



NGI Project: Oyster Reef and Estuarine Landscape Restoration

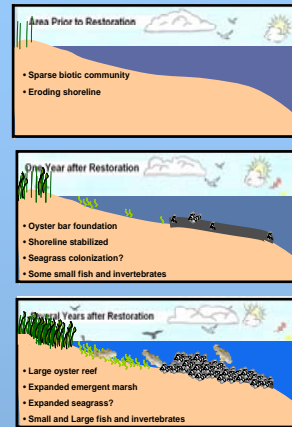
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Objectives

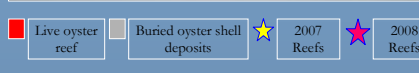
1. To develop the scientific understanding necessary to direct oyster restoration and enhancement in the Northern Gulf of Mexico.
2. To assist in developing a long-term strategy for sustained productivity of Gulf oyster reefs and the associated ecological benefits that they provide.
3. To provide this information to state and federal management agencies, the fishing industry, and the general public through outreach activities.



2007/2008 Goals

- Oyster reef construction
- Shoreline stabilization
- Marsh re-growth
- Seagrass colonization

Alabama Oyster Habitat



Why Oyster Reefs?

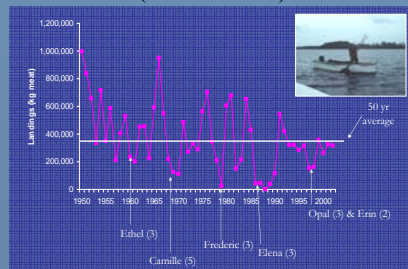
Although they support a multimillion dollar US fishery, oyster reefs also provide key ecological functions:

- Habitat for finfish & shellfish.
- Stabilization of shorelines.
- Filtration suspended solids and phytoplankton from the water column.
- Sequestration of excess nutrients (nitrogen, phosphorous, and carbon).

In addition, oyster reefs can be heavily impacted by hurricanes, and have suffered major post-hurricane losses in the past several decades.

Alabama Oyster Fishery

(Source: NMFS)



Reef Construction and Sign Deployment



Monitoring of Replicated Reefs (and Control sites without Reefs)

Water clarity



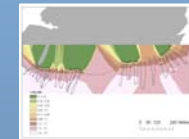
Primary production (benthic & water column)



Oyster, Fish, and mobile invertebrate density



Shoreline location



Marsh Changes and Seagrass Recruitment



Cooperating and Participating Agencies

NOAA, Alabama Oyster Reef Restoration Program, Alabama Marine Resources Division, Dauphin Island Sea Lab, Mobile Bay National Estuary Program, Auburn University Extension Service

Acknowledgements

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