



A Newsletter from the New Jersey Sea Grant Consortium

Summer 2023

New Jersey's Favorite Beaches Winners Announced in Ocean City

The public voted and the results are in!
Congratulations to all.

The winners are as follows:



New Jersey Sea Grant Consortium (NJSGC) announces its Favorite Beaches Contest winners event at a coastal location every year. This year the Awards Ceremony was held in Ocean City on July 7th. Mayor Jay A. Gillian of Ocean City and Mayor Leonard C. Desiderio of Sea Isle City received their respective awards for Favorite and Runner Up Beach for all of New Jersey and for Cape May County. Special thanks to Ocean City for hosting the awards ceremony on their Music Pier!

Later that day, the NJSGC communications team went live on radio station 94.3 The Point with Matt Ryan to announce the winners. They also met with Sylvia Sylvia, Executive Director, Asbury Park Chamber of Commerce, who was presented the award for Asbury Park as the Favorite Beach in Monmouth County.



Mayors Jay A. Gillian of Ocean City and Leonard C. Desiderio of Sea Isle City received their respective awards.



Samantha Kreisler, Julie Lang, Tom Hayes, Sylvia Sylvia and Matt Ryan announced the winners live on the radio at the historic Asbury Park Convention Hall.

Samantha Kreisler, NJSGC Communications Specialist, at the Ocean City Music Pier



NJSGC in the Community

Green Infrastructure Champion's Vision to Create an Outdoor Learning Space for a Local School



Green Infrastructure Champion Lorraine Prince, Rutgers Cooperative Extension Water Resources Program Staff and Interns.

Thanks to the help from local Green Infrastructure Champion, Lorraine Prince, NJSGC was able to provide Thomas Edison Elementary School in Haddon Township with a rain garden to manage stormwater runoff and create wildlife habitat. The rain garden, 125 square feet, was installed in the side courtyard of the elementary school. This rain garden

manages runoff from the rooftop drainage area which measures 455 square feet and has the potential to manage 6,140 gallons of runoff annually. The Rutgers Cooperative Extension (RCE) Water Resources Program provided the engineering design, the labor for constructing the rain garden, and planted about 60 native pollinator species in the rain garden with the help from RCE Water Resources Program interns. Funding for this project was provided by New Jersey Sea Grant Consortium.



NJSGC Coastal Processes Specialist and Research Associate Professor at Stevens Institute of Technology, Dr. Jon Miller, joined FOX Weather to discuss the risk and forecasting of riptides.



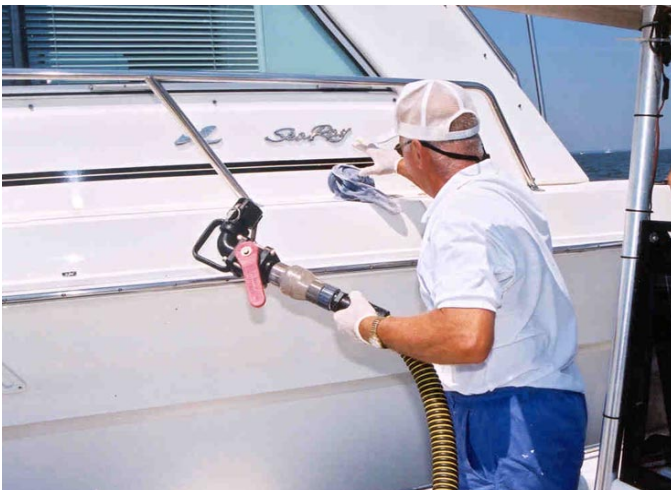
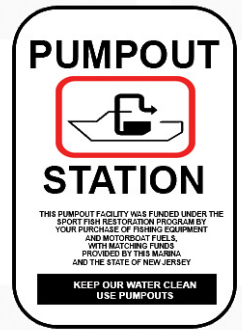
Field Survey of Marinas and Pumpout Facilities

NJSGC Extension Intern, Ava Ghandi, on behalf of the New Jersey Clean Vessel Act Program conducted a field survey of marinas with pumpout facilities to determine their operation status and provide educational materials. The field survey was conducted from June to August 2023 and 86 marinas were selected for visits from the approximately 145 marinas that are known to have pumpout facilities. This study was done under the direction of Michael Danko, Assistant Director of Extension, Marine Recreation Agent – Fisheries & Boating.

A total of 68 marinas were successfully surveyed. The majority of the marinas successfully surveyed were found to have working boat sewage pumpout units (51 of the 65 marinas

open for business). Of the 68 marinas successfully surveyed, fourteen (14) marinas were identified with pumpout units that were not operational. Three (3) marinas were in the process of repairing their pumpouts. And another three (3) marinas were identified as no longer in business. Of the 86 total marinas, eighteen (18) did not have staff on site to discuss the operation of the pumpout facility and an effort to contact them via faxes, calls, and emails will be continued outside of the field survey effort. The survey found that majority (78%) of the marinas visited had boat sewage pumpout units available throughout the 2023 boat season and there was an adequate supply of sewage disposal facilities to meet the needs of recreational boaters.

It was noted that the sewage pumpout boats operated by Monmouth County and Ocean County provide an important service for both the larger as well as the smaller marinas with and without pumpout units. The availability of pumpout facilities at marinas and the county operated pumpout boats provide a vital service to recreational boaters to ensure they have a means of properly disposing sewage generated onboard boats. Through the efforts of reaching out to marinas regarding funding from the New Jersey Clean Vessel Act Program, it is projected that there will be more marinas with working pumpouts in the near future once repairs and grants are in order and applications are assessed.



New Jersey Sea Grant Consortium welcomes IN FISH scholars and staff for a day in the summer!



NJSGC had the opportunity to host the NOAA Fisheries IN FISH scholars and teach them about education, extension, public engagement, and communications.

Students Study Oyster Fouling Organisms at NOAA's Howard Laboratory



Placing oyster castles in the sub-tidal zone.

In May 2023, New Jersey City University was awarded a grant from NOAA and NJSGC to allow for minority serving institutions and students to use the facilities at the James J. Howard Marine Sciences Laboratory at Sandy Hook. Partnering with NY/NJ Baykeeper, Dr. Allison Fitzgerald and students in her lab looked to examine the role fouling organisms play in the recruitment of oyster larvae to oyster castles (underwater enhancement structures). Dr. Fitzgerald, Amanda Boddy (NY NJ Baykeeper) and Meredith Comi (Monmouth University) have been working together on oyster restoration and research in Raritan Bay for the past decade; this project allowed students to participate in a long-term study with ecological impacts all along the Hudson Estuary.

It was hypothesized that oyster castles with heavier fouling presence (higher percent coverage) would have less oyster larvae recruit to the structure. Since there are no natural oyster larvae in Raritan Bay, this was conducted as a field and lab exposure in the seawater tanks at NOAA's Howard Lab.

Both the lab and field study were designed in order to investigate the role of fouling organisms in oyster recruitment. As the fouling community in Raritan Bay is not well known, one objective was to simply identify and enumerate the species present on oyster castles (hard substrate) in Sandy Hook Bay (eastern Raritan Bay). Oyster castles were placed in the subtidal zone along the west shore of Sandy Hook near Spermaceti cove. Structures were placed in small pyramids (14 castles each x 4 pyramids = 56 total



Observing species in NOAA Howard Labs' tanks.

castles). Castles were installed in early June and again in early July. Castles were removed in early August allowing for two treatments: a 'high fouling' group that was out for 2 months, and a 'low fouling' group that was out for 1 month.

In August, the castles were transferred to the lab facilities at the Howard Lab. Triplicate tanks were set up, each with 9 castles (3 'high fouling', 3 'low fouling' and 3 control-blank castles) along with about 30 test shells scattered about. 1 million larvae were added to each tank. After 48 hours, flow through circulation was turned on, allowing filtered seawater to go through the tanks. Daily, tanks were fed with algal blend and water quality checked. After seven weeks the tanks were emptied and oyster castles checked for recruitment of oysters. Unfortunately the researchers did not find enough evidence to draw a significant conclusion. They plan to repeat the experiment in the future to gather more data.

Volunteer involvement

Installing oysters castles is very labor intensive. In order to help with field work, as well as provide an opportunity to interact with the community, two volunteer events (one in June and one in August) were held. Each event had 20+ volunteers join at Sandy Hook beach. Discussed was the project, the significance of this work and of oyster restoration in general, the role of oyster castles in restoration, and how citizens can stay involved in these projects. Ages ranged from young children to older adults, students and professionals, and colleagues at other local NGOs.

NJSGC Supported Programs

Sea Grant Projects Provide \$3.3M in Support of Seafood Industry Workforce Development including Funding for Apprenticeship in Shellfish Aquaculture Program (ASAP)

The FY2023 Aquaculture Workforce (AWF) Development Support Projects competition was targeted to aquaculture. Both were open to all Sea Grant programs. For the AWF, twelve proposals were received requesting \$3.7M in federal funding. The seven selected projects will receive a total of \$2.4M and will support aquaculture workforce projects in California, Connecticut, Hawai'i, American Samoa, Guam, Massachusetts, New Jersey, South Carolina, and Washington.

"Supporting the training and development of seafood professionals is a priority for Sea Grant and a key component of ensuring sustainable U.S. fisheries and aquaculture," said Jonathan Pennock, Director of the national Sea Grant College Program. "We look forward to seeing the positive impacts the 10 selected projects will have across the country." Dr. Peter Rowe, NJSGC Executive Director said "NJSGC is excited that Diana



NJSGC's Apprenticeship in Shellfish Aquaculture Program (ASAP) students learning about oyster aquaculture at Cape May Salt Oyster Farm.

Burich NJSGC's Director of Education, is able to improve and expand the ASAP pilot program. We know that the

student apprentices will not only further their knowledge and skills associated with shellfish aquaculture,

The James J. Howard Marine Sciences Laboratory holds ceremony to celebrate transfer of ownership



Beth Phelan, Branch Chief of NEFSC Fisheries Ecology Branch, stands with Representative Frank Pallone (NJ-06), Ben Friedman, NOAA Deputy Undersecretary for Operations, and Jon Hare, Director of Northeast Fisheries Science Center. More than 50 people were in attendance, including NJSGC Staff. The ceremony took place at the entrance to the laboratory building.

The ribbon cutting ceremony that formally transfers ownership of the James J. Howard Marine Sciences Laboratory at Sandy Hook to the federal government was held on July 11. This National Oceanic and Atmospheric Administration (NOAA) federal lab had been operating under a lease agreement with the state. The transfer required an act of Congress that was spearheaded by Representative Frank Pallone. As a result of the successful transition, the lab is eligible to receive critical federal investments and improvements to further its work.

"The Howard NOAA lab is critical to our understanding of a range of issues important to coastal communities, including the effects of climate change on coastal habitats. That's why I led the effort in Congress to formally transfer ownership of the lab to the federal government. With this transfer, the lab will be eligible for federal funding so that scientists can continue their research," said Pallone. "I'm also pleased that the lab will use \$1.5 million in federal funding to make important upgrades, which will help enhance the lab's ability to conduct research. I want to thank all the scientists at the lab whose cutting-edge research helps our understanding of marine habitats right here in New Jersey."

New Jersey Sea Grant Consortium Applicant Oluwafemi Soetan Named One of 2024 Knauss Fellowship Class

The National Oceanic and Atmospheric Administration's (NOAA) National Sea Grant College Program (Sea Grant) is pleased to announce the finalists for the 2024 class of the John A. Knauss Marine Policy Fellowship Program. The 84 early-career professionals selected will be placed in federal government offices throughout Washington, D.C., and join the over 1,600 individuals who have participated in the program since its inception in 1979.

The Knauss fellowship is a one-year paid opportunity for current and recent graduates from advanced degree programs to apply their scientific knowledge and experiences to lasting careers in the sciences, policy, and public administration. "Knauss fellows over the years have consistently and thoughtfully applied their unique knowledge and skill sets to developing solutions to issues that affect people across the nation," said Jonathan Pennock, Ph.D., Director of the National Sea Grant College Program. "We look forward to welcoming the incoming class of fellows and have no doubt that they will continue the tradition of serving through science."

Oluwafemi Soetan also known as "Femi" of Montclair State University is one of the finalists that has been accepted into the 2024 Knauss Fellowship Class. Since 2021, Femi has been working to achieve his Ph.D. in Environmental Science and Management. "I am beyond excited to be joining the 2024 Knauss Marine Policy Fellowship cohort. I have spent the last 3 years researching various marine and aquatic challenges for my Doctoral Program and with this fellowship, I have the tremendous opportunity to be directly involved in policy and administration concerning these very matters. Thanks to the National Sea Grant Program and the New Jersey Sea Grant Consortium for this amazing opportunity," says Femi. Dr. Peter Rowe, Executive Director, notes "NJSGC is excited and pleased that Femi has been selected as a finalist for the Knauss Fellowship Class of 2024. Femi is one of the most talented, interesting, and inspiring individuals that has applied for the Fellowship through our organization. I know that he will not only be successful and gain a lot from this experience, but also that his host agency will gain from his presence there."

This year's class features students and recent graduates from 66 universities, including 12 minority-serving institutions (MSIs). The 84 finalists represent 30 of the 34 Sea Grant programs across the country and have completed years of coursework in fields ranging from zoology, oceanography, and marine science to environmental management, public policy, and engineering.

The 2024 class can look forward to sharing similar experiences with current and former fellows. In the 2023 class, executive appointments included placements throughout NOAA as well as with the Department of Energy, the Executive Office of the President, the National Science



**OLUWAFEMI
SOETAN**

Foundation, and other agencies. 2023 Legislative fellows have supported the House Space and Technology Committee, Senate Committee on Commerce Science and Transportation (Majority), the House Natural Resources Committee on Water Oceans and Wildlife, and several placements in both majority and minority personal offices (House and Senate).

Former and current hosts share that fellows are exceptional additions to their offices, often leading the charge and making lasting impacts on their focus areas. Knauss fellows have been described as invaluable, essential, and integral—they not only gain experience from this opportunity but also provide valuable perspectives as experts in their fields.

In the following months, the 2024 finalists will participate in the placement week process to get to know each other and interview with potential host offices. Following placement, they will begin their fellowships in February 2024. The 2024 Knauss finalists will become the 45th class of the fellowship and will join a group of over 1,600 professionals who have received hands-on experiences transferring science to policy and management through one-year appointments with federal government offices in Washington, D.C.

Knauss 2023 recipient Alexandra Swanson works on reintroduction of Sea Turtle Rescue Assistance Act



Senator Ed Markey (MA) participated in a release of rehabilitated sea turtles in August. This project was held in partnership with the New England Aquarium and the Audubon Society.

One of the projects Alexandra Swanson has been working on as a Knauss Fellow in Senator Ed Markey's office is the re-introduction of the Sea Turtle Rescue Assistance Act. This bipartisan and bicameral legislation establishes a \$30M grant program in NOAA to fund institutions that rescue, rehabilitate, and research stranded sea turtles. Alexandra and Senator Markey's office led this conservation effort in response to increases in sea turtle strandings in Cape Cod, Massachusetts and are currently working to get this legislation through a mark up in the Commerce Committee.

A SUMMER FOR EDUCATION



Counselor Olivia Donaldson and campers learn about sharks.

Marine Science Day Camp

NJSGC's Summer Day Camp ran 4 weeks this past summer from July 14 to August 4. The Day Camp is for children in grades 3rd - 9th with different age groups each week. A great time was had by all 82 campers with many promising to come back next summer! Held in the Fort Hancock Historic District of Gateway National Recreation Area – Sandy Hook, camp weeks are filled with outdoor explorations of the ocean beach and bay using scientific methods, observation of live animals, and laboratory experiments together with fun, educational games and crafts.

Educator Professional Development

NJSGC's Education Department hosted a group of elementary school teachers in August for a one-day workshop to help them gain confidence in teaching climate science to their students. They were provided with classroom-ready activities to incorporate into their practices with the coming of the new school year, along with a supply of resources to help them to increase their knowledge and understanding of climate change.

Field Trips

NJSGC hosted 30 groups from other summer camp programs throughout New Jersey, where approximately 750 children learned about coastal bay and beach ecosystems through outdoor activities such as seining and beach hiking. Fall programs are underway with expected visits from 70 groups bringing 1,750 students through to November. A new field activity, the marine debris survey, will be incorporated into programs to teach students about plastics in the marine environment and how everyone can help to minimize the problem.

FALL INTO LEARNING

Scouts

After a brief summer break, merit badge scout programs for both boys and girls are once again being taught at NJSGC. Boy Scouts BSA classes for Environmental Science and Oceanography are already in full swing. Girl Scout classes for scouts in grades K-8 are running now as well, with 14 different programs offered. Most classes include seine fishing in Sandy Hook Bay, as well as lab activities, and cover a wide variety of topics including renewable energy, marine ecology, microplastics, and much more. Scouts come from all over New Jersey, and surrounding states for these programs, which are taught on weekends and after school.



Campers identify plankton collected out in the field at Horseshoe Cove.

Every Kid Outdoors

NJSGC will continue to offer free programs to 3rd, 4th and 5th grade groups to learn about New Jersey's coast at Gateway National Recreation Area on Sandy Hook for the 2023-2024 school year. The programs are made possible by a generous grant from the National Park Foundation, and NJSGC has been partnering with the National Park Service and Jamaica Bay Rockaway Parks Conservancy to provide programs that encourage visitorship to national parks. To date, NJSGC's EKO program has reached approximately 12,000 children.



Seining for species diversity at Officers Row Beach

NJSGC Welcomes Back Michael Acquafredda, Ph.D.

The Consortium is excited to welcome Dr. Mike Acquafredda as the new Aquaculture Specialist for the Rutgers Haskin Shellfish Research Lab (HSRL) and the New Jersey Sea Grant Consortium.

Originally from Matawan, Mike is no stranger to Rutgers and NJSGC. From 2015-2021, he conducted his Ph.D. research at the Haskin Shellfish Research Laboratory (HSRL) under the advisement of Daphne Munroe, Ph.D.. His dissertation, funded by NJSGC, focused on Atlantic surfclam husbandry, surfclam selective breeding for greater resilience to ocean warming, and oyster/clam polyculture. He also completed a John A. Knauss Marine Policy Fellowship with the NOAA Ocean Acidification Program (OAP), where he advanced domestic and international ocean acidification policy. Following his time with OAP, he became a postdoctoral researcher at the NOAA Northeast Fisheries Science Center James J. Howard Marine Sciences Laboratory at Sandy Hook. There he studied the feasibility and sustainability of co-culturing striped bass with sand worms and sea



DR. MIKE AQUAFREDDA

beans (pickleweed, sea asparagus, or salicornia) in recirculating aquaculture systems.

As the new Aquaculture Specialist, Dr. Acquafredda will be responsible for carrying out aquaculture education, outreach, extension, and applied research efforts in collaboration with the other HSRL faculty, staff, and students. Over the next few months, he' will be helping to spin-up new projects and bolster existing ones, like the New Jersey Apprenticeship in Shellfish Aquaculture Program (ASAP) and the Regional Shellfish Seed Biosecurity Program (RSSBP). He will also be restarting the NJ Growers Forum, a seminar series that fosters direct conversations between the aquaculture industry and relevant content experts from academia, state and federal agencies, non-profit organizations, and other fields. Overall, his work as an Aquaculture Specialist will be to promote the sustainable expansion of New Jersey's aquaculture industry.

Julie Lang Accepts New Title

You might remember Julie Lang as our K-12 Program Coordinator, but NJSGC welcomes her as its new Program Associate/Grants Administration. In this role she will be responsible for the Administration of Grants and National Sea Grant reporting as well as providing technical support to programs and to Dr. Peter Rowe, Executive Director. Best of luck to Julie!



JULIE LANG



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