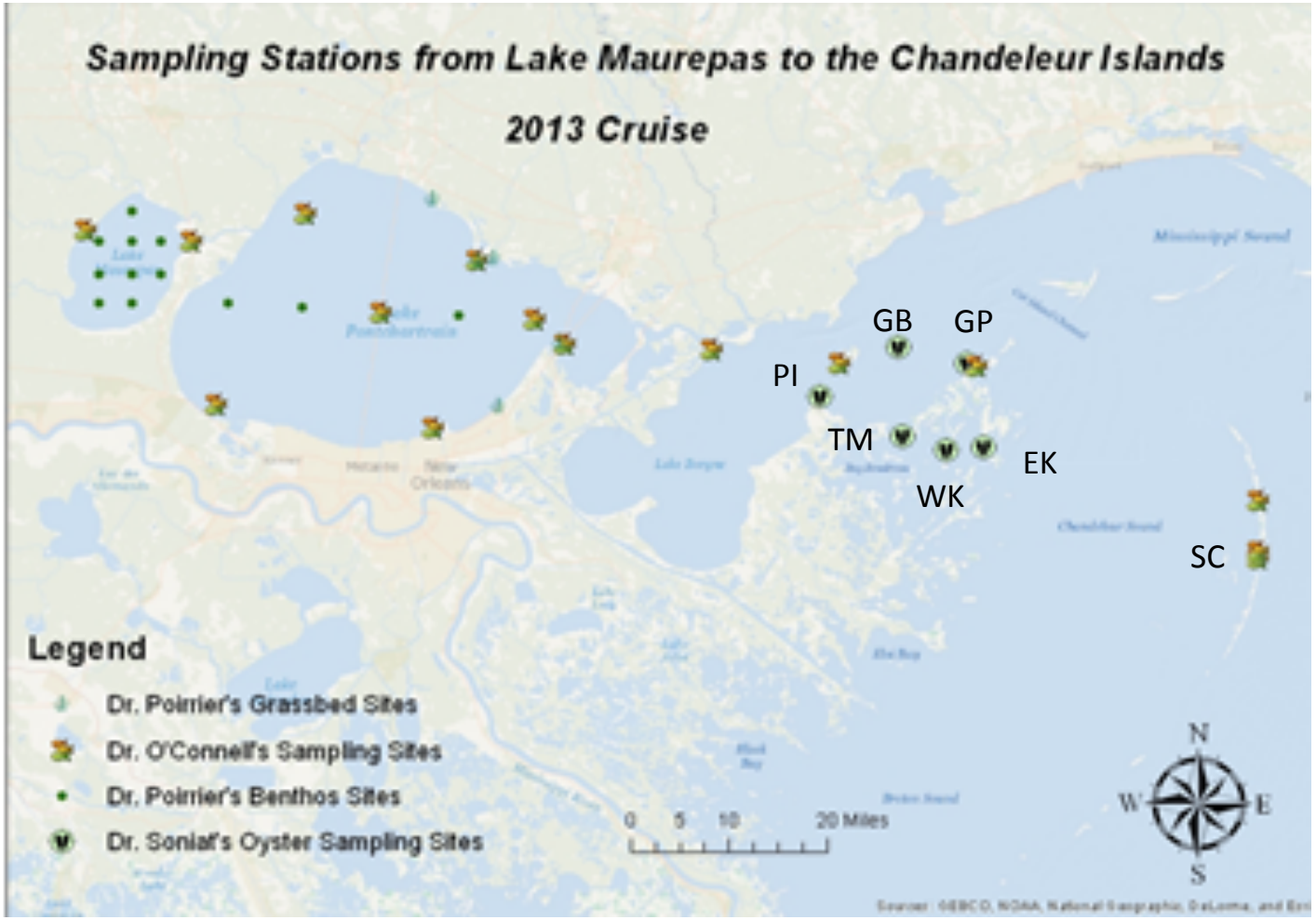
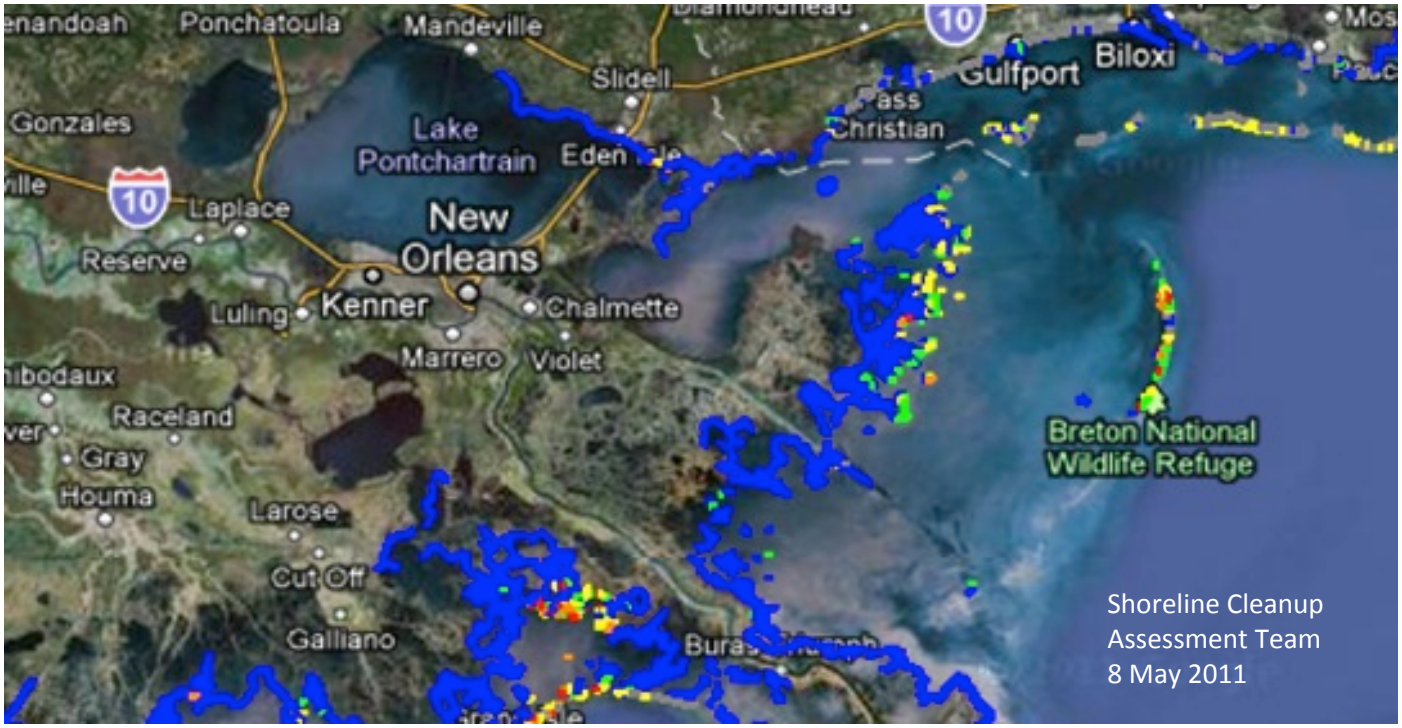
Why are there so few spat on leases and Public Grounds east of the Mississippi River?

- Oil spill
  - Hydrocarbons
  - Dispersants
- Low Oxygen
- Low pH (high acidity)
- Poor substrate
- Low salinity



Funded by LPBF/Blue Moon
Logistic and vessel support (RV Percy Viosca) from LDWF

Hydrocarbons and Dispersants



NRDA results not released

Six months after the capping of the DWH wellhead, no PAHs were detected in oysters from contaminated sites (Soniat et al., 2011)

Expectation: greater offshore impact of HC's and dispersants

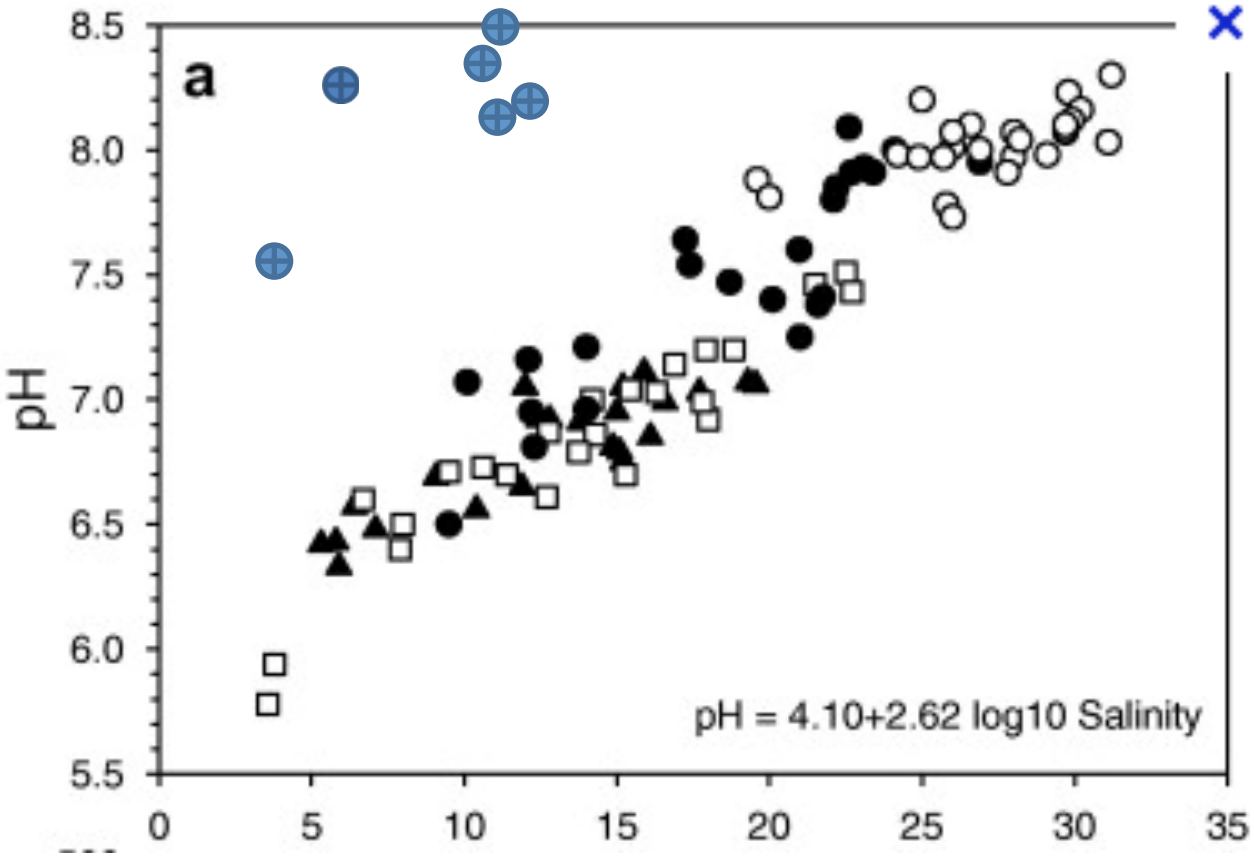
Note: oysters from the present study had sperms and eggs

Low Oxygen (≤ 2 ppm)

Station	Latitude	Longitude	Date	Bottom O_2 (ppm)
West Karako	30.01201	89.28296	6/4/2013	6.62
East Karako	30.02025	89.23396	6/4/2013	8.66
Grand Pass	30.14324	89.23955	6/4/2013	7.4
Grand Banks	30.14844	89.35854	6/4/2013	8.5
Petit Isle	30.098803	89.47893	6/4/2013	6.66
Three Mile	30.03877	89.35296	6/4/2013	5.47
Schooner Cove	29.95491	88.83157	6/11/2013	No data

Caveat: some (non-oyster) stations showed hypoxia.

pH



salinity

Soniat 6/4/13 study

Other points from Marshall et al. 2008

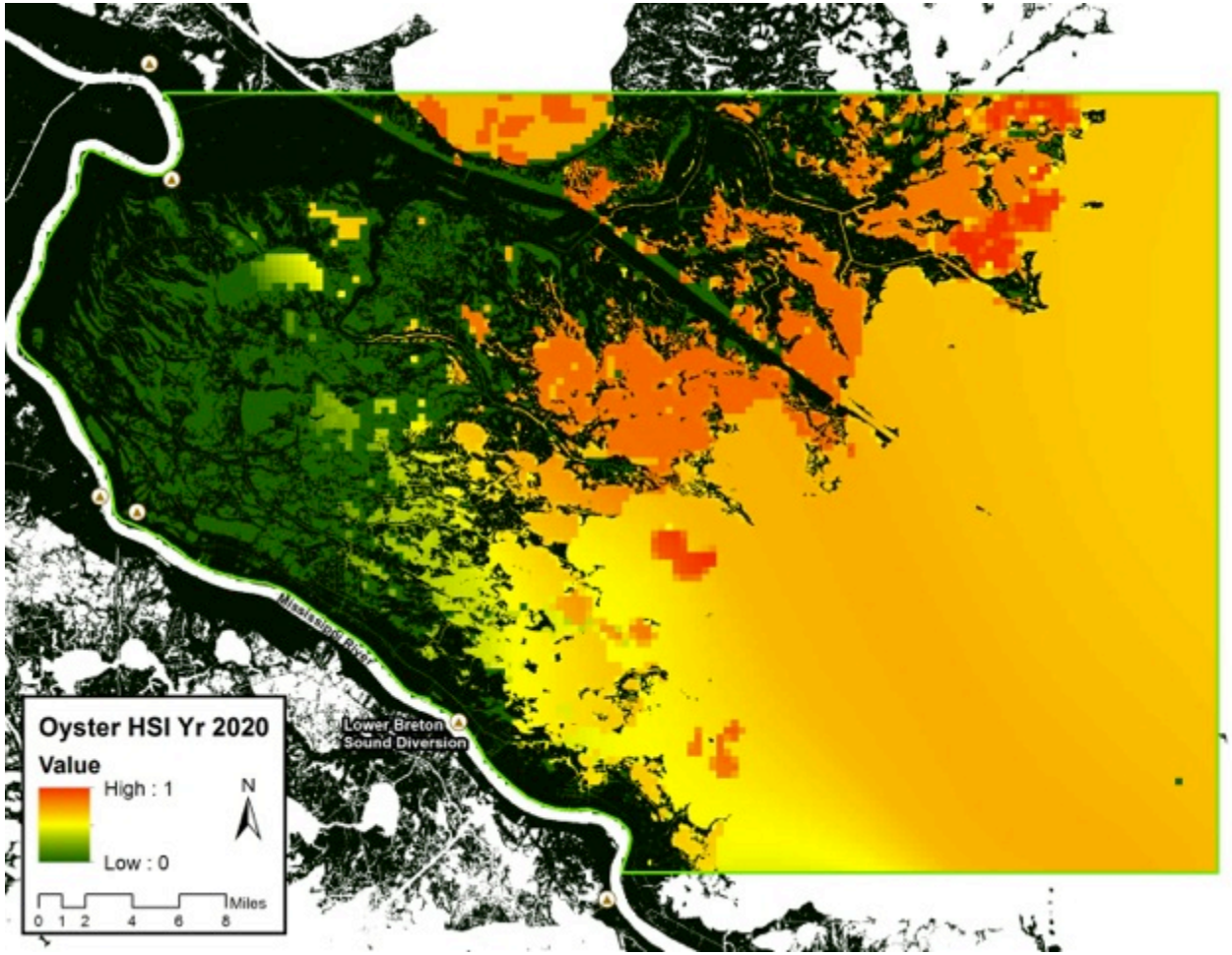
Poor substrate

- Yet, substrate planted on private leases and public grounds produced little or no spat

Low salinity

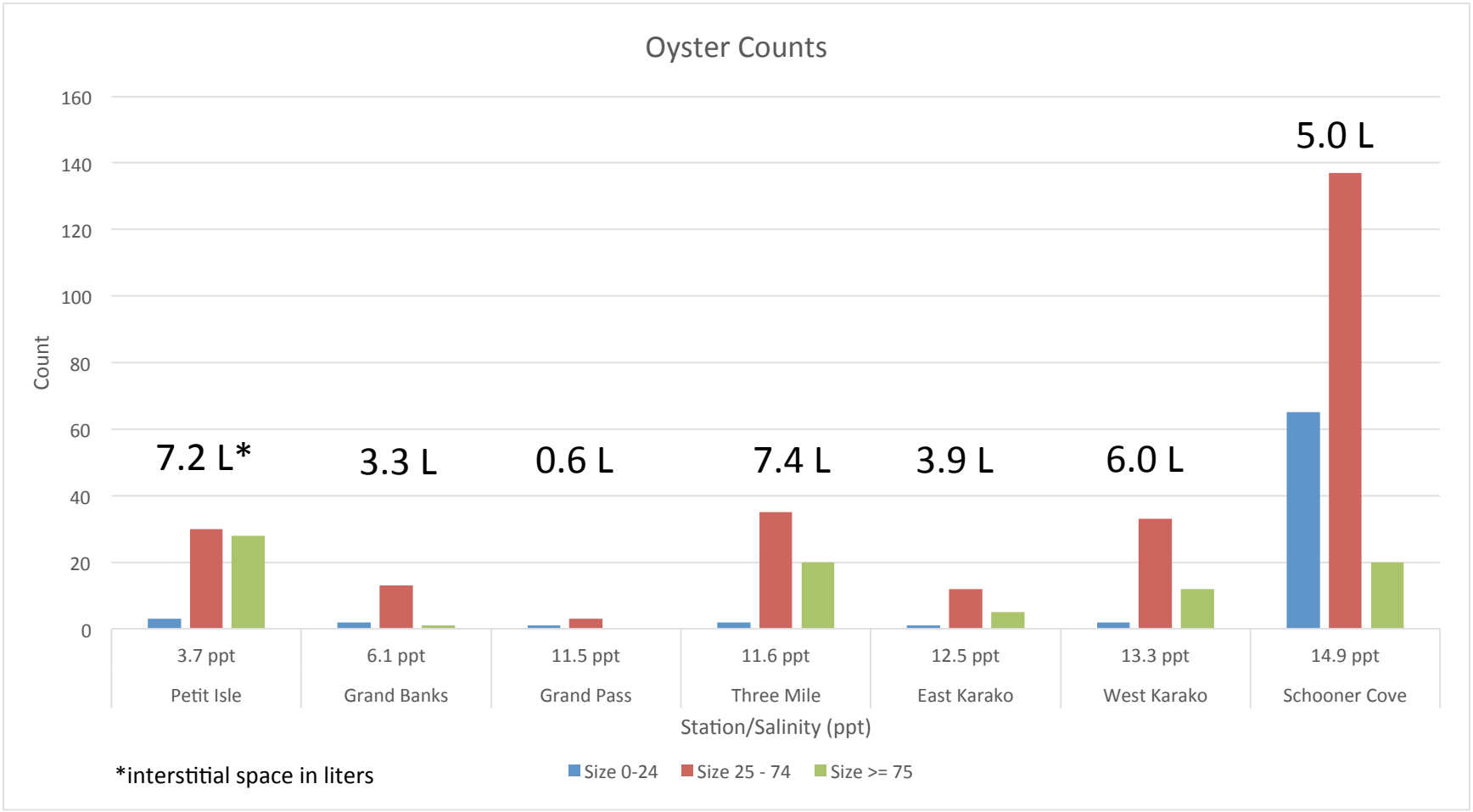
- Recent High River
- Spill-related diversions (2010)
- Bonne Carre Openings (2008, 2011)

Result: persistent low salinity without a high salinity rebound

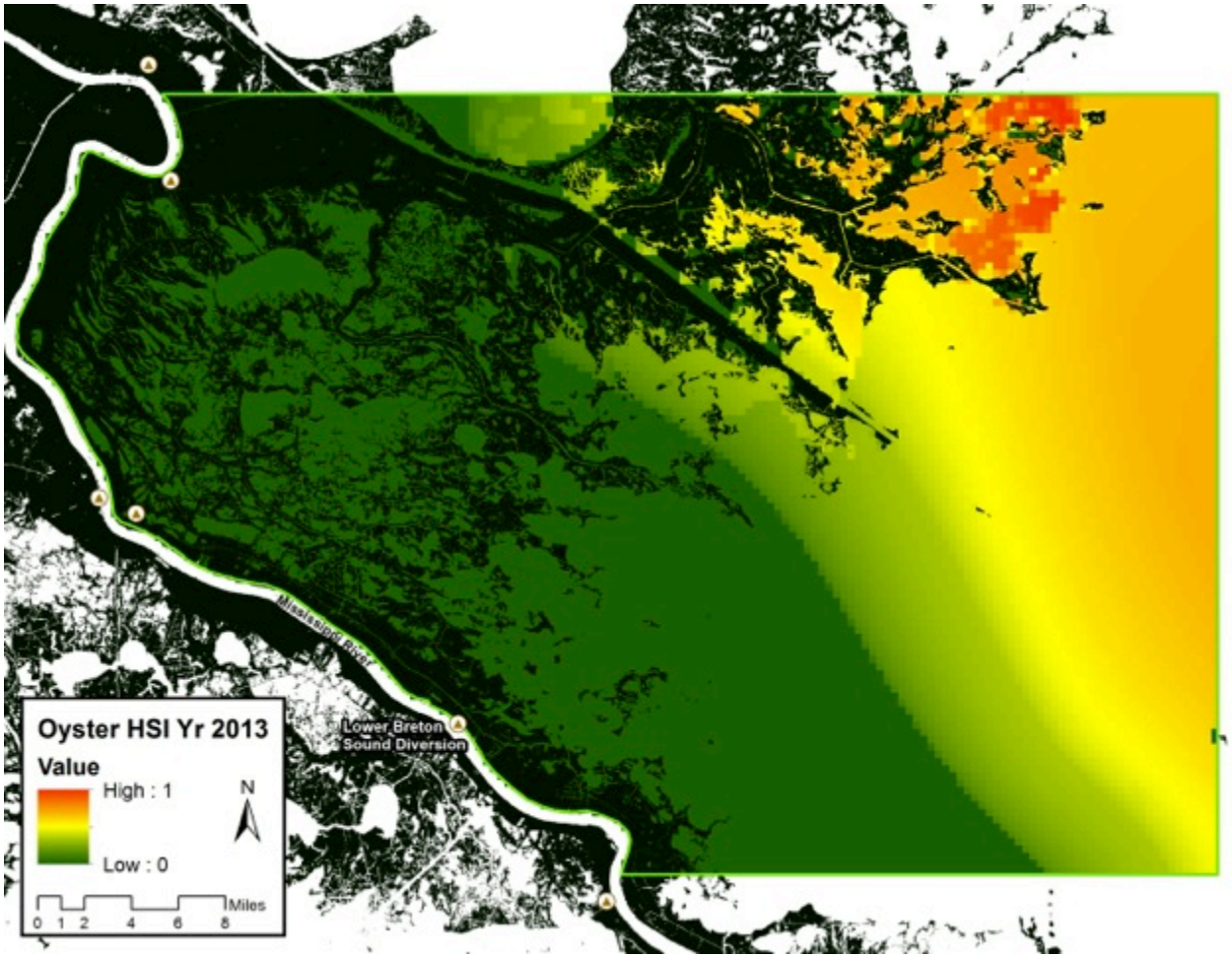


Simulation year 2020 = 2000 data

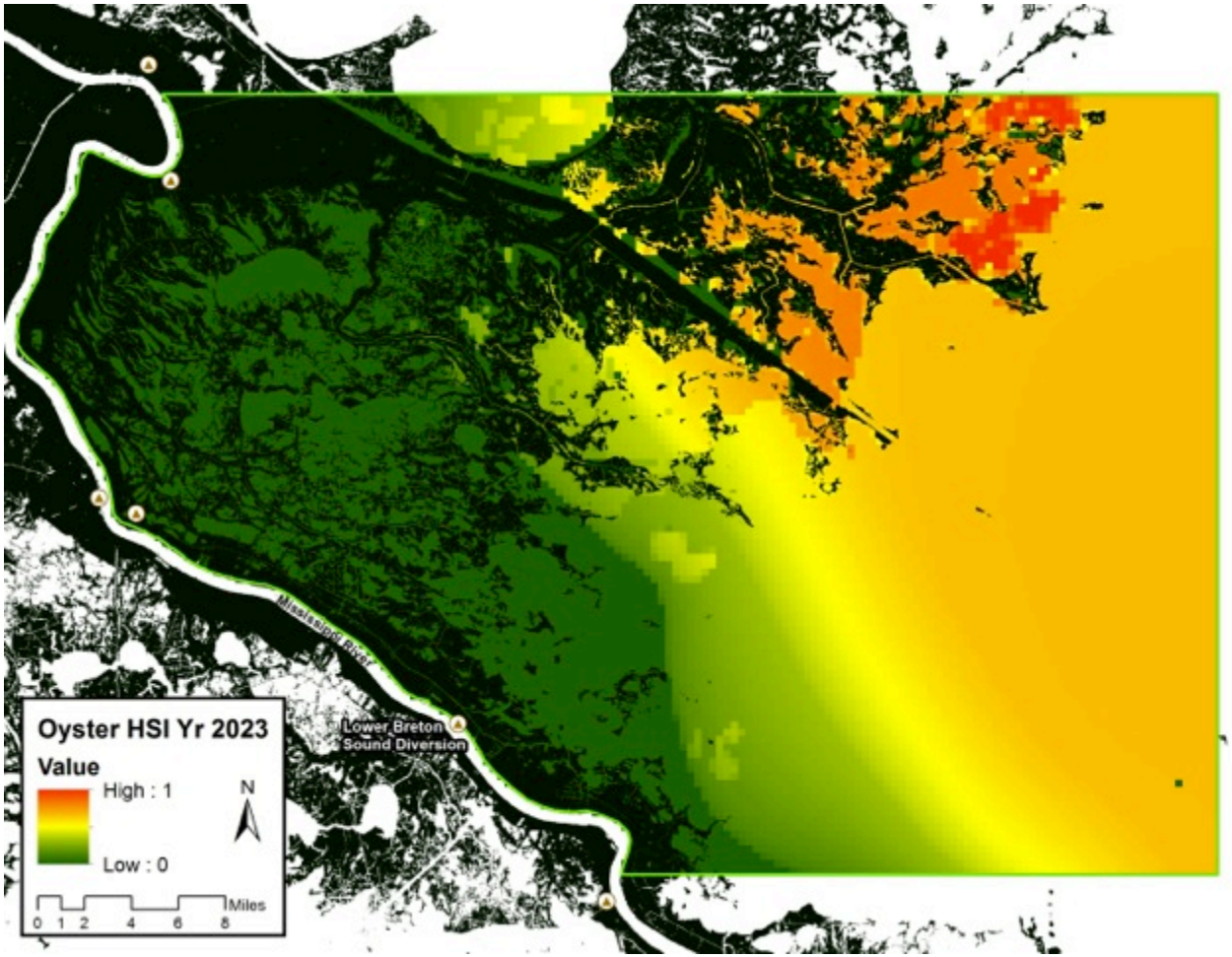
Spat and seed at Chandeleur Island !!!!



Questions?



Simulation year 2013 = 1993 data



Simulation year 2023 = 2003 data