



OYSTER DATA GAPS PROJECT: ST. ANDREWS BAY UPDATE

PROJECT OVERVIEW

The Florida Trustee Implementation Group (FL-TIG) Oyster Data Gaps Project is currently compiling existing water quality and oyster data to develop current status and trends combined with accurate benthic habitat maps while collecting new data to develop a GIS-based habitat suitability index model.

What is a Habitat Suitability Index (HSI) Model?

An index that represents the capacity of a habitat to support a selected species that ranges from 0 (not suitable) to 1 (most suitable). A range of variables can be included in these models to make them broad or very detailed.

STATUS UPDATE

Since January 2023, the FWC FWRI Molluscan research group has monitored 11 oyster stations in North Bay, West Bay and East Bay to monitor spat settlement and sedimentation.

Preliminary recruitment data shows that spat recruitment occurs in both spring and fall in all bay segments. Both West Bay and North Bay tended to have higher recruitment in the spring, while recruitment in East Bay tended to peak in the fall. Overall, recruitment in 2024 exceeded that of 2023.

Preliminary sedimentation results suggest that sediments are actively moving or entering the bay segments, but further analysis is needed to determine clear trends and impacts to existing reefs.

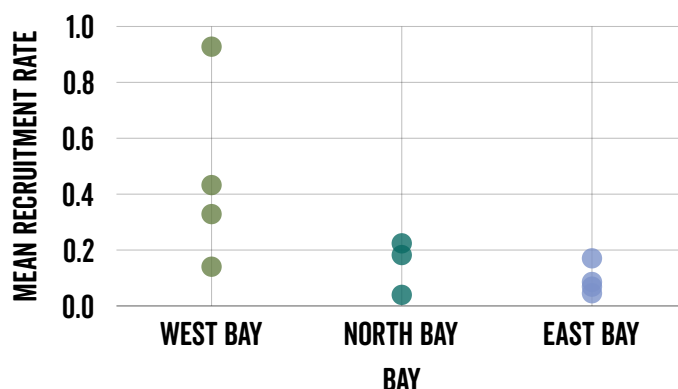


Processing oyster samples from North Bay with FWC FWRI.

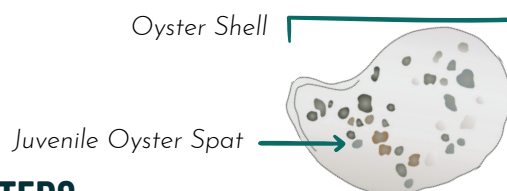
Water quality monitoring revealed predictable seasonal temperature trends, with higher bottom temperatures in the summer. Salinity showed variability throughout the year, with noticeable dips from fall 2023 through spring 2024. Dissolved oxygen levels remained above 5 mg/L year-round, with no anoxic events observed.



Oyster stringers, Fish and Wildlife Research Institute.



What this means: Average rate of spat (baby oysters) found on oyster stringer shells. Oyster stringers are a common method used to monitor oyster recruitment.



NEXT STEPS

Researchers will continue to monitor the recruitment and sediment trap stations and plan to update benthic habitat maps by the end of 2025. Together, these results will feed into the development of the GIS-based habitat suitability index model which is anticipated to be completed by the end of 2026.

FLORIDA OYSTER CULTCH PLACEMENT PROJECT UPDATE

PROJECT OVERVIEW

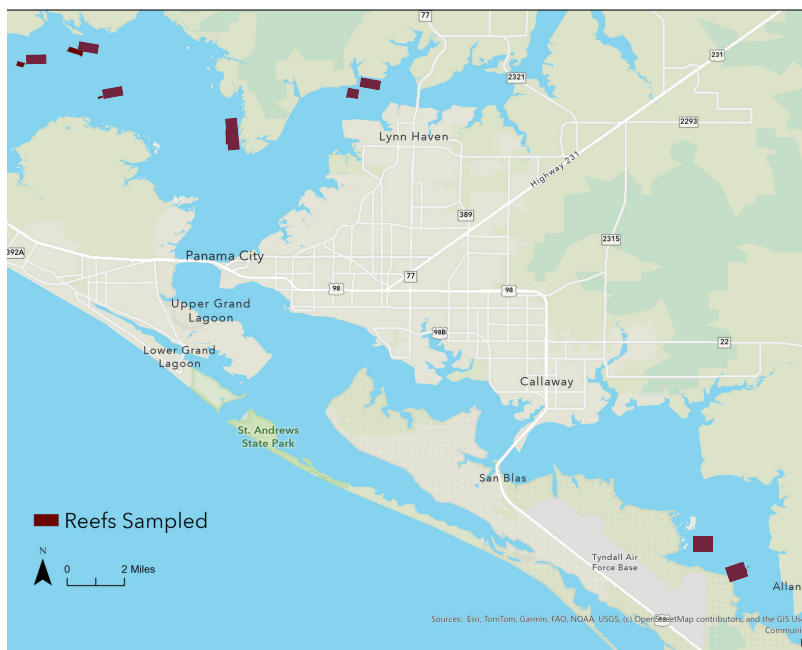
The Florida Oyster Cultch Placement Project is led by Department of Environmental Protection Central Panhandle Aquatic Preserves (FDEP CPAP) with the goal to promote reef development for oysters by restoring existing yet degraded oyster reef habitats. The restoration work included placement of suitable cultch material on existing or previously constructed oyster reefs. Approximately 17,000 cubic yards of crushed granite were placed over an estimated 84 acres of oyster reefs in West Bay, North Bay, and East Bay in 2016.

STATUS UPDATE

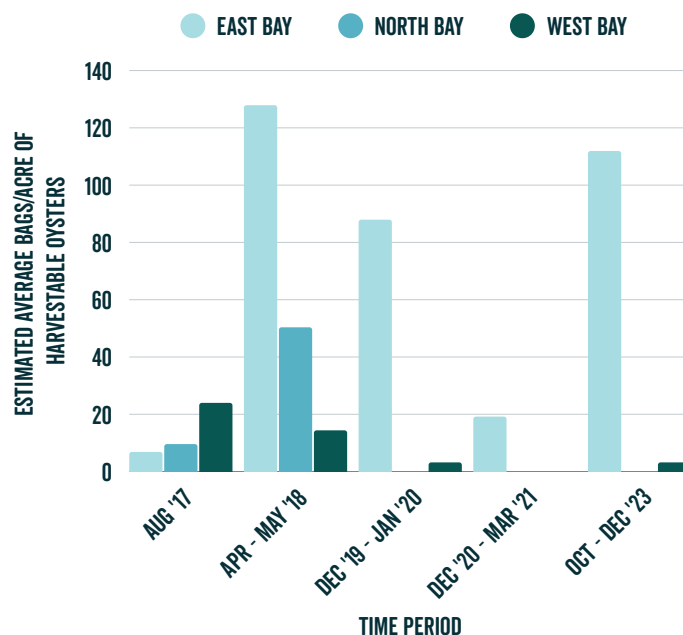
Since monitoring began in 2017, the number of live oysters at sites monitored has increased with the exception of samples collected between winter and spring between 2021 and 2022. Spat and seed-sized oysters make up the majority of live oysters found across all bay segments. In general, West Bay has been the most productive with the most live oysters on reefs with the exception of 2023 where East Bay had the most live oysters reported. East Bay also had the greatest number of adult live oysters (>75mm) in 2022 and 2023. Despite increases in live oysters, these reefs do not have enough adult oysters to support commercial harvest.



Researcher retrieving oyster samples, FDEP CPAP



Reef sizes not to scale.



NEXT STEPS

Continued monitoring of live and dead oysters together with water quality metrics at these reefs is expected but will likely be wrapping up in 2026 or 2027. This project is dependent on external funding and not standard operations for the Aquatic Preserve.

