



Native Plant News

The Newsletter of the North Carolina Native Plant Society

Volume III, Issue 2

May / June 2005

2005 Annual Picnic

June 11, 2005

NCNPS 7th Annual Picnic with Plant Auction and Short Business Meeting

We always have a great time.
Come join the fun and
celebration!

Date: Saturday, June 12, 2004

Place: Hagan Stone Park - 6 miles
south of Greensboro off of US 421

Time: We have Shelter Three (3)
from 11 AM to early evening.

Schedule: Free flowing and relaxed.
Lots of time to visit and enjoy life.
Earlybirds can explore trails at Hagan
Stone Park. Maps are available in the
park office near the entrance.

Noon to 4 – Conversation as folks
gather, covered-dish lunch about 1
PM, short business meeting about 2

PM, plant auction about 2:30 PM.

What to bring: Your wonderful self,
your family and friends, your yummy
covered dish, and garden treasures
for the auction. Before you come,
empty the extra stuff from the car so
you have lots of room to bring home
some beautiful plants. Sun hat and
sunscreen.

Directions: Hagan Stone Park is a six
miles south of Greensboro off of 421
in Pleasant Green. 5920 Hagan-Stone
Road.

If you come via I-85 to Greensboro
area, take the exit for 421 South
toward Sanford - JW Hunt Jr Expy.
(This was exit 126 before the new
southern bypass for 85 around
Greensboro opened. From the
Raleigh side, I-85 splits south around
Greensboro now at about mile 131.)

Proceed on 421 South about 6 miles.
Look for signs to the park. Near Forest
Oaks at a stoplight turn right onto

Hagan-Stone Park Road. Travel about
2 miles and then turn right into Hagan-
Stone Park. Follow park signs to
shelter 3. (NC Gazeteer page 38 grid
B1)

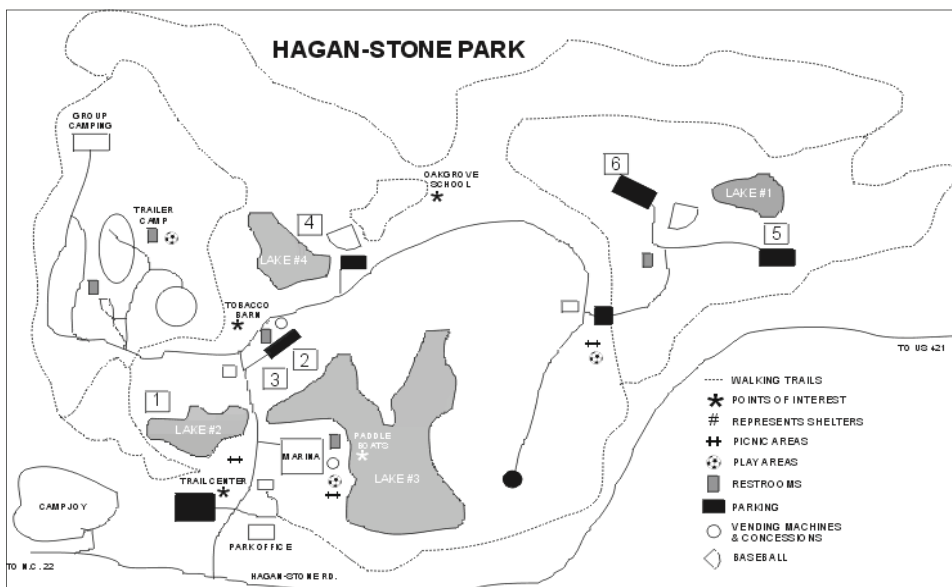
Help raise money to support
the activities and
scholarships of your
NCNPS...



Pot up a few of
your native plants and bring
them to the Annual Picnic
Plant Auction.

Tom Harville
Auctioneer

Ps: bring cash or checks
– you are sure to see something
to add to your collection!



Welcome New Members!

New members since the last newsletter:

Jim & Kathy Dollar
Mary Claudine Jones
Charles & Betty La Bella
Judy Stierand
Len & Mary Smith
Dan Chambers
Jane Henderson
Emilio Ancaya
Steve Kroeger
Michael Denslow
Helen & Joe Parker
Dale Batchelar
Carla Burgess
Tammy Kennedy
Lisa Gaffney
Mark Vander Borgh
Timothy Jackson
Chris Dunfee
Terrelle Buckner

Message from the President

The printing and mailing of the **Native Plant News**, our primary source of communication with and among members, is a major expense for our organization. We are dedicated to continuing and expanding the content, so we need to explore ways of saving money.

The board of directors is considering a transition to e-mail distribution, which will result in quicker access to information, a significant savings in time and dollars, and saving resources such as trees and gasoline (for those mail trucks!). Printed copies will still be available to those who do not have access to a computer, and the annual journal **Wildflower** will continue to be printed and mailed.

We are considering sending email versions of the newsletter in .pdf format, which can be read by most computers. With this format, we will be able to add color to the newsletter (great for flower photos!) at no cost—

something we cannot do with print versions. We can also add links for further information at the end of articles, expanding and enhancing our communication and education efforts.

If you prefer a hard copy, you still have the option of printing the newsletter on your own computer. Before making a final decision, we would like to hear from you.

If you are willing to receive your color version via email, send a note to

kathyschlosser@aol.com



Save the
trees!

Alice Zawadzki

Sustainable Ramp harvesting

For the past four years, Jim Chamberlain, USDA Forest (SRS), has driven to the mountains of N C to dig ramps with the festivals that are a springtime tradition in the Southern Appalachians.

"We don't really know that much about the social and economic dynamics that affect collecting for these festivals," says Chamberlain. "By working with collectors, we hope to learn how we can work together to ensure sustainable populations of these plants on national forest and private lands."

Ramps are an acquired taste: the flavor has been described as similar to leeks, scallions or garlic. The mere scent of those who have recently eaten them has been known to clear a room, and children who have eaten them are routinely made to sit in the hall at school. People collect the leaves and the spicy bulb as a spring tonic, a tradition that the early settlers may have learned from the Indians. Most people eat ramps freshly picked, fried with potatoes or eggs—or they cook up a "mess" with trout and fatback. Chamberlain keeps

track of the total weight and numbers of ramps collected for each festival, finding that the major groups use 500 to 600 pounds of ramps for an annual festival, with between 40 and 80 bulbs making up a pound.

In spring 2002, the Great Smoky Mountains National Park banned the collection of ramps after a five-year study indicated a decline in ramp populations in the Park. This shifted more demand onto national forest lands, where most of the festivals collect.

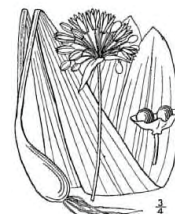
Chamberlain works closely with plant and forest ecologists from the SRS unit in Clemson, SC, who are monitoring 21 plots in the Nantahala National Forest to track changes in ramp density and cover due to collecting activities. They also work with Gary Kauffman, forest botanical specialist for the National Forests in North Carolina, who also monitors the status of ramps and other popularly collected plants.

"We don't know if the current levels of ramp harvesting are sustainable or not,"

from the So. Forest Research Service

said Chamberlain. "We have heard that some of the ramp populations are in decline, but we can't determine if this is true without monitoring populations and harvests over several years."

Beginning next year, civic groups that pick wild ramps in the Nantahala ... will have to abide by new Forest Service rules that dictate where and how to pick the plants as well as levy a 50-cent-a-pound fee.



Allium tricoccum

Featured Plant: The Venus Flytrap and Other Carnivorous Plants in North Carolina

Senator William Purcell of Laurinburg has introduced Senate Bill 116 that, if passed, will designate the Venus Flytrap (*Dionaea muscipula*) as the official carnivorous plant of North Carolina. This designation will be significant given that the Venus Flytrap is native only to southeastern North Carolina and northeastern South Carolina. The species' worldwide distribution lies within an area bound by New Bern, North Carolina to the north, Georgetown, South Carolina to the south, and Fayetteville, North Carolina to the west. Although it has been planted in other places, it occurs naturally nowhere else and is a unique part of our natural heritage. The tips of Venus Flytrap leaves resemble miniature bear traps. Each half of the trap contains tiny trigger hairs. When an insect touches these trigger hairs, the leaf snaps shut, trapping the insect with interlocking hairs. Due to its limited range, specific habitat requirements and the threat of it being collected to extinction, the Venus Flytrap is protected by the North Carolina Plant Protection and Conservation Act. Various federal and state agencies such as the U.S. Fish and Wildlife Service, the North Carolina Plant Conservation Program and the North Carolina Natural Heritage Program are working with local land trusts and others to protect populations of the Venus Flytrap and other rare species native to North Carolina.

While the Venus Flytrap is the most widely known of the carnivorous plants native to North Carolina, there are actually 30 species of carnivorous plants occurring naturally in our State. In addition to the Venus Flytrap, there are six species of pitcher plants (*Sarracenia*), five sundews (*Drosera*), three butterworts (*Pinguicula*) and 15 bladderworts (*Utricularia*).

Pitcher plants are made up of many long, slender tube shaped leaves. These modified leaves collect water. Downward pointing hairs prevent

insects from escaping once they have entered the tube shaped leaf. The plant secretes digestive enzymes into the water filled leaf that allow it to gain nourishment from the dead insects.

Sundews get their name from the sticky droplets at the tip of leaf hairs. These droplets attract and trap insects. Five different species are found from North Carolina's high elevation mountain bogs to our Coastal Plain savannahs.



Venus flytrap. ©Jane Villa-Lobos. Courtesy of Smithsonian Institution, Dept. of Systematic Biology, Botany.

Butterworts are also found in wet savannahs of the Coastal Plain. The surface of their leaves is covered by a sticky substance which traps small insects that walk across the leaf surface.

Bladderworts are a group of floating carnivorous plants with modified, bladder shaped leaves beneath the surface of the water. These "bladders" have a trap door configuration with small trigger hairs surrounding the door. When tiny animals come near the trigger hairs, the trap door snaps open and sucks the animal inside the bladder. Digestive juices help the plant gain nourishment from the animal. Bladderworts are found in rivers, ponds, and roadside ditches in eastern North Carolina.

As noted above, these carnivorous species contain modified leaves that allow them to attract, trap and kill insects. They secrete digestive

enzymes that allow them to obtain nourishment from their prey. Our carnivorous plants occur in a variety of wetland habitats from mountain bogs to sandhill seeps to wet longleaf pine savannahs. Many of the habitats on which these species rely are threatened with development and pollution. In particular, two species of pitcher plant, the green pitcher plant and the mountain sweet pitcher plant, are listed by the U.S. Fish and Wildlife Service as endangered and are protected by the Endangered Species Act.

With more than 4,000 species of native plants, North Carolina is one of the most botanically diverse States in the country. We have a responsibility to protect our rich natural heritage for its intrinsic value and for the enjoyment of future generations. All native plants are protected from collection without written permission of the landowner and a permit from the North Carolina Plant Conservation Program.

Web resources:

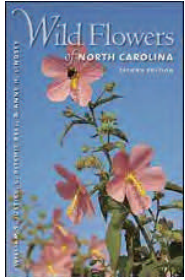
<http://www.carnivorousplants.org/>
<http://www.sarracenia.com/cp.html>
<http://www.rdrop.com/users/mvz/plants.htm>

Dale Suiter,
Endangered Species Biologist,
U.S. Fish and Wildlife Service, Raleigh,
NC
NCNPS Vice President

Summer Reading



From the editor: it seemed appropriate, now that summer is upon us, to offer reviews of a few books that might be of interest to native plant folks. They will all make good reading over the summer, whether they are new or old favorites.



Wildflowers of North Carolina by Justice, Bell, and Lindsey.

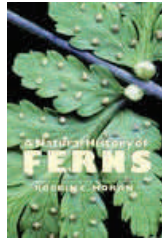
It is my pleasure to update you on the second edition of this book. You probably have a well-worn copy of the first edition and are eagerly anticipating this new one with 100 additional species and expanded information to address developments in the field of plant conservation, providing comments on endangered and protected species, medicinal uses, the cultivation of species in a wild garden, and the commercial availability of nursery-grown natives. !

We've been told that books will reach our warehouse by the end of April—maybe even a few days before. At that time, we will release all of the orders we currently have received and books should be available in North Carolina and other regional bookstores throughout the Southeast within a week or two following.

"Wildflowers of North Carolina," along with an interview with Ritchie and Anne and a photo gallery from the book, will be the "spotlight" on our website during May and June (www.uncpress.unc.edu).

Cordially yours, Kathleen Ketterman
UNC Press, Chapel Hill, NC

A Natural History of Ferns. Robbin Moran. 2004. 302 pages, hardcover, \$29.95 list price (\$19.77 on Amazon.com), ISBN: 0881926671.



Finding an entertaining and educational book about flowering plants is a fairly easy task. Books about flowering plant ethnobotany, evolution, ecology, and numerous other subjects abound.

Unfortunately, if you wish to learn more about basic fern biology, natural history, and folklore, there have historically been few choices besides botany textbooks and scattered articles. However, this changed dramatically with last year's publication of Robbin Moran's *A Natural History of Ferns*, a volume that far surpasses any seed-centric book!

In 33 chapters, Moran covers an amazing breadth of topics ranging from fern reproductive biology to fern adaptations to ferntastic folklore. Throughout, Moran takes us along on expeditions in the field and in the herbarium, allowing his ceaseless curiosity as a naturalist to drive the book.

Moran is the fern curator at the New York Botanical Garden herbarium, and has worked on ferns for his entire professional life. He is a highly respected taxonomist who has described many new fern species, especially in the American tropics. He is also a highly skilled writer who has entertained members of the American Fern Society for years by contributing numerous articles to their newsletter (many of which were adapted to appear in his book). He is also co-author of the second edition of the tome *A Fern Grower's Manual* (with Barbara Jo Hoshizaki).

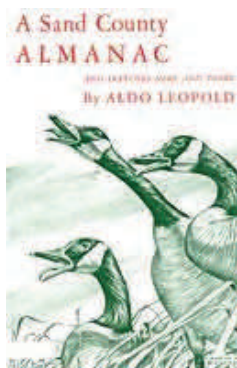
In each section of his book, Moran presents an interesting mix of biology, historical backstory and folklore. In a series of chapters discussing fern reproductive biology, Moran includes sections on hybridization, the biomechanics of spore dispersal and the discovery of ferns' seed-free state. While covering fern adaptations, he devotes chapters to iridescent ferns, bracken fern toxicity and fiddlehead geometry. Up to date synopses of fern and lycophyte taxonomy are presented along the way,

while also using the botanically themed movie *A New Leaf* as an example of how a new plant species is named. The book's final section focuses on fern folklore and fern-human interactions. Chapters include accounts of toxic ferns poisoning Australian expeditions, nitrogen-fixing water ferns being used to fertilize rice paddies, and the fern craze known as "pteridomania" that swept Victorian England.

Although this book contains more information about ferns than most botany textbooks, it is as easy reading as a novel. Moran often uses first hand narratives or anecdotes to illustrate his points, and his writing is infused with a love for the subject matter. A section of 26 color photographs serves to illustrate many of his points, and provide a visual depiction of fern diversity. The book is liberally illustrated, with almost 150 line drawings that serve as great visual aids to each chapter.

A Natural History of Ferns is a superb effort that covers an amazing breadth of fern topics. Its lucid explanations, clear prose, and clever narrative combine to produce a highly enjoyable work. I would strongly recommend this book to any natural history enthusiast, gardener, or plant lover. Whether you are a beginner to botany, or an expert on ferns, this book will be an enjoyable and educational read.

Review by Jordan Metzgar,
NCNPS member



A Sand County Almanac, Aldo Leopold

Oxford Univ. Press,
1949. Widely
available in new and
used bookstores.

Aldo Leopold
(1887-1948) is

considered the father of wildlife ecology. He was a renowned scientist and scholar, exceptional teacher, philosopher, and gifted writer. It is for his book, *A Sand County Almanac*, that Leopold is best known by millions of people around the globe. *The Almanac*, often acclaimed as the century's literary landmark in conservation, melds exceptional poetic prose with keen observations of the natural world. *The Almanac* reflects an evolution of a lifetime of love, observation, and thought. It led to a philosophy that has guided many to discovering what it means to live in harmony with the land and with one another.

The roots of Leopold's concept of a "land ethic" can be traced to his birthplace on the bluffs of the Mississippi River near Burlington, Iowa. As a youngster, he developed a zealous appreciation and interest in the natural world, spending countless hours on adventures in the woods, prairies, and river backwaters of a then relatively wild Iowa. This early attachment to the natural world, coupled with an uncommon skill for both observation and writing, lead him to pursue a degree in forestry at Yale.

After Yale, Leopold joined the U.S. Forest Service and was assigned to the Arizona Territories. During his tenure, he began to see the land as a living organism and develop the concept of community. This concept became the foundation upon which he became conservation's most influential advocate. Often credited as the founding father of wildlife ecology, Leopold's cornerstone book *Game Management* (1933) defined the fundamental skills and techniques for managing and restoring wildlife

populations. This landmark work created a new science that intertwined forestry, agriculture, biology, zoology, ecology, education and communication.

Leopold's unique gift for communicating scientific concepts was only equal to his fervor for putting theories into practice. In 1935, the Leopold family purchased a worn-out farm near Baraboo, Wisconsin, in an area known as the sand counties. It is here Leopold put into action his beliefs that the same tools people used to disrupt the landscape could also be used to rebuild it. An old chicken coop, fondly known as the Shack, served as a haven and land laboratory for the Leopold family, friends, and graduate students. And it was here Leopold visualized many of the essays of what was to become his most influential work, *A Sand County Almanac*.

From the Aldo Leopold Foundation



from the perspective of soaring birds, then zooming in to watch the antics of the smallest of creatures. It is a journey through the land and its ecosystems that Constantz has loved and studied since adolescence.

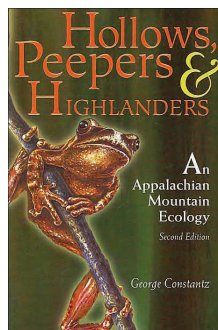
In sometimes charming and sometimes almost nightmarish essays, you learn about the black-tipped hangingfly's "courtship, nuptial giving, thievery, and sexual prevarication;" the plight of the brook trout that although "dumber than dirt and will bite to the last fish," are suffering from the effects of development; and the dependence of lungless salamanders on "fecal communication" for courtship.

The effects of freezing and thawing on plants, insects, and animals; interpreting bird songs; and the effect of caterpillars on tree "communication" are all topics covered in this delightful and inspiring book by an author who knows as much about lady's slippers and jack-in-the-pulpit as any good botanist.

Constantz's knowledgeable and highly readable descriptions of the adaptation of various organisms to their environment make you want to head out the door with a magnifying glass, a tape recorder, a notebook, and an open mind.

Definitely a great summer read!
Katherine Schlosser

Hollows, Peepers & Highlanders, George Constantz



WVU Press, 2004.
359 pages,
Paperback, \$18.50
ISBN: 0-937058-86-6

In this revised and expanded edition of the 1993 book *Hollows, Peepers, and Highlanders*, author George

Constantz, a biologist and naturalist, writes about the beauty and nature of the Appalachian landscape.

From the origins of the Appalachian mountain range to the "Femmes Fatales of Twilight" (fireflies), Constantz takes readers on a rollercoaster ride, viewing the area

Members Forum

Jane Srail took this photo of *Sanguinaria canadensis*, bloodroot, in her garden. She wonders if NCNPS members can give her information on these "double" bloodroots, which don't appear to be the *Sanguinaria canadensis* "Multiplex" sold as double-flowering in the trade. Ordinary bloodroot have from 7 to 12 petals, but Jane says the ones in her garden have twice that number, with the second "set" cupped inside the first. She has several questions, including:

- Is the expanded number of petals a common occurrence?
- Once a bloodroot blooms with more than the usual number of petals, will it always return that way, or will it revert to the usual number of petals?
- What will happen if she propagates this plant?



please share your experience with Jane.

Send a note to the editor at Kathyschlosser@aol.com or write to 1402 Bearhollow Road, Greensboro, NC 27410.

Jane is eager to hear from you!

If you know anything about this naturally occurring phenomenon,

Prefer Internet reading? Recommended by Scott Russell, Ohio Univ.

Bryophyte Flora of North America
<http://www.mobot.org/plantscience/BFNA/bfnamenu.htm>

This web site coordinates and facilitates the preparation, by more than 80 specialists worldwide, of volumes 27, 28 and 29 of the Flora of North America (FNA). Chapters on the 123 families of the mosses, liverworts and hornworts of the Bryophyta are assigned to numerous scientists on a genus by genus basis. For each chapter, artwork and text is published online as each chapter (or genus) is available. Only a small part of this work is completed at this time. The Lead Editor (and webmaster) of these three volumes is Richard Zander of Missouri Botanical Garden.

Great Botanical Books: A Booksellers' Perspective
<http://www.users.dircon.co.uk/~wheldwes/bot.html>

This web site represents a script of a presentation on the 'Great Botanicals' at the Natural History Museum, London, England in 1997. This erudite site recounts a remarkable number of paradigm shifting publications of the early through the medieval to modern times. Relatively few of the works are discussed because there are few of these sources that have survived for many of the books that you mentioned. This site recalls a proud history and is now privately hosted and maintained.

Flowers in Ultraviolet: Arranged by Plant Family
<http://www.naturfotograf.com/index2.html>

Ultraviolet photography allows colors invisible to humans to be visualized and flowers are an admirable subject. Quite a few floral pigments have interesting UV properties. In fact, in many cases, quite plain-appearing flowers to us, may be striking as viewed by insects, since they can see more UV than we can. This site has about 100 species imaged (in over 25 families) and notes on some species without images. Some flowers may have colors that extend into the infrared, but only one is shown at the current time. An interesting and very visual site. Photography by Bjørn Rørslett.

Consider the Plants—and Their Defenders

Rebecca Clarren

The day after the first snow, a wave of black birds sweeps across the flat grey sky and heads south, as if to flee the dull palette of upstate New York. As former U.S. Forest Service botanist and ecologist D.J. Evans and I make our way out of the thieving cold to find refuge in a local coffee shop, dead leaves crunch beneath our feet. It is here, far from the Michigan forests where she spent nearly a decade working to protect native plants, that Evans begins to unravel her story. It is a tale of grit and frustration—and ultimately of flight.

During the 1990s, Evans surveyed and managed rare and endangered plants for the Hiawatha National Forest. Often, she would recommend that certain areas remain off-limits to logging in order to protect tracts of plants. For this, her superiors labeled her a “roadblock” and a “crazy environmentalist.”

“I never saw myself as an aggressive person, I just wanted to do my job,” says Evans, shrugging. Yet, as she counts on her fingers the six botanists and ecologists who left the forest in eight years, she explains that the problem was clearly not about her as an individual. Her colleagues were told to either keep their mouths shut or lose their jobs. Whole sections of their environmental assessments were regularly edited to make proposed timber sales sound less damaging. They weren’t invited to meetings; some had responsibilities taken away. Under such pressure, some became clinically depressed. Eventually Evans, like many of her peers, left the agency in search of work at state agencies or in the nonprofit sector.

“Things were not always friendly. I would leave meetings because I was about to break down and I knew that wouldn’t help,” says Evans, her pale blue eyes reflecting the thin light of the day. “It was really stressful and discouraging. I don’t think I’ve ever stayed up so many nights.” Botanists and ecologists around the country report stories similar to the one that Evans tells. Stories of being disenfranchised and ignored, and in some cases, outright intimidated. The situation is so bad that few of the former and current Forest Service employees contacted for this story were willing to talk on the record, for fear of retaliation. Yet from their muffled voices a clear message emerges: many botanists in the agency are routinely pressured to not do their jobs, to not stand up for the resource they were hired to protect so that timber, the

old cultural icon of the agency, can continue to fall. Despite the fact that in the past decade the Forest Service has decreased its cut and is pushing a recreation agenda, there are still seven times more foresters in the agency than there are biologists, botanists and ecologists. The result is a distressing outlook for our native plants, our wildlife and our national forests.



“Many botanists feel very disenfranchised when they’re trying to get things right from an environmental perspective,” says Jim Furnish, a former deputy chief of the National Forest System. “I think it happened fairly regularly that the agency would say ‘Let’s ignore these people.’ A lot of botanists came in as real idealists but ultimately they felt like they were prostituting themselves, because the only reason they were there was to approve timber sales. They weren’t real happy campers.”

Hiking through a national forest, what do you see? Maybe you notice the way broad ancient trees fracture sunlight, creating dark pools of shadow. Perhaps you strain to hear the call of a favorite bird or search for animal tracks left in mud or snow. Most likely, you do not notice the ferns or moss clinging unobtrusively to rock.

Walk the land with a botanist, and your perspective may shift. “I think Pitcher’s thistle and ferns are really cute, but I realize they’re not the most charismatic species,” says Evans. “Rare ferns just don’t get most people

that excited.”

Maybe they should. Plants, she explains, are the building blocks of our wildlands. They provide biomass, protect the soil, provide habitat and food for wildlife. They are fundamental to the functioning of this planet.

“These rare plants are a critical component of biological diversity. They are our barometers of ecosystem health,” says Evans. “The more of them we lose, the less we can hope to understand about our environment; we basically lose a piece of the puzzle.”

It was her drive to protect and research these rare species that prompted Evans to join the agency in 1989. She was among the first wave of botanists—a wave that was filled with other idealistic young women. Prompted in part by the environmental and women’s movements of the 1970s, many women went to school to study biology and botany, disciplines that could make a difference. With the passage of the National Environmental Protection Act in 1971, for the first time the Forest Service needed employees trained in natural sciences to assess the impact of any activity—such as timber sales—on native plants and animals. Simultaneously, a host of new Equal Employment Opportunity laws shone a bright spotlight on the Forest Service’s male-dominated ranks. The agency, eager to remedy its existing gender gap, began to hire women for botany and ecology positions, according to a 1991 study by Utah State University professor James Kennedy. It is a persistent trend: today, up to 70 percent of all botanists are women.

These young women arrived at the steps of a male-dominated agency and a culture modeled after the military. The old guard of the Forest Service wasn’t exactly friendly to these new botanists’ environmental concerns.

“Even in the twenty-first century they haven’t been able to get away from the attitude that you do as you’re told. You don’t step out of the chain of command. I can’t tell you how many times I was told, ‘go along to get along,’” says Lesa Donnelly, a twenty-five-year agency veteran who is now the national vice president of the Department of Agriculture Coalition of Minority Employees. “Failure to follow orders—to speak out, even if, [as] in the case of botanists, that’s your job—will result in

Consider the Plants—and Their Defenders

Rebecca Clarren

disciplinary actions.”

Yet these women were forced into a role where, if they wanted to protect the resources, they had no choice but to clash with timber-driven managers. They were expected to conduct research and surveys that the agency had never done before—and that many traditional foresters were loathe to do. Once they were in the office they were faced with piles of surveys, slim budgets and no mentors. The fact that they were women didn't help.

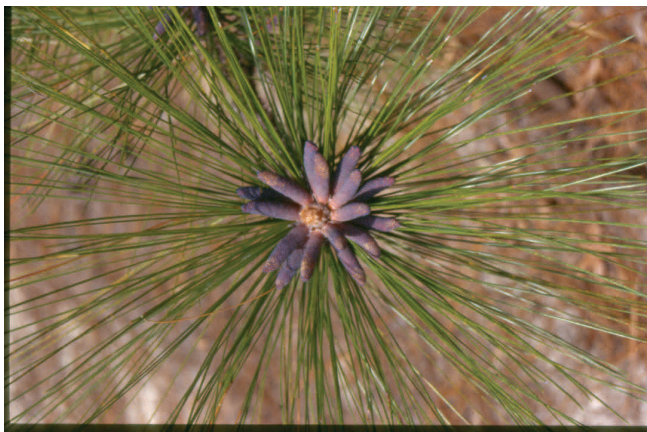
“The other divisions were dominated by men. I remember district rangers saying, ‘you don’t fit in with our agency,’” says Eunice Padley, a former Forest Service ecologist who now works for the Wisconsin Department of Natural Resources. “There was a huge conflict and culture clash with age and gender between these new employees and the old guard,” says Kennedy, who was hired by the Forest Service periodically during the 1990s to provide weekly trainings for wildlife biologists and botanists. Calling them “Peace Corps trainings,” Kennedy taught people how to find good mentors, to confront authority without alienating themselves and to change the values of the agency in a subtle, self-sustaining manner. Often, the trainings were too late. “I remember women who would tell me, ‘I go home and curl up in the fetal position and weep three times a month,’” Kennedy says.

The dynamic played out in miserable ways. Often, resentment toward women for filling traditionally male roles escalated into sexual harassment and discrimination. In 1995, 6,000 female Forest Service employees filed a class action lawsuit in California on the grounds of sexual harassment, hostile work environment and reprisal issues. A settlement agreement implemented in January 2002 appears to have failed: female employees continue to be sexually assaulted, physically assaulted, stalked, threatened and retaliated against for making complaints of sexual harassment and sex-based harassment, according to a recent press release by Donnelly's Ag Coalition.

“The majority of women I know at the Forest Service have experienced retaliation,” Donnelly says. “I’ve watched

people’s lives be destroyed by what they’ve faced working for the agency.”

Regardless of their gender, botanists in the agency face a host of challenges—the largest of which is that they are understaffed. Although the National Environmental Policy Act requires environmental analysis, it doesn't specifically say that agencies must hire botanists to do the work. The upshot? There are 179 botanists in the Forest Service and of those, fewer than 100 are out walking the ground.



In comparison, there are more than 10,000 foresters and forestry technicians. There is no agency requirement to have a botanist on every forest, or even every district. Consequently, there is an average of one botanist per 1.5 million acres. In the Rocky Mountain region, a 22-million-acre area that spans five states, there are only seven full-time botanists.

With so few specialists on the ground, wildlife biologists and even foresters often conduct botanical surveys prior to industrial activities. These employees are not required to attend botany-specific trainings or even to have any educational background in plant knowledge. “That’s just not right. There would be a big stink if the botanists were trying to write wildlife biological evaluations,” says a Colorado-based botanist who spoke on condition of anonymity. “It’s so critical to have areas that are preserved. If you don’t care for the plants, there’s no wildlife, but nobody else seems to be looking out there for these sorts of things.”

Aside from the scant number of employees, funding for the botany program is as dry as the Mojave. There is no specific national botany budget; rather, plant funding must compete with more

established fish, wildlife and rare species programs. Despite the fact that plants make up 61 percent of listed endangered species, the federal government spends less than 4 percent of recovery funding on them.

“It’s a miniscule amount. People in D.C. and even many local supervisors don’t have a sense of the importance of botany,” says Teresa Prendusi, a regional Forest Service botanist based in Ogden, Utah. “There’s a huge disparity in emphasis. We’ve spent a fortune on saving wildlife like the goshawk, but there are lots of plant species that are down to one or two populations. No one pays any attention to these glaring botanical issues.”

It must be hard to be a botanist in a nation of people obsessed with mountain lions and grizzly bears. And that seems to be a large part of the problem.

While biologists have the support of well-endowed and politically powerful nonprofit groups such as the Rocky Mountain Elk Foundation, the Audubon Society or Trout Unlimited, there is only one nascent national plant society that lobbies Congress, harnesses

partnership funding or pushes for change at the national level. The two-year-old Native Plant Conservation Campaign has only one full-time staffer and a tight budget.

Without much public pressure, the Forest Service has little motivation to embrace environmental protection for plants—especially under the development-friendly Bush administration. During the previous administration, when the environmental community was concerned about local management decisions that affected rare plants, they could contact a friendly ear at the Department of Environmental Quality or at the Justice Department who would then call the Forest Service.

“They would call [former Forest Service Chief Mike] Dombeck and say, ‘we’ve got a renegade situation. You don’t want to be on the wrong side of science, do you?’ and we’d say OK, and put pressure on local managers to do the right thing,” says Furnish. “Under the Bush administration, there’s virtually no pressure on the Forest Service to do things right so the agency just falls back on its base instincts.”

This lack of federal leadership has meant that local forest supervisors often choose to ignore botanists’ recommendations. In

Consider the Plants—and Their Defenders

Rebecca Clarren

some cases, forest managers refused to listen to botanists' appeals to use caution.

In 2002, a situation arose on a West Virginia forest that is a case in point. After an agency botanist urged caution on a timber sale, she received an e-mail from the assessment team leader reading, "We (the NEPA team) will no longer solicit your input or advice relating to NNIS, rare plants, fragmentation and old growth for Watershed Assessments of NEPA documents. Please don't waste your time and ours until you can provide us with useful input on how we can better manage for the resources as opposed to skewing everything towards no harvesting or discussions about how wrong our management is."

The upshot of situations like this is that morale for many agency botanists has sunk. Forest Service employees contacted for this story reported that they hate to come to work each day, that they are over-worked and burned out, and that, as one wrote in a 2003 e-mail, "it is such a sad time for botanists and plant ecologists in the Forest Service."

Ragged and torn, the relatively tiny army of botanists is unable to sufficiently protect plant resources under such conditions.

There are approximately 750 plant species listed as endangered and threatened by the U.S. Fish and Wildlife Service, but that's less than 50 percent of the species that warrant such protection, says Emily Roberson, director of the Native Plant Conservation Campaign, a coalition of thirty-one native plant societies, gardens and arboreta. On top of that, the Bush administration has listed not one plant in the past four years, unless forced to do so by lawsuits.

"The Forest Service lands are becoming more and more the refuge for species as the rest of the country becomes paved over, yet without more botanists and more resources, these plants get neglected," says Roberson. "If we continue to manage the way we are right now things look pretty bleak."

Despite this dismal picture, there are forests where botanists are supported and are doing great work, says Washington, D.C. based Wayne Owen, former Forest Service national botany program leader who was recently promoted to conservation planning specialist for the wildlife staff. Owen knows of two women who are becoming managers and says he encourages other botanists to do the same.

"The best way to make sure a forest is a friendly place for our resource is to make sure our people, especially young women, are moving into positions of leadership," says Owen. "To survive, you have to put botany in the perspective of the game we're playing, and that's multiple-use management. I have no illusions that I'm going to get my way all the time but these silly games are, in fact, how we end up



doing good botany."

Other botanists report that their recipe for survival is to keep their heads down, wait it out and try, in the meantime, to keep the worst of the worst decisions from happening.

While perhaps a good personal strategy, this silence does the plants few favors, says Buzz Williams, a former Forest Service ranger who now directs the Chattooga River Watershed Coalition from Clayton, Georgia.

"This is not an easy thing for me to say, because I was in this position and I left, but the silence is deafening," says Williams. "The botanists who are working quietly behind the scenes to slowly turn the battleship are not going to cut it. They need to be more courageous, put their jobs on the line and speak out." It's doubtful that this will happen any time soon. But, although they're quiet, these botanists are committed, hard-nosed and willing to tough it out on the ground and do what they can to speak for the plants.

"It's a real struggle, but I keep doing this because if we weren't here our forest would just come unglued," says an anonymous twelve-year veteran Forest Service botanist.

This sense of potential makes even dropouts like Evans nostalgic about the agency. As she walks into the winter wind, her voice grows strong.

"The public lands are really the only place where you can protect endangered species over the long term," she says.

"Private lands change hands; [owners are] not forced to legally protect rare plants. We can focus on saving these species on public lands."

She smiles with chagrin and shakes her head. "Well, I think about going back to the agency, but I guess I probably won't. It's just too stressful."

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<http://www.fseee.org/>
Forest Service Employees for Environmental Ethics

Calendars

All NCNPS members are welcome to attend any Chapter meeting. Just call or email ahead

Triangle Chapter

Meetings monthly on the third Sunday afternoon. Meet at the Reid Garden to carpool at 1:00 pm or meet at the site by time specified.

Sunday, June 19: 2:00 Picture Creek

Sunday, July 17: 2:00 Meadow Flats, Chapel Hill

Sunday, August 21 1:30 Mitchells Mill

Sunday, Sep. 18: 2:00 Couch Mountain Slope
Triassic Basin, Orange County

Contact Marlene Kinney (mkinney3@nc.rr.com) for details

Charlotte Chapter

If Charlotte/Mecklenberg area members will send their emails address to Jean, she will keep in touch with you and send updates for events.
Jean14424@aol.com

Triad Chapter

Saturday, June 4 8:00 am
Morrow Mtn. Trail
3 miles, moderate hike

Monday, June 20 6:30
Plant Study, Tankersley Rd. Natural Area
Streamside/wetland sedge identification

Saturday, July 2 8:00 am
King's Pinnacle & Fern Nature Trail
Crowder's Mountain State Park
3.7 miles, moderate to strenuous

Monday, July 18 6:30
Plant Study, location TBA
Ranunculaceae family characteristics

Call Kathy (336-855-8022 to register, or email
Kathyschlosser@aol.com)

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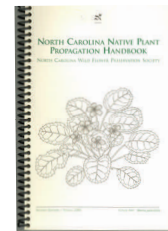
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Upcoming Special Events

There are a couple of opportunities coming up later this summer and into the fall for which we would like to give you some advance information.

We also need for you to let us know if you have any interest in these activities. If you send us your name and address, or your email address, we will forward the necessary details.

First will be a special weekend with longtime NCNPS member and naturalist extraordinaire, Alvera Henley Frauenheim. Alvera has a home in Pineola that was severely damaged in flooding last year. As soon as she gets moved back in, which will probably be in August, we will plan a visit with her. We will also spend a workday helping to restore her property to its' pre-flood condition. This is a once in a lifetime opportunity to meet an outstanding woman in the field of native plants.

Next, as the May 14/15 visit to Bluff Mountain Bald and Tater Hill Bog were rained out, we are working on a series of trips for small groups, since a large group would leave a large 'footprint' on fragile land. These trips will be arranged for groups of 5 - 10, and will require a donation to a stewardship fund for the area.

The small group trips will probably be led by Jerry Reece, who took a group of us 2 years ago. He knows the geology and plant life well, in addition to being an entirely likeable fellow...he didn't even get upset that he was left behind on the mountain when the group left. (Yes, we went back and found him calmly walking down the mountain!)

If you have any interest in either of these opportunities, please indicate so on the form and return it with your dues. We will keep you informed as plans develop.

Please send me details on the following trips:

- ☐ Visit with Alvera Henley Frauenheim in Pineola, NC
- ☐ Trip to Bluff Mountain/Tater Hill in the summer *
- ☐ Trip to Bluff Mountain/Tater Hill in the fall *
- ☐ Trip to Bluff Mountain/Tater Hill in the spring *

*these trips will be limited in size, first-come, first served.

Name: _____

Address: _____

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Dues Notice

Unless you are a Life member, or you joined after January 1st of this year, your dues for the 2005 - 2006 year are now due. **This is your only notice!**

- | | | |
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Deadline for next issue: August 15, 2005

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Dues Notice

enclosed.... Don't miss out on a single issue of *Native Plant News*, or take a chance on missing out on upcoming events and activities.

**Send in your dues
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Annual Picnic

*June 11, 2005
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Details inside.

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