

Living Shoreline Monitoring

2024 REPORT

Bays: St. Andrew, Choctawhatchee, and Pensacola



ABOUT THE PROJECT:

Living shorelines are an important tool for protecting shorelines and providing many other benefits like habitat for fish and other species. To better understand how effective living shorelines are, we have identified 30 living shoreline sites (10 per Bay) in Choctawhatchee, Pensacola and St. Andrews Bay that range in age and construction method. We will monitor each living shoreline quarterly for 2 years using standardized methods across the region with our partners.

WHAT WE'RE MONITORING:



Shoreline Protection

Shoreline protection will be determined by quantifying shoreline gain/loss using aerial imagery for pre restoration and all available years, post restoration.



Nutrient Storage and Removal

We are quantifying soil organic matter (OM), Carbon (C) and Nitrogen (N) storage and N removal to understand how living shorelines impact C and N.



Habitat Creation

Habitat creation will be determined by quantifying the presence and density of marsh, submerged aquatic vegetation (SAV), fish, oysters, and other species on and adjacent to the shoreline.

Monitoring results will be used to quantify locally and regionally relevant ecosystem services for both ecological and economic benefits of living shorelines. For more information on our protocol, view it our website: <https://sasjbep.org/>.

Acknowledgements

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ST. ANDREW &
ST. JOSEPH BAYS
ESTUARY PROGRAM
at FSU PANAMA CITY



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

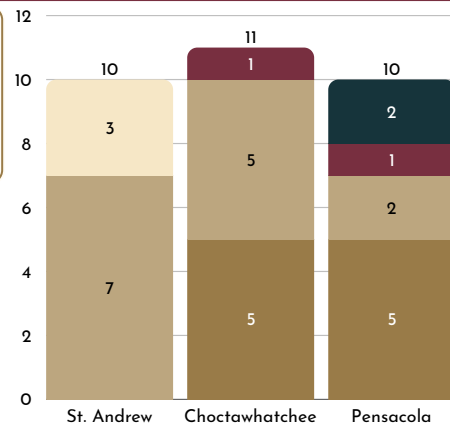
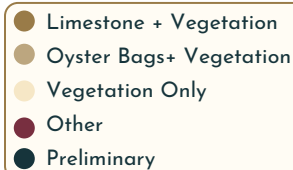


CHOCTAWHATCHEE BAY
Estuary Program

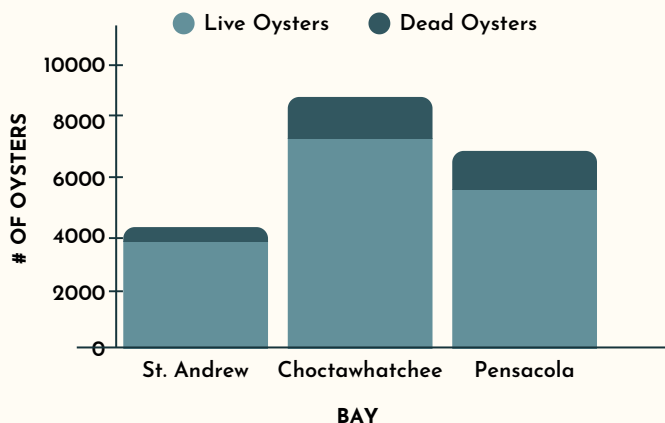


SHORELINE TYPES

- Limestone and Vegetation:** Native marsh vegetation as well as oyster reefs made of limestone rip rap.
- Oyster Bags and Vegetation:** Native marsh vegetation as well as oyster reefs made of recycled and bagged oysters shell.
- Vegetation Only:** Native marsh vegetation plantings such as Black Needle Rush and Saltmarsh Cordgrass.
- Preliminary:** A location without a living shoreline yet, but plans are in place to establish one.
- Other:** Sites that utilize oyster prisms or oyster cylinders.



OYSTERS



2024 Total Count:

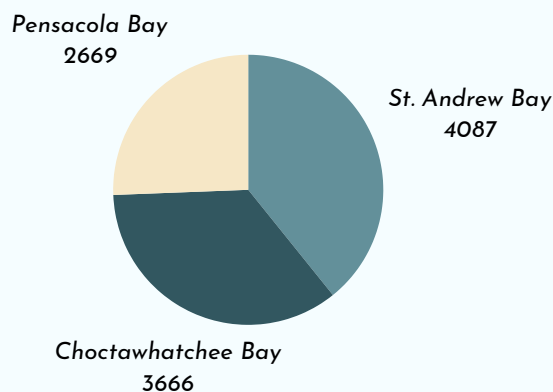
Total Live:
16,672

Total Dead:
3,334



TOTAL CATCH

Total number of fish caught by seine and minnow traps between St. Andrew, Choctawhatchee, and Pensacola Bays in 2024.



TOP CATCH

St. Andrew Atlantic Croaker (*Micropogonias undulatus*)

Choctawhatchee Pinfish (*Lagodon rhomboides*)

Pensacola Atlantic Croaker (*Micropogonias undulatus*)

NOTABLE NEIGHBOR:

Glass Eel
(*Anguilla rostrata*)



VEGETATION

The 3 most common types of vegetation in St. Andrew, Choctawhatchee, and Pensacola Bays are **Saltmarsh Cordgrass**, **Black Needle Rush**, and **Shoal Grass**.

87% of sites had
Saltmarsh Cordgrass
(*Spartina Alterniflora*)

37% of sites had
Black Needle Rush
(*Juncus roemerianus*)

40% of sites had
Shoal Grass
(*Halodule wrightii*)

