

# Oyster Restoration Monitoring Review in Choptank Complex



Sustainable Fisheries Goal Implementation Team  
December 2018 Biannual Meeting  
December 17, 2018

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**Oyster Recovery Partnership**

# Oyster Restoration

## Monitoring and Assessment Program

- 50 to 100% of restorable oyster habitat restored through restoration enhancement techniques
- Criteria to determine whether reef is restored

Metric	Tolerance Level	Value	Criteria
Oyster Density	Target	50 Oysters/m <sup>2</sup>	30% of Reef Area
	Minimum threshold	15 Oysters/m <sup>2</sup>	
Oyster Biomass	Target	50g dry weight/m <sup>2</sup>	
	Minimum threshold	15g dry weight/m <sup>2</sup>	
Multiple Year Class		Present	Entire Reef
Shell Budget	Stable or increasing	Volume of shell	Entire Reef

# Oyster Restoration

## Monitoring and Assessment Program

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- Monitoring is conducted on reefs of age three and six
  - Metrics are applied at the reef level
  - Not all reefs are created equal!
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**Reference reef-** Existing shell not treated with spat on shell

**Seed only reef-** Shell base treated with spat on shell

**Pre-met-** No treatment; Meets metric

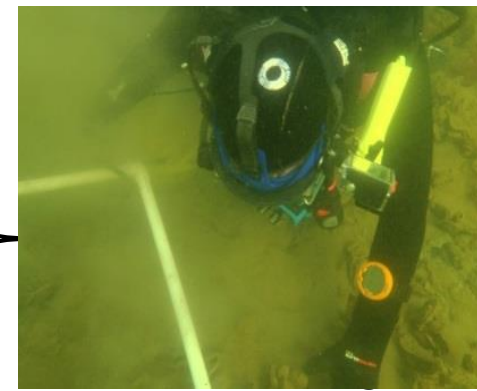
**Alternate substrate reef-** Base has been stabilized with additional material and the spat on shell applied

**Mixed shell-** Coastal shell (clam, conch, scallop)

**Stone-** Granite

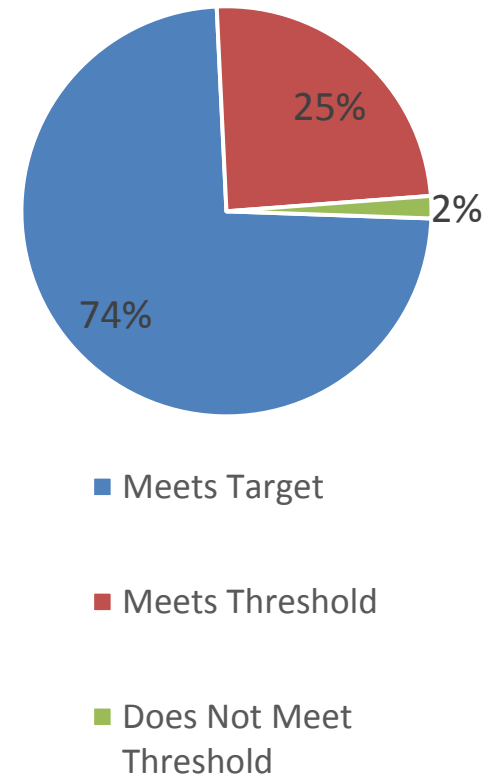
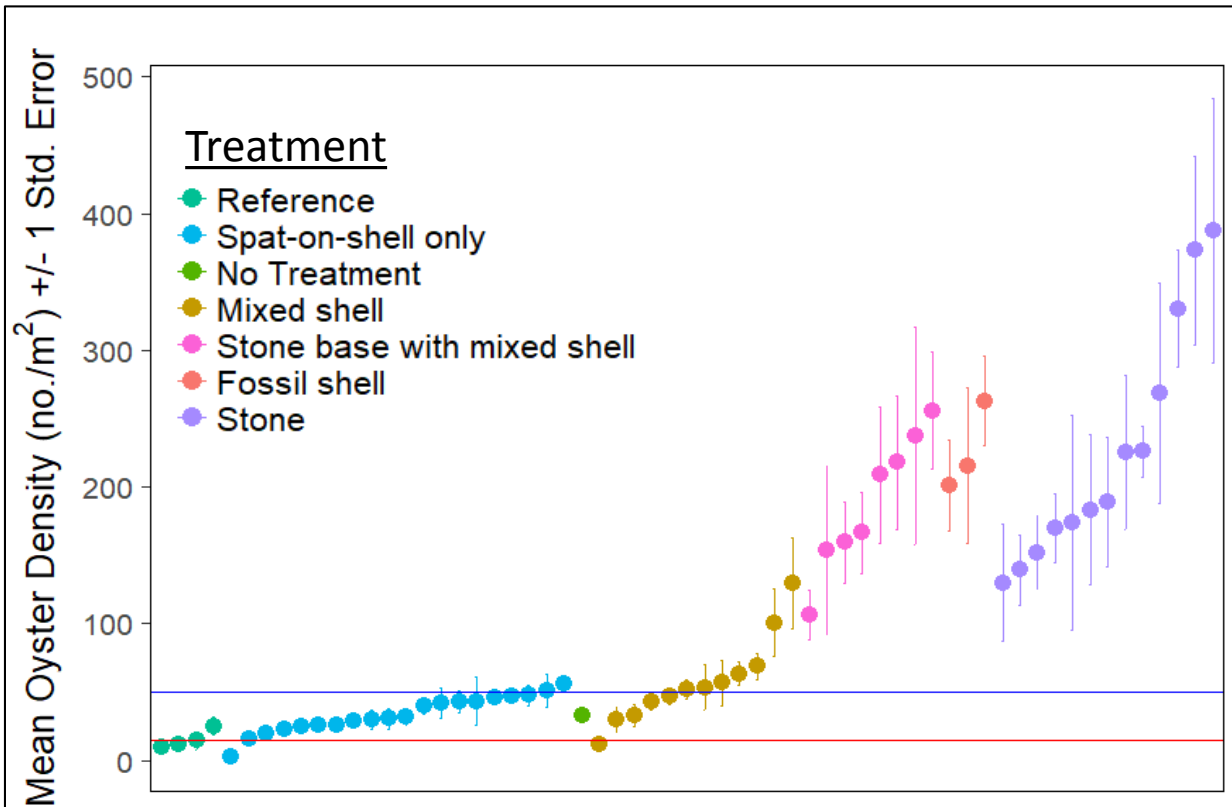
**Fossil shell-** Aggregate mined from FL

**Combination**



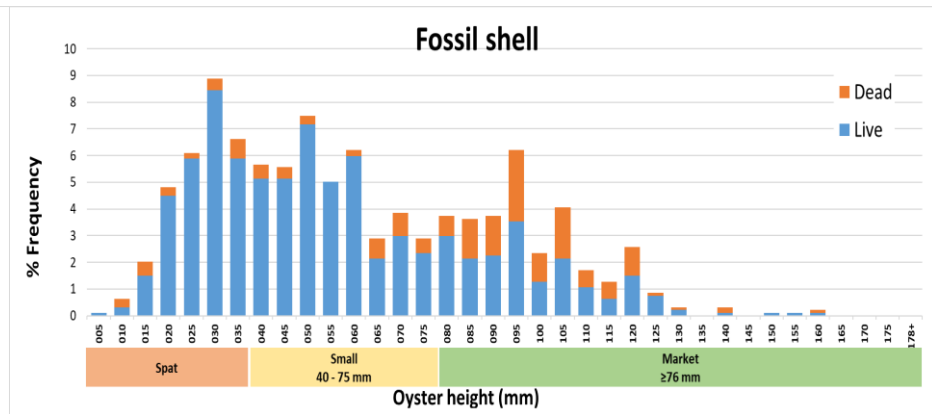
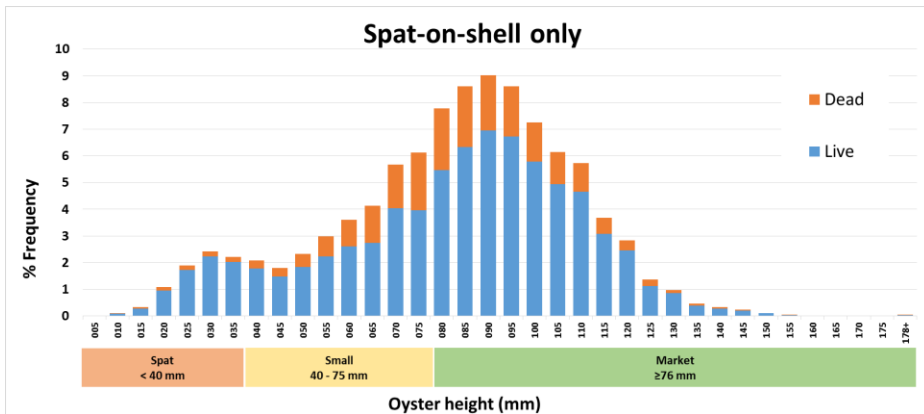
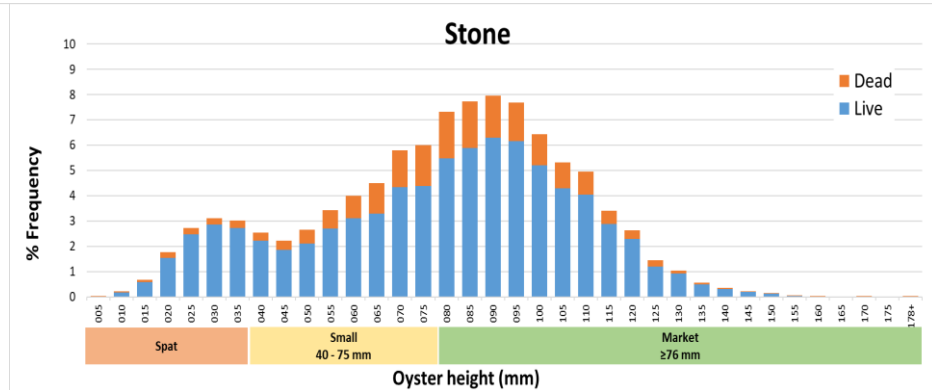
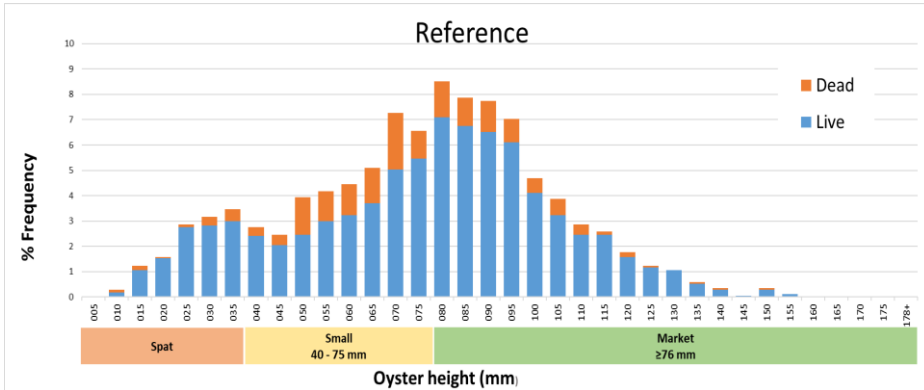
# Harris Creek Progress

## Oyster Density 2015 to 2017

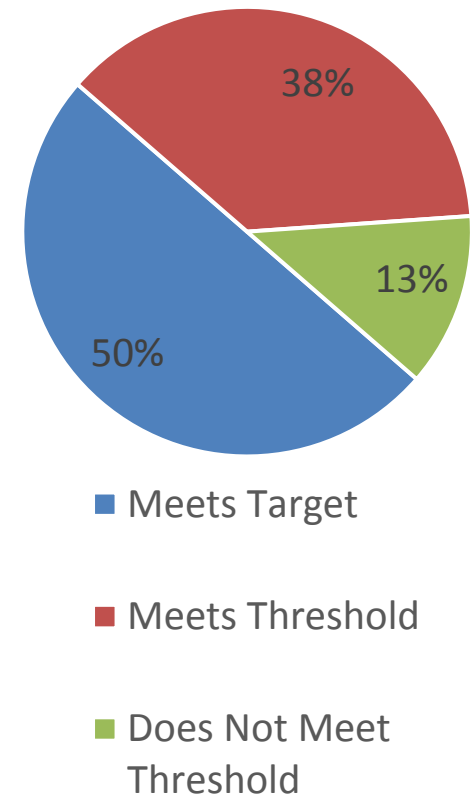
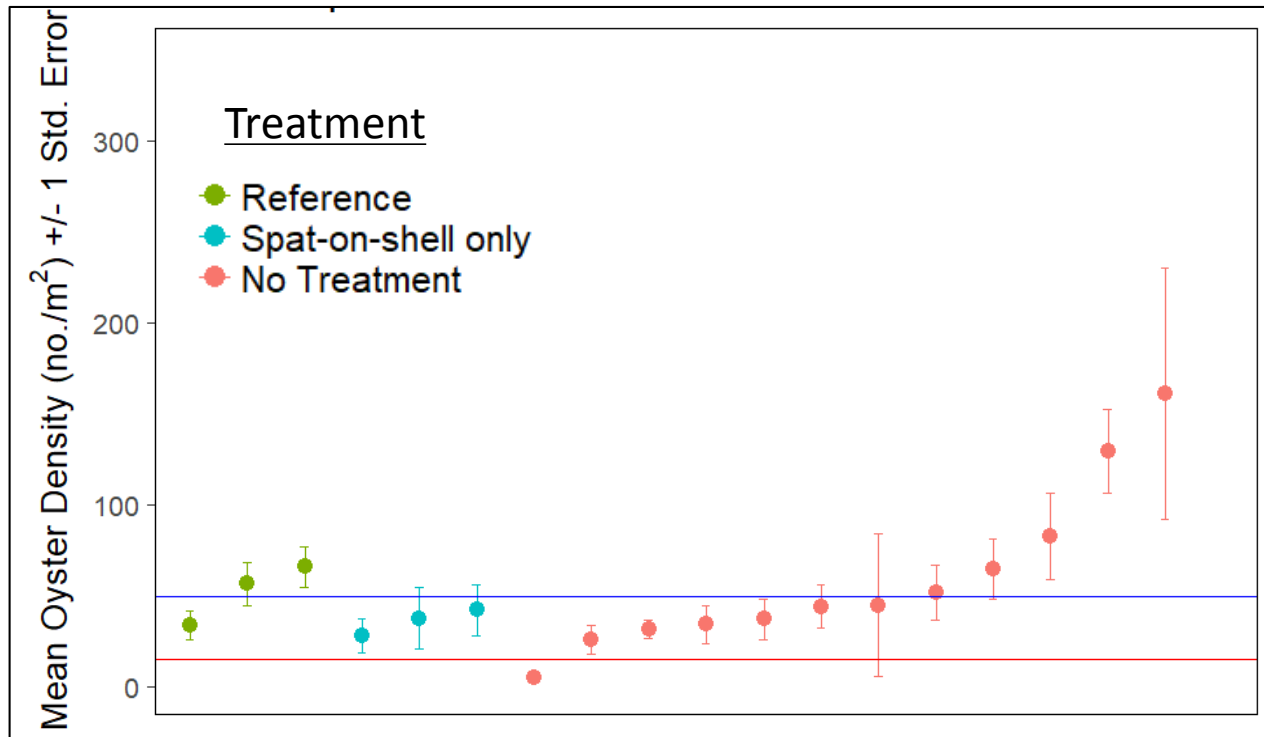


# Harris Creek

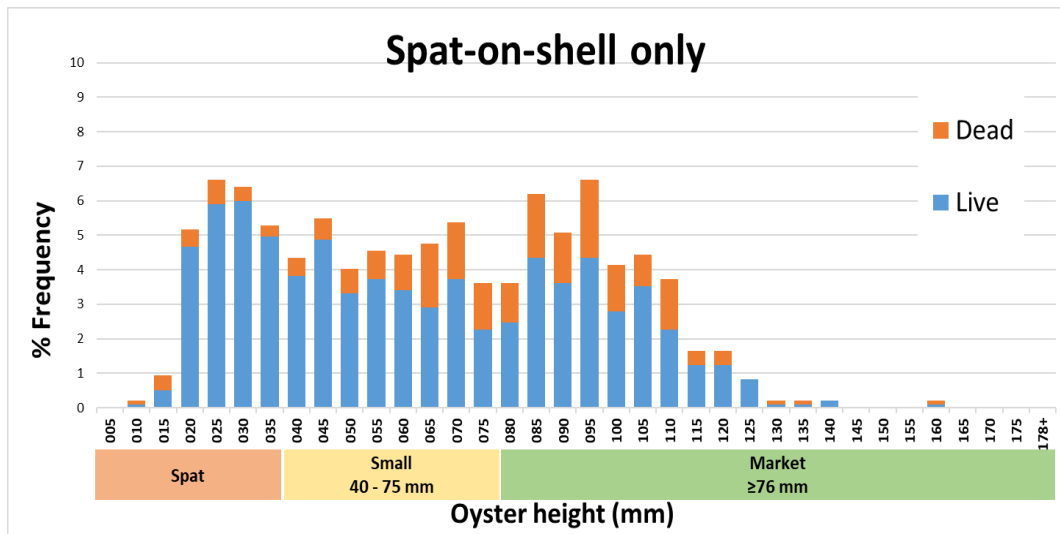
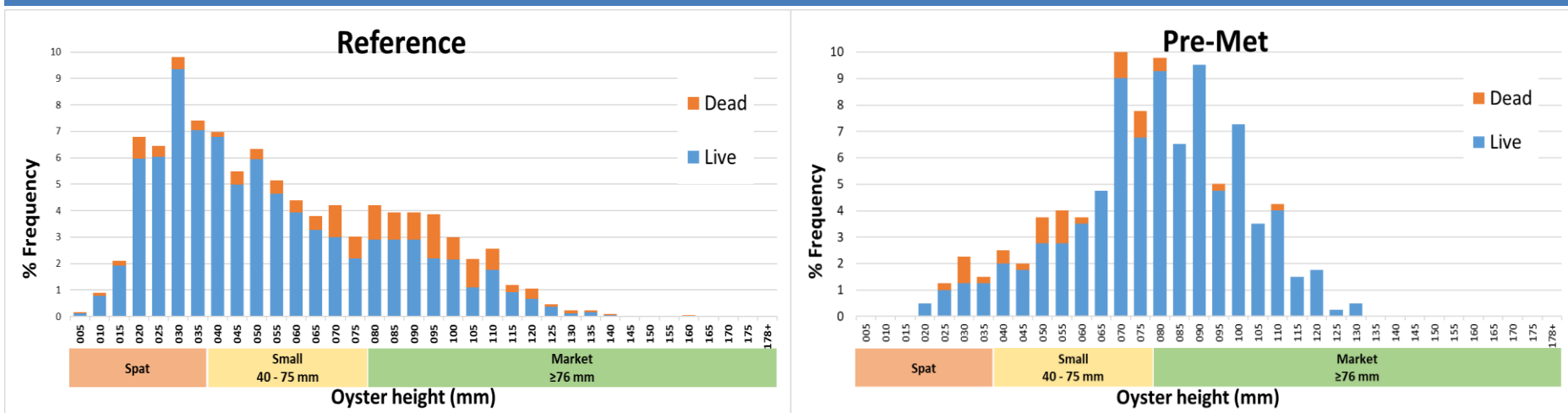
## Population Structure by Treatment



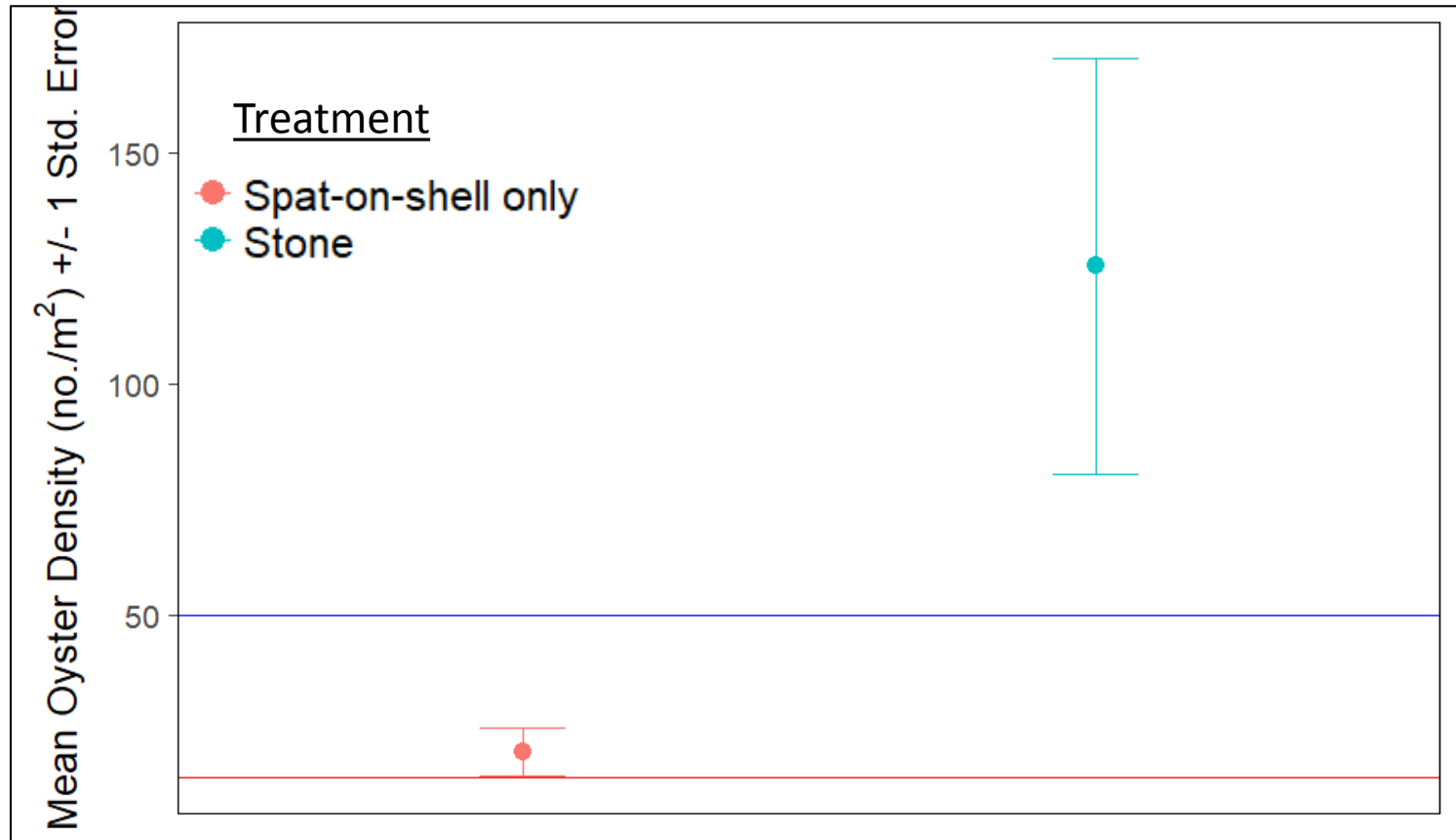
# Little Choptank Progress Oyster Density 2017



# Little Choptank Population Structure by Treatment



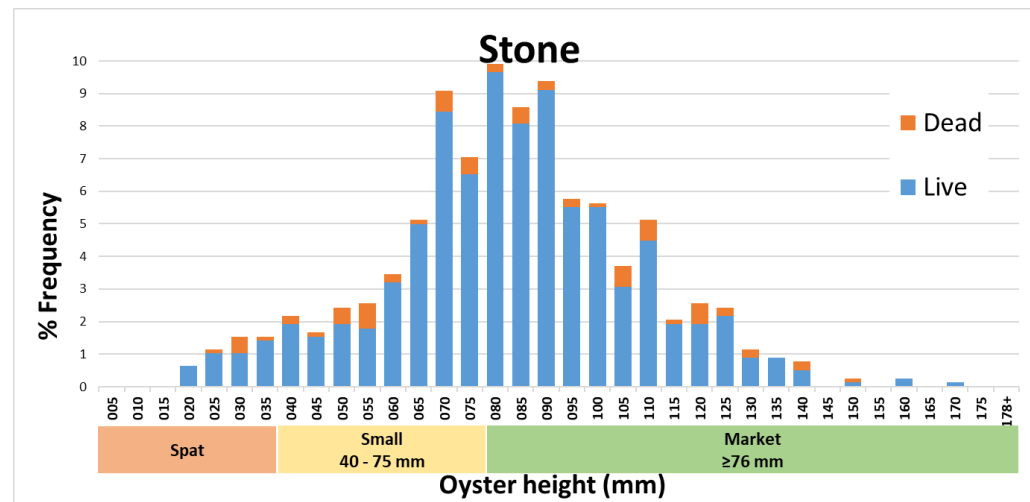
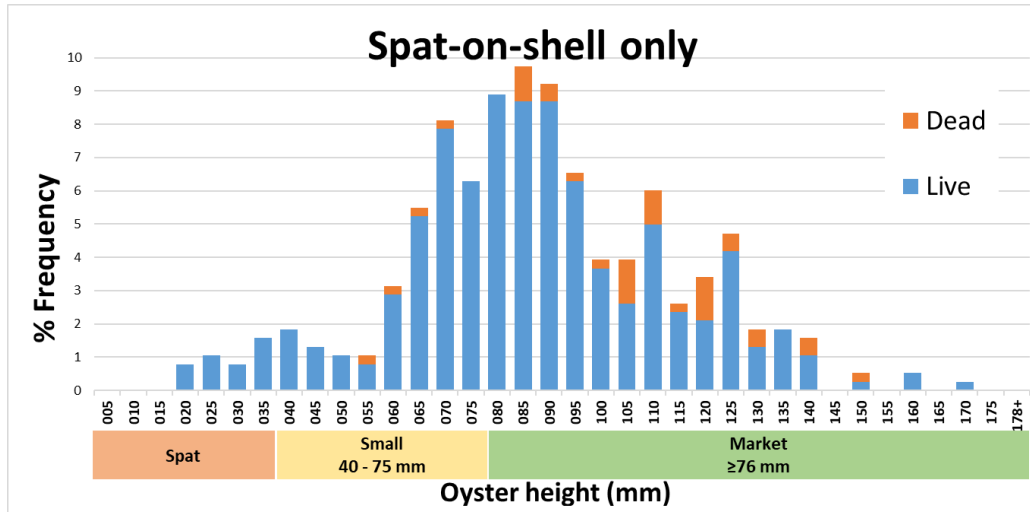
# Tred Avon Progress Oyster Density 2017





# Tred Avon

## Population Structure by Treatment

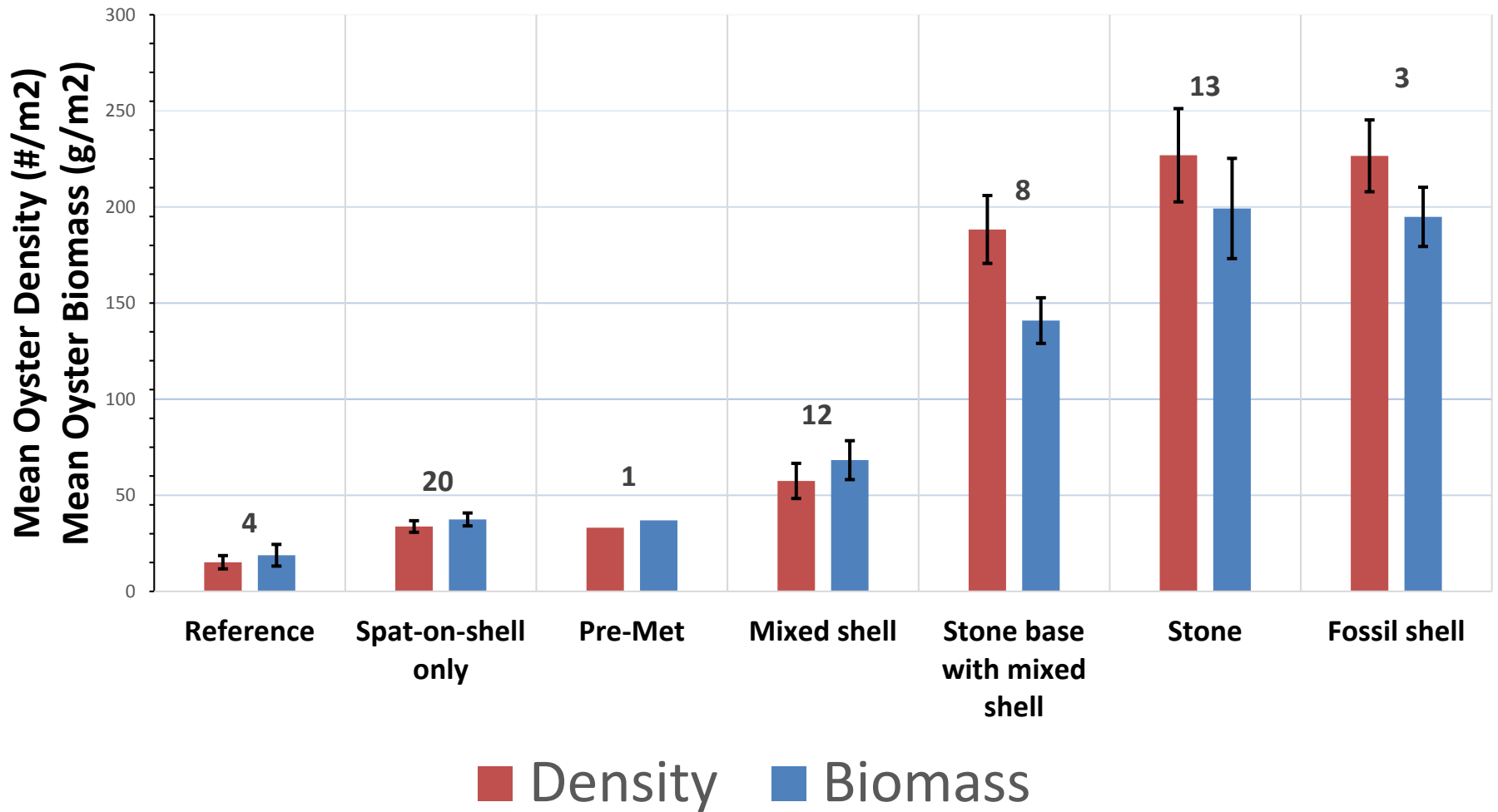


# Summary

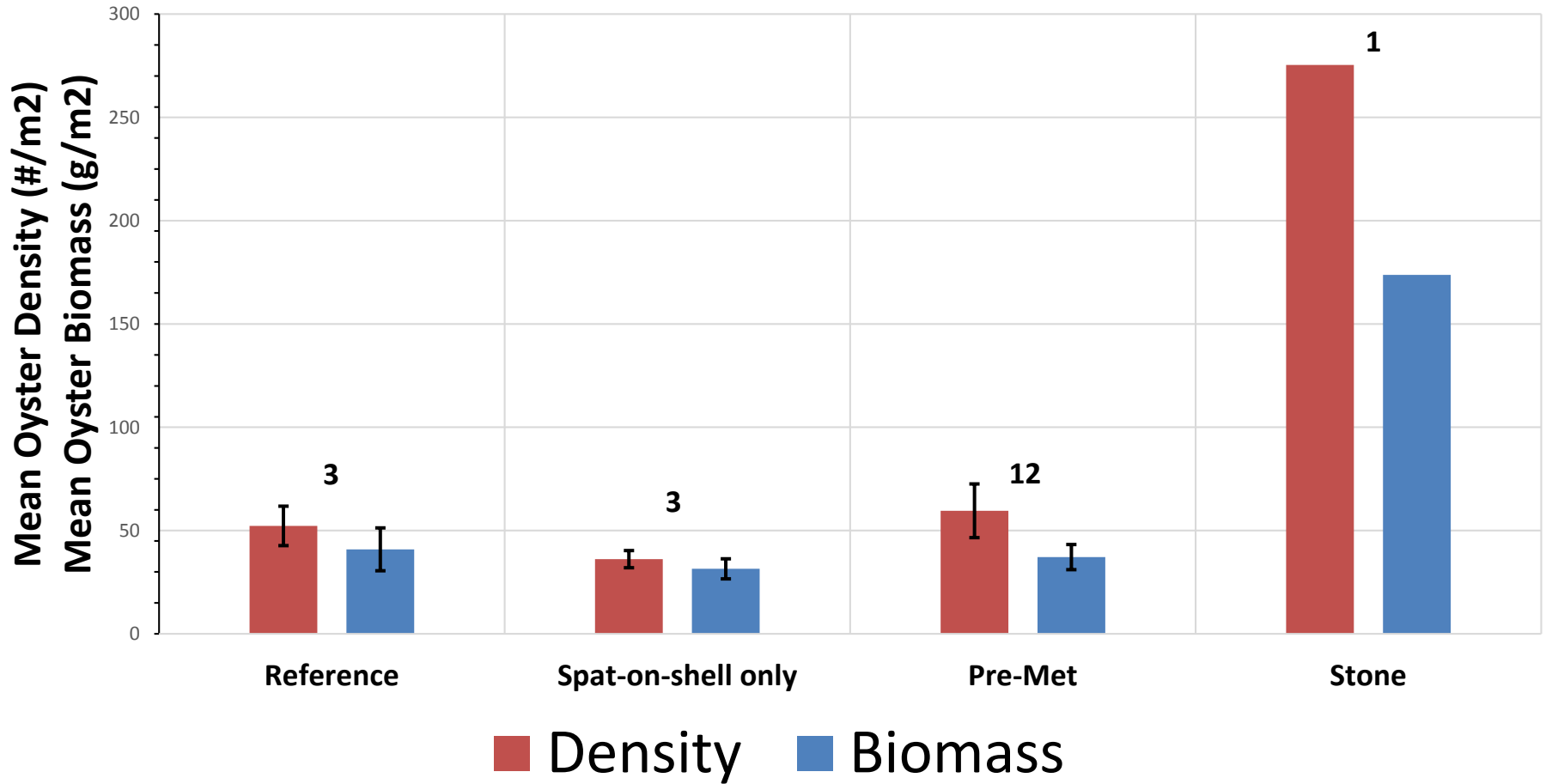
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- 74% of Harris Creek reefs have been monitored and 74% have met the target oyster density and multiple years classes are present.
- Reefs constructed with alternate substrate have higher oyster average density compared to other enhanced and none enhanced reefs.
- The final Harris Creek 3-Year Assessment sampling will be completed in 2018.

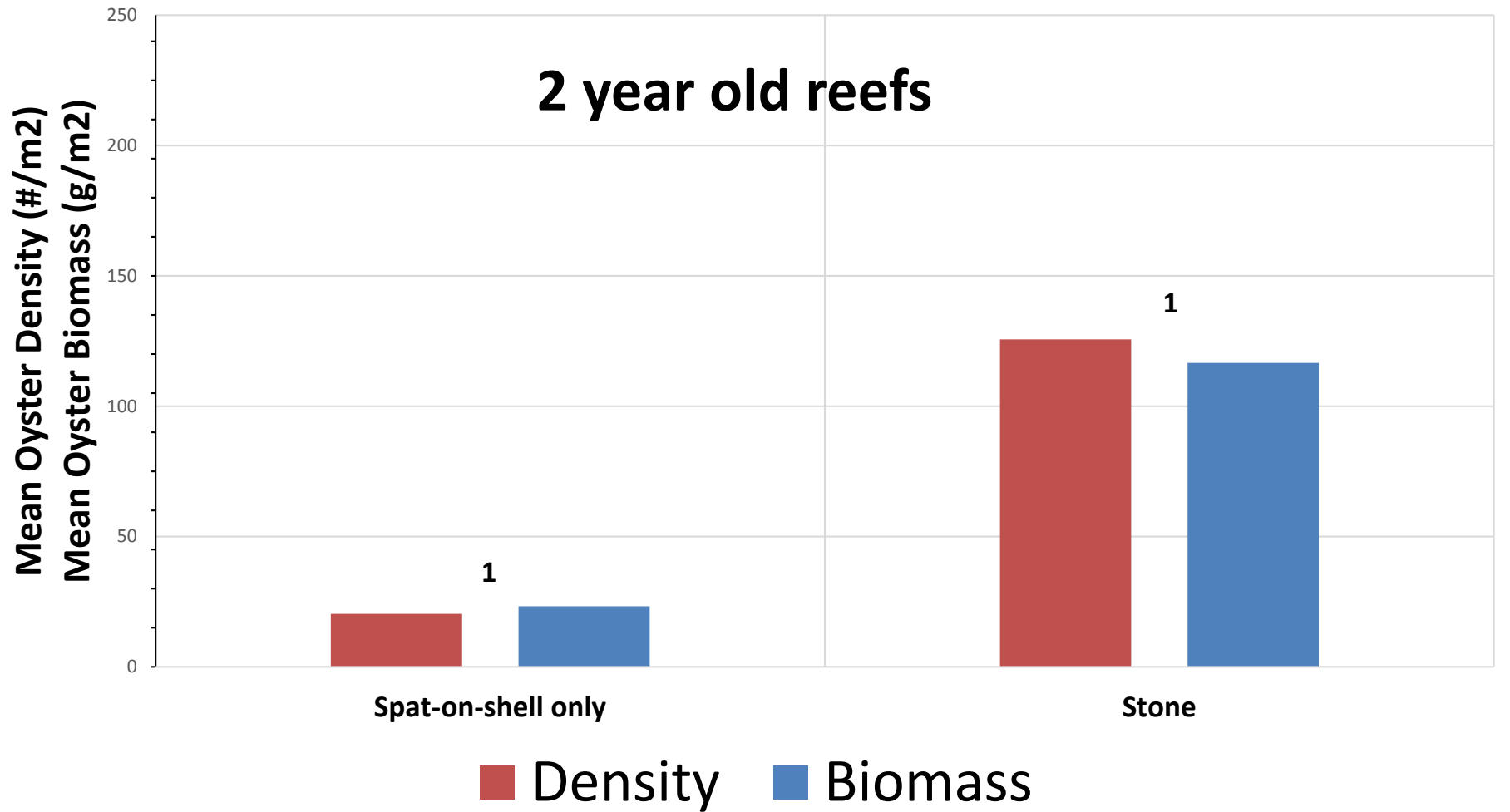
# Harris Creek Results



# Little Choptank Results



# Tred Avon Results



# Oyster Restoration Monitoring and Assessment Program

What has been monitored in each trib

