SC Sea Grant Consortium – FY14-15 Impacts and Accomplishments

Scientific Literacy and Workforce Development

IMPACTS

The "From Seeds to Shoreline" Program Model Expands throughout the Southeast
PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: Since its creation in 2011, the demand from teachers across South Carolina and region for the S.C. Sea Grant Consortium's "From Seeds to Shoreline" (S2S) salt marsh restoration program continues to grow. This program is the only salt marsh restoration program in South Carolina designed to engage students in growing and transplanting *Spartina alterniflora,* the dominant plant of southeastern salt marshes. To meet these demands, new partnerships and additional funding were required to enable the S2S program to expand throughout South Carolina and for the program model to be replicated in North Carolina and Georgia.

Response: In 2014, the Consortium's Marine Education Specialist, in partnership with the South Carolina Department of Natural Resources, submitted and received funding from the U.S. Environmental Protection Agency to expand the "From Seeds to Shoreline" program throughout South Carolina and to North Carolina and Georgia. As part of this grant, South Carolina education staff at informal science centers ("hubs") will be trained and several educational products, including a salt marsh guide, *Spartina alterniflora* poster, associated lesson plans, and a smartphone app, will also be developed. The S2S program model is currently being replicated and expanded into the states of North Carolina and Georgia.

Results:

1) Partnerships were established with the four National Estuarine Research Reserves in the region and the NC and GA Sea Grant Programs to facilitate the regional expansion of the S2S program.
2) Education staffs at eight (8) informal science education partners ("hubs") were trained in South Carolina in January 2015 to provide local support for teachers participating in the S2S program in their area.
3) Funding in the amount of $78K was received by the Consortium from the U.S. EPA which enabled the leveraging of existing funding and resources for the S2S program model to expand into North Carolina and Georgia.

Recap: The Consortium secured and leveraged $78K in funding from the U.S. EPA to expand the Consortium's "From Seeds to Shoreline" program throughout South Carolina and replicate the educational training model in North Carolina and Georgia.

Local Business Develops and Contributes Sensors for Consortium's eBOB STEM Education Program

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: The South Carolina State Department of Education reported that, in 2012, 40% of 3rd graders failed the science section of the Palmetto Assessment of State Standards (PASS) test. It is known that the educational pipeline for science begins at the elementary level; however, resources are lacking for those teachers and students in upper elementary grade levels (grades 3-5). In addition, as South Carolina continues to recruit large industries (e.g. Boeing and Volvo), and serves as a leader in marine science research and education, students are presented with great potential to enter STEM (science-technology-engineering-math) careers, but because of low achievement, they may lack the skills with which to be competitive.

Response: The Center for Ocean Sciences Education Excellence – SouthEast (COSEE SE), administered by the South Carolina Sea Grant Consortium, developed the eBOB (elementary basic observation buoy) program in 2011. The eBOB program challenges students to work in teams to design and create a working weather buoy that includes instrumentation that collects wind speed, air and water temperature, wind direction, and precipitation. Since its development, the eBOB program has been modified and adapted by the Consortium's Marine Education Specialist to suit the educational needs of elementary, middle, and high school teachers. An example of this included the efforts of a small technology business, Brockman Apprentice Foundation, which initiated the development of sensors that could be attached to the eBOB design to collect real-time, continuous data.

Results:

1. Brockman Apprentice Foundation developed **at no cost** to the Consortium, the "BOBino" unit. This unit uses the Arduino Trademark platform and incorporates sensors that collect real-time and continuous temperature, barometric, and light data. Each unit is valued at $100.
2. Since its pilot in 2014, 26 units have been used for a total of three teacher professional development workshops for a total of 32 teachers. An additional 2 professional development workshops are planned in 2015 that will incorporate the BOBino unit.

Recap: The S.C. Sea Grant Consortium's STEM-based eBOB program, which challenges students to design and engineer a working weather buoy, which benefits from an industry partnership to include partnership with small business and the inclusion of real-time data sensors ("BOBino").

S.C. Sea Grant Consortium's Beach Sweep/River Sweep Litter Cleanup Saves Taxpayers $126,045 in 2014

PI: Susan Ferris-Hill, SC Sea Grant Consortium

Relevance: South Carolina has 2,876 miles of tidal shoreline, 504,450 acres of salt marsh, 165 linear miles of beaches, and more than 40 barrier islands. Natural resources account for approximately $30 billion dollars in annual economic output for the state (S.C. Dept. of Natural Resources' Economic Impact Report, 2009). And according to the S.C. Dept. of Parks, Recreation, and Tourism, tourism spending reached a record $18.1 billion dollars in 2013. Clean beaches, marshes, and waterways are critical to support commercial and recreational boating and fishing, wildlife viewing, tourism, and other industries. A litter-free environment also contributes positively to quality of life.

Response: The S.C. Sea Grant Consortium initiated the annual Beach Sweep litter cleanup program in 1988. In 1989, Hurricane Hugo devastated coastal and inland areas. To increase the effectiveness of the cleanup, the Consortium partnered with S.C. Dept. of Natural Resources in 1990 to extend the program statewide; the cleanup was then named Beach Sweep/River Sweep. Through the use of volunteers and private sector funds, the cleanup contributes to the economic, environmental, and societal well-being of the state. By participating in Beach Sweep/River Sweep, the public is more informed about natural resource issues, such as litter's detrimental effects on the landscape and wildlife, and people are empowered to take action and become environmental stewards.

Results: In 2014, 3,137 coastal volunteers collected nearly 14 tons of litter, covered 161 miles of South Carolina's beaches, marshes, and waterways, and recycled as much debris as possible. There were 110 coastal site captains at 135 cleanup locations in seven coastal counties, from North Myrtle Beach to Daufuskie Island. The dollar value of Beach Sweep/River Sweep coastal volunteers' time in 2014 is $126,045 (U.S. Bureau of Labor Statistics, 2012). Volunteers gained an increased awareness of the fragility of natural resources, the importance of keeping them litter-free, and contributed time to improve their communities and natural areas.

Re-cap: Beach Sweep/River Sweep has economic, environmental, and societal benefits. In 2014, 3,137 coastal volunteers collected nearly 14 tons of litter, covered 161 miles of South Carolina's beaches, marshes, and waterways. There were 110 coastal site captains at 135 cleanup locations in seven coastal counties. The dollar value of coastal volunteers' time equals $126,045. The state's natural resources are cleaner, safer, and more beautiful for all to enjoy.

S.C. Sea Grant Consortium Website (www.scseagrant.org) Serves as a Primary Source for Science-Based Coastal and Marine Information

PI: Susan Ferris-Hill, SC Sea Grant Consortium

Relevance: Decision-makers and the public should be informed about coastal resource issues, and the SCSGC website continues to be a significant source of information. The website also gives the users a better understanding of Consortium organization, as well as funded research, education, and outreach programs.

Response: CIS staff maintains the Consortium's website, holds monthly web meetings with staff, and ensures the content is updated regularly with new information. CIS monitors website usage on a monthly basis with the web statistics software Sawmill version 8. The website received 1,400,297 hits, 268,703 unique visits, and 908,492 downloads during the reporting period.

Results: The website received 1,400,297 hits, 268,703 unique visits, and 908,492 downloads during the FY14-15 reporting period. Compared to FY13-14, there were increases of 9.5% for hits, 20.7% for unique visits, and 8.2% for downloads. The top ten downloads, and the number of times each was downloaded, are:

- *South Carolina Coastal Wetland Impoundments* – 20,686
- *Chemical and Biological Contamination of Stormwater Detention Pond Sediments in Coastal South Carolina – 19,705*
- *Community Associations and Stormwater Management: A Coastal South Carolina Perspective – 17,210*
- *Of Sand and Sea: Teachings From the Southeastern Shoreline, Chapter 2 – 9,939*
- *Tidal Creek Habitats: Sentinels of Coastal Health – 8,618*
- *Coastal Waterfront Access Challenges and Opportunities for South Carolina Marine Fisheries Stakeholders – 7,504*
- *Coastal Heritage, Summer-Fall 2010, "Celebrating 30 Years" issue – 4,250*
- *Of Sand and Sea: Teachings From the Southeastern Shoreline – 4,170*
- *Assessment of Stormwater Management in Coastal South Carolina: A Focus on Stormwater Ponds and Low Impact Development (LID) Practices – 4,059*
- *Sustainable Land-Use Planning for the Ashepoo-Combahee-Edisto (ACE) Basin Region: Synthesizing Local Knowledge, Preferences, and Socioeconomics – 3,971*

Re-cap: The S.C. Sea Grant Consortium website is a source of science-based information for decision-makers and the public to help them make wise choices regarding natural resource use, conservation, and sustainability. The website also provides users with information about Consortium organization and processes. During the FY14-15 reporting period the website received 1,400,297 hits, 268,703 unique visits, and 908,492 downloads. Compared to FY13-14, there were increases of 9.5% for hits, 20.7% for unique visits, and 8.2% for downloads.

ACCOMPLISHMENTS

Sea Grant Partnership Enhances "From Seeds to Shoreline" Program Infrastructure

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: The Consortium's "From Seeds to Shoreline" (S2S) Program is the only salt marsh restoration program in South Carolina designed to engage students in growing and transplanting *Spartina alterniflora,* the dominant plant of southeastern salt marshes. As the Consortium's S2S program continues to grow and expand throughout South Carolina and the Southeast, there exists a consistent need for additional resources to sustain and enhance the program. One such need is the infrastructure to grow and maintain stocks of *Spartina alterniflora* seedlings that can be used by S2S partners to supplement teacher yields during their restoration days, to support outreach events, and to provide educational demonstrations and promotion of the S2S program.

Response: In light of this need, the Consortium's Marine Education Specialist worked with the Clemson Carolina Clear Program and the Ashley-Cooper Stormwater Education Consortium, which purchased a greenhouse valued at $2,588 and was constructed near Clemson's "Education Shed". Based on the high visibility and use of this facility by the public, the greenhouse will serve as both an outreach tool for education and a location to grow stock amounts of *Spartina alterniflora* which will be used for S2S teacher workshops, restoration days, and additional shoreline restoration efforts throughout the year.

Results: The greenhouse currently houses 500 *Spartina alterniflora* plants. The greenhouse will be used during the 2015 S2S Teacher Workshops in June 2015 as well as the Clemson 4H20 Summer Camps held in June and July 2015. Interpretive signage is currently being developed that will describe the S2S program and wetland plants and ecosystems.

Recap: The Consortium's "From Seeds to Shoreline" partnership with Clemson Carolina Clear and Ashley Cooper Stormwater Education Consortium results in funding to construct a demonstration greenhouse for the cultivation of stock *Spartina alterniflora* plants and for holding training and interpretive workshops for teachers and students.

The Consortium Engaging Students in Salt Marsh Restoration through the From Seeds to Shoreline Program

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: Between 1996 and 2006, approximately 46% of South Carolina's wetlands were lost due to both human and natural causes. In 2011, the South Carolina Sea Grant Consortium' Marine Education Specialist launched the "From Seeds to Shoreline" (S2S) program (www.scseagrant.org/content/?cid=497), which engages students in cultivating and transplanting *Spartina alterniflora*, the dominant plant of the South Carolina salt marsh. In 2014, 38 teachers participated in the S2S program – the highest number since the program's pilot year in 2011. To facilitate communication among the growing number of teachers in the program and to provide adequate support throughout the year, new methods were introduced during the summer teacher training in 2014.

Response: The Consortium's Marine Education Specialist led three one-day workshops for coastal and inland K-12 teachers in the summer of 2014 which served as a pre-requisite for participation in the S2S program. To facilitate communication, a private Facebook teacher page was established to share photos, experiences and gain support.

Results:

1. During the 2014-2015 school year, 38 teachers from ten (10) inland and coastal counties participated in S2S, representing a 29% increase in teacher participation from the 2013-2014 school year. This number of teachers also represents an overall 79% increase in teacher participation since the program's first year in 2011.

2. Student participation increased from 1,044 in 2013 to approximately 1,800 students in 2015. The total number of students who have participated in S2S since 2011 is estimated at more than 4,000.

3. 8,018 *Spartina alterniflora* seedlings were planted along a shoreline area of 288 m2.

4. A Facebook private teacher page was established to facilitate communication and support among S2S teachers. Currently, there are 26 members.

5. A site profile guidance document is currently being developed by a Consortium-supported graduate student that will outline selection criteria that will be used when determining new restoration locations.

6. A long-term monitoring protocol is being developed by a Consortium-supported graduate student for use by schools to monitor their restoration locations.

Recap: The S.C. Sea Grant Consortium's "From Seeds to Shoreline" Program increased 29% in teacher participation to include 38 teachers representing schools in 10 of the state's 46 inland and coastal counties. The program also established a private teacher Facebook page to enhance communication among teachers and program coordinators.

Engaging the Public in Science-Technology-Engineering-Math

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance:

The South Carolina State Department of Education reported that, in 2012, 40% of 3rd graders failed the science section of the Palmetto Assessment of State Standards (PASS) test. It is known that the educational pipeline for science begins at the elementary level; however, resources are lacking for those teachers and students in upper elementary grade levels (grades 3-5). In addition, as South Carolina continues to recruit large industries (e.g. Boeing and Volvo), and serves as a leader in marine science research and education, students are presented with great potential to enter STEM (science-technology-engineering-math) careers, but because of low achievement, they may lack the skills with which to be competitive.

Response: The S.C. Sea Grant Consortium's Marine Education Specialist has developed a variety of STEM-based educational programs and workshops including the elementary basic observation buoy (eBOB), ROVs, and others. Based on the popularity of these programs, the Consortium's Marine Education Specialist has been invited to participate in several STEM outreach efforts.

Results:

1) The Consortium's Marine Education Specialist was invited to present during the National Science Teachers Association's Elementary Extravaganza in April of 2014 for ~1,000 teachers drawing upon the Science and Children article (published 2013) on eBOBs. The Consortium was an exhibitor at 1st STEM Festival in Charleston, SC in 2014 and Consortium's Marine Education Specialist presented information on the eBOB program. More than 1,500 participants attended.
2) The Consortium's Marine Education Specialist was selected to serve on the Logistics Committee of the STEM Collaborative to help plan the 2015 STEM Festival.

Recap: The Consortium's Marine Education Specialist Consortium extends STEM information and products to more than 2,500 teachers and attendees during NSTA and Charleston STEM Festival events, and is now serving on the logistics for the Charleston STEM Collaborative.

The Consortium Coordinates Effort to Establish a South Carolina Environmental Education Certification Program

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: Several states have established successful environmental education (EE) certification programs that range in cost, format, content, and requirements. In North Carolina, the EE certification program has been in existence for 16 years and has successfully trained thousands of certified teachers in North Carolina, South Carolina and other states in the region. Georgia has also launched an EE Certification program and is currently in their third year of implementation. Currently, there is no EE Certification program in South Carolina, although organizations exist to foster environmental literacy in the state, including the South Carolina Marine Educators Association and the Environmental Educator Association of South Carolina.

Response: In 2013, the S.C. Sea Grant Consortium's Marine Education Specialist initiated a needs assessment to determine the level of interest in South Carolina for the establishment of an EE Certification Program, and in 2014 and hosted two focus groups to review assessment results and decide on the direction forward, with funding from the Consortium. Based on the results from the survey and focus group conversations, the Consortium's Marine Education Specialist is fostering the development of a South Carolina EE Certification program.

Results:

1. A Steering Committee was established in 2014, made up of 15 people representing formal and informal education, college universities, and nature based tourism. The members of this committee are volunteering their time and expertise to this effort.

2. As a result of a working retreat for the Steering Committee in 2015, a skeleton framework for an EE Certification program was developed, and will be piloted in 2016.

RECAP: The S.C. Sea Grant Consortium's Marine Education Specialist initiated discussions on the establishment of an EE Certification program for South Carolina, and hosted a working retreat in January 2015 to create a skeleton framework for a pilot Environmental Education (EE) Certification program to be launched in 2016.

Turning STEM in to STEAM

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: STEM (science-technology-engineering-math) has been a national educational priority and in recent years the concept of STEAM (science-technology-engineering-art-math) has also gained national attention. The American Geophysical Union currently has a strand during its international conference dedicated to the topic of communicating science through art, and the National Science Teachers Association will be focusing the 2016 issue of *Science and Children* journal on STEAM. Prior to STEAM gaining national attention, the Consortium has been developing educational products and opportunities. The Winter 2011 issue of the Consortium's quarterly publication, *Coastal Heritage,* was devoted to the topic of visual arts and science. In 2008, the Consortium's Marine Science Specialist piloted a "Photographs, Poems, Pencils, and Pluff Mud" professional development workshop to 15 teachers in an effort to teach salt marsh ecology through the use of artistic approaches.

Response: Based on the success of the Consortium's "Photographs, Poems, Pencils, and Pluff Mud" workshop, a partnership was established with the ACE Basin NERR and North Inlet-Winyah Bay NERR to evolve the current weekend workshop format to a weeklong effort. This partnership aligns with the NERRS TOTE (teachers on the estuary) educational initiative as well as with the Consortium's previous efforts with STEAM.

Results:

1. The first Salt Marsh STEAM workshop was piloted in August 2014 for 15 teachers. More than 45 educators had applied to attend.
2. A partnership with the ACE Basin and NIWB NERRs was formalized and resulted in the leveraging of funding in the amount of $6,000 to expand the "Photographs, Poems, Pencils, and Pluff Mud" format to the Salt Marsh STEAM framework.

Recap: Based on previous work with STEAM education, the S.C. Sea Grant Consortium's Marine Education Specialist is adapting the agency's current "Photographs, Poems, Pencils, and Pluff Mud" workshop through the leveraging of funding and resources with the ACE Basin and NIWB NERRs.

The Consortium Transitions its Regional Marine Education Efforts into the S.C. Sea Grant Marine Education Program

PI: Elizabeth Vernon Bell, SC Sea Grant Consortium

Relevance: Since 2002, the S.C. Sea Grant Consortium has served as the administrative and management hub for the Center for Ocean Sciences Education Excellence-Southeast (COSEE SE), a National Science Foundation (NSF)-funded marine education initiative

that served the states of Georgia, North Carolina, and South Carolina. Because of the volume of projects and programs that the COSEE SE grant generated, the Consortium's marine education program was comprised mainly of COSEE SE related-programs. In 2010, NSF began the process of phasing out all twelve of the regional COSEE programs located across the nation.

Response: The Consortium is currently transitioning its marine education efforts from COSEE SE-focused education programs to South Carolina-based marine education initiatives. The Consortium's Marine Education Specialist is working to maintain the integrity of several COSEE SE projects by adapting those to align with the Consortium's strategic plan and priorities as well as identify new educational efforts to address South Carolina needs and opportunities.

Results: The S.C. Sea Grant Consortium developed its marine education transition plan as part of its FY14-17 Sea Grant omnibus program proposal submission to the National Sea Grant College Program office. The Consortium's Marine Education Specialist became the agency's full-time Sea Grant Marine Education Specialist on February 1, 2015. The proposal outlines a 4-year scope of work for marine education programs that address STEM and STEAM education, ocean literacy, teacher professional development, and natural resource stewardship programs.

RECAP: The S.C. Sea Grant Consortium Transitions its Regional Marine Education Efforts into the S.C. Sea Grant Marine Education Program, which is focusing on STEM and STEAM education, ocean literacy, teacher professional development, and natural resource stewardship.

S.C. Sea Grant Consortium's Coastal Heritage Magazine Wins Six Prestigious Awards

PI: Susan Ferris-Hill, SC Sea Grant Consortium

Relevance: *Coastal Heritage* magazine, a free quarterly publication produced by the S.C. Sea Grant Consortium, brings readers the most up-to-date information available on South Carolina's rapidly developing coast. Over the last few decades, the S.C. coast has experienced its most sweeping changes since the end of the Civil War. Population growth and rapid economic development transformed the state's coastal resources, historic cities, and lowcountry culture. Globalization continues to drive major changes in commercial fisheries, ports, and economy. And South Carolina's dynamic coastal environment is in a constant state of flux.

Response: *Coastal Heritage* offers readers an in-depth look into environmental, technological, historical, and cultural patterns of change along the S.C. coast and how they affect residents and visitors. The magazine describes how people in the region – from the colonial era to modern times – have depended upon and used coastal and marine resources, and how those resources have shaped the state's history, culture, and quality-of-life. Hard copies are distributed nationally

and internationally to 5,500 subscribers, 500 more issues are distributed as requested to targeted audiences, and each issue is available on the SCSGC website. In FY 14-15, 10 different issues were downloaded 27,062 times.

Results: The *Coastal Heritage* team was recognized with six prestigious awards during FY14-15. *Coastal Heritage* received a 2013-14 Distinguished Award and the Best of Show Award from the Society for Technical Communication (STC) – Carolina Chapter in the Technical Publications competition. The entry then moved on to win a 2013-2014 Award of Excellence from STC's International Summit Awards competition. *Coastal Heritage* won First Place in the Writer's Portfolio category from the National Association of Government Communicators 2014 Blue Pencil and Gold Screen Awards. The Association for Communication Excellence bestowed a Gold Award for Magazines and Periodicals in the 2014 Critique and Awards competition.

Coastal Heritage also won a 2014 Award of Excellence from APEX in the Magazines and Journals category.

Recap: *Coastal Heritage*, a quarterly magazine of the S.C. Sea Grant Consortium providing information about important drivers of change along the South Carolina coast, won six prestigious awards during FY14-15. Communications professionals from around the world recognized the value of the magazine and its team. Website visitors seek out particular issues of the magazine, downloading 10 different issues 27,062 times.

South Carolina Sea Grant Consortium mentors elementary, middle, and high school teachers working on continuing education credits in ocean and atmosphere topics

PI: Elizabeth Fly, SC Sea Grant Consortium

Relevance: The American Meteorological Society (AMS) offers courses to fulfill continuing education credits for elementary, middle, and high school teachers. These courses must be facilitated by a Local Implementation Team (LIT) consisting of at least three mentors. There was local interest by teachers in the Beaufort, Jasper, and Effingham (GA) County school districts to support a DataStreme Ocean course in Fall 2014.

Response: The Consortium's Coastal Climate Extension Specialist was invited to join the LIT, consisting of two other experts in the meteorological field. The LIT mentored eight teachers in the AMS DataStreme Ocean course in Fall 2014 from Beaufort and Jasper Counties, and six teachers in the AMS DataStreme Atmosphere course in Winter 2015 from Beaufort County, SC, and Effingham County, GA.

Results: The southern coastal counties of South Carolina now have an active Local Implementation Team to offer the AMS DataStreme courses to local K-12 teachers, providing them with a unique opportunity to earn continuing education credits in the science curriculum. These courses require the teachers to develop lesson plans based on the material learned, which are contributed to a database shared nationwide. These teachers are now extending the knowledge they learned to both their students as well as other teachers in their districts.

Recap: The South Carolina Sea Grant Consortium supported a Local Implementation Team offering the American Meteorological Society's DataStreme courses in Oceans and Atmosphere to K-12 teachers in Beaufort, Jasper, and Effingham (GA) counties. Ten teachers participated in these two courses, earning continuing education credits and developing lesson plans shared nationwide.

SC Sea Grant Consortium Fosters Public Awareness Regarding Prospects for Wind Energy Development

PI: Michael Slattery, SC Sea Grant Consortium

Relevance: In response to growing interest in wind energy development in South Carolina, the North Myrtle Beach Chamber of Commerce and the Chamber's economic development committee received a grant to establish an educational wind turbine exhibit. Consisting of three turbines, the exhibit is intended to initiate discussions regarding wind energy potential in South Carolina.

Response: Since the 2012 installation of the turbines, and securing the donation of a museum piece turbine for North Myrtle Beach, the Consortium's Coastal Processes Extension Specialist has been providing wind and production data via an array of educational materials. In addition to creating and testing 6-12 educational curricula, the Coastal Processes Extension Specialist updates statistics regarding energy production and creates 6-month reports regarding production trends (http://bccmws.coastal.edu/projects/wind-outreach). This program continues to build on prior year's efforts.

Results: As a direct result of the Consortium's efforts, North Myrtle Beach continues to receive educational materials on energy production at three educational wind turbines. This program has lead to interest within the community on the exploration of rooftop wind viability, and has also been used in conjunction with meteorological data to inform potential commercial investors looking to North Myrtle Beach as a test location for new turbine designs.

Recap: The SC Sea Grant Consortium continues to generate and provide educational materials on wind energy information generated from three educational wind turbines in North Myrtle Beach, SC, to inform commercial interest and the public at large about the potential of wind energy in the city.

Title: Two South Carolina Students Selected for Knauss Fellowships

PI: M. Richard (Rick) DeVoe, SC Sea Grant Consortium

Relevance: The National Sea Grant College Program's Dean John A. **Knauss** Marine Policy **Fellowship**, established in 1979, provides a unique educational experience to students who have an interest in ocean, coastal and Great Lakes resources and in the national policy decisions affecting those resources. The program matches highly qualified graduate students with hosts in the legislative and executive branches of government located in the Washington, D.C. area for a one-year paid fellowship. The students learn about federal policy regarding marine and Great Lakes natural resources and lend their scientific expertise to federal agencies and congressional staff offices.

Response: The S.C. Sea Grant Consortium received nine formal applications for the Knauss fellowship program this year. After interviewing the applicants, the S.C. Sea Grant Consortium submitted five application packages to the National Sea Grant Office for consideration by the Knauss Fellowship review panel.

Results: Two of the Consortium's five fellowship candidates were selected as Knauss fellows in the 2014 class, both graduate students from the University of South Carolina. These students were among 49 selected from a nationwide pool of over 100 candidates. The Consortium's Knauss fellows are Ms. Katherine Allen, who completed a Ph.D. in integrative biology at the University of South Carolina, and served with the Democratic staff of the U.S. House of Representatives Committee on Natural Resources, and Ms. Chelsea Wegner, who completed a M.S. in marine science at the University of South Carolina, and served as special assistant to the deputy assistant administrator of the Office of Oceanic and Atmospheric Research at NOAA.

Recap: The Consortium interviewed nine candidates for the National Sea Grant College Program's Dean John A. **Knauss** Marine Policy **Fellowship, submitted five candidates to the National Sea Grant Office for consideration, and had two of the five selected to serve as Knauss fellows.**