

Masonboro Island Reserve

WILMINGTON, NC

Rules & Tips For Visitors

- The reserve is open to visitors year round.
- Visit at your own risk. The site is remote and conditions can include natural hazards such as insects and poisonous plants.
- Off-leash pets are prohibited.
- Hunting is allowed per state and local hunting rules. Both hunters and visitors should use appropriate caution.
- Firearms, target shooting, nudity, and recreational/off-road vehicles are prohibited.
- Overnight camping is permitted for no more than two consecutive nights.
- Fires are allowed on the open sand, at least 15 feet from vegetation. Bring your own firewood and kindling.
- Littering is prohibited.
- Leaving personal property unattended within the boundaries longer than 24 hours is prohibited.
- To protect sensitive vegetation and habitats, use only existing trails.
- Producing noise that is disruptive to wildlife or other visitors is prohibited.
- Removal or disturbance of plants, animals, fungi, or cultural resources is prohibited.
- Respect posted bird and turtle nesting areas, and adhere to posted guidance signs.
- The non-native red fox and coyote are found on the Reserve. Never attempt to feed or get close to them.
- Written authorization is required for organized events, commercial activities, and other special activities.

For the most up to date rules and guidance visit: deq.nc.gov/reserve-rules

North Carolina Coastal Reserve & National Estuarine Research Reserve

deq.nc.gov/ncreserve



The Masonboro Island Reserve is managed through a federal-state partnership between NOAA and the N.C. Division of Coastal Management to protect the site's ecosystems for research, education, and compatible traditional uses. Stewardship support of the site by a community of partner organizations is gratefully acknowledged. This site is also a Dedicated State Nature Preserve.

The North Carolina Coastal Reserve & National Estuarine Research Reserve is a part of the N.C. Division of Coastal Management, a division of the N.C. Department of Environmental Quality.



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Purpose of the Reserve

This natural area is one of 10 sites that make up the North Carolina Coastal Reserve & National Estuarine Research Reserve. Preservation of Masonboro Island 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.

Creation of the Reserve

Masonboro Island was privately owned throughout most of the 20th century. Increased development pressure prompted early conservation efforts by local citizens with the creation of the Society of Masonboro Island and involvement of the N.C. Coastal Land Trust during the 1980s. The site was designated as the fourth component of the North Carolina National Estuarine Research Reserve in 1991.

Natural Features

The Masonboro Island Reserve protects more than 5,600 acres of natural barrier island habitat, estuary habitat, and dredge spoil islands.

Wildlife:

Raccoons, non-native red foxes, coyotes, opossums, sea turtles,

Habitat:

Beach, dunes, grasslands, shrub thickets, salt marsh, and mud flats. Reserve.

Facilities:

There are no public restrooms or facilities available at Masonboro Island Reserve.

Guidance:

Plan ahead and be prepared for changing conditions on this exposed and remote island. Sun protection is advised.

Camping:

Use existing trails and camping areas. Do not camp on the dunes. Do not burn trash or native vegetation. Camp-

Access:

Access is by boat only. Boats can land at the north or south end of the island during any tidal stage. Access to island mid-sections is tide-limited.

Visitor Information

How to Find Us



The Masonboro Island Reserve is located in New Hanover County, between Wrightsville Beach and Carolina Beach. Public and private boat ramps are available in and near Wrightsville Beach and Carolina Beach. Private operators provide fee-based ferry services to the Reserve.

Masonboro Island Reserve

Upper Beach

This highly dynamic habitat is home to a limited number of species adapted to harsh conditions including shifting sands, glaring sun, strong winds, salt spray, and storm tides.

Plant species include sea rocket, orach, dune spurge, pennywort, and sea elder. Grasses such as sea oat and beach panic grass survive here.

The upper beach is a critical nesting area for loggerhead and green sea turtles and some ground-nesting shorebirds such as the American oystercatcher, terns, black skimmer, and Wilson's plover. Other animals that use this portion of the beach include ghost crabs and beach fleas.

Sand Dunes

Plants are found in greater numbers as distance and elevation above sea level increase.

The dune system is made up of prominent frontal and secondary dunes, some in excess of 20 feet high. Sea oats are the dominant vegetation. They form extensive underground stem and root networks that stabilize the dunes by literally holding the sand together.

Other dune plants such as sea elder, sea rocket, croton, sand primrose, and sea spurge are adapted to the difficult environmental conditions. They have flexible, waxy leaves and stems and grow close to the ground.

Maritime Grasslands

Grasslands occur behind the dunes, protected from the salty winds and waves of the ocean. Numerous grass and herb species grow here, including saltmeadow cordgrass, broomsedge, carex, prickly pear cactus, pepper grass, blanket flower, goldenrod, marsh fimbry, pennywort, and beach morning glory.

The grasslands vary from seasonally or permanently wet in lower areas to well-drained in areas of higher elevation.

Maritime Shrub Thicket

Farther from the effects of the ocean, where salt spray and temperature variations are reduced, a mix of vine, shrub, and tree species grows. Plants found here include yaupon, silverling, red cedar, red bay, wax myrtle, black cherry, live oak, Virginia creeper, pepper vine, and poison ivy.

Animals such as white-tailed deer, non-native red fox, coyote, opossum, raccoon, marsh rabbit, and cotton mouse use the shrub thicket for protection and shelter.

Salt 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 that compete for higher ground in the supratidal marsh include black needlerush, sea oxeye, salt grass, and seaside aster.

Tidal Flats

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.

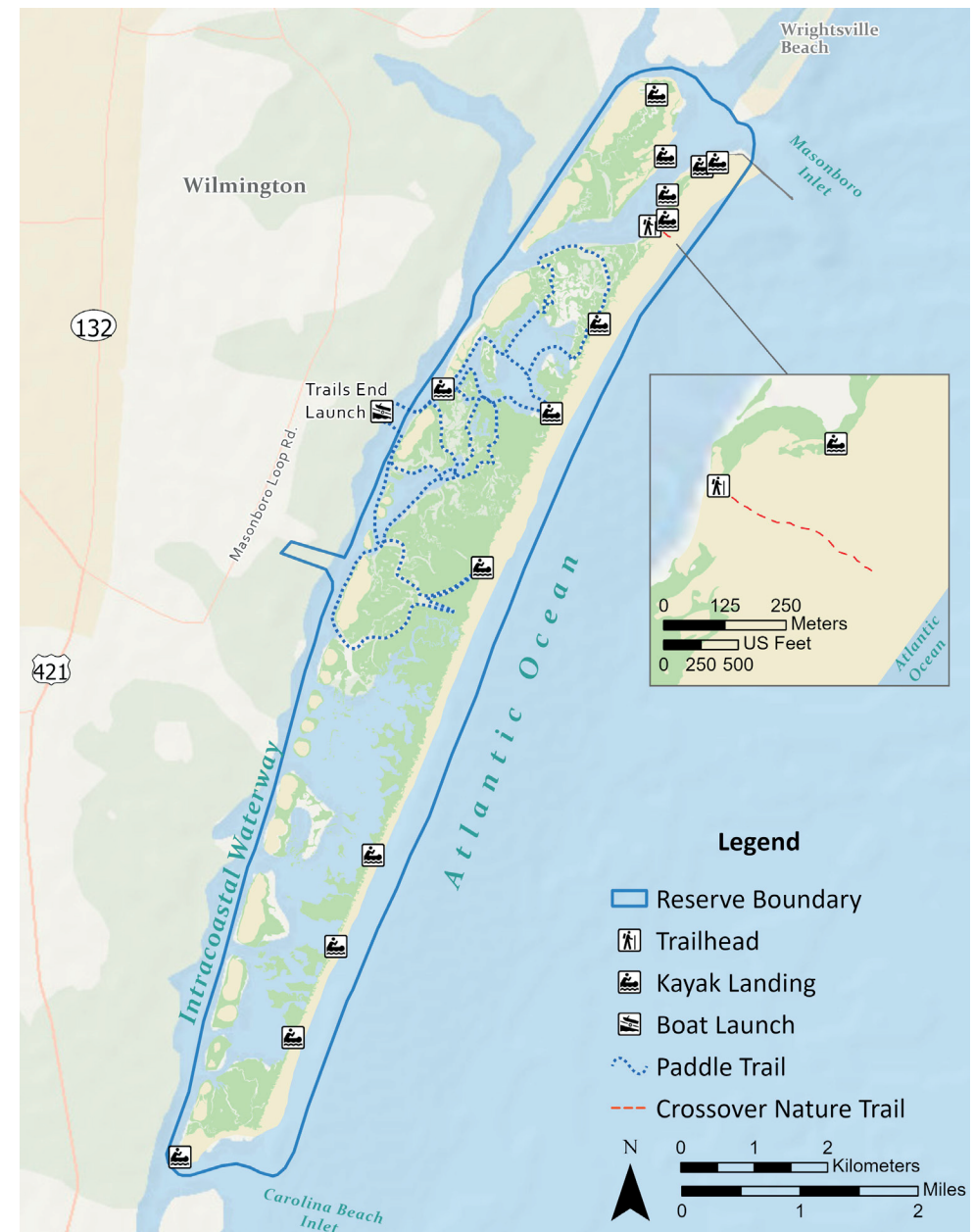
Birds

Bird species composition is typical of barrier islands and includes brown pelican, white ibis, gulls, herons, terns, and egrets. Other species known to frequent this reserve are piping plover, Wilson's plover, American oystercatcher, willet, eastern painted bunting, least tern, and black skimmer.

Ground nesting shorebirds use the upper beach and interdunal areas during the spring and summer seasons. Their camouflaged eggs blend in with the sand in shallow depressions called scrapes. Human and predator disturbances lower the success rate of these vulnerable nests.

Loggerhead and Green Sea Turtles

Female turtles crawl out of the sea to nest during the summer. Hatchlings mature in the sea and the females may return after 20 years to nest in the same region.



It is estimated only one in 1,000 of these threatened turtles will make it to adulthood.

Diamondback Terrapin

This species of concern is the only reptile specifically adapted to estuarine waters and is capable of surviving in fresh or salt water.

This reclusive marsh turtle has a distinctive shell with diamond-shaped scutes. It feeds primarily on fish, crustaceans, worms, and mollusks. Terrapins can live 25 years or more.

