

Things are definitely heating up at New Jersey Sea Grant Consortium (NJSGC) this summer! While most New Jerseyans enjoy lazy, carefree days spent at the Garden State's vast array of gorgeous beaches, NJSGC's staff is working hard to advance knowledge and appreciation of New Jersey's shorelines.

From Ocean Fun Days to our biennial research competition and ongoing rip current awareness campaign, NJSGC strives to inform the public about coastal and environmental concerns in new and exciting ways.



Communicating climate sciences, learning more about the origins of striped bass, and engaging youth in summer camp experiences are just some of the interesting topics covered in this edition of our quarterly newsletter. You'll also find out which popular shore town snagged top honors in NJSGC's annual "Favorite Beaches" poll!

Learn more about all the exciting things happening at NJSGC everyday by following us on <u>Facebook</u>, <u>Twitter</u>, and <u>Instagram</u>, or visit <u>njseagrant.org</u> for any further updates.



COASTodian Summer 2017



MEET THE CREW!

New Jersey Sea Grant Consortium is an impactful and community-focused organization thanks to the support and dedication of its staff, including its field instructors, interns, volunteers, and even campers. In fact, several NJSGC staff members were first introduced to the shores of Sandy Hook as curious young students during class trips or summer camps sponsored by NJSGC. As a result, the study of marine and coastal science and environmental stewardship became a passion for these individuals who continue to make huge strides in academics and their careers.

We recently caught-up with a handful of former (and some still current) members of the NJSGC family, who are now doing extraordinary things as college graduates and beyond. We are pleased to share the inspiring stories of Brett Buzzanga, Emily Casper, Carleigh Engstrom, Mary Kate Rogener, and Patricia Valerio. We are very proud and honored that NJSGC remains an integral part of their lives and promising futures!

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Mary Kate Rogener

Former Field Instructor Currently a PhD candidate at University of Georgia (Atlanta) in Marine Sciences and Georgia Sea Grant Knauss Fellowship Awardee (2017)



Ms. Rogener graduated with a bachelor's degree from Boston University, and is currently finishing up her PhD in Marine Sciences (with a focus on biogeochemistry) at the University of Georgia. She will continue to study human impacts on the coastal ecosystem, and hopes to one day fuse the gap between government policy and environmental concerns through active research and management. Her ultimate goal is to "bring science to the people so that they understand" – especially for those living in more rural and urban areas.

Ms. Rogener was recently awarded the Georgia Sea Grant Knauss Fellowship. While still writing her thesis, she will leave for an Arctic Ocean research cruise in August.

"My fondest memory of NJSGC was to see the children and adults' eyes light up when we would pull in the seine nets. This

memory fueled my desire to learn more about the ocean and exposed me to the value of educating the public about the benefits of protecting the marine ecosystem... Working for NJSGC sparked a passion to research and understand the complexities of coastal marine ecosystems. This passion has driven me to research so many locations such as the estuaries of New England, the unique barrier islands of Georgia, the low oxygen 'Dead Zone' off the coast of Louisiana, and the Arctic Ocean." - Mary Kate Rogener

Brett Buzzanga

Former Field Instructor Currently a PhD candidate at Old Dominion University

While working on his Associates Degree in Science at Brookdale Community College, Mr. Buzzanga decided to earn some extra cash as a part-time field instructor at NJSGC. The handson teaching experience (which included "showing off" his impressive shell collection to the kids) inspired him to pursue an advanced degree at Old Dominion University in Norfolk, VA. Although he's currently working with satellites to measure land subsidence, Buzzanga may consider focusing on Complexity science in his future studies.



"While interested in science as a whole, it wasn't until my time at NJSGC that I discovered the beauty and fragility of coastal ecosystems. This led me to Old Dominion University, which is very involved in coastal issues such as sea level rise and flooding. These issues, and my memories of Sandy Hook, ended up shaping my master's thesis research which investigates the relationship between sea level rise and groundwater rise, and how this impacts both human and natural coastal communities." - Brett Buzzanga

Patricia Valerio

Former Field Instructor and Volunteer Washington College graduate, BS in Environmental Science (2017) Currently in a NOAA internship program, South Carolina



Ms. Valerio's ongoing dedication to NJSGC has helped establish and advance several successful NJSGC education programs, including last summer's "Underwater Exploration" program. In partnership with Jenkinson's Aquarium in Point Pleasant Beach, Valerio worked with NJSGC's education staff to give a group of lucky campers the once-in-a-lifetime opportunity to design, build, and deploy remotely-operated underwater vehicles (ROVs) in the Aquarium's large tanks.

Valerio is currently studying dolphins on Kiawah Island in South Carolina on an NOAA internship (her choice). She's drawn to the nonstop changes in her field, and considers art a truly "unifying concept." She credits NJSGC's Claire Antonucci (Executive Director; Director of Education) and Rose Higgins (College & Special Programs Coordinator) for encouraging her combined passion for science and communication.

Carleigh Engstrom

Former Intern, Field Instructor, current Camp Counselor Monmouth University graduate, Science Education Currently Teacher of Biology at Biotechnology High School (Freehold, NJ)

After doing research in the Bahamas through Monmouth University, Ms. Engstrom connected with NJSGC's education department to develop an independent study curriculum project. Trips to Sandy Hook became the "norm" as she worked on creating a lesson plan on sea level rise. Engstrom continues implementing the teaching tactics and responsibilities she acquired at NJSGC in her own classroom today.

"NJSGC gave me the most comprehensive education experiences with all grade levels and student populations. These experiences allowed me to become more prepared for my career as a science teacher, always have stories to share with my students, and create a network of experienced individuals. Having a background of outdoor science education and lab experiences allowed me to become better prepared for my position as a biology teacher at Biotechnology High School. [Recently I went] on the Salt Marsh Ecology program with my class, where we caught the biggest puffer I have ever seen in a seine net!" - Carleigh Engstrom

Emily Casper

Field Instructor, former summer camper and Junior Counselor Fordham University graduate, BS in Biology (2017) Continuing with Masters Program at Fordham University, Stew Tweed Fisheries Scholarship Awardee



Ms. Casper joined NJSGC's summer camp in the 5th grade, and pretty much never left after that. She's been involved in almost every aspect of the program ever since. Reaching high school level, Casper quickly realized that she could actually turn her love for ecology into a lifelong career. She enrolled (and thoroughly excelled) at the Marine Academy of Science and Technology (MAST) at Sandy Hook. Such hard work paid off – Casper will now study conservation and continue her research in Fordham University's masters program as a recipient of NJSGC's Stew Tweed Fisheries Scholarship.

"Get out of your comfort zone. You have to know your area in order to take care of it. You can only love something if you know it well, and that's where it starts. That's what makes Sea Grant so important for future generations. What I'm doing now will [help] impact people and influence new students."





- Emily Casper

State of the Shore Report Anticipates Extraordinary 2017 Beach Season

On May 24th, New Jersey Sea Grant Consortium hosted its 15th annual State of the Shore media event overlooking the gorgeous surf in Long Branch, NJ. Dr. Jon K. Miller, NJSGC's coastal processes specialist and research associate professor at Stevens Institute of Technology, presented his annual *State of the Shore* report with assistance from Mid-Atlantic Coastal Storms Graduate Research Fellow, Laura Lemke. Each year, this report provides an invaluable tool for the media to inform the public on ever-changing conditions along New Jersey's beloved shoreline.

Dr. Miller and Ms. Lemke were joined by NJDEP Commissioner Bob Martin, who reported that public beaches throughout the Jersey Shore are in great condition and ready for the influx of summer visitors. After outlining the current status of several coastline restoration projects following the devastating effects of 2012's Superstorm Sandy, Martin also noted that overall water quality is "excellent" and that the forecast for the 2017 season continues to look very promising.



As the Commissioner enthusiastically summed it up - "Please come to the Jersey Shore; we have beautiful beaches and we want you here this summer."

To view the full State of the Shore report, please click here.



NJSGC Celebrates 14th Annual *Ocean Fun Days* at Island Beach State Park and Sandy Hook

On May 20th and 21st, NJSGC and lead sponsor New Jersey Natural Gas hosted the 14th annual *Ocean Fun Days*, which drew a crowd of thousands as attendees both young and old enjoyed a weekend of nonstop fun and interactive education.



Over 50 exhibitors presented at this year's event, including the American Littoral Society, Clean Ocean Action, NJDEP Division of Parks and Forestry, Rutgers Cooperative Extension/Water Resources Program, and the US Coast Guard Auxiliary. Other activities included seining, bird walks, beachcombing, and tours of Sandy Hook's legendary Lighthouse and Fort Hancock Battery Gunnison.



To learn more about the exciting festivities that took play at both Island Beach State Park and Sandy Hook throughout the weekend, please visit our <u>website</u>. Be sure to save the dates of May 19th and 20th for the 2018 edition of this highly-anticipated event!

FUN FACT

An important member of the New Jersey/New York Harbor Estuary's food chain, the GREEN DARNER DRAGONFLY provides food for fish, turtles, frogs, and birds while eating pesky insects like the mosquito. Don't be alarmed if you find several flying around the marshes and dunes of Sandy Hook – it's their prime migration season!



To learn more about this incredible species, please visit:

<u>http://njseagrant.org/wp-</u> content/uploads/2014/03/green-<u>darner.pdf</u>



Dune & Rip Current Signs Now Available in English and in Spanish!

Safety should always come first at the Jersey Shore. Already this season, the state has experienced several heartbreaking fatalities due to rip currents.



For nearly 20 years, NJSGC has conducted a **Rip Current Awareness** campaign in New Jersey, which includes producing and distributing thousands of signs – now available in English and in Spanish – that warn swimmers about the dangers of rip currents and illustrate what to do if caught in one. The signs are posted at hightraffic beach access and bathing points in essentially every shore community along the NJ coast.

Rip Current Awareness brochures are distributed at municipal buildings, beach badge checkpoints, and other strategic locations from Sandy Hook to Cape May.



Municipal officials interested in obtaining rip current awareness materials including outdoor signs in English or in Spanish, can go to <u>http://njseagrant.org/ripcurrents/</u> or call 732-872-1300 ext 10.



More about Rip Currents What You Need to Know to Stay Safe this Summer

A message from NJSGC's Coastal Ecosystems Extension Agent, Dr. Amy Williams:

"In light of the recent four lives lost [this] June, it is even more important to reach out and provide rip current awareness and safety to local and visiting beachgoers. While many people may have heard about rip currents, it is critical to learn how to protect oneself and your family and friends.

One way to spread this message is through hands on activities with kids and families. I have developed the 'Ocean Hazards: Sharks vs. Rip Currents' trivia activity as a fun way to teach about how not to end up getting into a rip current and what to do if you do get caught. Please contact me, Dr Amy Williams, to arrange for a free presentation in your local community. And remember to remind everyone at your beach about the threat rip currents have, how to stay out of them and how to get out of one. Always swim with lifeguards and pay attention to the ever changing ocean conditions."

To learn more about Dr. Williams' ongoing work with this program and her 'Rip Currents vs. Sharks' presentation, please visit <u>http://njseagrant.org/ocean-hazards-presentation/</u>.

New Jersey's Favorite Beaches 2017 Announced during Ocean City Awards Ceremony

Right in time for the July 4th holiday weekend, NJSGC announced the winners of this year's 'Favorite Beaches' poll during a beachside ceremony held at Music Pier in Ocean City on Thursday, June 29th. This popular shore town remains

defending overall champion, snagging more than half the total votes.

The survey was first created in 2008 and initially deemed "New Jersey's Top Ten Beaches," to help encourage stewardship and pride in the state's beaches while promoting a little healthy (and friendly) competition between New Jersey's beloved beach towns. The contest has since become a highlight of the Garden State's summer festivities. But over the years we've come to realize something at NJSGC — New Jerseyans are passionate about visiting ALL different sand and surf hotspots throughout the state! So, in order to better recognize every part of our wonderful coastline, as of 2016, the poll was re-vamped to identify victors from each of New Jersey's four coastal counties (while still naming a top overall winner).



Voting really started to heat-up in June 2017, with these towns ultimately taking the top spots:

Monmouth County: Asbury Park Ocean County: Seaside Heights Atlantic County: Brigantine Cape May County: Ocean City



For the full breakdown of 2017 winners, please visit <u>http://njseagrant.org/beaches2017/</u>. Be sure to come back and vote again next year!



Thanks for Your Support! New Jersey Sea Grant Consortium Included in the FY 2018 Federal Budget

Please accept our sincerest appreciation for your support of the New Jersey Sea Grant Consortium, which resulted in Congress (both the House of Representatives and Senate) rejecting the President's proposal to eliminate the entire Sea Grant Program. Such funding will enable us to work with you on important issues including stormwater management, increasing coastal resilience, supporting shore tourism, and providing STEM education for youth, all to benefit New Jersey's coastal economy and communities.

Thank you again for your ongoing support and effort – the staff, volunteers, and patrons of NJSGC truly appreciate it!

What Your Support for NJSGC Means

- Nearly 25,000 New Jersey schoolchildren and thousands of teachers and youth leaders who depend on NJSGC for marine and environmental science education are guaranteed resources.

- Research projects at NJ colleges and universities that respond to the needs of the state's coast and coastal economy are supported. Currently, NJSGC-funded research supports 42 scientists and 73 students at 8 different New Jersey facilities.

- Continuation of dozens of community-based projects, including: beach and dune projects, flood prevention and living shorelines initiatives, rain gardens and other green infrastructure projects that improve water quality and quantity, repair of pump-out facilities at marinas statewide, and assistance to New Jersey's growing shellfish aquaculture industry.

- Another Fort Hancock historic structure – currently maintained and used by New Jersey Sea Grant as its headquarters – will be preserved.



Marine Biology College Course Returns to NJSGC



Robert Colburn, a professor of Biology at Middlesex County College, conducted this seven week program with help from NJSGC's College & Special Programs Coordinator, Rose Higgins. A total of nine students participated in interactive lectures and labs throughout the Consortium and Sandy Hook's Gateway National Park, completing the summer course with "high" ratings. We are looking forward to offering similar college credit opportunities in the near future!

For more information on other NJSGC summer courses, please click here.

NJSGC's Jackie Specht Receives Coastal Management Fellowship

Ms. Jackie Specht, a Rutgers University graduate student, was recently matched with Maryland's Chesapeake and Coastal Service to continue studying the beneficial reuse of dredge material.



Specht was proudly nominated for the two-year fellowship by NJSGC. For more information, please visit the official NOAA <u>press release</u>.



NJSGC Broadcasting LIVE from the Asbury Park Boardwalk All Summer Long!



Thanks to our longtime community partner, <u>New Jersey</u> <u>Natural Gas</u>, NJSGC's executive director Claire Antonucci will contribute weekly radio talks about ocean safety, current beach conditions, and other important environmental issues on "The Jersey Shore's Hit Music Channel" – 94.3 The Point (WJKL) all summer!

Broadcasts will take place every Friday throughout the summer, at approximately 8:45 a.m. and 6:30 p.m. So far "hot" topics on air included: **rip currents**, **dunes**, **water quality**, **fishing tips and the weird and wonderful feeding habits of the Atlantic moon snail.**

Please visit <u>http://943thepoint.com/</u>, where fans can listen live 24/7. NJSGC will continue posting updates and reminders on <u>Facebook</u> and <u>Instagram</u>. Also keep an eye on the official *Lou and Liz in the Morning* blog!

NJSGC Receives Record Number of Pre-Proposals for 2018-2020 Research Competition

NJSGC received a record-breaking number of research pre-proposals from a diverse array of institutions earlier this year, all seeking funding to conduct research to respond to the priorities identified in NJSGC's most recent request for proposals. Of the 43 pre-proposals submitted, NJSGC's Technical Review Panel (TRP) recommended that 17 move forward to the next round of review. Full proposals were submitted in early June, and are currently being assessed.

The review process is extremely rigorous. The TRP will select final proposals for funding based on their own evaluation and that of external peer reviewers. NJSGC's Stakeholder Advisory Board also weighs in to ensure proposals adhere to guidelines and addresses priorities that will further NJSGC's overall impact and mission.

The overall ratings, evaluations, and comments on the 17 full proposals will be discussed and analyzed again by the TRP in mid-September for final review and project selection.

To review NJSGC's past and current research projects go to <u>http://njseagrant.org/research/research-projects/</u>.

Of the 43 research proposals submitted, 17 will now move forward in the assessment process.

NJSGC's ongoing mission is to promote the beneficial use of New Jersey's marine and coastal resources through research, education, and outreach. To learn more about our current projects and publications, please visit our <u>website</u>.



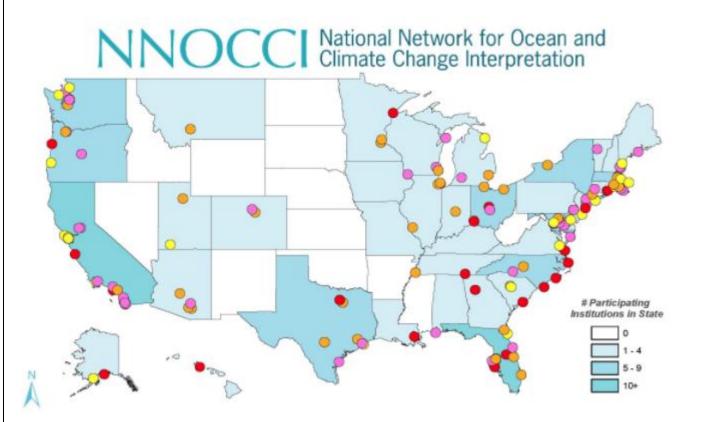


NJSGC's Educators Complete NNOCCI Training to Better Understand and Communicate Climate Change Initiatives

According to their <u>website</u>, NNOCCI (National Network for Climate and Ocean Change Interpretation) is a collaborative effort led by the New England Aquarium along with several other notable environmental organizations and institutions working together to establish a national network of professionals skilled in communicating and translating climate and ocean science to a broader public audience. The overall goal is to change the nature of public conversation about issues of climate change to be inviting, empowering, and solutions-oriented.

NJSGC's very own Education Specialist Mindy Voss and K-12 Program Coordinator Diana Burich recently teamed-up to complete this program which included hands-on training, professional development and interactive lessons through informative study circles. Both hope to use their newfound knowledge to better communicate the impacts of climate change. According to Voss:

"The biggest thing I took away from the study circles was how to start and properly frame a conversation about climate change with a variety of audiences. I learned how to get others to understand why they should care about climate change, how to teach the science so that others can understand it, and how to help others realize that if people come together in their communities, schools, or other groups, there are solutions that can make differences to slow (or even stop) climate change."



To learn more about Voss and Burich's exciting involvement with NNOCCI, please click here.



Striped Bass Fishery Project Enters Second Year [UPDATE]

Launched in 2016 with funding from NJSGC, a Rutgers University research team comprised of Dr. Ken Able, Dr. Paola Lopez-Duarte, and Dr. Olaf Jensen, began a two year effort to investigate the presence of juvenile striped bass in Great Egg Harbor, Mullica River – Great Bay, and the Navesink and Raritan rivers. Upon completion, this project will provide fishery managers with a better understanding of how small estuaries contribute to the overall stock of striped bass.

To learn more about what the researchers have learned so far, please visit NJSGC's updated <u>Research Projects</u> page.



Reminder: Anglers can help the research team by reporting the date, location, and number of stripers under 12 inches caught in a New Jersey river or bay other than the Hudson River or Delaware River/Bay to sej.stripers@gmail.com.



Summer Camp Registration Still Open for 2017!



NJSGC is offering six sessions of Marine Science Day Camp throughout July and August, for those entering 3rd through 8th grade (as of September 2017). It's not too late to sign your children up for a fun, "hands-on" science learning experience! For specific dates and age groups, please visit <u>http://njseagrant.org/education/marine-science-day-camp/</u> or email our College & Special Programs Coordinator, <u>Rose Higgins</u>.

For more information on registering for summer field trips, please click <u>here</u>.

Register

Now!

Ocean County Pumpout Boat Program Celebrates 20th Anniversary



This past June, the New Jersey Clean Vessel Act Program joined Ocean County, New Jersey to celebrate the 20th anniversary of the successful use and growth of pumpout boats. This significant achievement has led to improved water quality throughout Barnegat Bay and Little Egg Harbor.

Read the full story <u>here</u>. New Jersey Sea Grant Consortium was represented at the Seaside Park Yacht Club Celebration by Assistant Director of Extension and the Marine Recreation Agent, Michael Danko.





Share your memories of NJSGC and Sandy Hook - #Summer2017!

Help us go viral! Please feel free to tag photos and videos on social media. We will repost some 'fan favorites' on Facebook and Instagram throughout the season!

Here are a few hashtag suggestions to help get you started...

#FunAtSeaGrant

#MyBeach

#TheHook

#OceanAdventures

#ExploreTheShore

#JerseyShoreLife

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