



Native Plant News

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Explore The Uwharries September 18—20



Due to state hunting schedules, the date for our fall trip has been changed.

Named for the Catawba (part of the Sioux nation) word for lance or spear, the Uwharries are an ancient mountain range. Estimated at more than 500 million years old, the soft rolling hills of the range once stood at nearly 20,000 feet. Forces of erosion over those years have worn them down to less than 1,000 feet and exposed layers of rock in great variety. It covers, the Uwharrie National Forest occupies just less than 53,000 acres, more than 80% of which is located in Montgomery County. Davidson has a small portion and the Birkhead Wilderness is in Randolph County.

Established by President John F. Kennedy in 1961, it is one of America's youngest national forests. The Forest has more than 50 miles of hiking trails for those who prefer to see the forest on foot. Trails range in length from 2 to 20 miles and loops can be taken to vary length and degree of difficulty. Backpackers favor the 20.5-mile Uwharrie National Trail for its inviting creek-side campsites. Campers who prefer hot showers to a splash of creek water can find four developed campgrounds in the Badin Lake Recreation area.

The Uwharrie National Forest is a small unit with about 50,000 acres east of Charlotte, North Carolina. It is strategically situated less than a three hour drive from the most concentrated population center within North Carolina. Plant associations vary in the Uwharrie National Forest by moisture gradient, slope and aspect. The drier ridge tops are dominated by white oak, chestnut oak and scarlet oak or in the south by longleaf pine. On the slopes more mesic hardwoods, oaks and hickories, dominate. In the constricted floodplains of streams and draws and broader floodplains on the Uwharrie River, mesic hardwoods such as beech, tulip poplar, green ash, black walnut, and red maple dominate. The greatest diversity of spring wildflowers is confined to these narrow zones.

**See pages 3, 4 and 5 for details
and registration form.**

President's letter

Tom Harville



I was on a trip to West Virginia recently and was deep in the mountains with no email and no cell phone connection to grab my time so I was reflecting on what your Society does. I know what we try to do for you and the citizens of NC but I wondered--do you know?

-We have a very highly rated website at www.ncwildflower.org

-We have chapters across the state and are trying to start more

-We have booths/displays a various events across the state.

-We hold three society-wide events each year

-We have an NC Native Plant Habitat program to recognize gardens that use NC native plants

-We have the Tom & Bruce Shinn Grant program that awards money to student study projects on NC native plants

-We send four students or starting horticultural professionals to the Cullowhee Native Plant Conference

- We have the BW Wells Stewardship Fund that contributes funds to projects across the state that will advance the knowledge of the public on NC native plants

-We have a speaker's bureau where people can contact us and we will give a talk on NC native plants

- We have an awards program to recognize individuals' contributions to the society and NC native plants

-We will very selectively address issues that directly affect NC native plants to federal, state or local authorities.

Probably the easiest place to see more about these programs is on the web site so I encourage you to visit your web site, www.ncwildflower.org and see what you would like to participate in. This is your Society.

See you in the Woods,
Tom

Photo: 2009 NCNPS attendees of the Cullowhee Conference—well, most of them. Tom says it is like herding cats trying to get everyone in a photo.

**Uwharrie National Forest in the N C Piedmont
Black Ankle Bog
Robedo Bog and Longleaf Pine Forest
NC Zoological Park Natural area**

We will be botanizing at Black Ankle Bog and Ophir roadsides, Robedo Bog and Longleaf Pine Forest on Saturday. On Sunday morning, we will be at the NC Zoological natural areas.

Weekend Schedule

Friday, September 18th

Arrive at Albemarle, NC

7:30 - 9:00pm - Meet & Greet in Sleep Inn meeting room located right off the lobby. Please bring snacks to share.

Saturday, September 19th

8:30am Meet in parking lot of Sleep Inn and carpool to site

9:00 - 1:00 Black Ankle Bog, Ophir roadsides

Lunch (PB&J or bring your own)

2:00 - 4:30 Robedo Bog & Longleaf Pine Forest Guide - Larry Mellichamp, Professor of Botany and Director of Botanical at Gardens at UNC - Charlotte

6:00 - 7:00 pm Dinner on your own

7:30 - 8:30 Presentation at Sleep Inn meeting room
Speaker - Alan Weakley, Ph.d - Curator of UNC -Chapel Hill Herbarium
Author of *Flora of the Carolinas, Virginia, Georgia, Northern Florida and Surrounding Areas* (Draft) available for purchase

Sunday, September 20th

8:30am Meet at Sleep Inn parking lot

9:30 - 1:00 NC Zoological Park natural areas
Guide - Nell Allen, Rare Plant Curator at NC Zoological Park

Lunch and Departure

What To Bring

- Insect repellent (assume there will be ticks)
- Hat / Sunscreen / Rain jacket
- Walking shoes that can get somewhat wet
- Water (besides what's at lunch if you think you'll need it)
- Snacks to share for Friday night

Lunches: We will have peanut butter and jelly, bread, crackers, granola bars, bottled water and fruit available for lunches. Otherwise, please bring your own lunch if that doesn't suit your palate

Motel accommodations in Albemarle

We have a block of rooms at:

Sleep Inn
621 Hwy 24/27 Bypass East
Albemarle, North Carolina 28001
(704) 983-2770
www.choicehotels.com

The rate is \$65.90 plus tax per night.

Note : the tax rate is 12.75% (state plus occupancy)
For this guaranteed rate you must make reservations (mentioning NC Native Plant Society) by September 4th

Other Motels in Albemarle

Holiday Inn Express (next door to Sleep Inn)
500 Leonard Avenue
Albemarle, NC 28001
(704) 986-2100
www.hiexpress.com/albemarle

Hampton Inn
2300 US Hwy 52 N
Albemarle, NC 28001
(704) 965-1111

Camping

There are three campgrounds in the Uwharrie National Forest.

The Forest Rangers Office is located in Troy (2 miles east of Troy on NC 24/27). Call 910-576-6391 several days in advance to make reservations, 8am-4:30pm Mon.through Fri., or to get more information about the individual campgrounds.

Black Ankle Bog...

Walking from the forested ridges of this preserve down into the streamheads that contain one of the few remaining Piedmont bogs, the vegetation shifts from plant communities requiring dry conditions, such as longleaf pine and chestnut oak woodlands common to the nearby Uwharrie Mountains, to the treeless areas of the bog community. Black-jack oak, post oak, and dense huckleberry and blueberry shrubs surround mats of sphagnum moss and patches of habeneria orchids, milkworts, sedges, cinnamon ferns, and trumpet and purple pitcher plants. Downhill from the bog the habitat blends into a dense thicket dominated by alder, sweet bay, sweet pepper-bush, Virginia sweet-spire and the endangered bog spicebush grows in these low areas.

A patch of climbing fern, a large stand of sweetleaf, and the rare large witch-alder grow in the preserve. Birds such as wild turkey, hairy and pileated woodpeckers, and broad-winged hawk, which are commonly found on large tracts of unbroken woodlands, also inhabit Black Ankle Bog.

Black Ankle Bog contains scattered longleaf pines, reminders of the trees that were once prevalent in this area on the border between the Coastal Plain and the Piedmont. The North Carolina Chapter is working to restore these pines by setting prescribed burns and replanting longleaf. Apparently the name Black Ankle was inspired by the sight of someone walking through the area after one of the frequent fires that occurred here historically.

CONSERVATION HIGHLIGHTS: The North Carolina Chapter purchased this tract in 1991 from the Dassow Property Corporation. For the next 20 to 25 years, The Nature Conservancy will continue to restore the preserve to its historic condition by conducting prescribed burns and planting longleaf pine seedlings grown from local seed sources. The North Carolina Zoo, U.S. Fish & Wildlife Service, and N.C. Division of Forest Resources are actively supporting The Nature Conservancy in this restoration effort.

Information from The Nature Conservancy:

<http://www.nature.org/wherewework/northamerica/states/northcarolina/preserves/art5588.html>



© William S. Justice

Fothergilla major.

2009 Annual Picnic and Awards . . .



Stefan Bloodworth, Sarah P. Duke Gardens, receives **NCNPS 2009 Award for Landscape Design with Native Plants** in recognition of the exemplary use of native plant materials in a public garden and for encouraging such use in home and business landscapes.



Larry Mellichamp receives **2009 B. W. Wells Award for Excellence in Botany and Horticulture** in recognition of his superior work in the field of botany and horticulture and in appreciation of his generosity in sharing his knowledge with members of the NCNPS.



Jean Woods receives **2009 William Lanier Hunt Award for Environmental Education** in recognition of her superior efforts to advance knowledge and appreciation of the native plants of North Carolina.

More award and picnic photos...



Johnny Randall receives **2009 H. Roland Totten Award for Advancing the Conservation of Native Plants** to recognize his efforts to advance the knowledge of native plants and to advocate for the conservation of plants and their habitats .



David Blevins, photographer, holds the attention of a group of early arrivals looking to improve their skills at recording what they see.



Sandhills Chapter Hike....

Sandhills Gamelands Wildflower Hike

with Bruce Sorrie

On May 30th, twelve participants from the Sandhills Chapter of the North Carolina Native Plant Society and the Sandhills Natural History Society joined botanist Bruce Sorrie for a day on the Sandhills Gamelands in Richmond County. It was a beautiful day and we visited a variety of sites including Broadacres Lake, Lake Bagget and a very diverse wetland complex where we were able to see a wide diversity of native shrubs. Everyone had a great time and we hope to do it again in the Fall!

Please see attached Photos and Plant List (Use whatever you think is appropriate).

The next meeting of the Sandhills Chapter will be held on Sunday September 13th at 1:30pm at the Weymouth Woods Visitor Center on Fort Bragg Road in Southern Pines.

Tracy Rush
Sandhills Chapter Chair



Exploring a wetlands site



Lake Bagget



Calopogon tuberosus



Rhus michauxii

Triad Chapter Hike....

Roan Mountain

On June 27th, six members of the Triad Chapter set out for the first of their forays in search of North Carolina's rare plants. This time it was to find *Botrychium simplex* var. *simplex*, the diminutive least moonwort of the Ophioglossaceae family.

The day started out a chilly 68° with a breeze blowing billowing clouds up and over the balds at the top of the mountain—far better than the muggy 92° forecast for the Piedmont!

After a fair amount of searching for the most likely spot to find this tiny plant, usually growing in open, grassy areas, a tentative shout of success brought everyone's head up out of the grass and to the spot to see the object of their hunt.

Watch for details on the trip and the plant in the Journal (December).

Next up: *Isoetes piedmontana*, Piedmont quillwort

Kathy Schlosser
Chapter Chair



Lisa Gould demonstrates best position for a photo



Search team: Lynda, Kathy, David, Mark, Mimi—and Lisa taking the photo



Botrychium simplex var. *simplex*, least moonwort

Photo: David McAdoo



Happy botanist!



Photo: David McAdoo

Rattlesnake encounter...

A newcomer to Western North Carolina, I was enchanted by its flora and the names my neighbors gave them. Indian turnip, Indian cucumber, snake root, poke salad, turkey mustard, maiden-hair fern, squaw root, buffalo nut - everything was either edible, medicinal, or conjured up images of animals and the Cherokees who had inhabited this area.

Soon my bookshelf became filled with books of native flora and propagation. Of course, I read the italicized Latin names. But I skipped over them. I was intrigued by Bartram's travels, Linnaeus innovations and Michaux's discoveries. I read on and on - and kept on delighting in finding plants with names emblematic of our country's history.

Behind every interesting name was a story. I discovered that snake root which grew freely on my property was responsible for much of Midwestern migration as people tried to escape its deadly effects. President Lincoln's own mother died after drinking milk from the family cow with a fondness for the plant. New Jersey tea, so named because patriots refusing to pay the king's tax had used its leaves as tea substitute was another one. Horse gentian appeared on my property but I preferred the name wild coffee as I imagined early settlers grinding up its seeds and brewing it.

I delighted in using descriptive names until one day while hiking on the Appalachian Trail I had my comeuppance. While stopping to admire a pink lady's slipper I encounter a Virginian who raved about the "Wood betony" he had seen on the last leg of his journey. "Wood betony?" I asked. "Yes, you know, *Pedicularis canadensis*..." Too embarrassed to admit that no, I didn't know, I raced home to thumb through my many books and found that what the Virginian had meant to say was "Lousewort". I loved that name because each time I encountered the plant I thought of, well, lice, and how difficult it must have been for our forefathers to be lice infested and desperate enough to try using the little plant to combat the problem. I shut my book and decided then and

Martha Baskin

there to switch to the nomenclature that Linnaeus had so cleverly devised and forget every single colorful local name.

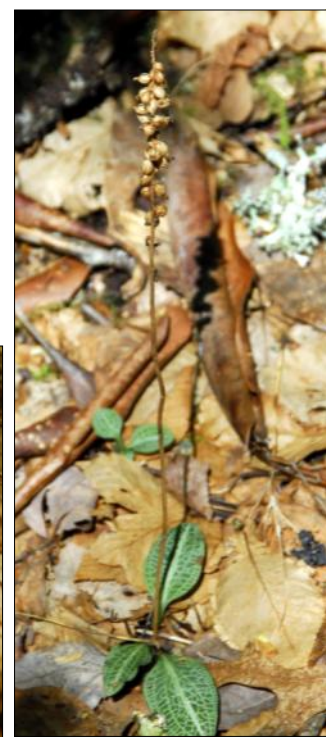


That is, until last week. Hiking with a friend I came upon some *Hieracium venosum* growing close beside a beautiful *Goodyera pu-*



Hieracium venosum

bescens specimen. It was then that I lost it. "Look!" I said excitedly, "Rattlesnake-weed, and the little plant next to it is Rattlesnake plantain". We walked on, discussing the similarities of the plants marking and the fact that neither one of us, happily, had ever seen a rattlesnake close enough to know whether the plants actually resembled one.



Goodyera pubescens

Continued on page 11...

Rattlesnake encounter, continued



Naturally, the subject of the doctrine of signatures came up. That close to Linnaeus I began to feel guilty about my lapse in nomenclature.

We arrived at the stream where I wanted to point out a huge bed of *Cardamine diphylla* in full flower. But before I could reach the turkey

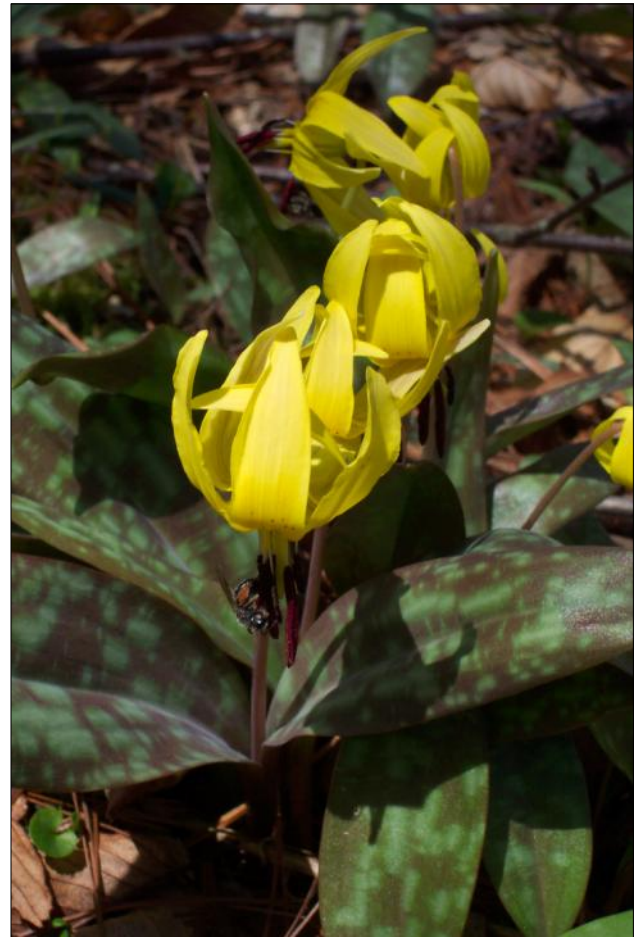
mustard, I was stopped short at the sight of *Botrychium virginianum* growing nearby. I glanced at their fertile fronds, still green, which actually did look a bit like rattlesnake rattle, proudly standing erect at the center and seeming to shout “look at me, look at me”.

I thought for a minute. I was not going to lose it again. All that time and effort spent on learning Latin names was simply not going to be tossed away. I turned to my friend and said, “Well, what do you know! Rattlesnake-weed, Rattlesnake plantain, and now Rattlesnake fern. Hope it doesn’t mean real rattlesnakes are nearby!” then, I added quickly, “its Latin name is *Botrychium virginianum*. Probably a lot of them in Virginia, don’t you think?”

Martha Baskin
NCNPS member in Topton, NC

Photo from Sarah Buchanan

I just want to send you a photo made by Andrew Buchanan (Misty) at our farm on Crabtree Road near Little Switzerland three weeks ago.(late April)...Trout Lily with a pollinator....A beautiful clump of lilies..



Lichens of Johnston Mill Nature Preserve, a Preliminary Checklist

Gary Perlmutter

Photographs by Roger Rittmaster

Johnston Mill Nature Preserve is located north of Chapel Hill in eastern Orange County, North Carolina. The 296-acre Preserve supports mesic mixed hardwood forests and floodplain forests bordering a two-mile stretch of New Hope Creek and tributaries Booth Branch, Old Field Creek and Johnston Branch.

Once farmed by the Johnston family for 200 years, the area was recognized by the North Carolina Natural Heritage Program in the late 1980s as containing significant forest and streamside habitats under threat of development. The Triangle Land Conservancy launched the New Hope Creek campaign and two tracts were purchased by TLC in 1999. Johnston Mill Nature Preserve was opened to the public in 2001.

What started off as a field trip for a class I taught at the North Carolina Botanical Garden evolved into a survey to document the lichen diversity of Johnston Mill for the Triangle Land Conservancy.

In the spring of 2009, I explored the forests of Johnston Mill from each of its two parking lot access points: Mt. Sinai Road on the north and Turkey Farm Road on the east. During these visits I was able to visit most of the preserve, and have developed a checklist of about 70 lichen species. Lichens were found throughout the forest, growing on the rocks of the floor, on trunks of the understory, and on fallen branches from the canopy. Many of these lichens are representative of Piedmont forests, having also been reported from William B. Umstead State Park (WIUM) (Perlmutter & Lendemer 2008) in western Wake County and North Carolina Botanical Garden's Mason Farm Biological Reserve (MFBR) (Perlmutter 2008), the latter only seven miles south of Johnston Mill.

All lichens were collected under permit issued by the Triangle Land Conservancy. All species were identified by the author, with voucher specimens deposited in the University of North Carolina Herbarium (NCU), a department of the North Carolina Botanical Garden in Chapel Hill. Many were identified using laboratory techniques including chemical spot tests and microscopic examination of reproductive structures; some require further study to be fully identified. This checklist is only preliminary as the Preserve was not systematically surveyed, and more species likely remain to be discovered.

See table on following page, and photographs on page 14 & 15.

***f = forest floor, u = understory, c = canopy.**

¹ If verified, a new state record; ² if verified, new for the North Carolina Piedmont.

For more information about Johnston Mill Nature Preserve or other Triangle Land Conservancy properties, visit the TLC website at www.triangleland.org.

Thanks go to Carol Ann McCormick of NCU for reviewing a draft of this article, and Walt Tysinger of TLC for permission to conduct this survey.

References:

Perlmutter, G.B. 2008. The lichen biota of Mason Farm Biological Reserve, North Carolina. *Journal of the North Carolina Academy of Science* 124(3): 82-90.

Perlmutter, G.B. and J.C. Lendemer. 2008. Contributions to the lichen flora of North Carolina: a preliminary checklist of the lichens at William B. Umstead State Park. *Opuscula Philolichenum* 5: 67-76.

Lichen	Substrate / habitat*	WIUM	MFBR
<i>Acarospora dispersa</i> H. Magn.	rock / f	x	x
<i>Amandinea punctata</i> (Hoffm.) Coppins & Schneid.	wood / f		x
<i>Amphisphaeria bufonia</i> (Berk. & Broome) Ces. & De Not.	oak bark / u		x
<i>Anaptychia palmulata</i> (Michx.) Vain.	tree bases / f		x
<i>Arthonia anglica</i> Coppins	smooth bark / u	x	
<i>Arthonia quintaria</i> Nyl.	smooth bark / u	x	x
<i>Arthonia rubella</i> (Fée) Nyl.	smooth bark / u	x	x
<i>Arthothelium spectabile</i> A. Massal.	bark / u	x	x
<i>Bacidia schweinitzii</i> (Fr. ex Michener) Schneid.	bark / u	x	x
<i>Biatora printzenii</i> Tønsberg	bark / u		x
<i>Buellia curtisii</i> (Tuck.) Imshaug	bark / u, c	x	x
<i>Buellia stillingiana</i> Stein	bark / u, c	x	x
<i>Caloplaca flavovirescens</i> (Wulfen) Dalla Torre & Sarnth.	rocks / near stream	x	
<i>Candelaria concolor</i> (Dicks.) Stein	bark / u	x	x
<i>Candelariella reflexa</i> (Nyl.) Lettau	Bark / c	X	x
<i>Canoparmelia caroliniana</i> (Nyl.) Elix & Hale	wood / f	x	x
<i>Chrysothrix xanthina</i> (Vain.) Kalb	bark / u	x	x
<i>Cladonia caespiticia</i> (Pers.) Flörke	moss over bark / f	x	
<i>Cladonia macilenta</i> Hoffm.	wood / f	x	
<i>Cladonia ramulosa</i> (With.) J.R. Laundon	wood / f	x	
<i>Flavoparmelia baltimorensis</i> (Gyelnik & Föriss) Hale	rock / f	x	
<i>Flavoparmelia caperata</i> (L.) Hale	exposed bark / c	x	x
<i>Glyphis cicatricosa</i> Ach.	smooth bark / u		
<i>Graphis scripta</i> (L.) Ach.	bark / u	x	x
<i>Hypotrachyna livida</i> (Taylor) Hale	branches / c	x	x
<i>Ionaspis alba</i> Lutzoni	rock / f		
<i>Lecanora hybocarpa</i> (Tuck.) Brodo	bark / u, c	x	x
<i>Lecanora strobilina</i> (Spreng.) Kieffer	exposed wood / f	x	x
<i>Lecanora subpallens</i> Zahlbr.	branches / c	x	x
<i>Lecanora thysanophora</i> R.C. Harris	bark / u	x	
<i>Lepraria friabilis</i> Lendemer, K. Knudson & Elix	pine bark / u	x	x
<i>Lepraria lobificans</i> Nyl.	bark, rock / f, u	x	x
<i>Leptogium cyanescens</i> (Ach.) Körb.	bark, rock / f, u	x	x
<i>Loxospora pustulata</i> (Brodo & W.L. Culb.) R.C. Harris	bark / u	x	x
<i>Melaspileia</i> sp.	bark / c		
¹ <i>Mycoporium lacteum</i> (Ach.) R.C. Harris	bark / c		
<i>Myelochroa aurulenta</i> (Tuck.) Elix & Hale	bark, rock / f, u	x	x
<i>Nadvornikia soledata</i> R.C. Harris	bark / u	x	x
<i>Ochrolechia africana</i> Vain.	bark / c	x	x
<i>Opegrapha vulgata</i> Ach.	bark / u		x
<i>Parmotrema hypotropum</i> (Nyl.) Hale	bark / c	x	x
<i>Parmotrema submarginale</i> (Michx.) DePriest & Hale	bark / c	x	x
<i>Pertusaria macounii</i> (I.M. Lamb) Dibben	bark / c		
<i>Pertusaria tetralthalamia</i> (Fée) Nyl.	bark / u		
<i>Phaeographis</i> sp.	bark / u		
² <i>Phaeophyscia hispidula</i> (Ach.) Essl.	rock / f		
<i>Phaeophyscia rubropulchra</i> (Degel.) Essl.	bark / u	x	x
<i>Phlyctis petraea</i> R.C. Harris	rock / f	x	
<i>Phyllopsora</i> sp.	bark / c		
<i>Physcia americana</i> G. Merr.	bark / c	x	x
<i>Physcia millegrana</i> Degel.	bark / c		x
² <i>Physcia neogaea</i> R.C. Harris	bark / c		
<i>Physcia pumilior</i> R.C. Harris	bark / c	x	x
<i>Porpidia albocaerulescens</i> (Wulfen) Hertel & Knoph	rock / f	x	
<i>Pseudosagedia cestrensis</i> (E. Michener) R.C. Harris	bark / u	x	x
<i>Pseudosagedia guentheri</i> (Flot.) Hafellner & Kalb	rock / f	x	
<i>Punctelia rudecta</i> (Ach.) Krog	bark / c	x	x
<i>Punctelia subrudecta</i> auct. Amer.	pine bark / c	x	
<i>Pyrenula caryae</i> R.C. Harris	smooth bark / u		x
<i>Pyrenula pseudobufonia</i> (Rhem.) R.C. Harris	bark / u		x
<i>Pyrenula subelliptica</i> (Tuck.) R.C. Harris	smooth bark / u		x
<i>Pyrrhospora varians</i> (Ach.) R.C. Harris	bark / u, c	x	x
<i>Pyxine soledata</i> (Ach.) Mont.	rock / f	x	
<i>Ramalina americana</i> s. lat.	bark / c	x	
<i>Rinodina tephraspis</i> (Tuck.) Herre	rock / f	x	
<i>Strigula americana</i> R.C. Harris	bark / u	x	x
<i>Thelotrema subtile</i> Tuck.	bark / u	x	x
<i>Trapelopsis flexuosa</i> (Sm.) J. R. Laundon	wood / f		
<i>Trypethelium virens</i> Tuck. ex Michener	smooth bark / u	x	x
<i>Usnea strigosa</i> s. lat.	bark / c	x	x

Figure legend: Representative lichens from TLC’s Johnston Mill Nature Preserve, North Carolina. A. *Caloplaca flavovirescens*, B. *Lepraria friabilis*, C. *Leptogium cyanescens*, D. *Parmotrema hypotropum*, E. *Phaeophyscia rubropulchra*, F. *Ramalina americana*, Images by Roger Rittmaster.



Figure legend: Representative lichens from TLC's Johnston Mill Nature Preserve, North Carolina. G. *Buellia stillingiana*, H. *Pyrenula caryae*, I. *Parmotrema submarginale*, J. *Bacidia schewinitzii*. Images by Roger Rittmaster.



Riverbanks...

Interstate 26 from the mountain towns of Asheville and Hendersonville, North Carolina to the colorful coastal community of Charleston, South Carolina passes through Columbia, the capital of South Carolina. There, on the banks of the Saluda River is a zoo, aquarium, and botanical garden complex, appropriately named Riverbanks. The gardens are attractive and seasonally colorful with the focus being the Walled Garden, a large, rectangular collection of gardens enclosed by a tall red brick wall. The centerpiece of the walled garden is a water feature with fountains running almost the length of the garden (see Figure 1). Native plant devotees will, however, find the 2/10 mile Woodlands Walk and the connected 3/10 mile River Trail Walk (see Figure 2) both fascinating and frustrating. These paved trails traverse mostly second growth forest along the river in an area once occupied by a cloth mill. Even on a warm summer day the forested paths are cool and shaded. Unfortunately, there is not a plant tag in site over the half mile length of these two trails, let alone other natural history interpretation! Perhaps in the future, Riverbanks will take advantage of the rich educational potential of these two walks and the equally rich resources of time and talent available to them in Columbia to develop the information and educational potential of the natural aspects of the gardens.

From I-26 take the Sunset Blvd. exit and follow the signs.

Tom Baugh
Hidden Springs

Tom Baugh



Photos courtesy Tom Baugh

Mountains to the Sea with Steve and Zack

Steve Covert

The forecast looked pretty good for a couple of days so my yellow Lab Zack joined me on June 7 for a backpacking trip along the Mountains-to-Sea trail (MST). We have been working on completing the Pisgah 400, a trail challenge of the Carolina Mountain Club that requires you hike every trail shown on the National Geographic Trails Illustrated Map of the Pisgah Ranger District (approximately 400 miles). We have almost completed the journey since moving to Asheville a year ago, and needed to walk this section of the MST to check the Pisgah section of this trail off our list.

We started at the Doubletop Mountain overlook on the Blue Ridge Parkway (BRP) near mile marker 435 where my understanding wife Janet dropped us off. We would finish at Haywood Gap on the BRP near mm 427 and cover 16.5 miles through the Nantahala and Pisgah National Forests, with a planned overnight a little over halfway through.

The trail covered a lot of elevation change with a high point just under 6,000 feet above sea level and a low point of around 4,500 feet so I expected a wide variety of wildflowers, including those which had already come and gone around our home.

The drive up the Parkway was resplendent with Catawba Rhododendron, Flame Azalea and Mountain Laurel. These flowers were also found at various spots along the hike.

Once in the woods, our trail started through a mature forest and after approximately a mile the MST turned right and we headed down an old forest road. Wild Geranium, Bluets and Common Cinquefoil were scattered throughout. The views so far were minimal, but after another mile or so the trail entered a grassy field with nice southerly views of the Tuckasegee River valley and the Great Balsam Mountains. There were plenty of blueberry bushes and a memorial marker for Earl Ammons on a rock outcropping in the center of the field. Earl Ammons lived most of his life in the area and was an out



doorsman and avid deer hunter. His family scattered his remains here at "Pawpaw's Hunting Stand".

The trail reentered the woods and was easy to follow with the exception of one section where the crown of a large tree covered the trail and required some scrambling to continue on our way. The trail continued through a variety of landscapes and descended steeply to a forest road at approximately mile 8.5. Speckled Wood Lily, Bluebead Lily, Common Wood Sorrel, False Solomon's Seal, Umbrella Leaf, Mayapple, Squaw Root and Canada Lousewort (not yet blooming) were seen in this section. Colorful millipedes, large snails and a nice variety of fungi added to the diversity.

Unfortunately, much of the remainder of the hike was along forest roads showing signs of ATV/4WD activity, including several mud holes. Zack and I continued hiking well past our intended stopping point as we looked for an attractive spot to pitch the tent for the night. After a steady climb and about 14 miles into the hike, the Bear Pen Gap trail entered on the left. That trail reaches the BRP in 0.6 miles, but the MST continues straight for another 2.3 miles to the Parkway at Haywood Gap. Being this close to the car I decided to push on and spend the night at home, despite carrying my full 45 lb. pack up and down the last 14 miles. This last section of trail was more of what you expect for a hike, as it winds its

Mountains, con't.



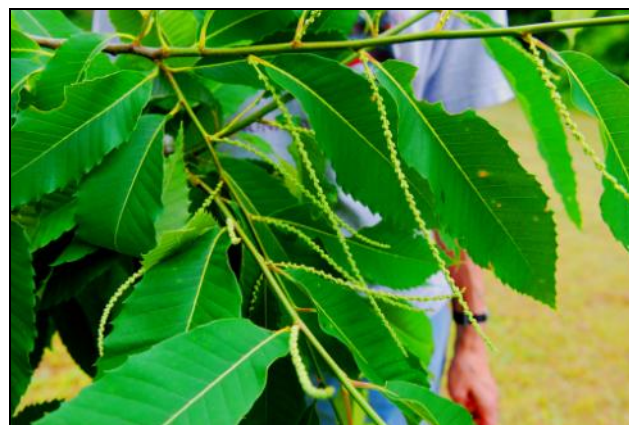
way up, around, and down pretty sections of Rough Butt Bald. Plenty of blueberries and Rhododendron represented the last of the wildflowers as Zack and I trudged wearily to our waiting car.

Overall, while there was a nice variety of wildflowers to be seen, they were not abundant and the trail was certainly not the most attractive or pleasant for a walk in the woods. Out and back walks at either end of this hike would make better trips, but if you are working on the Pisgah 400, or hiking the Mountains-to-Sea trail end to end, you might as well do this section when there are wildflowers to brighten the scenery.

Photos and story by Steve Covert.

Chestnut trees. . . .

Here are a couple pictures of our four year old chestnut trees, and one of them is blooming. An American Chestnut blooming on Memorial Day! These grew so quickly, because there is a shallow aquifer there.



Rainer Heller

rainer@triad.rr.com

As we are a statewide organization, our newsletter serves as our main line of communication. Please take a few minutes to contribute reports and reviews of your experiences to our newsletter.

Grasses and sedges for dry areas...

The following list that appeared in the West Virginia Native Plant Society caught the eye of Tom Harville, who requested permission to reprint it for you. Tom added the USDA website references.

Prepared by Frank W. Porter, Ph.D., Porterbrook Native Plants, 49607 St. Rt. 124, Racine, OH 45771. You can contact Dr. Porter at: porterbrooknative@yahoo.com and visit the nursery's website at www.porterbrooknativeplants.com

Carex appalachia (Appalachian Sedge). Fine textured native sedge. Light to medium green foliage. Prefers open shade with average to dry soil. Colonizes quickly. 1' <http://plants.usda.gov/java/profile?symbol=CAAP5>

Carex cherokeensis (Cherokee Sedge). Light green foliage. Not well-known, but an extremely attractive sedge for a woodland setting. 1' <http://plants.usda.gov/java/profile?symbol=CACH3>

Carex flaccosperma (Blue Wood Sedge). Strong dump-forming sedge with glaucous blue to blue-green, slightly quilted leaves. Spreads slowly and is quite drought and shade tolerant. 6-10' <http://plants.usda.gov/java/profile?symbol=CAFL3>

Carex pennsylvanica (Pennsylvania Sedge). Wonderful groundcover for average to dry deciduous shade. Slow spreading dump former. 8" <http://plants.usda.gov/java/profile?symbol=cape6>

Carex plantaginea (Seersucker Sedge). Shiny deep green leaves and puckered like a Christmas ribbon. Mostly ever-green groundcover for average to moist shade. 1' <http://www.plants.usda.gov/java/profile?symbol=CAPL4>. Can take sweeter soils.

Carex platyphylla (Silver Sedge). Clump-forming sedge with powder blue leaves up to an inch wide. Spreads slowly to form textured groundcover in moist or average soil. Tolerates dry shade. 8-12" <http://plants.usda.gov/java/profile?symbol=CAPL5>. Can take sweeter soils.

Carex sparganioides (Burreed Sedge). A woodland species that grows in moist to dry shade. Use for soil stabilization on shade slopes. 1-2' <http://plants.usda.gov/java/profile?symbol=CASP3>

Chasmanthium latifolium (Northern Sea Oats). Grows in clumps with wiry stems naked for much of their length. Excellent for dry shade areas- 1-2' <http://plants.usda.gov/java/profile?symbol=chla5>

Danthonia spicata (June Grass). Grows in dumps with wiry stems naked for much of their length. excellent for dry shade areas- 4"-2' <http://plants.usda.gov/java/profile?symbol=DASP2>

Diarrhena americana (Beak Grass). Graceful arching, glossy, bright green foliage that turns golden in fall. Prefers shady areas. 1' <http://plants.usda.gov/java/profile?symbol=DIAM>

Elymus hystrix (Bottlebrush Grass). Widely adaptable prairie grass, native to open woods and moist wooded floodplains. Upright dark green blades contrasts nicely with the more delicate bottlebrush inflorescence. Prefers bright shade. 3-4' <http://plants.usda.gov/java/profile?symbol=ELHY>

Luzula acuminata (Hairy Woodrush). Part shade and average soil. Interesting, attractive plant with grass-like leaves adorned with wispy, white hairs. Good for sunny woodland plantings. 20" <http://plants.usda.gov/java/profile?symbol=LUAC>

Luzula multiflora (Common Woodrush). Full sun-to-part shade and average soil. Leaves are a beautiful red-brown. 6-2' <http://plants.usda.gov/java/profile?symbol=LUMU2>

Poa sylvestris (Sylvan bluegrass). Found under shade of deciduous trees in rich well-drained soil. Soft narrow leaves and delicate panicles of small white flowers emerging from clumps. 1' <http://plants.usda.gov/java/profile?symbol=POSY>

Sorghastrum nutans (Indian Grass). Full sun-to-part shade and average to rich soil. Translucent yellow-deep gold fall color. One of the most handsome of native grasses. 3-4' <http://plants.usda.gov/java/profile?symbol=sonu2>



Carex plantaginea

Member Advocacy...

NCNPS member Jack Spruill shared the following letter that he sent to N.C. Conservation Network:

Hello to my friends at NC Con Net

Thank you very much for your great information system and for pushing me to speak out on key issues. Also, I thought your annual report was very well done. I am very proud to be listed as a supporter.

I would like to weigh in on one issue concerning state budget priorities.

There is no evidence to me that DOT has cut back on its aggressive highway mowing and herbicide spraying programs. Have a look as you drive our highways. My guess is that DOT relies heavily on subcontractors and those subcontractors will just keep mowing and spraying until DOT cuts back on their funding.

Here are my main points:

1. Far too much of the DOT mowing and spraying with herbicides is unnecessary. In this period of severe state budget problems, this should be an ideal time to call the question on this unnecessary mowing and spraying.
2. Longer vegetation especially in ditches well away from the roadsides, e.g., cattails, is critically needed to help filter storm water runoff from our roads that is headed for our waterways. My guess is that DOT is the owner of the largest acreage of impervious surface in the state and so the largest "producer" of storm water runoff.

Along wide shoulders, as on our interstate highways, one will see mowers going to great effort to reach into ditches and wetlands far away from the paved road to cut herbaceous vegetation that is a risk to no one. Often when the tractor cannot go into the wetlands, out comes the herbicide sprayer.

Jack Spruill

3. Even the most modest wetlands along our roads serve as habitats for amphibians and birds.

4. The DOT tractor mowers engaged in unnecessary mowing are wasting fuel and adding to air pollution.

Thanks much for listening and for all you do every day for our environment.

Jack Spruill



Illustration from University of Wisconsin-Extension and the Wisconsin Department of Natural Resources

Book Review...



A journal of travels into the Arkansas Territory during the year 1819

Nuttall, T. (S. Lotinville, ed). 1821. The University of Arkansas Press. Fayetteville, Arkansas.

“About noon” writes Naturalist Thomas Nuttall in 1821, “I arrived at the cabin of Mr. Joseph Kirken-dale, four miles above the cut-off in the river, where I tasted nearly the first milk and butter which I had seen since my arrival on the banks of the Arkansas.” I lifted this book for a second time, in order to begin this short review, having just returned from a day of fieldwork along the banks of the Green River. My feet hurt and my back ached from bending over to check on trailside flowering perennials. Kicking my shoes off, I poured a cool drink, stretched out in an overstuffed recliner and read the opening words of Nuttall’s book in which he says, “I could not at this time divert from my mind the most serious reflections on the magnitude and dangers of the journey which now lay before me...”. Times change and so do the challenges that face us. As Nuttall set out to explore much of Arkansas and Oklahoma on October 2, 1818 he didn’t have contemporary comforts, GPS or cell phones in case he got in trouble, or modern medicine and he sure didn’t have the fresh milk and butter my wife keeps in the refrigerator. Instead, he had his wits and a firm purpose to explore the natural history of the mostly unexplored lands of current day Arkansas and Oklahoma. During his journey of over a year he would encounter “fanatics,” pirates, and Native Americans at war with each other and suspicious of a traveling European interested in plants and rocks.

Tom Baugh

Although Nuttall is able to claim a number of botanical discoveries, for example “Yesterday I took a walk of about five miles up the banks of the Pottoe, and found my labour well repayed by the discovery of several new or undescribed plants,” he is also sometimes disappointed in the botanical uniformity of large segments of the territory, at one point stating, “I was greatly disappointed to meet with such a similarity in the vegetation, to that of the middle and northern states.” I suspect he would not be quite so cavalier should he be able to revisit the area again and witness the struggle currently underway to restore some of this same vegetation.

This book is replete with botanical commentary, so much so in fact as to sometimes interrupt the narrative. Nuttall was aware of this when he cautioned that to “... those who vaguely peruse the narratives of travelers for pastime or transitory amusement, the present volume is by no means addressed.” I would have to agree with Nuttall. I frequently found myself skipping over this material the way in which some drivers in the mountains of Western North Carolina tend to ‘straighten’ curves in the mountain roads. For the more technical reader this might be a mistake but for those interested in the broader picture of Nuttall’s grand adventure into the natural history of the area, it works quite well. However, the reader with technical inclinations should pay close attention to the numerous footnotes correcting Nuttall’s original identification and nomenclature. Much has changed in botany over the nearly two centuries since Nuttall’s epic journey.

If you have enjoyed the *Travels of William Bartram*, as I have, you will find much of similar interest in the travels of the naturalist Thomas Nuttall and his adventures in the Arkansas Territory of 1819.

Tom Baugh
Hidden Springs
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Learning about plant communities...

After I retired from my nursing career I decided to devote time to studying the plants of the Carolinas. I have only lived in this region for a few years. I spent most of my life in California and Wisconsin.

One of the aspects of plants in any region is the type of habitat or community in which it may be found. When it comes to the plant communities of North Carolina one name stands out: Michael P. Schafale. Mike Schafale has spent several decades studying and documenting the Old North State's plant communities. "Classification of the Natural Communities of North Carolina-Third Approximation" (which he co-authored with Dr Alan S. Weakley—currently curator of the UNC Herbarium in Chapel Hill) seems to be one of the most referenced works in the field of plant communities.

Earlier this summer I had the honor of meeting Mike Schafale at a Carolina Vegetation Survey PULSE event in Wingate. I was delighted to be a part of his team surveying the vegetation at sites near Charlotte. We used the CVS' protocol to obtain quantifiable information about the floral composition of these plant communities. I took the occasion to ask Mike Schafale about the fourth approximation. I was happy to find that he is working on one. He periodically releases editions of the fourth approximation guide to people who are knowledgeable about plant ecology. While I do not fit that description, he did give me a copy to read. He emphasized that he is making no promises about when a full edition of the fourth approximation might be published.

With increased awareness of the principles of biological ecology among the general public, this is becoming an area of increased governmental interest. A classic line from the US Congress is that we need more "one-handed scientists." The congressman lamented the fact that all too often a scientific report contains the words: "on the other hand ..."

There is a good deal of pressure to bring the various groups and schools of people studying plant ecology into a unified system. Scientists in one region tend to use different phrases to describe the same thing - or the same phrase to describe different things. We would like to have more consistency in the way things are described across our entire nation. This has led to the development of the US National Vegetation Classification system. It is made assessable to the public by NatureServe.

I had the opportunity to briefly discuss Mike Schafale's fourth approximation with Dr Weakley. He mentioned

Arleigh Birchler

that much of Mike Schafale's work at this time is an attempt to "triangulate" on the US NVC system. I had already noticed that much of the material in Nature-Serve references the work of Mike Schafale.

In the fourth approximation guide Mike Schafale refines the plant communities of the third approximation by introducing and documenting additional subtypes. In some instances he has renamed a few of the third approximation plant communities. Since it was an issue that I had a personal interest in I noticed that he no longer mentions: "Coastal Plains Small Stream Swamp-Brownwater Sub-type".

I am looking forward to the day when a full edition of the fourth approximation will be released. There is a tremendous amount of work that has to be done to get to that point. This includes surveying many more vegetation plots in the Carolinas. Anyone interested in helping with a PULSE event ("boot camp for botanists") should look into the Carolina Vegetation Survey program (<http://cvs.bio.unc.edu/>).

Mike Schafale's fourth approximation guide highlights several unique plant communities in North Carolina. I hope that some day I will have the opportunity to visit the Long Hope Valley, French Broad River, Buck's Creek, or Lake Waccamaw.

Arleigh Birchler

Editor's note: a copy of the Classification of the Natural Communities of North Carolina—Third Approximation (1990) by Schafale and Weakley is available for download at www.ncnhp.org



Trena McNabb, Triad Chapter, on Tater Hill grassy bald



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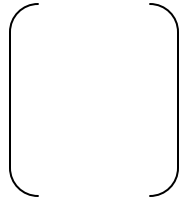
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