

NATURAL AREA INVENTORY
OF
CUMBERLAND COUNTY, NORTH CAROLINA

by

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with animal data provided by

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Division of Parks and Recreation
North Carolina Natural Heritage Program

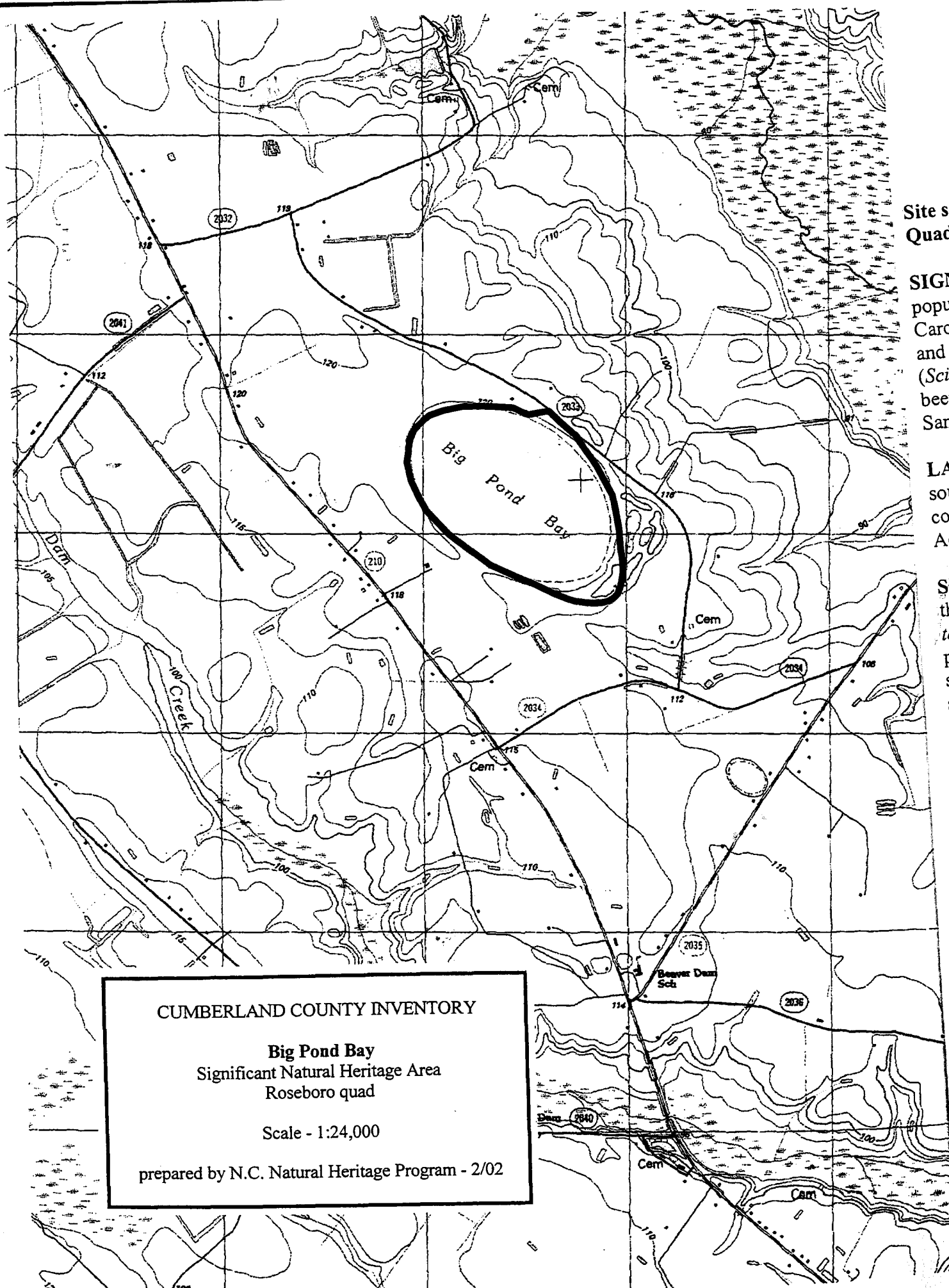
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ABSTRACT

This inventory of the natural areas, biological communities, and rare species of Cumberland County was funded by Sandhills Area Land Trust (SALT) and North Carolina Natural Heritage Trust Fund. This inventory identifies the most significant natural areas in the county, describes their features, and documents all natural communities and rare species of plants and animals associated with them. Habitat conditions, natural processes, and threats are also described. This inventory is intended to provide guidance for land use decisions by the county government, landowners, conservation and land management organizations, and interested citizens. Field work was supervised by the North Carolina Natural Heritage Program (NC NHP), and carried out in 2000 and 2001. The inventory identifies 38 standard sites, six macrosites, and two megasites of natural significance at the national, state, or regional level, as determined by criteria established by the NC NHP. Five sites of county significance have also been identified.

ACKNOWLEDGMENTS

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CUMBERLAND COUNTY INVENTORY
Big Pond Bay
 Significant Natural Heritage Area
 Roseboro quad
 Scale - 1:24,000
 prepared by N.C. Natural Heritage Program - 2/02

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Cumberland County Natural Area Inventory

BIG POND BAY Significant Natural Heritage Area

Site significance: state
Quadrangle: Roseboro

Size: 183 acres
Ownership: private

SIGNIFICANT FEATURES: Big Pond Bay contains the larger of two currently known populations of Federally and State Endangered southern spicebush (*Lindera melissifolia*) in North Carolina. It also supports populations of Federal Species of Concern pondspice (*Litsea aestivalis*) and State rare southern bogbutton (*Lachnocaulon beyrichianum*). The State rare eastern fox squirrel (*Sciurus niger*) is also known from this site. Although most of the bay basin and rim habitat has been altered by timber management and apparent hydrologic impacts, a small area of the Xeric Sandhill Scrub community persists at the southeast end of the bay's rim.

LANDSCAPE RELATIONSHIPS: This site is located in southeastern Cumberland County southwest of Norris Road (SR 2033). It is largely isolated from other natural areas, but is indirectly connected by managed timberlands eastward to the Upper South River Floodplain and South River Aquatic Habitat sites.

SITE DESCRIPTION: Big Pond Bay is a moderately small Carolina bay with a forested interior that appears to reflect past hydrologic changes. The canopy is dominated by loblolly pine (*Pinus taeda*) and pond cypress (*Taxodium ascendens*). The shrub layer is dense in the outer portion and patchy in the inner portion, where it is intermixed with sphagnous openings. These conditions suggest that the interior of the bay was ponded in the past (as suggested by pond cypress and the site's name), but that the water table has since lowered (as suggested by pond-intolerant loblolly pine). The basin's dense to patchy shrub layer is dominated by Carolina sheepl laurel (*Kalmia carolina*) and fetterbush (*Lyonia lucida*), with southern spicebush locally prominent.

Most of the surrounding bay rim habitat has been altered by timber management, but a small area of Xeric Sandhill Scrub Coastal Plain Variant in good condition persists at the southeast end of the site. An open to sparse canopy of longleaf pine (*Pinus palustris*) rises above a moderate turkey oak (*Quercus laevis*) understory. Canopy trees are mature, reaching 15 inches in diameter. The sparse to patchy shrub layer is dominated by deerberry (*Vaccinium stamineum*).

MANAGEMENT AND PROTECTION: This site is in need of scientific study to determine what management procedures are needed to provide for the preservation and enhancement of the southern spicebush population, and potential natural community restoration. The site has no legal protection status, but a small portion is a Registered Natural Heritage Area under a nonbinding agreement with the N.C. Natural Heritage Program.

NATURAL COMMUNITIES: Xeric Sandhill Scrub Coastal Plain Variant.

RARE PLANTS: Southern spicebush (*Lindera melissifolia*), pondspice (*Litsea aestivalis*), southern bogbutton (*Lachnocaulon beyrichianum*).

RARE ANIMALS: eastern fox squirrel (*Sciurus niger*).

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