Importance of Ecological Oyster Reef Restoration

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Our Mission

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.
First Global Assessment

Ecosystem condition based on % of shellfish reefs remaining compared to baselines measured from 20-130 years ago
Oyster Reefs are functionally extinct in 37% of estuaries.

GOM is the only region in the US that is ranked FAIR for oyster reefs.
Coral Reefs – 20% loss globally
(Wilkinson 2002)

Marshes and Mangroves – 50% loss globally
(Burke et al. 2001; Valiela and Bowen 2001; Zedler and Kercher 2005)

Oyster Reefs – 85% loss globally
(Beck et al, 2011)

>Ninety five projects funded through a National Partnership with NOAA 2001 - 2012

- Shellfish reefs & beds
- Open Rivers projects
- Other anadromous fish
- Salt marsh
- Seagrasses
- Coral
- Mangrove
- Other
Nature Conservancy Analyses

- **Marine/Estuarine Site Assessment for Florida, 2005**  
  *(part of the Florida Comprehensive Wildlife Strategy)*

- **Assessing gaps in Florida’s marine and estuarine conservation network, 2008**  
  *(assess the current area-based protection status of FL marine and estuarine resources)*

- **Charlotte Harbor Feasibility Study, 2010**  
  *(identify potential for marine and estuarine restoration in the Greater CH system)*

- **Florida Marine Habitat Blueprint**  
  *(guide land protection priorities that benefit marine priorities)*

- **Gulf Decision Support Tool, 2011**

- **National-scale oyster reef restoration goals, in progress**  
  *shellfish ecosystems are restored to levels that deliver ecologically meaningful services*

Florida’s Wildlife Legacy Initiative

**Bivalve Reef**

**Statewide Habitat Threat Rank**  
**VERY HIGH**

**Current condition...**  
**Poor and declining**
Assessing gaps in Florida’s marine and estuarine conservation network
The Nature Conservancy, 2008

- <10% in Gap Status 1 & 2
  (1 & 2 = highest protection)

To improve the condition we need to...
- Raise Awareness
- Enhance Conservation
- Enhance Restoration
- Improve Management
Why Charlotte Harbor?

- High biodiversity
- Charlotte Harbor is restorable
- History of Conservancy engagement in land conservation
- Aligns with our GOM Initiative
- Strong local interest and great potential for collaboration
Our Approach

Whole-estuary science

- Determine how much restoration is needed to get to scale & where and what kinds of restoration will make the biggest difference

Strategic demonstration & test projects

- Pilot partnerships & collaboration – CHNEP, CH Aquatic Preserves, Bonefish-Tarpon Trust, Mote Marine Lab, recreational & commercial fishers
- Test “ingredients” for scaling up – restoration methods, sustainability, ecosystem services

Reference: