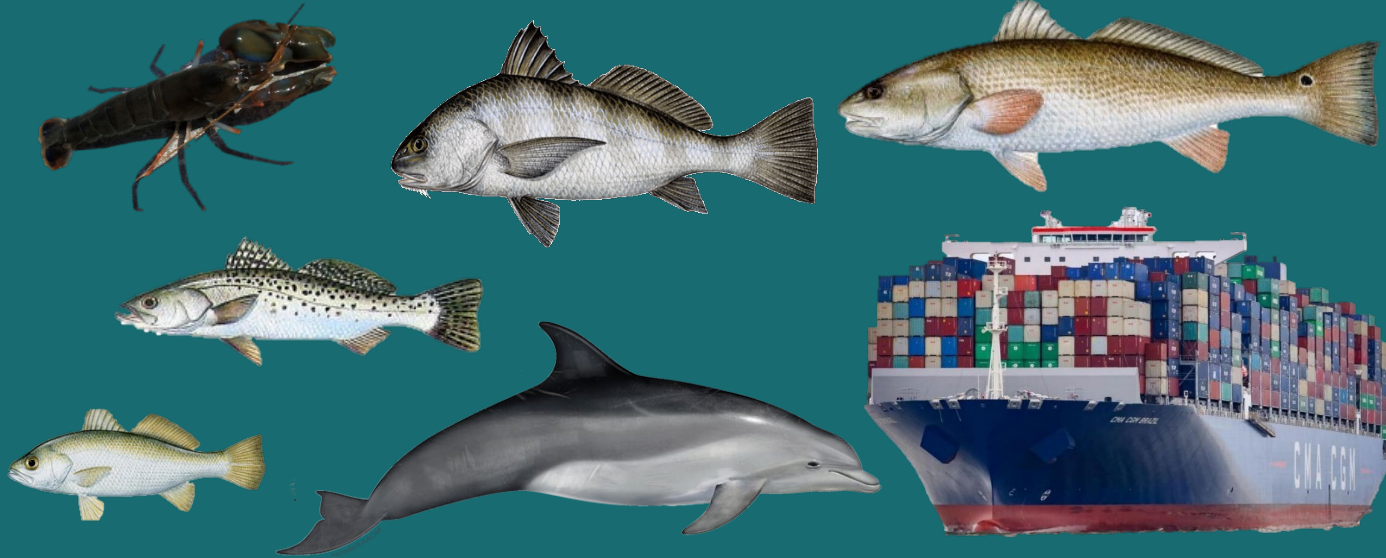


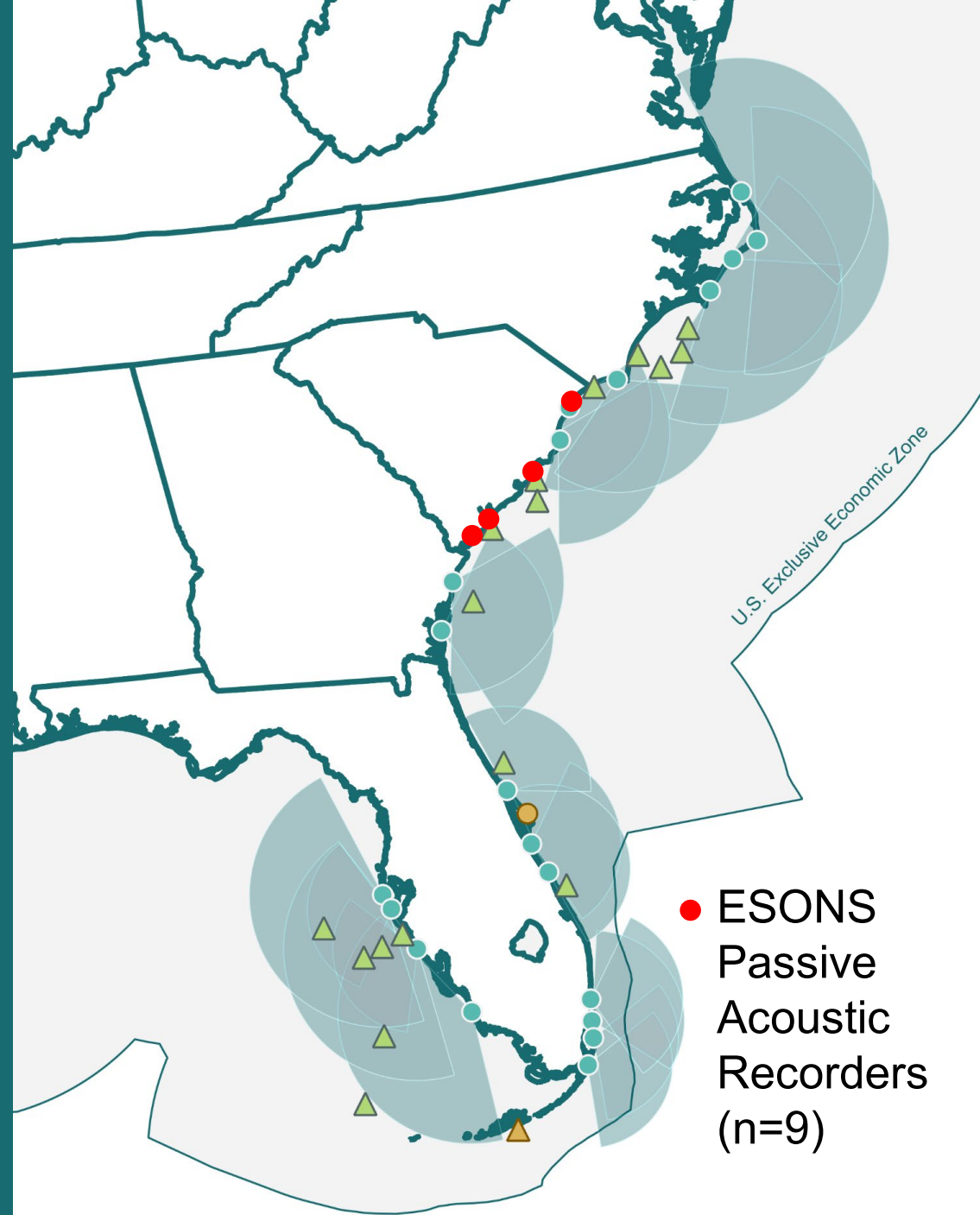
# Estuarine Soundscape Observatory Network in the Southeast (ESONS)



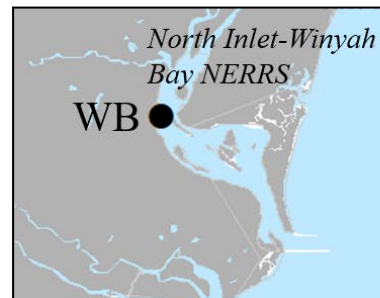
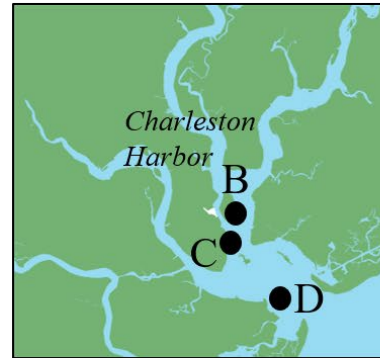
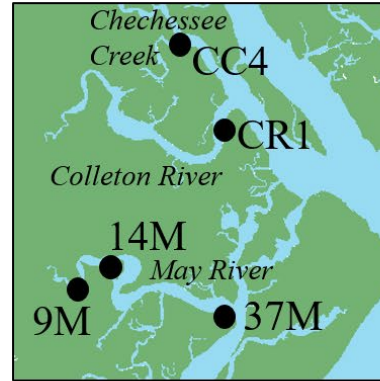
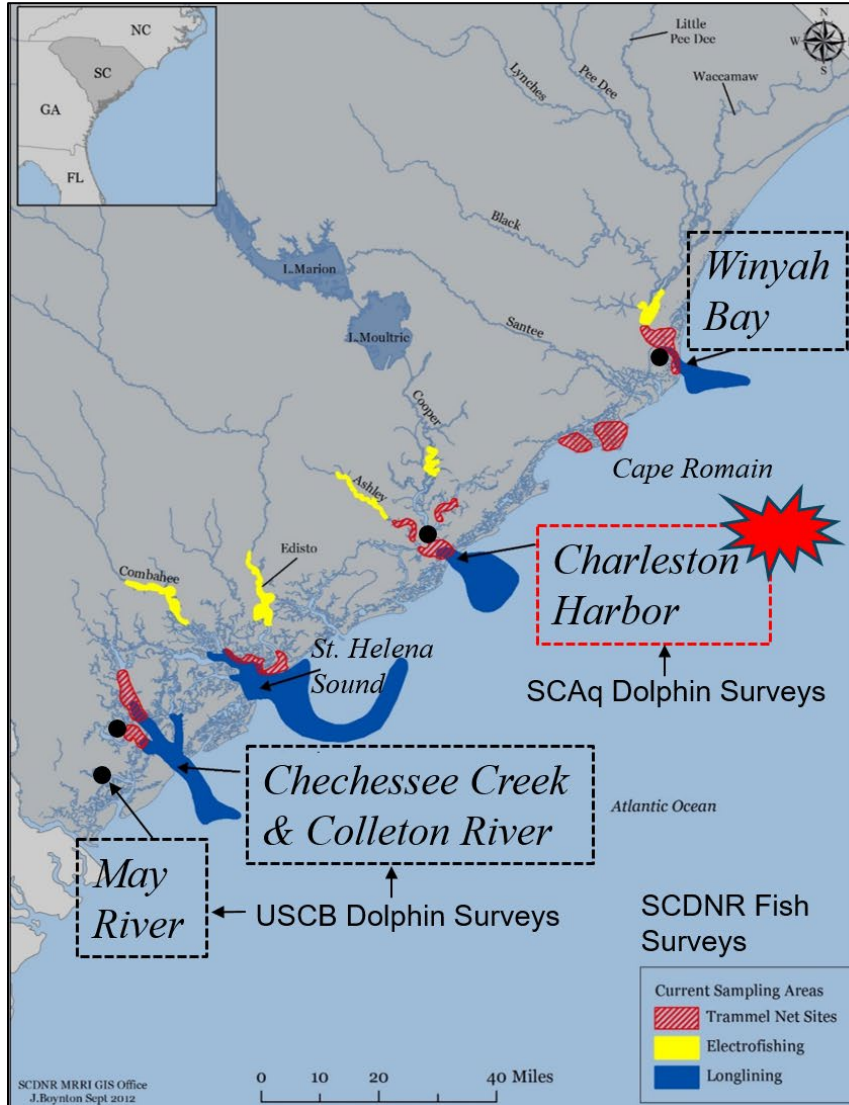
**Eric W. Montie\*** and **Alyssa D. Marian**  
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University of South Carolina Beaufort*



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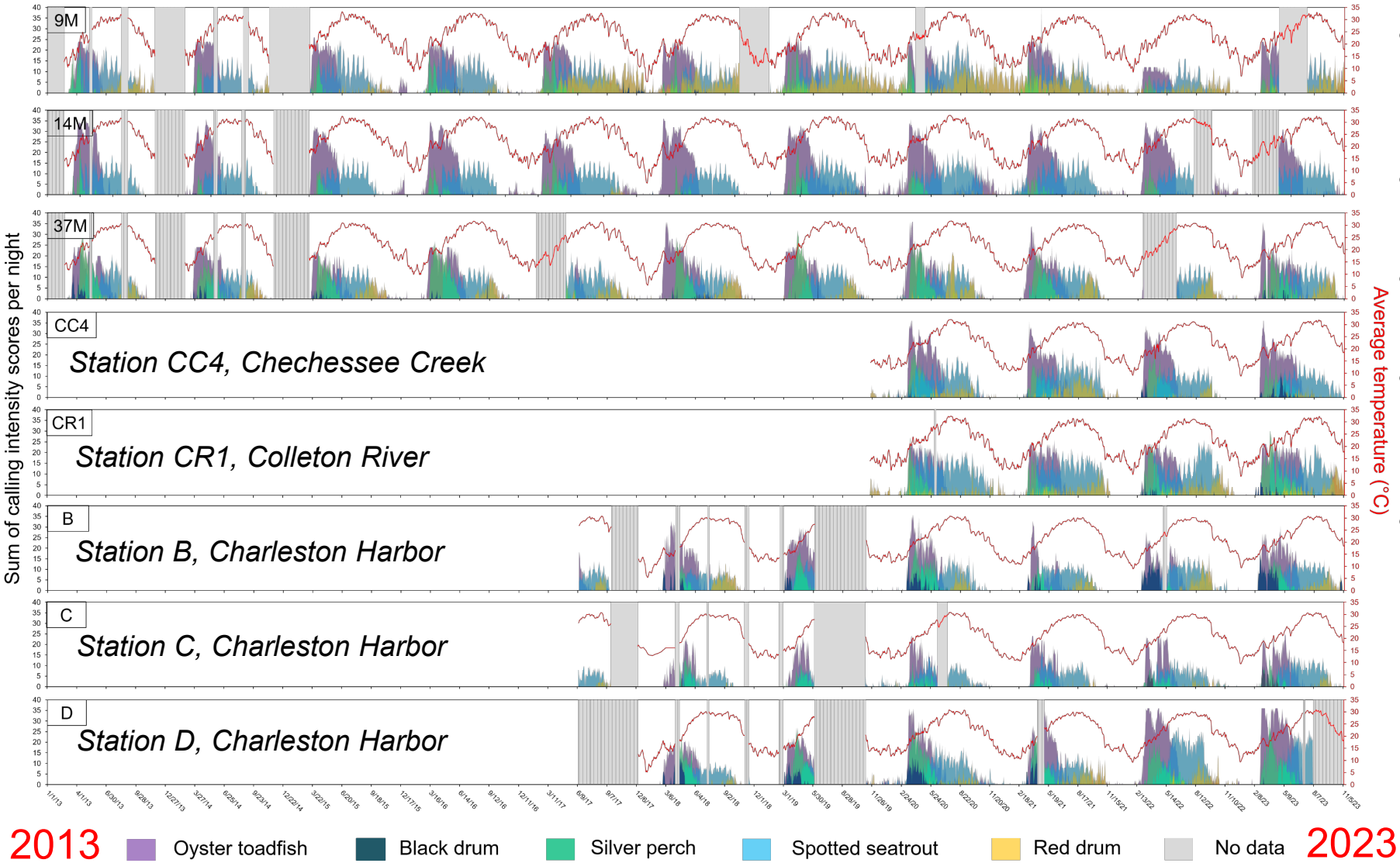
# Overview



- Sound pressure levels of various bandwidths
- Snapping shrimp acoustic behavior
- Courtship sounds and spawning potential of fish
- Marine mammal vocalizations
- Anthropogenic noise
- Water temp, depth



# Accomplishments – A Decade of Soundscape Data!



- Serviced 9 recorders but some challenges with aging infrastructure.
- Monumental progress – reviewed 69,498 wav files!
- Five posters at USC Discover Day!
- **Temporal synchrony in courtship behavior of fish across estuaries in SC.**
- Publication in *Aquatic Mammals* on bottlenose dolphin vocalizations and relationships to sightings & prey in Charleston Harbor (Caroline Tribble, 2023 Vembu Subramanian Ocean Scholar)





# Looking Ahead

## Objectives for year 4

- Continue servicing ESONS recorders
- Expand to Pritchards Island, a relatively pristine estuary
- Complete soundscape endpoints through 2024
- Incorporate data into Research Workspace
- Archive raw sound files with Axiom
- Correlate year class strength obtained from SCDNR fishery surveys with fish chorusing behavior across SC estuaries



*Spring 2024, Montie Marine Sensory and Neurobiology Lab*

