



# Jocassee Journal

Information and News about the Jocassee Gorges

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State geologist Dr. Bill Clendenin (left) and Joe Koch, senior geology technician, consult during Jocassee geological survey. (DNR photo by Greg Lucas)

## ‘Bad Creek Navy’ surveying Jocassee geology

If you have been boating in Devils Fork, Whitewater River, or Horsepasture River on Jocassee Lake this past summer, you may have seen a boat nosed into the bank. The two-man crew wasn't fishing, but they were looking at and measuring features in the rocks.

Although not widely publicized, you just saw the S.C. Department of Natural Resources Geological Survey's Bad Creek Navy. Joe Koch, a senior technician who maintains and operates one of the Geological Survey's boats, named the crew when he proclaimed to geologist Bill Clendenin: "If we spend any more time mapping in this arm of the lake, we should start calling ourselves the Bad Creek Navy!" The name just sort of stuck as a private joke.

Supported by a federal STATEMAP Program grant, the Geological Survey is starting a second year of mapping in the Jocassee Gorges area. The shoreline mapping is part of the Geological Survey's effort to produce a set of new geology maps. The near 100 percent exposure along the shore is ideal for geologic studies and provides an opportunity to observe features not always exposed in the surrounding woods.

When completed in a geographic information system (GIS) format in the summer of 2005, the new geology maps will form a framework for other scientific studies and will provide information for further development of the Jocassee Gorges management plan. ❁

# Whose horses really were hidden in the old historic Horsepasture?

By Dennis Chastain

If you ask a dozen people in northern Pickens County about the origins of the name “Horsepasture,” you will likely get one of two responses. The first group will tell you very matter-of-factly that it dates back to the time of the Civil War and Sherman’s march across South Carolina. The story goes that people heard that Sherman was coming and hid their horses in what later became known as the Horsepasture. The other half will assert, just as emphatically, that; no, it goes way back to the time of the Cherokees. It was the Cherokees who stole the settler’s horses and hid them in the Horsepasture.

The one thing we know for sure is that at some point in time, someone hid somebody’s horses in the Horsepasture. But whose horses? And when?

The Civil War version of the story goes something like this. Rumors of William Tecumseh Sherman’s march through the Carolinas spread panic throughout the upcountry. Fearing that their livestock would be confiscated or destroyed, people took their horses, (and cattle too, according to some sources), and hid them out in the remote floodplain where the Toxaway River, Laurel Fork Creek and the Horsepasture River (at one time known as the Green River) all converge. Because of that, they will tell you, the area came to be known as the “Horsepasture.” Hmmm. Sounds like it could be true.

Let’s take a closer look at this version of the story. The truth is that Sherman, even though he wreaked havoc on the lower and central parts of the Palmetto State, never came closer than a 100 miles to the area now known as the Horsepasture. Furthermore, even if Sherman was in Pickens and was headed this way, you would have to think a lot of your horses to take the trouble to take them way back up in the Horsepasture. There would have been a hundred more easily accessible places to hide livestock.

There were only three reasonable routes in and out of the Horsepasture during the 1860s, and all three would have been arduous and more than a little



The Horsepasture River snakes its way through the mountains of Jocassee Gorges. (Photo by Tommy Wyche. Reprinted with permission from “Mosaic: 21 Special Places in the Carolinas.”)

treacherous. It is possible, however, that someone could have taken their horses up the Toxaway River gorge from Jocassee Valley. They could have gone up and over Big Laurel mountain on the old “Horsepasture Road”

# Document reveals origin of Horsepasture name

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and then down the backside or finally, they could have come in from North Carolina through an area known as the Canebrake, and then down the Toxaway River. But anyone who traversed any of these three routes before the entire area was inundated by Lake Jocassee will tell you that the horses would have been at greater risk of breaking a leg or dying from exhaustion than suffering confiscation by General Sherman.

The biggest threat that people living in the mountainous northwestern corner of the Palmetto State faced during the Civil War was from organized raiders and small bands of renegades and rouges, known as outliers. One of the most feared organized groups, known as Stoneman's Raiders led by General George Stoneman, did in fact come as close as Clemson and Anderson, where they were engaged by a contingent of Citadel cadets. Stoneman's storm troopers later looted the city of Greenville. Whether word of these raids or those of the many small bands of outliers that harassed the settlers throughout the mountains of North and South Carolina caused people to panic and send their livestock into the wilderness is simply not known.

So how about the Indians? Well, true enough, from the time the Cherokees obtained their first horses in 1740, they took a shine to the early European settlers horses and evidently were fascinated by them. And having a totally different concept of ownership than the Europeans, (they pretty much subscribed to the principle of "possession is ninety percent of the law"), there are numerous historical accounts of Cherokees having procured settler's ponies.

It is entirely possible that this version of the story has some merit. But one has to wonder if there is not some historical record that could clear all this up. Well, it turns out that there is. An archival plat of a tract of land owned by one Samuel Maverick, located on the North Carolina/South Carolina state line, just upstream of the area that we call the Horsepasture, shows a hand-drawn dotted line

across the property that says, "From the Horse Pasture to the Negroe trail". The plat is dated 1819, one year before William Tecumseh Sherman was born.

There is even more compelling proof that the name, Horse Pasture, pre-dates Sherman and the Civil War. Back in 1813 when the two Carolinas decided to survey their common border in the mountainous northwestern corner, a certain Professor George Blackburn, a professor of astronomy and mathematics at South Carolina College (now the University of South Carolina) was commissioned to take astronomic observations to help guide the surveyors. He spent a considerable amount of time in the area now known as the Jocassee Gorges, including the Jocassee Valley.

George Blackburn was an interesting fellow, a real character. He was a meticulous scientist, an ardent adventurer, a self-styled poet, and such a stickler for discipline in the classroom that his students in Columbia once burned him in effigy. A melee ensued and the Governor had to call out the State Militia to quell the riot. But the important part of his resume is the fact that he was a meticulous scientist and kept extensive notes of his travels around the state. One notation in his journal,

excerpted in Claudia Hembree's recent book, "Jocassee Valley," is perhaps definitive. While describing the Jocassee Valley, Blackburn wrote, "There are two other vales of this kind—the horse pasture—I named from the Indians hiding stolen horses there. It has but two families—the canebrake as yet uninhabited."

So, at long last, by this cryptic notation from 1813, we finally know with a fair degree of confidence whose horses were first hidden in the old historic Horsepasture. ✿

*(Dennis Chastain is a Pickens County naturalist and outdoors writer who has been hunting, hiking and fishing in the Jocassee Gorges for more than 30 years.)*

*'The one thing we know for sure is that at some point in time, someone hid somebody's horses in the Horsepasture. But whose horses? And when?'*

# Clemson Lifelong Learning participants tour Jocassee Gorges

Participants in Clemson University Lifelong Learning (CULL) classes can't get enough of the Jocassee Gorges. Beginning with its second semester in spring 2003, Greg Lucas of the S.C. Department of Natural Resources agreed to facilitate a course on this natural area in northern Pickens and Oconee counties.

Most recently, in spring and fall 2004, with the assistance of such people as Dennis Chastain (Pickens County naturalist), Kathie and John Garton (Clemson naturalists), George Polk (conservation chair-Sierra Club, Foothills Chapter) and Heyward Douglass (chairman, Foothills Trail Conference Board of Directors), Greg took a group composed mostly of seniors to such sites as Eastatoee Creek Heritage Preserve, Bad Creek Hydro Project, Oconee Bells Trail at Devils Fork State Park, Coon Branch Natural Area/Whitewater River, Lower Whitewater Falls and Sassafras Mountain.

This class has been so popular, that it has filled to its maximum size every semester. Seniors can't wait to sign up, in spite of the fact that the catalogue description includes the following admonition, "Wear study shoes or hiking boots as participants should be able to walk up to two miles on uneven terrain. Some hikes are rigorous." It is evident that many seniors of today live a healthier lifestyle and maintain a higher level of fitness than those of years past.

Class participants find more value in this class than merely the opportunity to go for a hike. Susan Jones, one of the course's enthusiastic participants wrote, "For me, this class was most rewarding

because it gave me insight into the complexity of the Jocassee landscape with its rich biological diversity." Susan also commented about how the input of informed individuals, like Greg Lucas and John and Kathie Garton, enriched the experience by bringing to it their interpretive expertise. Some participants, like photographer C.J. Elfont, were excited by the richness and variety of the visual impact of the environments visited. There is no doubt that the inclusion of this course in the CULL curriculum provides Upstate residents with a much-needed opportunity to explore and understand more about this magnificent natural resource.

For more information on the Clemson University Lifelong Learning program, contact Ann Marshall, director, at (864) 656-6912 in Clemson or e-mail [CULL-L@clemson.edu](mailto:CULL-L@clemson.edu). You can also visit the Web site at [www.clemson.edu/cull](http://www.clemson.edu/cull). ☘



Clemson University Lifelong Learning participants marvel at the view at Jumping Off Rock during their Jocassee Gorges class. (DNR photo by Greg Lucas)



A mourning cloak butterfly was found on the summit of Sassafras Mountain as part of a Clemson University research project. (Photo by Abigail Patterson)

## Jocassee butterflies may yield environmental clues

By Abigail Patterson

Understanding the interactions between organisms and their environment is becoming increasingly important with the growing knowledge of the strain humans are placing on the surrounding world.

Scientists estimate that over the past 100 years, the global temperature has increased by 0.6 degrees Celsius and is rising at a rapid rate. Many field biologists are convinced that the impact of this change is already apparent in the environment. An important tool for scientists to measure changes in the environment is by understanding widespread patterns of species richness and diversity over large and small spatial scales.

Butterflies are excellent organisms for investigating the effects of environmental change because they are particularly sensitive to environmental variation. The Southern Appalachians as well make for an interesting site of study because up until recently, little was known about the complex ecosystems within the area. I have been conducting butterfly field work in the Jocassee Gorges and surrounding mountains since last May.

The first objective of the project is to see what is

here. There is not a great deal of knowledge, other than dated species distribution maps in field guides, as to what butterfly species occur in the area. To date, I have identified 40 species of butterflies in my study area, and the numbers are increasing.

The primary goal of the project is to see how butterfly diversity and richness varies along elevational gradients. Namely, does Appalachian butterfly richness decrease with elevation, or do they peak at mid-elevations, as has been shown in many new studies? I have 12 sites ranging from the Clemson-Seneca area (about 700 feet in elevation) to the Jocassee Gorges and Highlands-Cashiers areas (about 3,300 feet in elevation). Sampling occurs every other week and will continue until the end of the flight season. Future use from the surveys can be used to investigate the impact of disturbances as well as global climate change on local populations. 🌿

*(Abigail Patterson is pursuing her master of science degree in zoology from Clemson University.)*

# Many species of snakes inhabit Jocassee Gorges

By John Garton

No matter if you are a hiker, trout angler, early season hunter, or wildflower enthusiast, one of the things that likely crosses your mind at some time while you are afield in the Jocassee Gorges is: “I wonder if there are any snakes around. Not to worry—there are.

About 20 species of snakes are known to inhabit the Gorges (only two of these are dangerous to people, as discussed below). And though some of these species are quite common, they can also be quite secretive. Some are miniatures as far as snakes go, with adults being only 8-12 inches long. These small snakes may be right under your feet, but are seldom seen.

They include the worm snake, ring-neck snake, red belly snake, brown snake and their relatives. Some of these small species can be very abundant (100 or more per acre), but because they live in the leaf litter, and even underground, they are infrequently encountered by people.



Garter snakes, characterized by longitudinal yellow stripes, are commonly seen along the Foothills Trail. (Photos by John Garton)

On the other end of the size scale are some large active snakes that routinely prowl the forest floor and even its tree canopy in search of their food and shelter.

Probably the longest snake in the Jocassee area is the black rat snake. Individuals of this species begin their lives as 8-inch-long snakelets that are strongly colored with dark blotches on a gray background. As they grow they become almost solid black and may commonly exceed 5 feet in length (the record length is in excess of 8 feet). The rat snake is a powerful constrictor, feeding on mammals (mice, voles, even squirrels) and birds (including their eggs). They are common enough to be a very major component



The black rat snake is the longest snake species in Jocassee Gorges.



Northern water snakes inhabit most of the streams in Jocassee Gorges.

## Snakes a major component of Jocassee Gorges ecosystems

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of the ecosystems of the Jocassee Gorges. Some of the other large sized non-poisonous species of the Gorges include the black racer, milk snake, northern water snake and eastern garter snake. Garter snakes, characterized by longitudinal yellow stripes, are commonly seen along the Foothills Trail, while northern water snakes inhabit most of the Jocassee streams.

The Gorges are also home to two poisonous species, the copperhead and the timber rattlesnake. Copperheads typically inhabit lower slopes and shady areas near streams, while the much less common timber rattlesnake is more inclined toward dry ridge habitats.

Two useful guides (available in most regional libraries and bookstores) to the identification and biology of snake species that occur in the Jocassee area include: "Reptiles and Amphibians, Eastern and Central North America," by Roger Conant and Joseph T. Collins. 1998. (part of the famous Peterson Field Guides Series); and "Amphibians and Reptiles of the Carolinas and Virginia," by Bernard S. Martof and others. 1980. Beautiful photos, range maps, and summary information. ❁

*(John Garton is a retired biologist with Duke Power Co. who lives in Pendleton with his wife, Kathie, and is the volunteer snake caretaker at the Lloyd G. Webb Natural Resources Office in Clemson.)*



The copperhead (shown here) is one of two species of venomous snakes found in Jocassee Gorges. The other venomous species is the much less common timber rattlesnake.

# Books bring alive hist

*(From "Jocassee Valley" by Claudia Whitmire Hembree, Copyright 2003. Reprinted with permission.)*

## Indians, Explorers and Botanists

There were several early visitors to the area, and a number of them kept journals that give an occasional glimpse of Jocassee. From these writings, some general information can be obtained of their impressions of the regional mountains and river basins.

During the early to late 1700s, most Jocassee residents were Lower Cherokees who occupied the mountains, foothills and a portion of the Piedmont region of South Carolina. Early records give no indication of the number of Indians that once lived in Jocassee Valley.

Whatever the area population in 1700, it declined during the coming century. A letter dated April 26, 1752 from Indian trader James Beamer to Governor Glen revealed that the Chickasaws and the Creeks were destroying the lower settlements. "They have caused every one of the lower towns to break up except Eastatoe of Tocksaway [sic] and Kewohee [sic], and Kewohee [sic] has moved up to Tokasisway [sic], and joined what few are left there ... The enemy ... has killed some thirty odd of them this spring." Mr. Beamer then expressed a desire for a peace with both nations and for a fort to be built near Keowee to attract more Indian settlers to the Lower Towns in order to have better trade and a safer province. It became a reality when Fort Prince George was erected in 1753 by a detachment of militia supervised by Governor James Glen. The fort was south of Jocassee Valley and on the east side of the Keowee River.



**Chapman's Bridge in its glory, spanning the Keowee River. When the bridge was moved to a new location on Lake Keowee at Keowee-ocnee, it was destroyed by arsonists. (Photos courtesy of Debbie Fletcher)**



**Campers from Camp Jocassee for Girls pose on the steel bridge over the Whitewater River.**

During the Indians Wars of 1759-61 "...the army reached the Lower Towns, where they sacked and burned Little Keowee, Eastatoe and Sugar Town and all the other villages [in 1760], killing about sixty Indians and taking forty prisoners. All the cornfields and granaries were burned and the orchards cut down."

A year later, Captain Christopher French recorded his observations about his trek from Ninety Six to Fort Prince George on Keowee River in his May 27, 1761 diary. "The Land was very uneven, being interrupted with Hill and Dale and the River which is about 50 or 60 yards wide, extremely pretty. At this place we found Attakullakulla (The Little Carpenter) so often mentioned in our papers. He is a well looking man, has always a smile in his countenance and has the character of being a man of great sense. In the evening all the Indians went to the fort and had a talk with him and attended them and we went through the Indian ceremonies of firing our pieces, etc."

Like French, Major Alexander Monypenny arrived at Fort Prince George during the late spring of 1761. On

# History of Jocassee Valley



In the Keowee-Toxaway Project flooded Jocassee Valley, the  
Toxaway State Park, where it was destroyed shortly thereafter

May 30 he wrote in his journal, “Many of the lower town  
Cherokees came in and are to be allowed to settle near  
the Fort. The nation must be much inclined to Peace, as  
a scalp has not been taken as yet.”

During the Cherokee War of 1776, Colonel Andrew  
Williamston led a raid on the Cherokee in the area. The  
Williamston map shows the Indian towns destroyed,  
and one of them is Jocasy [sic] Town. This is one of  
the earliest mentions of Jocassee in any documentation.  
The late date of the appearance of this village probably  
indicates that the Indian group living there was not very  
large at the time.

*(From “Whippoorwill Farewell: Jocassee Remembered,”  
by Debbie Fletcher, Copyright 2003. Reprinted with  
permission.)*

A single, powdery, velvet-thick dirt road ambled  
through the Valley, cresting at a steep bluff overlooking  
the river and the domain of a long-forgotten Cherokee  
people. Unspoiled and practically virginal, the Valley was

well-protected by mountains which rose like tremendous  
shoulders guarding a priceless treasure. We rarely traveled  
that extra mile or so past the Lodge. Other than the  
spectacular view, I guess there was no reason to. It would  
always be there.

T. Addison Richards, in an 1853 Harper’s New  
Monthly Magazine article, described Jocassee as:

“...the fair valley of Jocassee, dissected by the  
babbling waters of the sparkling Keowee; the very spot  
to dream in on a summer-morn; or, in moonlight-hours  
to dance with the woodland elf and the merry fay! In  
connection with a visit to Jocassee, the traveler invariably  
‘does’ the proximate falls of the White Water, charming  
in themselves, and still more happily remembered in  
association with the wild beauties of the mountain ledges



The Swimming Hole on the Whitewater River, also known  
as the Baptizing Hole, is shown here as photographed  
from Miss Sarah Godbold's bluff.

and dells, traversed in the few miles rambled thence, from  
the bosom of the pretty valley. In the same excursion,  
too, he will ever cherish with delight a memory of the  
Keowee, the silent waters of Jocassee’s glens...”

But by the late 1960s, danger had come to  
the Valley.

I remember the day danger came. The summer  
sounds were ever-present as the Whitewater River

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# Jocassee Valley remembered in words, photos

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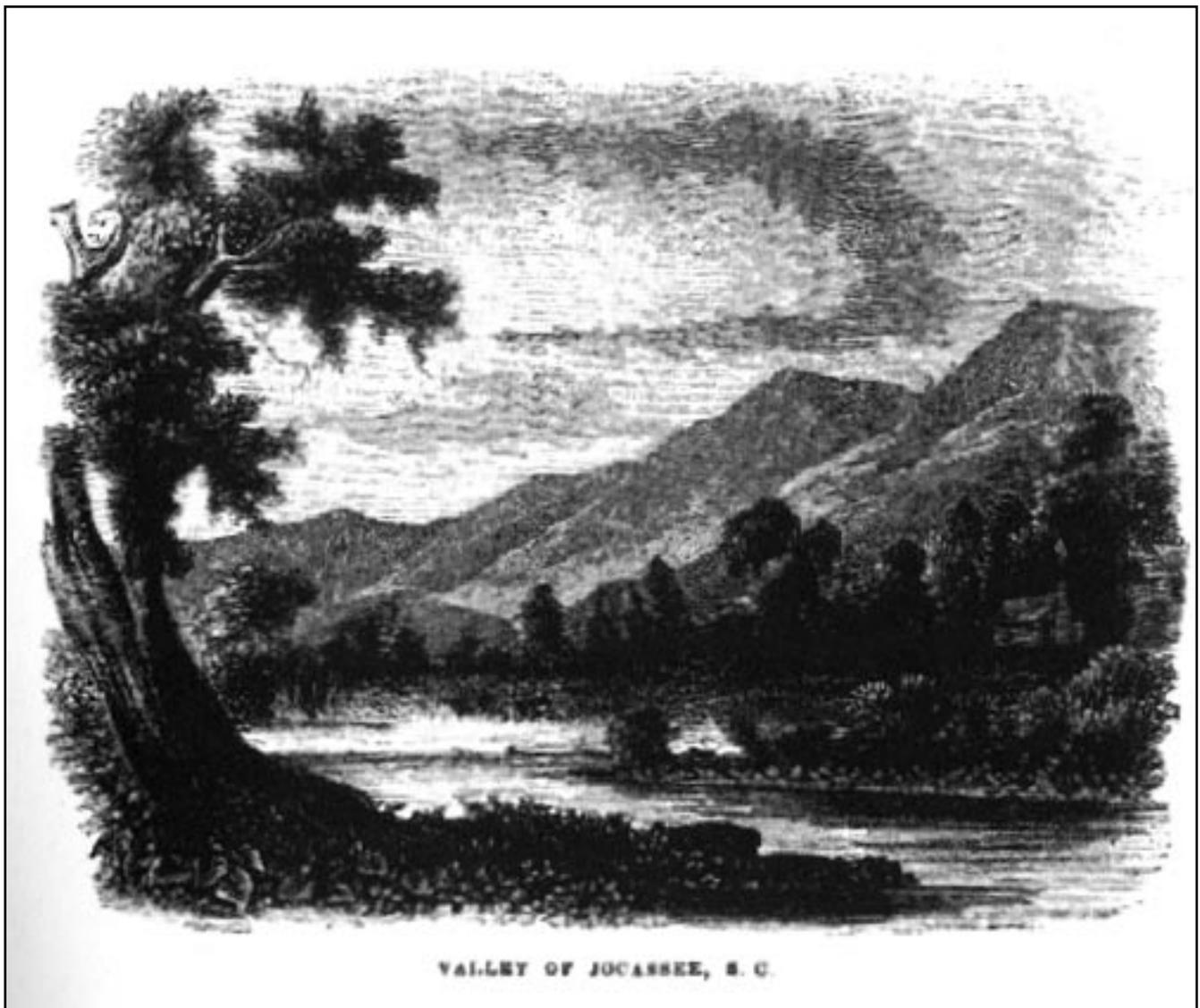
cavorted and pranced its way past Attakulla Lodge (the river carried diamonds, you know...lots and lots of tiny, brilliant, icy diamonds that sparkled on top of the water). The swelling chorus of crickets in the later afternoon sun gladly silenced themselves at twilight in deference to the deep-throated bullfrogs...more in an attempt to keep from being eaten than to show honor! It was a typical Jocassee day—except for the presence of the power company man.

I remember walking out onto the Lodge's huge front porch—for everything is huge from a child's perspective—and seeing a man in a white shirt talking to Uncle Buck and Mama. He was the power company man, bringing morbid news of plans to build a huge dam which eventually would envelop our valley under the shroud of a huge lake...and leave a huge hole in our souls. While the grownups talked, I busied myself by

swinging around the columns on the edge of the porch. I wish that I had understood the magic of the place, before it was too late.

But a child thinks that things will last forever. ❀

*(Some area bookstores are now carrying the two Jocassee books. They can also be ordered on-line or through the mail. The Web site for "Jocassee Valley" is [www.jocasseevalley.com](http://www.jocasseevalley.com). To receive a brochure, write Claudia W. Hembree, 19 Fernwood Drive, Taylors, SC 29687-4919. The Web site for "Whippoorwill Farewell: Jocassee Remembered" is [www.jocasseeremembered.com](http://www.jocasseeremembered.com). To receive a brochure, write Debbie Fletcher, 109 Copperhill Lane, Columbia, SC 29229. The latest edition of "Whippoorwill Farewell" features a new section on the underwater search for and subsequent discovery of Attakulla Lodge 300 feet below the surface of Lake Jocassee.)*



VALLEY OF JOCASSEE, S. C.

This drawing of Jocassee Valley accompanied the 1853 Harper's New Monthly Magazine article.

# S.C. Forestry Commission pitches in to open Jocassee roads after hurricane

The S.C. Forestry Commission recently lent manpower and equipment to help open Jocassee Gorges roads after Hurricane Ivan dropped numerous trees along roads in the region.

The main roads on Jocassee are opened for public vehicular access for two time periods during the year. The period from March 20 through May 10 is popular for many springtime activities, while the period from Sept. 15 to Jan. 1 allows many traditional fall and winter outings to take place.

In 2004, the long-awaited date of Sept. 15 had finally arrived, and Jocassee staff members were proud of the road system. They had implemented many improvements during the summer of 2004. Slopes were adjusted and broad-based dips were installed to control the flow of water on the road system, especially after big rains. More than 2,000 tons of crushed granite had been installed to stabilize roadbeds. Roads that had been closed for maintenance in 2003 had been repaired and were scheduled to re-open. Then Hurricane Ivan descended upon Jocassee and delivered havoc upon the serene mountain environment and its road system.

“We had just opened the gates on Wednesday for the fall 2004 season,” said Mark Hall, Jocassee Gorges manager for the S.C. Department of Natural Resources (DNR), “then we heard we had a hurricane heading our way. Since we expected bad conditions, we had to scour the countryside and ask people to leave so we could shut the gates. It was a difficult decision, because so many people are eager to use the property when we open the gates in the fall.” Fortunately, the decision to close the gates on Thursday, Sept. 16 turned out to be a good one. DNR staff returned Monday to find enormous trees down across every main road in Jocassee. Electricity and phones were out for some time, too. Jocassee Gorges has limited equipment and only three technicians who dedicate part of their time to the property. They did not have the manpower and equipment to deal with such an onslaught of devastation.

Fortunately, the S.C. Forestry Commission was first in line to

lend a hand. Their personnel moved onto the scene with four bulldozers, operators and crew leaders right away. Five teams were quickly assembled. Each team had DNR personnel from Clemson or Jocassee plus Forestry Commission staff. Each team was assigned a different section of the road system to inspect and repair. Hub Smith, Pickens County forest technician supervisor for the Forestry Commission, coordinated the operation and ran a chainsaw as they all worked extra hours during the next three days to regain access on the main road system. Equipment operation was accomplished by S.C. Forestry Commission Pickens Fire Wardens Ronnie Patterson and Ray Cassell and Greenville Fire Wardens Randy Harrison and Jamie Smith.

“I saw them do things with their dozers that were nearly magical,” Hall said. “However, they used safety precautions, exhibited professionalism and demonstrated that they are experts at what they do. I developed a special appreciation and respect for the Forestry Commission after that exercise.”

Roadwork and engineering of the road system had paid off, as DNR found that little soil had been lost, and that the integrity of the road system was excellent. “The road repair accomplishments by Wildlife Technicians

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The S.C. Forestry Commission helped clear roads like the Cane Creek Road (shown here) after Hurricane Ivan dropped numerous trees across Jocassee Gorges roads. (DNR photo by Greg Lucas)

# Jocassee roads cleared with help from S.C. Forestry

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Jimmy Kluge, Ronnie Gravely and Ed Stovall were noteworthy,” Hall said. “It was their expert attention to detail that allowed our roads to tolerate the more than 10 inches of rain we received. We hardly found a rock out of place within the roadbeds.”

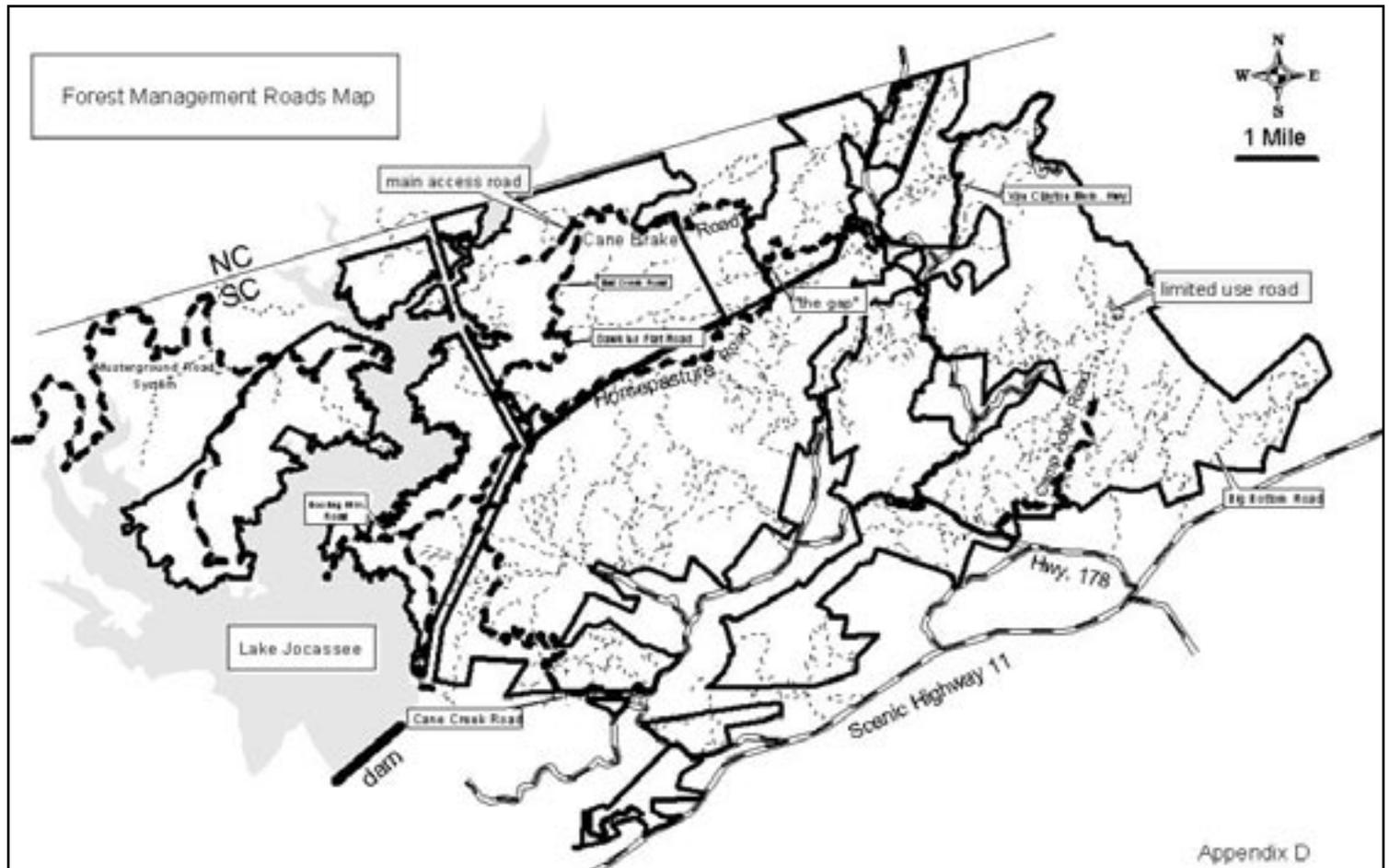
Downed trees caused the major impact to the roads. Many trees on the ridges were blown over by the brute force of the winds, and some trees on the ridges lost their leaves prematurely.

Numerous larger oaks on steep slopes lost their grip on life when the soils became saturated and they just toppled over. Overall, more than 100 larger trees were removed from the main road system. The Horsepasture Road and Cane Creek Roads were the most heavily

impacted by downed trees, and a few smaller mudslides caused some problems there too.

Cooperative endeavors are essential to overcoming the economic difficulties state agencies are facing today, according to Hall.

“Hurricane Ivan triggered some outstanding cooperative efforts,” he said. “The special effort between DNR and the S.C. Forestry Commission shows that there are some pretty dedicated staff members in the two agencies out there working together. It exemplifies the fact that they are out there working every day, in good conditions and bad, for the citizens of South Carolina to ensure that our natural resources are well managed and available to them.” ❁



Many roads in Jocassee Gorges were impassable after Hurricane Ivan dropped numerous trees across them. The S.C. Forestry Commission supplied manpower and equipment to help clear the roads.

# Ecological burns at Jocassee Gorges to restore habitat, improve safety

Many species and ecosystems require fire periodically to ensure their survival, and that's why prescribed burns will be a part of the S.C. Department of Natural Resources' management of the Jim Timmerman Natural Resources Area at Jocassee Gorges in the near future.

"The objective of controlled burning, also called prescribed burning, is to maintain the ecological integrity of these lands," said Mark Hall, S.C. Department of Natural Resources (DNR) wildlife biologist and forest planner stationed at Laurel Valley Lodge at Rocky Bottom. "Controlled burns also provide for human safety by reducing the amount of fuel on the natural area, thereby reducing the chance of catastrophic wildfire."

Burning will be done when the weather is suitable to allow for a safe burn, including the rapid rising and dispersal of smoke, Hall said. Once weather conditions are right for the burn, it should take four to eight hours for the active burning to be completed, although scattered stumps, logs and dead trees may smolder slowly through the night. Fires will be surrounded by fire breaks, which include existing preserve roads, streams, plowed fire breaks and breaks put in with hand tools in sensitive areas.

"Through the centuries, many native plants, animals and habitats in the southeastern United States have adapted to the presence of recurring fire," Hall said. "Many species and ecosystems are now rare because of fire suppression, and they actually need fire to ensure their survival."

Controlled burning efforts on Jocassee will target ridgetop sites, where fire was a significant factor in maintaining the plant communities that have been lost on those high, dry sites. Some fire will also be applied to planted pine plantations at lower elevations. Some mid-slope sites will be burned to help restore oak woodlands that are now occupied by yellow poplar and red maple. Visitors will be able to see the results of the controlled burns along the Horsepasture Road next year.

Hall emphasized that since controlled burning requires careful timing and a thorough knowledge of

weather and fire behavior, highly trained fire personnel with the DNR and S.C. Forestry Commission will manage and conduct all aspects of the controlled burns. The Nature Conservancy may also help with the controlled burns.

"Besides the ecological benefits of prescribed fire, it also has the added benefit of reducing fuel on the forest floor and lessening the chances of a catastrophic fire, which can threaten homes and people," Hall said. "Because fire has been suppressed for so long in some places, you get dangerous buildups of fuel and increase the chances for a wildfire that can destroy property and lives. The wildfires we've seen across the United

States in the last 15 years, due in large part to past fire suppression, underscore the need for prescribed fire."

By using a controlled burn—when wind, temperature and humidity conditions are appropriate to remove some of the forest fuel like leaves, pine needles and twigs—fire managers can greatly reduce the chances of a catastrophic wildfire. After controlled burns are



Prescribed fire in Jocassee Gorges will maintain the ecological integrity of the lands and provide for human safety by reducing the amount of fuel on the natural area. (Photo by Mike Leslie)

completed, the homes and properties close to Jocassee Gorges will be much less likely to be in the path of a wildfire, because the fuel is reduced or eliminated.

Optimal weather conditions will be chosen for smoke dispersal, but Hall advised that during these controlled burns nearby residents will certainly see and smell smoke. The smoke usually disappears by the end of the day.

"People become upset when there is smoke in the air if they don't know the reason for the fire," Hall said. "That's why we're trying to get the word out about prescribed fire. If we carefully plan and conduct a burn when weather conditions favor smoke dispersal, this reduces smoke-related problems. Dealing with a little bit of smoke now is infinitely better than trying to control a raging wildfire later." ❁

# Nature Conservancy expands commitment to Southern Blue Ridge region

## TNC hires project director, opens Greenville office

In spring 2004, The Nature Conservancy strengthened its conservation focus in the Southern Blue Ridge region of South Carolina by opening an office in Greenville and hiring project director, Kristen Austin. Austin will coordinate conservation and protection efforts in the Southern Blue Ridge region of South Carolina.

“With Kristen (Austin) leading South Carolina’s conservation efforts in the Southern Blue Ridge region of the state, we will develop a more focused effort to protect this important region,” said Mark Robertson, executive state director of the Conservancy’s South Carolina Chapter.

While the portion of the Southern Blue Ridge that extends into South Carolina is relatively small—covering just 2 percent of the state’s land mass—it supports more than 40 percent of the state’s rare plant species. The region is also the world’s center of salamander diversity and home to more than a third of its reptiles.

The Conservancy has been active in the Southern Blue Ridge Escarpment since the 1970s. Since that time, the Conservancy has assisted many agencies and organizations in protecting important habitats. To date, the Conservancy has helped to protect more than 38,709 acres in the Southern Blue Ridge region of South Carolina, including Caesars Head, Table Rock Reservoir, Poinsett Reservoir and the Blue Wall Preserve near Landrum.

“With increased development pressures spreading out from the Greenville-Spartanburg area, it is more important than ever to protect this resource for future generations,” said Austin, SC-Southern Blue Ridge Project director for the Conservancy’s South Carolina Chapter. “Working in partnership with public and private agencies—as well as individual landowners—to identify common conservation goals is the first step to achieving our mission here in the Southern Blue Ridge region.”

Conservancy staff in South Carolina and North Carolina is working in cooperation with a host of public and private agencies as well as individuals to protect



The Nature Conservancy has been active in the Southern Blue Ridge Escarpment since the 1970s and recently opened a Southern Blue Ridge office in Greenville. (DNR photo by Greg Lucas)

this vast biological resource. Working to identify threats and inventory the biological diversity of the region, the Conservancy and its partners have developed a cohesive conservation plan to ensure the biological diversity of the area is forever protected for future generations.

A Knoxville, Tenn., native, Austin has more than nine years of experience in land conservation. Before joining the South Carolina Chapter, Austin worked for the Conservancy’s Missouri Chapter for six years, where her most recent role was managing the Wah’ Kon-Tah Prairie Project in southwest Missouri. There she worked with ranchers, farmers and government agencies to protect a tallgrass prairie landscape. Prior to working for the Conservancy, Austin was employed by the Great Smoky Mountain Institute at Tremont, a field school in the Great Smoky Mountain National Park where she developed and taught classes about the Southern Appalachian ecosystem and conducted wilderness backpacking trips for adults and teenagers.

For more information about The Nature Conservancy’s work in the Southern Blue Ridge Escarpment region, contact Kristen Austin at (864) 233-4988, e-mail [kaustin@tnc.org](mailto:kaustin@tnc.org) or visit [www.nature.org](http://www.nature.org).



Clemson University researcher Stanlee Miller captured this photograph of a Swainson's warbler that built its nest up against an inactive golden mouse nest.

## Unusual nest placement by Swainson's warbler observed in Jocassee area

By Stanlee Miller

On June 14, 2004, a female Swainson's warbler was photographed while it incubated four eggs in a nest that was leaning against an inactive golden mouse nest.

The nests of both species were composed of dead leaves. The mouse nest was domed over and is the large mass of leaves below the tail of the bird in the photo. The warbler nest had an open cup on top and is directly beneath and in front of the bird in the photo. Both nests were two meters above the ground in a five-meters-tall Eastern hemlock tree.

On June 23, the golden mouse nest and three of the warbler eggs were found on the ground below the warbler nest. The warbler nest was tilted over but still attached to the support tree. It contained one cold wet egg. Apparently the mouse nest was blown down during a strong rain leaving the warbler nest unsupported on one end.

Of the 60 Swainson's warbler nests studied in the Jocassee Gorges so far this is the first one that was associated with the nest of another vertebrate species. ❀

(Stanlee Miller is the curator of vertebrates at the Bob & Betsy Campbell Museum of Natural History at Clemson University.)

*'Of the 60 Swainson's warbler nests studied in the Jocassee Gorges so far this is the first one that was associated with the nest of another vertebrate species.'*



# Jocassee Journal

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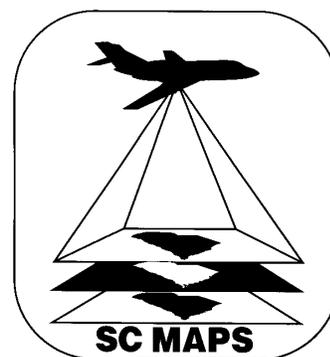
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## Eighth-graders studying Jocassee Gorges medicinal plants

SC MAPS, an interdisciplinary program housed at Clemson University that is designed to teach middle school students about the many varied regions of South Carolina, has taken on an additional project: Eighth Grade South Carolina Studies.

This new program is developing a series of curriculum lessons aligned to the South Carolina Curriculum Standards to be used in the eighth grade for math, science, social studies and language arts that teaches about the natural history, human history, land use, literature and culture of South Carolina. The medicinal plants of the Jocassee Gorges region are featured as part of the Blue Ridge exploration. Students will be looking at the different kinds of plants used by the Native Americans to the plants of the Appalachian cultures and their many useful purposes.

To find out more information about this program and the SC MAPS program, contact the SC MAPS Project Office in Clemson at (864) 656-1560, by e-mail at [scmaps@clemson.edu](mailto:scmaps@clemson.edu) or check out the Web site at [www.clemson.edu/scmaps](http://www.clemson.edu/scmaps).



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