

Volunteer Handbook

North Carolina Coastal Reserve and
National Estuarine Research Reserve

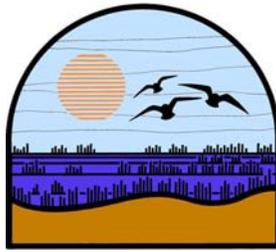
April 2008



Volunteer Handbook

Table of Contents

Welcome Letter	page 1
What is an Estuary?	page 2
Background and History of the Reserve	page 2
Vision and Mission Statements	page 4
Reserve Programs	page 5
Reserve Offices and Staffing.....	page 7
Reserve Partners	page 9
Site Specific Information	page 10
Map of the Reserve locations.....	page 16
Volunteer Policies and Schedules.....	page 17
Volunteer Expectations	page 21
Volunteer Benefits	page 22
Volunteer Job Descriptions	page 23
Volunteer Liability Form.....	page 27



Beaufort Headquarters
101 Pivers Island Rd.
Beaufort, NC 28516
Phone 252-838-0880
Fax 252-838-0890

Kitty Hawk Office
983 W. Kitty Hawk Rd.
Kitty Hawk, NC 27949
Phone 252-261-8891
Fax 252-261-8892

Buckridge Office
1107 Highway 64 East
Columbia, NC 27925
Phone 252-796-3709
Fax 252-796-3710

Wilmington Office
5600 Marvin Moss Lane
Wilmington, NC 28409
Phone 910-962-2998
Fax 910-962-2410

Dear Coastal Reserve Volunteer,

Welcome! We are pleased that you have chosen to commit your time and talent to the North Carolina Coastal Reserve and the North Carolina National Estuarine Research Reserve.

Your contribution makes an enormous difference in helping the Reserve staff complete their work. In this effort, you join more than a hundred volunteers who donate their time and energy to fulfill the Reserve's mission: *"to promote informed management and stewardship of North Carolina's estuarine and coastal habitats through research, education, and example."*

The Reserve has a diverse group of volunteers, each an asset to the program, who fulfill a variety of important duties. From office assistants who help prepare for events and mailings to monitors who assist stewardship staff with protecting the land to research assistants who accompany research staff on monthly data collection trips, each volunteer brings his or her own unique skills to the task, making the Reserve programs stronger and more effective.

Thank you again for your contribution. We look forward to working with you in the future.

Sincerely,

Rebecca Ellin
Reserve Manager

North Carolina Coastal Reserve and National Estuarine Research Reserve

Background and History

I. What is an estuary?

An estuary is a partially enclosed body of water formed where freshwater from rivers and streams flows into the ocean, mixing with the salty sea water. Estuaries and the lands surrounding them are places of transition from land to sea, and from fresh to salt water. Among the most productive environments on earth, the tidal, sheltered waters of estuaries support unique communities of plants and animals, specially adapted for life at the margin of the sea.

North Carolina's estuarine system is the third largest in the country, encompassing more than two million acres. This system is of prime economic importance to the coastal area -- 95 percent of the commercial seafood species caught in the state spends at least part of their lives in an estuary. Estuaries are critical for the survival of many species, providing habitats for tens of thousands of birds, mammals, fish, and other wildlife to live, feed, and reproduce. Estuaries provide ideal spots for migratory birds to rest and refuel during their journeys, and many species of fish and shellfish rely on the sheltered waters of estuaries as protected places to spawn, giving them the nickname "nurseries of the sea."

Besides serving as important habitat for wildlife, estuaries perform many valuable services, including water drainage and filtration, flood water and storm surge dissipation. Estuarine vegetation also serves to prevent erosion and stabilize the shoreline. The cultural benefits of estuaries include recreation, scientific knowledge, education, and aesthetic values. Historically, estuaries have often been cultural centers of coastal communities, serving as the focal points for local commerce, recreation, celebrations, customs, and traditions. Finally, estuaries provide direct economic benefits through tourism, fisheries, and other commercial activities that thrive on the wealth of natural resources found in these systems.

II. North Carolina Coastal Reserve and National Estuarine Research Reserve

The North Carolina Coastal Reserve and National Estuarine Research Reserve protect more than 41,000 acres of barrier island beach, salt marsh, intertidal flat, and maritime forest along the coast of North Carolina. This acreage is divided among ten sites that span the length of the coastline, representing the diversity of NC's unique coastal habitats. The Coastal Reserve is a program of the Division of Coastal Management, a part of the North Carolina Department of Environment and Natural Resources. Other agencies within the Department include the North Carolina Zoo, Aquariums, State Parks, Marine Fisheries, the North Carolina Museum of Natural Sciences, and many others.

National Estuarine Research Reserve System and the NC National Estuarine Research Reserve

Four of these sites (Currituck Banks, Rachel Carson, Masonboro Island, and Zeke's Island) comprise the North Carolina National Estuarine Research Reserve.

In NC, the Coastal Reserve/NERR is a partnership between the National Oceanic and Atmospheric Administration (NOAA) and the North Carolina Department of Environment and Natural Resources (DENR)/Division of Coastal Management (DCM). The lands and waters protected under the program are managed for use as natural outdoor laboratories, to be available in perpetuity for education, research, and compatible traditional uses. Management and research at the reserves is intended to promote better understanding and management of estuaries and to inform coastal management policy on a broader scale within the state.

Under the Coastal Zone Management Act of 1972, the National Estuarine Research Reserve System (NERRS) was created. This nationwide network of 27 protected areas, encompassing over one million acres, represents different biogeographic regions of the United States that are protected for long-term research, water-quality monitoring, education and coastal stewardship and is a partnership program between the NOAA and the coastal states. NOAA provides funding, national guidance and technical assistance, while a lead state agency or university manages each reserve on a daily basis with input from local partners.

In 1985, three North Carolina sites were designated as the North Carolina National Estuarine Research Reserve, with a fourth site added in 1991.

North Carolina Coastal Reserve

To further meet the goals for protection of coastal ecosystems at the State level, the North Carolina Coastal Reserve was formally established in 1989. This expansion of the existing Reserve system eventually added six more sites, extending its programs to encompass the existing NCNERR sites and these other important coastal natural areas. The reserves have been purchased and are managed using a combination of federal, state, and private funds.

The Coastal Reserve includes the four NERR components plus six State sites: Kitty Hawk Woods (Dare County), Buxton Woods (Dare County), Buckridge (Tyrrell and Hyde Counties) Permuda Island (Onslow County), Bald Head Woods (Brunswick County), and Bird Island (Brunswick County).

III. Reserve Vision, Mission, Goals and Guiding Principles

Vision: Healthy estuaries and coastal watersheds where ecological communities thrive and the human community benefits in North Carolina.

Mission:

To promote informed management and stewardship of North Carolina's estuarine and coastal habitats through research, education, and example.

Goals:

- Humans understand the natural systems, their connections to them, and the benefits derived from them.
- Applicable research informs coastal policy.
- Reserve habitats and land use of associated watersheds are characterized and connections understood.
- Habitat is protected and the public has directed access to Reserve components.
- Reserve operations, infrastructure, and stature are improved.

Guiding Principles:

- Strong partnerships between the Reserve, federal and state agencies, universities, other local partners, and the Carolina Estuarine Reserve Foundation are critical to the success of the Reserve.
- The Reserve integrates science, education, and stewardship on relevant topics to maximize the benefits to coastal management.
- The Reserve engages local communities and citizens to improve stewardship of coastal areas.
- Reserve programs capitalize on the physical setting of the Reserve to inspire questions, learning, and conscious decision-making.
- The management and programs of the Reserve demonstrate good environmental practices.

IV. Reserve Programs

The Reserve staff consists of personnel in education, research, stewardship, and administration. Currently, twelve fulltime staff are employed through the Reserve's programs.

Reserve activities fall under four primary sectors: research, education, stewardship, and administration. Although each of these sectors conducts work specific to its sector goals, many of the Reserve programs require coordination and integration of two or more sectors. Reserve staff also work closely with local communities and regional groups to address natural resource management issues, such as non-point source pollution, habitat restoration and invasive species. Through integrated research, stewardship and education programs, the Reserve helps communities develop strategies to deal successfully with these coastal resource issues.

Research staff at the Reserves collect long-term water quality monitoring data that contributes to a nationally available data set as part of the System Wide Monitoring Program. They also interact with and provide opportunities for both scientists and graduate students to conduct research in a "living laboratory." The Research sector initiates various other research efforts using Reserve components, as well as soliciting and supporting the work of independent researchers. Current research on the reserves includes a study of atmospheric deposition of nitrogen, monitoring of vegetation recovery after wildfire, visitor use and impacts analysis, monitoring of seaturtle reproductive success, and a diamondback terrapin demographic survey.

The Reserve's education program offers a variety of educational programs for K-12 school groups, the general public, special interest groups, teachers, and coastal decision makers. Components of the education program include student curricula, field trips, adult lectures, teacher workshops, volunteer programs, and a wide variety of printed media. All education, training, and outreach activities are designed to enhance public awareness of the importance of estuarine systems and provide opportunities for public education and interpretation. A critical aspect of these efforts is the linkage of education to science and stewardship. The overall goal is to translate scientific information into language that can be understood and applied by the public.

The Coastal Training Program conducts workshops, seminars, distance learning, and demonstrations for coastal decision-makers, who include state and local elected officials, local appointed board members, land use planners, regulatory personnel, and coastal managers. The goal of the program is to provide these decision-makers with relevant science-based information, training, and access to emerging technology to enable them to make informed decisions regarding coastal resources. Programs are routinely offered on stormwater management, grant writing, septic system maintenance, and low impact development.

The Stewardship program seeks to protect or restore the natural integrity of each site and ensure a stable environment for coastal research and education. To reach this goal, stewardship staff collaborate with other Reserve staff, as well as various outside

organizations and agencies, to complete stewardship activities including land acquisition, habitat mapping, ecological restoration, resource inventories, biological monitoring, watershed management projects, endangered species protection, prescribed fire management, recreation management, regional planning, policy development and more. The stewardship program also takes into account a site specific list of allowed traditional uses. Based on the historic community interactions, from hunting at Buxton and Buckridge, to camping at Masonboro, to horseback riding at Kitty Hawk, to the “Kindred Spirit” mailbox at Bird Island, these traditional uses will continue as long as they do not interfere with the intended research and education purposes.

Reserve Offices and Staffing

The staff and programs of the NCCR/NCNERR are located in four offices across the state. They are located in Wilmington at the UNCW Center for Marine Science, at the NOAA facility on Pivers Island in Beaufort, at the Buckridge Reserve in Columbia and in Kitty Hawk.

Beaufort Headquarters

101 Pivers Island Road
Beaufort, NC 28516
(fax) 252-838-0890

Rebecca Ellin
Reserve Manager
Rebecca.Ellin@ncmail.net
phone: 252-838-0880
work cell: 252-241-0110

Lori Davis
Education Specialist
Lori.C.Davis@ncmail.net
phone: 252-838-0883

Paula Gillikin
RC Site Manager
Paula.Gillikin@ncmail.net
phone: 252-838-0886

Whitney Jenkins
Coastal Training Program Coordinator
Whitney.Jenkins@ncmail.net
phone: 252-838-0882

Jill Fegley
Education Coordinator
Jill.Fegley@ncmail.net
phone: 252-838-0885

John Fear
Research Coordinator
John.Fear@ncmail.net
phone: 252-838-0884

Kitty Hawk Office

983 W. Kitty Hawk Road
Kitty Hawk, NC 27949
phone: 252-261-8891
work cell: 252-475-7219
fax: 252-261-8892

Vacant
Northern Sites Manager

Buckridge Reserve Office

P.O. Box 8 or 1107
Highway 64 East
Columbia, NC 27925
phone: 252-796-3709
work cell: 252-394-5345

fax: 252-796-3710
Woody Webster
Buckridge Site Manager
Woody.Webster@ncmail.net

Wilmington Office

5600 Marvin Moss Lane
Wilmington, NC 28409

fax: 910-962-2410

Hope Sutton
Southern Sites Manager
/Stewardship Coordinator
phone: 910-962-2998
suttonh@uncw.edu

Byron Toothman
Research Associate
phone: 910-962-2334
toothmanb@uncw.edu

Jacquie Ott
GIS Specialist
phone: 910-962-2324
ottj@uncw.edu

Heather Wells
Research Biologist
phone: 910-962-2335
wells@uncw.edu

Reserve Partners

The Reserve works closely with a wide variety of academic, government, and independent agencies and organizations. A partial list includes:

University of North Carolina Wilmington
University of North Carolina Chapel Hill
North Carolina State University
Duke University
Elizabeth City University
NC Coastal Studies Institute
East Carolina University
NC State Parks
NC Aquariums
NC Wildlife Resources Commission
NC Division of Marine Fisheries
NC Natural Heritage Program
US Fish and Wildlife
National Park Service
National Marine Fisheries
The Nature Conservancy North Carolina Chapter
North Carolina Coastal Federation
North Carolina Coastal Land Trust
Audubon North Carolina
Carolina Estuarine Reserve Foundation

The Carolina Estuarine Reserve Foundation, a private non-profit organization, was established to support the Reserves in a private-public partnership. CERF is a membership organization that works to support the work of the North Carolina Coastal Reserves and North Carolina National Estuarine Research Reserves, assisting with its mission to protect coastal environments for educational and scientific purposes. The Foundation works to sustain and increase funding for the Reserve programs. More information about CERF is available at www.cerf.us.

North Carolina Coastal Reserve and National Estuarine Research Reserve

Site Specific Information

Totaling over 40,000 acres, the Reserves that make up the NCCR/NERR reach from the Virginia border to the South Carolina border and represent some of the most ecologically intact coastal habitats. A map depicting the location of the ten reserve sites follows the descriptions.

Currituck Banks (NERR)

The Currituck Banks site is an excellent example of an undisturbed barrier island in a low-salinity estuarine system. The site lies in the northeaster corner of North Carolina, 10 miles south of the Virginia border and three-quarters of a mile north of the village of Corolla. Bounded by Currituck Sound and the Atlantic Ocean, the site encompasses 954 acres. The Nature Conservancy and the U. S. Fish and Wildlife Service own neighboring tracts.

Throughout recent geologic time, Currituck Banks has been a dynamic barrier landform, moving or “migrating” in response to sea level changes. While the Banks was once a series of islands, it is currently part of a complex barrier spit that extends about 70 miles from Virginia Beach to Oregon Inlet. Behind this barrier spit, extensive marshes have built up from inlet deltas and overwash fans that were submerged by rising sea level.

The mixing of warm Gulf Stream currents and cooler northern currents off Currituck Banks creates a climate where northern species reach the southern limit of their ranges and southern species reach the northern limit of their ranges. As a result, a diversity of species from both regions is found here. The habitats are ocean beach, sand dunes, grasslands, shrub thicket, maritime forest, brackish and freshwater marshes, tidal flats and subtidal soft bottoms.

Many commercial and game fish use the waters around Currituck Banks, including largemouth bass, yellow perch, tidewater silverside, pumpkinseed sunfish, blue-spotted sunfish, bluegill, black crappie and channel catfish. Other commercially significant fishes are white perch, carp, shad, herring and eel. Birds found in the area that are of special concern are the osprey, Wilson’s plover, black skimmer and least tern. Currituck Sound is located within the Atlantic Flyway and the site is especially important for migrating waterfowl.

Rachel Carson (NERR)

Across Taylor’s Creek from the Beaufort waterfront is a complex of islands that compose the Rachel Carson site. The islands at the western end of the site – Carrot

Island, Town Marsh, Bird Shoal, and Horse Island – are more than three miles long and less than a mile wide, covering 2,025 acres. Middle Marsh, separated from the rest of the site by the North River Channel, is almost two miles long and less than a mile wide, covering nearly 650 acres.

The Rachel Carson site is in the midst of one of the state's fastest growing areas. The area is also a center of marine research and education. The marine laboratories of Duke University, University of North Carolina, and North Carolina State University are located here, as is a regional office of the National Oceanic and Atmospheric Administration, National Marine Fisheries Services and the North Carolina Division of Marine Fisheries.

The islands and estuarine waters at the Rachel Carson site are strongly influenced by river and inlet dynamics and the twice-daily tides. The range of tidal changes at Middle Marsh, the low-salinity variation of the western section, and topography of the entire site have created a diverse and productive estuarine system. Habitats found within the site are tidal flats, flooded salt marshes, ocean beach, subtidal soft bottoms, hard surfaces, dredge spoil areas, sand dunes, shrub thicket and maritime forest. More than 200 species of birds have been observed at the site, which is located within the Atlantic Flyway. Twenty-three species are considered rare or decreasing in number. The site is an important feeding area for Wilson's plovers in the summer and piping plovers in the winter. The shrub thicket of Middle Marsh supports an egret and heron rookery. In addition to feral horses, the river otter, gray fox, raccoon and marsh rabbit inhabit the islands. The American bottlenose dolphin swims in the deep waters around the islands, along with numerous species of fish. The over forty invertebrate species common to the site include mollusks and worms.

Masonboro Island (NERR)

The largest undisturbed barrier island along the southern part of the North Carolina coast is Masonboro Island, located approximately five miles southeast of Wilmington. The Masonboro site is bounded by the Atlantic Ocean to the east, the Atlantic Intracoastal Waterway to the west, Masonboro Inlet to the north and Carolina Beach Inlet to the south.

The 8.4 mile long island encompasses approximately 5,046 acres, 87 percent of which are covered with marsh and tidal flats. The remaining 619 acres are composed of beach uplands and dredge material islands. The island is located in the most populous part of the North Carolina coastal area.

Masonboro Island is an essentially pristine barrier island and estuarine system. The various salinity patterns found in the extensive subtidal and intertidal areas along the sound side of the island support a myriad of estuarine species. The habitats found within the reserve site include subtidal soft bottoms, tidal flats, hard surfaces, salt marshes, shrub thicket, maritime forest, dredge spoil areas, grasslands, ocean beach

and sand dunes. Loggerhead and green sea turtles nest on the beaches, where seabeach amaranth plants grow on the foredunes. All of these species are listed as threatened by the Federal Government. Of concern are the black skimmers, Wilson's plovers and least terns that nest on the island. Sound sediments are home to two state watch list species: Hartman's Echiurid and a polychaete worm in the genus *Notomastus*. The nutrient rich waters of Masonboro Sound are an important nursery area for spot, mullet, summer flounder, pompano, menhaden, and bluefish.

Zeke's Island (NERR)

Zeke's Island is 22 miles south of Wilmington, bounded by Federal Point to the north, Smith Island to the south, the Atlantic Ocean to the east, and the Cape Fear River to the west.

The lagoon-like complex at the Zeke's Island site is one of the most unusual areas of the North Carolina coast. Along with the beach barrier spit of 64 acres, there are 3 main islands within the site: Zeke's Island covering 42 acres of high ground, North Island encompassing 138 upland acres, and No Name Island covering about three acres. The islands are fringed with extensive marshes and tidal flats.

While shoals and marshes have continued to appear and disappear in the Basin, the main islands of the site have remained stable relative to the barrier spit, even though their shorelines periodically increase and erode. Zeke's and No Name Island have elevations of only a few feet; North Island has several scattered dune systems, one of which reaches to twenty feet above sea level. The unusual topography of the site has created a variety of habitats, including tidal flats, salt marshes, shrub thicket, maritime forest, sand dunes, ocean beach and the hard surface of the rocks. Beach amaranth has been found on the site's foredune areas. Fish, shrimp, crabs, clams and oysters use the estuary as a nursery ground. Both the Atlantic loggerhead and green sea turtles, federally protected threatened species, occasionally nest on the site's open beaches. The expanse of intertidal flats in the Zeke's Island vicinity is the single most important shorebird habitat in southeastern North Carolina. Dunlin, black-bellied plovers, short-billed dowitchers, white ibis, great blue herons as well as black ducks, mallards and pintails have been recorded there.

Kitty Hawk Woods

The Kitty Hawk Woods site is located on the Outer Banks, in the center of the village of Kitty Hawk. Kitty Hawk Woods encompasses a total of 1877 acres of maritime deciduous swamp, forest and marsh. The town of Kitty Hawk owns an additional 462 acres which is protected through a conservation easement to the state.

Several inlets created by storms once cut across the Currituck Banks, allowing tidal exchange of salty ocean and fresh sound waters. In 1928 the last of these inlets closed

and the salinity in Currituck Sound became fresh brackish water. The resulting estuaries now serve as primary nursery areas for numerous fish species. The eastern edge of the forest is located a quarter-mile from the ocean, where a dune system runs parallel to the coast, protecting the area from wind shear and salt spray. The forest itself is located on a series of low ridges and swales.

A great diversity of wildlife is found at Kitty Hawk Woods. Upland areas support gray fox, raccoon and white-tailed deer. The marsh areas support nutria, muskrat, river otter, and a high density of reptiles and amphibians. The woods are home to warblers, woodpeckers, hawks, wrens and other songbirds. Wood ducks inhabit the deeper swales and herons, egrets, geese, ducks, swans and rails may be found in the marsh. The rare plants found on the reserve are southern twayblade and wooly beach heather. The hop hornbeam, a rare small tree on the Outer Banks, is only found in Kitty Hawk and Nags Head Woods.

Buxton Woods

The 968-acre Buxton Woods component is located on Hatteras Island; one of the barrier islands that form the Outer Banks. The site is bounded on the south by the Cape Hatteras National Seashore and on the north by N. C. 12.

The site is housed within the largest tract of maritime forest left standing on the Carolina coast; this area of pine and oak-covered dune ridges is interspersed with maritime swamp forest and unique marshy wetlands.

The seaward edge of the forest is a shrub thicket community dominated by live oak and red cedar. Further inland, the forest consists of a series of dune ridges that are stabilized by a maritime evergreen forest. Between the ridges, broad depressions support seasonally to permanently flooded freshwater marshes, called "sedges". Cattails, sawgrass, wild rice and spike rushes are common plants in these ponds. Non-woody plants that are able to tolerate the saturated soils include royal fern, cinnamon fern, lizard's tail and water dock. Sea ox-eye and salt meadow cordgrass grow in the areas furthest from the salt water.

Buxton Woods serves as an important resting place for migratory birds in the fall. More than 360 species, including bald eagles and peregrine falcons, have been recorded. Common mammals are gray fox, mink, river otter and white-tailed deer. Reptiles and amphibians include eastern box turtles, green anoles, and southern dusky salamanders. Two rare butterflies (northern hairstreak and giant swallowtail) and a moth (messalina underwind) are also found in the area.

Buckridge

At more than 26,000 acres, The Emily Richardson Preyer Buckridge component is both the largest single property in the Coastal Reserve and its first inland site. Located approximately 15 miles south of Columbia in Tyrrell County, the site is situated between the Alligator River National Wildlife Refuge and Pocosin Lakes National Wildlife Refuge.

The Reserve site is part of the East Dismal Swamp, a wetlands complex that encompasses more than 320,000 acres in Dare, Tyrrell and Washington counties. The majority of the site contains non-riverine swamp forest with patches of peatland, Atlantic white cedar forests and pond pine woodlands.

The canopy of the site is dominated by swamp black gum and red maple. Scattered remnant bald cypress and Atlantic white cedar stands occur in deep organic soils, while sweet gum grows in the rare mineral soils. While most of the Atlantic white cedar has been cut in recent years, there is a large area present that may be the most extensive contiguous example in the state. Black needle rush is found along the river. This site also maintains habitat for special concern, rare, threatened and endangered species. They include the red wolf, bald eagle, red-cockaded woodpecker, Atlantic and shortnose sturgeons and American alligator. High priority neotropical migrants that are dependent on southeastern-forested wetlands of the coastal plain are the black-throated green warbler, Swainson's warbler and prothonotary warbler.

Permuda Island

Permuda Island is a small narrow island situated in Stump Sound in the extreme southwestern portion of Onslow County. It contains about 50 acres of upland and is approximately one and one-half miles in length.

Permuda Island is situated on the sound side of Topsail Island. Surrounded by the estuarine waters of Stump Sound, the component is protected from high-energy ocean wave dynamics.

Above the spring tide limit of the supratidal salt marsh, the shrub thicket community consists of sporadic clumps of stunted trees and shrubs such as live oak, red cedar, yaupon and silverling. The central portion of the island contains former agriculture fields. Within these old fields are communities of broomsedge, dog fennel, asters, goldenrods, and Mexican tea. Fishes, shrimp, crabs, clams and oysters utilize the Stump Sound estuary as a nursery ground. Shorebirds frequent local marshes and mudflats. Willetts, American oystercatchers, egrets, herons, black skimmers, and sandpipers are common. Upland portions of the island are home to sparrows, warblers and other songbirds. Mammals found within the site include opossums, raccoons, marsh rabbits, and cotton rats. River otters are occasionally found in marsh and sound areas.

Prehistoric Native Americans exploited marine resources, such as oysters, clams, scallops, crabs and whelks, from the waters of Stump Sound surrounding Permuda Island and left thick deposits of shell refuse. Archaeological evidence indicates the earliest occupation occurred as early as 300 B C. The earliest identifiable owner may have been John Baptista Ashe. Permuda Island was probably part of a large and poorly defined patent granted to him in 1726.

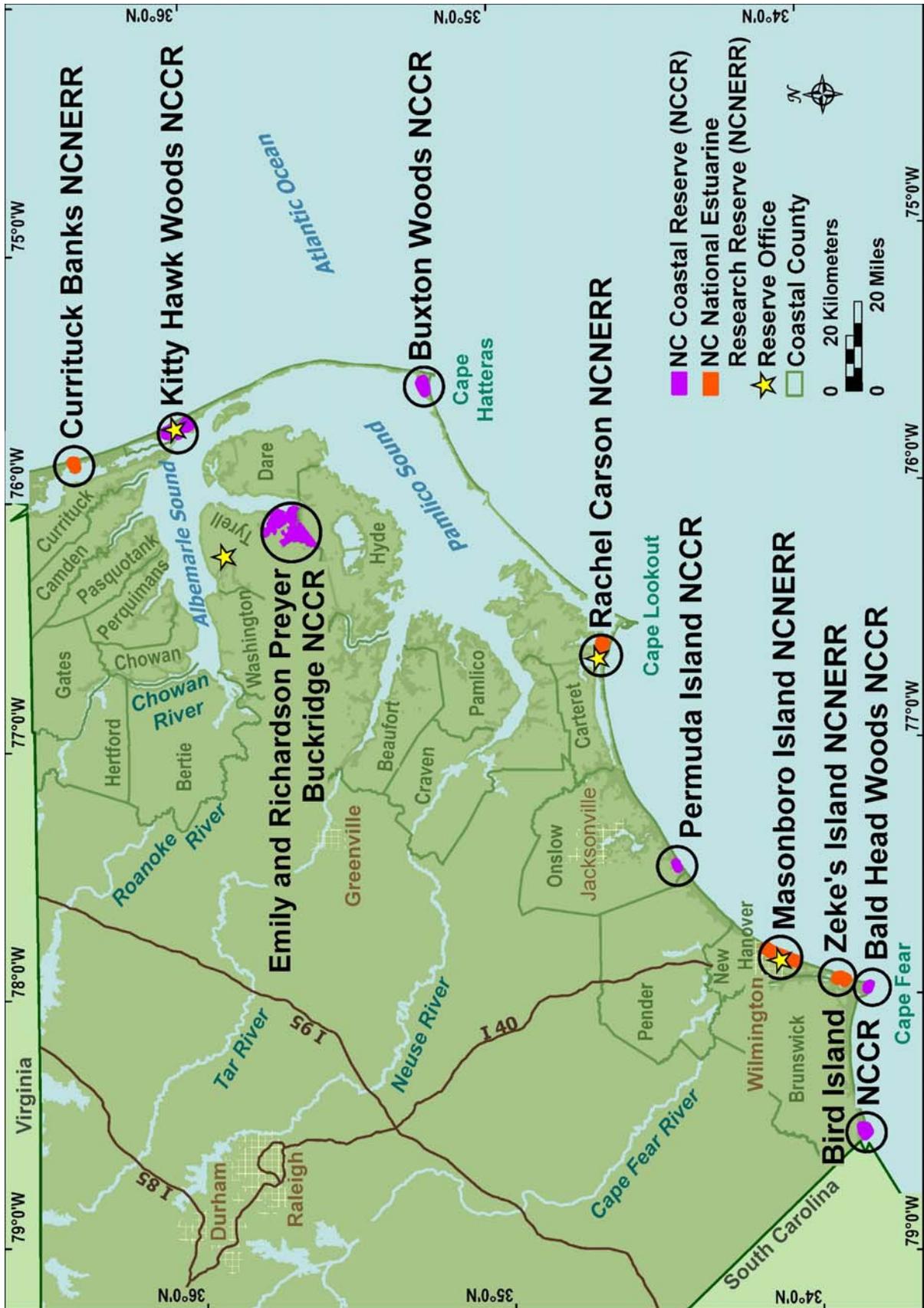
Bald Head Woods

The 173-acre Bald Head Woods site is part of the Smith Island barrier island complex, located at the southernmost point of the state. Smith Island lies just east of the Cape Fear River, and is bounded on the south and east by the Atlantic Ocean, and on the north by the Zeke's Island site. The "highlands" of this barrier island complex consist of Bald Head, Middle and Bluff Islands. These are actually three forested dune ridges, separated by salt marshes. The Bald Head Woods component of the North Carolina Coastal Reserve is located in the central portion of Bald Head Island and is among the best remaining examples of mature maritime forest in the state.

One of the significant features of Bald Head Woods is the extremely old, large trees in this maritime forest. Live oak and laurel oak are the major species, making up a canopy that shelters the plants from salt spray. Other important tree species include dogwood, ironwood, and red cedar. The thick undergrowth consists of numerous shrub and vine species, including wild olive, American holly, yaupon, poison ivy, Virginia creeper and catbrier. The lack of light favors shade-tolerant plants like ebony spleenwort. Cabbage palmetto appears throughout the forest. A freshwater pond provides habitat and breeding grounds for amphibians and reptiles such as the southern toad, squirrel tree frog, eastern mud turtle, and black racer. The pond also supports a small population of black ducks. Gray squirrels, raccoons and opossums inhabit the forest, as do Carolina wrens, cardinals and painted buntings. Catbirds, towhees, blue jays and twenty-two species of warblers migrate through in the fall.

Bird Island

Located in Brunswick County, Bird Island was the last addition to the Division of Coastal Management's Coastal Reserve program. Before the closing of Mad Inlet in 1997, Bird Island was an entire, undeveloped barrier island. It lies at the southernmost tip of Sunset Beach and reaches to the Little River Inlet in South Carolina. The Reserve is made up of over 1200 acres of upland, marsh, intertidal flats and subtidal area. Excellent examples of barrier communities are present, including upper beach, dune grass, maritime dry grassland, maritime wet grassland, maritime shrub thicket, maritime shrub swamp, brackish marsh, salt shrub, salt flat and salt marsh. Several rare species are found including loggerhead sea turtles and seabeach amaranth.



North Carolina Coastal Reserve – North Carolina National Estuarine Research Reserve
 Last Revised 4/08

North Carolina Coastal Reserve and National Estuarine Research Reserve

Volunteer Policies and Schedules

Application Process

Individuals wishing to help promote informed management and stewardship of North Carolina's estuarine and coastal habitats through research, education, and example by volunteering with NC Coastal Reserve are asked to complete an application (online or paper) to provide details regarding their interests, skills, and availability. The appropriate staff will contact the applicant to discuss the best volunteer job match and finalize a schedule. Every attempt will be made to accommodate the requests of volunteers for specific jobs, but occasionally requested positions are not available or require specialized skills.

Schedules

Most volunteer assignments require a 2-16 hour monthly commitment. Most of the assignments have standard, monthly shifts. Some volunteer jobs require periodic, but flexibly scheduled, work.

Actual work shifts are dependent on job duties and will be agreed upon by you and your supervisor. Variations in many shifts can be arranged to accommodate the volunteer's other commitments.

It is important to sign in and out for each shift. Your supervisor will show you where sign-in sheets are located for office duties, or provide you with a sign-in sheet to keep track of your hours for unsupervised field duties, which you will be requested to submit quarterly.

Volunteers are expected to notify their supervisor if they will be absent or late for a scheduled shift.

Attire, Gear, and Equipment

For office duties, appropriate business casual attire may be worn. For field duties, comfortable, clean work clothing which is seasonally and task appropriate should be worn. Reserve volunteers are representatives of the Coastal Reserve to the public, so appearance and behavior should be as professional as any staff person.

Specialized field gear may be required to complete some job duties. The Reserve will provide the volunteer with necessary items, such as boots, gloves, or foul weather gear, for use during the volunteer's shift. Tools may also be provided to complete specific

tasks. Any such equipment remains the property of the State of North Carolina and should be returned to its proper storage location after each work period.

Training

Most training is “on the job”, with the volunteer’s supervisor providing detailed guidance and protocols specific to the assigned tasks. Annual pre-season orientation sessions will provide volunteers with policy updates and general information. Several times per year, formal training sessions may be held on a variety of subjects. Reference videos and books are available from the Coastal Aquatic Lending Library located in the Beaufort office. Your supervisor will inform you of any additional training opportunities as they are scheduled.

Leave of Absence

Volunteers who need to take a leave of absence after committing to a volunteer job are asked to discuss the request with their supervisor prior to the proposed absence. If a volunteer will be absent for more than three months, he/she will be placed in an inactive status and will need to reapply upon return.

Resignation

If a volunteer is no longer able to fulfill a commitment as a volunteer, he/she may resign. Exit interview forms are available to comment on the program.

Parking

The volunteer’s supervisor will instruct him/her where to park during volunteer duties. Generally, parking is available at each office in the employee parking area. Please do not park in areas designated as visitor areas.

Safety and Weather Issues

Report to staff any issues of safety concern or any problems with Reserve visitors, whether they are ill, injured, or behaving in an unsafe or inappropriate manner.

The volunteer’s supervisor will provide information regarding the evacuation of buildings in the event of storm or fire, including the appropriate exit, holding, and return strategies.

Field work will be rescheduled if unsafe weather conditions develop, including heavy winds, small craft advisories, lightning or heavy precipitation. Unsupervised volunteers should consult weather authorities before planning field activities and should seek appropriate shelter in the event of a sudden change in weather.

Volunteers should not lift heavy objects or climb on stools or ladders without the assistance and guidance of Reserve staff.

Closed toed shoes must be worn when working with hand tools or power tools and are **required** when working on the boat or at field sites.

Food and Drink

Volunteers are encouraged to bring appropriate provisions to ensure their comfort during their shift. Some jobs may necessitate more care with food and beverage items, such as around electronic equipment or printed materials, others may dictate the need for adequate hydration and nourishment, such as extended field work in hot weather. Volunteers are expected to use good judgment regarding food and drinks.

Questions about the Reserve

Volunteers should have a basic level of knowledge of the Reserve to be able to answer general questions from the public. This handbook, the Reserve website, and Reserve staff are resources available to the volunteers. If volunteers interact with visitors to the Reserve who have questions, the volunteer should answer the question to the best of his/her ability using the information provided in this handbook and the training sessions. If the volunteer is unable to answer the question, the volunteer should refer the visitor to his/her supervisor, another appropriate staff member, or for general information about the reserves and programs, the website.

Confidentiality

Volunteers should use discretion in discussing Reserve occurrences. Some information, such as the location of stranded animals, the placement of sea turtle nests, or even the presence of specific plants or animals, could be harmful if the public were aware of the situation. Any request by the press for information should be referred to the Reserve manager, the stewardship coordinator or the appropriate site manager.

Worker's Compensation

North Carolina Executive Order #48 authorizes state agencies to recruit, train and utilize volunteers. In addition, volunteers enrolled in service to state agencies are recognized to be covered under articles 61 and 31A of Chapter 143 of the General Statutes, governing Tort Claims Against State Departments and Agencies and the Defense of State Employees. Volunteers enrolled in service to state agencies are not entitled to benefits under Chapter 97 of the General Statutes, the Workers Compensation Act.

This means that for medical costs associated with accidents and injuries sustained in the course of performing regular volunteer duties, volunteers for the State of North Carolina are covered by the same insurance as state employees. Volunteers cannot file

Worker's Compensation for additional lost wages or disability. However, volunteers can file a Tort Claim against the state for damages in lieu of Worker's Compensation.

Volunteer Documentation

The state and federal governments count volunteer service as work experience as do many other employers. The volunteer supervisor at the North Carolina Coastal Reserve will keep volunteer documentation on file for future employment or volunteer referral. State and federal governments also allow tax deductions for volunteer mileage, if deductions are declared.

North Carolina Coastal Reserve and National Estuarine Research Reserve

Volunteer Expectations

THE NORTH CAROLINA COASTAL RESERVE EXPECTS THEIR VOLUNTEERS TO:

- Make a commitment to do the best job possible.
- Be dependable and report to work as scheduled, except in cases of emergency or illness.
- Notify supervisor when unable to report for assignment.
- Follow the Reserve guidelines and mission statement.
- Ask questions.
- Maintain confidentiality.
- Maintain a professional demeanor.
- Give adequate notice if resigning from a volunteer position.

VOLUNTEERS CAN EXPECT THE NORTH CAROLINA COASTAL RESERVE TO:

- Clearly define roles and tasks.
- Make assignments complementary to talents, skills, and interests.
- Train and supervise.
- Evaluate performance and give feedback.
- Offer fair and non-discriminating treatment.
- Respond to all questions.
- Appreciate and recognize volunteer contributions.

North Carolina Coastal Reserve and National Estuarine Research Reserve

Volunteer Benefits

- Training and information on coastal aquatic life and environments
- Opportunity to gain valuable work skills and experience
- Recorded volunteer hours which are regarded as professional experience
- Use of reference library
- Enhanced communication skills
- Enhanced skills on the water
- Annual recognition get together
- Appreciation from the staff!

Volunteer Job Descriptions

Volunteers can assist Reserve staff in many and varied tasks. A commitment of 2 – 16 hours per month is required for a duration of no less than twelve months.

TITLE: **Field Research Assistant**

JOB FUNCTION: Accompanies and assists Reserve research staff with various field operations including deploying instruments, surveying reserve, removing debris, conducting water quality monitoring and cleaning equipment.

QUALIFICATIONS: Must be able to lift approximately 50 lbs. and spend time in the outdoor elements. All activities are conducted by boat and previous experience with boating is preferred.

SCHEDULE: A commitment of at least 4 hours per shift is required. Scheduling opportunities are available two – four days per month.

LOCATION: Wilmington Office

SUPERVISOR: Research Biologist

TITLE: **Laboratory Research Assistant**

JOB FUNCTION: Assists Reserve research staff in general laboratory activities, including but not limited to cleaning instruments, filtering samples, acid washing bottles, entering data, updating bibliography, and general maintenance of field and laboratory equipment.

QUALIFICATIONS: Previous lab experience and/or classes in chemistry preferred.

SCHEDULE: A commitment of at least one 2-hour shift per month is required. This position may be combined with field assistant volunteer activities if appropriate for scheduling.

LOCATION: Wilmington Office

SUPERVISOR: Research Biologist

TITLE: Office Assistant

JOB FUNCTION: Position provides administrative support. The Office Assistant will maintain the office environment by answering phones, filing, and performing special projects such as direct mail campaigns, proofreading and editing the newsletter and web-postings, and other office related work. Seasonally the Office Assistant will be asked to participate in the planning and preparation of special events, along with contacting and managing other Reserve volunteers.

QUALIFICATIONS: Previous experience in an office setting required. Volunteer must be highly organized, technologically literate, be able to follow directions, and have a cheerful presence and good people skills.

SCHEDULE: A commitment of 2 or 4 hours per week is required.

LOCATION: Beaufort Office

SUPERVISOR: Education Coordinator or Specialist

TITLE: Education Assistant

JOB FUNCTION: Assists Reserve education staff with a variety of educational programs including summer camps, walking tours, boardwalk visits, and other outreach activities. Work includes gathering and preparing materials for educational programs and assisting the education staff with hands-on activities. Volunteer will need to be available on Wednesday mornings (~ 3 hours) during the summer months to help with the junior naturalist camp.

QUALIFICATIONS: No previous experience is necessary but the volunteer must have a cheerful presence and good people skills.

SCHEDULE: A commitment of 4 hours per week is required.

LOCATION: Beaufort Office

SUPERVISOR: Education Coordinator or Specialist

TITLE: **Feral Horse Volunteer**

JOB FUNCTION: Assists Rachel Carson Site Manager with feral horse monitoring and data collection and archiving.

QUALIFICATIONS: Enjoy spending time outdoors, often in hot, buggy, and muddy conditions. Photography skills desirable.

SCHEDULE: A commitment of 8 - 16 hours per month is required.

LOCATION: Rachel Carson Reserve

SUPERVISOR: Rachel Carson Site Manager

TITLE: **Reserve Clean-up Volunteer**

JOB FUNCTION: Assists Reserve stewardship staff with debris removal on the Reserve. May assist with research to gather data on point sources of trash for the development of a trash reduction program.

QUALIFICATIONS: Have an interest in keeping the Reserve clean and green. Enjoy spending time outdoors.

SCHEDULE: A commitment of 4 - 8 hours per month is required. Some sites allow for a flexible, volunteer selected schedule. Some may require specific times to accommodate the schedule of the site manager.

LOCATION: Currituck Banks, Kitty Hawk, Buxton Woods, Buckridge, Rachel Carson, Masonboro, Zeke's, Bald Head, and Bird Island Reserves

SUPERVISOR: Associated Site Manager

TITLE: **Stewardship Field Volunteer**

JOB FUNCTION: Assists Site Manager with tasks on and around the Reserves including: sign and boundary posting, wildlife monitoring, visitor use monitoring, trail maintenance, and

other activities as needed.

QUALIFICATIONS: Willing and able to venture out on the Reserve in potentially hot, buggy, and muddy conditions. Enjoy spending time on a boat.

SCHEDULE: A commitment of 4 - 8 hours per month is required. Available schedule based on needs of Site Manager.

LOCATION: Rachel Carson, Currituck Banks, Kitty Hawk, Buxton Woods, Buckridge, Masonboro, Zeke's, Bald Head, and Bird Island Reserves

SUPERVISOR: Associated Site Manager

TITLE: **Stewardship Monitor**

JOB FUNCTION: Volunteer visits designated site on is/her own. Monitors condition of Reserve and flora & fauna on a regular, periodic schedule (ex: second Saturday). Notifies Site Manager of activities or conditions needing attention, including trail maintenance, sign posting, inappropriate visitor use, and waste removal. Monitors also note presence of invasive species, threatened and endangered species, and any unusual or changing conditions regarding biotic communities.

QUALIFICATIONS: Willing and able to venture out on the Reserve in all types of safe weather conditions. Scientific knowledge of local habitats and organisms. Some reserves require access by a boat.

SCHEDULE: A commitment of one monitoring shift per month is required. Depending on the site, a total of 2 - 8 hours per month will be required.

LOCATION: Currituck Banks, Kitty Hawk, Buxton Woods, Buckridge, Rachel Carson, Masonboro, Zeke's, Bald Head, and Bird Island Reserves

SUPERVISOR: Associated Site Manager

North Carolina Coastal Reserves / North Carolina National Estuarine Research Reserves Volunteer Legislation and Release of Liability

Legislation

The North Carolina Coastal Reserves are state-funded facilities that are governed by the North Carolina Department of Environment and Natural Resources. Volunteers for state agencies have certain rights and responsibilities. North Carolina Executive Order #48 authorizes state agencies to recruit, train and utilize volunteers. The Order also includes the following provisions:

- A. "Agency: means any department, institution, commission, committee, board, division or bureau of the State of North Carolina.
- B. "Volunteer" means any person who provides goods or services to any state agency of his or her own free will and for no financial gain.
- C. Volunteers shall comply with the appropriate agency rules, regulations and policies pertaining to conduct, record keeping and any other policy necessary for the operating efficiency of the state agency.
- D. Each state agency shall recognize documented volunteer service as partial fulfillment of training and experience requirements for state employment, pursuant to policies adopted by the State Personnel Commission. To that end agencies are encouraged to provide letters of documented volunteer service when requested by a volunteer.
- E. Volunteers enrolled in service to state agencies are recognized to be covered under articles 61 and 31A of Chapter 143 of the General Statutes, governing Tort Claims Against State Departments and Agencies and the Defense of State Employees. Volunteers enrolled in service to state agencies are not entitled to benefits under Chapter 97 of the General Statutes, the Workers Compensation Act.

For medical costs associated with accidents and injuries sustained in the course of performing regular volunteer duties, volunteers for the State of North Carolina are covered by the same insurance as state employees. Volunteers cannot file Worker's Compensation for additional lost wages or disability. However, volunteers can file a Tort Claim against the state for damages in lieu of Worker's Compensation.

The state and federal governments count volunteer service as work experience as do many other employers. The volunteer supervisor at the North Carolina Coastal Reserve will keep volunteer documentation on file for future employment or volunteer referral. State and federal governments also allow tax deductions for volunteer mileage, if deductions are declared.

Release of Liability

I hereby agree to personally assume all risks that might arise in connection with the special volunteer activity in which I and/or my child(ren) will be participating at the North Carolina Coastal Reserve. I also agree that neither I nor anyone connected to me will hold the state, its employees, or agents responsible for any harm, injury, or damage that may occur to me or my child(ren) while engaged in the activity.

I further state that I am at least 18 years of age and am legally competent to sign this release and agreement on my behalf, or that I am signing as the parent or legal guardian of my minor child(ren):

Signature of Volunteer

Date

I have signed this release of my own free will.

In case of emergency contact:

Name: _____ Relationship: _____

Home Phone #: _____ Work/Cell Phone #: _____

Volunteer Commitment

I understand that I have chosen to volunteer in the following area:

The day and hours agreed upon are:

Day: _____ Time: _____

I understand that I am committing to a year of volunteer service. I agree to adhere to the North Carolina Coastal Reserve and National Estuarine Research Reserve mission statement and that I am representing the Reserve as a professional volunteer while on site. I have read and understand the policies and procedures contained in the Volunteer Handbook.

Signature of Volunteer

Date

Name of Volunteer (print)

Phone #

Address

Email Address

City, State, Zip

North Carolina Coastal Reserves / North Carolina National Estuarine Research Reserves Volunteer Legislation and Release of Liability

Legislation

The North Carolina Coastal Reserves are state-funded facilities that are governed by the North Carolina Department of Environment and Natural Resources. Volunteers for state agencies have certain rights and responsibilities. North Carolina Executive Order #48 authorizes state agencies to recruit, train and utilize volunteers. The Order also includes the following provisions:

- F. "Agency: means any department, institution, commission, committee, board, division or bureau of the State of North Carolina.
- G. "Volunteer" means any person who provides goods or services to any state agency of his or her own free will and for no financial gain.
- H. Volunteers shall comply with the appropriate agency rules, regulations and policies pertaining to conduct, record keeping and any other policy necessary for the operating efficiency of the state agency.
- I. Each state agency shall recognize documented volunteer service as partial fulfillment of training and experience requirements for state employment, pursuant to policies adopted by the State Personnel Commission. To that end agencies are encouraged to provide letters of documented volunteer service when requested by a volunteer.
- J. Volunteers enrolled in service to state agencies are recognized to be covered under articles 61 and 31A of Chapter 143 of the General Statutes, governing Tort Claims Against State Departments and Agencies and the Defense of State Employees. Volunteers enrolled in service to state agencies are not entitled to benefits under Chapter 97 of the General Statutes, the Workers Compensation Act.

For medical costs associated with accidents and injuries sustained in the course of performing regular volunteer duties, volunteers for the State of North Carolina are covered by the same insurance as state employees. Volunteers cannot file Worker's Compensation for additional lost wages or disability. However, volunteers can file a Tort Claim against the state for damages in lieu of Worker's Compensation.

The state and federal governments count volunteer service as work experience as do many other employers. The volunteer supervisor at the North Carolina Coastal Reserve will keep volunteer documentation on file for future employment or volunteer referral. State and federal governments also allow tax deductions for volunteer mileage, if deductions are declared.

Release of Liability

I hereby agree to personally assume all risks that might arise in connection with the special volunteer activity in which I and/or my child(ren) will be participating at the North Carolina Coastal Reserve. I also agree that neither I nor anyone connected to me will hold the state, its employees, or agents responsible for any harm, injury, or damage that may occur to me or my child(ren) while engaged in the activity.

I further state that I am at least 18 years of age and am legally competent to sign this release and agreement on my behalf, or that I am signing as the parent or legal guardian of my minor child(ren):

Signature of Volunteer

Date

I have signed this release of my own free will.

In case of emergency contact:

Name: _____ Relationship: _____

Home Phone #: _____ Work/Cell Phone #: _____

Volunteer Commitment

I understand that I have chosen to volunteer in the following area:

The day and hours agreed upon are:

Day: _____ Time: _____

I understand that I am committing to a year of volunteer service. I agree to adhere to the North Carolina Coastal Reserve and National Estuarine Research Reserve mission statement and that I am representing the Reserve as a professional volunteer while on site. I have read and understand the policies and procedures contained in the Volunteer Handbook.

Signature of Volunteer

Date

Name of Volunteer (print)

Phone #

Address

Email Address

City, State, Zip