

The Current Status and Future of Apalachicola Oysters



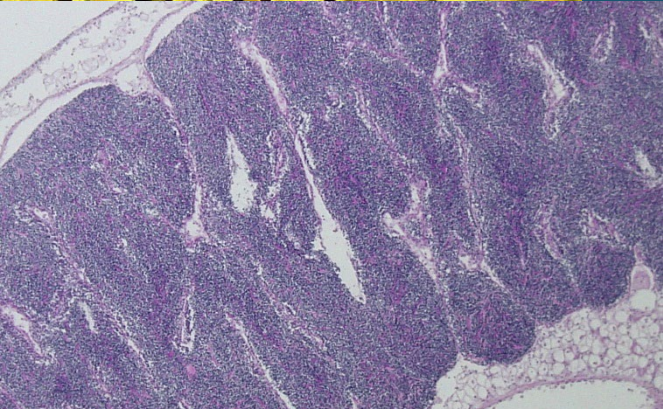
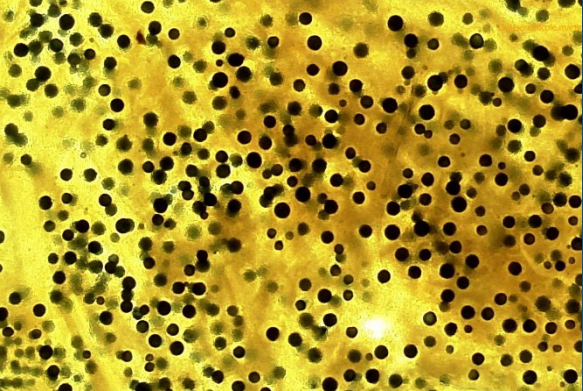
Matthew Davis
Associate Research Scientist
Florida Fish & Wildlife Conservation Commission
Matthew.Davis@myfwc.com
February 26, 2026



MyFWC.com

Fish & Wildlife Research Institute

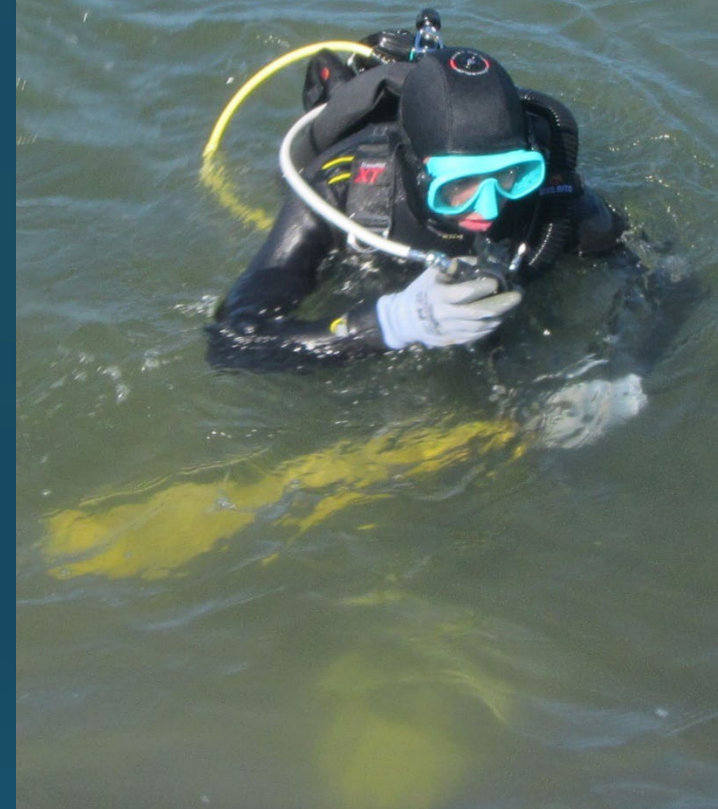
- Operate from the Apalachicola/Eastpoint Field Lab
- Scallops
 - Population Survey
 - Recruitment
- Oysters
 - Individual condition
 - Disease (Dermo)
 - Reproduction
 - Recruitment
 - **Population Survey**



Oyster Population Survey

- SCUBA divers use $\frac{1}{4}$ meter² quadrats
- Data recorded:
 - Substrate Weight
 - Number and size of live oysters
 - Number of recently dead oysters
 - Number of legal (≥ 75 mm SH) oysters
 - Number of oyster drills
 - Shell heights of first 50 oysters encountered
- Detailed field methods online
 - Chapter 11 of Oyster Integrated Mapping and Monitoring Program (OIMMP) Report

<https://myfwc.com/research/habitat/coastal-wetlands/oimmp/>



- **Surveys performed annually between March and June**

- **Historic Uncultched:**

- No cultching since 2015.
- Fifteen quadrat samples collected at each reef.

- **RESTORE-2017:**

- Limestone cultch material in 2017.
- Thirty to fifty quadrat samples collected at each reef.
- Reefs vary in size between 12 and 50 acres.

- **NFWF-2021:**

- Limestone cultch material in 2021.
- Thirty quadrat samples were collected at each reef.
- Reefs vary in size between 9 and 18 acres.

Reef Name	Old name	Acreage
RESTORE-01	Cat Point	50
RESTORE-02	Monkeys Elbow	27
RESTORE-03	Peanut Ridge	21
RESTORE-04	Cat Spur	12
RESTORE-05	Platform	22
RESTORE-06	Bulkhead South	24
RESTORE-07	Easthole	43
NFWF21-01	Lighthouse	11
NFWF21-02	East Lumps	9
NFWF21-03	Cat Point	18





MyFWC.com

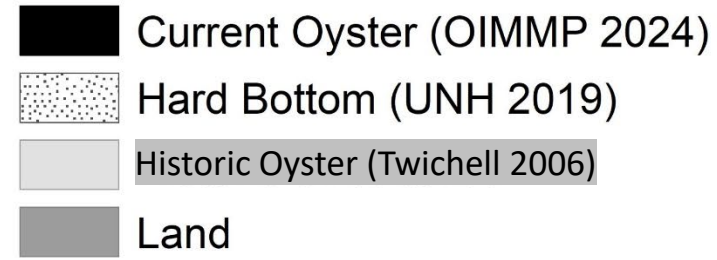
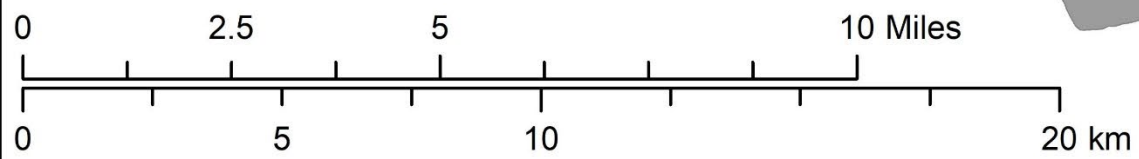
 Historic Uncultched

 RESTORE-2017

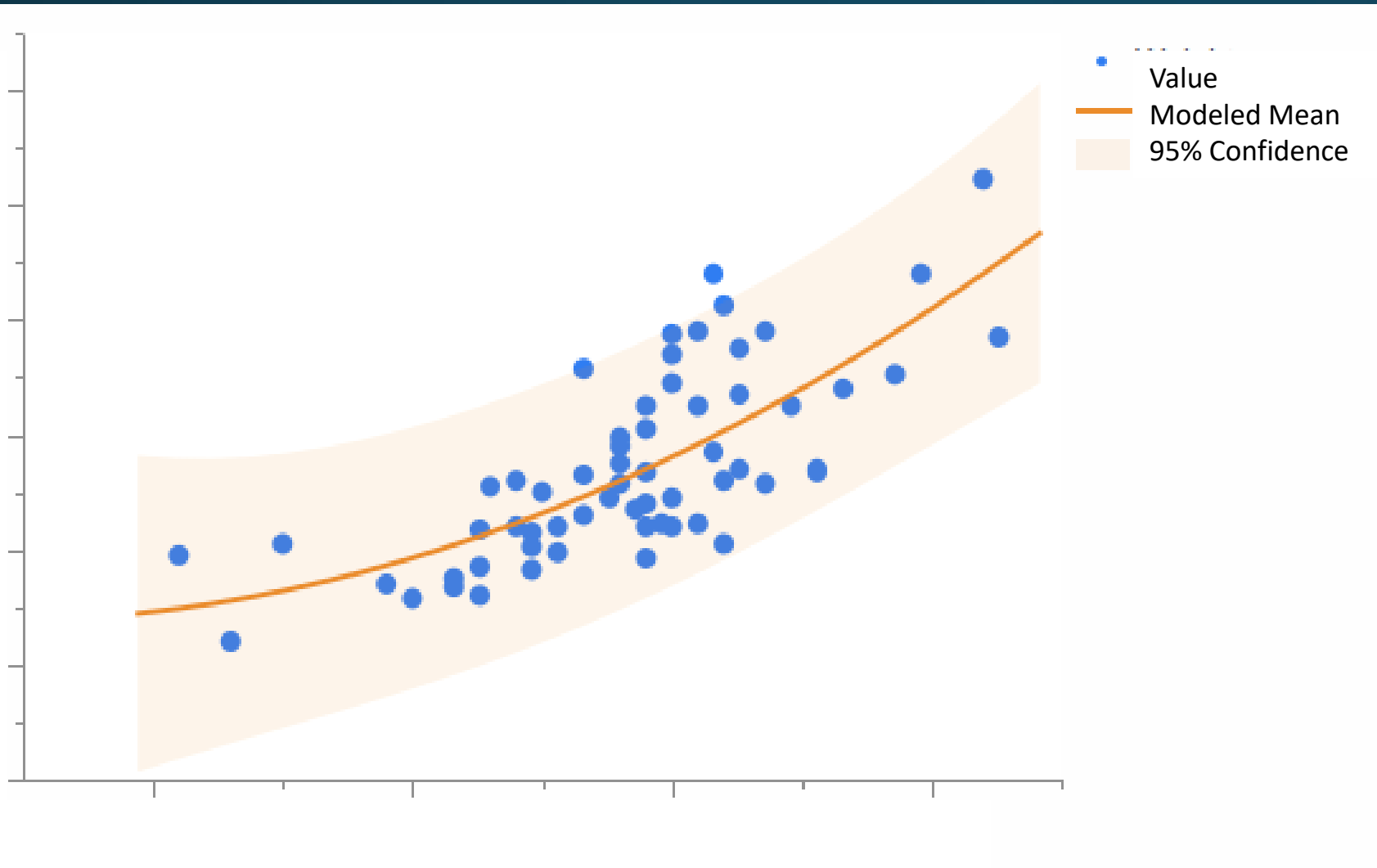
 NFWF-2021

Eastpoint

Apalachicola



How We Estimate Oyster Densities



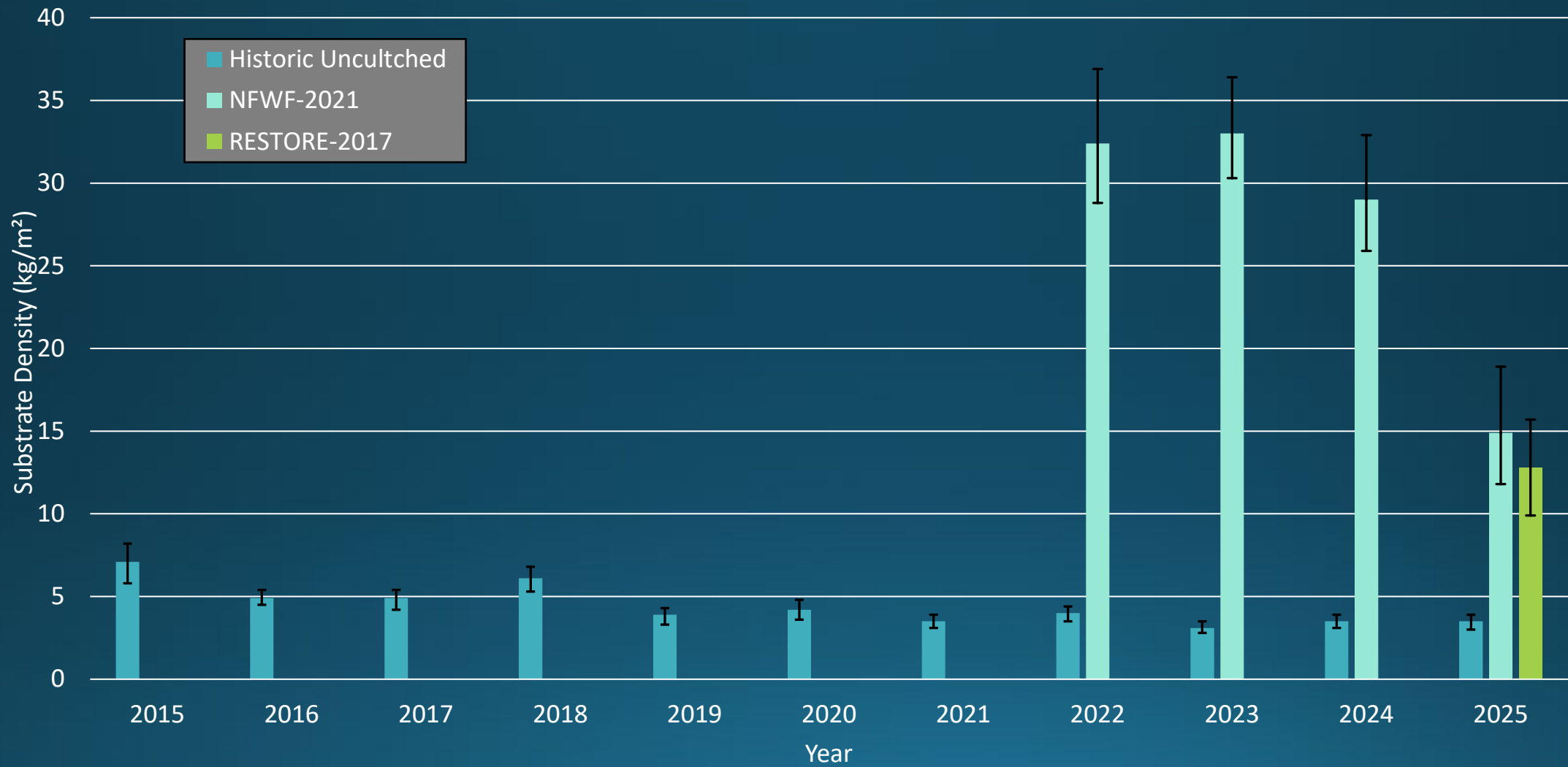
- Modeled means
- 95% confidence intervals
- Accounts for site and year variation

Results

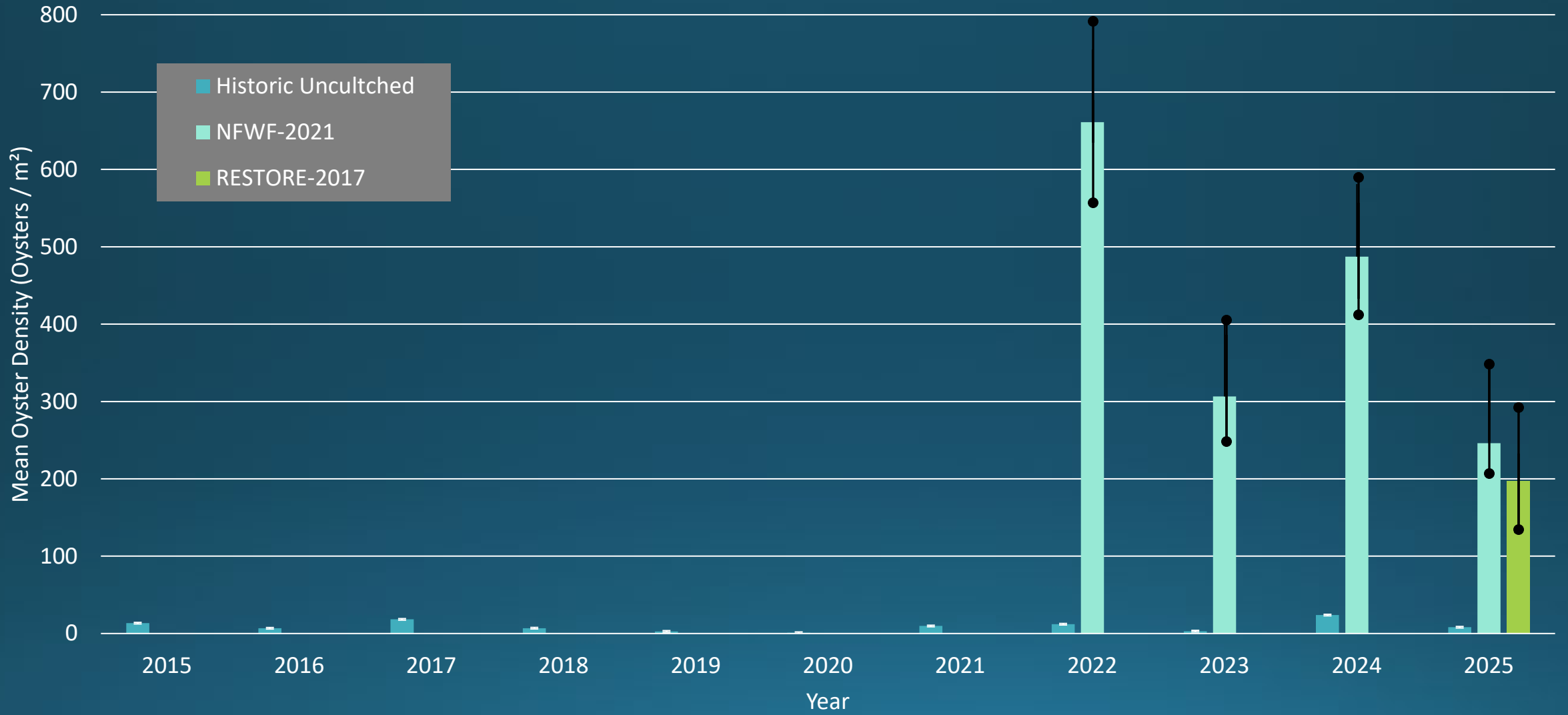
- April and May 2025
- Twenty-four reefs surveyed
 - Fourteen Historic Uncultched reefs
 - Seven RESTORE-2017 reefs
 - Three NFWF-2021 reefs
- 550 quadrats processed
 - 1,350 kgs of material processed
 - 20,361 oysters counted
 - 13,981 oysters measured for shell height.



Modeled mean substrate density (kg/m² ±95% CI)



Modeled mean oyster density (oysters/m² ±95% CI)

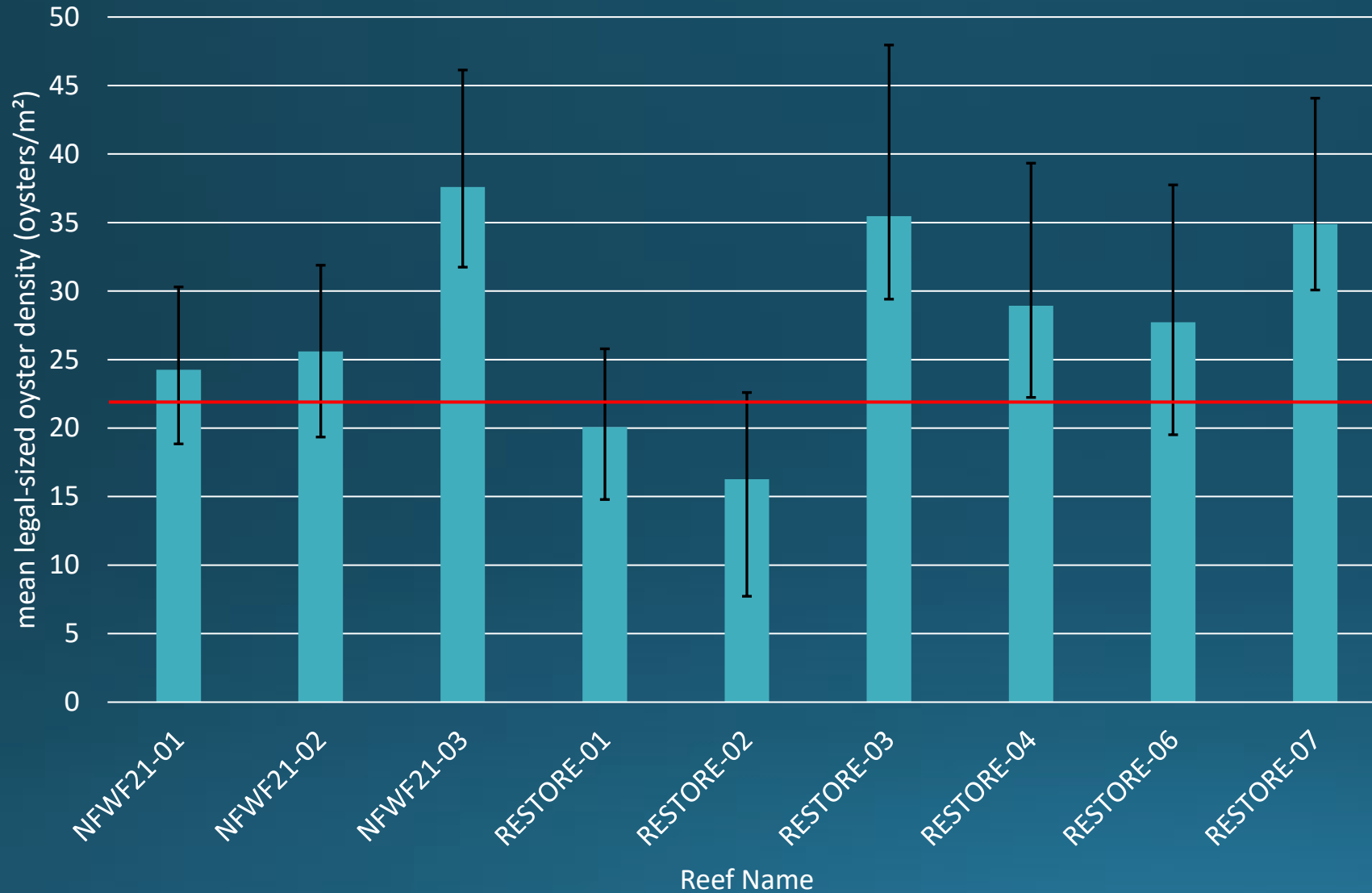


Shell Height Distribution of Oysters Measured During 2025 Survey

Historic NFWF RESTORE



Modeled mean legal-sized oyster (Shell Height $\geq 76\text{mm}$) density (oysters/m² $\pm 95\%$ CI)



Reef Name	Old name	Acreage
RESTORE-01	Cat Point	50
RESTORE-02	Monkeys Elbow	27
RESTORE-03	Peanut Ridge	21
RESTORE-04	Cat Spur	12
RESTORE-05	Platform	22
RESTORE-06	Bulkhead South	24
RESTORE-07	Easthole	43
NFWF21-01	Lighthouse	11
NFWF21-02	East Lumps	9
NFWF21-03	Cat Point	18

22.2 legal-sized oysters / m² = 400 bags / acre

January 2026 Season Annual Harvest Levels

Oyster reef	Reef type	Total AHL	Commercial AHL	Recreational AHL
NFWF Cat Point	Subtidal	1042	989	52
RESTORE Cat Point Spur	Subtidal	498	473	24
RESTORE Easthole	Subtidal	2318	2202	115
RESTORE Peanut Ridge	Subtidal	1085	1030	54
Total	--	4943	4694	245

- Conservative harvest limits
- Utilizes lower 95% confidence interval
- Harvest of 10% legal-sized oysters
- Similar regulation to other gulf states

Future

- Mapping in 2006 suggested at least **12,000 acres** of potential oyster habitat.
- Sidescan Mapping in 2019 suggested **only ~600 acres remain.**
- Our 2025 data show **only ~70 acres** had potentially harvestable oyster densities.
- FWC and other partners continue to seek out grant funding for future cultching projects.
- \$10 million dollars were spent to cultch ~75 acres in 2024.
- FWC is working to secure funding to reestablish a cultching program





Summary

- Historic Uncultched reefs
 - Low substrate densities
 - Low oyster densities dominated by spat.
- NFWF-2021 and RESTORE-2017 reefs
 - Higher substrate densities
 - Higher oyster densities and a broader size distribution
- Legal-size oysters remain a small fraction of the total population but are increasing on several reefs
- Efforts to secure funding for further and more consistent cultching are ongoing.

Restoration works — but scale and sustained investment will determine whether Apalachicola oysters truly recover

Questions

