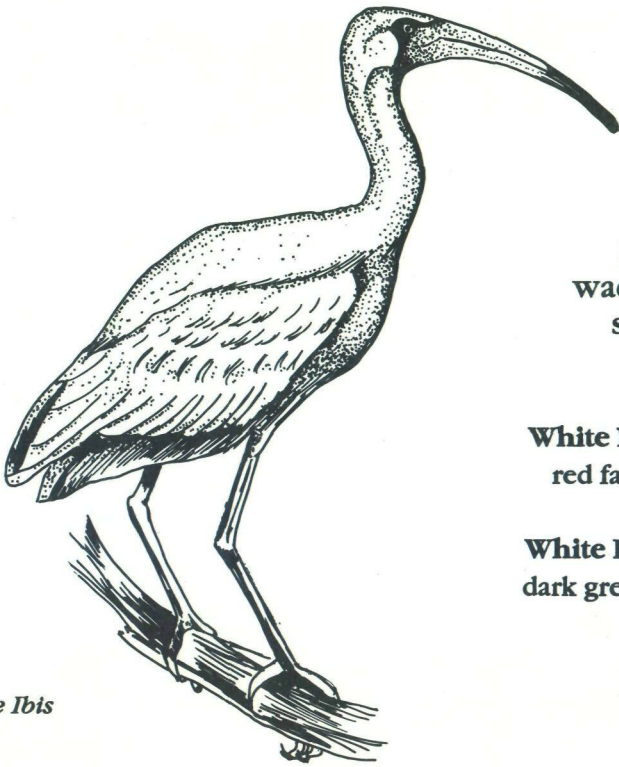
Large, long-legged, long-billed waders

**Great Blue Heron** - an impressive, four foot tall, gray bird

**Little Blue Heron** - a slender, two-foot tall, solidly dark blue bird

**Tricolor Heron** - similar to Little Blue Heron but has a white chest and a reddish head

**Yellow-crowned Night Heron** - a stocky, gray, black and white, two-foot tall heron with thicker, shorter bill than other herons



*White Ibis*

**Ibis**  
Medium sized  
wader with long,  
strongly down  
curved bill

**White Ibis** - white with  
red face, bills and legs

**White Faced Ibis** - very  
dark greenish/black bird



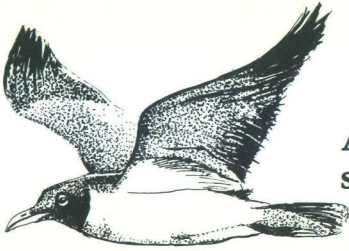
**Roseate Spoonbill**  
Large flamingo pink  
bird with unique  
spoon-shaped bill

*Roseate Spoonbill*



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## Water Birds



*Laughing Gull*

### Gulls

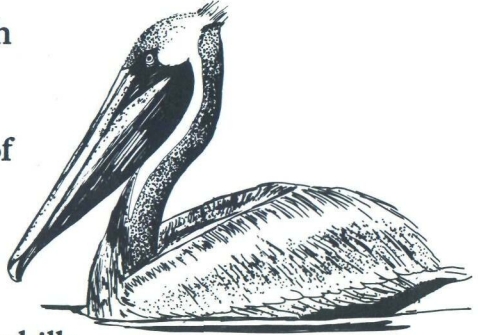
Approximately eleven species seen in coastal areas; most are black and white aggressive birds with raucous calls; feed by dipping from water surface

### Terns

As many as ten species in the coastal area; black and white birds, many with black crests and forked tails; generally more graceful than gulls; feed by diving

### Black Skimmer

Strikingly marked bird with black on top and white beneath; feed by dragging the longer lower portion of their bright red bill along water surface



### Pelicans

Huge birds with pouch-like bills

*Brown Pelican*

#### American White Pelican

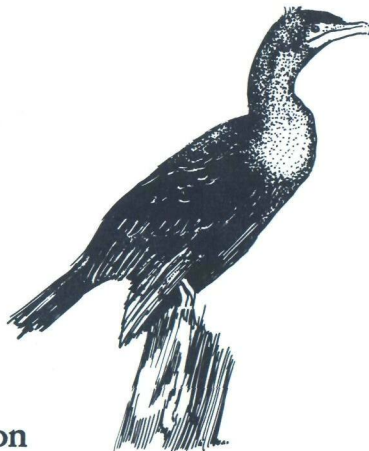
Nine foot wing span - white with trailing edge of wing black; bill yellow to orange

#### Brown Pelican

Eight foot wing spread, generally brown with white head and dark bill

### Commorants

Two species of dark, long-necked, short-tailed fishing bird; in flight resemble large black ducks



*Double-Crested Cormorant*

### Ducks

As many as thirty species are found here; varies greatly depending on season

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### **Geese**

Up to five species have been seen with Snow Geese (in both white and blue phases) most common

### **Grebes**

Up to six species of these small duck-like birds with their small pointed beaks have been sighted in the area

### **Common Loon**

Large, sturdy, dark, swimming and diving bird, normally well away from shore on bay water.

## **Raptors**

### **Osprey**

Spectacular "fish eagle"; dark brown back and mask; white cap and front

### **Northern Harrier**

The "marsh hawk"; long-winged hawk with conspicuous white spot at base of long tail; males gray, smaller than brown female

### **Kestrel**

Small, colorful falcon, common on power lines and poles



*Osprey*

***For more information on the birds of Texas contact the Parks and Wildlife Department or the Houston Chapter of the National Audubon Society.***

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# **C**ONTACT NUMBERS ---

State and federal funding for enforcement activities is limited. Citizen reports help to increase the number of eyes watching for threats to the bay system. If you see a situation that may violate a state or federal law, or that threatens the Galveston Bay environment, please call the appropriate contact listed below.

## **Texas Parks and Wildlife Department**

To Report Game or Fishing violaiton call:  
**OPERATION GAME THIEF 1-800-792-GAME**

To report fish kills, fresh water dumping from boats, game and fishing violations, state regulations violations in state parks, and any problems with resource protection. Game Wardens throughout the Galveston Bay System may be contacted through this number.

**Seabrook 713-474-2811**

During Regular Office Hours Contact local Parks and Wildlife Department Office:

**Houston 931-6471 OR 645-0212**

**La Porte 471-8677**

## **Texas Water Commission**

**TWC Houston/Galveston Office — 713/457-5191**

For all water quality matters contact this office Monday through Friday between the hours of 8-5.

**TWC 24 Hour  
Emergency Spill Response Line  
512/463-7727**

Report any type of chemical spill, or hazardous materials spills whether in water or on land. (YOU SHOULD ALSO CONTACT YOUR LOCAL DEPARTMENT OF PUBLIC SAFETY OFFICE WITH EMERGENCY SPILL INFORMATION)



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## **Texas Department of Health**

**TDH Harris County — 713/995-1889**

The Texas Department of Health is responsible for protecting the public in all health matters. This includes bay contact areas and health issues related to consumption of seafood. If you have a question about a health related issue, don't take a chance — contact TDH.

## **Texas General Land Office**

**512/475-1575**

The General Land Office is responsible for investigation of all coastal oil spills. To report on oil spills in the bay or gulf, contact the General Land Office.

## **United States Coast Guard**

**USCG Harris County — 713/672-6639**  
**USCG Galveston County — 409/766-3639**

**National Number — 1-800-424-8802**

Persistent marine debris not only has a visual effect on the bay, it can be dangerous for marine wildlife. Dumping from boats or ships is illegal. Report any marine dumping to the U.S. Coast Guard. If possible, you should get information about the boat or ship and the type of materials the polluter is dumping.

## **Local Public Safety Numbers:**

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## **Galveston Bay Information Center**

**Jack K. Williams Library**  
**Texas A&M at Galveston**  
**409/740-4567**

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# **PUBLIC OPINION SURVEY**

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***Please complete and return this survey form to:***

**Galveston Bay National Estuary Program**

Bay Plaza One  
711 Bay Area Blvd.  
Suite 210  
Webster, Texas 77598

Name: \_\_\_\_\_

Town: \_\_\_\_\_

I generally use the bay for:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> sport fishing | <input type="checkbox"/> boating                 | <input type="checkbox"/> my job             |
| <input type="checkbox"/> bird watching | <input type="checkbox"/> picnicking              | <input type="checkbox"/> general recreation |
| <input type="checkbox"/> not at all    | <input type="checkbox"/> other (please identify) |   |

\_\_\_\_\_

What I like about this handbook: \_\_\_\_\_

\_\_\_\_\_

What I don't like about this handbook: \_\_\_\_\_

\_\_\_\_\_

You can improve it by: \_\_\_\_\_

\_\_\_\_\_

Overall I:

- |  |  |
|--|--|
| <input type="checkbox"/> liked this User's guide | <input type="checkbox"/> didn't like this User's guide     |
| <input type="checkbox"/> believe this is useful  | <input type="checkbox"/> think it should not be done again |

- ☐ Yes, I would like to help protect the bay. Please include my name on the mailing list.

\_\_\_\_\_

*This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement #CE-006551-01 to the Texas Water Commission. The contents of this document do not necessarily represent the views of the United States Environmental Protection Agency, nor does mention of trade names or commercial products constitute an endorsement or recommendation for use.*