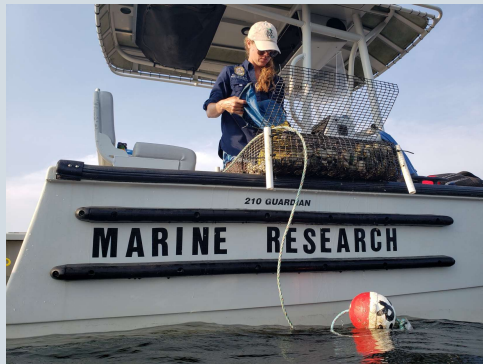


The Current Status and Future of Apalachicola Oysters



Kelly Williams

Biological Scientist III

Florida Fish & Wildlife Conservation Commission

Kelly.Williams@myfwc.com

OIMMP Oyster Workshop – April 2026

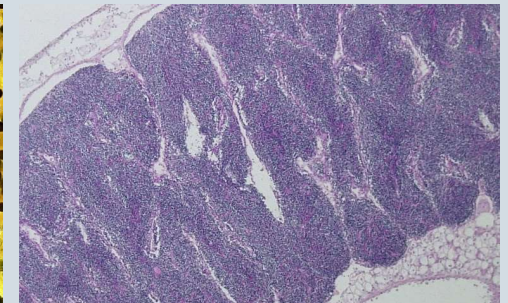
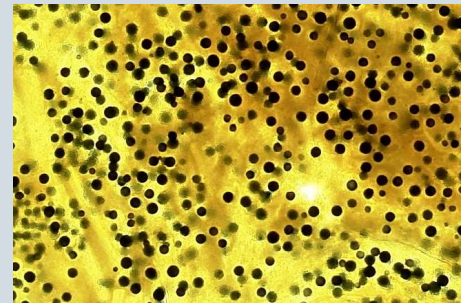
FWRI Molluscan Fisheries Research

Apalachicola Field Lab –
Est. 2015 in Eastpoint



Eastern Oysters

- Population Surveys
- Recruitment Monitoring
- Oyster Health
 - Condition Index
 - Disease (Dermo)
 - Reproduction
 - Parasites



Bay Scallops

- Population Surveys
- Recruitment Monitoring
- Population Restoration
- Genetics Assessment

- Reef Restoration
- Sedimentation
- Predation



Oyster Population Surveys

Surveys performed annually between March and June

Site Categories:

- **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	Common 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

Acreage from 2021 side scanning



Oyster Survey Methodology

Research staff haphazardly place $\frac{1}{4}$ meter² quadrats on the reef habitat to collect all oysters and material and bring it back to the boat for processing. Most often these subtidal reefs require SCUBA diving.

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/>



Oyster Population Survey Locations

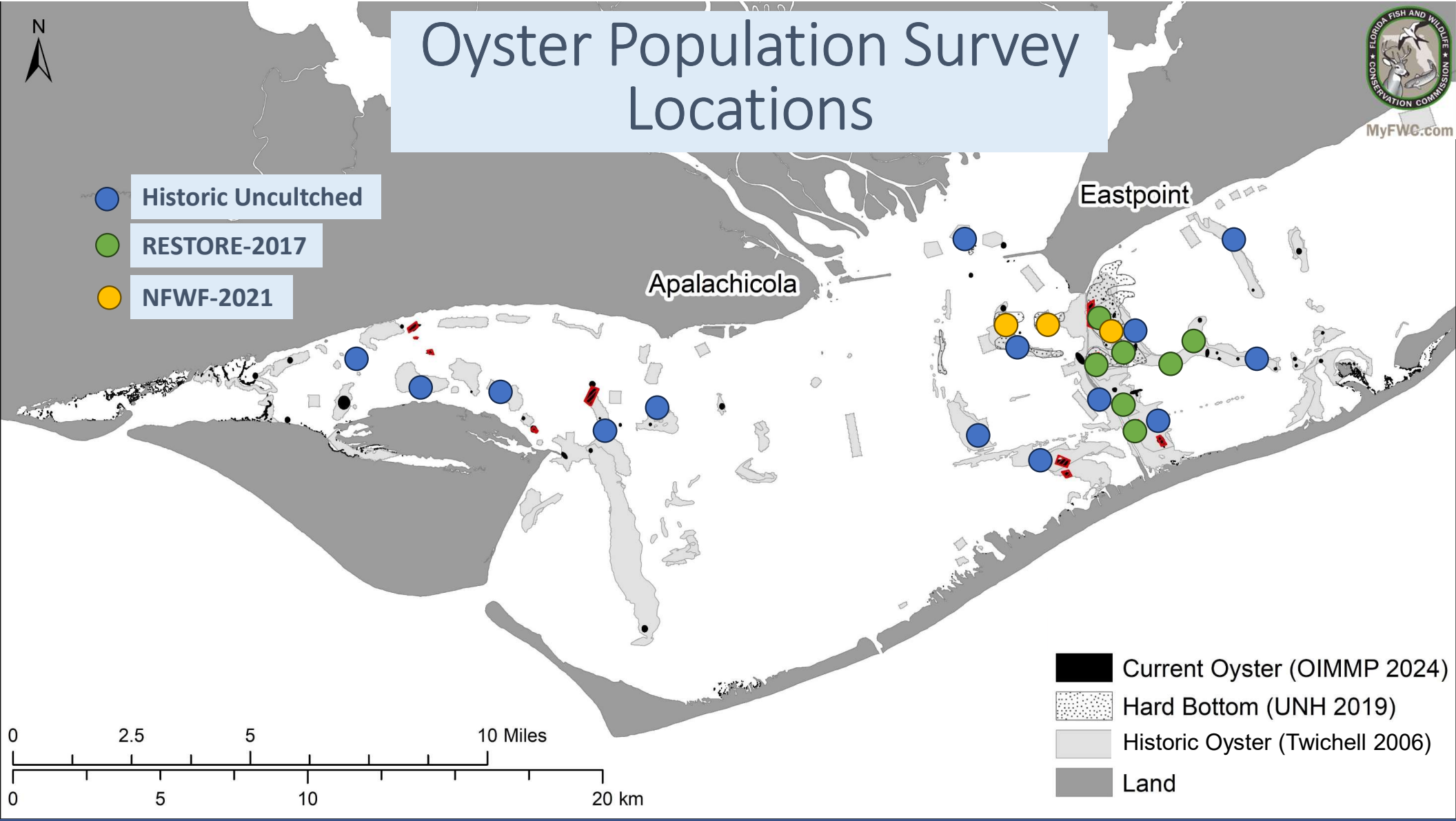
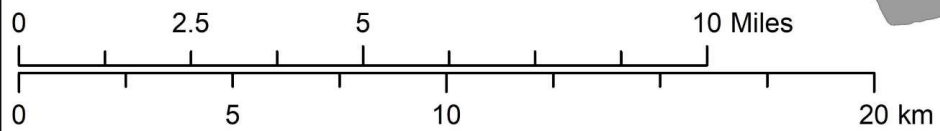


- Historic Uncultched
- RESTORE-2017
- NFWF-2021

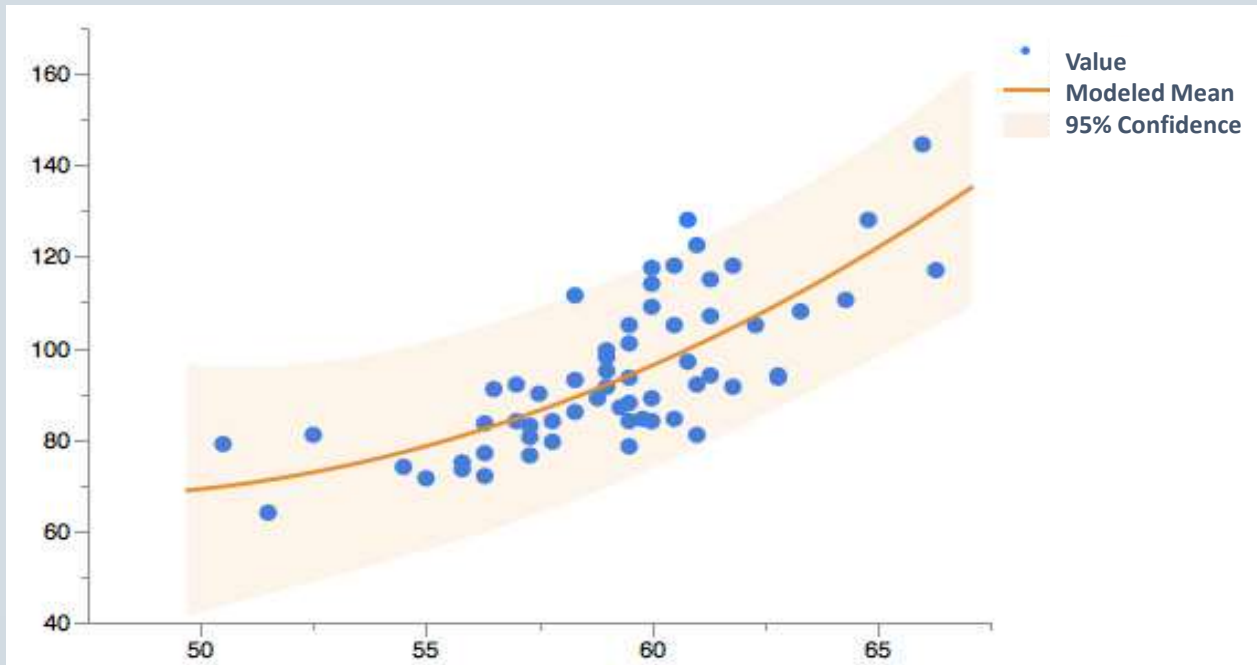
Eastpoint

Apalachicola

- Current Oyster (OIMMP 2024)
- Hard Bottom (UNH 2019)
- Historic Oyster (Twitchell 2006)
- Land



How We Estimate Oyster Densities



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



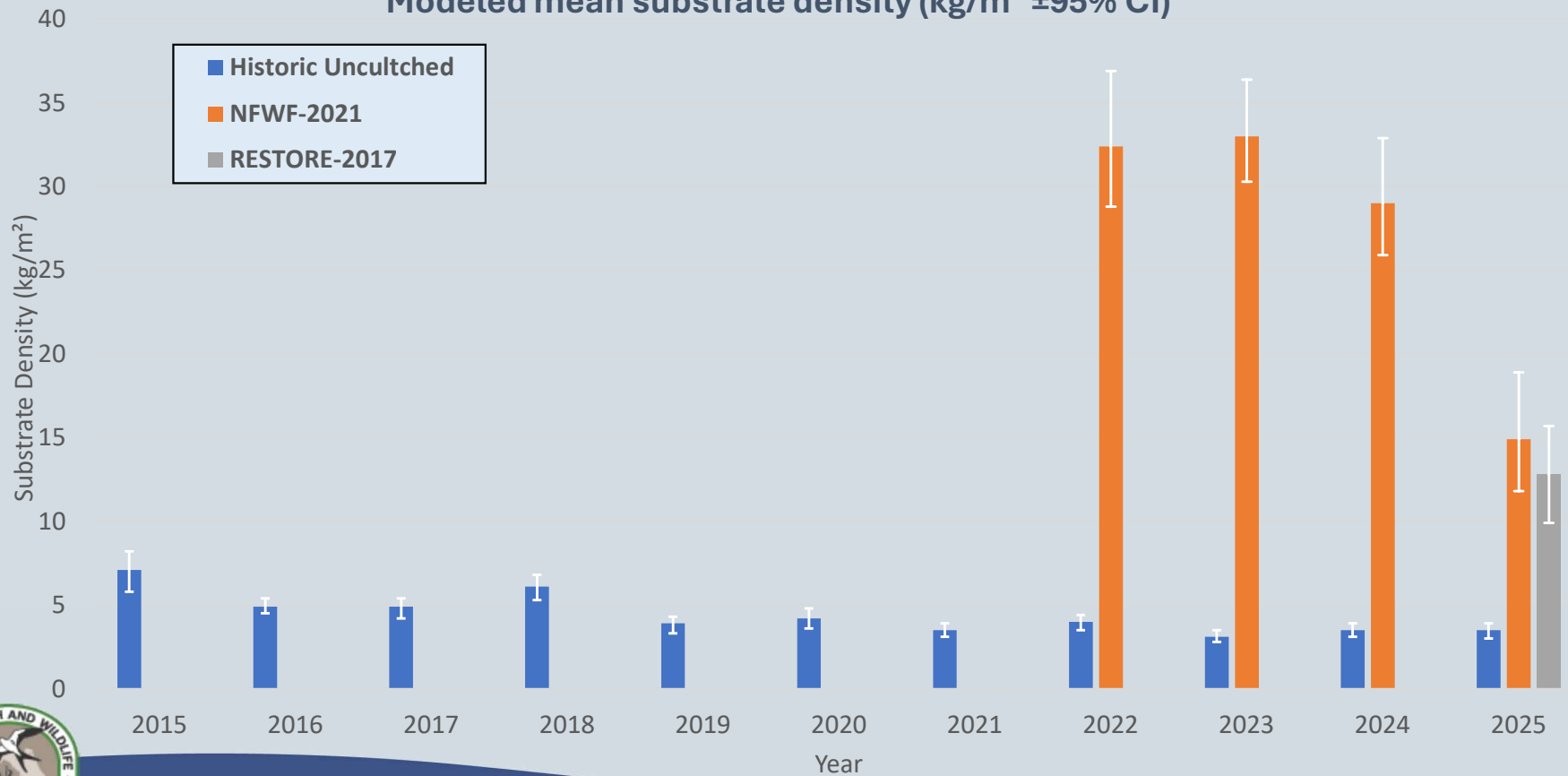
Oyster Survey Results

- Surveyed in April & 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

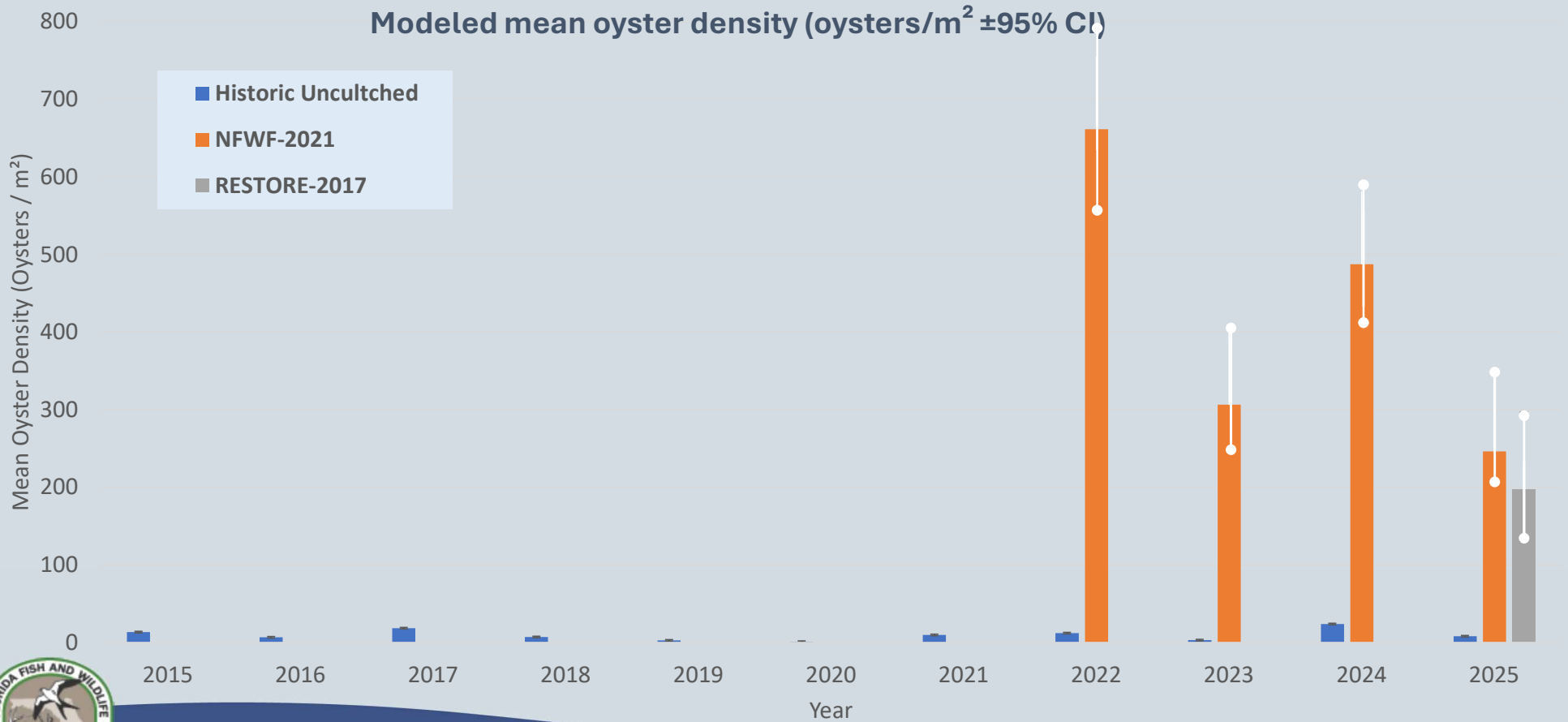


Survey Results: Substrate Density

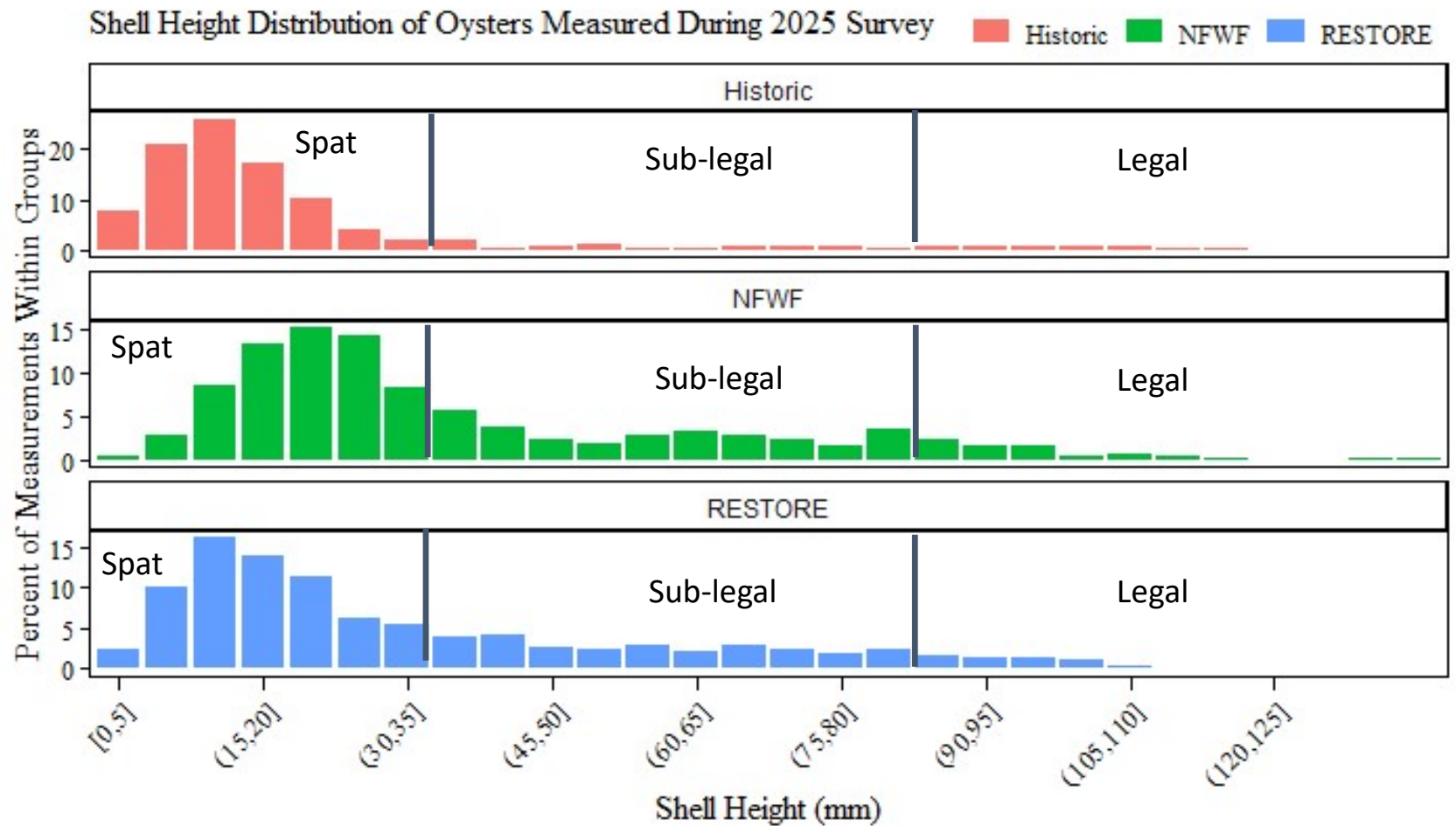
Modeled mean substrate density (kg/m² ±95% CI)



Survey Results: Oyster Density



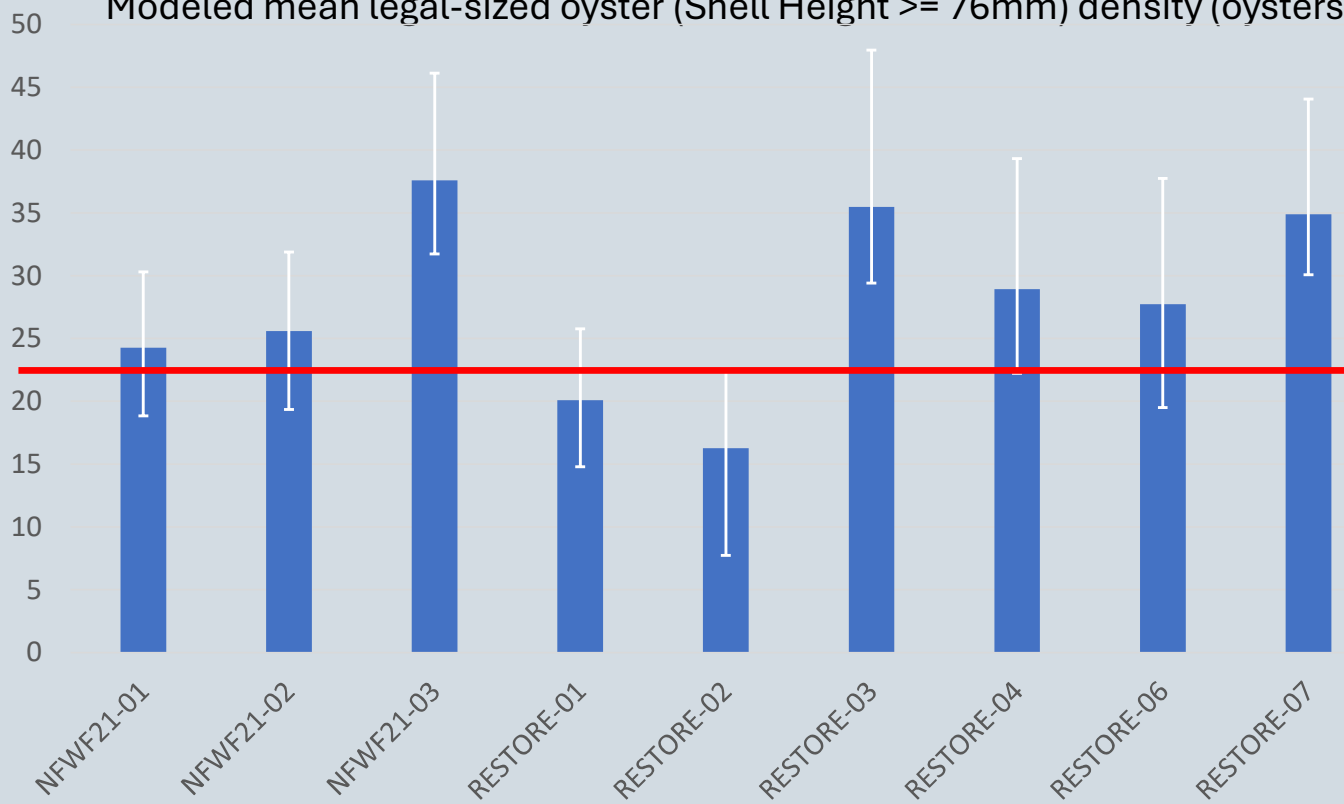
Survey Results: Oyster Shell Heights



Survey Results: Legal-sized Oyster Density

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

Mean Legal-sized Oyster Density (oysters/m²)



Reef Name

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Acreage from 2021 side scanning

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



Harvest Levels: Jan 2026 Season

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

Harvest Reopens

- Jan 1, 2026 – Feb 28, 2026
- Conservative harvest limits
- Utilizes lower 95% confidence interval
- Harvest of 10% legal-sized oysters
- Similar regulation to other Gulf states

Alicia Devine/Tallahassee Democrat



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?

THANKS to the rest of our Eastpoint team (Elizabeth, Reni, Luke, Michael, Isaac, & Matt) for all their hard work on this over the last year!



Alicia Devine/Tallahassee Democrat



Kelly Williams

Biological Scientist III

Florida Fish & Wildlife Conservation Commission

Kelly.Williams@myfwc.com