

Rachel Carson Reserve

BEAUFORT, NC

Rules & Tips For Visitors

- For the most up to date rules and guidance visit:** deq.nc.gov/reserve-rules
- The reserve is open to visitors year round.
 - Visit at your own risk. This site is remote and conditions can include natural hazards such as insects and poisonous plants.
 - Off-leash pets are prohibited.
 - Fires, fireworks, target shooting, nudity, and camping are prohibited.
 - Hunting is allowed only at Middle Marsh per state and local hunting rules.
 - While observing feral horses, keep a safe distance away (at least 50 feet).
 - Producing noise that is disruptive to wildlife or other visitors is prohibited.
 - Removal or disturbance of plants, animals, fungi, or cultural resources is prohibited. Do not feed the wildlife or horses.
 - Littering and leaving any personal property unattended within the boundaries longer than 24 hours is prohibited.
 - Recreational/off-road motorized vehicles are prohibited.
 - Written authorization is required for organized events, commercial activities, and other special activities.

Rachel Carson Reserve

During the 1940s, Rachel Carson did research at what is now the reserve site named in her honor. The reserve includes Town Marsh, Bird Shoal, Carrot Island, Horse Island, and Middle Marshes.

Creation of the Reserve

In 1977, Beaufort residents, civic organizations and environmental groups worked together to prevent the development of a resort on what is now the Rachel Carson Reserve. The N.C. Chapter of The Nature Conservancy purchased 474 acres of Carrot Island that year. The State of North Carolina acquired Town Marsh, Carrot Island, Horse Island, and Bird Shoal in 1985, with the addition of Middle Marshes in 1989. This reserve now totals 2,315 acres and is one of the four components of the N.C. National Estuarine Research Reserve.

Purpose of the Reserve

This natural area is one of 10 sites that make up the N.C. Coastal Reserve & National Estuarine Research Reserve. Preservation of the Rachel Carson Reserve allows this coastal ecosystem to be available as a natural outdoor laboratory where scientists, students, and the general public can learn about coastal processes, functions, and influences that shape and sustain the coastal area. Traditional uses, including recreation, are allowed as long as they do not disturb the environment or organisms or interfere with research and educational activities.

Trail Information

How to Find Us



The Rachel Carson Reserve is a complex of small islands just south of the historic town of Beaufort in Carteret County, N.C. It is only accessible by boat or passenger ferry. Boats can be launched from the N.C. Wildlife Resources Commission boating access area located at 2370 Lennoxville Road in Beaufort. Ferry services are located along the Beaufort waterfront on Front Street.

Carrot Island Boardwalk:

The boardwalk near the eastern end of the site can be reached by boat. It is directly across from the N.C. Wildlife Resources Commission boating access area at 2370 Lennoxville Road, Beaufort.

Inner Loop Trail (green):

Bird Shoal, a ~1.5 mile stretch of beach, is a short walk from the southern-most point of both trails.

muddy.

Trail best accessed at lower tides & may be

Outer Loop Trail (blue):

Trail lengths and difficulty

Two nature trails can be reached at the northwest beach on Town Marsh. Both trails pass through man-made upland as well as natural marsh habitats.

Rachel Carson Reserve

Feral Horses

A local physician introduced horses to this site in the late 1940s. Years later, the animals were allowed to roam the entire site, eventually becoming feral. The Rachel Carson Reserve is now home to a small herd (~20) of feral horses that are managed by the State of North Carolina.

Studies conducted on the site show that feral horses can have a significant negative impact on island vegetation. To preserve the natural environment and protect herd health from the detriments of overpopulation, select female horses receive a birth control vaccine as needed.

Feral horses can be unpredictable and dangerous. In rare instances, feral horses have been known to bite or kick humans and dogs when threatened. Keep dogs leashed. Exercise extreme caution when in the area of fighting stallions or a mare protecting her foal. Maintain a distance of **at least** 50 feet from the horses at all times.

Salt Marsh

Town Marsh, Carrot Island and Middle Marsh

Lunar tides flood the intertidal salt marshes twice each day. Supratidal marshes remain above water except during occasional spring tides and storm tides.

Saltmarsh cordgrass dominates the intertidal marsh. It is adapted to dramatic changes in salinity and temperature. This abundant, tall plant regulates salt concentrations in its cells by releasing excesses through pores on its blades.

Plants found in the supratidal marsh include black needlerush, sea oxeye, and seaside aster.

Animals of the intertidal marsh are either permanent residents or species from nearby habitats that forage in the marsh. Permanent residents include parchment tube worm, marsh periwinkle, ribbed mussel, oyster, mud snail, fiddler crab, and several species of whelk.

Tidal Flats

Between Town Marsh and Bird Shoal

Expansive and seemingly barren mud flats are easy to see at low tide. Decaying marsh grass, or detritus, is deposited with each tide. These nutrients support a food web of crabs, fish, snails, and mussels.

Wading birds and shorebirds come to the exposed mud flats to feed during low tide. The sediments sometimes have a “rotten egg” smell due to the presence of hydrogen sulfide gas.

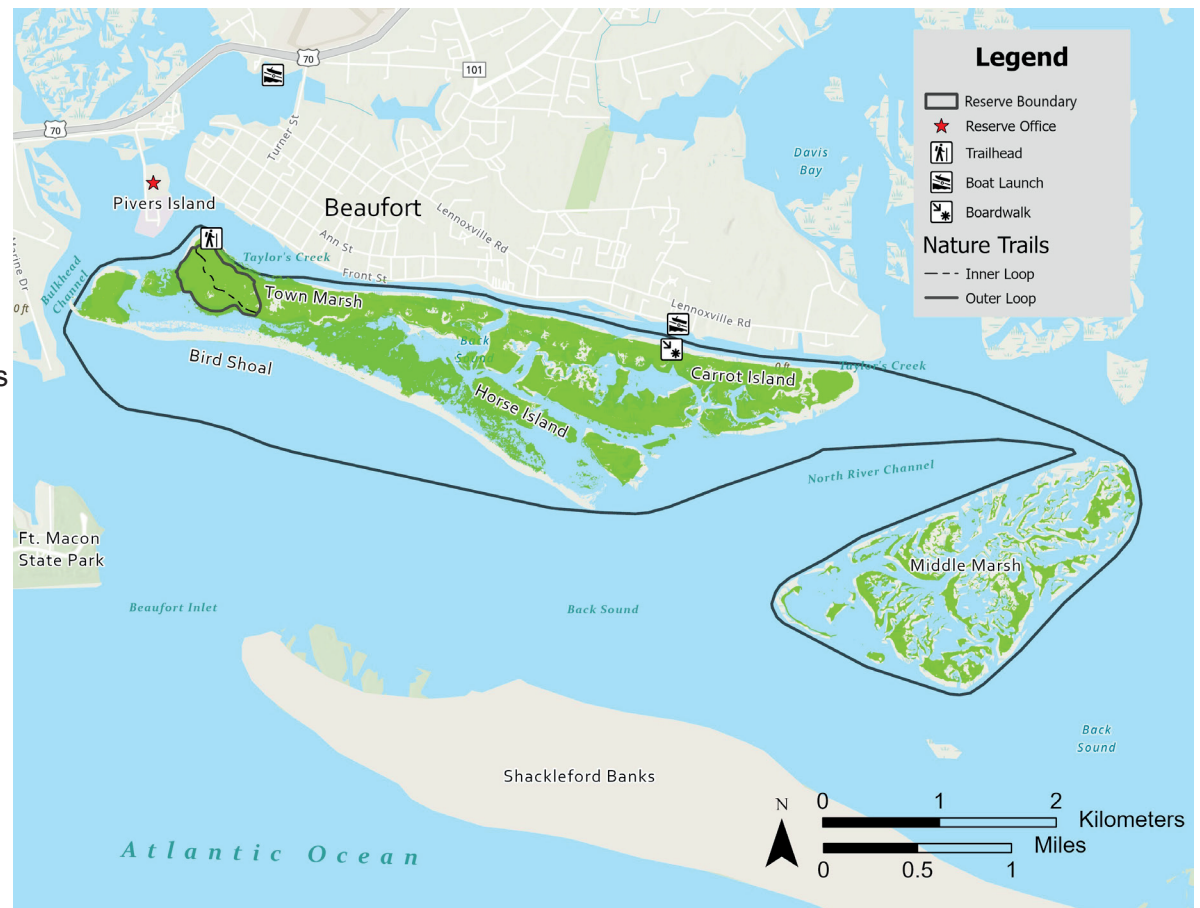
Dredge Spoil Upland Habitat

Carrot Island and Town Marsh

The U.S. Army Corps of Engineers holds a permanent easement for depositing dredge materials on the site to maintain channel depth in the adjacent creek.

Deposited sediments are colonized by fast growing plants that provide stabilization. Initial, or primary plant species like pennywort, panic grass, and morning glory give way to a progression of herb and shrub, shrub thicket and finally maritime forest habitats. The progression can take more than 45 years.

Ground nesting bird species typically found in naturally occurring sandy areas also use these open grounds. Common nighthawk, killdeer, and Wilson's plover are among the species occasionally found nesting here.



Maritime Shrub Thicket

Town Marsh, Carrot Island and Middle Marshes

This habitat consists of a dense mixture of vines, shrubs, and small trees. Depending on the level of exposure to sea breezes, the seaward edge of the thicket may be dramatically angled by the saltladen air.

Plants that often dominate the thicket include live oak, yaupon, wax myrtle, red cedar, and silverling. Growing over and through the shrubs and trees are vines such as catbrier, Virginia creeper, pepper vine, and poison ivy.

Birds that use the thickets for nesting include painted bunting, catbird, cardinal, Carolina wren, egrets, and herons.

Mammals

Feral horses, river otter, gray and red fox, Norway rat, raccoon, marsh rabbit and cottontail rabbit inhabit the islands. Dolphins swim in the deeper waters around the site.

Sea Turtles & Terrapins

Loggerhead sea turtles are commonly found in the waters surrounding the site.

The diamondback terrapin is found in the marshes and creeks. This reclusive creature has a distinctive shell with diamond-shaped scales. It feeds primarily on fish, crustaceans, worms and mollusks. Terrapins can live 25 years or more.

Birds

More than 200 species of birds have been observed at the site, which is located within the Atlantic Flyway. Many of these birds are rare or decreasing in number.