

## History of Our Streams I

by Candace Stoughton

*Etowah River Project Manager, The Nature Conservancy*



**W**ater. It's a pretty hot topic right now. Ask most people to name a water-related issue and many might say something about watering restrictions or the water wars between Georgia and our neighboring states. Others might point to a sewage spill and concerns about drinking water quality. From water supply to water quality, the issues are many, varied, related, overlapping, conflicting, and often complex. To understand them, it helps to recognize and appreciate where we our history in terms of our dependence and our impact on Georgia's water resources.

Native Americans depended on rivers for food, commerce and travel. The early naturalist and traveler William Bartram passed through northeast Georgia during this time. He described rivers in this region as "transparent" and flowing over shoals and gravel-bottom stream beds. He characterized the lands around the rivers as rich and suitable for cultivation.

Land was cheap and settlers began to move in quickly. Homes were often built near springs or around hand-dug wells. The original forestlands of the Piedmont were largely cleared for cultivation by the early- to mid-1800s. Row crop farming, primarily for cotton and corn, was a way of life for most settlers throughout the 19th century. The reliance on rivers for power production began to increase during this time as mills and manufacturing plants emerged as centers for agricultural and business activity.

Historic accounts indicate that fish were abundant in area rivers. Today, we still use our streams and rivers for fishing; however, the abundance and diversity of native fish species has declined. For example, in the Etowah, 15 of the 91 fish species known to have occurred in the river and virtually all of the original mussel species have disappeared. The primary uses of rivers today include drinking water, power production, wastewater disposal and recreation. But our streams and rivers appear to have changed since Bartram's time. Look over a bridge

next time you cross a river, and you'll notice it probably is not clear, particularly if it has rained and flows mostly over a sediment-covered bottom. Why?

The Georgia Piedmont is especially susceptible to erosion due to its steep slopes, highly erodible soils and intensive rainfall patterns. Post-settlement land clearing coupled with intensive row-crop cultivation led to significant erosion throughout the Piedmont over a century ago. Streams became choked with sediment.

Bottomland areas that once had well-developed, rich surface soils became filled with thick deposits of unfertile sediment. While modern land-disturbing activities continue to impact streams and rivers today,



The Georgia Piedmont is especially susceptible to erosion due to its steep slopes, highly erodible soils and intensive rainfall patterns. Post-settlement land clearing coupled with intensive row-crop cultivation led to significant erosion throughout the Piedmont over a century ago. Streams became choked with sediment.

the overall extent of impact has dramatically decreased in the past 100 years. Nevertheless, thick deposits of sediment laid down over a century ago continue to be churned up each time it rains and redistributed within drainage basins, ultimately affecting the hydrology of our watersheds.

Should we be concerned? My next column will further examine historical land use effects on watershed hydrology and will discuss the implications for modern-day watershed management.

For more information about The Nature Conservancy's work in the Etowah watershed, visit [www.nature.org/georgia](http://www.nature.org/georgia). If you would like to be added to the Conservancy's E-mail updates list for the Etowah please call 770/704-7280.

Thanks to Melanie Ruhlman, a watershed specialist who lives in the Oconee watershed, for her research and contribution to this article.

*January 27, 2004*



SAVING THE LAST GREAT PLACES ON EARTH

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

[nature.org/georgia](http://nature.org/georgia)