



Quarterly News & Updates

December 2021 I Issue 4

**SUBSCRIBE** 



#### **Greetings Members and Friends**,

As we conclude 2021, a remarkable year of economic recovery in Florida and the U.S., Florida Ocean Alliance is preparing for Florida Oceans Day 2022. I invite you to join us in Tallahassee on February 1-2 as this is our golden opportunity to showcase our vision and goals before our legislators, constituents and the public. We could not produce this important event without the support of our sponsors Mote Marine Laboratory & Aquarium and Florida Institute of Oceanography. We are grateful for their generous, ongoing support.

The Florida Ocean Alliance has submitted a funding request to the Legislature to support expansion of our Strategic Plan for Florida's oceans and coasts. Sponsored by Sen. Gayle Harrell and Rep. Chris Latvala for the upcoming legislative session, the project would broaden efforts to formulate a blue economy for Florida by expanding maritime industries and identifying the value in marine and coastal ecosystems. Updating the impact of the State's ocean and coastal industries on its economy, the project would identify the potential for job growth and expansion of the State's blue economy in marine-related sectors. A second project phase would focus on outreach and education for the public and policymakers statewide.

Earlier this month, at the invitation of the Royal Norwegian Embassy and Norwegian Consul General, Florida Ocean Alliance and members of our Executive Committee participated in the One Ocean event in Miami. The two-day event featured presentations by Laura DiBella, FOA Vice President and Exec. Dir., Florida Harbor Pilots Assoc., Jim Murley, FOA Founder, Board Member and Chief Resilience Officer, Miami-Dade County, and Glenn Wiltshire, FOA Board Member and Deputy Port Director, Port Everglades. We were honored to take part in discussions on ocean monitoring, greener shipping, aquaculture and ocean resilience.

Florida Ocean Alliance launched its new website this month, www.FloridaOceanAlliance.org. We invite you to visit often to keep abreast of issues and developments that impact our marine resources, our blue economy and our member organizations.

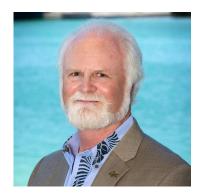
On behalf of the Florida Ocean Alliance directors, thank you for your support this past year and for your continuing interest and support as we undertake the important work of this organization in 2022 and beyond.

Wishing you all a happy, healthy holiday season.

Or. Paul Ancherson

A. Paul Anderson President

#### In the News



## Aquaculture Benefits Florida and Our Oceans | Column

Florida should be the leader in this new blue economy that will help feed the world.

Read the *Tampa Bay Times* column by Dr. Michael Crosby and Kevan Main.

#### FOA Board Members Bring Florida Focus to Global "One Ocean" Miami Event



The One Ocean Expedition, in cooperation with the Norwegian Institute of Marine Research, the Norwegian Consulate General and Innovation Norway, hosted seminars on ocean monitoring and greener shipping, aquaculture, and ocean resilience aboard the S/S Statsraad Lehmkuhl December 7-10, 2021 in Miami. Norway's largest and oldest square-rigged sailing ship, the Statsraad Lehmkuhl, pictured here, has been converted into a state-of-the-art floating ocean research laboratory. The vessel is circumnavigating the globe visiting more than 30 ports from August 2021 to April 2023, as a recognized part of the UN

**Decade of Ocean Science for Sustainable Development.** 

The One Ocean Miami event featured presentations by Laura DiBella, FOA Vice President and Exec. Dir., Florida Harbor Pilots Assoc., Jim Murley, FOA Founder, Board Member and Chief Resilience Officer, Miami-Dade County, and Glenn Wiltshire, FOA Board Member and Deputy Port Director, Port Everglades. FOA was honored to take part in presentations on ocean monitoring, greener shipping, aquaculture and ocean resilience. All were well-received by the conference participants.



**Above:** Speakers and organizers of the One Ocean event aboard the S/S Statsraad Lehmkuhl. **Right:** FOA Vice President Laura DiBella keynotes the first day of programs.



#### Utilizing the Latest Technology and the Knowledge of Guides, Bonefish & Tarpon Trust Homes In on Elusive Bonefish Spawning Sites in the Florida Keys

Bonefish & Tarpon Trust scientists are utilizing the latest technology and the knowledge of veteran guides to locate important bonefish spawning sites in the Florida Keys. Finding these nearshore areas where bonefish school by the thousands before migrating offshore to spawn in deep water is essential for conserving the Keys bonefish fishery, a major component of the Keys flats fishery, which generates more than \$465 million annually. BTT has identified spawning sites in the Bahamas, Belize, and Cuba, yet the locations of the spawning sites in the Florida Keys remain a mystery.



Above: A bonefish pre-spawning aggregation (PSA), Bahamas
Photo: Tom Henshilwood

"There are a couple possible reasons that might explain the lack of known spawning sites in the Keys," said Dr. Ross Boucek, BTT's Florida Keys Initiative Manager. "Maybe for a time the size of the spawning school in the Keys shrank to the point that it wasn't noticeable to us. Or maybe the size of the Keys population became so small that the fish completely stopped spawning for a period of time. Fish won't spawn if there aren't a critical number of spawning fish."

During full and new moon cycles from fall through early spring, bonefish form pre-spawning aggregations (PSAs) at nearshore sites, where they prepare to spawn by porpoising at the surface and gulping air to fill their swim bladders. At night, they swim offshore and dive hundreds of feet before surging back up to the surface. The sudden change in pressure makes their swim bladders expand, causing them to release their eggs and sperm. After fertilization takes place, the hatched larvae drift in the ocean's currents before settling in bays, where they develop into juvenile bonefish.

In recent years, the Keys bonefish fishery has made a comeback, and a number of guides have reported seeing schools of bonefish that might be PSAs. BTT is now using acoustic telemetry and drones to home in on these possible spawning sites. This renewed search builds upon BTT's previous work in the Keys and the Bahamas to decipher the life cycle of bonefish, their habitat use, movement patterns, and spawning behavior.





Above left: Bonefish porpoise and gulp air before swimming offshore to spawn in deep water at night. Photo: Dr. Aaron Adams Above right: Dr. Ross Boucek (right) surgically implants a small acoustic transmitter into a Florida Keys bonefish. Photo: Ian Wilson

#### Deck to Depth: Improving the Health of Florida's Fisheries



The blue waters off the coast of Florida are home to some of the world's most iconic marine life. Healthy oceans with robust fish populations provide immense benefits including jobs, food, and diverse recreational opportunities. Florida boasts the most recreational fishing in the country, generating an estimated \$6 billion in annual expenditures, more than all other South Atlantic states combined. While numerous issues threaten the sustainability of our fisheries, none are more present than the threat of overfishing. According to the Magnuson-Stevens Act, legislation that directs management of marine fisheries in U.S. waters, overfishing is when the annual rate of catch is too high to maintain the population. This can occur even with the soundest management principles in place—as with the snapper-grouper fishery of the South Atlantic, a complex of over 50 species including the popular Red Grouper, Hogfish, Yellowtail Snapper, Gag Grouper and Red

Snapper. This is the complex that most often faces overfishing.

The Nature Conservancy (TNC) launched our "Deck to Depth" program to help fill fishery data gaps and engage the recreational fishing community in ensuring healthy snapper-grouper stocks into the future. Anglers can be the fishery's biggest ally by carefully releasing fish that are undersized or out of season—getting them from the deck of the boat back down to depth—and encouraging their fellow anglers to do the same. The use of a descending device is key to this strategy. Fish that have been brought up from depth suffer barotrauma, injuries caused by the expansion of gases in the fish, making it almost impossible for the fish to swim back down. Use of a descending device to take the fish down to depth reverses the effects of barotrauma and allows the fish a safe release.

TNC is partnering with anglers and management agencies to create more sustainable fisheries to improve the long-term health of our oceans and ocean-related economies. Join us by sharing these important messages and materials with your family and friends—visit our Deck to Depth web page <a href="https://www.nature.org/floridafisheries">www.nature.org/floridafisheries</a>. Contact David Moss, The Nature Conservancy Fisheries Program Manager in Florida at <a href="mailto:david.moss@tnc.org">david.moss@tnc.org</a>.

#### **Port Everglades Awarded for Environmental Excellence**

Port Everglades, located in the heart of Greater Fort Lauderdale, is consistently ranked among the top three busiest cruise ports in the world and is one of the nation's leading container ports and South Florida's main seaport for receiving petroleum products including gasoline, jet fuel

and alternative fuels. The Port's diverse business lines helped maintain economic stability during the COVID-19 pandemic and allowed infrastructure projects to move forward, including a Comprehensive Environmental Management Program that is gaining recognition for leading the way in port sustainability practices.

Above: Glenn Wiltshire (center right) with the Port Everglades Comprehensive Environmental Management Program team.

The National Association of Environmental Professionals' (NAEP) 2020 Environmental



Excellence Award, the North American Marine Environment Protection Association's (NAMEPA) 2020 Marine Environment Protection Award for Ports, and the American Association of Port Authorities' (AAPA) 2020 Award of Excellence for the Port Everglades Comprehensive Environmental Management Program are all welcome national recognitions. For decades, Port Everglades has proactively invested millions of dollars in building and maintaining our infrastructure to ensure we protect and improve the surrounding environment, while facilitating business activities in world commerce and travel for South Florida.

The goals and objectives of the Port Everglades Comprehensive Environmental Management Program successfully met compliance requirements but more importantly allowed us to voluntarily implement stewardship initiatives that benefit the environment holistically.

As custodians of one of the most diverse ecosystems in the country, Port Everglades remains steadfast in the dedication to preserving our natural wealth, which includes our ocean, coastline, estuaries, wetlands and coral reefs. Maintaining a careful balance between commerce and the environment is essential for our region's well-being. These riches provide for a strong economy, a diversity of jobs and industries and an enviable way of life.

#### **Nearshore Hardbottom Reefs Along East Florida's Coast**

by D.A. McCarthy, K.C. Lindeman, D.B. Snyder, K.G. Holloway-Adkins Marine Science Research Institute, Jacksonville University

Along the East Florida coast, coquina rock creates nearshore hardbottom reefs that support many reef organisms. These nearshore reefs (0-4 meters depth), increase biodiversity, enhance fisheries, absorb wave energy, stabilize sediments, and promote public recreation. The foundation of these reefs is based on coquina bedrock of the Anastasia Formation (approximately 120,000 years old) that also serves as the foundation for many east Florida barrier islands.



Above: (Fig. 1) Southward view of Bathtub Reef, Martin County, FL.

Worm rock mounds (Phragmatopoma lapidosa) in the center.

Photo Credit: Dan McCarthy

East Florida nearshore reefs provide refugia for over 1100 reef organisms from Marineland to Miami. There are over 900 combined invertebrate and macroalgae species. Some serve as foundation species that provide shelter to other organisms. For example, the reef-building polychaete worm, *Phragmatopoma lapidosa* (Fig. 1), corals, and sponges all add to reef complexity. Algae are also important primary producers that form the foundation of complex and dynamic food webs that exchange energy and organic matter with other ecosystems. Part of this energy transfer is via adult and larvae from the more motile animals such as fish and turtles.

Over 265 fish species can inhabit nearshore reefs (Fig. 2). The most species-rich families include wrasses and parrotfishes, jacks, grunts gobies, scaly blennies, seabasses, and damselfishes. Many are resident (e.g., black margate, sailors' choice, harry blenny, silver porgy, and cocoa damselfish)

but some are transient (snook, tarpon, jacks, Spanish mackerel, and bluefish). Nearshore reefs are also important to juvenile and subadult life stages of green, loggerhead, hawksbill and, less frequently, Kemp's ridley sea turtles, by providing food, shelter, and movement corridors.

Nearshore hardbottom reefs are also important to many coastal human families that use them for fishing, surfing, and diving across multiple generations. In Florida and beyond, nearshore reefs are relatively understudied with many opportunities for research. To learn more, see the 2020 book *Islands in the Sand: Ecology and Management of Nearshore Hardbottom Reefs of East Florida*, Springer Press, Switzerland.









**Pictured at left:** (Fig. 2) Cryptobenthic species found on nearshore hardbottom of east Florida include:

- a) seaweed blenny (Parablennius marmoreus),
- b) molly miller (Scartella cristata),
- c) spinyhead blenny (Acanthemblemaria spinosa),
- d) dusky jawfish (  $Opistognathus\ whitehursti$  ) .

Photo Credit: D.B.Snyder

#### **More News & Information**



# Carbon sinks: How nature helps fight climate change

Smoking industrial chimneys, exhaust fumes, fires in the Amazon - yearly carbon emissions recently swelled to 12,000,000,000 tons (12 gigatons). And as carbon increases, so do temperatures. Around half of emissions released remain in the...

Read more www.dw.com



## The Economic Value of America's Estuaries

Estuaries have always been an essential feature of the economy, and in the face of climate change, play an even more important role in buffering storms and sequestering carbon.

"The Economic Value of America's Estuaries," written by the Center...

Read more www.middlebury.edu



## Map Update: Nextgeneration coastal flood risk...

Two major upgrades to our Coastal Risk Screening Tool set Climate Central apart as the source of the world's most accurate global coastal flood risk maps. Now incorporating the newest sea level projections from the IPCC and the next generation of ...

Read more createsend.com

BRACEWELL

#### **Under the** Sea: Congress **Amends OCSLA** to **Provide** for...

Offshore carbon sequestration on the Outer Continental Shelf ("OCS") could be just over the horizon. The Infrastructure Investment and Jobs Act (the "Infrastructure Act"), signed into law by President Biden on November 15, 2021, amends the Outer...

Read more

www.jdsupra.com



#### **COP26:** What was agreed at **Glasgow** climate conference

This is to try to keep temperature rises within 1.5C - which scientists say is required to prevent a "climate catastrophe". Current pledges, if met, will only limit global warming to about 2.4C.

Read more

www.bbc.com



#### Cruising Safe Again

The coronavirus continues to be present on cruise ships sailing in U.S. waters, data from the Centers for Disease Control and Prevention obtained by USA TODAY shows. But travelers are feeling more secure with the protocols in place. In the...

**Read more** 

www.aol.com

Follow FOA on social media for the latest industry news and information.







#### **Congress & Executive Branch News**

**Dr. Michael Crosby Provides Expert Testimony to Congress** on Urgent Water Quality-related Challenges Facing Florida's Marine Ecosystems

> During a Congressional hearing of the Florida Delegation in Washington, D.C. on Nov. 3, 2021, Mote Marine Laboratory & Aquarium's President & CEO Dr. Michael P. Crosby was invited to provide his expert testimony regarding the urgent water quality-related challenges facing Florida's marine ecosystems and the steps that



can be taken to combat harmful algae blooms, restore Florida's Coral Reef, and address the loss of seagrasses that have led to an unusual mortality event devastating Florida's manatees. U.S. Reps. Vern Buchanan (R-Fla.) and Debbie Wasserman Schultz (D-Fla.) hosted the bipartisan delegation, consisting of 29 members of Congress from Florida.

"We are grateful to the leadership of Representatives Buchanan and Wasserman Schultz, and the entire Delegation, for prioritizing

water quality, which is vital to the wellbeing of our state," said Crosby. "While Florida may be facing a number of environmental challenges, we are also home to leading scientists that are working to solve those problems with strong support from the State."

He urged the Delegation to help ensure that federal agencies provide financial support to at least match the level of the State's significant investment in science-based solutions to these environmental challenges, including using the Florida Red Tide Mitigation & Technology Development Initiative as a model for other types of harmful algae blooms, supporting the original language of the Restoring Resilient Reefs Act, and establishing federal support for a consortium to focus on the restoration of seagrass, the manatee's primary food source.

In addition to the 20+ research programs, outreach is key to Mote's mission, including providing legislators information about the best-available science. "We look forward to continuing to engage with the Florida Delegation to continue working together to improve the environment and enhance Florida's 'blue economy' for years to come," added Crosby. Read more

#### Governor DeSantis Appoints Dr. Wesley Brooks State Chief Resilience Officer

In November, Governor DeSantis announced key appointments to his administration, including Chief Resilience Officer, Dr. Wesley Brooks, PhD. Brooks previously served as Director of Federal Affairs for the Department of Environmental Protection since January 2020. In his role, Dr. Brooks has developed and implemented strategies to accomplish legislative and regulatory goals for the State and DEP including Clean Water Act 404 assumption, expedited construction of the Everglades projects, and reauthorization of the Coral Reef Conservation Act. He also previously worked as a staffer for members of Florida's Congressional delegation, including Senator Marco Rubio, where he worked on policies for Everglades restoration, coastal resiliency, coral reef conservation, water quality and harmful algal bloom monitoring.



Dr. Brooks graduated with a B.A. in Political Science and a B.S. in Biology from Duke University and earned his Ph.D. in Ecological Science from Rutgers University.

### Florida Ocean Alliance Requests 2022 State Funding for the Strategic Plan

A funding request has been submitted to the Florida Legislature to support expansion of our **Strategic Plan** for Florida's oceans and coasts. Sponsored by Sen. Gayle Harrell and Rep. Chris Latvala for the upcoming 2022 legislative session, the proposed project would expand efforts to formulate a blue economy for Florida by expanding maritime industries, as well as identifying the value in marine and coastal ecosystems. Updating the impact of the State's ocean and coastal industries on its economy, the project will identify the potential for job growth and expansion of the State's blue economy in marine-related sectors. A second project phase would focus on outreach and education for the public and policymakers statewide.

Improvements in measuring the blue economy have created the means for a broader definition of the ocean economy, providing more depth and precision in the measurement of the current ocean economy industries. The project will also identify the value in marine and coastal ecosystems, such as wetlands, which not only provide mitigation for the flood risks associated with increasing sea levels but also provide mechanisms for reducing climate change through storage and sequestration of carbon. The economic values associated with these important ecosystem services can be estimated, along with the contributions of Florida's ocean-related industries, to significantly expand the blue economy. It is important to maintain, support and expand these ocean and coastal industries for a healthy State economy and to continue aiding Florida's economic recovery.

#### Florida Ocean Alliance Announcements

## MOTE Grants FOA \$30,000 to Support Marine Policy and Planning Initiatives

FOA has received a grant from the **Mote Scientific Foundation**, **Inc**. for \$30,000 to continue the Alliance's important marine policy initiatives and to implement parts of the Strategic Plan prepared for the State of Florida in 2020. We are grateful to the Mote Scientific Foundation for their generous contribution to FOA as we move forward with implementation of the Strategic Plan for Florida's Oceans and Coasts completed in 2020 for the Florida Legislature. Read "Securing Florida's Blue Economy." Florida Ocean Alliance, June 2020.



## Kellie Ralston, VP, Conservation & Public Policy, Bonefish & Tarpon Trust Joins FOA Board of Directors



Kellie Ralston, a fifth-generation Floridian, serves as the Vice President for Conservation and Public Policy for the **Bonefish & Tarpon Trust**. She was also appointed by Governor Ron DeSantis to Florida's Northwest Florida Water Management District Governing Board and serves on NOAA Fisheries' Marine Fisheries Advisory Committee, which provides guidance to the U.S. Secretary of Commerce on relevant issues. Ralston attended Florida State University where she furthered her interest in the natural and marine world and received her Bachelor's and Master's degrees in biology. She began her professional career working on water quality and Everglades' restoration projects with the Florida Department of Environmental Protection and then served as an analyst for the Florida House of Representatives Water and Resource Management Committee. She

subsequently worked for the Florida Fish and Wildlife Conservation Commission where she was involved in policy development and stakeholder coordination for the Division of Marine Fisheries Management, and served as the Southeast Fisheries Policy Director for the American Sportfishing Association covering recreational fisheries and conservation issues.

Florida Shore and Beach Preservation Association to Host National Conference on Beach Preservation Technology

Florida Shore and Beach Preservation Association will host the 35th National Conference on Beach Preservation Technology, February 2-4, 2022 at the

Embassy Suites in St. Augustine Beach, FL. Every year the Tech Conference brings together the nation's leading coastal experts to discuss important beach preservation and coastal protection innovations, projects and studies. This is an exceptional opportunity to hear in-depth discussions by federal and state agencies, academia, and the private sector, as well as to meet with project teams and grow network connections. Interested in learning more? Check out the conference website and program at https://fsbpa.com/tech-conference.html





#### FAU Harbor Branch Dives into 50-Year Celebration with Exclusive Reveal of Famed Submersible, Special Events

**FAU Harbor Branch Oceanographic Institute** is hosting a series of special events, from November 2021 through April 2022, to

celebrate its 50<sup>th</sup> anniversary with "Ocean Science for a Better World<sup>®</sup>." The main highlight of the series is the first public display of the historic, world-renowned *Johnson-Sea-Link* (JSL)II submersible at the Elliott Museum in Stuart. All Ocean Science for a Better World events are open to the public.

"FAU Harbor Branch was founded in the spirit of ocean exploration to unveil the mysteries of the deep," said Jim Sullivan, Ph.D., Executive Director of FAU Harbor Branch. "To this day, the institute relentlessly pursues innovative ocean research, while providing top-tier educational programs that will lead us to solve the most pressing issues facing our oceans – we are thrilled to share our incredible story with the public," said Sullivan. Learn more

#### Port Tampa Bay Wins Prestigious Lighthouse Award of Excellence from the American Association of Port Authorities for Its First Annual Great Port Cleanup

Port Tampa Bay recently won the American Association of Port Authorities (AAPA) Lighthouse Award of Excellence for Environmental Enhancement. The port received the honor for its inaugural Great Port Cleanup, which is recognized as a model for other seaports throughout the Western Hemisphere. The first-annual Great Port Cleanup took place on Earth Day, Thursday, April 22, 2021, in partnership with Propeller Club – Port of Tampa and Keep Tampa Bay



Beautiful. During this inaugural event, 342 port partners and other dedicated community volunteers safely removed more than 19K pounds of trash and marine debris from 23 sites in and around our port. While the majority of this debris originates from outside of the port, Port Tampa Bay recognizes our daily connection with our local waters and is dedicated to doing our part to eliminate marine debris and support trash-free waters in Tampa Bay.

The AAPA Lighthouse Awards recognizes the best port programs and projects that stand as a beacon of excellence across the maritime industry. Since 1973, the organization has recognized activities that

benefit the environment at its ports and presented environmental awards.

"The Great Port Cleanup is one of many initiatives Port Tampa Bay has undertaken to be a sustainable environmental leader, not only within the maritime industry but throughout our community. We are deeply committed to the health and beauty of our local environment, and it is an honor to be recognized by our peers and the American Association of Port Authorities," explained Paul Anderson, Port Tampa Bay President & CEO.

Port Tampa Bay received the Lighthouse Award at the AAPA annual convention, which took place September 26-29, 2021.

#### **Momentum Continues in Everglades Restoration**



With its mission to restore and protect America's Everglades, **The Everglades Foundation** and its supporters are celebrating continuing momentum in Everglades restoration, as illustrated through recent, significant developments.

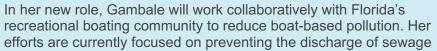
In November, following a nearly three-year-long process of planning, modeling, and discussion of various alternatives, the U.S. Army Corps of Engineers (Corps) arrived at a final proposal for managing Lake Okeechobee.

"This is the first time since 2008 that water managers are changing their approach in managing Lake Okeechobee's water," said The Everglades Foundation's CEO Eric Eikenberg. "This plan will significantly reduce harmful discharges to our east and west coasts and increase water flow south to the Everglades and Florida Bay, particularly in the dry season.

"The final product more fairly distributes the benefits of Lake Okeechobee's water and does not require any new infrastructure, so the benefits can be realized as soon as the new schedule is implemented in late 2022. While the long-term solution to South Florida's complex water problems will only happen with new water infrastructure like the Everglades reservoir, this is a significant step toward a more balanced approach to managing the lake water that Floridians rely on."

#### Victoria Gambale Named Clean Vessel Act Education Coordinator

Victoria (Vicki) Gambale, a former Community Engagement Program Director for The Bay Foundation, part of Santa Monica Bay's National Estuary Program, has been named **Florida Sea Grant's** Clean Vessel Act Education Coordinator.



from boats. Given Florida's rank as a nationwide leader in recreational boating, even a small amount of sewage from a fraction of boats can be harmful to water quality and human health. Read more

## Join Florida Ocean Alliance Members and Friends at Florida Oceans Day 2022

On February 1-2, 2022, Florida Oceans Day comes to the Florida State Capitol. Join Florida Ocean

Alliance to celebrate the importance of our oceans to our state's environment and economy.

Feb 1, 2022 | 5:30 pm - 7:00 pm

**Mote Legislative Reception** 

Florida State Capitol, 22nd Floor Sponsored by Mote Marine Laboratory & Aquarium

Feb 2, 2022 | 5:00 pm - 7:00 pm

**Celebrating the FIO Consortium** 

Exhibits & Reception
Florida State Capitol, 22nd Floor
Sponsored by Florida Institute of Oceanography

For more information, contact <a href="mailto:lalpert.foa@gmail.com">lalpert.foa@gmail.com</a>.

#### **Member Spotlight**

## Marine Industries Association of South Florida



For the Marine Industries Association of South Florida, the last week of October 2021 exemplified the positive impact of the Blue Economy in South Florida. The week began with Ocean Exchange, whose mission is to help advance the adoption of solutions in the field of sustainability with a marine focus. Awarding over \$250,000 to solutions with a working prototype attracts innovators from around the world to Fort Lauderdale each year to showcase their projects. One of the 2019 winners, Opus12 (now Twelve), introduced a novel device to turn CO2 into chemicals and fuels. They have since succeeded at getting funding and several significant contracts. Based in Savanah, GA, for eight years, Ocean Exchange made the move to South Florida after developing a relationship with the Marine Research Hub of South Florida.



The Fort Lauderdale International Boat Show (FLIBS) celebrated a spectacular 2021 show with over 100,000 attendees. This economic engine that is the cornerstone of Florida's recreational marine industry had exhibitors announcing record-breaking sales. Thomas J. Murray and Associates is currently conducting the economic impact study for FLIBS (to be released in 2022). It is expected that the economic impact will exceed the \$1.3 billion economic impact to Florida recorded in 2019.

FLIBS showcased the debuts of many new product models and a few innovations including a solar-powered boat. In the newly renovated convention center show site, Fort Lauderdale-based Clean Waterways conducted a pilot project utilizing machinery known as protein skimmers. These pump devices operate by injecting microbubbles into water, which binds to any present organic compounds such as bacteria and other pollutants.

The show was not without a few challenges as travel restrictions hampered arrivals for some international visitors, and supply chain delays were evidenced by the late arrival of several boats. For those who missed the in-person FLIBS experience, a 1-hour NBC Sports special is available on-demand.



**Above and right:** Indoor and outdoor exhibitors attracted record crowds.



#### Florida Ocean Alliance Board of Directors



A. Paul Anderson (FOA President) Port Tampa Bay



Laura DiBella (FOA Vice-President) Florida Harbor Pilots Association



Richard Dodge, Ph.D. (FOA Treasurer) Nova Southeastern University



Jerry Sansom (FOA Secretary) Organized Fishermen of Florida



Anne Birch
The Nature Conservancy



James Cantonis
Armaly Sponge Company



Josh Carroll Royal Caribbean Group



#### Michael P. Crosby, Ph.D. Mote Marine Laboratory & Aquarium



Spencer Crowley
Akerman



Duane E. De Freese, Ph.D. Indian River Lagoon Council FOA Executive Committee



Monty Graham, Ph.D. Florida Institute of Oceanography



Sherry Larkin, Ph.D. Florida Sea Grant College Program



Jackie Larson
Florida Shore & Beach
Preservation Association



Kumar Mahadevan, Ph.D. Florida Ocean Alliance, Founding Member and FOA Executive Committee



Denise McCafferty Lloyd's Register MCDONALD, MILLER & COLEMAN LLC

David McDonald
McDonald, Miller, & Coleman LLC
FOA Executive Committee



Kellie Ralston Bonefish & Tarpon Trust



James F. Murley, Esq. Miami-Dade County Florida Ocean Alliance, Founding Member and FOA Executive Committee



Ellen Prager, Ph.D. Earth2Ocean, Inc.







Phil Purcell

Marine Industries Association
of South Florida

Robert Salonen, CEcD Florida Institute of Technology Megan Stolen Hubbs-Sea World Research Institute



Jim Sullivan, Ph.D.
Florida Atlantic UniversityHarbor Branch
Oceanographic Institute



Matthew Upton Roffer's Ocean Fishing Forecasting Service



Bradley Watson
The Everglades Foundation



Jeff Watters
The Ocean Conservancy



Glenn Wiltshire Port Everglades



Julie Wraithmell
Audubon of Florida



Lenore Alpert, Ph.D. Executive Director, FOA

Florida Ocean News masthead photo: S/S Statsraad Lehmkuhl, Miami, FL Photo credit: Laura DiBella



www.FloridaOceanAlliance.org







Florida Ocean News is published by the Florida Ocean Alliance, a nonprofit, nonpartisan, private-public partnership of private industry, trade, academic and environmental organizations promoting awareness and understanding of the ocean's importance to the economy and environment of Florida.

**Subscribe to Florida Ocean News**