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Director's Page

Buzz Williams, Executive Director

Dialectics Gone Awry

"You can still find it on the grocer's shelf." —Rep. Helen Chenoweth, addressing the House Resources Subcommittee on Forests and Forest Health, on restoring salmon in the Pacific Northwest

In the conservation business, we often hear the term "conflict resolution." Perhaps the reason we expend so much effort on this process is because there seems to be so many conflicting views of "conservation." Consultants abound who counsel us to sit down with those of varying opinions and hammer out conflict resolution scenarios in

facilitated meetings often called "roundtables." The sessions are based on the practice of dialectics, the process of "examining opinions or ideas logically, often by the method of question and answer, so as to determine their validity," which (in theory) works like this: an idea, or thesis, has its opposite or antithesis. This leads to a reconciliation of opposites to form a new idea, or synthesis. For example, politics in America is based on a two party system, which embodies a dialectic

exchange as a means to create social structure. In my opinion this dialectic process, as it applies to conflict resolution about conservation issues, has gone awry.

Conflict resolution in today's conservation movement is amiss for two reasons: 1) the "establishment" is biased and highly influenced by big business, and 2) the average citizen has lost touch with the natural world. Consequently, a land ethic is often based on misconceptions, or even worse, is corrupt.

When I worked for the US Forest Service, I spoke out against clearcutting as the predominant method of timber harvesting. For this stand, I was officially slapped with a letter accusing me of insubordination. I requested a review from the Supervisor's office, and this request resulted in a conflict resolution meeting with a trained agency facilitator. Attending the session was the District Ranger, my supervisor, a personnel staff officer, some other agency personnel, and myself. I recall one question in particular that was asked by the facilitator. After I explained my reasons for questioning Forest Service policy, the facilitator asked me, "Why would you want to question Forest Service

A wise man once said that we have become a society so dependent on artificial environments that we have lost touch with the natural world.

policy?" I have always thought that question indicated the facilitator's bias. To me, the question should have been, "How do you justify your differences with Forest Service policy?"

Examples of dialectics gone awry abound in today's society. Take, for example, an advertisement I saw recently on a flyer for a furniture company sale. The flyer featured images of an elephant, an eagle, a white rhino and several more threatened and endangered species amongst pieces of furniture. The ad read, "Endangered species, come to our store and bag one today!" The twisted logic of the ad equivocated the chance to acquire a rare piece of furniture with a limited (and favorable) opportunity to "bag" an endangered species.

> There is a group who call themselves "The Dialectic Society." They recently recognized the phrase "urban camper" as an example of modern day dialectics. This reminds me of the local Trout Unlimited chapter, which vehemently opposes the idea of designating the Chattooga **River's Rock Gorge Roadless** Area as Wilderness. They claim that it might cause the discontinuation of a helicopter "put-and-take" trout stocking program. One must ask: what

are the priorities of a conservation group more concerned about the artificial propagation of a non-native species, than protection for wild native brook trout?

Another example of dialectics gone awry that brings the full weight of the problem upon my conscience is a local radio advertisement. It goes something like this: "What does spring time mean to you? It's time to visit the amazing Cherokee Casino in the heart of the Smokies!!" No comment.

A wise man once said that we have become a society so dependent on artificial environments that we have lost touch with the natural world. If this is true then chances are slim for a fair debate in mainstream society over better conservation. Slim because the predominant thesis of conservation is envisioned by proponents who may be out of touch with the natural world, and whose priorities are likewise detached. Our goal should be, therefore, to facilitate a reconnection to the natural world. The *Chattooga Quarterly* is dedicated to this goal.

Bobcat Felis rufus "Ghost of the Forest"

Reprinted with permission from Western North Carolina Nature Center

The bobcat, named for its short tail, occurs frequently in the southern half of North America, but is rarely found in the Midwestern United States. They are common in the mountains of the Carolinas, and also in the coastal plain as far north as the Great Dismal Swamp. Larger populations occur in the mountains and coastal plain than in the Piedmont region.

Bobcats are somewhat larger than domestic cats, ranging from twenty-four to almost forty inches in length, including the tail. They weigh between 16 and 24 pounds, depending on their sex, with males typically being heavier than females. Larger bobcats tend to occur in more open habitats, with smaller bobcats in forested habitat. Bobcats are always spotted to some extent, with some individuals patterned only on their undersides, and others with spots extending up their sides and onto the chest and back. Their mottled coloration varies from grayish to reddish-brown with small, darker spots and blotches. The tail is short and tipped with black on the upper surface. Long hairs on their faces resemble "sideburns," and their ears are usually dark with a white patch near the tip.

Habits and Habitats

Bobcats are solitary hunters that prey mostly on small mammals such as rabbits and rodents, although as generalists they will also eat birds and even large animals like the whitetail deer. Bobcats have binocular vision, which enables them to focus on swift running prey. In addition, their pupils expand to take in all available light, making them extremely effective night hunters. Bobcats may be active during all hours of the day and night; however, studies have consistently found dawn and dusk activity peaks. This pattern is based on the activity patterns of bobcats' prey species. Sharp claws that assist in climbing are retractable, allowing the bobcat to approach their prey more quietly. They can stalk to within a few feet of their intended prey and then make a short dash or pounce. Bobcats have compact skulls (fewer teeth and shortened jaws) coupled with long canine teeth. This provides them with tremendous biting pressure that can kill their prey in one bite.

Bobcats begin breeding at one year-of age, usually in late winter or early spring. Two to four kittens are born after a gestation period of about sixty-two days. The young are furred, but blind at birth. In about ten days, their eyes will open and at four weeks they begin to explore the area around the den. After seven or eight weeks, they are weaned.

Bobcats occupy a variety of habitats where there are dense thickets, including coastal swamps and upland forests. Only large, intensively cultivated areas and metropolitan areas appear to be unsuitable habitat. Although they are often undetected, bobcats can live close to humans as long as there is suitable habitat. Areas with dense understory vegetation and high prey densities are most intensively selected by bobcats. They make their dens in hollow trees, small caves, and underneath rock ledges and outcroppings.

History

Bobcats were once found throughout the United States, but today their range is more limited. A major mortality factor appears to be the available food supply, although parasites and diseases can also affect the bobcat population. Bobcats have historically been less abundant in the east-central US, owing to high human population density and intensive, large scale agriculture. The Southeastern US and coastal California regions appear to support the greatest populations of bobcats; reduced bobcat density is associated with harsher environments.

It is legal to hunt and trap bobcats in North Carolina during set seasons. In 1988, 37 states and 5 Native American groups were authorized by the US government to export bobcat pelts. The bobcat is totally protected in 10 states, while hunting is regulated in 5 states and shooting of suspected livestock predators is permitted on a limited basis. The price for bobcat pelts has recently risen, and some wildlife biologists feel that increased trapping pressure could possibly threaten bobcat populations in some areas. In the past 20 years, the bobcat has been the most heavily harvested and traded member of the feline family.



The bobcat track is easily distinguished with a round shape, four toes and no claws evident. It is generally twice the size of a domestic cat's print and loosely resembles that of a coyote or dog but is more rounded.



"The Witness" photograph by John Wasserman The bobcats' growls and snarls are so deep and fearsome that they may be mistaken as mountain lions, particularly when hidden from view.

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W. Henry McNab, Southern Research Station, and Steven A. Simon, National Forests in North Carolina. (Prepared for the Chattooga Ecological Classification Guidebook).

The following discussion was excerpted from a document produced by the USDA Forest Service in October 1995 entitled "Ecological Classifications Mapping and Inventory for the Chattooga River Watershed." This study was funded through the Chattooga River Basin Ecosystem Management Demonstration Project, which was implemented by the Forest Service as a direct result of a proposal written by the Chattooga River Watershed Coalition (CRWC). The CRWC's proposal included a request that the Forest Service conduct scientific studies which could be used to guide management of the watershed's national forests based on principles of landscape ecology and conservation biology.

Climate, the statistical expression of daily weather events or the expected weather (Bradley 1985), is one of the most important environmental factors affecting biological relationships throughout the Chattooga River Basin. Historical climate provides insight into the broad-scale distribution of flora and fauna present today.

The current climate provides a basis for understanding the ecological patterns and processes that must be considered in making decisions for resource management. The following discussion presents an overview of past and present climatic relationships in the Chattooga River Basin. This information provides a basis for understanding the relationships expressed in the classification of ecological units.

Climatic History

The earth's climate has changed continually since the land surface formed, about 4.6 million years before present (BP). However, the Quaternary Period, from about 2 million years ago BP to the present, was a time of particularly significant environmental change in the Chattooga Basin. During the Pleistocene Epoch, from 2 million to 10,000 years BP and referred to as the Ice Age, at least four major glacial episodes in the northern latitudes had a profound effect on vegetation to the south. Following the Wisconsin glaciation, which ended about 6,000 years ago, vegetation continued to respond to gradual climatic change. Examination of climatic conditions and vegetation distribution during the recent Quaternary Period provides insight into the current vegetation patterns. The study of climate prior to instrumental measurements must be done indirectly by examination of ice cores, marine sediments and glacial deposits, tree rings and pollen analysis, and historical written records.

One of the most complete studies of Quaternary climate in the Southeastern US was obtained by Delcourt (1979) from

an analysis of pollen stratigraphy [the arrangement of rocks in layers or strata] from sediment cores. This site was on the eastern Highland Rim, near Nashville, Tennessee, at an elevation of 1,000 feet. Although this pollen record was recovered about 160 miles northwest of the Chattooga area, the general climate and flora should be similar. The predominant arboreal species by time period are listed below, with an interpretation of the paleoclimate [ancient climate]:

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25,000 +/- 3,000 yrs. BP: Cool but not severely cold climate, with sufficient soil moisture to sustain growth; *jack pine, spruce, fir, mixture of deciduous trees.*

19,000 to 16,300 yrs. BP: Full effects of Late Wisconsin continental glaciation; cool, long winters and short growing season; *boreal conifers (spruce, fir, jack pine), some temperate deciduous taxa.*

16,300 to 12,500 yrs. BP: Severity of winters diminished, growing season lengthened, progressive warming trend; *spruce, fir, oak, ash, ironwood, hickory, birch and elm; sugar maple and beech present about 13,000 yrs. BP.*

12,500 to 9,500 yrs. BP: Warm-temperate weather conditions; transition from coniferous to deciduous forest; rapid expansion of mixed mesophytic forest species including oaks, ash, ironwood, hickory, birch, walnut, elm, beech, sugar maple, basswood, hemlock.

9,500 to 5,000 yrs. BP: Warming and drying trend during mid-Holocene; predominance of warm temperature species including oaks, sweetgum, black gum, chestnut.

5,000 to 200 yrs. BP: Increased precipitation; *species same as mid-Holocene*.

200 yrs. BP to present: Similar climate; ragweed and red maple increased, along with sedimentation from wide spread land clearing following European settlement.

Similar species composition and climatic inferences have been made from pollen records at other sample sites in Georgia, North Carolina, and in northern states. Watts (1980) suggests that low mountain crests in the Southern Appalachian Mountains were not forested during the Late Wisconsin (22,000 - 13,500 BP), and provides the following comparison of climate then and now (in parenthesis) for Columbia, South Carolina: January average temperature 14 degrees F (46 degrees F); July average 68 degrees (81 degrees F); number of frost-free days 114 (248); precipitation 41 inches (42 inches). Whitehead (1973) summarizes evidence from studies of pollen at 14 sites, and in reconstruction of full-glacial vegetation concludes that the Chattooga area consisted of a pine-

dominated boreal forest with few deciduous species.

Relatively little is known of the paleofauna [ancient fauna] associated with the climate and flora in this area. Although no fossil discoveries are known in the Chattooga, discoveries in other areas (Arizona and coastal North Carolina) suggest that the American mastodon (Mammut americanum) was present as recently as 8,000 yrs. BP. The mastodon and other large fauna might have been important in extending the distribution of some tree species with large seeds, such as osage orange and Kentucky coffee tree, as climate warmed following the retreat of the glaciers (personal communication, Rodney Snedeker 8/95). Other large ungulates probably included the woodland bison (Bovidae sp.). In addition to climate influences on paleoflora, Native Americans are believed to have had a significant influence on the structure of vegetative communities through their use of fire, which indirectly affected distribution and composition of paleofauna.

Paleoclimatologists believe the earth's climate has gone through a number of similar climatic cycles during the past several million years. The distribution of species responded to each cycle, and continues to show long term changes in climate. The restricted distribution of cool climate communities, such as northern red oak and northern hardwoods, to a small area at the highest elevation in the Chattooga Basin indicates that adjustments in ranges are continuing.

Current Climate

Our knowledge of the contemporary climate of the Chattooga River Basin is based on a relatively short history of observations. Information is available from a thin network of recording sites, usually located at lower elevations in mountainous terrain, and occasional scientific articles that report unusual phenomena. Climate, however, is one of the most important factors affecting ecological relationships in the basin. Temperature influences length of growing season, evapotranspiration [the total water loss from the soil, including that by direct evaporation and that by transpiration from the surfaces of plants], and soil properties. Precipitation quantity and seasonal distribution affect soil moisture relations and stream flow. Many land management practices and concerns, such as stream sedimentation, prescribed burning and forest regeneration are affected by the prevailing climate. Description of the current climate of the Chattooga River Basin will be presented below, following the structure of the Forest



Fog settles at dusk along Chattooga Ridge in South Carolina.

photo by Nicole Hayler

Service's national hierarchy of terrestrial ecological units, beginning with subsections and extending through landtype phases.

Current Climate of the Southern Blue Ridge Subsection

The geographic location of the Chattooga Basin in the Southern Blue Ridge Subsection of the southeastern US allows climatic patterns to be controlled by three sources of influence. First and most widespread are subtropical cyclonic disturbances that originate west of the Mississippi annual total. During later winter, climatic patterns begin to change due to maritime influences as low pressure systems move north-easterly from the Gulf of Mexico and bring smaller amounts of precipitation. Heavier snowfall occurs occasionally as a result of a low pressure front from the Gulf meeting a cold air mass along the Blue Ridge escarpment.

During spring and early summer, weather patterns begin to shift toward control by low pressure fronts from the Gulf, which can bring moderate amounts of precipitation.

River, or in the Gulf of Mexico, and move in a northeasterly direction across the Atlantic states. The second source is from warm, moistureladen air currents from the Gulf of Mexico that produce high rainfall when they rise and cool along the Blue Ridge escarpment. Third, and most unpredictable, are remains of tropical cyclones known as hurricanes that strike the Atlantic or Gulf coasts and occasionally follow a path near the Chattooga River Basin. Precipitation along the escarpment above the Chattooga Basin is highest in the US east of the **Cascade Mountains** of Washington and Oregon.





The prevailing climate of the Southern Blue Ridge Subsection consists of cool, short winters, and long, warm, wet summers. Winter weather is largely controlled by continental influences, where cold fronts move from west to east, often bringing large amounts of precipitation and cool temperatures. Polar air masses are responsible for several short periods when temperatures will reach below 10 degrees F. Minimum daily mean temperatures occur during January. Precipitation occurring as snow during mid winter is usually uncommon, happening perhaps only 3 days annually and amounting to a small percentage of the orographic [having to do with mountains] effect presented by the Blue Ridge escarpment, and proximity to weather pattern influences by the Gulf of Mexico combine to result in areas of the highest precipitation in the eastern United States [See Table 1].

The influence of hurricanes on the climate of the Chattooga basin, particularly precipitation, is less predictable than continental weather patterns. The main influence of hurricanes over oceans is from their high wind speeds, but winds subside quickly over land and the major climatic

more frequent as air temperature begins to peak; maximum daily temperatures occur during July. During mid to late summer, weather patterns are controlled by high pressure areas. sometimes referred to as the Bermuda high, which blocks warm fronts from the Gulf. Brief to extended intervals of drought can occur during mid to late summer. Occasionally, low pressure cells with high rainfall, but low winds, occur in late summer as a result of hurricanes from the Gulf. The complex topography of the Chattooga Basin, particularly the

Thunderstorms are

influence changes to precipitation. Because of their relatively slow movement, an area within the path of a tropical cyclone can receive several days of precipitation with amounts of several inches daily or more. Wind speeds decrease quickly as a hurricane travels inland, but intense, fast moving hurricanes may occasionally bring winds of over 50 mph to the Chattooga Basin. For example, this occurred in early October 1995 when hurricane Opal followed a path across the Florida panhandle then northward over Atlanta, bringing over 6 inches of rainfall and high winds resulting in considerable downed trees. The orographic effects of the Blue Ridge escarpment can also increase precipitation rates.

Based on records from 1871 to 1977, 847 tropical cyclones of various intensities were recorded, but only six were charted as passing directly over the basin after making landfall. However, because of the large areal extent of tropical cyclones, which range in diameter from 100 to 600 nautical miles, those that follow a path along the South Carolina coast (about 200 nautical miles eastward) could also affect weather in the Chattooga Basin. During this 107-year interval, 103 tropical cyclones passed within 200 nautical miles of the basin. On the average, we estimate the climate of the Chattooga Basin could be influenced by a tropical cyclone for 65 years out of 100. About 34 percent of tropical cyclones form during September, and about 22 percent each during August and October.

Subregional climatic relations of an area 100 miles square and centered over the Chattooga Basin were obtained from a forest atlas maintained by USDA Forest Service (1990). Based on the 34-year average (1951-1984) from standard NOAA weather stations, and interpolated at 0.5 degree intervals for monthly minimum and maximum temperature and precipitation, the Chattooga River Basin has an average annual temperature of about 57 degrees F. Average January temperature is about 40 degrees F, and for July is about 75 degrees F. Precipitation ranges from 52 inches at lower elevations, to over 70 inches at higher elevations along the Blue Ridge escarpment in North Carolina. Orographic effects of the escarpment, which rises about 1000 feet from the Appalachian piedmont, is largely responsible for the difference in precipitation.

Land-type Associations; General Climate

More specific climatic data, adequate to compute 30-year normals, are available for weather stations in three of the five land-type associations (TLAs) in the Chattooga Basin: Long Creek, South Carolina; Clayton, Georgia; and Highlands, North Carolina (NOAA 1990). Mean temperatures are highest and precipitation is lowest at Long Creek. These relationships are reversed for Highlands, and Clayton is intermediate. Precipitation is evenly distributed between the winter and summer seasons at the three locations. Temperatures among the stations are relatively uniform during the winter, and vary somewhat during the summer. The effect of altitude on temperature is evident by comparing values for Highlands with the other stations. Winter temperatures are slightly higher at Clayton than Long Creek, even though the former is at a higher elevation and is farther north. An explanation is unknown, but could result from the large intermountain basin where Clayton is situated. The overall climate of the mountain uplands has the same seasonal regime and pattern as that of the lowlands.

Detailed historical climatic data for precipitation from 1893 to 1957 is available for Rock House, South Carolina in the upper part of the Chattooga Gorge LTA, as reported by Dumond (1970). This station was located 1.7 miles southwest and 4.2 miles east-southeast of Highlands, North Carolina at an altitude of 3,100 feet. Precipitation during the 64-year period averaged 82 inches, and ranged from 46 to 114 inches. Annual mean temperature averaged 54.9 degrees F, with a range of about two degrees. Although no longer active, this station provides an important record of annual, long-term variation of climate that is especially important to document periodic drought in the Chattooga Basin. The Rock House data records 1925 as a year of historic low precipitation and high maximum temperature.

Land-type

Because local topographic relief has a strong influence on climate, estimates of climate conditions on land-types requires computer programs that use appropriate relationships to extrapolate conditions from nearby stations. Specific climatic relationships are not available for landtypes in the Chattooga Basin.

Land-type Phase

Land-type phases are the smallest ecological unit in the hierarchy. Characterization of climate for LTPs will require use of on-site instrumentation.

Extreme Weather Conditions

Hursh and Haasis (1931) documented effects of the 1925 drought on arborescent [treelike in shape or growth; branching] species in the Southern Appalachians near Asheville, North Carolina at an altitude of 2,100 to 2,600 feet. Summer precipitation (June-August) averaged 12.5 inches for the period 1903-1929, but only 3.0 inches was recorded in 1925. Reduced radial growth and high mortality was observed four years following the drought in black oak (*Quercus velutina*), scarlet oak (*Q. coccinea*) and red oak (*Q. borealis*). Chestnut oak, (*Q. montana*),

hickories (*Carya spp.*) and pines (*Pinus echinata* and *P. rigida*) showed little effects. Mortality was highest on areas with shallow soils of 18 to 20 inches in depth. They concluded that drought is a significant factor affecting composition and distribution of tree species in the Southern Appalachians.

Neary and Swift (1987) reported on effects of intense and heavy rainfall on land disturbance caused by debris avalanching in the Southern Appalachian Mountains near Asheville. A storm system from the Gulf of Mexico, with an estimated return interval of about 100 years, occurred during early November 1977. During a 3-day period, some areas reported over 10 inches of rainfall. The heavy rainfall associated with this storm caused a number of debris avalanches, particularly on areas with steep (70%) slopes and shallow residual soils of less than 36 inches in depth. High rainfall is a climatic factor associated more with shallow soil erosion and water quality, than with the distribution of vegetation.

Other Climatic Relationships

In an early study of orographic effects on precipitation throughout the Southern Appalachian region, Donley and Mitchell (1939) found considerable variation within uniform geographic zones that was not associated with altitude, but which appeared to be related to local topographic effects that could not be quantified. Dickson (1959) studied the effect of altitude on climatic variables in the Southern Appalachian Mountains, and presented regression models for estimating temperature, length of growing season, precipitation, and evapotranspiration at un-instrumented sites. The relationship of rainfall with altitude was poorer than for temperature. Dickson mentions a "spillover" effect on narrow ridges where updrafts carry precipitation over the crest to the leeward slope, which results in less than average rainfall on some ridgetops. Billings and Anderson (1966) measured soil moisture on an exposed, narrow, pine-dominated ridge, and reported that "the ridge is a local area of regular microclimatic drought," even in a region where annual precipitation exceeds 100 inches.

In parts of the Chattooga Basin, Helvey and others (1972) investigated soil moisture in relation to slope position and soil depth during the growing season. They found that a simple sine function accurately describes annual soil moisture trends, because growing and dormant seasons are almost equal in length and rainfall is evenly distributed during the year. During a 20-day summer drought, soil moisture losses on all slope positions are about three times greater than for non-drought periods; however, ridges lose about 25 percent more soil moisture than coves.

In a nearby area of higher elevations (1610 to 1855 meters) outside the Chattooga Basin, Smathers (1982) evaluated the contribution of fog condensing on vegetation to annual precipitation. He reported that fog increased precipitation from about 50 to 90 percent in mixed hardwood-conifer and heath balds, respectively. These results suggest that even at lower elevations where fog may be less common, precipitation increase from condensation could be a factor that influences soil moisture gradients.



Average yearly water levels on the Chattooga River, 1940 through 1995, in cfs (cubic feet per second).

graph created by W. S. Lesan

Chattooga Quarterly

New Predator Could Save the Hemlocks

In the war against the exotic insect, the hemlock woolly adelgid, a biological breakthrough is occurring. At the New Jersey Department of Agriculture's Phillip Alampi Beneficial Insect Laboratory in Trenton, New Jersey, scientists are rearing mass quantities of a tiny Japanese ladybug that has a huge appetite for the tree-killing hemlock woolly adelgid. The predacious ladybug—a type of beetle is named *Psedoscymnus tsugae*. It is small as a poppy seed. Natural resource managers will use it as a biological control method to save environmentally precious hemlock trees.

Bob Chianese, chief of the Bureau of Biological Pest Control for the New Jersey Department of Agriculturé said, "I'm very excited about *P. tsugae*. For 10 years I've watched the hemlock wooly adelgid spread and kill a lot of the hemlock forests in New Jersey. A biological cure was the only realistic hope to save the trees, and *P. tsugae* may help us reach this objective."

Eastern and Carolina hemlocks (*Tsuga canadensis* and *T. caroliniana*, respectively) ranging from North Carolina to Massachusetts have been attacked by the adelgid, which kills the trees by sucking out nutrients. Individual hemlock trees can be treated in parks and yards, but until now there has been no hope of controlling the adelgid in forest settings. Hemlock stands are among the only old growth forests in the East, and are of great importance to wildlife and water quality. In some places, no other species can fill hemlock's environmental niche.

Credit for the discovery and most of the research behind *P. tsugae* belongs to Dr. Mark McClure, a scientist at the Connecticut Agriculture Experimental Station. He found the beetle in 1990 during a search for hemlock woolly adelgid predators in Japan, where the pest is native. Dan Palmer, lead research scientist for *P. tsugae* at the Phillip Alampi Beneficial Insect Laboratory said, "It takes tremendous effort to locate the screen biological control agents. Dr. McClure's finding is extraordinary. The job now is to rear large numbers of *P. tsugae* to improve its odds of surviving in the field, and to make it affordable and widely available."

Efforts to rear *P. tsugae* at the laboratory have been successful. Scientists plan to release the tiny predator in New Jersey forests this spring. Because of the environmental importance of hemlock forests, the US Department of Agriculture, Forest Service has provided more than \$1 million for research to control the adelgid.

For more information, contact the USDA Forest Service, Northeastern Area, State & Private Forestry at 610-975-4186.



The adelgid itself is not visible to the naked eye, but the white woolly secretion that protects the adelgid and its eggs is visible and indicates infestation.

Hemlock Woolly Adelgid

DOB: First discovered in the US in 1924.

Appearance: Aphid-like insect.

Sex: Both.

Height: Approximately 2 mm.

Hair: Cotton-like; white.

Color: White.

Last Seen: Smokey Mountains, and north to the mid Hudson River Valley and southern New England.

Modus Operandi: Feeds by inserting its sylet (piercing and sucking mouth parts) into a young twig, sucking the sap, and retarding the growth of its host tree. The adelgid may also inject a toxic saliva into the tree, that disrupts plant growth hormones and modifies vascular tissue. The adelgid itself is not visible to the naked eye, but the white woolly secretion that protects the adelgid and its eggs is visible and indicates infestation. These white masses are distributed on the newest growth throughout the tree. Tree needles become discolored and change from deep green to grayish green, eventually dropping off prematurely. The loss of new shoots and needles seriously impacts tree health, and death can occur within a few years. The hemlock woolly adelgid is believed to spread at a rate of about 20 miles per year. The mechanism of dispersal is wind, birds and mammals.

Origin: Believed to be Asian

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General Wade Hampton III Noble Summer Resident

Buzz Williams

Not far off of the Bull Pen Road, west of the Chattooga River and close to the Ellicott Rock Wilderness Area, lie the ruins of a long forgotten little settlement that has been reclaimed by deep woods. About halfway down the old One son, Wade, later distinguished himself during the Revolutionary War at the battle of Eutaw Springs in 1781, and rose to the rank of Colonel. After the war Wade became a successful cotton farmer, yet again left the sedentary life to take up arms in the War of 1812. He was promoted to Major General, but later resigned after a bitter

road leading to it is a place old-timers call the "Lettered Log." The story is told that General Wade Hampton III, without doubt the Chattooga watershed's most famous summer resident, carved on the log while waiting for game on a still hunt. Absent any real evidence, one can easily imagine the tale to be true since the young Wade Hampton III spent many days hunting and fishing in the watershed, close to his family retreat and experimental farm called "High Hampton" near Cashiers, North Carolina.

The history of the Hampton family in upstate South Carolina dates back to the mid 1700's, when Wade's great grandfather, Anthony described as an old



General Wade Hampton III

dispute with **General James** Wilkinson at the Battle of Montreal. By his death in 1835, Wade had expanded his farming empire to cotton and sugar cane plantations in Mississippi and Louisiana, with a labor force of 3,000 slaves, and was known as the richest plantation owner in the United States.

His son, Wade Hampton II (1791-1858), also served in the War of 1812 under Andrew Jackson. Jackson chose Hampton to carry the message to Washington of the victory at the battle of New Orleans. However, Wade II was perhaps best remembered for his domestic

"hemp-beater"—moved from Virginia to Spartanburg, South Carolina. Anthony and his wife raised their family on a farm that was carved out of the Piedmont forest. The Hamptons were under constant threat from marauding Cherokee Indians spurred by resentment of settlers' encroachment on their hunting grounds. In July of 1776, while five of their sons were away, Anthony, his wife, a son and a grandchild were murdered by a band of Cherokees.

activities. He continued to successfully manage the family plantations, and excelled in social and political life. It was said that Hampton's personal library was one of the most extensive private collections in the country. At "Millwood," his plantation in Columbia, South Carolina Hampton bred fine horses and was called "The Great Warwick of South Carolina."

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General Wade Hampton III

Wade Hampton the third was born in Charleston, South Carolina on March 28, 1818. Wade III was to become one of the greatest Calvary officers this country ever produced, and was an enormously influential political leader in South Carolina history. Hampton was a big man, about six feet tall with the build of an athlete, and possessed great moral, physical and political courage. Although he studied law and graduated from South Carolina College in 1826, he never seriously practiced law. Before the Civil War, like his forefathers he spent most of his time managing the family plantations.

It was during this era that Hampton spent a great deal of time at his High Hampton retreat, hunting and trout fishing in the Chattooga River watershed. A biography entitled *Hampton and His Calvary in '64*, by Edward Wells, includes an interesting passage (on pp. 40-41) describing Hampton's love of the Chattooga watershed and the Blue Ridge Mountains that helped shape his character. It reads as follows:

"Climate and scenery are molders of body and mind. It is a belief, old as history and widespread as the family of man, that the mountain ranges and their rocky fastnesses have ever cradled the hardiest and freest of races. It is pleasant to think that this beautiful country may not have been without influence on the character of the greatest Cavalry leader of the Civil War.

"By hereditary, tendency and personal habit, Hampton was an accomplished sportsman, and that region then abounded with deer and bear, as well as small game. At times, in the stillness of the night, the fierce shriek of the panther might be heard. In the immediate section he frequented, east of the watershed, near Cashier's Valley, there was first no trout, although they existed at the time in the streams of the western slopes. Hampton carried live fish in buckets across the ridge and liberated them in the eastern waters. They increased rapidly in their new habitat, and the finest of speckled beauties soon abounded there."

The Hampton presence in Cashiers Valley is said to have given the town its name. Local lore has it that the Hamptons brought two prize bulls to High Hampton, and their names were Brutus and Cashius. Cashius got loose and ran away, but became entangled in a laurel thicket. In his struggle to escape, he broke his neck. Thereafter, locals called the area Cashius Valley, which in the mountain dialect became Cashiers Valley. So, as the mountains shaped the man, the man shaped the mountain culture.

When the Civil War broke out, Wade Hampton III answered the call to fight for the South, even though he had serious doubts about continuing the practice of slavery.



from the original painting by Mort Kunstler, "Charge at Trevilian Station" c 1996 by Mort Kunstler, Inc.

General Wade Hampton III

Hampton placed his fortune at the disposal of the Confederacy, by allowing his cotton to be used as collateral for materiel. He personally raised and equipped a military command known as Hampton's Legion, consisting of six infantry companies, four companies of Calvary and a battery of artillery equipped with six field guns.

Though Hampton had no military training, he quickly demonstrated a grasp of military tactics and an instinctive "feel" for the battlefield. His leadership ability and

extraordinary courage did not go unnoticed, and at the end of the war he was one of only four officers without military training who had risen through the ranks to Lieutenant General.

Nonetheless, Hampton's military career may have suffered as a result of an incident with General Robert É. Lee over troop assignments. After Hampton complained,



The statue of General Wade Hampton III is prominent on the State House grounds at Columbia, South Carolina. The famous Civil War Calvary leader was the first governor of South Carolina elected after Reconstruction. This statue was dedicated on November 20, 1906 at a ceremony attended by 10,000 people.

Rappahannock River. The following morning they were surprised by the full force of the Calvary of the Army of the Potomac. which had crossed to meet them at dawn. Of note is that among these Calvarymen was a young captain named George Armstrong Custer. During the ensuing Battle of Brandy Station, Hampton is credited with

Lee, who had a notorious temper, is reported to have said to Hampton that he didn't care if his whole legion went back to South Carolina. Whether Lee resented Hampton, a rich plantation owner with no military training, is only speculation. This notwithstanding, a man of such skill and courage was destined for glory.

At the first Battle of Bull Run, Hampton was outnumbered and eventually wounded, but he and his dashing, well-trained legion played a key role in a Confederate victory. He fought bravely through the Peninsula Campaign and was promoted to the rank of Brigadier General in May of 1862. At Seven Pines he was wounded again, this time in his foot. He refused photo by Buzz Williams

leading one of the most gallant Calvary charges of the battle. His actions might have resulted in the capture of the whole Union force on the field, had not his advance been checked by heavy Confederate artillery fire well-directed at the head of his charge. It was also at the Battle of Brandy Station that General Hampton lost his brother Lt. Col. Frank Hampton to enemy fire.

to dismount, instead having the musket ball removed while

in the Chambersburg Raid, and was wounded for the third

It was at the beginning of the Gettysburg Campaign that

history. On the evening of June 8, 1863, almost the entire

Calvary of the Army of Northern Virginia-five full

brigades-prepared for battle on the west bank of the

Hampton took part in the greatest Calvary battle in American

time at Gettysburg.

remaining in the saddle. He fought battles at Antietam, rode

In August of 1863, Hampton was promoted to Major General. He succeeded J. E. B. Stuart after his death as leader of the Calvary Corps. Hampton had finally received the commission as the supreme Calvary Commander of the Army of Northern Virginia by fighting his way to the top.

General

South

Hampton died

in Columbia,

Carolina in

April 1902.

General Wade Hampton III

Thereafter, Hampton continued to demonstrated his coolheaded courage and battle sense on many occasions. In September of 1864, Hampton was pinned down with the Army of Northern Virginia at Petersburg. The Confederate Army was gravely short of supplies. At 1 a.m. Hampton, with 4,000 Calvarymen, rode out and raided a poorly guarded federal encampment and pulled off the largest cattle rustle in history. Hampton stole 3,000 cattle out from under the Union Army's nose, and drove them back to feed the Of historical interest is a controversy about the burning of Columbia, South Carolina by General Sherman. Sherman claimed that the fire that burned Columbia had been set by the retreating Hampton. He later admitted that this was not true, and there is speculation that the allegation had been made to humiliate Hampton.

After the war, Hampton returned to the ruins of his once lavish plantation. He reentered political life, to oppose the

starving Confederates.

In the closing vears of the war General Hampton distinguished himself even in the face of the inevitable defeat of the Confederacy. At daybreak on June 11, 1864, at Trevilian Station he commanded 5,000 cavalrymen in a gallant charge to ward off a raid by Union General Philip Sheridan's cavalry of 6,000 men. In November of that same year, he personally carried his own dead son from the



Sherman's march through South Carolina at the close of the Civil War is often regarded by historians as one of the greatest marches in military history. Hampton's last assignment from General Lee was to support the retreat of General Joseph E. Johnston. Hampered by heavily wooded swamps, the Federals accomplished the trek from Savannah, Georgia to Columbia, South Carolina in 16 days. The rough terrain proved a greater resistance than the battered Confederates.

battlefield and saw another son wounded, yet even in the face of personal tragedy still remained in command of his troops. Hampton also fought at Sappony Church, Ream's Station, and Burgess Mill. In January of 1864, Hampton was sent to-South Carolina to find remounts for the battered Confederate cavalry. Finally, he was ordered to cover Joseph E. Johnson's retreat, until the Confederate surrender in 1865. Somewhere in the wilds of the Chattooga River watershed lie the crumbled ruins of a log where the great General Wade Hampton III once pondered the state of the Union. The woodsman skills he perfected in Cashiers Valley and the people he met certainly shaped his character. Who knows what great things will come from future generations inspired by the beauty of the mountains and streams of the Chattooga River watershed?

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The Washington Post

Nuclear Plants Watching Calvert Cliffs License Bid

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Lyndsey Layton, Washington Post staff writer

The Calvert Cliffs Nuclear Plant hisses on the shore of Chesapeake Bay, its two reactors splitting apart uranium atoms to drive steam turbines that deliver more than 13 million megawatts of electricity each year to customers in Baltimore and across central Maryland. It has been this way for a generation, and the federal government has deemed it safe. Now Calvert Cliffs, owned by Baltimore Gas and Electric [BG & E], has become the first nuclear power plant in the nation to seek renewal of its operating license. And the nuclear power industry--which operates 102 other plants nationwideawaits the verdict as a signal of its future. No new nuclear plant has been built since the 1979 Three Mile Island disaster and if the Nuclear Regulatory Commission [NRC] rules Calvert Cliffs unfit to continue operation, that could foreshadow the end of an era of nuclear power generation.

It has been a controversial era almost from the start, and the controversy continues as Calvert Cliffs seeks its license renewal. Under political pressure to cut red tape, the NRC says it will not hold formal public hearings on the application. The NRC says its decision will speed the process--and clear the way for other plants to seek license renewal. Without hearings, the NRC says, it can shave one to three years off the renewal process and make a decision within 29 months. Critics say the agency is ignoring the public in a decision that could affect public health and safety. The public hearing process is unquestionably at the heart of nuclear safety, said Stephen Kohn, of the National Whistleblowers Center, which has filed a complaint in the

U.S. Court of Appeals to force a public hearing. "For the NRC to bypass that is just outrageous."

The NRC shifted to a fast track after threats from Congress and persuasion from utilities, which are facing, competition-in deregulated markets and need to know as they craft business strategy whether their nuclear plants will be running years from now. "We're cognizant of the concerns expressed by Congress and the nuclear industry that a drawn-out hearing process could delay business decisions that they need to make to try to position themselves in a competitive marketplace," said Neil A. Sheehan, a NRC spokesman. "We're not the only agency that's been told to streamline We are not going to apologize for that."

The decision to apply for renewal of Calvert Cliffs' license was driven by business considerations. The plant now operates under two 40-year operating licenses--one for each reactor-- that expire in 2014 and 2016. But when BGE executives decided last year to replace four aging steam generators at a cost of \$300 million, they opted to apply for renewal to protect their investment. The company also is trying to craft longterm market strategy as Maryland begins to deregulate the electric industry starting in July 2000. If the NRC grants Calvert Cliffs a new license, other utilities with nuclear plants and similar concerns about market strategy also may file for early license renewal.

In the 20 years since the Three Mile Island plant suffered a partial meltdown that sent radioactive gases spewing into the air in central Pennsylvania, the NRC has been accused of regulating to little and too much. Last spring, at a hearing before a Senate subcommittee, Republican lawmakers called the NRC "top heavy" and sluggish in handling license renewals. The Republicans threatened to slash 700 positions from the NRC's 2934-person staff. The agency dodged that bullet, but NRC Chairman Shirley Ann Jackson began making some changes. The NRC stopped its regular ratings of the safety performance of nuclear plants, a kind of report card issued every 18 months for each plant. Instead, it will give quarterly reviews of greater breadth but less depth, Sheehan said. And it may drop its "Watch List," in which the most troubled plants in the country are listed and then receive additional regulation until they improve. Critics complained it was too subjective. Last year, the NRC ended formal hearings for licnse transfers even though some NRC staff members believed the hearings were required by Congress.

The NRC's shift away from formal public hearings is the latest step is its drive to become more expedient. "The whole agency is in the midst of changing the wayit does business," Sheehan said. The Nuclear Energy Institute, which represents the country's 103 nuclear plants, says it makes sense to jettison cumbersome regulation, give plants greater responsibility in assessing safety and speed up decisions. "The industry has steadily improved its safety and performance, and we don't need more prescriptive regulation, just more efficient and effective regulation," said Steven C. Kerekes, spokesman for the institute. "Safety is still the paramount goal, as it should be." He called complaints that the public is being shut out of the license renewal "bogus."

Operators of plants around the country are watching the Calvert Cliffs case, ready to follow its lead, Kerekes said. A second nuclear plant, the Oconee plant in South Carolina owned by Duke Energy Corp., applied for license renewal four months after Calvert Cliffs filed last year. As in the Calvert Cliffs case, a public interest 16

group, the Chattooga River Watershed Coalition, petitioned the NRC for a formal hearing and was denied. It is appealing that decision to the NRC. "The idea that they can throw out these intervenors with hardly a whisper is just astonishing," said Peter Bradford, who served as an NRC commissioner form 1977 to 1982, a term defined by the Three Mile Island accident.

Federal laws allow the NRC to renew operating licenses but do not spell out the process for renewal. So the agency has been figuring it out as it goes along, deciding which issues it will judge, which it will ignore and who has a right to be involved. "You've got an agency making rules and running oversight on themselves," said Nicole Hayler, of the Chattooga River Watershed Coalition in South Carolina.

When it comes to Calvert Cliffs, the NRC insists it is listening to public opinion, by allowing written comment and holding occasional informal public meetings on the application. But public interest groups say only public participation that counts is a formal adjudicatory hearing, which follows the format of a trial complete with testimony, cross examination and discovery. Most importantly, a formal hearing gives the public the right to challenge the NRC's final decision about Calvert Cliffs in court, Kohn said. Without such a hearing the public has no legal standing for a court challenge.

The NRC did accept petitions for a formal adjudicatory hearing but used special rules written just for Calvert Cliffswhich critics say were impossible to satisfy. "They set forward rules that apply to no one else and made it radically more difficult to go forward," said Kohn, whose petition filed on behalf of the National Whistleblowers Center was rejected by the Atomic Safety and Licensing Board, an arm of the NRC. For example, the NRC gave the public 30 days after the plant filed its initial application to raise new, substantial safety issues not addressed by either NRC staff or the plant. But the plant's application was not complete by the public's 30 day deadline, making it impossible for the public to identify "new" issues. Even if all the information was available, 30 days was not enough time, said David Lochbaum, a nuclear safety engineer at the Union of

Concerned Scientists, a nonprofit founded by scientists to challenge aspects of science and technology they see as dangerous or destructive. "It's a sham," Lochbaum said about the NRC's license renewal process. "It is not democratic. The public had 30 days to do what the NRC can't do in three years. That's ludicrous."

In the past, the public has flagged significant safety issues regarding nuclear plants that were overlooked by both the NRC and the plant owners. In 1991, the Yankee Rowe nuclear plant in Massachusetts announced its intention to apply for license renewal. The Union of Concerned Scientists argued that Yankee Rowe's steel containment vessel had become brittle with age and eventually would crack, releasing radiation. The group petitioned the NRC to close the plant, the nation's oldest commercial reactor at the time. The NRC rejected the petition but then directed its staff to study that issue. Within months, regulators permanently shut down Yankee Rowe.

Calvert Cliffs, located about 60 miles from the White House, generates about half the electricity sold by BGE. Last year, it produced a record amount-13.3 million megawatts. Most of that power is used in the Baltimore region and in central Maryland, with very little sent to surrounding Calvert County: Still, many of the locals love their nuclear plant. There is little opposition to license renewal in the rural southern Maryland county, where the plant provides 20 percent of the tax base and is the largest private employer with 1340 workers. With the flick of a switch in 1975, when the plant began running, Calvert County was transformed from one of Maryland's poorest counties to one of it's richest. The first tax payment Calvert Cliffs made was more than double the size of the county budget.

More than 1000 county residents work at the plant each day, driving into the long entrance road in Lusby lined with signs printed with one word inspirational ' messages such as "Safety" or "Teamwork." Past the guard shack, a campus of trailers and buildings is clustered around two dome-topped concrete reactors that loom over the Chesapeake. Inside the building that houses the huge turbine generators, the rumble is overwhelming. Workers, mostly men wearing hard hats, earplugs and safety goggles, are scattered among the shiny silver tubes, cylinders and valves that twist and turn through several floors. They watch as steam piped in from the reactor spins the huge turbine generators to produce electricity. Above them, in the control room, operators stare at walls covered with indicators and alarms, monitoring the reactors next door.

Public interest groups worry about age and the reactor vessels—the steel and concrete containers where nuclear reactions take place. They fear that wear and tear caused by vibration, heat and corrosion over time could be weakening the vessels, making them susceptible to cracks and leaks. And they are concerned relicensing will generate more tons of radioactive waste and no place to store it.

The NRC says it can predict whether Calvert Cliffs could operate safely past 2014. "We believe we have enough data," Sheehan said, adding that if problems arise, the NRC can always shut down the plant, regardless of whether its license has been renewed. "We think we are crossing all the T's and dotting all the I's. The process is going to take two-plus years and a number of inspections to prove that license renewal is not going to raise any questions of public safety hazards."

Others say the plant is applying now to avoid questions about how vibration and corrosion over time may affect its eightinch-thick steel reactor vessels, the steel reinforced concrete tanks that contain them, and other components. "A lot can go wrong between now and 2014 and 2016, but they want to get that renewal now. The whole thing smacks of a greased skid," said Paul Gunter, of the Nuclear Information and Resource Service, an antinuclear group.

While the debate goes on about whether Calvert Cliffs should get a renewal license, the legal fight over the rules--and the publics role--will play out in federal court. "If we win, in any other relicensing case, the NRC is going to have to follow procedures," said Kohn, of the Whistleblower Center. "If we lose, in every other relicensing case, they can change the rules and make it impossible for intervenors."

Watershed Update

BE CAREFUL WHAT YOU ASK FOR!

One of the predominant arguments for de-emphasizing timber harvesting on our national forests has been that public lands are more suited to provide recreation opportunities for the American public, while the demand for timber can be met on private lands managed by timber corporations. Now that the Forest Service has nearly exhausted our national forests for their "corporate give-away" timber program, they are looking for a new "cash cow." User Fee Demonstration Projects are in place on all three national forests in the Association; American Bus Association; American Association for Nude Recreation, Inc.; and, America Outdoors.

Please write your Members of Congress and tell them that you do not want to see our national forests overrun and further exploited by private recreation industries. The Chattooga River watershed's national forests should be managed to provide a backcountry experience, not a Mickey Mouse entertainment spectacle. Also request that the User Fee Demonstration Program be abandoned, and tell the

Chattooga River watershed, where citizens must pay to use the Bull Sluice, Thrift's Ferry, Woodall Shoals and Whitesides Mountain parking lots. Recreation facility expansions are proposed for the Willis Knob Horse Camp



Service you oppose user fees. We already pay taxes for the right to recreate on our public land; it's not the taxpaver's fault that the Forest Service lost all our money on roads and timber giveaways! Please write today.

Forest

(GA), citing the "need" for electricity, showers, and additional campsites—even though private lands nearby are being developed for the same purpose.

Forest Service Chief Dombeck's "recreation boom" agenda is definitely taking hold in the agency. Recently, 70 federal employees met with members of the American Recreation Coalition at Disney World, where they learned the Disney philosophy of "pricing your product in a way that allows your customer to rate the product highly, and feel that they received good value for their money." Members of the American Recreation Coalition include: Walt Disney Company; International Association for Amusement Parks Attractions; Yamaha Motor Corporation; Gaylord Entertainment Company; United Four Wheel Drive Assoc.; Specialty Vehicle Institute of America; National Rifle Association: National Hot Rod Assoc.; Motorcycle Industry Council; International Snowmobile Manufacturers Assoc.; Exxon Company USA; Chevron Corporation; American Power Boat Association; American Resort and Residential Development Association; American Hotel and Motel

LOG CABIN BUILDING WORK SHOP

July 12th through the 19th, the CRWC will be conducting a log cabin building workshop. The 5-day workshop will involve constructing a small log cabin, using the traditional. Southern Appalachian half-dovetail notch. Intermediate carpentry skills are required, and basic tools. The cost is \$150 per person (which does not include housing or food). CRWC Executive Director Buzz Williams will teach the workshop. The site location is at the Billingsly Farm, near the intersection of Hwy. 28 and Warwoman Rd. in Georgia. If you are interested, please call the CRWC at 706-782-6097.

IMPAIRED WATERWAYS IN THE WATERSHED

The US Environmental Protection Agency's Water Management Division has proposed to add eight new streams to Georgia's 303(d) list, which identifies "waters and pollutants of concern." Locally, Stekoa Creek, Scott Creek, Saddle Gap Creek, Chechero Creek, Pool Creek, Warwoman

Watershed Update

Creek and Law Ground Creek have been added to the list due to their excessive sedimentation. Stekoa and Chechero Creeks were already on the list for biota and fecal coliform. Roach Mill Creek is proposed to be added to the list for biological community and habitat impairment.

Much of the sedimentation that threatens our streams comes from indiscriminate development on steep slopes, commercial sprawl and road building on private lands.



Golf course development can have a great impact on nearby streams. Chechero Creek flows through this new golf course site located in Rabun County at the old "Kingwood" property. photo by Buzz Williams

Enforcement of strong erosion and sedimentation laws, and support for reasonable zoning ordinances could mitigate these problems. On public lands, excessive road building continues to be the greatest threat to the aquatic health of our streams and rivers. Please contact your Members of Congress and support a moratorium on road building in our national forests.

HORSE TRAIL ISSUES ON BOTH SIDES OF THE RIVER

The Tallulah Ranger District (GA) is proposing to expand the Willis Knob Horse Camp, and develop it by installing showers and electricity. We oppose this proposal because: 1) horse trails in the area already receive heavy use, and enlarging the current facility would further increase the resource damage occurring on these horse trails. 2) The type of upgrades proposed are already being developed in the same general area by private landowners. Please write to the Tallulah Ranger District (809 Highway 441 South, Clayton, GA 30525) and oppose this development.

The Andrew Pickens District (SC) is proposing to close a section of the Rocky Gap Horse Trail north of Big Island due to the well known "mudhole," and re-route the horse trail in the river for 100 yards to detour this problem. We are in favor of closing this section due to its excessive erosion; however, we feel that establishing a horse trail in the river is a bad idea. Horses traveling in the river would inevitably cause user conflicts, as well as safety problems due to various river depths and fluctuating water levels. We're also concerned about creating new erosion problems from horses' ingress and egress to the river. A better option would be closing that portion of the trail from the "steep hill with the mudhole" to Adline Ford. This would be only a minor inconvenience until the former trail could be rerouted to appropriate terrain. Please write to District Ranger Mike Crane (112 Andrew Pickens Circle, Mountain Rest, SC 29664) and express your opinion.

LAWSUIT SHUTS DOWN CHATTAHOOCHEE NF

Recently, the 11th Circuit Court of Appeals ruled in favor of the Sierra Club in *Sierra Club vs. Martin* and found that the Forest Service was not in compliance with Forest Plan requirements to inventory and monitor Threatened, Endangered, and Management Indicator Species on the Chattahoochee National Forest. This national forest has suspended all timber sales and/or projects that deal with the substantial modification of vegetation and habitats.

Meanwhile, the Chattooga River Watershed Coalition's lawsuit against the Forest Service regarding a proposed timber sale in **Compartment 32** (off of Warwoman Road in Rabun County, GA) is now pending in Federal Court. Our case seeks to prevent this timber sale, which would convert a native hardwood forest to a pine plantation. The *Sierra Club vs. Martin* ruling is tantamount to a temporary restraining order until a Federal Judge in Gainesville, Georgia renders a decision on our case.

Chattooga River Watershed Coalition

We are a 501C3 nonprofit organization incorporated in Georgia.

Staff

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Development Director Nicole Hayler

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Board of Directors:

Friends of the Mountains GA Forest Watch Western NC Alliance SC Forest Watch Sierra Club The Wilderness Society Forest Service Employees for Environmental Ethics

Newsletter

19

Editors, Buzz Williams & Niçole Hayler

Production and Layout, CRWC Staff

> Printing, Gap Graphics

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Spring '99

	Join the CRWC and help protect the Chattooga River Watershed
	Your contribution is greatly appreciated. Donations will be used to support the Coalition's work, and guarantee you delivery of the <i>Chattooga Quarterly</i> .
	We're a non-profit organization, and all contributions are tax-deductible.
· · · · · · · · · · · · · · · · · · ·	THANK YOU!
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Send to: Chattooga River Watershed Coalition P.O. Box 2006 Clayton, Georgia 30525

Chattooga River Watershed Coalition

PO Box 2006 Clayton GA 30525 (706) 782-6097 (706) 782-6098 fax crwc@rabun.net Email

Purpose: "To protect, promote and restore the natural ecological integrity of the Chattooga River watershed ecosystem; to ensure the viability of native species in harmony with the need for a healthy human environment; and to educate and empower communities to practice good stewardship on public and private lands."

Made Possible By: CRWC Members and Volunteers Turner Foundation The Moriah Fund Lyndhurst Foundation Merck Family Fund Alex Walker Foundation The Barstow Foundation Smithsonian Institution CTSP Frances Allison Close Environmental Systems Research Institute Katherine John Murphy Foundation



Goals:

Monitor the U.S. Forest Service's management of public forest lands in the watershed

Educate the public

Promote public choice based on credible scientific information

Promote public land acquisition by the Forest Service within the watershed

Protect remaining old growth and roadless areas

Work cooperatively with the Forest Service to develop a sound ecosystem initiative for the watershed

Chattooga River Watershed Coalition PO Box 2006 Clayton, GA 30525

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