

Scotch Bonnet Spring 2010

Welcome to the newest online issue of Scotch Bonnet. And remember, the newsletter is also available as a portable document file (.pdf) – if you're like me and want to keep a hard copy!

I have had some wonderful opportunities for travel since fall 2009, both for personal and professional development. I've attended (and participated in) beachcombing events on the East Coast and West Coast. I've enjoyed hunting for beach glass on the shores of Lake Erie and searching for sea-beans along the Florida's Space Coast.

Later this summer I will be traveling with 17 educators on a bus from North Carolina through Virginia, Maryland, Connecticut, Massachusetts, then back to Washington, D.C., learning about how climate change affects marine mammals. In addition, I will be learning about severe weather at the National Severe Storms Laboratory in Norman, Okla. and exploring freshwater wonders at the National Marine Educators Association (NMEA) annual conference in Gatlinburg, Tenn.

And don't forget about the 15th annual International Sea-Bean Symposium in Cocoa Beach, Fla. in October. I'm planning to be there — anyone care to join me for some extraordinary sea-bean hunting and relaxing beachcombing in Florida? Check out the details at www.seabean.com.

FYI — North Carolina's Project Learning Tree's Web site has a new look — check it out: www.ces.ncsu.edu/plt. You can check out dates and information for upcoming workshop at www.ces.ncsu.edu/plt/calendar.

I hope you have a wonderful, relaxing, recuperative summer if you're getting a summer break. And here's wishing all the informal educators a successful summer season of camps and public programs! Keep reading for some unique opportunities and ideas for educators. There is a lot going on in North Carolina!

Shark Exhibit Opens May 29th at NC Aquarium

www.ncaquariums.com/roanoke-island

This summer treat your entire family to a new experience at the North Carolina Aquarium on Roanoke Island. "Sharks" will be the theme for this summer, showcasing these predators in the 285,000-gallon Graveyard of the Atlantic exhibit, and a new exhibit that will transform the Nor'easter exhibit into an exciting display of smaller sharks surrounded by fishes from the "Waters of the Outer Banks."

Let Dr. Finnegan be your guide through the Aquarium and learn how these ancient fish became successful survivors. Learn why scientists are so concerned about the future of sharks in our oceans.

Marty Snyderman will present his photography and videos with a focus on sharks, their behavior, human interactions, and conservation on June 8, 9 and 10. Marty specializes in marine environments. He uses still photography to capture photos that have been seen in numerous publications, including National Geographic, Skin Diver, Natural History, Sport Diver, Time and Newsweek. An Emmy Award-winning cinematographer, his film *The Secret World of Sharks and Rays* premiered on the PBS series *Nature*. Marty produced and filmed *To Be With Sharks (View from the Cage)*, featured on the Discovery Channel during Shark Week.

George Powell is a self-educated paleontologist who has an extensive private fossil collection. Many visitors to the Aquarium will remember George from his visit during Shark Week 2009. He has lectured with scientists, presented at universities, and currently gives tours with PCS Phosphates in Aurora. His programs will take place on the following dates: June 22, 23 and 24; July 13, 14 and 15; and August 10, 11 and 12.

Frank Hudgins, director of operations and husbandry, expects the new exhibit to be ready just in time for summer and all of the visitors that will come to the Aquarium. "We plan to bring in different species of sharks; you will see familiar favorites, exciting new editions, and some sharky freshwater 'cousins,'" he says. "It will create some real excitement for our visitors this summer."

NC Aquarium at Fort Fisher

www.ncaquariums.com/fort-fisher

The North Carolina Aquarium at Fort Fisher is pleased to announce their inaugural "Surf It, Save It: Aquarium Surf Festival." The event is Saturday, June 5 and Sunday, June 6 from 9 a.m. until 5 p.m. each day at the Aquarium.

The weekend is designed to encourage environmental stewardship through surfing, as well as to educate visitors about the sport's culture and lifestyle. Festival activities include surfing films; an exhibit on the history of surfing, including vintage boards; hula and ukulele demonstrations; a surf simulator; rehabilitated shore birds and turtles; sea oats planting; and clean-ups of Masonboro and Zeke's islands. Ocean Cure/Surfer's Healing mini-camps for autistic children and a search-and-air rescue demonstration by the U.S. Coast Guard, featuring a H60 helicopter and C-130, will be staged on the nearby beach.

Celebrities will also be on hand. Shaun Tomson, former world-champion surfer from South Africa, will host a private showing of his mid-70s surfing feature film, *Bustin' Down The Door*, and will sign copies of his book, *Surfer's Code — 12 Simple Lessons for Riding Through Life*, available in the Aquarium Gift Shop. Big wave surfer Garrett McNamara will also make an appearance. Skipper Funderburg, local author of *Surfing on the Cape Fear Coast*, will sign copies of his book, and board shapers Sean O'Donnell and Will Allison will discuss the evolution of surfboard design.

Surf and ocean art by photographer DJ Struntz will also be on exhibit, and large, outdoor installations by Sean Ruttkay will be featured in the Aquarium garden.

Sponsorship opportunities are available. For more information, please contact Amy Kilgore at (910) 458-8257, ext: 211 or Emily Jones at (910) 458-8257 ext. 242.

NC Aquarium at Pine Knoll Shores

www.ncaquariums.com/pine-knoll-shores

Take your vacation to new heights this summer and see pelicans, hawks, owls and other native North Carolina birds soar overhead in Big Rock Theater at the North Carolina Aquarium at Pine Knoll Shores. This new program, "Winging It: Birds in Flight," offers a rare chance to see birds on the wing at close range as they respond to cues from an Aquarium "flight crew." The raptors and waterbirds deliver important conservation messages along with family-friendly entertainment.

Tickets are \$4 per person in addition to Aquarium admission. Seating is limited. Tickets are sold at the admissions window the day of the show only. Sorry, there are no advance sales or reservations, and memberships and discounts do not apply. "Winging It: Birds in Flight" is offered daily at 11:30 a.m.

Cousteau Summer Workshop

www.oceanfutures.org

Join Ambassadors of the Environment this summer for a 5-day/4-night teacher workshop offering cross-curricular training on marine, terrestrial, creek and watershed ecosystems, with an emphasis on ecological roles and connections between species. Participants will receive hands-on K-12 curriculum in sustainable living, renewable energy, our ecological footprint, marine management, recycling, composting, and more. Led by Dr. Richard Murphy, senior Cousteau educator and marine biologist, the program focuses on curriculum models of Inquiry-Based Learning and teaching practices. Each day local experts will join us to enrich our learning, and participants will benefit from slices of free time to enjoy the beautiful surroundings of the Gaviota Coast north of Santa Barbara.

Program includes: Full lodging in comfortable cabins at El Capitan Canyon (<http://www.elcapitancanyon.com>) with easy access to hiking trails, beaches, and creek; meals with locally harvested organic fruits and vegetables; vegetarian, and vegan options; and Jean-Michel Cousteau's Ambassadors of the Environment staff, activities and curriculum materials.

Lead Instructors: Dr. Richard Murphy (Director of Science and Research with Jean-Michel Cousteau), Elaine Heath, M.A. in Gifted Education with Mesa State College, Marti McNamee, M.A. in Education and teacher for the Gifted and Talented, and Laura Brands, B.A. Environmental Studies (Ambassadors of the Environment Program Associate with Jean-Michel Cousteau).

Cost: \$850.00; Deposit: \$425 (50% deposit due immediately; full balance due June 1st, 2010). Three hours of Graduate Credit from Mesa State College available for only \$160.00

For more information please contact: Elaine Heath, Gifted Education Mesa State College, (970) 261-6422, laneyh@mesa.k12.co.us or Laura Brands, Ocean Futures Society, (805) 899-8899 ext. 104, lbrands@oceanfutures.org

What's New at the NC Maritime Museum?

www.ncmaritimemuseum.org

NC Maritime Museum's new exhibit, "Science by the Sea," highlights the achievements of our local marine science research community. Visitors will discover the fields of oceanography, marine mammal biology, marine fisheries, and ecology, and get to know the individuals that made the labs successful. The exhibit features local landmarks dedicated to marine research and a glimpse into a working laboratory (now through Nov. 14).

The Maritime Day picnic at Gallants Channel features activities, tours, boat rides & lunch. This event is free to the public and sponsored by the Friends of the Museum (Monday, May 31, 11 a.m. – 3 p.m.).

The Junior Sailing Program uses the fun of sailing to teach seamanship, navigation, boating safety and sailing techniques for beginning to advanced sailors. Classes include two-week sessions, one-week sessions, and Regatta week. Contact the museum for brochure and application (June – August).

Summer Science School for Children investigates the coastal environment and North Carolina maritime history. Class topics include pirates, boat models, seashore life, nature photography, fishing and nautical archaeology. Contact the museum for brochure and application (June – August).

The N.C. Department of Cultural Resources launches this new program series at more than 30 historic sites and museums across the state. The statewide events highlight North Carolina History, Heritage, Arts & Fun — so join us at our Museum for all three events: June 12 is Maritime History Day; July 10 is Science by the Sea Day; and Aug. 14 is Pirates of North Carolina Day.

Find out about all of the educational programs happening at the Maritime Museum by going online to www.ncmaritimemuseum.org.

Online Professional Development from NOAA's Ocean Exploration and Research oceanexplorer.noaa.gov/edu/development/online_development.html

Online professional development offered by NOAA's Office of Ocean Exploration and Research provides educators with more in-depth studies into specific ocean science content through the context of ocean exploration. In partnership with The College of Exploration, an online campus setting provides a venue for educators worldwide to meet,

view keynote addresses given by ocean explorers and ask questions of keynote speakers online.

Hands-on and inquiry-based activities, along with other resources, are provided in a facilitated environment. These courses enable educators to take rich content into a variety of teaching environments in an effort to enhance ocean science literacy and further promote Ocean Literacy Essential Principle #7 — “The ocean is largely unexplored.”

These courses are free for all participants and will be available 24 hours a day, 7 days a week. Educators will have the option to receive one graduate credit (\$90) or obtain a certificate of completion for each course completed.

Why Do We Explore? Okeanos Explorer Online Teacher Professional Development Series, Offering #2

Date: June 21 – July 2, 2010

This two-week online professional development offering will include a keynote address by ocean explorers who have made significant ocean discoveries, inquiry-based lessons for all grade-levels, and facilitated online reflective conversations about the importance of ocean exploration on a global scale. Areas of focus include climate change, energy, human health and ocean health.

Scientific presenters will include: Dr. Charles Fisher, Professor of Biology, Eberly College of Science at The Pennsylvania State University; Dr. Shirley A. Pomponi, Executive Director, Harbor Branch Oceanographic Institution at Florida Atlantic University; and Dr. Edith Widder, Cofounder and President, Ocean Research and Conservation Association (ORCA)

To register, please visit coexploration.org/oe/

How Do We Explore? Okeanos Explorer Online Teacher Professional Development Series, Offering #3

Date: October 11 - 29, 2010

This three-week online professional development offering will include a keynote address by Captain Joseph Pica, Commanding Officer aboard the Okeanos Explorer, and topic introductions by key scientists working in specific areas of ocean exploration. Topics will include searching for anomalies, selecting sites for exploration, communication tools including telepresence technology, mapping techniques, water column study and operating remotely operated vehicles. This course will include hands-on and inquiry-based lessons for all grade-levels, and facilitated online reflective conversations about how we approach the study of our largely unexplored ocean.

Scientific presenters will include: CDR Joseph Pica, Commanding Officer, NOAA Ship Okeanos Explorer; Webb Pinner, Systems Engineer, Okeanos Explorer Program; Elizabeth

Lobecker, Physical Scientist, NOAA Okeanos Explorer Program; Dave Lavolvo, Founder/owner, Eastern Oceanics, Adjunct Professor, Institute for Exploration, ROV Team Lead, NOAA Okeanos Explorer.

A link to registration information will be posted on the NOAA OE website at oceanexplorer.noaa.gov/edu/development/online_development.html in July 2010.

Teaching about the Marine Environment

www.uncw.edu

Can't get to the shore to teach about the marine environment? This course developed and taught by Dr. Rosanne Fortner, former President of the National Marine Educators Association and Director of COSEE Great Lakes, offers classroom-based methods for ocean education. Explore online sources and exemplary print materials for grades 5 to 12, many adaptable for informal learning. Match the lessons to your curriculum and adapt to your setting with expert assistance. This course is completely online and asynchronous.

For each topic in the course, background readings will be provided, and the ocean literacy principles and scope/sequence will be discussed. Participating teachers will match the activities for the topics to the North Carolina standards in science at their grade level. Activities will be tried with a group of learners and responses discussed online.

Discussion will include advantages and disadvantages of the methodology for different instructional settings. Guidelines for curriculum development will be built as different lessons are evaluated, and the culminating project will be an electronic portfolio of materials adapted for the individual's classroom or informal setting.

Text materials are primarily online from Sea Grant, COSEE, NOAA, and other providers, but participants will be required to purchase a copy of the Fall 2009 issue of Science Activities journal and ES-EAGLS Life in the Great Lakes (innovative methods for coastal/aquatic education).

Course is listed as EVS 485/592 (Special Topics in Environmental Science) and offers three (3) credit hours at the undergraduate or graduate level. Contact Dr. Rosanne Fortner for additional information at fortnerr@uncw.edu.

Summer Programs for the Public

* The North Carolina Estuarium offers a variety of public programs, art shows, and special events each season. Go online to find out about summer programs and art exhibits: www.partnershipforthesound.org. The Estuarium is located at 223 E. Water Street, Washington, N.C., and is open Tuesday through Saturday, 10 a.m. to 4 p.m., and open Sundays from 1 to 5 p.m. from June 13 to Aug. 29. Admission is \$4 for adults and \$2 for students. Please call ahead for program information as space may be limited. The Estuarium is a Partnership for the Sounds facility, an organization promoting eco-tourism and sustainable economic development in the Albemarle-Pamlico region. For more

information, check out www.partnershipforthesounds.org. Contact estuarium@embarqmail.com or 252-948-0000.

* On weekdays during June, July and August, Chicamacomico Life-Saving Station offers a regular schedule of public programs, which are free with the site admission fee. All programs begin at 2 p.m. and are weather-dependent.

Mondays: Discover what went on behind-the-scenes during the filming of *Nights in Rodanthe*.

Tuesdays: Explore the forgotten yet fascinating history of the U.S. Life-Saving Service, predecessors of today's U.S. Coast Guard.

Wednesdays: Meet the real Taffy of Torpedo Junction. Hatteras Island native Carol Dillon entertains visitors with her stories of growing up during World War II.

Thursdays (my personal favorite): Watch local U.S. Coast Guardsmen reenact the historic breeches buoy rescue performed by the U.S. Life-Saving Service many years ago.

Fridays: Learn more about a local history mystery – what really happened to the “Lost Colony.” Chicamacomico is located at milepost 39.5 in the village of Rodanthe on Hatteras Island. For details and directions, visit their web site at www.chicamacomico.net.

* Don't forget to check out your local National Wildlife Refuge (NWR) for amazing public programs — a lot of the offerings are free of charge. Alligator River NWR is offering public programs all summer long, including red wolf howlings, canoe tours and free interpretive tours on their new tram. Pea Island NWR offers bird walks, turtle talks and canoe trips. A visit to www.fws.gov/alligatorriver/spec.html#schedule will give you a detailed schedule of programs for both Alligator River and Pea Island. And check out the story on the Red Wolf Recovery Program in the upcoming Summer 2010 issue of *Coastwatch* magazine.

* Your local National Park Service locations offer a variety of public programming during the summer months. Check out these Web sites to find out what's happening in a coastal area near you!

* Wright Brothers National Monument: www.nps.gov/wrbr/planyourvisit/events.htm

* Cape Hatteras National Seashore: www.nps.gov/capa/planyourvisit/events.htm

* Cape Lookout National Seashore: www.mps.gov/caloc/planyourvisit/ranger-programs.htm

New Edition of Nature Guide to the Carolina Coast

For those of you who have used the first edition of *Nature Guide to the Carolina Coast: Common Birds, Crabs, Shells, Fish, and other Entities of the Coastal Environment* by Peter Meyer since it was first published in 1991, get ready to purchase a new one! Meyer, a board-certified emergency physician in Wilmington, has just updated and expanded the reference with more species, more photos and more information.

From a recent press release: “*Nature Guide to the Carolina Coast* remains a practical, entertaining, reader-friendly guide to the common animals, plants, and environment of the

Carolina coast. The contents are scientifically accurate, yet written in language the interested public can understand.”

“Nature Guide is an excellent resource for coastal residents and visitors along the North Carolina/South Carolina coast. The book is entertaining and educational, a beachcomber’s handbook, valuable to any seaside explore.”

Every book ordered directly from the author is shipped free of charge — whether you order one, two, or more! FYI —Meyer told me that he will give an additional 10 percent discount to anyone who asks for an educator/teacher discount, so mention that you read about it in the Scotch Bonnet and save a buck or two!

Books are \$17.95 each; add applicable N.C. sales tax; make checks payable to Avian-Cetacean Press; and mail your order to Avian-Cetacean Press, PO Box 15643, Wilmington, NC 28408.

NC Science Festival

www.ncsciencefestival.org

The North Carolina Science Festival this fall has a special twist: Rather than a single location on a single day or weekend, events will take place around the state from Sept. 11 to 26.

"The Festival will highlight the educational, cultural and financial impact of science in our state. Through hands-on activities, science talks, lab tours, nature experiences, exhibits and performances, the Festival will engage a wide range of public audiences while inspiring the next generation of scientists," organizers explain.

Check back this summer at the website above to find an activity in your area. Or find some partners and add an activity of your own.

The N.C. festival will help you lead up to the U.S. Science and Engineering Festival in October that will include an event at the National Mall in Washington, D.C. That agenda is at:
<http://www.usasciencefestival.org>.

Curriculum/Activity Guides Still Available

COSEE SouthEast’s The Educator’s Guide to Marine Debris: Southeast and Gulf of Mexico is a regional introduction to three main categories of marine debris: litter; derelict or abandoned boats; and lost or abandoned commercial and recreational fishing gear. This publication is available for free download on the COSEE SouthEast Web site www.cosee-se.org/marinedebris.php and is also available in hard copy, while supplies last.

North Carolina Big Sweep's publication Undercurrents: A Big Sweep Middle School Teacher's Guide includes litter awareness lessons that are correlated with state learning objectives for 8th grade science and math, as well as for healthful living, language arts, and information skills. Undercurrents is available free to North Carolina educators while supplies last.

The Coastal Processes and Conflicts curriculum includes extensive background information for teachers, as well as student lessons that are relevant in any setting — not just the island environment. It is appropriate for middle and high school students. The curriculum can be downloaded for free from www.ecu.edu/educ/csmte/coastal_processes.cfm. Or you can order a hard copy (\$10 includes postage), which comes with a CD containing color copies of figures used in the student activities.

Each of these education resources is available from Terri Kirby Hathaway, NC Sea Grant, <mailto:terrikh@csi.northcarolina.edu>.

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 web site with others — and share my email address with anyone who wants to receive a message when each 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: 252/475-3663; 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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