LOUISIANA OYSTER INDUSTRY

Building up the bottom, and the economy, along Louisiana's coast.

Oysters are a vital part of the Louisiana coastal economy and estuarine ecosystem. Oyster production provides many jobs—not just the harvesters and processors, but also for dealers, shippers, retailers and restaurants. Louisiana is the top harvester of oysters in the U.S. Gulf of Mexico (Gulf) and has led the United States in oyster landings every year since 2000. There are 1.68 million acres of public oyster grounds in Louisiana, and another 400,000 acres are in private oyster leases.

Louisiana also benefits from the ecological services oysters provide, including habitat for a variety of fish and invertebrates, shoreline stabilization, and improved water quality. Considered "ecosystem engineers"[1]—they create their own habitat and provide important shelter and forage habitat for most estuarine species. Oyster reefs are also considered Essential Fish Habitat (EFH) for brown and white shrimp as well as stone crab and red drum[2].

Around the globe, oyster populations and oyster reef habitat have decreased significantly[3], putting the coastal ecosystem at risk. But, even with the global challenges, the Gulf of Mexico is ranked as one of the best remaining regions of the world for habitat and natural-harvest production. The tenacity of private harvesters keeps the oyster industry, and more importantly the reef habitat that supports commercial fisheries and shoreline protection, from the brink.

LOUISIANA OYSTERS • LOUISIANA OYSTER TASK FORCE •

Creating New Life

According to Louisiana Department of Wildlife and Fisheries (LDWF), depositing clean, hard substrate—or cultch—onto water bottoms in suitable oyster habitat is often the most effective means of increasing oyster abundance. The objective is to provide a hard substrate for oyster larvae to attach and grow, with the ultimate goals of creating and sustaining reefs and protecting adjacent shorelines.

Cultch planting, utilizing oyster shell, limestone, or concrete, has been successfully conducted in Louisiana since 1917. In 100 years, LDWF has placed over 1.5 million cubic yards of cultch material on nearly 30,000 acres. Impressive as those numbers are, individual oyster harvesters are planting the bulk of cultch along Louisiana's coast giving back as much as they take from this renewable natural resource.

Brad Robin, a multi-generational oyster harvester and dock owner in Yscloskey, says that his business alone places more than 50,000 tons of rock, about $500,000 worth, in one year. He estimates there are about 10 harvesters on the east side of the river planting cultch, with three or four rock and crushed concrete yards in his town alone.

LOUISIANA FISHERIES FORWARD
Advancing Our Seafood Industry

www.LaFisheriesForward.org

Harvesters in different areas of the state use different cultch materials, depending on what works for them. The availability of oyster shell is limited and costly, therefore alternative cultch materials are used, such as clamshell, concrete, limestone, among others.

Walter 'Buddy' Daisy can't estimate the amount of cultch he's planted over his 50-plus years in the industry. But, he knows the combination of oyster shells and limestone works in his area. "Limestone works good. An oyster takes quicker on a darker object than on a lighter or white (object). It's funny, but they do."

Planting cultch is a never-ending process, as over time, the material degrades, gets buried, or is removed during oyster harvest. Success depends on finding the best location to deploy the material, and whether an adequate source of oyster larvae is present.

Location is key because oysters are sensitive to fluctuations in water temperature, and salinity in particular, with salinity between 25 to 50 percent ocean-strength for best survival. The oyster has a free-swimming larval stage for a couple of weeks only, and after never moves again. Therefore, it becomes vulnerable to environmental changes within the estuaries, and becomes a great environmental sentinel to let managers know when those changes occur.

"The oyster provides an incredible array of ecosystem services, such as structure and habitat for recreational and commercial species and shoreline erosion reduction rates, while also supplying the largest natural oyster fishery harvest in the United States in one of the best remaining oyster regions of the world. This success is due in significant part to the private-public partnerships between the industry and Louisiana's state resource managers, and their proactive cultch planting operations."

—Earl Melancon, oyster biologist with Louisiana Sea Grant and retired Professor-Emeritus with Nicholls State University

[1] Jones et al. 1994
[2] GMFMC 1998
[3] Beck et al. 2011