

Eastern Oyster

Crassostrea virginica



TPWD PHOTO



The eastern oyster, also referred to as the American oyster or the Gulf Coast oyster, is one of the most sought-after coastal mollusks. Not only do people enjoy eating them, live oyster reefs help clean the water and provide habitat for all sorts of other animals such as sponges, small crabs, and fishes.

Coastal Wetlands

Eastern Oyster

Crassostrea virginica



APPEARANCE

Valve (shell) length: up to 8 inches (20 cm)

Distinguishing Characteristics

- Two shells (called “valves” hence the name *bivalve*) attach together at one end by a natural hinge and by a single large muscle.
- Pale white to gray shell
- Shell is rough with ridges or bumps.

LIFE HISTORY

Range: Ocean waters from Canada to Mexico

Diet: Plankton and algae

Predators: American oystercatcher, sea anemone, sea stars, sea nettles, some parasites and humans

Sexual maturity: About seven weeks after hatching

Spawning season: Late spring to early fall during warm weather

Eggs: Females may release more than 100 million eggs during a season. Only about one percent of the fertilized eggs reach the next stage of maturity.

Incubation: Within hours of mixing with sperm, the fertilized eggs develop a shell and begin to move on their own.

Larvae: Oyster larvae, each about the size of a grain of pepper, use tiny, probing feet to find a suitable place to attach. Once settled, the foot excretes a cement-like glue. The oyster glues itself in place and spends the rest of its life there.

Life span: Varies, depending on freshwater inflow and predators

HABITAT

Eastern oysters are abundant in shallow saltwater bays, lagoons and estuaries, in water 8 to 25 feet (2.5 to 7.5 m) deep and between 28 and 90 degrees F.

BEHAVIOR

Oysters are *protandric*—in the first year, they spawn as males, but as they grow larger and develop more energy reserves, they spawn as females. Oysters are also filter-feeders. They feed by using their gills to filter tiny food particles out of the water. Oysters have been found attached to bricks, boats, cans, tires, bottles, crabs, and turtles, but they prefer to attach to other oysters. When a large number of oysters join together, it’s called an “oyster reef.”

NOW YOU KNOW!

- Some oyster reefs are so large they are included on topographic maps. (In the eighteenth and nineteenth centuries, several oyster reefs were so big they posed navigational hazards to ships.)
- A purple stain or muscle “scar” is left on the inside of the shell when the *adductor* muscle (the muscle that holds the bivalve together) is removed.
- If the water gets too cold, below 40 degrees F, oysters close their shells and don’t open them again until the water warms up.

EASTERN OYSTERS AND PEOPLE

Oysters are one of the few animals eaten entirely raw, but they are more than just a popular seafood: oyster shells are used in calcium supplements and in industrial processes.

Because they are filter-feeders, oysters may ingest pollutants out of the water. The Texas Department of Health determines which areas are safe to collect oysters. If areas are too polluted, oysters become contaminated and unsafe to eat. The Texas Department of Health will then close the area(s) to oyster harvesting. Collecting or selling oysters taken from these closed areas is illegal.