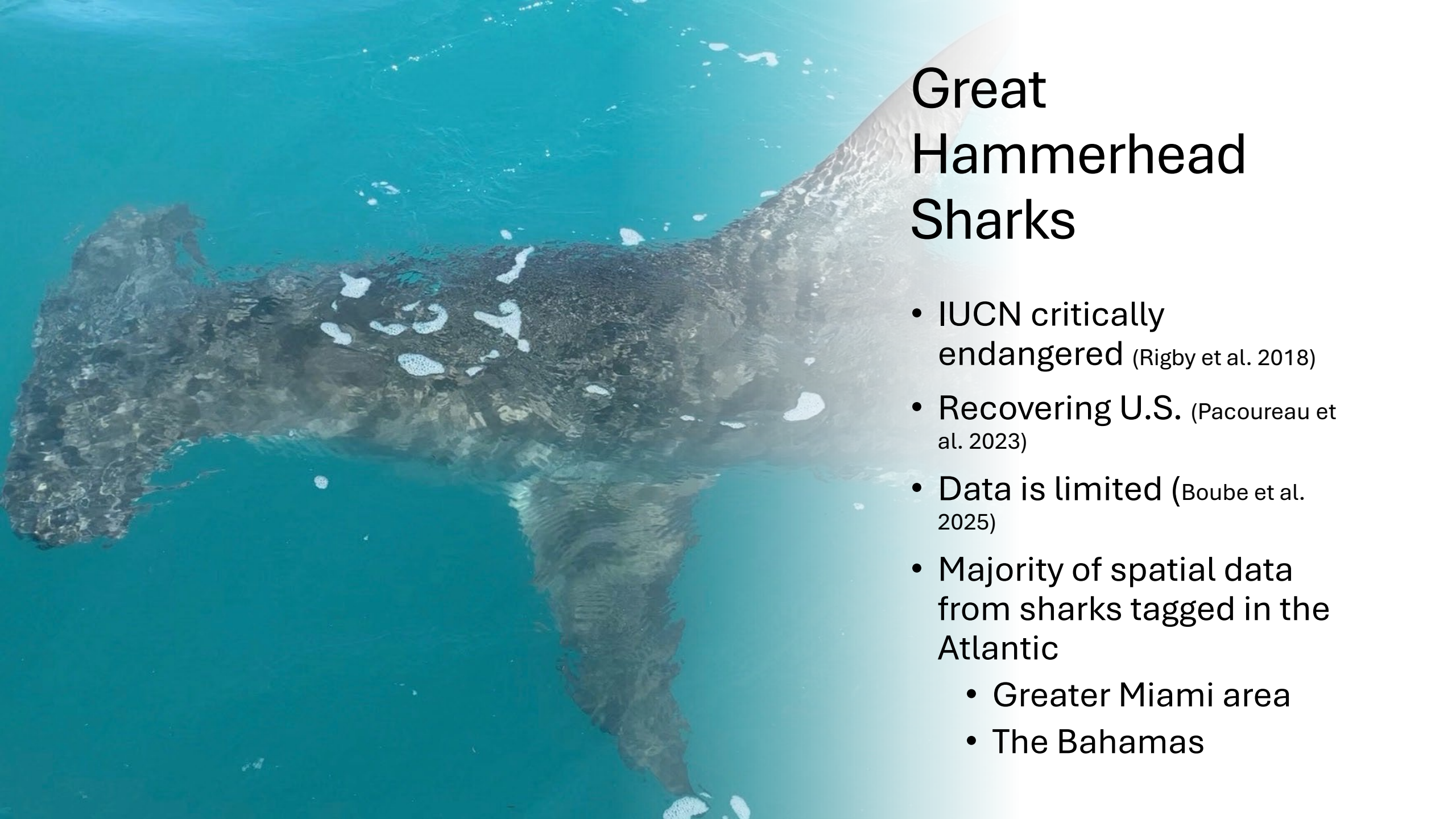


An underwater photograph of a Great Hammerhead Shark swimming in clear blue water. The shark is seen from below, with its distinctive wide, flat head and pointed snout visible. The water is a deep blue, and the shark's body is a lighter, mottled greyish-blue. The lighting is bright, creating a clear view of the shark's features.

Migratory Patterns and Seasonal Habitat Use of Great Hammerhead Sharks (*Sphyrna mokarran*) in the Southeastern United States

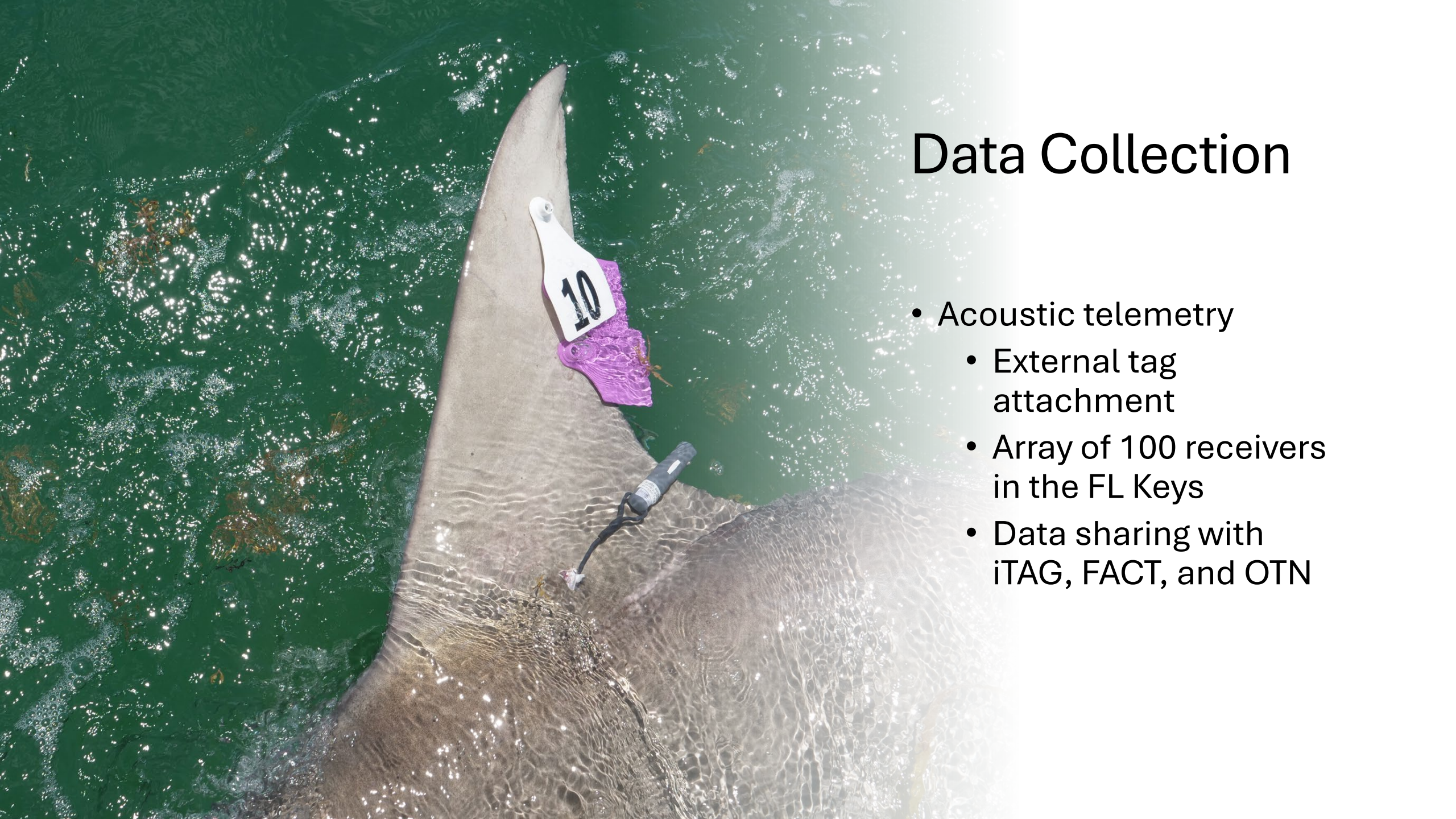
Grace A. Casselberry¹, Gregory B. Skomal, Lucas P. Griffin, Jacob W. Brownscombe, John T. Finn, Joseph Dello Russo, Alex Filous, Peter E. Holder, Ben Daughtry, Jeff Kneebone, Danielle Morely, Susan K. Lowerre-Barbieri, Brooke N. Anderson, James Sulikowski, Steven J. Cooke, and Andy J. Danylchuk

¹Dept. of Environmental Conservation, University of Massachusetts Amherst



Great Hammerhead Sharks

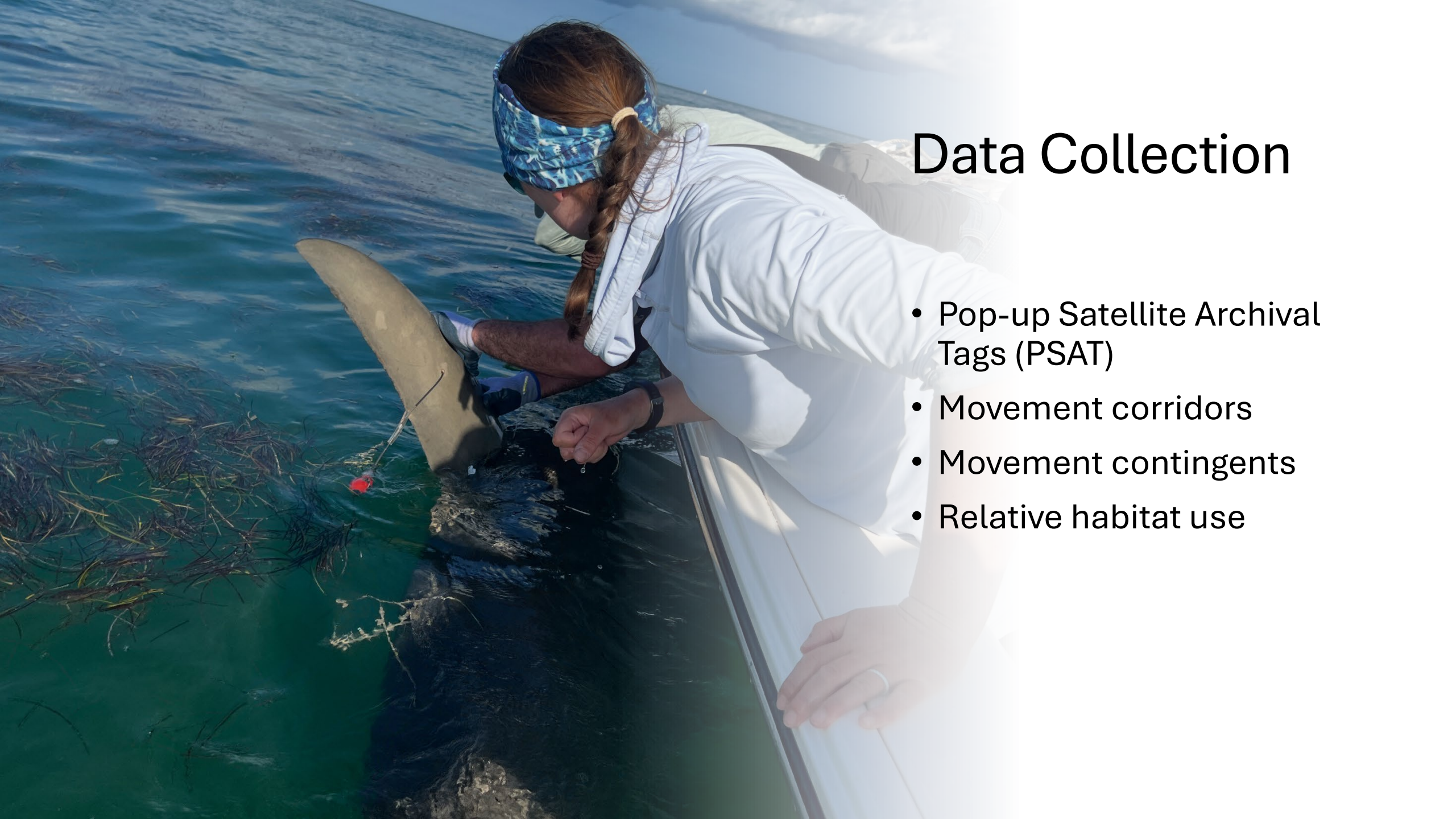
- IUCN critically endangered (Rigby et al. 2018)
- Recovering U.S. (Pacoureau et al. 2023)
- Data is limited (Boube et al. 2025)
- Majority of spatial data from sharks tagged in the Atlantic
 - Greater Miami area
 - The Bahamas



Data Collection

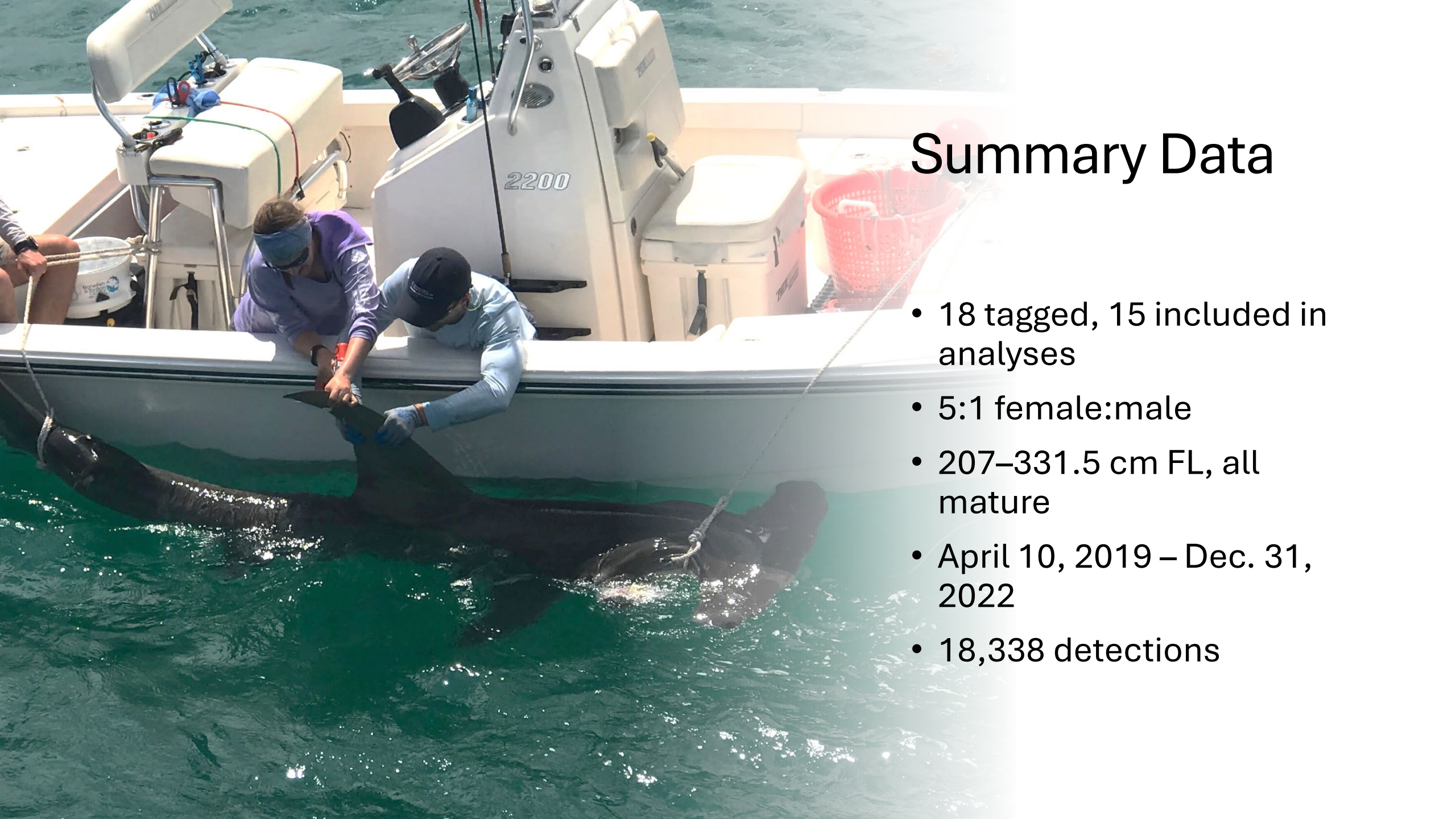
- Acoustic telemetry
 - External tag attachment
 - Array of 100 receivers in the FL Keys
 - Data sharing with iTAG, FACT, and OTN





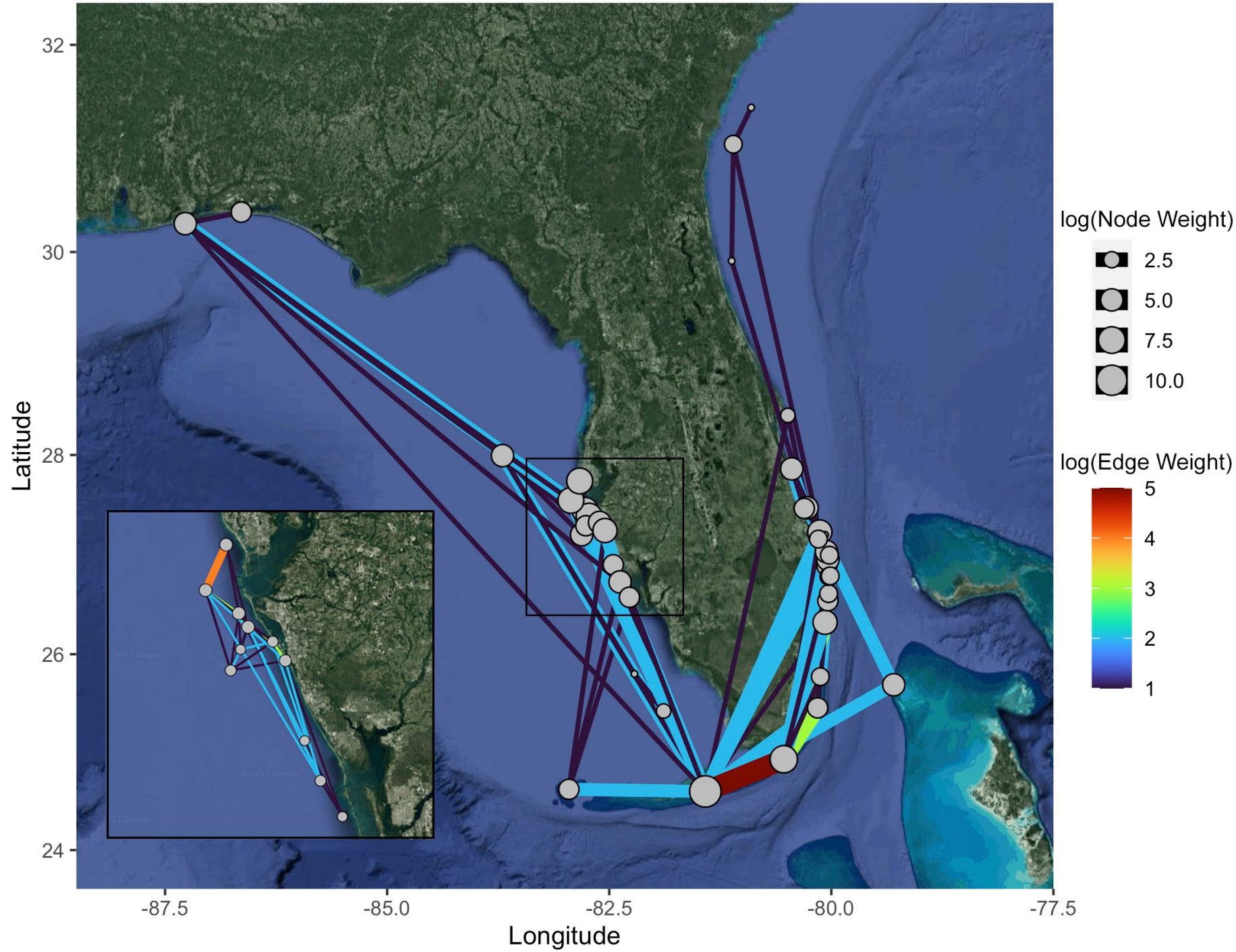
Data Collection

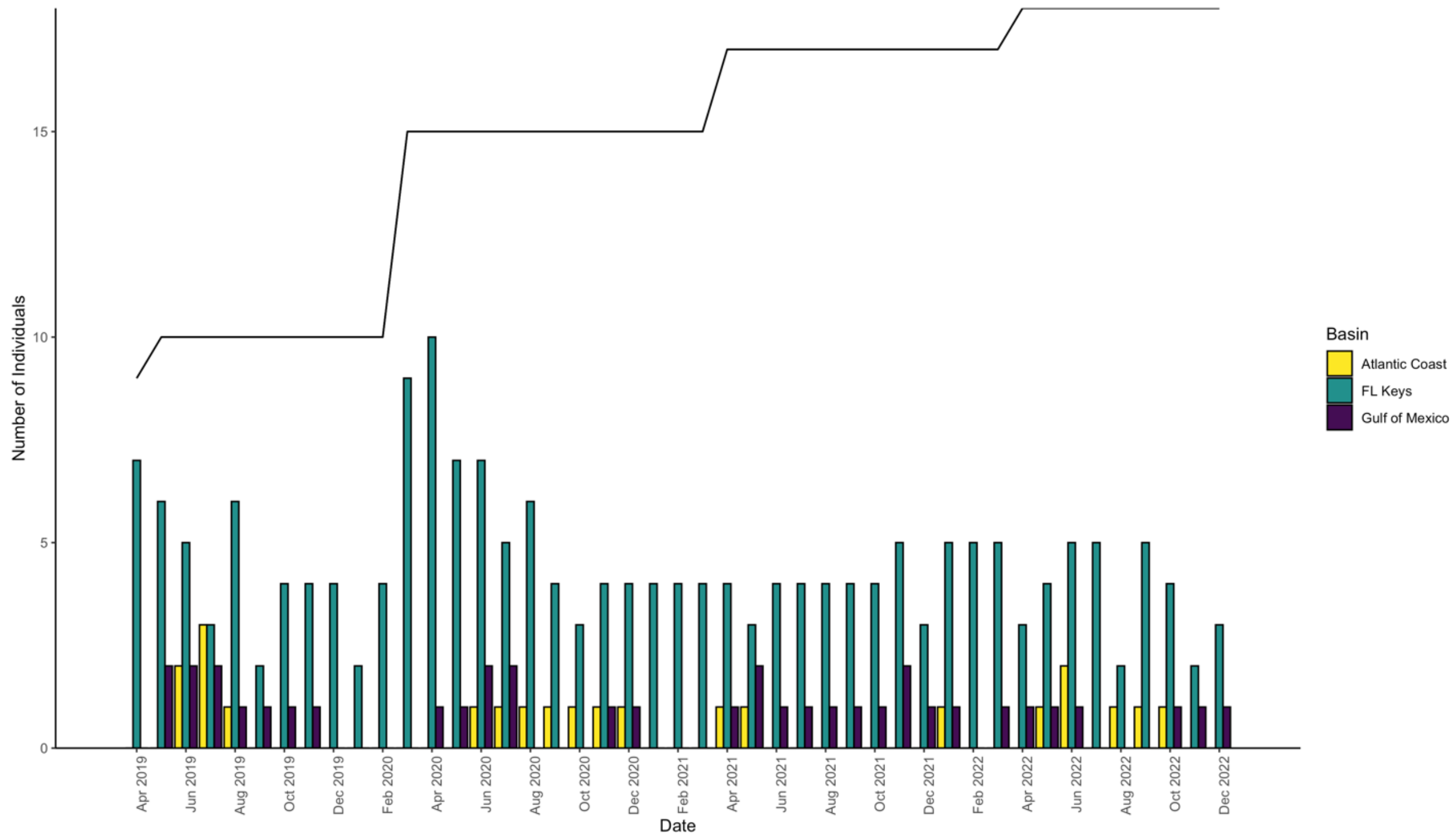
- Pop-up Satellite Archival Tags (PSAT)
- Movement corridors
- Movement contingents
- Relative habitat use

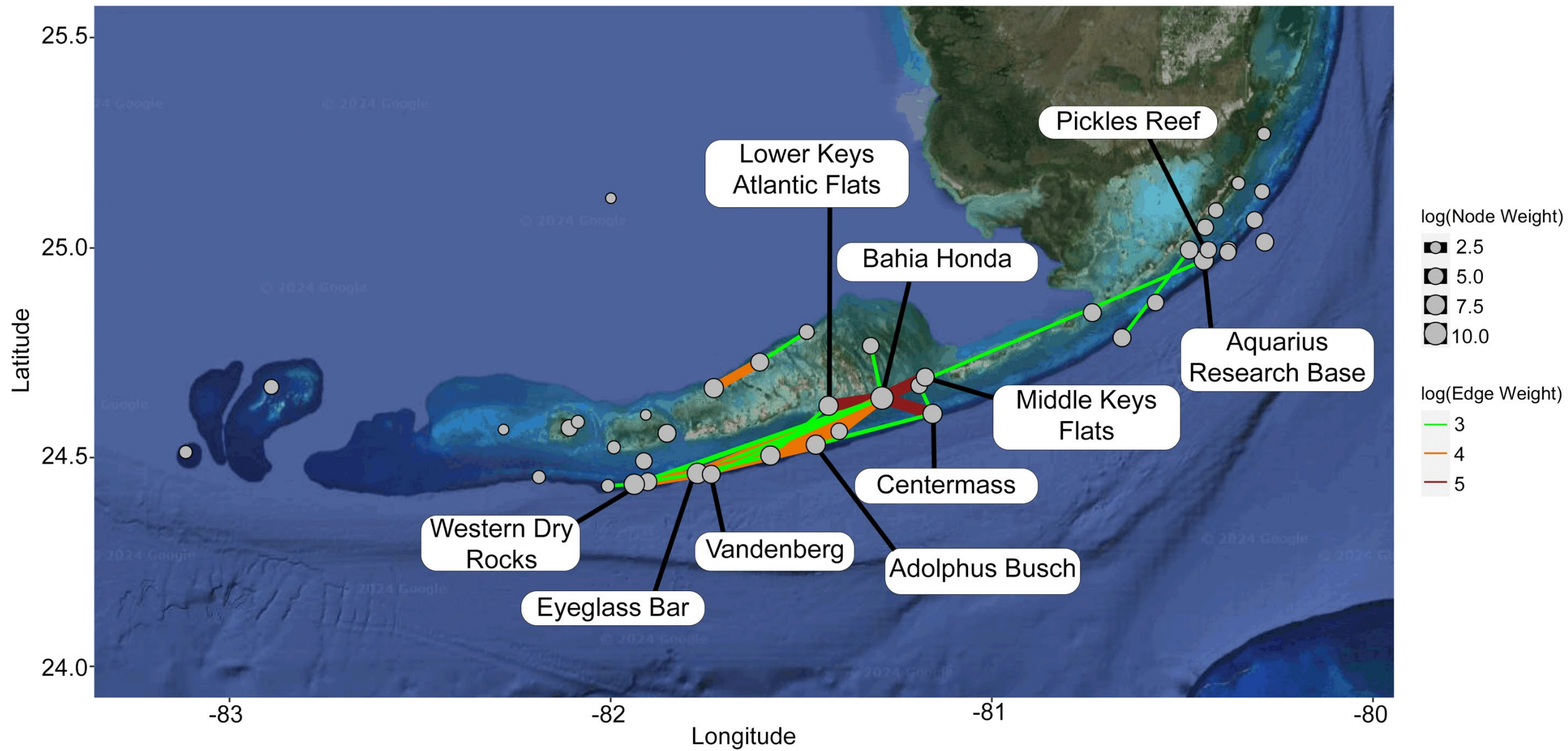
A photograph showing two researchers on a white boat, number 2200, tagging a large shark. The shark is suspended in the water by ropes. One researcher in a purple shirt is on the left, and another in a light blue shirt and cap is on the right, both focused on the shark. The boat has various equipment, including a red basket and a white cooler. The water is a deep green color.

Summary Data

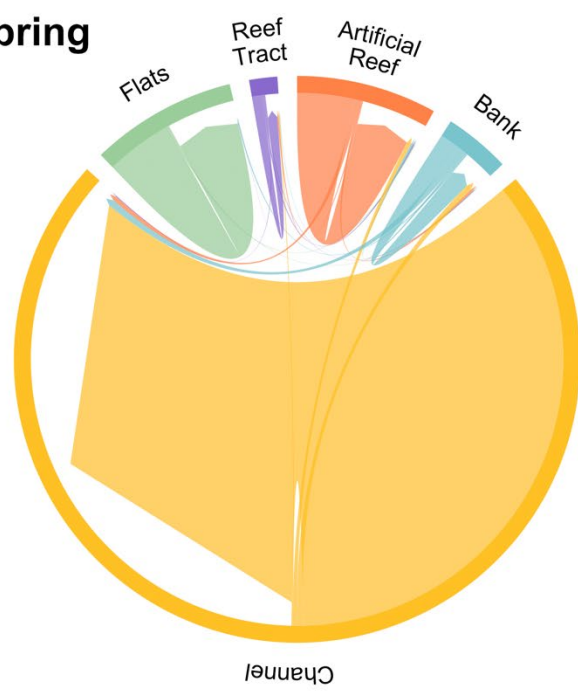
- 18 tagged, 15 included in analyses
- 5:1 female:male
- 207–331.5 cm FL, all mature
- April 10, 2019 – Dec. 31, 2022
- 18,338 detections



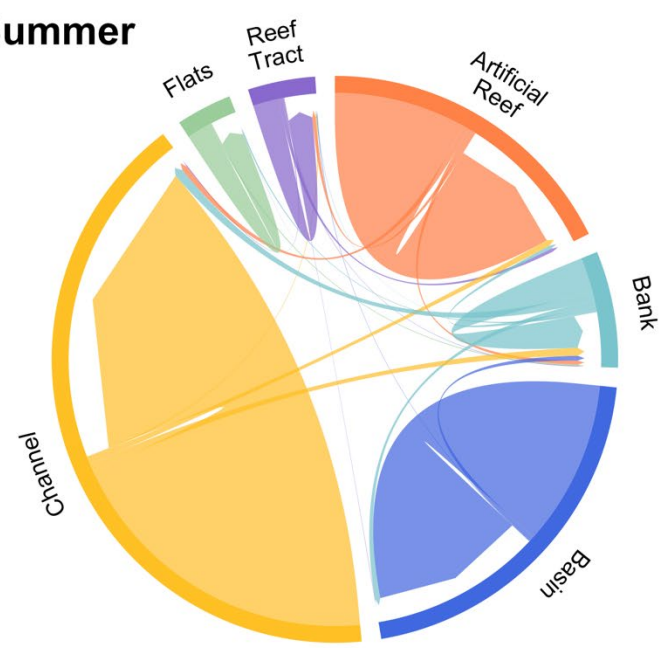




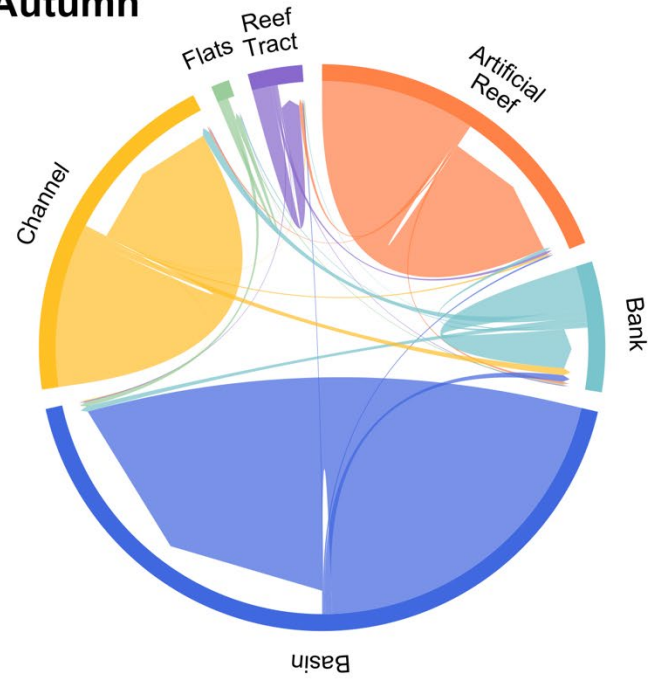
Spring



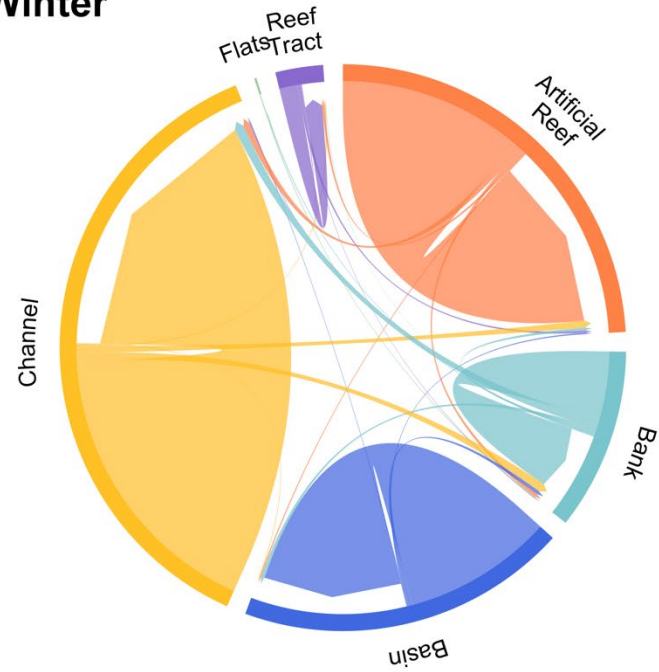
Summer

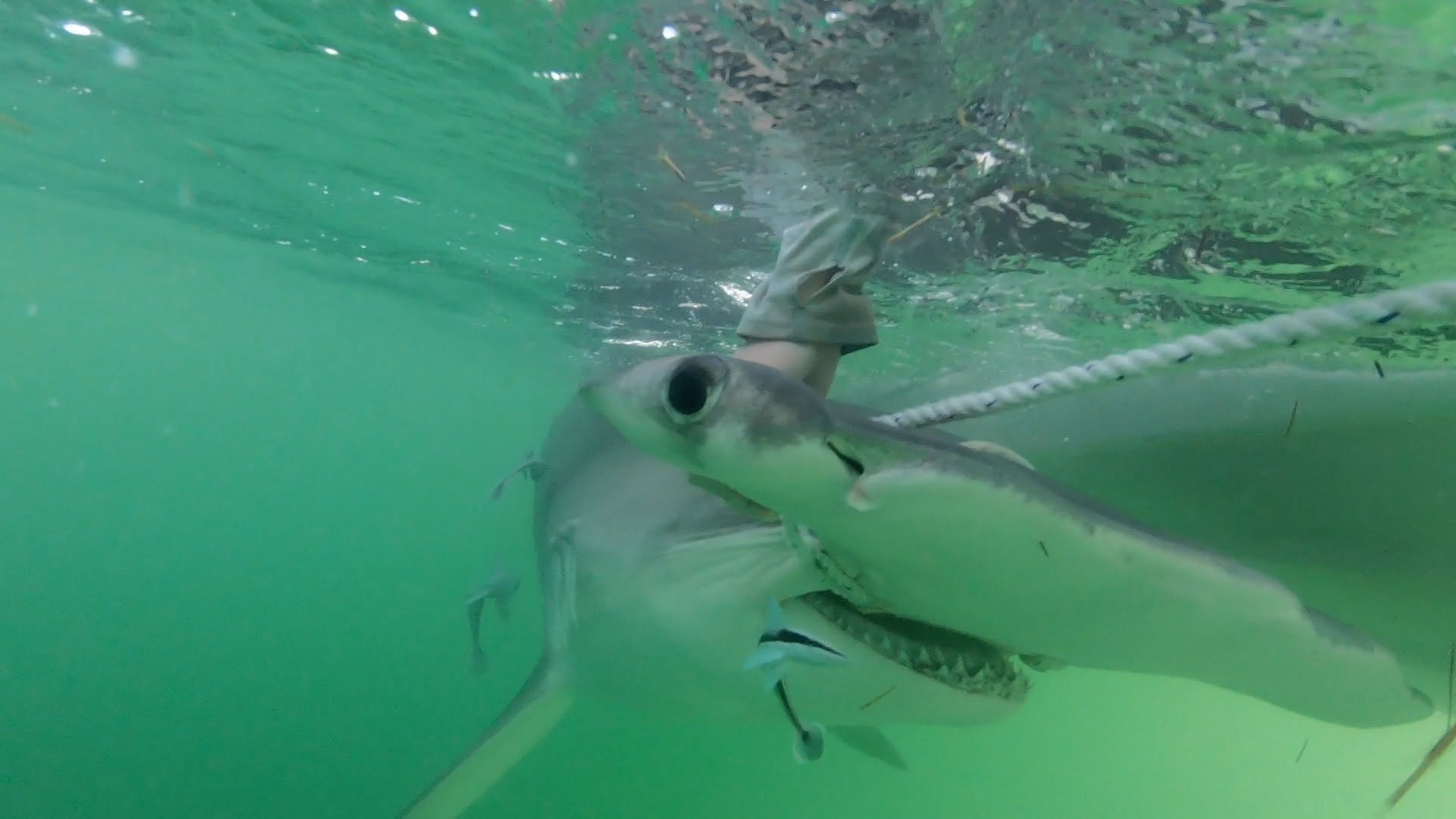


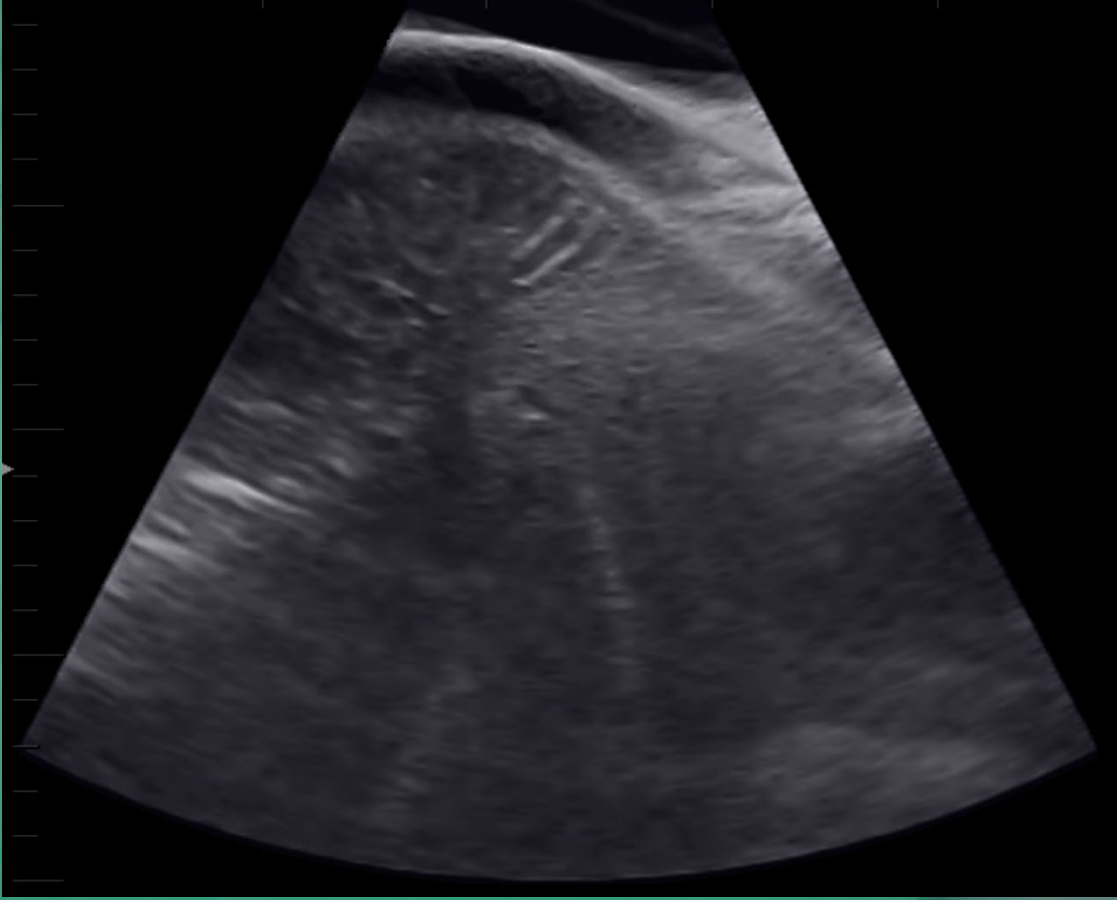
Autumn

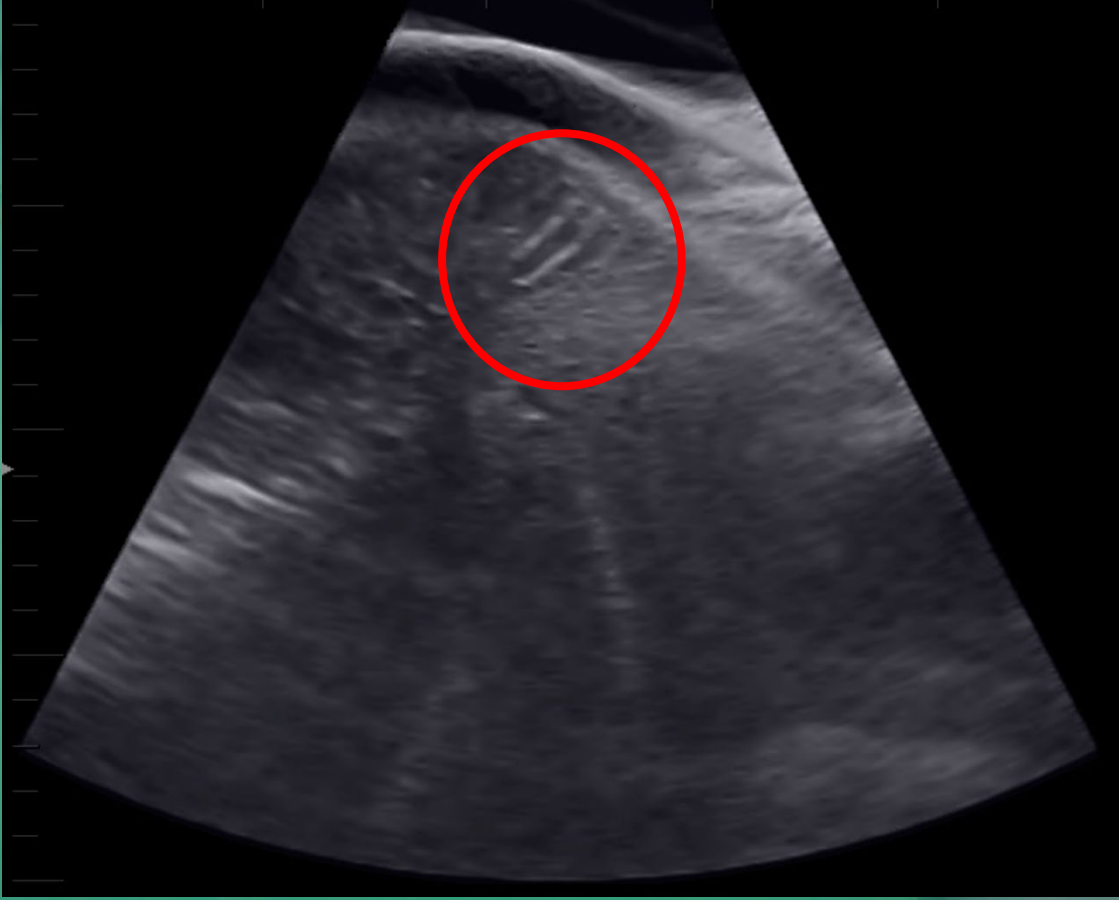


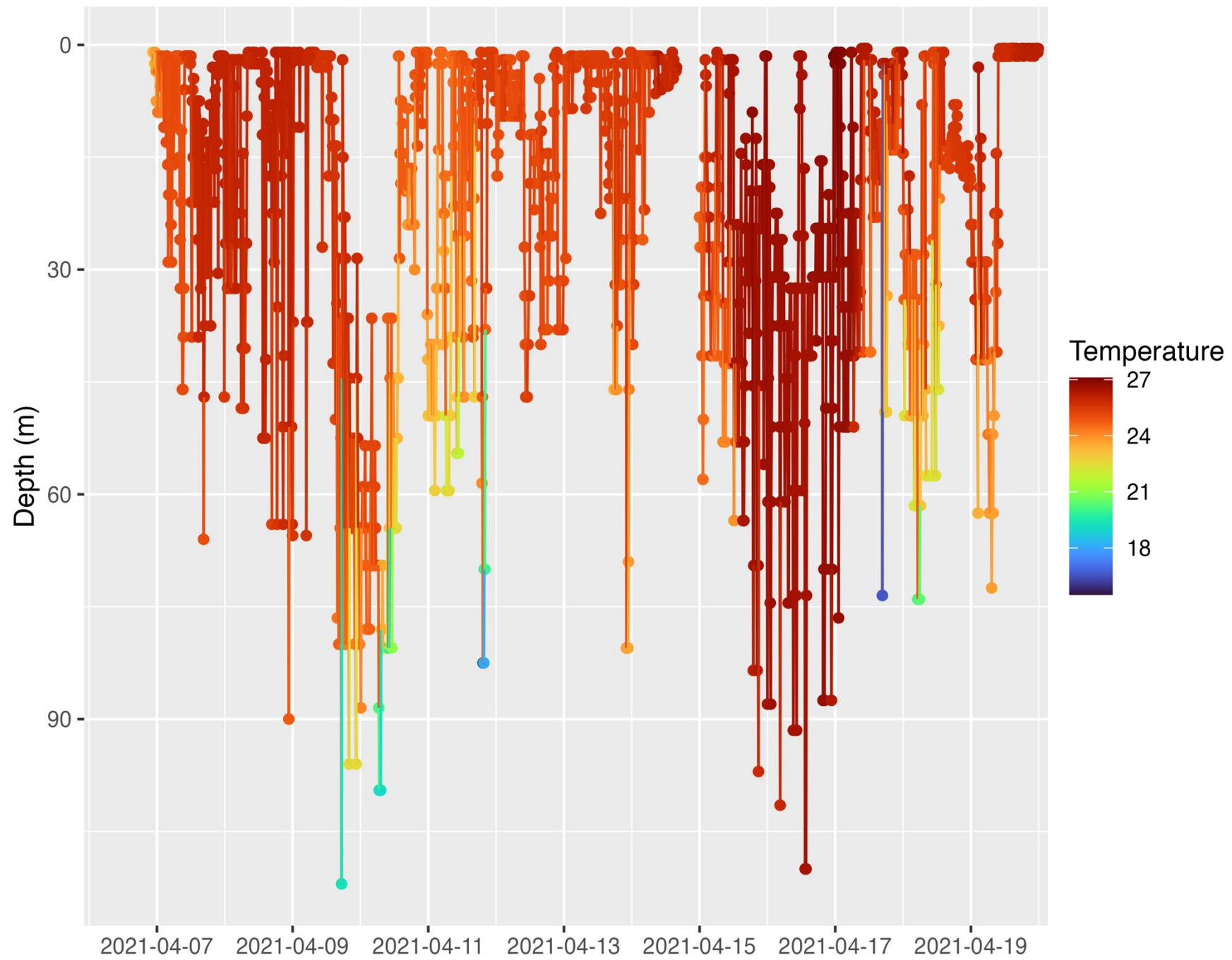
Winter













4/18/2021

Fowey Reef

4/7/2021

Seven Mile

Bahia Honda



Google Earth

Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

50 km





Fowey Reef

4/21/2021

Seven Mile

Bahia Honda

Google Earth

Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

50 km



A Great Hammerhead shark is being hoisted by a boat in the Florida Keys. The shark's head and upper body are visible above the water, with its characteristic wide, flat hammerhead shape. A thick rope is attached to the shark's head, and the boat's hull is visible in the upper right corner. The water is a deep blue-green color, and there is a splash of white water around the shark's head.

Great Hammerheads in the Florida Keys

- Highest residency spring and summer
- Partial migration



Great Hammerheads in the Florida Keys

- Highest residency spring and summer
- Partial migration
- Inshore channels → reef tract
- Shifts in prey distribution

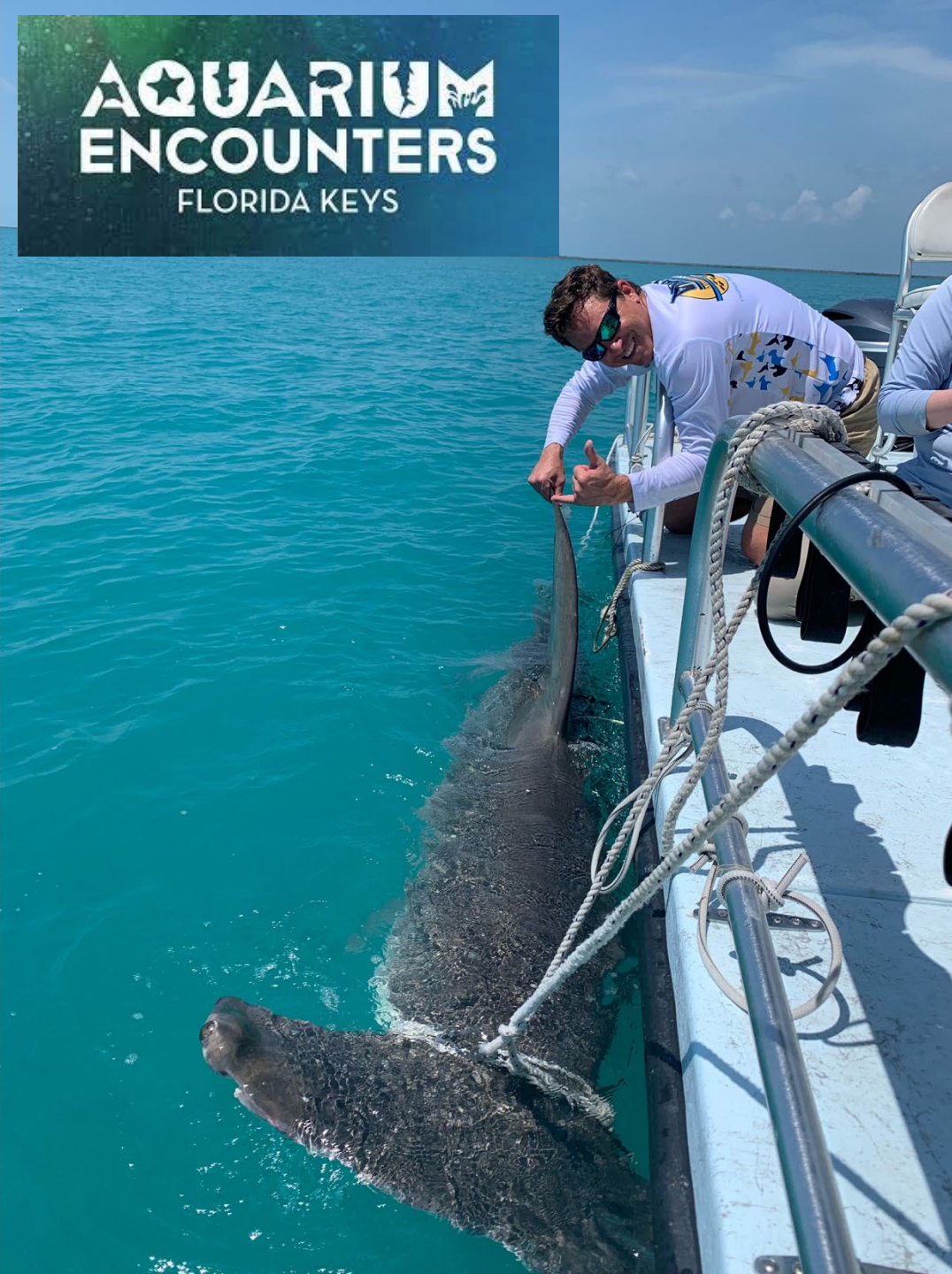
A large hammerhead shark is shown from a side profile, swimming towards the left. The water is a clear, light greenish-blue. The shark's head is broad and flat, with a prominent central snout. Its body is a lighter, yellowish-white color, contrasting with the darker water. The background is a solid, slightly darker greenish-blue.

Great Hammerheads in the Florida Keys

- Highest residency spring and summer
- Partial migration
- Inshore channels → reef tract
- Shifts in prey distribution
- Area of mixing for Atlantic and Gulf contingents
- Reproductive importance?

AQUARIUM ENCOUNTERS

FLORIDA KEYS



UMASS AMHERST



NATIONAL MARINE SANCTUARIES



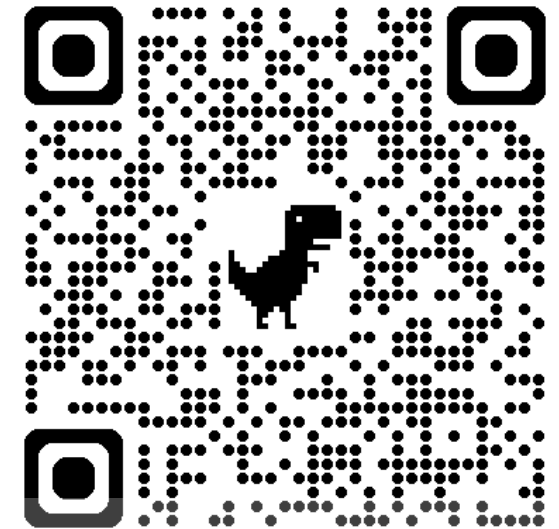
THE CURTIS & EDITH MUNSON FOUNDATION



PADI



OCEAN TRACKING NETWORK



Stay in touch!



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