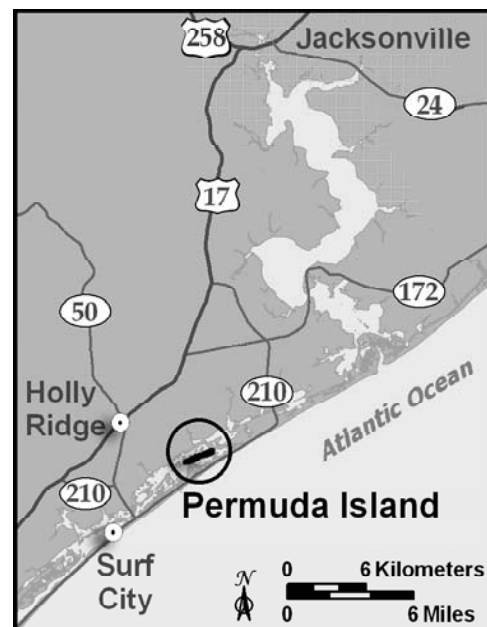


## Visitor Information

- **Access:** Access is by boat only. Wildlife and habitats can be best enjoyed by shallow-draft vessels such as canoes or kayaks. Accessing the site by foot is not recommended, as there are no designated access points or trails and vegetation is thick.
- **Facilities:** There are no designated trails, restrooms, or facilities at the Permuda Island Reserve.
- **Habitats:** Subtidal flats, tidal marshes, shrub thickets and successional areas.
- **Wildlife:** Various species of snakes, raccoons, opossums, marsh rabbits, cotton rats, river otters, American oystercatchers, egrets, and numerous other resident and migratory bird species.

## How To Find Us

The Permuda Island Reserve is situated in Stump Sound between Topsail Island and the mainland town of Holly Ridge. Permuda Island is only accessible by boat. Boating around the island by kayak or canoe rather than landing is the best way to enjoy the site. Various public and private boat ramps are found along the sound side of Topsail Island as well as the mainland shoreline.



## Natural and Archaeological Features

Permuda Island encompasses 63 acres of subtidal flats, tidal marshes, and shrub thickets surrounded by the rich estuarine waters of Stump Sound. The island is of national archaeological significance because it contains remains from various periods of early habitation by Native Americans. The island was designated as significant coastal archaeological resource Area of Environmental Concern by the N.C. Coastal Resources Commission in 1985.

### Creation of the Reserve

Permuda Island was acquired by the state in 1987 using funds from the state and the National Oceanic and Atmospheric Administration. The state acquired fee simple title to the island from the N.C. Chapter of The Nature Conservancy, a private non-profit conservation group that purchased Permuda Island from an attorney. Preservation of the island concluded a lengthy public debate pitting development interests versus local conservationists and fishermen.

### 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 Permuda 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 archaeological elements or research and educational activities.

## North Carolina Coastal Reserve & National Estuarine Research Reserve

101 Pivers Island Rd.  
Beaufort, N.C. 28516  
(252) 838-0883

[www.nccoastalreserve.net](http://www.nccoastalreserve.net)



The Permuda Island Reserve is managed by the N.C. Division of Coastal Management to protect the ecosystems for research, education and compatible recreational uses. Support from the N.C. Chapter of The Nature Conservancy and the N.C. Coastal Federation is gratefully acknowledged.

The N.C. Coastal Reserve and National Estuarine Research Reserve is a part of the N.C. Division of Coastal Management, a division of the N.C. Department of Environment and Natural Resources.

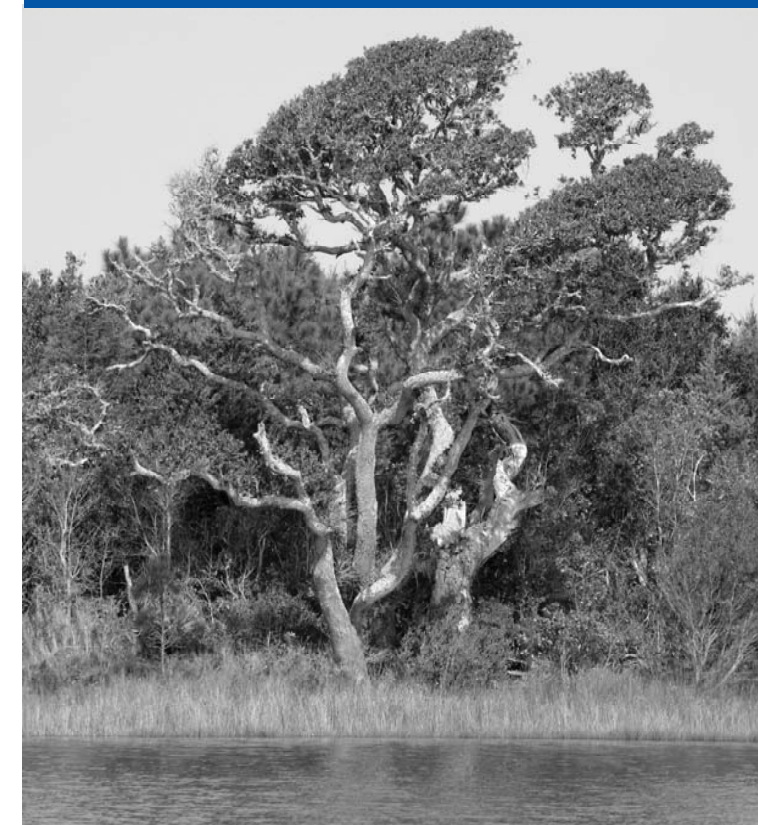
? copies of this document were printed at a cost of \$? or \$?  
per copy. Funding for this project was provided by NOAA grant  
NA09NOS4190096 Section 306.



## Rules and Tips for Visitors

- The reserve is open year-round.
- Do not remove or disturb plants or wildlife and do not feed the wildlife.
- Archaeological resources, including pottery shards, should not be removed or disturbed.
- Camping, fires and fireworks are not permitted.
- No littering. Pack out everything you packed in.
- Leash and clean up after your pets.
- Plan ahead and be prepared for changing conditions on this exposed and remote site.

## Permuda Island Coastal Reserve Onslow County, NC



# Permuda Island Reserve

## Unique Features

- A major portion of the upland area of Permuda Island has been either farmed or disturbed in the past, yet typical estuarine and barrier island plant communities are found along its periphery.

## Physical Setting

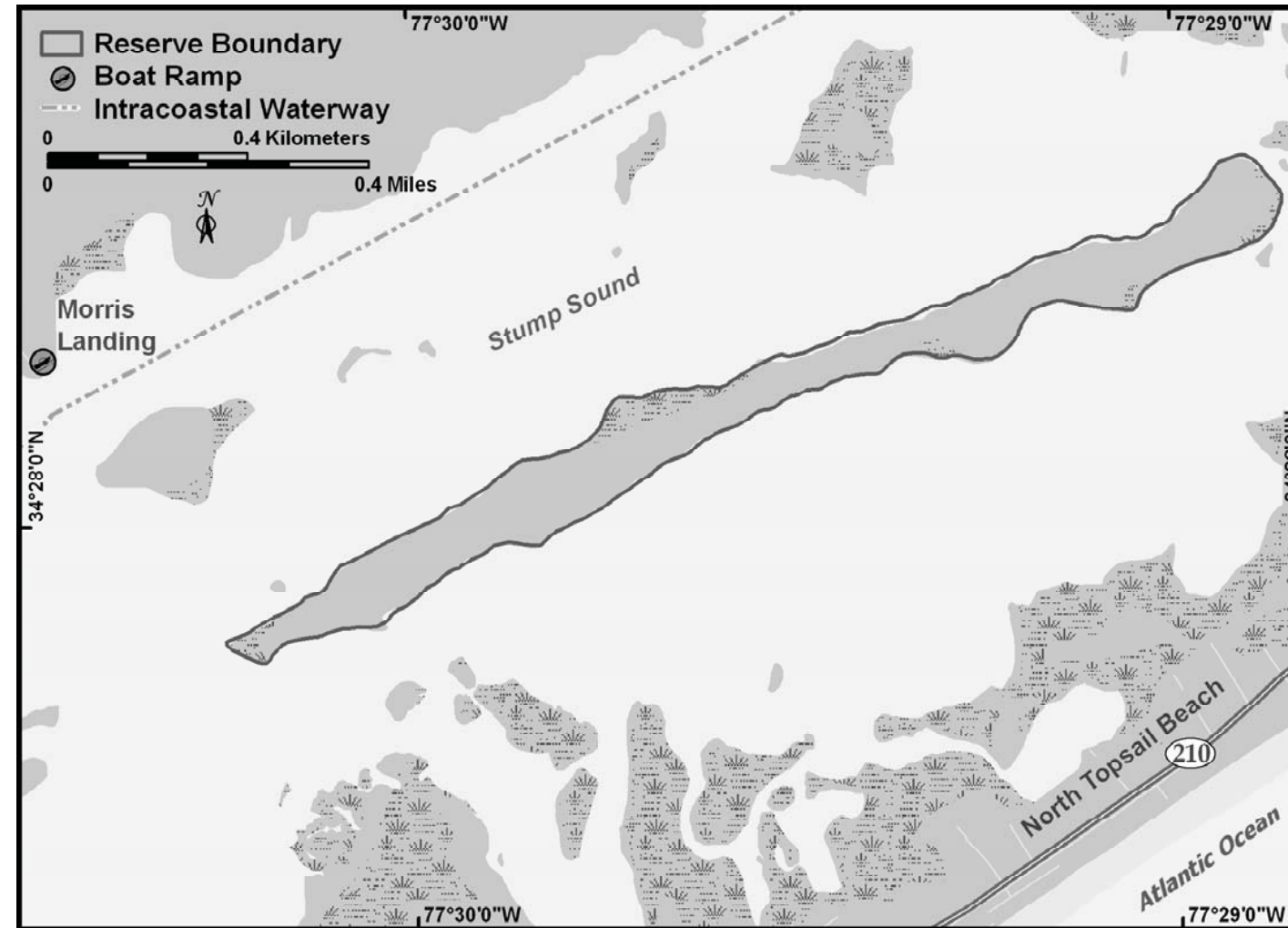
- Permuda Island is situated on the sound side of Topsail Island and across from the town of Holly Ridge on the mainland.
- Permuda is thought to represent a remnant of a former barrier island that was gradually separated from the ocean by the geological development of Topsail Island.
- Now surrounded by the estuarine waters of Stump Sound, the site is protected from high energy ocean waves.
- Stump Sound is designated as an Outstanding Resource Water by the N.C. Division of Water Quality to maintain the high water quality of the sound and important shellfish resources.

## Upland Habitats

- The shrub thicket community consists of clumps of stunted trees, shrubs, and vines such as live oak, red cedar, yaupon, silverling, and greenbrier.
- The central portion of the island contains a series of former agriculture fields partitioned by strands of shrub thicket.
- Within the old agricultural fields, broomsedge, dog fennel, asters, goldenrods, and Mexican Tea can be found.

## 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.
- Salt marsh 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.



## Birds

- Willets, American oystercatchers, egrets, herons, black skimmers, sandpipers and gulls are commonly observed on the island.
- Upland portions of the island are home to sparrows, warblers and other songbirds.

## Mammals

- Mammals found within the Permuda Island Reserve include opossums, raccoons, marsh rabbits and cotton rats.
- River otters are occasionally found in the marsh and sound areas.

## Restoration

- At one time Permuda Island was connected to Topsail Island by a causeway. Two restoration projects were conducted to remove remnants of the causeway and restore natural marsh and improve water flows.
- Restoration of salt marsh and natural hydrology to improve and protect the water quality and high quality shellfish beds that Stump Sound is known for.

## Archaeological Elements

- The archaeological resources of Permuda Island are considered significant in that the site possesses potential for yielding new knowledge about the prehistoric adaptations of the Middle Woodland (300 B.C. – 800 A.D.) and Late Woodland (800 – 1650 A.D.) aboriginals who occupied the southern coastal region of North Carolina.
- Shell middens, piles of mollusk shells deposited by Native Americans, are found throughout the site.
- During the Late Woodland period, there is evidence that Native Americans associated with the Algonquian tribes were present at Permuda Island.



River otter (*Lontra canadensis*)