

Celebrating 40 Years

NYSG photo collage by Lorraine Conroy



Clockwise from bottom left: former dir. Dr. Donald F. Squires, researcher Dr. Joseph Makarewicz (SUNY Brockport), NYSG Fisheries Spec. Dave MacNeill, Asst. Dir. Cornelia Schlenk, former dir. Dr. Anne McElroy (SBU), former assoc. dir. Dr. Mike Voiland (NCSG), former dir. Dr. Bob Malouf (ret. Oregon SG), former assoc. dir. Dale Baker (Cornell), former scholar Karen Chytalo (NYSDEC), former scholar/asst. dir. Bill Wise (SoMAS), seafood retailer George Wefelman, NYSG Seafood Spec. Ken Gall.

On November 1, 1971, *The New York Times* ran the headline “New York Sea Grant Program Receives Initial Funding.” New York State had just received its first \$600,000 grant under the new National Sea Grant Program and funding would be used to explore development of the state’s thousands of miles of coastlines along the Atlantic Ocean, and Lakes Erie and Ontario. This was the start of New York Sea Grant’s 40-year tradition of choosing only the best high quality research projects and disseminating the results through a specialized extension staff. Just how did this come about?

In the 1960s, our nation was in the throes of social upheaval paired with unprecedented scientific advances. **Rachel Carson’s** book, *Silent Spring*, had begun to raise our awareness about the environment. Many proclaimed Lake Erie to be dead. Our nation’s technological machinery was moving at a breakneck pace ever since **President John F. Kennedy** challenged Americans to put a man on the moon by decade’s end. But compared to the space race, ocean exploration was back at the starting gate.

Things were about to change. In 1966, the National Sea Grant College Program was born by Act of Congress with a goal of initiating and supporting education, research and outreach programs to impart useful information to people working with marine and Great Lakes resources, the scientific community and the general public. By decade’s end, New York became eligible for funding under the National Sea Grant College Act. **Dr. Donald F. Squires** at the State University at Stony Brook was the program’s first director.

New York Sea Grant was developed as a cooperative program of the State University of New York (SUNY) and Cornell University, the state’s federally designated Land Grant College, and had offices and personnel across the state. New York Sea Grant is one of 32 designated programs federally funded under the National Oceanic and Atmospheric Administration (NOAA) within the U.S. Department of Commerce. Today’s forward-thinking goals revolve around the themes of healthy coastal ecosystems, sustainable coastal development, safe and sustainable seafood, and hazard resilience in coastal communities.

What better way to celebrate the first 40 years than by organizing events that highlighted how our partners, stakeholders, researchers, educators and elected officials have helped us “bring science to the shore” for our mutual benefit? Fortieth exhibits were set up at the International Association for Great Lakes Research conference (Duluth, MN), the Great Lakes Research Consortium (Syracuse) and at the state capital (Albany Day). In the metro New York area, 40th displays were seen at the New York Marine Consortium conference (Columbia’s Lamont-Doherty Earth Observatory), the State of Jamaica Bay conference (Brooklyn College) and the New England Estuarine Research Society conference (Port Jefferson). With numerous Fall 2011 events that educated our supporters, we bring you some highlights in this special Winter 2012 issue of *NY Coastlines*. Be sure to check out videos of these lively events on our YouTube channel.

– Barbara A. Branca



Top left photo at SUNY Oswego: l to r —Kristen Holeck (Cornell Field Sta.), Dr. Lars Rudstam (Cornell), Great Lakes Research Consortium Dir. Dr. Greg Boyer (ESF). Top right photo at SUNY ESF: NYSG researchers l to r — Dr. John Farrell, 1000 Islands Bio Sta.; ESF VP of Research Dr. Neil Ringler; NYSG Assoc. Dir. Dr. Kathy Bunting-Howarth; Boyer; Rudstam; Dr. Donald J Stewart (ESF). Center left photo at SUNY Oswego: l to r seated — Interim Provost, VP for Academic Affairs, BOG member Dr. Lorrie Clemo; Bunting-Howarth; Dean, College of Arts and Sciences Rhonda Mandel; standing l to r: NYSG Fisheries Spec. Dave MacNeill; undergrad Hannah Doerrier; Asst Provost for Budget and Operations, PAC member Dr. Michael Ameigh; NYSG Coastal Community Spec. Mary Penney; NYSG Recreation and Tourism Spec. Dave White. Bottom left photo at SUNY Oswego: l to r — Boyer and White (Kara Lynn Dunn, Ameigh in background). Center right photo at SUNY Oswego: l to r — PAC members Charles Blaas and Ameigh; Bunting-Howarth; NYSG Dir. Dr. Jim Ammerman. Bottom center photo: Bunting-Howarth; Aquarium of Niagara Exec Dir. Nancy Chapin; NYSG Coastal Educ. Spec. Helen Domske. Bottom right photo: Teacher Michelle Tabone, Boyer.

Celebrating 40 Years in the Great Lakes

Many of Sea Grant's upstate New York communities border on at least one body of water – whether the eastern portion of Lake Ontario near Oswego or eastern Lake Erie bordering Buffalo. There are also plenty of tributaries, including the St. Lawrence, Salmon, Niagara and Buffalo Rivers, among others. With so many of its user groups – from anglers and educators to elected officials and researchers – strongly tied to these coastal resources in the Great Lakes, New York Sea Grant hosted and participated in a variety of 40th anniversary lectures and receptions this past fall.

In October, NYSG's Associate Director **Dr. Kathy Bunting-Howarth** visited Syracuse's SUNY College of Environmental Science and Forestry (ESF) for the first in a series of lectures. The discussions – each geared towards a mix of around 40-50 faculty, graduate students, researchers, educators and university administrators – took a look back on the program's first four decades of research, extension and education efforts. These span such diverse focus areas as fisheries, seafood safety, invasive species, coastal tourism, hazard resilience, habitat restoration, water quality and social science impacts.

"This presentation was an opportunity to introduce Sea Grant to a new generation of researchers, students, policymakers and anyone making decisions about the resources of New York's coastlines," says Bunting-Howarth.

In addition to those at ESF, Bunting-Howarth recognized researcher-led projects dating from NYSG's early years through today based at the University of Buffalo, Buffalo State, SUNY College at Oswego, SUNY College at Brockport, Clarkson University and Cornell University. These projects included under-ice research in Lake Erie, seafood and freshwater sportfisheries research, and social science impact assessments.

"To ensure that the best scientific information is

available for coastal decision-makers, research needs extension to create a two-way bridge for delivering research results to coastal communities and communicating the research questions and needs of our diverse stakeholders back to the scientific community," says Bunting-Howarth. She shared similar sentiments at lectures and receptions held at both the Aquarium of Niagara and the University at Buffalo in late October.

"These events were also opportunities to let people know about some of the invasive species that have caused dramatic impacts in the Great Lakes," says NYSG's Coastal Education Specialist **Helen Domske**. Aquatic invaders include zebra and quagga mussels, sea lamprey, the round goby, Asian carp and Eurasian ruffe.

SUNY Oswego was the final stop for Bunting-Howarth's tour, this one part of the university's Science Today series, which highlights women of achievement and women's issues in STEM (Science, Technology, Engineering and Mathematics), spearheaded by Dean of the College of Liberal Arts and Sciences **Rhonda Mandel**. "This presentation was geared towards students, to help them understand what scientists can do for a living, from studying salmon and trout fisheries to being an extension educator working with students in grades K-12," she said of her late-November talk.

Bunting-Howarth applauded NYSG Coastal Recreation and Tourism Specialist **Dave White** for the BoatUS Foundation award-winning Discover Clean and Safe Boating initiative that includes an invasive species emphasis. "This is just one example of what NYSG extension does best, which is bringing science to New York's 3,400 miles of shoreline," said Bunting-Howarth.

—Paul C. Focazio and Kara Lynn Dunn

Photo collage by Loriann Coody



Caption for page 3: Top row l to r—NYSG Leigh Hubbard, Phil Curcio (holding proc. from NYS Senator Zeldin), PAC member Roger Tollefson, NY Fishing Tackle Trade Assoc. John Mantione, former NYSG dir. Dr. Jack Mattice; Scholar Liz Suter (SBU), researcher Dr. Paul Bowser (Cornell). Middle row: Judy White, BOG member Mike White, former NYSG scholar and asst dir. Bill Wise; researcher Dr. Chris Gobler (SBU), Tollefson; PAC member Aida Reyes-Kuehn, NYSG Barbara Branca, former scholar and researcher Gregg Rivara (above). Bottom row: NYSG Lane Smith; NYSG Coastal Processes Spec Jay Tanski (pointing); Assemblyman Fred Thiele, NYSG Dir Dr. Jim Ammerman, Assemblyman Bob Sweeney; NYSG Asst. Dir. Cornelia Schlenk, researcher Dr. Malcolm Bowman (SBU).

Celebrating at the Maritime Museum

At the Long Island Maritime Museum celebration on Great South Bay in September 2011, about 100 people were welcomed by NYSG Director **Dr. Jim Ammerman**. “We are here with you, our stakeholders and supporters, to celebrate the first 40 today. It’s great to be on the South Shore where much of our important research and extension outreach activities have taken place over the past 40 years.” On hand were partners, advisors, business owners, researchers, graduate students, educators and Sea Grant staff. All enjoyed the sunshine, refreshments and music after two tropical storms had torn through much of New York just days before.

Cornelia Schlenk, NYSG Assistant Director, explained how “The program itself, as well as the researchers that we fund, have been responsive and visionary and have done a lot of good in addressing the coastal problems and opportunities for NY, both in the marine district and in the Great Lakes. Our contributions to science, both in terms of information and people, I think, have been pretty phenomenal.” She spoke of NYSG’s responsive research on brown tide, lobsters, and hard clams in Long Island waters and Great Lakes’ issues of invasive species, food web changes and the cause of Viral Hemorrhagic Septicemia in fish. Earlier in the day, **Dr. Paul Bowser** of Cornell had given an anniversary lecture about that fish disease at Stony Brook University. Bowser was in attendance along with **Drs. Anne McElroy** and **Jack Mattice**, both former NYSG directors mentioned in Ms. Schlenk’s brief history of the program.

Dr. Kathy Bunting-Howarth, NYSG’s Associate Director said, “Whether you’re a government official or a recreational fisherman or whether you’re just trying to take your family to the beach and can’t decide which one to go to, New York Sea Grant can work with you, getting the right information from the source and out to the folks along NY’s coastlines.”

Special guests were **NYS Assemblymen Robert Sweeney** (D-Lindenhurst, Chairman of the State Assembly’s Environmental Conservation Committee) and **Fred Thiele, Jr.** (I-Sag Harbor). Said Assemblyman Sweeney, “We’ve had the opportunity to have a relationship with Sea Grant over the years and we benefited from that—the good work that you have done and continue to do.” Upon saying, “Congratulations on 40 years of bringing science to the shore,” he and Assemblyman Thiele presented director Ammerman with a proclamation signed by the entire Suffolk County delegation. In addition, **Phil Curcio**, representing **State Senator Lee Zeldin**, presented a congratulatory proclamation from the NYS Senate.

Said Assemblyman Thiele, “Without the resources from Sea Grant, and the work they have done to help our local government, our baymen and our local residents—their way of life—would be more in jeopardy.”

George Wallace, Suffolk County’s first Poet Laureate demonstrated the relevance of famed poet Walt Whitman by reciting Whitman’s “Poems of Joy” about life along the sea. Said Wallace, poet-in-residence at the Walt Whitman Birthplace, “A mid-19th century Long Island native, Whitman had intimate knowledge of working people like fishermen. He gives voice to them so beautifully.”

With a local poet, donations of local wine and seafood, a jazz trio comprised of Stony Brook University music students, and a Sea Grant staffer singing an apt variation on a classic “Beyond Sea Grant,” the message of the day was an upbeat future of sustainability for our coastal resources. Said Dr. Ammerman, “This is our 40th anniversary. And while we are looking back, we are really looking forward to the next 40 years.”

—Barbara A. Branca

Four Decades Supporting Scholars, Fellows, Stewards and Youth

Since the 1970s, New York Sea Grant has funded more than 600 research projects, and more than 600 graduate students, many of whom are in a position of influence relative to the marine and Great Lakes districts, whether in government, academia or industry. Many of our faculty researchers are aided by capable graduate students who are fully involved as investigators and funded as Sea Grant Scholars. Several issues of *NY Coastlines* have featured our former Scholars such as **Dr. Christopher Gobler, Karen Chytalo and Doran Mason** (see links). They are often the in-the-field and in-the-lab eyes, ears, and hands of NYSG's excellent research program (see links at nyseagrant.org).

Recent Sea Grant Scholar **Sean Bratton**, who won additional funds through a thesis completion award in Fall 2011, had an opportunity to discuss his research on the interaction of the atmosphere and the waters of Long Island Sound with **Dr. Jane Lubchenco**, administrator of NOAA, during her May 2011 visit to Stony Brook University (SBU). Says Sean, "I appreciate the opportunity to grow as a scientist while working with well-known researchers in the field who are fulfilling Sea Grant's mission of finding scientific solutions to the socio-economic issues of our coastlines."

Over the years, NYSG has also supported 33 Knauss Fellows, a NOAA-funded program that places highly-qualified graduate students from the nation's 32 Sea Grant programs in federal government host sites, developing and implementing national policies related to marine, coastal and Great Lakes resources. The program is named for one of Sea Grant's founders, former NOAA Administrator **John A. Knauss**. In 2007, SBU's **Lynn Abramson** was selected. Says Lynn, "The Knauss Fellowship was an unparalleled opportunity to work on environmental policy and learn more about the decision-making process. Now, as a

Senior Legislative Assistant in the Office of **Senator Barbara Boxer**, I still consistently draw upon the skills and knowledge I developed as a Fellow."

After receiving a Masters of Public Administration in Environmental Science and Policy from Columbia University, **Jeb Berman** was NYSG's 2009 Knauss Fellow who was assigned to **Congressman Mike Thompson** of California. Now Director of Government Relations at the National Marine Sanctuary Foundation, Jeb says, "As a Fellow, I had a front-row seat to observe how Congress actually works. It was exciting to be at the intersection of local and national ocean policy issues, giving me amazing opportunities to connect with diverse government, industry, academic, and nonprofit institutions on a variety of ocean issues."



Jillian Cohen is the 2012 Knauss Fellow. Jillian, who received her Masters of Science from Cornell in 2009 and is currently a PhD candidate, joins the staff on the US House

Committee on Natural Resources where she'll work closely with the Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs which has jurisdiction over fisheries management, wildlife conservation, estuarine protection, and Sea Grant programs. "Given the broad purview of the Committee and Subcommittee," says Jillian, "I look forward to interacting with a variety of policy makers, environmental managers, and researchers on a range of topics. The experience will give me a chance to connect with scientists and decision makers at NOAA and the Fish and Wildlife Service."

The National Marine Fisheries Service (NMFS) is another avenue of fellowship for qualified graduate students. NYSG's current NMFS Fellow, **Skyler Sagarese** says, "Professionally, my NMFS-Sea

Grant fellowship has taken me behind the scenes, from collecting and processing catches aboard the *R/V Henry B. Bigelow* to illuminating discussions of modeling techniques with cutting-edge NMFS scientists. Personally, I've been challenged and stretched, and my passion for a career in fisheries science further ignited." Her fellowship has borne fruit with the authorship of an article in a recent issue of *Northeastern Naturalist* (see page 5).

Over the years, NYSG has also worked with undergraduate students through the Research Experience for Undergraduates at Stony Brook University as well as Stewards working in the dunes region of eastern Lake Ontario and along the Salmon River. High school students participating statewide in the annual Bay Scallop Bowl or in the biennial Great Lakes Student Summit, have also gained insights from NYSG's coastal educators.

In 2008, New York Sea Grant started a *Sound Stewards* program in conjunction with Brookhaven National Laboratory's Open Space Stewardship Program to increase stewardship throughout Long Island Sound (LIS). Working with such partners as NYS Department of Environmental Conservation and NYS Office of Parks, Recreation and Historic Preservation, the *Sound Stewards* program involves younger students in research projects that teach them about problems facing LIS, while collecting data that could be used by partner agencies. To date, 1,700 students have participated in this program.

— Barbara A. Branca

Photo courtesy of North Country Middle School



With help from NYSG's **Larissa Graham** (c), North Country Middle School students from Miller Place have collected water quality and other data in Mt. Sinai Harbor since 2008. The Harbor has experienced dredging and wetland loss over the years. The students compare their Mt. Sinai data with data that their teachers collect at a healthy wetland as well as do their own research projects. Partners on this project are the NYSDEC and the Town of Brookhaven.

NYSG's Safety-At-Sea Workshop Garners US Coast Guard Appreciation



Photo by Barbara A. Branca

NYSG Fisheries Specialist Antoinette Clemetson, organizer of the 2010-2011 Safety-At-Sea training program was presented with a Certificate of Appreciation for outstanding outreach by Captain Joseph M. Vojvodich, US Coast Guard regional commander for Sector LIS during a 40th anniversary ceremony at Stony Brook University. The USCG was an important partner in this successful program. From left to right: Lt. Christian J. Barger, USCG Marine Safety Detachment Supervisor; Capt. Bill Nelson, USCG Auxiliary; Officer in Training BMCS Jason Walter; Clemetson; Dr. Jim Ammerman, NYSG Director; and Capt. Vojvodich. For this project, Clemetson also received the Northeast Sea Grant Consortium Outstanding Outreach Achievement Award.

Last Wave

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Journal Reprints

Sagarese, S.R., R.M. Cerrato and M.G. Frisk. 2011. Diet composition and feeding habits of common fishes in Long Island Bays, New York. *Northeastern Naturalist* 18(3): 291-314.

Stasiewicz, M.J., M. Wiedmann and T.M. Bergholz. 2011. The transcriptional response of *Listeria monocytogenes* during adaptation to growth on lactate and diacetate includes synergistic changes that increase fermentative acetoin production. *Applied and Environmental Microbiology* 77(15): 5294-5306



Silver carp artwork by Joseph R. Tomelleri

New Fact Sheet on Asian Carp

A possible invasion into the Great Lakes of several of the seven species of carp found in North America, but not in the Great Lakes – the silver and bighead carp (known collectively as Asian carp) – has raised concerns. These concerns are detailed in *Asian carp: Threats to the lower Great Lakes and St. Lawrence River?*, a new fact sheet produced by NYSG Fisheries Specialist **David MacNeill** and NYSG's Coastal Education Specialist **Helen Domske**. Silver carp, noted for their high-flying jumping behavior, have seriously injured people aboard watercraft.

"This fish is a threat because it is very prolific – it breeds very readily, and there are places in its range along the Mississippi River and the Illinois River where it is now the dominant fish species," says Domske. "Asian carp are filter feeders. And like the mussels, these carp love to eat plankton. And when I say plankton, keep in mind that all fish start out as a type of plankton."

Adds MacNeill, "Plankton are the energy sources that drive much of the open water food web and are the only food for fish larvae and species like alewife." Alewife are the plankton-eating fish that are preferred prey for predatory fish like trout and salmon. The big question," says MacNeill is: "If the carp get into the Great Lakes, could they affect the multimillion dollar trout and salmon fisheries?"

Both Domske and MacNeill agree that if Asian carp get into one of the Great Lakes, there would be nothing to stop them from moving throughout all of the Great Lakes. "We may not be able to get rid of the invasive species that have already entered the system, but we need to make sure that we do all that we can to prevent the carp from getting in," says Domske.

The carp have been found in a ship canal that connects Lake Michigan to the Mississippi River, which many people are calling to be blocked off so there is no way the water could flow in between the lake and the river. "Many scientists believe that hydrological separation would be a sure way to keep them out," says Domske. Economically, if the Asian carp did make its way into the Great Lakes it could create a negative impact: "The canal does move a lot of barges," says Domske. "But just speaking from a scientific standpoint, closing it certainly could be one of the most effective and attainable means to block that connection from Asian carp into the Great Lakes."

— Paul C. Focazio

Seafood Health Facts Web site

A new Web site aimed at helping consumers weigh the benefits against possible risks of eating seafood has just been launched. The site, <http://seafoodhealthfacts.org>, developed largely through a grant from the U.S. Department of Agriculture, was created to help clear up many of the myths surrounding seafood. "The idea is for the site to serve as a credible resource to health care professionals and consumers," said New York Sea Grant Seafood Specialist **Ken Gall**, who was the primary developer of the new Web site and is the Cornell University Co-Investigator for this project.

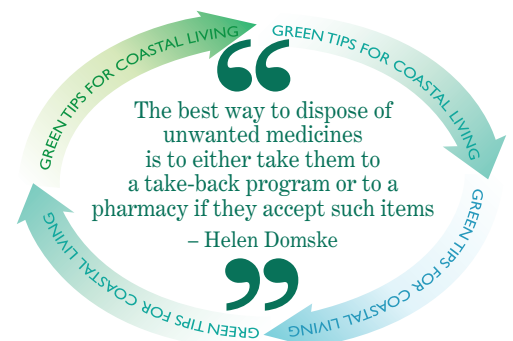
Included on the site are resources for seafood nutrition and the benefits of seafood consumption, seafood safety and the risks associated with certain types of seafood, a comparison of the risks and benefits of seafood consumption, and the seafood supply in the United States. The site, which also features information aimed at specific population groups, will be enhanced in early spring so that consumers can customize the information they need based on the amount and source of seafood they eat.

Dose of Reality Campaign

New York Sea Grant's Coastal Education Specialist **Helen Domske** has been working with other specialists throughout Sea Grant's Great Lakes programs for the past year on the "Dose of Reality" campaign, funded by the Great Lakes Restoration Initiative. She and others in the region have informed nearly 796,000 people about targeted ways to keep unused prescription drugs out of New York's waterways. As part of that effort, to date, nearly 2.5 million pills have been collected.

"When medications are no longer needed – whether they are expired, unwanted, or don't have to be taken any more – people used to think the best disposal was to flush them down the toilet," says Domske. Now we know this might have environmental impacts. "If people cannot use a take-back program, they should mix the medicine with something that's unattractive to pets or people, like used coffee grinds or kitty litter, put them in a plastic bag, tape it up and then place it in a non-recyclable plastic container and throw it out in the trash."

— Compiled by Paul C. Focazio



From the Director...

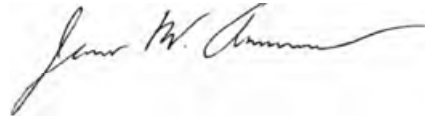
This issue describes many of our recent 2011 40th Anniversary activities-- seminars, discussions and receptions—both upstate and down. We used this milestone as an opportunity to highlight New York Sea Grant's many accomplishments over the last 40 years as we look forward to the next 40. I encourage you to follow the links to the video highlights of these events and those from prior anniversary events especially the reception for NOAA Administrator Dr. Jane Lubchenco detailed in the *Summer/Fall 2011 New York Coastlines*.

One of the most important components of New York Sea Grant (NYSG) has always been its Program Advisory Council or PAC. This diverse group of stakeholders provides advice and suggests direction to NYSG, although they have no specific decision-making power. They also participate in the NYSG research review process, primarily through evaluation of pre-proposals. In the last few years the PAC lost several members through attrition, so NYSG recently added 10 new members. These include people from groups not recently represented on the PAC, such as the energy industry, upstate media and public radio, and coastal business owners and local officials.

NYSG is just starting a new round of nine funded research projects, totaling about \$2M over the next two years. The projects include the *Contribution of Marina Activities to the Algal Growth of Sodus Bay, Lake Ontario*; the *Effect of Salinity Intrusion on Hudson River Wetland Nitrogen Cycling*; and an *Integrated Multi-model Storm Surge Prediction System for Coastal*

(Marine) New York; to spotlight just three from diverse regions of the state.

NYSG is also currently developing a new strategic plan, which provides us opportunities to reach out to our stakeholder groups, including the PAC, our Board, and the many other researchers and stakeholders with whom we interact. If you would like to provide input to this process, please contact me (631-632-6905, james.ammerman@storybrook.edu) or any of our technical staff. Copy any emails to nyseagrant@storybrook.edu so we are sure to collect your input. Thanks!



Find contacts for NYSG technical staff at nyseagrant.org. Photo courtesy of Eileen Keenan