



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!

We had an extremely hot summer here on the Outer Banks! With those warm air temperatures, low water temperatures (in the 60s), a swarm of naked sea butterflies (*Clione limacina*) visited our beaches at least twice! This invasion was driven by strong southerly and southwesterly winds that caused a process known as upwelling.



You can learn more about this coastal event by reading my post on *Coastwatch Currents*, the North Carolina Sea Grant blog, at ncseagrant.ncsu.edu/blog/2016/08/01/an-invasion-of-the-naked-sea-butterflies/.

A few issues ago, I shared a blog post that [Buzz Hoot Roar](#) did on [sharks](#). I'm a big fan of this science blog! Their premise is one reason; their humor, illustrations and insight are others. According to the About Us section on their website, Buzz Hoot Roar is a graphics-driven blog that shares and/or explains a scientific concept in 300 words or less.

This sounds like what all educators should strive for when talking to the public, minus the graphics, of course. Enjoy their recent blog post on how to talk to your parents about climate change: <http://buzzhootroar.com/how-to-talk-to-your-parents-about-climate-change/>.

Thanks to Windy Arey-Kent, Melissa Dowland, Andy Gould, Jennifer Metzler-Fiorino, Elizabeth Overcash, Lee Peoples and David Sybert for their contributions to this issue. Wishing you all a wonderful fall!

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!

Upcoming SciREN events

www.thesciren.org

The Scientific Research and Education Network (SciREN) is a nonprofit organization founded and led by graduate students that connects educators and researchers in North Carolina. 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-plan workshops. The networking events bring researchers and teachers to the table for face-to-face interaction and exchange of ideas and materials. The lesson-plan workshops help researchers translate their work into classroom-ready exercises that meet state and national standards.

What: SciREN Triangle

When: Friday, Sept. 9, 5:30 to 9 p.m.

Where: NC Museum of Natural Sciences, 11 West Jones Street, Raleigh, NC

Cost: Free

Link: www.thesciren.org/networking-events/sciren-triangle/

What: SciREN Greenville

When: Tuesday, Nov. 15, 4 to 7 p.m.

Where: GO-Science, 729 Dickenson Avenue, Greenville, NC

Cost: Free

Link: www.thesciren.org/networking-events/sciren-greenville/

Playful Pedagogy at Raulston Arboretum

jcra.ncsu.edu

Come celebrate the joy and value of playing outdoors at the J.C. Raulston Arboretum at North Carolina State University during Take a Child Outside week.

Linda Kinney, education specialist and manager of Playful Pedagogy at the N.C. Zoo, will present two opportunities for learning how to become a more playful, inspired, engaged adult who can expand a child's potential to explore and experience nature through play!

For more about Playful Pedagogy, go to www.nczoo.org and select Education. At the bottom of the page, choose Playful Pedagogy.

These sessions offer great information for parents, teachers, informal educators, grandparents, aspiring teachers or anyone who works with children.

What: PLAY IN NATURE: the hands-on workshop

When: Thursday, Sept. 29, 1 to 3:30 p.m.

Where: J.C. Raulston Arboretum, 4115 Beryl Road, Raleigh, N.C.

Cost: \$35 for members; \$45 for nonmembers

This workshop emphasizes play in nature and how to take advantage of the many benefits provided by the natural world. Participants will “play with” aspects of nature and play, and explore how to combine outdoor play and learning environments. This session also will address strategies for incorporating playing outside into educational programs, classroom curriculum and everyday life. *Only 20 spaces available.* Advance registration is required! Details and registration at jcra.ncsu.edu/events/details.php?ID=1371.

What: The Importance of Play: A Parent and Teacher Lecture

When: Thursday, Sept. 29, 6:30 to 7:30 p.m.

Where: J.C. Raulston Arboretum, 4115 Beryl Road, Raleigh, N.C.

Cost: \$10 for members; \$15 for nonmembers

This is an evening lecture for parents, teachers and other engaged adults! Play is the way children explore the world around them and an ideal vehicle for establishing a relationship with nature. In this session, participants will explore the value of play and the importance of the adult in support of the playing child. We will also look at creative approaches to plan for play and practical applications of nature play. Details and registration online at jcra.ncsu.edu/events/details.php?ID=1368.

Teacher Workshop at UNC Coastal Studies Institute

coastalstudiesinstitute.org

What: Ocean Currents and Shifting Sands: Exploring Marine Science at the North Carolina Coast

When: Friday, Sept. 30, 8 a.m. to 4 p.m.

Where: UNC Coastal Studies Institute, 850 NC Highway 345, Wanchese, N.C.

Cost: Free, lunch is provided

Rx for Science Literacy, a program supported by the N.C. Association for Biomedical Research, is partnering with East Carolina University and the University of North Carolina's Coastal Studies Institute (UNC-CSI) to present Ocean Currents and Shifting Sands: Exploring Marine Science at the North Carolina Coast, a professional-development workshop that explores ecosystems and processes that shape our coastline.

This experiential workshop will introduce teachers to current research being conducted at UNC-CSI. Workshop participants will engage in hands-on field and lab activities about coastal and estuarine systems. In addition, educators will learn how North Carolina is broadening its energy portfolio by investing in renewable ocean energy research through UNC-CSI and its partners. Standards-based lesson plans will be distributed for teachers to take back to their classrooms.

The workshop is open to middle- and high-school educators and will be held at UNC-CSI on Roanoke Island. Lunch is provided by the N.C. Association for Biomedical Research.

For questions, contact David Sybert at dmsybert@csi.northcarolina.edu. To register, visit www.ncabr.org/k12/workshops/. *Right now, there is a wait list for this event. You can sign up to be notified if a space becomes available.*

NOAA Workshop at N.C. Aquarium at Pine Knoll Shores

www.ncaquariums.com/pine-knoll-shores

What: Exploring the Deep Ocean with NOAA

When: Saturday, Oct. 1; 8 a.m. to 4p.m.

Where: N.C. Aquarium at Pine Knoll Shores, 1 Roosevelt Drive, Atlantic Beach, N.C.

Cost: \$25 REFUNDABLE deposit to hold your space

Educators of grades 6 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, 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.

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 Sept. 9 (but this may be extended).

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

Sea Turtle STEM Workshop at N.C. Aquarium at Fort Fisher

seaturtleexploration.com

What: Sea Turtle STEM workshop

When: Saturday, Oct. 1; 9 a.m. to 3:30 p.m.

Where: N.C. Aquarium at Fort Fisher, 900 Loggerhead Road, Kure Beach, N.C.

Cost: \$25, includes admission, a behind-the-scenes tour and access to the curriculum

The N.C. Aquarium at Fort Fisher presents 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. Join us on Saturday, Oct. 1 for a hands-on teacher workshop guiding you through our new curriculum and website.



In addition to the curriculum, you will learn about additional resources, such as weekly blog posts during the school year. Topics will include species profiles, aquarium staff spotlights, behind-the-scenes videos, new lesson plans and more. Even follow the growth of hatchling sea turtles in the aquarium by visiting the blog each week!



NOAA Ship *Okeanos Explorer* berthed in Pearl Harbor, Hawaii. Courtesy NOAA Office of Ocean Exploration and Research.

Aligned with the new Common Core standards, classes will be able to “adopt” a turtle and learn about its care and growth. By adopting our sea turtle, teachers and students will receive weekly updates with information including the turtle’s current weight and length. Each class also will receive a certificate of participation.

By the end of the workshop, you will be familiar with the website and curriculum, and how to implement the lessons in your own classroom. The workshop will include a behind-the-scenes tour to meet one of the aquarium’s sea turtles. Please pack a waste-free lunch. There will not be food available on site.

The cost of this teacher workshop is \$25. This fee includes a behind-the-scenes tour and access to curriculum.

To register, visit reservations.ncaquariums.com/fortfisher/Info.aspx?EventID=20. If you have questions, call 910-772-0507.

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

N.C. Aquarium at Fort Fisher Offers Teacher Open House

www.ncaquariums.com/fort-fisher

What: Teacher Open House

Where: N.C. Aquarium at Fort Fisher, 900 Loggerhead Road, Kure Beach, N.C.

When: Saturday, Oct. 15, 9 a.m. to 4 p.m.

Cost: FREE to all North Carolina teachers (with school ID), plus up to three family members

North Carolina teachers are invited to join us at the N.C. Aquarium at Fort Fisher for our Teacher Open House. Explore all of the options available to your students through the aquarium, including field-trip options, outdoor explorations, outreach, distance learning, STEAM curriculum and teacher workshop opportunities. Demonstrations will occur throughout the day, and education staff will be on hand to answer all questions.

Salt marsh tours will be offered throughout the day. If you would like to participate, please bring a change of shoes and clothes, and be prepared to get wet and muddy.

Questions? Contact Ashley Grindstaff at 910-772-0542 or ashley.grindstaff@ncaquariums.com for more information.

N.C. Museum of Natural Sciences Provides Educator Treks

naturalsciences.org

What: Backbone of North Carolina

Where: Sites along the Blue Ridge Parkway

When: Friday to Sunday, Sept. 23 to 25

Cost: \$135 (includes transportation lodging, some meals and teaching resources)

CEUs: 20 contact hours

Link: <http://naturalsciences.org/calendar/event/educator-trek-backbone-of-north-carolina/>

Explore the geology of the North Carolina mountains as we travel along the scenic Blue Ridge Parkway from Linville Gorge to Grandfather Mountain. Practice rock and mineral identification with hand samples and at outcrops in the field. Learn about the processes that have shaped our mountains.

What: Discovering Island Ecology Through Nature Journaling,

Where: Hammocks Beach State Park, Swansboro, N.C.

When: Friday to Sunday, Oct. 14 to 16, departing Raleigh at 1 p.m.,

Cost: \$85 (includes transportation lodging, some meals, journaling supplies)

CEUs: 20 contact hours

Link: <http://naturalsciences.org/calendar/event/discovering-island-ecology-through-nature-journaling/>

Discover the ecology of a barrier island and how to use journaling as a technique for enhancing science learning. We will explore a variety of barrier island habitats, from the salt marsh to the oceanfront, and document our experiences through a variety of journaling techniques, including sketching, digital photography, poetry and reflective writing. You'll not only increase your understanding of these fragile ecosystems, but also gain new ways to incorporate science and writing.

What: Got Elk?

Where: Great Smoky Mountains National Park, Haywood County, N.C.

When: Friday to Sunday, Oct. 28 to 30, departing Raleigh at 3:30 p.m.

Cost: \$85* (includes transportation, lodging, most meals)

CEUs: 20 contact hours

Link: <http://naturalsciences.org/calendar/event/got-elk/>

Join us as we search for the majestic elk, reintroduced to the Smokies after an absence of more than 200 years. Sample activities used to document the biodiversity of the park. Discover how you can bring the excitement of field research into your classroom.

**The cost of this trek is reduced due to a generous gift through the Friends of the Smokies. Due to this reduction of costs, Friends of the Museum discounts are unavailable.*

Get credit for these programs

Participants receive two contact hours toward CEUs and credit for [North Carolina's 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.

Looking for other opportunities?

Learn about all Museum offerings for educators at naturalsciences.org/learn/educators. For more information about teacher education programs, contact [Melissa Dowland](#) at 919-707-9898.

Sylvan Heights Bird Park Program Discount

www.shwpark.com

Welcome back teachers! We hope that your 2016/2017 school year is off to a great start. Hopefully a field trip to Sylvan Heights Bird Park is planned for this year.

To help with the booking process, we are encouraging teachers to book all field trips through our website whenever possible. As an extra incentive, if you use the online form on or after Aug. 31 and schedule a program, you will **receive 10 percent off your program costs!**

To ensure you have your first choice of dates, please book early. Admission prices will increase in 2017, but if you book by the end of December, we will honor the 2016 rates for your students and teachers.

NOAA Workshop at N.C. Aquarium at Fort Fisher

www.ncaquariums.com/fort-fisher

What: Exploring the Deep Ocean with NOAA

When: Saturday, Nov. 5; 8 a.m. to 4 p.m.

Where: N.C. Aquarium at Fort Fisher, 900 Loggerhead Road, Kure Beach, N.C.

Cost: \$25 REFUNDABLE deposit to hold your space

Educators of grades 6 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 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.

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 Oct. 15.

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

Science Expo in Eastern NC

www.atimeforscience.org

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 in Greenville, North Carolina, on Saturday, Oct. 15, from 10 a.m. to 3 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 all of 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>Lasting Legacies: Environmental Educators of NC 25th Annual Conference www.eenc.org Sept. 23 to 25, 2016 Black Mountain, North Carolina</p>
	<p>International Sea-Bean Symposium www.seabean.com Oct. 14 to 15, 2016 Galveston, Texas</p>
	<p>Mid-Atlantic Marine Education Association Annual Conference www.mamea.org/conf.html Nov. 4 to 6, 2016 Dewey Beach, Delaware</p>
	<p>Southeastern Environmental Education Alliance www.eealliance.org/index.php?option=com_content&view=article&id=35&Itemid=82 March 3 to 5, 2017 Gwinnett County, Georgia</p>
	<p>National Marine Educators Association's Annual Conference www.marine-ed.org June 25 to 29, 2017 Charleston, South Carolina</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 that a new issue of *Scotch Bonnet* is available online. Thanks for all you do for students and for other educators!

My contact information is: North Carolina Sea Grant, PO Box 699, Manteo, NC 27954; phone: 252.475.5486; fax: 252.475. 3545; email terrikh@csi.northcarolina.edu.

Best Fishes!

A handwritten signature in black ink that reads "Terri". The letters are cursive and slightly slanted to the right.

Terri Kirby Hathaway
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