



A Newsletter from the New Jersey Sea Grant Consortium

State of the Shore Event Finds New Jersey Beaches Ready For Summer



Claire Antonucci, NJSGC Executive Director, introduced the speakers. Pictured seated are Commissioner Bob Martin, Dr. Jon Miller, Dr. Stewart Farrell and Ms. Grace Hanlon.

The 2014 State of the Shore Media Event took place on Thursday, May 22 at McLoone's Supper Club on the Asbury Park boardwalk. The annual event featured a report on the condition of New Jersey's beaches prepared and presented by Dr. Jon Miller, New Jersey Sea Grant Consortium's (NJSGC) Coastal Processes Specialist. Dr. Miller is also a Research Professor at Stevens Institute of Technology. His report can be found in its entirety at <http://bit.ly/sots14>. Additional speakers included Dr. Stewart Farrell, Director of the Richard Stockton College Coastal Research Center, NJDEP's Commissioner Bob Martin and Grace Hanlon, Executive Director of Travel and Tourism for the State of New Jersey.

"It's always a great pleasure to speak about New Jersey beaches and our ocean water quality at NJSGC's State of the Shore event because there's much to be proud of," said NJDEP's Commissioner Bob Martin. "We want people to know, particularly just before the start of the summer season, that we monitor the ocean every day and our water quality is excellent.

Also, it's important to note that many of our beaches have been replenished by the Army Corps of Engineers to original, protective design standard, which will make them more resilient to future storms."



Winners of the New Jersey Top Ten Beaches survey were also announced at the event along with the unveiling of a new project for the NJSGC, the Rain Barrel Art Project (see related article). The survey is a project of the NJSGC and the Richard Stockton College Coastal Research Center. Started in 2008 to encourage stewardship and pride for New Jersey's beaches, voting is conducted online from February through the end of April. This year, the top beach was Ocean City, with Wildwood, Wildwood Crest, North Wildwood and Cape May following closely behind. Belmar, Stone Harbor, Asbury Park, Sea Isle City and Island



Dr. Jon Miller presented the annual *State of the Shore* Report.

Beach State Park were also in the top ten.

Categories voted on were Eco-Tourism, Family Vacations and Day Trips. The top winners in Eco-Tourism were Ocean City, Wildwood, Island Beach State Park, Wildwood Crest, Cape May Wildlife Refuge and Sandy Hook. Ocean City also took the top spot in both Day Trips and Family Vacations. Other



Michele Gillian Executive Director of the Ocean City Chamber of Commerce accepted the awards for Ocean City.

popular beaches including Point Pleasant Beach, Seaside Heights and Manasquan ranked in the top ten for Day Trips, while Lavallette, Brigantine and Belmar made the top ten for Family Vacations. A full list of winners by category can be found at www.njtopbeaches.org.



Louisiana Sea Grant hosts Sandy-affected Sea Grant partners for Hurricane Recovery Dialog

Louisiana Sea Grant recently invited New Jersey, New York, and Connecticut Sea Grant program personnel for a week-long workshop in South Louisiana. The goal of the trip was to get a firsthand account of the lessons learned during the Hurricane Katrina rebuilding process. The New Jersey Sea Grant Consortium (NJSGC) sent Dr. Peter Rowe, Dr. Jon Miller and Dr. Ryan Orgera, and they were joined by Jay Tanski from New York Sea Grant. The workshop included a wide array of meetings, presentations, and field trips.

Hurricane Katrina devastated much of South Louisiana. Floodwaters inundated entire towns and parishes (Louisiana's counties), creating unthinkable damage to structures, culture and economies. Many places visited were still struggling to recover nearly a decade later. For instance, St. Bernard Parish, just southeast of New Orleans, is experiencing very sluggish regrowth; the parish had one of the highest inundation rates in the entire state, with nearly 99 percent of structures flooded. Local governments continue to work to bring residents and businesses back to their former homes, but the reality of future vulnerability is proving itself a difficult hurdle.

There are post-Katrina success stories in Louisiana, and participants were lucky enough to experience one of these up close. The small town of Delcambre on the border of Vermillion and Iberia parishes was devastated by Hurricanes Katrina and

Rita. After the storms, as clean-up was slow and residents were seeking a sense of normalcy, bold ideas of a re-envisioned Delcambre began to coalesce. Locals started to see their small town as vulnerable to sea level rise, and in the path of future, more frequent storms, and so they sought help from many partners across the state, including Louisiana Sea Grant, Louisiana State University and the University of Louisiana at Lafayette. As Delcambre rebuilds, it keeps an eye to the future. The residents have developed, with partner assistance, cutting-edge plans for a new flood-resilient waterfront, direct-sale seafood market and improved marinas. All of these ideas came from the community's desire to reinvent itself, and this proved to be one of the week's most important lessons for those coming from Superstorm Sandy-affected areas.

Community vision must be organic. This was the mantra of the Katrina and Rita lessons learned by the Sea Grant team. As community partners, we have to help foster and facilitate ideas and ideals from the communities where we work. Top-down approaches are rarely effective in a rebuilding process, and the most successful kinds of projects and theories are created through rigorous community input, sound science application and vision. NJSGC is very thankful for Louisiana Sea Grant's gracious invitation, excellent programming and famous hospitality.

NJSGC and NOAA/NMFS partner to offer Undersea Habitat Imaging Workshop

The New Jersey Sea Grant Consortium (NJSGC) and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA/NMFS) Laboratory on Sandy Hook recently hosted an Undersea Habitat Imaging Workshop to evaluate the strengths and limits of camera and camera-delivery systems for benthic community photographic work. Benthic communities consist of plants and animals that live at the sea floor. The workshop focused on various imaging systems currently being used, and considered future needs regarding imaging systems including cost effectiveness and comprehensive sampling methodology for characterizing benthic communities. The imaging delivery systems discussed included drop cameras, towed camera systems, remotely operated vehicles, occupied submersibles, and autonomous underwater vehicles.

The workshop was designed as an informal, invitation-only gathering of academic and government marine scientists and engineers from across the nation to meet and compare notes about how to best use the imaging technology, improve imaging quality and discuss the future of benthic camera systems.

A proceedings from the workshop including a summary of



Canadian Scientific Submersible Facility - Waldo Wakefield

presentations is being produced by Dr. Rich Langton of NOAA/NMFS and Dr. Peter Rowe at NJSGC. Information and outcomes from the workshop will also be shared on the NJSGC website.

CURRENT EVENTS

2014 Rain Barrel Art Project Debuts at State of the Shore Media Event



Making its debut at the New Jersey Sea Grant Consortium's (NJSGC) 2014 State of the Shore Media Event was the Rain Barrel Art Project in which twelve local artists were chosen to paint a barrel with an iconic Jersey Shore scene.

Coordinated by NJSGC and Rutgers Cooperative Water Resources Program, the project's mission is to educate and create awareness around the use of rain barrels. Rain barrels help the

environment by reducing the amount of rain that flows into storm drain systems, which helps prevent flooding and cuts down on pollution entering New Jersey's waters. Collected rainwater can be used to water gardens and for other household tasks.

Participating artists are Norma Wokas, MaryAnn Goodwin, Suellen Crowley, Marty Fallivene, Susan David, Jermaine Johnson, Diana Gonzalez, Karen La Du, Lisa Fischer Lucariello, Lucretia McGuff-Silverman, Dennis Plummer, Suzanne Ritger and Luis Rivera. The barrels are being displayed at various events and festivals this summer, including a stop at the Baymen's Seafood Festival at Tuckerton Seaport June 21-22 and Whole Foods Market in Middletown for their Seafood Festival on July 12th.

Sponsors of the Rain Barrel Art Project are Whole Foods Market Middletown, the lead sponsor, as well as Tuckerton Seaport, Atlantic County Utilities Authority, McLoone's Restaurants, Seaside Heights Business Improvement District, Monmouth County Tourism, Cape May County, Steel Pier, the City of Belmar, Southern Ocean Chamber of Commerce and Rook Coffee Roasters. For more information and to view photos of the Rain Barrel Art Project visit www.njseagrants.org.

EDUCATION

Walking with the Horseshoe Crabs

It was a beautiful, warm June evening with a full moon and high tide - the perfect time for a Horseshoe Crab Walk on the beach! That's what nearly 250 scouts, friends, and family also thought, which made the New Jersey Sea Grant Consortium's (NJSGC) Horseshoe Crab Twilight Beach Walk such a success. Following an instinct millions of years old, the horseshoe crabs come to the beach to mate and lay their eggs during these ideal tidal conditions. And we were there to marvel at them, unchanged since the days of T. Rex.

Education was the watchword of the day as participants explored various aspects of these fascinating arthropods at four different stations in the NJSGC building. Following an initial presentation detailing the life cycle, anatomy, and history of the horseshoe crab, participants were also able to view actual horseshoe crab structures such as compound eyes under microscopes in our lab classroom. A favorite activity was touching live baby horseshoe crabs from our aquariums, along with other marine creatures. An anatomical model clearly illustrated the internal organs to adult participants while children made paper horseshoe crab models to bring home. After all this

Education Specialist Mindy Voss showed a crab's underside to a young participant.



education, we were ready to visit the beach to see the real crabs in action.

A live adult horseshoe crab looks fearsome, with its dark, hard shell, 14 claws, and that long sharp tail, but they are actually harmless. We picked them up, stroked their tails, put our fingers near their mouths, held their claws, and assisted in their feisty efforts to return to the bay. Children giggled at their antics and adults were awed. Knowing that the crabs' blue blood is used by medical companies to ensure bacterial purity of medicines, we appreciated them even more. It was a remarkable experience, and as the sun set over the bay, we left them to their primordial pursuits.

Ocean Fun Days 2014 Saw Record Number of Exhibitors and Attendees

One of the spring's most popular environmental education events, Ocean Fun Days, was held this year on Saturday, May 17 at Island Beach State Park in Seaside Park and on Sunday, May 18 at the headquarters of the New Jersey Sea Grant Consortium (NJS GC) in the historic Fort Hancock section of Sandy Hook.

"New Jersey Natural Gas is thrilled with the turnout of visitors to our 11th Annual Ocean Fun Days," said Tom Hayes, Director of Customer & Community Relations at New Jersey Natural Gas, founding sponsor of the event. "When we created this program 11 years ago, we wanted to help build awareness of our spectacular environment and give everyone the opportunity to learn how to better protect our natural resources."

Hayes said many of the exhibitors come back year after year and new ones are also added. He said the event has grown tremendously and estimates this year's attendance was more than 15,000 guests of all ages.

Visitors enjoyed educational displays, eco-tours, classes and hands-on activities and exhibits that all celebrated the wonders of the Jersey Shore and demonstrated how to preserve its natural resources for generations to come.

"Our longstanding Conserve to Preserve efforts in promoting energy conservation have been well received too," Hayes added.

Nearly fifty exhibitors participate each day, including many researchers from NJS GC's member institutions. Activities at both locations included seining, coastal crafts, an energy-saving scavenger hunt, youth fishing clinics, face painting, touch tanks, a student science fair competition and NJS GC's famous fiddler crab races.



NJS GC's Director of Research and Extension Dr. Peter Rowe, captivated the crowd at the crab races.

Additionally, there was a new 'clamming the bay' activity at Island Beach State Park. The Sandy Hook location included guided tours of many of Sandy Hook's historic sites including the lighthouse and an open house at the NOAA/James J. Howard Marine Sciences Laboratory.

"Partnering with the Consortium has been a wonderful relationship from the very beginning and we have been thrilled to add the Asbury Park Press, NOAA, and the New Jersey Division of Parks and Forestry to our list of sponsors. The team here at New Jersey Natural Gas is already looking forward to next year's Ocean Fun Days 2015," Hayes said.

Stew Tweed Fisheries Scholarship Recipients Announced at 11th Annual Ocean Fun Days Event



Tom Hayes, Claire Antonucci, Scholarship Winner Samuel Coakley and Gail Tweed pictured at Ocean Fun Days. Amanda Wenczel's award was accepted by Jessica Brown, from the Rutgers Cooperative Extension Water Resources Program.

The New Jersey Sea Grant Consortium (NJS GC) has announced and awarded its 2014 Stew Tweed Fisheries and Aquaculture Scholarships, established in memory of Stew Tweed, a 27-year veteran of the New Jersey Sea Grant Marine Extension Service, who passed away in 2007. The scholarships were presented by Claire Antonucci,

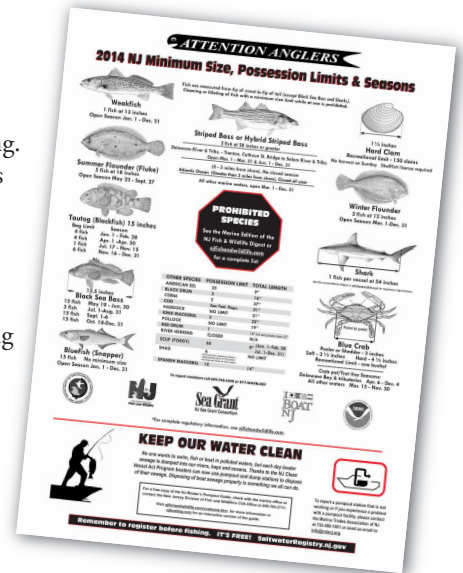
Executive Director of the NJS GC, and Tom Hayes, Director of Community Relations at New Jersey Natural Gas during Ocean Fun Days at NJS GC's headquarters on Sandy Hook on Sunday, May 18th, 2014. Also on hand for the presentation was Stew's wife Gail Tweed and his daughter Patti.

Since 2008, two scholarships have been awarded annually to support a graduating high-school senior and an undergraduate/graduate student in the marine, environmental, or science field, or an outstanding research or technology project focused on fisheries or aquaculture. The winners of the 2014 Stew Tweed Fisheries and Aquaculture Scholarships are Samuel Coakley, a resident of Wall, New Jersey and a graduating senior at The Marine Academy of Science and Technology at Sandy Hook who will attend Rutgers School of Environmental & Biological Sciences this fall. Samuel was a NJROTC Platoon Commander, Class Vice President, and President of the Creative Arts Club, among other leadership roles. His career goal is to be a Professor of Marine Science.

The second recipient is Amanda Wenczel of Hamilton, New Jersey. Amanda is pursuing her doctorate at Rutgers University in Ecology and is currently conducting work at the Haskin Shellfish Research Lab. She has research experience in habitat restoration and commercial fisheries enhancement in shellfish populations along the U.S. east coast. Her career goal is to become a Marine Resource Manager and Educator.

The New Jersey Sea Grant Consortium (NJS GC) Extension Program has once again partnered with the NJDEP Division of Fish and Wildlife to produce and distribute recreational fishing regulation cards to anglers around the state. NJS GC started the angling outreach project in 2005,

accessible while fishing. Demand for the cards soon exceeded supply and in 2014 nearly a quarter million were printed. In addition, the recreational fishing outreach project also provides regulation posters to over 300 marinas and boating facilities.



June 1-7 was Rip Current Awareness Week, a nationally recognized ocean safety campaign aimed at educating the public on rip currents. Organized by the National Oceanic and Atmospheric Administration (NOAA), the National Sea Grant Program, the United States Lifesaving Association, and the National Park Service, each year NOAA designates the first full week of June as National Rip Current Awareness Week, coinciding with the traditional start of the summer vacation season.

The strongest rip currents can attain speeds reaching 8 feet per second. On average, more people die every year from rip currents than from shark attacks or lightning. According to the United States Lifesaving Association, 80 percent of surf beach rescues are attributed to rip currents, and more than 100 people die annually from drowning in rip currents.

The New Jersey Sea Grant Consortium (NJS GC) manages a comprehensive rip current awareness campaign for New Jersey which includes producing and distributing thousands of signs warning swimmers about the danger of rip currents and illustrating what to do if caught in one. Municipal officials interested in purchasing rip current sign decals can contact Lisa Aromando at 732-872-1300 ext 10. Brochures on rip current safety can also be requested from NJS GC, or they can be downloaded and printed from the following website: <http://www.njseagrants.org/extension/coastal-concerns/rip-current-awareness/>.

The following tips are offered by the NJSGC to help beachgoers identify and avoid dangerous rip currents:



- A channel of churning, choppy water
- An area having a notable difference in water color
- A line of foam, seaweed, or debris moving steadily seaward
- A break in the incoming wave pattern

- If caught in a rip current, remain calm to conserve energy and think clearly.
- Don't fight the current. Swim out of the current in a direction following the shoreline. When out of the current, swim towards shore.
- If you are unable to swim out of the rip current, float or calmly tread water. When out of the current, swim towards shore.
- If you are still unable to reach shore, draw attention to yourself: face the shore, wave your arms, and yell for help.
- If you see someone in trouble, get help from a lifeguard. If a lifeguard is not available, have someone call 9-1-1. Throw the rip current victim something that floats and yell instructions on how to escape.

For more information and available safety resources, visit <http://www.ripcurrents.noaa.gov/week.shtml>.

Oyster Co-Op Receives Grant for Refrigerated Van to Promote Sustainability of Shellfish Farms



Oysters being grown using the rack and bag system on Delaware Bay.

The Cape May Oyster Cooperative, a newly established cooperative comprised of six founding member oyster farms, has received funds from USDA's Rural Business Enterprise to purchase a refrigerated van, which will ensure the safe delivery of product from field to packing facility and enable the integration of direct delivery to local food markets. Lisa Calvo, extension agent for the New Jersey Sea Grant Consortium (NJSGC), is also the Aquaculture Program Coordinator at Rutgers University's Haskin Shellfish Research Laboratory and has been a key resource in guiding the co-op initiative.

The collective of primarily family farmers seeks to employ stringent product quality and safety standards and to establish capacity for direct delivery of product to high end restaurants, specialty markets, CSAs, and food cooperatives serving a growing consumer demand for fresh, locally produced foods. The Co-op's distribution business model supports market expansion, expanded product access to underserved consumers, and promotes long term sustainability of shellfish farms.

In order to enhance the production potential, marketing opportunities, and long-term sustainability of their farms, a group of six oyster farms came together to identify ways to work cooperatively. The group has met monthly since January 2012 to establish a framework for a producers' cooperative, the Cape May Oyster Cooperative. Guided by Rutgers University New Jersey Aquaculture Innovation and Food Innovation Center experts, cooperative development consultant, Adam Schwartz, and Attorney Dave Swanson, the Cape May Oyster Cooperative has been established as a 308B Cooperative in Minnesota, where there is a robust legal basis for farmer cooperatives. The Cooperative

continues to work closely with the experts to ensure proper execution of the cooperative endeavor and associated marketing strategies.

New Jersey's oyster farms are concentrated on extensive intertidal sand flats of the lower Delaware Bay known as the Cape Shore. The moderately high salinity and good food quality characteristic of this area support rapid oyster growth and yield exceptional quality oysters. Here, hatchery-reared disease resistant oysters are grown in rack and bag systems. The farms are accessed from the shore at low tide and the oysters are tended for a 1-3 year production cycle. At the start of 2013, seven oyster farms had 17.3 million oysters in production in Delaware Bay (Calvo, 2013).

Member farms are primarily located adjacent to one another along a three-mile stretch of shoreline on the Cape Shore flats and in tidal areas located within about a 10-mile radius of the near shore zone. The geographic centralization of the farms creates an ideal opportunity for farmers to work cooperatively as they produce similar high quality oysters in similar growing conditions. The cooperative will strengthen its community of member farmers by sharing infrastructure, services, and marketing, forging a collective path forward that could not be achieved by any single individual farm.



Betsy Haskin (center), farmer/owner of Betsy's Cape Shore Salts, pictured with Dale Kinley and Ron Moore from Weavers Way Food Cooperative, Philadelphia.