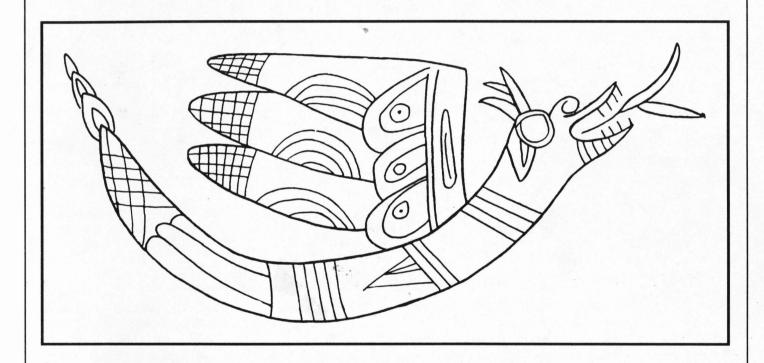


Fall ••• 1995

\$ 1.00

Tales of the Season:

Old Myths and New Realities



The dreaded "Uktena" of Cherokee legend, etched on pottery

Inside...

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Buzz Williams, CRWC Executive Director

The conservation "movement" wasn't in good shape before the Clinton Administration, and we thought the Clinton\Gore team would change things for the better. Then the 104th Congress came along with their version of change. The change has been quite different than the jubulent supporters of the Clinton Administration imagined

at their victory party of November 1992. Today a weak President, a rabid, industrydominated Congress and an un- or misinformed public are shaping a new political landscape which is even less favorable than before for conservation efforts to protect our natural resources. The irony here is that these unfavorable dialectics may be needed to set the stage for radical

changes in strategy, which will tap the real power needed to turn things around. We believe this new strategy must focus on this: "When things get so far wrong as to attract their notice, the citizens, when well informed, can be relied upon to set them right" (Thomas Jefferson).

As many readers of the *Chattooga Quarterly* may know, we have been working to implement this grassroots strategy in our campaign to protect the Rabun Bald Roadless Area in Georgia. The actions needed to stop or modify the Tuckaluge timber sale and road construction proposed for this area fit the Jefferson axiom perfectly. We took on this tough issue for many reasons, and one was because we knew it was time to go to the people - the true owners of the national forest. Other reasons are as follows.

1) The Forest Service's proposed project is inappropriate for this area. As one of the CRWC's founders, Dr. Robert Zahner, wrote in his formal comments to the Forest Service: "The construction of more roads in, and the fragmentation of, one of the largest areas of relatively mature forest remaining in the Chattooga Watershed is unacceptable to me. The disturbance

resulting from the removal of over 8 million board feet of timber, no matter how carefully accomplished, in my opinion will effectively destroy the integrity of the area."

2) Citizens are concerned. The proposed Tuckaluge sale has attracted "their notice". Conservation groups from across the Southern Appalachians have agreed that the Tuckaluge project is one of the most blatant examples of

Forest Service mismanagement in the region. Many respected scientists agree that disruption and fragmentation of roadless areas is one of the greatest factors in the steady decline of biological diversity. The proposed Tuckaluge project would effectively eviscerate one of the largest and most biologically diverse roadless areas east of the Rockies.



3) Citizens "can

be relied upon to set [things] right". One of the primary goals of the Chattooga River Watershed Coalition is to inform citizens of the facts about public land management. This approach represents a shift in tactical priorities for many activists. The conservation movement appears to be re-assessing the effectiveness of the "inside " versus the "outside " strategy, or described another way, the "top-down" versus the "grassroots" strategy. "Insider" tactics of working quietly behind the scenes, silently tapping into the "good ol' boy system," have failed miserably! Now, conservation leaders are shifting to grassroots strategies where well-informed citizens are being relied upon to set things right. This is the grassroots strategy that we've used effectively in rallying citizens to protect the Rabun Bald Roadless Area.

On August 26, thirty "informed citizens" braved a driving rain to begin a vigil on top of Rabun Bald. We hoped this commitment would inspire others to join us. We anticipated that folks who ventured through the forest to the top of Rabun Bald would develop a personal commitment to help protect our natural resources. What

3

Endangered Species Act on the Chopping Block

Susanna Felder

Vote scheduled for Congress by the end of October

When the current version of the Endangered Species Act (ESA) became law in 1973, animals, insects and plant species all around the world were becoming extinct at a rate that alarmed those who were knowledgeable enough to understand what was happening. Today the rate of extinction is still high, about 100 species per day worldwide, which is far above the natural rate. But the ESA has been relatively successful -as many California condors, black-footed ferrets, bald eagles, big eared bats, gray whales, and red wolves would testify, if they could speak. Many of these species would be extinct now if it had not been for the ESA and the US Fish & Wildlife Service (USFWS) Recovery Programs.

Unfortunately for the hundreds of other less glamorous or less well known species that are still endangered, the ESA itself is threatened with rapid extinction. Indeed, by the end of October the show may be over. Since threatened animals and plants cannot speak for themselves, it is up to us to speak for them, and now is the time to speak.

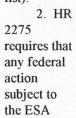
Legislation was introduced in congress on September 7, and is now gathering numerous co-sponsors. The bill could completely re-write the ESA, and could eventually dismantle the Act altogether. The new legislation is called the "Endangered Species Conservation and Management Act of 1995" (HR 2275) and was introduced by Congressmen Young (R-AK) and Pombo (R-CA). Many citizens refer to the bill by a more honest title: the "Young/Pombo ESA Roll-back Bill". There are many things wrong with this proposed legislation. Here are a few examples:



Black-footed Ferret: endangered in Canada and the western U.S. in 1967. Reintroduced in southcentral Wyoming in 1991.

1. HR 2275 implicitly changes the fundamental purpose of the ESA from protection to extinction, at the discretion of the Secretary of the Interior. The Young/Pombo Bill gives the Secretary the option to decide that the only protection a species requires is to prohibit its direct killing. This is basically a prescription for

extinction of every species whose real threat is habitat loss (and those species include most of those presently endangered, or on the waiting list).





Bald Eagle: endangered in 1967 in the coterminous U.S. (except WA, OR, Minn., Wis. and MI). Threatened in 1978. Today, you may notice a pair nesting at a local lake.

"which results in diminish-ment of value of any portion of ... property by 20% or more" be compensated for. If the diminution of property value is more than 50%, the agency taking the action would be required to purchase the property. This is a recipe for gridlock, and could be very expensive as well. It effectively prevents the application of ESA provisions on private land, and adds additional burdens on already strained federal agency budgets, especially the US Fish & Wildlife Service.

- 3. Sections 3O2 and 305 of HR 2275 would generate miles of redtape in the process by which any species becomes listed. Listings, habitat protection, or jeopardy opinions would have to be supported by peer review of at least four outside reviewers, including two appointed by the governor of any state impacted by the decision, even if there was no controversy involved. HR 2275 would add years to the already tediously slow process by which a threatened species becomes recognized as endangered.
- 4. HR 2275 would eliminate ESA protection for marine species (whales, dolphins, turtles, etc.) which get killed in large numbers by what is termed "incidental takings" by the commercial fishing industry, and in lesser numbers by the oil and gas industries. Sec. 201 provides "exemption" for all such "incidental takings".
- 5. HR 2275 defines "harm" only as taking "direct action that actually kills or injures a member of the species". This means no protection for habitats or ecosystems.
- 6. The list goes on: HR 2275 eliminates protection for foreign wildlife; requires an Act of Congress to protect "whole populations" of a species with "national

Endangered Species Act continued...

interest" (such as salmon); imposes strict deadlines for the consultation process, and allows the consultation process to be negated altogether if the deadlines aren't met; effectively eliminates private and state land from being designated as critical habitat; gives preference to grazing,

Consider some benefits that humans derive from biological diversity: doctors treated President Bush's recent heart ailment with digoxin, a drug derived from a wildflower called Grecian foxglove. In 1981 doctors helped stabilize President Reagan (after he was shot) by giving him a blood-pressure medication derived from an Amazonian pitviper.

mining, and timber interests on federal lands (except for existing "Biodiversity Reserves"); eliminates protection for any species with captive-bred populations (such as in zoos or hatcheries) even though captive-breeding programs are what that saved many of the species that have recovered under the ESA.

It is clear that the interests behind this tragically short-sighted piece of proposed legislation are the same interests that have been chipping away at the ESA and other good environmental laws all along. Unfortunately, the present atmosphere in Congress is encouraging such interests to be even bolder than before. Or as the leaders of two national environmental organizations stated recently at a press conference: "Legislation doesn't get much worse than this... this is bad policy, bad science, and bad ethics".

Recent Senate hearings on regulatory reform resulted in a many "horror stories" being told about alleged abuses caused by the ESA. However, most of these stories contain serious distortions of fact, and some involve outright lies. The following three examples indicate how misinformed the supporters of HR 2275 really are.

One alleged abuse involved the Red Cockaded Woodpecker in North Carolina. The testimony claimed that a property owner had 1000 acres of his land declared "off limits" when the woodpecker was discovered there. He claimed a loss of \$1.8 million in timber that was tied up in the "protected zone".

When investigated, the facts turned out to be the following: the property owner was offered the option of developing a Habitat Conservation Plan (HCP) allowing incidental taking of an endangered species in pursuit of an otherwise lawful activity -- such as logging. The owner declined the offer. He had been managing his land, a total of 8000 acres, partly for timber and partly as a quail plantation (which provides good habitat for woodpeckers). The USFWS assessed the situation and found no woodpeckers on the acreage that the owner said he wanted to log (an 1800 acre portion), and told him he could do

whatever he wanted to on the 1800 acre parcel. Then the property owner submitted a management plan for the 1200 acres that did have woodpeckers present. The plan included some tree "thinning", and was approved by the FWS. The owner is now clearcutting and thinning on the 1800 acre parcel, and selling straw and leasing quail hunting on the 1200 acre parcel. Furthermore, the owner filed a lawsuit against the government for \$1.4 million for compensation for the timber he claims the government has prohibited him from cutting. Yet the property owner was never prohibited from logging the 1800 acre parcel that he proposed to log. It's not clear on what his \$1.4 million compensation figure is based, or that he has any cause for complaint.

In testimony before the Senate Environment and Public Works Committee a representative of the National Cattlemen's Association told a story of a woman near Austin, Texas who wanted to clear her fencerow of brush, only to be threatened with prosecution by the USFWS.

Investigation revealed the following: the woman was advised by the USFWS that her clearing the 30-foot wide/one mile long fencerow might harm endangered songbird nesting habitat, but after FWS representatives met with her and assessed the situation, she was given the goahead to clear the fencerow. She was never "threatened with prosecution", and the matter was settled without further difficulty.

The Timber Industry Labor Management

Committee testified: "The next thing you know, they'll try to put cockroaches on the endangered species list. Too late! They already have. The Tuna Cave Cockroach is found in Puerto Rico and is a candidate for inclusion. At least 40% of



Red Wolf: endangered in the southeastern U.S. and central to west Texas in 1967. Re-introduced in Dare, Tyrrell, Hyde and Washington counties of North Carolina after 1986.

candidates for inclusion are rodents, beetles, snails, and moths. It will require \$144 million to list and study these candidates."

The facts: The Tuna Cave Cockroach is not on the

continued on page 14...

Tuckaluge Update: Hundreds of Citizens Request Alternative Plan

Rick Hester

Public concern with the proposed Tuckaluge timber sale and road construction in the Rabun Bald Roadless Area has gained momentum over the past few months. When the project was unveiled in the Forest Service's scoping notices, the agency began receiving letters from citizens in opposition to the project --as it's currently planned. After the Forest Service released an unprecedented 136 page Environmental Assesment which still failed to address the vital issues, even more formal comments and professional critiques were submitted by scientists, lawyers, local and regional residents, and the CRWC staff.

In the face of the Forest Service's inflexibility and lack of attention to public concerns, the CRWC sponsored a month-long vigil atop Rabun Bald, which overlooks the

proposed project area, to raise awareness of what's at stake here. Some 300 people participated in or visited the summit of Rabun Bald, learning about and expressing their support for the vigil. Still, the Forest Service offered no modifications to the project. Only after weeks of discussions would the Tuckaluge project's decisionmaker agree to come to the area to meet with the public to hear their concerns. Finally on September 28th, Forest Supervisor George Martin drove up from Gainesville, Georgia. During the day Mr. Martin met with Buzz

Williams of the CRWC, Tom Hatley of the Southern Appalachian Forest Coalition, Blaine Phillips of the Southern Environmental Law Center and Don Sanders, Southeastern Coordinator for the Association of Forest Service Employees for Environmental Ethics. The purpose of this meeting was to discuss the Rabun Bald Roadless Area, as proposed by these organizations as well as the Wilderness Society and the Sierra Club. The group visited the project area to investigate the status of the "roads" now in contention. The question was whether a particular road is "improved" or "unimproved." The answers could decide whether or not the 14,000 acre forest surrounding Rabun Bald qualifies as a "Roadless Area", according to the criteria developed by the Forest Service's Southern Region headquarters in Atlanta.

One telling example of that day's outing involved a road the CRWC calls "unimproved", but the Forest Service calls

"improved". Tom Hatley was driving the group around in his 4x4 Subaru wagon when he hesitated at the bottom of a particularly washed out and badly rutted section of road:

"Gee, I don't know George, I don't think we can make it up that".

"Sure you can, Tom" was Mr. Martin's reply.

Several attempts were unsuccessful. Forest Supervisor Martin offered some advice on the best way to drive up this "road".

"Well George, I've tried, but would you like to give it a shot?" offered Hatley.

The Forest Supervisor took the wheel and after several attempts, could not drive the 4x4 any farther up the "road". Mr. Martin commented that perhaps Tom should get his car looked at: "That clutch might be slipping". Buzz Williams responded: "It's the road that needs to be looked

at, George, not the car".

To date, this on-the-ground survey of current road conditions has produced no response from the Forest Service. Supervisor Martin that even he cannot negotiate in a 4x4 vehicle is "unimproved". Classification of questionable roads is critical, in order to get the forest of the Rabun Bald area Inventory, as it was in 1974. If the area were included in the 1995 Roadless Area would be required to undertake further in-depth

has not conceded that a "road" into the current Roadless Area Inventory, the Forest Service

analyses which could result in modifications to the Tuckaluge timber sale. As is, the proposed Tuckaluge project would disrupt this extraordinary place with 9.1 miles of road-building activity, in order to cut down 8.1 million board feet of timber. This timber harvesting project is so big, the Forest Service says several years would be necessary to complete it's implementation.

On the evening of the 28th, Supervisor Martin met with a large gathering of citizens concerned about the potential negative impacts of the Tuckaluge timber sale. Approximately 150 folks politely presented their comments and concerns, and questioned the Forest Supervisor. An attorney from Clayton, Georgia, asked: "Why can't you just leave it alone?" This comment received a round of loud applause from the group, and demonstrated their



The public meeting at Warwoman Dell on September 28 attracted about 150 people who expressed concern with the proposed Tuckaluge timber sale. Photo by K. Kolb.

The adjacent column appeared in the September 28, 1995 Clayton Tribune.

The National Biological Survey has had a tough time. When the concept was originally introduced during the 103rd Congress, a few western Senators, led by Colorado Senator Allard, were strongly opposed to it. They saw it as a threat to the income potential of private property owners. If endangered species or habitats were found on their property, they might be forced to give up some management options. This scenario actually has been extremely rare and in any case, would fall in the domain of the U.S. Fish & Wildlife Service.

To calm these fears, the "Survey" became the National Biological "Service" - less intrusive. But that was not enough, and supporters decided to wait for a more opportune time to present a bill that would create a new and independent agency to catalog the untapped genetic resources of America. Maybe the next Congress would be more understanding. In the meantime, internal reorganization

Biological Survey Bill is Fundamental

"Countries like

Costa Rica are far

ahead of the USA in

efforts to pursue a

policy of studying

and husbanding

natural resources,

to tap the resources

instead of

destroying them by

short-sighted

wanton abuse..."

For \$1,000, name the most fundamental issue before Congress.

Ahead of bills about health care. crime or the space station, how about approval of the National Biological Survey?

This critical work is one part of an international effort to husband threatened resources. Although it has Senate approval, opponents see it as a threat to liberty Supporters see it as life insurance.

The untapped resources of

neglected plant and animal life have been demonstrated by Robert Hohns, the mushroom man of Crawford, GA. Seeing that most markets carry only one common mushroom, he decided to grow a few other of the thousands of species prized for their flavor. Low in fat, high in protein, rich in nutrients, mushrooms sell for as little as 50 cents and as much as \$500 a pound. Crawford was selling as much as 170,000 pounds of species that bring from \$5 to \$15 a pound. within a few years. With equipment and skills, he is helping other growers to broaden the

market. In 1970, a Mexican student discovered a species of maize resistent to disease and unique in its ability to grow without reseeding. If bred with domesticated corn it could vastly increase crop yields. When found in a plot in Jalisco, it was only a week away from extinction by farmers who were clearing the land by machete and fire.

Biological surveys aim to increase discovery and rescue of such resources as the mushroom and the maize or the many medications derived from wild plants and animals. Biologists estimate they have identified less than 10% of the species on the planet. More than 90% of all species live in the tropical rain forests, mostly up in the canopy. It is calculated that the annual vield of rain forest products, sustained each year, is ten times as valuable as a one-time

> crop of trees. Logging, except by the strip method, dooms most of

Countries like Costa Rica are far ahead of the USA in efforts to pursue a policy of studying and husbanding natural resources, to tap the resources instead of destroying them by short-sighted wanton abuse. The Diversity of Life by Edward O. Wilson demonstrates that in every biological community, a stable system of mutual support develops among most species. Within the human community, such exchanges form the basis of law and morality. A large variety of species

indicates a healthy community. The mutual aid among species pesists as long as environmental conditions remain favorable or until a hostile species upsets the balance.

Far from threatening liberty. biological studies may save our own species from extinction.

by Marc Rosenblum, surviving in Rabun Gap.

of the Department of Interior created a small budget to accomplish the most pressing work that would have been done by a National Biological Service.

The "next Congress" is our present one, the 104th, and it has not been very understanding, to put it mildly. Now, the Biological Service is scrambling to survive at all. The latest 1996 Interior Appropriations Bill cuts thier budget by \$30 million. It also makes them a fourth division of the U.S. Geological Survey - the the "Natural Resources Science Division." Nevertheless, their important work will go on, despite the short-sightedness of those who cannot see what treasures may be stored in a world of living resources largely unexplored by modern science.

the species in the forest.

Thank You Vigil Participants and Supporters!

The month-long vigil atop Rabun Bald was a great success, thanks to the participation and support of the people listed below. We all had an incredible time meeting new friends, learning more about the issues at hand, and getting to know the lay of the land below us. One vigil-er was heard saying "Wow! This place really is still wild!" Numerous peregrine falcons were viewed over the course of the month, as well as red tail hawks and ravens. One juvenile black bear crossed the summit trail as Scott, Melissa and little Noah Brame were hiking down one afternoon. Thank you for being there everyone!

"Last night of the vigil...a sliver moon above pewter clouds...fast-moving fogs in the east; the western sky a peaceful and respledent orange...."

Chris Aldridge Bob Alexander Jean Alexander Ina Allison Don Anderson Susan Andrew Elizabeth Austin JoAnn Ballingall Tom Barber Dave Barstow Marsha Barstow Charles W. Bauknight Hewett Beasley Timothy S. Beck Chervl Beckert Howard Beckert Cindy Berrier Bill Bowden Melissa Bowden Loretta Boyd Melissa Brame Noah Brame Scott Brame Adam Branthey Raelene Breakhill **Hugh Brimm** Vera Brimm Sharron Bringleman Kerry Brooks Olivia Brooks Arlo C. Brown Eleanor Brown Kathy Brown LeVere Brown Mike Brown Suzanne L. Bunch Don Bundrick Billy Campbell Kimberly Campbell Mary G. Cann Joan Caroline **Bob Carter** Carol Carter **Dudley Carter**

David Castaldini

Jeanene Cheek

Butch Clay

Brettt Clubbe

Faye Corbutt

Ursula A. Cox

Lynn Cumiskey

Bill Coburn

Bill Cott

Dorothy Dabbs Steve Dana Jeff Daniel Anna Davis Barbara Davis Sandy Davis Sky Davis Victoria Davis Kenneth A. Dawson Rommy DeAngelo Nickie Dennings Helene Denny Mark Denny Charlie Dial Nancy Dial Margie Eddings Mason K. Edwards Rob Eisenback Evin Eleazeil Derek Enderlin Pam Ensley Silvan Erb-Summers Mike Essman **Eden Evans** Gail Evans Justin Evans Kali Evans Kurn Evans **Rvan Evans** Martha Ezzard Susanna Felder Rosemary Fleming Mike Fletcher Tom Fon John Forbord Nina Fry Forest Fugate Leanna Fugate Sky Fugate Glenn Fuller Janis M. Gadsden Hunter F. Gandy Vance Gandy Five Hole Gang Beth Giddens Suzy Gilman Donna Gillespie Jeff Gillespie Yvonne Glossop Jim Gravley Laurie Gurley Cindy Halbkat

Benji Hall

Jacques Hall John Hammond Jeff Harrell **Eleanor Harrison** Tom Hatley Nicole Hayler **Ed Hendricks** Rick Hester Amanda Hetrick Laura Hewlette Steve Higgins Barbara Hill Janell Hofmeister Rachel Holley Jason Holmes Denise Hosteller Carol Houghton Michael Hutchison **Erin Hutton** Walt Ilgenfritz **Hugh Irwin** Mike Jennings David Johnson Mike Jones Ed Kaiser Jason Keil Tom Keith Chris Kempton Robinette Kennedy Jason Keves Craig Kilgo Peter Kirby Lisa Kruse Mark LaFleur Sherry Langsford **Bob Larsen** Eric Larsen Steve Lesan W. S. Lesan Stahle Linn Sara Litwak Trace Lothridge Tim Louz Julie Lowe Scottie Lowe Michael Lynch Susan Mackey Scooter MacMillan Shawn Manielian Phyllis Martin Bonnie Massinople Lance Maynard

Lee McAbee

Ann McDeed Donald McDeed Kathy McDeed Christy McGarry Margaret McGee Mike McGee John A. McLellan Sarah McWhirt Steve McWhirt M. F. Meadors Charlene Miller Renee Miller Roger Miller Chuck Mitchell Jenn Mollenkamp Caroline Montague Cedric Morel Stephen Morrison Mark Murphy Lorenzo Muscara George Myers Patricia Myers Bruce Nelson Sam Nevill Reilly Newell Glen Newsome David Newton Mary Nixon Bill Noel Cina Noel Esther Noel Sarah Olsen Tom Olsen **Chrissy Owens** Abbi Padgett Hannah Padgett Holly Padgett **Hunter Padgett** Patrick Patrick **Burt Patton Judy Patton Murlon Patton** Cecilia Persse Brad Piscitelli Celine Plenonocil Laura H. Raintree Richard R. Randolph Bill Rea Kay Burton Redmond Jason Rhoda Gregg Richstone

Marilyn McCarthy

Lory McClimans

Thank You's continued...

Jenifer Rollen Katie Rose Shelly Rose Chuck Rosemend Kathy Rosemund Don Sanders Kristina Schillinger Tom Schraeger Joe Shaffner Margaret Shaffner Randolph Shaffner Rhode Shaffner Tom Shaffner Nancy Shafner Mimi Shepperd Vollser Siedemann Philip Silverthorn Melissa Smart Sam Smiley Suzanne Smiley Tara Smiley Danna Smith Kathleen Smith Rob Smith Albert Solga Mike Spears Phyllis Spears Russell Spears Fred Speyrer David Spool Meredith Stanald Bill Steall Jr. Ann Stegall David Stegall **Emallee Stegall** Mary Stegall Sarah Stegall Will Stegall Nancy Stevens Robert Strack Christy Sturterant Genevieve Summers Lorilei Swanson Heidi Symanski Jessica Symanski Leigh Anne Symanski

Steve Szabo

Sharon Tan
Cornelia Taylor
John Therez
Nichole Thiladeau
Lee Thomas
Charles Thurmond
Cal Todd
Chris Todd
Bill Truman
Holly Turner
James Turpin
Rosalind VanLandingham

Jim Wallace Connor Ware Ellen Ware John Ware Jon Watkins Jacee Watson Tuesday Weible Kathryn Welden Gary Wheeler Paula Wheeler Pat Wilborn Paul Wilborn Gordon Willey Jacqui Willey
Buzz Williams
Megan Wilson
Rob Wilson
Rev. Davis A. Yaun
Jeff Young
Kim Young
Bob Zahner
Charles Zartman

CRWC Promotes Forest Stewardship on Private Lands

The primary objective of this program is the conservation of biodiversity via a landscape level perspective that recognizes and protects the viability of native species and their habitat needs. The CRWC is working with a registered forester to design management plans that are compatible with this objective, while also meeting the management objectives of the land owner, which may include timber harvesting. These plans are designed to qualify for the State Forest Stewardship and Stewardship Incentive Programs which provide financial incentives natural resources management plans.

Managing timber for income - Maintenance of a scenic forest (visual quality) Outdoor recreation - Soil and Water conservation - Maintaining forest health Wildlife habitat improvement (non-game) - Wildlife for hunting (game) Protecting rare and/or unique natural resources - Historic and Cultural resources Real Estate development and investment

Call the CRWC to get more information or to sign up.

Tuckaluge Update continued...

strong support for the idea. Other concerns focused on the size of the project; the rare, interior forest habitat that would be destroyed by the project; and the negative impacts of siltation likely to occur in Tuckaluge Creek, which would harm native brook trout populations there.

The Tuckaluge project is a microcosm of many problems with the management of our national forests, all across the Southern Appalachians. It's also precedent-setting, in that it's the first project to actually use the tools developed and the ideas espoused by the Forest Service's three year, 1.5 million dollar "Chattooga River Basin Ecosystem Management Demonstration Project". The project's regional significance has been demonstrated by the continued media coverage of the initial project

proposal, the public's written responses, the vigil, and most recently, the public meeting as previously described.

The public meeting demonstrated something more important, however, than just an opportunity for regional media attention. This event showed as plain as day that conservation-minded folks are not a narrow, unsocial, or radical minority as some would have us believe. Rather, citizens from all walks of life including foresters, loggers, carpenters, farmers, business owners, educators, students, recreation industry employees, retirees and many others came out of the local community to express their concerns about the Forest Service's penchant for intensive timber cuttingand road building, which is epitomized by the proposed Tuckaluge timber sale.

Dr. Zahner Receives Conservation Award

Dr. Robert
Zahner of Highlands
is this year's recipient
of the Esther C.
Cunningham Award
presented by the
Wester North Carolina
Alliance.

Dr. Zahner, a forester, recieved the award from last year's winner, Dr. Dan Pittillo of Sylva, at the Alliance's annual membership meeting held last weekend near Franklin.

The award is given each year to an individual "in appreciation for outstanding community service in conserving our natural resources."

The award is named after one of the founders of the Alliance, Esther C.



Forester Robert Zahner, winner of the Cunningham Award, conducts a field trip with students for the Highlands Nature Center.

Cunningham, who was an organizer and the group's first chairperson. She still resides in Franklin.

"Perhaps no other has had more influence in the management of forest and associated natural areas in the Highlands region of Western North Carolina than has Dr. Robert Zahner," said Dr. Pittillo, a distinguished biologist and professor at Western Carolina University.

Dr. Zahner was trained as a forester at Duke University. He spent part of his life as a researcher and teacher in the Southern Experiment Station of the U.S. Forest Service before becoming a professor of forestry at the University of Michigan, a post he held for 24 years. He is now a retired professor emeritus at Clemson University.

Dr. Pittillo added, "Dr. Zahner's efforts to improve the methods of forest management in the Highlands region are auspicious." Dr. Zahner was instrumental in getting the U.S. Forest Service to improve its procedures on the Big Creek watershed south of Highlands so that it actually earned some income from the timber harvests.

He also was instruemental in convincing the Forest Service to adopt an ecosystem approach for the management of the politically divided Chattooga River watershed. The Forest Service has spent about \$1 million on studies to improve and protect the watershed, which is located in three states - North Carolina, South Carolina and Georgia.

Dr. Zahner was one of the founders of the Chattooga River Watershed Coalition, which provides independent oversight of the study project.

Dr. Zahner was one of the early leaders who advocated the management of old-growth forests as a part of overall forest management. For this, he is often referred to as "the father of old-growth management."

Dr. Zahner's other achievements include:

- Playing a major role in the Highlands Lands Trust that has led to the protection of many local natural areas.
- Presenting many talks on forest management and conservation to numerous organizations.
- Publishing many journal articles, including some unusual ones for a forester, such as a history of the rare plant *Shortia galacifolia*.

In 1994 Zahner published an extremely readable history of Whiteside Mountain entitled, Whiteside Mountain: The Mountain at the End of the Trail. The book, which calls for citizen awareness of the famous mountain's delicate nature and rare plant life, is now in its second printing.

This article was reprinted from the September 22, 1995 issue of <u>The Highlander</u>, a weekly newspaper in Highlands, NC.



THE ATLANTA CONSTITUTION

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Public treasures for sale

"This land is your land, this land is my land, From California to the New York island, From the redwood forest to the Gulf Stream waters; This land was made for you and me."

— Woody Guthrie

We are being robbed of our national heritage. Those in charge of critical committees in Congress are flinging open the doors to our

national treasures to raiders and rascals.

Take the Chattahoochee National Recreation Area. Somebody probably will, if House Republicans get their way. Under an amendment furtively approved by the House Resources Committee, a special panel would be created to recommend national park properties for closure or sale to the highest bidder. The Chattahoochee recreation area, Cumberland Island and other park properties in Georgia are on the list of areas eligible to be sold.

In the shortsighted, exclusively profit-oriented view of this new breed of Republicans, that idea actually makes a perverted kind of sense.

Economically speaking, the Chattahoochee National Recreation Area is probably underutilized. The most profitable use of that real estate would be to subdivide it into five-acre river-view lots for mansions.

But the value of some things can't be measured simply in dollars. But try telling that to Congress. The prospective sale of our national parks is only one in a growing series of horror stories being perpetrated in the name of profit.

This month, for example, the Interior Department was forced to sell 110 acres of federal land in Utah to a Danish mining company. The property contains \$1 billion in minerals, and as payment, the federal government received a whopping \$275, barely enough to buy a color TV set. Yet House Republicans

recently voted to allow even more such sales.

And when Interior Secretary Bruce Babbitt called a press conference to condemn the Utah deal, a mining industry spokesman had the gall to accuse him of "a publicity stunt."

Sure. And yelling, "Thief!" at a fleeing purse snatcher is a publicity stunt, too.

Unfortunately, there's more. A Canadian company plans to open a gold mine on federal property three miles outside Yellowstone

National Park, in a drainage basin that feeds into the park. The company plans to store 5.5 million tons of highly poisonous waste from the mine behind a compacted-rock dam, in an area 9,000 feet high and extremely prone to earthquakes. If that dam ever gave way, the environmental damage to Yellowstone would be heartbreaking. Babbitt and President Bill Clinton are working hard to block that project, but they are getting no sympathy or assistance from the Republican Congress.

Instead, Congress is pushing a plan to open the fragile and undeveloped Arctic National Wildlife Refuge in Alaska to oil and natural-gas

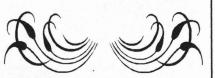
drilling. Another proposal, again the work of the House Resources Committee, would auction off ski areas on Forest Service property, the economic foundation of communities in Colorado and elsewhere.

And in the Southeast, Buford Dam and other federal hydroelectric dams would have to be auctioned under a proposal approved last week by the House Resources Committee. Those dams and reservoirs were built with taxpayer money, on property bought from citizens with the understanding that it would be used for the public benefit. Those dams provide drinking water, electricity and recreation for millions.

But none of that matters, apparently. To recast the words of Woody Guthrie, this land was made for the highest bidder.



Landmark sale: Cumberland Island could be a steal, if Republicans get their way.



The Proposal by the House Resources Committee discussed in this editorial of the Atlanta Constitution has come as quite a shock to many of us. Those who have been keeping up with recent congressional activities recognize it as the latest in a continuous series of blatantly irresponsible actions that threaten the natural heritage of all Americans.

At a time when people all over the world are realizing the urgency of our environmental problems and the necessity of implementing innovative strategies to solve them, our congress has turned 180'. Over the past few months proposal after proposal has sought to increase industrial scale extraction from public lands, and decrease scientific research into and legal protections for vital public resources like clean water, clean air, endangered species, and functioning native ecosystems. Rejecting the growing awareness that a healthy economy and a healthy environment are mutually dependent, the 104th Congress has consistently presented bills designed to increase the shortterm profits of specific industries at the expense of our planet's life support systems. This is not free enterprise and healthy competition. This is exploitation of power for a few special interests. This is bad government, dangerous economics, and a waste of increasingly scarce natural resources.



Both this editorial and the cartoon by Mike Luckovich on page 2 have been reprinted with the permission of the Atlanta Journal/Constitution.

evolutionary success of spiders is silk. Spider silk

is chiefly protein produced in liquid form by glands in

the spider's abdomen, and

transformed into solid

fibers as it exits through microscopic spigots

positioned on moveable

abdominal appendages called spinnerets. These

remarkable physical

extremely thin fibers have

properties that are the envy

of many a textile chemist. Some of these fibers boast

far greater tensile strength than steel threads of an

equal diameter. Some are

stronger than any human-

incredibly elastic -- the

made fibers, and others are

Spiders and their Place in the Web of Life

Dr. Fred Coyle

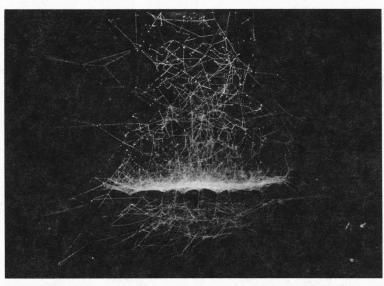
The forests of the Chattooga River watershed, like forests all over the world, are filled with uncounted legions of small animals called the invertebrates, which are largely overlooked by most nature enthusiasts and professional ecologists. These "little things that run the world", to quote from the title of E. O. Wilson's eye-opening essay, make up over 95% of all described animal species and far outnumber and outweigh all the birds, mammals, and other vertebrate neighbors living in an acre of forest.

Spiders are, after

the insects and perhaps the mites, the most diverse group of invertebrates. Spider-shy people are missing an important part of nature; 36,000 spider species have been described worldwide (4 times the number of bird species) and recent surveys in the tropics suggest there are over 100,000

undescribed species. Their high abundance (we collected 845 individuals in 1 Sq. meter of forest floor in the Chattooga watershed near Ellicott Rock) and the wide range of body sizes (from 1 to 80mm long) and predation strategies and microhabitats and strata (soil to canopy) used by the mix of spider species in any forest community link them directly to virtually all other arthropod species in the community. In short, spiders are ecological heavyweights; they consume more insects than do any other group of animals, and as everybody knows (or should know from the recent writings of E. O. Wilson), insects are the dominant animal "movers-and-shakers" in virtually all natural terrestrial communities. It is important for those of us convinced of the eternal importance of natural communities to try to better understand the roles spiders play.

The key to the ecological and



The dew-covered web of the sheet web spider, Frontinella pyramitela, is normally invisible to insects. This Chattooga watershed spider hangs from the underside of the horizontal sheet. It grabs small flying insects, like beetles and winged aphids, which are intercepted by the tall tangle of threads above, and then fall onto the sheet while struggling to escape.

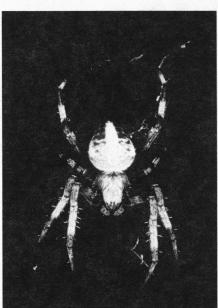
stall tangle of threads above, sticky spiral threads of some orb webs can be reversibly stretched 5 to 14 times their normal length, a property that suits them well for absorbing the shocks of struggling insects.

A typical orb web, one of the pinnacles of web

evolution, is constructed in 30 minutes, weighs less than

one-thousandth of the weight of the spider that it supports, and traps enough insects for its owner's weight to increase 5000 times during the 4 months it takes to grow from a tiny spiderling into an adult. Some orb weavers are so cost-conscious that every time one reconstructs its web, it eats, digests, and then reuses 80 to 90% of this damaged protein in its future webs.

Orb weavers, sheetweb weavers, funnelweb spiders, cobweb spiders -- the collective mix of all web-building spider species living in any forest employ an amazing array of fiber and web designs and behaviors capable of capturing nearly every kind of insect. There are, of course, many spiders (wolf spiders, jumping spiders, crab spiders, etc.) that do not use silk to ensnare prey, relying instead on stealth and/or ambush. Spiders have developed many other uses for silk, and therefore, types of silk and silk glands. Most spiders trail a silk dragline behind them as a safety rope or guideline to help them return quickly to their retreats. Small spiders can fly great

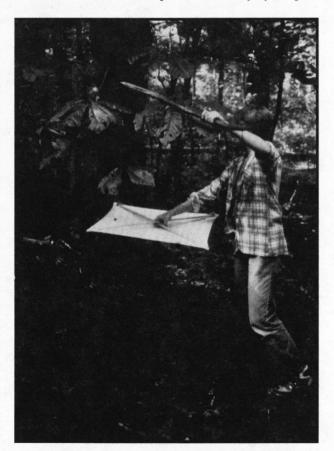


Neoscona domiciliorm, a common orb-weaver in Chattooga watershed forests, waits at the hub of her web for a meal to fly by.

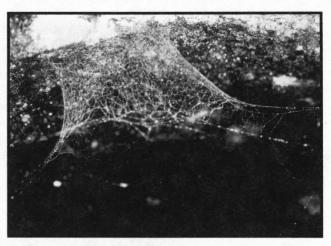
Spiders continued...

distances by spinning out silk threads that are pulled upward by air currents until the lift is great enough to carry the spider aloft, a behavior called ballooning. All spider mothers protect their eggs and newly hatched spiderlings in a silken egg sac. Burrowing spiders use silk to reinforce burrow walls, and to construct trap doors.

In accord with the recent focus on global biodiversity, my students at Western Carolina University and I have recently begun to assess the numbers and distribution of spider species in the southern Appalachians. One of our study sites, a 5 acre cove hardwood forest in the Ellicott Rock Wilderness of the Chattooga watershed, has yielded some interesting results. Standardized sampling by collecting teams, led by Laurel Young in September of 1991 and John Dobyns in June of 1993, found a total of 139 species. Several algorithms used to estimate the actual number of species present (including species that were too rare or otherwise inaccessible to the methods we used) indicate that there are probably 200-250 spider species at this one site. This is a rich spider community by temperate



A spider-diversity team member demonstrates one of the sampling methods at the Ellicott Rock study site. The foliage and branches of shrubs and trees are tapped sharply with a stick, causing spiders to drop onto a sheet supported by a frame. The spiders are collected from the sheet by hand or aspirator into a vial of ethanol preservative.



A "lamp-shade" web of the common Chattooga watershed spider, Hypochilus pococki. The genus Hypochilus is a remarkably ancient group restricted to North America and centered in the southern Appalachians. The spider rests on the rock surface, and traps both flying and ambulatory insects.

forest standards, but it does not match the diversities of tropical rain forests; a similar survey (conducted by Jonathan Coddington of The Smithsonian) at a Bolivian rain forest site yielded estimates as high as 730 species. However, it is worth noting that seven of the 139 species collected in our Ellicott Rock forest studies are undescribed (species new to science). We are finding an even higher percentage of undescribed species in our study sites in the Great Smoky Mountains National Park. Clearly, much work remains in order to record and describe the spider species living in the complex mosaic of different habitats throughout the southern Appalachians. Even more work will be required to detail the ecological roles of these species.

I should point out that the Highlands Biological Station, by providing funding for our spider surveys in the Ellicott Rock Wilderness and by offering an intensive 2-week spider biology field course attended by serious students of spiders from around the world, has been an important agent for ecological enlightenment. Only by studying the spiders and other invertebrates of this and other watersheds around the globe can we hope to fully understand, wisely monitor, and save life on Earth. Skeptics would do well to read E. O. Wilson's book, The Diversity of Life.

Dr. Frederick A. Coyle is a Professor of Biology at Western Carolina University, and a Research Associate at the American Museum of Natural History in New York City and the Museum of Comparative Zoology at Harvard University.



The Dying of the Trees

Book Review by William Clay

On the last page of his book, author Charles E. Little admits that writing The Dying of the Trees, to a certain degree, brought him to despair:

"I have learned things I wish I had not learned. I have learned that the trees are dying. And that the more trees die, the more will die. I have learned that we have crossed the threshold. And I simply do not know how we can get back safely to the other side."

Those who read this engaging but ultimately sad book will understand why he became dispirited. Having embarked upon the book to "bring the manifold events of tree death in the United States into focus." Little over the course of eight chapters details "discrete, seemingly unrelated examples of tree death in various regions" all of which, (along with even more examples of tree death and forest decline

outlined in his closing chapters) amount to an ecological phenomenon--a pandemic of dying trees that simply cannot be ignored. And as if this bleak synopsis were not enough, Little adds, the implications of so much tree death are even greater, for if enough trees die, they will cease to be merely symptomatic of deep ecological malaise, but will themselves become "a cause of potentially catastrophic failure of global ecological balances".

This gloomy prospect notwithstanding, Little's writing is never overwrought or extreme in its claims. His book is quite plainly and matter-of-factly written: though intent upon sounding an alarm, he is never alarmist. His prose shows him to be steadfastly calm and clear-eyed throughout. By Little's fifth book, it is clear that he has learned to present the facts and let each case speak for itself.

He begins with the dying of the dogwoods in Catoctin Mountain Park in Maryland, to detail what may mean the extinction of our Eastern Dogwood in its normal range due to Disurla Anthracnose. Acid rain, specifically its toll upon high elevation Appalachian forests from Camel's Hump in Vermont to Mount Mitchell in North Carolina, is his next topic. These two chapters expose the "rhetorical dissembling" and "tortuous circumlocution"

used by a politically driven, scientific bureaucracy unwilling to accept any cause-and-effect link between air pollution and tree death. This same bureaucracy is all too willing, meanwhile, to bend the truth in trying to deny and conceal that link. Anyone who has stood toe-to-toe with the US Forest Service or the EPA or any other similar organ of the government administration will find much in these chapters that sounds all too familiar.

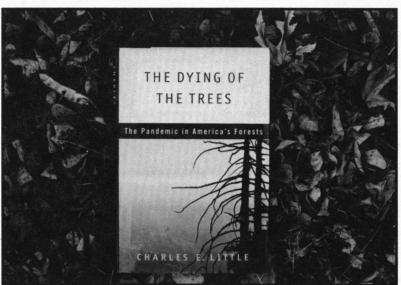
He then moves to California to examine the so-

called "X" disease, a man-wrought killer of Ponderosa pine. Next, Little looks at how "a century of logging and fire suppression" has changed, generally for the worse, the the Rockies and the intermountain west. Little shows that in forest composition also figure prominently in tree death in northern Michigan, due to vulnerability to the

composition of forests in logging-induced changes Gypsy Moth. The old growth

timber of Washington and Oregon--or what's left of it--is the focus of the next chapter. Though two thirds of the old growth here was still standing by WWII's end, "the government of the United States, with the US Forest Service playing the role of an eager apparatchnik, allowed the forest products industry to take the high elevation Ancient Forest apart, tree by tree, stand by stand, until today less than one acre in ten of the original public forest. in the Northwest survives". The question of the spotted owl and warbled murrelet arises here, but Little looks beyond these mere endangered emblems of forest decline to examine the complex role in healthy forest ecosystems of the truffle-rodent-mycorrhizal fungal connection. This vital link is undermined by clearcutting, a practice Little tells us "so decisively modifies the operation of the ecosystem in itself" that the irrevocable biotic change which results might affect the future of all species in the region. We learn also that even the old growth left standing is nevertheless in jeopardy, since for every tree that is cut, two others die from changes in the microclimate.

The next chapter, "Lucy's Woods", like the one on Mt. Mitchell, hits pretty close to home. Little describes how "one of the two oldest woodlands on earth is simply



The Dying of the Trees continued...

falling down--dead--the effect of a whole range of human caused maladies, exacerbated (here as elsewhere) by the perfidies of the US government". This section recounts the plight of the quintessential woodland of Appalachia, the oldest and according to one senior forest ecologist, "the most diverse hardwood forest in North America"--the mixed mesophytic forest. It encompasses all of the Cumberlands, the southern part of the Allegheny Mountains, all but the northwest area of the unglaciated Allegheny plateau, and all but the southernmost ends of the Cumberland plateau. This is the area where trees are simply falling over or snapping off at an unnatural rate, due to the "loss of roots from ozone and the penetration of pathogens as a result of the carbon-nitrogen imbalance induced by oxides of nitrogen in the form of acid rain and other acid deposition from air pollution". Like earlier chapters, this one includes stories of the hostility that the author (and noteworthy others) was met with, as he sought to draw attention to the problem and hopefully some response on the matter from--you guessed it--the US Forest Service.

Little ends the chapter on the mixed mesophytic forest with words that might just as easily represent all that

his book presents on forest death and decline:

"This is a hard story to tell, especially in the establishment press, because the public perception is so far behind the reality."

Most people who read the Chattooga Quarterly will understand this well enough. And anyone who bothers to read this book - it should be required reading for any public lands activist or manager - will see why it is being compared to Rachel Carson's Silent Spring. Carson's book helped launch a new day in environmental awareness. Little's book needs to be as pivotal. This sane, sharp-edged book is indeed quite sad, because its tale of trees dying everywhere is sorrowful in itself. But in the end the book brought me not to despair, but rather to a certain measure of hopeful resignation, for it does two things well: it surveys the breadth and gravity of the forest health problem, and it also exposes the plight of dedicated individuals who have faced up to willful, heavy-handed government agencies, and in doing so, the book helps bring those agencies one step closer to the accountability of public knowledge.

Endangered Species Act continued from page 4...

list of Endangered Species. It is a candidate; however, the USFWS has spent no money on this species. The rodents and other animals mentioned comprise 36% of the candidates, and it is estimated that the cost of investigating all 619 species now waiting for listing would be approximately \$19.6 million, not the \$144 million as cited by industry.

The Young-Pombo Bill already has 160 representa-tives opposed to it, and at least another 60 would be needed in order to stop the bill. According to the Endangered Species Coalition, at least 80 to 90 Representatives have not made up their minds. Call the Endangered Species Coalition to find out how your representatives have been voting on this issue, if you don't already know.

The Endangered Species Coalition (ESC) is a recently-formed, national cooperative effort. It is presently housed in the offices of Defenders of Wildlife in Washington DC. The organization has identified four major areas where the ESA can and should be improved during the re-authorization process. While registering your vote against the Young-Pombo Bill, you could also plug for any or all of the following:

1) Species Recovery: present provisions do not specify binding time lines for the completion of recovery plans, and do not identify specific actions to employ to give a species a chance to recover before it becomes extinct. The ESC advocates establishing a process for scientifically determining the needs of species, and

requiring the federal government to implement recovery plans with definite deadlines.

- 2) **Prevention**: key ecosystem species should be identified and protected, before they become candidates for listing as endangered, and all federal lands should be managed in a way that conserves species diversity.
- 3) *Information Assistance*: lack of information is the most pressing problem for private landowners who want to comply with ESA. The ESC advocates that the USFWS establish offices of technical assistance in each state to provide timely advice, answer field questions, and hear complaints from property owners.
- 4) *Incentives*: the ESC advocates the establishment of a federal loan fund to help develop regional and multi-species conservation plans, as well as some type of compensation or reward for landowners who do more than merely comply with ESA laws.

For other good ideas, plus ongoing information about the progress of the fight against the Young-Pombo Bill, contact the Endangered Species Coalition at 666 Pennsylvania Ave. SE, Washington, DC 20003. Telephone: (202)547-9009.

USFWS Photos (Red Wolf, Curtis Carley; Bald Eagle, Page Chichester; Black-footed Ferret, Rich Krueger), and the inset quote on page 4 are from The Endangered Species Act: A Commitment Worth Keeping, published by the Wilderness Society for the Endangered Species Coalition.

Nature's Pharmacy

Buzz Williams

"Scale of dragon, tooth of wolf, Witch's mummy, maw and gulf of the ravin'd salt-sea shark, Root of hemlock digg'd i' the dark...Double, double, toil and trouble; Fire burn and cauldron bubble....Cool it with a baboon's blood, Then the charm is firm and good."

- William Shakespeare, The Tragedy of MacBeth

There are few fields of knowledge that hold as much promise or contain as many pitfalls as that of herbal medicine. The practice of using plant material as drugs or potions is as old as the "doctrine of signatures". The ancient Greeks as well as our own Amer-indians believed that if a plant part resembled a part of the human body, it could be used to treat any malady pertaining to that organ. Modern science has proven this doctrine to be false but nonetheless, herbal remedies that have withstood the test of thousands of years of use in Chinese and pre-colonial American cultures are still being used by as much as 25% of the world's population today. Furthermore, the plant material that directly yields or is the basis for the synthesis of at least 25-30% of modern drugs comes from wild plants. Recent discoveries in the tropics and in our own forests are proof that the potential for discovering cures for

AIDS, cancer and other catastrophic diseases lies in the analysis of the chemical content of wild plants, and the investigation of traditional herbal remedies. To date only about 5% of the plant material in the world has been studied. A revived interest in herbal remedies, plus the obvious need to protect ever-shrinking global biological diversity has brought folklore and the science of pharmacology together in the search for a new conservation ethic.

One of the first tasks in the search for plants for human use is separating fact from fiction. The science of herbal pharmacosgnosy examines the efficacy of a particular plant used as a drug. Dr. Varro E. Tyler, author of the book The Honest Herbal states, "More information regarding the efficacy of herbs is currently being placed before consumers than in any previous time, including the

turn-of-the-century heyday of patent medicines". Tyler is the Dean of the School of Pharmacy and Pharmacal Sciences at Purdue University, and is a recognized authority on herbal medicine. In his book Dr. Tyler effectively dispels many of the myths surrounding the study of herbal remedies, but at the same time makes it clear that separating the folklore of "hemlock digg'd i' the dark" from modern scientific knowledge is difficult.

Most of the serious

Most of the serious research to untangle the myths from the facts about herbal remedies is being conducted in other countries. Japan is a leader in the scientific investigation of herbal remedies. In 1987 Japan "held more than half of the new patents on natural products". Germany is also far in front of the United States with research that isolates the particular chemical agents in a plant which can be proven to effect human physiology. German law requires that the labels on herbal medicines provide consumers with information about the legitimacy of the product. Yet in the United States, herbal remedies are not recognized as drugs. Here, buying these herbal products in the absence of qualifying information often leads to purchase based on "outrageous claims of therapeutic effectiveness".



The research in other counties is a direct reflection of the American system which perpetuated many myths about

herbal remedies. The root of this problem is that the American system does not recognize that a plant sold as a herbal remedy can in fact have legitimate medicinal uses and therefore, should be regulated as a drug. Even in light of the fact that drugs like digitoxin, quinine, morphine, pilocarpine and vincristine come directly from plants, and are used to treat congestive heart failure, malaria, glaucoma and cancer respectively, the U.S. still fails to recognize that herbal remedies sold over the counter can qualify as drugs. Another reason that the U.S. lags behind both Japan and Germany in the field of herbal medicine is because of our litigious society. It has been estimated that it costs 125 million dollars to establish the efficacy of a new drug in the United States. Partly a result of our failure in this country to address the legitimacy of herbal drug use, only 55 of the world's plant species have been

Nature's Pharmacycontinued...

analyzed for their chemical content.

This notwithstanding, major drug manufacturing companies in the U.S. are taking notice of the economic potential for drugs derived from wild plants. Merck and Company of New Jersey (the largest drug company in the world) signed a contract with Costa Rica in 1991 which gave Merck exclusive rights to any new drugs discovered

in Costa Rica's biologically rich rainforest. In return, part of the profits will be returned to Costa Rica for conservation purposes. Syntex Corporation also recently signed an agreement with China to test 10,000 plants per year.

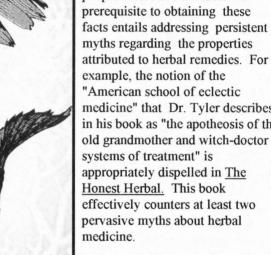
Time is another critical factor in recognizing the potential of plants for fighting disease. Scientists estimate that 500 species of plants and animals have gone extinct in the U.S. since the year 1500. Only one of these species became extinct from natural causes. The rapid destruction of large blocks of habitat is contributing to the rapid decline of many species of plants which could be future sources of new drugs. The popular belief is that this decline in biological diversity is a problem mainly in tropical rainforests. Once again, scientific evidence runs contrary to this notion. Habitat loss in the United States is thought to be a serious threat to the survival of many species of native plants found here.

The Blue Ridge escarpment is without doubt one of the most biologically rich regions of the world. Many of our native plants such as Ginseng and Goldenseal are rapidly disappearing from this landscape. Private lands in the South are being steadily developed by the region's burgeoning population. Wild habitats that best support native biological diversity are dwindling at an alarming rate. Most critical habitats for threatened, endangered and sensitive species exist on the small, 6% of the landscape protected as public lands. Outdated management plans for much of this public land are based on industrial models which favor intensive timber harvesting and roadbuilding. Consequently, this critical habitat is being destroyed. Adding to this problem is the US Congress, which currently advocates maintaining this management paradigm. Here, laws that protect threatened and endangered species are under assault. For example, the Endangered Species Act is threatened by reauthorization procedures that will substantially weaken one of the most effective conservation laws in history.

Furthermore our legal system's failure to adequately address the issue of the consumer's "right-toknow" when purchasing herbal remedies is fueling the over-harvesting of native plants, based on false claims. Misinformation about alleged therapeutic properties have caused the price of Ginseng to skyrocket to 300 dollars per pound in Clayton, Georgia (in the Chattooga watershed).

Most of the plants harvested to meet this demand are taken illegally from public lands.

In order to reverse trends which threaten the continued viability of many native plants, people must have the facts. A prerequisite to obtaining these facts entails addressing persistent myths regarding the properties attributed to herbal remedies. For example, the notion of the "American school of eclectic medicine" that Dr. Tyler describes in his book as "the apotheosis of the old grandmother and witch-doctor systems of treatment" is appropriately dispelled in The Honest Herbal. This book effectively counters at least two pervasive myths about herbal medicine.



Myth #1: Natural herbal products are superior to synthetic drugs

produced in a laboratory.

This myth was dispatched 150 years ago by the German chemist

Fredrich Wohler when he "succeeded in producing the natural organic compound urea from a solution of inorganic ammonium cyanate". In essence, Dr. Tyler concludes that the effective ingredients in crude drugs are directly related to a particular chemical compound, or a combination of chemical agents found in the plant material. He also suggests that the "mystic" qualities of natural plants can easily be identified with proper applications of "biology, biochemistry, or even history". It is interesting to point out Tyler's book reveals that scientific studies have determined that placebos work about 35% of the time. The word placebo comes from Latin, and translates to mean "I will please". No doubt, this accounts for the perceived "magic" attributed to some herbal remedies.

Smooth Purple Coneflower is both a

natural medicine and an endangered

species in our area.

Myth #2: Most modern authorities are up-to-date on the science regarding herbal medicine.

continued on page 22...

Cherokee Ghosts of Whiteside and Beyond

Rick Hester

The following is a compilation of excerpts from James Mooney's <u>History, Myths, and Sacred Formulas of the Cherokees</u>, reprinted in 1992 by Bright Mountain Books in Asheville, NC from original publications of the Bureau of American Ethnology in 1891 and 1900. Material on Yonah, the bear was contributed by Marie Mellinger of Clayton, GA.

The season of All Hallows' Eve is upon us, and there are spirits loosed from the nooks and crannies, the dark places of deep and hidden waters, and the craggy cliff sites where only Cherokee legends and intrepid botanists dare to tread.

Yonah the Great Bear

will make his annual appearance at a place known for its restless spirits - Whiteside Mountain. Others, like Utlunta the "spear-finger" and the Great Yellow Jacket, may be spotted on the mountain as well, along with fragments of their ancient horrors. And all through the watershed and beyond, the Ukteena and its cousins are still known to haunt the far-away places. Life favors the cautious, so read well these warnings, seek out your medicine men and blessed women, and go carefully, if you must, into the hidden places this season.

Now, in order to prepare yourself for such dangerous wanderings, it is not enough to simply carry some herbal concoction or spiritual protective blessing. No, the spirits are well known for surprising mere mortals with abilities not hitherto documented in legend or song. You must get a feel for how things work in the Cherokee spirit world.

Way back in the beginnings of things, animals had chiefs and tribes. Yonah, the bear, was the chief of the animals. Once, Yonah became bored of living in the forest, and yearned to go live in the sky land. He pestered the spirits until they granted his wish, and he became the Big Bear in the Sky. But in October, when all the trees burst forth into glorious color, Yonah becomes homesick. He descends from the sky, at this time, to visit the forest again. And for one hour of one day his shadow can be seen lumbering across the mountain sides. It has become a

tradition, near Highlands and Brevard, to go to Whiteside on splendid autumn days and watch for the "shadow of the bear." So you see how it is that the physical world around us is tied directly to the dealings of ancient tribal chiefs and the spirits of their day.

A good, wholesome story that one is, but, as with any field of understanding, "a little knowledge can be dangerous." I would be remiss in my responsibilities as a story-teller if I were to leave you with only the above glimpse into what is truly a spirit world as complex and

interwoven as nature herself. You would surmise that the spirit world is a benign place, interesting and friendly to the curious. You would go off to an eagerly anticipated outing into the netherspace, ignorant of what dangers lie there. Tragedy has befallen many an enthusiastic novice



Yonah, the great bear of the sky, visits his home in the forests around Whiteside Mountain every fall. Photo by Bob Zahner from the top of Whiteside Mountain.

caught unexpectedly by the sobering reality. Enough said on that account. I need not worry that some first time visitor to the Cherokee spirit world will happen upon the den of an Uktena, nor that the victims relatives will slap a liability suit on us for negligence in describing the dangers of the place. The disclaimer above and the further information below suffice to insulate the author and his employers and publishers from any and all legal action herewith connected to bodily dismemberment or wrongful death caused by, or in any way affected by, the actions and/or manifestations of Cherokee spirit figures, whether they be of this world or, as is supposed, forced residents of Galunlati, place of the dangerous things. All that aside, let's move on to another day back in the beginnings of things, also in the area we know today as Chattooga-land.

As you have seen in the story of Yonah, in these early days there were giant kings and queens of animal tribes. One such monster was a very large flying creature "which resembled in appearance the green-winged hornet. This creature was in the habit carrying off the younger children of the nation who happened to wander into the woods. Very many children had mysteriously disappeared in this manner, and the entire people declared a warfare against the monster. A variety of means were employed for his destruction, but without success. In process of time it was determined that the wise men (or medicine-men) of the nation should try their skill in the business. They met

Cherokee Ghosts continued...

in council and determined that each one should station himself on the summit of a mountain, and that, when the creature was discovered, the man who made the discovery should utter a loud halloo, which shout should be taken up by his neighbor on the next mountain, and so continued to the end of the line, that all the men might have a shot at the strange bird. This experiment was tried and resulted in finding out the hiding place of the monster, which was a deep cavern on the eastern side of the Blue Ridge and at the fountain-head of the river Too-ge-lah [Tugaloo River, South Carolina]. On arriving at this place, they found the entrance to the cavern entirely inaccessible by mortal feet, and they therefore prayed to the Great Spirit that he would

bring out the bird from his den, and place him within reach of their arms. Their petition was granted, for a terrible thunderstorm immediately arose, and a stroke of lightening tore away one half of a large mountain, and the Indians were successful in slaying the enemy. ... It may be appropriately mentioned, that at the head of the Too-ge-lah is to be found one of the most remarkable curiosities of this mountain-land. It is a granite cliff with a smooth surface or front, half a mile long, and twelve hundred feet high, generally spoken of in this part of the country as the White-side mountain, or the Devil's courthouse" (pp 443-444).

The Cherokee call the mountain Sanigilagi, and if you look closely, you may find traces of the Utlunta's presence. "The Indians... say that the western summit was formerly crowned by a projecting rock, since destroyed by lightening, which formed a part of the great [rock] bridge which Utlunta attempted to build across the

rough country" (p 467), all the way to the "tree rock" on the west side of the Hiawasee River about four miles outside of Hayesville NC, nearly to the Georgia line. You see, "this creature [the Utlunta] had such powers over stone that she could easily lift and carry immense rocks, and could cement them together by merely striking one against another" (p 317).

"Long, long ago - hilahiyu - there dwelt in the mountains a terrible ogress, a woman monster, whose food was human livers. She could take on any shape or appearance to suit her purpose, but in her right form she looked very much like an old woman, excepting that her whole body was covered with a skin as hard as a rock that no weapon could wound or penetrate, and that on her right hand she had a long, stony forefinger of bone, like an awl or spearhead, with which she stabbed everyone to whom she could get near enough. On account of this fact she was called Utlunta, 'spear-finger,' and on account of her stony skin she was sometimes called Nunyunuwi, 'stone-dress.'

There was another stone-clothed monster that killed people, but that is a different story" (pp 316-17).

Spear-finger would sometimes pose as an old woman and "approach along the trail where the children were picking strawberries or playing near the village, and would say to them coaxingly, 'Come my grandchildren, come to your granny and let granny dress your hair.' When some little girl ran up and laid her head in the old woman's lap to be petted and combed the old witch would gently run her fingers through the child's hair until she went to sleep, when she would stab the little one through the heart or back of the neck with the long awl finger, which she had kept hidden under her robe. Then she would take out the

liver and eat it."

"One such

monster was a

very large flying

creature 'which

resembled in

appearance the

green-winged

hornet. This

creature was in

the habit of

carrying off the

younger children

of the nation."

"She would enter a house by taking the appearance of one of the family who happened to have gone out for a short time, and would watch for her chance to stab someone with her long finger and take out his liver. She could stab him without being noticed, and often the victim did not even know it himself at the time - for it left no wound and caused no pain - but went on about his own affairs, until all at once he felt weak and began gradually to pine away, and was always sure to die, because Spear-finger had taken his liver."

"When the Cherokee went out in the fall, according to their custom, to burn the leaves off from the mountains in order to get the chestnuts on the ground, they were never safe, for the old witch was always on the lookout, and as soon as she saw the smoke rise she knew there were Indians there and sneaked up to try to surprise one alone. So as well as they could they tried to keep together, and were

very cautious of allowing any stranger to approach the camp. But if one went down to the spring for a drink they never knew but it might be the liver eater that came back and sat with them."

"Sometimes she took her proper form, and once or twice, when far out from the settlements, a solitary hunter had seen an old woman, with a queer-looking hand, going through the woods singing low to herself. ...It was a rather pretty song, but it chilled his blood, for he knew it was the liver eater, and he hurried away, silently, before she might see him."

"At last a great council was held to devise some means to get rid of Utlunta before she should destroy everybody. The people came from all around, and after much talk it was decided that the best way would be to trap her in a pitfall where all the warriors could attack her at once. So they dug a deep pitfall across the trail and covered it over with earth and grass as if the ground had never been disturbed. Then they kindled a large fire of

"her whole body was

covered with a skin

as hard as a rock...

and on her right

hand she had a long

stoney forefinger of

bone, like an awl or

spearhead, with

which she stabbed..."

Cherokee Ghosts continued...

brush near the trail and hid themselves in the laurels, because they knew she would come as soon as she saw the smoke."

"Sure enough they soon saw an old woman coming along the trail. She looked like an old woman they knew well in the village, and although several of the wiser men wanted to shoot at her, the others interfered, because they did not want to hurt one of their own people. The old woman came slowly along the trail, with one hand under her blanket, until she stepped upon the pitfall and tumbled through the brush top into the deep hole below. Then, at once, she showed her true nature, and instead of the feeble old woman there was the terrible Utlunta with her stony

skin, and her sharp awl finger reaching out in every direction for someone to stab."

"The hunters rushed out from the thicket and surrounded the pit, but shoot as true and as often as they could, their arrows struck the stoney mail of the witch only to be broken and fall useless at her feet, while she taunted them and tried to climb out of the pit to get at them. They kept out of her way, but were only wasting their arrows when a small bird, Utsugi, the titmouse, perched on a tree overhead and began to sing, 'un, un, un.' They thought it was saying unahu, heart, meaning that they should aim at the heart of the stone witch. They directed their arows where the

heart should be, but the arrows only glanced off with the flint heads broken."

"Then they caught the Utsu gi and cut off its tongue, so that ever since its tongue is short and everybody knows it is a liar. When the hunters let it go it flew straight up into the sky until it was out of sight and never came back again. The titmouse that we now know is only an image of the other."

"They kept up the fight without result until another bird, little tsi kilili, the chickadee, flew down from a tree and alighted upon the witch's right hand. The warriors took this as a sign that they must aim there, and they were right, for her heart was on the inside of her hand, which she kept doubled into a fist, this same awl hand with which she had stabbed so many people. Now she was frightened in earnest, and began to rush furiously at them with her long awl finger and to jump about in the pit to dodge the arrows, until at last a lucky arrow struck just where the awl joined her wrist and she fell down dead."

"Ever since then tsi kilili is known as a truth teller. and when a man is away on a journey, if this bird comes and perches near the house and chirps its song, his friends know he will soon be safe home" (pp 317-19).

Well, thanks to those heroic warriors and

medicine men, we don't need to worry ourselves about the "spear-finger" these days, but the most terrible of all ancient Chattooga land monsters is the Ukteena, and its kind still haunt the deep pools and high hidden passes to this day. As with most such problems this mischief had its start in pettiness - jealousies and the like that developed unchecked into a powerful destructive force.

It was long, long ago - hilahi yu - when the sun became angry with the people on the earth and sent a sickness to destroy them. You see, the sun was bothered by the fact that the people could never look straight at her without making all these ugly faces, and, worse yet, they would all smile at night when they looked up at her

> brother, the moon. The situation made her jealous and angry, and she

planned to do away with the offensive human beings.

The sun lived on the far side of the sky vault, but her daughter lived in the middle of the sky, directly above the earth. Every day along her journey to the west, the sun would stop there for some lunch and conversation with her daughter. Before going into her daughter's house she would emit such intense rays "that there was a great fever and the people died by hundreds, until everyone had lost some friend and there was fear that no one would be left. They went for help to the Little Men, who said that the only way to save themselves

was to kill the Sun" (p 252).

"The Little Men changed a man into a monster snake, which they called Uktena, 'the Keen-eyed,' and sent him to kill her. He failed to do the work, and the Rattlesnake was sent in his place the next day. This made the Uktena so jealous and angry that the people were afraid of him and had him taken up to Galun lati, to stay with the other dangerous things. He left others behind him, though, nearly as large and dangerous as himself, and they hide now in deep pools in the river and about lonely passes in the high mountains, the places which the Cherokee call "Where the Uktena stays."

"Those who know say that the Uktena is a great snake, as large around as a tree trunk, with horns on its head, and a bright, blazing crest like a diamond upon its forehead, and scales glittering like sparks of fire. It has rings or spots of color along its whole length, and cannot be wounded except by shooting in the seventh spot from the head, because under this spot are its heart and its life. The blazing diamond is called Ulunsuti, 'Transparent,' and he who can win it may become the greatest wonder worker of the tribe, but it is worth a man's life to attempt it, for whoever is seen by the Uktena is so dazed by the bright light that he runs toward the snake instead of trying to

Cherokee Ghosts continued...

escape. Even to see the Uktena asleep is death, not to the hunter himself, but to his family."

"Of all the daring warriors who have started out in search of the Ulunsuti only Agan-uni tsi ever came back successful. The East Cherokee still keep the one which he brought. It is like a large transparent crystal, nearly the shape of a cartridge bullet, with a blood red streak running through the center from top to bottom. The owner keeps it wrapped in a whole deerskin, inside an earthen jar hidden away in a secret cave in the mountains. Every seven days he feeds it with the blood of small game, rubbing the blood all over the crystal as soon as the animal has been killed.

Twice a year it must have the blood of a deer or some other large animal. Should he forget to feed it at the proper time it would come out from its cave at night in a shape of fire and fly through the air to slake its thirst with the lifeblood of the conjurer or some one of his people. He may save himself from this danger by telling it, when he puts it away, that he will not need it again for a long time. It will then go quitely to sleep and feel no hunger until it is again brought out to be consulted. Then it must be fed again with blood before it is used."

"No white man must ever see it and no person but the owner will venture near it for fear of sudden death. Even the conjurer who keeps it is afraid of it, and changes its hiding place every once in a while so that it cannot learn the way out. When he dies it will be buried with him. Otherwise it will come out of its cave, like a blazing star, to search for his grave, night after

night for seven years, when, if still not able to find him, it will go back to sleep forever where he has placed it."

"Whoever owns the Ulunsuti is sure of success in hunting, love, rainmaking, and every other business, but its great use is in life prophecy. When it is consulted for this purpose the future is seen mirrored in the clear crystal as a tree is reflected in a quiet stream below, and the conjurer knows whether the sick man will recover, whether the warrior will return from battle, or whether the youth will live to be old" (pp 297-8). Some say that crystal was used in rites at the sacred grove of trees in Warwoman Dell until not so long ago, and was hidden somewhere in our area

since then. The warwoman herself, or "blessed woman", was said to have taken part in these ceremonies where prophecy was used to aid the tribe in deciding the most important affairs at hand.

The Uktenas that were left behind by the original creature are, as in other cases, not quite the size and strength of their ancestor; but make no mistake, they can be as terrifying and as lethal to the unsuspecting. Mooney writes that they have been credited with the destruction of the young of the great mythic hawk of the Little Tennessee, below Citico Creek in Blount County, Tennessee (p 315). They have been used in the service of

A goraet is an ornament worn suspended around the

A gorget is an ornament worn suspended around the neck. This style of shell gorget is carved from a conch and is found in east Tennessee and western North Carolina from about AD 1300 to AD 1500. The gorget illustrated here is from the Museum of the Cherokee Indian in Cherokee, NC. It measures 4.5 to 4.8 inches in diameter. The Lick Creek style depicts a rattlesnake with a large circular eye, gaping plumed jaws, and a coiled body segmented by sun symbols. The rattles appear at the left. The design includes a square cross motif with solid bands in the four cardinal directions. Some say the creature is another representation of the Uktena.

the powerful Thunder People (p 346). Uktena scales were used in the rites accompanying the building of sacred mounds in the area. like the one at Sautee (p 396), and a ferocious uktena has been known to frequent Cohutta Mountain in Murray County, GA. Datle yasta i, "where they fell down," is a place "on the Tuckasegee river, at the bend above Webster, in Jackson county, where was formerly the old town of Ganasa gi (Conasauga). Two large uktenas, twined about each other as though in combat, were once seen to lift themselves from a deep hole in the river there and fall back into the water" (p 405). At another spot on the Tuckasegee, about two miles above Deep Creek, near Bryson City in Swain County, "there is a tradition that an uktena trying to make his way upstream, became fastened here, and in his struggles pried up some large rocks now lying in the bed of the river, and left deep scratches upon other

rocks along the bank".

And, of course, the most famous uktena of our legends, an especially large and viciuos one, is said to have taken refuge in a deep pool below what we now call "Sock'em Dog" rapid on the Chattooga River. This one is known for his rage at the people of the earth, undissapated all these centuries after its ancestor's original humiliation. It does not share these waters with others of its kind, it kills them. It roams the tributaries and hills by night, and sleeps in its deep nest by day. Only occasionally, its rest is disturbed...



by Vera Sawyer

I was lonely and sore... my heart heavy too. My hope nearly gone, knowing not what to do.

I sensed what I needed and there I did go... to a place of pure Love, an unspoken show, not action and talk... so burdened and sad. I went for a Walk.

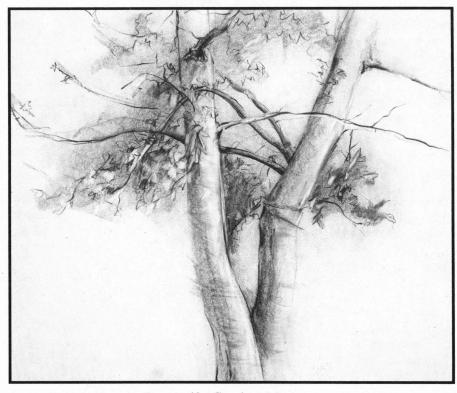
I saw my ancestors... they reached for my hand, they caressed me in spirit and asked me to rest... in their midst... to feed and strengthen my soul which they could see had grown weary and cold. The ancient and old all came to lift me to levels of love to help set me free.

I complained of my problems, cares and woes, especially my fears and they just seemed to know, then urged me to listen and quiet my words... listen to them... their thoughts be heard.

I was still anxious and filled with pride but I wanted to fill the darkness inside. I opened my mouth. I cried out to them to show me some purpose, some reason to stand. I'm so tired of it all...it doesn't make sense. The world is not fair, there is no defense.

The giant one spoke in silence... but so loud in my heart. I sat at his gnarled feet and leaned back in his ark. I closed my eyes and was lovingly taken... back to the place of my first awakening... before time and tide, when all was at peace and there was no pain... no need for release.

HE SAID: We also grow from seed. We have a heart and we bleed. We propogate young and we die from



Drawing by Carolyne Montague

disease. We care for our friends, not asking their kind but within us rest and food they will find. We dress out for Spring and play in the Summer, then prepare in the Fall for Winter's slumber. You worry about dying and forget to live. You hoard and store and fail to give. You love within limits and think that you're right. You waste your days and cry in the night.

I stood in the woods with my heart full of pain. I lifted my eyes and asked again. What is my reason to go on....

The grayness blew in and on it a song... the message as old as the earth and the trees. You are us, we are you... we are all parts of these. We are all born to live and born to give and pass through time and again... for in cycles of love there is no end.

You can get this love any time you have need... sitting in counsel among the great trees. You need no appointment... there's never a wait... you won't have to beg and stand at the gate. The way is wide open... it starts where you see... the strength and the beauty of forests and trees.

Vera Sawyer resides in Tiger, Georgia. She is a native of West Virginia. She enjoys writing poetry and prose, short stories, personal essays, and is presently working on motivational material for less fortunate children. She tells stories and recounts folklore, indigenous to the harsh coal minning communities and mountaineer way of life, laced with humor and pain. Vera has been published in poetry anthologies and locally in Foxfire: Special 100th Issues, Summer 1992. She feels as deep a kinship to Nature as her fellowman, and to that end she dedicates her writing.

Director's Page continued from page 2...

happened during the 34 day vigil was amazing. Citizens who had not visited the area for twenty years showed up to lend their support. People observed peregrine falcons, black bear, hooded warblers, hawks and ravens. An eighty-one year old gentleman and his wife traveled from Atlanta to make the trek, and an Outward Bound crew hiking through the area collected all of their pocket money (\$2.56) to contribute to our cause. At the vigil's end, we arranged a meeting with Georgia's Forest Supervisor who will decide whether or not to proceed with the Tuckaluge project as currently proposed. One hundred and fifty citizens attended the meeting at Warwoman Dell, representing folks from all walks of life. Present were lawyers, teachers and their students, whitewater raft guides, hunters, real estate developers, foresters, business people, a Baptist preacher, former Forest Service employees, senior citizens, babies, hikers, scientists and representatives of the Cherokee Nation. The conservation

community as represented at the Warwoman Dell meeting can no longer be pigeon-holed as a "special interest".

"Going public" was a risky proposition. Some people felt that a high profile, public campaign would be unsuccessful. There were those who believed that the public meeting could trigger a counter demonstration, and others worried about violence. None of these fears came to be. Though this battle is far from over, and the tough odds are still there, citizens who are well informed proved that they care enough to try and make a difference. My heartfelt thanks go out to these people. Those who contributed their time to this community-based effort to preserve the Rabun Bald Roadless Area have done a great service to our local conservation movement. Here, the keys to success continue to be held by a well-informed and actively involved citizenry.



Nature's Pharmacy continued from page 16...

Dr. Tyler relates one account in The Honest

Herbal which illustrates the fallacy of modern
commentary on this subject. Dr. Tyler writes of one
herbalist who states flatly that lily-of-the-valley
(Convallaria majalis L.) is non-poisonous. In fact, this
plant is known to contain a convallatoxin which is "the
most toxic cardiac glycoside in existence". Another
example is that of the alleged properties of ginseng.
According to Dr. Tyler, there is no scientific evidence that
ginseng possesses any agent which functions as an
aphrodisiac, as is often claimed by vendors.

Given the enormous potential of herbal products and the voluminous amount of misinformation regarding this subject, several steps are immediately apparent if we are to utilize the full potential of wild plants to fight disease. These steps are:

- 1) Educate the public.
 - a) Publicize this fact: habitat protection is the key to the viability of many species of plants which hold potential human benefits.
 - b) Make people aware that harvesting these plants in the wild is contributing to their decline.
 - c) Teach people how to cultivate wild plants.
 - d) Expose myths regarding unsubstantiated claims.
- 2) Convince elected officials that more protection is needed for our native forests.

- 3) Implement positive incentives for habitat protection though tax breaks for conservation easements and habitat conservation plans.
- 4) Motivate citizens to participate in the Forest Planning process for their public lands.
- 5) Work with citizens and scientists to craft citizen's alternatives for habitat protection in the Forest Planning process.
- 6) Change laws to eliminate restrictions on categorizing herbs as drugs. Adequate labeling should be required in order to inform the buyer of scientific information about the product. This will provide incentives for desperately needed research.

Without a doubt, herbal medicine is one of the most promising fields of knowledge we have at our disposal to help find cures for many debilitating diseases. The solution to eliminating misinformation surely lies in educating the public. Only then will elected officials respond with actions to implement the laws and regulations that could unlock the full potential of herbal medicines. The incentives that result will stimulate research and provide a basis for developing new, effective drugs. Restructuring incentives for public land managers, and input from citizens and scientists through the land and resource management planning process will help protect and conserve our natural resources. All of this is achievable, as we come to realize that the answers are in the wild.



Chattooga River Watershed Coalition Member Organizations

Association of Forest Service Employees for Environmental Ethics

Georgia Forest Watch
Contact: Mort Meadors
Route 1 Box 685,
Rabun Gap, Georgia, 30568
(706) 746-5799

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

Friends of the Mountains Contact: Don Bundrick PO Box 368, Tallulah Falls, Georgia 30573

Western North Carolina Alliance Contact: Norma Ivy 70 Woodfin Place, Suite 03, Asheville, North Carolina 28801 (704) 258-8737

(706) 754-3310

South Carolina Forest Watch Contact: Dr. Billy Campbell PO Box 188, Westminster, South Carolina 29693 (803) 647-8804 Sierra Club, Georgia Chapter Contact: Rene Voss 1447 Peachtree Street, Suite 305, Atlanta, Georgia 30309 (404) 872-9700

Sierra Club, Atlanta Group Contact: Lee Thomas 3653 Donaldson Drive, Atlanta, Georgia 30319 (404) 347-3866 ext 6650 (work) or (404) 458-3389 (home)

Sierra Club, North Carolina Chapter Contact: Bill Thomas PO Box 272, Cedar Mountain, North Carolina 28718 (704) 885-8229

Sierra Club, South Carolina Chapter Contact: Norm Sharp

Wilderness Society, Southeastern Region

Contact: Peter Kirby

1447 Peachtree Street Northeast #812,

Atlanta, Georgia 30309 (404) 872-9453

Contact: Norm Sharp 300 Newtonmore Road, Greenville, South Carolina 29615-2730 1-800-944-TREE (803) 268-9409

Endorsing Organizations

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

Georgia Botanical Society
Georgia Ornithological Society
The Beamery
Columbia Audubon Society
The Georgia Conservancy
Southern Environmental Law
Center
Dagger, Inc.

Georgia Environmental
Organization, Inc.
Timber Framers Guild of North
America
Carolina Bird Club
Government Accountability Project
Turpin's Custom Sawmill

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. We're a non-profit organization, and all contributions are tax-deductible.

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

Chattooga River Watershed Coalition

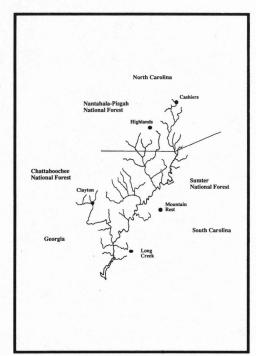
P0 Box 2006 Clayton GA 30525 (706) 782-6097 (706) 782-6098 fax crwc@igc.apc.org Email

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 and Volunteers
Turner Foundation, Inc.
The Moriah Fund
Lyndhurst Foundation
Patagonia, Inc.
Frances Allison Close
South Carolina Trial Lawyers 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

Chattooga River Watershed Coalition PO Box 2006 Clayton, GA 30525 Non-Profit Organization U.S. Postage Paid Clayton, GA Permit # 33