# LEOH Trip Sea Center Texas @ Lake Jackson June 6, 2023



Thank You to our Precinct One bus driver for a safe trip; and Thank You to Ann Fairchild for yet another fun and educational trip!



First stop – Jimmy Joe's in Lake Jackson for lunch!





Lunch was great, and so were our servers. One even took time to take these pictures!





Part of the Texas Parks & Wildlife Department (TPWD), and in partnership with Dow Chemical Corporation, Sea Center Texas in Lake Jackson is a marine aquarium, fish hatchery, and education center. Admission is free; however, tax-deductible donations are always welcome!



# Spot the crab!

The first stop at the Sea Center was a "touch tank", to view small fish, snails, hermit crabs in residence, and blue crabs.

Wiggling your finger in the water attracts a large crab, which will try but fail to give you a "pinch", since it has had one pincer removed, for your safety. (Missing pincers regenerate.)



Our large group was split into two groups for touring purposes, with one group beginning their tour in the aquarium exhibit. The guide pointed out and described the variety of aquatic animals being viewed, while answering everyone's questions.

Colorful, informative posters were also on view, which gave a wealth of information about the variety of our Texas saltwater habitats and their residents (see poster excerpts below).

## **Salt Marshes**

Marshes line the landward side of Texas' inner bays with plants and animals that can tolerate brackish water.

Along with wetlands, they act as biological filters where pollutants from freshwater runoff can settle out before reaching the Gulf. They also provide decaying vegetation as food, and spawning grounds for small marine animals.

## **Coastal Bays**

At their edge, mud flats in shallow water provide sea grass beds for a broad food web. Oyster reefs thrive where the food web reaches into the Gulf, aided by fast-running currents.

In the open bay, oyster reefs can act as barrier reefs, depending on their size.

#### **Jetties**

Jetties are the only rocky shores to be found in Texas! They consist primarily of large stones that weigh tons. They are often built in pairs, extending side-by-side to form a channel, and to keep the channel clear of sand bars and cross-currents.

A large variety of plant and animal life live within the cracks and crevices. Most have been swept in by the Gulf currents.

#### **Nearshore Waters**

The bottom is mostly a flat surface of soft mud or sand. Since the 1940's, the TPWD has been placing artificial reefs in these nearshore waters to attract plants and animals. The reefs are generally made of stone rubble, trees, concrete, and old ships and oil rigs.

Animals as well as people are attracted to the reefs. Scuba divers and anglers also enjoy what they offer.

### Where Do Gulf Animals Find Safety?

There is very little shelter in open Gulf waters. Sharks aren't worried, but what about the smaller fish? These smaller fish try to blend into the background to avoid being seen. When seen from above, their dark backs can match the seafloor. When seen from below, their pale bellies fade into the light from the surface. Rays can bury their flat, brownish bodies in the soft bottom. There are 6 different aquariums within the Sea Center; the Offshore Gulf of Mexico aquarium, the Artificial Reef aquarium, the Salt Marsh aquarium, the Jetty aquarium, the Coastal Bay aquarium, and the small Jellyfish aquarium.

Aquarium fish include

red drum, and more.

The Gulf of Mexico

holding 50,000 gallons.









The hatchery building is engineered for low-maintenance, semi-intensive fish production.



The adult fish are induced to spawn naturally in tanks. Eggs are then transferred to incubators for hatching.



The sophisticated life support systems are tailored primarily for adult redfish and speckled trout.



There were a few side "portholes" for viewing fish inside the tanks. To the left, one could see flounder lying on the bottom of a tank (if you first climbed a stepstool to peer down through the top).

Once spawning takes place and eggs are produced, off they go to incubate and hatch. Tour guide Warren discussed the process, while we searched the incubators (mostly in vain) to see the tiny eggs and hatchlings. These hatchlings grow into (still tiny) fry. They are then carefully transferred to the nourishment-prepared grow-ponds where they mature to fingerlings (about 2 inches long).

Once mature, they are ready for release into bays and estuaries where they naturally occur. The hard work required for each step of the process, from hatchery to release, is a never-ending cycle! It couldn't happen without volunteers, many of whom are current and retired Dow employees. Thanks in large part to Sea Center Texas and two other facilities in Texas, saltwater fish are again plentiful in Texas bays and the Gulf, rebounding from a depletion that began in the 1970's.

The U.S. Fish & Wildlife Service – Sport Fish Restoration Program helps fund hatchery efforts with some of the proceeds collected from the sale of fishing gear, including boats. It's a win-win for the ecosystem and recreational fishing!







Sea Center Texas is located about 10 miles inland, and is situated on 75 acres donated by Dow Chemical Co. The pumping station seen below microstrains seawater which has been pumped 5 miles to it via the Dow Barge Canal.



Water from the pump station then goes to 36 1-acre outdoor fish grow-out ponds, as well as these 12,000-gallon storage tanks.Excess seawater is sent to an 8-acre pond. Water in the tanks is further treated for dispersal to the aquariums and hatchery.





# Feeding Time!

As the tour guide fed the fish, we watched from the wetland walkway (fish were jumping for joy, as well as food). The 5-acre wetland exhibit includes a freshwater marsh and a smaller saltwater marsh on one side of the walkway, with an 8-acre pond reservoir on the other side of the walkway.



Wall posters thoroughly explained Sea Center Texas to visitors choosing to take a self-guided tour.



Check out Sea Center Texas happenings on their Facebook (Meta) page. The site also has a link for their always welcome donations!