

LIFE ON THE EDGE

A quarterly report of the Jacques Cousteau National Estuarine Research Reserve

SECOND QUARTER 2021

IN THIS ISSUE:

2021 Summer Internships

Lisa Auermuller - From Assistant Manager to the Federal Level

MATES Students at the JC NERR

Ecosystem Exploration Video Project

Sector Highlights

Awarded & Pending Grants



2021 UNDERGRADUATE SUMMER INTERNSHIPS

AN INAUGURAL PARTNERSHIP BETWEEN LSAMP AND JC NERR

We at the JC NERR seek to engage underrepresented groups to increase participation, retention and advancement of racial and ethnic minority students in marine and coastal science, education, resource management and career development opportunities. We are excited to announce that this summer, the JC NERR is hosting six undergraduate interns for research experiences covering different current and on-going research projects. The foundation of this effort is a partnership with two Rutgers University programs: the Louis Stokes Alliance for Minority Participation (LSAMP) and the Idea, Design and Entrepreneurship Academy (i.d.e.a.).

Mid-late June marked the beginning of the 8-week internship for the six students. Four of the interns are basing their research projects out of the Rutgers University Marine Field Station located in Tuckerton NJ, and two will be working from the New Jersey Aquaculture Innovation Center in Cape May NJ. Students have the opportunity to not only participate in field research, but will also receive professional development mentoring as well as networking with peers and professionals.

Keep an eye out on our social media for updates on the interns' work with us throughout the summer!



PROFESSIONAL DEVELOPMENT OPPORTUNITY TAKES ASSISTANT MANAGER TO THE FEDERAL LEVEL

Lisa Auermuller, Assistant Manager of the JC NERR has been focused on the Reserve since 2002 – almost 20 years. Through her work, Lisa oversees the day-to-day management of JC NERR's Coastal Center as well as the Reserve's education, outreach, communications, and Coastal Training Program. Lisa's role has allowed her to pursue many partnerships and opportunities throughout her career. Now, Lisa has the opportunity for a year-long professional development position, working with the Reserve's federal partner, NOAA.

From May 1, 2021 until April 30, 2022, Lisa will be collaborating with NOAA's Office for Coastal Management and state and regional partners to assess how well NOAA's Water Initiative tools and products meet stakeholder needs. She will be virtually working with that office four-days a week, while maintaining her role at the JC NERR on Fridays.



Lisa looks forward to many ways to share JC NERR and Rutgers local work with the national level and share national level opportunities back to the local level. Through this cooperative agreement between the JC NERR and NOAA, Lisa hopes to expand her networks, stretch her reach, and be inspired by new opportunities for local implementation.

TAKING MARINE SCIENCE FROM THE CLASSROOM TO THE FIELD

TWO EXCEPTIONAL STUDENTS FROM MATES CONDUCTED INDEPENDENT RESEARCH IN THE JC NERR

The Marine Academy of Technology and Environmental Sciences (MATES) is a specialized high school located in Stafford Township, NJ that “provides an opportunity to students in Ocean County to evolve into critical thinkers, researchers, and problem solvers.” Recently, two MATES students conducted independent research in the JC NERR, under the mentorship of Gregg Sackowicz, JC NERR Field Researcher.

Madison Surette examined marsh surface and sediment dynamics as they relate to saltwater intrusion with rising sea levels. In an attempt to measure seasonal variation in sulfates and iron levels throughout the reserve, surface soil core samples and water temperatures were recorded at multiple sites along Great Bay Boulevard to document heat retention and mineral flow. Examination and data processing of a time-series of samples collected in recent months are underway, and we look forward to hearing about what she has learned about the JC NERR's marshes and how her findings may relate to our “Sentinel Site” at the Tuckerton Peninsula.



PHOTO CREDIT: LIFE ON THE EDGE DRONES

Summer Sakowicz compared data from the JC NERR's “Weatherhawk” weather station in the Grassle Marsh to a nearby WeatherFlow station located in the open marsh of the Tuckerton Peninsula to examine if meteorological conditions differ between “pocket marshes” and open marsh systems, providing potential “meteorological refuge” for resident and migratory species. Her results suggest that the pocket marsh does indeed provide some refuge from certain wind directions, as well as warmer daytime and cooler nighttime temperatures depending on the season. Her project received third-place at the Jersey Shore Science Fair as well as a Certificate of Outstanding Achievement from the American Meteorological Society at the Delaware Valley Science Fair.

JCNERR KICKS OFF A SUMMER OF FLOOD RISK COMMUNICATION WITH THE MYCOAST KING TIDE PHOTO CONTEST

The JCNERR is known by coastal practitioners across the state as a resource for tools and information to help communicate coastal flood risks in New Jersey. With last month's launch of [New Jersey MyCoast](#) in partnership with the New Jersey Department of Environmental Protection (NJDEP), JCNERR continues to build that portfolio of communications leadership. MyCoast is a crowdsourcing portal to collect and analyze photos of coastal events and places across New Jersey. The public uploads photos which are automatically linked to data about local weather and tides to create reports that help stakeholders like government agencies, business owners, and residents better understand coastal change and make informed decisions. Photos can be submitted and viewed via the MyCoast smartphone app or webpage. New Jersey's portal currently includes two "tools" for collecting photos: "High Water" to track flooding in coastal communities, and "Places We Love" to document valued coastal places across the state. Additional tools will be added soon; for example, other states are using MyCoast to track storm damage, ecological restoration projects, marine debris, and more.

The JCNERR and NJDEP envision MyCoast as the go-to public tool to document flooding in all of New Jersey's coastal areas – from tidal rivers, to bays, to estuaries, to ocean. Empowering people to connect the coastal places where they live, work, and play with potential flood impacts is the first step to raising awareness and decreasing flood risks. MyCoast was officially launched to the public in this spring with a King Tide Photo Contest from May 24-29, during which time the highest tides of the year were predicted for the Mid-Atlantic. Over 55 photos of flooding in communities across New Jersey were submitted to the contest and winners were voted on by the public in three categories based on the source of the flooding in the photo - Ocean, Bay, or River/Stream. Approximately 340 people voted for their favorite photo in each category that best showed the vulnerability or resilience of people, places, and things impacted by flooding in New Jersey's coastal communities. Winners were announced on June 21 and are featured on the JCNERR and MyCoast websites.



New Jersey is the tenth state nationwide to establish a MyCoast portal, with funding from the National Oceanic and Atmospheric Administration (NOAA) through the NJ Coastal Management Program. Unique to New Jersey's MyCoast portal, the website includes a "Know Your Tides" page that provides daily and monthly tide times and predicted water levels for tide stations across New Jersey. The tide information is sourced from NOAA's Tides and Currents website, providing New Jersey-specific data through a simplified, user-friendly interface. The Know Your Tides page will be the home of this summer's Coastal Risk Communications Campaign, developed in partnership by the JCNERR and NJDEP. The campaign is based around the central theme of [Know Your Tides, New Jersey](#).



This theme was selected because of the broad importance of tide awareness. Not only is it relevant in all coastal areas of the state (from ocean, to bays, to tidal rivers and streams), it is important for both residents and visitors in coastal communities to avoid flood impacts and make the most of summer fun. For example, knowing when the tide is high helps people to avoid flooded roadways and to know when to evacuate in case of a major storm. Knowing when the tide is low or high is also important for coastal activities like boating, fishing, and beachgoing. Messages about these valued coastal activities will be paired with flood risk messages to increase public awareness. The JCNERR has partnered with informal education organizations across the state to promote the campaign over the coming months, which will include social media, graphics, and other materials to help build public awareness of coastal flood hazards and encourage actions to decrease risk.

JC NERR SPRING EVENT HIGHLIGHTS

ENGAGING OUR STAFF AND THE COMMUNITY

“TAKE ACTION ON TRASH” MARINE DEBRIS CLEANUP

In celebration of Earth Day, we organized a self-guided cleanup event that allowed participants to engage in citizen science while also maintaining health and safety. On April 13th we held a training session for interested participants that covered the dangers of marine debris, current local projects, and how to use the [Marine Debris Tracker mobile app](#) to log collections during the cleanup. From April 18th-21st, the community ventured out to collect marine debris from our waterways, and the results of the collective efforts were shared on our [social media channels](#) and celebrated on Earth Day.

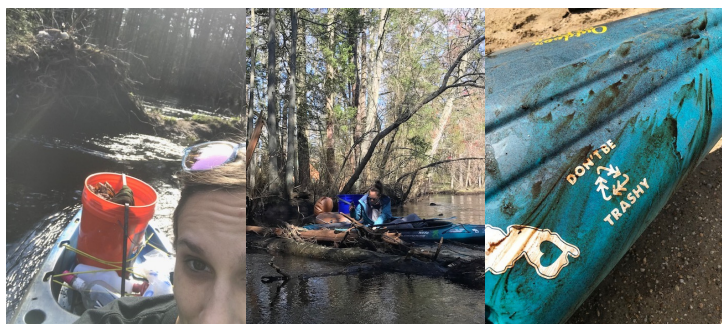


PHOTO CREDIT: LAUREN AND GINA

SELF-GUIDED BIOBLITZ

From June 19th-26th, the JC NERR held a Self-Guided BioBlitz, open to all participants of all ages. Held as a follow-up to the BioBlitz back in 2020, this event continued to help the JC NERR collect a baseline of plant and animal species present within the JC NERR's Grassle Marsh Trail and along Great Bay Boulevard (with a specific focus on the pocket marsh behind the Coastal Center building). During this annual event, participants are encouraged to use the iNaturalist app for documenting various flora and fauna within these areas. This BioBlitz collected many observed species, with the protected Northern Diamondback Terrapin bringing in the highest amount of observations! The JC NERR plans on doing a subsequent BioBlitz after renovations are made on a street culvert which is restricting tidal flow to the area. These projects not only encourage the community to become involved in citizen science, but also will help compare the biodiversity before and after this project!

BACKYARD BIRD PHOTO CONTEST

As spring began, migratory birds started making their way back up to NJ along the Atlantic Flyway! Many look forward to the first species sightings of the season, as it marks the beginning of the warmer and longer days ahead. We wanted to join in on the celebration of the spring migration, so we held our first ever Backyard Bird Photo Contest! All avian enthusiasts were invited to join in the fun: hobbyists, experts, and everything in between! Over the course of the two week photo submission period, 50 exceptional photos were entered. The competition was tight over the three-day voting period, where 605 total votes were counted for the favorites in each of our five categories: Best Close-Up, Finest in Flight, Backyard Birds, Coastal Captures, and Out on a Limb. (Visit our [social media pages](#) to view the winning photos)

CREATURE FEATURE SERIES BEGINS!

With each summer comes the annual JC NERR Creature Feature programs. Since last year's programs were completely virtual, Education Coordinator Kaitlin Gannon and seasonal educator Julie Shutz wanted to mix things up for this season with a hybrid-style series. Our weekly Creature Feature programs are modeled for children in grades 1-7. These programs introduce creatures of the estuary and ocean through hands-on activities. This year, our education team wanted to bring the fun of hands-on learning into the home with "take and make" crafting kits, scavenger hunts, games, stories, and more that give participants the opportunity to explore the estuary and ocean in a way they haven't experienced before!



We are halfway through our series, but there are still plenty of fun to be had. If you know of any junior naturalists that would like to learn about local marine creatures, invite them to join us on Tuesdays on Zoom until August 3rd. Learn more and check out the themes for the remaining sessions [here!](#)

If you have any questions, please reach out to gannon@marine.rutgers.edu.

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JC NERR SPRING EVENT HIGHLIGHTS

ENGAGING OUR STAFF AND THE COMMUNITY

NATIONAL TRAILS DAY 2021

June 5th was National Trails Day. We look forward to this day each year, to not only honor our Grassle Marsh Trail, but all trails around the country! Over the past year, we have seen more and more community members and visitors enjoying and sharing their love for our trail, so it was time to give it some much needed TLC.

On June 4th, our staff gathered together for the first time in many months to clear the path, replace trail markers, and add some slate pavers to flood-prone areas. We were joined by two of our undergraduate interns from last year as well as Mike Wallace with 84 Lumber Company. Mike is the community member that graciously donated materials to repair the damage to our boardwalk that occurred in the spring. Not only did we share in our work on the trail, but also how much this trail means to not only our staff, but the community as a whole.



WATERSHED AMBASSADOR PROJECT HELPS KICK START REENGAGING WITH JC NERR VOLUNTEERS



When the COVID-19 pandemic hit last spring, one of the JC NERR programs that was hit the hardest was our volunteer program. Research, education, and administrative volunteer tasks all came to a halt. But with restrictions slowly starting to ease and a new opportunities emerging, the JC NERR is ready to reengage with our volunteer community! We are excited about our new citizen science effort which involves collecting and recycling monofilament (fishing) line. This opportunity was made possible by our 2020-2021 Watershed Ambassador, Chris Roan. As part of Chris's host agency project, he decided to help reduce marine debris entering the estuary by installing six monofilament receptacles around Tuckerton and Little Egg Harbor. While fishing, recreational anglers are encouraged to dispose used fishing line into these specific monofilament collection containers, reducing the chances of it entering into the environment.

After Chris installed the receptacles, he planned a training for JC NERR volunteers a few weeks later. During the training, volunteers learned about the dangers of monofilament line as marine debris, the process of collecting the line from all six containers, and frequency of collection/scheduling. What happens to the line once it's collected? The JC NERR sends the collected line to an organization called the Blood Knot Ring Project, where it's then melted down and turned into fashionable rings. We are excited about our partnership with the Blood Knot Ring Project and hope that volunteers will enjoy this new experience. The JC NERR wants to thank Chris Roan for all his hard work, the Blood Knot Ring project organization, and our dedicated volunteers.

Follow the links to [become a volunteer](#) or learn more about the [Blood Knot Ring Project](#).



THE ECOLOGICAL EXPLORATION VIDEO PROJECT: VISIT FIELD STATIONS AND MARINE LABS FROM ANYWHERE IN THE WORLD



This past quarter, the JC NERR contributed a video to the [Ecological Exploration video project](#) by The Virtual Field. This project was started as a response to the academic shutdown caused by the COVID-19 pandemic. The Organization of Biological Field Stations launched an emergency grassroots effort to create and distribute virtual learning resources from field stations and marine laboratories to faculty, students, and more. The initial effort results in the coalition of over 50 field stations and labs from around the world. The resulting product was virtual content that focused on teaching observational skills through virtual experiences. The web portal that hosts the end products is a result of an awarded RAPID grant from the National Science Foundation (NSF: #2031815). This portal allows educators and students the ability to access the content and develop these skills safely, in lieu of in-person experiences.

Our [video submission](#) was put together by SWMP Technician and Field Researcher Gregg Sakowicz, and features an exploration of habitat structure and marine animal behavior in a New Jersey seagrass habitat.

SECTOR HIGHLIGHTS

RESEARCH

Margaret A Davidson Graduate Fellow: Taylor Armstrong

Last September, graduate student, Taylor Armstrong, started her 2-year research project at JC NERR through the NOAA Margaret A. Davidson Graduate fellowship. Taylor is studying how phytoplankton communities and specifically the presence of toxic algal species, are impacted by various water quality variables, including those impacted by land use changes.

Taylor started this year's monthly trips to New Jersey in April, sampling sites along the freshwater-marine continuum of Mullica River-Great Bay and Toms River-Barnegat Bay. These sites include the SWMP sites mentioned above and other sites regularly sampled by NJDEP and BBP. At each site, Taylor is taking a phytoplankton net tow sample, grab samples, and putting out resin bags to bind algal toxins during the month-long deployment.



So far, Taylor has seen low quantities of the diatom *Pseudo-nitzschia*, which can produce the neurotoxin domoic acid and cause amnesic shellfish poisoning, and *Dinophysis*, which can produce toxins causing diarrhetic shellfish poisoning. Taylor will soon be looking at those samples to see if the phytoplankton are producing the toxins and at what concentrations they are present.

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SECTOR HIGHLIGHTS

RESEARCH (CONT.)

SWMP Technician and Field Researcher: Gregg Sakowicz

In addition to the continuation of operations and monitoring of SWMP (System Wide Monitoring Program), Gregg Sakowicz has been selected for two leadership positions, both inside and outside of the NERRS system.

Gregg was elected to the Vice-Chair position at the June Barnegat Bay Partnership (BBP) Science and Technical Advisory Committee (STAC) meeting. The vice-chair elections are, by default, an election to the Chair position; vice-chairs ascend to the role of Chair the following year. The principal purpose of the STAC is to "provide the Barnegat Bay Partnership (BBP) with objective, expert advice, and peer review for overall scientific and technical matters related to National Estuary Program activities and goals, such as those specified in the Partnership's Comprehensive Conservation and Management Plan. It works with the Advisory Committee to identify and prioritize science and technical needs within the Barnegat Bay, and assists with the BBP office to raise awareness and resources for addressing these needs. Members of the STAC also participate and facilitate communication among other specialized science and technical committees, and recommends forming and disbanding new STAC sub-committees and technical workgroups as needed."

Based on his experiences monitoring and studying Submerged Aquatic Vegetation (SAV) in the Barnegat Bay/Little Egg Harbor complex, Gregg was also asked to be a member of the SSAM-SAV Leadership Team, which will serve as a steering committee for the NERRS SAV workgroup. Their first task, currently underway, is the structure and execution of a Needs Assessment, funded through NOAA, to survey the needs of Partners and Stakeholders in order to develop a SSAM-SAV protocol for implementation at the Reserve level. This will essentially create a SWMP protocol for SAV as there is for Water, Weather, Nutrients, and Marsh/Mangrove vegetation.

Research Coordinator: Thomas Grothues

- A study in Great Bay Estuary within the JC NERR is examining the use of shell hash placed on clam farm leases as an alternative to synthetic nets to deter predation on seed clams by rays. Survival of clams under nets, shell hash, and uncovered plots from core samples is being examined consecutively with acoustic positioning telemetry of rays tagged with transmitters. Funding Source: SARE, JC NERR
- The use of an autonomous underwater vehicle (AUV) is being developed to monitor algal growth and health on, as well as environmental impacts of, algal biofuel farms in tropical estuaries. Development and testing is funded by ARPA-E (prime) as a subcontract to Marine Biological Laboratories in the JC NERR with the help of two JC NERR engineering interns through cooperation with the Louis Stokes Alliance for Minority Participation (LSAMP) program. Funding Source: MBL (ARPA-E, Prime), LSAMP
- Long-term (31 year) juvenile and larval fish sampling programs continue using trawls (drag nets) traps, and plankton nets in the Mullica River-Great Bay estuary.
- Trawl sites within the pristine JC NERR are being sampled as controls for comparison to sites within Barnegat Bay that were previously impacted and continue to change as a function of operation and shutdown of the Oyster Creek Nuclear Generating Station, which drew cooling water from, and discharged heated effluent into, the bay. The study is in its third and final funded year, but draws from 5 years of previous research projects in the bay. Funding Source: NJDEP.
- An acoustic observatory has begun regular monitoring of the Shooting Thorofare inlet to Great Bay, using both active (sonar in 3 frequency bands) and passive (listening to fish and environmental sounds) acoustic methods. The vernal onset of fish vocalization was abrupt in late May. Funding Source: NSF
- An extensive report, New York Bight Fish, Fisheries, and Sand Features: Literature Synthesis and gap Analysis and Data Review, was published by Bureau of Ocean Energy Management as the conclusion of a contract to the JC NERR RC. Findings were also presented in a virtual meeting to over 100 stakeholders through the Rutgers Marine Extension Program Seminar Series.

SECTOR HIGHLIGHTS

EDUCATION

Education Coordinator: Kaitlin Gannon

Notable Tasks and Accomplishments

The NERRS Conservation Action Education (CAE) Workgroup – CAE program tracking spreadsheet.

The CAE workgroup designed a tracking spreadsheet for Education Coordinators to enter new Conservation Action Education project information. This is to track what current action/behavior change projects and programs that are occurring within the NERRS. Education Coordinators now have access to this document for current or future use.

Mid-Atlantic Coastal Acidification Network (MACAN) - Ocean Acidification Teaching Unit.

Kaitlin Gannon, two Mid-Atlantic NERR education coordinators, and intern staff are collaborating on forming a teaching unit on Ocean Acidification using existing resources and Mid-Atlantic specific data. Teacher feedback will be incorporated in planning the unit. Once complete, this unit can be used in future Teacher on the Estuary (TOTE) workshops and used by Mid-Atlantic teachers in their classrooms.

Special Programs

June 19th, 2021

Kaitlin Gannon and Amy Plantarich scheduled a self-guided BioBlitz for community members using the mobile species observation app called “iNaturalist”.

April 13th, 2021

A JC NERR virtual presentation and event “Taking Action on Trash” which discussed marine debris, current projects, and how to use the mobile NOAA Marine Debris tracker app. Presented by Chris Roan, Amy Plantarich and Kaitlin Gannon.

June 30th, 2021

Volunteer training event which explained a new JC NERR citizen science opportunity for volunteers – monofilament collection and recycling project. The training was presented by Chris Roan, Amy Plantarich and Kaitlin Gannon.

Teachers on the Estuary (TOTE) professional development workshop planning:

- Agenda and activity planning
- Registration set up and advertising for both workshops also started during this period

Public Presentations:

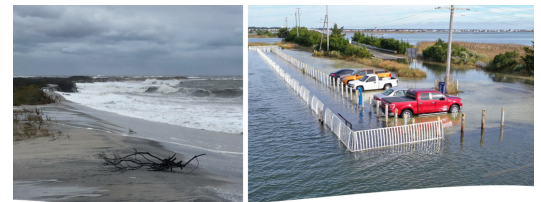
- 4/1/2021 Virtual outreach presentation for the Atlantic County Utility Authority’s Earth Day event. “Exploring the JC NERR and Great Bay-Mullica River Estuary” by Kaitlin Gannon
- 4/13/2021 A JC NERR virtual presentation and event “Taking Action on Trash” which discussed marine debris, current projects, and how to use the NOAA Marine Debris tracker application. Presented by Chris Roan, Amy Plantarich and Kaitlin Gannon
- 4/14/2021 Virtual Lunch N Learn presentation. “100 Things to do at the NJ shore ” by author and writer RC Staab.
- 5/11/2021 Virtual Eco Evening presentation. “Horseshoe crab conservation during a time of COVID-19” presented by Dr. Norm Wainwright.
- 5/12/2021 Virtual Lunch N Learn presentation. “Data? I’m all ears! The NERRS Soundscape Ecology project” presented by Andrea Habeck.
- 5/19/2021 Virtual outreach presentation for the Ocean County Library, Toms River Branch. “Exploring the JC NERR and Great Bay-Mullica River Estuary” by Kaitlin Gannon
- 6/16/2021 Virtual Lunch N Learn presentation. “Ghost Forests: A Different Perspective on Climate Science Through Art” presented by Dr. Kenneth W. Able, Dr. Jennifer S. Walker and Paul Hart

SECTOR HIGHLIGHTS

COASTAL TRAINING PROGRAM

CTP Coordinator: Vanessa Tropiano

In partnership with the NJDEP, Vanessa Tropiano launched New Jersey MyCoast throughout April and May. The initial launch in April was geared toward coastal practitioners (e.g. municipal officials, floodplain managers, consultants, etc.) to test MyCoast and provide feedback to improve the portal prior to the public launch. Vanessa hosted a virtual Lunch N' Learn on April 19 to familiarize practitioners with MyCoast and its public engagement applications (approximately 40 practitioners attended). The official public launch of MyCoast occurred in late May with a King Tide Photo Contest. From May 24-29, over 55 photos of flooding were submitted by residents in coastal communities across the state. Online public voting for the winners was held June 7-16 and the winners were announced on June 21.



MyCoast: New Jersey
KING TIDE PHOTO CONTEST MAY 24-29
DOCUMENT FLOODING IN YOUR COMMUNITY
FOR A CHANCE TO WIN PRIZES

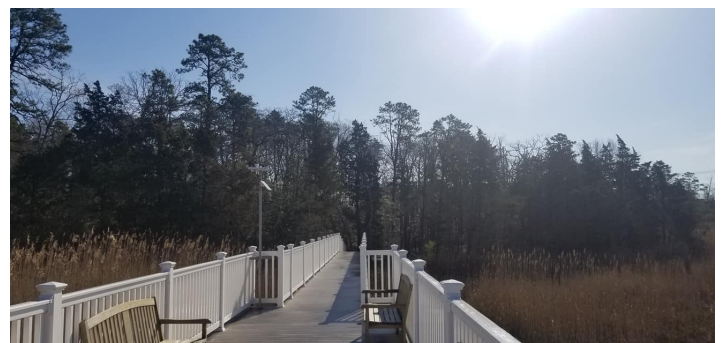


The second meeting of the Project Advisory Committee for the Southern Barnegat Bay Watershed Restoration Plan was hosted and facilitated by Vanessa Tropiano on June 24. The project team (Rutgers, Stevens Institute of Technology, New Jersey Institute of Technology) updated the Committee, which is comprised of local stakeholders and technical advisors, on project progress. They shared results of a watershed water quality analysis and together the group discussed potential stormwater sites to implement “quick start” retrofit projects over the next several months to improve water quality.



In partnership with the NJDEP, Vanessa has worked with consultant ROCA Communications over the last few months to develop materials for the Coastal Risk Communication Campaign project. The campaign launched on June 29 and will run throughout the summer, including social media and other messages and graphics that NJDEP, JCNERR and education organizations around the state can use for flood risk outreach.

Vanessa Tropiano is part of a team of partners, including NJDEP and Rutgers, developing the New Jersey Coastal Ecological Restoration and Adaptation Plan. She hosted and facilitated a statewide stakeholder workshop on April 14 to begin collecting stakeholders’ project site nominations, which will be further analyzed and incorporated into the Plan. The project site nominations are collected through an ArcGIS Online Survey, which she helped develop with the project team.



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COASTAL TRAINING PROGRAM (CONT.)

Vanessa Tropiano hosted two virtual trainings for coastal practitioners this quarter. On April 1, in partnership with the Delaware and Chesapeake Bay - Virginia NERRs, Vanessa hosted and facilitated “Estuary Research: Engaging the Five Senses” to share current research across the three reserves and inspire networking. The webinar included presentations from Rutgers’ Dr. Thomas Grothues and Dr. Daphne Munroe. Approximately 65 people attended. Then, on April 29, Vanessa hosted “Using Coastal Monitoring Data in Decision-Making” to share how monitoring data can be collected and applied to make more resilient management decisions. The webinar included presentations from Rutgers’ Dr. Norbert Psuty and the manager of the Sandy Hook Unit of Gateway National Recreation Area. Approximately 30 people attended.



In early April, Vanessa Tropiano was contracted by The Nature Conservancy (TNC) to plan and facilitate a series of meetings with practitioners, resource managers, and regulators across New Jersey and Delaware to build shared understanding about the beneficial use of dredged material to enhance tidal marshes. The CTP executed a series of three two-hour virtual workshops for restoration practitioners on April 12, April 26, and May 10, and participated in a fourth workshop on May 18 hosted by the US Fish and Wildlife Service. The CTP is working with TNC and their partners to plan a final culminating workshop later this summer to kickoff an ongoing learned exchange amongst the beneficial use community.

AWARDED AND PENDING GRANTS

- Kaitlin Gannon submitted a letter of support to Dr. Charles Schutte from Rowan University for his grant project titled “*Predicting the response of salt marsh methane emissions to sea-level rise through field and numerical experiments*”. The funding sponsor is the New Jersey Sea Grant Consortium. Dr. Schutte’s study provides the perfect opportunity to blend research and education about salt marsh ecosystem services and local climate change impacts. The JC NERR supports this project by incorporating Dr. Schutte’s research into some public education programs, signage and a small display on the JC NERR trail, and at a future Teachers on the Estuary (TOTE) workshop. Submission deadline to the sponsor was June 18th, 2021.
- Project team members made modifications to year three of NOAA’s FY 18 Marine Debris Removal funding opportunity entitled “Next Generation Marine Debris Removal 2018”. This project is in partnership with Stockton University. The JC NERR’s role in this project changed due to COVID-19 restrictions. Now, JC NERR efforts involve revamping the existing WeCrabNJ.org website by adding more resources and visuals about derelict crab pots. The original WeCrabNJ website was created from previous marine debris grant efforts by the JC NERR and Stockton University. This website is now in critical need of updates as well as new educational resources and materials for commercial crabbers, recreational crabbers and teachers.
- The JC NERR RC led a successful proposal to develop and execute a fisheries monitoring plan for development of wind resources on the continental shelf near Atlantic City, NJ. An important component of the work, to begin in September, is to examine the potential for disruption to shelf-estuarine migration from the buried power lines that will cross from wind turbines to the shore. Funding Source: Orsted Wind LLC.
- In June, Vanessa Tropiano led submittal of a grant entitled “Evaluating and Enhancing Training and Tools to Address Social Vulnerability in Community Resilience Planning” to the New Jersey Sea Grant Consortium’s Biennial Research Competition, in partnership with a team from Rutgers’ NJ Climate Change Resource Center.