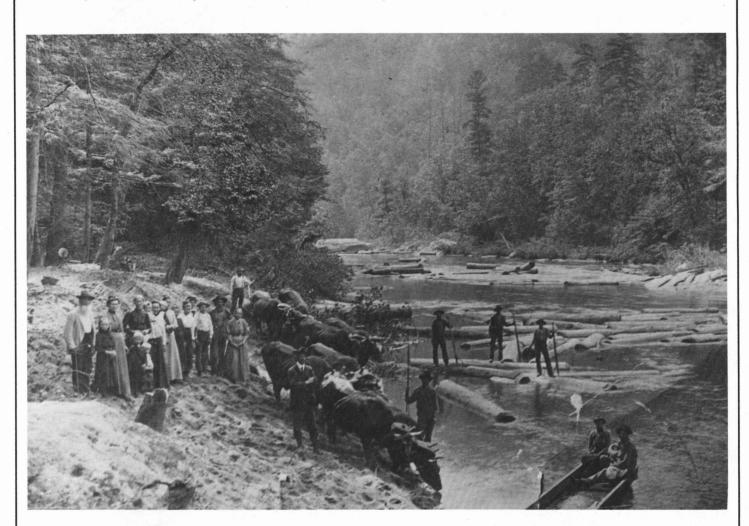


The Chattooga Quarterly

1995 Winter

\$ 1.50

Logging the Watershed Past, Present, and Future



Forest Stewardship on Private Lands3	Current USFS Activities9
Interview with Mr. Joel Thrift of	Upcoming Workshops10
Thrift Brothers Lumber Co5	Op Ed by Dr. Eugene Odum of
The Mountain Bridge Proposal7	UGA Institute of Ecology11
Geology of the Chattooga Basin19	Book Reviews22

Director's Editorial: Who Determines Sustainability?

I cannot remember the exact year, but it was either 1978 or 1979. The new Andrew Pickens District Ranger and I were having a discussion about forest management on the district. He told me that one of his assignments was to get the timber program "on track". He then proceeded to give me the "canned rap" that I must have heard now around 1000 times. To the best of my recollection, it went something like this: "These lands were all cutover during the logging boom at the turn of the century. Most of it is old worn-out pasture and cornfields that were abandoned when the farmers moved out to the piedmont to work in the cotton mills. What grew back has been 'high graded' [the best trees logged out] and the stuff that is left is just junk. We're going to clearcut it and replant a young healthy forest".

BARBOUR STATE OF THE STATE OF T

As I drove home that day I wondered how this new timber program would affect the relatively young stands of hardwoods along the Chattooga Ridge Road. Sure, this was not a primeval forest, but to me, it was beautiful. I

Disgusted land owner finding the source of the mud in his creek - a USFS timber sale just upstream.

couldn't imagine how these lands would benefit from being clearcut and replanted.

Nonetheless, it didn't take the new ranger long to make good on his promise. The

previous ranger had done his part, new system roads had been pushed into the forest at Fall Creek, Possum Creek and Woodall Shoals. These roads were more like superhighways than logging roads. After the timber was harvested at the end of these roads, new spur roads were built out along the ridges, forming a network on the landscape that resembled the feeding patterns of a southern pine beetle.

Now, as I drive down Chattooga Ridge Road through the clearcuts, I think about that ranger and his mission. Sure enough, a forest of pine and/or hardwood stump sprouts is coming up where the 70 or 80 year old native hardwoods once stood. The huge system roads have increased in length and number. And now by their own admission, the Forest Service states (in their environmental assessments) that the number of miles of road per square mile of forest (i.e. road density) already exceeds the habitat requirements of many species.

Intuitively, I knew back then that all this was dead wrong, and now I believe I know why. I have since that time worked for the Forest Service (4 years) and served as a representative of several conservation organizations. Piece by piece my understanding has grown, until I now feel confident in saying the problem lies with congressional campaign financing. "We have the best

continued on page 22

Forest Stewardship on Private Lands

Bill Noel and Buzz Williams

The Chattooga River Watershed Coalition is developing a program to address the critical need for better management of Non-**Industrial Private Forests** (NIPF) in the Chattooga basin. Private lands compose 32% of the Chattooga basin. Studies have shown that certain areas in the Blue Ridge have very low compliance with voluntary state Best **Management Practices** (BMP's). Other research shows clearly that these abuses have occured because these landowners lack knowledge of better management practices, not because they do not have a good land ethic. Our goal is to provide registered foresters for willing private landowners in the watershed, to write management plans aimed at protecting the integrity and viability of the native forest. This program will combine professional forestry expertise with financial incentives, through crafting forest management plans that qualify for Forest Stewardship and Stewardship Incentive Programs administered by the USDA Forest Service in conjunction with State Forestry Commissions.

Better management of NIPF is crucial to our efforts to maintain and restore the functional integrity of natural processes in the watershed. A report released by the Merck Family Fund in 1994 addressed the issue of conservation on private lands concluding "because state and federal land holdings in the eastern United States are relatively small and scattered, the maintenance of large privately owned forest tracts is vital



Horse logging is appropriate in many forests.

to the continued health of eastern ecosystems". These private lands comprise 58% of commercial forest lands in the nation, and nearly 75% of timber lands east of the Great Plains.

There are additional factors which make good stewardship on private lands in the southeast a high priority. Various economic and social factors, as well as shifting land ownership patterns, threaten the stability of private forests. The southeast's population is growing, and tracts of private land are often sub-divided and sold to new owners, especially for small retirement homes within and around public lands like the national forests of the Chattooga basin. Tracts under 500 acres are especially vulnerable. The land clearing and road building that results from developing these lands fragments the landscape, and destroys habitat for many sensitive species that depend on undisturbed interior forest for their survival. For example, a study published in the December '94 issue of Conservation Biology found that narrow forest-dividing corridors such as roads "...may function as ecological traps for forest-interior



Skidding logs onto the log deck.

Private Forestry continued...

neotropical migrants [song birds]" and further, "...contributes to declines of forest-interior nesting species in eastern North America."

As our population increases, so does our demand for forest products. The native hardwood forests of the Southern Appalachians, now just beginning to recover from the devastation of the timber-boom years of the turn of the century, are now being targeted for harvest once more. A

study by The Forest Trust found that large timber companies have increased operations in the Southeast by 21% within the past decade. Cutbacks in timber operations on public and private lands in the Pacific Northwest have prompted this increase; this is placing tremendous pressure on our NIPF lands. Forest Service statistics project that by the year 2030, 70% of native southern forest lands will be managed as monocultural pine plantations.

There is no question that NIPF lands will play an important role in any plan to maintain and restore the health of our native forests in the Chattooga River watershed. To be successful in providing assistance to private land owners, we need to know more about the values they place on their forests, and what kind of information we can provide to assist their forest management decisions.

A recent study shows that "the percentage of NIPF owners who are farmers has sharply declined. The proportion of owners who are either white collar workers or are retired has increased". They are not



Small logging operations create jobs for locals.

as "connected" to the land simply because many of them have only recently acquired the property.



Portable band mill no haul cost and little waste.

Although these landowners were found to have a good environmental ethic, they often made management decisions that reflected a lack of knowledge about the values of sustaining their forest land, and the appropriate forest management techniques to maintain and cultivate a healthy forest. Decisions were often "...motivated by immediate cash needs in the context of an information vacuum". The same study found that NIPF owners ranked timber harvesting lower in priorities, behind "preserving nature, maintaining scenic beauty. and viewing wildlife". But even though this study found that NIPF owners

were not timber oriented, it did find that they believed in forest management. In Virginia, 56% of

these private landowners have harvested timber. The implications are that while these landowners will probably harvest the timber on their land they would prefer to employ environmentally sensitive harvesting techniques. Further, "only 21% of NIPF owners felt they had the right to do as they please regardless of environmental consequences, [and] 61 percent felt that protecting scenic beauty on private lands was important enough to justify harvesting regulations". However, the study also revealed that "68 percent believed that landowners so regulated should be compensated for their loss". The study concluded that NIPF owners were in great need of knowledge and assistance. With this in mind we have formulated a plan to provide both.

In order to address the needs of the private forest land owner in the Chattooga basin, first paint a mental picture of the typical situation. The average private

continued on page 18

Early Logging in Chattooga Country

Buzz Williams

with historical photographs provided by Bob Edwards

Specific information about the early logging days in the Chattooga River watershed is somewhat sketchy. By piecing together what we know with certain assumptions based on known logging practices throughout the Southern Appalachians, we begin to get an idea of this history. This look back in time is very interesting but also very sad, because this era marks one of the most shameful examples of wanton destruction of our natural heritage in the history of this region.

In the early 1800's, after the Cherokee abandoned the Chattooga watershed, settlers migrating to the area began clearing the land for farming. These first pioneers were mostly of Scotch-Irish stock, who found the Southern Appalachian landscape similar to their homeland of Ulster. Small settlements grew in the isolated coves and "hollers" along streams such as Stekoa Creek, Warwoman Creek, and also along the main Chattooga in the bottom lands of the Russell Bridge area. These early settlers were a hearty, independent lot who cleared sites in the primeval forest for agricultural cultivation and to obtain building materials for cabins and fences. Until late in the 1880's the only marketable crop was livestock, which was allowed to free-range in the surrounding forest of oak, hickory, chestnut, hemlock and pine. Hogs were preferred due to their ability to defend themselves against predators in the wild and grow fat on the abundant mast and forage on the forest floor. Animals were periodically rounded up and driven to market along drovers roads leading out of the highlands, down to the plantations of the piedmont and coastal areas. Except for settlers "opening up" the forest from agriculture and annual burning, the forest was basically unaltered.

Small sawmills were established in local communities as more settlers moved in after the Civil War. Harvest methods were employed to remove the best trees, which were hauled to the mills by horses or oxen. However, this type of logging had little effect on the overall character of the forest because of its relatively limited scale. This was

The industrial revolution of this era provided the technology to tap the timber resources of the rugged mountains of the Blue Ridge. Now, it was simply a matter of who would win the race for the prize. Railroad lines pushed into the south, providing the means to move the big timber and transport it to lumber-hungry markets.



It took five yoke of oxen to haul one poplar log.

soon to change.

In the 1880's the northern states were running out of supplies of virgin timber. Northern timber barons began looking south towards the rich timber lands of the Southern Appalachians. In 1901 the Secretary of Agriculture wrote to President William McKinley: "These are the heaviest and most beautiful hardwood forests of the continent". The destruction soon to follow in the heavy logging years-up until about the 1920's-would forever alter the native forests of the Southern Appalachians, which includes the Chattooga watershed.

Yet the Blue Ridge Escarpment remained a formidable barrier to the more remote and steep terrain such as found around the Chattooga River, with the exception of a railroad line from Tallulah Falls to Franklin NC, and a spur route called the "dummie line" in Whiteside Cove (North Carolina). Consequently, most early large-scale logging operations utilized the Chattooga River for transporting logs to a sawmill in Madison, South Carolina, a town now inundated under the waters of Lake Hartwell. A series of "splash dams" were constructed in the headwaters of the Chattooga on its West Fork. These dams

Early Logging continued...

impounded large volumes of water, which was periodically released to increase the river's flow and sweep the logs downstream. Large booms caught the logs as they arrived at various mill sites. Splash dams were used in the winter and spring to take advantage of seasonal high water flows and the availability of local labor. Many men who carried out the dangerous work of rounding up the scattered logs came from local families

with names we still recognize in the Chattooga River community: Carver. Nicholson. Ramey and Wilson. Though this work provided jobs for the local communitie , it devastated many riparian

areas along



Sawmill at the confluence of the Tallulah and Chattooga (now under Lake Tugaloo).

the river banks leaving them scoured and denuded of vegetation. The slash and debris from this large-scale logging era increased fuel loads which caught fire during drought years. These raging forest fires resulted in further degradation of the native forests.

The wholesale destruction of the Southern Appalachian forest due to the logging boom was described at that time by noted southern writer and Asheville resident Thomas Wolfe: "It was evident that a huge compulsive greed had been at work: the whole region had been sucked and gutted, milked dry, denuded of its rich primeval treasures; something blind

and ruthless had been here grasped and gone." The most credible account of the destruction of the primeval forest of the Chattooga watershed can be found in a book entitled From the Hills of Home, by Mrs. Frances Baumgarner Lombard. Mrs. Lombard still lives today on the land in Whiteside Cove (North Carolina) that her great, great, great grandfather Barak Norton bought from the Cherokee. A chapter from

this book, called "The Dummie Line", is reprinted below.

There are not many people around who can vividly remember 'the dummie line' in its heyday. This

was a wooden track that wound its way out of the wilderness from Fowler's Creek to the Bradley Gap, a mile or so below the village of Cashiers Valley. It skirted around the hillsides then went across the deep chasms as the crow flies, and with the outlying spur-lines it spanned a distance of perhaps fifteen miles.

It was an essential part of the biggest enterprise in the history of Whiteside Cove.

My uncle and aunt, Mr. and Mrs. Kay Baumgarner, who remember this well, gave me the story of long ago that I will share with my readers.

In 1909, Walter Dunn and

Marcellus Buchannan, prominent men of Sylva, started this timber operation. They brought into the Cove a huge circle sawmill. It was set up on Fowler's Creek in the heart of a vast primitive forest that then belonged to Thomas Grimshawe. A logging camp was built to accommodate fifty or more men, and a well stocked commissary supplied their needs. Adding this number to the already thriving community netted a population of around one hundred fifty people.

In this deep woodland giant hardwoods and native white and hemlock pine stretched for miles in any direction. Mighty trees that had never known blight or leaf-eating insects, nor yet the bite of the ax or cross-cut saw. Enormous trees, sound as a gold dollar throughout. Some scaled up to 18000 feet one cut.

Like Rome, the dummie line wasn't built in a day. It took many strong hands weeks or even months to lay this long line of cross ties, put down with choice oak and pinned together with huge pike nails. These big nails impressed me as a child when two decades later we pulled them from the proud oak timbers decaying into dust. The engine that ran along the track was pulled by steam from a boiler fired with wood. It was a great accomplishment to operate the engine and was one that not many of the men mastered.

Charlie Dunn was chief engineer and Charlie Fugate fired the boiler. This tramcar pulled the logs to the mill, and also the lumber out to the Bradley Gap, where it went by oxen and wagon to the railroad at Lake Toxaway, and from there to parts unknown.

Seymour Calhoun was foreman over the entire crew, with Thad and Jack Robinson of Glenville in charge of the timber cutting crew.

The logging was all done with cattle and a groundhog skidder.

continued on page 13

An Interview with

Joel Thrift of Thrift Brothers Lumber Company



Thrift Brothers Lumber Company at Thrift's Ferry.

The following interview with Mr. Joel Thrift of Thrift Brothers Lumber Company was arranged by the CRWC, and conducted by Mr. Don Sanders of the Association of Forest Service Employees for Environmental Ethics and member of the Coalition's board of directors. It is presented as a good faith attempt to give consideration to all sides of the debate concerning management of our national forest.

DS: I'm doing an interview in Westminster, SC, on January the 18th, at 5 p.m., with Mr. Joel Thrift, of Thrift Brothers Lumber Company, and we're going to talk about the lumber/timber industry, and the

Forest Service [FS] and various subjects. Joel, I'd like for you to start off with a history of your family and how they began to get into the timber industry / lumber business.

JT: I'm probably the fourth generation: my great-grandfather, grandfather, father and uncles were farmers and just ventured into the timber harvesting when the farming industry kind of died out and the timber industry grew from their stand point. Prior to 1960 they ran two small mills and primarily cut on Forest Service land all in the mountains. They merged in 1960, and they put in a stationary

operation here in Westminster. Its just really grown from that point, it has always been a family operation.

DS: During this period of time, I'd like for you to go over how you've seen the forest industry change, and the USFS in relation to your industry.

JT: During those years as you probably recall, working with the FS, you kind of cut what you wanted. The FS kept a man on the ground; he scaled it at that time and then it progressed to they started marking trees to be removed, no clearcutting, it was all thinning, so its changed throughout the years. Prior to probably the late 80's, about 95% of

Interview continued...

our production came off of Forest Service.

DS: 95%? Is that in SC and GA?

JT: SC and GA, and we have cut several sales in NC. To be quite honest with you, I feel that the FS currently does a good job of managing the forest. They haven't always done a good job. Of course they have learned from prior mistakes, as all of us have. I think being a government agency, sometimes it has taken a little bit longer to correct some of them. I just feel that the FS has done an excellent job, even though harvesting on public land is more expensive.

DS: Because of roads or what?

JT: The roads are only part of the cost. The regulations with logging on the FS are probably threefold of what there is on private. You're going to do a good job, or you're not going to be there. You're not going to be there in wet weather, and then you have to do a lot of rocking, which we do on private, and then the erosion control. Erosion control used to not be a big problem, cost-wise. I mean, it was always there to do, but twenty years ago you could do seeding on a unit from anywhere from \$500. to \$800. Now it's anywhere from \$2,000. to \$3,000. You know, the use of a mixture of seed, the fertilizer, the labor, it's a labor intensive management. But it's a good thing.

DS: Is this road banks and skid trails you're talking about?

JT: Well, you don't have road banks, but all truck roads, all landing decks and all skid trails must be seeded, and if its over a certain percent, must be mulched. Which that's an added cost.

DS: On clear-cuts, if you are not very interested in hardwoods, then I guess

you would like the mixture to have mostly pine, is that right, when they re-seed / restore the forest?

JT: I've never seen natural regeneration come back all pine. You are going to have a hardwood mix. It may not grow as fast. Yes, we like the pine. The one thing that

"I think there should be more in the timber base than is currently designated, in order to have a sustainable yield from the National Forest"

concerns me...can I elaborate?

DS: Sure. Yes, I'd be glad for you to.

JT: One thing that really concerns me, is what's happening today. The FS is going in there, and they take out the quality pine and some of the low grade hardwood. What's going to happen in the future? We are not putting back for the future. I disagree with what's happening. I do not personally believe that natural regeneration is appropriate for hardwood. I believe we have quality hardwood seedlings, I believe that some sites should be hand-planted in hardwood. I don't believe that we should leave the forest to a random regeneration. I've just finished a 60 acre private tract nearby that was probably cut in the late forties and was left to natural regeneration. The result of this process is clumps of three and four trees, with none of them of any quality. It's a low grade productwhat you end up with. And Donald, let me add, we need to keep a consistent flow. That's the problem we have had, personally,

with the so-called environmental movement. As I've stated to many members, we don't disagree that bad, not personally we don't. But what our problem is, in order for us to survive in business we're going to have to have a consistent flow of timber from the national forest. We need to have an area that can be in timber production on an ongoing basis.

DS: You mentioned that your percentage of logs used to be pretty high off the national forest, what do you figure it is now?

JT: Less than 50%.

DS: Most of that is coming out of Georgia, maybe?

JT: Most of it, yes.

DS: Do you believe that the timber goals based on old forest plans are sustainable?

JT: Yes, I believe that the goals are attainable with proper management. 95% of the people working in the FS are spending more time on the paperwork instead of in the field managing the forest. I think they should have this issue put to a national referendum. If the majority of the American people say they don't want timber harvesting, then don't cut it. We would then know if there was a consistent flow available.

DS: Along that line, do you believe that the suitable lands in the timber base for the watershed are accurate? Does the planning document designate accurately the lands that should be in the timber base?

JT: I think there should be more in the timber base than what is currently designated, in order to have a sustainable yield from the national

continued on page 14

Current USFS Activities

Rick Hester and Nicole Hayler

The Chattooga River watershed is divided amongst three different national forest ranger districts. A minority of the Chattooga River watershed lies in the Highlands District of the Nantahala National Forest in North Carolina (23% by acreage), and in the Andrew Pickens District of the Sumter National Forest in South Carolina (19% by acreage). These districts have applied a relatively more "progressive" management style on lands within their jurisdiction, in consideration of the USDA/Forest Service's "Chattooga River Watershed Ecosystem Management Demonstration Project". However, activities that may affect ecosystem health and the viability of native species are still being proposed and implemented.

The majority of the Chattooga River watershed lies in the Tallulah Ranger District of the Chattahoochee National Forest in Georgia (58% by acreage). This district has actually intensified timber harvesting plans for the watershed during the "Demonstration Project". 54% of the Tallulah District lies within the Chattooga watershed, yet 94% of their new timber extraction plans are for this area. The district contends that it has a "back log" of timber sales from previous fiscal years that were delayed due to favorable judicial rulings in law suits filed by environmental groups. At best, this district has adopted a "business as usual" attitude during the "Demonstration Project". At worst, it has employed an aggressive management style aimed at skewing the studies, conclusions, and management guidelines that may be determined by the "Demonstration Project" towards the interests of large-scale commercial production and harvesting of timber "crops" on our national forest lands.

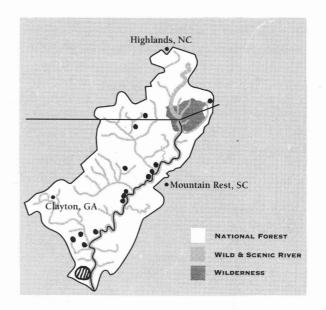
Below are a few examples of current USFS activities being planned or implemented in the Chattooga River basin:

- Big Creek (Tallulah District) As a result of an appeal filed by the Coalition and other public input, the Forest Service's original Decision Notice was modified, reducing total acreage affected by harvesting by 21%, and total road mileage construction by 34%. Harvesting activities on 487 acres and construction of 5.2 miles of roads are still planned for the fragile headwaters of Big Creek, which is a tributary to the Chattooga River.
- Tuckaluge Project (Tallulah District) Supposedly a model example of Ecosystem Management on-the-ground, the scoping notice for this project calls for harvesting

activities on approximately 1,000 acres. This project proposes to use less site-intensive harvesting methods (intended to better maintain ecosystem integrity in the process of timber extraction), while at the same time prescribing a cumulative

total of 50 to 100 acres of "patch clearcuts" in an attempt to extract a high volume of timber over a large area. 'Possum Creek (Andrew Pickens District) Construction of 2.2 miles of a new hiking trail following the Camp Branch riparian area is being proposed in order provide access to the Five Falls section of the Chattooga River, and to link up with the clearing of .3 miles of the "old" 'Possum Creek Trail to the base of the creek's waterfall. The "old" trail was damaged by a tornado in the early months of 1994.

- Chattooga River (Andrew Pickens District) The Decision Notice renews the commercial guided raft trip permits of the three outfitters on the river, and the commercial canoe and kayak clinic permits of the five businesses currently in operation. In addition, the decision implements an amendment to the Sumter National Forest's Land and Resource Management Plan, validating the heretofore "experimental" practice of moving raft trips up or down river due to high or low water levels.
- Southern Pine Beetle Suppresion (Tallulah and Andrew Pickens Districts) The Environmental Assessment proposes to cut and remove infested pine trees and other nearby pines in 45 sites. Temporary road construction to access infested stands will cross streams. Also, "emergency" actions are being implemented, cutting and leaving infested trees in



Dots indicate timber harvesting activities. Hash marks show the tornado salvage area.

Volunteer Action

Volunteers have been hard at work developing skills and exploring the watershed. Some are finding their "niche" by adopting their own favorite cove to map and study. Others have taken on the challenge of a cooperative program with the Forest Service to document in pictures what they like and don't like in the watershed. More are excited about getting involved in a stream bank restoration project on the West Fork. It is our goal to work with interested folks in tailoring projects to their particular skills, interests and time constraints. Everyone can make a difference. We hope you will consider getting involved, if only with a little time and a lot of imagination. Call, write or stop in the office anytime. We hope to offer the following workshops (times to be announced) that may be of interest as well:

Field Team Skills

Poisonous Critters Identification and First Aid Treatments

Salamanders as Indicators of Ecosystem Health

Neo-Tropical Migratory Birds

Old Growth



Volunteers at our first Old Growth Workshop.

Current Activities continued...

an additional 75 sites on the Tallulah District. These sites are mainly in the southern end of the watershed on the Georgia side. In South Carolina, pine beetle supression is proposed for two sites; one near the Thrift's Ferry primitive camping area, and the other near the Ranger Station.

- Rabun Bald (Tallulah District) A prescribed burn of 2,000 acres is being proposed to expand the range of the native Table Mountain Pine, which currently occupies 150 acres in the area. However, the species' range has already been expanded as a result of earlier human disturbances, and may not be totally fire-dependent. Also, it requires habitat that occurs on only a fraction of the proposed 2,000 acre burn area. The headwaters of Sarah's Creek, Walnut Fork, and Hoods Creek are located in the proposed burn area, as well as perhaps the most endangered habitat types in the watershed: a large roadless area, an old growth forest, and suitable sites for old growth restoration.
- Willis Knob (Tallulah District) Rehabilitation of the horse trail is proposed, to fill in eight mud holes, mitigate erosion, relocate and recontour portions of the trail, and hardening of the trail with rocks, logs and gravel. Sites are located within the Wild and Scenic river corridor.
- **Bartram Trail** (Tallulah District) The Environmental Assessment for this project approves harvesting timber with various even-aged methods on 139 acres near the Bartram Trail in the Dick's Creek drainage. A road is being built directly across the trail, and one stand right next to the trail is planned for harvesting.
- Tornado Salvage (Tallulah District and Andrew Pickens District) The Environmental Assessment for the Andrew Pickens District calls for the ground-based removal of downed trees on 930 acres and helicopter-based removal for an additional 324 acres. There are no takers for most of these timber sales as some wood has already begun to deteriorate. Reforestation of 485 acres is also planned. Salvage activities are currently being implemented on the Tallulah District to produce an estimated 1,100 to 1,400 board feet of saw timber and pulp wood.
- Clear Creek (Highlands District) The Highlands District is employing various timber harvesting methods on 411 acres in the Clear Creek area. This relatively pristine creek is located in the headwaters of the Chattooga River. This timber harvest is accompanied by 5.8 miles of new system road construction.

Public comments on particular projects can and do make a difference. If you have an interest in any of the activities listed above, you can get involved by contacting the CRWC and/or the US Forest Service for further information about the project, and for comment and appeal deadlines. The Coalition produces a continually updated "status report" on all USFS activities in the Chattooga watershed. To find out about projects in the watershed not listed above, contact our office for the latest copy of our "monitoring" database file.

Op Ed from Dr. Eugene Odum of UGA Institute of Ecology

The Importance of Federal Environmental Standards and Research in Sustaining the Quality of Life and Economics

"Federal dollars for research are essential for ...new Forest Plans." is absolutely
essential here
because our
knowledge of
environmental
resources are
fragmented and
incomplete. Just
as up-to-date
inventories are
vital to good
business

management, so are accurate inventories necessary for

Recent hearings held by the

U.S. House Appropriations Committee on cutting Federal spending heard testimony from extremists who would turn management of public lands over to private enterprise. In their enthusiasm for downsizing the federal government, the new Congress may well lose sight of the fact that the environment requires a strong federal presence, as well as local attention, if the environmental quality and sustainable resource use necessary for human quality of life is to be maintained nationwide. It may be that certain aspects of the environment can best be managed at the state or private sector level, but there must be

enforceable high federal standards for air and water quality and land use that apply nationwide, just as there must be federal oversight of free market operations to ensure a level playing field, as it were. Otherwise, states and industries will be tempted to lower standards and increase pollution for temporary gain to the detriment of public health and long term economic well being.

To maintain quality standards at the national and ultimately global level, detailed knowledge of the natural capital on which market economics ultimately depends is required. Federal research

"...subsidized draining of wetlands, below cost timbering on public lands, crop subsidies, construction of large damns and so on.

It is these "subsidy" projects... where spending cuts would actually help maintain our environmental capital."

environmental management. The Forest Service has just begun the necessary inventories for upcoming

plan revisions in the Southern Appalachian National Forest. These plans will replace out-dated plans written in the 1980's. Federal dollars for research are essential for these new Forest Plans.

Compared to something like a "star wars" military effort, money currently spent apital."

endang curtail

The recently rear is to inventor

"...it is time to stop

commonizing all of the costs and privatizing

all of the

profits."

on federal research is small. An increase rather than a decrease in this vital need could well fit into a reduced federal budget if major cuts can be made in expensive federal subsidies for "pork barrel" projects such as subsidized draining of wetlands, below cost timbering on public lands, crop subsidies, construction of large dams and so on. It is these "subsidy" projects, not research projects, where spending cuts would actually help maintain our environmental capital. For example,

a recent GAO report says that the Forest Service will not be able to reach timber targets in the Southern Region as a whole because of the increased cost of environmental protection.

Among the federal research efforts now on the congressional "hit list" is the Naional Biological Service recently organized by Interior Secretary Bruce Babbitt.

Opponents have somehow gotten the mistaken idea that this program will involve bureaucrats invading private property to search for endangered species in order to curtail private development.

The real goal of this program as recently reaffirmed by the Secretary is to inventory biological resources

nationwide as a necessary basis for preserving and managing these resources at all levels, federal, state and private sectors. One might compare this effort to the widely acclaimed, federally supported Lewis and Clark expeditions that inventoried the west early on in our history, only this time we have

Op Ed continued...

the modern tools of satellites and computers that make it unnecessary to inventory everything at ground level.

What we have outlined in defense of the National Biological

Service can equally well be applied to the National Geographic Survey and the Natural Resource Conservation Service (formerly Soil Conservation Service) both on the congressional "hit list" despite the fact that they have served the nation well for many years. Down-sizing planned for other agencies such as the Forest Service without

cutting "subsidies" could result in a much weakened agency.

If you think reducing environmental regulations and cutting environmental research are good things to do, and that it will help business, consider the following: First, the accumulation of toxic waste dumps (which taxpayers are now being asked to pay the major cost of cleanup) and the deterioration of air and water quality in parts of the rust belt and in California occurred when Federal standard were weak, ignored, or not enforced. The states failed completely to deal with these problems, except on a too little, too late basis! Without a strong national resolve there is a good probability that the whole country will be a pollution nightmare by the end of this century. Second, high quality standards have a positive effect on market economics because industry and agriculture are encouraged to compete for better methods to reduce resource input and pollution output, thereby internalizing the costs and reducing the burden on the taxpayer. It is as widely read writer Garrett Hardin has expressed, "it is time to stop commonizing all of the costs and privatizing all of the profits". We can invoke the common sense notion that

"an ounce of prevention is worth a pound of cure".

We all need to recall that this nation started out with a state's rights government which didn't

"...detailed knowledge of the natural capital on which market economics ultimately depends is required... just as up-to-date inventories are vital to business management."

work even when there were only 13 states. Our forefathers and writers of the constitution had the wisdom to understand that there were four broad areas that had to be the responsibility of the federal government, namely, defense, justice, public welfare and domestic tranquility as outlined in the preamble of our constitution. With both the natural environment and the urban environment becoming more disorderly and unhealthy by the day, there can be no domestic tranquility unless there are

nationwide efforts to sustain and improve the environmental quality on which the quality of human life and business ultimately depends.

The answer to the question of how to reform the Forest Service so that it functions

better on less money is obvious. We need to cut the fat and use our tax dollars wisely. This translates into less concern for big business and more incentives for research and

environmental protection.
What needs to be done now is to reaffirm the need for higher, not lower, national environmental quality standards, and more, not less basic research on which standards should be based.
However, give state and local governments and the private sector more leeway in determining just how agreed upon standards are to be met taking into consideration the wide differences in cultural,

geographic and demographic conditions in our diverse nation.

Eugene P. Odum Director Emeritus Institute of Ecology University of Georgia

Op Ed commentary submitted to various magazines and newspapers

Working with the Government Accountability Project

We are proud to announce that the Government Accountability Project, (GAP) has joined forces with the CRWC to help protect the Chattooga River watershed through a generous grant from the Merck Family Fund. GAP will be our contact in Washington.

Early Logging continued from page 6



Steam powered sawmill on the Chattooga.

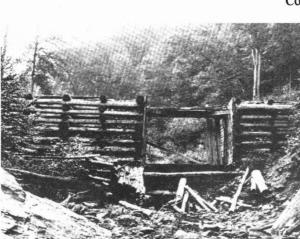
These slow moving work animals were slick and well fed, well shod, and expertly trained by men who were also well trained for this heavy and dangerous work. They were shining and colorful. Some steers were deep red, others were red and white spotted, and they all wore bright ornaments on their horns.

Two famous 'big wheelers' were named Frank and Barry. Lead steers had names such as Logue and Red, Mike and Alex, Buck and Jim. When the driver cracked the leather ox whip over their backs they instinctively knew the key word was 'go'.

Some of the cattle drivers were Big Wade Nicholson, Wiley Nicholson and Frank Bryson. Many local men were employed here along with the migrators. Some names that will ring a bell were Pickle Bolick, Joe Watson, Will Watson, Bob Zachary, Alford Zachary, Newt Bryson, Carson Baumgarner, Wade Crowe. Mitt Watson and Kirk McCall. One of the youngest men, or boys, employed was Kay Baumgarner, being only eighteen years old at the time. He also became an expert oxen driver and later drove logging horses when the outdated steer was pushed into the background

Altogether, this timber project took six years. In 1915 everything was moved away. The men, the mill, the camp and the tram car. Everything but the mountainous pile of sawdust and the dummie line. It continued to stand for many years. A reminder of what had been, until it was torn away in part and the remainder was buried with the passing of time and

long ago.



Splash dam similar to those used on the Chattooga.

the falling leaves.

The human tragedy of this era was as poignant as the havoc wrought

upon the earth. Many attributes of an independent and proud people were exploited along with the land; community self-reliance became displaced by an increased dependence on northern industry's commodity value system. However, there is much more to this story. The USDA Forest Service and the Civilian Conservation Corps did much to heal the denuded lands in the years following the wanton destruction of the native forests. Now, unfortunately these forests are again targeted for harvest-- but long before they have regained their native character. It is ironic that the Forest Service, an agency that began as good stewards of the land, has been captured by a hungry timber industry. Will we allow the second destruction of our recovering forests? I prefer to think not.

Sources:

Buxton, Barry M. and Malinda L. Crutchfield, editors, <u>The Great American Forest</u>, The Appalachian Consortium Press, 1985.

Dumond, David M. "Floristic and Vegetational Survey of the Chattooga River Gorge,"

<u>Castanea: The Journal of the Southern Appalachian Botanical Club</u>, Vol 35, No 4, pp 201-44.

Duncan, Dennis and others. An Informal History of Mountain Rest, S.C., Taylors, SC, Faith Printing Co., July 4, 1984.

Eller, Ronald D. Miners,
Millhands and Mountaineers:
Industrialization of the
Appalachian South, 1880-1930,
Knoxville, TN, The University of
Tenn. Press, 1982.

"Evaluation of Transportation,"

<u>Oconee South Carolina Centennial:</u>

<u>1868-1968</u>, Charles S. Collins, Ruth
Gaines Davis and Jack Watkins,
editors.

"Loggers of the Blue Ridge

Early Logging continued...

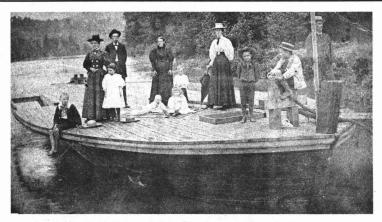
Mountains", unknown.

Lombard, Frances Baumgarner. "The Dummie Line," From the Hills of Home: in Western North Carolina, USA.

Phillips, Coats. personal interview, 1993.

Shope, Scott. "James Cartwrite CCC Forester," <u>Foxfire</u>, Vol 1, Winter, 1982.

Tanter, F. H. and B. M. Cool. <u>This Was Forestry in America: The Biltmore Forest School, 1898-1913</u>, Department of Forestry, Clemson University, Clemson SC.



Unfinished side wheeler that would be used to transport logs from the Chattooga watershed to sawmills in Madison, SC around 1870.

Interview continued from page 8

forest.

DS: In the interest of conflict resolution, would you be willing to accept an alternative area to the sale concerning compartment 48/50, that is a substitute, for stands in other areas? Like if you're in a sensitive area with a stand, would you be willing for the FS to give you timber in other areas?

JT: No, because we have educated people running the FS, and I trust their judgement over that of a citizen that has walked in the woods.

DS: I want to get into an area where you just talk about things that you'd like to see for the future in the way of FS operations, particularly in the Chattooga River watershed.

JT: We want good management. We don't want anything that's detrimental to the river, or any aspect of it. The biggest thing industry wants is a sustainable yield from the public forest and we feel this is achievable if the FS is left alone to manage the forest. The FS has provided in the past the #1 quality softwood available in this country and

that is a result of proper management. It also brings top dollar in the marketplace because industry is able to produce a highquality product. One of the things I would encourage the FS to do on a

"...we have educated people running the Forest Service, and I trust their judgement over that of a citizen that has walked in the woods."

timber sale is to require everyone involved in the harvesting of the timber to attend a workshop, i.e., the purchaser, timber harvester, road builder and the person in charge of erosion control. All parties should be at the table. It might be feasible in the near future in order to maintain a consistent flow of raw materials on sensitive areas of the river corridor that the FS contract with a qualified person to harvest these areas instead of putting it up for public bid.

DS: Well, I appreciate you taking the time to talk to me about this. I

know we're trying to listen to you. I hope that people in the industry and people that are interested in the national forest will talk to each other more and not point fingers at each other so much.

JT: It's going to have to be that way, if we don't, the politicians will decide it for us. But when we can sit down and talk constructively, I don't see any problem with working them out. I certainly don't want any particular group that is not qualified picking areas to be harvested.

DS: Well, I thank you Joel, and that's all the questions that I have.

JT: Well, I appreciate you doing it, Donald. I think that there are people in the industry that don't mind working with the FS. But again, it should belong to all the people, not just one segment of society... and we should all work together to make it better.

DS: Yes, I agree. Thanks again.

The Mountain Bridge Proposal

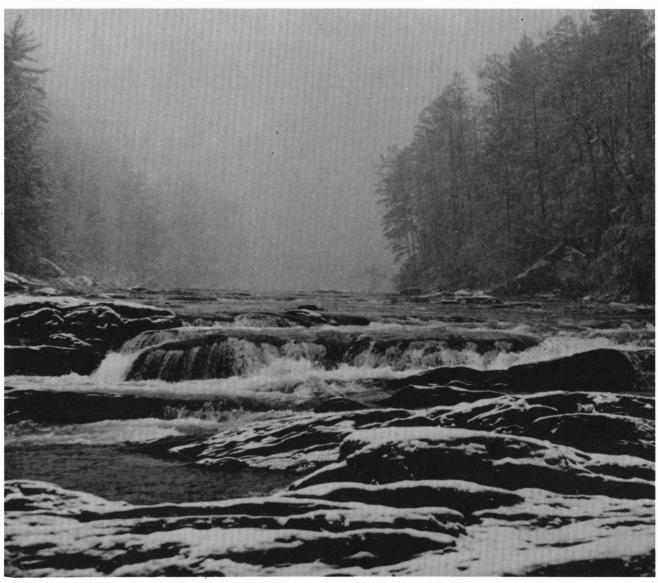
Tommy Wyche

I have always had the firm conviction that for conservation of open space to "work", the size of the protected area should be significant, and the duration of the protection should be limitless. In the rapidly growing South, time is becoming an additional crucial factor in a race to protect our wilderness from the encroachment of inexorable development.

Today there is an extraordinary opportunity to plan and

implement a major conservation effort that would permanently protect the remaining wilderness lands of the Blue Ridge Escarpment in South Carolina. This could be accomplished in two steps. Step One would be the permanent protection of 40,000 - 45,000 acres of land within the watersheds of the Chattooga River tributaries, and Step Two would be the protection of a like amount of the property owned by Duke Power Company (or its

subsidiary, Crescent). These acreages, together with the present 40,000 protected acres known as the Mountain Bridge Wilderness, would create an extraordinary wilderness area of 130,000 acres of the Blue Ridge Escarpment! Most of the entire length of the Escarpment lies within South Carolina, while the major part of the watersheds of the major rivers flowing over and down the Escarpment - the Chattooga, Whitewater, Thompson and Horse-



Winter on the Chattooga as photographed by Tommy Wyche.

Mountain Bridge continued...

pasture Rivers - adjoin the Nantahala National Forest, the others are in the Duke property, and most tributaries of the Chattooga are in the Chattahoochee National Forest.

As an example of approach to conservation on a large scale, in March of 1978, Naturaland Trust presented a formal proposal to the South Carolina Parks, Tourism and Recreation Commission to protect a 40,000 acre wilderness area in the South Carolina Blue Ridge One of the key Mountains. properties in the proposal to create the Mountain Bridge Wilderness was an 1,800 acre tract including Running Cedar and Swamp Pink. Some individuals in the state agencies involved in evaluating this proposal were quite interested in the mountain bog (which apparently is quite unusual), but, to my surprise, had little interest in the land surrounding the bog - about 1,600 acres. It was obvious to me - a nonbotanist - that the bog would quickly disappear if the adjoining land were not protected. To demonstrate my argument, I had an artist friend do a sketch showing the bog surrounded by a condominium development; I thought this picture would be worth more than a "thousand words".

The Mountain Bridge Report contained the following:

It is extraordinary that such a large, diverse wilderness exists on the periphery of the most industrialized part of the State and one of the most rapidly expanding areas not only in the State, but in the United States.

At the same time, it should be obvious to anyone who reflects on the situation that it is only a matter of time before residential and commercial development will commence and inevitably consume first, the choice areas with the lovliest streams or the most spectacular views and then, like an inexorable cancer, spread over the remainder of the mountainside. It is not a question of *if* this will happen, it is only "when and where it will begin and how long will it take."

In addition to the concept of protecting *large* tracts of

"Short term protection...
has simply made this
particular property more
valuable and vulnerable
when the protection
expires."

wilderness, an essential part of land protection is permanence. plan of protection, no matter how well intentioned, that ends or can be ended, after a finite period of time, is in a way, worse than no protection at all. This is because the protection for some period of time, say, 25 or 50 years, tends to lull everyone into a sense of complacency and then 25 or 50 years later the pressure for development is much, much greater (particularly in the southeastern mountains) and probably irresistible. The short term protection, while development is going on all about the "protected" property, has simply made this particular property more valuable and vulnerable when the "protection" expires.

The golf courses and resort developments at the Cliffs-at-Glassy (and now another, at the foot of the mountain along U.S. Highway 25) and along Lake Keowee should serve as constant reminders that the mountains and lakes will inevitably be developed unless steps are taken to protect them - in large tracts. Many of the mountain tops in Pickens County are now

subdivisions or in the process of subdivision development.

Of the very large acreage owned in South Carolina by Duke, 50,000 acres including Lake Jocassee arbitrarily) (somewhat considered as being a part of the Blue Ridge Escarpment. In addition to the large acreage surrounding Lake land within Keowee, this Escarpment will someday be ripe for development. Serious consideration should be given to a plan that will permanently protect at least a major part of this spectacular Escarpment wilderness. If such a plan is thoughtfully prepared with accurate tax analysis, perhaps Duke can be persuaded of the wisdom, both economically and otherwise, that such permanent protection is appropriate for the Duke holding within the Escarpment.

If the concept of permanent protection of large tracts of land (4,000 to 10,000 acres each) within the National Forests is worth serious consideration, various tracts of land (preferably within the Escarpment) should be identified as worthy of permanent wilderness protection. who **Individuals** are intimately familiar with the Forest Service lands in South Carolina, Georgia and North Carolina could start the process by specific suggestions for wilderness areas with descriptions of the areas and why they would qualify for permanent protection (even though they may not meet all of the Forest Service criteria for wilderness classification). (A good example of such an effort, although not in the Chattooga watershed, would be an organized attempt to legislate for a permanent wilderness designation [rather than administrative Scenic Area Designation] of a 5,000 acre [or more] tract along the Chauga River).

As a continuation of this thought, a total of, say, 15,000

Mountain Bridge continued...

protected acres in South Carolina (comprised of two or three of such areas) would be less than 20% of the 88,000 acres in the Andrew Pickens District and should not have a significant negative economic impact on the logging industry (based on logging over the last 6 or 7 years). The effort seeking such permanent protection of these large tracts of Forest Service land should perhaps be handled independently of other "causes" involving the Forest Service such as road construction and timbering practices and the **Forest** Service **Ecosystem** Management Demonstration Project.

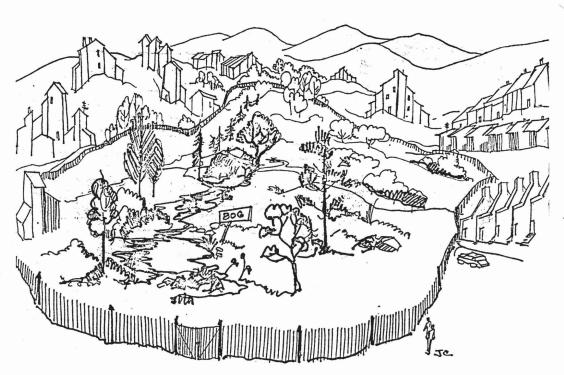
Query? Could such a project to protect various large acreages fit as part of the Ecosystem Management Demonstration Project? Would there be any difference in the ecosystem if, again for example, 15,000 acres in each of the three National Forests were set aside as permanent wilderness areas? Even if the creation of some 45,000 acres of permanent wilderness would not

"It was obvious to me, a non-botanist, that the bog would quickly disappear if the adjoining land were not protected."

result in any significant difference in the ecosystem of these forests, the mere creation of such areas which would eventually become climax forests would be extrememly important to the public over the future decades.

With the 40,000 acres of the Mountain Bridge an accomplished fact, and the possibility of the permanent protection of perhaps 50,000 acres of the Duke Power holdings within the Escarpment (adjoining the Mountain Bridge), the possible protection of another 45,000 acres within the three National Forests could result in a very meaningful, large wilderness area.

135,000 acres of the Blue Ridge Escarpment, permanently protected, is a pretty exciting thought! It is eminently feasible. It may not happen, but it can happen and, in my view, should happen. It will require a whole lot of effort, planning and study. But, it would be a great accomplishent for posterity.



Tommy Wyche is a true visionary. A quarter century before ecosystem management he was already involved in laying the groundwork for, as Victor Hugo said, "... an idea whose time has come."

Private Forestry continued...



Enough logs to build a cabin, and Steve and Sarah McWhirt's healthy forest remains intact.

landowner in the Chattooga watershed has a house and a mailbox on a rural route, part of a larger farm that was divided and sold. Now they maintain a small farm or a summer home. Many of these parcels are embedded in or completely surrounded by the national forest; together, they form the landscape. The land contains a stream, a hill or mountain side, a ridge line, part of a valley, and maybe a wetland. The forest probably hosts a hollow "wolf" tree that was bypassed during earlier logging. Bats could roost in the hollow tree or wood ducks may use it for nesting near a beaverpond. If the property is contiguous with national forest land that hasn't been roaded and logged, there could be an occasional black bear ranging through looking for acorns, or overhead, one may catch a glimpse of a deep-woods warbler darting through the tree tops. Close examination may reveal a rare orchid making a comeback in the forest understory. The timber on this property represents only one of the values important to the landowner.

The Chattooga River Watershed Coalition is proposing to provide certified, registered foresters to at least six landowners in the Chattooga watershed in 1995, in order to assist

These principles are:

1) Sustain resources by sustaining the forest.

the landowner in developing

management plans that will

protect and

enhance the

processes of

the land by

honoring 10 basic principles

of stewardship.

natural

forest

- 2) Sustain the forest by maintaining the composition of native species.
- 3) Maintain forest health by
- managing for biological diversity as the highest priority.
- 4) Manage from a landscape perspective.
- 5) Natural processes will be used for regeneration of the forest.
- 6) Management must maintain or improve soil fertility and water quality.
- 7) Be more concerned about what is left than what is taken.
- 8) Employ harvest techniques that are light on the land.
- 9) Only build roads that blend with the contour of the land.

10) Provide for human needs with consideration for the total community of life.

Land owners who wish to participate in this program will sign a nonbinding agreement to respect these principles. A certified forester will work with the land owner to write a management plan aimed at qualifying for the Forest Stewardship program administered by the Forest Service through the State Forestry Commission. There will be no charge to the land owner. Management plans will also be designed to qualify for Stewardship Incentive Programs which reimburse landowners for expenses incurred in implementing these plans. Anyone who is interested in this program should contact the Chattooga River Watershed Coalition to sign up!



Horse logging skid trails do little damage to the land.

Geology of the Chattooga Basin

Jody Tinsley

For this discussion of the geology of the Chattooga River area, you may want to refer to the

appropriate 7.5 minute U.S.G.S. topographic maps, or to the 1 by 2 degree Greenville map. (The 1 by 1/2 degree Toccoa map is out of print.) Better yet, visit the river at your next opportunity

"The Chattooga itself has more likely than not been captured already at a point near Lake Yonah, where the Chattooga and Tallulah Rivers probably once gave their waters to the Chattahoochee system."

and take some time to consider the foundation of all the richness you see there; think of the geology of the place. More than a list of the rocks and minerals to be found, the tale of geology is a tale of change, a story of how the landscape has developed.

The Chattooga drains approximatley 275 square miles, mostly a large portion of the dissected peneplain (a stream-carved area which once was more or less flat) east of the Blue Ridge Mountains proper. This region, rising 500 to 1,000 feet above the Piedmont and separated from it by an abrupt climb usually called the Blue Ridge Escarpment, is sometimes called the 1,600 foot Level, an average hilltop elevation there. More descriptively, D. W. Johnson, a pioneering researcher in the region who studied the area around 1900, calls these two features the Chattooga Escarpment and the Chattahoochee Level, the latter so named because the watershed for the Chattahoochee River lies on this level southwest of the old Chattooga-Tallulah confluence.

With varying success, streams of the Piedmont (Johnson's Tugaloo Level) have eroded the Chattahoochee Level, pushing the Chattooga Escarpment west. Most notably, near Dodge Mountain north of Walhalla, SC, the Escarpment has been eroded to within 1 mile of the

> Gorge of the Chattooga River. If, (geologically speaking that is when) the Escarpment is pushed the final mile west, the Chatooga

Rock

River will turn and flow onto the Piedmont there, altered by a process known as stream capture.

Other streams in the area have been captured including the Chauga River, flowing along the

faulted, weakened rock of the Brevard Zone just east of the Chattooga until it makes a characteristic right angle bend east and drops onto the Piedmont. The Chattooga itself has more likely than not been captured already at a point near Lake Yonah, where the Chattooga and Tallulah Rivers probably once gave their waters to the Chattahoochee System. This capture occurred not so much because the Escarpment was displaced west, but because the Chattooga was pushed east, flowing around the eastern side of the Tallulah Dome, a geologic structure just west of Lake Tugaloo.

This dome is unusual in an area with mostly linear structures such as folds and faults, products of compression formed when the Southern Appalachians were upraised by titanic collisions between Africa and North America. The beforementioned Brevard Zone and the Warwoman Shear, along whose

Next issue:

State of the Watershed

- Fragmentation in the Chattooga Basin from a study by Dr. Kerry Brooks
- Economic analysis from a study by Dr. Pete Morton
- Forest Service Ecosystem Management: What Does It Mean? a monitoring report
- Recreation: An Overview an article on outfitters and use fees
- Volunteer Monitoring Teams

Special Interest

Nancy Ward, the "Warwoman"
Old Maps and Early Explorers
A Chattooga Spring!
Plus - Who's for or against us in Congress:
White hats and Black hats

Geology continued...

straight path Warwoman Creek flows for many miles, are great examples of these linear features. But these collisions did more, forcing vast layers of the Earth's crust to pile up on one another similar to the way playing cards may be slid together to form a deck. This process, known as thrust faulting, complicates the geology of the Chattooga Basin by, in essence, shuffling the rocks.

However, the rocks of the Chattooga Basin may be classified primarily as metasediments, that is to say sandstones and shale deposited approximately 750 to 600 million years ago, which have been greatly altered by the heat and pressure generated as the Appalachians were raised. The dark and light banded rock which is exposed all along the river is called gneiss (pronounced "nice"), amid the common softer rock

which is primarily made of small mica flakes and called schist. Some more rare minerals, such as garnet (small, glassy, red grains), occur in these rocks, and several soapstone bodies, an easily carvable rock made primarily of talc, are in the area. But generally the minerals are common types: white quartz and feldspar, often making distinctive veins in other rocks; dark, iron-rich minerals, such as amphibole, which oxidize to give the local soils their red color; silver, flaky muscovite, a form of mica seen sparkling in the sunlight on the beaches by the river.

A particularily spectacular geologic feature in the watershed is Whitesides Mountain, a 150 square kilometer "igneous intrusion" which was thrust into the earth's crust about 390-460 billion years ago. Eons have weathered the

surrounding, more erodible metamorphic rock to expose one of the highest vertical precipices in the east. On a clear day, the 2000ft. vertical cliff face of this granite gneiss can be seen for hundreds of miles.

There are others, but listing them misses the point. In terms of geology, as with all other aspects of the Chattooga, the whole is greater than the sum of its parts. Buy or borrow some topographic maps of the river and a book on mineral and rock identification; if you are deeply interested, read some papers by R. D. Hatcher, principle researcher in the area. Then visit the river and enjoy your own discovery of the full, complicated story.



Book Reviews



Environmental Policy and Biodiversity, Edited by E. Grumbine, Island Press, Washington D.C., 1994.

Grumbine's wide perspective on the conservation of biodiversity, perhaps the most pressing challenge of our time, is well grounded by focused discussions. Three personal interviews and eighteen independent essays are arranged in four groups: our scientific understanding of the problem and its causes, the role of law in addressing the issue, the experience of specific projects undertaken to meet the challenge, and the necessary interaction of science, activism, and policy-making.

Essays in part one include early (1930's) thoughts on "ecosystems" and their importance for land management agencies, the nature of Conservation Biology- the "crisis discipline", and various insights on

the proper design of biological reserves incorporating natural disturbance regimes. Part two includes discussions of biodiversity present language in management laws, the crucial and problematic translation of scientific understanding into legal administrative understanding, the Endangered Species Act, and the Wisconsin Biodiversity litigation. The best of the book is part three where project level participants present case studies, including our own Buzz Williams, who authored an article on the development of and problems with the USFS's Chattooga River **Ecosystem** Management Demonstration Project. Other essays concern the Wildlands Project and the importance of incorporating a diversity of value systems in restoration plans, several projects in community interagency coordination, and an Air

implementation Force base ecosystem management. Part four starts off with a look at historical accounts of human nature and resource use, continues with an eloquent and succinct overview of how science, values, activism and policy are all philosophically reorienting to respond to immediate necessity; and ends with a personal account of volunteers actively creating the knowledge base used in decision making for the Pacific Northwest.

Grumbine finishes off the volume with simple but insightful questions framing the present crisis. These are questions that may be impossible to answer accept through the active struggle to turn tides and restore healthy native communities of life in the landscape. In Environmental Policy Biodiversity Grumbine has united a unique association of people called to

Book Reviews continued...

the challenge, and created a resource of knowledge and experience for everyone wanting to engage effectively in the task at hand.

review by Rick Hester

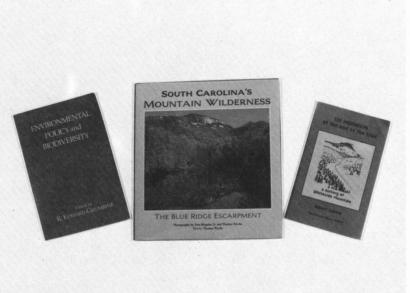
SouthCarolina'sMountainWilderness:TheBlueRidgeEscarpment,TextbyTommyWyche,

Photography by Tom Blagden, Jr. and Tommy Wyche, Westcliffe Publishers, Inc., Englewood, CO, 1994.

Treat yourself to a visual odvssev of the beauty of unique Carolina's South Blue Ridge escarpment as seen through photographs of Tom Blagden and Thomas Wyche. In collaborative project, the authors provide native residents and new arrivals to this area with impressive and inspiring views of its intimacy and grandeur. South

Mountain Wilderness Carolina's contains 128 pages of color images, along with Mr. Wyche's succinct and informative text and a brief, personal afterword from Tom Blagden. The book describes and illustrates a landscape management plan which was conceived in the early 1970's, on vanguard the of a growing conservation movement. photographs celebrate the tangible the individuals, achievements of groups, state and federal agencies that worked together to preserve a contiguous tract of land along the southern boundary of the eastern Continental Divide in order to provide a pristine watershed for the city of Greenville, SC, and intact habitats for native plants and animals. While we must realize that not all of this land is completely protected from future development and exploitation, what has been achieved so far is an impressive accomplishment, as is the book that documents these gains.

review by Nicole Hayler



residents develop a respect for the land and its traditions.

The Mountain at the End of the Trail conveys a deep sense of place without lapsing into sentimentality. This descriptive history presents an overview of the life of Whiteside Mountain and suggests solutions to the real problem the mountain faces today. Zahner has added speculative vignettes that bring

alive events of the mountain's history.

I wish every mountain and every watershed had storytellers who present the heritage of their local area in such loving detail. Our relationship with the land would certainly be different, and we would be the richer for it.

review by
David Wheeler,
former ed. of
The Katuah
Journal

The Mountain at the End of the Trail: A History of Whiteside Mountain, by Robert Zahner, Highlands, NC, 1994.

This rich local history of Whiteside Mountain could only have been written by Bob Zahner. He is Professor Emeritus of Forestry at Clemson University and a lifelong resident of Highlands, North Carolina. His intimate knowledge of this mountain is a product of a life time of love and respect for a place which has played an important role in his own personal development. This book could help newcomers and young people as well as long time local

We would like to recommend the following publications which we have found to be extremently helpful in our work.

THE PUBLIC FORESTER - A quarterly journal published by the Public Forestry Foundation, P.O. Box 371, Eugene, OR 97440-0371. A non-profit forestry organization that helps citizens to influence the management of public forests.

APPALACHIAN ALTERNATIVES -A quarterly publication of Appalachia - Science in the Public Interest, Route 5 Box 423, Livingston, KY 40445, a non-profit organization promoting

Editorial continued from page 2

Congress money can buy!" How does this relate to forest management? Let's examine the incentives. Though the

Forest Service may argue otherwise, Congress tells us how much timber to cut. Every year about this time, **Congressional Appropriations** Committees haggle over the Forest Service budget, based on how much money the Forest Service claims it needs to harvest a sustainable volume of timber from public lands. Several options are presented to Congress. Many of the key congressional leaders who make the critical choices that dictate timber targets receive large campaign donations from big timber companies. These powerful congressional leaders bring heavy pressure to bear on the Appropriation Committees to select high timber targets. Consequently, the bigger the campaign contributions, the higher the timber target.

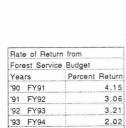
The rest is common sense. If Congress gives the Forest Service X# of dollars for road building and timber harvesting, the agency will try very hard to comply with these targets. One would expect there to be a direct correlation between the budget given to the Forest Service and the volume of timber harvested, but this is not the case.

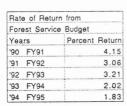
Let's take, for example, the year that our new ranger put our timber program "on track". That was 1978. Between fiscal year 1977 and fiscal year 1978, the Forest Service budget doubled, from \$743.29 million to \$1.461 billion. In 1978 the Forest Service contracted to harvest

their "lackies" in Congress, is still pouring money into a

program of harvesting that cannot be sustained. The Forest

11.5 billion board feet of timber. From fiscal year 1980 to fiscal year 1995, the Forest Service budget doubled again to \$2.8 billion. The amount of timber promised last year was 4.6 million board feet. If the theory is correct that Congress rewards the Forest Service proportionally to the volume of timber they harvest, then why has the budget increased dramatically while the volume is dropping? The answer: the industry, through





Service will, of course, argue that dropping timber volume means that they are changing their ways. Conservationists have always had trouble disputing this

claim. But a careful weighing of the facts with a little common sense will tell you that they are wrong.

Look at what happened during the timber-boom years, when our Southern Appalachian forests were devastated the first time. In 1909, the Southern Appalachians, under the full onslaught of the timber barons, were producing 40% of the timber in the U.S., or 4 million board feet. By 1919, it was 2.4 million board feet, and by 1929 it was down to 2 million board feet. I doubt very much if these big timber companies were cutting their production out of concern for the land. The fact is, the big virgin timber was getting harder and harder to find. What was left was simply too

expensive to harvest.

Budget for Forest Service

2.6

2.5

2.4

2.3

2.1

2

1.9

1.8

D 1.7 0 1.6

1.5

r 1.3

1.2

1.1

79

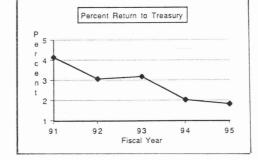
This is what is happening in our national forests today: certain congressmen are screaming for more timber for the industry that helped elect them, while the Forest Service, which is locked into the bureaucratic inertia of the process, keeps trying harder to find the timber, in order to maintain their funding.

What does that do for us--the taxpayers and owners of the National Forests? From fiscal year 1991 to fiscal year 1992, the return to the U.S. Treasury from all this spending to "get the cut out" dropped from 4.15% to 1.83%, something that should interest the new Republican

> regime. Of course the "old guard" will argue that the timber program creates jobs. But figures for the Chattahoochee National Forest show that the personal income from timber iobs in our area is less than 1%.

Does this mean we are opposed to logging on our public lands? By no means--it means that we need to throw the

timber industry "water boys" out of Congress and advocate sustainable timber harvesting. I am as sure of this as I am that I will not stop fighting to make this happen--JOIN US!



Chattooga River Watershed Coalition Member Organizations

Georgia Forest Watch

Contact: James Sullivan and Mort Meadors Route 1 Box 685, Rabun Gap, Georgia, 30568 Phone Number: (706) 746-5799

Wilderness Society, Southeastern Region

Contact: Peter Kirby 1447 Peachtree Street Northeast #812, Atlanta, Georgia 30309 Phone Number: (404) 872-8540

Sierra Club, South Carolina Chapter

Contact: Norm Sharp 300 Newtonmore Road, Greenville, South Carolina 29615-2730 Phone Number: 1-800-944-TREE

Association of Forest Service Employees for Environmental Ethics

Contact: Don Sanders 488-A State Park Rd., Mountain Rest, South Carolina 29664 Phone Number: (803) 638-9843

Friends of the Mountains

Contact: Don Bundrick PO Box 368, Tallulah Falls, Georgia 30573 Phone Number: (706) 754-3310

Western North Carolina Alliance

Contact: Dr. Mary Kelly 70 Woodfin Place, Suite 03, Asheville, North Carolina 28801 Phone Number: (704) 258-8737

South Carolina Forest Watch

Contact: Dr. Billy Campbell PO Box 188, Westminster, South Carolina 29693 Phone Number: (803) 647-1819

Sierra Club Atlanta Group

Contact: Rene Voss (conservation chair) 1447 Peachtree Street, Suite 305, Atlanta, Georgia 30309 Phone Number: (404) 872-9700

Sierra Club, Georgia Chapter

Contact: Lee Thomas 3653 Donaldson Drive, Atlanta, Georgia 30319 Phone Number: (404) 347-3866 (work) or (404) 458-3389 (home)

Sierra Club, North Carolina Chapter

Contact: Bill Thomas PO Box 272, Cedar Mountain, North Carolina 28718

Endorsing Organizations

Foothills Canoe Club
Atlanta Whitewater Club
Georgia Canoeing Association
Higgins Hardwood Gear
Turpin's Custom Sawmill
A.F. Clewell, Inc.
Atlanta Audubon Society
National Wildlife Federation

Georgia Botanical Society
Georgia Ornithological Society
The Beamery
Columbia Audubon Society
The Georgia Conservancy
The Nature Conservancy of
Georgia

Southern Environmental Law
Center
Environmental Organization, Inc.
Timber Framers Guild of North
America
Carolina Bird Club
Government Accountability Project

Membership

Join the Coalition and help protect the Chattooga Watershed!

Your contribution is greatly appreciated. It will be used to support the Coalition's work and guarantee you delivery of our quarterly newsletter.

NameAddress		Send to: Chattooga River Watershed Coalition P.O. Box 2006 Clayton, Georgia 30525					
				Individual: \$7.00	Group: \$14.00	Sustaining: \$45.00	Donation:

Chattooga River Watershed Coalition

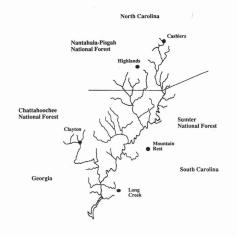
PO Box 2006 Clayton GA 30525 (706) 782-6097 (706) 782-6098 fax crwc@igc.apc.org Email

Our 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."

Our Work Made Possible By:

The Grassroots
Turner Foundation, Inc.
Mary Reynolds Babcock Foundation
The Moriah Fund
Merck Family Fund
Frances Close Hart
South Carolina Trial Lawers Association



Our 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

South Carolina Forest Watch PO Box 657 Westminster, SC 29693 Non-Profit Organization Permit # 10 Westminster, SC

