



BOEM BUREAU OF OCEAN
ENERGY MANAGEMENT

Protected Smalltooth Sawfish Occurrence in BOEM OCS Sand Resource Areas

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Background

- Endangered Smalltooth Sawfish recovery threatened by habitat loss
- Designated Critical Habitat in southwest Florida
- BOEM-funded acoustic telemetry array at marine minerals lease area Canaveral Shoals II has detected **22** individuals since 2016
 - Fish tagged by other researchers 100s of kms away
 - Some returning up to six consecutive years
 - Opportunistic detections and data collection
- Recurring presence in Florida's Atlantic coast warrants further investigation
- Recent die-off further threatens recovery



Source: Indian River Lagoon Foundation

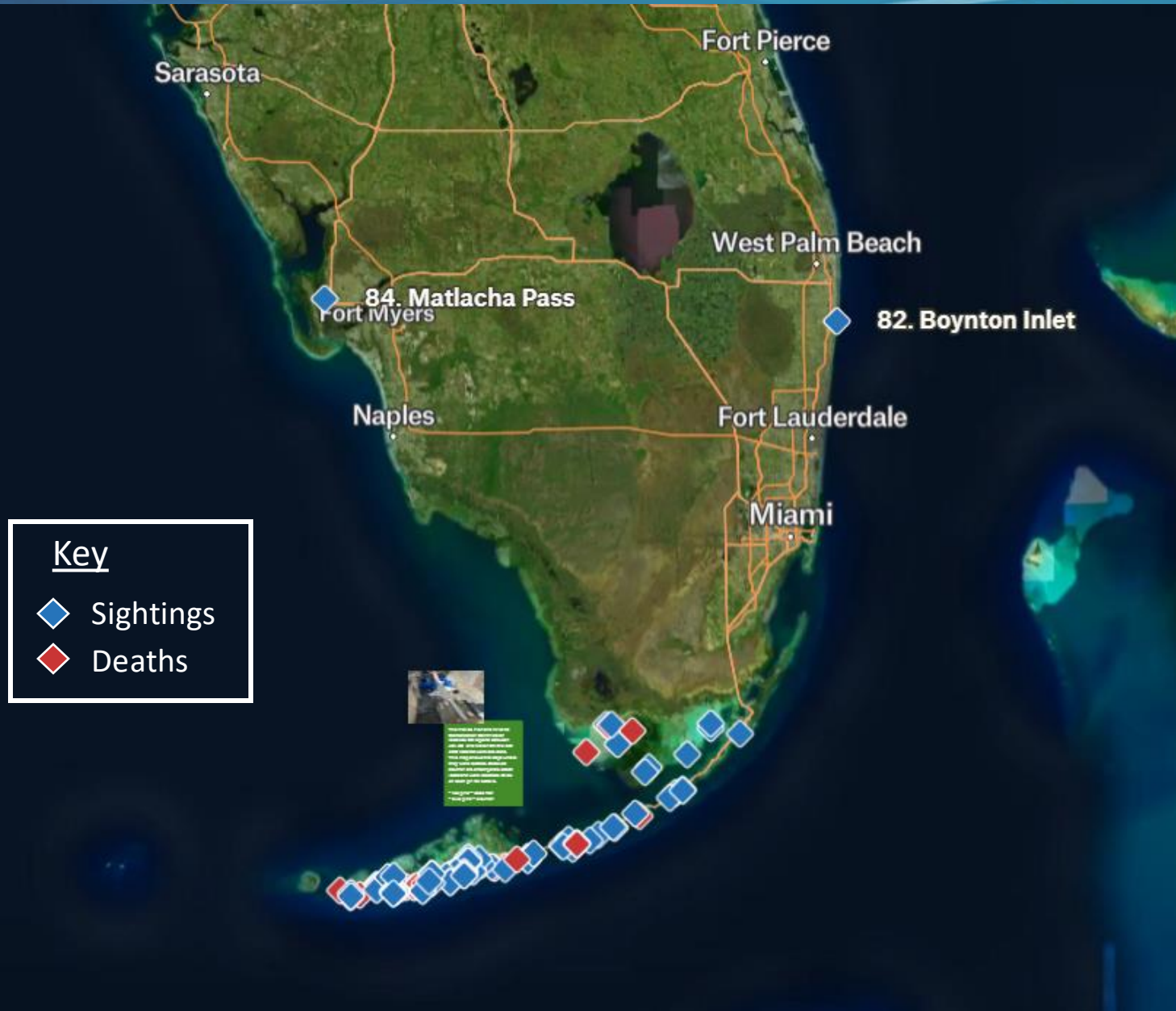
Habitat



Source: Florida Fish and Wildlife Commission



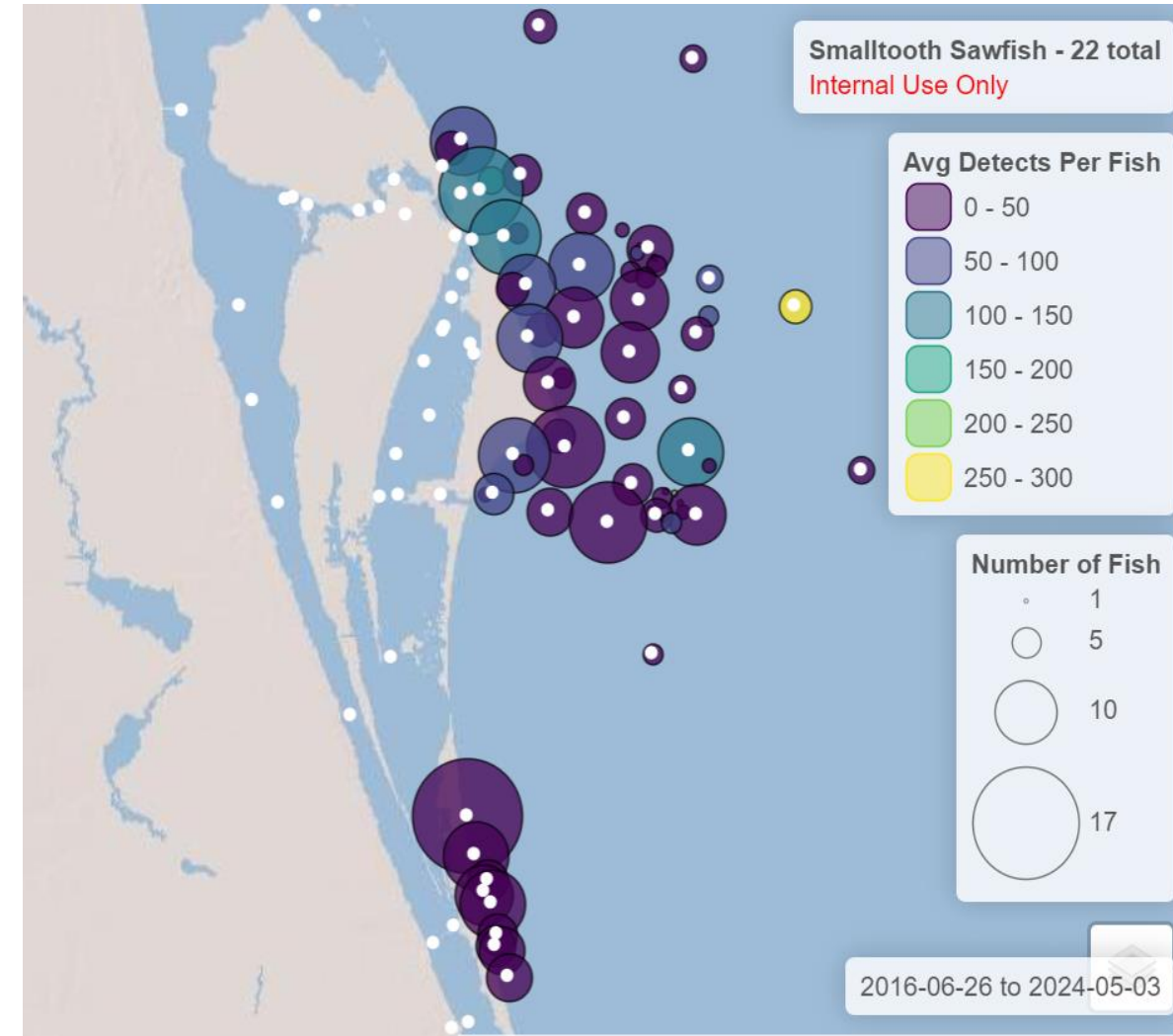
Background



Credit: FWC Fish and Wildlife Research Institute

BOEM Information Need

- Smalltooth Sawfish habitat may overlap with BOEM-managed sand resources more than previously thought
- Opportunistic detections of Smalltooth Sawfish on a repeat lease area need further site-specific analysis to provide insight into spatial and temporal patterns
- Results will help us better understand effects to habitat



Study Objectives

Characterize the **occurrence** and **movement** of Smalltooth Sawfish near **existing** and **potential sand resources** on Florida's Atlantic OCS to better understand any correlating environmental factors and how BOEM-authorized activities may affect this endangered species and its habitat



Methods

- **Phase I:** Analyze existing telemetry data around OCS sand resources on Florida's Atlantic coast; supplement this analysis with fishery-dependent and -independent surveys (e.g., observer data, state-run surveys), as well as interviews with researchers, fishermen, and other stakeholders
- **Phase II:** Use information gathered from Phase I to develop a field study to best meet the study objective and research questions

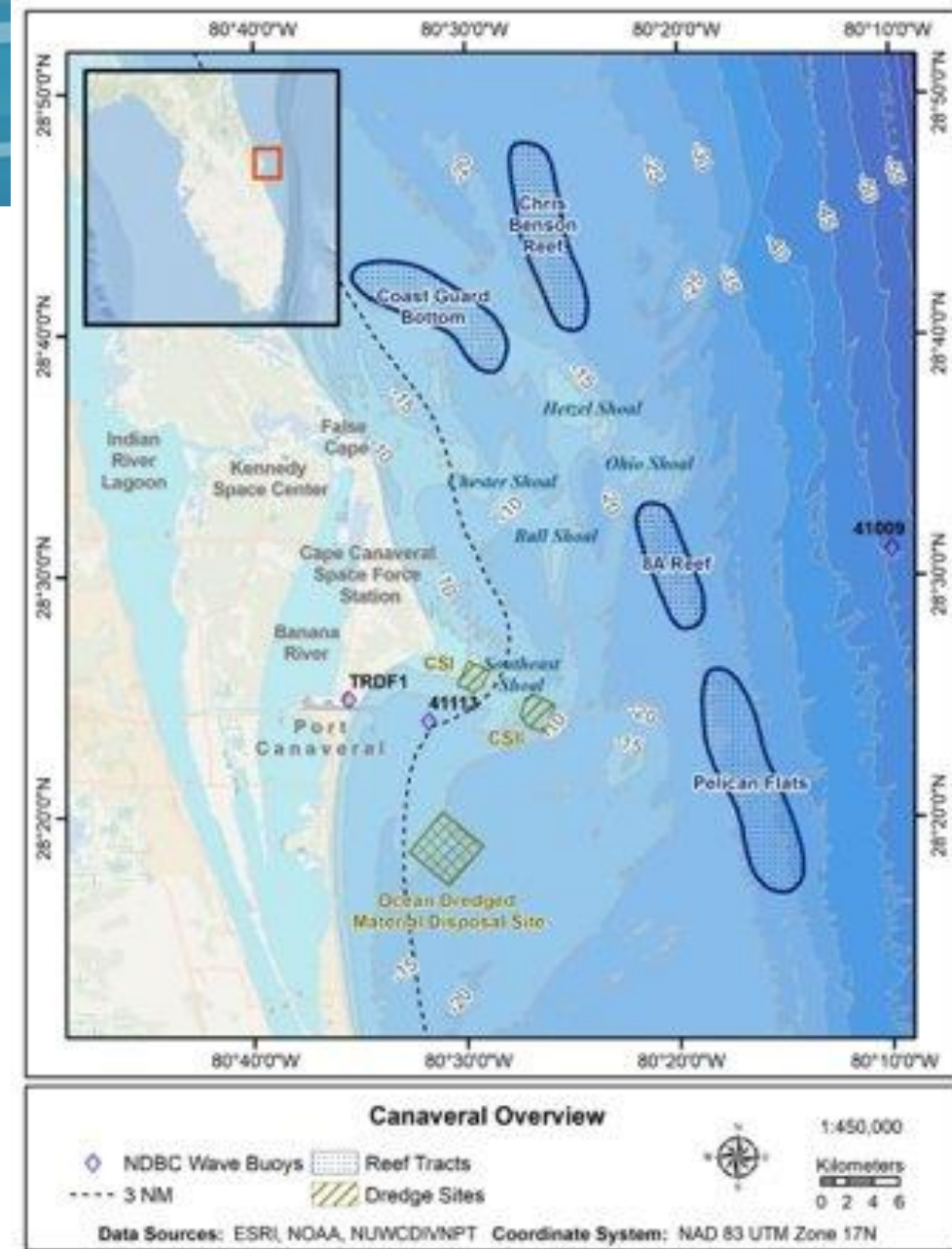


Research Questions

- How do Smalltooth Sawfish spatially and temporally overlap with OCS sand resources on Florida's Atlantic coast?
- What environmental factors correlate with their occurrence?



Source: Indian River Lagoon Foundation



Questions for COSA

1. When extrapolating from the current datapoints in a small area (i.e., off Cape Canaveral) to infer patterns of habitat use and characteristics in a broader region, what should we consider for study design? Should we focus on Florida's Atlantic coast, or look at their entire distribution?
2. Since we are interested in impacts to habitat rather than directly to individuals, what methods are most relevant (e.g., satellite tags, diet study)?
3. How can we strengthen the study to make it more impactful?





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