

BotSoc News



Georgia Botanical Society

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2010 BOTSOC ANNUAL SURVEY

I was very pleased that 55 members (~14% of the membership) completed the questionnaire about the operation of the Society for the past two years. Maybe extending the time frame for submissions helped, as I received the last questionnaire at the BotSoc Holiday Party. Your comments are much appreciated. With them, we can improve what we do and when and where we schedule our events. To those who submitted, either by snail mail or electronically, thanks for your interest. The long distance award goes to a member who now lives in Boise, Idaho. I will summarize the answers to the nine questions as briefly as possible, listing the three most favorite choices where appropriate.

Why did you join BotSoc? The most popular answer, by far, was to participate in field trips, followed by participation in trips in the writer's part of the state. *Tipularia*, *BotSoc News* and the Spring Wildflower Pilgrimage were 3rd reasons for joining BotSoc.

How did you hear about BotSoc? The overwhelming answer was "from a current BotSoc member", followed by "I don't remember"; Charles Seabrook's "Wild Georgia" column in the Atlanta Journal - Constitution was the 3rd way that people heard of our organization.

How many field trips this year did you attend? The most common answer to this question was three field trips followed by one field trip. After that, the answer included a scattering of trip numbers from two to seven. The record report was from a member who attended 12 field trips. Only two sites were listed as favorites: Arabia Mountain and Oaky Woods.

The quality of the newsletter, *BotSoc News*, was rated 4.769 (excellent) on a scale of 1 to 5.

The quality of *Tipularia*, our botanical journal, was rated 4.760 (excellent) on a scale of 1 to 5.

Interest in volunteer opportunities. Less than 50% of respondents answered this question. Leading field trips was the most popular task, closely followed by rare plant monitoring. Other tasks selected were writing articles for BotSoc News and working in a BotSoc booth at a botanical event.

Use of BotSoc website. The overwhelming answer to this question was occasionally. Never and often tied at 6 entries each.

Value received from membership dues on a scale of 1 to 5 was 4.857 (excellent).

How can the Society be improved? There were only a few responses to this question but several noted "no suggestions". Others mentioned that BotSoc was a "wonderful organization". One long-time member (since 1980) remarked that "just a wholesome wander in the woods, looking for something you haven't seen before is what it's all about".

In summary, this is an excellent report card and I hope that you all agree.

*Ed McDowell,
Past President,
Georgia Botanical Society*

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2011 Membership Renewal. If you've not already done so, it's time to renew your BotSoc membership. Memberships are effective for one calendar year, beginning January 1st. A renewal form is included in this issue of the newsletter in case your November issue was missing the form. The form is also available for download from our website (www.gabotsoc.org).

2011 Field Trip List is also included as an insert in this issue and is on our website.

**BotSoc News**

is published seven times a year (Jan, Mar, May, July, Sept, Nov and for the Spring Wildflower Pilgrimage).

Submission deadline is February 1 for the March issue.

Subscriptions are included with membership.

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Society News

PRESIDENT'S PERSPECTIVE

As of this writing, snow flurries are offering a premonition of the forthcoming coldest temperatures of the season. Hopefully, the Holiday Season brought joy to all with renewal of ties among family and friends. For some, this is a favorite time of year - a time to reflect and anticipate the glorious spring sure to bring a resurgence of wildflowers to our beautiful area.

Activities of the Georgia Botanical Society do not become dormant with cold weather. In fact, planning for the 2011 Spring Wildflower Pilgrimage and scheduling the slate of remarkable weekly field trips are "hot" items.

This is also an appropriate time to remember and appreciate the cadre of volunteers who make BotSoc one of the preeminent botanical organizations. As you probably know, the Society relies strictly on volunteerism rather than paid staff. Please take a moment to review the last page of this newsletter and the 2011 Field Trip List (included with this issue) for a list of some of those individuals who keep this organization functioning. Volunteer opportunities are always plentiful - and rewarding. Members are encouraged to participate. Contacts are listed in this newsletter.

In 2011, the Georgia Botanical Society will be celebrating its 85th year of existence. It is even older than yours truly (barely). May the year bring renewed interest in our efforts to preserve, protect and promote the appreciation of our botanical resources.

For Candee and me, the 2010 Holiday Party was an enjoyable event providing an informal atmosphere of camaraderie and good food. During a short break from the festivities, board members held a brief meeting to discuss a few pertinent topics. The following is a summary of the agenda items:

Vice President Jerry Hightower is working diligently on scheduling field trips and assigning

trip leaders for the upcoming spring wildflower pilgrimage to be held in Carrollton on April 15 - 17, 2011. It looks as though this will be a grand event with some pleasant surprises. Stay tuned, details will be provided in the forthcoming pilgrimage newsletter.

Jenneke Somerville had produced a draft design for the 2011 pilgrimage t-shirts. The board overwhelmingly approved the concept. The

finished t-shirts should be nothing short of beautiful. Since 2011 will be the 85th anniversary of the Society, possibilities were discussed for reflecting this fact on the t-shirt. Details will be provided in the pilgrimage newsletter.

Linda Chafin presented the idea of producing a wildflower calendar. After some discussion the item was left open pending further research by Linda.

Eddi Minche, field trip chair, presented the draft 2011 field trip

schedule that was approved by the board. Eddi has scheduled visits to amazing locations with ample opportunities to view and learn about our precious natural heritage.

A new feature is included in this newsletter. Please notice the blank box accompanying this article. Since no photos were received for our new column "President's Perspective", newsletter editor Jean Smith, who is good at thinking "outside the box", suggested leaving a blank space where the reader can personalize their copy of the newsletter by inserting one of their own photos in the prescribed block. This can be accomplished in both the electronic and paper newsletters by using your desktop software's cut and paste function or your desktop drawer's scissors and glue operation. Alternatively, send us a digital image for the March issue of BotSoc News (drake3800@charter.net). We are still soliciting photos.

*Happy New Year,
Jim Drake*

*Cut and paste
your favorite
wildflower photo*

here

App Review

GSM WILDFLOWERS

A GUIDE TO THE COMMON WILDFLOWERS OF THE GREAT SMOKY MOUNTAINS FOR MOBILE DEVICES

reviewed by
Bob Linn

This review is my first of a non-book. I recently downloaded an application for my iPod that has been both interesting and useful. The app (as an application for a mobile device is commonly abbreviated) is a guide to the common wildflowers of the Great Smoky Mountains called *GSM Wildflowers*. The title may sound like a book that has just been modified for a mobile device, but it is not. This guide was developed specifically for iPods and other such mobile devices by BDY Environmental, LLC. It is the result of a project that has been discussed and planned for several years. Recent advances in, and the proliferation of, mobile technology have made the app feasible.

At present *GSM Wildflowers* features 178 of the most common plant species in the Smokies; most are also found in North Georgia and many are found throughout our state. The app has 450 high quality images of the various species along with detailed information. Plants are listed by both common name and scientific taxonomy. Information can be accessed by tapping on either a photo in a gallery of photos, or as a species or a family. Information is provided in a list that includes flower color, leaf type, leaf arrangement, flowering dates, approximate height and habitat. A filter function in the app allows the user to use these descriptors to help find and identify a plant. There is also a short paragraph description and discussion of each plant.

An app like this one has several advantages over a traditional field guide. Most obviously, a

mobile device is much smaller and simpler than even the most compact book. I carry my iPod in my pocket and am not aware of its presence until I need it. *GSM Wildflowers* is self-contained and works anywhere. The photos are high quality and about the same size (2 x 3 inches) as those in a small field guide. Most species have at least two and usually three different photos so that a user can see a view of both the entire plant and a close-up of the flower.

There are disadvantages as well. The gallery photos are presented in an array of 12 on a single screen. Consequently, if you are searching for a photo to identify a flower, you are dealing with pictures that are about 1/2 inch square. The photos are displayed by color, but the gallery array requires good eyesight and even better identification skills - though the filter helps. Also, a paper book would allow the user to take margin notes. Of course, an app also can be modified to allow note-taking, but the process is cumbersome.

Overall, if you have a mobile device, this app is, as best I can tell, the highest rated wildflower guide available and certainly the most useful for those of us in BotSoc.

This app cost \$4.99 (another advantage over a traditional book) and can be purchased through the iTunes App Store. BDY Environmental donates 25% of the proceeds generated from the sale of this application to Discover Life in America (<http://www.discoverlife.org/>).



GSM Wildflowers is a guide to 178 of the most common wildflowers of the Great Smoky Mountains developed by BDY Environmental, LLC. The guide is available from iTunes as an application (app) specifically for iPods and other mobile devices.

Georgia's Trees

NATIVE ELMS (*ULMUS*) OF GEORGIA

by Richard Ware

Introduction:

Ulmus is the classical Latin name for the elms. The genus *Ulmus* consists of 25 to 30 species, trees (rarely shrubs), of temperate and boreal regions of the Northern Hemisphere (most diverse in central and north Asia).

Elms are used extensively as ornamentals because of their graceful form, pleasing symmetry, ease of propagation, and rapidity of growth. The yellow to yellowish-brown wood is strong, tough, durable and heavy and is sometimes used in furniture, paneling, and ships. Early human populations made crude cloth and rope from the inner bark fibers. The inner bark of the slippery elm contains large quantities of mucilage and was once used in folk medicines in the southeastern U.S. Seeds, buds and young twigs serve as food for songbirds, game birds and browsing animals such as rabbits and whitetail deer. The large quantities of pollen produced in early spring are major contributors to hay fever.

Our native elms are attacked by hundreds of insects including defoliators, bark beetles, borers, leaf rollers, leaf miners, twig girdlers and sucking insects. The attacks are usually not fatal but some diseases that infect elms are, including the now famous Dutch elm disease. The causal fungus of Dutch elm disease (*Ceratocystis ulmi*) is introduced into the sap stream of twigs or small branches during feeding by the smaller European elm bark beetle (*Scolytus multistriatus*) and the native elm bark beetle (*Hylurgopinus rufipes*). Since 1930, when the disease reached the US in a shipment of elm logs from Europe, Dutch elm disease has spread to 41 states. The disease is characterized by a gradual wilting and yellowing of foliage, usually followed by death of the branches and eventually the tree. According to current literature, all native elms are affected by the disease, but American elm seems to be the most susceptible. Evidently, Dutch elm disease is much worse in the northern sections of the United States - we still have many mature specimens of American elm in our area that appear unaffected by the disease.

According to the latest treatment of the genus there are four species and one variety native to Georgia: *Ulmus americana* var. *americana* (American elm), *U. americana* var. *floridana* (Florida elm), *U. rubra* (slippery elm), *U. alata* (winged elm) and *U. serotina* (September elm). Although not reported for Georgia, two additional species, *U. crassifolia* (cedar elm) and *U. thomasii* (cork or rock elm) are found just west of our area. At least four non-native species are cultivated: *U. procera* (English elm), *U. pumila* (Siberian elm), *U. glabra* (Wych elm) and *U. parvifolia* (Chinese elm). Chinese elm is reported as naturalized in areas around Atlanta. Therefore, this treatment and key is best utilized in naturally occurring woods and not on planted landscape specimens.

Ulmus americana* Linnaeus var. *americana [American], American elm, white elm. **Range:** Nova Scotia, New Brunswick and Québec west to se. Saskatchewan, south to c. TX and eastward to n. FL. In GA found in all provinces but collected from only 26 counties scattered across the state. **Habitat:** swamps, bottomland forests, moist slopes, especially on relatively or strongly nutrient-rich substrates. American elm blooms February-March and fruits from March-April. **Description:** American elm is usually from 80' to 120' in height and 2' to 5' in diameter. The bole, which is often heavily buttressed at the base, usually divides several feet above the ground into a number of gracefully arching limbs with more or less pendulous branchlets to form an attractive, vase-like or spreading crown of rare beauty and unusual symmetry. Leaves are from 4" to 6" long, 2" to 3" wide, coarsely doubly serrate, primary leaf teeth acuminate, often curved inward, base conspicuously asymmetrical, upper surface smooth or scabrous, but unlike slippery elm, scabrous in only one direction. Fruit is a green or orange-red samara, consisting of a flattened seed surrounded by a wing, oval to obovate, about 1/2" long, with a deep, terminal notch, hairy only along the margin of the wing. Twigs slender, round, red-brown, hairy at first becoming glabrous. Winter buds are lateral 1/4" long, chestnut-brown, acute, glabrous or with scales hairy-fringed. The top of each scale dark with lower portion light, giving bud a somewhat striped appearance.



leaf, twig and fruit - American elm

Ulmus americana* Linnaeus var. *floridana [Florida] (Chapman) Little, Florida elm. Weakley separates this variety from var. *americana* by the following characters: leaf bases moderately oblique (rarely nearly symmetrical); larger leaves 2 3/4" to 4" long; primary leaf teeth acute, not curved; [tree restricted to moist calcareous sites in the Coastal Plain of se. NC southward]. **Range:** se. NC (north at least to Carteret County) south to c. peninsular FL, west to panhandle FL. **Habitat:** shell middens, other calcareous forests; uncommon. Flowering is from January-March and fruiting is from February-April. Other than the above characteristics, Florida elm would be expected to be similar to the much more widespread American elm.

Ulmus rubra [red] Muhlenberg, slippery elm, red elm. **Range:** ME, Québec, and Ontario west to MN and ND, south to c. TX, eastward to panhandle FL. Slippery elm has also been reported from all provinces and is widely

Georgia's Trees

scattered across the state in 31 counties, but possibly more numerous in the limestone areas of northwest GA. **Habitat:** moist to fairly dry calcareous forests, rich bottom lands, rich cove forests in the low mountains. It blooms from February-March and fruits from March-April. **Description:** a tree, seldom more than 50' to 70' in height or 12" to 30" in diameter. Its general form is not wholly unlike that of the American elm although this tree never develops the graceful character and stateliness of that species. The limbs and branchlets are ascending, and at maturity the crown is usually spreading and flat-topped. Leaves are 5" to 7" long, 2" to 3" wide; tip acuminate, base broadly rounded-asymmetrical, margin coarsely doubly serrate, roughened (scabrous) on upper surface in all directions. The fruit is a green, short-stalked samara, consisting of a flattened seed surrounded by a broad, netted-veined wing, oval to orbicular, about 3/4" long, with a rounded, slightly notched, or merely depressed apex; the wing margin, naked; faces of the seed cavity, rusty-woolly. Twigs are moderately stout, those of the current season ashy gray, scabrous and further roughened by raised lenticels; lateral buds, ovoid (leaf buds) to subglobose (flower buds), blunt, covered by 10 to 12 chestnut-brown to purplish (black), overlapping scales with rusty-red, woolly hairs. Usually, the lower part of a bud exhibits the dark scales while the upper part shows rusty-red, woolly hairs.

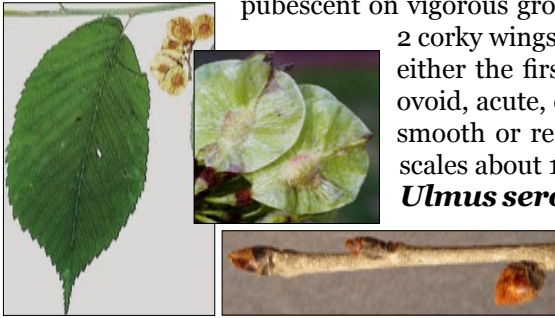
Ulmus alata [winged] Michaux, winged elm. **Range:** n. VA west to MO, south to c. peninsular FL and c. TX. It is found in all provinces in GA and collected from 30 widely scattered counties. **Habitat:** rock outcrops, dry and mesic forests and woodlands, bottom lands, old fields, disturbed areas. Winged elm blooms from February-March and fruits from March-April. **Description:** A tree, 40' to 50' in height and 12" to 30" in diameter; the short bole, usually terminated by several ascending limbs with laterally spreading branchlets, resulting in an oblong, nearly spherical or less frequently pyramidal crown of pleasing proportions. Leaves are from 1 1/2" to 3" long, 1" to 1 1/2" wide; base unequally rounded or cordate; margin, coarsely

doubly serrate, and smooth on the upper surface. The fruit is an orange-red samara, consisting of a single, flattened seed surrounded by a narrow wing, oval to oblong, about 1/3" long; notched at the apex, hairy on the seed cavity, wing, and margin. Twigs are slender, those of the current season grayish brown to reddish brown, glabrous, or more or less pubescent on vigorous growth; commonly furnished with 2 corky wings or ridges, which appear during either the first or second year; lateral buds, ovoid, acute, covered by several dark-brown, smooth or remotely pubescent, overlapping scales about 1/8" long.

Ulmus serotina [late] Sargent, September elm. **Range:** KY, s. IL, and e. OK south to e. TN, nw. GA, AL, and MS. This tree is rare in Georgia (S1), only being found in the northwest corner of the state (collected only from Floyd County, but reported for Walker and Dade). **Habitat:** mesic limestone forests; rare. This is our only elm found in GA that blooms in the fall, blooming is usually in September, with fruit maturity in October or November. **Description:** a tree, 40' to 60' in height and 2' to 3' in diameter; resembling American

elm in its general form, although it never attains the grandeur and stately proportions of that species. Leaves are 3" to 4" long and 1" to 2" wide; base extremely unequal; margin, doubly serrate-crenate; glabrous on the upper surface. Fruit is a light-greenish samara, consisting of a flattened seed surrounded by a narrow wing, elliptical to oblong, about 1/2" long, with a deep terminal notch; seed hull and

wings covered with silvery-white hairs, ciliate on the margins. Twigs are slender, those of the current season usually lustrous brown, occasionally somewhat hairy; those of the second and third seasons characterized by 2 or 3 corky ridges or wings; lateral buds, ovoid, sharp-pointed, covered by several dark-brown, glabrous overlapping scales, about 1/4" long.



leaf, fruits & twig - slippery elm



leaf, fruits, twig (winged), twig (unwinged) - winged elm



leaf, fruits & twig
September elm



Upcoming Field Trips

January 17 Monday 10:00 AM Springheads on Pine Mountain, Harris County

Description: The 2011 botanical season starts early this year with a visit to Callaway Preserve on Pine Mountain. The 8,500-acre preserve is not open to the general public, so this trip represents a rare chance to visit a seldom seen part of Pine Mountain. We will visit a series of unique springheads on the north side of the mountain. While we won't see much in flower (but we will look), the springheads are usually surrounded by broadleaf evergreens, including devilwood (*Osmanthus americana*), sweetbay magnolia (*Magnolia virginiana*), horse sugar (*Symplocos tinctoria*), titi (*Cyrtilla racemiflora*), and redbay (*Persea palustris*). Higher on the ridge we'll see scattered examples of montane longleaf pine.

Directions: From Atlanta take I-85 South to Exit 21 (I-185 South). Take I-185 south to Exit 42 (US 27). Turn left (south) onto US 27 and follow it past Callaway Gardens and to the top of the Pine Mountain ridge and the intersection of GA 190 / US 27. Turn left onto GA190 and then immediately right into the parking lot across from the Callaway Country Store. From Columbus, take I-185 North to Exit 34 (GA 18) and go east on GA 18 to Pine Mountain. Turn right on US 27 South and follow the above directions. **Meet at parking lot across from Callaway Country Store.**

Walking: Moderate, about 3 mi. Roughly half the walk will be on old dirt roads, the other half will be cross country along the slopes of Pine Mountain and will be rocky with deep leaf litter at times.

Facilities: Bathrooms at the Callaway Country Store; after that, rocks and strategically placed trees will be available.

Lunch: Bring a lunch to eat near one of the springheads.

Bring: Food and water. Warm clothing is recommended, as well as sturdy boots.

Leaders: Hal Massie 478.957.6095 (cell) massiefarm@aol.com Vicki Williams 404.396.1363 (cell) masterweeder@yahoo.com

February 20 Sunday 12:00 Noon Wolf Creek Preserve, Grady County Registration Required

Description: The Wolf Creek Tract is a 140 acre preserve owned by Grady County, managed by local conservation organizations and recognized as the greatest expanse of trout lilies (*Erythronium umbilicatum*) anywhere in the world (say the experts). We will see about 4 acres of solid trout lilies. Mixed in with the masses of trout lilies, we will see *Trillium maculatum*, terrestrial orchids such as southern twayblade (*Listera australis*), Wister's coral root (*Corallorhiza wisteriana*) and crane fly orchid (*Tipularia discolor*). These along with other spring flowering forbs and the surrounding forest will make this northeast facing seep seem like a botanical wonderland.

Directions: You may use a map program to navigate to the Wal-Mart parking lot on US 84 in Cairo, GA. My preferred route from the north is I-75 to south of Cordele, Hwy 300 through Albany to south of Pelham (Meigs). Turn right (southwest) onto GA 111 and proceed to Cairo. At the intersection of US 84, turn left (southeast) for ~2 blocks; Wal-Mart will be on your left. **Meet at Wal-Mart parking lot** to caravan to the site.

Walking: Easy.

Facilities: None at the site.

Bring: Water, hand lens, camera, raingear (just in case). Site is wet in some places, so bring appropriate foot ware.

Leader: Ed McDowell 478.396.8901 ed.mcdowell@cox.net For those who register, I will forward additional information about the rendezvous location and a side trip that you might wish to make before heading for home.

February 25 Friday 1:00 PM Trout Lilies at Paces Mill/West Palisades, Chattahoochee River NRA, Cobb County

Description: We'll walk to Rottenwood Creek to see the wonderful trout lily hillside display. Green and gold and toothwort leaves will be out nearby, but not flowering. Along the creek, we'll find yaupon holly (*Ilex vomitoria*) and silky dogwood (*Cornus amomum*). As we walk towards the second bridge, we'll see thousands of trout lily leaves but only 100 or so will be in bloom. Come again in early to mid-March to see full bloom. For those who wish to go on, we'll head north on the dirt riverside trail, to see horse sugar (*Symplocos tinctoria*) and other early trees and shrubs in bud. The forest will be filled with the sounds of early migrating birds looking for mates. At the cliffs there are several members of the heath (Ericaceae) family, including mountain laurel (*Kalmia latifolia*), Carolina rhododendron (*Rhododendron minus*) and Piedmont azalea (*R. canescens*).

Directions: If traveling south on I-75, take exit 258 to turn right on Cumberland Blvd and then left on Cobb Pkwy (US41S). After light at Paces Mill Rd, large brown NPS sign is just beyond the BP Station. If traveling north on I-75, exit at Mount Paran Rd to turn right onto Northside Dr. Continue north over river to park entrance on left, just before BP station. **Meet at Paces Mill parking lot** (3445 Cobb Parkway, Atlanta, GA 30339).

Walking: The first part is 1 mile round trip on a paved easy trail along the river and creek. If you go to the cliffs at West Palisades, the trail is a flat dirt trail except for one spot where we go over a few giant gentle rocks.

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 678 687-7963 cell macaire75@att.net

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 have lots of beautiful river views, identify trees and see the remains of the old riverside cabin 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 leaders 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 26 Saturday 10:00 AM - 3:00 PM West Palisades Early Wildflowers, Fulton County Registration Required

Description: We'll celebrate the start of spring and a look at the early spring forest, signs of wildlife, and great views from atop the West Palisades Ridge. The hike will lead us across the upper section of Trout Lily Creek, though 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 will see the dramatic effects of the Brevard Fault, great botanical areas, and the site of "Nancy Old Towne", a Woodland Culture Village site. Please note: persons wishing a shorter hike have the option of leaving the group at Rottenwood Creek and proceeding directly to Paces Mill (1/2 mile away by multi-use trail).

Directions: From I-75 south, take exit 258, turn right on Cumberland Blvd and then left on Cobb Pkwy (US 41). Proceed downhill through light at Paces Mill Rd. Large brown NPS park entrance sign is just beyond BP Station on the right. From I-75 north, exit at Mount Paran Rd, turn left and then turn right onto Northside Dr (US41N) Continue north over the river; park entrance is on left, just before the BP station. **Meet at the Paces Mill parking area** (3445 Cobb Parkway, Atlanta GA 30339) to shuttle everyone to our starting location at Akers Drive. We will leave as many cars as possible at Paces Mill; the walk concludes there. If you drive a multi-passenger vehicle and could 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 - please call 678.538.1200.

Upcoming Field Trips

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; off trail and on non-maintained trails for short sections; several 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
Reservations required - please call 678.538.1200.

Mark your calendars for the 42nd Annual Spring Wildflower Pilgrimage

April 15 - 17, 2011

Carrollton, Georgia

The pilgrimage issue of the newsletter should be in your mailbox in mid February.

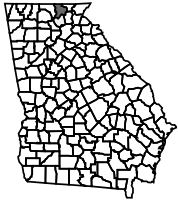


Georgia 610, adopted for the Georgia Botanical Society on the Roan Mountain field trip July 10, 2010. Photo by Jim Drake.

Baatany Project Angora Yarn. The Roan Mountain Baatany Project (see Maureen's trip report in the November 2010 BotSoc News) has 200 skeins of angora yarn for sale. BotSoc members can purchase yarn at \$15 per skein (plus shipping & handling charges of \$3 to \$4 first class or \$6-\$7 priority mail) – a good discount, as the yarn is \$20 per skein for the general public. The nine BotSocers who attended the July field trip to see the Roan Mountain goats are eligible for a special discount rate of \$12 per skein (plus shipping costs as above). Please send requests to:
Jamey Donaldson
PO Box 248
Roan Mountain, TN 37687
Make checks payable to Jamey Donaldson.

Field Trip Reports

BRASSTOWN BALD - TRACK ROCK, OCTOBER 2, 2010



Union County

A beautiful fall morning greeted our group as we left the parking lot to begin the ascent of Georgia's tallest mountain. Among the first flowers encountered were, predictably, members of

Asteraceae such as snakeroot (*Ageratina altissima*) and several species of goldenrod, most notably wreath goldenrod (*Solidago caesia*). Ben Cash pointed out the state champion wild raisin (*Viburnum cassinoides*).

After a brief period we exited the paved track and took a left onto the old Wagon Train Trail. Along the trail we encountered several stems of showy gentian (*Gentiana decora*) in bloom. At the end of the Trail the group turned right onto the paved vehicle road leading to the tower. Along the side of the road, virgin's bower (*Clematis virginiana*) grew in great abundance. Several relatively tall American chestnut (*Castanea dentata*) trees grew along the roadside also. Ben also found mountain maple (*Acer spicatum*) which is not very common in Georgia. He also pointed out two other woody species infrequently found in Georgia, American mountain ash (*Sorbus americana*) and Minnie bush (*Menziesia pilosa*).

A number of aster species were present including, what were thought to be white wood aster (*Eurybia divaricata*) and late purple aster (*Symphotrichum patens*). More showy gentians were found.

The group ate lunch on the outside area at the visitor information center. The trip back down the mountain followed the paved walking trail where more autumn wildflowers were seen. Here we also saw catawba or purple rhododendron (*Rhododendron catawbiense*) growing along with the more common rosebay rhododendron (*R. maximum*).

After leaving the Brasstown Bald area, the group caravanned to a small parking turnout beside Trackrock Road and then hiked a short trail through the woods to the petroglyphs. These soapstone boulders contain hundreds of symbols carved by native peoples perhaps thousands of years ago. Some theories suggest the symbols were made by ancient hunters while waiting at a crossing site for migrating elk and bison.

From the parking turnout, a short drive took us to a side road off the main Trackrock Road

route to where a number of fringed gentians (*Gentianopsis crinita*) posed for photographs along the unmowed portions of the road banks. Also seen were a few stems of agueweed (*Gentianella quinquefolia*), mountain mint (*Pycnanthemum loomisii*), Joe Pye weed (*Eupatorium fistulosum*), lobelia (*Lobelia puberula*), and some *Helianthus* and *Rudbeckia* species.

The last portion of the trip involved a short drive to a power line right-of-way. However, on the way the group stopped at the Hughes molasses mill where production was full steam, literally. Some of the participants purchased bottles of fresh sorghum syrup to take home for use on pancakes or biscuits. At the right-of-way, dozens of stems of the rare large leaf grass-of-Parnassus (*Parnassia grandifolia*) and multitudes of monkshood (*Aconitum uncinatum*) were in peak bloom. The trip culminated at the end of a full day having covered a great deal of territory and observing a number of beautiful rare wildflowers.

Jim Drake, Suwanee



Along a side road at Track Rock Gap, fringed gentians (*Gentianopsis crinita*) posed for photographs in the unmowed portions of the road banks.
Photo by Jim Drake.

Field Trip Reports



Houston County

OCMULGEE BOTTOMLAND, OCTOBER 9, 2010

This was the first ever BotSoc visit to the newly designated Echeconnee Natural Area and a return to the Oaky Woods Wildlife Management Area. At both sites, we explored the edge of the floodplain of the Ocmulgee River and orchids were the highlights.

The Echeconnee Natural Area, at the southern edge of Bibb County, was set aside as part of the buffer zone for Robins Air Force Base and its natural attributes have not yet been studied in any detail. From the road, it doesn't look very promising - a flat area of pine forest. However, a short walk in reveals a steep drop into the wooded floodplain of the Echeconnee Creek that also serves as floodplain for the nearby Ocmulgee River. Our leader, Tom Patrick, had scouted the area three weeks earlier and flagged some of his finds - most notably fragrant ladies' tresses (*Spiranthes odorata*) nestled underneath the hardwoods.

I have to admit my other hobby, history of technology, was getting in the way of my understanding of the name "ladies' tresses". I assumed 'tress' was of the same lineage as "truss", an iron band that helps hold a ship's mast together, or in other words, a variety of girdle. I could easily imagine the tall thin green racemes rising from the earth as masts emerging from an endless deck. However, the flowers do not in the slightest resemble bands or any sort of reinforcement. It turns out "tress" is an entirely different word. The flowers organize as rhythmic bumps along the slender raceme, suggesting a tress or braid of hair.

Although these particular individuals showed off their handsome flowers this day, they did not live up to their species name. Most of us did not detect any more fragrance in them than their cousins we would see later in the day. We did not venture far into the Echeconnee floodplain, as it was still soggy from record rainfall two weeks ago. On the slope of the bluff, we found an unusual specimen of sarsaparilla vine (*Smilax pumila*). This vine with showy orange fruit usually trails along the ground, but this one climbed up into the brush.

On the way to and from the bluff, a power line right-of-way was full of October colors and scents. Blue curls (*Trichostema dichotomum*) offered a minty aroma. Another mint, this one with more nearly white flowers, was Georgia savory. Distinctly blue was *Agalinis fasciculata*, one of our largest foxgloves. We think of foxgloves as being saprophytic on the roots of trees, but these specimens were doing quite well despite the right-of-way being managed to eliminate woody growth. We also saw joint weed and some showy yellow goldenrods.

While the Echeconnee Natural Area remains largely unstudied, Lee Echols published his paper on Oaky Woods

Wildlife Management Area earlier this year. Lee's work was on the unusual prairies; currently Patrick Lynch is studying the much larger hardwood forests. BotSoc has toured Oaky Woods in east central Houston County annually for several years now. These trips usually focus on the black belt prairies, but this is not the first time we have visited the bottom lands.

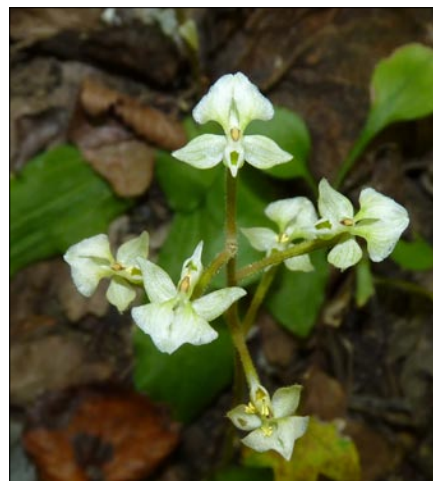
The soil at the bluffs is easily eroded, whereas the soil in the Echeconnee Natural Area is more stable. The soil is black, with an occasional lump of pure white. Pieces of limestone heavily laden with fossils are scattered about, confirming the calcareous origin.

We admire the large hardwoods. The understory includes an unusual treat: a few ripe pawpaws that have not been gotten to first by the animals. The fruit of *Asimina triloba* does indeed taste tropical! And speaking of animals, we saw a box turtle, a rather large walking stick and several large, colorful golden silk spiders.

The highlight at Oaky Woods was the shadow witches orchid (*Ponthieva racemosa*). These orchids are similar to the ladies' tresses except the individual flowers are a little showier and extend out from the raceme. We also found one example of a ladies' tress, possibly a *Spiranthes ovalis*. All of these were on the bluff, whereas the ones at Echeconnee were on the bottom land. We exited the bottom land at the Rocky Cut prairie and saw a beautiful *Salvia azura* in flower along with *Agalinis tenuifolia*.

Each time we visit Oaky Woods, we think it might be the last. The state's negotiations could either result in purchase or losing even the wildlife management lease. On the other hand, Echeconnee Natural Area is secure and holds 160 acres waiting for a future visit.

David Farrier, Warner Robbins



The highlights at Oaky Woods were orchids: shadow witches orchid (*Ponthieva racemosa*) and fragrant ladies' tresses (*Spiranthes odorata*).

Photos by Anita Reaves.

Georgia's Trees (cont.)

Key to the native species of *Ulmus* found in Georgia

adapted from Weakley (*Flora of the Southern and Mid-Atlantic States Working Draft of 8 March 2010*)

- 1 Leaf blades mostly <3" long, base symmetrical to somewhat oblique; twigs usually abundantly winged **winged elm (*Ulmus alata*)**
- 1 Leaf blades mostly >3" long, the base moderately to strongly oblique (rarely nearly symmetrical); twigs not winged to slightly winged in *U. serotina* 2
 - 2 Upper leaf surface strongly scabrous in all directions; current season twigs ashy-white; buds dark at base with red-hairy tips; fruit not ciliate on margins **slippery elm (*U. rubra*)**
 - 2 Upper leaf surface either smooth or scabrous in one direction; current season twigs brown to red-brown; buds either all brown or with dark scale tips, glabrous to ciliate on margin; fruit ciliate on margins 3
 - 3 Leaves obovate-oblong or oblong; leaf undersurface yellowish soft-pubescent, lacking prominent tufts of hairs in vein axils (differing from the general pubescence of surface); branches often developing corky wings; inflorescence a raceme or racemose cyme; blooming in autumn **September elm (*U. serotina*)**
 - 3 Leaves oblong-ovate to elliptical; leaf undersurface glabrous or slightly pubescent, always with tufts of hairs in vein axils; branches never with corky wings; inflorescence a fascicle; blooming in spring 4
 - 4 Leaf bases strongly oblique; larger leaves 4" to 6" long; primary leaf teeth acuminate, often curved inward; [tree widespread in our area] **American elm (*U. americana* var. *americana*)**
 - 4 Leaf bases moderately oblique (rarely nearly symmetrical); larger leaves 2 ¾" to 4" long; primary leaf teeth acute, not curved; [tree restricted to moist calcareous sites in the Coastal Plain of se. NC southward] **Florida elm (*U. americana* var. *floridana*)**

	American elm	Florida elm	Slippery elm	Winged elm	September elm
Leaf length	4" - 6"	2 ¾" - 4"	5" - 7"	1 ½" - 3"	3" - 4"
Leaf base	strongly oblique	moderately oblique	strongly oblique	symmetrical	strongly oblique
Leaf upper	smooth to scabrous in one direction	smooth to scabrous in one direction	strongly scabrous in all directions	mostly smooth	smooth
Leaf lower	smooth to slightly hairy with tufts of hairs in the vein axils	smooth to slightly hairy with tufts of hairs in the vein axils	hairy	pale hairy	yellowish soft-hairy, lacking prominent tufts of hairs in the vein axils
Twigs	reddish brown, smooth or sparsely hairy	reddish brown, smooth or sparsely hairy	ashy gray, scabrous	slender, reddish brown, smooth to hairy, prominently winged	lustrous brown, hairy, slightly winged
Buds	dark brown with dark scale tips, scales with hairy margins	dark brown with dark scale tips, scales with hairy margins	several rows of dark scales at base, upper buds red hairy	dark brown, acute tips, smooth to slightly hairy	dark brown, sharp-pointed, smooth
Fruit shape	oval to obovate with deep terminal notch	oval to obovate with deep terminal notch	oval to round, slight terminal notch	oval to oblong, notched at the apex	elliptical to oblong with a deep terminal notch
Fruit hairs	hairy only along the margin of the wing	hairy only along the margin of the wing	face of seed rusty-woolly, margin smooth	hairy on the seed, wing, and margin	hairy on the seed, wing, and margin

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Photo Credits:

Richard & Teresa Ware: American elm leaf, twig; slippery elm twig; winged elm leaf, twigs; September elm leaf, fruit and twigs. Steve Hurst, USDA-NRCS PLANTS Database: American elm fruit. Joseph Marcus, Lady Bird Johnson Wildflower Center: winged elm fruit. Wofford and Chester, Univ. Tenn. Herbarium: slippery elm leaves.

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