The Apalachicola Bay System Initiative (ABSI)

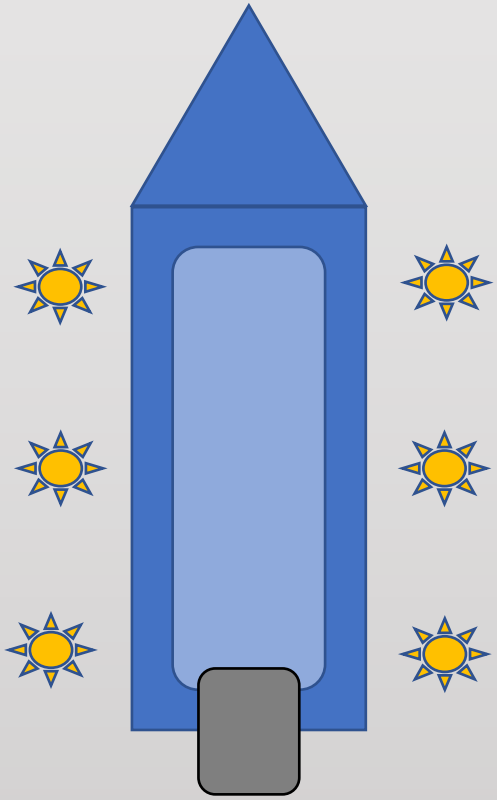
Sandra Brooke PhD
Research Faculty FSUCML
ABSI Principal Investigator

Oystermen's Workshop October 18, 2022

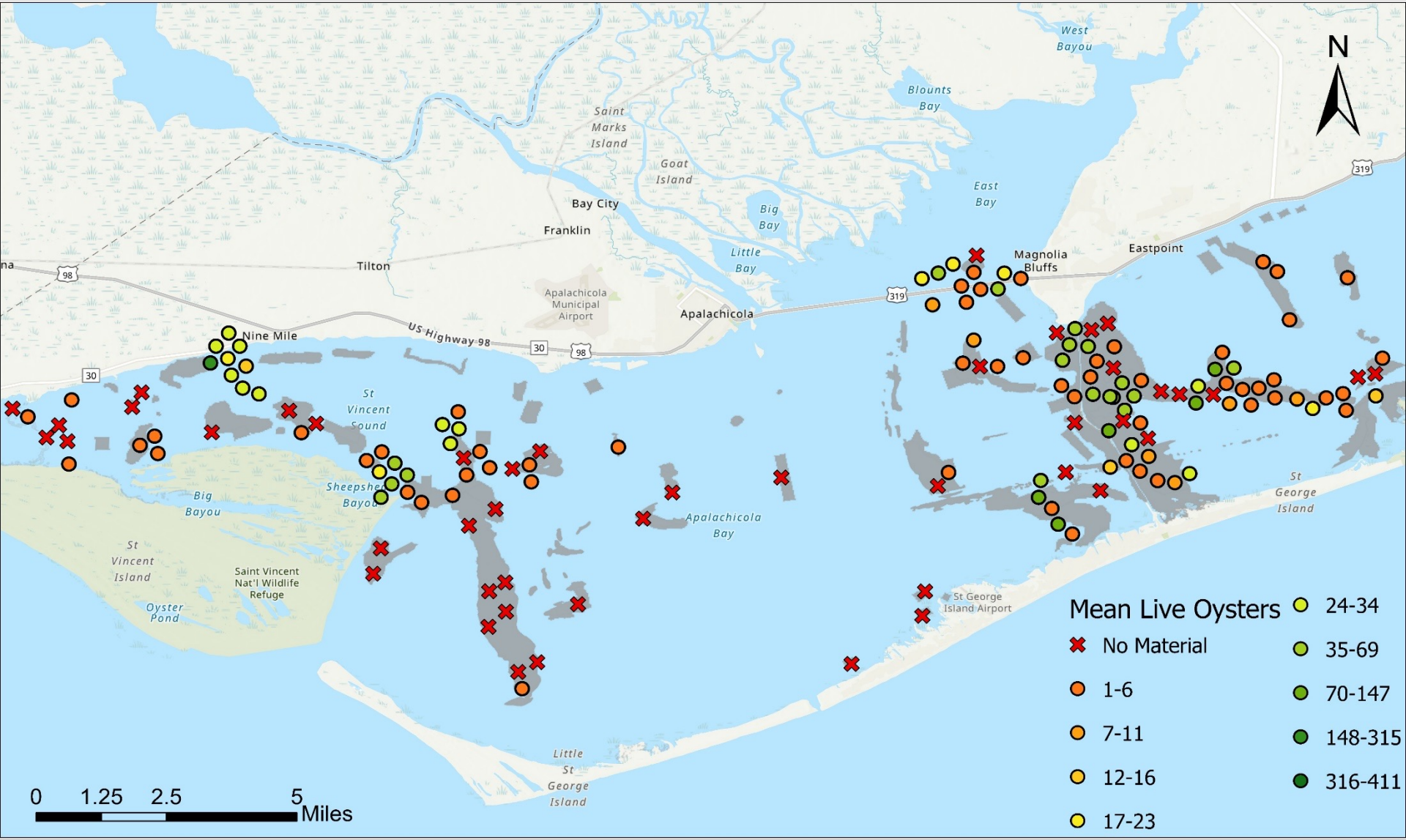
ABSI funding is provided by Triumph Gulf Coast Inc. and Florida State University

Reef surveys using tongs

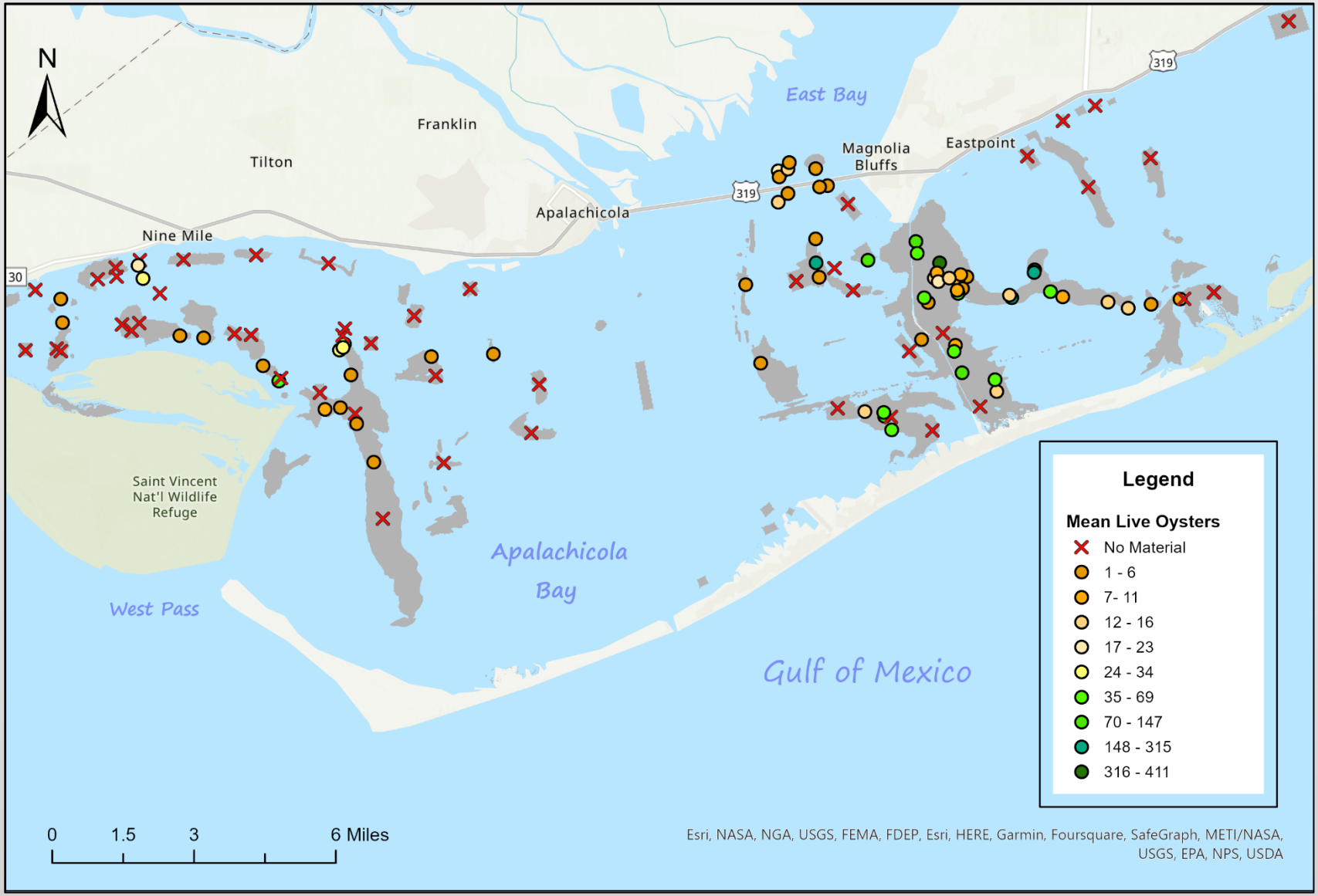
6 samples per site
Volume: Rock, dead shell, live oysters
Counted: spat, adults, market, boxes
Measured: live oysters (<25, 25-76, >76)



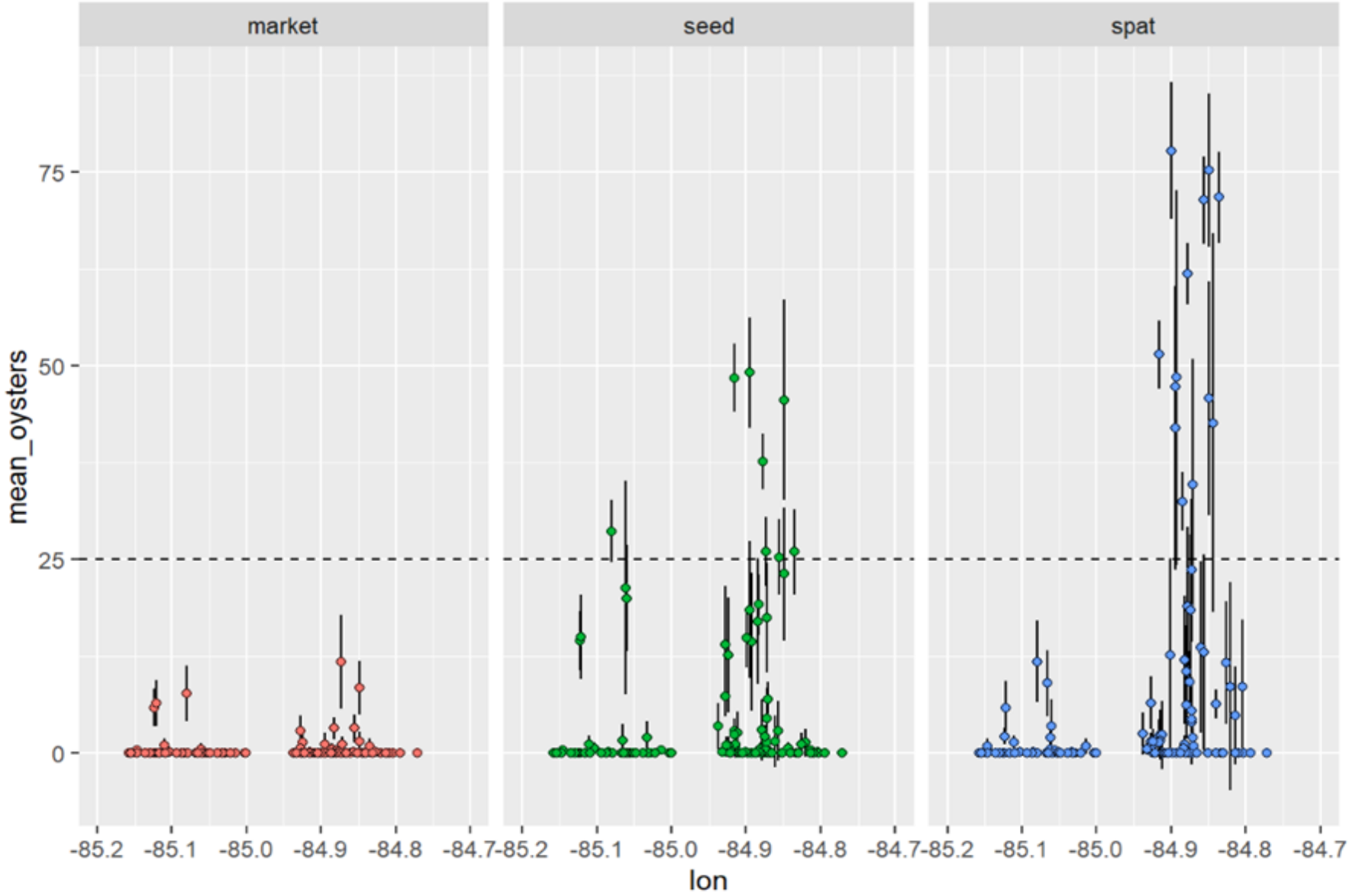
Sub-tidal tonging survey 2020-2021



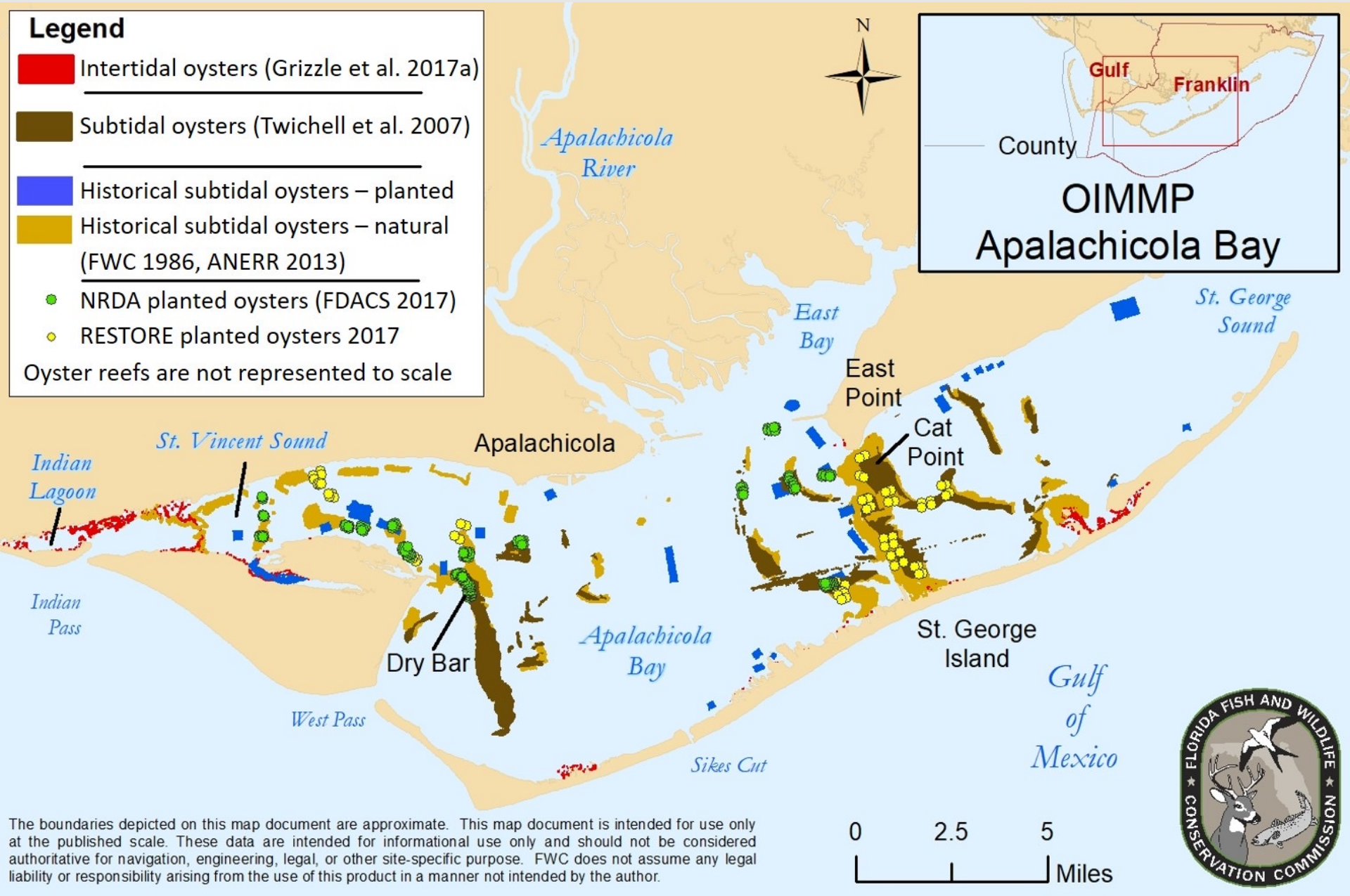
Sub-tidal tonging survey 2021-2022



Tonging data showing mean # oysters/site for different size classes relative to longitude (2021-22 data)



Restoration Sites



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Only 3 sites (56 acres) of 55 reached the 300 bags/acre threshold

FWC monitoring 2022

	2022 (Number of Bags Per Acre)				
Parcel Name	Jan	Feb	Mar	May	Sep
Bulkhead			0		0
North		29		14	
South		14		34	
Cabbage Top			58		29
Cat Point			0		0
Restoration	10			5	
Shallow	0			0	
Dry Bar North			0		0
East Lumps			0		0
Restoration	0			0	
Easthole #7			0		0
Green Point			5		48
6		14		96	
Halfmoon			5		0
East		0		0	
Hotel			0		0
West		0		0	
Lighthouse			5		0
Restoration		0		5	
8		0		0	
Normans			0		0
Paradise Flats			10		38
Platform			0		0
Porters			0		0

FLDEP RESTORE project
Deployed 317 acres in 2017
Sampling 12/2020-6/2021

Site	Round 3
8-Mile	175.07
9-Mile B	4.80
Cabbage Top	33.58
Cat Point	97.53
	441.27
East Hole #1	31.18
East Hole #2	2.40
Hotel Bar #1	4.80
Hotel Bar #2	28.78
King 9-Mile	81.54
	285.39
North Spur #2	0.00
	402.90
	652.32

FLDEP NRDA project
Deployed 124 acres in 2015
Sampling 7-12/2021

Site	Bags/acre
Bayou Flats	23.98
Cabbage Lumps	14.39
Cabbage Top	0
Cat Point	4.8
Dry Bar	0
Eleven Mile North	4.8
Eleven Mile South	19.19
Green Point	0
Hotel Bar	0
Lighthouse	16.79
Little Gully	0
Norman's Bar Middle	9.59
Norman's Bar North	21.58
North Spur	0
Redfish Creek 1	4.8
Redfish Creek 2	4.8

Restoration Experiments

*Objective: Identify **optimal location, materials and configuration** for restoration success*





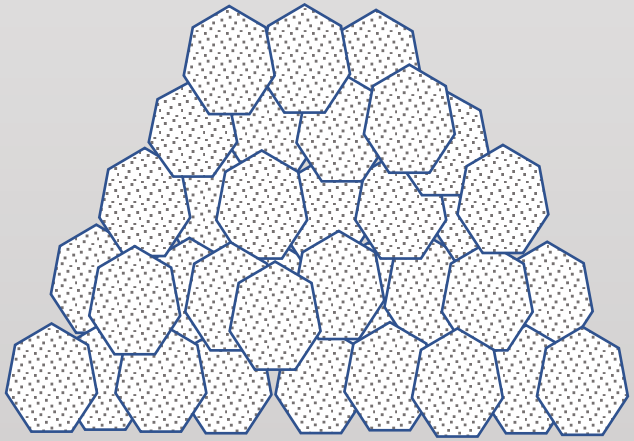

Restoration experiment May –June 2021

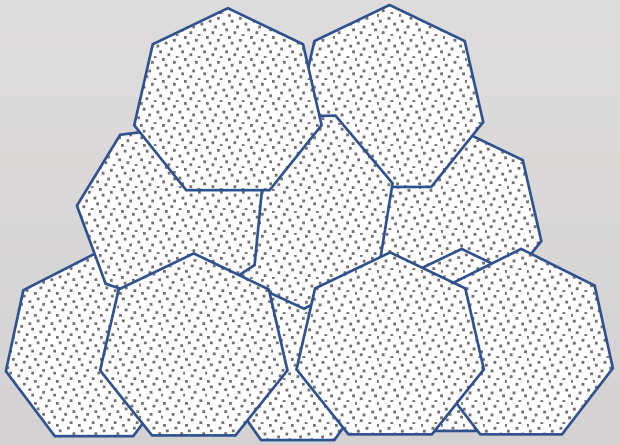
Reef size and height

30 ft x 30 ft x 1 ft = 50 Cubic Yds of material

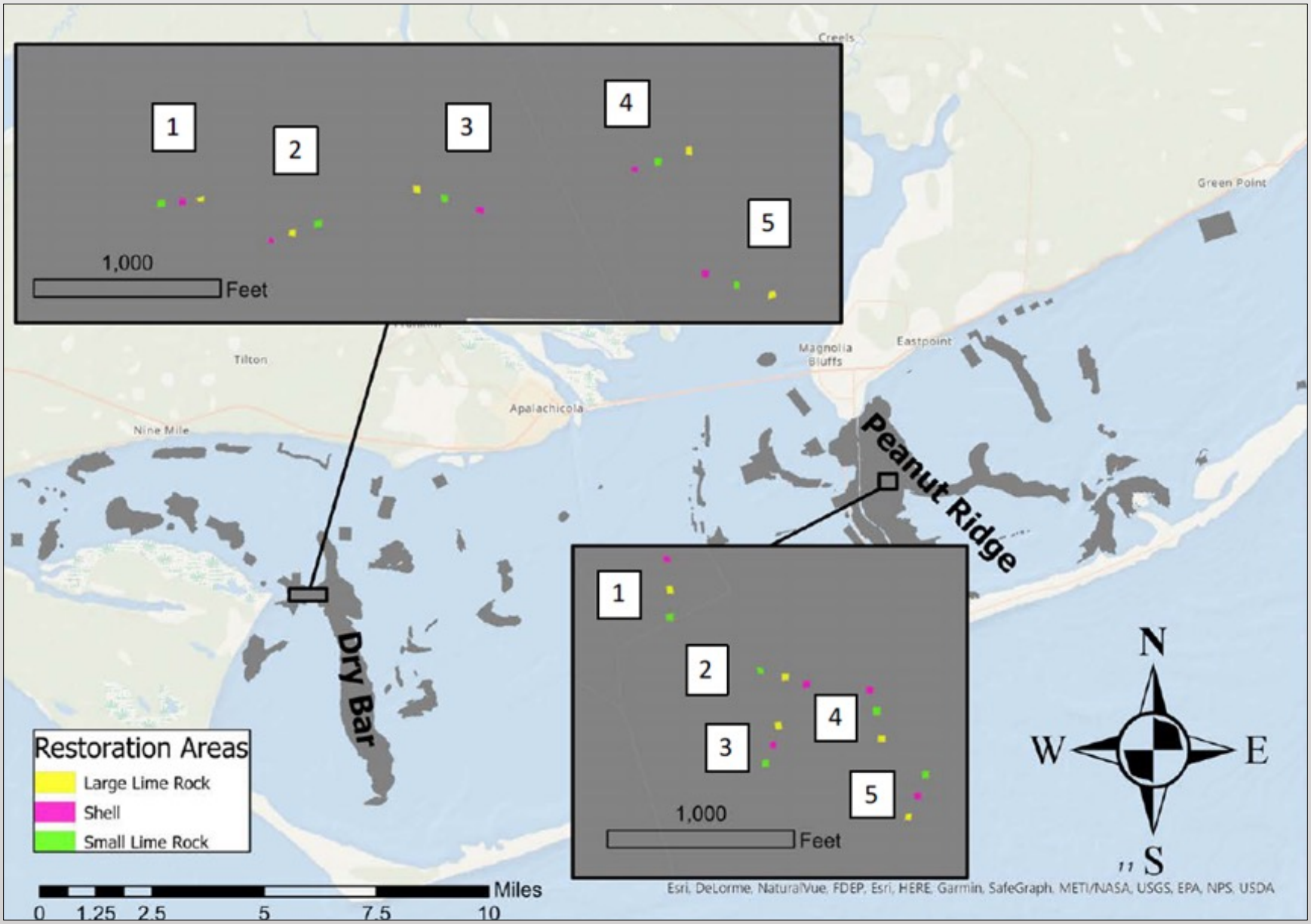
Materials

- Natural oyster shell – good for spat settlement, can be harvested with tongs
- Small Limerock (2”) creates mound, small spaces, many layers, can be harvested with tongs
- Large Limerock (6-8”) – creates stable structure, medium spaces, few layers, good for habitat development, can be harvested with tongs.





Restoration Experiment

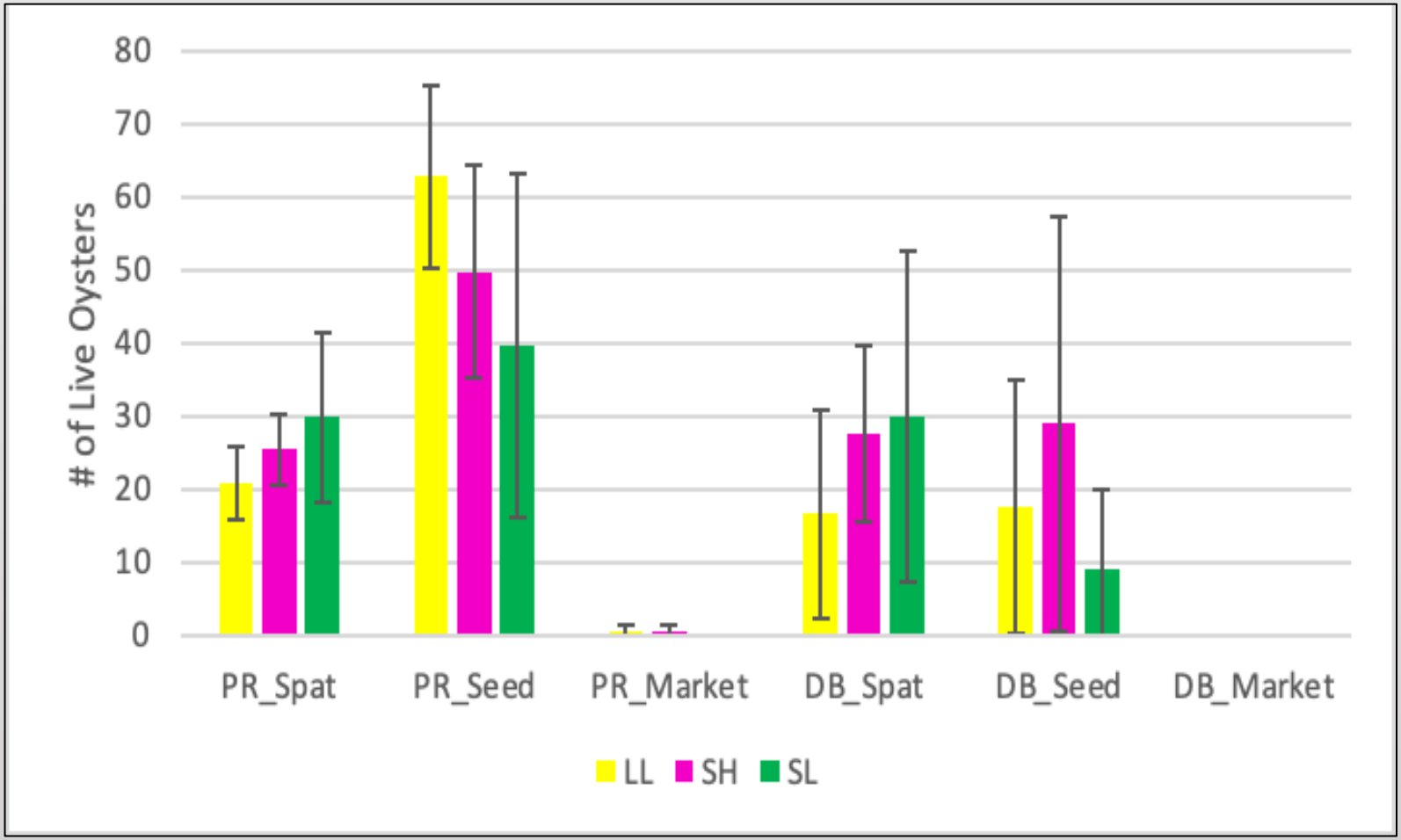


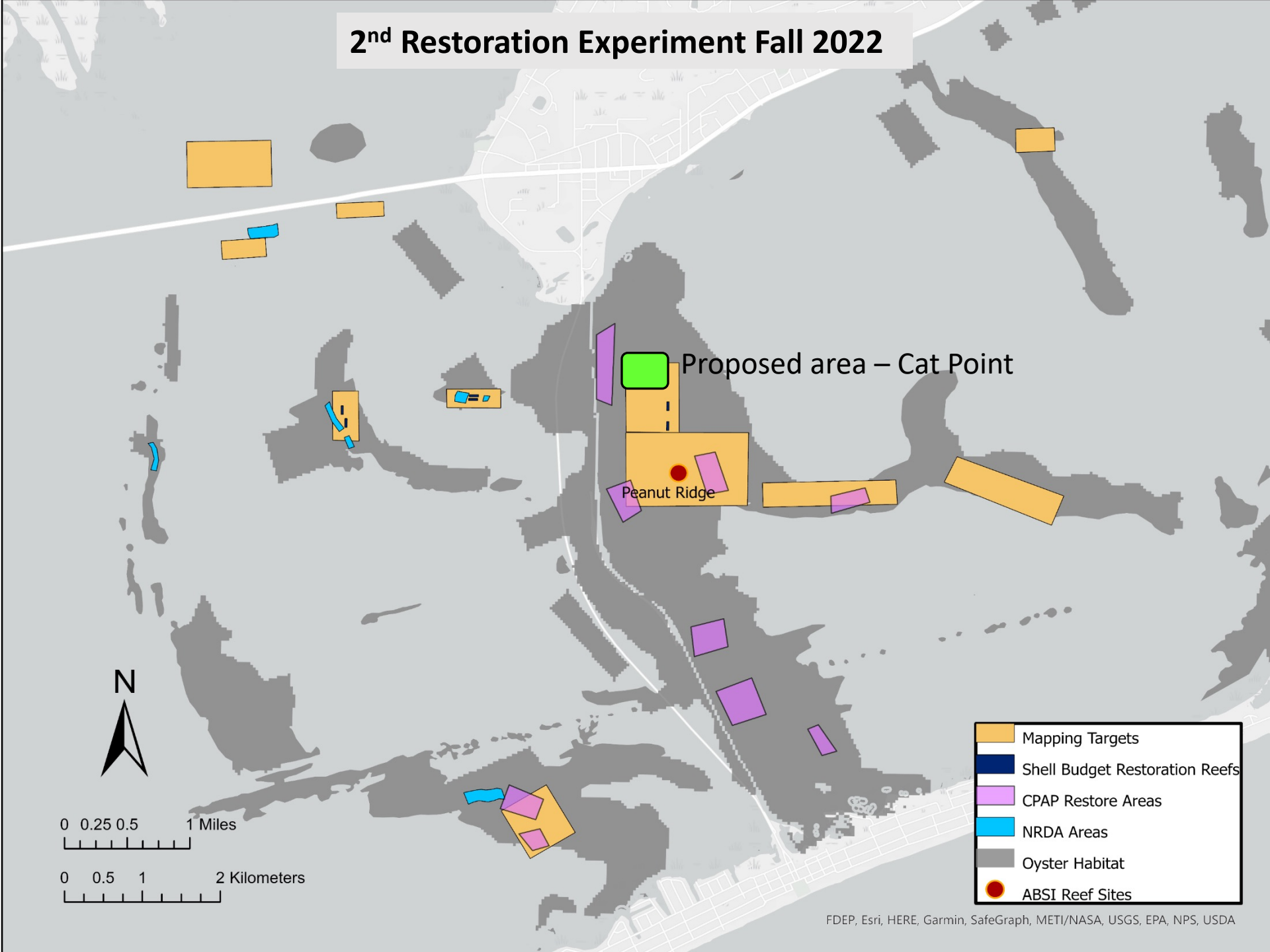
Tong sampling of ABSI restoration experiments

Aug-Sept 2022

Results for restoration reefs

- Spat = < 25 mm
- Seed = 25-75 mm
- Market = >75 mm




2nd Restoration Experiment Fall 2022
Proposed area – Cat Point
Peanut Ridge
N
0 0.25 0.5 1 Miles
0 0.5 1 2 Kilometers
Mapping Targets
Shell Budget Restoration Reefs
CPAP Restore Areas
NRDA Areas
Oyster Habitat
ABSI Reef Sites
FDEP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

Proposed ABSI Restoration Experiment Fall 2022

OPTION 1: Examine reef height

Location

NE Cat Point: 4 treatments, 5 replicates = 20 reefs (15 x 15 m)

Reef Height

25 cm (10 inches)

50 cm (20 inches)

Material Size

15-20 cm (6-8 inches) = Medium

Material Type

Limerock = occurs naturally in NW Florida, relatively stable

Proposed ABSI Restoration Experiment Fall 2022

OPTION 2: Examine different materials

Location

NE Cat Point: 4 treatments, 5 replicates = 20 reefs (15 x 15 m)

Reef Height

25 cm (10 inches)

Material Size

15-20 cm (6-8 inches) = Medium

Material Type

Limerock = occurs naturally in NW Florida, relatively stable

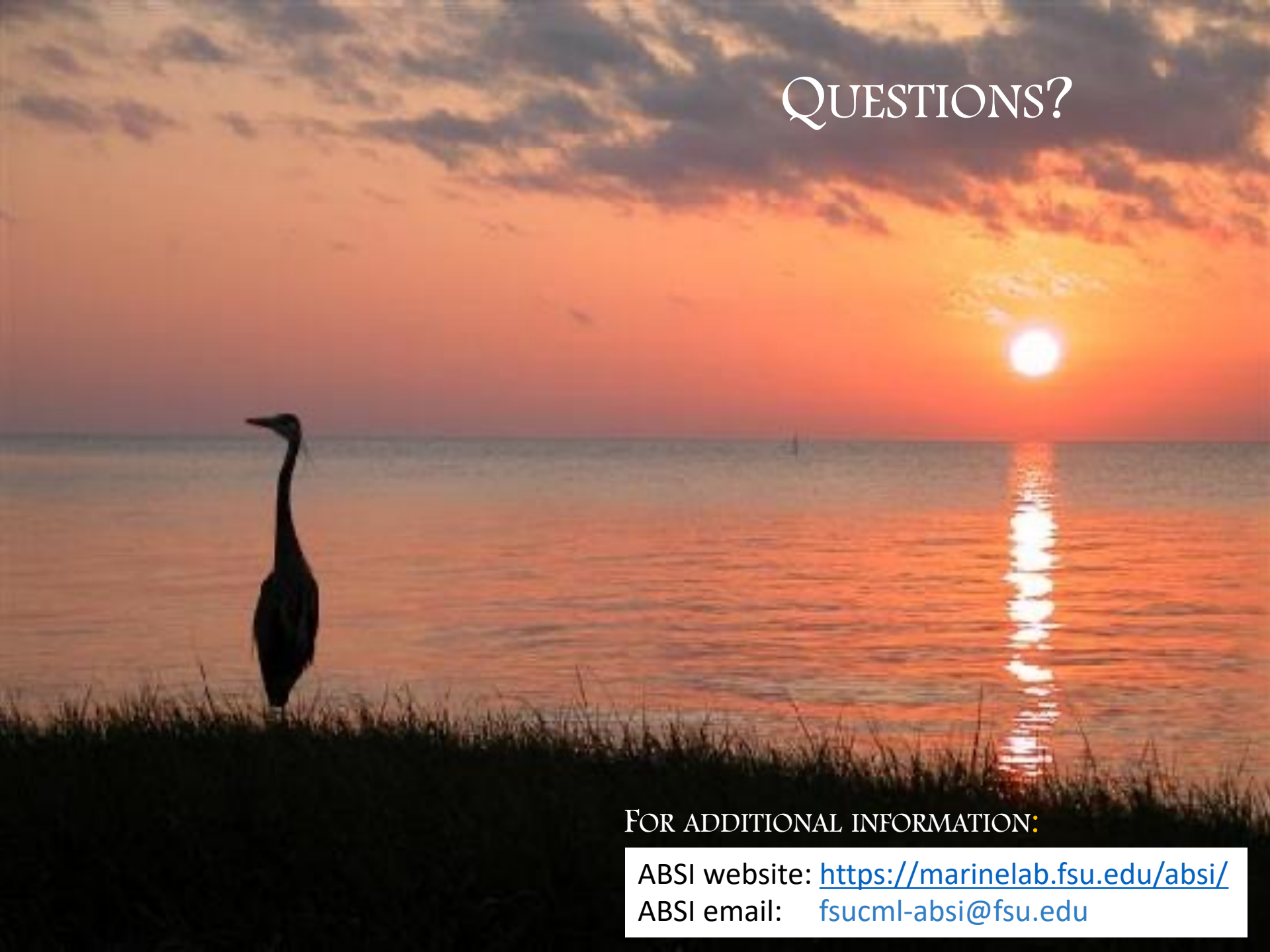
Concrete = not natural, readily available, less expensive

We want to talk to you about oysters

- Betsy Mansfield- Researcher at FSU Marine Lab
  - emansfield@fsu.edu

- History of the oyster fishery & your experience with it
- Information about fishery collapse
- Information on impacts to the Bay after oyster collapse
- Information on management options

Feel free to contact me or find me after the meeting!



Questions?

For additional information:

ABSI website: https://marinelab.fsu.edu/absi/
ABSI email: fsucml-absi@fsu.edu