

## N.C. Coastal Reserve & National Estuarine Research Reserve

# Tidal Flat

December 2013



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### In This Issue

[Permuda Island Reserve  
Natural History](#)

[What Will You Find at  
Buxton Woods?](#)

[N.C. Estuary Research at  
CERF 2013](#)

[Buckridge Reserve Manager  
Interview](#)

[Coastal Training Program  
Year in Review](#)

[Environmental Educator of  
the Year 2013](#)

[The Incredible Oyster](#)

[Environmental Educators in  
Training](#)

### 2013 Accomplishments

[Read](#) about all the ways the N.C. Coastal Reserve made an impact in 2013!

### Website Redesign

Check out the new design of [www.nccoastalreserve.net](http://www.nccoastalreserve.net) and [let us know](#) what you think!

### Introducing the 2014 Coastal Research Fellows

The Reserve had a very busy and productive 2013! Education and outreach programs highlighted the importance of estuarine ecosystems to thousands of North Carolina students and community members, and long-term research and monitoring at the Reserve sites provided valuable data to educators, researchers, and coastal decision-makers. Visitors experienced our coastal ecosystems through bird watching, wildlife viewing, kayaking, and other responsible recreational activities at Reserve sites from the Outer Banks to Wilmington. We encourage you to take a look at our [2013 Accomplishments List](#) and the breadth of articles in this edition of the Tidal Flat for more information on how the Reserve served North Carolinians this year. Thank you to the many volunteers and partners who help make our programs possible.

We hope that you are enjoying our new and improved newsletter and will share it with friends and colleagues. We work hard to compile informative stories that share the work we do and what we are learning along with stories that showcase our unique Reserve sites; please let us know if there is a topic you want to learn more about. If you would like to have your name added or removed from the newsletter list, please email your request to Communications Specialist [Kate Brogan](#).

Have a safe and healthy New Year, and we look forward to seeing you in 2014!

Sincerely,  
Rebecca Ellin  
Reserve Program Manager

## Tiny Island with a Rich History



The Permuda Island Reserve (often referred to in the past as "Permudas" or "Bermuda Island") has an impressive history that is often overlooked due to its small size and location tucked away on the sound side of North Topsail Beach. The island is 63 acres and 1.4 miles long, and is believed to have once been part of a thousand-year old system of barrier islands.

Archaeological evidence indicates that Permuda was occupied by natives during both the Middle Woodland (300 BC - 800 AD) and Late Woodland (800 - 1650 AD) periods of prehistory. Historic occupations predate the Revolutionary War and extended well into the 20th century. Farming operations were documented at Permuda in the early to mid 1900s, but it is likely that the practice dates back to the 18th and 19th centuries. One of the last crops to be grown at Permuda was the gladiola flower!

[Read more...](#)

Facebook Favorite: Volunteers stroll the beach on Masonboro Island Reserve.



Shannon Brown of North Carolina State University and Justin T. Ridge of University of North Carolina's Institute of Marine Sciences are the 2014 recipients of the North Carolina Sea Grant and North Carolina Coastal Reserve's Coastal Research Fellowship. Read more about their research projects and outreach goals [here](#).

### 2014 N.C. Coastal Reserve Photo Contest



Love to take nature photos? Then we want you to submit an entry to the [2014 N.C. Coastal Reserve Photo Contest!](#) The contest will be hosted on the N.C. Coastal Reserve Facebook page, and photos with the most "likes" will win a prize. Learn more about participating in the contest.

### Welcome to AmeriCorps Member Maggie Geck!

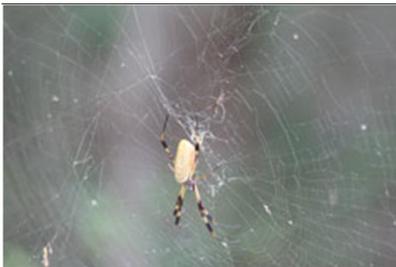


AmeriCorps member Maggie Geck will be supporting

## What Will You See at Buxton Woods?

Buxton Woods Reserve is located on Hatteras Island, part of North Carolina's Outer Banks. Here are some of the interesting plants and animals found in the sedge, maritime forest, shrub thicket, and dune ridge habitats of the Buxton Woods Reserve.

The Golden Orb Weaver spider (*Nephila clavipes*) is most often observed in late summer and early fall when large females are easily visible in their webs along trails and in the canopy of the forest. The female has a cylindrical body that can grow to up to 2" by the end of the season. The spiders are capable of capturing large bugs such as cicadas and moths in their substantial webs.



[Read more...](#)

## Estuarine Research from North Carolina Makes a Big Impact at CERF 2013

The Coastal & Estuarine Research Federation's (CERF) biennial conference, held this year in San Diego, provides an important forum to share research across multiple disciplines to advance understanding and wise stewardship of coastal and estuarine environments. At the 2013 conference, over a dozen presentations focused on research conducted at North Carolina Coastal Reserve & National Estuarine Research Reserve (NCNERR) sites. The NCNERR sites, which are protected for research and education, provide living laboratories for scientists to collect data and analyze long-term ecological trends. The Reserve sites' proximity to the marine laboratories of several North Carolina universities encourages collaborative estuarine research by faculty and students, and provides teaching and training opportunities for future generations of coastal scientists.



This selection of CERF 2013 presentations represents a range of research projects conducted at NCNERR sites and/or supported by NCNERR. The abstract for each presentation can be found in the CERF 2013 Abstract Book. Please contact the authors listed below with questions about individual presentations/projects.

Congratulations to all of the scientists who presented NCNERR-related research at CERF

2013!

[Read more...](#)

Facebook Favorite: UNC Institute of Marine Sciences graduate student and 2011 NERRS Graduate Research Fellow Michelle Brodeur changes out water quality instruments around the Rachel Carson Reserve.



protection of the natural resources at the Masonboro Island and Zeke's Island sites. Over the next year she will help to promote appropriate use of the sites by developing and conducting outreach programs for the general public. She will specifically be involved with presentations to community groups, displays at festivals, and outreach related to marine debris service projects. Maggie will also help enhance the Reserve's volunteer community by managing the Southern Sites office's volunteer program through recruiting, training, scheduling volunteers to support stewardship and outreach activities.

[AmeriCorps](#) is a program of the Corporation for National and Community Service, an entity created in 1993 to provide opportunities for Americans of all ages and backgrounds to serve their communities and country. The [Mountains to the Sea](#) AmeriCorps program is a statewide project coordinated by the N.C Department of Environment and Natural Resources that places 20 full-time service members in 10 resource management agencies across the State.

## Buckridge Revealed!



Buckridge Site Manager Woody Webster talks about some of the cool creatures found at Buckridge, what it takes to manage a remote protected area, and why hunting is an important part of conservation at the Reserve.

1. Tell us about the Buckridge Reserve. What makes this place unique, and what interesting habitats or species are found there?

I manage Buckridge, the largest of all the Reserves and the only inland site. The habitats found there are not found at any other site since Buckridge occupies an

area higher in the estuary. Large natural communities include peatland Atlantic white cedar forest, pond pine woodland, cypress-gum swamp and nonriverine swamp forest. In fact, Buckridge's Atlantic white cedar forest is likely the largest contiguous example of this globally rare community in the state. Rare animal species confirmed include red wolf, red-cockaded woodpecker, pigmy rattlesnake, timber rattlesnake, bald eagle, and American alligator. Additionally, large black bear are common. Something unique about Buckridge is its place on the landscape. It is situated between two national wildlife refuges (Pocosin Lakes and Alligator River National Wildlife Refuges) that are each larger than 100,000 acres, acting as a vital wildlife corridor.

[Read more...](#)

Facebook Favorite: A Marine Ecology class, led by Dr. Doug Nowacek, conducts an avian population assessment with the help of Rachel Carson Reserve Manager Paula Gillikin.

### More Information

[Contact Us](#)

[Event Calendar](#)

[Reserve News Archive](#)

 [N.C. Coastal Reserve](#)

 [Rachel Carson Reserve](#)

 [Masonboro Island Reserve](#)



## Wetlands, Water Quality Protection, and Working Together: The Coastal Training Program's Year in Review



The North Carolina National Estuarine Research Reserve's Coastal Training Program hosted seven workshops in 2013 aimed at highlighting relevant coastal issues and providing professionals with the knowledge and tools necessary to make informed decisions about North Carolina's coastal resources. Workshops were held at locations across the state and enrolled participants from a variety of professions including coastal managers, environmental educators,

land use planners, realtors, representatives from local, state, and federal government agencies, and developers. Coastal Training Program Coordinator Whitney Jenkins is currently planning the 2014 workshop schedule, please contact her at [whitney.jenkins@ncdenr.gov](mailto:whitney.jenkins@ncdenr.gov) with suggestions for training topics.

Learn more about the seven workshops offered in 2013, and what participants thought of their experience!

[Read more...](#)

## N.C. Coastal Reserve Education Coordinator Wins Environmental Educator of the Year



### By Michele Walker

Lori Davis, education coordinator for the N.C. Division of Coastal Management's National Estuarine Reserve and Coastal Reserve Program, has received the 2013 Environmental Educator of the Year Award from the Environmental Educators of North Carolina.

Davis was recognized for her work with students and teachers through educational and outreach activities that advance coastal environmental literacy and encourage students and the public to practice environmental stewardship. An awards

ceremony was held September 14, 2013 at EENC's Annual Conference at the North Carolina

Arboretum in Asheville.

[Read more...](#)

Facebook Favorite: Participants in the Masonboro Island Reserve's "End of Summer Kayak" program enjoy a paddle over to the Reserve.



## The Incredible Oyster



**Oysters are incredible.** The Southern Sites staff of the North Carolina Coastal Reserve and the University of North Carolina Wilmington (UNCW) Center for Marine Science celebrated this extraordinary bivalve on October 23 with an educational lecture and guided tour of the Shellfish Research Hatchery.

Emphasizing the importance of the eastern oyster to the N.C. Coastal Reserve, Education Specialist Marie Davis highlighted some of the oyster's ecological services, including their ability to filter nutrients, provide habitat for other estuarine species, act a key

link in coastal food chains, and establish a natural barrier against coastal erosion. While ecologically and economically important to North Carolina, the eastern oyster population is listed by the N. C. Division of Marine Fisheries as a species of concern due to the pressures of overharvesting, habitat loss, poor water quality, and disease. Improved regulation and restoration efforts have contributed to increasing oyster populations, but continued efforts will be essential to sustaining oyster populations in the future.

[Read more...](#)

## Environmental Educators in Training



As the connections between humans and the natural environment continue to capture public attention and interest, environmental education has become an important part of teacher training. On September 27, twenty-eight pre-service teachers from the University of North Carolina Greensboro participated in the Coastal Explorations program with the N.C. Coastal Reserve. The program included a field trip to the Rachel Carson Reserve in Beaufort, where the teachers studied examples of estuarine flora and fauna, and learned about the various habitats found at the Reserve. N.C.

Coastal Reserve Education Coordinator Lori Davis then led the group through a variety of K-12 lessons plans focusing on estuary literacy principles designed to build awareness of coastal ecosystems.

[Read more...](#)



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