Dan River Basin Watershed

Size: 3,300 sq miles

Linear Stream Miles: 11,123

Lake Acres: 25,042

Federal & State Conservation Acres: 45,946

Other Conservation Acres: 42,858

Counties: 8 full, 8 partial

Municipalities: 25

The Dan River rises on the eastern slope of the Blue Ridge Mountains in Patrick County, Virginia. From there it travels 200 miles, passing through Stokes, Rockingham, Caswell and Pittsylvania Counties, before reaching Halifax County, VA where it enters Kerr Reservoir near the town of South Boston. Along the way, it is fed by five main tributaries - the Smith, Mayo, Sandy, Hyco, and Banister rivers. The Dan River Watershed forms part of the headwaters of the Roanoke River, a major source of the Albemarle Sound in coastal North Carolina, one of the largest estuaries in the United States. The largely undeveloped Dan River Basin is a well-kept secret, bursting with natural, cultural and recreational resources.

The basin has long supported a diverse abundance of life, including rare and endangered plants, animals and aquatic organisms. The Virginia cup-plant, goldenseal and small-anthered bittercress are a few examples of endangered plant species that can be found on the banks of the Dan River and its tributaries.

Pictured is the Smith River, one of the Dan’s main tributaries, near Martinsville in Henry County, VA.

Photo by Brian Williams
Fall hunting for wild turkeys is a long-established tradition in the Basin. Turkey and other wild game were staple food sources for settlers who explored the area in the 17th, 18th and 19th centuries.

Virginia and North Carolina have every natural bird or animal habitat that occurs between Maine and Florida; this rich diversity is celebrated by the Virginia Birding and Wildlife Trail. Several of the loops on the trail traverse the Dan River Basin, including the Fairystone, Turkeycock, Southwest Piedmont and Dan River Loops. These driving loops take you on a tour of the many state parks, reservoirs, nature preserves, hiking trails and scenic overlooks that offer a first-hand experience of the abundant wildlife that thrives in the Basin.\(^5\)

Unfortunately, the Basin has not been immune to the widespread impairment of waterways throughout Virginia and North Carolina, however low rates of development in the area have preserved the pristine quality of most rivers & streams. The Basin’s waterways are an exceedingly rare stronghold of endangered aquatic organisms, such as the James spinymussel, a small freshwater mussel that is now found only in the upper tributaries of the James and Dan River basins.\(^2\) The Roanoke logperch, a small fish found in rivers and streams with very low turbidity, is another endangered species that has managed to persist in the basin’s clear waters.\(^3\)

Photos by Daryl Kreager
Natural Heritage inventories conducted in Stokes and Rockingham counties, NC were able to identify nineteen unique natural areas that are significant on the regional, state and national level. Ongoing efforts by the Piedmont Land Conservancy, Dan River Basin Association, Natural Resources Conservation Service and others aim to protect and enhance the ecological function of the Dan River Watershed to ensure the long-term viability of its natural resources.

Aside from plant and animal habitat, the Dan River Basin also supports a culture that has been historically rich in farming and forestry. Tobacco was an important cash crop in the area; the Brightleaf tobacco curing process originated in Caswell County, bringing great wealth to the area. Prior to the Civil War, Caswell was one of the wealthiest counties in North Carolina as evident by its significant collection of antebellum homes. In the late 18th century and early 19th century, transportation was largely by water. Improvement of the river for batteau navigation spurred economic development and the founding of South Boston and Danville, VA and Milton, Leaksville (Eden) and Madison, NC. Railroads arrived in the mid-19th century, connecting the basin to wider commerce and bringing tobacco marketing and manufacturing to the towns. The railroads also made timber production more viable and companies moved in to harvest timber from the Basin, which was used to meet demand in the Northeastern and Midwestern U.S, where forest resources had been greatly depleted.

While forestry still plays an important role in economy of the Basin, the advent of companies like R.J. Reynolds and American Tobacco Company meant the consolidation of small farms and factories. With the decrease in tobacco farming came the proliferation of furniture and textile industries. Cities like Bassett, Martinsville, Danville, Eden and Roxboro saw an industrial boom; however, many of these jobs would be outsourced globally beginning in the 1970’s. This decline in manufacturing led to a major economic slump and the move toward more diverse industries.
As more and more nature and adventure-seekers are beginning to realize, the opportunities for outdoor recreation in the Dan River Basin are practically unlimited. There are many local, state and national parks and recreation areas, including Hanging Rock State and Mayo River State Park in North Carolina and Philpott Lake, Fairyestone State Park, the Blue Ridge Parkway and Rocky Knob National Recreation Area in Virginia.

The movement to create networks of Greenways and Blueways throughout the basin has taken off in the past several years. Counties and Municipalities have embraced efforts to create recreational amenities that highlight the unique heritage of the area. Examples are the Richmond & Danville Rail Trail in Pittsylvania County and the Dick & Willie Passage in Martinsville/Henry County on the route of the old Danville & Western Railroad.

The number of river access points on the Dan and its tributaries has greatly increased, providing more opportunities for fishing and paddling. Prior to 2002, there was only one river access on the Smith River in Henry County, today there are eight. The basin can accommodate paddlers of any nature. The fast-moving white-water runs of the Dan River in Kibler Valley eventually turn into slow, relaxing floats as the Dan crosses the Virginia/North Carolina border- where historic batteau navigation structures make it easy to paddle the rivers even in low water. The many lakes and reservoirs of the basin serve as attractions for outdoor enthusiasts who enjoy fishing, paddling or wildlife viewing.

According to "Adventures in the Dan River Basin", there are twenty-one dams in the Dan River Watershed. These dams, some of which are no longer operable, power mill operations, provide industrial cooling, generate electricity and provide recreational opportunities. Some of the larger dams also serve as a defense against damaging floods. While downstream, the dams have interfered with the spawning habits of native fish such as the Hickory Shad and Striped Bass, they have also created some excellent fisheries. A great example of this is the Smith River below Philpott Dam, one of the most productive Trout fishing tailrace streams in Virginia. The Dan River Basin Association is currently working with entities such as the Virginia Department of Game and Inland Fisheries and the US Army Corp of Engineers to regulate flow rates from electricity-producing dams in a way that will improve fish habitat while also making the rivers more recreation friendly.

The Kibler Valley River Run is a popular yearly event for white-water enthusiasts. It takes place in late July.
The Dan River Basin is largely rural, with less than five percent of land mass having seen city or town development. Despite this, a considerable number of the basin's assessed waters are considered impaired, with several streams citing higher than acceptable levels of E.Coli. The rate and nature of impaired waters in the basin indicate historic and ongoing degradation of water resources, a result of pollution from agriculture, forestry, and manufacturing practices. (3)

"Perhaps the largest threat to the watershed is that the Virginia-North Carolina state border divides it. The Environmental Protection Agency (EPA) gives mandates to State environmental agencies on standards and protocols for water quality monitoring based on their region. The Virginia DEQ and North Carolina DEQ do not work across state borders. Virginia is in the EPA Region 3, whereas North Carolina in EPA Region 4." (3) Cooperation between the two state's agencies has recently begun.

Thanks to the many entities that recognize the importance of protecting the Basin's invaluable resources, there are several ongoing initiatives aimed at conserving critical aquatic and land habitats. The Dan River Watershed Protection Initiative, led by the Piedmont Land Conservancy, has been able to protect 2,248 acres of habitat in Stokes and Rockingham counties. There are also ongoing efforts by the Department of Conservation & Recreation and the Department of Environmental Quality in partnership with local entities to implement projects aimed at restoring water quality. Since 2002, the Dan River Basin Association(DRBA) has been coordinating initiatives to protect the natural and cultural resources of the watershed. DRBA offers educational programs that teach children and adults the value of protecting their environment and hold regular community clean-up events. The organization also helps localities develop public river and trail facilities that increase access to nature and encourage healthy lifestyles. Aside from these programs, DRBA advocates for sustainable economic development based around the wise use of the Basin's abundant natural and cultural resources.