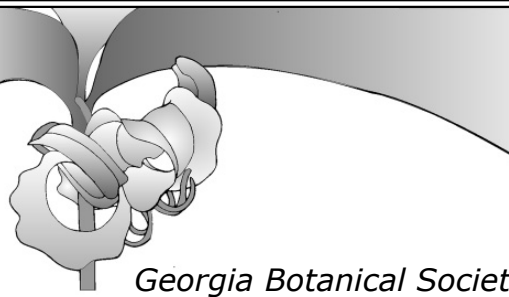


BotSoc News



Georgia Botanical Society

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CITIZEN VOLUNTEERS TO MONITOR BEES

Apis mellifera mellifera is getting a lot of press lately. Introduced by European colonists in 1622, the highly adaptable European honeybee has expanded across the American landscape as part of the beekeeping industry and as wild, unmanaged honey bee colonies. Although an important pollinator for agricultural crops, this fact was not strongly brought to public attention until 2006 when managed honeybee colonies began to disappear in large numbers. The phenomenon, Colony Collapse Disorder (CCD) has since been the subject of both the nightly news and scientific study.

Bees native to North America are also important pollinators of wild and cultivated plants. But these solitary and semi social species, many of which nest in the ground, are harder to study than *A. mellifera* and there is no nationwide system to monitor the effects of CCD on them and the plants that depend on their pollination service. Scientists at two institutions are trying to address this dearth of information.

In the spring of 2008, conservation biologist Gretchen LeBuhn and her colleagues at San Francisco State University launched the Great Sunflower Project, a citizen science project to monitor and map bee populations across the country. The plan is simple: volunteers plant sunflowers (*Helianthus annuus* cv. 'Lemon Queen'). When the plants flower, they make two observations each month for a maximum of 30 minutes each time to observe how long it takes for five bees to visit their sunflowers. Because identifying bees to species level is difficult, bees are identified only as one of five categories: honeybees, bumblebees, carpenter bees, green bees and "other."

The more than 40 thousand participants nationwide report their findings on standardized data sheets. A recent summary of observations from 1200 different gardens revealed that approximately 20% of participants saw no bees on their sunflower within the 30-minute limit, suggesting that 1 in 5 gardens have low bee pollinator service.

At the study progresses, LeBuhn will map pollinator service across the U.S. to give a clearer

picture of the effects of CCD and whether native bees are filling in areas where honeybees have disappeared. The study will also help biologists to track the health of native bee populations.

The second citizen monitoring project is an online identification guide for bees. Led by Sam Droege, a biologist at U.S. Geological Survey's Patuxent Wildlife Research Center, scientists and taxonomists from the American Museum of Natural History and the University of Georgia have created a guide for the nearly 800 bee species of Eastern North American. Other regional guides are planned.

In contrast to a dichotomous key in which the user must answer the first question in order to move forward to the next question, the online bee guides are polychotomous. The list of species and the list of questions interact with each other so that the answer to any question automatically narrows the list of candidate species. Each guide also includes high quality photographs, including some that combine multiple images taken at different focus depths into a 3-dimensional image. The site also includes techniques for collecting and preparing bee specimens, a glossary of bee identification terms, a guide to pronunciation of the names of bee genera and access to a bee monitoring discussion group hosted by the USGS.

While the researchers hope that large numbers of citizen volunteers will participate in their bee monitoring projects, all note that the action most likely to benefit bees is to use pesticides discriminately, and especially to avoid the use of pesticides at mid-day when bees are most likely to be out foraging for nectar.

The Great Sunflower Project is discussed in the Sept-Oct 2008 American Scientist and on their web site (www.greatsunflower.org). The bee guide and other bee information can be accessed at www.discoverlife.org/20/q?search=Apoidea.

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From the editor's desk: an editor's perquisites include complimentary journals, newsletters and articles. When space permits, excerpts and sometimes expansions of interesting topics from these periodicals are included in BotSoc News. Feel free to contact me if you've read something you would like to share with other BotSoccers.



BotSoc News

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

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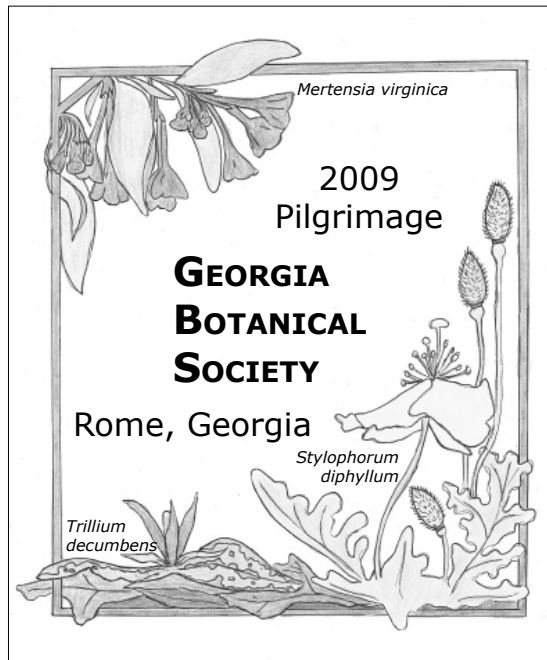
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Society News

President's Message

The registration deadline for our 40th Wildflower Pilgrimage is March 10. I want to encourage each of you to attend because the northwest corner of Georgia contains some of the best spring wildflower viewing in the southeastern United States. The Pilgrimage committee assembled 22 absolutely wonderful field trips and recruited two excellent speakers. This is a Pilgrimage not to miss. If you have not registered, please pull out your Pilgrimage brochure or look at the brochure at the BotSoc website at http://www.gabotsoc.org/?page_id=23, select your field trips, fill out the registration form and mail. You will not be disappointed. Don't forget to order your commemorative tee shirt or sweatshirt. Remember, proceeds from merchandise sales help fund the annual BotSoc research grants. Hope to see you soon ..Ed



A FEW RULES FOR BOTSOC FIELD TRIPS & WORKSHOPS

We've added two new rules to put our group in line with other similar organizations and to help assure a good experience for all those attending BotSoc field trips:

NO PLANT COLLECTING

We sometimes collect specimens for a recognized herbarium, but please don't use our trips to "scout" for plants. It is unethical to return to a botanical site to dig plants for your garden or for any other purpose.

NO PICKING OF PLANTS

We often pick part of a plant for teaching identification of the plant, but please, no bouquets!

STAY ON THE TRAILS

If there is a trail, we expect you to stay on it.

DON'T TRAMPLE VEGETATION

When we go cross-country, there is no choice but to walk through, over, and on vegetation. On those occasions, we don't walk single-file, but spread out so that we do not all stomp the same plants.

NO SMOKING

Except in your privately owned vehicle.

NO PETS

On the trail.

Book Review

DARWIN'S GARDEN: AN EVOLUTIONARY ADVENTURE

A CATALOG OF THE EXHIBITION AT THE NEW YORK BOTANICAL GARDEN

This catalog is from an exhibition on Darwin, evolution and botany that opened at the New York Botanical Garden in April of 2008. The catalogue includes a listing of all exhibits, many pictures of various documents - both written and illustrative - descriptions of special exhibitions and, most importantly, an essay on Darwin and botany by Darwin scholar David Kohn (Oxnam Professor of Science and Society, *Emeritus* at Drew University).

Kohn's very readable essay (even for a non-science type like me) traces the history of Darwin's work with plants, especially flowers. Darwin is often presented as rather more dilittante than student at Cambridge, but Kohn points out that for three years (1829-31), the young naturalist attended lectures by Cambridge botanist John Stevens Henslow. Although Henslow was a religious man who believed that species were stable and did not evolve, his Cambridge herbarium was organized to emphasize the varieties to be found within a species.

Eventually, Henslow helped Darwin secure the position of naturalist on HMS Beagle. Because of that famous trip to the Galapagos and elsewhere, Darwin would, in time, prove the exact opposite of Henslow's view: new varieties of a species were developed through a natural process of evolution and through some varieties new species might evolve.

Most people are aware of Darwin's work with birds in the Galapagos, but as Kohn notes, "Plants came before birds in the birth of Darwinian evolution" (p. 15). Darwin had discovered the endemism in numerous insects and birds, especially the finches, on the islands, but he had also commented, "[while] watching an insect one forgets it in the stranger flower it is crawling over" (Kohn, p. 15). He quickly realized that in the plants, "endemism was as striking as the finches"

(Kohn, p. 15). Plants, especially those in flower, were a major interest of Darwin from the start of his career.

After returning from the Galapagos and publishing *The Origin of the Species* five years later (1859), Darwin's next work was *Fertilisation of Orchids* (1862). Using what he called his "weed

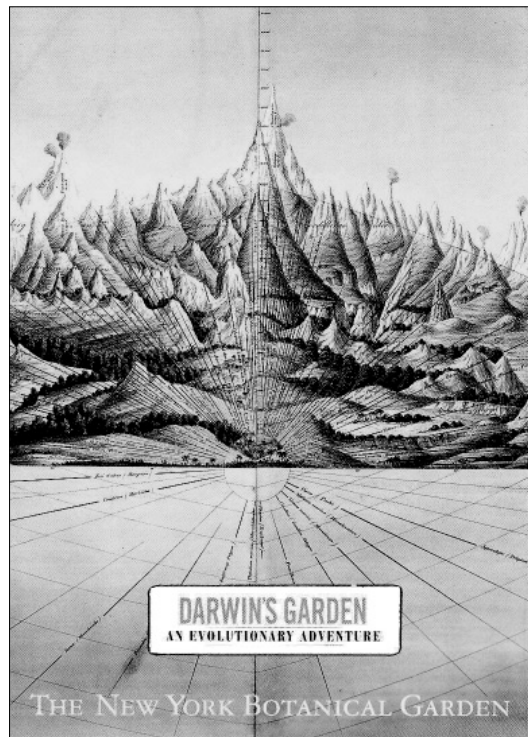
most famous prediction was that the foot-long nectar tube of a Madagascan lily (*Angraecum sesquipedale*) would be pollinated by a moth with an equally long proboscis. Decades after Darwin's death, such a moth was discovered.

After returning to England from the trip on the Beagle, Darwin devoted much of his time to the study of botany. Kohn focuses on Darwin's later work with movement in plants, especially insectivorous ones. The sun-seeking movement of vines and plants like the sundew fascinated Darwin. This movement in plants allowed Darwin to develop his view of the unity of all life - the ability for motion providing the initial connection between plants and animals.

Kohn's essay provides a clear overview of Darwin's work with plants and the importance of that work to his theories. The original exhibit in New York documented much of what Kohn says, not only with pictures and manuscripts but in other ways as well. Darwin's Down House Gardens were reconstructed to an extent at the Enid A. Haupt Conservatory and the Tree of Life diagram that Darwin prepared was turned into a 40-minute, self-guided tour of the Botanical Gardens. A special, hands-on exhibit for children was also provided.

It would have been a wonderful and wondrous experience to see this exhibit so close to the 200th anniversary of Darwin's birth. The next best thing is reading Kohn's essay and seeing the full-color illustrations of flowers, charts, diagrams, texts and other parts of the exhibition.

by Bob Linn, Calhoun



Soft cover, 60 pages, 8" x 11"
The New York Botanical Garden, 2008,
ISBN 0893279706 \$17.99

garden" as well as the abundant wild orchids near his home, Darwin did an intense study of plant reproduction.

The accepted view at the time was that plants, having both male and female parts, self-fertilized. If this view had been true, evolution as Darwin presented it could not exist. All plants would basically have been clones of their parent plants. Through years of experiment and observation, Darwin demonstrated the role of insects in cross-pollination, thus bolstering his theories. Perhaps his

Journey to the Northeast Part II

MOUNT CUBA & MONTICELLO

by Richard Ware

The spectacular woodland wildflower gardens of Mt. Cuba Center are dedicated to the study, conservation and appreciation of plants native to the Appalachian Piedmont region through garden display, education, and research. Set in the rolling hills of northern Delaware, the 650-acre non-profit horticultural institution was the estate of Lamont du Pont Copeland, a former President and Chairman of the Dupont Company.

Mt. Cuba offers a variety of classes in naturalistic gardening, native plants, conservation, ecology, and more throughout the year and offers internships for college students majoring in horticulture, ecology or related plant science fields. Among the publications offered by Mt. Cuba, I can personally recommend, "Trilliums at Mt. Cuba Center: A Visitor's Guide," by Jeanne Frett. The price is \$15 plus \$5 shipping and handling. An order form and much more information about the Mt. Cuba Center can be found on their website (www.mtcubacenter.org).

Our personal tour of Mt. Cuba Center was arranged and conducted by director, Rick Lewandowski. Rick, a member of BotSoc, has been to Georgia on seed collecting trips and to the Coosa Prairies here in Floyd County.

Mt. Cuba Center was the site for the 2008 Trillium Symposium where trillium experts like Frederick W. Case Jr, Tom Patrick and Alan Weakley gave presentations. The 2-day conference was dedicated to education about the science, conservation, and horticulture of trilliums in eastern North America. While we were a little late to see trilliums at their peak, a few species still were blooming, plus plenty of other things to see in full bloom.

In the cultivated garden area we were really impressed by the huge specimens of wild indigo (*Baptisia* sp.) - wild blue indigo (*B. australis*), white indigo (*B. alba*), and a beautiful hybrid with pale yellow flowers called 'Carolina Moonlight.' Beginning our walk we encountered masses of phlox

After more than 30 years, Teresa and Richard Ware revisited the Arnold Arboretum in 2008. Since they would be driving to Boston (Richard was unable to convince Teresa to fly), they visited several other interesting gardens in the Northeast. In this issue, Richard continues his story with an account of his visit to the Mt. Cuba Center in northern Delaware and to Monticello, Thomas Jefferson's home near Charlottesville, Virginia.



One of the largest and most impressive trees on Thomas Jefferson's estate was a Chinese toon or Chinese cedrela (*Cedrela sinensis*). Photo by Teresa Ware.

(*Phlox* sp.), green-and-gold (*Chrysogonum virginianum*), blue-eyed grass (*Sisyrinchium* sp.) and beardtongue (*Penstemon calycosus*). As we walked along we couldn't help but be amazed by the many species of azaleas and rhododendrons (*Rhododendron* sp.) in peak flower. Some species were also adding a wonderful fragrance to the air. As we walked downhill through the rich woods we saw doll's eyes (*Actaea pachypoda*), wild geranium (*Geranium maculatum*), Solomon's Plume (*Maianthemum racemosum*), yellow trillium (*Trillium luteum*), deceiving toadshade (*T. decipiens*), fairywand (*Chamaelirium luteum*), and atamasco lily (*Zephyranthes atamasca*).

Later, as we approached a small pond and began walking around a much larger pond we started to see a brand new set of plants: yellow lady's slipper (*Cypripedium pubescens*), lance-leaf trillium (*Trillium lancifolium*) and the best find of the day for me, the first of two populations of the very rare Southern lady's slipper (*Cypripedium kentuckiense*). This plant was easy to tell from the nearby yellow lady's slipper by its larger and much elongated slipper, with a much larger opening and pale yellow color. This lady's slipper was only recently found in Georgia and we had not seen it before.

At the far end of the pond we en-

Journey to the Northeast Part II

countered boggy-like conditions and found two species of pitcher plants in full bloom - yellow pitcher plant (*Sarracenia flava*), and purple pitcher plant (*S. purpurea*). When we headed back toward the office on a circular path, we were still seeing plants not seen before: lily-leaf twayblade (*Liparis lilifolia*), speckled wood lily (*Clintonia umbellulata*), pale yellow trillium (*Trillium discolor*). we also saw three trilliums we had never seen before (except in books): prairie trillium (*T. recurvatum*), twisted trillium (*T. stamineum*) and green trillium (*T. viridescens*). Before reaching the office, we also encountered a nice population of wood or celandine poppy (*Stylophorum diphyllum*) and the best population of the Southern lady's slipper (*Cypripedium kentuckiense*).

This is just a small sample of the many plants that you'll see at Mt. Cuba Center, so if you think you will be in the area contact the Mt. Cuba Center and schedule a tour! It was a wonderful day and many thanks to Rick for the excellent tour.

Monticello. Thomas Jefferson (1743-1826) began construction of his home "Monticello" in 1769 and took up residence there in 1770. The word *monticello* in Italian means "little mountain." Monticello occupied Jefferson's attention and imagination for more than 50 years. He designed the exceptional neo-classical house and supervised its construction and expansion. From the beginning he envisioned the house as part of an ornamental landscape. His gardens were laboratories for the cultivation of myriad species of trees, flowers, vegetables, and fruit. Unfortunately, the plantation was unprofitable and he died in debt, forcing his family to sell the land, house, and household contents. Fortunately Monticello is owned now by the Thomas Jefferson Foundation, Inc.

Our tour of Jefferson's home was

very interesting indeed, but my main reason for going was to see the trees around his estate. I had read about the interesting trees that Jefferson planted and couldn't wait to see them. Sadly, I had waited too long. There are only two surviving trees that Jefferson himself planted - a very large tuliptree (*Liriodendron tulipifera*), that despite



Mt. Cuba has two populations of the very rare Southern lady's slipper (*Cypripedium kentuckiense*). The plant was only recently found in Georgia and Richard and Teresa had never seen it before. Photo by Teresa Ware.

heavy cabling on all the major limbs is not long for this world and an eastern redcedar (*Juniperus virginiana*).

But, there are other interesting trees that have been planted on the front lawn, the sides of the home, and all along a circular garden path that originates at the rear of the home. The front of the home is dominated by a large American basswood (*Tilia americana*) and several small-leaf lindens (*T. cordata*). On the side of the home are two large tuliptrees (*L. tulipifera*), one of which is an original planting. As you walk around the path

in a counterclockwise direction you encounter a purple-leaf beech (*Fagus sylvatica* 'atropunicea'), a good sized northern catalpa (*Catalpa speciosa*), and then one of the largest and most impressive trees on the estate - a Chinese toon or Chinese cedrela (*Cedrela sinensis*). This ornamental tree has feathery foliage, similar to *Ailanthus* (tree-of-heaven) but easily distinguished by the absence of the large gland-bearing teeth at the base of the leaflets. And, also unlike the tree-of-heaven, cedrela has very shreddy bark, and is in the Mahogany Family (Meliaceae), like the chinaberry (*Melia azedarach*) - also found along the walk. There were several other very large northern catalpas (*C. speciosa*) in full bloom, as were the chinaberrys, and smoketree (*Cotinus coggygria*).

Following the circle around to the other side we found several nice sugar maples (*Acer saccharum*) and a surprise tree just before you get back to the home - an English walnut (*Juglans regia*). On the slope below the home is the gift shop and mulberry row, a row of white mulberries (*Morus alba*), along each side of the trail leading back to the visitor center and parking lot.

This old road overlooks the vegetable garden and fruit tree orchard. Teresa and I partook of

some wonderful tasting cherries from trees growing on the terrace between the vegetable garden and the fruit tree orchard. Just a short distance down the trail is the Jefferson family cemetery, where Thomas Jefferson and his family are buried. For more information about Monticello, please visit their website (www.monticello.org).

After this stop, we were ready for the long drive back to Rome, Georgia. It was truly a wonderful and unforgettable vacation and all locations visited come highly recommended.

Upcoming Field Trips

Date	Description	Directions	Leader
Mar 06 Friday Note day! 1:00 PM Meet at front of Paces Mill parking lot.	Afternoon Trout Lily Stroll, Chattahoochee River NRA, Cobb County The afternoon sun shows trout lilies (<i>Erythronium umbilicatum</i>) in their best light. Paces Mill has a large concentration of these lovely wild flowers, but we'll also see horse sugar trees (<i>Symplocos tinctoria</i>) in bud and look for other spring wildflowers, including toadshade trillium, bloodroot and broadleaf toothwort. Paces Mill Parking Area 3445 Cobb Parkway Atlanta, GA 30339	From I-75S: Cumberland Blvd exit. Turn right at end of exit ramp, Cobb Pway, US41. Turn left (downhill) just beyond the BP station at Paces Mill Rd. Turn right at the large brown National Park sign. From I-75N: Mt Paran Rd exit. Turn left at exit ramp and right on Northside/US41 (becomes Cobb Pkwy). Turn left at National Park sign before Paces Mill Rd. Walking: Easy - transportation may be possible for anyone who cannot do the 1 mi round trip. Facilities: Restrooms in the parking area Bring: \$3.00 parking fee or annual pass. Comfortable shoes, a snack or a warm/cold drink to enjoy in the pocket park at River.	Maureen Donohue 770.818.9303 678.687.7963 cell, trip day only macaire75@att.net
Mar 07 10:00 AM Meet in the parking lot.	Thompson Mill Forest, Jackson County Thompson Mill Forest's 330 acres were deeded to UGA in 1980 to be used as an arboretum. The site contains 90% of the 214 trees native to GA. Forest Manager Bill Lott will take us on a tree identification and wildflower walk. If the group wishes, we can also go to an 8 acre granite outcrop located in the forest.	New Directions to Thompson Mill Forest: from Atlanta take I-85 exit 126. Turn left on GA 211 (Old Winder Rd) to Liberty Church Rd, right to junction of Thompson Mill, New Liberty Church and Ednaville Rds. Forest is on left. UMC Church is on the right. Walking: 3 or 4 miles of easy trails Facilities: Yes Bring: A pack lunch, water, sturdy walking shoes, your favorite Georgia tree book. Contact Maureen if you need additional directions.	Bill Lott, Forest Manager Maureen Donohue 770.818.9303 678.687.7963 cell, trip day only macaire75@att.net
Mar 14 10:00 AM Meet at first parking area at the BRNA.	Broad River Natural Area, Madison County This will be a 2 to 3 mile walk along the river trail. Last year, we found spoonleaf yucca, mockernut hickory, pignut hickory, sand hickory, pipsissiwa, rue anemone, switch cane, Chickasaw plum, serviceberry, trout lily, bloodroot, liverleaf, and rose verbena. Michaux's sumac (<i>Rhus michauxii</i>) and pale trillium (<i>Trillium discolor</i>) are possible, but not been reported yet from this area. Perhaps we can find them.	From Athens: north on US 29 to Danielsville. About 2 mi north of town, turn right (east) on GA 281. Cross the Broad River and continue <0.5 mi to first BRNA sign and parking area on right. From Atlanta: Take I-85 north ~50 miles to US 441 (Banks Crossing Outlet exit). Take US 441 south toward Athens ~4 mi, then turn left (east) on GA 98 to Danielsville. At intersection (light) of GA 98 and US 29, turn left (north) on US 29 and follow directions above. (This route is ~10 min quicker than taking 316 to Athens.) Walking: Easy to moderate 2-3 miles. Facilities: None. Lunch: Bring your own.	Hugh & Carol Nourse 706.353.8222 706.340.1765 cell trip day only hughandcarol@att.net
Mar 21 10:00 AM Meet at park office at Devil's Fork S.P.	Devils Fork and Oconee Station State Parks, South Carolina The Oconee bells (<i>Shortia galacifolia</i>) at Devils Fork should be in their prime. Their hue and beauty is best appreciated in person. After lunch, we will drive to historic Oconee Station where we should see lots of other early spring wildflowers and perhaps <i>Trillium simile</i> in bloom.	Take I-85 north to SC state line, take 1 st exit on the SC side and head north on SC Hwy 11 for ~35 mi. After crossing SC 130, proceed 2 mi and turn left on road to park for 2 more miles. Well marked. Follow to park office next to main boat ramp on Lake Jocassee. Lunch: Bring to eat in park. Facilities: At both state parks. Walking: Easy walks of one and two miles.	Mike Christison 770.973.6482 770.596.3564 cell mikepaddler@netscape.net

Upcoming Field Trips

Date	Description	Directions	Leader
Mar 21 10:00 AM Meet at Paces Mill parking to shuttle to Akers Mill trail head.	West Palisades, Chattahoochee River NRA, Fulton County Celebrate the start of spring and look at the early spring forest and great views from atop West Palisades Ridge. Our hike will lead us across the upper section of Trout Lily Creek, through a mature oak-hickory forest. Paces Mill Parking Area 3445 Cobb Parkway Atlanta, GA 30339	From I-75S: Take Cumberland Blvd exit; at end turn right to reach Cobb Pkwy, US41. Turn left (downhill) at BP station at Paces Mill Rd. Turn right at the large brown National Park sign. From I-75N: Mt Paran Rd exit. Turn left at exit ramp and right on Northside/US41 (becomes Cobb Parkway after the river). Turn left at National Park sign before Paces Mill Rd. Walking: Moderately strenuous Facilities: At Paces Mill and Akers Mill. Bring: Annual pass or \$3 parking fee. Lunch. Camera, hand lens and binoculars.	Jerry Hightower 770.206.0338 678.538.1245 cell, trip day only jerry_hightower@nps.gov Reservations required: 678-538-1200
Mar 22 Sunday Note day! 10:00 AM Meet at Indian Trail parking area at bulletin board.	Indian Trails East Palisades, Chattahoochee River NRA, Fulton County We'll look for wildflowers on Indian Trail Ridge Trail then hike up the Salamander Creek Trail for the view from Overlook Ridge. We will then take Cabin Creek Trail through a beautiful forest to Cabin Creek. We hope to see hepatica, hastate violet, toothwort, trilliums, May apple and more. Jerry has been roaming these ridges since childhood, but don't believe all of his tales. East Palisades Unit/Indian Trail 1425 Indian Trail NW, Atlanta, 30327	From I-285 East: Take exit 22, Northside Drive/ New Northside Dr/ Powers Ferry Rd. Turn right on Northside Dr, then left to go under I-285. Go through intersection at Powers Ferry Rd where the name changes to Northside Dr. Travel ~1 mi to Indian Trail. Turn right on Indian Trail which goes directly to the park. From I-285 West : Take exit 22, and go straight to turn right at Northside Dr, in front of McDonalds. Continue ~1 mi, turning right on Indian Trail and follow as above. Facilities: Big trees and lots of bushes. Difficulty: Moderately strenuous, some off trail. Bring: Annual pass or \$3 parking fee. Lunch. Camera, hand lens and binoculars.	Jerry Hightower 770.206.0338 678.538.1245 cell, trip day only jerry_hightower@nps.gov Reservations required: 678-538-1200
Mar 22 Sunday 10:00 AM Note day! Meet at gravel driveway.	Spring Wildflowers, Taylor County This walk on the Flint River emphasizes abundant populations of relict trillium (<i>Trillium reliquum</i>) but there should be bellwort, hepatica, erythronium and more. (Where there is <i>T. reliquum</i> , there's got to be more!) Because this is an exploratory trip on private land presently for sale, if the land IS sold, the trip is off. Please get in touch with me (preferably by email) in early March to learn of any changes to trip.	Access is gravel driveway on the north side of GA SR 137 ~100 ft west of GA SR 128. From Roberta: travel west on GA SR 128, cross the Flint River and bear straight ahead on GA SR 137 (SR 128 almost immediately bears to the left). Access point is immediately on right (north). From Reynolds: Take GA SR 128 north to GA SR 137, just west of the Flint River. Turn left (west) on GA SR 137; the access point is immediately on the right. Facilities: None Walking: Moderately difficult. One bluff site. Lunch: Bring to eat in the field.	Chris Inhulsen 478.396.4941 (cell, but no guarantee of reception) cinhulsen@yahoo.com
Mar 28 10:00 AM Meet at Popeye's Fried Chicken in Millen	Joiners' Property, Jenkins County Our 133 acres on Buckhead Creek consists of river swamp downstream from Magnolia Springs SP and above the Ogeechee River. We'll look for the southern tway-blade orchid found historically in the 'Buckhead Church' swamp, but not seen in years. I hope to have a plant list in advance of the trip.	From Atlanta: I-75 to I-16 east to exit 104/GA 121 in Metter. North on GA 121 to US 25 junction. Left/north on US 25 to light in Millen. Popeye's is on NW corner. From Savannah: I-16 west to exit 104; follow above directions. Lunch: Bring to eat in field. Walking: Easy. Prepare for wet feet and thick brush. Waterproof boots advisable. Facilities: At Popeye's Bring: Water, bug repellent, sunscreen.	Martha & Hew Joiner 912.764.6329 912.481.1623 cell joiners@frontiernet.net

Upcoming Field Trips

Date	Description	Directions	Leader
APRIL 3-5, 2009: JOIN US AT THE SPRING WILDFLOWER PILGRIMAGE IN ROME GA ! Use the registration form in your pilgrimage issue of the newsletter or download a form from gabotsoc.org. Registration deadline is March 10.			
Apr 10 Friday Note day! 1:00 - 4:00 PM Meet at Interstate North Parking Area	Cochran Shoals, West Palisades, Chattahoochee River NRA, Cobb County We'll use the riverside trail to reach the Wildlife Viewing boardwalk over the wetlands. Beyond the boardwalk, are southern nodding trillium, toadshade trillium, foam flower and other spring wildflowers. If the group wishes we can extend the walk over to Powers Island for another mile or so.	I-285 East to exit 22, Northside Dr. At 2 nd light, go left onto New Northside Dr. Use "through" lane to Interstate North Parkway - entrance is 0.8 mi on right after river. From I-285 West, take exit 22 and go right on New Northside Dr then follow directions as above. For other directions, see www.nps.gov/chat or contact Maureen. Walking: Flat terrain, easy 1-2 miles. Facilities: Near Parking area Bring: \$3.00 parking fee or annual pass and water.	Maureen Donohue 770.818.9303 678.687.7963 cell, trip day only macaire75@ att.net
Apr 11 10:00 AM Meet at Ingles parking lot, Hiawassee	Stroud Creek and Ramp Cove, Towns County Hike a beautiful north-flowing creek to a ~4,000 ft ridge. Expect leatherwood, showy orchis, sugar maple, yellowwood, black birch and a notable cucumbertree. Return through a high-elevation cove with huge yellow buckeyes, tall tuliptrees, ramps, squirrel corn, trilliums, Dutchman's britches and spring beauty.	Ingles is on the north side of GA Hwy 75 in Hiawassee. From there we can carpool for the 5 mi drive to the trailhead. Walking: 4 to 5 mi, creek crossings, bush-whacking, difficult and strenuous. Facilities: None outside of Hiawassee Bring: Water, lunch, raingear and appropriate footwear	Ben Cash 706.778.5155 bencash@ hemc.net
Apr 12 Sunday 9:30 AM Note: date & time change Meet at Visitor's Center Parking	Amicalola Falls State Park, Dawson County We will walk to the base of the falls and then other trails to view the early spring wildflowers including Virginia bluebells, toothworts, trailing arbutus, bloodroot and others. This is one of the busiest State Parks relative to available parking. Carpooling is encouraged and is the reason for the early start time.	There are a myriad of ways to get to this park. Easiest route from Atlanta is GA400 to GA53, then west (left) on GA53 through Dawsonville to GA183 at Juno. Then, northwest (right) on GA183 to GA52 and east (right) on GA52 to the park. Lunch: Bring to eat at park. Walking: Generally easy, some moderately steep climbs on good trails. Facilities: Yes. Bring: \$3 per vehicle fee or state park pass.	Rich Reaves 770.827.5186 rich.reaves@ att.net
Apr 17 Friday 10:00 AM Meet at Nature Center	William H. Reynolds Memorial Nature Preserve, Clayton County The Preserve's 146 acres contain hardwood forests with ponds, wetlands, streams, a spring and 4 miles of loop trails. We'll begin with a ranger presentation on the reptiles found in live exhibits at the Center, then walk the trails in hopes of seeing blooms on Oconee and Piedmont azaleas and a variety of woodland wildflowers.	From I-75 exit 233 turn left onto Jonesboro Rd/Hwy 54 going north towards Morrow. Go ~0.8 mi to turn left on Reynolds Rd, then 1.1 miles to parking lot on the left. 5665 Reynolds Rd, Morrow GA, 30260 Facilities: At Nature Center. Difficulty: Moderate, ~2.5 mi, one long gradual uphill, but easy pace. Bring: Water and picnic lunch. Admission is free, but \$1.00 donation requested. See http://web.co.clayton.ga.us/reynolds/about.htm for map and more information.	John Little 770.987.2550 678.447.4346 cell, trip day only jhlittle49@ yahoo.com

Upcoming Field Trips

Date	Description	Directions	Leader
Apr 18 10:00 AM Meet at Dunca-residence	Wilbur and Marion Duncan Property, Clarke County Developed as a botanical preserve by the Duncans, this 32-acre property purchased in 1943 has upland, bottomland, stream corridor, granitic outcrop and hardwood forest habitats with several species of Trillium and the national champion Georgia oak. 2600 Lexington Rd, Athens	From Atlanta: GA-316 E toward Athens. Exit right onto US-29 / US-78E / GA10-LOOP N toward UGA / Lexington. Go 6.7 mi to take exit 8 (Oconee St/Lexington Rd). Turn right at light onto Oconee St/US-78. Go 1.2 mi to turn right at gravel driveway (large green mailbox marked 2600). This is just past Rhett Butler State Farm and Shadybrook Drive. Facilities: Bathrooms available in house. Lunch: Bring a picnic lunch. Walking: Easy to moderate; ~1 mile.	Linda Chafin Julie and Mack Duncan 706.340.5474 cell 706.850.1518 home duncan2600@charter.net
APRIL 22 - 26 SPRING WILDFLOWER PILGRIMAGE AT GREAT SMOKY MOUNTAINS NATIONAL PARK GATLINBURG, TN Enjoy the Smokies in bloom. Pick from a variety of trips and workshops led by people like our Tom Patrick and Scott and Annette Ranger. Learn about flowers, trees, birds, bats, bears, settlers, photography, and more! Camp with the group Thursday - Sunday in Elkmont Campground or stay in a motel and share a campfire or Sunday camp breakfast. Registration required. Info and registration can be found at www.springwildflowerpilgrimage.org or on site at Mills Auditorium in Gatlinburg. Cost in 2008 was \$40. Bring warm clothes, hiking shoes and raingear. It can snow in the mountains in April. Also, bring food if you plan to camp. Contact Amy Delaplaine for camping details or questions about get-togethers. 404.352.2558 (home) 404.388.0197cell (works in Gatlinburg but not in the park) amydel@mindspring.com			
Apr 29 10:00 AM Wednesday Note day! Meet at Visitor Center	Plant Inventory, Red Top Mountain State Park, Bartow County This is first trip to inventory plants at the park; areas with suspected spring flora will be investigated; ferns and woody plants also identified. The state park has a lodge at 770-975-0055, tent camping and yurts; otherwise Cartersville is nearby with abundant motels.	From Interstate 75, take Exit 285, Red Top Mountain Rd and go 1.5 mi east to Visitor Center. Walking: Easy to moderate, some bush-whacking off trails. Facilities: At Visitor Center and in picnic area for lunch. Bring: Hand lens, notebook, water bottle, picnic lunch.	Tom Patrick 706.468.2805 gapeapatch@bellsouth.net Visitor Center phone is 770.975.4226
May 1 Friday Note day! 1:00 - 4:00 PM Meet at Vickery Creek parking area	Vickery Creek Unit, Chattahoochee River NRA, Fulton County We'll walk on the trails above Big Creek, enjoying the azaleas and big leaf magnolias that hopefully will be in bloom. With luck, we'll find the Bowman's root (<i>Gillenia trifoliata</i>) we found last year. We'll walk near Big Creek and cross the footbridge for spectacular views of the creek and the cliffs in bloom.	From I-285 East exit 25, Roswell Road, turn left and drive 7 mi north. After the river, turn right on Riverside Rd then immediate left into the Vickery Creek parking area. From I-285 West exit 25, turn right and follow directions above. More detailed instructions at www.nps.gov/chat . Facilities: None at Vickery Creek, but restrooms at City of Roswell park on the right side of Riverside Road. Difficulty: Moderate, easy pace about 3-4 mi. Bring: \$3.00 parking fee or annual pass, water.	Maureen Donohue 770.818.9303 678.687.7963 cell, trip day only macaire75@att.net

Upcoming Field Trips

Date	Description	Directions	Leader
May 2 10:00 AM Park above bath house and walk downhill to meet at trailhead	Lake Winfield Scott, Union County This hike through hemlock-heath, southern Appalachian cove, oak ridge and oak-pine-heath forests should show us yellow lady's-slipper, pink lady's-slipper, speckled wood lily, doll's-eyes, blue cohosh, toothwort, umbrella leaf, yellow mandarin, perforate bellwort, six species of violet and four species of trillium. Most of the wildflower species are in the 1st mile - feel free to return when you are ready.	From Atlanta: GA 400 north to its end at Dahlonega. Turn left onto GA Hwy 60 toward Suches. At Stone Pile Gap, bear left at the pile of rocks to stay on GA 60. After Woody Lake watch for Ga Hwy 180 on the right (motorcycle resort and service station at corner). Turn right on Hwy 180 and go for ~4.5 mi. Turn right into Lake Winfield Scott Recreation Area then continue to the parking area above the lake. Facilities: At meeting site. Walking: Moderate, some strenuous stretches, 5.5 mi. Bring: \$5 entrance fee, lunch, water, sturdy shoes for hiking, trekking poles, rain gear.	Linda Chafin 706.548.1697 Lchafin@uga.edu
May 3 Sunday 11:00 AM Meet in parking lot above falls	The Len Foote Hike Inn, Amicolola State Park, Dawson County This joint overnight trip with GNPS is a moderate 5 mi hike to the inn at a pace to enjoy wildflowers. Rooms are \$125.66/\$62.83 per person (double) and \$87.36 (single) and include breakfast and dinner.	Located 4.5 miles from Springer Mountain, the southern terminus of Appalachian Trail, the Inn is a very special place, dedicated to operating on a conservation conscious basis. You may wish to return to your car via Springer Mountain, but remember that participants carry personal items to and from the Inn. A large day-pack is usually adequate for your belongings.	For more information contact Maureen Donohue 770.818.9303 macaire75@att.net also see www.hike-in.com
April 10 Deadline - send payment to Maureen Donohue, 4545 River Parkway Apt 15K, Atlanta GA 30339			
May 3 Sunday 10:00 AM Meet at park office parking lot.	Plant Inventory Pickett's Mill Historic Site, Paulding County The nearly completed inventory list will be checked for spring flora, especially in the hardwood ravines. There is no camping at this park, nearest camping at Red Top Mountain State Park; motels in Kennesaw and Dallas.	Take I-75 to exit 277, Acworth/GA Hwy 92. GA 92 makes several turns and an unexpected right just off the freeway. Proceed for 12 mi south to turn right at small brown sign for Pickett's Mill at Due West Road (NOT Due West Street). Go 1.8 mi to turn right onto Mt. Tabor Church Rd to entrance on right. Walking: Easy to moderate, some off trails. Facilities: At Visitor Center. Bring: Hand lens, notebook, water, lunch A list of plants found to date is available from the leader.	Tom Patrick 706.468.2805 gapeapatch@bellsouth.net
May 9 10:00 AM Meet at the former Tritt's Store in Suches	Cypripedium Gulch, Union County Perhaps named by the late Miriam Talmadge who had a cabin nearby, this area is home to a "mother lode" of <i>Cypripedium</i> orchids: pink lady slippers and both the small-flowered and large-flowered yellow lady slippers. We may see the easily overlooked lily-leaved twayblade. Optional: hike to Little Cedar Mountain at YJ Gap, a gneiss dome exposure with lots of fameflower and American columbo is on the way up (~1 mi on an old roadbed).	From Dahlonega, take GA 60 north toward Suches and Morganton. At rock cairn, stay left on GA 60. At Woody Gap, you'll head down into Suches and see Woody Lake. We'll gather at an abandoned store on your left at the junction with Cooper Gap Rd. Difficulty: While not physically strenuous, hike requires sure footing and comfort bushwhacking (off trail) the entire day. We'll climb ~300 ft at 2,600 ft elevation. Footing can be slippery on rich cove soil. Facilities: McDonald's in Dahlonega. Bring: Drink, lunch to carry on the hike. Hand lens, binoculars, etc.	Scott Ranger 770.420.1836 404.210.3088 (cell) scottranger@comcast.net

Upcoming Field Trips

Date	Description	Directions	Leader
<p>May 16 10:00 AM</p> <p>Meet at Pavilion in Callaway Building Parking Lot</p>	<p>Introductory Native Cool Season Grass ID Workshop, Clarke County The State Botanical Garden offers a wide array of cool-season grasses. We'll explore the berms along the river as well as the floodplains in both sun and shade looking for a variety of native cool-season grasses before we go up the power-line line to see both cool-season grasses and forbs. Bring a hand lens. Limit: 15 people. Pre-registration required.</p>	<p>From Atlanta take GA 316. As you approach Athens, stay in the right lane to bear right on GA Loop 10 (signs say south Athens/UGA). Take exit 6, Milledge Ave and turn right. Garden is ~1 mi on right. Meet at Pavilion in the Callaway Building parking lot. Facilities: Full facilities at Visitor's Center. Bring: 10X hand lens, snacks, water, bug spray, sunscreen, lunch or eat at Conservatory after workshop. A cool-season grass list will be furnished when you register.</p>	<p>Elaine Nash 770.922.7292 einash33@bellsouth.net</p>
<p>May 16 8:00 AM</p> <p>Meet at the Flint River Outpost near Thomaston</p>	<p>Flint River & Shoals Spider Lilies, Upson County This all day outing takes us through one of the most beautiful and ecologically diverse sections of the Flint River. At Sprewell Bluff and the Fall Line Ravines, coastal plain flora and fauna intermix with species of the upper piedmont and mountains. We will travel either 6 or 9 miles of river with several easy class 2 rapids, then car caravan to Big Lazar Creek WMA to see the state listed shoals spider lilies.</p>	<p>The Flint River Outpost (706.647.2633), west of Thomaston on Highway 36 has rental canoes and kayaks. There is a shuttle fee. Thomaston has hotels. Camping is available at the Outpost and Big Lazar Creek WMA. Facilities: At the Outpost and at Spruill Bluff State Park. The Outpost has a store. Difficulty: Easy, suitable for beginners with some basic canoeing or kayaking skills. Bring: Pack a lunch to picnic along the river. Sunscreen, a hat, rain jacket, and water. Your camera, binoculars, and maybe a hand lens are all recommended. Bring a day pack or other bag to secure items inside your boat.</p>	<p>Jerry Hightower 770.206.0338, cell 678.538.1245, office jerry_hightower@nps.gov Reservations are required by calling 770.971.8919</p>
<p>May 22 Friday 10:00 AM</p> <p>Meet in the parking area, City of Roswell Park</p>	<p>Vickery Creek Rhododendrons, Chattahoochee River NRA, Fulton County Hike through oak hickory ridge and mesic forests and rhododendron/mountain laurel thickets on the steep slopes above Vickery Creek to see very large big leaved umbrella magnolia, lush ferns, grand native shrubs and wildflowers. An old mill dam on the creek now creates a beautiful waterfall.</p>	<p>From the Historic Roswell Square travel north on Atlanta St (Hwy 9). Oxbow Rd is at bottom of hill on right. We will meet in the parking area/trail head in the City of Roswell Park on Oxbow Rd. Facilities: Trees and thick shrubs. Difficulty: Moderately strenuous with a few steep slopes. Bring: Pack a lunch and we will picnic.</p>	<p>Jerry Hightower 770.206.0338, cell 678.538.1245, office jerry_hightower@nps.gov Reservations required by calling 678.538.1200</p>
<p>May 23 10:00 AM</p> <p>Meet at Pinhoti Trail Parking Area on FS90</p>	<p>Roadside Botanizing: Cohutta Mountains, Gilmer & Fanin Counties During this time of year we can expect to find 4 - 6 species of trillium, 4-leaved milkweed, wild geranium, Solomon's seal, lily-of-the-valley, spotted wood lily, wood betony, fire pink, and much more. Carpooling at the meeting place will be a necessity on these narrow unpaved roads.</p>	<p>Take I-575/ GA 515 north to East Ellijay to turn left on GA 52. At ~5 mi west of the square on GA 52, turn right on Gates Chapel Rd. When pavement ends, take Wilderness Trail/ FR 90 (dirt road to the right almost straight ahead). At ~0.9 mi do not turn left at WMA sign for Pinhoti Trail. Continue 0.1 mi to a Pinhoti Trail Parking on right on FS90. Walking: Easy, probably 500 feet from cars. Facilities: Only what nature provides. Bring: Lunch, water, bug spray.</p>	<p>Rich Reaves 770.827.5186 rich.reaves@att.net</p>

Upcoming Field Trips (look for details in the May BotSoc News)

Date	Description	Directions	Leader
May 24 Sunday	Exploratory Trip: Hemp Top Trail, Cohutta Wilderness, Fannin County	Meet at Hemp Top Trail trailhead at Dally Gap	Rich Reaves 770.827.5186 rich.reaves@ att.net
May 24 Sunday	Chestatee Canoe Float & Spring Flora, Lumpkin County	We will meet at the Appalachian Outfitters Outpost on Highway 60 near Dahlonega.	Jerry Hightower 678.538.1245, office jerry_hightower@ nps.gov
May 25 Monday	Arkaquah Trail, Brasstown Bald, Union County	Meet in the parking lot on top of Brasstown Bald	Hal Massie 478.836.4907 massiefarm@ aol.com
May 30	Red Top Mountain Plant Inven- tory, Bartow County	Meet at Visitor Center	Tom Patrick 706.468.2805 gapeapatch@ bellsouth.net

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