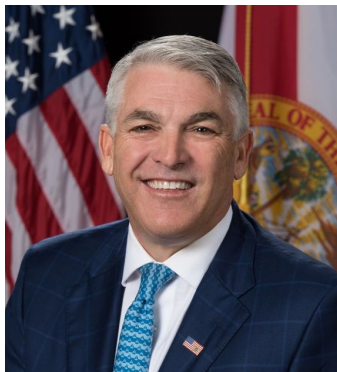




Quarterly News & Updates, Volume 1, March 2022

Conservation, Education & Economic Development

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Greetings Members and Friends,

In this issue of *Florida Ocean News*, you will notice a focus on climate change and sea-level rise. These forces are increasingly important concerns for our members, our state, and our Blue Economy. With 8,436 miles of coastline, Florida is more vulnerable than most states to the threats of rising seas and extreme weather events. As we anticipate what this means for the future, we will continue to share the latest information and resources with you.

In light of the expected impacts on our marine and coastal environments, marine and maritime industries, seaports, and recreation and tourism interests, our plans to expand a strategic planning effort to support “Florida’s Blue Economy” are timelier than ever. FOA’s request for funding to the Legislature to support the expansion of the Strategic Planning effort begun in 2020 was approved and is now included in the proposed budget presented to Governor Ron DeSantis. Many of you wrote letters of support for this funding to our legislators, and those efforts paid off. We are hopeful that the Governor will approve our full request so that we can continue our important work.

Another successful Oceans Day was held on February 1 at the Capitol. It was an introduction to some and a reminder to others of the significant contributions made by FOA member organizations, whether in academia and research, ports and maritime transport, marine industries, recreation, tourism, or other sectors. Together, we are building greater understanding and support for protecting our marine and coastal resources and expanding the vital Blue Economy that relies on them.

Last but not least, if you have not seen our website www.floridaoceanalliance.org recently, please take a minute to visit and also share this newsletter with your colleagues and friends - and help us spread the word about Florida Ocean Alliance.

Thank you for your continued support and interest.

Sincerely,

A. Paul Anderson

A. Paul Anderson
President

FOA Members In the News



Marine scientist and FOA Board Member Dr. Ellen Prager was interviewed by WFLA News Channel 8 about the newly released report.

Landmark Report: Climate Change Already Causing Irreversible Impacts

In February, the International Panel on Climate Change (IPCC) released their ***Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability***. FOA Board Member Dr. Ellen Prager was interviewed by Tampa Bay area WFLA News Channel 8 about the report and said "It's an urgent message saying we can try to adapt, but the truth is we also have to focus on reducing emissions to save coral reefs and to save all these other critical habitats." [Read the article and view Dr. Prager's video commentary.](#)

FOA Board Member Duane De Freese Honored by Junior Achievement Space Coast

Marine Biologist De Freese Joins JA Business Hall of Fame Laureates

For nearly four decades, Junior Achievement of the Space Coast has been working with Brevard County youth to help them shape their economic futures. Since 1984, the organization has inducted members such as college president Maxwell King, BlockBuster owner Wayne Huizenga and *USA Today* founder Al Neuharth into its Business Hall of Fame.

In March 2022, marine biologist and **Executive Director of the Indian River Lagoon Council Duane De Freese** joined the ranks of Junior Achievement of the Space Coast Hall of Fame Laureates.

In a recent *Space Coast Living* article "Business Hall of Fame Laureates," writer Maria Sonnenberg wrote that De Freese's approach to conservation is unusual, for he wins people over not just by touting the grandeur of places like the Indian River Lagoon, but by connecting ecology with economics and raising awareness of the critical economic impact of these wild places. "I like to put the private sector perspective into the public sector," De Freese said.

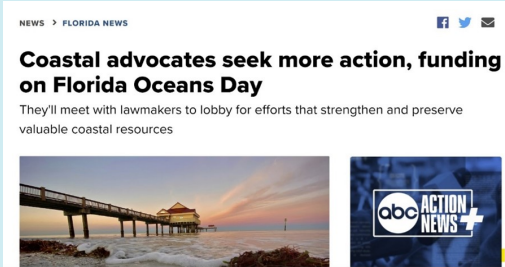
For De Freese, the Lagoon, the beach and the ocean represent more than pretty landscapes. The Lagoon generates \$7.6 billion annually for the regional economy through tourism, recreation and industry. "Our oceans and coasts are the engine that drives the economy and quality of life of Florida and the nation," he said. [Read the complete article here](#)





WFTS
TAMPA BAY

FOA Directors DiBella and Murley Make the Case at Oceans Day for Protecting Florida's Coastal Resources



ABC Action News interviewed FOA Board Members Laura DiBella and Jim Murley about Oceans Day.

Billions of dollars in annual economic impact and more than a million jobs, and the Florida Ocean Alliance says both are provided and supported by Florida's coastal waterways, seaports, and beaches.

The nonprofit is a nonpartisan group of "private industry, trade, academic and environmental organizations promoting awareness and understanding of the ocean's importance to the economy and environment of Florida."

[Read the article](#)

Student-scientists Explore the Gulf to Collect Ecosystem Data

In February 2022, Florida Gulf Coast University utilized the State's R/V Hogarth for immersive, hands-on educational cruises for students out of Ft. Myers. Led by **Florida Institute of Oceanography (FIO)** Council Member and Marine and Earth Science Professor Puspa Adhikari, the State University System-sponsored, ship-time cruises drew media coverage from the local ABC7 TV affiliate.



Professor Adhikari said it's a rare opportunity for students to work alongside real scientists. "We are trying to give them real exposure on how oceanographic sampling and instrumentation works and how marine science works in the field," said Adhikari. The hands-on experience is made possible by grant money and a partnership with FIO. [Read the article and view the video](#)

FOA Member News & Announcements



Florida Sea Grant Expands Its Portfolio of Restoration Aquaculture Research, Development and Outreach Projects

by Dr. Sherry Larkin, Florida Sea Grant

Restoration aquaculture utilizes an age-old form of farming in aquatic systems to produce ecosystem benefits that may be distinct from, or additional to, food production. Restoration aquaculture has the potential to be an important weapon in the arsenal of measures required to combat water quality hazards, enhance coastal resilience, and support Florida's coastal aquaculture industry. **Florida Sea Grant (FSG)** has been at the forefront of efforts to develop the science, management and policy required to get this fledgling industry off the ground. Three recent grants will accelerate these efforts.

- FSG affiliate Dr. Ashley Smyth received a \$100,000 grant from The Nature Conservancy to quantify the site-specific nitrogen removal potential for shellfish in regions where shellfish

aquaculture is already occurring. The data will help to inform an economic analysis of the value of the ecosystem services currently provided, and a policy analysis to identify appropriate ecosystem service payments (including nutrient credit trading) that can be used to create a market for bivalve-based restoration aquaculture.

- FSG affiliate Dr. Josh Patterson received \$15,000 funding from the National Sea Grant office to host a stakeholder workshop to advance a common understanding of the opportunities that restoration aquaculture presents in Florida and any obstacles that may stand in the way. The intent of the workshop is to develop a restoration aquaculture “community of practice” among industry, agency, and research institutions.
- Beyond bivalves, Patterson and FSG Monroe County Extension Agent Shelly Krueger have received a \$215,000 grant from the EPA to advance sponge restoration aquaculture in the Florida Keys. The 3-year study will answer key questions about sponge reproductive biology in support of the State’s current restoration and management program. The project’s education and outreach component will create novel content to inspire the South Florida community and engage the public in promotion of sponge habitat restoration.

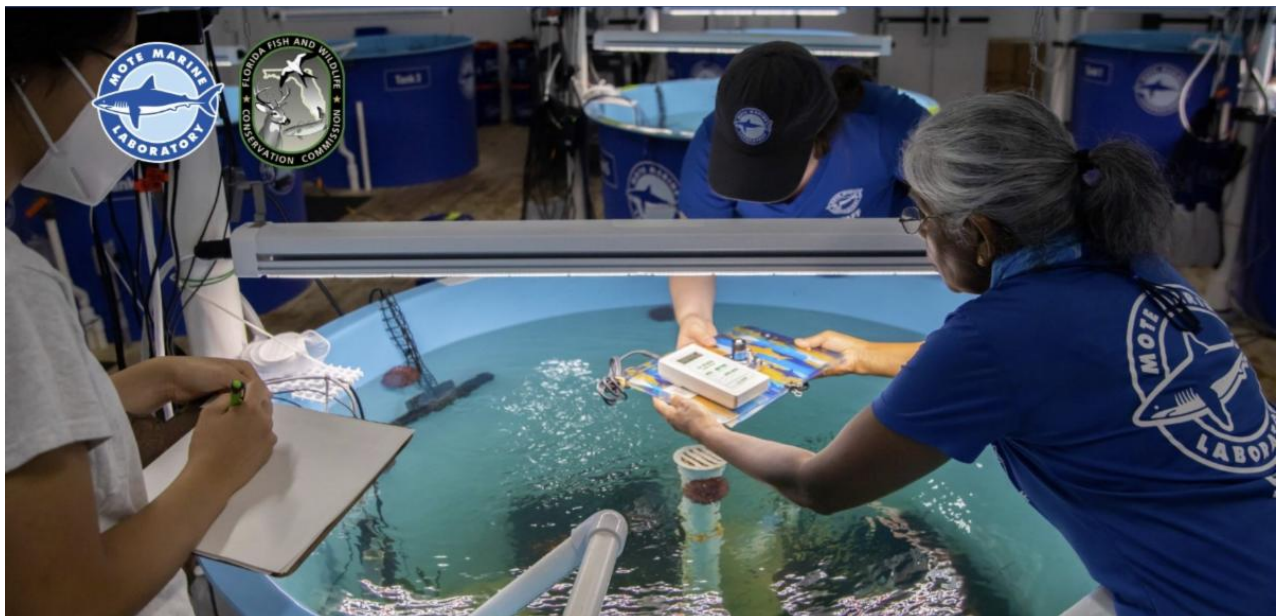


Above: Restored vase sponges, *Ircinia campana*, in Florida Bay



Above: Propagules of sheepswool sponges, *Hippospongia lachne*, in FWC sponge nurseries in the Florida Keys for future restoration outplanting

The Florida Red Tide Mitigation & Technology Development Initiative Report



The Florida Red Tide Mitigation & Technology Development Initiative is a partnership between **Mote**

Marine Laboratory (Mote) and the Florida Fish and Wildlife Conservation Commission (FWC). The Initiative establishes an independent and coordinated effort among public and private research entities to develop prevention, control and mitigation technologies and approaches that will decrease the impacts of Florida red tide on the environment, economy and quality of life in Florida.

Red tides, or red tide harmful algal blooms, are a higher-than-normal concentration of microscopic alga that occur in ocean and coastal waters. Red tides in Florida have been documented since the 1700's and their likely impacts date back to records from Spanish explorers. In Florida, the toxin producing *Karenia brevis* is the species causing most red tides. These blooms can harmfully affect sea life, lead to massive fish kills, cause human respiratory problems, close beaches, and determinately impact shellfish, fishing, hotel, restaurant, recreational, and tourism industries. [Read the Accomplishments and Priorities Report](#)

Pharmaceutical Contaminants Threaten Bonefish Fishery



Panelists left to right: State Representative Bobby Payne (R-19); Dr. Aaron Adams, BTT Director of Science and Conservation; Dr. Jennifer Rehage, Study Lead Researcher, FIU Coastal Fisheries Research Lab; Jim McDuffie, BTT President and CEO

A three-year study by **Bonefish and Tarpon Trust (BTT)** and Florida International University (FIU) has discovered pharmaceutical contaminants in the blood and other tissues of bonefish in Biscayne Bay and the Florida Keys.

“Coastal fisheries face increasing threats associated with human-based contaminants,” said Jim McDuffie, BTT President and CEO. “Pharmaceuticals are an often-overlooked dimension of water quality and their presence in South Florida bonefish is cause for concern. These contaminants pose a significant threat to the flats fishery.”

FIU scientists and BTT research associates, in partnership with Sweden’s Umeå University and the University of Agricultural Sciences (SLU), sampled 93 fish in South Florida, finding an average of seven pharmaceuticals per bonefish and a whopping 17 pharmaceuticals in a single fish.

FOA Board Member **Kellie Ralston** and former FOA board member Jim McDuffie, representing BTT, hosted the **panel presentation** of the study findings on February 2 in Tallahassee. [Read more](#)



*Pictured at right: Bonefish or *Albula vulpes**

FAU Harbor Branch Pursues Innovative Ocean Research

Founded in 1971 by Seward Johnson and Edwin Link, **Florida Atlantic University Harbor Branch Oceanographic Institute** has provided 50 years of groundbreaking research and exploration to address the critical issues facing the oceans and impacting human health and wellbeing. Over 50 years, FAU Harbor Branch marine scientists, engineers, educators and students have grown to serve as valuable community resources and remain trusted leaders for marine and ocean science research, conservation and education worldwide.



Five decades of research have yielded a treasure trove of long-term data sets related to the Arctic, the Caribbean and the farthest stretches of the Indian River Lagoon. To this day, FAU Harbor Branch relentlessly pursues innovative ocean research while providing top-tier educational programs that will lead us to solve the most pressing issues facing our oceans and us. From developing new cancer therapies and working on cutting-edge aquaculture techniques for global food security to tackling toxic algal blooms, FAU Harbor Branch has remained steadfast in the pursuit of Ocean Science for a Better World®.

“We want to help the world. More than 70% of the Earth’s surface is ocean,” said **Jim Sullivan, Ph.D., Executive Director, FAU Harbor Branch**. “Our weather, our food, our very lives are dependent on the ocean, and now more than ever, there is a critical need to understand the ocean and how to best manage this complex ecosystem for the benefit of society.”

FAU Harbor Branch’s relentless pursuit of innovative ocean research is dependent on strong partnerships with our supporters. We invite you to join us as we celebrate our storied past, current successes and exciting future, and to invest in the most urgent priorities of the Institute and our oceans through our Corporate Partners Program. For information on funding opportunities, contact Amanda Nickeson, Executive Director of Development, anickeson@fau.edu or 412-296-1852.



Paul Anderson observes nesting birds on Port Tampa Bay’s spoil islands. Globally significant populations of migratory birds nest on the Port’s two dredge material management areas and spoil islands in Hillsborough Bay.

Port Tampa Bay - Committed to a Blue Economy and Sustainable Environment

In the new Port Tampa Bay blog, *CEO Corner*, **FOA President Paul Anderson** shared how **Port Tampa Bay** has risen to the challenge of being an industrial seaport that remains deeply committed to environmental sustainability. As one of the first ports in the nation to have a dedicated Environmental Department, Port Tampa Bay is deeply committed to environmental sustainability and natural resource protection. [Read the blog here.](#)

Armaly Brands Continues Eco-Friendly Growth in the Natural Sponge Business

Armaly Brands was founded in the Bahamas in 1908 when W.J. Armaly began harvesting, processing and shipping natural sea sponges around the world. The family business continues to grow with fourth-generation President John Armaly, and the future is strong with fifth-generation family members in key leadership roles within the business.



Over the last two years, Armaly Brands has made investments and improvements in the fishing network and processing of natural sea sponges from their Tarpon Springs, FL location. Their growth and improvements have not distracted the company from its environmental commitment. In addition to its eco-friendly packaging, Armaly Brands continues to support eco-friendly harvesting from the ocean, providing for a sustainable and renewable natural ecosystem.

Armaly Brands, represented by **FOA board member Jim Cantonis**, is a member of Florida Ocean Alliance and a supporter and member of Florida Sea Grant, which continues to help monitor, research, and improve the ocean habitat.

To learn more about Armaly Brands sponges, [visit https://www.armalybrands.com/](https://www.armalybrands.com/)



Interns were instrumental in the Port's Honeybee Conservation Program to safely collect honeybees in baited swarm traps and transfer them to protective beekeepers.

Environmental Interns at Port Everglades Make Big Impacts

Environmental students at local colleges are having positive impacts at **Port Everglades** while garnering on-the-job knowledge and experience through a robust internship program. Since 2017, 15 interns have completed the program, two have opted to receive college credits for their internships and one found full-time employment with a port consultant. The interns have been fully immersed in activities involving managing an environmental program at a major seaport, and each was assigned additional research or projects that advance many of Port Everglades' significant environmental initiatives.

[Read more](#)

Florida Legislature, Executive Branch & State Agency News

Funding for the Strategic Policy Plan: Securing Florida's Blue Economy Is Proposed for 2022 State Budget

Expanding the Blue Economy of Florida's Oceans and Coasts Is One Step Closer to Becoming a Reality.

The focus of FOA's proposed strategic planning effort for Florida's Blue Economy is on the importance of marine-related industries and Florida's ocean and coastal environments to a healthy state economy. The proposed project will expand the 2020 efforts to formulate a Blue Economy for Florida by updating the contributions and significant impact of ocean and coastal industries on the state's economy. And it will identify the potential for expansion in marine-related economic sectors to foster job growth.



A report and recommendations developed by the FOA Board of

Directors will guide strategic decisions for expanding these important industries. A second phase will provide for outreach and education using public service announcements, social media, and collateral for the public and policymakers statewide.

In March 2022, FOA's request for funding for the project was included in the State budget that was passed by the Florida Legislature and sent to Governor DeSantis.

Florida Fish and Wildlife Conservation Commission Update on Manatee Unusual Mortality Event



Above: Manatees at a FWC feeding station.

Jennifer Fitzwater, Chief of Staff, Florida Fish and Wildlife Conservation Commission (FWC), briefed FOA members and guests at the recent Oceans Day luncheon on the Unusual Mortality Event (UME) affecting manatees on Florida's Atlantic Coast. Ms. Fitzwater said, "There are a variety of approaches being used to bring immediate relief to manatees in need of assistance, including the temporary feeding trial and rescue and rehabilitation efforts. We are grateful to our dedicated staff and many partners, including the U.S. Fish and Wildlife Service, Florida Power and Light and the Manatee Rescue and Rehabilitation Partnership for their ongoing work, which is making a significant difference for Florida manatees."

The FWC and the U.S. Fish and Wildlife Service (Service) continue to investigate manatee mortalities and rescue manatees. Responding to live manatees in need of rescue is a top priority for wildlife agencies and partners from the Manatee Rehabilitation Partnership. FWC manatee biologists have been responding to public reports of distressed manatees and rescuing manatees that need assistance, implementing science-based conservation measures that are making a difference for both manatees and their habitat.

Environmental conditions in portions of the Indian River Lagoon remain a concern. Researchers have attributed the UME to starvation due to the lack of seagrasses in the Lagoon. In recent years, poor water quality in the Lagoon has led to harmful algal blooms and widespread seagrass loss.

Moving forward, the FWC and the Service will continue to closely monitor the situation and work with partners to explore both short- and long-term and small- and large-scale response options, including aquatic habitat restoration.

Follow these links for more information and updates from the FWC.

<https://myfwc.com/research/manatee/rescue-mortality-response/ume/>

<https://myfwc.com/research/manatee/rescue-mortality-response/ume/faq/>

<https://myfwc.com/research/manatee/rescue-mortality-response/ume/updates/>

<https://myfwc.com/research/manatee/rescue-mortality-response/ume/media-resources/>

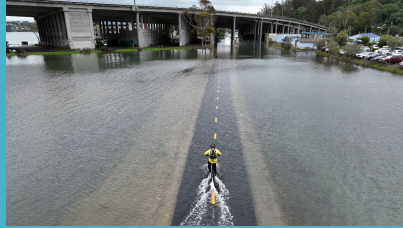
More News & Information



USF Set to Receive \$75M for New Environmental and Oceanographic Sciences Facility

The Legislature has allocated \$75 million in its budget proposal for the University of South Florida's new Environmental and Oceanographic Sciences Research and Teaching Facility. The funding will help the university start building the facility on its St. Petersburg campus. UCF announced plans for the project in January.

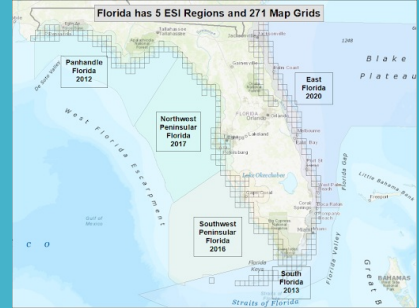
[Read More](#)



Ocean Water Along U.S. Coasts Will Rise About One Foot by 2050, Scientists Warn

Sea levels along coastlines in the United States will rise about one foot by 2050, with larger increases on the East and Gulf Coasts, according to a comprehensive new report by federal climate scientists. Oceans have already risen about one foot in the last century, as climate change melts glaciers and ice caps around the world.

[Read More](#)



How OR&R's Partners in Florida Use Environmental Sensitivity Index Maps and Data

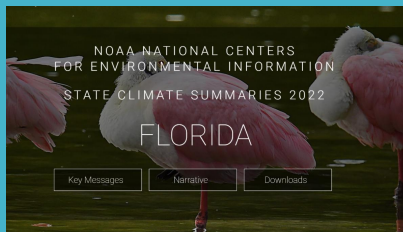
The state of Florida has the most coastline of any in the contiguous United States, from sandy beaches to subtropical islands, estuaries, mangroves, and everything in between. Protecting these critical coastal resources is a major task, and NOAA's Environmental Sensitivity Index product is a crucial tool in the state's belt.

[Read More](#)



2022 Sea Level Rise Technical Report

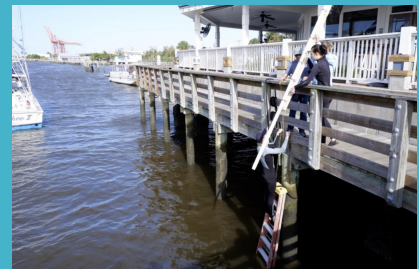
This Sea Level Rise Technical Report provides the most up-to-date sea-level-rise projections available for all U.S. states and territories. This multi-agency effort, representing the first update since 2017, offers projections out to the year 2150 and information to help communities assess potential changes in average tide heights and height-specific threshold frequencies as they strive to adapt to sea level rise.



NOAA Released New Climate Summaries for States, Plus Coastal County Snapshots Tools

NOAA has released new climate summaries for each state. **The State Climate Summaries** describe recent local conditions for each state and provide insights about the climate outlook based on historical trends.

NOAA also released new **Coastal County Snapshots**. This tool provides easy-to-understand charts and graphs that describe



SECOORA Funds a New Water Level Network - SECOORA

SECOORA is funding a network of low-cost water level sensors across the southeast to develop the next generation of coastal observing systems at the scale where people live and make decisions. The program will provide water level data to coastal communities in North Carolina, South Carolina, Georgia, and Florida that face threats from high tide flooding, storm surge, and sea-level rise.

[Read More](#)



Decarbonization of the Shipping Industry

Decarbonization is an issue that is currently affecting shipping, and it will shape the course of the industry for generations to come. The industry has to decide how they will address these future regulations, whether they implement new technologies, switch to new fuel sources, and/or change operational methods.

[Read More](#)

complex, county-specific coastal data. Communities use this information to ascertain community vulnerability and to plan accordingly. Topics covered currently include coastal flooding, the coastal economy, and the marine economy. A snapshot focused on sea level rise will be added soon. See more at [NOAA Digital Coast](#).

[Read More](#)



La Niña Update

Most fishermen have heard of El Niño: a climate event where trade winds weaken and the equatorial warm-water band that occurs when the jet stream moves southeast into the central and east-central Pacific Ocean, specifically around the equator, is pushed eastward, toward the west coast.

[Read More](#)



Climate Change 2022: Impacts, Adaptation and Vulnerability

Intergovernmental Panel on Climate Change Working Group II contribution to the Sixth Assessment Report

[Read More](#)

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



Member Spotlight

**Miami-Dade County
Office of Resilience**





Miami-Dade County Releases Year 1 Progress Update on Sea Level Rise Strategy

On February 28, the Intergovernmental Panel on Climate Change (IPCC) Working Group II released their report [Climate Change 2022: Impacts, Adaptation and Vulnerability](#). This report underscores the urgency of preparing for and adapting to the changing climate now.

Coinciding with the IPCC report, Miami-Dade County released its Year 1 Progress Update summarizing the implementation of the County's Sea Level Rise Strategy, which was released in February 2021. [Read about the Sea Level Rise Strategy here.](#)

Miami-Dade is already investing in adaptation to reduce flood risks and has been a leader on this issue for years thanks to the support of Mayor Daniella Levine Cava and the diligent leadership of the Board of County Commissioners.

Commissioner Rebeca Sosa was an early leader in crafting and passing legislation to help Miami-Dade understand and adapt to sea-level rise. She continues to shepherd landmark resolutions on sea-level rise through the Board of County Commissioners ensuring that the County is resilient now and into the future.

"Climate change and sea-level rise pose an immediate threat to our communities in Miami-Dade County, and many residents are already feeling the effects of sunny day flooding and increased stormwater flooding when we get heavy rainstorms," said Mayor Levine Cava. "Rising seas impact everything from our drinking water to our housing market, which is why I am so proud of the progress we've made implementing our Sea Level Rise Strategy. We are building a Miami-Dade County that is future-ready and a leader in climate adaptation."

Major successes this year include prioritizing septic-to-sewer projects that will protect the public health of our residents and Biscayne Bay. In addition, many of the County's applications to the Resilient Florida Grant Program were successfully recommended for funding. This could bring back more than \$247 million in state and federal grant funds to support resilience projects in Miami-Dade County.

Florida Oceans Day 2022 Roundup

Florida Oceans Day is FOA's annual conference of members, friends, officials and legislators who share common interests in Florida's marine and coastal issues and their critical role in sustaining a healthy economy in our state. On February 1, FOA board members, guests and staff gathered for the annual Oceans Day Board of Directors Luncheon at the



FOA President Paul Anderson welcomed all to Oceans Day and introduced special guests and speakers, including Jennifer Fitzwater, Chief of Staff, Florida Fish and Wildlife Conservation Commission; Dr. Mike Shirley, FDEP Office of Resilience and Coastal Protection; Portia Sapp, Division Director, Division of Aquaculture, Florida Dept. of Agriculture and Consumer Affairs; and Jeff Littlejohn, Consultant with the Florida Ports Council and Senior Policy Advisor at Adams and Reese LLP.

Directors and guests later attended Mote Marine Laboratory and Aquarium's Annual Oceans Day Legislative Reception at the Capitol. Mote's leadership team and scientists exhibited and explained their latest research and answered questions. Legislators who spoke included Senator Jim Boyd and Representative James Buchanan. They voiced support for research and initiatives to protect Florida's coastal and marine resources.

FOA Directors Laura DiBella and Jim Murley were interviewed and quoted in an Oceans Day news feature in [ABC News + Tampa Bay](#).

Paul Anderson summed up the 2022 Oceans Day, stating, "It was a pleasure to see everyone in Tallahassee and meet many for the first time in person. We had a very successful couple of days. Kudos to all who helped make our presence known, our staff, Mote, and Dr. Crosby and his team for the excellent reception at the Capitol. We had a great turnout."



(Left to right) FOA Executive Committee Members Paul Anderson, President, with Jim Murley and Michael Crosby at Oceans Day.

FOA President Paul Anderson (at the podium) welcomed members and guests to the Oceans Day 2022 Board of Directors Luncheon at the Governors Club, Tallahassee, FL.



Mote Marine Lab leadership, scientists and staff hosted the annual Mote Legislative Reception at the Capitol.

FOA directors, members and staff at Mote Marine Lab's Legislative Reception at the Capitol. (Left to right) Michael Crosby, Martha Lord, Kevin Claridge, Spencer Crowley, Jim Murley, Chris Cooley, Lenore Alpert and Kellie Ralston.

New Members

FOA welcomes new members Matthew McKean and Stephanie Miele.



Matthew McKean is an Executive Director and Banker in the Fort Lauderdale office of **J.P. Morgan Private Bank**. Matt works with uniquely successful, busy individuals and families who are concerned with preserving, protecting and transferring their wealth to future generations and/or charities. Matt is involved with philanthropic causes in the arts and aquatics, including Ocean Conservancy for South Florida, the International Swimming Hall of Fame and the Broward Center for the Performing Arts.



Stephanie Miele is the Chief Operating Officer of International Training, Inc. International Training is the parent company of **SDI/TDI, ERDI and PFI**, a global corporation specializing in scuba diving, freediving, and emergency/first-response training. In addition to her leadership role with International Training, she is active with Stuart/Martin County Chamber of Commerce, Martin County Leadership Alumni and is a Member of the Women Divers Hall of Fame (WDHOF).

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Port Tampa Bay



Laura DiBella
(FOA Vice-President)
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James Cantonis
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Josh Carroll
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Spencer Crowley
Akerman



Duane E. De Freese, Ph.D.
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Sherry Larkin, Ph.D.
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Bonefish & Tarpon Trust



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Lenore Alpert, Ph.D.
Executive Director, FOA

Florida Ocean News masthead photo: Courtesy of Miami Dade County Office of Resilience



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