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TENNESSEE

The southernmost disjunct populations of Northern White-cedar are found in Tennessee. The trees grow in pure or mixed stands in three habitats: on nearly vertical cliffs, on cobbly slopes located below cliffs and extending down to a river, and streamside (Clebsch 2001). Because the first two habitats tend to be inaccessible locations that provide severe growing conditions, causing trees to be small, the stands may never have been logged or grazed. However, not all disjunct populations are old growth. One site in Tennessee that has been studied includes charred stumps; and the tree diameters in another suggest that a portion of the site has been logged and grazed (Walker 1987). Stands in Tennessee that are likely to be old growth include one on the **Wolf River** (Pickett County): in a cove, Northern White-cedars “with deciduous trees and hemlocks on steep, unstable slopes” extending from a large ridge down to the scour line of the Wolf River (Walker 1987); **Powell River** (Clairborne County): among various sites along the river, a continuous population spread across a 100-meter section of north-facing limestone cliff and scattered individuals on less severe slopes on both sides (320 stems in total) (Young 1996); **Norris Lake reservoir** (Campbell County): various sites on steep, unstable slopes along bluffs above Norris “Lake” in Norris Dam State Park (Walker 1987); and **Watauga River** (Johnson County): populations on an “unstable, northeast-facing cliff of Pine Knob,” on the ridge above, and in a series of dry coves nearby; but at least in part disturbed by “industry” (Larson et al. 2000, Larson 2000, Walker 1987). A southern disjunct site that is in an old-growth context is described under Falls Creek Falls State Park below.

Other small old-growth areas in Tennessee include **Wright Forest Natural Area*** (Johnson County): 30 acres of privately owned old-growth White Pine-hemlock forest in Shady Valley (Testerman 1997); **River Bluff Natural Area** (Anderson County): upland and cove hardwoods mixed mesophytic old growth within a 294-acre Natural Area owned by the Tennessee Valley Authority (TVA) (Bartlow 1992, Fraley 2003); **Colditz Cove State Natural Area** (Fentress County): some 20 to 30 acres of unlogged forest, dominated by White Pine, within a 70-acre Natural Area, owned by the state of Tennessee (Jenson 1993, TDEC 1993); **Hatchie River** (Haywood County): possible patches of old-growth Baldcypress and bottomland hardwoods along the river, totaling a few dozen acres (Shankman 1993, Smith 1993); **Land Between the Lakes** (Stewart County): 15 acres of old growth, including a 7.5 acre White Oak stand on a south slope, the whole crossed by a road and trails and managed by the US Forest Service (Doyle 1993, Fraley 2003); **Fiery Gizzard** (Grundy County): old hemlock and mesic species along a creek bed in the upper part of a narrow gorge, from which marketable species may have been removed 60 or 70 years ago (Ramseur 1993, Jenson 1993); **Greeter Falls** (Grundy County): a small pocket of old growth, including Chestnut Oak and Eastern Hemlock well over 300 years old (Hedgepath 1993); **Shelby Bottoms and Park)*** (Davidson County): less than 10 acres of bottomland hardwoods within an 800-acre park owned by Metropolitan [Nashville] Board of Parks and Recreation (Nordman 2001).

The US Forest Service (USFS) is in the process of revising the Land and Resource Management Plan for Cherokee National Forest. In April 2003 it released the proposed revision and a Draft Environmental Impact Statement.

An old-growth inventory and catalog of the Blue Ridge Province is being prepared for 2004, under the sponsorship of the Southern Appalachian Forest Coalition (SAFC) and The Wilderness Society. Rob Messick is heading up the field work, for which he will receive much assistance from grassroots forest watch groups. The catalog will mainly cover Georgia (Chattahoochee National Forest) and Tennessee (Cherokee National Forest). It will also include corrections and additions to the North Carolina catalog (Nantahala-Pisgah National Forest), which was compiled by Messick and released in 2000 (Messick 2002).

Great Smoky Mountains National Park

For a description of old growth in the park as a whole, see the section of this report on North Carolina. Three readily accessible examples of the Park's old-growth forest in Tennessee follow:

--**Albright Grove** (Sevier County). An unlogged forest of Tulip Tree and hemlock, between Dunn Creek and Indian Camp Creek, on the Maddron Bald Trail.

--**Porters Flat** (Sevier County). A "rich lowland" with a cove hardwood forest. The Porters Creek Trail that leads to the flat runs for several miles through an "undisturbed" forest of oak, maple, basswood, and Tulip Tree.

--**Ramsey Cascade** (Sevier County). Near the waterfall called Ramsey Prong, old growth that includes a Silverbell tree 2.5 feet in diameter, a Sweet Birch 3.5 feet in diameter, a grove of Tulip Trees up to 5 feet in diameter, and Black Cherry 3 feet in diameter (Irwin 1993, Murlless and Stallings 1973).

CHEROKEE NATIONAL FOREST

In preparation for field work for the inventory and catalog of the Blue Ridge Province (see chapter introduction), Rob Messick put into a uniform and understandable form the existing information on old-growth in the National Forest, which had been gathered by a variety of field researchers including Kevin Caldwell, Dana Eglinton, Hugh Irwin, Ken Jones, Clarence Korstian, Paul Myers, Arthur Smith, Ted Snyder, Dean Whitworth, George Wuerthner, and Rob Messick himself. The following presentation of old growth in the Cherokee is his compilation, with the addition of a few supplemental descriptions from the first edition of *Old Growth in the East: A Survey*. The sites listed here have forest community descriptions for Class A or Class B old growth (or are likely to be Class A or Class B old growth) (Messick 2003).

Nolichucky District

Researchers have visited the 26 sites listed below (Caldwell and Myers were the researchers for all areas except the Bald Mountain Ridge Area, which Snyder studied.) The district also has 48 candidate sites.

- Green Mountain area** (south of French Broad River, Cocke County)
 - Laurel Hollow.* Submesic oak, dry oak, dry oak-pine, and xeric pine.
- Stone Mountain area** (south)(south of French Broad River, Cocke County).
 - Pigeon River frontage.* Dry oak-pine (with cliffs), xeric pine, and subxeric pine.
 - Landin Cove.* Dry oak-pine, and xeric pine (with Shortleaf and Pitch Pines).
 - McSween Branch (South Fork).* Submesic oak (with the highest herb diversity found in this section of Stone Mountain).
 - McSween Branch.* Xeric pine (with Shortleaf Pine), and subxeric pine (with Pitch Pine).
 - Pigeonroost Branch (north-facing slopes).* Dry oak.
 - Upper Mill Creek.* Dry oak with cliffs, and dry oak with circum-neutral soils.
 - Panther Mountain (west).* Dry oak-pine and xeric pine.
- Laurel Mountain area** (south of French Broad River, Cocke County)
 - Laurel Mountain.* Northern hardwoods (with lush herb layer) and high elevation Northern Red Oak.
 - Trail Fork Big Creek (headwaters).* Acidic cove and slope (with many old-growth characteristics).
- Bluff Mountain area** (south of French Broad River, Cocke County)
 - Bluff Mountain (west).* Northern hardwood boulderfield, rich cove, and high elevation Northern Red Oak (on some upland slopes).
- Meadow Creek Mountain area** (north of French Broad River, Cocke County)
 - Upper Yellow Spring Branch (South Fork).* Dry oak.
 - Meadow Creek Mountain.* Submesic oak (with large canopy trees in places), dry oak, and dry oak-pine (with frequent rock outcrops).
 - Clifty (north slopes).* Dry oak (with cliffs and some boulderfields), dry oak-pine, and pine-oak heath. Near submesic conditions* are found in some of the oak forests here.
- Brush Creek Mountain Area** (north of French Broad River, Cocke County)
 - Brush Creek Mountain.* Submesic oak, dry oak, oak heath, and pine-oak heath.
 - Upper Bryant Hollow.* Pine-oak heath (with cliffs).
 - Upper Austin Branch.* Dry oak.
- Greene Mountain area** (north of French Broad River, Greene County)
 - Greene Mountain (Upper Back Creek).* Pine-oak heath (with cliffs).
 - Greene Mountain (Upper Mud Creek).* Dry oak (with some Black Cherry).
 - Greene Mountain (Upper Mud Creek).* Rich cove (with lush herb layer).

- Greene Mountain (Upper Mud Creek).* Northern hardwood, acidic cove and slope, and dry oak.
- Greene Mountain (Upper Camp Creek).* Rich cove, acidic cove (in some tight valley slopes), and dry oak (on ridge slopes).
- Greene Mountain (Upper Camp Creek).* Mesic oak, dry oak, and dry oak-pine (near ridge slopes).
- Reynolds Ridge (Upper Camp Creek).* Rich cove and dry oak.
- Reynolds Ridge (Upper Camp Creek).* Rich cove, acidic cove (infrequent), and dry oak (Messick 2003-Caldwell and Myers).
- Bald Mountain Ridge area** (north of French Broad River, Cocke County)
 - Upper Sarvis Cove (Bald Mountain Ridge Scenic Area).* Hemlock forest and acidic cove (Messick 2003—Snyder).

Ocoee District (Cohutta/Big Frog Conservation Area). In addition to Big Frog Wilderness, one site has been visited. Twenty-seven other locations are candidate sites. Wally Crane, district silviculturist, told us in 1993 that the heavy logging of the district took place between 1890 and 1920. Any stands that survived that period were generally considered to be old growth (Crane 1993).

--**Big Frog Wilderness Area** (south of Ocoee River). Northern hardwood (in upland coves), high elevation Northern Red Oak (on some gentle slopes above 3800', dry oak (on upland ridges), and dry oak-pine (White Pine, Virginia Pine, Chestnut Oak). According to Z. E. Murrell and B. E. Wofford, who relayed the results of a 1982 Forest Service Wilderness Study Report, the upper slopes of Big Frog Mountain were not logged, because the terrain was too rugged; but because of fire and chestnut blight the forest is similar to second-growth forest (1987).

- Brock Mountain area** (north of Ocoee River, Polk County)
 - Rogers Branch.* Hemlock forest (Crane 1993).

Hiwassee District (Cohutta/Big Frog Conservation Area, Poke County). One site has been visited. Twenty-seven other sites are candidates.

- Duckett Ridge area** (north of Hiwassee River)
 - Coker Creek (Coker Creek Scenic Area). Stands of old-growth Eastern Hemlock and White Pines (Wuerthner 1990).

Tellico District (Unicoi Mountains Conservation Area). Eight sites have been visited. Thirty-eight other sites are candidates.

Fred Locke, district silviculturist, told us in 1993 that in the Tellico District old growth is basically concentrated along the higher ridges near the Tennessee-North Carolina line, particularly in the Bald River Gorge and Citico Creek Wildernesses. It is mostly hardwoods: buckeye, ash, oak, hickory, sometimes Sugar Maple, and sometimes beech.

The loggers who cut the land before the Forest Service acquired it had primitive equipment. During the period when the area was extensively cut, logging companies put in railway lines that followed the mountain valleys. Spur railways went out from the main lines. However, the loggers did not get into all the smaller coves and hollows. In those that escaped fire, sizeable pockets of old growth may exist today (Locke 1993).

The Tellico District's Citico Creek Wilderness adjoins the Joyce Kilmer-Slickrock Wilderness, most of which is in North Carolina. Following a 1925 fire which burned about half of what is now the Citico Creek Wilderness, logging abruptly stopped in the upper elevations of that area. Stands of uncut forest are therefore left in the less accessible locations (HBG 1993).

- Upper Tellico River Area** (south of Cherohola Skyway, Monroe County)
 - Sugar Mountain.* High elevation Northern Red Oak. Ted Snyder characterized the site (Messick 2003-Snyder).
 - Upper Rough Ridge Creek. Hemlock-northern hardwoods.
 - Sycamore Creek. Submesic oak. Locke described the old growth in 1993 as a 75-acre stand. On the lower slopes hemlock occurs. The hardwoods include upland and cove species: Northern Red Oak, Tulip Tree, maple, ash, hickory, White Oak, Chestnut Oak. The stand, which mostly faces north, is at 2800 to 3200 feet. The Forest Service describes it as 165 years in age (Locke 1993).

----Service Tree Branch Area.* In a small north-facing cove, acidic cove (lower slopes), rich cove (midslopes). Paul Myers characterized this site (Messick 2003-Myers).

--**Citico Creek Wilderness Area** (North of Cherohola Skyway, Monroe County)

----Falls Branch Scenic Area (Citico Creek Wilderness). Northern hardwood. Within a 275-acre Scenic Area are approximately 175 "virgin" acres (Malter 1977) or 187 "relatively untouched" acres of old growth (HBG 1993). The area includes very big Sugar Maple, buckeye, basswood, and Black Cherry. Among the shrubs are Mountain Winterberry, Maple-leaved Viburnum, and Mountain Pepperbush. As of 1977 some slopes appeared to have been disturbed by hogs. "Several bear dens" were "in evidence" above the 80-foot falls (Malter 1977, Pittillo 1976).

----Bob Bald* (Joyce Kilmer Wilderness). Stunted Yellow Birch forest. Hugh Irwin characterized this site.

----Upper Indian Valley Branch* (Citico Creek Wilderness). Hemlock-northern hardwood. The site was described in 1993 as two hundred acres of "relatively untouched" hemlock-hardwoods between the headwaters of Indian Valley Branch and Glenn Gap (HBG 1993). Malter characterized the site as one of two areas of "virgin" forest in Citico Creek Wilderness (1977).

--**Little Tennessee River area** (north of Cherohola Skyway, Monroe County)

----Upper First Creek.* Dry oak (with old White Oak trees).

-----Upper Goat Creek

-----Upper Lowdown Creek (Messick 2003-Snyder).

Unaka District (Unaka/Roan Mountains and Bald Mountains Conservation Areas). Fifteen sites have been visited. Thirty-five sites are candidates.

--**Sampson Mountain area** (west of Erwin, Unicoi County)

----Sampson Mountain.* Acidic cove and slope, dry oak-pine, xeric pine, and pine-oak heath (Messick 2003-Caldwell-Myers).

--**Embreeville Mountain area** (west of Erwin, Washington County)

----Embreeville Mountain (northeast terminus).* Submesic oak (Messick 2003-Eglinton).

--**Big Bald/Little Bald area** (east of Erwin, Unicoi County)

----Upper East Fork of Higgins Creek.* Northern hardwood (with some crown die-back) and high-elevation Northern Red Oak (Messick 2003-Eglinton, Smith, and Whitworth).

----Upper Big Bald Creek.* Northern hardwood and northern hardwood with rocky conditions (dominated by Yellow Birch) (Messick 2003-Eglinton).

----Little Bald.* Northern hardwoods and northern hardwoods with rocky conditions (dominated by Yellow Birch) (Messick 2003-Eglinton).

--**Nolichucky Gorge area** (east of Erwin, Unicoi County)

----Devils Creek (AT shelter).* Acidic cove (Messick 2003-Eglinton). Three individuals have nominated the site as an unlogged watershed.

----Nolichucky Gorge frontage (northeast side).* Rich cove, acidic cove, mixed riverine with Sweetgum, dry oak (on upland southwest-facing slopes), and talus slopes (mesic and dry) (Messick 2003-Messick).

----Jones Branch.* Hemlock forest (with some talus slopes) and acidic cove (Messick 2003-Caldwell and Myers).

--**Unaka Mountain area** (east of Erwin, Unicoi County)

----Unaka Mountain. Spruce-fir forest, and xeric pine with Table Mountain Pine (Korstian-1937, Wuerthner 1990).

--**Stone Mountain area** (east of Erwin, Unicoi County)

----Stone Mountain (southwest half).* Xeric pine and pine-oak-heath (Messick 2003-Caldwell and Myers).

--**Strawberry Mountain area** (east of Erwin, Carter County)

----Little Rock Knob.* Northern hardwood and northern hardwood with rocky conditions (dominated by Yellow Birch).

----Strawberry Mountain.* Northern hardwood and high-elevation Northern Red Oak (Messick 2003-Eglinton).

--**Roan Mountain area** (east of Erwin, Carter County)

----Highlands of Roan. Northern hardwood (surrounding balds). *Wilderness Trails of Tennessee's Cherokee National Forest* describes dwarf beech, 250 years old but only 12 inches in diameter,

at the edge of the balds; a Yellow Birch 385 years old; a "mature stand" of Table Mountain Pine; and dwarf Yellow Buckeye in one of the gaps (HBG 1993).

----Roan High Knob (Upper Cove Creek). Red Spruce forest (and likely spruce-northern hardwood). Robert Leverett noted several hundred acres of old growth on the northwest side of Roan High Bluff. Red Spruce is dominant. Numerous trees are crowned out, and appear to be over 100 years old (Messick 2003-Leverett 1990).

--**Doe River area** (east of Erwin, Carter County)

----Ripshin Ridge.* Northern hardwood and hemlock-northern hardwood (Messick 2003-Eglinton). Boulderfields and cliffs are present in this area.

Watauga District (Unaka/Roan Mountains and Iron Mountains/Mount Rogers Conservation Areas).

Thirty-six sites have been visited. In one of them no old growth has yet been found and another is listed as an "old-growth recovery area." These two sites are not listed here. The other thirty-four are listed below. Fifty-nine sites are candidates.

--**Stone Mountain** (south end, Johnson County)

----Stone Mountain (southwest terminus).* Dry oak (with cliffs).

----Upper Pine Branch Bottom Branch.* Submesic oak.

----North Spur of Stone Mountain.* Dry oak.

----Morgan Branch.* Dry oak (with White Pine) (Messick 2003-Whitworth).

--**Rogers Ridge area** (Johnson County)

----Upper Whetstone Branch.* Northern hardwood (Messick 2003-Eglinton and Smith).

--**Pond Mountain area** (Carter County)

----Little Pond Mountain.* Submesic oak and dry oak (Messick 2003-Eglinton).

----Pond Mountain (Pond Mountain Wilderness). An old-growth stand of approximately 150 acres at 3500 to 4000 feet, on the steep side of a mountain. The forest is hemlock forest, hemlock-mixed mesophytic. Hemlock and White Oak dominate. Also present are American Basswood, Table Mountain Pine, Tulip Tree, and Sugar Maple (Range 1993). Wuerthner writes that the Watauga Scenic Area, which is within the Pond Mountain Wilderness, contains scattered old-growth hemlock-hardwoods sites (1990).

--**Iron Mountain Shelter area** (Iron Mountains, Carter County)

----Five small sites (near the main ridge).* Northern hardwood, high-elevation Northern Red Oak, mesic oak, and dry oak (with significant White Oak).

--**Shady Gap Area** (Iron Mountains, Johnson County)

----Four small sites (near the main ridge).* Rich cove, and high-elevation Northern Red Oak (with frequent codominant Sugar Maple) (Messick 2003-Eglinton).

--**Maple Branch area** (Iron Mountains, Johnson County)

----Upper Blevins Branch.* High elevation Northern Red Oak (Messick 2003-Eglinton and Whitworth).

----Upper Maple Branch* [Two areas have been delineated, but as of March 2003 the area will have to be revisited because the data forms were missing.] (Messick-2003).

--**Holston High Point Area** (northwest slopes) (Holston Mountain, Sullivan County)

----Upper Weaver Creek.* Rich cove (riparian), dry oak (in rocky area by stream), dry oak (on upland slopes), and dry oak-pine (on ridge slopes).

----Upper Berry Branch (a).* Northern hardwood (dry).

----Berry Branch (b).* Mesic oak (in a steep rocky area), and dry oak-pine (on upland slopes).

----Low Gap Branch (a).* Hemlock forest (on a small upland valley slope).

----Low Gap Branch (b).* Rich cove.

----Nameless Tributary of Right Prong of Hatcher Creek.* Rich cove (riparian), and dry oak (on upland slopes). Rocky conditions are present.

----Upper Hatcher Creek.* Rich cove (riparian).

----Upper Riddle Creek (a and b).* Submesic oak, dry oak-pine, and xeric pine (on ridge slopes).

----Short Spur Trail (a).* Rich cove (riparian).

----Short Spur Trail (b).* Submesic oak (Messick 2003-Eglinton).

--**Flint Rock area** (northwest slopes) (Holston Mountain, Sullivan County)

- Upper Little Creek.* Rich cove, and dry oak (on ridge slopes).
- Upper Big Creek.* Rich cove (with a few Eastern Hemlock in the mix).
- Flint Rock.* Rich cove (in riparian areas, some of them rocky), mesic oak, dry oak, and dry oak-pine (on ridge slopes).
- Nameless tributary of South Holston Lake.* Submesic oak (Messick 2003-Eglinton).
- Upland Shelf near Josiah Creek.* Submesic oak (on an exceptional shelf with deep soils, open understory conditions, and more full understory conditions) (Messick 2003-Eglinton and Whitworth).
- Stony Creek Scenic Area** (Holston Mountain, Carter County)
 - Bakers Ridge Creek (Stony Creek Scenic Area).* Submesic oak (with an unusual occurrence of Carolina Hemlock) (Messick 2003-Eglinton)
- Rich Knob area** (Holston Mountain, Sullivan County)
 - Rich Knob.* (Messick 2003-Whitworth)
 - Snake Spur.* Mesic oak (Messick 2003-Eglinton)
- Pine Mountain Area** (Holston Mountain, Sullivan County)
 - Delaney Mountain (northwest slopes). Submesic oak with large canopy trees, dry oak, and dry oak-pine (on ridge slopes) (Eglinton). The old growth "very probably" exceeds 100 acres in size. According to Forest Service records, 99 acres in 4 stands were more than 100 years old and 31 of these acres were 132 years of age in 1993. Probably at least part of the adjoining forest is also old growth, since access to these stands was as poor as to the 99 acres. The forest has "many very large trees" (Irwin 1993).
- Holston Mountain** (north end) (Sullivan and Johnson Counties)
 - Upper Ramsey Branch.* Submesic oak
 - Upper East Fork of Ramsey Branch.* Mesic oak
 - Nameless Tributary of Beaverdam Creek.* Dry oak (Messick 2003-Eglinton).

Franklin State Forest (Marion County)

A 6941-acre forest with two areas of possible old growth.

--**Upper Sweden Cove.** A 1450-acre compartment, a portion of which has been only minimally disturbed. Hedgepath stated that there are at least several hundred and probably a thousand acres of old-growth hardwood forest in an extremely rugged gorge. Species vary with location. Chestnut Oak occurs on the upper slopes; much American Beech grows near the stream at the bottom. The gorge has no hemlock. The only known logging was the removal of dead American Chestnut (1993). More recently Strohmeier noted that the only logging in much of the cove has been selective (2003). Todd states that the forest as a whole was farmed and logged but that in the upper reaches, on the rocky face of the escarpment, there may be old Tulip Tree, hickories, cherry, walnut (2003).

--**Crooked Tree Hollow.*** Hardwood forest with minimal disturbance on much of the 890 acres owned by the state's Division of Forestry. As with Upper Sweden Cove, timber was sold in a power-line right of way. The state does not own the bottom of the hollow (Strohmeier 2003).

Prentice Cooper State Forest* (Marion and Hamilton Counties)

Likely old growth of uncertain extent in the bottom of the big gulfs. Suck Creek and Mullens Creek are two specific possibilities (Lane 2003).

Savage Gulf State Natural Area, within the South Cumberland Recreation Area, south-central Tennessee (Grundy County).

Two distinct types of old growth within the 11,500-acre Natural Area on the Cumberland Plateau. Commercial pine plantations surround much of the north and east and part of the south sides of the Natural Area.

--In the uplands in the northeastern part of the Natural Area, 1976-2470 contiguous acres (800-1000 ha) of mixed pine-hardwood old growth. The forest probably originated after a catastrophic fire early in the 18th century; parts have been selectively logged. Canopy dominants are Shortleaf Pine, Virginia Pine, and red and white oaks. Hardwoods dominate the midstory. Ericaceous shrubs dominate the shrub understory. Based on rings of trees cut to clear hiking trails, Shortleaf Pines are 230-270 years old. According to Haney and Lydic, who discovered the old growth, the age and the diameter size frequency distribution of the dominant canopy trees at Savage Gulf agree with USFS Guidance for old growth in the

southern region; but Savage Gulf has lower snag density and fewer canopy openings than USFS believes characterize old-growth oak-pine. Haney and Lydic theorize that damage caused by the southern pine beetle led to USFS's inadvertently inflating criteria for those characteristics (Haney and Lydic 1999, USFS 1997).

--In a gorge, a 750-acre virgin forest* of hemlocks and hardwoods in a climax association. The forest is within a long, narrow "gulf," 800 feet deep, formed by 3 downward-rushing creeks (Marcus 1988, West Tennessee 1988). The Gulf is off limits to recreational use.

Meeman-Shelby Forest State Park,* southwestern Tennessee (Shelby County)

Within the 13,000-acre park, 6000 acres of bottomland that have been little logged and that have, scattered throughout patches, some 10-40 acres in extent, that have never been logged. However, no scientific study of the area to determine what is old growth has been done. The land on which the park stands was long ago part of the Mississippi River. Then it became an oxbow and then a delta. Trees are mostly cypress, cottonwood, and Hackberry, also Pecan, White Oak, and Honey Locust. In the very wet, perennial swamp, the trees are mostly cypress, willow, and tupelo, with a lot of Buttonbush. As a state park, the entire 13,000 acres are protected from logging (Nordman, 2001; Smalley 2001, 2003).

Reelfoot Lake, northwest corner of Tennessee (Obion County)

Baldcypress 200 to 800 years old in a lake of approximately 20,000 acres, created by the 1811-1812 New Madrid earthquake. The earthquake appears to have impounded the Reelfoot River, which had flowed into the Mississippi River. The shaking and flooding of the ground killed most hardwood trees in the river basin, but hundreds of Baldcypress survived and today outline the locations of former stream channels. The University of Arkansas's Tree Ring Laboratory cored sample trees and found that their rings reflect an increase in radial growth between 1812 and 1819 and a permanent decrease in wood density after 1811, apparently due to the flooding. Furthermore, the researchers discovered broken wood in the pre-1812 portion of the cores, apparently due to the ground having shaken (Cleaveland 1993, Stahle et al. 1992).

The bottomlands along the lake are probably second growth, H. R. DeSelm reports, but they are nonetheless "nice" (2001).

The state of Tennessee owns the lake, about 25,000 acres, and has made it a State Natural Area. The state leases 11,000 acres to the US Fish and Wildlife Service for the Reelfoot National Wildlife Refuge. A 300-acre Reelfoot State Park is along the lake shore. The balance of the acreage is in Reelfoot Lake Wildlife Management Area. The Tennessee Wildlife Resources Agency is the lead agency for the Natural Area. (TDEC 1993, Pardue 2003).

Fall Creek Falls State Park, central Tennessee (Van Buren County)

Within the 17,000-acre park, old-growth forest, part never logged, in a complex of gorges at the head of Cane Creek. Donald Caplenor wrote that no logging or burning occurred in Fall Creek Gulf, Cane Creek Gulf between the mouth of Fall Creek and Cane Creek Falls, or upper Johnny Branch Gulf. In the upper half of Piney Creek Gulf, few trees other than Tulip Tree were removed (1965). Files of the Tennessee Department of Conservation give a tentative estimate of 20 to 30 acres for the uncut forest (TDEC 1993), but Randy Hedgepath, Naturalist at South Cumberland Park, says that the upper Cane Creek complex contains some 200 acres of uncut forest and selectively logged old growth. The trees may look young, he says, but they are small because of severe conditions (1993).

The basic forest type in the Cane Creek system is mixed mesophytic; the uncut portions of the gorges support hemlock and hemlock-Yellow Birch communities. Great Rhododendron is the most important shrub in these communities. In the 1920s, where major harvesting occurred, loggers apparently removed large Tulip Tree, oaks, chestnut, basswood, and hickory; but left all maple, beech, birch, and walnut (Caplenor 1965).

A disjunct population of 62 Northern White-cedars is found along the overhanging, north-facing sandstone cliff walls of Cane Creek Falls. They "grow from the edge of the main waterfall, eastward around the bowl-shaped cliff face . . . , and cease to occur at an abrupt transition with the adjacent forest." By estimating the age of a lateral branch from a stem, Young estimated that an individual tree was over 400 years old and concluded that the population was probably established 200 years before European settlement (Young 1996).

The Tennessee Department of Environment and Conservation owns the park, and the Division of Parks manages it.

Owl Creek Bottoms,* in Shiloh National Battlefield Military Park, southwestern Tennessee (Hardin County)

Eighty acres of never-logged bottomland hardwoods within the 4000 acre park. The additional 120 acres of bottomland “had seen some clearing” before 1894 when the park was established. Dominant trees in the bottomland are red oak, hickory, and Sweetgum. The bottomland is on Owl Creek River Channel, two miles west of the Tennessee River. The uplands in the park were logged by farmers, but the area was never commercially logged (Nordman 2001, Allen 2003).

Big Ridge Natural Area, south-central Tennessee (Hamilton County).

A 200-acre upland and mixed hardwoods forest, of which at least 60 acres are more than 100 years old. The balance of the forest is 60 to 80 years old. Adjacent land serves as a greenbelt and an environmental education farm for the city of Chattanooga, and for a housing development. The Tennessee Valley Authority owns the site (Bartlow 1992).

Shakerag Hollow, south-central Tennessee (Franklin County)

A couple of hundred acres of old-growth mixed-mesophytic hardwoods. A few trees have been removed. A trail runs through the area; and a coal operation used to take place in the hollow, but it caused little disruption. The University of the South owns the hollow (Hedgepath 1993).

Overton Park, Memphis (Shelby County)

A 175-acre uncut forest, within a 342-acre park, owned by the city of Memphis and managed by the Memphis Parks Commission. At the center of the forest is a mature climax oak-hickory-Tulip Tree stand with trees approximately 200 years old. Around the core are trees perhaps 50 years younger, which are at or close to reaching the final succession stage. As they age, they are becoming part of the core. The forest supports 50 species of trees (Marcus 1988, West Tennessee 1988). Exotic species are a problem (Caldwell 2002).

Dick Cove State Natural Area (Thumping Dick Cove), south-central Tennessee (Franklin County)

An old-growth, mixed mesophytic forest, 100 (McGee 1984), 150 (Ramseur 1993), or 200 acres in size in a 250-acre Natural Area (TDEC 1993). A few trees may have been cut before 1900 (McGee 1984), and the forest may have been selectively logged about 1901 (Schmalzer 1978). Walnut and Tulip Tree may have been taken out about a hundred years ago (Ramseur 1993). Between 1974 and 1982, 26% of the hickory and 18% of the White Oak and Northern Red Oak over 17 inches dbh (diameter at breast height) died, apparently because of drought, blowdown, insect infestation, and age. Ages of the trees that died ranged from 90 to 375 years (McGee 1984). The forest continues to experience heavy mortality, and succession is changing the composition, as Sugar Maple replaces Red Oak (Ramseur 1993). Little oak regeneration is taking place, and the majority of the understory is Sugar Maple (Evans 2001). The University of the South owns the Natural Area, which is on the western slope of the Cumberland Plateau.

Piney Falls State Natural Area, central Tennessee (Rhea County)

Within a 440-acre natural Area, an estimated 55 acres of uncut forest. The old growth is between an upper and a lower waterfall, where the trees are very difficult to reach. White Pine dominates. The site also has large hemlocks and a hardwood understory (Jenson 1993, TDEC 1993). Reggie Reeves describes the forest in the gorge as “typical mixed mesophytic” on the upper slopes and “hemlock-white pine mixed mesophytic on the lower slopes.” Piney Falls is jointly managed by Cumberland Mountain State Park and the Tennessee State Natural Areas Program (Reeves 2001).

Stiner's Woods Natural Area, eastern Tennessee (Union County)

A 57-acre site comprised of old-growth mixed mesophytic forest dominated by beech (Bartlow 1992, Fraley 2003). DeSelm agrees that the slope is probably old growth (2001). The site is owned and managed by the Tennessee Valley Authority. The Tennessee Outdoor Recreation Plan says that the area was established in 1974 to protect 15 acres of virgin beech grove. The forest around the tract grew up after logging and farming (TVA 1986).

Hatchie River, western Tennessee (Haywood County)

Possible patches of old-growth Baldcypress and bottomland hardwoods along the river, totaling a few dozen acres, according to David Shankman and Larry Smith. The Chickasaw National Wildlife Refuge has been somewhat disrupted by logging, but cored trees are "several centuries" old (1993, 1993). Clyde Stewart, District Forester, does not believe that the Chickasaw Refuge has any old growth (1993); neither does Leif Karnuph of the Refuge (2003). Kim Carpenter of The Nature Conservancy alluded to old growth along the Hatchie River, presumably outside the Refuge (1993). H. R. DeSelm reports that the best bottomland in western Tennessee, except for Reelfoot Lake, is found along the Hatchie. He does not know the logging history, but speculates that a logging limit may have meant that only trees over a certain size were taken (2001).

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