

## Visitor Information

- **Access:** Access is by boat only. Boats usually land at the north or south end of the island during any tidal stage. Access to island mid-sections is tide-limited. Trails allow visitors to walk across the island to access the beach.
- **Camping:** Use existing trails, camping areas and fire rings. Do not camp on the dunes. Do not burn trash or native vegetation. All personal property must be removed from the island within 48 hours.
- **Guidance:** Plan ahead and be prepared for changing conditions on this exposed and remote island.
- **Facilities:** There are no rest rooms or facilities at the Masonboro Island Reserve.
- **Habitats:** Beach, dune, grassland, shrub thicket, salt marsh and mud flats.
- **Wildlife:** Raccoons, non-native red foxes, opossums, sea turtles, diamondback terrapins, numerous resident and migratory bird species.

## 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.



## Natural Features

The Masonboro Island Reserve has more than 5,500 acres of natural barrier island habitat, estuary habitat and dredge spoil islands.

## 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. Designation as the fourth component of the North Carolina National Estuarine Research Reserve occurred in 1991.

## 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 the Masonboro Island 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 recreational uses are allowed as long as they do not disturb the environment or organisms or interfere with research and educational activities.

## Rules & Tips For Visitors

- The reserve is open to visitors year-round.
- Do not remove or disturb plants or wildlife and do not feed the wildlife.
- Overnight camping is permitted. All personal property must be removed within 48 hours.
- No littering. Pack out everything you packed in.
- Fireworks, recreational/off-road vehicles and use of firearms are not permitted.
- To protect fragile vegetation, use extreme care in and around the dunes.
- Leash and clean up after your pets.
- Observe posted bird and turtle nesting areas. Adhere to posted guidance signs.
- The non-native red fox is found on the reserve. Never attempt to feed or get close to them. Report sightings to the field office.
- Public decency laws apply.

## North Carolina Coastal Reserve & National Estuarine Research Reserve



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The Masonboro Island Reserve is managed through a federal-state partnership between NOAA and the N.C. Division of Coastal Management to protect the island's ecosystems for research and education. The support of ongoing stewardship 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 part of the N.C. Division of Coastal Management, a division of the N.C. Department of Environment and Natural Resources.

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## Masonboro Island Reserve Wilmington, NC



# 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 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. Types of 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, opossum, raccoon, marsh rabbit and cotton mouse use the shrub thicket for protection and shelter.

## Salt Marsh

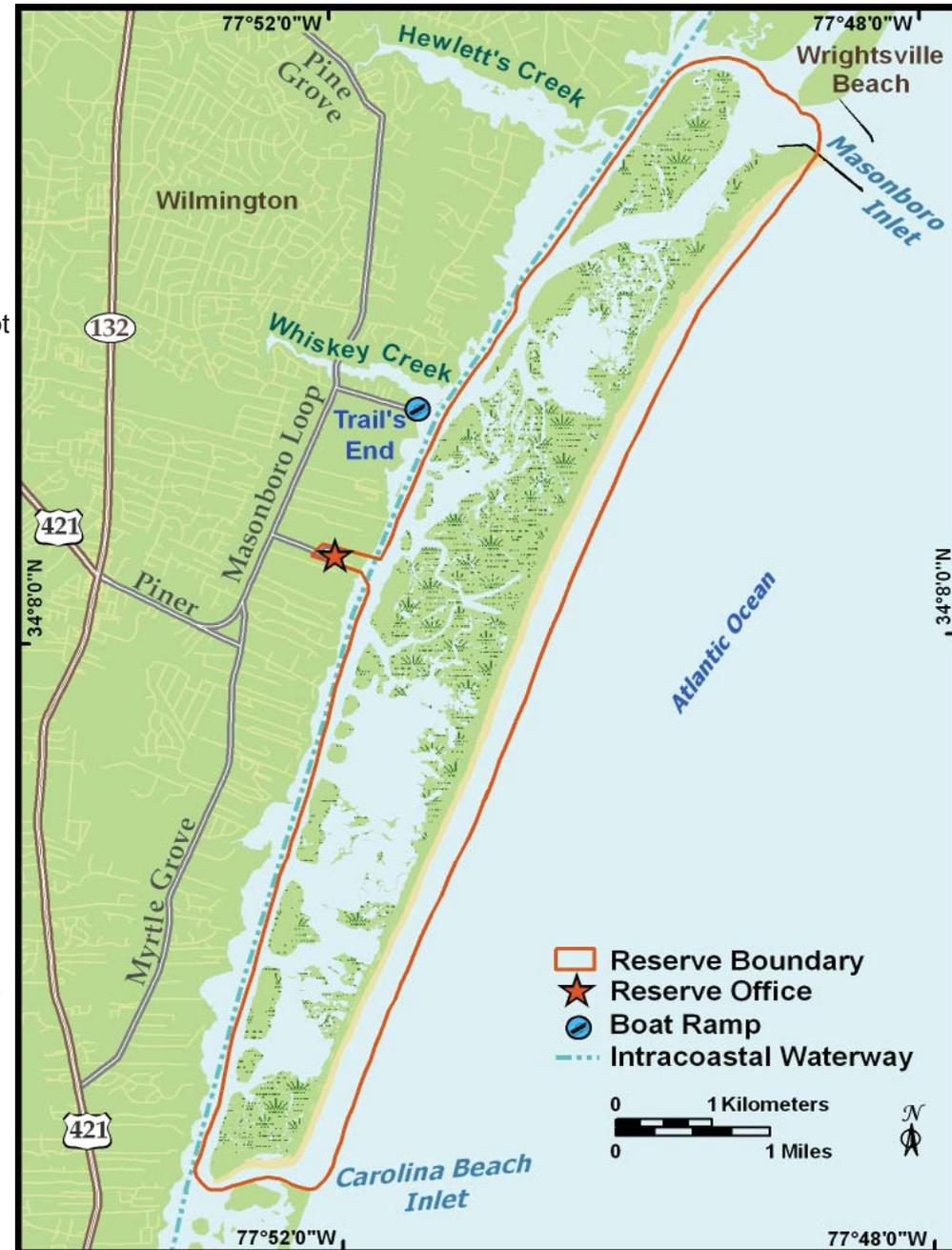
- Lunar tides flood the intertidal salt marshes twice each day. Supratidal marshes remain above water except during occasional spring tides and storm tides.
- Saltmarsh cordgrass dominates the intertidal marsh. It is adapted to dramatic changes in salinity and temperature. This abundant, tall plant regulates 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 ox-eye, 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. Rare 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 areas between the dunes 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.



## Diamondback Terrapin

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

## Loggerhead Sea Turtle

- 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. Only one in 10,000 of these threatened turtles will make it to adulthood.