

TENTATIVE AGENDA



FLORIDA KEYS
MARINE SCIENCE CONFERENCE & WORKSHOP

October 27–30, 2025

Coral Springs, FL

<https://conference.ifas.ufl.edu/floridakeys/>

The Florida Keys are one of the most iconic places in the United States. Not only are the islands themselves rich with culture and natural beauty, but the Florida Keys region serves as a biodiversity hotspot, supporting life stages for numerous marine organisms, including nurseries to spawning grounds. The area also supports economically valuable recreational and commercial fisheries, which contribute hundreds of millions of dollars annually to the local and statewide economy.

This marine ecosystem is grappling with a combination of stressors, including marine heat waves, habitat degradation, pollution, and intense resource use, leading to significant ecosystem-wide shifts. These changes include widespread sponge die-offs, coral losses driven by bleaching and disease, eutrophication caused by non-point source pollution, and fish kills linked to harmful algal blooms and extreme heat events. These impacts jeopardize not only the ecological health of the region but also the sustainability of its culturally and economically vital fisheries.

The Florida Keys Marine Science Conference and Workshop unites scientists, natural resource managers, resource users and other interested parties to assess the current state of the ecosystem and engage in meaningful discussions about future research, management, and restoration priorities. As the largest gathering in a decade focused exclusively on the Florida Keys Marine Ecosystem, it offers a unique opportunity to expand collaboration and work collectively toward achieving the best outcomes for the Florida Keys marine environment.

Join us and be a part of the conversation.

Monday, October 27, 2025

4:00 PM - 6:30 PM	Conference Registration Opens Sponsors/Exhibitors and GROUP 1 Poster Presenters Move-In Displays
5:00 PM - 6:30 PM	Welcome & Networking Social

Tuesday, October 28, 2025

7:00 AM - 5:00 PM	Conference Registration Open
7:30 AM - 8:15 AM	Morning Refreshments in Exhibit and Poster Hall
8:15 AM - 10:00 AM	<p>Opening Plenary – Setting the Stage (Grand Floridian Ballroom)</p> <p><u>Welcome and Opening Remarks</u> 8:15 am - Danielle Morley, Conference Chair, Research Administrator I Florida Fish and Wildlife Conservation Commission, Marathon, Florida</p> <p><u>Speaker Presentations</u> 8:25 am - Dr. Steve Gittings, Retired Science Coordinator, NOAA Office of National Marine Sanctuaries, Dayton, MD</p> <p>9:05 am - Dr. Mark J. Butler IV, Professor and Eminent Scholar - Retired, Newfound Harbor Marine Institute, Big Pine Key, FL</p> <p>9:30 am - Dr. James W. Fourqurean, Distinguished University Professor and Director of the Coastlines and Oceans Division Florida International University – Institute of Environment, North Miami, FL</p> <p>9:50 am - Q&A</p>
10:00AM - 10:30AM	Refreshment Break in Exhibit and Poster Hall

Tuesday, October 28, 2025		
	CONCURRENT SESSIONS - 10:30 AM - 12:00 PM	
	SESSION 1	SESSION 2
	Grand Cypress	Royal Poinciana
	Understanding Changes in Coral Community Structure and Function Over Time	Assessing Shifting Dynamics in Fish and Fisheries Management
	Kimberly Ritchie University of South Carolina, Beaufort, South Carolina	Danielle Morley Florida Fish and Wildlife Research Institute, Marathon, Florida
10:30 AM	Opening Remarks	Opening Remarks
10:35 AM	The National Coral Reef Monitoring Program's Environmental Monitoring in the Florida Keys National Marine Sanctuary Nicole Besemer NOAA/Atlantic Oceanographic and Meteorological Laboratory, Miami, Florida	Multidecadal Analysis of Fish Community Change Across the Florida Keys Reef Tract Dakota Lewis University of Florida, Gainesville, Florida
10:50 AM	The Boom and Bust of Coral Reef Accretion Potential Associated with Restoration and Coral Bleaching Dr. Lauren Toth US Geological Survey, St. Petersburg, Florida	Length-Based Risk Analysis of Management Options for the Southern Florida USA Multispecies Coral Reef Fishery Dr. Jerald Ault University of Miami, Miami, Florida
11:05 AM	Octocoral Population Response and Recovery to Reef Disturbances Lindsay Huebner University of Miami Cooperative Institute for Marine and Atmospheric Science, Miami, Florida	Decades of Dedication: Fish Spawning Aggregation Research in the Florida Keys Danielle Morley Florida Fish and Wildlife Conservation Commission/Fish and Wildlife Research Institute, Marathon, Florida
11:20 AM	Assessing the Long-Term Growth and Survival of Boulder Corals Outplanted in the Florida Keys Dr. Lindsay Spiers Florida Fish and Wildlife Conservation Commission, Marathon, Florida	Integrated Science for Atlantic Tarpon Conservation in the Florida Keys Dr. Lucas Griffin University of South Florida, Tampa, Florida
11:35 AM	The Last Genotypes: Elkhorn Coral Demography, Genotypic Diversity, and Restoration in Florida Dr. Mark Ladd NOAA/Southeast Fisheries Science Center, Miami, Florida	Incorporating Mutton Snapper Spawning Aggregation Data Reveals Differential Estimates of Biological and Behavioral Reproductive Size-at-Maturity Jesse Secord+D44 Florida Fish and Wildlife Conservation Commission, Marathon, Florida
11:50 AM	Discussion Period	Discussion Period
12:00PM - 1:30PM	Networking Lunch Buffet for Attendees	

Tuesday, October 28, 2025		
	CONCURRENT SESSIONS - 1:30 PM - 3:00 PM	
	SESSION 3	SESSION 4
	Grand Cypress	Royal Poinciana
	Science for Species at Risk: Research on Imperiled Wildlife in the Region	Shifts and Strategies for Seagrass, Sponges, and Nearshore Hardbottom Habitats
	Dr. Kristen Hart US Geological Survey, Davie, Florida	Shelly Krueger Florida Sea Grant/University of Florida, Key West, Florida
1:30 PM	Opening Remarks	Opening Remarks
1:35 PM	Biodiversity Hotspots of Satellite-Tracked Marine Turtles in the Florida Keys National Marine Sanctuary Dr. Kristen Hart US Geological Survey, Davie, Florida	The Potential of South Florida Seagrass Meadows as Natural Climate Solutions Dr. Johannes Krause Florida International University, Miami, Florida
1:50 PM	Smalltooth Sawfish: 15 Years of Research to Promote Recovery of a Critically Endangered Species Dr. Dean Grubbs Florida State University Coastal and Marine Laboratory, St. Teresa, Florida	What Happens in Florida Bay Does Not Stay in Florida Bay: Seagrass Die-Off Under Climate Change Dr. Marguerite Koch Florida Atlantic University, Boca Raton, Florida
2:05 PM	Eighteen Years of Goliath Grouper Research in Florida: Documenting the Recovery of an Iconic Fish Dr. Robert Ellis Florida Fish and Wildlife Research Institute, St. Petersburg, Florida	Development of a Sponge Restoration Strategy for Florida Bay William Sharp Florida Fish and Wildlife Conservation Commission, Marathon, Florida
2:20 PM	Horror, Homing and Habituation: Effects of Translocation Between Aggregations of Queen Conch in the FKNMS Dr. Andrew Kough John G. Shedd Aquarium, Chicago, Illinois	Hallow Havens: Documenting a Decline of Solution Hole Habitats in Florida Bay William Bigelow Florida Fish and Wildlife Conservation Commission, Marathon, Florida
2:35 PM	Migratory Patterns and Seasonal Habitat Use of Great Hammerhead Sharks (<i>Sphyrna mokarran</i>) in the Southeastern United States Ben Daughtry Aquarium Encounters/Dynasty Marine, Marathon, Florida	Seagrass Non-Cryptic Fish Assemblage Across the Florida Keys National Marine Sanctuary - USA Seascape Paula Pabon Quintero Florida International University, North Miami, Florida
2:50 PM	Discussion Period	Discussion Period
3:00PM - 3:30PM	Refreshment Break in Exhibit and Poster Hall	

Tuesday, October 28, 2025		
	CONCURRENT SESSIONS - 3:30 PM - 5:00 PM	
	SESSION 5	SESSION 6
	Grand Cypress	Royal Poinciana
	Mystery in Motion: The Spinning Fish and Sawfish Mortality Event in the Florida Keys	Voices of the Keys: Integrating Communities, Science, and Stewardship
	Dr. Michael Parsons Florida Gulf Coast University, Ft. Myers, Florida	Dr. Manoj Shivlani University of Miami, Miami, Florida
3:30 PM	Opening Remarks	Opening Remarks
3:35 PM	The Dance of Death Returns: Keys Spinning Fish Event, Historical Context and Overview from FWC Micah Bakenhaster Florida Fish & Wildlife Conservation Commission, St. Petersburg, Florida	Getting the Water Right: Economic Links Between Everglades Restoration and the Florida Keys Dr. Paul Hindsley The Everglades Foundation, Palmetto Bay, Florida
3:50 PM	Benthic Dinoflagellates, Spinning Fish, and Sawfish Mortalities: Is There a Connection? Dr. Michael Parsons Florida Gulf Coast University, Fort Myers, Florida	Moving Beyond Ecology: Valuing Restoration Success with Socioeconomics Madeline Rothwell Coral Restoration Foundation, Tavernier, Florida
4:05 PM	Pioneering a First-in-Kind, Fishing Guide-Led Model for Rapid Scientific and Ecological Response Allison Delashmit Key West and Lower Keys Fishing Guides Association, Summerland Key, Florida	Florida's Marine Aquarium Fishery: Integrating Regulatory Strengths with Fisher Engagement for Coral Reef Conservation Dr. Paul Anderson Aquarium Fisheries, Groton, Connecticut
4:20 PM	Spinning Sawfish in the Florida Keys: Weather Conditions, Movements, and Mortality Dr. Gregg Poulakis Florida Fish and Wildlife Conservation Commission, Port Charlotte, Florida	The Human Side of Spiny Lobsters: Situation Assessment of the Commercial Fishery Dr. May Lehmensiek Florida Fish and Wildlife Conservation Commission/Fish and Wildlife Research Institute, Marathon, Florida
4:35 PM	Seascape and Food Web Impacts of the Fish Spinning Phenomenon in the Florida Keys Dr. W. Ryan James Florida International University, Miami, Florida	Collaborative Fisheries Science with a SMILE (Size Matters: Innovative Length Estimates) Dr. Jennifer Loch REEF/Reef Environmental Education Foundation, Key Largo, Florida
4:50 PM	Discussion Period	Discussion Period
5:00PM - 7:30PM	Poster Session & Networking Reception - GROUP 1 (hors d'oeuvres & beverages provided)	

Wednesday, October 29, 2025		
7:00 AM - 5:00 PM	Conference Registration Open	
7:30 AM - 8:30 AM	Morning Refreshments in Exhibit and Poster Hall	
	CONCURRENT SESSIONS - 8:30 AM - 10:00 AM	
	SESSION 7	SESSION 8
	Grand Cypress	Royal Poinciana
	Coral Reef Restoration Interventions to Mitigate Stressors	Emerging Technologies and Techniques for Improving Science in the Florida Keys
	Dr. Andy Bruckner NOAA/Florida Keys National Marine Sanctuary, Key Largo, Florida	Dr. Benjamin Binder Florida International University, North Miami, Florida
8:30 AM	Opening Remarks	Opening Remarks
8:35 AM	Building Capacity for Resilience on Florida's Coral Reef Through Coral Rescue and Propagation Stephanie Schopmeyer Florida Fish & Wildlife Conservation Commission, St. Petersburg, Florida	The Aquarius Coral Reef Observatory: A Flexible Remote Sensing Solution in the Florida Keys Dr. Benjamin Binder Florida International University, North Miami Beach, Florida
8:50 AM	Diadema antillarum Production and Distribution to Florida Partners – Creating a Growout and Stocking Network Dr. Joshua Patterson University of Florida, Apollo Beach, Florida	Prototyping a Modular Autonomous Data Buoy for Video and Data Monitoring in the Florida Keys Lauren Gentry Florida Fish and Wildlife Research Institute, St. Petersburg, Florida
9:05 AM	Developing SNP Based Genomic Markers for 20 Scleractinian Caribbean Corals Alicia Vollmer Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida	Novel Methods for Tracking Shell-Crushing Predation in the Florida Keys Dr. Matthew Ajemian Florida Atlantic University Harbor Branch Oceanographic Institute, Fort Pierce, Florida
9:20 AM	Restoration Under Stress: Understanding Bleaching Risk in Large-Scale Coral Outplanting Nicole Merck Florida Fish and Wildlife Conservation Commission, Marathon, Florida	Developing a Machine Learning-Powered Boat Detector for Underwater Acoustic Data Dr. David Kochan Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida
9:35 AM	Restoration Strategies are Preventing the Local Extirpation of Florida's Acropora Species Dr. Erinn Muller Mote Marine Laboratory, Sarasota, Florida	Assessing Coastal Blue Carbon Residence Times Using Radiocarbon Techniques Dr. Amy Scott SGS Beta, Miami, Florida
9:50 AM	Discussion Period	Discussion Period
10:00AM - 10:30AM	Refreshment Break in Exhibit and Poster Hall GROUP 1 Posters Removed	

Wednesday, October 29, 2025		
	CONCURRENT SESSIONS - 10:30 AM - 12:00 PM	
	SESSION 9	SESSION 10
	Grand Cypress	Royal Poinciana
	Benthic Biodiversity in Flux: Changes in Invertebrate Communities	From Flats to Reefs: Spatial Ecology of Fishes in the Florida Keys
	William Sharp Florida Fish and Wildlife Conservation Commission, Marathon, Florida	Dr. Lucas Griffin University of South Florida, Tampa, Florida
10:30 AM	Opening Remarks	Opening Remarks
10:35 AM	Drivers of Spiny Lobster (<i>Panulirus argus</i>) Population Trends and Emerging Risks to Sustainability in Florida Thomas Matthews Florida Fish and Wildlife Conservation Commission, Marathon, Florida	Movement, Home Range, and Habitat Selection of Mesopredators in the Florida Keys National Marine Sanctuary Dr. Margaret Malone Florida International University, North Miami, Florida
10:50 AM	From Nurseries to Reefs: Spiny Lobsters as Lenses of Habitat Degradation in the Florida Keys Casey Butler Florida Fish and Wildlife Conservation Commission/Fish and Wildlife Research Institute, Florida International University, Marathon, Florida	Longterm Use of a Shark Breeding Ground: Three Decades of Mating Site Fidelity in the Nurse Shark Dr. Nicholas Whitney New England Aquarium, Boston, Massachusetts
11:05 AM	A Regional Survey of Clypeasteroid and Spatangoid Echinoids of the Central Florida Keys Prof. Michael Kowalewski University of Florida, Gainesville, Florida	Movement, Habitat Use, and Seasonality of Coastal Sharks in the Lower Florida Keys Dr. Matthew Smukall Bimini Biological Field Station, Hollywood, Florida
11:20 AM	Will Stone Crab Larvae Be Able to Swim Away From Their Future Climate Troubles? Prof. Philip Gravinese Eckerd College, St. Petersburg, Florida	Permit Spatial Ecology at Western Dry Rocks: Insights from a Newly Established Seasonal Fishing Closure in the Florida Keys Jessica Robichaud Carleton University, Ottawa, Ontario
11:35 AM	Crumbling Coral: Investigating How Changes in Structural Complexity Impact Cryptofauna Communities Luke Stoeber Clemson University, Clemson, South Carolina	Mapping Undiscovered Bonefish Spawning Aggregation Sites in the Florida Keys Dr. Ross Boucek Bonefish and Tarpon Trust, Marathon, Florida
11:50 AM	Discussion Period	Discussion Period
12:00PM - 1:30PM	Networking Lunch Buffet GROUP 2 Posters Installed	

Wednesday, October 29, 2025		
	CONCURRENT SESSIONS - 1:30 PM - 3:00 PM	
	SESSION 11	SESSION 12
	Grand Cypress	Royal Poinciana
	Mapping of Marine Resources, Use, and Habitat Dynamics in the Keys	Watershed to Reef: Assessing Hydrology and Water Quality Challenges in the Florida Keys
	Dr. David Kochan Florida Fish and Wildlife Conservation Commission, St. Petersburg, Florida	Dr. Laurent Cherubin Florida Atlantic University - Harbor Branch, Ft. Pierce, Florida
1:30 PM	Opening Remarks	Opening Remarks
1:35 PM	High Resolution Bathymetric and Seismic Imaging of the Near-Subsurface in the Shallow Coastal Waters of the Florida Keys Dr. Matthew McClellan Walker Marine Geophysical Company, LLC, Boca Raton, Florida	Hydrologic Connectivity between the Everglades and the Florida Bay Through Coastal Mangroves and Freshwater Sloughs Dr. Wei Huang Florida International University, Miami, Florida
1:50 PM	Mapping Seagrass-Coral Reef Mosaics Using Satellite Imagery to Quantify Seascape Structure in the Florida Keys Marianna Coppola Florida International University, North Miami, Florida	Hydrodynamic and Salinity Modeling in Florida Bay Dr. Kelin Hu Tulane University, New Orleans. Louisiana
2:05 PM	Quantifying and Modeling the Spatial Patterns of the Florida Keys Recreational Reef Fishery Matthew Marrero Florida International University, Miami, Florida	Restoring Balance: Tracing Nutrient Patterns from Ridge to Reef Dr. Paul Julian Everglades Foundation, Palmetto Bay, Florida
2:20 PM	Photogrammetric Analysis Reveals Distinct Topographic Footprints for Stony Coral Genera in Dry Tortugas National Park Christina Mallica Florida Fish and Wildlife Research Institute, St. Petersburg, Florida	Florida's Coral Reef Water Quality Data Compilation, Analysis, and Decision Supports Jade Lee Florida Fish and Wildlife Conservation Commission/Fish and Wildlife Research Institute, St. Petersburg, Florida
2:35 PM	Mapping Spatial-Temporal Changes in Restored Coral Reefs using Multiple Mapping Technologies Prof. Jennifer Dijkstra University of New Hampshire, Durham, New Hampshire	Water Mass Histories Modulate Reef Carbonate Chemistry: A High-Resolution Model for the Florida Keys Dr. Heidi Hirsh Cooperative Institute for Marine and Atmospheric Studies, Miami, Florida
2:50 PM	Discussion Period	Discussion Period
3:00PM - 3:30PM	Refreshment Break in Exhibit and Poster Hall	

Wednesday, October 29, 2025		
	CONCURRENT SESSIONS - 3:30 PM - 5:00 PM	
	SESSION 13	SESSION 14
	Grand Cypress	Royal Poinciana
	Reefs in Transition: Understanding Change and Mitigating Loss of Ecosystem Services in the Florida Keys	Integrating Science and Decision Tools to Examine Ecosystem Responses in the Region
	Casey Butler Florida Fish and Wildlife Conservation Commission, Marathon, Florida	Jennifer Waldo Florida Fish and Wildlife Conservation Commission, Division of Marine Fisheries Management, Marathon, Florida
3:30 PM	Opening Remarks	Opening Remarks
3:35 PM	A Decade of Rapid Coral Community Change on the Florida Reef Tract: Insights from NCRMP Nicole Krampitz CSS, Inc./NOAA National Centers for Coastal Ocean Science, Fort Lauderdale, Florida	Characterizing and Forecasting Reef Responses to Multiple Stressors Across the Florida Keys National Marine Sanctuary Dr. Ian Enochs NOAA/Atlantic Oceanographic and Meteorological Laboratory, Miami, Florida
3:50 PM	From Top to Bottom: Rethinking Coral Reef Community Structure After Decades of Disturbance Dr. Michael Childress Clemson University, Clemson, South Carolina	Development of a Comprehensive Decision Support System for Florida's Coral Reef Nick Alcaraz Florida Fish and Wildlife Research Institute, St. Petersburg, Florida
4:05 PM	The Influence of Structural Complexity on the Fine-Scale Diurnal Space Use of Reef Fishes Dr. Alastair Harborne Florida International University, North Miami, Florida	Spatiotemporal Analyses of the Biological Condition Gradient Model on Florida's Coral Reef Maya Becker Nova Southeastern University, Davie, Florida
4:20 PM	Modeling the Impacts of Coral Reef Restoration on Wave Energy Dissipation at Eastern Dry Rocks, Florida Prof. Jim Hench Duke University, Beaufort, North Carolina	Identifying Nutrient Sources Driving Algal Blooms in Florida Bay: A Causal Modelling Approach Dr. Jonathan Rodemann Florida International University, North Miami, Florida
4:35 PM	Using Habitat Support Structures to Address Habitat Deficits within the Florida Keys National Marine Sanctuary Dr. Hanna Koch Monroe County Board of County Commissioners, Marathon, Florida	Modeling Anthropogenic Impacts on Long-Term Community Dynamics of Coral in the Florida Keys Kelsey Vaughn University of Georgia, Athens, Georgia
4:50 PM	Discussion Period	Discussion Period
5:00PM - 7:30PM	Poster Session & Networking Reception - GROUP 2 (hors d'oeuvres & beverages provided)	

Thursday, October 30, 2025	
7:00 AM - 12:00 PM	Conference Registration Open
7:30 AM - 8:30 AM	Morning Refreshments in Exhibit and Poster Hall
8:30 AM - 10:00 AM	<p>PLENARY SESSION</p> <p>A Collaborative Visioning and Research Prioritization Workshop for the Florida Keys Marine Ecosystem (Grand Floridian Ballroom)</p> <p>What does a "successful" Florida Keys marine ecosystem look like 10 years from now— and how can science help get us there?</p> <p>On our final day, we invite all attendees to this interactive, interdisciplinary workshop.</p> <p>We know that the future of this region does not rest in the hands of one group alone and want participants from across the scientific community, managers, resource users, and other interested parties to co-develop a shared vision for the future of the Florida Keys marine ecosystem.</p> <p>Through a series of facilitated discussions and collaborative activities, we will work to define what ecological and socioeconomic "success" could look like for this unique and rapidly changing region and explore what it would take to get there.</p> <p>Outcomes from this workshop will help drive future collaborations and shape a unified path toward long-term resilience and sustainability of the Florida Keys ecosystem in the face of accelerating change.</p>
10:00AM - 10:30AM	Refreshment Break in Exhibit and Poster Hall
10:30 AM- 12:00 PM	Workshop Discussons Continue
12:00 PM	Florida Marine Science Conference & Workshop Concludes Group 2 Posters and Sponsor Display Removal