



Welcome to the newest online issue of *Scotch Bonnet*. This marine education newsletter also is available as a PDF — if you're like me and want to keep a hard copy!

I realize that this is the WINTER issue, but now is the time to start thinking about summer camps! There are a number of informal learning opportunities focused on marine and aquatic environments and everything that goes along with them. From surf science camp to sea turtle camp, there is something for everyone! Check out my *Coastal Currents* blog post on summer camp options at ncseagrant.ncsu.edu/currents/2017/01/our-summer-of-content.

Thanks to Windy Arey-Kent, Pat Curley, Melissa Dowland, Bonnie Eamick, Casey Geer, Stacie Hagwood, D'Nise Hefner, Sue Kezios, John McCord, Jennifer Metzler-Fiorino and Dave Sybert for their contributions to this issue. Wishing you all a wonderful winter season!

Explore this issue of *Scotch Bonnet*. There are professional development opportunities and family explorations for everyone. Take advantage of these wonderful conferences, workshops and more, especially if you're working on your environmental education certification. Keep reading for those unique opportunities and ideas for educators. There is a lot going on in North Carolina and beyond!

Project Learning Tree at Imagination Station

www.scienceandhistory.org

What: Project Learning Tree for K to 8
When: 9:00 a.m. to 4:00 p.m. Monday, Feb. 6
Where: Imagination Station, 224 Nash Street East, Wilson
Cost: FREE, but preregistration is required
URL: imaginescience.wufoo.com/forms/z1q5dxsm1u2ackd

Imagination Station Science & History Museum is hosting a Project Learning Tree K–8 environmental education workshop on Monday, Feb. 6. The workshop is free, but preregistration is required. This is a rescheduled date from the cancelled workshop from November. Participants that are interested and were signed up before need to register again.

To register, use the link above, or visit our website at www.scienceandhistory.org. The deadline to register is Jan. 30, so hurry and register before it closes! Hope to see you there.

Upcoming SciREN events

www.thesciren.org

The Scientific Research and Education Network, or SciREN, is a nonprofit organization founded and led by graduate students that connects educators and researchers. The strength of the network builds on the passion of educators and researchers, the generosity of sponsors, and the commitment of the SciREN administrative teams. SciREN aims to connect local STEM researchers and educators to foster the dissemination of current research and ultimately enhance the science literacy of today's youth.

SciREN's goals are to 1) establish a lasting network of researchers and educators; 2) facilitate cooperation and collaboration among members of the network; 3) bring current research and researchers into local communities and classrooms; and 4) support researchers in developing broader impacts, strengthening outreach efforts and improving communication skills.

SciREN aims to achieve these goals and its mission through annual networking events and lesson-planning workshops. The networking events bring researchers and teachers to the table for face-to-face interaction and to exchange ideas and materials. The lesson-planning workshops help researchers translate their work into classroom-ready exercises that meet state and national standards.

You may notice that SciREN has expanded to Georgia. In addition, there are plans for SciREN experiences in other states. Check the SciREN website for more.

What: SciREN Coast – **registration is now open!**
When: Thursday, Feb. 16, 5:45 to 8:00 p.m.
Where: NC Aquarium at Pine Knoll Shores, 1 Roosevelt Drive, Atlantic Beach
Cost: FREE
URL: www.thesciren.org/networking-events/sciren-coast

What: SciREN Georgia – **registration is now open!**
When: Friday, Feb. 17, 5:45 to 8:00 p.m.
Where: Sandy Creek Nature Center, 205 Old Commerce Rd., Athens
Cost: FREE
URL: www.thesciren.org/networking-events/sciren-georgia

Winter Science Lecture Series at UNC CSI

www.coastalstudiesinstitute.org

The University of North Carolina Coastal Studies Institute hosts a “Science on the Sound” lecture series on their campus in Wanchese. This series highlights research and education on coastal topics and issues in northeast North Carolina. Upcoming lectures, all free to the public, include:

Jan. 26: “Pharmaceuticals and Personal Care Products in Our Coastal Waterways” by Jamie Dewitt, associate professor, Department of Pharmacology and Toxicology, East Carolina University, and Sid Mitra, associate professor, Department of Geological Sciences, ECU.

Feb. 23: “Barrier Island Dynamics” by Reide Corbett, professor, Department of Geological Sciences, ECU.

March 23: “Beachcombing Biology: The Stories Your Beach Finds Tell” by Terri Kirby Hathaway, marine education specialist, North Carolina Sea Grant.

April 27: “Sustainable Coastal Gardening” by Jeff Lewis, horticulturist, UNC Coastal Studies Institute.

May 25: “Harnessing the Power of the Gulf Stream: The North Carolina Renewable Ocean Energy Program” by Mike Muglia, research associate, UNC Coastal Studies Institute.

June 22: “Battle of the Atlantic 2016: The Discovery of the U-576 and the Shipwrecks of the KS-520 Convoy” by Joe Hoyt, maritime archaeologist, Monitor National Marine Sanctuary.

All programs begin at 6:00 p.m., and the public is encouraged to attend. The UNC Coastal Studies Institute is located at 850 N.C. Highway 345 in Wanchese.

The presentations also will be streamed live at coastalstudiesinstitute.org/outreach/live-streaming. The online audience will be able to ask the presenter questions through a chat room.

For more information on the UNC Coastal Studies Institute, visit www.coastalstudiesinstitute.org.

Blue Heron Bowl Competition

sites.google.com/site/blueheronbowl/

UNC Wilmington, with the assistance of more than 50 volunteers, will be hosting 13 teams for the annual Blue Heron Bowl on Saturday, Feb. 18. The Blue Heron Bowl is the North Carolina regional marine science quiz bowl, part of the National Ocean Science Bowl, or NOSB.

Teams composed of four high-school students and one alternate will square off against each other to answer marine science questions. The winner of the Blue Heron Bowl will attend the 20th NOSB national finals, April 20 to 23 at Oregon State University in Corvallis, Oregon.

Did you know that in 2017, the NOSB will be celebrating its 20th anniversary? Did you realize you were part of something that's been around for so long and has impacted so many individuals' education and career paths?

By their calculations, they have had well over 28,000 past program participants and as they celebrate this milestone, they want to connect with all alumni!

If you have participated in any of the nationwide ocean science bowls over the years, NOSB wants to hear from you. Learning more about past participants helps the program explain its impact and engage sponsors. Email them at nosb@oceanleadership.org or contact through Twitter @NOSBRocks and on Facebook @nosb.org.

Second Annual NC Youth Ocean Conservation Summit

Calling all students ages 11 to 18 in North Carolina and surrounding areas: Get involved in ocean conservation by taking a stand against debris in our local marine ecosystem and creating a plan of action.

What: Youth Ocean Conservation Summit
Who: Youth ages 11 to 18
When: Saturday, Feb. 25, 9:00 a.m. to 3:00 p.m.
Where: N.C. Aquarium at Pine Knoll Shores, Atlantic Beach
Cost: \$20 for online registration; \$25 at the door



The Youth Ocean Conservation Summit (YOCS) will provide young people with the skills and social connections to plan, fund and successfully carry out conservation projects. The YOCS begins with inspiring presentations by local marine professionals and students. It also offers workshops covering topics such as grant writing, fundraising, marketing, using social media to project a cause, public speaking and other skills essential to activism.

The first YOCS occurred in Sarasota, Florida. For the past six years, YOCS meetings have popped up in Long Island, New York; Savannah, Georgia; Providence, Rhode Island; and Seattle, Washington. North Carolina is thrilled to be hosting such an exciting event for the second time.

The NC YOCS will take place Saturday, Feb. 25 from 9:00 a.m. to 3:00 p.m. Registration fee includes lunch. Register by Feb. 10 to receive a T-shirt.

Register online to guarantee your spot: sites.google.com/a/ncsu.edu/nc-youth-ocean-conservation-summit. Questions? Contact program coordinator Leslie Smith at lmsmit19@ncsu.edu.

N.C. Museum of Natural Sciences Educator Treks

naturalsciences.org

What: Land of the Longleaf
Where: Various sites in eastern North Carolina
When: 3:00 p.m. Friday, Feb. 24, to 6:00 p.m. Sunday, Feb. 26
Cost: \$145 (includes transportation, lodging, some meals)
CEUs: 20 contact hours
URL: naturalsciences.org/calendar/event/educator-trek-land-of-the-longleaf

Join educators from the N.C. Museum of Natural Sciences and the N.C. Museum of History for a cross-curricular workshop to learn about the natural and cultural history of North Carolina's coastal plain. Explore the longleaf pine ecosystem, one of our most biologically diverse habitats and an important early economic driver for our state. And learn about a range of topics from harvesting pitch to carnivorous pitcher plants.

What: Wetlands are Wonderlands
Where: Various sites in eastern North Carolina
When: 3:30 p.m. Friday, March 24, to 6:00 p.m. Sunday, March 26
Cost: \$145 (includes transportation, lodging, some meals)
CEUs: 20 contact hours
URL: naturalsciences.org/calendar/event/educator-trek-wetlands-are-wonderful

Experience the wonders of wetlands as we explore several aquatic North Carolina habitat types. Discover firsthand how different these ecosystems are, and meet the diverse communities of amphibians, reptiles and plants they support. Learn about life cycles, food webs and the importance of bio-indicators. Discuss ways to get your students involved in amphibian conservation.

What: Making Citizen Science Work for You
Where: Prairie Ridge, 1671 Gold Star Drive, Raleigh
When: Saturday, April 8, 9:30 a.m. to 4:30 p.m.
Cost: FREE
CEUs: 6.5 contact hours
URL: naturalsciences.org/calendar/event/educator-trek-making-citizen-science-data-work-for-you

So you've collected data for a citizen-science project. Now what? In this workshop, you will explore some online citizen-science databases and put the information to use in order to answer scientific questions. Gain hands-on experience accessing, downloading and using citizen-science data to answer questions you generate yourself. This workshop will provide some simple lesson plans that you can adapt for use with your own students that incorporate technology, math, graphing, data analysis and writing, as well as a list of available databases and other resources.

Get Credit

Participants receive credit for [North Carolina Environmental Education Certification Program](#) (Criteria 2 or 3).

Get Signed Up

Complete, print and mail the [Educator Trek Registration Form](#) to register for Educator Treks. Once registered, you will receive a confirmation email and/or mailed receipt. Workshop details will be sent via email one to two weeks prior to the workshop.

Look For Other Opportunities

Learn about [museum offerings for educators](#). For more information about teacher education programs, contact Melissa Dowland at melissa.dowland@naturalsciences.org or 919-707-9898.

Educator Opportunities at N.C. Aquarium at Fort Fisher

www.ncaquariums.com/fort-fisher

Here are some professional development workshops to help you get through the (sometimes) dreary winter days. Each of these workshops takes place at the N.C. Aquarium at Fort Fisher, 900 Loggerhead Road, Kure Beach.

What: Aquatic WILD
When: Saturday, Feb. 11, 9:00 a.m. to 3:30 p.m.
Cost: \$25 REFUNDABLE deposit to hold your space
URL: reservations.ncaquariums.com/fortfisher/Info.aspx?EventID=20

The Aquatic WILD program is for formal and nonformal educators interested in teaching young people about aquatic wildlife and ecology. Aquatic WILD materials build upon developments in wildlife conservation needs, as well as advances in instructional methodology in pre-K through 12th-grade education.

Participants in this six-hour workshop receive the “Aquatic WILD K-12 Curriculum & Activity Guide.” The guide contains field investigations, In Step With STEM activity extensions, connections to wildlife careers, new activities on fish conservation and angling, and an increased focus on outdoor activities.

Participants are eligible for Criteria I credit of [N.C. Environmental Education Certification](#) and school teachers receive CEU credit. This workshop and all materials are free; however, we require a \$25 deposit to hold your spot, which will be refunded to you the day of the workshop when you arrive.

Help keep our seas plastic-free. Please bring a waste-free lunch, a reusable water container and a coffee cup.

For more information on Aquatic WILD, visit www.ncwildlife.org/educators. For additional registration information, call 910-772-0542.

What: Exploring the Deep Ocean with NOAA
When: Saturday, Feb. 25, 8:00 a.m. to 4:00 p.m.
Cost: \$25 REFUNDABLE deposit to hold your space
URL: reservations.ncaquariums.com/fortfisher/Info.aspx?EventID=20

Educators of grades six to 12 are invited to join NOAA Office of Exploration and Research facilitators to learn “Why We Explore (Volume 1)” and “How We Explore (Volume 2)” the deep ocean. Participants will learn about the importance of ocean exploration and the advanced technological capabilities of the NOAA Ship *Okeanos Explorer* used to explore the deep ocean. This seven-hour professional development will introduce standards-based, hands-on activities and online resources that guide classroom teaching and learning. Ocean health, sophisticated underwater mapping technologies, unique deep-sea ecosystems, remotely operated vehicles (ROVs) and telepresence are just a few of the topics covered.

Participants will receive both volumes of the NOAA Ship *Okeanos Explorer* Education Materials Collection, additional resources and a NOAA Ocean Exploration Certificate of Participation. If you have previously participated in a “Why Do We Explore?” or “How Do We Explore?” professional development workshop, this offering will be redundant.

Continental breakfast, lunch and a \$75 stipend will be provided. Help keep our seas plastic-free! Please bring a reusable water container and a refillable coffee cup.

Registration is required and space is limited. You will need to pay a REFUNDABLE \$25 deposit to hold your space in the workshop. Registration deadline is Feb. 3.

To register or for more information, contact Casey Radley at 910-772-0507 or casey.radley@ncaquariums.com.

What: Project WILD
When: Saturday, March 25, 9:00 a.m. to 3:30 p.m.
Cost: \$25 REFUNDABLE deposit to hold your space
URL: reservations.ncaquariums.com/fortfisher/Info.aspx?EventID=20

Project WILD workshops are for adults interested in teaching young people about wildlife. This six-hour workshop will incorporate aquatic extensions in activities.

Participants receive the Project WILD K-12 educator guide along with materials specifically about North Carolina wildlife. The educator guide contains more than 150 hands-on activities that focus on wildlife and natural resources. Participants are eligible for Criteria I credit of [N.C. Environmental Education Certification](#) and school teachers receive CEU credit.

This workshop and all materials are free; however, a \$25 deposit is required to hold your spot, which will be refunded to you the day of the workshop when you arrive.

Help keep our seas plastic-free! Please bring a waste-free lunch, a reusable water container and a coffee cup.

For more information on Project WILD, visit www.projectwild.org. For additional registration information, call 910-772-0542.

Educator Opportunities at Blue Jay Point

www.wakegov.com/parks/bluejay

Blue Jay Point County Park in Raleigh has multiple workshops on their schedule for winter and spring. Take advantage of these opportunities to get through the cold-weather season!

What: Project Food, Land & People Workshop
When: Wednesday, Feb. 15, 9:00 a.m. to 4:00 p.m.
Optional field trip, Thursday, Feb. 16, 9:00 a.m. to 1:00 p.m.
Cost: FREE, but preregistration is required
URL: apm.activecommunities.com/wakeparks/Activity_Search/1491

Project Food, Land & People (FLP) is committed to helping people of all ages better understand the interrelationships among agriculture, the environment and people of the world. The

curriculum used — Resources for Learning — consists of 55 hands-on lessons for students in grades pre-K to 12, with subjects ranging from environmental science and stewardship to human populations and land-use issues.

This workshop is approved for six or 10 hours of [N.C. Environmental Education Certification](#) Criteria I credit, depending on participation in the optional second day field trip. Please bring a bag lunch and drink. The FLP Resources for Learning curriculum guide is available at no charge this year through the generosity of individual county soil and water conservation districts.

What: NatureArts Coffee Bag Totes
When: Saturday, Feb. 25; 2:00 to 4:00 p.m.
Cost: FREE, but preregistration is required
URL: apm.activecommunities.com/wakeparks/Activity_Search/1495

Join D’Nise Hefner from Blue Jay Point to learn how to transform empty mylar-lined coffee bags into an attractive and useful small tote/lunch bag. Add a “green” element to your wardrobe while thinking about the environmental ins and outs of coffee drinking!

Note: all supplies for a single tote will be provided, but you may bring your favorite two, same-sized coffee bags and matching roll of duct tape to use if you prefer! To see a picture of a finished recycled coffee bag tote, go [here](#).

Approved for Criteria III credit in the [N.C. Environmental Education Certification Program](#). Younger teens may register for this class with an adult.

What: Letterboxing 101
When: Saturday, March 11, 9:00 a.m. to 12:00 p.m.
Cost: \$15 per person, includes logbook and stamp
URL: apm.activecommunities.com/wakeparks/Activity_Search/1496

Letterboxing is an intriguing pastime combining artistic ability with delightful “treasure-hunts” in parks, cities, historical areas and more around the world. Participants seek out hidden letterboxes by cracking codes and following clues. This 160-year-old game is actually the precursor to geocaching.

We will spend a few hours getting acquainted with the ins and outs of letterboxing, carving your own stamp, and then finding a few letterboxes right here at Blue Jay. This workshop has been approved for Criteria II or III credit for participants in the [N.C. Environmental Education Certification Program](#).

What: Flying WILD Workshop
When: Thursday, April 13, 9:00 a.m. to 4:00 p.m.
Cost: FREE, but preregistration is required
URL: apm.activecommunities.com/wakeparks/Activity_Search/1493

Flying WILD professional development workshops are designed with urban/suburban educators in mind. Each training session provides formal and nonformal teachers of K-12 students with a comprehensive overview of “Flying WILD: An Educator's Guide to Celebrating Birds,” as well as practical hands-on training in its implementation. Workshop facilitators also share information about migratory birds and their conservation needs, and help participants become networked into the bird conservation community around them.

Each participating educator receives a complimentary copy of “Flying WILD: An Educator's Guide to Celebrating Birds” and a certificate indicating six hours of professional development training upon completion of the workshop. This workshop is approved for Criteria I credit in the [N.C. Environmental Education Certification Program](#). Bring a bag lunch and drink.

What: Advanced WILD: Raptors
When: Saturday, May 6, 10:00 a.m. to 3:00 p.m.
Cost: FREE, but preregistration is required
URL: apm.activecommunities.com/wakeparks/Activity_Search/1494

Get introduced to the main raptor families of the Piedmont with some characteristics and habitats of key species. The day is filled with activities suited to the classroom. Time outdoors will focus on local raptors, nest site selection and middle to high school-appropriate field research techniques. We will spend some time with the ospreys at Blue Jay Point too.

Dress for the weather and plan for more than half the time outdoors unless there is foul weather. Led by Casey Williams of N.C. Wildlife Resources Commission, this workshop is approved for Criteria II credit in the [N.C. Environmental Education Certification Program](#). Bring a bag lunch and drink.

The Science House at CMAST Offers Workshops

sciencehouse.ncsu.edu/satellite-offices/cmast-satellite-office/

Keep an eye on the Science House website for events at the regional office of The Science House at North Carolina State University’s Center for Marine Science and Technology (CMAST) in Morehead City. The location offers a variety of teacher and student learning opportunities throughout the school year, as well as the summer. Here are a couple of upcoming educator workshops that qualify for [N.C. Environmental Education Certification](#) hours.

What: Aquatic WILD
When: Saturday, Feb. 25, 9:00 a.m. to 4:00 p.m.
Cost: \$20, covers materials and supplies
URL: thesciencehouse.wufoo.com/forms/z168mlao0szmbhu

The Aquatic WILD program and curriculum guide are available to formal and informal educators who attend an Aquatic WILD training through Project WILD state partners. The training is appropriate for K-12 educators (formal and informal). CEUs and [N.C. Environmental Education Certification](#) hours will be awarded upon completion.

What: NC CATCH
When: Saturday, April 29, 9:00 a.m. to 4:00 p.m.
Cost: \$20, covers materials and supplies
URL: thesciencehouse.wufoo.com/forms/z168mlao0szmbhu

Project CATCH — Caring for Aquatics through Conservation Habits — explores ways to teach about aquatic environments through fish biology, outdoor ethics, water safety and fishing skills. Techniques and activities are geared toward children ages eight to 15. The training is appropriate for K-12 educators (formal and informal). CEU and [N.C. Environmental Education Certification](#) hours will be awarded upon completion.

CMAST is located at 303 College Circle, Morehead City. Keep checking sites.google.com/a/ncsu.edu/coastal/Coastal-Connections-Workshops for additional opportunities for educators.

Educator Opportunities at Walnut Creek Wetland Center

www.raleighnc.gov/parks/content/ParksRec/Articles/Parks/WalnutCreekWetlandCenter.html

Walnut Creek Wetland Center, an urban nature center located blocks from downtown Raleigh at 950 Peterson Street, is offering several professional development workshops for educators this winter and spring. Register by going to reclink.raleighnc.gov and using the barcode numbers to search for the specific workshop, or by calling the center at 919-996-2760.

What: Advanced WILD: Mammals
When: Saturday, Feb. 4, 10:00 a.m. to 3:00 p.m.
Cost: FREE
Barcode: #199107

What: Project Learning Tree (Pre-K to 8)
When: Friday, Feb. 24, 9:00 a.m. to 4:00 p.m.
Cost: FREE
Barcode: #199133

What: Advanced WILD: Reptiles and Amphibians
When: Friday, March 3, 10:00 a.m. to 4:00 p.m.
Cost: FREE
Barcode: #199205

What: Intro to Rain Gardens
When: Saturday, March 4, 10:00 a.m. to 12:30 p.m.
Cost: FREE
Barcode: #201375

What: Nature Play Workshop
When: Tuesday, April 18, 10:00 a.m. to 4:00 p.m.
Cost: \$15
Barcode: #199192

Sea Turtles, STEAM at NC Museum of Natural Sciences at Whiteville

naturalsciences.org/visit/whiteville

What: Sea Turtle STEAM workshop
When: Saturday, April 1, 9 a.m. to 12:00 p.m.
Where: N.C. Museum of Natural Sciences, 415 South Madison Street, Whiteville
Cost: \$15

On Saturday, April 1, the N.C. Museum of Natural Sciences at Whiteville will present Sea Turtle Exploration, a curriculum to help educators engage students in the fundamentals of STEAM — science, technology, engineering, art and math — through ready-to-use, standards-based lesson plans focusing on sea turtles. Led by staff from the N.C. Aquarium at Fort Fisher, this hands-on teacher workshop will guide participants through the sea turtle curriculum and website.

This curriculum is catered towards grades K-5, but all grade levels and education styles are welcome. CEU and [N.C. Environmental Education Certification](#) hours are available.

Register now — spaces are limited! To register, contact Casey Geer at casey.geer@naturesciences.org. If you have questions, call 910-914-4185.

Cape Fear Botanical Garden Workshop Week

www.capefearbg.org

In April, join the Cape Fear Botanical Garden for a series of professional development workshops for educators. Each workshop is included with general admission (\$10 per day) or Garden membership.

Sign up for two or three workshops, and get a deal on the fee/admission. Join one workshop for \$10, two workshops for \$15 or three workshops for \$20. Consider becoming a member and attending the workshops for free, while gaining free admission to the Garden for a year! More details on membership levels and benefits can be found at www.capefearbg.org/member.

Preregistration is required. Registration form can be found at form.jotform.com/63614815685969.

All workshops take place at the Cape Fear Botanical Garden, located at 536 N Eastern Blvd., Fayetteville. For more information, email Bonnie Eamick at beamick@capefearbg.org.

What: Food, Land & People
When: Monday, April 17, 9:00 a.m. to 3:30 p.m.

Project Food, Land & People (FLP) is committed to helping people of all ages better understand the interrelationships among agriculture, the environment and people of the world. The curriculum used, Resources for Learning, consists of 55 hands-on lessons for students in grades pre-K to 12, developed and tested by more than a thousand educators. Subjects range from environmental science and stewardship to human populations and land-use issues. Please dress comfortably for active learning indoors and outdoors. Participants will earn six hours of CEU or [N.C. Environmental Education Certification](#) and receive the FLP Curriculum. Lunch is provided.

What: Project WILD
When: Tuesday, April 18, 9:00 a.m. to 3:30 p.m.

Project WILD workshops are for adults interested in teaching young people about wildlife. This six-hour workshop will incorporate aquatic extensions in activities. Participants receive the Project WILD K-12 educator guide along with materials specifically about North Carolina wildlife. The educator guide contains more than 150 hands-on activities that focus on wildlife and natural resources. Participants are eligible for Criteria I credit of [N.C. Environmental Education Certification](#) and school teachers receive CEU credit. Homework option available.

For more information on Project WILD, visit www.projectwild.org. Participants are encouraged to bring a sack lunch.

What: Flying WILD
When: Wednesday, April 19, 9:00 a.m. to 3:30 p.m.

Targeted for middle-school teachers, though widely adaptable, Flying WILD offers practical hands-on classroom and outdoor field investigation experiences connecting real-world experiences in bird biology, conservation and natural history. Through activities involving language arts, social science and math experiences, coupled with community outreach and service-learning applications, Flying WILD offers a whole-school approach to environmental education using birds as the focus.

The six-hour workshop counts toward CEU credits and [N.C. Environmental Education Certification](#) Criteria I credits. Homework option available. This workshop will be partially outdoors so please wear comfortable closed-toed shoes and dress for the weather. Feel free to bring bug spray, a water bottle, binoculars (although some will be made available for use) and a sack lunch.

Coastal Carolina MATE ROV Competition

www.marinetech.org/rov-competition-2/

The Sea Wolf Program, associated with NC State University's CMAST, has been named an official Marine Advanced Technology Education (MATE) ROV regional competition site. The 2017 Coastal Carolinas competition will take place on Saturday, April 22, at the Sports Center in Morehead City.

The regional event will feature the Scout Class only. This classification is appropriate for students from upper elementary through high school. Pufferfish- and Sea Perch-type ROVs are welcome.

Information about team size, mission, specifications, events, dates, requirements, etc. can be found at www.marinetech.org/regional-contest.

To prepare for the regional competition, the Sea Wolf Program is offering special Saturday training workshops at CMAST focusing on youth ROV construction. Registered teams may attend with two participants (coach/student or two students). These training sessions cost \$20 per team, and are for registered teams only. Workshop dates, times, topics:

- March 11, 9:00 a.m. to 4:00 p.m. Build tools required for the mission.
- April 1, 9:00 a.m. to 4:00 p.m. Design frame and practice piloting in the pool.

To register your team for the MATE ROV Coastal Carolinas regional competition, go to coastalcarolina.marinetech2.org. For more information, contact Pat Curley at pwcurley@ncsu.edu.

NOAA Workshop at NC Aquarium at Pine Knoll Shores

www.ncaquariums.com/pine-knoll-shores/

What: Exploring the Deep Ocean with NOAA
When: Saturday, May 20, 8:00 a.m. to 4:00 p.m.
Cost: \$25 REFUNDABLE deposit to hold your space
URL: www.ncaquariums.com/pine-knoll-shores-teachers

Educators of grades six to 12 are invited to join NOAA Office of Exploration and Research facilitators to learn “Why We Explore (Volume 1)” and “How We Explore (Volume 2)” the deep ocean. Participants will learn about the importance of ocean exploration and the advanced technological capabilities of the NOAA Ship *Okeanos Explorer* used to explore the deep ocean. This seven-hour professional development will introduce standards-based, hands-on activities and online resources that guide classroom teaching and learning. Ocean health, sophisticated underwater mapping technologies, unique deep-sea ecosystems, ROVs and telepresence are just a few of the topics covered.

Participants will receive both volumes of the NOAA Ship *Okeanos Explorer* Education Materials Collection, additional resources and a NOAA Ocean Exploration Certificate of Participation. If you have previously participated in a “Why Do We Explore?” or “How Do We Explore?” professional development workshop, this offering will be redundant.

Continental breakfast, lunch and a \$75 stipend will be provided. Help keep our seas plastic-free! Please bring a reusable water container and a refillable coffee cup.

Registration is required and space is limited. You will need to pay a REFUNDABLE \$25 deposit to hold your space in the workshop. Registration deadline is April 28.

To register or for more information, contact Pam Pittman or Windy Arey-Kent at pamela.pittman@ncaquariums.com or 252-247-4003, x257.

KidWind Challenge on Northern Coast on May 6

www.kidwind.org

The UNC Coastal Studies Institute will host a KidWind Challenge Competition in partnership with Jennette’s Pier on May 6 at the UNC Coastal Studies Institute campus in Wanchese. The KidWind Challenge is a middle and high school team-based competition in which students in grades six through 12 construct a wind turbine, engage in a variety of instant challenges, and present the process and research on their engineering design.

The Kidwind Challenge takes place in 20 states. This is the first year that it will be available in North Carolina. Teams are made up of two to four students and are divided into middle- and

high-school divisions. The event at UNC Coastal Studies Institute also will feature activities focused on ocean energy, highlighting the N.C. Renewable Ocean Energy Project, a program led by UNC Coastal Studies Institute that is researching alternative ocean energy sources for North Carolina.

For more information on the North Carolina Renewable Ocean Energy Project, please visit www.coastalstudiesinstitute.org. For more information on KidWind and the KidWind Challenge, please visit www.kidwind.org.

Programs at UNC Wilmington's MarineQuest

www.uncw.edu/marinequest/

MarineQuest Summer Program Job Opportunities

uncw.edu/marinequest/employment.html

UNCW's MarineQuest invites you to become part of one of the most unique marine and environmental education programs in the country. We are celebrating our 37th year of service in coastal North Carolina by continuing to offer fun-filled, STEM-focused summer academic enrichment programs for ages 4 to 17. We are looking for qualified candidates to fill our summer 2017 positions including: day and evening instructors, RA staff, residential coordinator, and kayak instructor. Interested candidates should visit our website and apply. The first deadline for applications is Feb. 6 but we will continue to accept applications throughout the spring until all positions are filled.

MarineQuest School Programs Available

uncw.edu/marinequest/schoolprograms.html

UNCW's MarineQuest is excited to announce enrichment opportunities specifically designed for high-school AP teachers and their students looking for hands-on and STEM-driven activities following the completion of their AP exams. If you are unable to travel to us to enjoy one of our amazing field experiences, our program staff will bring our diverse lessons to you with program options ranging from ROVs and marine technology, biotechnology, climate change, toxic algae, touch tanks and more. Please visit our MarineQuest school program website to learn more about our school program offerings.

Project Ocean Change at UNCW

MarineQuest has partnered with AmeriCorps to provide educational outreach to underserved middle-school children in coastal southeastern North Carolina. The STEM curriculum developed for Project Ocean Change (POC) focuses on the interconnectedness of humans, the ocean and climate change.

POC takes an interdisciplinary approach toward covering climate science. Understanding the controversial nature of this topic, the goal of these programs is to provide students with the most up-to-date science on how our climate operates, as well as changes that are being observed.

Research has shown that the classroom is an extremely effective tool to improve students' climate literacy; however, climate change typically only receives an hour or two of instructional time throughout the school year. The purpose of POC is to fill that gap, knowing that the constantly evolving nature of climate-change science is particularly challenging for teachers to incorporate into their curriculum.

Hands-on activities for all lessons will focus on the dynamic and interconnected nature of our environment, how we may be altering these processes, and what this means for students' livelihoods. Each lesson will highlight how students can become better stewards of the environment. The interdisciplinary nature of POC means that regardless of the curriculum you may be focusing on with your students, there will be an applicable lesson that ties into what they are learning.

For more information or to schedule a classroom visit, contact Carey Goldman, coordinator Project Ocean Change, at gst-goldmanc@uncw.edu or 910-742-9289.

The Further Adventures of Watson the Whale

Watson the Whale will be continuing his adventures this spring. MarineQuest has received a Fishing for Energy grant from the National Fish and Wildlife Foundation, with \$71,000 in funding provided by Covanta, an organization that helps companies and communities with waste-management challenges.

Building on the success of MarineQuest's Traveling Through Trash project, a partnership with NOAA's Marine Debris Program, Ghost Busters will teach students specifically about the problem of ghost nets — a very harmful form of marine debris that comes from derelict fishing gear.

As part of the project, Watson the Whale will be traveling to coastal schools in Brunswick, Carteret, New Hanover, Onslow and Pender counties (other coastal counties may be served depending on availability and travel times) to teach students about ghost nets and to challenge them to engineer solutions to this problem by designing new types of nets and harvesting equipment. At the end of the school year, MarineQuest will host a regional engineering competition where students can showcase their designs.

The Ghost Busters curriculum has been designed to inform and inspire students. We intend to increase their awareness and knowledge of ghost nets and derelict fishing gear by engaging the students with interactive STEM learning materials, historical documents, expert videos, debates and the engineering competition.

If your middle school is interested in learning more about this opportunity or scheduling a program, contact project staff at MarineQuest@uncw.edu. Please include Ghost Busters in the subject line.

New Field Trip Booking Process for Sylvan Heights

www.shwpark.com

Sylvan Heights Waterfowl Park is excited to announce that the number of school groups visiting their facility has increased by leaps and bounds over the past few years. Because of this, they are shifting the process of booking field trips and programs to their website. Now all field trips should be scheduled through their online form.

If you have additional questions, indicate that need on the form and a staff member will contact you. The link is shwpark.com/education/field-trips/field-trips-at-sylvan-heights.html. You also can access the form — and additional field trip information — under the Education section at www.shwpark.com.

Thank you for helping Sylvan Heights' education program grow and for adapting to this new process.

Science Expo in Eastern NC

Would you like everyone in Eastern North Carolina to know about your center? A Time for Science in Pitt County is sponsoring the second annual A Time for Science Expo on Saturday, March 11, from 10:00 a.m. to 3:00 p.m. at the Greenville Convention Center. Last year, more than 2,000 people visited this expo. The event made the top 10 list of Best Events in Greenville!

Please have a hands-on activity at your booth and bring brochures and information about your center so you can share what you do with Eastern North Carolina. This event is free to the public.

Exhibitor booths will be \$50 this year to cover the expenses of the Convention Center. Please contact Maria McDaniel at maria@atimeforscience.org if you are interested in having a booth or if you have questions.

Save the Dates

There are many conferences scheduled for this year. Join your fellow marine educators and beach lovers at one — or more — of these great events.

	<p>Southeastern Environmental Education Alliance www.eealliance.org/annual-conference March 3 to 5, 2017 Buford, Georgia</p>
	<p>National Marine Educators Association's Annual Conference www.marine-ed.org June 25 to 29, 2017 Charleston, South Carolina</p>
	<p>Environmental Educators of NC Annual Conference www.eenc.org Sept. 29 to Oct. 1, 2017 Fuquay-Varina, North Carolina</p>
	<p>International Sea-Bean Symposium www.seabean.com Oct. 20 to 21, 2017 Cocoa Beach, Florida</p>
	<p>Mid-Atlantic Marine Education Association Annual Conference www.mamea.org/conf.html Nov. 3 to 5, 2017 Ocean City, Maryland</p>

Need to Contact Me?

If you ever have information to share with other marine educators, please don't hesitate to send it my way for inclusion in a future issue of the *Scotch Bonnet*. Let me know what you're hearing from the sea!

Please share this website or newsletter with others — and share my email address with anyone who wants to receive a message notifying them that a new issue of *Scotch Bonnet* is available online. Thanks for all you do for students and for other educators!

Best Fishes!

A handwritten signature in black ink that reads "Terri". The letters are cursive and connected, with a prominent horizontal stroke at the top of the "T".

Terri Kirby Hathaway
Marine Education Specialist
North Carolina Sea Grant

Contact Me!

Phone: 252-475-5486

Fax: 252-475-3545

Email: terrikh@csi.northcarolina.edu

Address: North Carolina Sea Grant, PO Box 699, Manteo, NC 27954