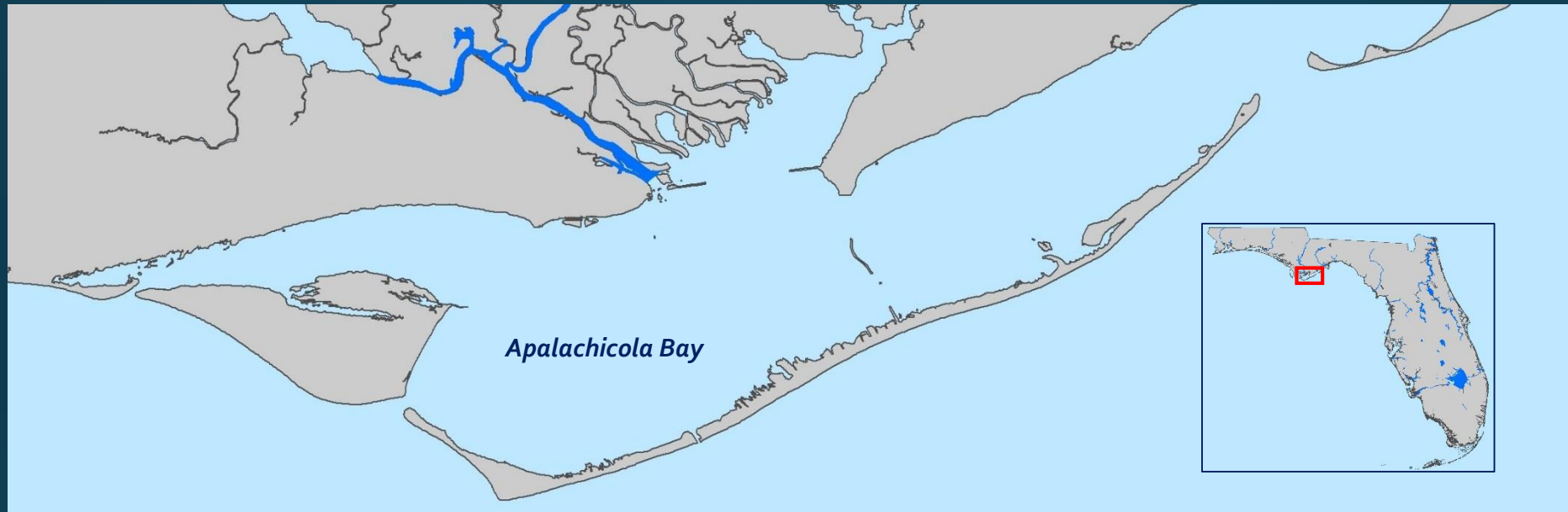


FWRI Oyster Monitoring and Restoration Efforts in Apalachicola Bay



Melanie Parker, Research Scientist, FWRI Oyster Program

Apalachicola Bay Oyster Monitoring



Fishery Disaster Recovery

Monitoring to evaluate the success of large-scale habitat restoration following the collapse of the commercial oyster fishery in 2012

- Pre and Post Season Assessments of Oyster Density and Distribution
- Monthly Spat Settlement Rates

Funded by Federal Disaster Funds from 2014 – 2020

NFWF Oyster Restoration

Research to determine the most efficient methods for increasing potential oyster habitat and resilience of the commercial fishery

- Oyster Density and Size Frequency
- Predator Densities
- Oyster Health

Funded by NFWF Oil Spill Funds from 2014 – 2021

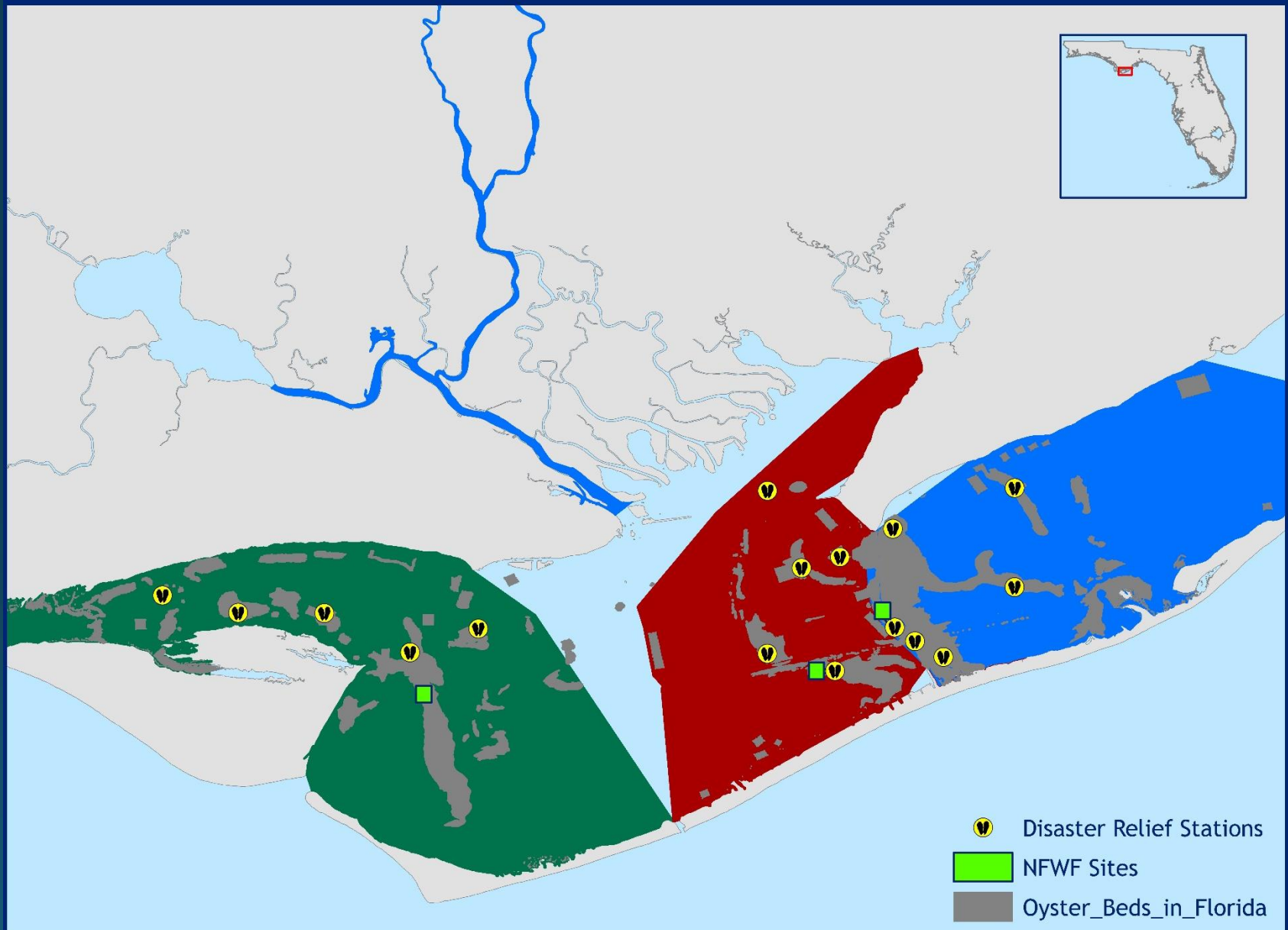
Population Monitoring

Monitoring of Apalachicola's commercially fished oyster bars for fisheries management purposes

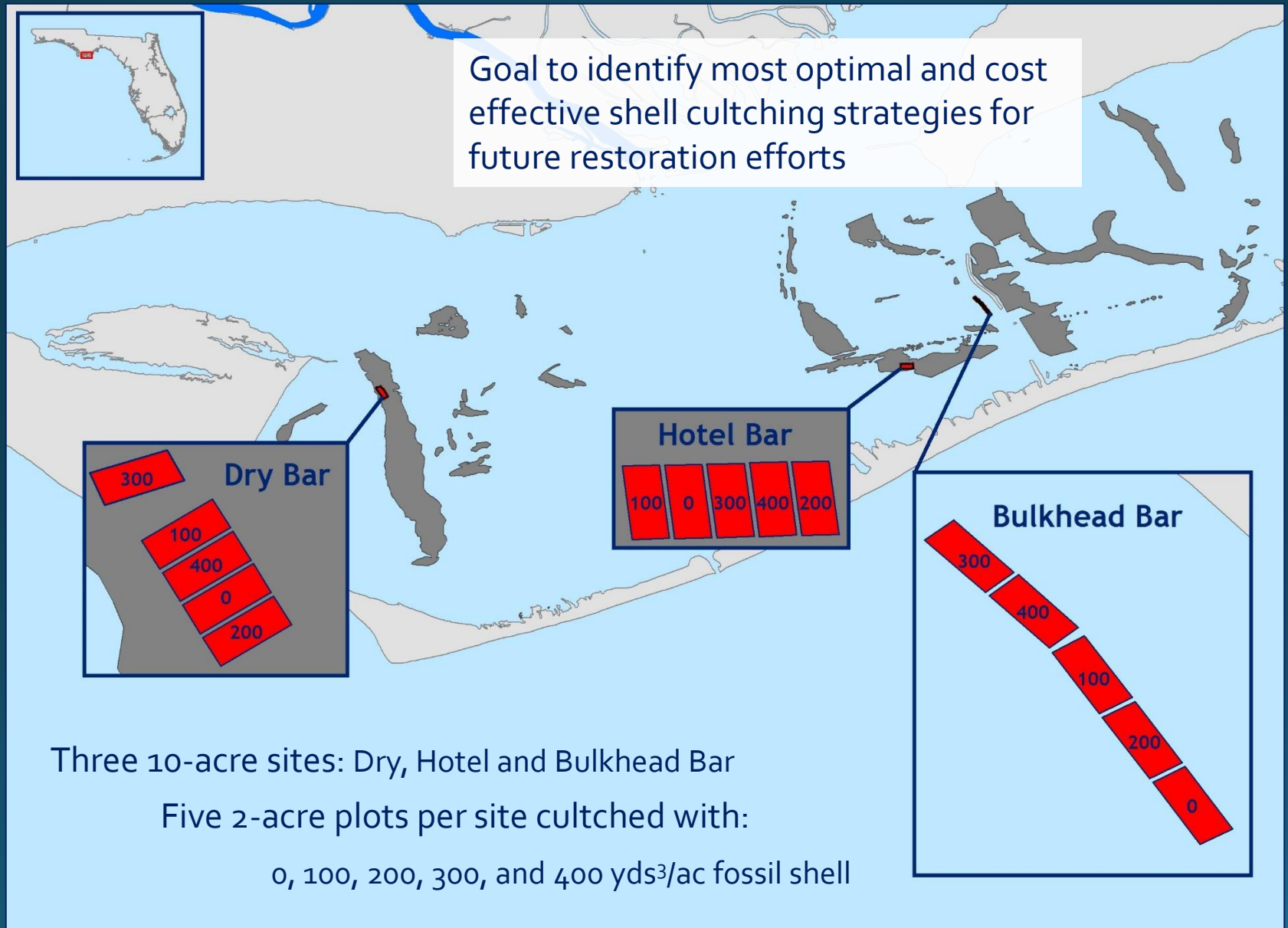
- Oyster Health
- Reproductive Development
- Predator Densities

Funded each year by the State of Florida since July 1, 2015

Apalachicola Bay Monitoring



NFWF Sites



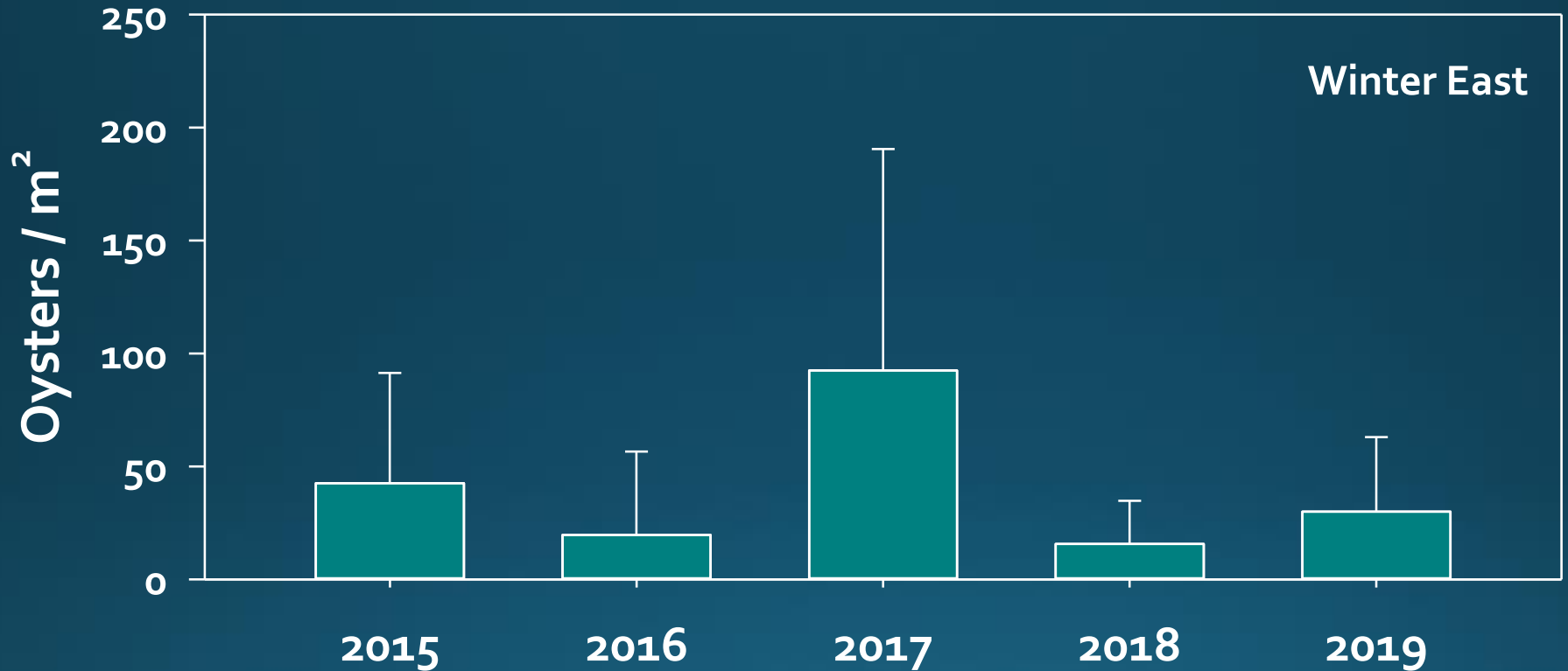
Quadrat Surveys

Oyster Density and Size Distribution

- Quarterly or Pre and Post commercial seasons
- Count all live, dead with articulated shells
- Measure shell height of live oysters
- Record weight/volume of substrate
- Predator densities/community composition

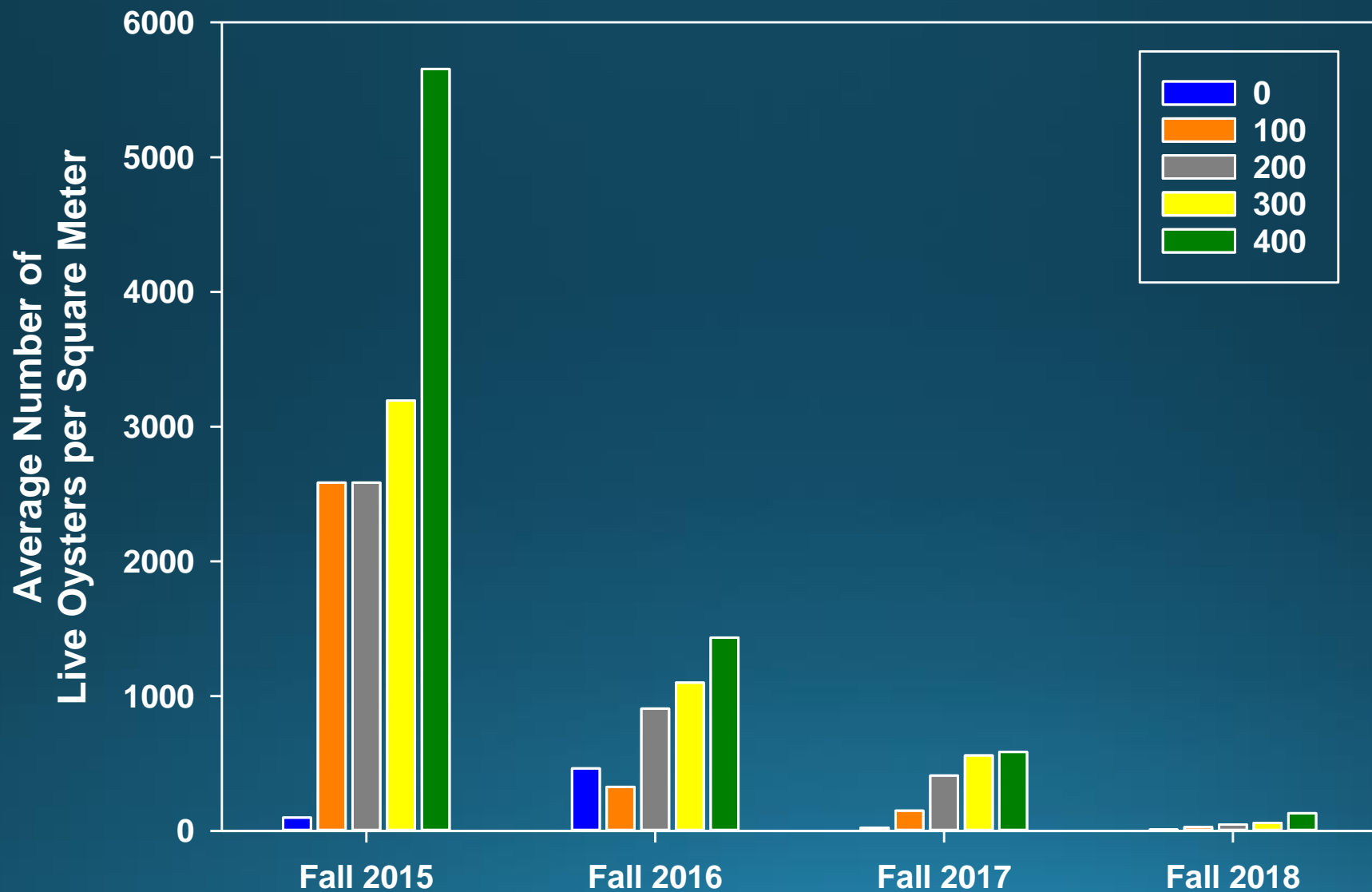


Pre-Winter Season Densities

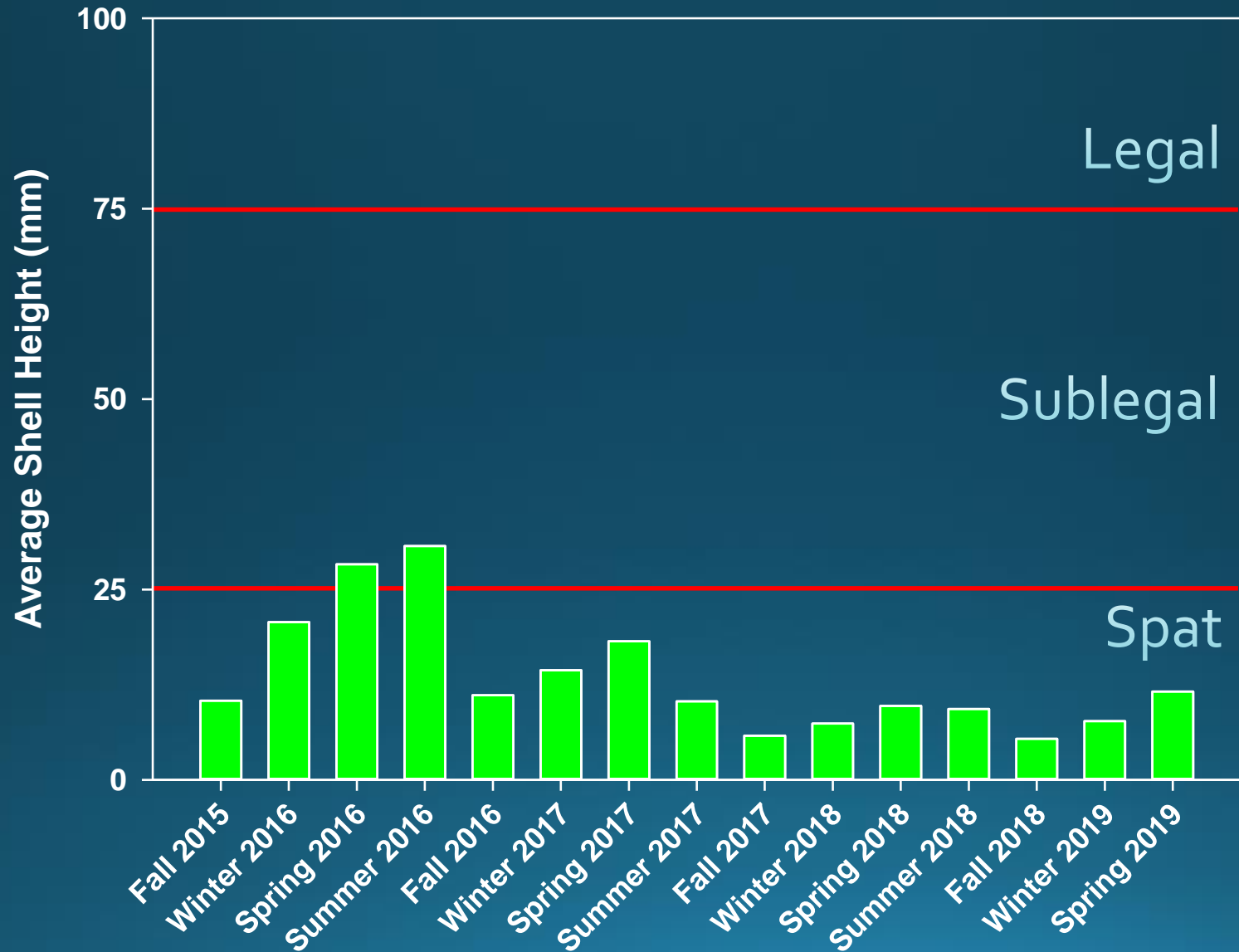


Approximately 9 to 27 bags per acre

NFWF Fall Surveys 2015 - 2018



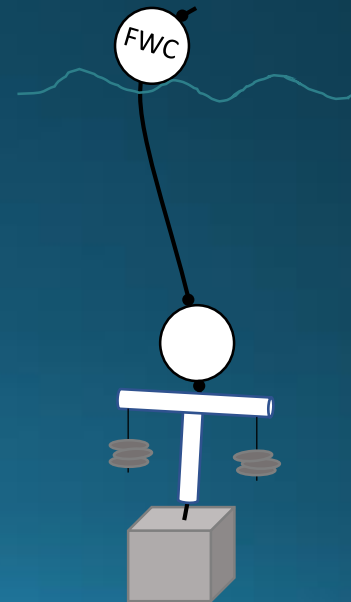
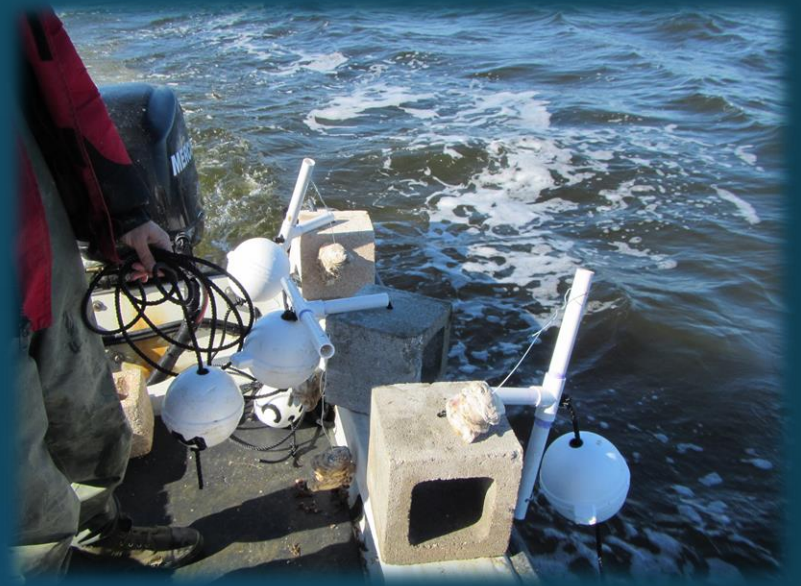
NFWF Oyster Size



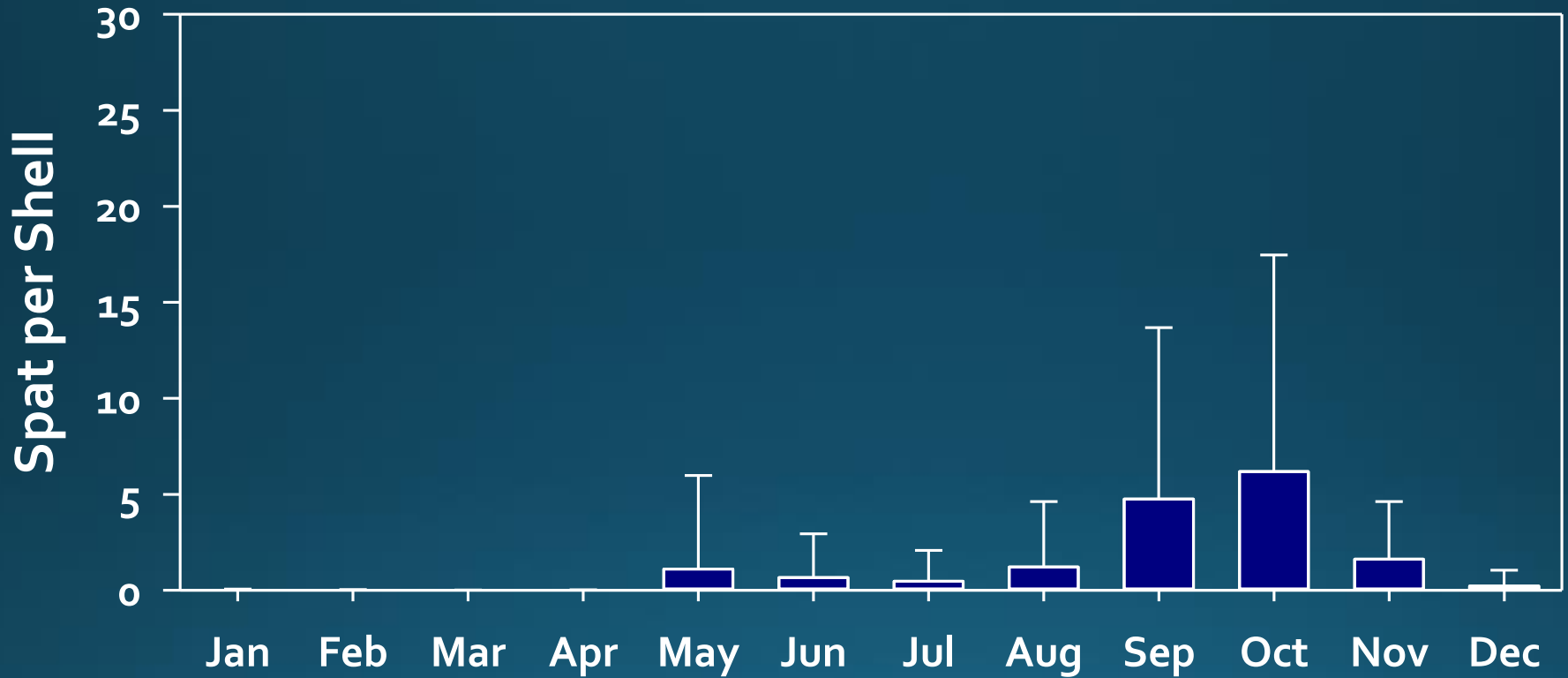
Spat Recruitment

Settlement Rate

- Monthly
- Count all settled oysters on shell strings



Spat Recruitment

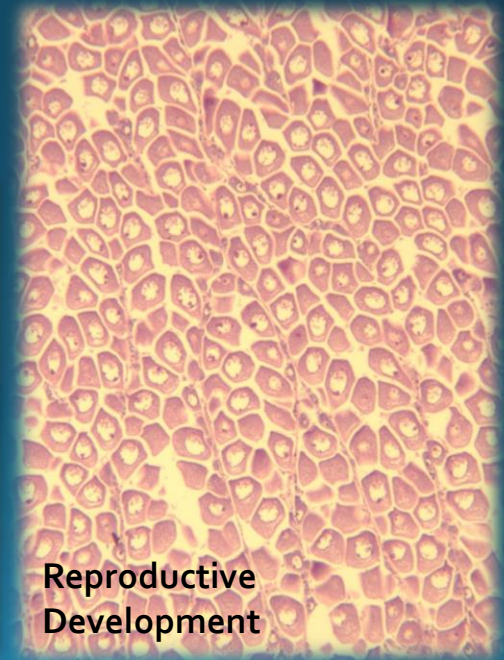
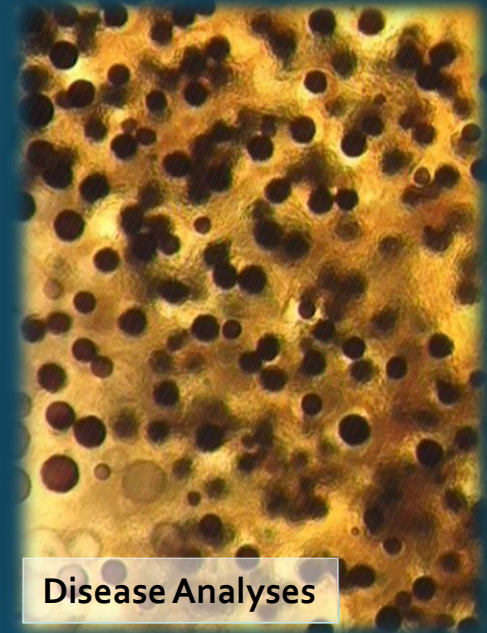


Data from 2015 - 2019

Oyster Collections

Live oysters collected from each station

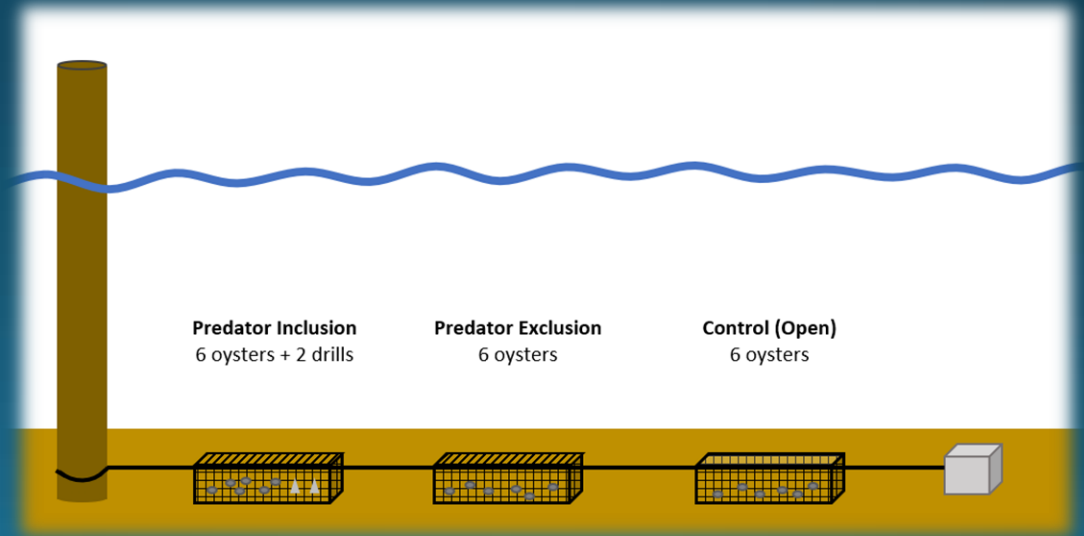
- Monthly
- All oysters are cleaned and measured
- Dissected to assess:
 - Condition Index
 - Dermo Disease Prevalence and Intensity
 - Reproductive Development



Predator Densities

Southern Oyster Drill – *Stramonita haemastoma*

- 1) Spat Traps – relative abundance (monthly)
- 2) Quadrats – density (quarterly, pre and post season)
- 3) Oyster Mortality – one year cage study



Questions?

