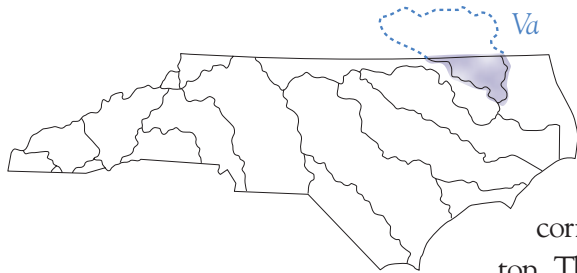


# CHOWAN RIVER BASIN

The Chowan River Basin is a region of vast hardwood swamps and tea-colored rivers. It is a place where fish were once currency and rivers were once highways.



Since Colonial times, fishermen have netted legions of herring, shad and striped bass during the fishes' spring spawning runs into freshwater rivers. These tributaries also served as pathways of trade, through which timber, fish, tobacco, corn and animal hides left the thriving port of Edenton. The town's origins are traced as far back as 1655, making Edenton the first permanent settlement in North Carolina. Historians believe homesteaders traveled south from the Jamestown, Va., area to settle the mouth of the Chowan River.

Bobcat



BILL LEA

BILL LEA

Before European settlement, the Chowan River was home to Algonkian Indians, who lived for centuries on the riverbanks—the Weapemeoc on the west shore, the Chowanoke on the east. They, too, fished the bountiful waters and farmed the fertile soils.

The waters of the basin are still known for some of the best fishing in the state. Largemouth bass, bluegill, chain pickerel, black crappie, sunfish, perch and herring are the most sought-after species. The Chowan River is often called the capital of the "river herring" fishery

## profile:

Total miles of streams and rivers: 803

Municipalities within basin: 19

Counties within basin: 5

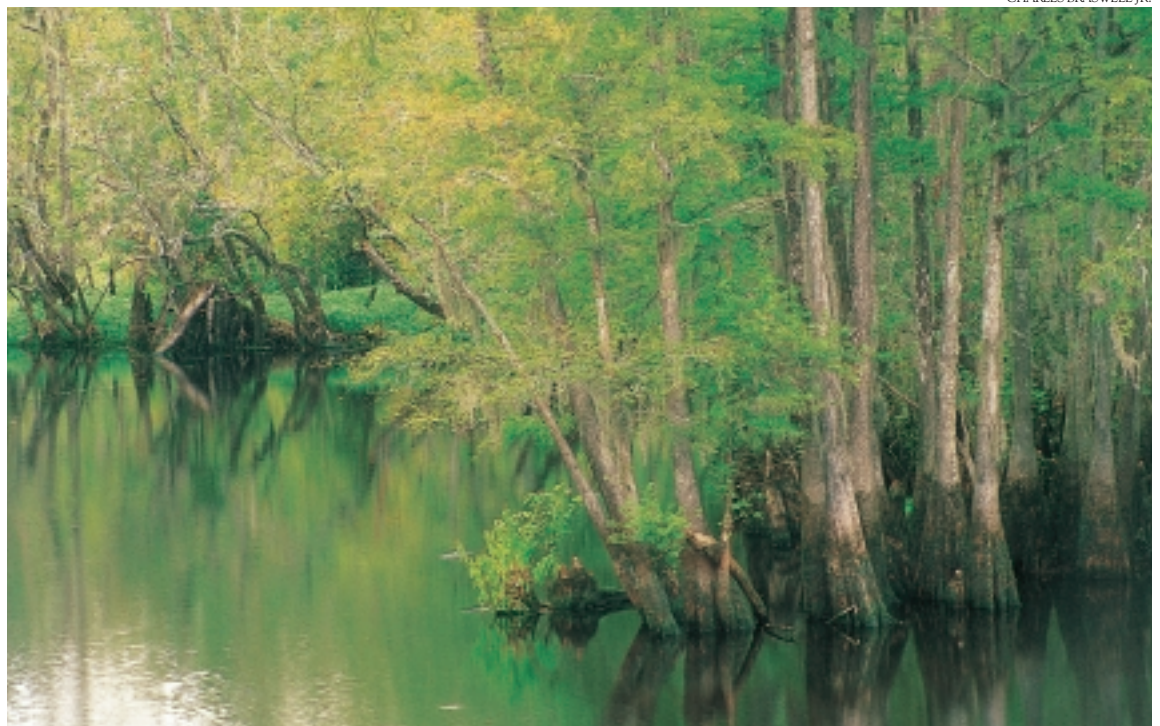
Size: 1,378 square miles

Population: 61,034 (2000 Census)

(in North Carolina)

Cypress trees on Chowan River

CHARLES BRASWELL JR.







GEORGE HUMPHRIES

## Enchanted Forest

*M*erchants Millpond State Park is a mystical place where ancient bald cypress trees and draping Spanish moss wrap around a 760-acre millpond nearly 200 years old. The floating leaves of water lilies meet knobby cypress knees at the surface of the still, black water. The pond's upper end contains a grove of 800-year-old bald cypresses and the state's



GEORGE HUMPHRIES

largest known water tupelo tree. More than 190 species of birds have been recorded, and waterfowl abound in winter. Water moccasins or "cottonmouths" proliferate in the warm months. Two American alligators in the pond are popular attractions. Low-profile inhabitants include black bears, minks, gray foxes and river otters.

The term is applied to both blueback herring and alewife, anadromous species that live as adults in the open ocean but swim back to the freshwater streams of their birth to breed. As recently as three decades ago, over 12 million herring were processed annually at Colerain. Early settlers ate their herring boiled, fried or corned (cured by salt). Many traded barrels of herring for sugar, rum and other goods. Though the population and commercial harvest of herring have drastically declined, it is still a spring tradition for locals to fry this fish-of-little-flesh to a crisp and eat it bones and all.

*A black bear wades through duckweed in a swamp (below); Edenton Bay and Albemarle Sound (below right)*

BILL LEA



The Chowan River proper originates at the North Carolina-Virginia border where the Blackwater and Nottoway rivers meet. Narrow and lively at its source, the 50-mile-long Chowan flows southeast past such small towns as Winton and Colerain before broadening to nearly 2 miles wide where it meets the Albemarle Sound near Edenton. Along with the Roanoke River, it supplies most of the fresh water to the sound, which is part of the second-largest

KEN TAYLOR, WILDLIFE IMAGES





## fast FACTS:

### Scenic Retreat

The town of Edenton is a thriving center for tourism in the basin. A quaint downtown with a view of Edenton Bay and tree-lined streets with historic homes draw explorers by water and land. More than 25 homes and public buildings make up a National Historic Site that includes the oldest courthouse and first church in North Carolina. Queen Anne and Pembroke creeks provide paddling opportunities past old homes and farmland.



COURTESY OF THE N.C. DIVISION OF TOURISM, FILM AND SPORTS DEVELOPMENT

estuary system in the United States (the Albemarle-Pamlico Estuary). Only the Chesapeake Bay is larger in area. Major tributaries in the basin include the Meherrin and Wiccacon Rivers and Potecasi, Ahoskie, Bennetts, Indian and Rockyhock creeks.

DOUG WECHSLER, VIREO



*Ospreys are among several fish-eating birds that have made a comeback since the ban on the pesticide DDT.*

One of the most extensive swamp forests in North Carolina, Chowan Swamp, lies along the northeast shore of the Chowan River. Between 1973 and 1994, The Nature Conservancy worked with Union Camp Corporation and Georgia-Pacific Corporation to protect almost 11,000 acres now owned by the N.C. Wildlife Resources Commission, the N.C. Forestry Foundation and the N.C. Division of Parks and Recreation. Most of the swamp is forested in swamp tupelo and red maple, with a narrow strip of bald cypress and water tupelo along the river. Freshwater marshes at the mouths of Bennett's, Sarem and Catherine creeks contain large patches of prairie cordgrass, a significantly rare species in North Carolina. Wild rice and arrow arum grow there too. The swamp hosts breeding "neotropical" migratory songbirds, such as prothonotary and Swainson's warblers, and mammals such as black bears, bobcats and river otters. Paddlers can access this wilderness through several blackwater streams.

The state's Natural Heritage Program considers 100 miles of the Chowan and its tributaries significant aquatic habitat because of diverse, rare and vulnerable populations of freshwater mussels. Five mussel species



Eastern lampmussel

IMAGE OF LAMPSILUS RADIATA RADIATA BY VALERIE FULFORD, REPRODUCED WITH PERMISSION; © CANADIAN MUSEUM OF NATURE, OTTAWA, CANADA



Chowanoke crayfish

AIMEE FULLERTON, NCWRC





*Green-backed heron*

BILL LEA



EDENTON-CHOWAN CHAMBER OF COMMERCE

*Cannon's Ferry Heritage River Walk is near the site of a historic boomtown herring fishery.*

declared "dead." In 1972, the Chowan was the site of the first large-scale algae bloom in coastal North Carolina. Thick, green scum swallowed the lower half of the river. Depleted oxygen levels caused by the decomposing blue-green algae killed fish, and fish diseases also were rampant.

For the past two decades, concerned citizens and scientists have worked to restore water quality. A local citizens' group began monitoring the river. They alerted officials to problems, attended public meetings and spotlighted possible polluters. Research indicated that excess levels of nitrogen and phosphorus in wastewater and runoff contributed greatly to the river's problems. In 1979, the Chowan became the first river basin in North Carolina to receive the "nutrient sensitive waters" classification. The state's Division of Water Quality recommended reductions in the amounts of phosphorus and nitrogen that wastewater treatment systems discharged into the river.

are state-listed as threatened: the triangle and alewife floaters, the eastern lampmussel, the eastern pondmussel and the tidewater mucket. The Chowanoke crayfish, a resident of sluggish, woodland streams of the basin, lives elsewhere only in southeastern Virginia. The Atlantic sturgeon, listed federally as an endangered species, hasn't been recorded from the Chowan River for more than 100 years.

The basin is still very rural. Less than 1 percent of the state's population lives in the Chowan River Basin. Population varies among municipalities, from 78 in Como to 5,394 in Edenton. The next largest municipalities are Ahoskie (4,523) and Murfreesboro (2,045). The overall population density is 48 persons per square mile, compared to the statewide average of 139. Less than 3 percent of the land is developed.

State officials in charge of monitoring water quality find that the condition of the basin's waters generally is good. So it's almost hard to believe that the Chowan River was once

## CHOWAN RIVER BASIN

You may notice "Chowan River Basin" signs posted along highways throughout the basin. The signs are part of a statewide educational program to raise public awareness that we all live in a river basin and that our individual actions affect the quality of its waters. Signs in all 17 river basins of the state are made possible by a partnership between the N.C. Department of Environment and Natural Resources and the N.C. Department of Transportation, along with funds from the Federal Transportation Enhancement Program.



*Gray fox*

BILL LEA



## fast FACTS:

### Parker's Ferry

The community of Parker's Ferry in Hertford County is the site of a two-car ferry from the 1930s. From a ramp lined with water lilies off Secondary Road 1306, the ferry still takes passengers across the mouth of the Meherrin River. Parker's Ferry is also home to the Meherrin Indians, "the people of the muddy waters." After they were assigned to a reservation here in 1726, tribe members disbanded and moved into the surrounding swamps. By concealing their identities, they and their descendants became a cog in the area's economy. The Meherrin's descendants reorganized in 1975 and gained official recognition as a tribe in 1986.



BILL LEA

Area farmers have taken voluntary measures to reduce soil erosion and runoff of fertilizer and animal waste. Researchers estimate that 123,244 fewer tons of soil erode each year because of these practices.

*Bald cypresses stand like sentries on a Chowan swamp.*

Another positive result can be seen in area fisheries. A 10-year fish consumption dioxin advisory was lifted for the Chowan River in 2000. (Dioxin is a byproduct of certain paper-bleaching processes.) New bleaching technologies at a Virginia paper mill have reduced contaminated wastewater discharge. Because the majority of the Chowan River's watershed (75 percent) lies in Virginia, upstream activities have a profound effect. Thanks to work by the Albemarle-Pamlico National Estuary Program, stakeholders in Virginia and North Carolina have pledged to work together to protect shared water resources. They've appointed a watershed field coordinator, and an interstate work group coordinates projects.



MURFREESBORO HISTORICAL ASSOCIATION

Parker's Ferry

But some problems remain. A regional fish consumption advisory for mercury applies to largemouth bass, bowfin and chain pickerel—and several saltwater fish—caught in North Carolina waters south and east of Interstate 85.

Residents can evaluate their contribution to polluted runoff in the basin and make a difference by using environmentally sound land-maintenance practices (maintaining septic systems, responsibly using fertilizers and pesticides).

**State of North Carolina:** Governor Michael F. Easley • **North Carolina Department of Environment and Natural Resources:** Secretary William G. Ross Jr. • **Office of Environmental Education:** Project Manager Lisa Tolley • **This publication was funded through the Clean Water Act's Section 319 Grant Program.** Editor Carla Burgess • Designer Kimberly Schott, Red Gate Design • Special Thanks North Carolina Wildlife Resources Commission • **Date:** 2002 • No state funds were used to print this public document.

Sunset and lone  
cypress on the  
Albemarle Sound



GEORGE HUMPHRIES

## WHERE SHOULD I GO

What makes the Chowan River Basin so special? See for yourself. The Chowan Swamp State Natural Area and Game Land offers opportunities to explore. Also, visit these Environmental Education Centers to discover more about your ecological address:

- Edenton National Fish Hatchery
- Merchants Millpond State Park

For more information about all the Environmental Education Centers in North Carolina, call the Office of Environmental Education at (919) 733-0711, or check out the Web site at <http://www.ee.enr.nc.us>.

## WHAT CAN I DO

- Do your part to positively influence water quality in the Chowan River Basin.
- Get involved in basinwide planning or a local organization interested in rivers and streams in the river basin.
- Take the time to learn about the environmental consequences of your actions.

## WHO SHOULD I CONTACT

*The following contacts can provide information:*

- North Carolina Office of Environmental Education, Department of Environment and Natural Resources, (800) 482-8724 or (919) 733-0711, Web site <http://www.ee.enr.state.nc.us>
- Stream Watch Program, Division of Water Resources, Department of Environment and Natural Resources, (919) 733-4064, Web site <http://www.ncwater.org>
- Chowan River Basin Regional Council, (252) 357-1400, [marjorie\\_rayburn@ncsu.edu](mailto:marjorie_rayburn@ncsu.edu)
- Albemarle-Pamlico National Estuary Program, Office of Conservation and Community Affairs, Department of Environment and Natural Resources, (919) 715-1327, Web site <http://h2o.enr.state.nc.us/nep/>
- Soil and Water Conservation Districts, Division of Soil and Water Conservation, Department of Environment and Natural Resources. Go to <http://www.enr.state.nc.us/DSWC> for a listing of all county offices; call (919) 733-2302; or check the blue pages in your local phone book.

To find out more about water quality in the Chowan River Basin, contact the Division of Water Quality's Basinwide Planning Program, Department of Environment and Natural Resources, at (919) 733-5083, Web site <http://h2o.enr.state.nc.us/basinwide/>.