



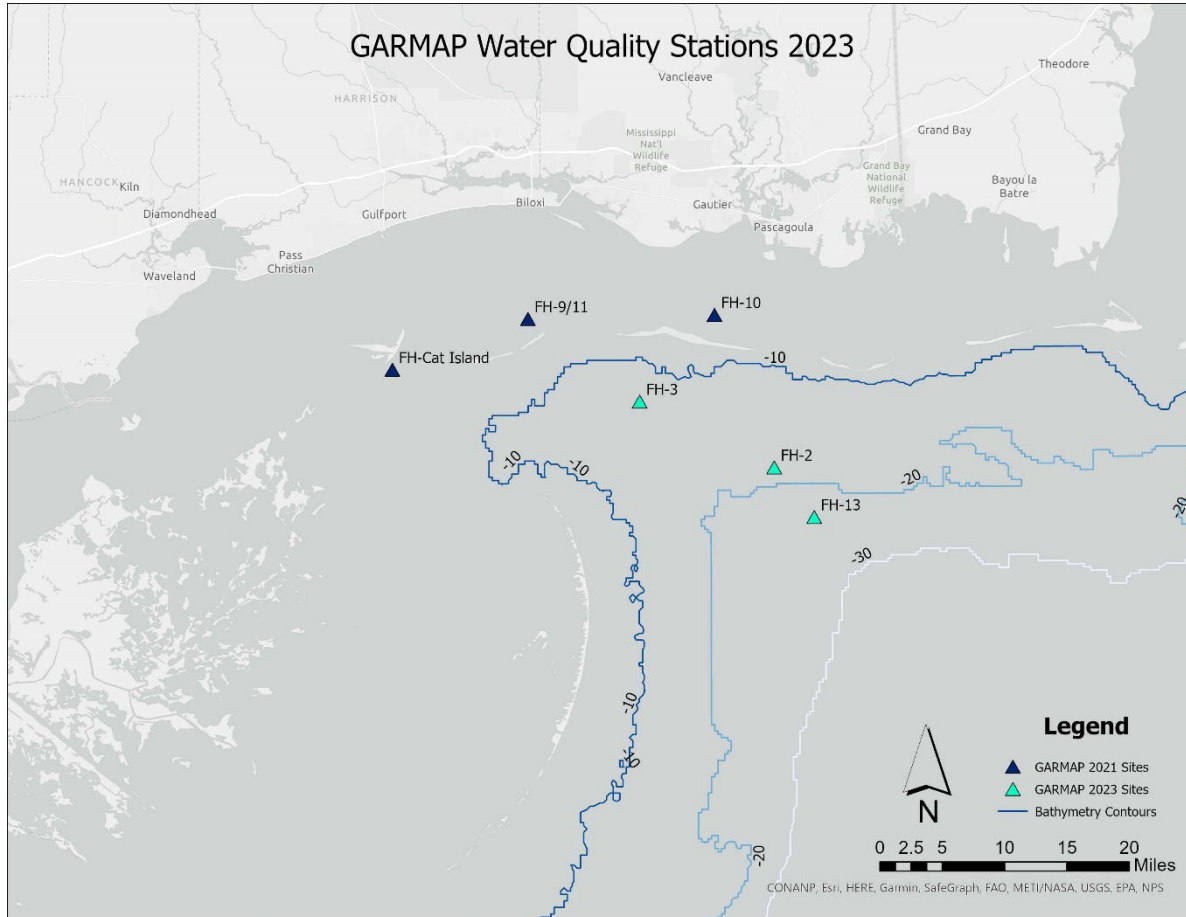
# Sport Fish Restoration Program

October 2023

by Charlie Robertson



# Deployment & Data Collection



- 3 units at nearshore sites (FH-9/11, 10, & Cat Island)
- Water quality data every 30-min
- GARMAP Database (<http://garmap.gsmfc.org/map.php>)
- 3 more units at offshore sites (FH-13,3,&2)

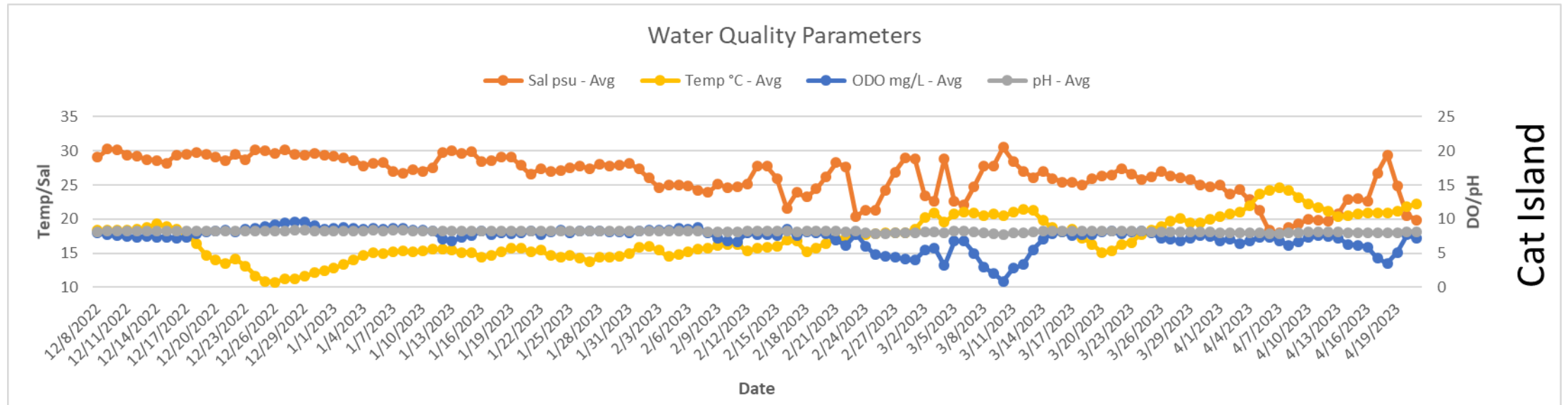


# Water Quality Monitoring

- Strategically positioned multiparameter data sondes
- Acoustic release system to eliminate entanglements
- Operates year-round to assess season water quality variations, specifically DO
- Acoustic receivers to track species movements
- Coordination with IJF Program



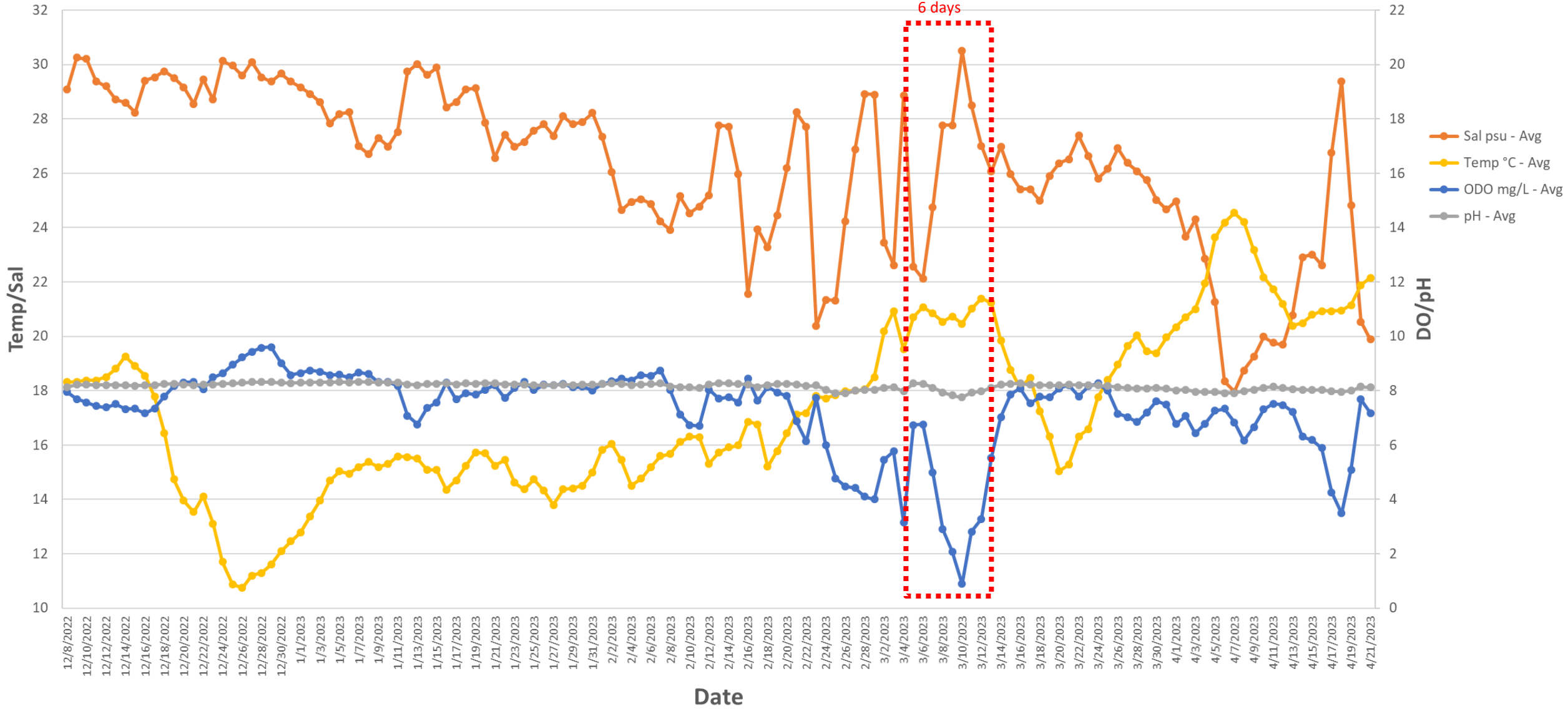
# GARMAP



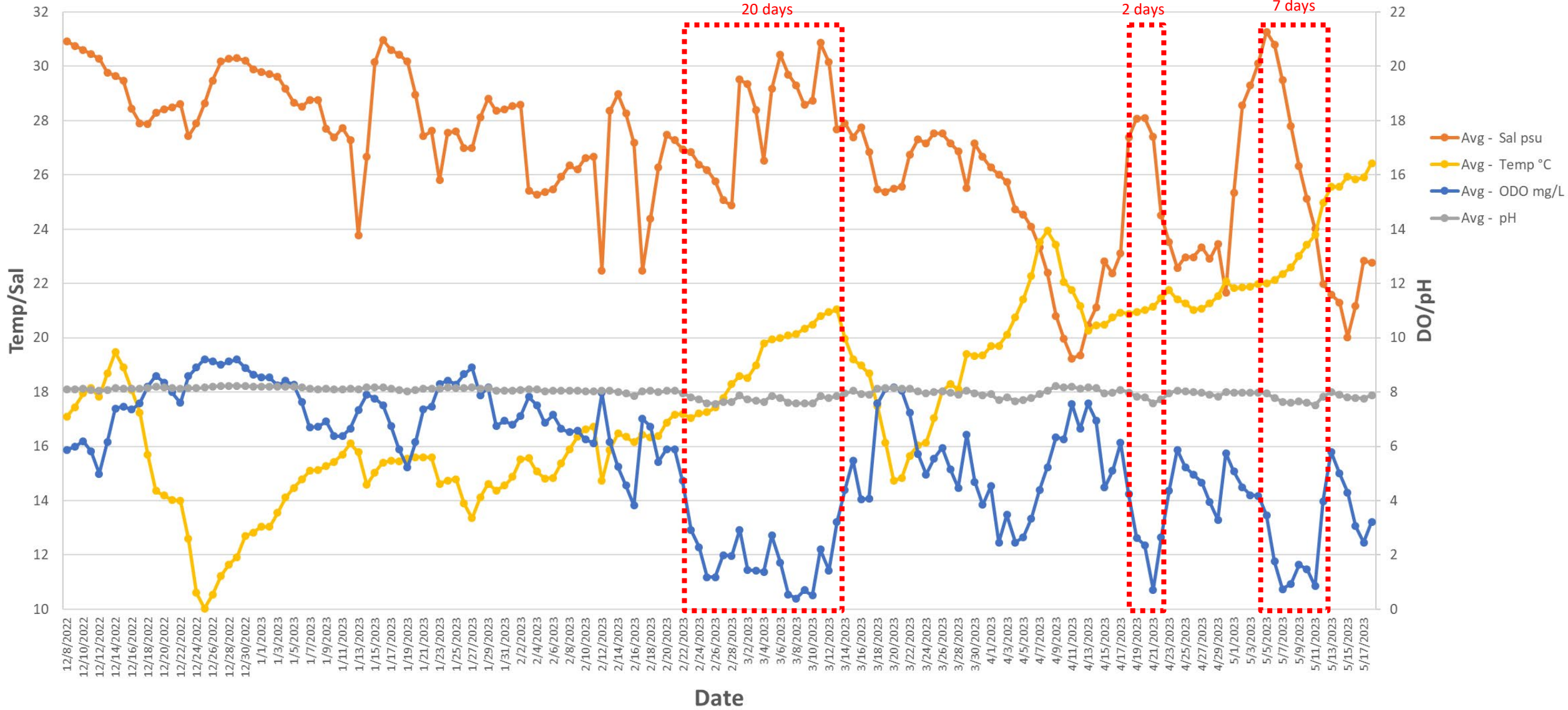
- Gulf Artificial Reef Monitoring and Assessment Program
- Assess water quality on artificial reef locations



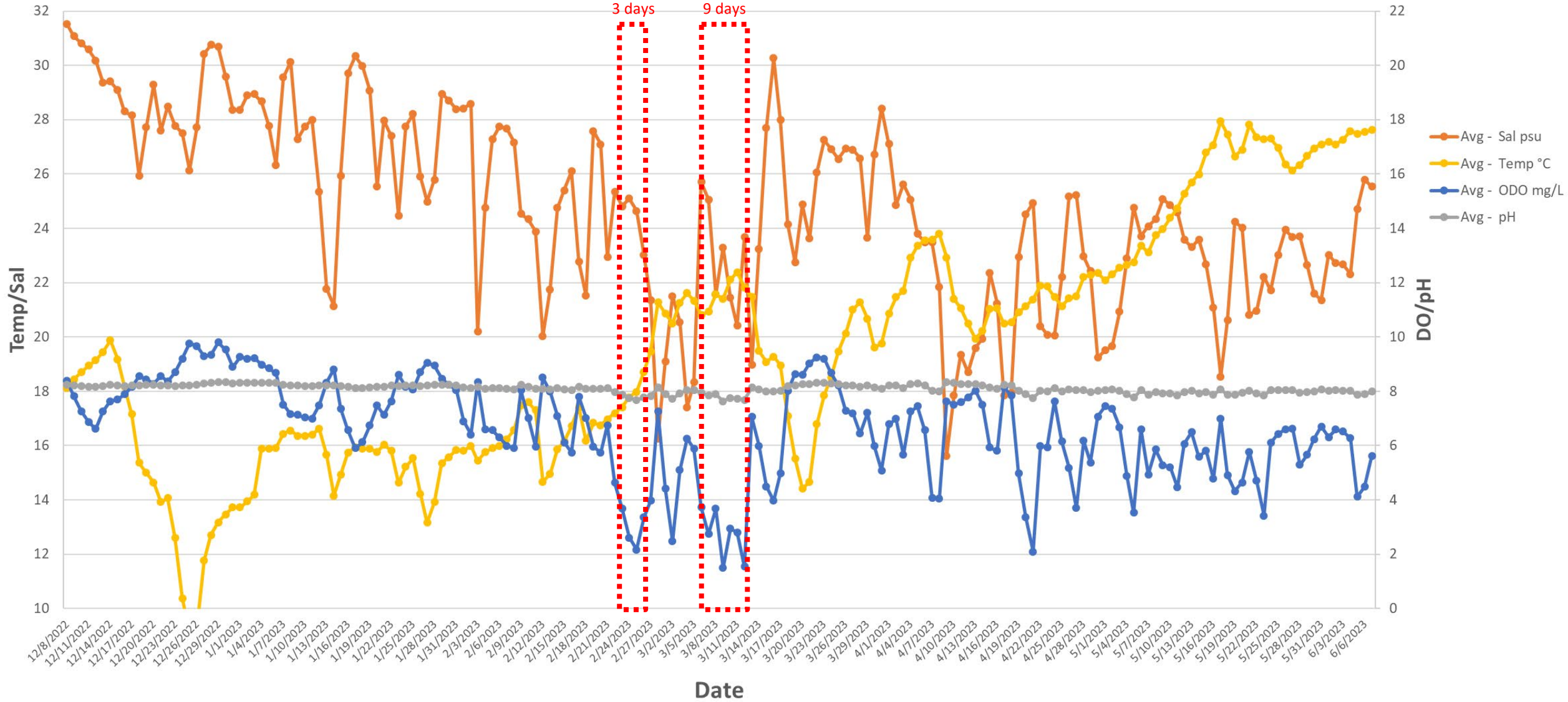
# Cat Island - Avg Daily Water Quality Parameters



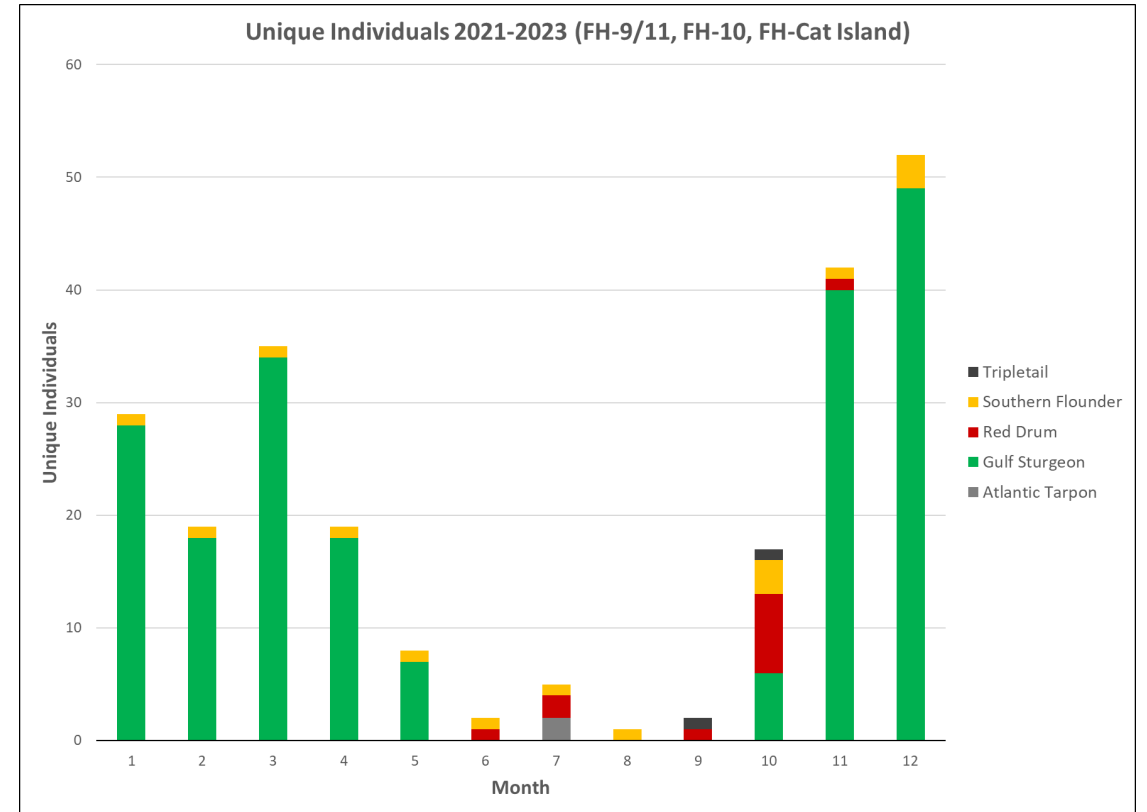
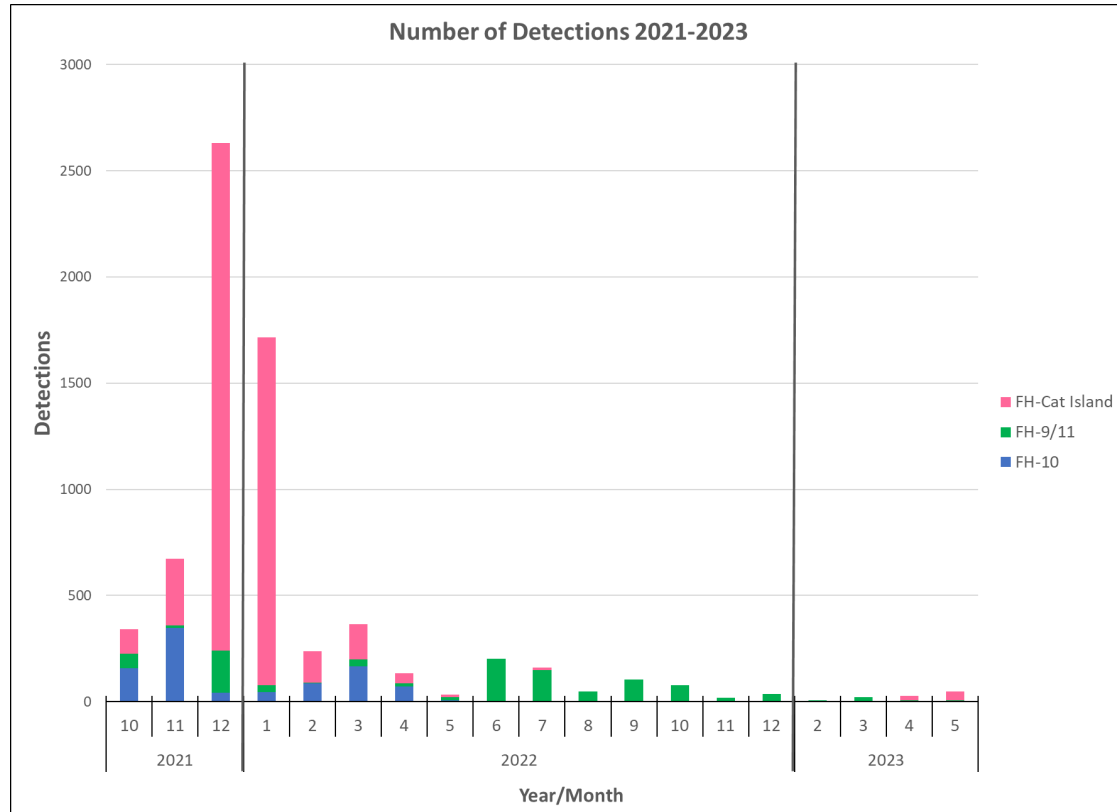
# FH-9/11 - Avg Daily Water Quality Parameters



# FH-10 - Avg Daily Water Quality Parameters



# Acoustic Receiver Data





# GARMAP Water Quality Stations 2023



## Dissolved Oxygen Records Oct 2021 - Oct 2023

Site	Total	Days	%Days
	Days	Hypoxic	Hypoxic
Cat Island	731	42	5.7%
FH 10	411	6	1.5%
FH 9/11	613	140	22.8%

## Acoustic Records Oct 2022 - May 2023

Total	
Detect	Uniq IDs
4902	243
926	75
1056	125

# Things to consider

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- Frequency of hypoxia?
- Differ by site?
- Causes?
- Seasonal?
- Management implications?
- Affects to benthos?

# Questions?

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