Coffee Island is located in Portersville Bay, southeast of Bayou la Batre in Mississippi Sound. The shoreline has been experiencing significant erosion since the 1950's. Reef segments were placed about 100 ft waterward from the shoreline and protected 1.02 miles of natural shoreline. The project restored more than 1.5 acres of reef breakwater and living shoreline habitat.

Coffee Island restoration was funded through a National Oceanic and Atmospheric Association American Recovery and Reinvestment Act grant. The main objective was the creation of fishery-related jobs for south Mobile County, the restoration of oysters and the protection of eroding shorelines. This project helped create local jobs for oystermen, shrimpers, and workers, as well as promote healthy fisheries that can sustain traditional livelihoods of fishers and

COFFEE ISLAND FACTS

CONSTRUCTED IN
2010

36%
IMPROVED
SHORELINE PROTECTION

1,968 REEFBALLS

100,000 BAGS OF SHELL

325
REEFBLKS™

152
JOBS SUPPORTED

4,921
LINEAR FEET

9
REEFS

THE NATURE CONSERVANCY IN ALABAMA
118 North Royal Street, Suite 500 | Mobile, AL 36602 | nature.org/alabama

The Nature Conservancy

Bivalve (oyster and mussel) sampling on ReefBLKs™

those involved in the seafood processing industry. This project, in combination with the Alabama Port project, employed 33 full-time workers and contributed to paychecks for 152 positions in the coastal Alabama community.

This project created oyster reefs that protected approximately 10 acres of seagrass and marsh habitat, while limiting erosion along approximately 1.02 miles of shoreline. The methods used in the project offered a natural approach to shoreline protection that enhances critical habitats for many species of fish and invertebrates.

The Future of Coffee Island

Implementing alternative techniques in front of bagged shell reefs will be explored, as well as refilling the ReefBLKs™ to restore wave attenuation and substrate.

LOCATION Mobile County, AL

PARTNERS National Oceanic and Atmospheric Administration, Alabama Department of Conservation and Natural Resources State Lands Division, Mobile County Government, University of South Alabama, University of North Florida Center for Community Initiatives, Dauphin Island Sea Lab

FUNDER NOAA: $1,689,000

100% NOAA

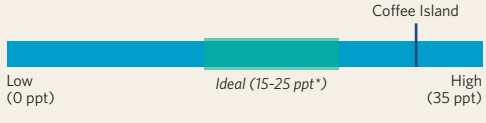
SHORELINE TREND

Average annual erosion or accretion rate before and after construction (in meter(s)/year)

BIVALVES

- This high-salinity site saw significant initial oyster and mussel recruitment that has decreased over the 7-year period. Bagged shell had the highest oyster density.
- The Nature Conservancy's approach to adaptive management means that restoration projects are monitored each year. Using results from monitoring, projects are adjusted to respond to varying location conditions that influence performance.

SALINITY FOR OYSTER SUITABILITY



ppt = parts per thousand