

New Jersey Sea Grant  
Consortium

# ANNUAL REPORT 2023

**Sea Grant**  
NEW JERSEY  
SEA GRANT CONSORTIUM

I am thrilled to share with you the 2023 Annual Report. Reflecting on the past year, I can't help but view 2023 as a year of familiarity. After three years of pandemic response and adjusting to new paradigms, 2023 felt like a return to a recognizable state. It's a "new normal," undoubtedly, as our operations differ from pre-2020, but it signifies a sense of familiarity with how we function at NJS GC. This familiarity enables us to execute our activities, programs, and projects with confidence and enthusiasm. We've become accustomed to this routine, allowing us to navigate changes, challenges, and uncertainties successfully across NJS GC's realms of research, education, extension, and communications.



**DR. PETER  
M. ROWE**  
Executive Director  
NJS GC

Our achievements in these areas continue to grow, whether through strengthening existing programs or pioneering new ones born from fresh opportunities and innovative thinking. We're not seeking the same old "normal" outcomes; rather, we aim to expand our reach and deepen our understanding of New Jersey's coastal ecosystems and communities to ensure their preservation and sustainability.

Within this report, you'll observe our Education Department approaching pre-pandemic levels of student engagement through field trips, camps, and scouting programs. Witnessing the excitement of students both indoors and outdoors is always heartening. Our extension staff persists in serving their constituents, from established programs like vessel pump-out stations to newer initiatives like "Green Infrastructure Champions," aimed at enhancing stormwater management in overburdened communities. Our communications team excelled in organizing annual events such as The State of The Shore Press Event, Favorite Beaches Poll, and the Jersey Shore Photo Contest, alongside hosting summer interns. Additionally, our research expanded, including involvement with undergraduate students through a partnership with NOAA's James J. Howard Laboratory. We continued to secure funding for National Sea Grant projects, implementing initiatives in aquaculture workforce development and marine debris education. All of these efforts culminated in our 20th Annual Ocean Fun Days!

The achievements in this "new normal" would not have been possible without the hard work and dedication of NJS GC's staff, board members, partners, stakeholders, and friends. As we welcomed new team members and bid farewell to others, our adaptable staff remains committed to addressing New Jersey's coastal and marine challenges for residents and visitors alike. Our mission and vision persist as we collaborate with stakeholders through our functional programs in marine and coastal research, education, communication, and extension. This report showcases our drive and accomplishments in 2023. Thank you for your unwavering support of NJS GC. Please enjoy this Annual Report.



## BOARD OF TRUSTEES CHAIRMAN'S MESSAGE

Change. The word exemplifies New Jersey's vast coastline. Storms re-shape beaches; the tides never replicate. The animal kingdom is attuned to change. Red Knots time their 9,000-mile migration to the arrival of horseshoe crab eggs in New Jersey's bays and estuaries. Change can be as small as a hermit crab changing shells, or as epic as a humpback whale breaching 100 yards offshore.

Change is a notion to which the New Jersey Sea Grant Consortium is well-accustomed. Federal funds that sustain us can be hostage to political whims. A Superstorm can speed the tempo on coastal resilience research. A pandemic can remind us how important our relationships are.

Untouched by a world of change is our commitment to research, education and outreach. Yes, change drives us, but our core values remain our anchor. Our program is unique among the Sea Grant organizations throughout the country in our status as a consortium. We are comprised of 31 member institutions of higher learning. Our members collaborate, partner and share. We stand

alone in having a collective wisdom derived from different ways to problem solve. The word 'inclusive' seems woefully inadequate to describe us.

Our staff at Sandy Hook is the engine that drives the machine. I have been fortunate to watch these fine people thrive when, by all accounts, they should have failed. There is no place on a resume for 'passion,' but it is the secret ingredient to our success. We salute them in gratitude.



DENNIS T. KEARNEY

Please enjoy these pages and see that I am right. We serve because of our passion for the sea and our commitment to you. On behalf of the Executive Committee, our Board of Trustees and our member institutions, I am pleased to offer our Annual Report.

## SPONSORS & DONORS

### Corporations

New Jersey Natural Gas Company

### NJSGC Trustees & Representatives

Aikins, Greg  
Bologna, Paul  
Kearney, Dennis  
Richmond, Courtney  
Straub, Peter

### Other Donors

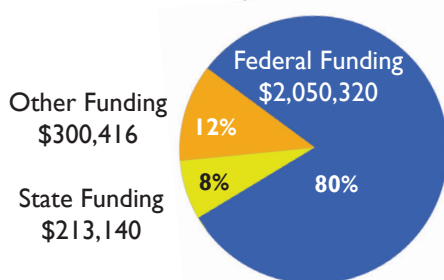
Amazon Smile  
Cusano, Jeff  
DeBare, Mary  
Eckstein, Rob  
Horvath, George

Kasser, Norman  
Marchisin, Grace  
Rossbach, Lee  
Rowe, Peter  
Voss, Ned & Fran

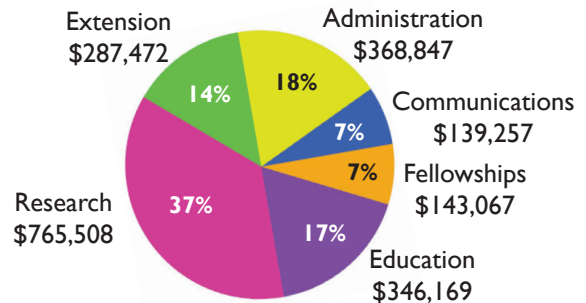
## FISCAL YEAR 2023

### SOURCE OF FUNDS

Total Funding \$2,563,876



### INVESTMENT OF FEDERAL FUNDS



### **Coastal Resilience & Coastal Processes Specialists**

The Coastal Resilience Specialist Laura Kerr and Coastal Process Specialist Dr. Jon Miller continued to actively engage in providing support to the New Jersey Coastal Resilience Collaborative (NJCRC). Support in 2023 focused on continuing to broaden the Collaborative and providing technical assistance to municipalities through the Technical Assistance Directory and bi-monthly Coffee Chats. This year has seen growth in the NJCRC Workgroups doing the “real work” of the NJCRC including a workgroup focused primarily on the regulatory hurdles for ecological restoration at all levels of engagement. A new website is under construction that will better serve the needs of the New Jersey coastal resilience community; a significant addition will be a searchable Regional Restoration Database. In March 2024 the NJCRC hosted its first conference jointly with NJDEP entitled the NJ Coastal & Climate Resilience Conference. It has far surpassed original expectations.

Coastal Resilience Specialist Laura Kerr and Coastal Process Specialist Dr. Jon Miller continued to be actively engaged in providing support to the state of New Jersey and its coastal communities on living shorelines. In 2023, the NJSJC specialists worked with the NJDEP to refine guidelines on the engineering of living shoreline projects and perform an evaluation of projects constructed over the last decade. They also continued to work with Ocean County on options for stabilizing eroding shorelines at Cattus Island County Park. In June 2023, they presented a two-day short course to NJDEP staff on coastal engineering which included site visits to recently constructed ocean front and bayshore shoreline stabilization projects.

### **Marine Recreation Agent**

The Marine Recreation Agent, Michael Danko, has continued to work with the NJDEP and members of the Harmful Algal Bloom Expert Team and to complete the Harmful Algal Bloom Lake Management Guidance document designed to help lake managers and lake communities develop plans to address Harmful Algal Blooms (HAB). The Guidance document will be released in 2024 at an NJDEP HAB Summit. Training on how to use the document and develop plans to prevent and reduce HABs will be held in the spring of 2024. Several NJSJC member institutions serve on the panel along with members from federal agencies and private consultants. NJSJC member institutions include George Mason University, Monmouth University, Montclair University, Rowan University and Rutgers University.

Work continued on bringing together businesses and municipalities that generate used shrink with businesses

that have the capability to collect, process and recycle it into new material. Along with representatives from Morris, Sussex and Monmouth Counties, the Marine Recreation Agent was able to meet with representative from Ultra Poly Corporation to discuss shrink wrap recycling and tour the facility where it is recycled.

In partnership with the NJDEP Fish and Wildlife, the 2023 Marine Recreational Fishing Regulation cards and posters were printed and distributed. Over 200,000 cards and 400 posters were distributed to recreational fishing related businesses for distribution to anglers. In 2023, the effort saw an increase in the requests for both the cards and posters.

### **Resilient Communities and Economies Specialist**

The Resilient Communities and Economies Specialist (RCES), Dr. Tom Herrington, partnered with Naval Weapons Station Earle (NWSE) and Monmouth County to advance coastal resilience projects identified in a Joint Land Use Study (JLUS) conducted by NWSE, Monmouth County and the surrounding municipalities. The RCES received funding to advance the proposed coastal resilience projects in Aberdeen Township, Highlands, Avon-by-the-Sea and Bradley Beach, identified in the study from conceptual design through site assessment, preliminary design and permitting. The RCES additionally partnered with Coastal Resilience Department of Defense (DoD) Liaison, Michelle Covi at Georgia Sea Grant to build awareness of opportunities for Sea Grant Programs to assist DoD defense communities to become more resilient to coastal hazards by sharing expertise and making connections across Sea Grant, DoD and community leadership.

The RCES specialist continued to collaborate with New York Sea Grant, on the NY/NJ Metro area social media BEach SAFELY campaign. As the densely populated NY/NJ Metro continued to see an increase in visitors to the coast, public messaging to reinforce beach safety continued to ensure tourists have a safe and enjoyable beach experience. Additional messaging related to digging deep holes on the beach and raising awareness of marine life were created. Eliminating pandemic messaging and expanding the content ensures the success of the summer BEach SAFELY social media campaign for many years to come.

### **Shellfish Aquaculture Program Coordinator**

In late summer, 2023, Dr. Michael Acquafredda began serving in the role of Aquaculture Program Coordinator. He intends to build upon the established NJSJC Aquaculture Program that uses applied research, extension, education, and outreach efforts to promote a responsible, resilient, and dynamic New Jersey aquaculture industry

that balances environmental and economic sustainability. He will continue to engage numerous partners, including the aquaculture community, federal and state agencies, academic partners, students, and local communities. He will continue to team up with the NJSJC Education Department to implement the career-readiness New Jersey Apprenticeship in Shellfish Aquaculture Program that introduces middle and high school students to oyster aquaculture as a career opportunity. The program, builds aquaculture career interest and competencies through student engagement in a school-based enterprise oyster farm. The project will continue in 2024 giving participants the opportunity to work in aquaculture industry over the summer.

In 2024, Dr. Acquafredda plans to bring back the New Jersey Growers Forum, where the aquaculture industry and experts from academia, state and federal agencies, and other groups can directly communicate to resolve concerns, problems and other issues the industry is facing.

### **Water Resources Agents**

Water Resources Agents, Richard Kelly and Dr. Roy Messaros continued running the Green Infrastructure Champions Program in 2023 with ten unique and completely virtual educational sessions offered. 305 participants completed five or more sessions to become certified Green Infrastructure Champions and leaders who can advocate for green infrastructure in their communities. Participants represented 20 different counties in New Jersey, and 28 participants were from outside of New Jersey. Government organizations comprised the majority of participants followed closely by members of non-government organizations and private companies.

The Water Resource Agents assisted and empowered ten Green Infrastructure Champions by providing project coordination, technical support, and construction management for their green infrastructure projects in overburdened communities. Support included the design of green infrastructure and stormwater best management

practices such as rain gardens and bioswales, and organizing construction by procuring project materials, hiring contractors, and coordinating with local public works staff to install green infrastructure projects. In total, ten green infrastructure projects were designed for Green Infrastructure Champions in overburdened communities. In 2023, nine of the ten designs were installed in the counties of Burlington, Camden, Middlesex, Monmouth, Sussex, and Warren. These projects total 4,970 square feet in size and manage a total volume of 689,242 gallons of stormwater annually. A total drainage area of 38,106 square feet is managed, including 34,346 square feet of impervious surfaces including building rooftops and pavement. In addition to water quantity, these green infrastructure practices remove pollution from runoff, including 0.35 pounds total phosphorus (TP), 1.81 pounds total nitrogen, and 92.36 pounds total suspended solids (TSS).

### **Jersey Shore Junior Science Symposium**

The 6th annual New Jersey Southern Junior Science and Humanities Symposium (NJSJSHS) was held at Lakehurst Naval Air Station Base on February 24, 2023 and hosted by Ocean County College. The NJSJC provided an award for the Top Environmental Paper to Victoria Yakes, Marine Academy of Technology and Environmental Science, Stafford Township, for her paper presentation on Analysis of Tannin Interference on Enterolert\* 250 Testing of Enterococcus SPP. The award for Top Environmental Poster went to Bethany Suliguin, Marine Academy of Technology and Environmental Science, Stafford Township, for her poster on Porcelain Berry (*Ampelopsis brevipedunculata*) and Autumn Olive (*Elaeagnus umbellata*) in New Jersey: An Invasive Plant Biofuel-Based Management Strategy. In addition, Victoria Yakes went on to compete in the Environmental Sciences division at the National Junior Science and Humanities Symposium and came in second place for her oral presentation. The 61st National Junior Science and Humanities Symposium was held on April 12-15, 2023, in Virginia Beach, Virginia

## **COMMUNICATIONS**

NJSJC's outreach efforts are expanding, with a subscriber base exceeding 7,000 for our "COASTodian" quarterly online newsletter. This publication offers insights into NJSJC's funded research, educational initiatives, and outreach endeavors. As our interactive content continues to enhance our social media presence with updates disseminated to over 2,700 Facebook followers, over 2,000 Twitter followers, 1,239 Instagram followers, and 450 LinkedIn connections.

The 21st annual State of the Shore media event returned to Asbury Park in May, featuring reports from NJSJC's Coastal Processes Specialist, Dr. Jon Miller, and NJDEP Commissioner, Shawn LaTourette, regarding the condition

of New Jersey's beaches and coastline forecasts for the upcoming 2023 summer season.

The 2023 Jersey Shore Photo Contest received numerous stunning submissions, with the public selecting the 12 finalists through a voting poll. These winners can be viewed on our website: [njseagrant.org](http://njseagrant.org), and were showcased in the 2023 Jersey Shore Photo Contest Calendar.

Ocean City maintained its status as New Jersey's "Favorite Beach" in NJSJC's renowned annual poll, attracting participation from several thousand voters. The awards ceremony took place on the Ocean City boardwalk in July, celebrating this well-deserved recognition!



## EDUCATION

### **K-12 Programs**

NJSGC supports New Jersey's educators by providing relevant outdoor experiential learning programs for students in grades K-12 that complement their curricula and align with New Jersey Student Learning Standards. With the focus on essential principles of ocean and climate literacy, NJSGC's educators facilitate and engage visitors with programs that explore species diversity, coastal ecosystems, climate change and human impacts on the environment. Between April and November in 2023, 11,475 K-12 students and their teachers visited Sandy Hook to participate in field trips and took home a greater appreciation for the ocean and New Jersey's coastal ecosystems.

### **Scouts**

Boy and Girl Scout groups are supported with learning opportunities across 19 programs and 5 field trip options that combine STEM learning with stewardship while meeting requirements for badge achievement. In 2023, 1,037 boy and girl scouts and their troop leaders took part in programs such as Wonders of Water and BSA Environmental Science that introduced them to coastal ecosystems and how humans interact with and can affect nature. As a result of participating in a scout program, Girl Scout Troop #513 from Spring Lake created an informative marine debris video to share with other scout groups to create awareness about marine plastic pollution.

### **Ocean Fun Days**

Ocean Fun Days celebrated its 20th year as an eco-friendly celebration of the sea promoting ocean stewardship and energy conservation. The two-day weekend event takes place each May at the start of New Jersey's summer beach season and invites visitors to learn about coastal resources from 58 exhibitors in two of New Jersey's most beautiful parks, Gateway National Recreation Area on Sandy Hook and Island Beach State Park. The event showcases research supported by NJSGC and provides a platform for other like-minded organizations to engage with the public to increase awareness of environmental issues. Held in cooperation with founding partners New Jersey Natural Gas, National Park Service and New Jersey Department of Parks and Forestry, Ocean Fun Days was supported by 256 volunteers and reached approximately 15,000 participants in 2023. The [Oceanfundays.org](http://Oceanfundays.org) website is maintained specifically to enhance the experience by providing unique videos and educational materials on topics ranging from marine

animals and marine careers to energy saving tips with environmental impact.

### **Professional Development**

NJSGC supports its educator colleagues by providing professional development opportunities to increase content knowledge and pedagogical strategies in their practice. The 2023 summertime workshop engaged 6 elementary school educators with best practices in teaching climate science to increase their ability and confidence to effectively teach climate change to their K-6th grade students. Teachers learned basic climate science and classroom-ready activities to share in their classrooms.

### **Partnerships**

NJSGC and its Gateway National Recreation Area educational partners, National Park Service-Staten Island and Jamaica Bay-Rockaway Parks Conservancy, continue to collaborate in offering free programs for students in grades 3-5 through the National Park Foundation's Open Outdoors for Kids – Every Kid Outdoors project. This initiative encourages students and their families to visit national parks as they learn to appreciate the cultural history and natural beauty of our nation's parks. This project provided the opportunity for 5,729 participants to participate in NJSGC's outdoor experiential learning programs such as field trips, scout programs and summer camp, as well as in-school and virtual programs. All programs focus on Gateway's coastal ecosystems and the benefits of visiting our national parks.

### **Marine Debris**

NJSGC is collaborating with Columbia University's School of Sustainable Development at the Earth Institute and New York Sea Grant on a BIL (Bipartisan Infrastructure Law) Marine Debris Community Action Coalition project that will engage youth in community science activities to create awareness and help to mitigate the environmental issues associated with microplastic pollution in New Jersey and New York watersheds. As Eco Ambassadors, middle and high school students will explore various facets of Sustainable Development and grow their abilities to critically assess information by gathering water samples from their neighborhoods, analyzing these samples for the presence of microplastics, and creating StoryMaps to articulate their own narratives and solutions to their community's plastic pollution issues.

## BOARD OF TRUSTEES

### EXECUTIVE COMMITTEE

#### CHAIRMAN

**Dennis T. Kearney**  
Kearney Law LLC

#### Vice-Chairman

**Dr. Howard I. Parish**  
Jersey City University

#### Executive Director

**Dr. Peter Rowe**  
New Jersey Sea Grant Consortium

#### Director of Human Resources and Administration

**Corporate Secretary  
Deborah A. Quinn**  
New Jersey Sea Grant Consortium

#### Fiscal Officer

**Debra Burd**  
New Jersey Sea Grant Consortium

**Gregory T. Aikins**  
Medical Management Techniques, Inc.

**Dr. Keith R. Cooper**  
Rutgers, The State University of New Jersey

**Thomas R. Siegart, CPA**  
IEEE

### TRUSTEES

**Dr. Michel Boufadel**  
New Jersey Institute of Technology

**Lindsay J. Fuller**  
South Jersey Advisors, LLC

**Dorina Frizzera**  
Getting to Resilience, LLC

**Kanesha K. Jones**  
Janssen Pharmaceuticals/  
CJCNANBPWC

**Dr. Jay Kelly**  
Raritan Valley Community College

**Dr. Michael Peek**  
William Paterson University

**Dr. Oscar Schofield**  
Rutgers, The State University of New Jersey

**Dr. Gary H. Dickinson**  
The College of New Jersey

**Dr. Charles Schutte**  
Rowan University

**Dr. Louise Wootton**  
Georgian Court University

**Dr. Heping Zhou** Seton Hall University

### GOVERNMENT AGENCIES

**Genevieve Boehm-Clifton**  
New Jersey Department of Transportation/ Office of Maritime Resources

**Dr. James Vasslides**  
National Marine Fisheries Service

**Commissioner Shawn LaTourette**  
New Jersey Department of Environmental Protection

**Jacqueline Pruiti**  
New Jersey Department of the Treasury/Office of Management and Budget

**Acting Commissioner  
Dr. Angelica Allen-McMillan**  
New Jersey Department of Education

### EX-OFFICIO MEMBERS

**Honorable Douglas H. Fisher**  
New Jersey Department of Agriculture

## MEMBER INSTITUTIONS & REPRESENTATIVES

#### The College of New Jersey

Dr. Gary H. Dickinson

#### Fairleigh Dickinson University

Dr. Marion McClary Jr.

#### Georgian Court University

Dr. Louise Wootton

#### Kean University

Dr. Lucas Kirby

#### Monmouth University

Mr. Tony MacDonald

#### Montclair State University

Dr. Paul Bologna

#### New Jersey City University

Dr. EunSu Lee

#### New Jersey Institute of Technology

Dr. Brooke Flammang

#### Ramapo College of New Jersey

Dr. Angela Cristini

#### Raritan Valley Community College

Dr. Jay Kelly

#### Rowan University

Mr. Charles Schutte

#### Rutgers, the State University of New Jersey

Dr. Oscar Schofield

#### Seton Hall University

Dr. Heping Zhou

#### Stevens Institute of Technology

Dr. Muhammad Hajj

#### Stockton University

Dr. Peter F. Straub

#### Union County College

Dr. Marie Montes-Matias

#### William Paterson University

Dr. Michael Peek

#### ASSOCIATE MEMBERS

#### Academy of Natural Sciences of Drexel University

Dr. Richard J. Horwitz

#### Coonamessett Farm Foundation

Dr. Samir Patel

#### George Mason University

Dr. Ling Ren

#### Marine Academy of Science & Technology

Earl Moore

#### Wetlands Institute

Dr. Lisa Ferguson

#### Woods Hole

**Oceanographic Institution**  
Mark Baumgartner

## STAKEHOLDER ADVISORY BOARD

### CHAIR

**Dr. Stanton Hales, Jr.**  
Director, Barnegat Bay Partnership

#### Helaine Barr

NJDEP, Supervisor of Climate Change Section

#### Joseph M. Barris

Monmouth County Division of Planning

#### Matthew R. Gregg

Forty North Oyster Farms

#### Dr. Andrij Horodysky

NOAA/National Marine Fisheries Service

#### Pat Heaney

Alliance for NJ Environmental Education

#### Jeff Kaelin

Lunds Fisheries, Inc.

#### Clare Ng

Marine Academy of Science and Technology

#### Lori A. Pepenella

Southern Ocean County Chamber of Commerce

#### Dr. Steven J. Tuorto

The Watershed Institute

#### Dr. Judith Weis

Rutgers University Professor Emerita



## STAFF

### ADMINISTRATION

**Dr. Peter Rowe**  
Executive Director  
Director of Research and  
Extension

**Deborah A. Quinn**  
Director of Human  
Resources and  
Administration

**Julie Lang**  
Program Associate and  
Grants Administrator

**Lisa Aromondo**  
Program Associate

### ACCOUNTING

**Debra Burd**  
Fiscal Officer

**Diane Desch**  
Accounting Assistant

### COMMUNICATIONS

**Samantha Kreisler**  
Communications Specialist

**Rory Joyce**  
Communications Associate

### EDUCATION

**Diana Burich**  
Director of Education

### Rosemary Higgins

College & Special Programs  
Coordinator

**Alaina Perdon**  
K-12 Program Coordinator

**Jody Sackett**  
Scout Program  
Coordinator

**Mindy Voss**  
Education Specialist

### EXTENSION

**Dr. Michael  
Acquafredda**  
Aquaculture Extension  
Agent

### Michael Danko

Assistant Director of  
Extension  
Marine Recreation Agent:  
Fisheries and Boating

**Dr. Thomas Herrington**  
Coastal Community  
Resilience Specialist

**Laura Kerr**  
Coastal Resilience Specialist

**Dr. Roy C. Messaros**  
Water Resources Agent

**Dr. Jon Miller**  
Coastal Processes Specialist

## FIELD TRIP, SCOUT & CAMP INSTRUCTORS

Melissa Abad  
Al Avizius  
Ron Blandon  
Caitlin Boyle  
Sara Breslow  
Maddie Calello  
Toni Cerbo  
Linda Cohen  
Olivia Davidson  
Kayla DeBeVoise

Janelle DelCastillo  
Fallon Duelly  
Robert Eckstein  
Kathy Elderhorst  
Olivia Fanelli  
Kathleen Gasienica  
Ariana Gayla  
Ava Gandhi  
Jen Gibbons  
Emma Gould

Rosemary Higgins  
Kathryn Homeijer  
Sophia Jensen  
Jay Kaplan  
Liliana Krupinski  
Ron Lee  
Jen Lyden  
Lynne Mangini  
Samantha Maxwell  
Julia Nordhausen

Charles Parker  
Rachel Sacatelli  
Jody Sackett  
Lauren Maggie Sager  
Julie Lang Shaw  
Brady Sheaffer  
Sarah Stewart  
Edward Trembly  
William (Bill) VanDeventer  
Mindy Voss

## VOLUNTEERS

Kathleen Abatemarco  
Jonathan Ahl  
Paula Aldarelli  
Samantha Ambler  
Renee Amellio  
Corinne Anderson  
Janet Angell  
Catherine Barone  
Liza Baskin  
Eric Beneducci  
Sandra Blain-Snow  
Dr. Paul Bologna  
Everett Bologna  
Ray Bukowski  
Carolyn Cannon  
Cindy Claus  
Jenifer Clayton  
Bob Colburn  
Gary Conk

Steven Copp  
Jennifer Cox  
Cara Cutie  
Dr. Nicole Davi  
Jessica Egger  
Susan Ellman  
Bob Gallo  
Danielle Garske  
Alyssa Gray  
Kristen Grazioso  
Camille Grieci  
Bill Gwyer  
Amber Hagan  
Nicole Haines  
Alix Hayes  
Tom Hayes  
Toni Heater  
Kerry Holzschuh  
Katy Homeijer

Kristen Jabanoski  
Laura Kucinski  
Elizabeth Lacey  
Frank Lauria  
Jonathan Lauria  
Kathy Lazim  
Ka Ying Lee  
Sonya Legg  
Denise Martin  
Lauren Madden  
Carl Mattock  
Thomas Matulewicz  
Kelly McAllister  
Dr. Marion  
McClary  
Rachel McGovern  
Samantha McGraw  
Jim Miller  
Jon Miller

Brandon Murray  
Blair Nelson  
Clare Ng  
Ariella Pearl  
AnneMarie  
Peracchio  
Cristina Perez  
Ivelisse Perez  
Amy Plantarich  
Dominika  
Polchowska  
Anne Price  
Jennifer Pyle  
Jack Quinn  
Geraldine Quintero  
Joe Reynolds  
John Rosendale  
Joseph Schmidt  
Sammi Schuh

Charles Schutte  
Kelly Scott  
Philip Sontag  
Linda Swenarton  
Anthony Tamberelli  
Graceanne Taylor  
Jerry Tomko  
Karl Vilacoba  
Frank Vives  
Kelly Vives  
Karen Walzer  
James Webster  
Jim Webster  
Charlie Welch  
Shawn Welch  
Amy Williams  
Caitin Witters  
John Wnek

# RESEARCH AWARDS

## CURRENT PROJECTS

2022-2024

### NOAA Supplemental

**Filth Fly (*Diptera; Muscidae, Calliphoridae*) Functional Biodiversity at Wastewater and Coastal Sites to Explore Impact on Water Associated Industries**

Michael Monzon, Rutgers, The State University of New Jersey

**Does the Surface Area of Edge Habitat Affect Community Structure Between Hard and Soft Sediments?**

Sophia Piper, Rutgers, The State University of New Jersey

**It's Not Just Oysters! The Importance of Biodiversity in Restoration Studies**

Dr. Allison Fitzgerald, New Jersey City University

### OMNIBUS

**Quantifying the Role of Vegetation Cover on Berm-Dune Geometry and Sedimentation Patterns in Long Branch, New Jersey**

Dr. Jorge Lorenzo-Trueba  
Montclair State University

**Testing the Influence of the Sedge Island Marine Conservation Zone on Blue Crabs**

Dr. Paul Jivoff, Rider University

**Tropical Cyclone Impacts and Climate Resilience of Maritime Forests of New Jersey**

Dr. Nicole Davi, William Paterson University

**Advancing Techniques to Source Track Fecal Microbes in Estuarine and Coastal Waters to Engage Civic Scientists**

Dr. Nicole Fahrenfeld, Rutgers, The State University of New Jersey

**Expanding Project SEA: Science, Education, and Action**

Dr. Lauren Madden, The College of New Jersey

**Prioritizing Hazard Mitigation Investments for Equitable and Efficient Adaptation of Coastal Residential Communities**

Dr. William Payne, Rutgers, The State University of New Jersey

**Predicting the Response of Salt Marsh Methane Emissions to Sea-Level Rise through Field and Numerical Experiments**

Dr. Charles Schutte, Rowan University

**Application of Ecoenzymes to Marine Oil Spill Mitigation**

Dr. Philip Sontag, Rutgers, The State University of New Jersey

**Combining eDNA with Acoustic and Video Data to Assess the Ecology of Submerged Coastal Structures**

Dr. Peter Straub, Stockton University

**The Impact of Offshore Wind Farms on Local Physical Oceanography and Summer Flounder Distribution**

Dr. Ruo-Qian Wang, Rutgers,

The State University of New Jersey

## National Sea Grant College Program 2020-2024 Special Projects

**Optimizing Green Infrastructures and Low Impact Developments to Mitigate Runoff and Pollution Impacts on Freshwater Systems**

Dr. Dibyendu Sarkar, Stevens Institute of Technology

**Co-Treatment of Nitrogen and Phosphorus in Lignocellulosic Bioreactors: Control of Redox Conditions to Stimulate Denitrifiers and Polyphosphate Accumulating Organisms**

Dr. Mathew Reid, Cornell University

**Innovative Inflow Distribution Design for Optimizing Hydraulic and Pollutant Removal Performance in Bioretention Systems**

Dr. Michel Boufadel, New Jersey Institute of Technology

**Removal of Nutrients and Pollutants from Stormwater Runoff**

**Growing Trees by Fostering Volunteer Tree Stewardship Through Community-Based Social Marketing**

Dr. Mitchell Pavao-Zuckerman, University of Maryland

**through Green Infrastructure and Low Impact Development Optimization**

Dr. Zhiming Zhang, Rowan University

**Developing Low-Impact-Development Plans in Underserved Communities by Optimizing the Co-Benefits, Locations, and Characteristics of Green Infrastructures**

Dr. Rayan Assaad, New Jersey Institute of Technology

**Continued Support for Expanding the Atlantic and Gulf Shellfish Seed Biosecurity Collaborative [Aquaculture NSI]**

Dr. David Bushek, Rutgers, The State University of New Jersey  
Haskin Shellfish Research Laboratory

**Enhancing Community Resilience Through Knowledge Co-Production on Sediment Transport and Bypassing Around Natural Tidal Inlet [NOAA Special Project: National Sea Grant College Program and US Coastal Research Program]**

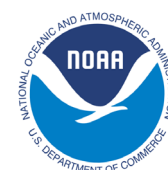
Dr. Kimberly McKenna, Stockton University

**Co-Developing Ensemble Flood Forecast Products to Improve Communication and Preparedness Across Diverse Populations**

[NSGCP Special Project with NOAA/NOS/Disaster Preparedness Program]  
Dr. Philip Orton, Stevens Institute of Technology



New Jersey Sea Grant Consortium  
22 Magruder Road  
Fort Hancock, NJ 07732  
732-872-1300  
njseagrant.org



This publication is the result of work, research sponsored by the New Jersey Sea Grant Consortium (NJS GC) with funds from the National Oceanic and Atmospheric Administration (NOAA) Office of Sea Grant, U.S. Department of Commerce, under NOAA grant number NA22OAR4170095 and the NJS GC. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the NJS GC or the U.S. Department of Commerce. NJS GC-24-1022

Cover Photo - Kaitlin Morley - Harvey Cedars - Hiding in Plain Sight