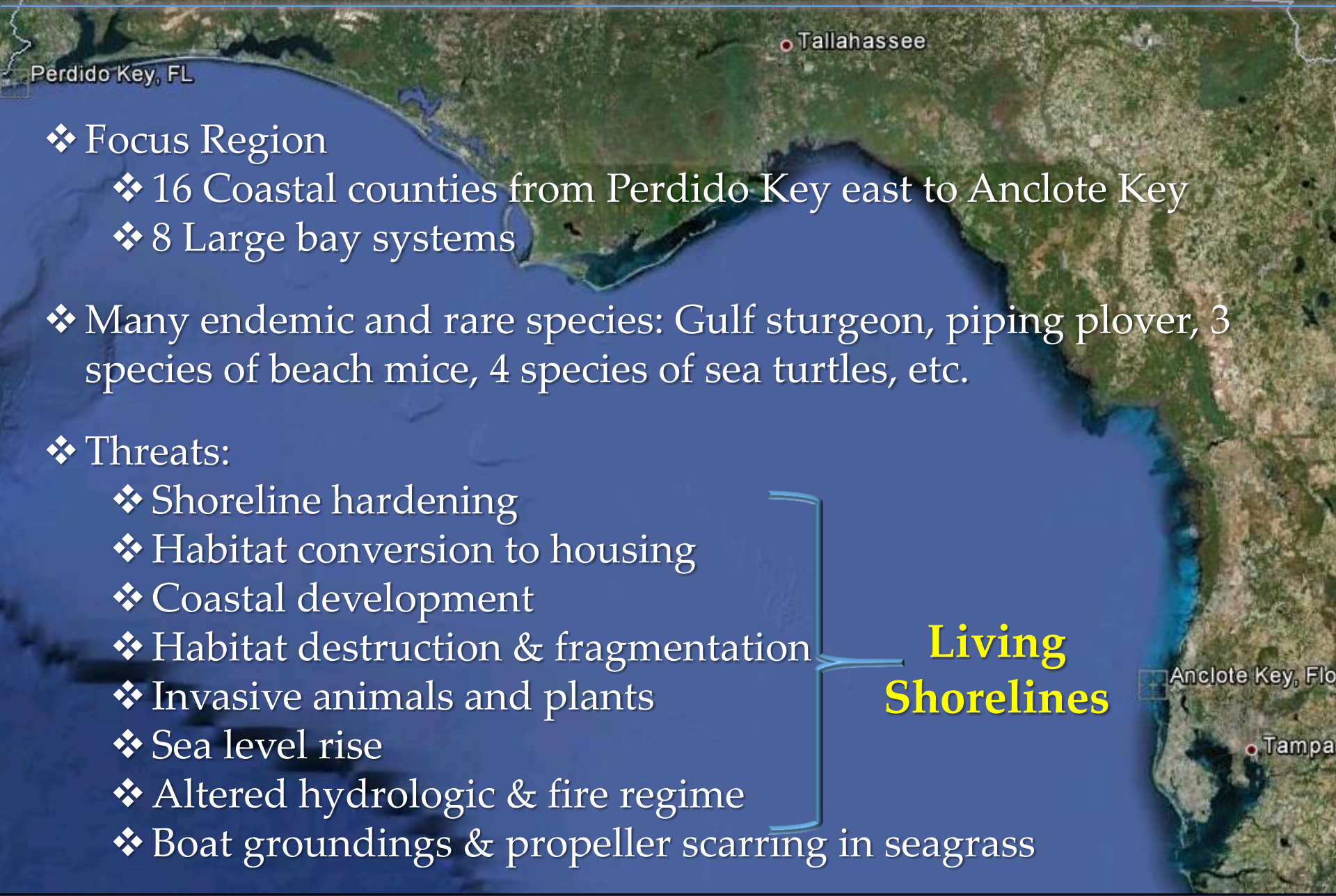


Marine & Estuarine Habitat Restoration in Northwest Florida



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Aquatic Habitat Conservation and Restoration Section
April 12, 2013

Background: NW Florida Coast



❖ Focus Region

- ❖ 16 Coastal counties from Perdido Key east to Anclote Key
- ❖ 8 Large bay systems

❖ Many endemic and rare species: Gulf sturgeon, piping plover, 3 species of beach mice, 4 species of sea turtles, etc.

❖ Threats:

- ❖ Shoreline hardening
- ❖ Habitat conversion to housing
- ❖ Coastal development
- ❖ Habitat destruction & fragmentation
- ❖ Invasive animals and plants
- ❖ Sea level rise
- ❖ Altered hydrologic & fire regime
- ❖ Boat groundings & propeller scarring in seagrass

**Living
Shorelines**

What are Living Shorelines?

- ❖ Shorelines are dynamic environments facing erosion and accretion from wind & wave energy. Hard armoring amplifies negative effects of wind & waves.
- ❖ Living shorelines provide shoreline stabilization using native vegetation, sand, and limited use of rock or oyster shell breakwaters

❖ Benefits include:

- ❖ Stabilization of the shoreline
- ❖ Protection of surrounding land
- ❖ Water quality improvement
- ❖ Creation of habitat
- ❖ Resilience to SLR & climate change



NRLI Practicum Objectives:

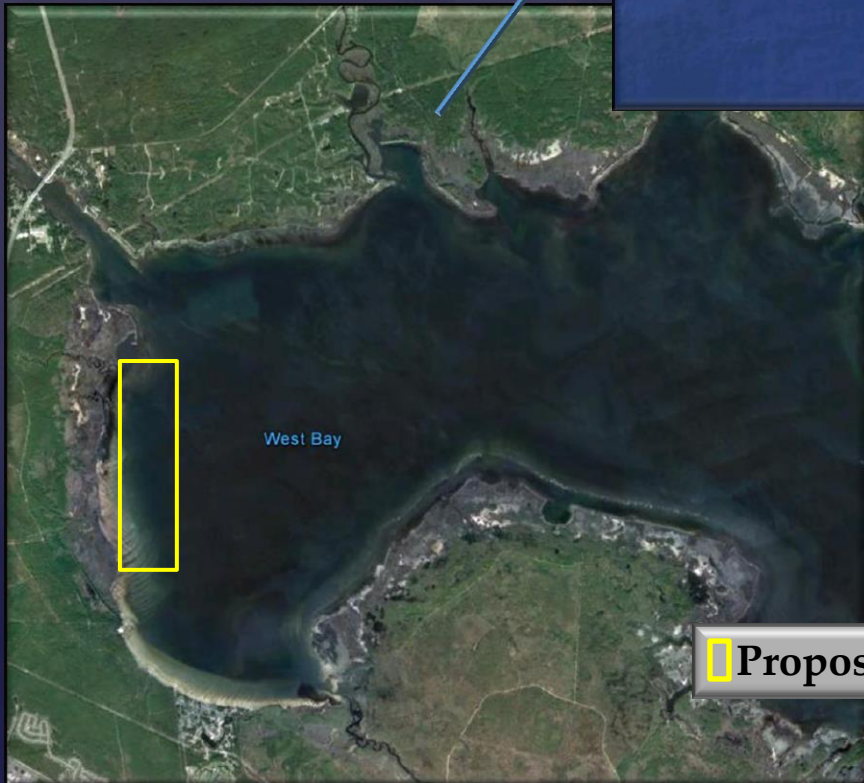
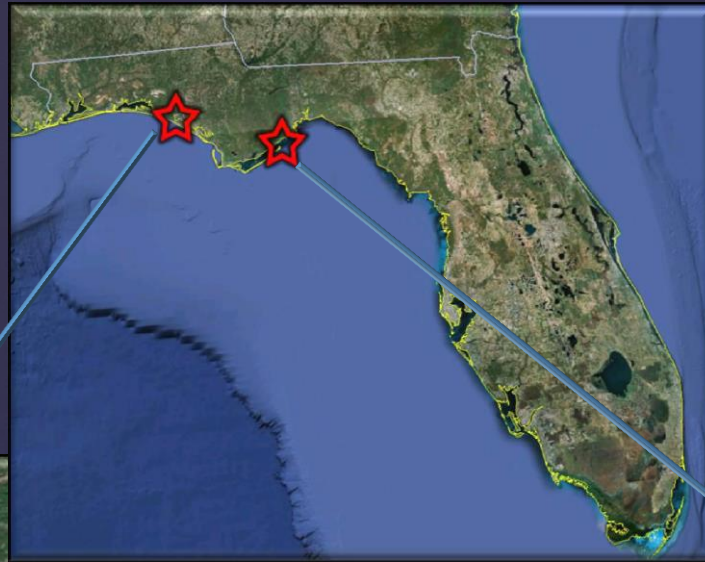
- ❖ Foster cooperative discussions about restoration efforts in two unique NW Florida estuaries
- ❖ To support outreach and education about the many benefits of living shorelines and healthy oyster reefs
- ❖ Improve communication and information sharing among interest groups
- ❖ Create a lasting partnership network to address restoration needs



Two Restoration Projects in NW Florida:

West Bay
Panama City

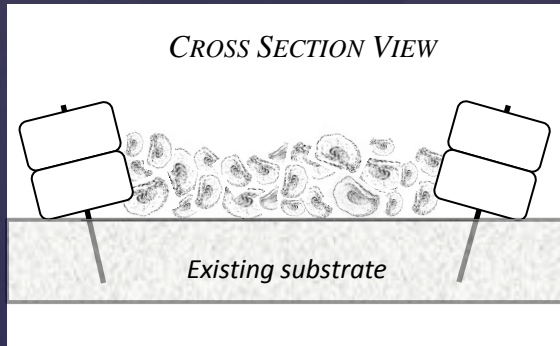
Apalachee Bay
Turkey Point



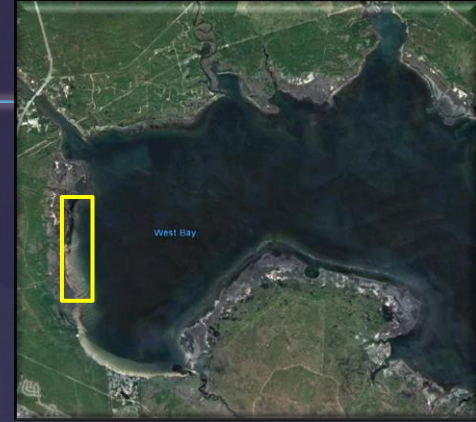
 Proposed Project Areas

West Bay Oyster Restoration Project

Panama City, FL



- ❖ Goals:
 - ❖ Attenuate wave energy
 - ❖ Provide shoreline protection
 - ❖ Improve water quality
 - ❖ Enhance fisheries habitat
 - ❖ Create conditions more suitable for seagrass recruitment in adjacent habitat.
- ❖ Approximately 3 acres of subtidal oyster reef will be constructed using techniques that could be used as a model for future restoration efforts in West Bay and throughout northwest Florida.
- ❖ The project will be used to educate the public about the many benefits that healthy oyster populations can provide by engaging community volunteers to participate in a variety of activities in support of the restoration project.



FSUCML Habitat Enhancement Project

Turkey Point, FL



- ❖ Goals:
 - ❖ Enhance fisheries habitat
 - ❖ Stabilize the shoreline
 - ❖ Increase carbon sequestration
 - ❖ Support wide diversity of protected birds and other wildlife
 - ❖ Education & outreach
- ❖ The project will provide nursery habitat benefits to a variety of commercially and recreationally important fisheries species, as well as other estuarine organisms
- ❖ Public outreach and education programs will be hosted by FSU, including descriptive signs and interpretive paths



Steps in Project Development

- ❖ Identify key stakeholders
- ❖ Facilitate multi-party meetings
- ❖ Facilitate site visits
- ❖ Identified data gaps and other potential stakeholders
- ❖ Obtained buy-in & created partnerships
- ❖ Identified potential funding sources
- ❖ Identified potential permitting pitfalls



Stakeholder Engagement:

West Bay:

- ❖ Friends of St. Andrew Bay/ RMA
- ❖ US Fish & Wildlife Service
- ❖ Florida Dept. of Environmental Protection
- ❖ The Nature Conservancy
- ❖ The Florida Dept. of Agriculture and Consumer Services
- ❖ The St. Joe Company
- ❖ Army Corps of Engineers

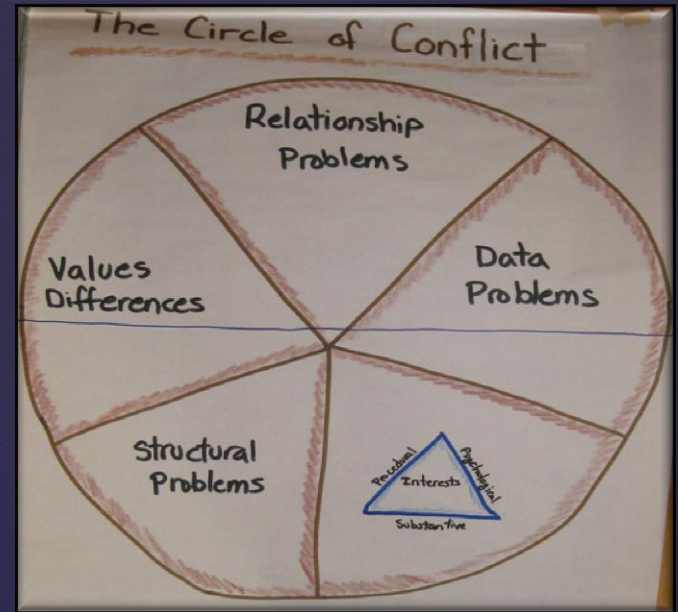
FSUCML:

- ❖ Florida State University
- ❖ US Fish & Wildlife Service
- ❖ Florida Dept. of Environmental Protection
- ❖ The Apalachicola Riverkeepers
- ❖ The St. Joe Company
- ❖ Army Corps of Engineers



Addressing challenges using NRLI concepts

- ❖ Piping plover critical habitat & least tern nesting
- ❖ Dredge/fill on sovereign submerged land
- ❖ Adjacent land owner
- ❖ Differing priorities
- ❖ Funding



Future Directions & Next Steps

- ❖ Multi-stakeholder site visit planned at FSUCML in April
- ❖ Work collaboratively to submit grant application for West Bay restoration project & add to RESTORE list
- ❖ Evaluate & implement adaptive management to refine projects
- ❖ Maintain partnership networks for future projects

