The DaViT

Bridging the Gap to Open Data
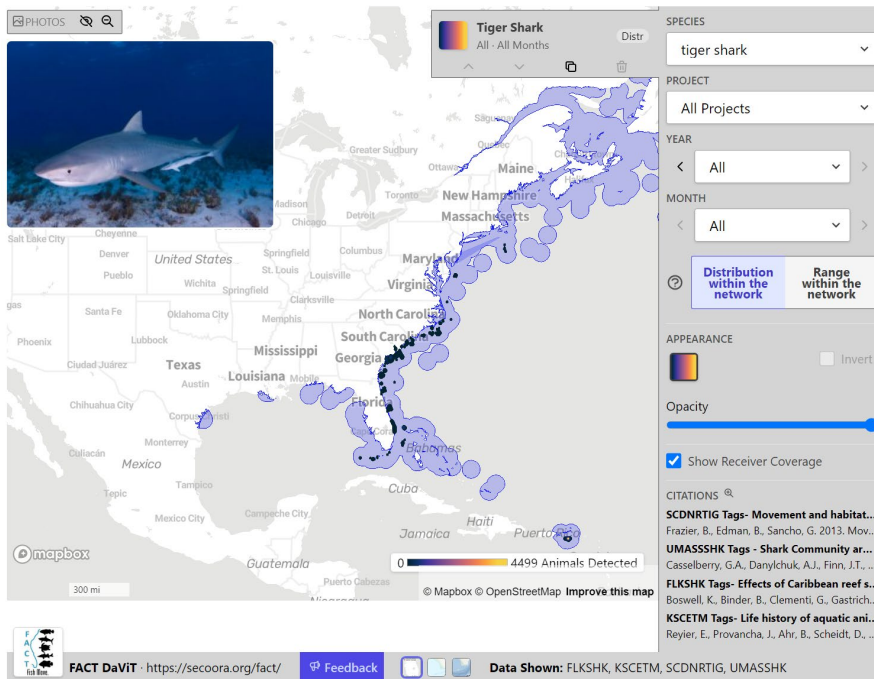
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U.S. Exclusive Economic Zone
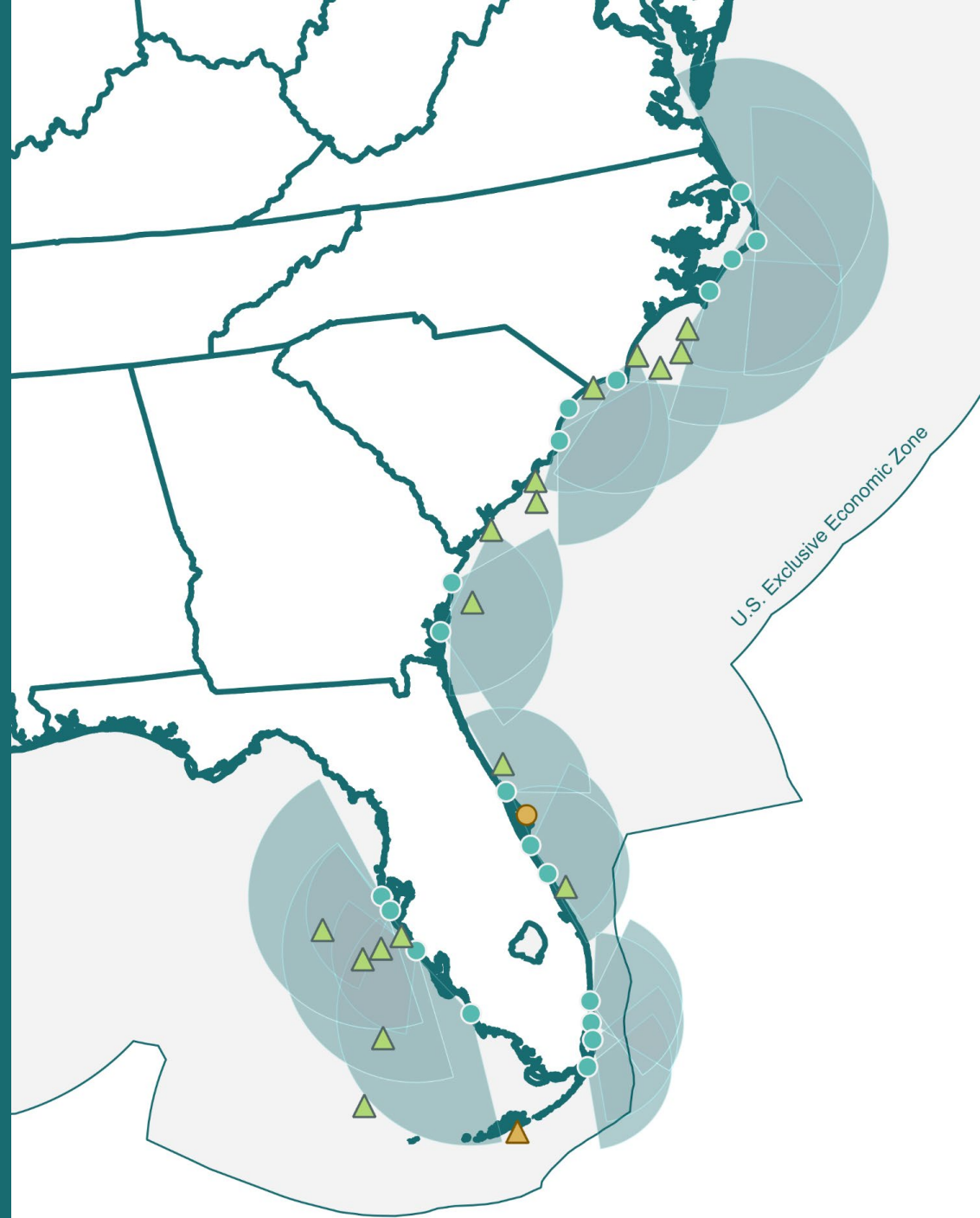
Overview – The DaViT

Data Visualization Tool (DaViT)
Choose species and timeframe to see the distribution and range of acoustically tagged animals!

FAQS
What is acoustic telemetry?
Acoustic telemetry uses sound to transmit information underwater. An animal is tagged with an acoustic transmitter which emits a sounds that is understood and decoded by a receiver which is submerged underwater

Goal: Transform animal observation data into information for the general public and natural resource managers.

What: Develop a dynamic online tool (web map) that enables users to explore and interact with information on the movements of fish and aquatic reptiles.

How: Leverage an existing aggregated database (FACT database) that is updated quarterly to fuel the web map.
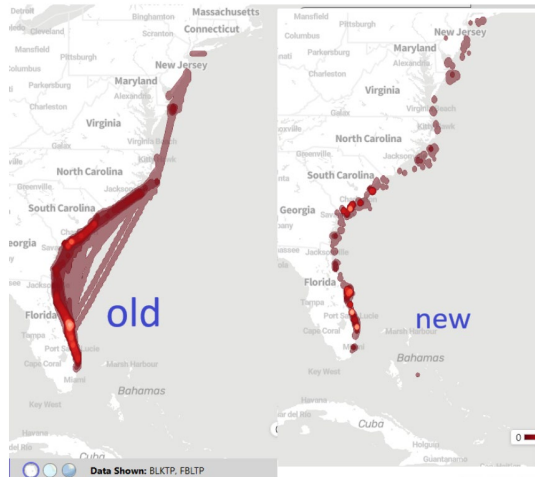
Summary: This tool utilizes average daily locations to determine distribution and range by species. It incorporates data from over **68 species** of fish, sea turtles, alligators, and conch from **71 projects**.

This approach not only enhances public engagement with marine biology but also supports natural resource managers in making decision informed decisions.
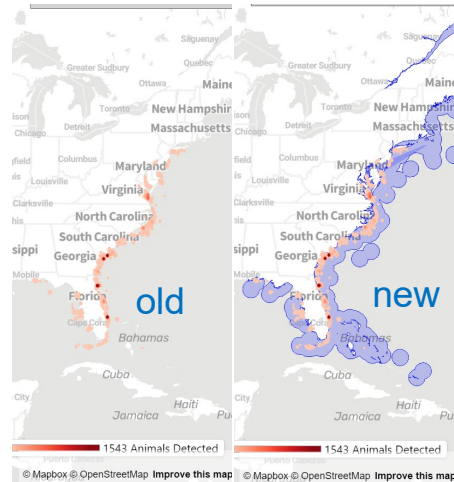
Co-Investigators:
Bonnie Ahr, The FACT Network
Jon Pye, Ocean Tracking Network
Robert Ellis, FWRI/FWCC

Danielle Morley, FWRI/FWCC
Beth Bowers, SERC
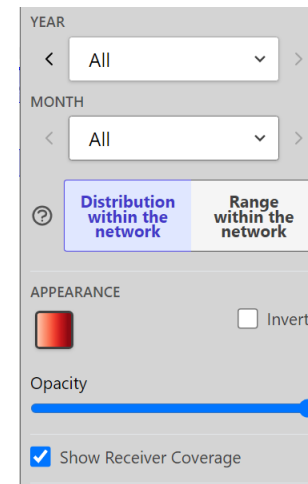
Accomplishments

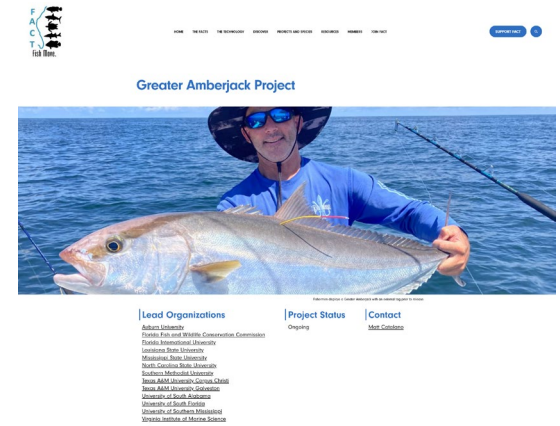### Reconfigured distribution

Receiver coverage map

Language updates

Additional project pages

- **Data Source Selection:** We've chosen the Ocean Biogeographic Information System (OBIS) to harvest animal information like home ranges. OBIS provides the most comprehensive coverage with minimal overhead.

- **QAQC System Enhancement:** We've adapted our Remora system to include QAQC flags. Testing is in progress, and updates will be implemented in the data release.

- **Increased Participation:** A recent email campaign has successfully added 12 new tag projects, significantly expanding our research efforts.

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https://secoora.org/fact/data-visualization-tool/

Looking Ahead

Current Grant Activities:

- **QAQC Implementation:** Integrating QAQC flags into the detection extraction process.
- **R Remora Package:** Containerizing the R Remora package in Jupyter notebooks for enhanced functionality.
- **Website Updates:** Pushing updates and functionality improvements to our website.
- **Home Range Display:** Deciding whether to include land features in home range displays.
- **Fixing Links:** Repairing links on project pages that broke during the website transition.

Future Funding Dependent Initiatives:

- **FACT Geoserver:** Planning to establish the FACT Geoserver for improved data sharing.
- **Network Integration:** Aiming to integrate with the Atlantic Cooperative Telemetry Network and adapt our workflows.
- **DaViT Accessibility:** Releasing the DaViT code to a public repository like GitHub for wider access.
- **Mobile Optimization:** Enhancing the website for better mobile device usability.

Scientists

DaViT

Public

Managers

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