



# THE APALACHICOLA BAY SYSTEM INITIATIVE (ABSI)

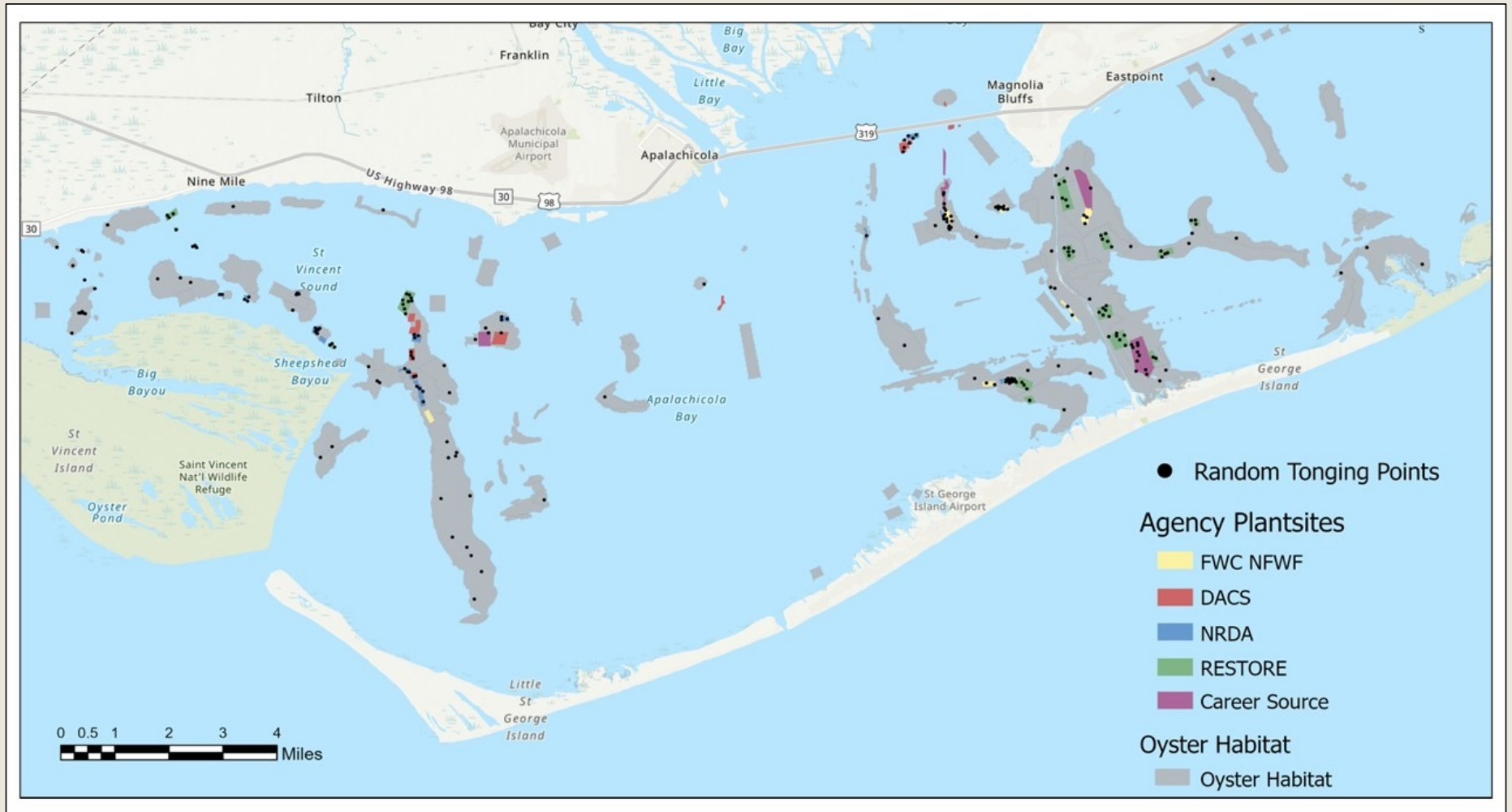


ABSI funding is provided by Triumph Gulf Coast Inc. and Florida State University

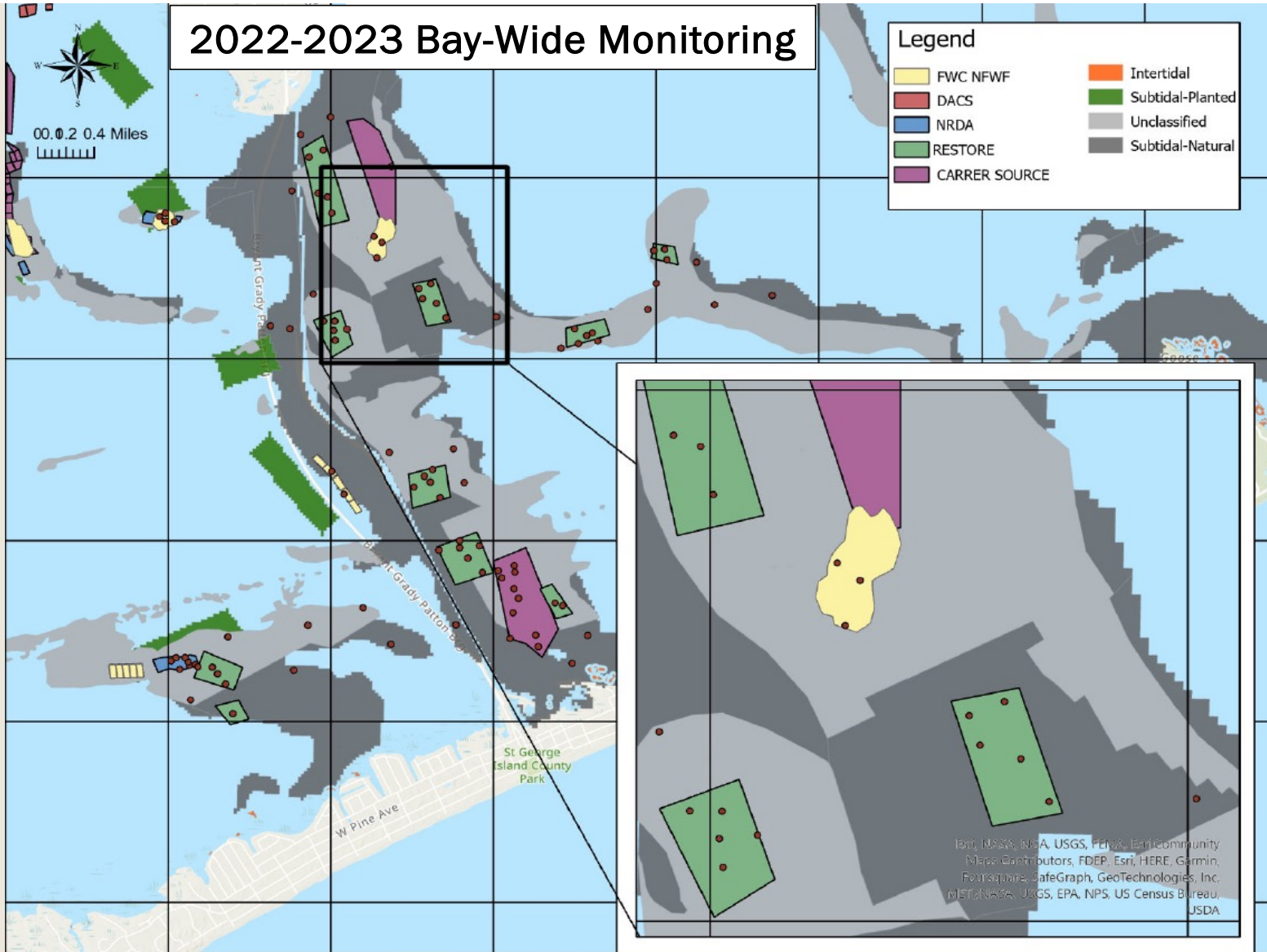
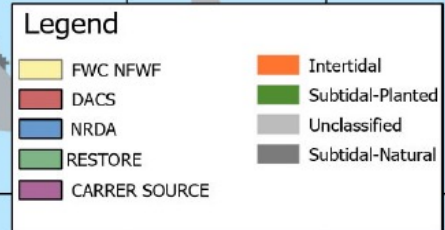
***HOW ARE THE  
OYSTERS  
DOING IN THE  
BAY?***



# 2022-2023 Bay-Wide Monitoring: 227 sites

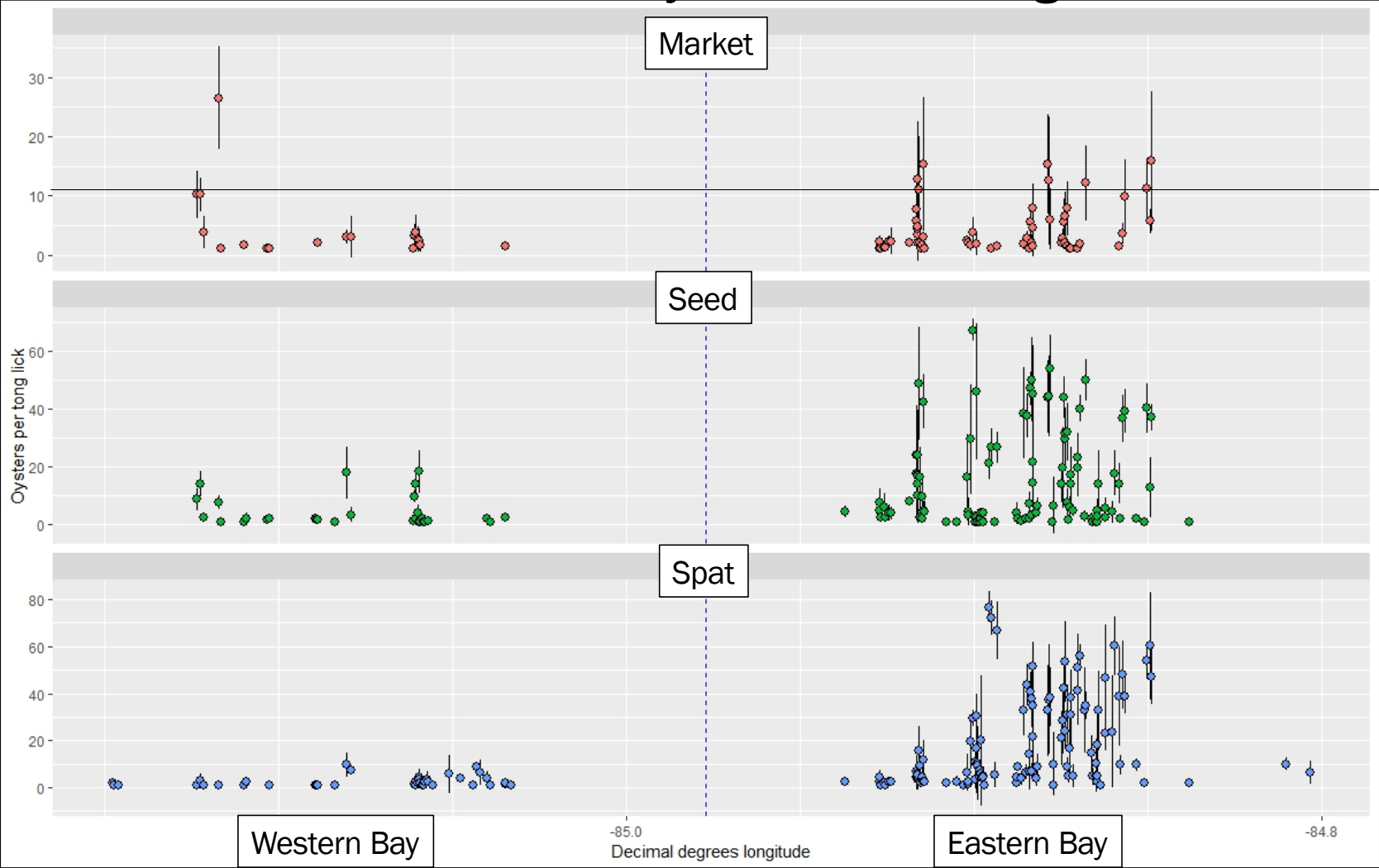


# 2022-2023 Bay-Wide Monitoring

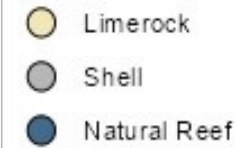
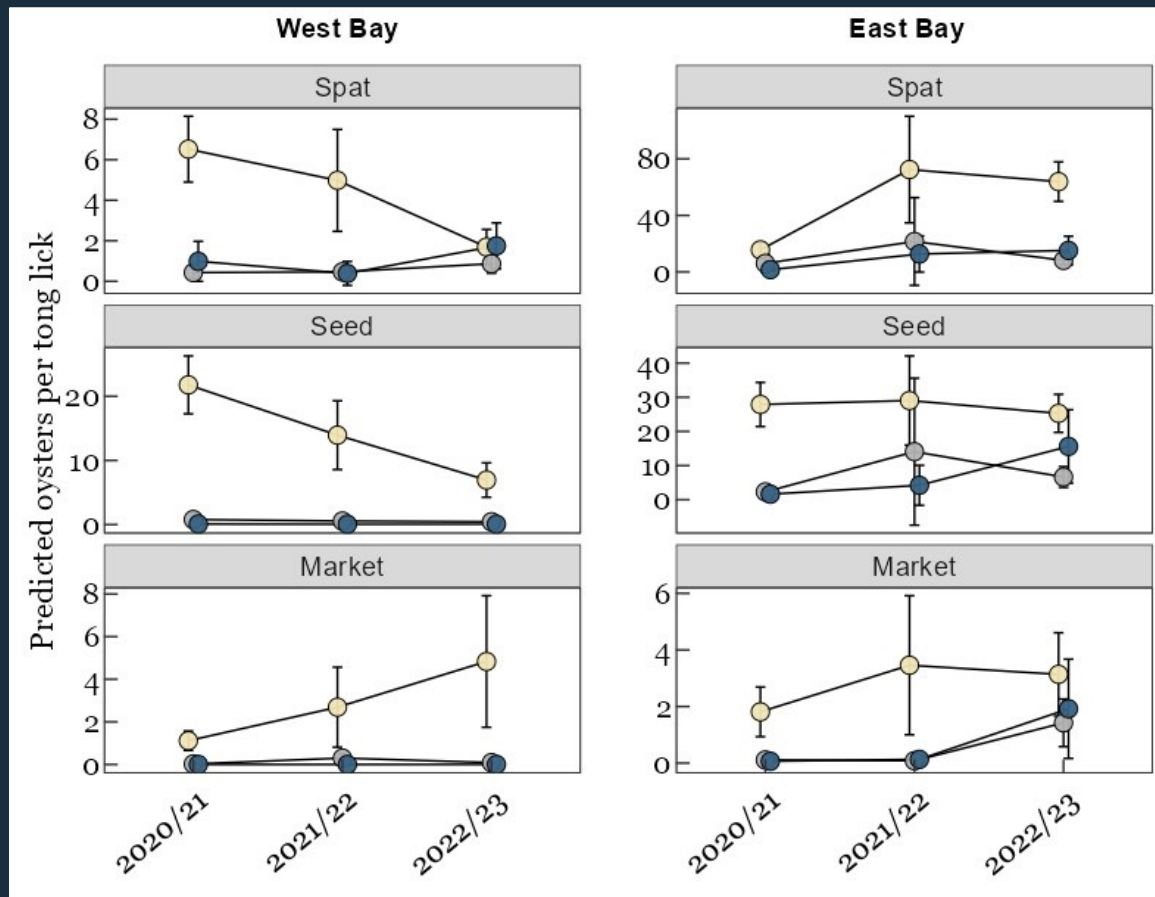


Esri, NOAA, NOAA, USGS, FFWF, FFWF Community  
Map Contributors, FDEP, Esri, HERE, Garmin,  
Foursquare, SafeGraph, GeoTechnologies, Inc.,  
MET/NASA, USGS, EPA, NPS, US Census Bureau,  
USDA

# 2022-2023 Bay-Wide Monitoring



# TRENDS OF SPAT, SEED AND MARKET OYSTERS ON DIFFERENT SUBSTRATES

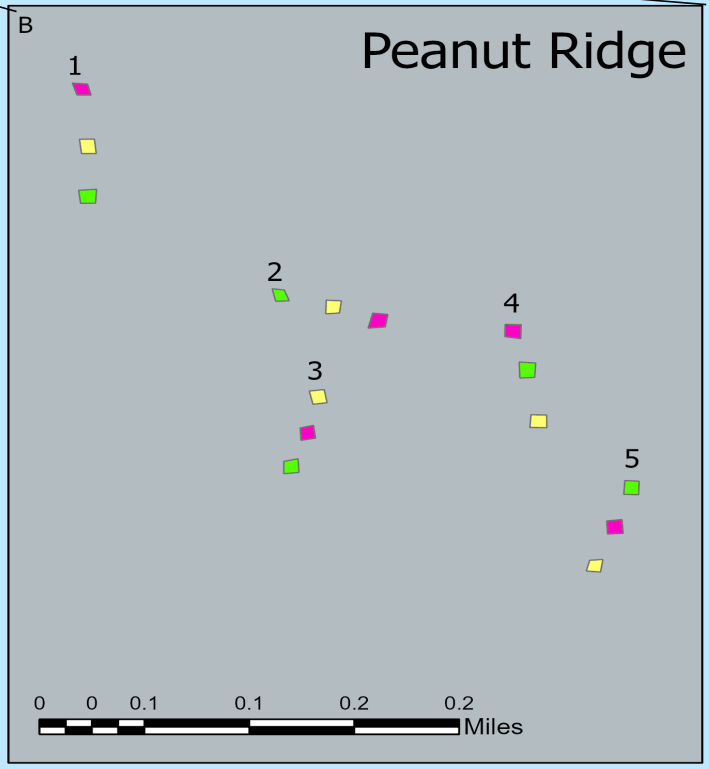
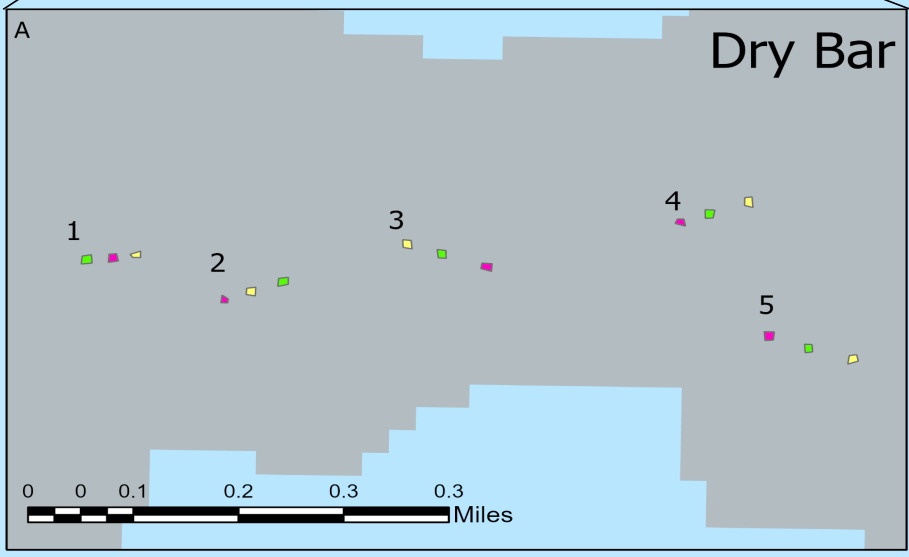
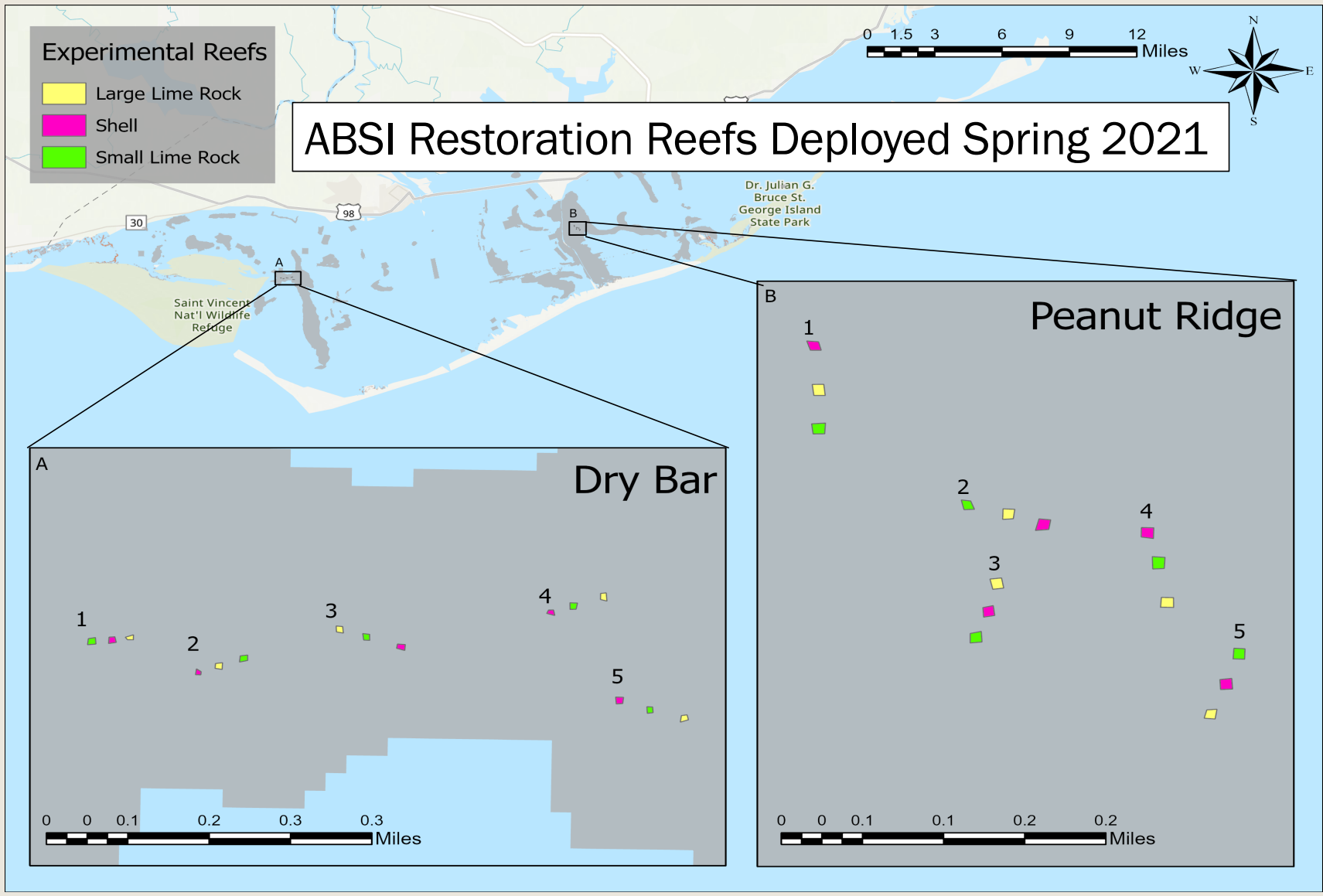
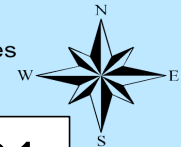


**Next steps**  
Focus 2023-2024  
surveys on limerock  
areas to assess  
patchiness in oyster  
abundance

**Experimental Reefs**

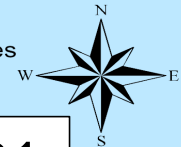
- Large Lime Rock
- Shell
- Small Lime Rock

# ABSI Restoration Reefs Deployed Spring 2021



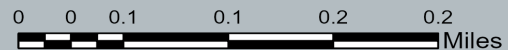
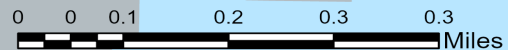
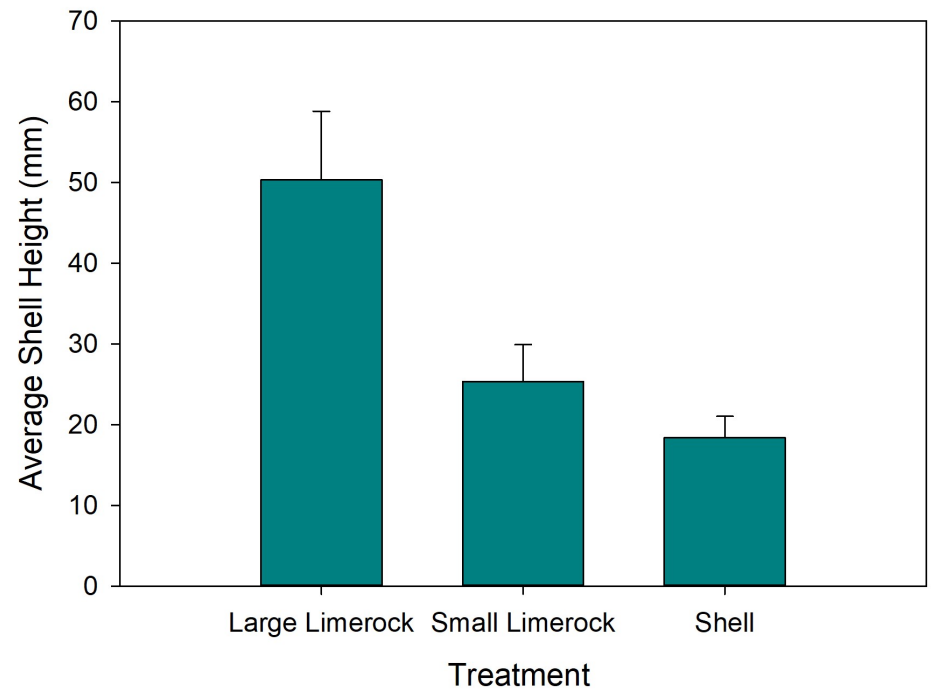
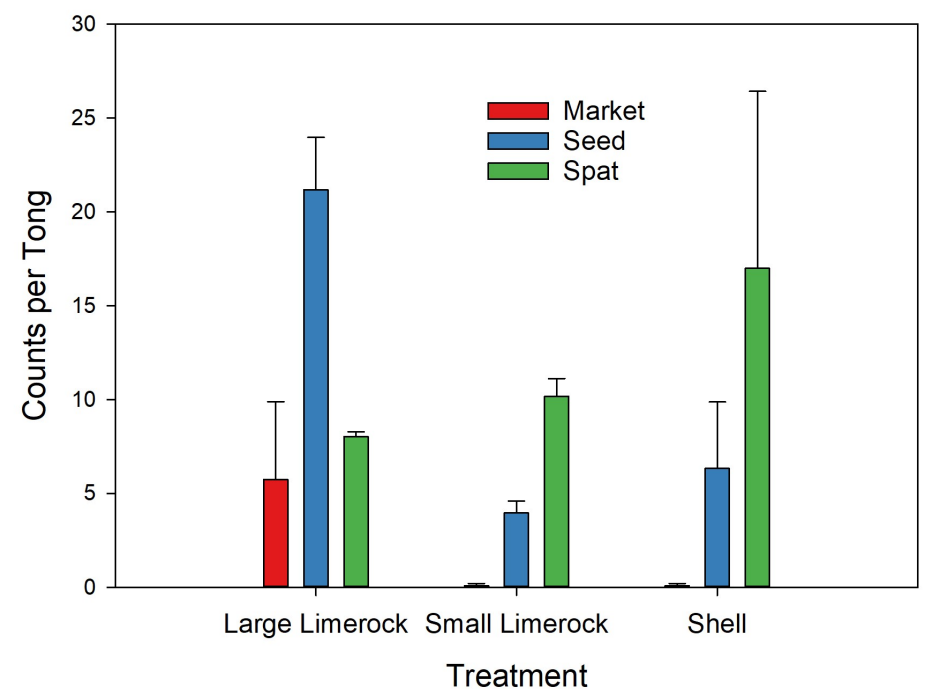
Experimental Reefs

- Large Lime Rock
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# ABSI Restoration Reefs Deployed Spring 2021

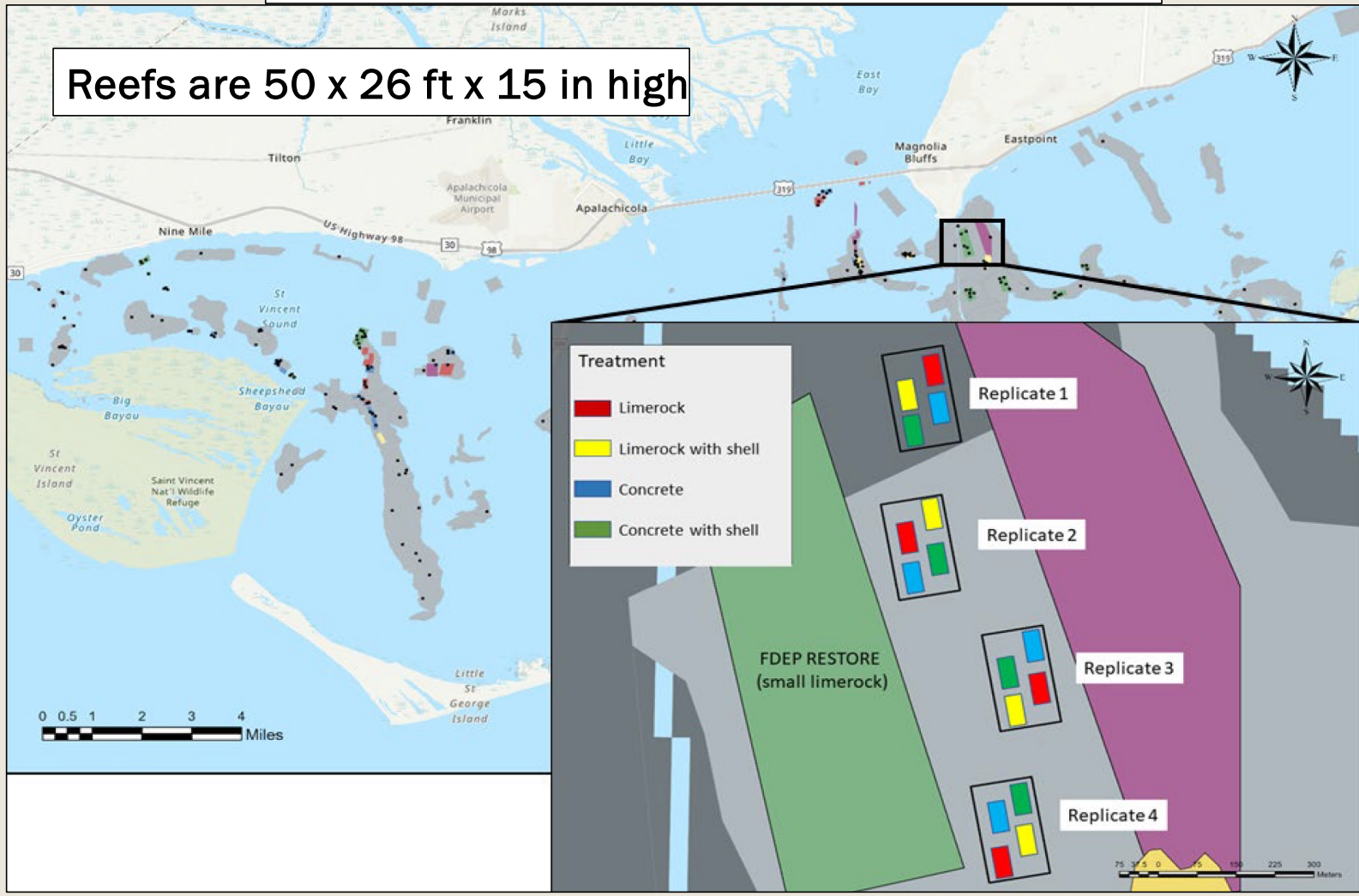
Dr. Julian G. Bruce St.





# ABSI Restoration Reefs Deployed Spring 2023

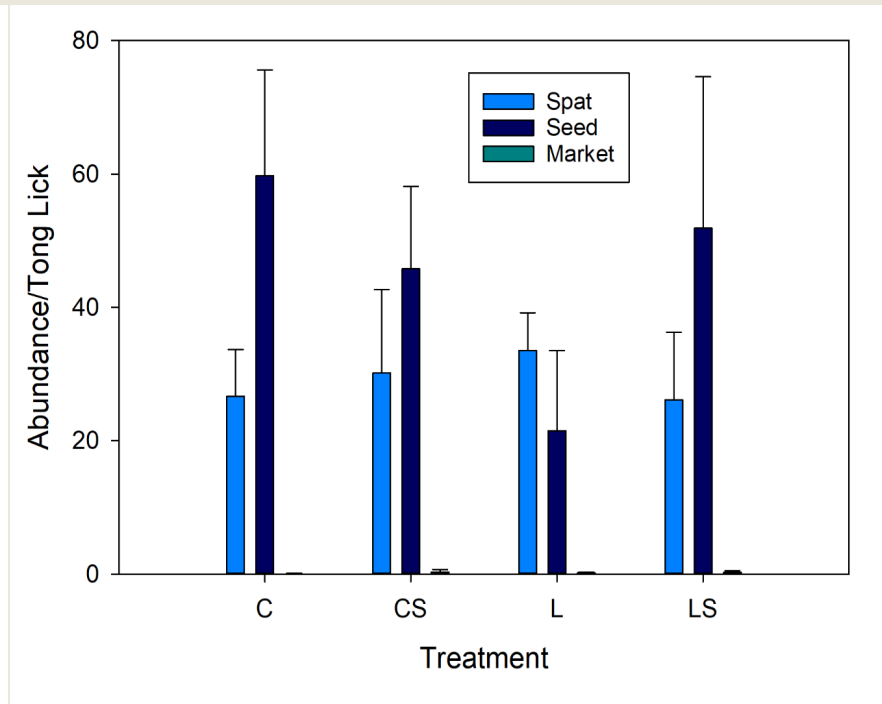
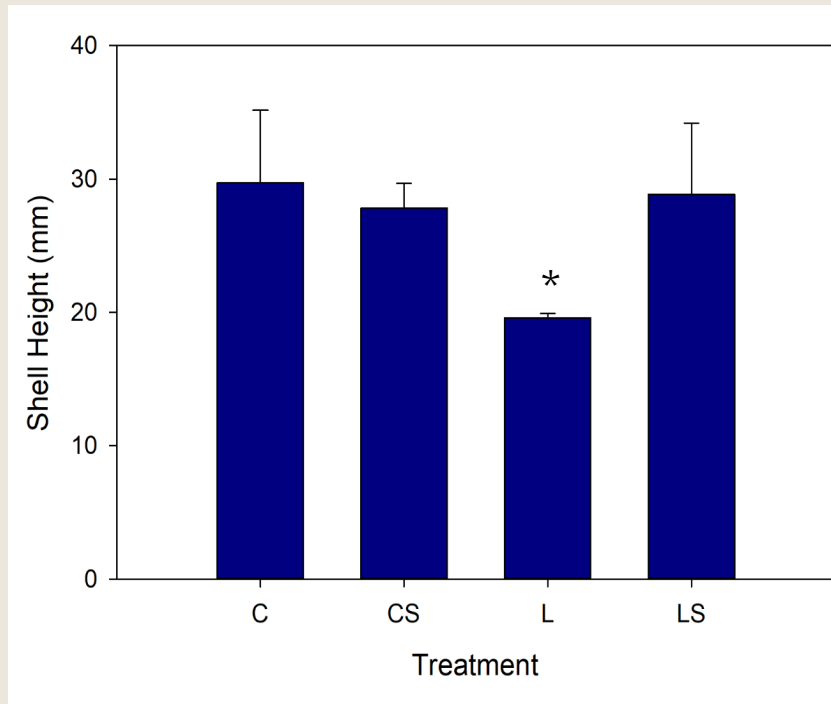
Reefs are 50 x 26 ft x 15 in high



## CONCRETE TREATMENT OCTOBER 2023



## Average Shell Height and Distribution of Size Classes



C = Concrete    CS = Concrete and Shell    L = Limerock    LS = Limerock and Shell

# Summary

## Bay-wide surveys

- The eastern side of the Bay is doing better than the west
- Areas cultched with small limerock are performing much better than shell or un-cultched areas
- Limerock areas are very patchy – some good spots, some not.

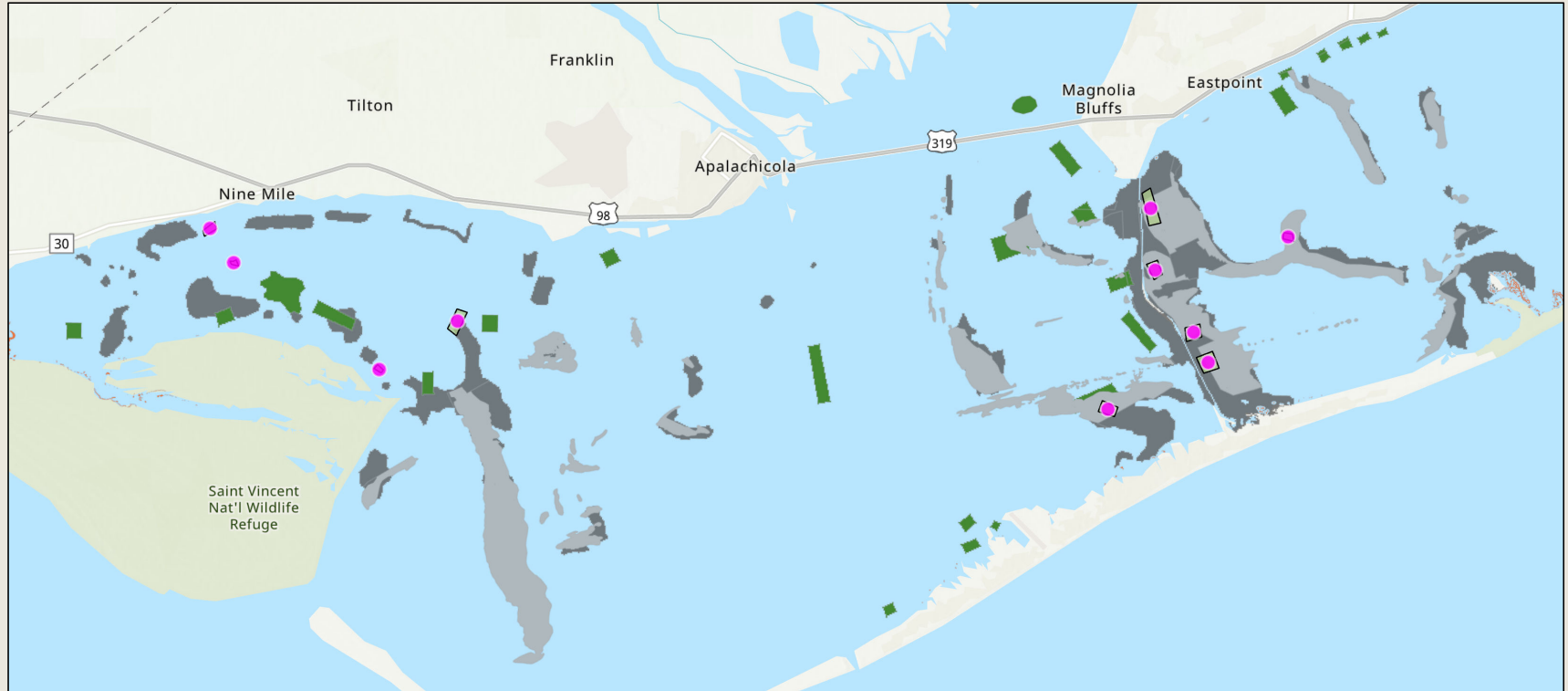
## 2021 Restoration Experiment

- Large Limerock (5-7 “) is performing best,
- Small Limerock (2”) is doing better than Shell

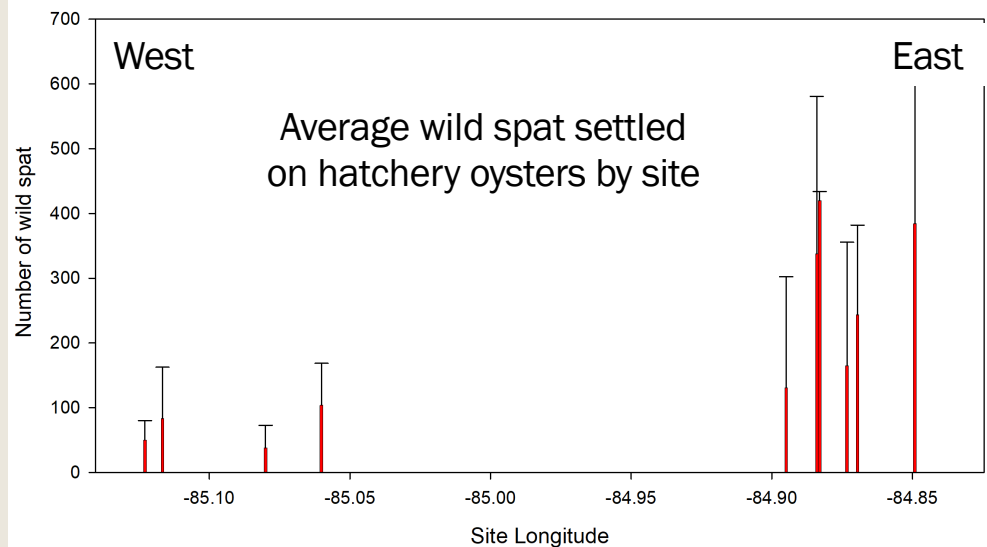
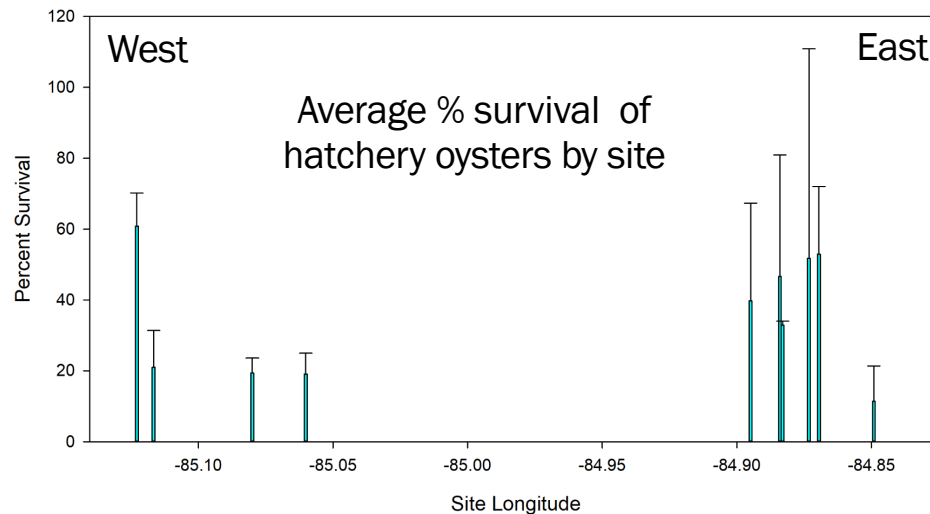
## 2023 Restoration Experiment

- Treatments performing equally with the exception of just Limerock (different material).
- High abundance of spat and seed and a small number of market oysters on most treatments

## Assessment of survival and growth of hatchery juveniles and spat on shell in different biodegradable containers



- **10 sites** (planted with limerock) deployed in May-June 2023
- **Each site:** 5 biodegradable mesh, 5 chicken wire, 5 vexar cages, Water quality datalogger
- **Each container: 100 juveniles or 5 kg of spat on shell, stained with calcein**
- **Collected quarterly** and assessed for survival, growth, spat recruitment and status of material



### Results after 3 months (July 2023)

Bags and wire cages functional but compromised (crabs?)

### After 6 months (October 2023)

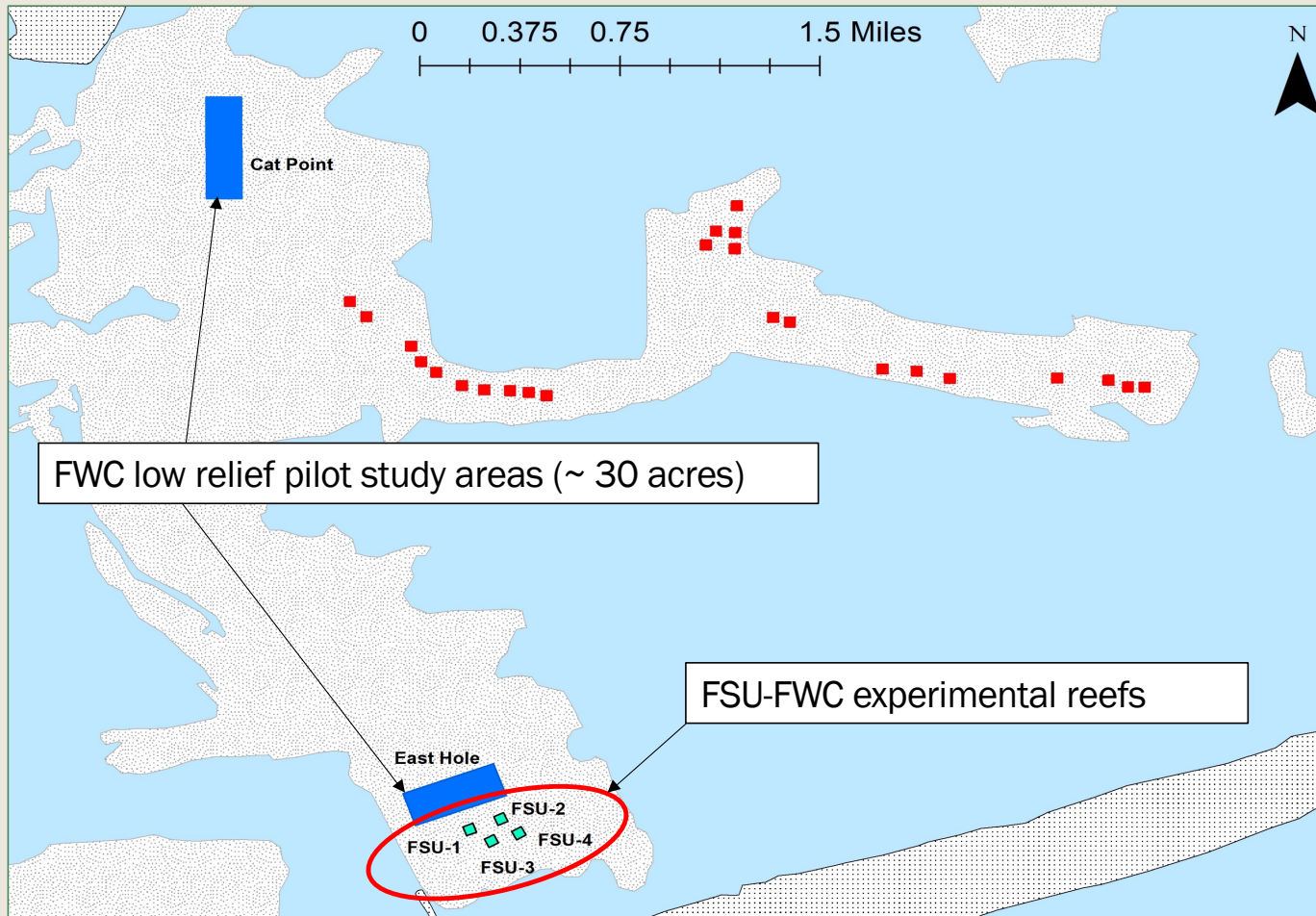
#### West Bay

- Most Cage lines found
- Some biodegradable bags intact
- Many juveniles dead, low spat set

#### East Bay

- Several juvenile cage lines missing
- Most spat cage lines missing
- Bags and wire cages fallen apart
- Good survival and spat set on hatchery juveniles.

# Survival and growth of hatchery juveniles and spat on shell – next steps





## SUMMARY OF OYSTER SHELL RECYCLING PROGRAMS

FLORIDA WILDLIFE FEDERATION INC.  
THROUGH PEW CHARITABLE TRUSTS

### OBJECTIVES

Review shell recycling programs along the Eastern Seaboard and Gulf of Mexico to inform expansion and/or initiation of recycling and re-shelling programs for Apalachicola Bay



A landscape photograph capturing a vibrant sunset over a body of water. The sky is filled with dramatic, streaked clouds in shades of deep blue, purple, and bright pink. The sun is partially obscured by a cloud on the right side, creating a soft glow. The water in the foreground and middle ground reflects the intense colors of the sky. On the left, a dark silhouette of a forest of tall trees stands against the horizon. In the distance, a small cluster of buildings and a pier are visible along the shoreline. The overall mood is serene and colorful.

Questions?