

# BotSoc News



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2011

## OUR NEWEST AZALEA

*Rhododendron colemanii* R. MILLER  
RED HILLS AZALEA

Once upon a time, not too long ago, there were 15 deciduous azaleas native to the U.S. and you could remember them with Clarence Towe's clever mnemonic "1, 2, 3, 4, 5":

- 1 West Coast Azalea – *Rhododendron occidentale*
- 2 Odd Pinks – *R. canadense*, *R. vaseyi*
- 3 Fragrant Pinks – *R. canadense*, *R. periclymenoides*, *R. prinophyllum*
- 4 Fragrant Whites – *R. alabamense*, *R. arborescens*, *R. atlanticum*, *R. viscosum*
- 5 Orange Reds – *R. austrinum*, *R. calendulaceum*, *R. cumberlandense*, *R. flammeum*, *R. prunifolium*

Then in 1999, a 16<sup>th</sup> native azalea was found in South Carolina, the fragrant May white azalea (*Rhododendron eastmanii*), and you had to end your mental count with “plus one more.”

And now Ron Miller, with help from prominent members of the azalea community and genetic data from laboratory scientists at the University of Washington and North Carolina State University, has given us a 17<sup>th</sup> native azalea. The Red Hills azalea (*Rhododendron colemanii*) is also fragrant, but its color varies from white to pink and sometimes even yellow. We need a new mnemonic.

The common name for our new azalea derives from the area where it is found: the Red Hills of the upper Coastal Plain in SW Alabama and the Chattahoochee River Valley in SE Georgia. The epithet “*colemanii*” honors S. D. Coleman, Sr., of Fort Gaines, Georgia, who was most likely the first to observe the species in the wild.

Coleman propagated native azaleas in his nursery south of Columbus and widely distributed an azalea he called “May Pink”. Although generally thought to be a naturally occurring hybrid or variant of the Alabama azalea (*Rhododendron alabamense*), several members of the native azalea community, including Steve Yeatts, Bob Stevens, John Thornton, Ron Miller and Clarence Towe, became convinced that the May Pink and other azaleas collected in the Red Hills area possessed attributes not explained by natural hybridization. They noted, for example, that Red Hills azaleas bloomed from early to mid May - a

month or so later than *R. alabamense* - and that their thick and nearly opaque flowers could be white, pink or yellow. In contrast, the flowers of *R. alabamense* were typically white and almost transparent. The two azaleas also occupied different habitats: the Red Hills azaleas primarily on stream banks and north-facing bluffs in moist woods; *R. alabamense* on dry ridges in open, xeric oak woods.

Collaboration with molecular geneticists confirmed the Red Hills azalea as a new species, but also uncovered some surprising aspects of its evolutionary history. First, *Rhododendron colemanii* is tetraploid (having four sets of chromosomes). This characteristic is shared with only three other native azalea species (*R. atlanticum*, *calendulaceum* and *austrinum*) and these three species are the closest evolutionary relatives to *R. colemanii*. (The remaining 13 native azalea species, including *R. alabamense*, are diploid - having two sets of chromosomes.)

The evolutionary relationship among these four tetraploid azaleas was not in itself surprising as differences in chromosome number produce a reproductive barrier. The surprising component of the analysis was that our tetraploid azaleas were more closely related to a tetraploid azalea from Asia (*R. luteum*) than to any of the diploid azalea species currently found in the U.S.

We are to conclude from these results that our Red Hills azalea and the other three tetraploid azaleas diverged from other U.S.

native deciduous azaleas prior to the separation of Western Eurasia and North America – an event that occurred 40 million years ago.

Our newest azalea is not new at all!

The efforts by Ron Miller and Steve Yeatts to describe the Red Hills azalea as a new species and the genetic analysis confirming their observations and suggesting a surprising evolutionary history for our tetraploid azaleas were published in 2008 in the *Journal American Rhododendron Society*. Thanks to Hal Massie for suggesting this topic. Photo by Gil Nelson.

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Red Hills azalea  
(*Rhododendron  
colemanii*)

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## Society News

# PRESIDENT'S PERSPECTIVE

For me, the anticipation of warmer weather brings many things to mind. Some of the more prominent ones begin with the same word - spring walks, spring wildflowers and spring pilgrimages.

The Georgia Botanical Society's 42<sup>nd</sup> Annual Spring Wildflower Pilgrimage is fast approaching. This year's events will be held on April 15 - 17, 2011 in Carrollton and adjacent areas in the western piedmont of Georgia and eastern Alabama. Vice president Jerry Hightower has coordinated with a group of outstanding trip leaders to assemble what promises to be an exciting array of field trips. The varied agendas among the trips should offer something to suit almost everyone's interest. The beautiful and colorful 2011 commemorative t-shirts and sweatshirts, designed and drawn by Jenneke Somerville, depict the lovely crested iris that grows in the Carrollton area and commemorate the 85<sup>th</sup> anniversary of the Georgia Botanical Society. Rich and Anita Reaves are again handling pilgrimage registration, no small task. Jean Smith pulled everything together into a clear and comprehensive pilgrimage newsletter. Much appreciation is extended to the above individuals and other volunteers who worked hard to produce the 2011 pilgrimage. Volunteer opportunities abound and members are encouraged to become involved.

Spring also brings other wildflower pilgrimages that may be of interest to our members, some of whom may even participate as trip leaders. The 61<sup>st</sup> Annual Great Smoky Mountain Wildflower Pilgrimage is April 26 - May 1, 2011 and as usual, a group of BotSocers will be camping at Elkmont (if you want to join them, see Amy Delaplaine's note on page 9). Also, the 39<sup>th</sup> Annual Wildflower and Bird Pilgrimage held by the University of North Carolina at Asheville is scheduled for April 29 - May 1, 2011.

In addition to our pilgrimage, please don't forget that the Georgia Botanical Society's wonderful field trips and workshops are offered throughout the year. These educational opportunities often provide access to viewing and enjoying botanical treasures not available anywhere else.

Richard and Teresa Ware submitted the feature photograph for this column - a most appropriate photo for this time of year since the

dimpled trout lily (*Erythronium umbilicatum*) is emphasized on many of our early spring field trips. Readers are encouraged to submit their favorite wildflower photograph for inclusion in future issues.

A new series of articles by Hal Massie and Richard Ware has its debut in this issue of the newsletter. Entitled "Discoveries", the new series discusses Georgia plants that have been recently discovered or rediscovered, including major range extensions, plants found in substantially new habitats and new plant communities.

And on a sad note, we remember long time Society member Betty Devon who died on January 10, 2011. For many years she and her husband, Charlie, were responsible for the mailing of our botanical journal, *Tipularia*. Betty's daughter, Peggy Devon Rowe, contacted us about arranging for donations to the Georgia Botanical Society in memory of her mother and said that our Society brought both of her parents a lot of joy. Charlie Devon died in 2005. They will be missed.

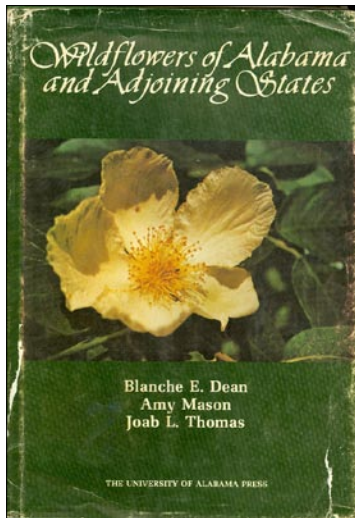
Wishing you a glorious spring,  
Jim Drake



Richard and Teresa Ware submitted the feature photograph for this column - a most appropriate photo for this time of year since the dimpled trout lily (*Erythronium umbilicatum*) is emphasized on many of our early spring field trips. Readers are encouraged to submit their favorite wildflower photograph for inclusion in future issues.



## Book Review



### *Wildflowers of Alabama and Adjoining States*

(Blanche E. Dean, Amy Mason and Joab L. Thomas. Tuscaloosa: University of Alabama Press, 1973) is similar to a number of other, maybe most other, wildflower guides. It groups plants by family, has a photograph of the plant in bloom, gives scientific and common names and offers a description of the physical and bloom habits of the plant. The book also has a very helpful color physiographic map of the state. (I

was surprised to learn that Lookout and Sand Mountains are in different geographic regions.) As I read and browsed the book, I compared it with three other guides that I have on hand: *A Guide to the Wildflowers of South Carolina*, *Wild Flowers of North Carolina* and *Wildflowers of the Southeastern United States*. Although these books are similar, they nonetheless make a nice complement for each other. Each book has some flowers that the others do not.

The authors of *Wildflowers of Alabama* note in their Introduction that it was difficult to decide which plants to include. They decided on "plants that would be of particular interest to amateur naturalists and wildflower enthusiasts." Consequently, the book has many orchids but only one grass. It has most of the more common wildflowers, but the rarest plants are not generally included. One exception that the authors' note is Alabama croton (*Croton alabamensis*). They include this very rare plant because of its "special significance in the flora of Alabama."

In contrast, Mohr's Barbara's buttons (*Marshallia mohrii*), which grow only in a few spots in northwest Georgia and northeast Alabama, do not appear in *Wildflowers of Alabama*. I found it only in only in Linda Chafin's *Field Guide to the Rare Plants of Georgia*. I assume that *Wildflowers of Alabama*, along with other general field guides, purposely omit most rare plants because amateur naturalists are not likely to see



Alabama croton (*Croton alabamensis*) Illustration from *Wildflowers of Alabama and Adjoining States*.

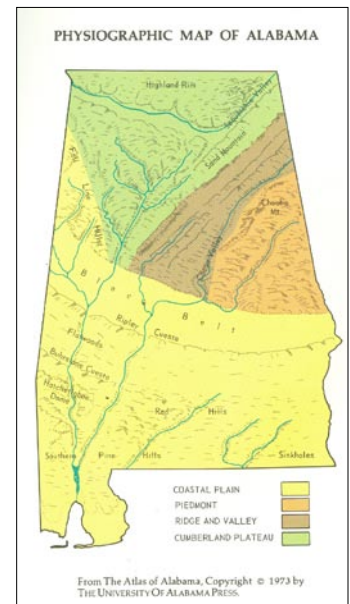
them. However, it does strike me that a field guide to a particular state ought to have a selection of plants that are unique or nearly unique to that state.

Among the orchids that *Wildflowers in Alabama* emphasizes, I noticed that shadow-witch (*Ponthieva racemosa*) and southern rein orchid (*Habenaria flava*, now *Platanthera flava*) occur in the Alabama and South Carolina guides but not in the other two. It would be interesting to go through all of the guides to Southern state wildflowers to see which ones have the least overlap though it would probably take real dedication or a clever computer program to do so. I know that Florida and Texas, maybe Louisiana, would have differences, but I suspect that the rest of the South has a great deal of homogeneity.

In the end, *Wildflowers of Alabama* is a good guide for a Georgia Botanical Society member because, well, Alabama is right next to Georgia and the geography of the two states is quite similar. On the other hand, there are several good guides to Georgia wildflowers and the guides to South Carolina, North Carolina and the Southeast have most of the information in this Alabama guide. Still, I suspect that most flower hunters try to get all of the guides and this one is very good and a little hard to find, though not rare.

reviewed by  
Bob Linn

Editor's note: If Bot Soccers are looking for a particular book, Bob might be able to help them find it. He has a small selection of botanical books and knows many dealers in Georgia and the Southeast. He can be contacted at [linn13@bellsouth.net](mailto:linn13@bellsouth.net).



The book has a very helpful color, physiographic map of Alabama.

## Discoveries

## FORGED IN FIRE: EASTERN TURKEYBEARD

*Xerophyllum asphodeloides* (LINNAEUS) NUTTALL

by Hal Massie



eastern turkeybeard (*Xerophyllum asphodeloides*) at Sprewell Bluff

Hal Massie

### Discoveries often start with -

“that’s funny...”

While scouting a ridge-line above Pigeon Creek in the Sprewell Bluff area of Pine Mountain in January, GADNR biologist Nathan Klaus and his wife, Joyce, came across a plant with clumps of narrow grass-like leaves and tall flower stalks topped by clusters of brown seed capsules. Klaus, an ornithologist with a keen interest in land restoration and fire ecology (and scheduled to speak on that subject at this year’s Pilgrimage in Carrollton),

at first thought the plant was beargrass (*Nolina georgiana*), an uncommon plant of sandy soils in the Coastal Plain and Fall Line sandhills. Within days he was doubting himself and went back to the site to make a positive identification. Beargrass itself would have been a great find, but the odd plant turned out to be eastern turkeybeard (*Xerophyllum asphodeloides*), a plant previously only known in the state from a few counties in north Georgia! Originally, Klaus thought that the site had a few dozen plants. On a subsequent visit he increased his estimate to 150-200 plants. On a later excursion, which included this author, we again increased that estimate to 300-400 plants.

### The Scene and the Scenery

The site where the eastern turkeybeard was found is on a steep bluff, with occasional rock cliffs and outcrops. The bluff has rocky, loose, well drained soil and a northwest aspect. Scattered longleaf pines dot the bluff and heath thickets consisting of Piedmont Rhododendron (*Rhododendron minus*) and mountain laurel (*Kalmia latifolia*) blanket most of the steeper terrain. The majority of the turkeybeard plants we found were on the upper por-

tion of the bluff between 800 and 950 feet in elevation.

Even without rare plants, the bluff is a place of stunning scenery. Tall longleaf pines bracket views north to the multiple ridges of Pine Mountain. Towers in the town of Manchester can be seen several miles to the west. Pigeon Creek roars through huge chunks of quartzite rock 200 feet below.

Starting just across the Chattahoochee River in Alabama, Pine Mountain runs in an east-west line for nearly 100 miles, with a slight southwest to northeast tilt. A single ridge predominates for most of that length, with a few notable outrider ridges, including the highest elevation on Pine Mountain, Dowdell’s Knob, at 1,395 feet. However, in the Sprewell Bluff region, where the Pine Mountain ridge runs into, and across, the Flint River, the single ridge disappears into a tangled maze of ridges.

Oak Mountain, a smaller ridge to the south closes the gap and meets Pine Mountain at the Flint River near Sprewell Bluff State Park. The main ridge of Pine Mountain crosses the Flint River, sweeps back to the north and eventually makes a loop that ties off in a geologic ‘knot’ at the south end of the loop. The Sprewell Bluff area, including Pigeon Creek and the eastern turkeybeard site occur within this knot.

### Family Intrigue

Unlike so many plants these days, there is no controversy over turkeybeard’s botanical name - *Xerophyllum asphodeloides* (Linnaeus) Nuttall. The only synonym is Linnaeus’ original *Helonias asphodeloides*, which Thomas Nuttall in 1818 reassigned to *Xerophyllum*. The genus comprises two species, both restricted to North America. *Xerophyllum tenax*, the western counterpart to eastern turkeybeard and usually called bear grass, occurs in coniferous forests on xeric ridges and rocky slopes from Wyoming and Montana to Washington and south to California. *Xerophyllum* is adapted from the Greek words ‘xeros’ and ‘phylon’ and means ‘dry leaf’. Other common names include mountain-asphodel and beargrass.

While there is no controversy over the botanical name for turkeybeard, the family is another matter altogether. Traditionally included in the Liliaceae, some botanists now include *Xerophyllum* in the bunchflower family, the Melanthiaceae, based on molecular evidence. Alan Weakley’s *Flora of the Southern and Mid-*



The site where the eastern turkeybeard was found is a place of stunning scenery.

Hal Massie



## Discoveries

*Atlantic States* goes a step further and places turkeybeard in its own family, the Xerophyllaceae. He gives no explanation for placing it there and does little to inspire taxonomic confidence with “Perhaps better placed in the segregate family Xerophyllaceae”.

### Live and Let Die

Eastern turkeybeard is an herbaceous perennial that grows in grass-like tufts. The basal leaves are evergreen, 16-20 inches long, arching, thin and stout, with small sawteeth along the margins. Without flowering stems, this plant can easily be dismissed as a grass from a distance. The leaves arise from a woody rhizome with thick roots. The flowering stem can reach 5 ft tall and has narrow leaves along its entire length. The leaves at the base of the stem are 5-7 inches long, but gradually taper toward the top. The inflorescence



Anita Reaves

Turkeybeard's inflorescence is a showy dense raceme.

is a showy dense raceme, initially compact but elongating over time to as much as a foot in length. The individual flowers comprise 6 white tepals, 6 stamens and a single ovary. The seed capsules are three-lobed and are often found with persistent flower parts attached. The plant at the base of each flowering stem dies after flowering, but offshoots (much like tufting grasses) persist to flower in future years. Turkeybeard plants in the Southern Appalachians generally flower in late May and early June and then set fruit in late summer and early fall. Given the more southerly latitude of this new population,

flowering could be expected to occur in early to mid-May.

### Changing the Range

Previous to the discovery of the Sprewell Bluff population, the range of eastern turkeybeard extended from northern Alabama and Georgia up through the Appalachians to northern Virginia, with disjunct populations in the New Jersey Pine Barrens, northeastern Alabama and Kentucky. Turkeybeard is usually found growing in rocky, well-drained soils, often on slopes and in association with heaths and pines. In the Appalachians, turkeybeard is most often associated with shortleaf pine (*Pinus echinata*) and Virginia pine (*P. virginiana*). The one population that occurs in northern Alabama is associated with montane longleaf pine (*P. palustris*). The Pine Mountain population appears to be associated with longleaf and shortleaf pine, as well as mountain laurel and rhododendron.

Distribution maps for Georgia show turkeybeard in as few as one county (USDA PLANTS) and as many as six counties

(Linda Chafin's *Field Guide to the Rare Plants of Georgia*), all in northern Georgia. Thanks to the discerning eyes of Nathan Klaus and his persistence in accurately identifying eastern turkeybeard, those range maps will now have to be updated to show a population in the lower Piedmont of Georgia, just 30 miles from the fall line sandhills!

### Rarity and the Desire for Fire

*Xerophyllum* is not common anywhere within its range, probably due to fire suppression. Fire is known to stimulate flowering in *Xerophyllum* and helps maintain the open, pine-dominated habitat that it prefers. The dense clumping of the leaves, thick roots and woody rhizome all make turkeybeard ideally suited for surviving fire. After an early spring or late winter fire, a population of *Xerophyllum* will often flower profusely and with phoenix-like vigor. Turkeybeard is ranked by the Georgia Natural Heritage program as an S1 plant, meaning that it is imperiled within the state. The Georgia DNR lists turkeybeard's legal status as “Rare”. The Sprewell Bluff *Xerophyllum* site was burned in February of 2007 as part of a prescribed fire for a much larger area. Evidence of that fire can still be seen in the regenerating heath shrubs and scorched bark on pines and oaks. The flower stalks found in January of 2011 were from the previous spring; those plants were last burned three years before and indicate that the population was still flowering vigorously. A prescribed fire is scheduled again for February or March, and has probably been conducted by the time this article is published.

### A Questionable Future

The main vulnerability of the new *Xerophyllum* population above Pigeon Creek is ownership. The land is privately owned and currently leased by a timber company that enthusiastically uses fire as a management tool. Unfortunately, that lease will be over in a few years and management practices, as well as use of the land, could change. The steep terrain of the bluff affords some protection for the turkeybeard and may be its best defense in the long run.

### An Acknowledgement

I want to thank Nathan Klaus for burning the turkeybeard, discovering it - and a happy day in the field chasing it. All in that order.

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## Upcoming Field Trips

### March 4 Friday 1:00 PM - 4:00 PM Indian Trail, Chattahoochee River NRA, Fulton County

**Description:** We will walk through the Cabin Creek Canyon area looking for early spring wildflowers. Along the way we'll have lots of beautiful river views, identify trees and see the remains of the old riverside cabin and the giant bamboo forest.

**Directions:** If traveling east on I-285, take exit 22 and turn right on New Northside Dr (Interstate N Pkwy). Take the first left onto Northside Dr (which takes you back over the interstate). Follow Northside Dr through intersection at Powers Ferry Rd to turn right on Indian Trail (4th street on the right) and travel into the park. If traveling west on I-285, take exit 22, go straight to turn right onto Northside Dr (in front of McDonalds) and follow directions above. **Meet in the Indian Trail parking area at the bulletin board** and trail head (1425 Indian Trail NW, Atlanta GA 30327).

**Walking:** Moderate, ~ 4 miles with two big hills. The terrain is not difficult

**Facilities:** None at Indian Trail. Wendy's & McDonalds on Powers Ferry Rd.

**Bring:** Water, a hand lens, field guide, camera and notebook, \$3 parking fee or annual pass.

**Leader:** Maureen Donohue 678 687-7963 cell macaire75@att.net

### March 19 Saturday 10:00 AM Beech Creek Trail/Upper Tallulah Basin, Towns County Registration Suggested

**Description:** The Upper Tallulah basin is a delight anytime of the year, but spring is special. This walk is fairly strenuous, gaining over 1000 feet in first three miles. The total distance is 7 miles. There is a very short car shuttle. The walk parallels lush Beech Creek for about 3 miles and includes two very nice waterfalls. Ramps are a possibility, but depending on how the spring has sprung, I expect we'll see a number of other interesting plants and bloomers.

**Directions:** I-985N (turns into Hwy 365, then 441) to Clayton. Turn west (left) on Hwy 76 (towards Hiawassee) to travel ~8 miles to Persimmon Rd. Turn north (right) and travel 4 miles to Tallulah River Rd (aka Tate City Rd, FS #70). Turn left and travel ~9 miles to the end of the road and a parking area. Note: Although the Tallulah River Road begins as pavement, it becomes a narrow gravel road after one mile. The road is heavily travelled by campers, sightseers and fisherpeople so use extreme caution. **Meet at end of Tate City Rd.**

**Facilities:** Restroom at leader's residence after hike.

**Bring:** Sturdy shoes or hiking boots, water, lunch/snack. Possible wet crossing, so sandals may be advised.

**Leader:** Eddi Minche 678.313.2582 eddmin@gmail.com Registration helpful, but not required.

### March 20 Sunday 2:00 PM *Trillium reliquum*, *Croomia* and More, Taylor County

**Description:** This trip is on private land that the owner has graciously allowed us to come and enjoy. I have led this trip for the last 2 years and the group has always found many interesting things. Besides the abundant populations of *Trillium reliquum* and an abundance of spring ephemerals, there are also large patches of *Croomia* and scattered ones of *Silene polypetala*. In the floodplain we will see moonworts and orchids.

**Directions:** From Roberta: travel west on GA128, cross the Flint River and bear straight ahead on GA137. From Reynolds: take GA128 north to GA137. Turn left to **meet at gravel driveway** ~100 ft ahead on your right.

**Walking:** Moderately difficult. There is one bluff, many fallen trees and mud. The intrepid shall be rewarded.

**Facilities:** None

**Leader:** Chris Inhulsen cinhulsen@yahoo.com 478 396 4941 (cell, day of walk, reception not guaranteed!)

### March 26 Saturday 10:00 AM Pocket of Pigeon Mountain, Walker County

**Description:** Every year we look forward to spring and a trip to Georgia's premier spot for early spring wildflowers. This area, part of the Cumberland Plateau, contains many species rare to our state: Virginia bluebells, celandine poppy, bent trillium, Ohio buckeye, twin leaf and a huge variety of other wildflowers.

**Directions:** From I-75 exit 320, go west on GA 136, crossing US 27 onto GA 193 into downtown LaFayette. From South Main Street, follow GA 193 for 8 mi to Davis Crossroads, at intersection with GA 341. Turn left on Hog Jowl Rd (sometimes unmarked but paved), go south 2.6 mi passing Mt Herman Baptist Church. At top of next hill, turn left on Pocket Rd and drive 1.2 mi to end. Parking is on left. **Meet at the Pocket Parking Lot.**

**Walking:** Short and easy around parking lot and on boardwalk. Optional moderate walk to falls and easy bush-whacking to twin leaf site.

**Facilities:** None at site. Fast food restaurants on North Main street in LaFayette.

**Lunch:** Bring to eat in parking lot.

**Leader:** Mike Christison 770.973.6482 mikepaddler@netscape.net. 770.596.3564 (cell, day of walk, reception not guaranteed!)

## Upcoming Field Trips

### March 26 Saturday 10:00 AM - 3:00 PM West Palisades Early Wildflowers, Fulton County Registration Required

**Description:** We'll hike across the upper section of Trout Lily Creek, through a mature oak - hickory forest, around Blood Rock Ridge, along Rottenwood Creek to the ruins of Akers Mill and along the river to Paces Mill. We'll see the dramatic effects of the Brevard Fault and "Nancy Old Towne", a Woodland Culture Village site. An optional shorter hike ends at Rottenwood Creek to proceed to Paces Mill (0.5 mi by multi-use trail).

**Directions:** From I-75 south exit 258, turn right on Cumberland Blvd and then left on Cobb Pkwy (US 41). Proceed through light at Paces Mill Rd. NPS park entrance sign is on right just beyond BP Station. From I-75 north, Mount Paran Rd exit, turn left and then turn right onto Northside Dr (US41N) Continue over the river to park entrance on left, just before BP station. **Meet at the Paces Mill parking area** (3445 Cobb Pkwy, Atlanta GA 30339) to shuttle to starting location at Akers Drive. Walk ends at Paces Mill. If you drive a multi-passenger vehicle and can help with the shuttle, please let Jerry know.

**Facilities:** Restrooms at Paces Mill; restrooms at the dispatch office at Akers Mill will be available.

**Difficulty:** Moderately strenuous.

**Bring:** Lunch and water for picnic in the forest, binoculars, hand lens, camera, \$3 parking fee or annual park pass.

**Leader:** Jerry Hightower 770.206.0338 cell 678.538.1245 office jerry\_hightower@nps.gov

Reservations required for both of Jerry's hikes - please call 678.538.1200

### March 27 Sunday 10:00 AM - 2:30 PM Chattahoochee River NRA East Palisades Wildflowers Reservation Required

**Description:** We'll look at early spring wildflowers along Indian Ridge Trail to Charlie's Trapping Creek and then up the Salamander Creek Trail to enjoy the grand view from atop Overlook Ridge above Devil's Race Course Shoals. We will then take Cabin Creek Trail past Civil War gun emplacements through a beautiful forest along Cabin Creek to the parking area. We hope to see deep blue-purple hepatica, yellow flowered hastate violet, toothwort, trilliums, mayapple and more. We will travel along rock cliffs, through mature oak-hickory forest, mesic ravine forest and floodplain forest. Our hike will take us over and past extraordinary rock outcrops and formations influenced by the Brevard Fault, which runs through the Unit. We will visit the largest naturally occurring Indian Rock Shelter in the park. Jerry has been roaming these ridges since childhood, but don't believe all of his tales.

**Directions:** If traveling east on I-285, take exit 22 and turn right on New Northside Dr (Interstate N Pkwy). Take the first left onto Northside Dr (which takes you back over the interstate). Follow Northside Dr through intersection at Powers Ferry Rd to turn right on Indian Trail (4th street on the right) and travel into the park. If traveling west on I-285, take exit 22, go straight to turn right onto Northside Dr (in front of McDonalds) and follow directions above. **Meet in the Indian Trail parking area at the bulletin board** and trail head (1425 Indian Trail NW, Atlanta GA 30327).

**Facilities:** Big trees and lots of bushes.

**Difficulty:** Moderately strenuous; some short off trail and non-maintained trails; some short steep ascents and descents.

**Bring:** Lunch for picnic in the forest, camera, hand lens, binoculars, \$3 parking fee or annual parking pass.

**Leader:** Jerry Hightower 770.206.0338 cell 678.538.1245 office jerry\_hightower@nps.gov

### April 2 Saturday 10:00 AM Coosawattee Bluffs/Carters Lake, Murray County

**Description:** We'll explore river floodplain and bluffs on the south side of the Coosawattee River, where last year we found a very rich area with more Dutchman's britches (*Dicentra cucullaria*) than we've ever seen, the rare yellow fumewort (*Corydalis flavula*), along with decumbent trillium (*Trillium decumbens*), yellow trillium (*T. luteum*), nodding trillium (*T. rugelii*), Canada wild ginger (*Asarum canadense*) and more. After lunch at the recreation area we'll walk Hidden Pond Trail for some of the same flowers as in the morning, plus shooting stars (*Dodecatheon meadia*), dwarf larkspur (*Delphinium tricorne*), wild columbine (*Aquilegia canadensis*), harbinger-of-spring (*Erigeron bulbosa*), narrow-leaf toothwort (*Dentaria multifida*), columbo (*Frasera caroliniensis*, not in bloom) and many more. Time and energy permitting we may visit some limestone rock outcrops in the area.

**Directions:** Take I-75 north to exit 293 GA 61/US411/Chatsworth Hwy. Turn right (north) on US411. Continue through White and Fairmount and north on US 411 for 10.9 mi to intersection of GA136. Turn right on GA136, cross RR tracks, turn left at next intersection (old US 411). Drive 1/2 to 3/4 mi, turn right at Carter's Lake Rereg Dam Rec. Area sign. If you reach a one-lane bridge you've gone too far. **Meet at 1<sup>st</sup> parking lot on right**, for Hidden Pond Trail. We will carpool ~0.5 mi to Coosawattee Bluffs. The walk to the river is an easy 0.5 mi.

**Facilities:** At other end of the parking lot at meeting site.

**Walking:** ~ 1 mi in morning and 1 mi in the afternoon. Trails are relatively flat, easy.

**Bring:** Lunch to eat at picnic tables and extra water.

**Leader(s):** Richard & Teresa Ware gabotany@concast.net 706-232-3435 cell reception may be limited at site

## Upcoming Field Trips

### April 8 Friday 1:00 PM to 4:00 PM Cochran Shoals, West Palisades, Chattahoochee River NRA, Cobb County

**Description:** This unit of the Chattahoochee NRA is where Atlantans come to run, jog and walk. We'll use the riverside trail until we reach the wildlife viewing boardwalk over the wetlands. Beyond the boardwalk, we'll enter another world populated by southern nodding trillium (*Trillium rugellii*), toadshade trillium (*T. cuneatum*), foam flower (*Tiarella cordifolia*) and other spring wildflowers. We can hunt for the rare bay star vine that has been reported in the area. Then we'll take some of the back trails that lead up toward Sope Creek for another mile or two, to see what's blooming there. Expect to find bellwort (*Uvularia perfoliata*), buckeye, a number of blueberries and perhaps Catesby's trillium (*T. catesbaei*).

**Directions:** Traveling east on I-285, take exit 22, Northside Dr. At 2<sup>nd</sup> light, go left onto New Northside Dr. Use the "through" lane to pick up Interstate North Pkwy. The entrance is 0.8 mi on the right after crossing the river. From I-285 west, take exit 22 and go right on New Northside Dr and follow as above. For other directions, see [www.nps.gov/chat](http://www.nps.gov/chat) or contact leader. **Meet at parking area.**

**Walking:** Flat terrain along the river, easy 1-3 miles. A few hills as we climb toward Sope Creek.

**Facilities:** Restrooms in parking area. There are picnic tables in the area if you wish to eat before the walk.

**Bring:** \$3.00 parking fee or annual pass. Water, camera, hand lens and binoculars optional.

**Leader:** Maureen Donohue [macaire75@att.net](mailto:macaire75@att.net) or 678.687.7963 cell

### April 9 Saturday 10:00 AM Cloudland Canyon State Park, Dade County

**Description:** At one of Georgia's botanical wonders, we should see sulcate trillium (*Trillium sulcatum*), doll's eyes (*Actea pachypoda*), deciduous magnolias, azaleas, wild geranium (*Geranium maculatum*), larkspur (*Delphinium tricorne*) and more. The plan will be to ferry some cars to the bottom and do a walk through from the top.

**Directions:** From Atlanta take I-75 to exit 320. Go west on GA 136 through Villanow and Naomi (slight jog to left and then right). At Lafayette, take US 27 bypass around town to the north and follow the signs to stay on 136 to Park's main entrance. **Meet promptly at the Overlook parking area.**

**Walking:** Moderate, but a lot (575) of steps on a maintained trail with stairs (we hope to only go down the stairs). Sturdy shoes recommended as there will be rocky, uneven ground and one small stream to rock-hop or wade.

**Facilities:** Only at the overlook parking area.

**Bring:** \$5 or park pass, lunch, water, bug spray.

**Leader:** Rich Reaves 770.827.5186 [rich.reaves@att.net](mailto:rich.reaves@att.net)

**We hope to see you at the 42<sup>nd</sup> Annual Spring Wildflower Pilgrimage**

**April 15 - 17, 2011 Carrollton, Georgia**

Information is available from our website ([www.gabotsoc.org](http://www.gabotsoc.org)) or

Jerry Hightower (770.206.0338 cell 678.538.1245 office or email [jerry\\_hightower@nps.gov](mailto:jerry_hightower@nps.gov)).

Registration deadline is March 15.

### April 20 Wednesday 12:00 noon - 3:30 PM Chattahoochee River NRA Sope Creek Reservation Required

**Description:** We'll hike a xeric oak-hickory forest and mesic ravine forest along Fox Creek that supports a diversity of ferns, flowering shrubs and wildflowers. Imagine this area as farm fields or pine plantation for mills instead of forest as we walk the traces of 19<sup>th</sup> century farm roads and look for traces of the many wildlife species that thrive here.

**Directions:** 3670 Paper Mill Road, Marietta, Georgia 30067; **Meet at parking area bulletin board.**

**Facilities:** At Terrell Mill Park or big trees and shrubs on site.

**Difficulty:** Moderate with one quarter mile accent.

**Bring:** \$3 park fee or annual pass. Dress for weather and wear hiking shoes. Bring binoculars, hand lens, notebook and camera.

**Leader:** Jerry Hightower 770.206.0338 cell 678.538.1245 office [jerry\\_hightower@nps.gov](mailto:jerry_hightower@nps.gov)

Reservations required - please call 678.538.1200. Limit: 25 persons.



## Upcoming Field Trips

### April 23 Saturday 10:00 AM Grassy Ridge to Till Ridge Cove/Hambridge Center Trail, Rabun County

**Description:** Till Ridge Cove is famous for its huge stands of large white trillium, as well as bloodroot, blue cohosh, doll's eyes and many other spring flowering herbs; a streamhead seepage at the head of the cove has other Southern Appalachian specialties such as umbrella leaf, mountain meadow rue, tassel rue and thyme-leaved bluet.

**Directions:** From Atlanta, I-85 north to US Hwy 441. Travel north on 441 to Dillard, ~63 miles, and look for Dillard Methodist Church on the left, just past drive to the Dillard House and ~7 miles north of the intersection of Hwy 441 and Hwy 76 in Clayton. **Meet at Dillard Methodist Church parking lot;** we will consolidate into fewer cars to go up Betty Creek Rd.

**Walking:** Easy

**Bring:** Lunch to eat in field, water.

**Facilities:** None

**Leaders:** Brooks Franklin and Linda Chafin Lchafin@uga.edu 706.548.1697

### April 28 - May 1 Thursday to Sunday Smokies Spring Wildflower Pilgrimage

**Description:** Based in Gatlinburg, the Smokies' wildflower pilgrimage features more than 150 field trips - flowers, trees, birds, bats, salamanders, bears, seminars and hikes, photography, Indian lore, history, medicinal plants, etc. Experience the burst of spring in the mountains and see all stages depending on the elevation. Information and registration start in February at [www.springwildflowerpilgrimage.org](http://www.springwildflowerpilgrimage.org) Come camp with us in Elkmont near Gatlinburg--or just visit around the campfire and stay in a motel. **Be sure to call Amy for plans to meet.**

**Bring:** Clothing layers for weather that can be anything from snow or rain to warm sun.

**Contact:** Amy Delaplaine amydel@mindspring.com 404-388-0197 cell

### May 1 Sunday 10:00 AM Lake Winfield Scott Loop, Union County

**Description:** This is a moderately strenuous hike with 1 mi on the Jarrard Gap Trail (mostly uphill), 2 mi on the Appalachian Trail (mostly level) and 2.5 mi on the Slaughter Creek Trail (mostly downhill). We will hike through hemlock-heath forest, southern Appalachian cove forest, oak ridge forest, and oak-pine-heath forest. Interesting wildflowers that should be in bloom include pink lady's-slipper, speckled wood lily, doll's-eyes, blue cohosh, toothwort, umbrella leaf, yellow mandarin, two species of bellwort, six species of violet, and four species of trillium. We will see most during the first mile (Jarrard Gap Trail) -- feel free to return when you are ready.

**Directions:** From Atlanta, take GA 400 north for ~60 mi to its end south of Dahlonega. Turn left on Hwy 60 toward Dahlonega and Suches. After Stone Pile Gap, bear left to stay on Hwy 60. Shortly after Woody Lake on the right, watch for Hwy 180 on the right (motorcycle resort/service station at corner). Turn right on Hwy 180 and go ~4.5 mi to turn right into Lake Winfield Scott Recreation Area, pay \$5 entrance fee. Park in the parking lot above Lake Winfield Scott bath house and walk back downhill to **meet at the trailhead.**

**Facilities:** At meeting site.

**Walking:** Mostly moderate with some strenuous stretches. 5.5 miles.

**Bring:** Lunch to eat on trail, \$5 entrance fee, sturdy shoes for hiking, trekking poles, rain gear (you never know!), water.

**Leader:** Linda Chafin Lchafin@uga.edu 706.548.1697



### Looking for a reason to spend a day on a BotSoc field trip?

How about the chance to see bent trillium (*Trillium flexipes*)? Mike Christison photographed this beautiful specimen at the Pocket of Pigeon Mountain and he is leading a trip there on March 26. The details are on page 6.

And don't forget to write a trip report about your discoveries for the newsletter. Everyone wants to know what you saw there.

## Upcoming Field Trips

### May 4 Wednesday 10:00 AM - 1:00 PM Chattahoochee River NRA Vickey Creek Reservation Required

**Description:** We'll hike through the oak hickory ridge forest, mesic forest, and the ridge top trail on the steep slopes above the scenic Vickery Creek Ravine. We'll see very large big leaved umbrella magnolia (*M. macrophylla*). Our loop will take us past beautiful areas with native ferns, shrubs and wildflowers and observe a succession area several years after a pine beetle kill. The ridge top trail shows plants which survive in shallow soils, cliff areas, and dry conditions - a great trail to discover.

**Directions:** From the Historic Roswell Square travel north on Atlanta St (Hwy 9). Oxbow Rd is at the bottom of the hill on the right. **Meet in parking area and trail head** in City of Roswell Park on Oxbow Rd.

**Facilities:** Trees and thick shrubs.

**Difficulty:** This hike is moderately strenuous with a few steep slopes.

**Bring:** Pack a lunch and we will picnic in the forest. Camera, hand lens, and binoculars are recommended.

**Leader:** Jerry Hightower 770.206.0338 cell 678.538.1245 office jerry\_hightower@nps.gov

Trip limit of 25 participants and reservations required for both of Jerry's hikes - please call 678.538.1200

### May 4 Wednesday 2:00 PM - 5:00 PM Chattahoochee River NRA Vickey Creek Reservation Required

**Description:** We'll hike across scenic Vickery Creek through the covered bridge and into the forest with its abundance of native rhododendron and mountain laurel. We'll walk a 19<sup>th</sup> century road trace under glorious big leaf magnolias and see the mill dam waterfall and ruins of once bustling mills. Learn facts and a fable or two about the human as well as natural history of this extraordinary area amongst beautiful ferns and wildflowers.

**Directions:** We'll **meet at the trail entrance arbor** in the lower parking area off the Roswell Square (across from Hwy 120 at its intersection with Atlanta St / Hwy 9).

**Facilities:** At Roswell Visitor Center on the Square.

**Difficulty:** Moderate with a several short, but steep, accents and descents.

**Bring:** Dress for weather and wear hiking shoes. Bring binoculars, hand lens, notebook and camera.

**Leader:** Jerry Hightower 770.206.0338 cell 678.538.1245 office jerry\_hightower@nps.gov

### May 6 Friday 1:00 PM - 4:00 PM Paces Mill, West Palisades, Chattahoochee River NRA, Cobb County

**Description:** We'll walk north along the river to the cliffs for a beautiful display of mountain laurel (*Kalmia latifolia*). We may also see some Catesby's trillium (*Trillium caetsbaei*), Carolina rhododendron (*Rhododendron minus*) and other spring wildflowers. We'll then double back to a gentle long trail up to the ridge to look for the perfoliate bellwort (*Uvularia perfoliata*) and an abundant display of mayapples that may be in bloom or in fruit, depending on the weather. Fire pinks (*Silene virginica*) and some ragwort may greet us too. We'll check the progress of tree blossoms as we climb and see some blooming buckeyes. At the top of the ridge, we'll find flame azalea (*Rhododendron flammeum*) and we'll walk on a trail high above the river with gorgeous views. As we head back down downstream, we'll view cinnamon ferns (*Osmunda cinnamomea*) and royal ferns (*Osmunda regalis*) in the swamp and then visit the silky dogwood (*Cornus amomum*) that resides along Rottenwood creek.

**Directions:** Traveling south on I-75, take Exit 258 to turn right on Cumberland Blvd and then left on Cobb Parkway (US 41). Go through the light at Paces Mill Rd and past the BP Station on the right to NPS entrance sign. Traveling north on I-75, take the Mount Paran Rd Exit to turn left on Mt. Paran Rd, and then right onto Northside Dr. Go north across the river. Park entrance is on the left, just before BP station. For other directions, contact leader. The address for the Paces Mill Unit is 4600 Cobb Parkway, Atlanta, GA 30339. **Meet at Paces Mill parking lot, near the restroom building.**

**Walking:** Easy, 3 mi combination of paved and dirt trail with easy footing. Gentle 0.5 mi climb to the flat ridge trail.

**Facilities:** At Paces Mill parking lot.

**Bring:** Comfortable walking shoes, hand lens, \$3.00 parking fee or annual pass, water, camera, field guide.

**Leader:** Maureen Donohue macaire75@att.net 678 687-7963 cell

## Upcoming Field Trips

### May 7 Saturday 10:00 Rabun Bald, Rabun County

**Description:** In addition to being very scenic, Georgia's second highest mountaintop harbors many plant species seldom encountered elsewhere in the state such as American mountain ash (*Sorbus americana*), minnie bush (*Menziesia pilosa*), pale corydalis or rock harlequin (*Corydalis sempervirens*), Catawba rhododendron (*Rhododendron catawbiense*) and wild sarsaparilla (*Aralia nudicaulis*).

**Directions:** Traveling north from Dillard on US 441, turn right at traffic signal onto GA 246 which becomes NC 106. Approximately 4 mi from US 441, turn right onto Old Mill Creek Rd. Go another mile then turn right into Sky Valley. Go left in Sky Valley about 1 mi then turn left onto Overlook Way and then almost immediately turn right onto Knob Dr. Continue up Knob Dr (pavement ends), turn right at T-intersection. **Meet at Trailhead.**

**Facilities:** None.

**Walking:** 4.4 mi, difficult, strenuous. Some trail sections are steep and rocky.

**Bring:** Water, lunch to eat on trail, sturdy footwear, rain protection.

**Leader:** Ben Cash 706-778-5155 bencash@hemc.net 706-968-3841 cell, service unreliable at trailhead

### May 8 Sunday 10:00 am Cypripedium Gulch, Suches, Union County

**Description:** "Cypripedium Gulch", the informal name given this favorite spot by BotSoc years ago, is unique in the number orchids growing in close proximity. Near the access road junction with the main paved road, we should see pink lady's slippers (*Cypripedium acaule*) in bloom. At stop 1 along the dirt access road we should see a nice bunch of large yellow lady's slippers (*C. parviflorum*) and with luck possibly a stem or two of small yellow lady's slippers (*C. parviflorum*). We may even see a few lily-leaved twayblade (*Liparis lillifolia*), maybe not yet in bloom. At stop 2 we'll hike up a hill and bear right to bushwhack into a 2<sup>nd</sup> gulch and more yellow lady's slippers, a few showy orchis (*Galearis spectabilis*), possibly slightly past bloom. We should see plenty of ferns, perhaps a flame azalea and several other wildflowers. Post Trip Option: Following the Cypripedium Gulch walk, those interested can travel by auto a short distance farther along GA60 to a parking area at Little Cedar Mountain which features a large gneiss dome exposure above Canada Creek. Here we will hike up a trail to the dome overlook where we should find saxifrage and other rock inhabitants. On the way we will see green gentian (*Frasera caroliniensis*), maybe in bloom, but not guaranteed. We may also see other treats such as trilliums, birdfoot violets and others.

**Directions:** From Dahlonega, take GA60 north toward Suches. At cairn (pile of rocks) where the road veers, stay left on GA 60. The road ascends and crosses Woody Gap (bathroom opportunities here) and heads down toward Suches and Woody Lake on the right. Shortly, you'll see an abandoned store on the left at the junction of Cooper Gap Rd.

**We'll meet at the store's parking area.** No restrooms at store so stop at Woody Gap or McDonalds in Dahlonega.

**Difficulty:** We will bushwhack (off trail) most of the day and we will be climbing ~300 feet at a 2,600 ft elevation. It requires sure footing due to underlying slippery rocks in some places and walking through an understory of shrubs. Snakes are also known to be within the area. The optional post trip is mostly along an old road/trail with the most difficult part at the trailhead where we have to cross a ditch to get onto the trail.

**Bring:** Water, lunch, camera, walking stick.

**Leader:** Jim Drake 678-447-8686 cell, not guaranteed coverage drake3800@charter.net

### May 14 Saturday 10:00 AM Cascade Springs Nature Preserve, Fulton County

**Description:** Cascade Springs Nature Preserve has two creeks, a waterfall, hiking trails, and a lush hardwood forest on 134 acres of land. We will explore the preserve, which is nestled in the heart of Atlanta, to see what treasures can be found. We may also briefly explore the Beecher Hills Greenway, home to some rare species, and perhaps the Atlanta Outdoor Activity Center, to learn more about green space preservation efforts and challenges in the middle of the city.

**Directions:** From I-20 West from Atlanta, take exit 52A and merge onto GA-280 S/Hamilton E Holmes Dr NW toward Holmes Dr. This will continue onto Peyton Rd SW. Go ~2.1 mi and turn left at Benjamin E Mays Dr SW, then take an immediate right onto Veltre Cir SW. After 0.7 mi, turn onto Old Sandtown Rd SW; then drive roughly 200 feet to **meet at 2852 Cascade Rd**, Google Cascade Springs Nature Preserve to find directions on Google maps.

**Walking:** Easy

**Facilities:** None

**Leaders:** Steve Bowling 404-317-2817 botanybowling@gmail.com; Leslie Edwards edwa1616@bellsouth.net



## Society Contacts

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