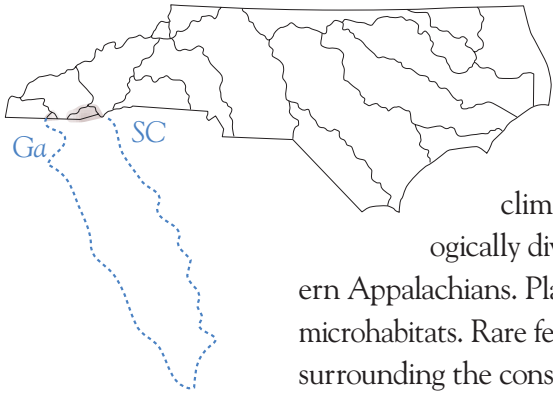


SAVANNAH RIVER BASIN



Numerous and spectacular waterfalls give the state's smallest river basin a gigantic presence. In the Savannah River Basin, wilderness abounds and diversity astounds. The upper basin receives the highest amount of rainfall in the eastern United States—



between 80 and 100 inches per year. This moisture-rich environment feeds rivers that fall and plunge through rock scarps.

With varied topography and a relatively warm climate, this basin contains some of the most ecologically diverse habitats in North Carolina and the Southern Appalachians. Plants more typical of the tropics thrive in unique microhabitats. Rare ferns and mosses live in temperate mini-rainforests surrounding the constant spray of waterfalls.

The Savannah River Basin is the only river basin in the state that contains no part of the river for which it is named. The major rivers in the

basin—the Chattooga, Horsepasture, Toxaway, Whitewater and Thompson—are the source waters for tributaries of the Savannah River that flow through South Carolina and Georgia (the Savannah River empties into the Atlantic Ocean at Savannah, Ga.). Owing to rugged scenery, the Chattooga River (9.7 miles in North Carolina) and a 4.5-mile segment of the Horsepasture River have been designated as National Wild and Scenic Rivers. The same segment of the Horsepasture also is a State Natural and Scenic River. The Horsepasture's

profile:

Total miles of streams and rivers: 176

Municipalities within basin: 1

Counties within basin: 4

Size: 172 square miles

Population: 11,482* (2000)

(in North Carolina)

KEVIN ADAMS



Whitewater Falls

Hiker on Horsepasture River

BILL LEA





WAYNE VAN DEVENDER



CHARLES BRASWELL JR.



BILL LEA

Carolina Star-moss

Most plants cannot survive in the turbulent environment that waterfalls create. However, a few rare ferns and mosses find the wild, moist habitat to their liking. The Carolina star-moss, which grows in dark-green rosettes, clings to spray cliffs in the river basin. It is known outside the Southern Appalachians only in the Dominican Republic. Similarly, the Pringle's moss, which attaches to rocks under running water, is found elsewhere only in Mexico. Scientists aren't sure how such species exist so far from the tropics. Some suggest that spores were blown from afar. Others theorize that the plants may be remnants from the continent's warmer periods tens of thousands of years ago.

Hikers in Gorges State Park

CHARLES BRASWELL JR.



special designations effectively blocked a hydroelectric power plant proposed on the river in the 1980s. The Whitewater River lays claim to the 411-foot Whitewater Falls, the tallest and most voluminous waterfall east of the Rockies. The basin also contains several manmade lakes, the largest of which is a popular resort, Lake Toxaway.

Because of the river basin's dramatic beauty, vacation homes and resort property also have become part of the landscape. Still, more than half the basin's land lies in federal ownership, most within the Nantahala National Forest. It's also home to North Carolina's newest and westernmost state park, Gorges State Park. The park spans 7,100 acres of the Toxaway and Horsepasture river gorges and contains 21 of the 44 types of natural communities known in the North Carolina mountains. Eighty-seven rare plant species live amid the spray zones of waterfalls, overhanging cliffs, rich mountain coves and other diverse ecosystems.

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Swimmers on the Horsepasture River

The basin has three rare endemic fish species, including the turquoise darter, redeye bass and the rosyface chub. Endemic means a species is restricted to only one place or region in the world. These three fish have been found only within Gorges State Park. Entomologists also have recently identified several endemic macroinvertebrates (species such as aquatic insects that lack backbones and can be seen without

magnification). The forests of the gorges contain the largest population of the Swainson's warbler in the North Carolina mountains. The largest population of green salamanders in the state is found here too. This secretive salamander lives in the damp, shaded crevices of cliff faces.

Overall water quality in the Savannah River Basin is good. More than one-fourth of its stream segments are classified by the state as Outstanding Resource Waters or High Quality Waters. Such waters receive extra protection through special management strategies. The basin attracts droves of trout anglers and waterfall spectators. The plunge pools are popular swimming holes. Many swimmers even find some waterfalls to be natural water slides.

KEVIN ADAMS



The basin's waterfalls come in all shapes and sizes. The community of Lake Toxaway has more waterfalls within a 15-mile radius than any other spot in North Carolina. Notable waterfalls along the Horsepasture include Drift Falls, a popular, but dangerous, swimming area; Turtleback Falls, a wide, curved rock face over which water tumbles into another hazardous swimming hole known as Chug Hole; and Rainbow Falls, whose drenching mists create frequent rainbows. The superlative Whitewater Falls can be viewed from NC 281 near the South Carolina border.

The biggest threat to water quality in the basin is damage to stream habitats from eroded soil or sediment particles and the harmful substances that attach to them. Sediment carried by rainwater and melted snow can smother fish habitat in streams. The removal of plants and trees beside waterways also can increase pollution because this vegetation filters pollutants in runoff and holds soil in place. Paved surfaces, too, interfere with natural filtration and divert stormwater quickly to nearby streams. Runoff from construction sites, paved and unpaved roads, and developed areas is a growing concern in the basin.

Property owners can protect and improve water quality by establishing or protecting "buffers," wide strips of shrubs and trees, along stream-

DOUG WECHSLER, VIREO



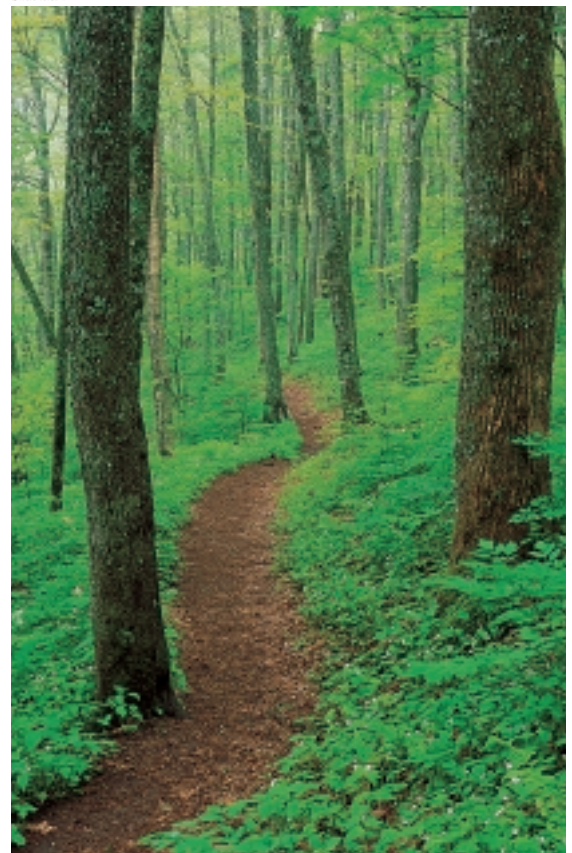
Swainson's warbler

banks on their property; by limiting clearing on steep slopes; by maintaining unpaved roads in a way that prevents erosion; and by keeping septic systems working properly. Farmers can keep livestock from trampling streamside areas. Everyone can get involved in wetland conservation efforts in the basin.

SAVANNAH RIVER BASIN

You may notice "Savannah River Basin" signs posted along highways throughout the basin. The signs are part of a state-wide 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.

BILL LEA





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BILL LEA

Waders on the Horse-pasture (left); Tox-away Falls (right)

WHERE SHOULD I GO ?

What makes the Savannah River Basin so special? See for yourself. Visit these Environmental Education Centers to discover more about your ecological address:

- Earthshine Mountain Lodge
- Gorges State Park
- Enviro-Scope of the Mountain Retreat

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.state.nc.us>.

WHAT CAN I DO ?

- Do your part to positively influence water quality in the Savannah 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>
- Chattooga Conservancy, (706) 782-6097, <http://www.chattoogariver.com>
- 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 county government listings in your local phone book.

To find out more about water quality in the Savannah 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/>.

* PROFILE NOTE: Population estimate is higher than actual population because census blocks do not correspond to watershed boundaries. Only small portions of counties lie within the basin. Data is still being analyzed to determine actual population inside the basin boundary.