North Carolina

South Carolina

Georgia

Florida

U.S. Exclusive Economic Zone

- ESONS Passive Acoustic Recorders (n=9)
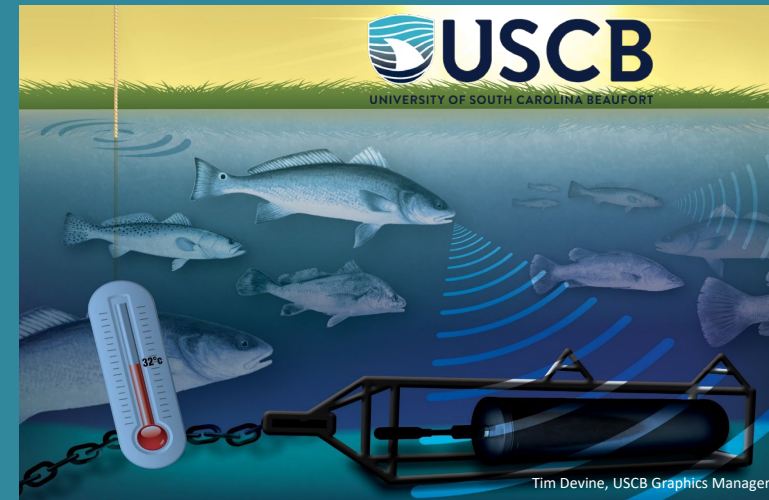
Estuarine Soundscape Observatory Network in the Southeast (ESONS)

Tim Devine, USCB Graphics Manager

Eric W. Montie [1, 2] and Alyssa D. Marian [1]

[1] Dept. Natural Sciences, University of South Carolina Beaufort

[2] Graduate Program in Marine Biology, College of Charleston
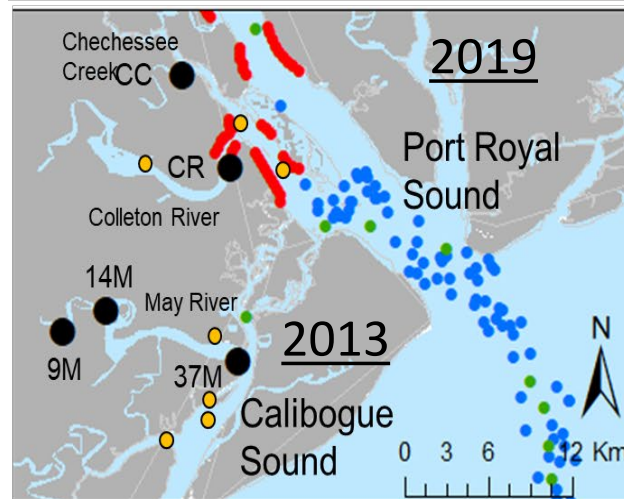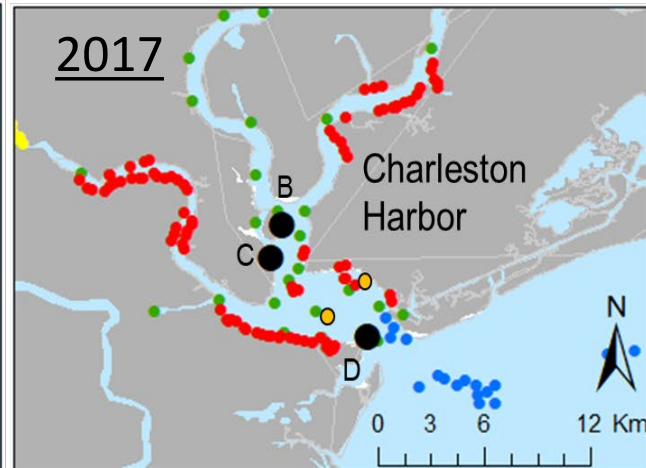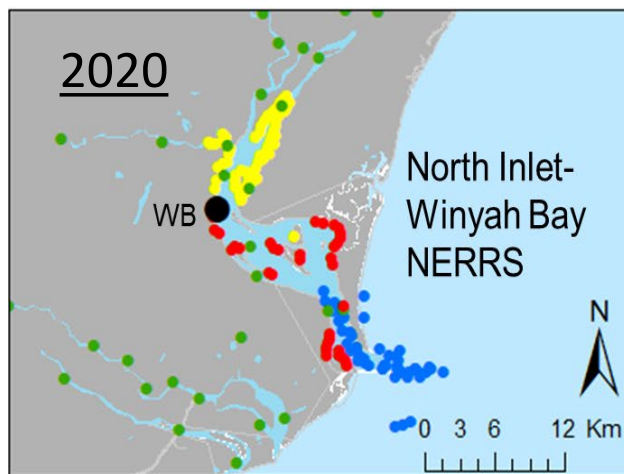
SECOORA
Southeast Coastal Ocean Observing
Regional Association

USCB
UNIVERSITY OF SOUTH CAROLINA BEAUFORT

CODAR
OCEAN SENSORS

In-Situ

IOOS
Integrated Ocean
Observing System
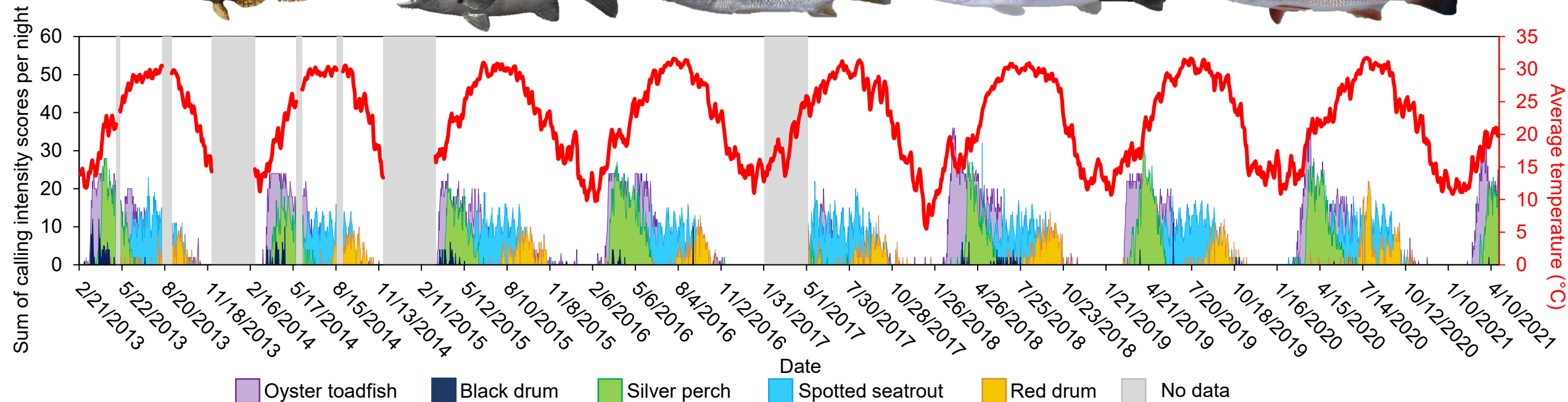
Overview of the Project

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

Accomplishments

- Serviced all nine recorders successfully
- Standardized long-term datasets of soundscape endpoints for May River (n=3), Charleston Harbor (n=3), Chechessee Creek (n=1), Colleton River (n=1), & NI-WB NERRS (n=1) to spring 2021
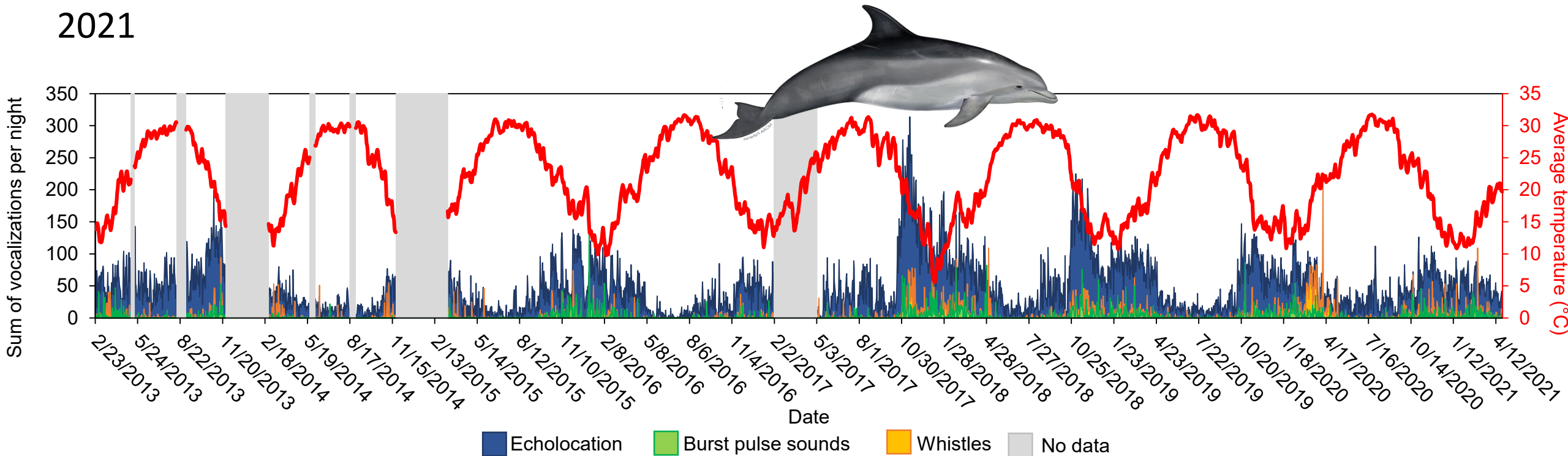
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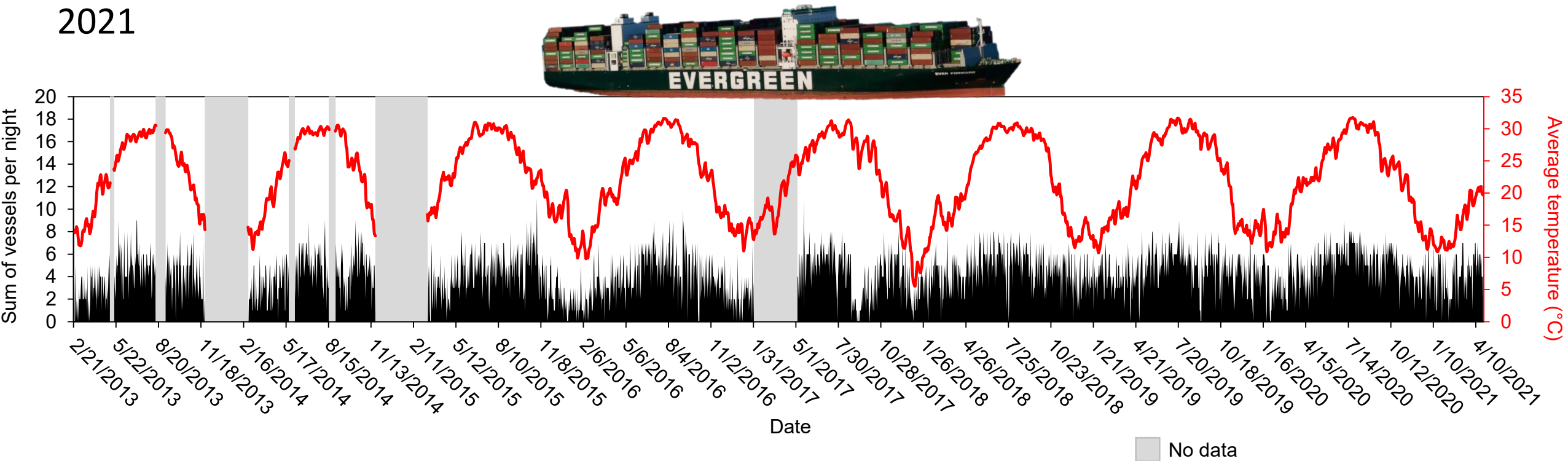
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Challenges and Looking Ahead

- Challenges
  - Manual review of acoustic files can be time consuming and labor intensive
  - NI-WB NERRS station contains minimal biological sounds, so we may move this station to Port Royal Sound or ACE Basin NERRS

- Objectives for year 2
  - Continue servicing recorders
  - Finish soundscape endpoints through 2022
  - "The Biological and Anthropogenic Soundscape of an Urbanized Port – The Charleston Harbor Estuary"