

The Science of Oysters

An Educational Outreach Program from the Texas Surf Conservancy

The Science of Oysters: A Keystone Species Curriculum (Grades K–5)

The Science of Oysters is an environmental education initiative created by the Texas Surf Conservancy that explores how oysters support biodiversity, provide vital habitat, and serve as a keystone species in Texas coastal ecosystems. This program introduces students to oysters and the rich marine life found right in our backyard of the Coastal Bend.

Big Idea: Oysters as Ecosystem Builders

Oysters are more than food or water filters, they are foundation species. Their reefs support life in our bays, providing shelter, spawning grounds, and protection. By learning how oysters create community underwater, students are introduced to key ecological concepts of interdependence, biodiversity, and habitat restoration.

Keystone species (noun): A species of plant or animal that produces a major impact on its ecosystem and is considered essential to maintaining ecosystem structure.

Example: Oysters as a Keystone Species

- **Habitat builders:** Oyster reefs provide shelter and nursery grounds for fish, crabs, and other marine life.
- **Biodiversity hubs:** A single oyster reef can support many different species.
- **Ecosystem balance:** Their presence influences predator-prey relationships and helps stabilize the food web.