

Executive Summary

**An Inventory of the Significant
Natural Areas of Ashe County, North
Carolina**

North Carolina Natural Heritage Program

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SIGNIFICANT NATURAL HERITAGE SITES OF ASHE COUNTY

Ashe County is located at the northwestern corner of North Carolina, entirely within the Blue Ridge Province of the Southern Appalachian Mountains. In Ashe County the Blue Ridge is divided into two regions based on landforms and geology: the Unaka Range and the Blue Ridge Range. The northern and northwestern parts of the county, north of the North Fork New River, are contained within the Unaka Range region. The remaining two-thirds of Ashe County falls within the Blue Ridge Range, including all areas south of the North Fork New River. The rolling mountains and valleys of the New River plateau in southeastern Ashe County and the large cluster of high mountains in central and southwestern Ashe County are included within this region. The southeastern border of the county roughly follows the top of the Blue Ridge Escarpment, the steep boundary between the Blue Ridge and the Piedmont.

As is typical in the Blue Ridge, the landscape of the county is a complex of mountains and valleys that are oriented in a variety of directions. The elevational range of the mountain peaks is from 2480 feet to 5160 feet, with an average of about 3000 feet. Ashe County contains a greater amount of rare mafic rock types than any other mountain county in the state. Mafic rock types are those that are high in minerals such as magnesium, iron, and calcium and which weather to unusually nutrient-rich high pH (basic) soils. Amphibolite, one of these mafic rock types, occurs in a broad band across the middle of Ashe County, informally lending the name “amphibolite mountains” to this region. Amphibolite weathers into soils which support unusual natural community types with many rare plant species. A few natural community types on amphibolite in Ashe County occur nowhere else in the world.

The county is drained entirely by the scenic New River and its tributaries. The New River is often considered to be the oldest river in North America. The North Fork of the New River flows through the northern section of Ashe County, on the northern flanks of the amphibolite mountains. The South Fork of the New River meanders through the New River Plateau in the southeastern third of the county. The New River is of substantial significance in terms of biodiversity. One section of the river supports 16 species of rare animals, including 3 rare fishes that are endemic to this drainage. The river’s banks are important habitat for the Federally Threatened plant, Virginia spiraea (*Spiraea virginiana*).

The land use in Ashe County has traditionally been rural, with much of its economy based on pastured-cattle and Christmas tree farms. Many parts of the county remain well forested, although substantial areas have been cleared for the above-mentioned agricultural uses. Development in the county is accelerating, however, and this will only continue when US 221 is widened to a four-lane highway. The most heavily forested areas remain in the large, high elevation mountains of central and southwestern Ashe County.

Conducted by Shawn Oakley and published in 1999, the Ashe County inventory identified 32 Significant Natural Heritage Areas. As of 2005, a total of 31 Significant Natural Heritage Areas are documented in the county. Five natural areas are considered of national significance, 9 are of state significance, 6 are of regional significance, and 11 are of local significance.

For more information on the Ashe County Inventory please contact the North Carolina Natural Heritage Program at 1601 MSC, Raleigh, NC 27699, (919) 715-8687 or visit our website at <http://www.ncnhp.org>.

SITES OF NATIONAL, STATE, AND REGIONAL SIGNIFICANCE IN ASHE COUNTY

Amphibolite Mountains

Bluff Mountain is a 2,200 acre area that includes the only known occurrence of a Southern Appalachian Fen, as well as North Carolina's only known High Elevation Mafic Glade. There are some areas of old-growth forest. Other high quality natural communities include High Elevation Rocky Summit, Carolina Hemlock Bluff, Montane White Oak Forest, Northern Hardwood Forest, High Elevation Seep, and Rich Cove Forest. The site contains at least 48 rare plant species, which include northern disjuncts and Southern Appalachian endemics. The rare Bluff Mountain reindeer lichen (*Cladonia psoromica*) occurs here. Other rare plants include the Federally Endangered rock gnome lichen (*Gymnoderma lineare*) and mountain bluet (*Houstonia Montana*). The Nature Conservancy owns a large portion of the site, and this is a Dedicated State Nature Preserve. Other areas are leased to the NC Wildlife Resources Commission for a Game Land, and the Conservation Trust for North Carolina holds a conservation easement on the portion that is privately owned.

Long Hope Valley/Elk Knob/The Peak is one of the most biologically significant sites in the Southern Appalachians. This area of about 8,300 acres includes high mountain peaks ringing a valley six miles long. It is the most significant area in the southern United States for northern disjunct species. It also contains the best example in North Carolina of a rare hanging valley (a high elevation valley with gentle topographic relief). Here there are 23 examples of the rare Southern Appalachian Bog community type, as well as extensive Swamp Forest – Bog Complex communities. Other large and excellent quality natural communities include High Elevation Rocky Summit, High Elevation Seep, Montane Mafic Cliff, Rich Cove Forest, Northern Hardwood Forest, Montane Oak-Hickory Forest, and High Elevation Red Oak Forest. Thirty-seven rare plant species and eight rare animal species are known from the area. These include global rarities such as the Federally Endangered rock gnome lichen, Northern Flying Squirrel (*Glaucomys sabrinus coloratus*), and northern disjuncts such as stalked holly (*Ilex collina*), holy grass (*Hierochloa odorata*), and Canada yew (*Taxus Canadensis*). The majority of the site is privately owned. However, about 1000 acres are in Elk Knob State Natural Area, owned by the North Carolina Division of Parks and Recreation, and a Designated National Natural Landmark. A portion is owned by The Nature Conservancy. About half of the site lies in Watauga County.

Paddy Mountain has an excellent quality High Elevation Rocky Summit that is buffered by extensive unfragmented forests, due to its proximity to Bluff Mountain and Three Top Mountain. Paddy Mountain also has exemplary Montane Oak-Hickory Forest, Rich Cove Forest, and Chestnut Oak Forest. The rocky summit has a population of the Federally Endangered mountain bluet. The majority of the site is owned by the North Carolina Plant Conservation Program; the remainder is privately owned.

Phoenix Mountain has one of the best High Elevation Rocky Summits in the state, which provides habitat for nine rare plant species. These include the Federally Endangered rock gnome lichen and mountain bluet. The area also has extensive mature Northern Hardwood Forest, High Elevation Red Oak Forest, Montane Oak-Hickory Forest, and Rich Cove Forest. One of three North Carolina populations of the rare elliptic shinleaf (*Pyrola elliptica*) occurs here. Phoenix Mountain is privately owned.

Three Top Mountain is a 6,300 acre site and may be the largest continuously forested area in Ashe County. There are extensive natural communities with unusual species compositions, due to the influence of the amphibolite. These include Rich Cove Forest, Montane Oak-Hickory Forest, Northern Hardwood Forest, and High Elevation Red Oak Forest. Sixteen rare plant species are known from the area including the Federally Endangered mountain bluet. North Carolina's only population of bluebells (*Campanula*

rotundifolia) occurs here. Most of the western half of Three Top Mountain is a Game Land and a Dedicated State Nature Preserve owned by the NC Wildlife Resources Commission. The eastern half has multiple private owners.

Mount Jefferson State Natural Area and Vicinity includes extensive, good quality Northern Hardwood Forests, High Elevation Red Oak Forests, and a High Elevation Rocky Summit, as well as a small Heath Bald community. Twelve rare plant species are known from the area, most of which are at the edge of their ranges. Six rare animal species are known from the site. Most of the site, on the upper and middle slopes, is owned by the NC Division of Parks and Recreation, and the biologically significant areas have been designated a Registered Natural Heritage Area. The lower slopes have multiple private owners.

Bina Rich Slope has nutrient-rich, basic soils that support a good quality Rich Cove Forest community. Small rock outcrops are also found here. The site has large populations of Carolina saxifrage (*Saxifraga caroliniana*), which is a Federal Species of Concern, and the rare Meehan's mint (*Meehania cordata*). It is privately owned.

Little Phoenix Forests and Glade has a small but good quality Low Elevation Rocky Summit community. This is the only example of this natural community type known from Ashe County. The area also has unusual glade-like characteristics. The site is privately owned.

Bogs and Swamp Forests

Buffalo Creek Bog is a small wetland that provides habitat for rare species. This site is owned by The Nature Conservancy.

Bowlin Meadow Bog is a somewhat degraded Southern Appalachian Bog that continues to support rare species. It is privately owned.

Glendale Springs Swamp Forest – Bog Complex has an extensive, mature, high quality Swamp Forest – Bog Complex natural community. The State Endangered plant robin runaway (*Dalibarda repens*) occurs here. Most of the site is owned by the National Park Service – Blue Ridge Parkway and is protected as a Registered Natural Heritage Area, although a portion of the site is privately owned.

Idlewild Bogs has Ashe County's second largest cluster of rare Southern Appalachian Bog communities that are linked along a stream corridor. This site is linked by stream corridors to other bog sites, which is important for animal dispersal. Several rare plants are found in the bogs, including the rare marsh bellflower (*Campanula aparinoides*). This site privately owned.

Laurel Fork Bog has North Carolina's largest known population of the State Endangered plant robin runaway. The fairly good quality Swamp Forest – Bog Complex also provides habitat for a Federally Threatened plant. The site is owned by the National Park Service – Blue Ridge Parkway and is protected as a Registered Natural Heritage Area.

Peak Creek Meadow Bog is a degraded, remnant Southern Appalachian Bog that provides habitat for a variety of animals. It is partly owned by the North Carolina Department of Agriculture; the remainder is privately owned.

Haire Bog has a small, fair quality Southern Appalachian Bog. Several rare plant species occur here, including the marsh bellflower. It is privately owned.

New River Corridor

New River (Ashe/Alleghany) Aquatic Habitat incorporates segments of the New River in Ashe/Alleghany counties. The site harbors a good assemblage of rare mussel and fish species and contains ten rare species, including four rare fishes, one rare amphibian, three rare mussels, and one rare dragonfly. This site is in North Carolina public waters.

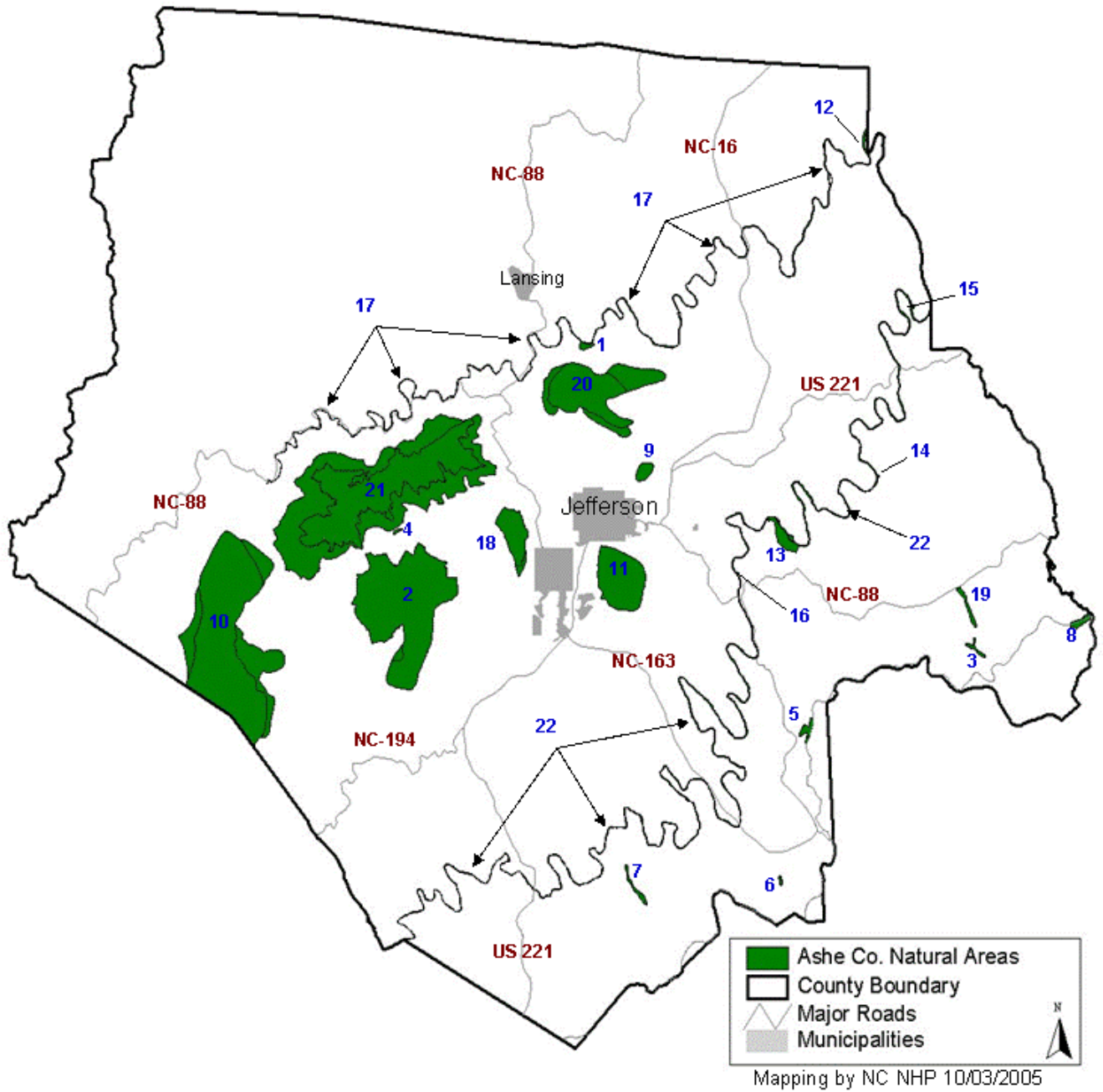
New River State Park/Wagoner Road Cove Forest is notable for its good quality Rich Cove Forest communities. The rare plant Meehan's mint occurs here. It is partly owned by the NC Division of Parks and Recreation; the remainder is privately owned.

New River Virginia Spiraea Sites #1, #2, and #3 have small colonies of Virginia spiraea (*Spiraea virginiana*), a Federal Threatened and State Endangered plant. Sites #1 and #2 are privately owned; site #3 is owned by the North Carolina Department of Transportation.

North Fork New River Aquatic Habitat has seven rare animal species, including three fishes that are endemic to the New River drainage. The endemic species are the Federal Species of Concern and State Special Concern Kanawha Minnow (*Phenacobius teretulus*), and the rare Kanawha Darter (*Etheostoma kanawhae*) and tonguetied minnow (*Exoglossum laurae*). The New River is a public waterway and has been designated an American Heritage River.

South Fork New River Aquatic Habitat has 16 rare animal species, including three fishes that are endemic to the New River drainage. The endemic species are the Federal Species of Concern and State Special Concern Kanawha Minnow, the rare Kanawha darter, and the State Special Concern Sharpnose Darter (*Percina oxyrhynchus*). Other animals include the State Threatened Log Perch (*Percina caprodes*). The New River is a public waterway and has been designated an American Heritage River; the South Fork is a National Wild and Scenic River and a North Carolina Scenic River.

Significant Natural Heritage Areas in Ashe County, North Carolina.



Key to Ashe County Significant Natural Heritage Areas:

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| 2 Bluff Mountain | 13 New River State Park/Wagoner Road Cove Forest |
| 3 Bowlin Meadow Bog | 14 New River Virginia Spiraea Site #1 |
| 4 Buffalo Creek Bog | 15 New River Virginia Spiraea Site #2 |
| 5 Glendale Springs Swamp Forest-Bog Complex | 16 New River Virginia Spiraea Site #3 |
| 6 Haire Bog | 17 North Fork New River Aquatic Habitat |
| 7 Idlewild Bogs | 18 Paddy Mountain |
| 8 Laurel Fork Bog | 19 Peak Creek Meadow Bog |
| 9 Little Phoenix Forests and Glade | 20 Phoenix Mountain |
| 10 Long Hope Valley/Elk Knob/The Peak | 21 Three Top Mountain |
| 11 Mount Jefferson State Natural Area and Vicinity | 22 South Fork New River Aquatic Habitat |