



## LIVING SHORELINES

# Swift Tract

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The **Swift Tract**, constructed in 2012 to help restore oyster habitat and protect the shoreline, is located along an actively eroding, vegetated shoreline owned by the State of Alabama and managed through the Weeks Bay National Estuarine Research Reserve. Reef segments were placed about 40 ft waterward from the shoreline and fronted more than 2,100 ft of natural shoreline. This project restored over 3/4 acre of reef breakwater and living shoreline habitat.

At about 5 miles in length, the Swift Tract shoreline represents one of the longest continuous stretches of undeveloped shoreline in Mobile Bay. The 2012 project design was developed by TNC and HESCO Bastion, Inc., and incorporated engineering design principles to determine reef

## SWIFT TRACT FACTS

CONSTRUCTED IN  
**2012**

**21%**  
SHORELINE PROTECTION  
DECREASE\*



\*The site had much less erosion than sites on the western side of Mobile Bay, thus small fluctuations in shoreline change reflect big changes. The -21% improvement is indicative of this anomaly

**1,772** YARDS GABION STONE

**172** YARDS SHELL

**2**  
OSPREY  
PLATFORMS

**2,100**  
LINEAR FEET

**5**  
REEFS



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Adult oyster discovered.

dimensions. The construction technique utilized at the Swift Tract consisted of HESCO barriers, galvanized steel modular baskets, that were installed and then filled with gabion stone (fist-sized rock). A 6 inch layer of oyster shell was placed on top of the gabion stone in the cages. Pockets on the front and rear sides of the HESCO barriers (~6 inch) were filled with oyster shell. Reef segments were placed approximately 40 ft waterward from the shoreline. Within six weeks of project completion, the Swift Tract site had accumulated a depth of 20" of fine sediment behind the reefs, which trapped behind the reefs, stayed in place as Hurricane Isaac passed over. This success led the National Oceanic and Atmospheric Administration (NOAA) to sponsor an additional 1.7 miles of reef at Swift Tract as a Deepwater Horizon Natural Resources Damage Assessment Project, which was constructed in 2016.

### The Future of Swift Tract

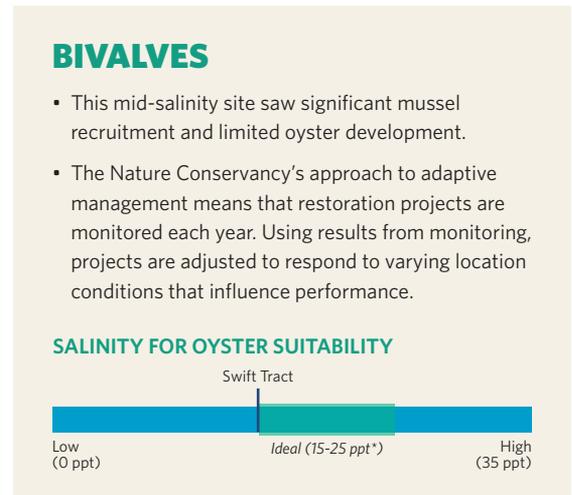
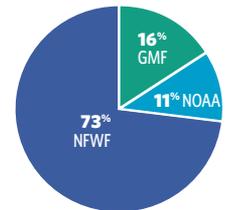
Future work will include adaptive management such as adding rock to the cages to replace settled rock and maintain wave attenuation capacity and substrate availability.



**LOCATION** Baldwin County, Alabama

**PARTNERS** AL Department of Conservation and Natural Resources, Weeks Bay National Estuarine Research Reserve, University of South Alabama, City of Orange Beach

**FUNDERS** Gulf of Mexico Foundation Community-based Restoration Program, NOAA ARRA, and NFWF: \$549,341 total



\*ppt = parts per thousand