



The Cherokee National Forest

Eastern Tennessee

Text by Jaime Woodcock, Athens, Tennessee

The Cherokee National Forest, Tennessee's largest wildlife management area and single largest tract of public land, is the only national forest in the state. Its origin dates back to the Weeks Act of 1911, which gave the federal government the authority to purchase private land for the creation of national forests as a way to regulate the flow of navigable streams and timber production. In 1920, President Woodrow Wilson officially combined various federal lands along the southern Appalachian Mountains into national forests. But it was not until 1936, when President Franklin D. Roosevelt combined the Tennessee sections of the Unaka, Cherokee, and Pisgah National Forests, that the Cherokee National Forest was established in its present form. Today, its 640,000 acres are entirely within the borders of Tennessee, from Bristol to Chattanooga, and are divided into two sections by the Great Smoky Mountains National Park.

The Cherokee National Forest, which ranges in elevation from one thousand to six thousand feet above mean sea level, features steep slopes, narrow ridge tops, and narrow valley streams. Tennessee River tributaries drain almost all of the forest. Igneous and metamorphic rocks and highly deformed sedimentary rocks that range in age from Pre-Cambrian to Mississippian characterize its geology. Although the area's extensive folding and numerous faults are considered inactive, an occasional small tremor is measured.

The forest is a highly diverse area and is home to at least twenty thousand species of plants and animals.

Over 120 bird, 47 mammal, 55 reptile and amphibian, and 154 fish species can be found in the forest. Among the hundreds of wildlife species and thousands of plant species, several are federally designated as threatened or endangered. Part of the forest's mission is to provide a safe habitat for these plants and animals as well as preserving watershed and wilderness areas and significant cultural resources, many of which date to the New Deal era and the impact of the Civilian Conservation Corps.

A long and diverse succession of occupation and land use that began at least ten thousand years ago characterizes the human history of the forest. The Cherokee Indians, for whom the national forest is named, used the forest resources primarily for hunting and gathering. The Cherokees saw their tribal lands and culture change dramatically after European contact. European-introduced diseases, wars, and cultural assimilation ravaged the Cherokees, and they were forcibly removed from their tribal lands in 1838.

White settlement dates to the early 1770s. The Overmountain Victory National Historic Trail passes through the Roan Scenic Area of the forest and memorializes the American victory over the British at King's Mountain. After the Revolutionary War, European Americans steadily moved across the

Appalachians into the Tennessee River valley, choosing the fertile lands of the interior over the rugged terrain of the forest. Those settlers who did stay in what is now the national forest were often Scots-Irish, German, or English and usually subsisted in isolated areas on farming and livestock grazing. The forest region remained much the same until northern mining and timber companies moved into the region in the early 1880s.

Timber companies realized the huge profit that could be made by logging the vast forests of the mountains, and, by 1910, that area supplied almost 40 percent of the timber produced in the United States. In consequence, outside interests owned large tracts of land while the number of small mountain farms decreased. New towns became population centers while local residents were employed in the forest and work camps. When the timber industry moved to harvest western forests after fifty years, it left the land of the Cherokee National Forest denuded and the people unemployed, poverty-stricken, and with limited natural resources.

Beginning in 1912, the federal government played an important role in the forest's conservation by purchasing land that had been abused by the unregulated logging and mining industries. Roosevelt's New Deal legacy illustrates even more the crucial help of the federal government in preserving the forest. The New Deal's Civilian Conservation Corps (CCC) worked to rebuild the national forest throughout the 1930s by planting hundreds of thousands of seedlings. The new trees aided drainage and soil conservation. The CCC also constructed trails, fire towers, recreation facilities, and local roads and highways. The CCC helped preserve and restore the forest as well as create an infrastructure enabling public access to its beauty and adventure. The Rock Creek Bath House, Tellico Plains Ranger Station, and Chilhowee Mountain Gazebo are just a few structures where the impact of the CCC can still be seen on the forest landscape.

Timber production, now regulated by the U.S. Forest Service, remains important, but recreational activities are now more common. Millions of people visit the forest each year to enjoy the scenery and recreational opportunities such as hiking, whitewater rafting, kayaking, camping, mountain biking, fishing, hunting, canoeing, driving for pleasure, horseback riding, and Off-Highway Vehicle (OHV) riding. The Ocoee River in the southern section and the Appalachian Trail in both sections are internationally known for their exceptional recreational qualities. The forest also has over seventeen hundred cultural properties recorded on various landscapes within its boundaries, and the U.S. Forest Service and other preservation groups work to document, interpret, and protect these nonrenewable resources.

The forest has faced and continues to face challenges to vegetation and forest health. The American chestnut blight of the 1930s destroyed one of the largest and most important trees of the southern Appalachian forest. The Southern pine beetle epidemic infested and killed thousands of acres of yellow pine and continues as a threat. Other threats include gypsy moths, hemlock woolly adelgid, and dogwood anthracnose.

Another concern lies with the impact of recreation on the region's environment and cultural resources. Several groups believe that officials give too much emphasis to recreation and tourism over conservation and preservation.

Regardless of how it is received, the Cherokee National Forest serves as a constant reminder of the federally sponsored conservation efforts of the twentieth century in East Tennessee as well as the state

and nation as a whole. The reforestation, recreational development, and many structures of the forest exist as a part of a CCC landscape, without which visitors would not fully be able to access and enjoy the beauty, adventure, and culture of the area.

US Forest Service – Cherokee National Forest

The Cherokee National Forest is located in Eastern Tennessee and stretches from Chattanooga to Bristol along the North Carolina border. The 640,000-acre forest is the largest tract of public land in Tennessee. It lies in the heart of the Southern Appalachian mountain range, one of the world's most diverse areas. These mountains are home to more than 20,000 species of plants and animals. Each year millions of people visit Tennessee's Cherokee National Forest. It is a place of scenic beauty that provides opportunities for anyone interested in nature and history.

National forests are lands of many uses. The original purpose for their creation was to protect water quality and provide a continuous supply of timber. Today the national forest mission includes outdoor recreation, wildlife and fish habitat, wilderness, water quality, minerals, wood products, and much more.

Our motto is caring for the land and serving people. Caring for your national forests requires the dedication and hard work of a diverse and highly skilled workforce. Forestry, biology, botany, recreation, planning, engineering, geology, hydrology, realty, computer technology, human resource management, landscape architecture and accounting are among the fields of expertise employed by the USDA Forest Service. Each of the land mangers and resource specialists ensure resources are cared for so future generations can also enjoy and value our national forests.



The Cherokee National Forest

The long swath of Cherokee National Forest follows the ancient ridges of the southern Appalachian Mountains along the border of eastern Tennessee, interrupted only by Great Smoky Mountains National Park. Though the Smokies get the lion's share of attention, the Cherokee's latticework of wicked white water, misty waterfalls, and winding footpaths has a charm that's arguably the equal of its national-park neighbor.

The hardwoods that clothe today's Cherokee hide a lot of old battle scars. In the 19th century, the ancient forests of these mountains were ravaged by wholesale timbering and poor agricultural practices. In 1911, Congress passed the Weeks Act, which allowed the purchase of land for national forests. After the law was enacted, the first land acquisitions were made for what eventually became the 633,000-acre Cherokee National Forest, named for the Cherokee Indians (they made their ancestral homeland in these parts).

Today the Forest is healthy and rich with plant and wild animal life, and offers a large variety of outdoor activities. About 10 percent of the Forest is designated wilderness, offering opportunities for

solitude and primitive, unconfined recreation experiences. Among the northern districts' wilderness areas are Big Laurel Branch Wilderness, on Watauga Lake, and Unaka Wilderness, which borders on the Unaka Mountain Scenic Area. In the southern districts, Little Frog Wilderness lies along a stretch of the Ocoee River and borders the Cohutta Wilderness in Georgia; the Citico Creek Wilderness. Between these wild areas and the world-class outdoor playgrounds - hiking on the Appalachian Trail, kayaking the raging Ocoee, fat-tire biking around Johnson City, or fly fishing the Tellico - the Cherokee National Forest has a lot to offer.

Southern Environmental Law Center

Ecological Treasures at Risk in the Cherokee National Forest

http://www.southernenvironment.org/tennessee/national_forest_timber_sales_tn/

Under pressure to increase timber harvests in the Southeast, the U.S. Forest Service has proposed logging plans that threaten thousands of acres in Tennessee's Cherokee National Forest. At risk are:

- * unbroken wildlife habitat;
- * headwater streams and trout waters that feed the South Holston and other major rivers;
- * and places beloved by hikers, anglers, and others who enjoy backcountry recreation.

SELC is challenging these timber sales to protect ecological and scenic treasures that are vital to east Tennessee's tourism industry and to the state's natural heritage.

Hogback Project: Safeguarding a Premier Wilderness Area

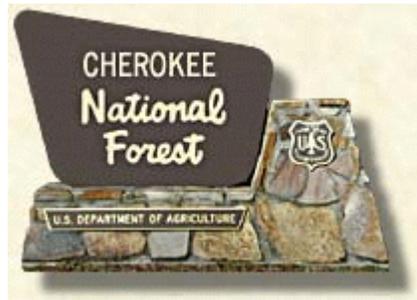
We and our partners have secured major improvements to this project, which focuses on a section of the Cherokee south of the Ocoee River in southeast Tennessee. The Forest Service has agreed to drop plans to cut new roads and expand openings in a forest tract that serves as a hikers' gateway to the Big Frog Wilderness, one of the premier natural areas in the East. Our conservation partners have long advocated adding this border area to the Wilderness.

Beaverdam Creek: A Watershed That Deserves Protection

In 2007, forest advocates from SELC and our partner groups joined Forest Service rangers and local community members in northeast Tennessee to explore the watershed of Beaverdam Creek. Our goal was to help the agency recognize the special character of the watershed, which is home to a thriving native brook trout population and to nearly a hundred rare plant and animal species. How did the Forest Service respond? It proposed 700 acres of logging, including cuts in areas now largely free from roads and other intrusions.

Flatwoods and George Creek: SELC Stays Vigilant

As a result of SELC's legal action on behalf of Cherokee Forest Voices, the Forest Service scaled back its Flatwoods and George Creek timber sales to protect streams lacing the sites and to prevent encroachment on a backcountry recreation joint inspections to verify the logging proceeds. inspections, which resulted help ensure streams remain



area. We also secured an agreement to conduct that protective stream buffers are maintained as SELC and CFV have conducted several of these in corrective measures and improvements that unharmed.

Sponsored by the Blue Ridge Highlander

Tennessee Mountains National Forest Service
Tennessee River Valley
Cherokee National Forest
2800 N. Ocoee Street
Cleveland, TN 37312

The Cherokee National Forest

Tennessee's only National Forest, the Cherokee, is separated into two parts by the Great Smoky Mountains National Park. The lands of the Cherokee are old and battle-scarred, marked by time and human influence.

The Cherokee's most famous mountains, the Appalachians, were formed by rumbling earthquakes as the continental plates collided, uplifting the peaks higher than the Rocky Mountains. After many winters of bitter snows and cold winds and summer's warm, humid air wearing them down to their present heights, some peaks are still well above 5,000 feet.

The Cherokee has grassy balds on random mountain peaks. The European Wild Boar escaped from a hunting preserve in 1912 and their progeny thrived and is now one of the most controversial hunting species on the Forest. The Cherokee with more than 620,000 acres provides stable communities for more than a thousand species of plants and animals, clean water, outdoor recreation and forest products.

Each year millions of people visit Tennessee's Cherokee National Forest. It is a place of scenic beauty that provides opportunities for anyone interested in nature and history. The Forest stretches from Chattanooga to Bristol along the North Carolina border. The 640,000-acre Cherokee National Forest is the largest tract of public land in Tennessee. It lies in the heart of the Southern Appalachian mountain range, one of the world's most diverse areas. These mountains are home to more than 20,000 species of plants and

animals.

National Forests are lands of many uses. The original purpose for their creation was to protect water quality and provide a continuous supply of timber. Today national forests are managed to provide outdoor recreation, wildlife and fish habitat, wilderness, water, minerals, wood products, and much more.

Our motto is “caring for the land and serving people.” Caring for your national forest requires the dedication and hard work of a diverse and highly skilled workforce. Forestry, biology, botany, recreation, planning, engineering, geology, hydrology, realty, computer technology, human resource management, landscape architecture, and accounting are among the fields of expertise employed by the United States Department of Agriculture Forest Service. Each of these land managers and resource specialists ensures resources are cared for future generations.



Because of the Cherokee's majestic mountains, tumbling streams, and diverse vegetation, recreation opportunities are plentiful. Discover the 30 developed campgrounds, 30 picnic areas, 700 miles of trail, hundreds of miles of cold water streams, seven whitewater rivers, thousands of acres of dispersed opportunities, and abundant populations of wildlife that are here for your enjoyment.

Forest Policy Research

The Cherokee National Forest makes top 10 most threatened forest list

Last week the Southern Environmental Law Center released their list of the top 10 most endangered areas in the south as a result of immediate and potentially irreparable threats in 2009. On that list, and coming in at number 10, was the Cherokee National Forest in Northeast Tennessee.

The Southern Environmental Law Center (SELC) placed Cherokee National Forest on the list due to “The U.S. Forest Service is moving forward with its plans to log several areas of this remarkable landscape, endangering trout, unbroken wildlife habitat and rare species.” The SELC states that logging thousands of acres would

significantly impact the forest, wildlife, waters, and recreation. Additionally, logging operations would be visible from the Appalachian Trail. The SELC is the largest environmental advocacy organization dedicated solely to protecting the Southeast.

They perform law and policy work throughout the six states of Virginia, Tennessee, North Carolina, South Carolina, Georgia, and Alabama. The Cherokee National Forest is located in Eastern Tennessee and stretches from Chattanooga to Bristol along the North Carolina border. It also borders Great Smoky Mountains National Park in the southwest and northeastern areas of the park as well. The 640,000-acre forest is the largest tract of public land in Tennessee. Millions of people every year visit the national forest to hike, camp, fish, canoe, kayak or view wildlife.



For more information, please see:

<http://hikinginthesmokys.blogspot.com/2009/01/cherokee-national-forest-on-top-10.html>

The Southern Appalachia Biodiversity Project

Through advocacy, education, and organizing, SABP seeks permanent protection for Southern Appalachia's public lands as well as sustainable management of its private lands. Based in Asheville, NC, this project defends public land as a refuge for ancient forests and native wildlife. Promoting the reintroduction of native wildlife that has been extirpated from the region (such as the red wolf) is also a priority.

A Treasure

The mountain forests of the Southern Appalachians are a priceless living treasure. Rising in north Georgia and extending into Kentucky and Virginia, Southern Appalachia hosts the highest mountains and the largest collection of public land in eastern North America. Mountain balds and spruce-fir forests crest the highest peaks. Ancient rock outcrops and highland bogs rest on the mountain slopes. Rainforests feed waterfalls which tumble into river gorges. Precious ancient forests cloak backcountry ridges and coves.

Walking through old growth forests in the Southern Appalachians, one may find as many tree species as all that occur in Europe, among them white oaks 400 years old and poplars 150 feet tall. Black bear

hibernate in the heart of ancient, hollow trees. The forest floor is rich with ferns, mosses, and wildflowers. Bird songs call from nests high in the forest canopy. Southern Appalachia's public forests are a critical refuge for endangered wildlife and one of America's great ecological treasures. The public forests are also a refuge for the people who like to hike, camp, and fish in the Southern Appalachian mountains each year. They offer a sanctuary of solitude and sanity in an over-civilized country.

In Trouble

Industrial logging in the beginning of the 20th Century crippled Southern Appalachia's ancient forest communities, rendered many species extinct, and wounded the health of the land. Now, after decades of recovery, Southern Appalachia's forests are threatened once again

Each day airborne pollutants from coal-fired plants and automobiles poison the mountain air, killing trees and acidifying streams. Urban sprawl and second home construction swallow the forests and farms on private lands. Intensive logging, road construction, and strip mining ravage our public lands.

During the last 20 years, tens of thousands of acres of national forest have been logged, many of them replanted as pine plantations. Over 5,000 miles of roads have been cut across the steepest mountainsides on our national forests. Millions of taxpayer's dollars have been thrown away to carry out money-losing timber sales. Multinational mining companies are targeting the public lands for large scale strip mining.

As a result of these threats, ecosystems are collapsing and species are being rendered extinct. The very survival of many creatures and the health of natural and human communities is in jeopardy.



For additional information about the Southern Appalachian Biodiversity Project and forest health in Southern Appalachia, email sabp@sabp.net.

World Wildlife Fund (WWF)

Appalachian mixed mesophytic forests

<http://www.worldwildlife.org/home.html>

Introduction

The extraordinary forests of southeastern North America represent relicts of ancient mesic forests that once covered much of the temperate regions of the Northern Hemisphere. Today, examples of these forests can only be found in the southeast region of North America and in eastern and central China. The Appalachian Mixed Mesophytic Forests ecoregion encompasses the moist broadleaf forests that cover the plateaus and rolling hills west of the Appalachian Mountains. It extends southward into northwest Alabama and east

central Tennessee. Moving north, the region includes eastern Kentucky, western North Carolina, most of West Virginia, southeastern Ohio and southwestern Pennsylvania.

Mixed mesophytic forests acted as a mesic refuge during drier glacial epochs for a wide range of taxa. The long evolutionary history of the region and wide range of topographic and edaphic conditions have contributed to the development of the rich biota and abundance of endemic species, particularly in freshwater communities.

Biological Distinctiveness

The Mixed Mesophytic Forest ecoregion represents one of the most biologically diverse temperate regions of the world. Forest communities often support more than 30 canopy tree species at a single site, and rich understories of ferns, fungi, perennial and annual herbaceous plants, shrubs, small trees, and diverse animal communities. Songbirds, salamanders, land snails, and beetles are examples of some particularly diverse taxa. Indeed, the ecoregion harbors some of the richest and most endemic land snail, amphibian, and herbaceous plant biotas in the U.S. and Canada. The ecoregion's freshwater communities are the richest temperate freshwater ecosystems in the world, with globally high richness and endemism in mussels, fish, crayfish, and other invertebrates.

The Lower elevation forests contain a variety of forest types with magnolias (*Magnolia* spp.), oaks (*Quercus* spp.), hickories (*Carya* spp.), walnuts (*Juglans* spp.), elms (*Ulmus* spp.), birches (*Betula* spp.), ashes (*Fraxinus* spp.), basswoods (*Tilia* spp.), maples (*Acer* spp.), locusts (*Robinia* spp.), and pines (*Pinus* spp.). The grand tulip poplar (*Liriodendron tulipifera*), blackgum (*Nyssa sylvatica*), eastern hemlock (*Tsuga canadensis*), black cherry (*Prunus serotina*), sweetgum (*Liquidambar styraciflua*), American beech (*Fagus grandifolia*), and yellow buckeye (*Aesculus octandra*). The American chestnut (*Castanea dentata*) was a dominant canopy species, but was extirpated at the turn of the century by the introduced chestnut blight fungus (*Cryphonectria parasitica*). Some endemic species include the Allegheny plum (*Prunus alleghaniensis*) and the Black mountain salamander (*Desmognathus welten*).

Higher elevation forests towards the east have yellow birch, mountain maple, sugar maple, beech, and eastern hemlock with extensive understories of mountain laurel (*Kalmia latifolia*) and rhododendron (*Rhododendron* spp.). A variety of restricted habitats occur within the forests including glades, heath barrens, shale barrens, and sphagnum bogs. Many of these communities support endemic plants and land snails. Cranberry bogs harbor a range of species that are normally associated with more northerly ecoregions such as cranberry (*Vaccinium* spp.), blueberry (*Vaccinium* spp.), bog rosemary (*Andromeda glaucophylla*), buckbean (*Menyanthes trifoliata*), northern goshawk (*Accipiter gentilis*), fisher (*Martes pennanti*), and black-billed magpie (*Pica pica*). Such bogs and glades are relicts that have survived with their disjunct populations of cool-adapted species since cooler glacial epochs. Surrounding high elevation forests also support disjunct northern species such as the Canada yew (*Taxus canadensis*), eastern larch (*Larix laricina*), red pine (*Pinus resinosa*), and balsam fir (*Abies balsamea*).

Conservation Status

Habitat Loss

Over 95 percent of this habitat, perhaps more, has been converted or degraded at some point in the last 200 years. Only a few very small and scattered fragments of undisturbed or old-growth forests still remain, most less than a few hectares in size (Davis 1993). Forests were converted for agriculture, coal mining, logging for charcoal, dams, and road building. Most of the agricultural lands have subsequently failed and are

abandoned, with an increase in the growth of secondary, or pioneer, forests. These regrowing forests lack many of the features and much of the diversity of undisturbed, or old-growth forests, namely large trees, variable age classes of trees, structural complexity such as multiple canopy layers, and diverse and abundant wildflowers, salamanders, fungi, land snails, and other invertebrate taxa. Because of the intensity and broad extent of clearing of forests over the last two centuries, many forest-specialist species appear to have been extirpated over large portions of the landscape. If source populations in undisturbed forest fragments are not imbedded in or adjacent to regrowing tracts, large areas of secondary forests may remain depauperate into the future.

Secondary forests have the capacity to conserve a great deal of biodiversity and represent, in combination with the last fragments of undisturbed forest, the best opportunity to conserve the region's biodiversity over the long-term. Larger, unroaded blocks of forest can also act as source pools for breeding migratory songbirds that are experiencing negative reproductive rates due to cowbird parasitism and nest predation by meso-predators in the mosaic of smaller forest fragments across the landscape. Trees within secondary forests are beginning to attain sizes that are attractive to logging interests. A landscape-scale conservation strategy for conserving large, interconnected blocks of mature forests urgently needs to be developed and implemented.

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Remaining Blocks of Intact Habitat

Few remaining patches of undisturbed forest remain, although older pioneer forests (i.e., forests that have regrown from previously cleared land) can be relatively large. The larger habitat blocks that do exist are found primarily on public lands.

Degree of Fragmentation

Much of the existing forest, whether old growth or regrowth forests, is still distributed in a highly fragmented mosaic throughout the region, broken by agriculture, roads, power lines, towns, and other forms of development. However, when one considers regrowth forests, the Appalachian Mixed Mesophytic Forests ecoregion has lower levels of fragmentation relative to other East Coast ecoregions. Fragmentation is highest in the northern part of the ecoregion, primarily in southwestern Pennsylvania and Ohio. The southern section of the ecoregion is comparatively less fragmented and has better potential for restoration into larger blocks within the context of a conservation strategy.

Degree of Protection

Most larger blocks of forest presently occur in federal and state forests, wilderness areas, and state natural areas. However, the management plans for federal forest lands do not strictly protect the forests, but reflect the multi-use management policy of the Forest Service. Present federal and state policies dictate intensive harvest of timber from National Forests, usually accompanied by road building, fire suppression, thinning, application of herbicides and pesticides, and other ecologically-damaging management practices. No effective formal process of identifying and protecting rare, distinctive, representative, or otherwise important communities, species, or ecosystems has been developed by federal or state agencies. Some small, but highly distinctive or rare communities, such as bogs and glades, have been protected by private organizations such as The Nature Conservancy. Several landscape-level conservation systems have been proposed for this

ecoregion and the adjacent Appalachian ecoregion, consisting of a network of core protected areas, corridors and linkage zones, and buffer zones (Mueller 1992, Leverett 1993).

Types and Severity of Threats

A primary threat is the increasing conversion and fragmentation of forests through logging and development. Hardwood forests are increasingly being exploited throughout the region as maturing forests become attractive to timber exploiters and production as West Coast forests decline. Both multinational timber industries as well as local chip mills in Kentucky and Tennessee create demand for increased harvests on public and private lands.

Coal, copper, and ore mining in this ecoregion are a major cause of air and water pollution, causing widespread degradation and poisoning of ecosystems. The globally outstanding freshwater biodiversity of the ecoregion is highly imperiled from toxic pollution, acid runoff from mines, pesticides and herbicides, sedimentation, eutrophication from excess nutrient runoff, dams, dredging, channelization, and introduced species such as the zebra mussel. Acid rain deposition, from industrial and urban sources, continues to be a major problem in many sensitive ecosystems, particularly in higher elevation forest communities.

Highways continue to cause high mortality in wildlife and are barriers to dispersal for many species. Numerous proposed highways, roads, and power lines cut across many of the larger blocks of forest in the ecoregion, particularly in the Monongahela National Forest (e.g., "Corridor H", transmission lines in the proposed Cherry River Wilderness). Road building into larger blocks of forests should be curtailed to reduce fragmentation and loss of source pool breeding sites for migratory songbirds. Off-road vehicle use and road building has severely degraded riparian communities and rare bogs and glades in many areas.

Abundant populations of deer, resulting from the eradication of large predators and poorly-managed hunting programs, have been implicated in the extirpation and reduction of many understory plant species and the alteration of community structure (Alverson et al. 1988). The nearly extirpated Canada yew (*Taxus canadensis*) of Monogahela National Forest is a classic example of this problem, although not even recognized by the agency as a sensitive species (Mueller 1992).

Many wild herbs and other plants are harvested for commercial purposes, and some, like wild ginseng, are threatened with extirpation over large areas of their range because of unregulated and illegal poaching. Large numbers of black bears are poached for their gall bladders for the Asian medicinal trade. Freshwater mussels are legally and illegally harvested for their shells to be used as nuclei for cultured pearls in Asia. A number of endangered species, including many plants and freshwater mussels and fish, occur within the ecoregion.

Suite of Priority Activities to Enhance Biodiversity Conservation

* Identification and protection of large core areas of forest, linkage zones, and buffer zones, building upon existing protected sites. Examples include the proposed Cherry River Wilderness, Cranberry Wilderness expansion, Cheat Bridge corridor, Canaan Mountain Wilderness, Laurel Fork Wilderness, Kentucky River corridor, Cumberland River corridor, and the Gauley Mountain Wilderness (Mueller 1992, Leverett 1993).

* Identification, restoration, and protection of large blocks of unfragmented forest habitat that can act as source pools for breeding migratory songbirds. Populations that breed in landscapes with only small, fragmented forest patches generally have negative reproductive rates because of cowbird parasitism and predation by raccoons, crows, opossums, and other meso-predators. Recent studies suggest that the few

remaining very large blocks of forest are maintaining populations of songbirds over vast regions. Protection and expansion of existing large blocks and restoration of additional blocks distributed across the landscape is a top priority conservation activity. Conserving migratory songbirds will only occur if state and federal agencies can be persuaded to stop building roads and power line corridors and to begin to close existing roads to restore large contiguous blocks of forest. Plans to conserve larger blocks of forest for songbird conservation need to be implemented immediately before logging interests obtain concessions throughout the regions as regrowing forests becomes more lucrative.

- * Implementation of plans to increase the connectivity of public and conserved private lands, particularly in Wayne State Forest and the Cumberland Plateau of Tennessee.

- * Reduction and control of acid precipitation, gypsy moths, woolly adelgids, and zebra mussels.

- * Control of poaching of black bears and other wildlife, and commercially harvested herbs.

- * Reevaluation of fire suppression and management practices in light of maintaining native communities.

- * Increase in heritage inventories of the ecoregion to identify additional areas and species populations in need of protection and conservation action.

- * Development of hunting management plans that would prevent over-abundant deer populations from causing irreversible ecological damage. Reintroduction of cougars and gray wolves, and better management of existing populations of black bear and mustellids, would help reestablish ecological interactions that were sustainable and less damaging to the ecosystem than existing conditions.

Relationship to other classification schemes

The Mixed Mesophytic Forests ecoregion was based on an aggregation of several of Omernik's level III ecoregions. Due to similarities in biodiversity characteristics and dynamics, Omernik's ecoregions that were combined into our Mixed Mesophytic Forests ecoregion were Western Allegheny Plateau (70), Central Appalachians (69), Southwestern Appalachians (68), and the extreme southwest portion of the Interior Plateau (71) that lies within Alabama. In relation to Küchler's ecoregions, it covers a majority of the Mixed Mesophytic Forest as well as portions of the Oak-Hickory-Pine ecoregion in the south and the Appalachian Oak forest in southwestern Pennsylvania. This ecoregion roughly corresponds to Bailey's Southern Unglaciaded Allegheny Plateau section (221E), Northern Cumberland Plateau section (221H), Southern Cumberland Plateau section (231C), and portions of the Southern Ridge and Valley section (231D).

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The Southern Appalachian Mountains are some of the planet's oldest mountain ranges and contain North America's most biologically diverse temperate forest. The forest here has been labeled the "Mixed Mesophytic Forest" and Central and Southern Appalachia are thought to be its genetic birthplace. Rivers too numerous to name flow out of the mountains to create and water the

bottomlands during their dash to the sea.

While the forests, rivers and mountains here have been struggling to recover from the insults of the settlers and early industrialists, new threats have arisen in our beautiful bioregion.

Unchecked development, rampant road construction, dirty energy production, and industrial forestry run amock - all threaten to decimate the last bits of ecological integrity necessary for recovery and survival in this region. Many organizations are organizing to stop the devastation and to transfer some of these special places into formally designated wilderness status. The goal is to build a movement for protection and conservation for these southern mountains.