Dr. Radford’s classes were both unforgettable and thought provoking! His teaching style was reflected his military experience in WWII. His famous course, Plant Ecosystematics, was conducted like a military mission.

Always departing promptly at 0700, the caravan of Suburbans carrying eager graduate students covered a wide territory in the southeastern states from West Virginia to Georgia. Dr. Radford could both drive and observe the vegetation with eagle eyes (botanizing at 50 miles an hour was indeed an art). Teams of intrepid students with notebooks and collecting bags were sent out like soldiers to collect data within random “quarter points” on the canopy, shrub and herb layers, rocks and soils. The “cerebration” team analyzed the environmental and man-made influences on the vegetation.

The first stop of the day was usually a wet stop or a difficult one (rain never hindered the mission). Climbing a rocky mountainside in the pouring rain, with only Smilax for hand-holds is a vivid memory. Only later when a gentle path was discovered nearby, would he give his characteristic, “knowing laugh.” The last stop of the day after we were dry again would invariably involve a stream to cross, often waist deep and very cold because the interesting plants were always on the other side. Only later was a footbridge pointed out nearby.

Classes camped to save money, though not in campgrounds, but in interesting places, such as the beach near Duck, the sandhills in the wilds of South Carolina, and in the bonechilling cold of the WV mountains. (Dr. Radford would find comfortable quarters in a nearby motel). After students were bleary-eyed from lack of a good night’s sleep, he banned camping for future classes. Dangers lurked everywhere though there were surprisingly few mishaps. One had to watch for poisonous snakes, slippery rocks in mountain streams, treacherous boulder fields on mountain slopes, navigate rocky cliffs, and of course be subjected to all weather conditions. It was all part of the experience!

Exams were a collection of plants from the trips placed around the lab to identify as well as what rock or soil type or plant community it grew in. Nevertheless, the experience forged a common bond among students that remains today.

The greatest gift from Dr. Radford was opening our eyes to observe the environment, analyze why plants grew where they did, and use all the clues at hand to discover what made each plant association different. During the trips students realized that it was not a mere learning exercise but valuable data and information collecting. Class reports helped form detailed descriptions of plant communities of the southeast and was a basis for conservationists to preserve the best remaining plant communities and their associated species. Thank you, Dr. Radford!

Albert E. Radford  
(25 January 1918 -- 12 April 2006)

Albert E. Radford died on April 12, 2006 surrounded by family at his home in Columbia, Missouri.  
Dr. Radford was the lead author of the Manual of Vascular Flora of the Carolinas.
It certainly is a humbling experience to rummage through old historical documents. While I was going over the material that came to me when I took over as the treasurer, I came across the North Carolina Wildflower Preservation Society’s Certificate of Incorporation from July 30, 1956. The incorporators were H.L. Blomquist, Lionel Melvin, Alfred Mordecai, Herbert Smith and H. R. Totten. When we got our nonprofit status in 1981 Emily Allen was the President. When we changed our name in 2004 to the North Carolina Native Plant Society, Alice Zawadzki was president. There are some prominent names in the native plant world in our society’s history. If you look at the list of people who served as President, you see more names of people who worked for and are still working for the Society. What you don’t see are the names of all the other folks who were behind the scenes, doing all the “little” jobs that make us viable. And believe me, it takes all of us to make the Society an organization where we can have some fun and keep the issues surrounding native plants visible.

So here we are in the 55th year of the North Carolina Native Plant Society and I would like to offer some challenges for our Society over the next two years:

- At least double our membership. We currently have 351 members across the state.
- Increase the number of chapters to at least 10. We have 4 with another in the conceptual stage.
- Add $20,000 to the Shinn fund so we can give at least two $1000 grants per year.
- Increase the Cullowhee scholarships to 4 per year. We just increased to two scholarships this year because so many of you agreed to take your

I am always looking for ideas to improve the Native Plant Society and I’m sure there are many great ideas out there, so pass them on to your chapter chair or a board member. I hope that that you will volunteer to fill some of the committee positions but if you don’t, I will be calling.

Tom Harville
NCNPS President

Tom Harville

::Build the BW Wells Stewardship fund ::so we can give at least $5,000 a year to projects.
- Cultivate our relationships with surrounding native plants societies - Virginia - South Carolina - Tennessee - Georgia - Maryland
- Start a Speaker’s Bureau
- Increase our efforts to raise awareness of the endangered and rare plants in North Carolina.
- Increase our efforts to raise awareness of problems created by invasive plants

What's Next

Jack-in-the-pulpit, *Arisaema triphyllum*
Dale Suiter, our Vice President, has been appointed to serve on the Scientific Committee of the Plant Conservation Program.

Mark Rose, newly elected to the NCNPS board of directors, has been appointed by Governor Easley to serve on the Plant Conservation Program board of directors.

Sarah Marcinko is our 2006 Shinn Grant recipient. Sarah is a graduate student at UNC Chapel Hill studying the conservation of rare and endangered plants in North Carolina. For the past two years she was engaged in data collection and analysis with the NC Botanical Garden on Harperalla.

Due to the growing number of NCNPS members who receive their newsletters electronically, we are now able to support two full scholarships to the annual Cullowhee Conference.

New NCNPS Officers:

President: Tom Harville  
Vice President: Dale Suiter  
Membership: Brenda Baldwin Scott  
Treasurer: Hugh Partridge  
At Large: Mark Rose, Lara Rozzell  
Special Projects: Alice Zawadzki

Continuing:
Rec. Secretary: Charlotte Patterson  
Editor: Katherine Schlosser  
At Large: Misty Franklin, Marlene Kinney

Chapter Chairs:
Charlotte: Jean Woods  
Triangle: Margaret Partridge  
Triad: Katherine Schlosser  
NE Coast: Susan RuizEvans, Kathy Mitchell

New members since 05-08-06:

Our new Membership chair is working to bring this column up to date. If we missed your name, let us know!

Do we have your attention? The Fall NCNPS trip will be to the coast. Put the date on your calendar now, and watch for details of the trip in the fall newsletter.

Dale Suiter and Misty Franklin are busy lining up another...
An informative and inspiring visit to Diane Laslie’s gardens and creek site, led by Ken Bridle, preceded the annual picnic at Hagan Stone Park.

Great tables filled with foods from the exotic to the familiar kept us all eating longer than we expected, but didn’t dull our appetites for the plants that awaited auction. There were many requests for recipes, which will be shared as they are sent in. The first, for the corn pudding brought by Emily Tyler, follows.

On behalf of the membership, new President Tom Harville presented outgoing President Alice Zawadzki with tokens of our appreciation. One was a copy of a shrub identification book, the other an antique butterfly pin. Tom told a touching story of how he came to select the pin, which originally belonged to his mother.

Tom introduced other board members, including new members Mark Rose, Brenda Baldwin, and Lara Rozzell.

Mark Rose assumed the role of Plant Auctioneer, raising the bidding with descriptions that left us lusting for unusual plants. All of the plants were donated by members, and special thanks go to Bill Cure (Cure Nursery in Pittsboro) and Greg Bruhn, both of whom were exceptionally generous. Trena McNabb donated two prints made from her original portrait of Emily Allen.

$865.00 was added to the Shin ScholarAsia Fund at this auction. Scholarships are awarded each year to an undergraduate or graduate student in North Carolina doing research on native plants. Our last recipient, Sara Martin, completed her Master’s degree this year and presented her research results to

**Virginia Green Corn Pudding**

- 2 cups fresh corn
- 2 large eggs (or 3 small ones)
- 1 cup thin coffee cream (I use skim milk which works fine)
- Salt to taste
- Cayenne pepper to taste
- 1/4 teaspoon mace or a little nutmeg, grated (I use nutmeg)
- 1 tablespoon sugar
- 1 1/2 tablespoons all-purpose flour* (optional)*
- 1/2 stick butter or margarine, melted

Cut corn off the cob and scrape cobs with the blade of a knife to get the “milk.”

Mix together corn, flour, sugar, and seasonings

Beat eggs until light, add to corn mixture; add milk or cream. Add all but a little of the melted butter, saving the rest to grease baking dish.

Pour the mixture into the buttered baking dish and bake in 350 degree oven for about 50 minutes or until slightly brown on top and the custard is set. Serve hot.

(Th

Who brought the Lemon Rosemary Cookies? We had several requests for the recipe, so if you are willing to share, please send it to kathys@ncwildflower.org or to 1402 Bearhollow Road, Greensboro, NC 27410

It will appear in the next issue of the newsletter.
GIRL SCOUTS NEED NATIVE PLANTS

Dennis Burnette

The girl scouts are involved in a project at the Tarheel Triad Council property in Colfax that includes the reintroduction of native plants in an outdoor classroom. Much of the property was once a farm. The trees and other species that have recolonized are the ones with easily dispersed seeds such as sweetgum and red maple. There is only a sparse understory with almost no wildflowers along the quarter-mile trail of the outdoor classroom.

I am helping the Girl Scouts in the process of reintroducing native plants that probably were in the woods before the property was cleared. Some species already exist such as pipsissiwa and running cedar, but other common flora are completely absent. We expect that the reintroduction of native Piedmont plants will enhance the educational opportunities in the outdoor classroom and also will attract wildlife. But we need plants in order to do this.

You may wonder why a man is involved with the Girl Scouts. Honestly, I didn’t stand a chance! Although I was a Boy Scout as a youngster, I married a woman who has been an active Girl Scout for more than 25 years, both as a volunteer and more recently as a staff member. And I had two daughters who were Girl Scouts. When I retired last year, I had time to be a volunteer so my wife recruited me to help out with the Girl Scouts Tarheel Triad Council, which serves about 16,000 members in 13 counties in the upper Piedmont and foothills.

Last fall I began developing a linear outdoor classroom along an existing wooded path next to the new Girl Scout Learning Center in western Guilford County. We have had more than 80 Girl Scouts and their leaders and parents (many of them dads, I’m happy to say) working at marking off six learning stations, clearing the trail of debris, and beginning a butterfly meadow in an adjacent field. Earlier this year I received a Project Learning Tree grant to put educational signage along what we’re calling the Tree Trail.

We will gladly accept donations of any plants native to the upper Piedmont that will do well in a dry forest. Have you ever gone out on a plant rescue expedition and come back with more species than you had room to plant? Do you have native plants on your own property that need thinning? Now you can give them to the Girl Scouts and be assured that the plants will have a good home. I can come to your property to pick up your plant donations if you live within an hour or so of the Triad.

This project is designed to be a learning experience for the girls, and an additional benefit is that the parents and leaders also learn about plants and ecosystems. The Girl Scouts do most of the work, under adult supervision, as appropriate for their ages and abilities. We have kids ranging in age from preschool up through high school. They are eager but need someone to show them how to prepare the soil and plant the wildflowers, shrubs, and trees that people donate. This is a wonderful opportunity to introduce kids to the wonders of native plants.

For additional information about the Tree Trail Outdoor Classroom, to arrange to donate plants, and/or to volunteer to help teach the children how to plant the donated plants, contact Dennis Burnette by email at deburnette@triad.rr.com or by telephone at 336-299-4342.

Triad Chapter Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 17</td>
<td>Plant Study: Asteraceae</td>
<td>6:30 pm</td>
<td>Tentative location: John Fox home, Winston-Salem</td>
</tr>
<tr>
<td>August 5</td>
<td>Lake MacIntosh Trail</td>
<td>9:00 am</td>
<td>NC 61 South, Whitsett</td>
</tr>
<tr>
<td>August 21</td>
<td>Plant Study: Asteraceae</td>
<td>6:30 pm</td>
<td>Tentative location: Burnette home, Greensboro</td>
</tr>
<tr>
<td>Sept. 2</td>
<td>Morrow Mtn. Trail</td>
<td>9:00 am</td>
<td>At the confluence of the Yadkin, PeeDee and Uwharrie rivers</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>Plant Study</td>
<td>6:30 pm</td>
<td>Gingher home, Greensboro</td>
</tr>
</tbody>
</table>

David McAdoo discusses native orchids with visitors to the Triad Chapter Earth Day display.
Our Chapter manned a booth on June 24 during a new event at the JC Raulston Arboretum in Raleigh called Summerfest.

With our display and information about native and exotic pest plants we sought to educate the public.

We gained four new members to the NCNPS and a list of folks interested in plant rescues and field trips that we hope will eventually join us. Thanks to Alice Zawadski, Amy MacKintosh, Brenda Baldwin, Elsa Liner, Jeff and Cheryl Prather, and Lara Rozzell for their help with this event.

Upcoming Events

Sunday, July 16:

Field trip led by Stefan Bloodworth, Curator of the Blomquist native plant collection at Duke Gardens, on his family property on the Flat River in northern Durham County.

Sunday, September 17:

Joint event with the B. W. Wells Association. The Margaret Reid Chapter has been invited for lunch and an afternoon of activities at the B.W. Wells Park (Rock Cliff Farm) on Falls Lake. Known as North Carolina’s first plant ecologist, B. W. Wells believed that man should live in harmony with nature and was an inspiration to Margaret Reid who created a garden of wild plants at her home and is our chapter’s namesake.

Please notify me if you plan to attend as we need to send in a head count.

Chapter field trips and activities for next year

I would appreciate your suggestions for places to visit next season, particularly if you are familiar with the site or can provide someone as a leader. The leader doesn’t need to know all the plants, but having someone who can locate the trail head and knows about parking and such matters is very helpful.

Include in your suggestion the best time of year to visit. Also, if you have a talk that you would like to present to the group, we would be very interested.

Margaret Partridge
Margaret Reid (Triangle) Chapter Chair
Margaret@ncwildflower.org
919-467-2727
The Charlotte Chapter of the North Carolina Native Plant Society had a number of activities this spring. We started with a workday at the Catawba Wildflower Glen (protected by the Catawba Lands Conservancy), the richest area in number of native species in Mecklenburg County. Japanese honeysuckle had taken over several areas and we made a good start in removing it. The Glen is so rich and so fragile that it was necessary to remove the honeysuckle by hand. Many thanks to all those who helped.

Many members attended a walk sponsored by the Catawba Lands Conservancy at the Wildflower Glen later in April. The Glen is open for interpreted walks in the spring and the fall and is well worth seeing.

Mary Stauble, master gardener and master composter gave a terrific talk on “Landscaping with Native Plants.” We had twenty people attend the talk. Mary talked about amending the soil, choice and sources of native plants, and placement. After her presentation we went on a tour of her yard, which is a treat to see.

We participated in a number of festivals and events with our display about native plants and handed out material about the importance of native plants and using them in the garden.

Jean Woods and Joe Hamrick lead a walk from Max Patch to Lemon Gap on the Appalachian Trail in May and we were thrilled once again by the fecundity of trillium and other native plants.

May 4-6, 2007 Native Plant Symposium

Next year the NCNPS has agreed to partner with the South Carolina Native Plant Society to put on a symposium in Rock Hill. This promises to be an outstanding and very informative event and will take the place of our Chapter spring meeting. There will be lectures, field trips, and workshops. The field trips will be in both North and South Carolina, along the state border which runs between Charlotte and Rock Hill. We will have speakers from both states.

The date is May 4-6, 2007 and will we will be calling for many volunteers to help with this event. The theme of the symposium is “Plants without Borders.” Saturday night we will visit the Catawba Native American Reservation for dinner, drumming, and a talk on Native American use of plants. On Sunday there will be a canoe trip through to see the Rocky Shoal Spider lilies.

Put this date on your calendars!

Upcoming Activities

July 30 2:00 PM Walk at the Daniel Stowe Botanical Gardens led by Douglas Ruhren, head gardener at Stowe. There are native plants at Stowe Gardens and Doug will show you how he has incorporated them into the formal garden. Doug is a authority on gardening, plants, and garden design. This is a rare treat to walk a garden with such an expert. We will meet in the parking lot at the Gardens.

The entrance fee is $6.00.

Email Jean if you are interested in going.

October 7, 2006 9:30 AM Natural History of the Piedmont Prairies and tour led by Parks and Rec of Mecklenburg County Learn about the piedmont prairies and see the Schweintz’s sunflower and possibly Georgia Aster, both federally endangered plants. We will meet at the Nature Center at Latta Plantation.

There will be a fee of $1.50 per person.

Email Jean if you are interested in going.

Symphyotrichum georgianum Georgia aster Photo from Lady Bird Johnson Wildflower Center
Folk Remedy Yields Mosquito-Thwarting Compound

Regional wisdom once imparted by a Mississippi grandfather has led ARS scientists to isolate a natural compound that in laboratory tests was effective in warding off mosquito bites.

The efficacy of the isolated compound—called “callicarpenal”—was affirmed through tests simulating human skin. But these results may not have been a surprise in northeastern Mississippi as long as a century ago, once the source of the callicarpenal was revealed.

Seems that it was known there that fresh, crushed leaves of American beautyberry, Callicarpa americana, in the family Verbenaceae, helped keep biting insects away from animals such as horses and mules. Placing crushed beautyberry leaves under the animals’ harnesses, residents knew, would mash out a repellent oil. Eventually, some folks there took to mashing the leaves and rubbing the residue on their own skins.

Privy to this knowledge was young Charles T. Bryson, who was told about it by his granddad, John Rives Crumpton. Today, Bryson is a botanist in ARS’s Southern Weed Science Research Unit at Stoneville, Mississippi. And he’s told researchers in ARS’s Natural Products Utilization Unit at Oxford, Mississippi, about beautyberry’s powers.

This led Oxford chemist Charles Cantrell—with entomologist Jerome Klun of ARS’s Chemicals Affecting Insect Behavior Research Laboratory in Beltsville, Maryland, and Oxford plant physiologist Stephen Duke—to isolate from American beautyberry and a Japanese counterpart, C. japonica, five insect-repelling compounds.

Among them was callicarpenal, which may represent ARS’s next important contribution against mosquitoes. ARS developed—and USDA patented in 2003—SS220, a repellent that’s just as effective as DEET. (See “ARS Partners with Defense Department To Protect Troops From Insect Vectors,” Agricultural Research, September 2005, p. 12.) DEET, the world’s most used insect repellent, was itself developed by ARS for the U.S. Army decades ago. “In laboratory tests, isolated callicarpenal was just as effective as SS220 in preventing mosquito bites,” says Cantrell.

Those tests were conducted by Klun against the mosquito species Aedes aegypti, which is best known as the yellow-fever mosquito, and Anopheles stephensi, which spreads malaria in Asia.

Klun used the same system he used to test SS220: a six-celled, in vitro bioassay he and colleagues developed that evaluates bitdeterrent properties of compounds intended for human use. It consists of mosquito-holding cells positioned over compound-treated cloth covering six blood-membrane wells. The number of insect bites through the cloth determines compound effectiveness.

Cantrell says a patent application has been submitted for callicarpenal. Subsequent work will include tests against ticks and developing ways of producing large quantities of the compound, either through synthesis or crops. Toxicity trials will precede any testing on humans.

—By Luis Pons, Agricultural Research Service Information Staff.

This research is part of Plant Biological and Molecular Processes (#302) and Quality and Utilization of Agricultural Products (#306), two ARS National Programs described on the World Wide Web at www.nps.ars.usda.gov.

Charles L. Cantrell is in the USDA-ARS Natural Products Utilization Research Unit, P.O. Box 8048, Oxford, MS 38677-8048; phone (662) 915-5889, fax (662) 915-1035. Jerome A. Klun is with the USDA-ARS Chemicals Affecting Insect Behavior Laboratory, 10300 Baltimore Ave., Bldg. 007, BARCWest, Beltsville, MD 20705-2350; phone (301) 504-9388, ext. 537, fax (301) 504-6580.

“Folk Remedy Yields Mosquito-Thwarting Compound” was published in the February 2006 issue of Agricultural Research magazine.
Wonder how your legislators voted on environmental issues over the past year? The 2005 Legislative Scorecard has been released by the Conservation Council of North Carolina and is available online at www.conservationcouncil.org. You may also call 919-839-0006 and request a copy.

The Scorecard covers votes on the following issues: Lobbying Laws, Forestry Regulations, Drinking Water Reservoir Protection, Global Warming/Climate Change, Disposal in Landfills/Additional Bans, Mercury Switch Removal Act, Schoolchildren’s Health Act, Farmland Preservation Trust Fund, and Phasing Out the Use of MTBE’s in Fuels.

Many of us try to keep up with all the issues, but seeing votes organized and recorded all in one spot is a quick way to review and keep up. It is revealing and sometimes surprising. We usually write to our legislators when we want to give our input on pending legislation. Perhaps today we should take a minute to say thank you to those who voted FOR the environment. Following is an article taken directly from the CCNC Scorecard, recognizing the efforts of two freshmen legislators:

Environmental Champions: Making a World of Difference

One of the highlights this session was the emergence of new environmental leadership in the North Carolina General Assembly. Most notable were freshmen Senator Janet Cowell (D-Wake) and Representative Pricey Harrison (DGuilford) who shined this year as part of a new environmental “farm team” of freshmen and sophomore legislators who are raising environmental matters to new levels of attention in the General Assembly.

**Rep. Pricey Harrison** This Greensboro freshman is a long time environmental activist. A strong advocate on all environmental issues that came before the legislature, Rep. Harrison was particularly effective on budget matters, working behind the scenes to ensure that this year’s budget was as sensitive to the environment as possible. She successfully fought off a number of proposed cuts that could have devastated key divisions at the Department of Environment & Natural Resources.

**Sen. Janet Cowell** Another leading freshman, Raleigh’s Janet Cowell emerged as a steadfast champion willing to go the extra mile to protect air and water. Sen. Cowell work to defeat bad legislation, improve mediocre bills, and get good legislation passed. She was the primary Senate sponsor of the “Drinking Water Reservoir Protection Act” and put in many extra hours into ensuring its passage. In

![Diervilla lonicera, Bush honeysuckle](image)

**Make your garden/yard a Certified Native Plant Habitat**

Take your interest in native plants and plant conservation to a new level.

- Assess the trees, shrubs and plants in your garden
- Identify your conservation practices
- List any special garden features
- Send photographs if desired

For an application form, visit the NCNPS website www.ncwildflower.org or contact the editor kathys@ncwildflower.org
Someone recently asked about what to plant under a black walnut tree, repeating the often heard story that nothing will grow under this tree.

From personal experience, I know that a number of things WILL grow under black walnuts, including weeds. The offending substance is juglone (5-hydroxy-1,8-alphanapthaquinone), which is produced by the roots of the tree and may reach out in the soil to a 60–80 foot diameter, following the dripline of the tree. It can stunt or kill many plants, sometimes within a month or two of planting.

Juglone will not, however, kill everything. An Ohio State University Extension Factsheet (HYG1148-93) lists the following plants as capable of surviving in spite of the presence of juglone:

**Wildflowers**
- Wood Anemone - Anemone quinquefolia
- Spiderwort - Tradescantia virginiana
- Spring Beauty - Claytonia virginica
- Nodding Trillium - Trillium cernuum
- Dutchman’s Breeches - Dicentra cucullaria
- Large Flowered Trillium - Trillium grandiflorum
- Merrybells - Uvularia grandiflora
- Virginia Waterleaf - Hydrophyllum virginianum
- Canada Violet - Viola canadensis
- Beebalm - Monarda didyma
- Woolly Blue Violet - Viola sororia
- Bergamot - Monarda fistulosa
- Mayapple - Podophyllum peltatum
- Jacob’s Ladder - Polemonium reptans
- Jack in the Pulpit - Arisaema triphyllum
- Purple Coneflower - Echinacea purpurea

**Ferns**
- Crested Woodfern - Dryopteris cristata
- Great Solomon’s Seal - Polygonatum canaliculatum
- Sensitive Fern - Onoclea sensibilis
- Bloodroot - Sanguinaria canadensis

---

**Moss-Gathering**

To loosen with all ten fingers held wide and limber
And lift up a patch, dark-green, the kind for lining cemetery baskets,
Thick and cushiony, like an old-fashioned doormat,
The crumbling small hollow sticks on the underside mixed with roots,
And wintergreen berries and leaves still stuck to the top,-
That was moss-gathering.

And afterwards I always felt mean, jogging back over the logging road,
As if I had broken the natural order of things in that swampland;
Disturbed some rhythm, old and of vast importance.
By pulling off flesh from the living planet;
As if I had committed, against the whole scheme of life, a desecration.

- Theodore Roethke (1908 – 1963)
Looking for information about a plant? Try one of these:

**N.C. Natural Heritage Program**
http://www.ncnhp.org/Pages/mission.html

The North Carolina Natural Heritage Program is a part of the Office of Conservation and Community Affairs within the NC Department of Environment and Natural Resources. The program inventories, catalogues, and supports conservation of the rarest and the most outstanding elements of the natural diversity of our state. These elements of natural diversity include those plants and animals which are so rare or the natural communities which are so significant that they merit special consideration as landuse decisions are made.

**Plant Conservation Program**
The Plant Conservation Program is responsible for the listing and protection of North Carolina's endangered plants and threatened plant species. It was established by passage of the Plant Protection and Conservation Act in 1979. The program maintains the list of Endangered, Threatened, and Special Concern plant species; enforces regulations and issues permits concerning state-listed plant species; carries out field projects in biology, monitoring and managing populations of listed species; provides educational materials to the public; and monitors trade in American ginseng. The Act also established the Plant Conservation Board, a regulatory board representing botanical, horticultural, conservation, forestry, and agricultural interests, and the Plant Conservation Scientific Committee, an advisory group to the Board and the Program.

**PLANTS Database**
http://plants.usda.gov
The PLANTS Database site, a collaborative effort of the USDA, NRCS National Plant Data Center, the USDA NRCS Information Technology Center and other partners, has recently been updated and redesigned. The site includes names, plant symbols, checklists, distributional data, species abstracts, characteristics, images, and references.

**GRIN Online Database**
http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl
GRIN (Germplasm Resources Information Network) taxonomic data provide the structure and nomenclature for accessions of the National Plant Germplasm System (NPGS), part of the National Genetic Resources Program (NGRP) of the United States Department of Agriculture's (USDA's) Agricultural Research Service (ARS). In GRIN Taxonomy all families and genera of vascular plants and over 40,000 species from throughout the world are represented, especially economic plants and their relatives. Information on scientific and common names,

---

From a visit to the Plant Conservation Program website:

**Small-Anthered Bittercress**
*Cardamine micranthera*

Status: Endangered
Family: Mustard
Flowering/fruiting Dates: April - May
Habitat: Seepages, wet rock crevices, streambanks, sandbars, and wet woods along small streams, Dan River drainage.

Distinguishing Characteristics: 8-16 inches tall, white flowers with anthers 0.02 inch long and petals 0.05-0.08 inch wide; distinguished from the similar *C. rotundifolia* by its much smaller nearly round anthers (instead of oblong), smaller flowers, and more angulate and nonclasping leaves.

Threats: Agricultural and residential development impoundment, channelization, exotic weeds, toxic chemical spills.

Map generated Oct. 22, 2003

Species Distribution from known occurrences. Species may occur in similar habitats in other counties. Green counties indicate observed within 20 years. Yellow counties indicate an obscure data reference to the species in the county. Red counties indicate observed more than 20 years ago.
In The Garden and Woods …

Bird Calls and rainstorms
Ever been out in the woods and notice that it is suddenly quiet? Chances are it’s going to rain soon, and the birds are settling in for the storm. Of course other things can influence bird song behavior, but just to be safe, better pull out your poncho!

Cool or hot weather, and wind, will also put a stop to many bird songs!

Backyard Turtles
Along with popsicles dripping down my chin, watching shapes in the clouds, and making buttercup wishes, turtles were a delight of childhood summers. Captured in a small box, fed soft green clover, and boastfully shown off to lazy brothers who couldn’t find their own, they languished until released in a fit of guilt at keeping them from their “families.”

Photos from chelonia.org, a website devoted to turtles, terrapins and tortoises.

Turtles are again a part of my summers, this time invading my herb garden and, I am sure, nipping at the bottoms of tomatoes growing close to the ground. I don’t know much about turtles, but they appear to be *Terrapene carolina carolina*, except that they are not quite so brightly colored as the fellow on the left:

The ones visiting my garden are more monotone, olive greenish. The same website shows *Terrapene carolina triunguis*, the three-toed turtle seen to the right, which looks more like an army helmet than a turtle to me. It doesn’t really match what I see in the garden either.

I still marvel at them lumbering across the yard, traveling great distances at a steady pace, but my curiosity about them is not enough to make me pick one up and count their toes. Too many stories about salmonella in the turtle population have spoiled a part of summer for me, and made it safer for the turtles that happen into my garden.

Fun with ginger
Each of the flowers below is from a “ginger” rescued from the Randleman lake site. Care to take a guess at identifying them? If so, send a note to

Kathys@ncwildflower.org

1. 

2.

3.

Have a story or photo you would like to share? Send it to kathys@ncwildflower.org
The Plant Conservation Alliance, Medicinal Plants Working Group maintains a listserv on which conversations on various topics appear. The following comments were initiated by proposed changes to CITES regulations which will allow the harvesting of ginseng roots that are five years old rather than seven. The proposal came following a period of public input in addition to research and comments by USFWS personnel, the Natural Heritage Program and others.

It is obvious from excerpts of the exchange included here that there is still debate surrounding the issue. What caught my eye was the response, included in its entirety on the following page, from Robin Suggs of Robbinsville, NC (Yellow Creek Botanical Institute).

From PCAMPWG member Bob Beyfuss:

"By now you have seen the USFWS findings regarding the export of American ginseng. I applaud the decision made and commend the USFWS staff highly on their efforts to learn as much as possible. However, I still have a couple of major concerns...

First, I see that the NY Natural Heritage program now lists ginseng as S3/S4 (vulnerable/apparently secure). Previously it was classified as S4 "apparently secure." S3/S4 is defined as less than 100 "documented" populations statewide. This is NONSENSE! I can personally show anyone more than 100 ginseng populations and there are likely thousands more out there... We have dealers all over the state buying from many other diggers, Ginseng coordinators have data in their files to refute this nonsense. Do other states have this same "disconnect" from the data that has been recorded by state ginseng coordinators and their NH programs?

Second, as comprehensive as the USFWS "findings" appear to be, they are loaded with citations of "personal conversations" and "unpublished data... Which are not science."

This note is in response to Bob Beyfuss' comments regarding Natural Heritage state ranks:

A Natural Heritage state rank of S3/S4 does not mean that there are less than 100 occurrences of the species within the state. It means that the exact rarity of the species is uncertain within the state... In Tennessee we have 329 ginseng records in our database, 50 of these are historical. An additional 42 records have not been visited in the last 20 years and the current condition of the occurrences is unknown. 158 of our records are from within the last ten years, and only 26 of those have had viability assessed as poor or better (40 in the last 20 years). We do know that there is a lot of harvest pressure on the species within the state (typically number 3 state in harvest weight) and that in certain portions of the state it is getting more difficult to locate. When we do locate the species it is often depauperate occurrences of a few 2 and 3-pronged plants. On occasion I find a 4-pronged plant...

Taking all of this into account we felt it was appropriate to assign a rank of S3/S4 to ginseng in Tennessee because it is of long term conservation concern because it is commercially exploited. We know that it's rarity is within this range of 80 to widespread viable occurrences. Granted our database is only as good as the information we collect and people send in to us. We do not receive much point location and descriptive information on ginseng occurrences. Many people that do know where ginseng occurs are not going to give up that information for a variety of reasons. We also list the species as Special Concern - Commercially Exploited within the state. I hope this helps to explain more clearly the application of Natural Heritage Ranks. A full explanation of Natural Heritage Ranks can be found at this website: http://www.natureserve.org/explorer/ranking.htm

Regards, David Lincicome, Rare Plant Protection Program Administrator, Tennessee Dept. of Environment & Conservation, Division of Natural Areas
I too share your concerns about the apparent disconnect between some in academic, government and other policy making circles and the natural world around us. More alarming however is the general disconnect of most in our society with that world. This lends itself to the situation where the voters and taxpayers in the US are largely unaware of natural systems that are critical for the survival of our species. Furthermore this population votes and supports policy based on their ignorance of the issues at hand.

I attended one of the USF&WS sponsored ginseng meetings in Asheville, NC earlier this year and was appreciative of the USF&WS staff's receptiveness to public input and general tolerance of the audience present. Recently I had the pleasure to meet and interact with another USF&WS staff person, Dr. Patricia DeAngelis, while participating in the Pacific Northwest Forum for Forest Practitioners in Vancouver, WA. I found her level of professionalism surpassed only by her open mindedness and willingness to collaborate and work toward consensus with attendees of the conference. This was indeed a heartening encounter for me as someone who has largely lost faith in many of the workings of our government and society as a whole.

Now that it appears that the voice of harvesters, forest workers and others in and allied with the wild botanicals industry has been heard and acted upon it is time to move on to the larger issue at hand in the protection of our planet's flora. What are we as a group prepared to do to address the wholesale destruction of natural resources by developers and corporate timber interests? In my mind this wholesale destruction of habitat and traditional use lands is the root (other than overpopulation) of our nation's degradation of its natural resource base. This must stop.

I continue to see a clear and worsening trend in our culture to address symptoms and not causes. This creates an illusion of effective implementation while glossing over and largely ignoring reality.

As someone who has chosen to live and work in the woods for much of my life and as a taxpaying citizen I am generally frustrated by our policy oriented approach to conservation. I believe we must move beyond this ineffective paradigm and instead invest our collective energies into systemic change, both biologically and socially. The ridiculousness of our current approach is in seeing our tax dollars going to USF&WS and other agencies to protect and conserve our precious natural resource base while seeing those same tax dollars going to the US DOT to pave over them. Please, someone point out the logic in this!

This same policy oriented approach to conservation mandates the USFS to manage their lands for forest health and biodiversity while at the same time allowing/encouraging even aged management (clear cutting) and bulldozing logging access roads through areas containing medicinal plants, log moss and otherwise useable NTFP's. This results in the wholesale destruction of plants and their habitat that wild harvesters would need to get permits for the harvest of. Once again, the logic here is????

Perhaps I am a dinosaur, maybe a little jaded and disillusioned. All I know is that I have seen the remote county in western NC in which I live, once remote and relatively unspoiled (by the definition of our time), fourlaned and turned into a mecca for yuppie motorcyclists. Private lands once hosting some of the most incredible and biodiverse stands of forests plants I have ever witnessed are now being parceled off and sold to wealthy out-of-staters for vacation and retirement homes. These same homeowners, who post their lands and loath local "poachers" who practice the multi-generational activity of traditional use in regards to the native plants in the region, will unthinkingly destroy that same natural resource base with their driveways, culverts and rescue/bluegrass lawns.

When will we as a society wake up and begin to take responsibility for the outcomes of our actions and stop blaming a faceless, disenfranchised and largely impoverished population for what those with wealth and power in this country will not accept the blame for?

As a small business person who is struggling to make ends meet living on land which I own, largely a lifestyle of the past, I have more than enough to do. I had much rather fish than waste my time going down a path of treating symptoms and as a result spinning our collective wheels. If there are those out there who wish to work collaboratively to affect real systemic change then count me an ally. Otherwise I will work alone to do what I think is right.

Sincerely,
Robin Alton Suggs

Panax quinquefolius. Ginseng
USDA Plants Database.  www.plants.usda.gov
C. Thomas G. Barnes
National parks, state parks, and natural areas are not usually places of solitude. Seldom can you walk a trail without encountering groups of other hikers out enjoying the fresh air and scenery. The best we hope for is that other hikers will stay on the trails, leave the plants alone, keep their trash in their packs, and keep the noise level low.

But things may be changing. According to a study by The Nature Conservancy, per capita visits to national parks are on the decline. Visitor statistics, analyzed by Oliver Pergams with the University of Illinois, indicate a startling 25% decline since a 1987 visitor peak. Our own Blue Ridge Parkway, with a peak of 20 million visitors per year, had a 6.4% decline from 2004 to 2005.

The Nature Conservancy, park officials, and researchers have considered the decline, settling on a disturbing explanation—electronic media. Researchers call this “evidence of a fundamental shift away from people’s appreciation of nature.” There is no causation effect suggested here, just a parallel increase in the use of television, video games, movies, and internet use. “We’ve shown statistically,” reports Pergams, “that the rise in use of these various types of media, as well as oil prices, is so highly correlated with the decline in national park visits that there is likely to be some association.”

Fuel prices are likely a big factor on the Blue Ridge Parkway, a ribbon of asphalt that feeds America’s love for motoring and scenery. The 460+ mile roadway is designed to present nature through the lens of a windshield. At prices near $3.00 per gallon, that’s an expensive lens.

Other factors, such as family income, were ruled out as culprits in the decline. Our aging population might play a role, however. Baby boomers were raised on visits to parks, and shared their passion with their children. Their grandchildren, however, are often overscheduled with sports and other extracurricular activities, leaving precious little family time for outings. A generation ago, children were raised without telephones, televisions, or computers in their bedrooms. Today, these are considered necessary in many families. The time spent on activities and electronics may be at the expense of time spent in family visits to parks.

An equally compelling explanation might be in the budget cuts already faced by national parks. Blue Ridge Parkway staff in Virginia has been cut by twethirds, and some campgrounds are opening later in a budgetsaving move.

Budget cuts have left roadways unmowed along the Parkway, a move applauded by environmentalists but unappreciated by the average visitor who has grown accustomed to a manicured look. Scenic overlooks are less appealing that they have been, as viewblocking trees and underbrush grow, development encroaches along the edges of the narrow parkway, and air pollution decreases visibility at overlooks. Campgrounds and trails in other parks show the wear and tear of inadequate staffing and resources, making them less satisfying than they were a generation ago.

Headlines proclaiming a preference for television over parks may get attention, but the research behind the claim is a little shaky. It’s true that we spend more time in front of electronic screens and monitors, and that gas prices influence our decisions about travel, but budget cuts and the resulting deterioration of land and facilities cannot be overlooked.

Though a disturbing trend, which legislators might seize upon as justification for additional cuts in parks budgets, there is one small upside to the decline. For those of us who still enjoy getting out in the parks, enjoying the scenery whether from the car or the trail, there will be less traffic, less trampling of the earth, and more solitude.

The editor.

3. Ibid.
Final Chance to send in your Dues
without missing an issue of the newsletter

Okay, we all forget sometimes, so here’s one more chance to mail in your dues.
($15.00 Limited Income; $25.00 Individual; $35.00 Family, $50.00 Sustaining; $1,000 Lifetime)
to:

Hugh Partridge, Treasurer
736 Linda Court
Cary, NC 27513-4318

Don’t miss an issue of the newsletter, a chance to participate in Society events, or the opportunity to support the education and conservation activities of NCNPS!

North Carolina Native Plant Society

T-Shirts
100% cotton, pre-shrunk
Sizes: Small, Medium, Large, XLarge, XX Large
Colors: Pine green, White, Tan, Azalea pink, yellow, cranberry

$15.00 (+ $3.00 shipping)

Send your order (make checks to NCNPS):
Katherine Schlosser
1402 Bearhollow Road
Greensboro, NC 27410

Or contact your Chapter chair

Be sure to include color and size preference as well as your mailing address and an email or telephone so we

North Carolina Native Plant Propagation Handbook

Available to NCNPS members for $15.00 each ($18.00 by mail)
Regular retail price: $15.00 ($20.00 by mail)*
Wholesale price: $10.00 (minimum purchase: 5 copies)

Send your orders to:
Marlene Kinney
4900 Richland Drive
Raleigh, NC 27612-3522

*Includes North Carolina taxes.

Save Gas !!!

Interested in carpooling to NCNPS events and meetings?

Contact Alice Zawadzki to make arrangements anywhere in the state.

alice@ncwildflower.org

Don’t miss an issue of the newsletter, a chance to participate in Society events, or the opportunity to support the education and conservation activities of NCNPS!
North Carolina's Native Plant Society since 1951

Things to remember:

1. Next newsletter deadline: August 15, 2006

2. Fall Trip to Croatan National Forest / Morehead City / Atlantic Beach / Swansboro area: **October 6 – 8, 2006**

3. Journal deadline: November 15, 2006. We need articles, artwork, photographs.