



# Audubon NORTH CAROLINA

[SPRING 2013]



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**[FROM THE DIRECTOR]**

HEATHER STARCK

*Executive Director*  
Audubon North Carolina



North Carolina is a very special place. One of the things that makes North Carolina so special is its diversity of landscapes - from the mountains, to the rolling hills of the Piedmont, to the coast. Thanks to the generosity of Mr. Earl Slick and his family, North Carolinians are now able to enjoy a landscape that was once common but is now increasingly rare along the Outer Banks at the Donal C. O'Brien, Jr. Audubon Sanctuary and Center in Corolla. The family donated this sanctuary to Audubon to protect and share with the community. Experiencing this area is like going back in time. The landscapes that once dominated the Outer Banks still thrive here and you have views of Currituck Sound's marshes that are completely unobstructed by human presence.

The community around the sanctuary is working to find a balanced approach to protecting and managing this place that will become a sanctuary for everyone. We hope you will join us in protecting this special place. Mr. Slick trusted that Audubon could find the balance between protecting the sanctuary and sharing it with the community. We believe that by sharing this amazing place with the public, we can protect the sanctuary and restore the entire Currituck Sound in a way we could never do alone. We have been fortunate to have the support of some visionary people in taking the first steps to preparing the Audubon Center for its eventual public opening. Thank you William and Ellen Kealy, Maurice and Teresa Tosé, Karl and Mary Ellen von der Heyden, and Rick and Barbara Yates. Without your early and unwavering support, we would not be where we are today. We hope all of our supporters will join us in creating this jewel for all North Carolinians that will be a legacy for our children and their children.



**B**ecause Audubon is determined to protect birds every wing beat of the way, we have aligned our conservation work with the major routes that migratory birds travel in North and South America, called flyways. Every year millions of individual birds travel along the Atlantic Flyway, which runs along the eastern seaboard and includes North Carolina.

As part of its Flyway-centered Strategic Plan, Audubon is addressing the threat of climate change through an initiative called Shaping a Healthy Climate and Clean Energy Future. The impacts of climate change loom, from habitat loss to devastating breaks in the delicate links that connect birds, migration, and food sources. Audubon scientists analyzed 40 years of citizen-science Christmas Bird Count data and found that nearly 60% of the 305 bird species found in North America in winter have shifted their ranges northward by an average of 35 miles in response to rising temperatures. While some bird species will discover suitable habitat and food sources in their new location, others will find that the insects or plants they rely on for food are out of sync, or that the type of habitat they need is no longer available. Audubon is responding to this unprecedented and complex challenge with an equally unprecedented combination of strategies, from advancing policies to reduce carbon emissions and support well-sited green energy to leading adaptive land management practices that will mitigate the impacts of sea level rise and climate change.

An additional focus of the initiative within the Atlantic Flyway includes protecting marshes, one of the habitats most threatened by sea level rise. The mid-Atlantic region is projected to experience some of the highest rates of sea level rise in the country. Marshes are one of the many misunderstood wetland habitats. These wetlands are dominated by plants like reeds and grasses, rather than trees and shrubs. People historically viewed marshes as breeding grounds for mosquitoes and disease and often drained them and filled them in for other uses. We now know that coastal marshes are vitally important, as they provide nursery grounds for commercially valuable fish, filter nutrients and pollution, protect communities from rising waters and storms, and offer recreational opportunities. They are also havens for birds and other wildlife.

Through this initiative Audubon and its partners will plan and facilitate the creation of new marshes to replace marsh habitat and improve the condition of existing marshes in order to increase the population of target species. Audubon's ambitious goal is to impact 500,000 acres of marsh and improve outcomes for five priority bird species. North Carolina's Donal C. O'Brien, Jr. Audubon Sanctuary and Center at Pine Island is one of the vulnerable marsh landscapes targeted by this initiative.

## What is Audubon's vision for protecting marshes in North Carolina?

**P**ine Island is located on the northern Outer Banks, a strip of land embraced by the Atlantic Ocean to the east and Currituck Sound to the west. Audubon owns and manages this once private hunting retreat thanks to the farsighted generosity of former owners Earl and Jane Slick and an arrangement made more than 30 years ago between the Slick family and Donal O'Brien, Jr., then chair of National Audubon's board of directors. The Audubon sanctuary is part of the Currituck Marshes-Pine Island Important Bird Area, which is made up of an extensive system of marshes, creeks, channels, and open water. The sanctuary's various habitats include more than 2,600 acres of marshes and bottomland areas and about 370 acres of dry sandy areas and upland maritime forests. The sanctuary supports flocks of large waterfowl such as Tundra Swans that winter here and is also home to more elusive birds such as rails, bitterns, and sparrows.

Currituck Sound has changed dramatically in the past century through natural forces of tides, winds, and storms, and the impacts of massive development. The county loses 72 acres of marsh every year due to the combined effects of erosion and rising sea level. The water quality in marshes also affects their overall health. As we lose marshes and aquatic plants, sediment that used to become trapped and settle to the bottom of the marsh floats in the water, blocking light from penetrating the water and making it even harder for plants to grow. This cycle harms all the animals that rely on this aquatic vegetation for food and shelter.





**Clapper Rail**



**Seaside Sparrow**



**Saltmarsh Sparrow**

### **Birds and wildlife abound in the Sanctuary**

Located at the intersection of numerous bird migration tributaries, the Audubon property provides a green sanctuary for vast numbers of migrating songbirds and waterfowl that pass through the area in the spring and fall looking for a safe haven to rest and refuel. Each of the sanctuary's habitats – marsh, maritime forest, and uplands – supports its own special suite of birds: the shrub thickets and forests provide good habitats for songbirds, while the marshes support rails, bitterns, and wading birds. The sanctuary harbors 170 bird species, as well as 7 amphibian species, 17 reptile species, 19 mammal species, and more than 350 plant species. A few thousand ducks, geese, and swans winter in Currituck Sound, including Snow Geese, Tundra Swan, Green-winged Teal, Lesser Scaup, and Northern Pintail. Three of Audubon's priority salt marsh species are pictured here.

Audubon North Carolina is working with partners and the local community to make the Sanctuary a transformative place for the state and for the nation. We have developed a conservation plan that will not only improve the quality of habitat within the marsh complex we own, but will help protect and restore all of Currituck Sound's marshes. By rejuvenating our marshes and encouraging the growth of aquatic vegetation, we will maintain high water quality and implement a plan for the long-term sustainability of birds, other wildlife, and their habitats.





## The past and present converge at Pine Island

**B**irdlife plays a key role in the history of Pine Island and the entire Currituck Sound region. According to writer and historian Bland Simpson, the word Currituck is derived from the Native American word “Coratank,” which meant “where the wild geese fly.” Currituck Sound’s abundant waterfowl and appeal as a remote getaway attracted wealthy businessmen seeking hunting opportunities in the nineteenth century. “They bought up vast tracts on the Outer Banks and the marshy islands of the sound,” writes Thomas Schoenbaum in *Islands, Capes, and Sounds*. “Sumptuous clubhouses and lodges were built on these tracts,” including a rambling two-story hunting lodge built at Pine Island in 1913. Local residents worked in the hunt clubs as guides and caretakers.

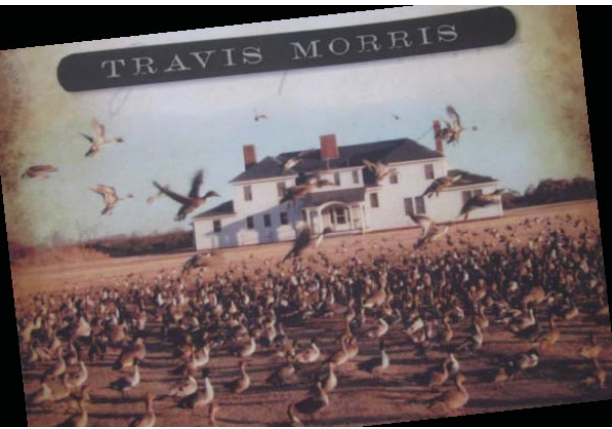
From 1888 to 1910, reckless hunting decimated the waterfowl in Currituck Sound when market hunters killed over 72,000 birds, including Swans, Snipes, Black Ducks, Mallards, Wigeons, Gadwall, and Canada Geese. Market hunting on the Outer Banks was outlawed in 1918 by an act that made the selling of migratory waterfowl illegal.

Although hunting diminished the huge concentrations of waterfowl, in the 1970s an estimated 300,000 ducks, geese and swans, 12% of the waterfowl in the Atlantic Flyway and 50% of North Carolina’s waterfowl, wintered in the marshes and waters of Currituck Sound. Many of the hunting lodges continued to operate, although on a smaller scale, including Pine Island.

In March of 1977, Donal O’Brien, Jr., Chairman of National Audubon’s Board of Directors, visited Pine Island as a guest of the owners, Earl Slick and his family. In a memo to the board that he wrote years later, O’Brien described waking at dawn and watching thousands of ducks and geese fly into the yard of the hunting lodge:

“There must have been 2,000 birds, mostly Pintails and Canada Geese, but there were others as well – Black Ducks, Mallards and Green-winged Teal. They were staging for the flight north to the breeding grounds. I was stunned by this spectacle. I know I had never seen so many waterfowl in one place at one time . . . and in those magical moments of that March sunrise, I knew that this was a property that had to be saved for the ages.”

O'Brien's vision for Pine Island became reality in 1979, when Mr. Slick generously donated nearly 3,000 acres of the area to National Audubon Society. Donal O'Brien was instrumental in arranging for the donation of this property. Under lease arrangements, the Slick family carefully managed the property until December 31, 2009, when Audubon North Carolina assumed full management of the sanctuary, now called the Donal C. O'Brien, Jr. Audubon Sanctuary and Center at Pine Island. In January 2012, National Audubon Society's Board of Directors approved plans to complete the architectural design for all renovations and construction needed to develop Pine Island as North Carolina's first Audubon center. The Pine Island Sanctuary has now joined the ranks of 47 Audubon Centers around the country, which include beloved birding destinations such as the fabled Corkscrew Swamp in Florida and Beidler Forest in South Carolina. These centers introduce visitors to the natural world – and inspire them to help protect it.



## Creating a sanctuary for people and wildlife

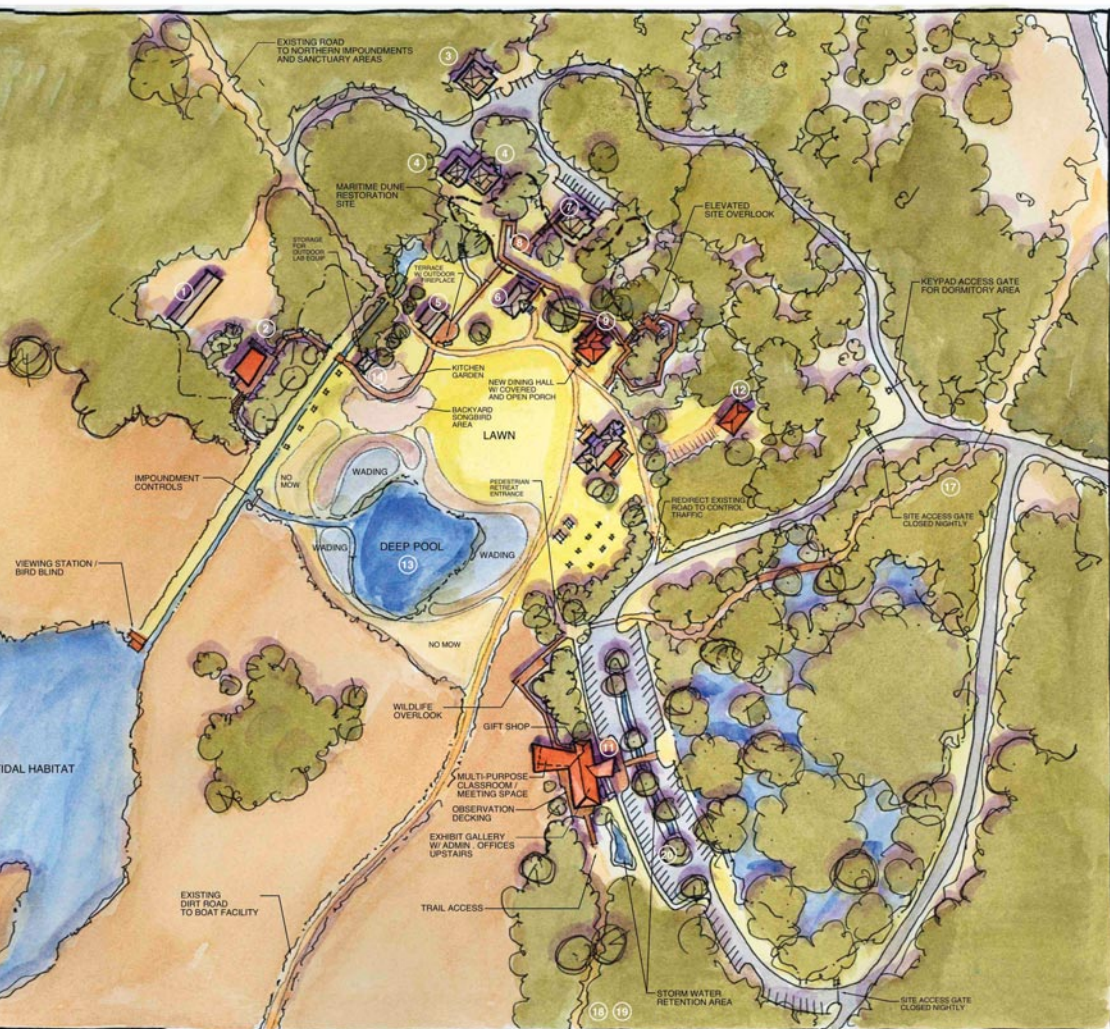
**A**fter more than 100 years in private ownership, the Pine Island Sanctuary will be opened to the community so that everyone can enjoy and explore this singular reminder of the Outer Banks of old. Audubon staff, community leaders, and partners are designing the next stage of life for the sanctuary that embraces the heritage of northeastern North Carolina, while preparing for the changes the rising sea level will bring to this low-lying region. Our overarching goal, supported by the local community, is to maintain the complex as a sanctuary for both wildlife and people and as a hub for research. Audubon North Carolina will offer immersive experiences, public programs, and on-site research opportunities throughout the year. The Audubon sanctuary will become an outdoor laboratory for long-term research on a variety of issues, including climate change, adaptation to sea level rise, marsh restoration and migration, and plants and animals of the Outer Banks. Audubon staff and partners have developed a conservation and usage plan for the sanctuary that will ensure that visitors make a minimal impact on Pine Island's habitats, birds, and wildlife. Program participants will actually work as citizen scientists to make the sanctuary and Currituck Sound a better place for people and wildlife.

Below are some of the highlights of how Audubon staff and partners are laying the groundwork for opening Pine Island to the public:

### Accomplishments

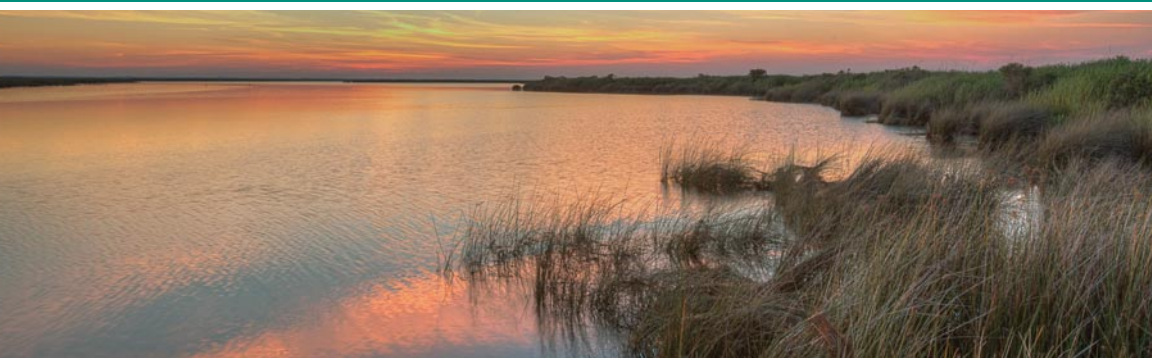
- Using Audubon's groundbreaking work at the Rainey Sanctuary in Louisiana as a model, Audubon North Carolina has created a conservation plan for the sanctuary that will build and restore the Currituck marshes in the face of sea level rise in order to ensure a thriving ecosystem well into the future. By building up marshes, creating conditions for aquatic vegetation to thrive, and partnering with the communities of the Currituck Sound, the Audubon Sanctuary at Pine Island will be a catalyst for change throughout the region. A healthy Currituck Sound is beneficial to everyone in the area.





- In order to model best management practices for marsh habitat, the sanctuary staff has restored targeted areas of the 2,600-acre sanctuary to enhance habitats for waterfowl and other wildlife. The staff raises and lowers water levels in four freshwater impoundments to just the right levels to attract migratory waterfowl like Green-winged Teal that winter in the area and migratory shorebirds that stop here during spring migration. Using the most current science, staff also burns the marsh periodically to increase plant production.
- To transform the property and the 100 year old hunting lodge into an Audubon Center and Sanctuary for both people and wildlife, Audubon North Carolina hired the Wilmington-based architectural firm, Bowman Murray Hemingway. Audubon will renovate the historic structures on the property and restore the hunting lodge to its original condition. We will expand on the property's historical integrity by developing spaces for new and engaging visitor experiences including improved nature trails, a visitor's center, classrooms, laboratory space, and new

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## A learning laboratory for all

**W**hen I first visited Pine Island I immediately knew that this is was a special, one-of-a-kind place. It is a beautiful natural area with untouched maritime forest and vast marshes and the hunting lodge is a splendid reminder of this area's rich cultural history. As well, the Pine Island Sanctuary is at ground zero in terms of researching how sea level rise will affect systems like this. Barrier islands are dynamic systems; they're constantly changing. Sea level rise will bring another dramatic force of change to these systems. There are very few places on the East Coast that have such great potential for investigating the effects of sea level rise on bird habitat, as well as how it's going to impact people. Pine Island just has so much to offer – not only is it a sanctuary for wildlife and people, it's a learning laboratory for us all.

– Mark Buckler, Director, Donal C. O'Brien, Jr. Audubon Sanctuary and Center at Pine Island

## What the Currituck Outer Banks used to be

**T**he development trend on the northern Outer Banks that continues today began in the late 1970s and early '80s when the historic hunt clubs that controlled most of the real estate sold large tracts of land that have been subdivided and converted to residential and commercial use. During the mid-1980s, the N.C. Department of Transportation facilitated this transition by extending N.C. 12 into Currituck County to the village of Corolla. Fortunately, the owner of the Pine Island Hunt Club, Mr. Earl Slick, had the foresight and conviction to protect and preserve the majority of the club's land on the sound side of N.C. 12 by donating it to the National Audubon Society. Audubon's vision is to preserve the largely undeveloped property as a waterfowl/wildlife sanctuary and to facilitate other uses for environmental education and research. When completed the public will have the opportunity and privilege to explore a wonderful example of what the Currituck Outer Banks used to be.

– Richard Yates, Member of Audubon North Carolina Board of Trustees and Vice President of the Corolla Light Community Association Board of Directors



## A tremendous asset

I visited Pine Island for the first time about a year and a half ago and I was just in awe of the place. It's hard to believe that there's still a place like this on the Outer Banks that's untouched and still has the nature and wildlife that were here 100 years ago. I just think it has marvelous potential. It's beautiful the way it is, but it's got great potential. When I first came to Corolla in 1994 there was a billboard on Highway 158 that had a picture of Corolla and the line: The best kept secret on the Outer Banks. And that's how I think of Pine Island – it's a tremendous asset but it's also a secret. I think once the word gets out about Pine Island it will attract the kind of people who want to get away from the hustle and bustle and go to a place that is a reminder of the Outer Banks of old.

– Don Cheek, General Manager, Corolla Light Resort

## Coming full circle

My family has been in Currituck County for eight generations – in fact, my family, the Baums, once owned all the land from the Sanderling Inn to the Corolla lighthouse. It was given to them in a Queen's land grant. They lived here at what is now Pine Island and their lives really revolved around the land and the Sound – in addition to farming, they hunted waterfowl and fished. But later they sold their property to several hunt clubs, including the Currituck Shooting Club. I grew up doing a lot of hunting and fishing and when I was about 14 I started carving duck decoys with my granddad and I'm still doing that today. Now that I'm helping manage the Pine Island Sanctuary for Audubon things have come full circle from the time when my ancestors used to own this property. I feel very fortunate to work here – I spend a lot of time doing things that not many people get to do, like burning the marsh, managing impoundments where birds feed, and clearing trails. Being outside in this part of the world is where I feel most comfortable. If I couldn't be outdoors this much I'd probably go crazy! And, I'm really looking forward to introducing folks to all the amazing sights that we see every day here at the Audubon Sanctuary.

– Chandler Sawyer, Habitat and Resource Manager, Donal C. O'Brien, Jr. Audubon Sanctuary and Center at Pine Island



## GETTING INVOLVED

### **Q ■ How can I help preserve a piece of North Carolina's history and help protect the marshes?**

Audubon staff and partners are working hard to transform the Pine Island Sanctuary from a once exclusive hunting retreat into a public nature center. This transformation takes thoughtful planning, as we must protect the area's fragile wildlife and historic integrity, while providing spaces for people to visit and explore in a safe way. Much of our work to date has taken place behind the scenes as we talk to community members and stakeholders, research the property, develop the conservation plan for the sanctuary that will help the larger conservation goals of Currituck County and the surrounding area, and develop a master site plan. As we move towards creating the features needed to invite the public in, we need your help!

The best way to help Audubon create this sanctuary is to financially support the project by making a contribution online at [www.ncaudubon.org](http://www.ncaudubon.org). In the future, we will also need volunteers to help maintain trails, remove invasive species, plant native plants, monitor water quality and many other tasks. If you or an organization you are involved in would like to participate in future Audubon activities at the site, please contact us at: [pineisland@audubon.org](mailto:pineisland@audubon.org).

# Q ■ How can I help birds and wildlife ■ at the Audubon Sanctuary?

Under the soft green canopy of live oaks, in the rustling grasses of Currituck Sound, and in freshwater pools teeming with birdlife, change is underway at the Pine Island Audubon Sanctuary. Tenacious birders wade and boat through marshes under the night sky, listening for the rattling calls of secretive marsh birds like the Black Rail. A family hikes on a nature trail through a maritime forest, stirring up migratory warblers. Chandler Sawyer, an eighth generation Currituck County native, watches migratory shorebirds feeding in impoundments he carefully manages to attract birds. And architects meet with Audubon staff and partners to plan how to transform this once private hunting club into an experiential nature center and wildlife sanctuary.

You can join the excitement by becoming a supporter of the Audubon Sanctuary and Center at Pine Island! If you make your gift before June 3, 2013, we will send you a special welcome packet and gift.

Help us move our vision forward for protecting the amazing diversity of wildlife found at the Audubon Sanctuary at Pine Island. The diverse habitats in this 2,600-acre complex are reminders of the Outer Banks of old and support 170 bird species, 7 amphibian species, 17 reptile species, 19 mammal species, and 350 species of plants. There are songbirds in the maritime forest, waterfowl in the fields and impoundments, and wading birds in the marshes. With your help, all of this beauty, and more, will be open for the enjoyment of all, for the first time. Please become a supporter today!

There are three ways to become a supporter of the Audubon Sanctuary at Pine Island:

- You can make a one-time online donation at <https://give.audubon.org/giving/Page/173/1/173>.
- Join the Cardinal Club at <http://nc.audubon.org/ways-to-help> and become a monthly donor.
- Mail a check in the enclosed envelope. Be sure to note that the gift is for Pine Island. We hope you will consider supporting this important project, even if you have never sent a gift before.



# Attention members of Audubon Society of Forsyth County

Chapter members will be able to vote on the revised Constitution and By-laws  
(see [www.forsythaudubon.org](http://www.forsythaudubon.org)) at the May 28, 2013 annual meeting.

## Creating a sanctuary for people and wildlife CONTINUED FROM PAGE 9

boardwalks. The improvements to the site will model a design for coastal communities that adapts to future sea level rise by lifting buildings, creating elevated walkways, and encouraging controlled movement of water throughout the site.

- In partnership with N.C. State University and the Northeast Coast Chapter of the N.C. Native

Plant Society, Audubon staff and volunteers have conducted plant surveys at Pine Island in order to develop a management plan to protect and enhance habitat for birds and other wildlife. These “Botany Blitzes” are creating a comprehensive inventory of all the plant species in the sanctuary while helping us build partnerships with organizations that will be involved in our work here for many years.



With a century of conservation history in North Carolina, Audubon strives to conserve and restore the habitats we share with all wildlife, focusing on the needs of birds. Audubon North Carolina achieves its mission through a blend of science-based research and conservation, education and outreach, and advocacy.

### Main Office

400 Silver Cedar Court, Suite 240  
Chapel Hill, NC 27514  
919.929.3899  
919.929.4599 Fax

### Coastal Office & Sanctuaries

7741 Market Street, Unit D  
Wilmington, NC 28411-9444  
910.686.7527  
910.686.7587 Fax

### Mountain Office

667 George Moretz Lane  
Boone, NC 28607  
828.265.0198

### Donal C. O'Brien, Jr. Audubon Sanctuary and Center at Pine Island

300 Audubon Drive  
Corolla, NC, 28607  
252.453.0603  
252.453.0603 fax

[www.ncaudubon.org](http://www.ncaudubon.org)  
[www.ncaudubonblog.org](http://www.ncaudubonblog.org)

## Audubon North Carolina Chapters

### Audubon Society of Forsyth County

[www.forsythaudubon.org](http://www.forsythaudubon.org)

### Cape Fear Audubon Society

[www.capefearaudubon.org](http://www.capefearaudubon.org)

### Elisha Mitchell Audubon Society

<http://emasnc.org/>

### Great Smoky Mountains Audubon Society

<http://gsmas.com>

### High Country Audubon Society

[www.highcountryaudubon.org](http://www.highcountryaudubon.org)

### Highlands Plateau Audubon Society

[www.highlandsaudubonsociety.org](http://www.highlandsaudubonsociety.org)

### Mecklenburg Audubon Society

[www.meckbirds.org](http://www.meckbirds.org)

### New Hope Audubon Society

[www.newhopeaudubon.org](http://www.newhopeaudubon.org)

### T. Gilbert Pearson Audubon Society

[www.tgpearsonaudubon.org](http://www.tgpearsonaudubon.org)

### Wake Audubon Society

[www.wakeaudubon.org](http://www.wakeaudubon.org)



## Audubon North Carolina Annual Meeting

Hosted by Wake Audubon Society

Raleigh, NC

May 31 – June 2, 2013



North Carolina and the Wake Audubon Society Chapter are pleased to invite all members, friends, and bird enthusiasts to the 2013 Audubon NC Annual Meeting being held from May 31 through June 2 in and around Raleigh. This year's meeting boasts a variety of activities that will appeal to all types of outdoor enthusiasts. We are offering birding trips to some of the Piedmont's most unique natural areas, including Howell Woods, Hemlock Bluffs, and Umstead State Park. Meeting participants can participate in hands-on activities like bird banding and monitoring Wood Duck nest boxes, visit the Audubon Gallery at the N.C. Museum of Art, and take special behind-the-scenes tours of the newly expanded N.C. Museum of Natural Sciences. A special symposium on Saturday – "Protecting Grassland Birds by Protecting their Habitats" - will feature a panel discussion on the grasslands of the southeastern United States: their natural history, diversity, and management for birds.

Please join us for this very special meeting in the heart of the Piedmont!

**To see the full meeting agenda, including field trip information and hotel information, and to download a registration form, please visit [www.ncaudubon.org](http://www.ncaudubon.org). Remember to register no later than May 10.**

Find us online today!

[www.ncaudubon.org](http://www.ncaudubon.org)

[www.ncaudubonblog.org](http://www.ncaudubonblog.org)

[www.facebook.com/audubonnc](https://www.facebook.com/audubonnc)

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### PHOTO CREDITS

Cover – Northern Pintail by Mark Buckler

p. 4 – Aerial photo of Pine Island Sanctuary by Audubon NC staff

p. 5 – Clapper Rail and Seaside Sparrow by Todd Arcos,

Saltmarsh Sparrow by Neil Pearson, and Pine Island marsh by Mark Buckler

p. 7 – Canada Geese and Pine Island lodge by Mark Buckler

pp. 8-9 – Architectural rendering by Bowman Murray Hemingway

p. 10 – Pine Island marsh by Mark Buckler

p. 11 – Chandler Sawyer by Mark Buckler, Pine Island painting by Kimberly Wheaton and Great Horned Owl by Mark Buckler

p. 12 – Botany Blitz volunteers by Mark Buckler

p. 13 – Prescribed burn by Mark Buckler

p. 15 – Northern Parula and Common Yellowthroat by Will Stuart

p. 16 – Saltmarsh Sparrow by Mark Buckler



# Audubon NORTH CAROLINA

A STATE OFFICE OF THE NATIONAL AUDUBON SOCIETY

**400 Silver Cedar Court, Suite 240**

**Chapel Hill, NC 27514-1585**

**919.929.3899**

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