Florida Atlantic Coast Telemetry (FACT) Array: A Working Partnership

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Background

Purpose: Use passive acoustic telemetry to document site fidelity, habitat preferences, seasonal migration patterns, and reproductive strategies of valuable sportfish, sharks, and marine turtles.

The Florida Atlantic Coast Telemetry (FACT) Array is a collaborative partnership of researchers that have found that by bundling resources, they can leverage a smaller investment to track highly important animals beyond a study area typically restrained in scale by funds and manpower.

FACT is guided by several simple rules:
• Contribute and use the same type of equipment
• When feasible locate receivers in areas that are beneficial to all researchers
• Maintain strong scientific ethics
• By recognizing that tag detection data on any receiver belongs to the tag owner
• Do not use other members detection data without permission
• Acknowledge FACT in publications

Project Overviews

Residency and Dispersal of Three Sportfish Species from a Coastal Marine Reserve

Movements and Population Exchanges of Common Snoek on the East Coast of Florida

Spatial and Temporal Dynamics of Nassa Grouper Spawning Aggregations in The Bahamas

Overview of receivers within the FACT array. Partners have access to a network of over 480 receivers deployed along a continuum of habitats from freshwater rivers to offshore reefs and covers ~1100 km of coastline from the Florida Keys and Bahamas north to South Carolina.

List of species ranked by number of tags deployed since 2008.

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Scientific Name</th>
<th>Tags</th>
<th>Species Name</th>
<th>Scientific Name</th>
<th>Tags</th>
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<tr>
<td>Atlantic Goliath Grouper</td>
<td>Epinephelus itajara</td>
<td>132</td>
<td>Lemon Shark</td>
<td>Negaprion brevirostris</td>
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<td>Blacktip Shark</td>
<td>Carcharhinus limbatus</td>
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<td>Caribbean Reef Shark</td>
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<td>Common Snook</td>
<td>Centropomus undecimalis</td>
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<td>Bull Shark</td>
<td>Carcharhinus leucas</td>
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<td>Gulf Kingcroaker</td>
<td>Aphomia cottus</td>
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<td>Ring Tailed Catshark</td>
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<td>Black Sea Bass</td>
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<td>Sandbar Shark</td>
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<td>Common Reelfish</td>
<td>Enchelyopus cimbrius</td>
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<td>Spanish Mackerel</td>
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<td>Hake</td>
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<td>Scabbard</td>
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<td>Atlantic Sturgeon</td>
<td>Acipenser brevirostrum</td>
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<td>Red Snapper</td>
<td>Lutjanus campechanus</td>
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<td>Black Grouper</td>
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<td>Red Drum</td>
<td>Sciaenops ocellatus</td>
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FAC Partners

• Bimini Biological Field Station Foundation
• Bureau of Ocean Energy Management
• Cape Eleuthera Institute
• CSA Ocean Sciences Inc
• Delaware State University
• East Coast Biologists
• Florida Atlantic University
• Florida Fish and Wildlife Conservation Comm (St. Petersburg, Marathon and Tequesta)
• Florida Institute of Technology
• Florida State University
• Georgia Department of Natural Resources
• Kennedy Space Center Ecological Program/InoMed Health Applications
• Loxahatchee River District, Florida
• Mote Marine Lab - Summerland Key TRL
• Naval Undersea Warfare Center
• NOAA, Gray’s Reef
• Ocean Tracking Network
• Riverhead Foundation
• Rosenstiel School of Marine and Atmospheric Sciences, University of Miami
• Savannah State University
• Shedd Aquarium
• South Carolina Department of Natural Resources
• Southeast Coastal Ocean Observing Regional Association (SECOORA)
• Stony Brook University
• University of Georgia
• University of North Florida
• University of Florida/Program for Shark Research
• USGS Gainesville and Miami

Summary

• Participants have access to over 480 receivers and have deployed over 2916 tags in over 60 species
• Large-scale movement patterns of highly mobile species have been expanded and better defined as a result of the FACT partnership
• Small-scale, localized movement and site fidelity patterns have been refined as a result of the FACT partnership
• FACT tagged species have been detected within other arrays and conversely animals from other arrays have been detected within FACT