

BotSoc News



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Pssst: Help spread the word!

Marie Mellinger committee funds good work in botanical research, conservation

By Linda Chafin

Chair of BotSoc's Marie Mellinger Committee for Field Botany Research

If BotSoc members are like me and a lot of other Americans, you are looking for reasons to hope in a better future, a future where conservation is a top priority, where climate change is acknowledged and acted on, and where decisions based on science trump those made in ignorance. One reason to have that hope lives right here in our small society of people who love native plants and the ecosystems that sustain them and donate their money to the Marie Mellinger Field Botany Research Award program.

In the three years that I have been on the Marie Mellinger Committee with hardworking committee members Timothy Estep, Bill Goldstrum, Ed McDowell, and Richard Ware, the Society has provided funds for the following projects:

- 2020: Hemlock woolly adelgid control; plant inventory of Coastal Plain bogs; assessment of barrier island vegetation; safeguarding of rare milkweed species; and habitat restoration at Fernbank Forest. Total awards: \$5,000.
- 2021: Genetic study of the federally listed pondberry (*Lindera melissifolia*); a study of fire impacts on soil microbes in longleaf pine savannas; effects of a hurricane on ground layer plants in longleaf pine savannas; urban wetland education at Phinizy Swamp Nature Park in Augusta; and research on the effects of climate warming on trees in the Georgia Piedmont. Total awards: \$5,300.



Royal catchfly (*Silene regia*). Photo by Richard & Teresa Ware.

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President's Perspective

**BotSoc News**

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Happy New Year! Are you making plant resolutions? One of mine is to attend society field trips. Jackie Miller has been doing a great job updating the website with field trip information, so check it out! A second resolution of mine is to take some action toward the plant cause. To help explain what I mean, I'll showcase some examples from our members.

I attended Richard Carter's Native Grasses Workshop, with organizational help from Heather Brassell, at Gaskin Forest Education Center on Oct. 22. For me, grasses are tough. Yet those in attendance stayed hours over the scheduled time because the review was that good! Do be on the lookout for more workshop events there and throughout the state.

I am thankful to have received many emails from members on botanical issues. Here are some briefly noted:

- Independently, three different groups, including Don Fisher and Bruce Roberts, reported on the status of fringed gentian (*Gentianopsis crinita*) in north Georgia. Bad news, a site with a population of the plant seems to have been damaged by road maintenance. Good news, some of the best people I know that can help are working on it.
- Another correspondent discussed problems of importing plants into the state.
- Others had suggestions for beautifying our interstate highways.

All of these showcase situations involving different aspects of Georgia botany, not just conservation, but also the economy and aesthetics. It is by actions of these individuals that problems are identified and then solutions can be found. If you think you are just an individual and that your actions won't make a difference, then think again. If you have a

plant issue you feel strongly about, feel free to message me, and I will try to point you in a direction that might help or get word out.

It isn't all doom and gloom; there are great things being done botanically in the state. I got to discuss many such activities while attending the annual symposium of the Georgia Plant Conservation Alliance on Nov. 2-4. I listened to tales of prescribed burns, laboratory work, propagation successes, out-planting events, and rare plant surveys. That's just to name a few, and that doesn't cover the presentations.

I also attended the fall meeting of the Coastal Plain Chapter of the Georgia Native Plant Society on Nov. 12. They had an excellent seed swap as well as presentations. More of what both these events had in common was plant enthusiasts in both the private and public sector--nursery owners, hobbyists, academics--all discussing plants together. That is what I encourage from you. Rather than hearing what I am doing, please send me your plant interests, thoughts or work. If you took a

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President's Perspective—Continued from Page 2

beautiful picture of a plant you saw or one you grow, send it in and perhaps it will be featured in the next newsletter. Have a plant story? Send it in. What members tell me they want to hear the most is what other members are doing. So let's let each other know.

Go out and look at some plants. Have a great day!

Timothy Estep

Marie Mellinger Awards—Continued from Page 1

- 2022: Habitat restoration in a previously logged mountain forest; conservation of the state-listed royal catchfly (*Silene regia*); a data-informed conservation plan for the federally listed Edna's trillium (*Trillium persistens*); investigation of climate change effects on a common aster family species; continued support for hemlock woolly adelgid research; conservation and restoration of globally imperiled maritime grasslands on a Georgia barrier island; and a plant survey and development of conservation plan for a granite outcrop community. Total awards: \$9,800.



Edna's trillium (*Trillium persistens*). Photo by Richard & Teresa Ware.

Even a quick scan of this list reveals the breadth of the projects we've supported, from soil microbes to ecosystems, encompassing education, climate change, restoration, conservation, and basic research into Georgia's flora and natural communities. Every region of Georgia is affected by the topics addressed and stands to benefit from the knowledge produced by these research projects. You may also have noticed that every year our funding has increased, and that is thanks to the donors and Board members who have championed this program and urged us to fund more projects at higher levels every year.

Award recipients are asked to submit articles to *Tipularia* describing their projects, and we hope you have enjoyed reading about the Marie Mellinger-funded projects

that are published yearly in *Tipularia*. We also hope that you will spread the word to your friends and colleagues about this funding opportunity. I would like to see more applicants from technical colleges and from land-managing agencies, from members of minority communities and from non-profit conservation groups, and especially from folks working to fill in the gaps of what we know about Georgia's flora by conducting county or natural area surveys. There is a lot to be done, a lot to discover and learn when it comes to Georgia's plants and ecosystems, and I'm proud that BotSoc is playing a role in that project.

Field Trip—FDR State Park



Trip leader Hal Massie holds a southern red oak (*Quercus falcata*) leaf with extremely long central lobe. Photo by Jane Trentin.

Oaks and lichens highlight a fall day's ramble at FDR State Park

Field Trip: FDR State Park
Date: Nov. 27, 2022
Trip Leader: Hal Massie
Trip Report: Jane Trentin

On Sunday, Nov. 27, eight BotSocers met at Fox Den trailhead on Pine Mountain Trail at FDR State Park for a day of botanizing. Hal Massie led us with the promise of spotting at least 10 species of oak trees. If seedling water oaks (*Quercus nigra*) are counted, we observed 11 species.

One of those species, sand post oak (*Quercus margaretiae*), was the subject of much debate until it was finally agreed to be a tree species of its own and not a cross. Chestnut oak (*Quercus montana*) along with Georgia oak (*Quercus georgiana*) are the two most prevalent

species on Pine Mountain, and we saw lots of both. The Georgia oaks were retaining many of their colorful leaves and were mostly at eye level for us to appreciate.

Blackjack oak (*Quercus marilandica*) was present, as was post oak (*Quercus stellata*) with its star-shaped leaves.

Scarlet oak (*Quercus coccinea*) was easiest to spot with its scarlet leaves still on some trees. The sinuses on this species' leaves are indented almost to the midvein and form the letter 'C.' Its trunk has long vertical silver "ski trails." Southern red oak (*Quercus falcata*) has the longest of any of the oak leaves we found. "Falcate" means hooked or curved like a sickle and comes from the Latin for "curved like a falcon's wings." Indeed, the leaves were curved



Participants in the hike at FDR State Park included Jay Watkins, Pam Watkins, Malcom Hodges, Jane Trentin, Jackie Miller, Dave Miller and Tia Tyler. Photo by Hal Massie.

FDR State Park—Continued from Page 4



Malcolm Hodges discusses a patch of lichen as Jackie Miller, Dave Miller and Pam Watkins listen.
Photo by Photo by Hal Massie.

downward. Another noteworthy characteristic of some leaves on this tree are the long central lobes which sometimes extend half the length or more of the entire leaf! White oak (*Quercus alba*) and red oak (*Quercus rubra*)

completed our inventory of oaks.

Other trees observed were two species of the genus *Prunus*, Alabama cherry (*P. alabamensis*) and black cherry (*P. serotina*.) The leaves of the Alabama cherry are blunter-tipped than those of the black cherry. Alabama cherry also has fuzziness on the underside of its leaves and blooms two weeks before black cherry. One black cherry we saw right alongside the trail was of particular interest with its beautiful branch structure. Both species displayed vivid yellow and/or orange leaves. Hickory trees had their characteristic yellow leaf color and were probably of the species *Carya tomentosa*, or mockernut, so named because of how the tree mocks those who try to crack its very hard nuts!



Trip leader Hal Massie admires a small oak with brightly colored leaves. Photo by Jane Trentin.

Three species of pines were present, those being longleaf (*Pinus palustris*), shortleaf (*P. echinata*) and loblolly (*P. taeda*.) Since burning has been restricted in the state park, longleaf pines have diminished in number. Also, a result of less frequent fire is that the American holly (*Ilex opaca*) seems to have moved uphill and away from water. Sparkleberry (*Vaccinium arboreum*) and Elliot's blueberry (*Vaccinium elliotii*) both had on their fall colors of a burgundy red for the former and a bright true red for the latter. Lowbush blueberry (*Vaccinium pallidum*) had already lost its leaves. Wax myrtle (*Morella caroliniensis*) and possibly possumhaw (*Viburnum nudum*) were two other shrubs we saw

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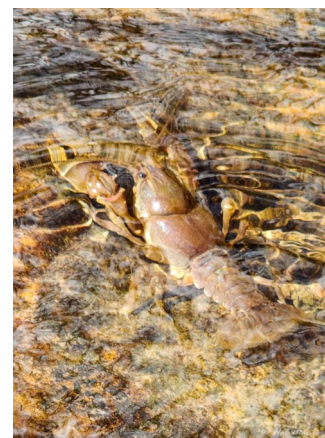
FDR State Park—Continued from Page 5



along with Piedmont azalea (*Rhododendron canescens*).

The few blooming plants we saw included bottle gentian (*Gentiana saponaria*) and silky aster (*Pityopsis graminifolia*.) Three mosses we saw were broomswept (*Dicranium scoparium*), pincushion (*Leucobrynum albidum*), and delicate feather moss (*Thuidium delicatulum*.)

And finally, down to the smallest organisms we saw and maybe learned were the lichens. It was our good fortune to have BotSoc's own lichenologist, Malcolm Hodges, on our field trip. He had his ultraviolet light pen and bottle of KOH (potassium hydroxide, commonly called lye or caustic potash) to distinguish which lichen he was seeing. Gold dust lichen (*Chrysothrix candelaris*), dragon lichen (*Cladonia squamosa*), southern reindeer lichen (*Cladonia subtenuis*), smooth-footed powderhorn (*Cladonia ochrochlora*), and three species of *Parmotrema*—perforated ruffle (*P. perforatum*), old gray ruffle (*P. tinctorum*), and reticulate ruffle (*P. reticulatum*) were all pointed out.



BotSoc hikers are apt to see occasional fauna along with flora. Here's a crayfish the group ran across. Photo by Hal Massie.



Top, a serpentine black cherry (*Prunus serotina*). Photo by Jane Trentin. Above, among the few blooms in November at FDR State Park were these bottle gentians (*Gentiana saponaria*). Photos by Hal Massie.

It was a fun day in the woods with other plant lovers appreciating the variety and beauty of nature! Thank you, Hal, for leading us, and Malcolm for going off trail to find specimens for us to identify. It was a perfect way to spend the Sunday after Thanksgiving.

Field Trip: Sprewell Bluff WMA—West Tract



Bright sun, wind and beauty all in a day's outing at Sprewell Bluff

On a suddenly blustery yet sunny day, Hal Massie led 16 attendees on a

Field Trip: Sprewell Bluff WMA—West Tract

Date: Nov. 27, 2022

Trip Leader: Hal Massie

Trip Report: Gemma Milly

new hike at the Sprewell Bluff Wildlife Management Area (WMA) – West Tract.

We entered the WMA from Mitchell Gap and caravanned east towards Rockhouse Mountain, enjoying great visibility from ridgetop to ridgetop across the valleys of young longleaf grassland.



We parked our cars short, south of the mountain. After proper personal introductions, we began descending the ridge northward towards the Flint River, following a small valley which later joined a larger, unnamed branch, between Turpentine Branch (to the west) and Rockhouse Mountain (on our right to the east).

Top, young longleaf pine (*Pinus palustris*) coming up under old growth longleaf on the slope of Pine Mountain. Photo by Gemma Milly. Above, Sprewell Bluff participants, (back row L-R), Sarah Kelsey, Henry Garcia, Leila Dasher, Jessica McAlpine, Jay Davis, John Harrison, Jay Watkins, Pam Watkins, and trip leader Hal Massie; kneeling (L-R) Alejandro Cordero-Rios, Sam Breyfogle, Malcolm Hodges, Sam Lapp, Jasmine Little, Maya Lapp and Gemma Milly. Photo by Hal Massie.

Very soon after leaving the road, we admired a small patch of grand old longleaf pines (*Pinus palustris*). The understory was sparse with sourwood (*Oxydendrum arboreum*), sweetgum

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It's that time!

Renew your membership now for another year of fun, friends and field trips!

It's time to renew your membership in the Georgia Botanical Society this new year if you haven't already. And renewing is so easy. Renew online by going to the BotSoc website (https://www.gabotsoc.org/?page_id=2). There you'll find a link to the page where you can renew online. Or, if you prefer, print a PDF form for mailing to our membership chair, Jo Anne Romfh. You'll find her mailing address on the form itself. If you are unable to go to the website and need a form, please contact Jo Anne at joannromfh@aol.com or phone 678-461-4466.

Sprewell Bluff—Continued from Page 7

(*Liquidambar styraciflua*), blackjack oak (*Quercus marilandica*), and Alabama Cherry (*Prunus alabamensis*). On the ground, we found Georgia calamint (*Clinopodium georgianum*), holding a single flower.

Continuing our descent, we reached into the beginning of a tributary to the larger branch, descending through a thicket of sparkleberry (*Vaccinium arboreum*). We entered a richer flora, finding anise horsebalm (*Collinsonia anisata*), pale Indian plantain (*Arnoglossum atriplicifolium*), and a heartleaf (*Hexastylis* sp.). We observed a tiny jumping spider (Family Salticidae) overwintering in a spun nest beneath a rock. We tasted horsesugar (*Symplocos tinctoria*) and stroked the undersides of chinquapin (*Castanea pumila*) leaves. Near some old stonework, the group paused to converse over some mosses, and others rambled across a seepy area and back.

Reaching the main branch, we walked along a high, steep, piney slope above it. Hal discussed the habit of Southern red oak (*Quercus falcata*) to hold its leaves laxly at the season's end, and we spotted a turkey oak (*Quercus laevis*).

We stopped for a lunch break, during which some of us hemmed and hawed over a greenbriar (*Smilax* sp.) identification couplet while munching. Afterwards, we continued onward, passing a uniquely flowering Piedmont rhododendron (*Rhododendron minus*) before at last reaching the Flint River. A small clearing on the bank hosted a titi (*Cyrilla racemiflora*) and water oak (*Quercus nigra*). Nearby, a goldenrod (*Solidago* sp.) was making seed in peculiarly pink phyllaries.



Top, Maya Lapp and Jasmine Little sample persimmon (*Diospyros virginiana*) fruits. Below, trip participants pause for discussion led by trip leader Hall Massie (center, rear) in a stand of longleaf pines (*Pinus palustris*). Photos by Gemma Milly.

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Sprewell Bluff—Continued from Page 8

We made a straight shot back upstream along an old road through a floodplain dominated by oaks and cane (*Arundinaria* sp.). Stops along this last segment included an inspection of branches dropped by hickory twig girdlers (Order Coleoptera), pondering the identification of a fruiting silverbell tree (*Halesia* sp.), and tasting persimmons (*Diospyros virginiana*) to various acclaim or lack thereof. Most of the group scurried past a wild hog carcass which had washed up on the shore.

At last, we found the end of a maintained WMA road, where vehicles waited for us to drive them back to the beginning.

Right, the Sprewell Bluff field trip group on the final leg of the day's hike along the mighty Flint River. Photo by Gemma Milly.



Getting Started—Tree ID Reference Books

New to botany?

Trees are a good place to start, and here are some books that help with tree ID

By Bobby Hattaway Why start one's journey in plant ID by learning to ID trees?

It has to do with what I call the "smaller playing field" idea, and simply put, that has to do with the floral composition of the state of Georgia. There are over 4,000 (!) species of plants in the state. But that number includes "only" about 250 trees and larger shrubs. And that last figure includes approximately 227 trees in Georgia, 205 native species and about 22 non-native trees. By the way, the bigger 250 number results when you add larger

native and non-native shrubs—e.g., Chinese privet (*Ligustrum sinense*)—and that does not include the woody vines (lianas or lianes like the wild grapes or poison ivy). In short your taxonomic "playing field" is a lot smaller with 250 choices to pick from when compared to more than 4,000! In a future article, I'll talk nonetheless about difficulties a novice will likely encounter even with this smaller playing field.

Today, let me spend time talking about resources you might begin assembling. The best reference for the study of trees is a woody plant ID book tailored to the trees or woody plants in your part of the country, your state, or better yet, your region within the state.

Two good tree books for the southeastern United States are *Native Trees of the Southeast: An Identification Guide* (2007) by Kirkman, Brown, and Leopold, and *Trees of the Southeastern States* (1988) by Duncan and Duncan. The first is probably easier for the beginner to use, but the second is more comprehensive. (To be clear, I am not discouraging folks from eventually acquiring more

Editor's Note: In the last issue of BotSoc News (November 2022), Dr. Robert "Bobby" Hattaway talked about his own journey into botany; about the importance of doing plant analysis (PA) before trying to key plants using dichotomous keys to ID plants; and about the benefit of learning PA and keying in an age when there are cell phone apps that promise to quickly identify plants without study. In today's article, he provides an overview of books that—over a long career as a Ph.D. botany teacher and field botanist—he has found especially helpful and even necessary companions for botanists. In an upcoming issue, he'll also talk about online and download-able resources and then address in sequence a half dozen "pitfalls"—six areas of potential confusion for beginning botanists—that novices find difficult.

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geographically comprehensive tree books like *Complete Trees of North America* by Thomas S. Elias (1987, second edition) or *Trees of Eastern North America* (2014) by Nelson, Earle, and Spellenberg.)

One little book I especially like because it is organized by families but without any keys is *Trees of North America: A Field Guide to the Major Native and Introduced Species North of Mexico (A Golden Field Guide)* by C. Frank Brockman. Though nationwide in coverage, it has excellent illustrations done by Rebecca Marrilees. Any edition of this book is well worth adding to your library. In fact this little one and the two mentioned at the end of the previous paragraph, though broad in geographical range, are ultimately good additions to your library. The advantage to the little field guide is it is helpful in learning families of trees.

The references I mention now will be more useful during the plant analysis (PA) part of identification, which should precede keying as I discussed in November's article. These resources are those that one needs to master the terminology associated with plants and plant ID. Some, if not all, of the books I have mentioned have glossaries associated with them.

I would recommend *Plant Identification Terminology* (2001, second edition) by Harris and Harris as the best terminology book for botany you can get. Additionally, an old favorite that is loaded with terms and can still be cheaply acquired is *How to Identify Plants* (1957 with second edition in 1985) by Harrington. Till Harris and Harris came along, it was the mainstay of plant terminology. That little book even has an entire chapter on how to use keys in plant identification.

Dictionary of Botany (1980) by Little and Jones can still be acquired. Besides good line drawings, it includes terms associated with both algae and fungi and is the most comprehensive botanical dictionary I have seen. (Harris and Harris is confined to vascular plants and is therefore concerned mostly with the terminology associated with their ID.)

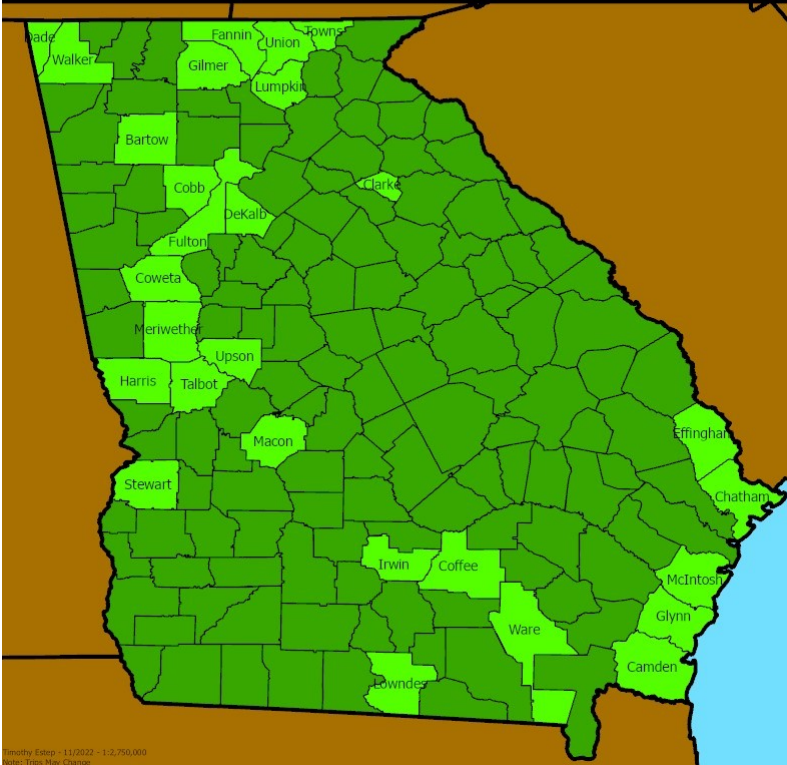
These terminology references are relatively inexpensive, especially as a used book. The good news about all these references in descriptive botany is that they seldom get out of date. In short, they are classics that will help you with more than just trees when you feel comfortable enough to branch out (pun intended!).

By the way, my favorite shrub ID book is *How to Recognize Shrubs* by Grimm (1966). Its keys are simple to use, and they work. Grimm published several other plant books in his time, but I think this is the most useful. I say that largely because—compared to trees and wildflowers—shrubs are mostly minimized when it comes to plant ID. Consequently, good shrubs books are rare, and Grimm has useful line drawings for most species.

Surprising to some people, for woody species winter ID is actually easier than spring ID. To elaborate, identifying woody plants in the winter is actually easier *if you have the right reference books*. Of the tree books I mention above, *Native Trees of the Southeast an Identification Guide* (2007) does have a winter tree key. The most comprehensive (over 1,000 species) book is *Winter Botany* by William Trelease, republished in a Dover edition in 1967. Finally, Ron Lance (2004) has written *Woody Plants of the South Eastern United States*, which he subtitles as *A Winter Guide*. However, I find that book useful year round, in part because it has useful descriptions and good line drawings.

Society News—Upcoming Field Trips

Field trip destinations for the New Year span the state

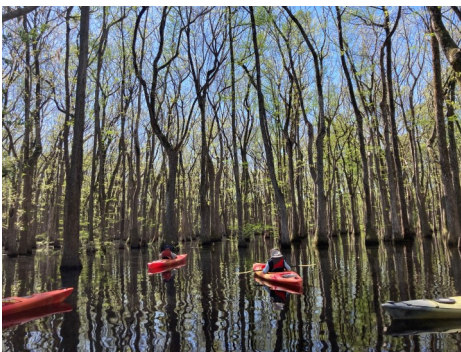
Georgia Botanical Society
2023 Field Trip Counties

BotSoc field trips already planned for 2023 touch more than two dozen Georgia counties. Illustration by Timothy Estep.

Looking for opportunities to get out into the field and see more of Georgia's diverse and beautiful flora? You're in luck!

The BotSoc calendar of field trips for 2023 is filling up. As of the deadline for this issue of the newsletter, there were already 15 trips scheduled between Jan. 21 and Sept. 4 of this New Year. That's not counting the field trips that will be organized as part of BotSoc's Annual Spring Pilgrimage, which will take place in the Hiwassee area of Towns County on May 5-7.

Check out the field trips page (https://www.gabotsoc.org/?page_id=12) on the BotSoc website for all the latest trip additions and changes. There you'll find trip dates, locales, names of trip leaders, their contact information and more as soon as the new information becomes available. And check back periodically to see what else you might be missing!



Kayakers float on Ebenezer Creek during a field trip last year. Photo by Teri Pohorsky of Beaufort Kayak Tours.

Looking for a field trip that's a little different?

Lynn Hodgson is organizing a kayaking field trip for Saturday, March 4, in southeast Georgia on Ebenezer Creek, a tributary of the Savannah River about 20 miles north of Savannah.

Anticipate leisurely paddling of a couple of hours among thousand-year-old bald cypress (*Taxodium distichum*), tupelo (*Nyssa aquatica*), and water elm (*Planera aquatica*) trees on "an excellent trip for beginning paddlers," Lynn says. Local outfitter Beaufort Kayak Tours will provide equipment, including kayaks, paddles and PFDs

(personal flotation devices) at a cost of \$50 per person. They'll also provide instruction, guide the trip and talk about historic Ebenezer Creek. A total of nine single kayaks and four double kayaks will be available. Check out the field trips page on our website for more information.

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