2026 Integrated Tracking of Aquatic Animals in the Gulf conference

5th iTAG Conference: 14-15 April 2026

iTAGscience.com

Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute 100 8th Avenue Southeast, Saint Petersburg, Florida 33701

Theme: iTAG past and future

The 2026 iTAG Conference hosted 70 members of the integrated Tracking of Aquatic Animals in the Gulf (iTAG) network at the FWRI in St. Petersburg, Florida (Figure 1). Sponsored by Gulf of America Coastal Ocean Observing System (GCOOS) and Innovasea, the 1.5-day meeting brought together a diverse group of federal, state, and academic scientists, resource managers, and industry leaders (Appendix 1). iTAG Chair Dr. Sue Lowerre-Barbieri centered the meeting on the evolving role of telemetry in marine resource management utilizing a combination of keynote presentations, panel discussions, regional updates, industry seminars, and workshops. Guided by member feedback collected in fall 2025, the meeting emphasized strengthening connections between telemetry science and management decision-making, an area widely identified as critical for the field's continued growth and relevance. Key objectives of the meeting were to: (1) have presentations on telemetry data used to inform management; (2) review the current state of telemetry science in the Gulf and the role iTAG has played to-date as well as future opportunities to increase collaborative science; and (3) to invite a wide range of experts in telemetry, fisheries management, movement ecology, and ocean observing to provide input on how iTAG can help facilitate the use of telemetry data in management.

Keynote presentations by Dr. Clay Porch (Southeast Fisheries Science Center Director, NMFS), Dr. Tom Binder (Director, GLATOS), and Dr. Mike Dance (Associate Professor, LSU) framed telemetry not simply as a data collection tool, but as an asset with large potential in traditional fisheries management. These perspectives informed a high-level panel discussion featuring senior leadership across management, academia, and industry (see biographies in Appendix 2), including Dr. Andy Strelcheck (Southeast Regional Administrator, NMFS), Dr. Tom Frazer (Dean of College of Marine Science, USF), and Amy Brookman (Head of Fish Tracking, Innovasea). The discussion critically examined barriers to integrating movement data into management frameworks and identified pathways to increase its operational use.

A second panel extended this dialogue into future-facing applications, examining how telemetry can inform resilience-based management in the context of accelerating environmental change (see biographies in Appendix 2). The panel brought together an interdisciplinary group of experts spanning ocean observing systems, engineering, space-based technologies, and species conservation, including Dr. Gabrielle Canonico (US IOOS Marine Life Program), Dr. Gil Bohrer

(Environmental Engineer, The Ohio State University), Dr. Morgan Gilmour (NASA Internet of Animals), Dr. Nick Farmer (Species Conservation Branch Chief, NOAA), and Dr. Ted Switcher (Fisheries Independent Monitoring Lead, FWRI).

Dr. Luiz Barbieri (Program Administrator, FWRI) facilitated and challenged panelists to move beyond aspirational goals and identify the specific data, technological, and monitoring advances needed to position telemetry as a cornerstone of adaptive, resilience-oriented management. Collectively, both panels reinforced that advancing telemetry from observation to decision support will require sustained collaboration with managers and across disciplines and institutions.

In addition to the panel discussions, there was an afternoon session with presentations on telemetry around the Gulf, including all of the U.S. states and the Bahamas and Caribbean. These synthesis presentations included summary slides from iTAG member labs conducting telemetry research within the given area. These talks filled several needs, including: a means to introduce everyone and their research to others at the meeting, as well as to provide a snapshot of array coverage, focal species, and future areas of research. This allowed researchers to easily connect their interests with others conducting similar work throughout the region. Strong sponsor support enabled attendees to further connect outside of formal program to an off-site social gathering the evening between conference day sessions. This event provided an informal but meaningful venue for strengthening professional connections and fostering collaboration across institutions and disciplines.

The second day of the meeting focused on active engagement via trainings, seminars, and a breakout session. Participants were provided with the opportunity to conduct hands-on training to familiarize themselves with the new OTN node platform, as well as Innovasea's new Fathom software. The last part of the meeting was spent in breakout sessions grouped by region (South Florida, North Florida, Northern Gulf, and Texas). Each group was provided with a template slide that included a map of current receiver coverage in their region and a request to identify important coverage gaps, challenges in filling those gaps, and how filling those gaps could help address management needs. Representatives then presented these results to the larger group. A brief Mentimeter audience survey was conducted. Key results were that 97% of respondents felt the meeting met or exceeded their expectations and members were interested in iTAG further developing: regional leadership teams, publication and social media coordination, greater opportunities for collaborative science, and helping facilitate Gulf-wide resources and support.

The 2026 iTAG Conference set the stage for the future of iTAG—shifting from small scale information exchange toward strategic alignment. By convening leading voices across science, management, and technology, and by creating space for interactive dialogue and skill-building, the meeting advanced a shared vision of positioning telemetry as a critical, actionable management tool. Additional information about the meeting can be found here: https://itagscience.com/meetings/

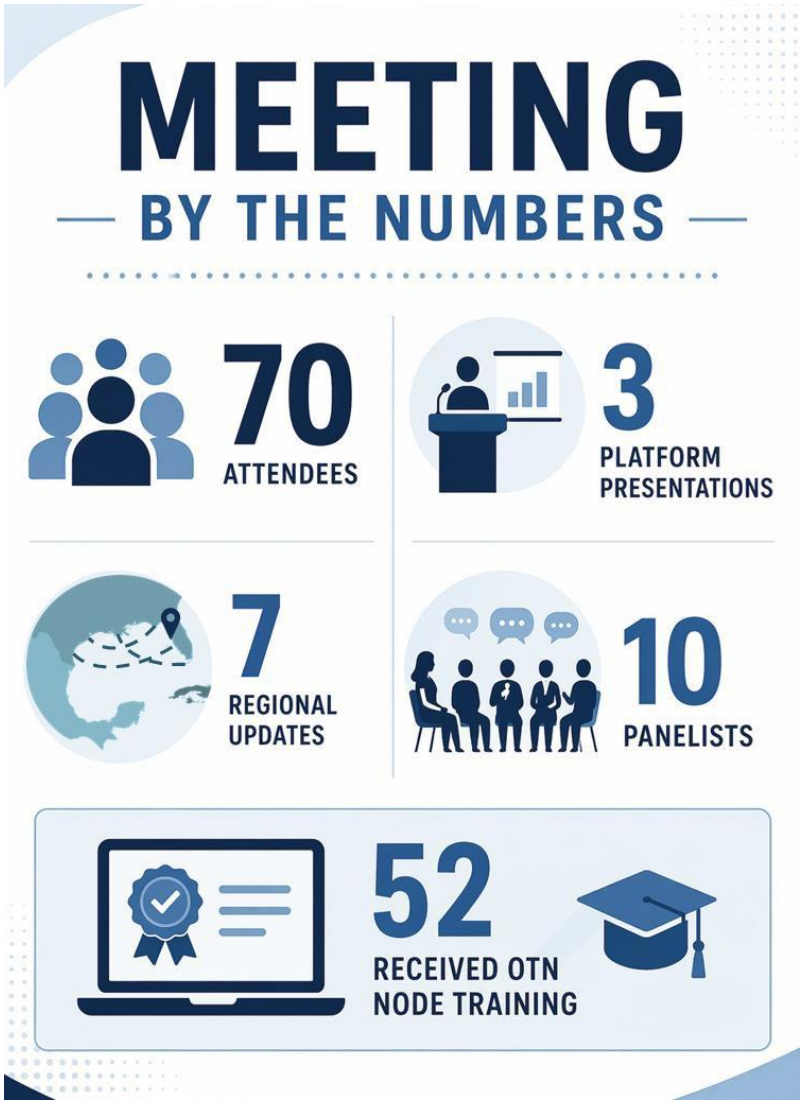

Figure 1. A synthesis of attendees and participation.

Appendix 1. Attendees

Attendee	Organization	State
Aaron Adams	Bonefish and Tarpon Trust	Florida
Adam Brame	National Oceanic and Atmospheric Administration	Florida
Alena Anderson	Mississippi State University	Mississippi
Alex Famigletti	Florida Fish and Wildlife - Movement Ecology and Reproductive Resilience Lab	Florida
Alex Fogg	Destin-Fort Walton Beach, Natural Resources	Florida
Alexis Trotter	Florida Fish and Wildlife - Fish Biology Lab	Florida
Allison Durland Donahou	Florida Southern College	Florida
Ally Draime	Bimini Biological Field Station - Shark Lab	Bimini
Ally Jones	University of South Florida - Griffin Lab	Florida
Amanda Mattair	Florida Fish and Wildlife - Garcon Point Aquatic Research Center	Florida
Amy Brookman	Innovasea	Halifax
Andrew Wooley	Florida Fish and Wildlife - Charlotte Harbor Lab	Florida
Andy Strelcheck	National Oceanic and Atmospheric Administration	Florida
Ari Rojas Corzo	Florida Atlantic University - Harbor Branch	Florida
Ashley Baer	Baton Rouge Fish and Wildlife Conservation Office	Louisiana
Ashley Dawdy	Florida State University	Florida
Brian Moe	Florida State University / Florida Fish and Wildlife	Florida
Cameron Atkinson	Florida International University	Florida
Cara Estes	Moore Marine College	Florida
Clay Porch	National Oceanic and Atmospheric Administration	Florida
Conrad Pfalzgraf	Mississippi State University	Mississippi
Daniel Coffey	Texas A&M University -Movement Ecology Lab	Texas
Danielle Morley	Florida Fish and Wildlife - South Florida Regional Lab	Florida
Dustin Addis	Florida Fish and Wildlife - Stock Assessment	Florida
Dylan Kiene	University of S. Alabama - Dauphin Island	Alabama
Elizabeth Berens McCabe	Brookfield Zoo Chicago's Sarasota Dolphin Research Program	Florida
Emma Jackson	Florida State University	Florida
Ethan Getz	Texas Parks and Wildlife - Upper Laguna Madre	Texas
Gabrielle Canonico	US IOOS Marine Life Program	Maryland
Grace Kim	Moore Marine College	Florida
Gil Bohrer	Ohio State University	Ohio
Gregg Poulakis	Florida Fish and Wildlife - Charlotte Harbor Lab	Florida
Hannah Gottesman	University of Florida / Florida Fish and Wildlife-MERR Lab	Florida
Hayden Staley	Florida Fish and Wildlife / University of Florida-MERR Lab	Florida
Heather Broadbent	University of South Florida - Glider Lab	Florida
Isabelle Cummings	Texas Parks and Wildlife	Texas

Jake Beretta	Florida State University	Florida
Jake Kelley	University of South Florida - Griffin Lab	Florida
Jamie Wiliams	Florida Fish and Wildlife - Fish Biology Lab	Florida
Jesse Secord	Florida Fish and Wildlife - South Florida Regional Lab	Florida
Jessica Keller	University of Florida / Florida Fish and Wildlife-MERR Lab	Florida
Jim Locascio	Mote Marine	Florida
Joel Bickford	Florida Fish and Wildlife - Movement Ecology and Reproductive Resilience Lab	Florida
Kara Wall	Florida Fish and Wildlife - Movement Ecology and Reproductive Resilience Lab	Florida
Kayla Kelley	University of South Florida - Griffin Lab	Florida
Kim Bassos-Hull	Mote Marine Laboratory	Florida
Krystan Wilkinson	Brookfield Zoo Chicago's Sarasota Dolphin Research Program	Florida
Kyle Williams	Florida Fish and Wildlife / University of Florida	Florida
Laini Potter	Rookery Bay National Estuarine Research Reserve	Florida
Landes Randall	Texas A&M University-Gulf Research Institute for Highly Migratory Species	Texas
Lucas Griffin	University of South Florida - Griffin Lab	Florida
Luiz Barbieri	Florida Fish and Wildlife Leadership	Florida
Luiza Chelotti	Universidade Federal de Santa Maria / University of South Florida	Santos
Maelle Cornic	Louisiana State University - Baton Rouge	Louisiana
Maria Alejandra Herrera	Florida International University	Florida
Matt Streich	Center for Sportfish Science and Conservation	Texas
Matthew Smukall	Bimini Biological Field Station - Shark Lab	Bimini
Michael Andres	University of Southern Mississippi - Estuarine and Movement Ecology Lab	Mississippi
Mike Dance	Louisiana State University	Louisiana
Morgan Gilmour	NASA, Internet of Animals	California
Nick Farmer	National Oceanic and Atmospheric Administration	Florida
Philip Stevens	Florida Fish and Wildlife - Fish Biology Lab	Florida
Robbie Lamb	University of Florida	Florida
Sarah Walters Burnsed	Florida Fish and Wildlife - Movement Ecology and Reproductive Resilience Lab	Florida
Stephanie Smedbol	Innovasea	Halifax
Sue Lowerre-Barbieri	University of Florida / Florida Fish and Wildlife-MERR Lab	Florida
Ted Switzer	Florida Fish and Wildlife - Fisheries Independent Monitoring Program	Florida
Tom Binder	Great Lakes Acoustic Telemetry Observation System (GLATOS)	Michigan
Tom Frazer	University of South Florida	Florida
Vicenç Moltó Seguí	Mediterranean Institute of Advanced Studies / Florida Fish and Wildlife	Florida

Appendix 2 Biographies

Panelists participating in panel 1: Current use of movement data in traditional fisheries management: Potential and limitations

Amy Brookman is the General Manager of Fish Tracking at Innovasea, where she leads the team responsible for global fish tracking operations and the delivery of advanced acoustic telemetry and AI powered monitoring solutions for fisheries research and management. With more than a decade of experience in fish tracking technology, she works closely with the research community to ensure these tools are applied effectively at scale, while helping guide priorities and envision the next generation of tracking capabilities.

Andy Strelcheck is the Regional Administrator of NOAA Fisheries Southeast Regional Office, which oversees conservation and management of federally managed fisheries, protected resources, and habitat in the Southeast U.S., Puerto Rico, and the U.S. Virgin Islands. Prior to becoming the Regional Administrator, he served as the Deputy Regional Administrator of NOAA Fisheries' Southeast Regional Office from March 2015-August 2021. He began his career with NOAA Fisheries in 2004 as a fishery biologist, and from 2008-2015 served as Chief of the Limited Access Privilege Programs Data Management Branch. In this capacity, he oversaw commercial catch share programs and analytical work used to support management decisions made by three regional fishery management councils. Prior to NOAA, Dr. Strelcheck worked as a biological scientist for the Florida Fish and Wildlife Conservation Commission. He earned his bachelor's degree in biological science from Florida State University, and a master's in marine science from the University of South Alabama, where he studied reef fish dynamics on artificial reefs using conventional tagging methods.

Clay Porch is the Science and Research Director of the Southeast Fisheries Science Center (SEFSC) in Miami, Florida. He received his Ph.D. in Marine Biology and Fisheries from the University of Miami's Rosenstiel School, where his research focused on simulating larval drift patterns off southeast Florida. He began his career at NOAA fisheries in 1993 as a stock assessment scientist and has since been involved in the assessments of dozens of species ranging from reef fishes on remote Caribbean islands to Internationally Managed Atlantic highly migratory species like swordfish and bluefin tuna. Prior to accepting his current role, he was Director of the Sustainable Division at the SEFSC, where he supervised the stock assessments and research conducted for most of the Federally-managed species in the Southeastern United States as well as for the highly migratory species managed by ICCAT.

Tom Binder is the Director of the Great Lakes Acoustic Telemetry Observation System (GLATOS). He earned his M.Sc. and Ph.D. from the University of Guelph, ON and has been a fisheries researcher for over 20 years. His primary research focus is the movement ecology and behavior of Great Lakes fishes. Dr. Binder was a founding member of the GLATOS network and has been an avid acoustic telemetry practitioner since 2010.

Thomas K. Frazer is a Professor and Dean of the College of Marine Science at the University of South Florida. Prior to his arrival at USF, Dr. Frazer was Director of the School of Natural Resources and Environment at the University of Florida and served also as Chief Science Officer for the State of Florida. Dr. Frazer holds a Bachelor's Degree in Fisheries Biology from Humboldt State University and a Master's Degree in Fisheries and Aquatic Sciences from the University of Florida. He earned his Ph.D. in Biological Sciences from the University of California, Santa Barbara. He has conducted field research in both freshwater and marine systems around the globe, and he is intimately familiar with a broad suite of oceanographic, environmental and natural resource issues. Dr. Frazer has authored and/or co-authored more than 200

peer-reviewed publications, technical reports, and book chapters. He is a past member (and past Chair) of the Gulf of Mexico Fishery Management Council and currently serves on the Council's Scientific and Statistical Committee. He is an appointed member of the Florida Environmental Regulation Commission and an elected member of the Academy of Science, Engineering and Medicine of Florida

Panelists participating in panel 2: Future use of movement data to manage for resilience: Data, technology, and monitoring needs

Gabrielle Canonico is the Marine Life Program Manager for the U.S. Integrated Ocean Observing System (U.S. IOOS), based in NOAA, and the federal lead for the US Marine Biodiversity Observation Network and US Animal Telemetry Network. Her focus is integration of biological observing data and capability into U.S. IOOS and the Global Ocean Observing System, development of information products to ensure availability of marine life observations for resource managers and the public, and advancing efforts to ensure sustained monitoring of marine life and biodiversity.

Gil Bohrer is a professor in the Department of Civil, Environmental and Geodetic Engineering (CEGE) at Ohio State University (OSU). Dr. Bohrer holds bachelor's and master's degrees from Ben Gurion University, Isreal in Life Sciences and a PhD from Duke University in Civil and Environmental Engineering. He has been working on modeling animal movement, using an array of tools. He has developed formulations for proxies of uplift in the atmosphere from weather model data, and interpretation of atmospheric conditions from data of flying raptors. He has been working with Movebank.org on developing the Env-DATA tools for merging animal location and movement data with environmental data layers from remote sensing, weather models, and GIS databases. He is currently developing the ECODATA software toolkit for data processing and GUI0based design of animation movies of animal movement with background environmental conditions.

Morgan Gilmour is a Research Scientist with the Internet of Animals (IOA) project at NASA Ames Research Center in California. The IOA project aims to advance Earth system remote sensing and modeling via new modalities, which include developing new biologging tags to support biodiversity research and integrating sensors with biologgers that collect in-situ ambient environmental data that can be used for calibrating and validating NASA's satellite remote sensing products. Morgan also integrates biologging data with remote sensing to characterize animals' habitats and quantify conservation efforts like the efficacy of marine protected areas. Morgan's background is in marine ecology and she was trained as a seabird biologist but has recently worked on several yellowfin tuna satellite tracking projects in the Pacific Ocean.

Nick Farmer is the Chief of Species Conservation for the Protected Resources Division at NOAA Fisheries Southeast Regional Office. He earned his earned his Ph.D. in Marine Biology and Fisheries from the University of Miami in 2009. His research interests focus on the intersection of science and management policy. His research collaborations include: fisheries catch forecasting; acoustic monitoring of reef fish spawning aggregations; fishery-independent monitoring of reef fish populations; species distribution models for reef fish and protected species; behavioral response and population consequences of multiple stressors for endangered cetaceans; queen conch reproductive dynamics; and acoustic and satellite tracking of reef fish, manta rays, sturgeon, and smalltooth sawfish. Recent Awards: DOC Gold (2023, 2019), DOC Bronze (2023, 2021), NOAA Administrators Award (2024,2016)

Ted Switzer leads Florida's statewide marine fisheries independent monitoring program, which conducts routine surveys from estuarine to outer shelf waters on both the Gulf and Atlantic coast. He earned his PhD in 2003 from Louisiana State University.

The primary objectives of his program are to support fisheries assessment and management by quantifying temporal and spatial trends in abundance, size composition, distribution, and overall assemblage structure. In doing so, his team also works to relate observed patterns to key drivers including environmental factors, habitat, fishing pressure, and stressors such as red tide. Information provided by broad- and fine-scale telemetry studies have the potential to improve the accuracy and precision of key data products provided by this program by better understanding potential gear biases and space use of focal species across space and time.