



SUSTAINABLE FISHERIES GOAL IMPLEMENTATION TEAM

WINTER 2019 - 2020 BIENNIAL MEETING

JANUARY 7 - 8, 2020

IMPACTS OF 2018-2019 LOW SALINITY FOR OYSTERS



Chesapeake Bay Program
Science. Restoration Partnership.

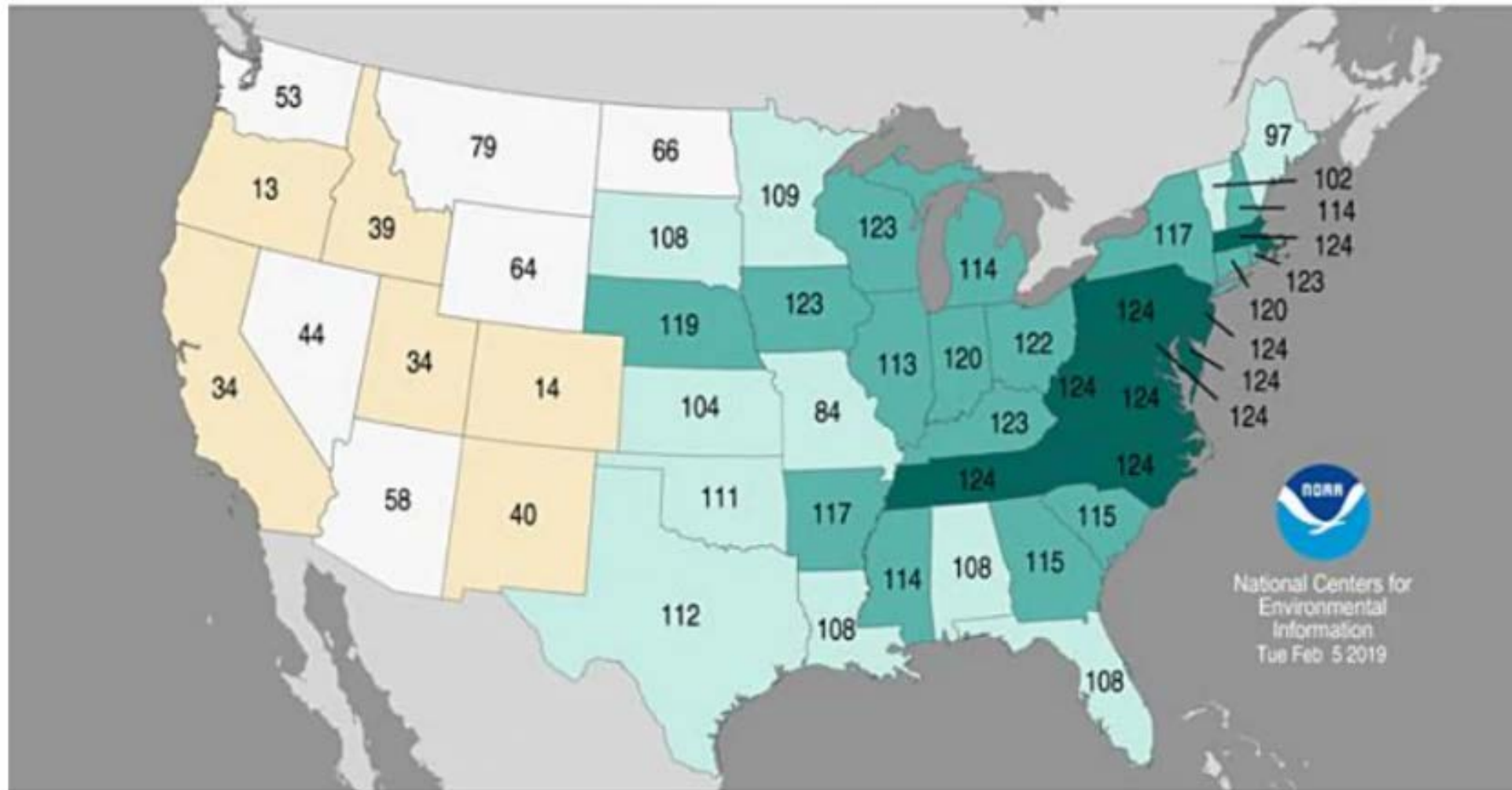


Andrew Button
VMRC

Statewide Precipitation Ranks

January–December 2018

Period: 1895–2018



National Centers for
Environmental
Information
Tue Feb 5 2019

Record
Driest
(1)

Much
Below
Average

Below
Average

Near
Average

Above
Average

Much
Above
Average

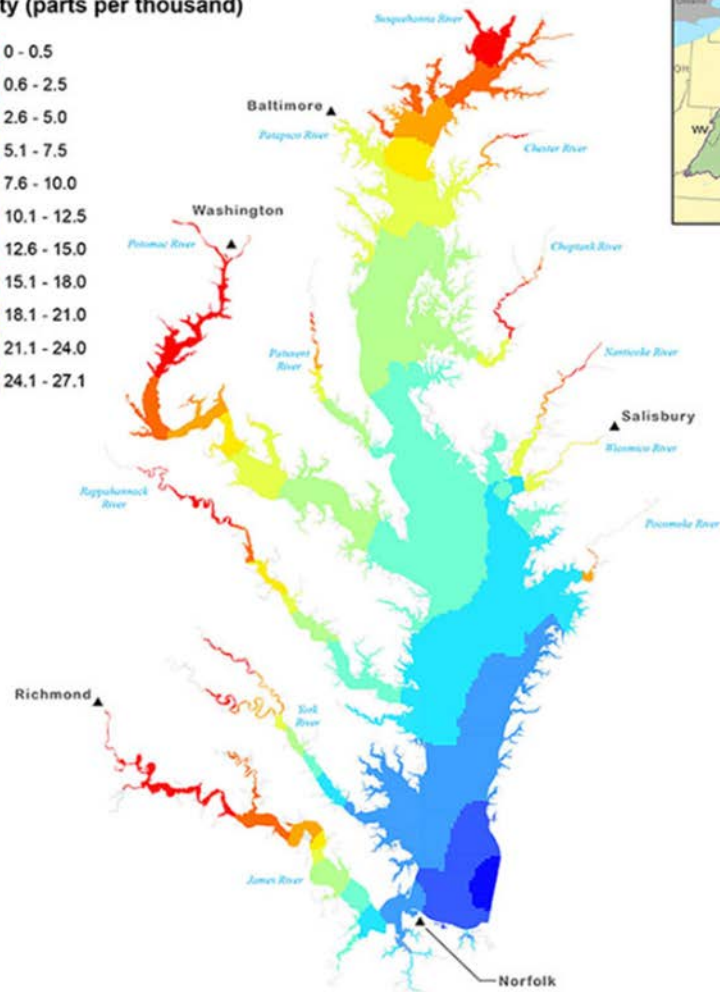
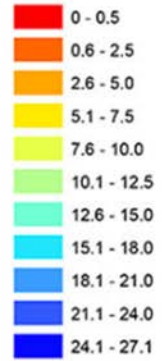
Record
Wettest
(124)

Chesapeake Bay Mean Surface Salinity

1985-2018



Salinity (parts per thousand)



Created by AIW, 10/10/19

UTM Zone 18N, NAD 83

"Death Line"

4



"Death Line"

5



50%
Mortality

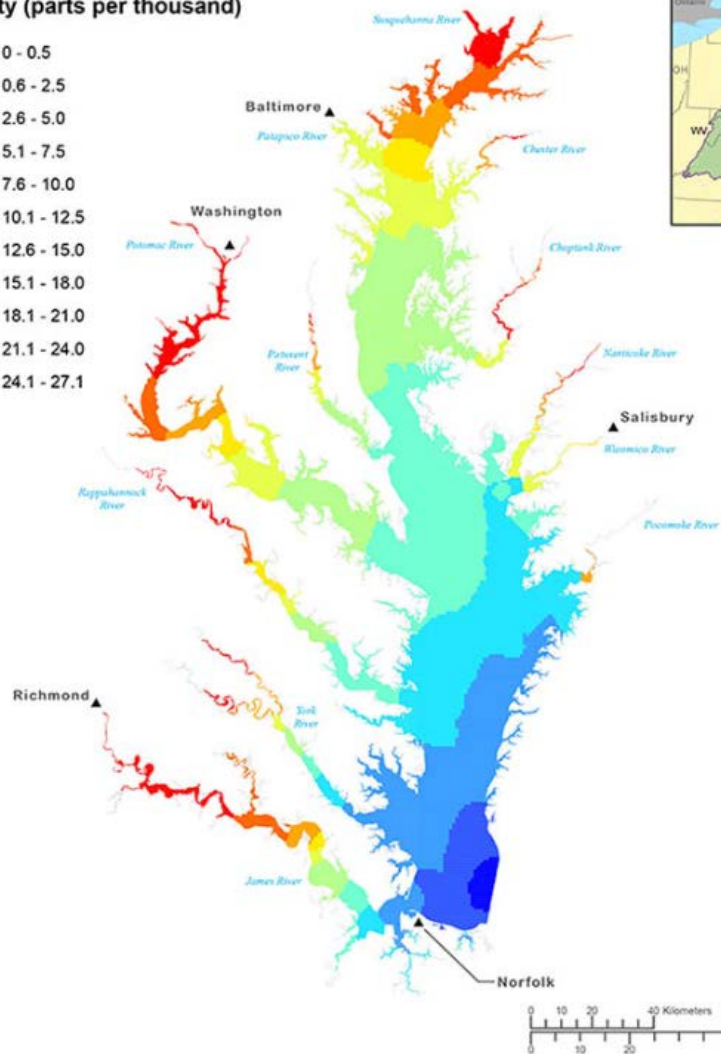


Chesapeake Bay Mean Surface Salinity

1985-2018



Salinity (parts per thousand)



Created by AW, 10/10/19

UTM Zone 18N, NAD 83

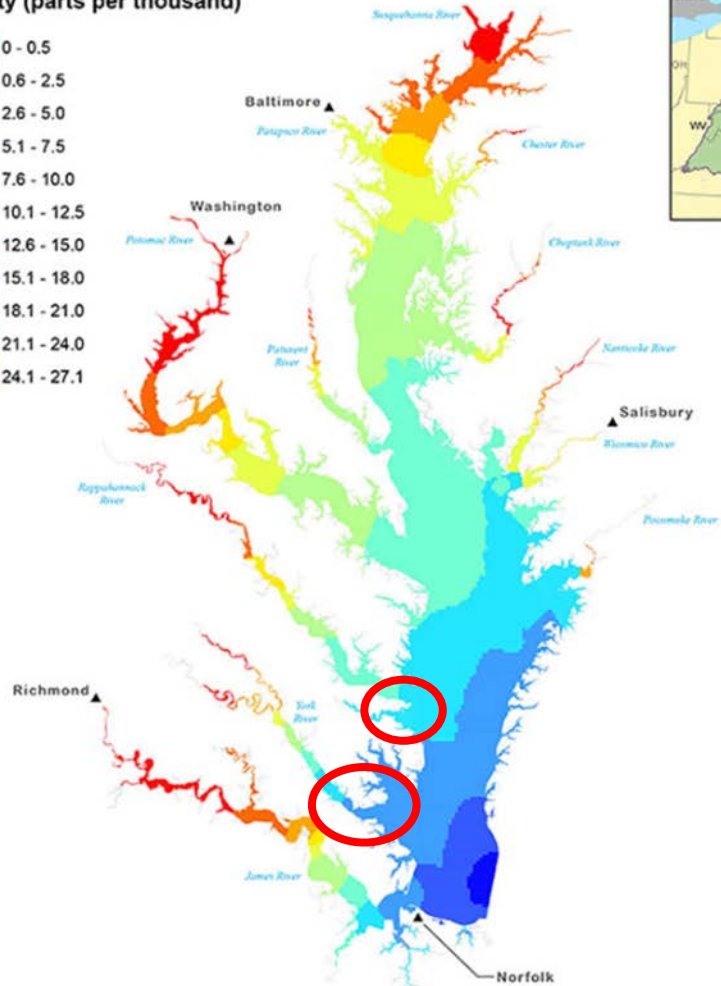


Chesapeake Bay Mean Surface Salinity

1985-2018

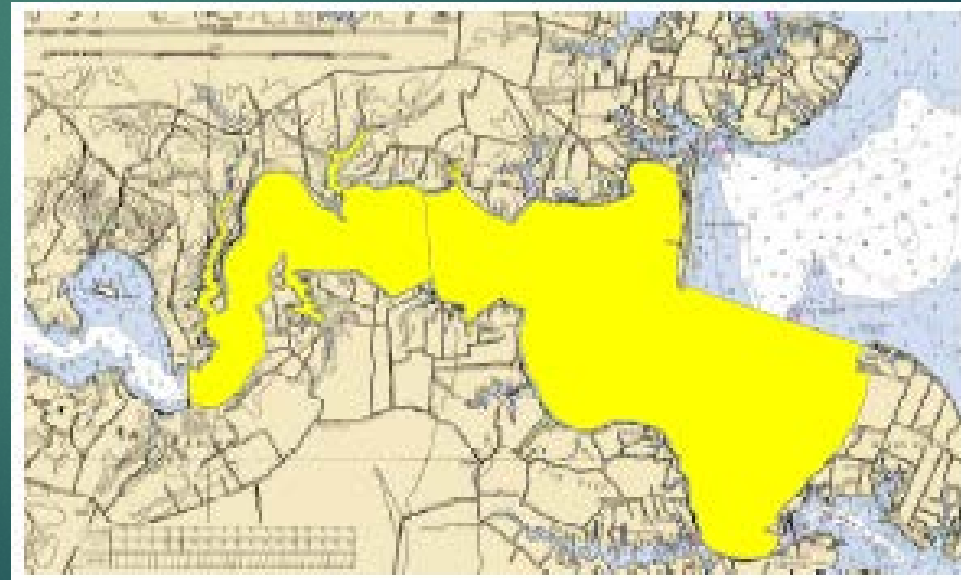


Salinity (parts per thousand)

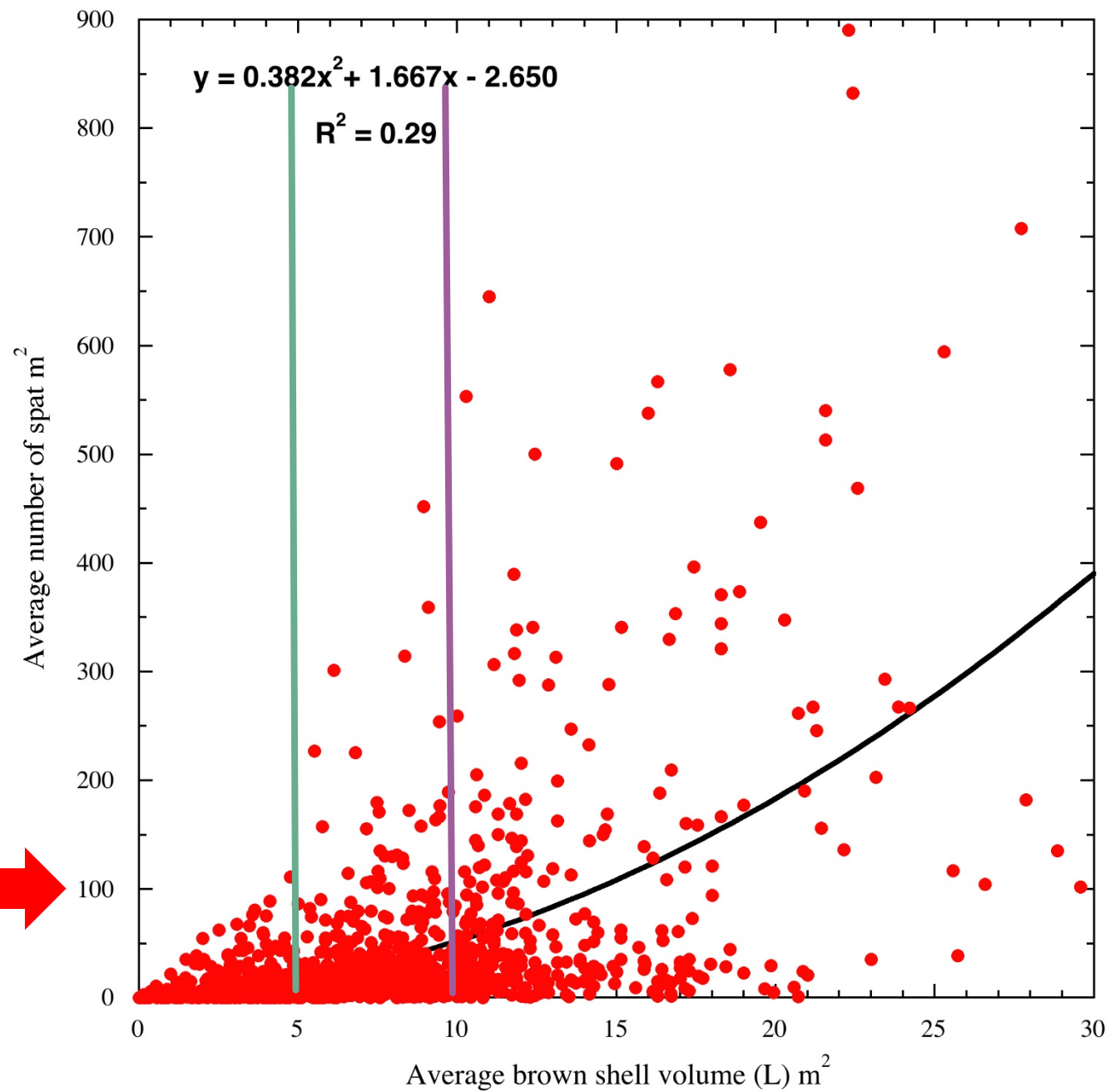


Created by AW, 10/10/19

UTM Zone 18N, NAD 83



2010-2017 spat set (all rivers combined)

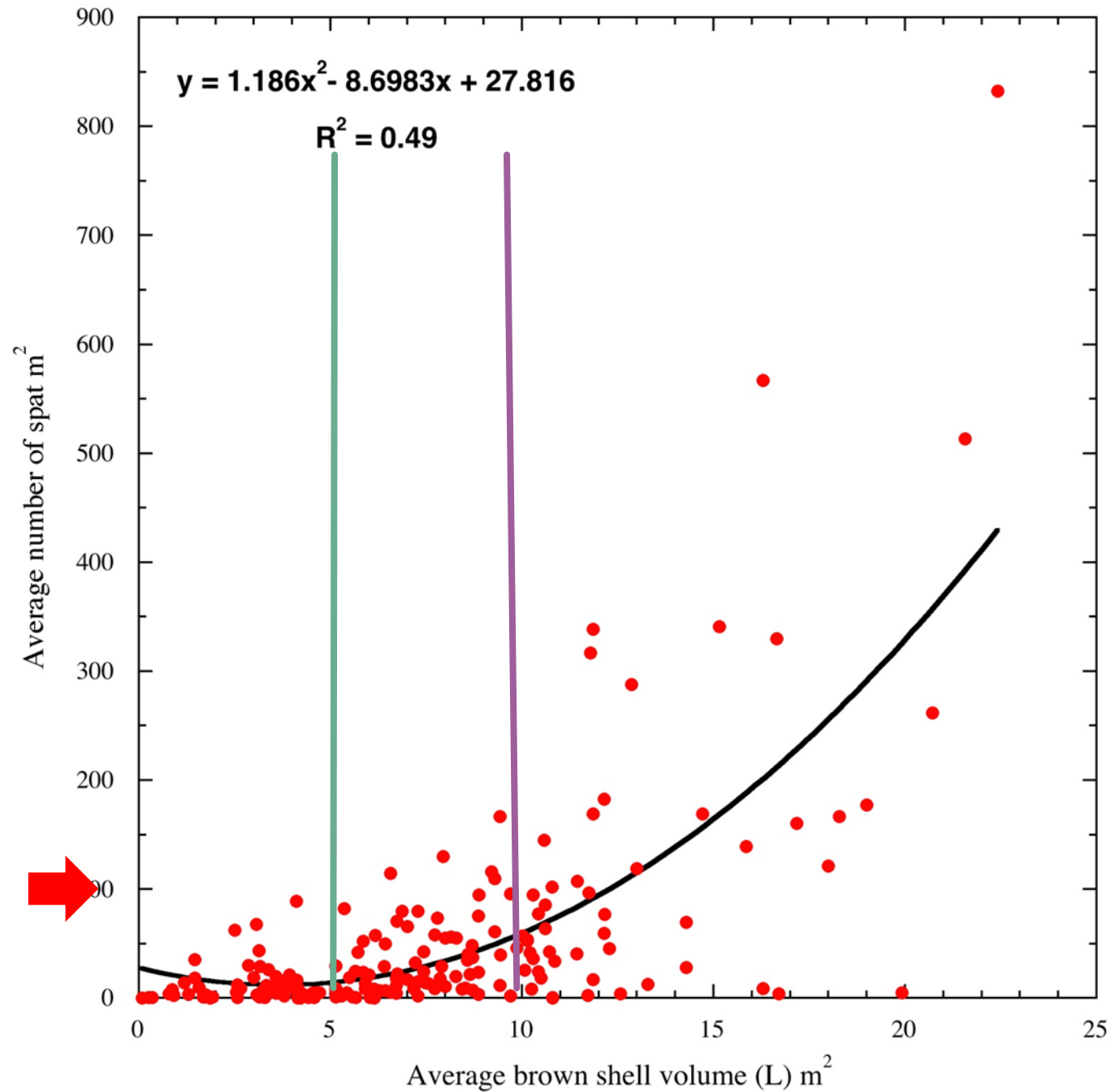




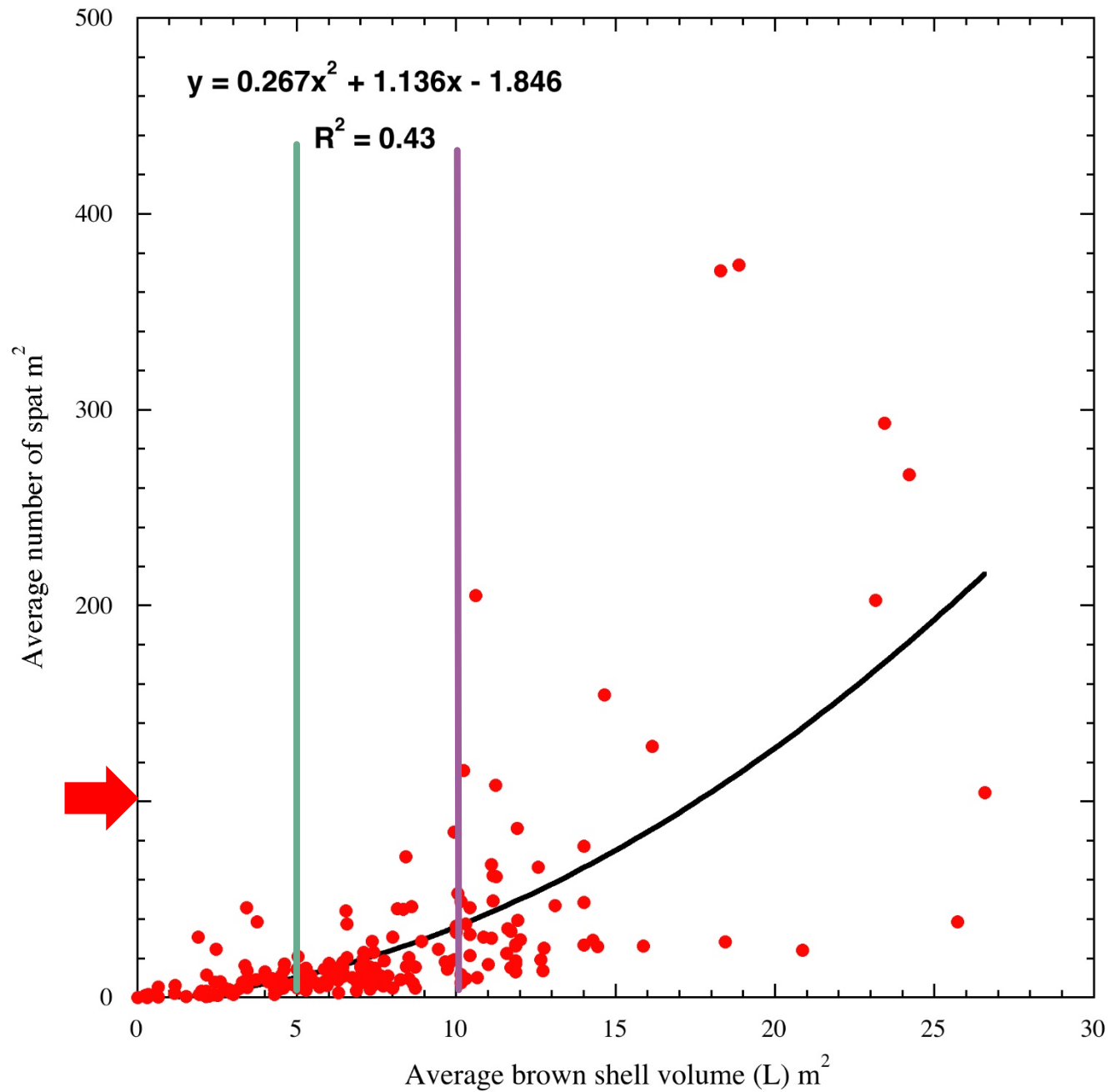
10



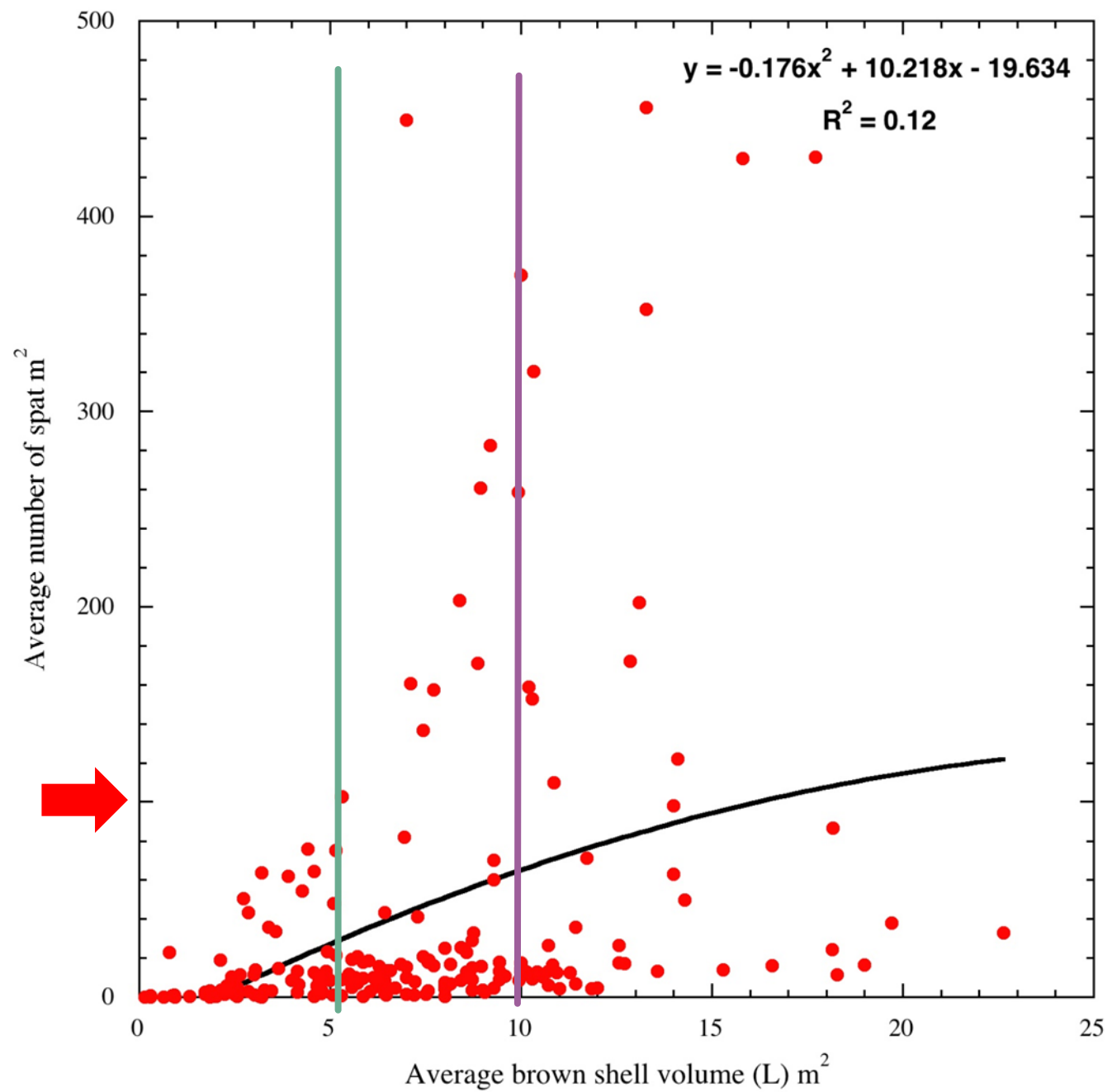
2016 spat set (all rivers combined)



2017 spat set (all rivers combined)



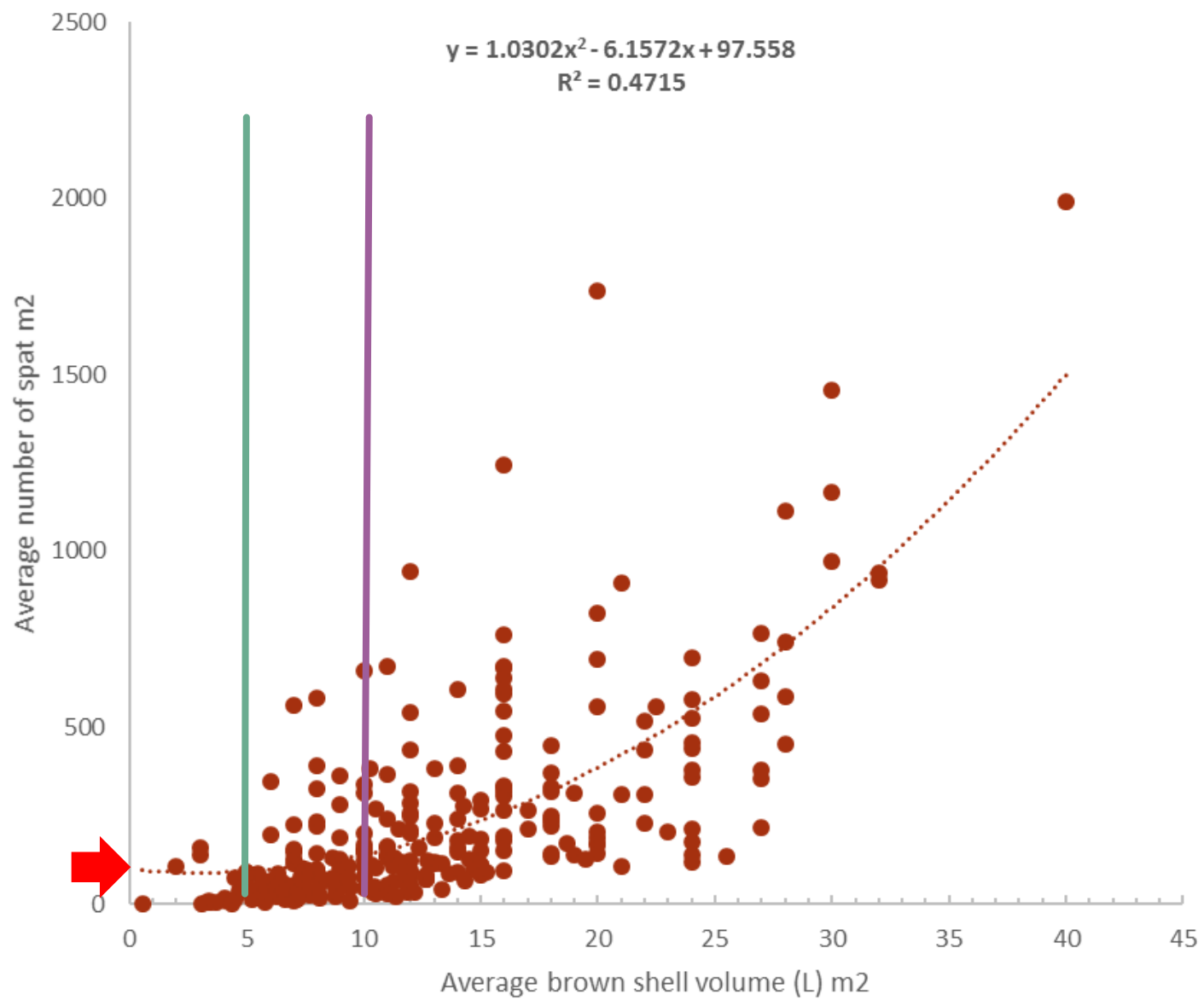
2018 spat set (all rivers combined)



13



2019 spat set (all rivers combined)



The Good:

- Areas that are currently targeted for large scale restoration did not see elevated mortality
- Disease was less of an issue in 2018
- Areas that experienced the highest mortality were likely the most disease naive populations
- Oyster predators such as the oyster drill were decreased
- Strong spat set in 2019

The Bad:

- 2018 had a very low spat set in many areas
- Higher mortality in up river areas that may provide some brood stock for areas further down river
- Continued/frequent events will likely negatively impact water quality and broader restoration efforts



Andrew Button
Head, Conservation and Replenishment
Virginia Marine Resources Commission
380 Fenwick Road, Bldg. 96
Fort Monroe, Virginia
757 247-2121
andrew.button@mrc.virginia.gov

