



Demography and Disease of Gray's Lily on Roan Mountain

Text and pictures by
Russell J. Ingram

Roan Mountain is a beautiful wilderness area that is host to an overwhelming diversity of habitats, flora, and fauna. These include the globally rare "Southern Appalachian grassy balds," a plant community found nowhere else in the world. Occurring within this rare habitat is the endangered (Tennessee state listed status) and Special Concern, Threatened (North Carolina state listed status) *Lilium grayi*, Gray's lily. Although Gray's lily can be found in other habitats such as forest seeps and boulder fields, the openness of the grassy bald habitat lends itself to be an ideal environment for the successful completion of its life cycle. The Roan Mountain grassy balds being the largest and most continuous of the extant balds has made this area the focal point for the few studies that have been conducted on the life cycle and ecology of Gray's lily.



The combination of relative rarity and exceptional beauty of Gray's lily has gained it the attention of thousands of photographers, hikers, naturalists, and amateur and professional botanists. Through this attention a debilitating leaf spot disease began to be noticed. Originally the observations were merely noted in botanist's notes here and there until the mid 90's when Moni Bates, working for the North Carolina Plant Conservation Program, conducted a study to attempt to identify the disease. The conclusions of her study suggested that the leaf spot disease was most likely due to a fungal pathogen with the causal organism being either *Alternaria* sp. or *Botrytis* sp. However, species in both of these genera are most often opportunistic or secondary pathogens.

In 2010, as part of his undergraduate thesis, Joe Powell of East Tennessee State University began re-investigating the disease at the behest of his advisor, Dr. Foster Levy, and botanist Jamey Donaldson of the Roan Mountain "Baatan Project." Joe collected demography data, studied the spread and clustering of the disease, and sent several samples to the North Carolina Plant Disease and Insect Clinic. The NCPDIC identified the conidia (spores) of the fungal pathogen, *Pseudocercospora inconspicua*, as being present on the diseased samples received, (Note: this pathogen occurs only on species of the genus *Lilium*).

In 2011, I picked up the study as my thesis project for my Master's degree from East Tennessee State University with Dr. Foster Levy. As a graduate of Augusta State University and a native of Augusta, GA, I had long been drawn to the endemic species of

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President's Perspective

Several years ago, following my first retirement, I was anxious to return to a long past antecedent, botany. A web search for one of my beloved Gentianaceae members, fringed gentian (*Gentianopsis crinita*), led me to an article on the Georgia Botanical Society's website. Thoroughly impressed, I could hardly wait to get my membership application into the mail. Fully expecting to encounter superior attitudes toward my rusty botanical knowledge, I was pleasantly surprised at the tolerance of the very-well-informed members who addressed many of my questions.



Gentianopsis crinita

As this is my last President's Perspective column, I must thank the multitudes of individuals who volunteer their valuable time and efforts in making the Georgia Botanical Society one of the premier botanical organizations in the country. A list of qualifications of these dedicated members would likely fill volumes. The next time you read an informative newsletter, receive a beautiful journal magazine, attend an educational field trip or workshop, or enjoy a wonderful pilgrimage, please remember the hard work involved in each of these endeavors.

A reminder - the general membership meeting will be held at Vogel State Park on Sunday September 23, 2012. Please refer to the July 2012 newsletter for details. Prior to the actual meeting will be a social and brunch. The business meeting will include a vote on a change to the bylaws. Following the business session, new officers will be elected and a new era will begin. Hopefully many of you will choose to attend. I am looking forward to the meeting and the chance to renew acquaintances and hopefully form new ones.

Finally, serving as president of the Society has truly been an honor and a privilege. Thanks again to each and all of you for lending your support. Please enjoy the glorious Georgia autumn.

Jim Drake

Gray's Lily on Roan Mountain (cont. from page 1)

the southeastern United States. Former advisors at ASU, Dr. Stacy Bennetts and Dr. Donna Wear, urged me to continue the botanical path I was on and move to Johnson City, TN to complete this worthy project. In my undergraduate work I had been introduced to ecological work with endemic plants on the granite rock outcrops (Heggie's Rock and Kiokee Creek) and other declining habitats of Georgia, such as the longleaf pine/wiregrass and pine/scrub oak savanna ecosystems.

The initial demography work showed the disease occurred in clusters rather than occurring randomly throughout the population. This clustering of disease symptoms suggested an infectious process and allowed us to observe the spread of the effects of disease throughout the season. Spatial analyses showed that proximity of the lily plants to each other had an effect on the health status of neighboring plants. Basically, the pattern seen was that the further away a particular plant was from another plant or set of plants, the more unlike it was in terms of its health. In epidemiology, this is the pattern that you would expect as a result of an infectious process, the further away from a source of disease an individual is the less likely they are to exhibit disease symptoms. If we assume that the proximity of the disease propagules or inoculum affects the severity of the symptoms, then we would expect to see such spatial patterns.

My goal with the lilies was to extend the scope of the project to include a means by which visual diagnosis can be conducted, to look into the effect of the disease on the adult, seedling, and juvenile populations, to determine the relationship between the causal organism and the disease, and to identify the severity of the disease. All of these areas of investigation are necessary for the determination of whether this disease is a characteristic epidemic and/or if it is causing a marked decline in the population of *L. grayi* on Roan Mountain. The other possible scenarios are that the leaf spot disease has been present in the grassy bald habitats for at least a century or more and/or it is a local occurrence. By answering these last questions this project hopes to inform management decisions and conservation efforts on Gray's Lily on Roan Mountain and elsewhere.



Visual diagnosis of the lily leaf spot disease is based on the presence of subcircular to elliptical tannish lesions, usually forming without a distinct margin. As the disease spreads the lesions begin to look as if they have been dusted with a drop of flour. Usually in the center of these tan lesions there will be whitish powders, which are the asexual reproductive structures, conidia. Lesions will continue to spread across the surface of the leaf until the entire leaf turns tan and dries out. Field observations suggest that the entirety of the plant can be covered by lesions in a period of approximately 2 -6 weeks under favorable conditions. I suspect, but as of yet have not proven, *P. inconspicua* can kill the entire plant before maturation of seed pods, thereby virtually eliminating reproductive output. Evidence also suggests that the disease is not isolated to the leaves but is also capable of infecting stems and flower pedicels of lily plants, further resulting in the loss of reproductive structures.

Necrotic lesions forming on petals and seed pods have also been observed but these could be from a secondary pathogen. As of right now we are not certain but it appears that if a lily plant acquired the disease the previous season that it will not come back up the next season or the one after that.

Gray's Lily on Roan Mountain

Confirmation that the leaf spots were associated with *P. inconspicua* was accomplished by identifying the presence or absence of fungal reproductive structures on lily leaves. Microscope slides were prepared in the field by sampling the upper and lower leaf surfaces of characteristically diseased and non-diseased leaves.

The surface samples were subsequently viewed under high magnification for the presence of diagnostic conidia. The conidia were noted as being present in high, medium, and low concentrations. Results showed that when the disease symptoms were present there was a high or medium concentration of conidia.



Conidia of *Pseudocercospora inconspicua* at 600x magnification.



Conidia intact on the epidermis of a diseased lily leaf at 60x magnification.

On the non-diseased leaves there was either a low concentration or a complete absence of conidia. This evidence strongly suggests that there is a relationship between the occurrence of lily leaf spotting disease and the presence of the diagnostic conidia of *P. inconspicua*.

To determine the effect of the disease on mature (flowering) lilies, the demography study started by Joe Powell in 2010 has been continued through 2011 and 2012. The results from the 2011 season were very similar to those seen in 2010. Recurring patterns of disease clustering provide support for the theory that the lily leaf spot disease is persistent from season to season. I extended the study to examine the effect of the disease on seedlings and juveniles, using plots containing high concentrations of young plants. Field samples of diseased juveniles were also brought into the lab for isolation of the pathogen from both mature and juvenile lilies. To gain the experience needed to perform the isolations, I spent several days in the Plant Pathology lab of Dr. Mark Windham at the University of Tennessee working with Lisa Michel Vito on maintaining sterile conditions and the preparation of media. The isolation of the pathogen from the tissue of seedlings was necessary to show that the disease was not only occurring in adult plants but also in the future generation of plants.

The demographic data allowed us to track the decline of seedling and juvenile plants due to the disease. Although not all of the plants died from disease (some had succumbed to drought or browsing), by the end of the season all of the plots studied contained signs of disease. To further gauge the impact of disease on reproduction, seed pods were collected to observe whether parental disease status has effect on seed viability. A germination study is currently underway but deformation and discoloration of the seeds from the diseased plants suggests the seed from the diseased plants may be inviable.

Gray's Lily on Roan Mountain

The implementation of Koch's Postulates, whereby a relationship between a causal organism and a disease is established, is currently underway. By confirming *Pseudocercospora inconspicua*, a fungal plant pathogen specific to true lilies (i.e. *Lilium* sp.) of the phylum Ascomycota, as the causal organism this project will accomplish two goals. First, it will have confirmed a new host species for *P. inconspicua* and second it will extend the geographic range for *P. inconspicua* as it has never been reported in the Southeastern United States. Currently, the only reported occurrences of this disease in the United States are from NY, CT, and WI. These trials are still in progress but are proving to be quite challenging due to the difficulty of inducing sporulation in lab cultures.



This study is proving to be the single most in-depth study on the life-cycle and disease of *Lilium grayi* that has been conducted to date. By completing this work we hope to provide a more complete picture of the ecology and epidemiology of Gray's lily to those in charge of management decisions so that, in the future, they might better preserve this beautiful species of plant for the enjoyment of many generations of nature enthusiasts to come.

I would like to acknowledge the support and funding by The Friends of Roan Mountain, Appalachian Trail Conservancy, and several grants from East Tennessee State University. In the absence of their valuable funding much of this work would not have been possible. I would like to thank both Dr. Foster Levy and Jamey Donaldson, ETSU, for their countless hours of advisement and work. Without their years of field work and observation this project would have never come into being. I would like to thank Joe Powell for the excellent work he did setting up the demography transect and getting the initial aspects of the project underway. Lastly, I would like to thank Dr. Alan Windham and Dr. Mark Windham for the use of their facilities at the University of Tennessee and for their participation and guidance.

Editor's note: Russell Ingram is a graduate student at East Tennessee State University and a native of Augusta, GA.

Field Trip Report: My Pilgrimage

Report and pictures by Jean Smith

If I were asked for one word to describe my 2012 Wildflower Pilgrimage, the word would be three. I went on three field trips, led by three of my favorite trip leaders, and I saw a maddening number of plants with ternate, biternate, and triternate compound leaves. Superficially similar to each other, the plants would reveal their differences only to the informed observer. Fortunately for me, informed looking is the forte of the BotSoc trip leader and I picked up a few helpful hints on each of the field trips that I will share, along with a few other bits of information about Northeast Georgia's botanical wonders.

Warwoman Dell, Saturday morning FT#6, led by Rich Reaves

Aruncus vs. *Astilbe* and *Thaspium* vs. *Zizia*

Just as we were leaving the upper trail at Warwoman Dell, we spotted a large goat's beard (*Aruncus dioicus*) in full glorious bloom. Although its two to three times pinnately compound leaves are very similar to Appalachian false goat's beard (*Astilbe biternata*), the latter has a distinctly hairy stem while goat's beard has a smooth stem.

Also seen on this trail, although not so confidently identified, was a small plant with tri-partite leaves and small brilliant yellow flowers borne in compound umbels. After some discussion of *Thaspium* (central flower of each umbellet stalked) vs. *Zizia* (central flower of each umbellet almost always sessile) and a close look by Hal Massie, we still weren't sure what we were looking at – but were comforted by remembering a Steve Bowling aphorism: "Plants are like trained cats; you can't expect them to perform when you want them to".

There were also some notable simple leaved plants at Warwoman Dell. My favorite tip was an aid to the identification of mountain winterberry (*Ilex montana*): Rich pointed out that all hollies have serrate leaves and this particular deciduous holly has a striped bark similar to silverbells (*Halesia* sp.).



Hal Massie takes a closer look.

Field Trips, May 2012

Queen Mine Cove, Saturday afternoon FT#7, led by Steve Bowling

The *Actaeas*

Doll's eyes (*Actaea pachypoda*), present on all three trips but past flowering, were identified by their stalked, egg-shaped berries that were quite large for this early in the season. Unfortunately, black cohosh (*A. racemosa*) was often also found in the same habitat and also had 2-3-pinnately compound leaves. Steve Bowling helpfully pointed out that since black cohosh flowers much later, if you suspect both are present and you have seen doll's eyes in fruit or flower, then any large, nearly identical plant without flowers is most likely to be black cohosh. I used Steve's tip on several large *Actaea* sp. and gained confidence when I identified several presumptive black cohosh by their newly emerging bloom stalks in an area where we found doll's eyes in full fruit.

Swallow Creek Mountain Cove, Sunday morning FT#19, led by Tom Patrick

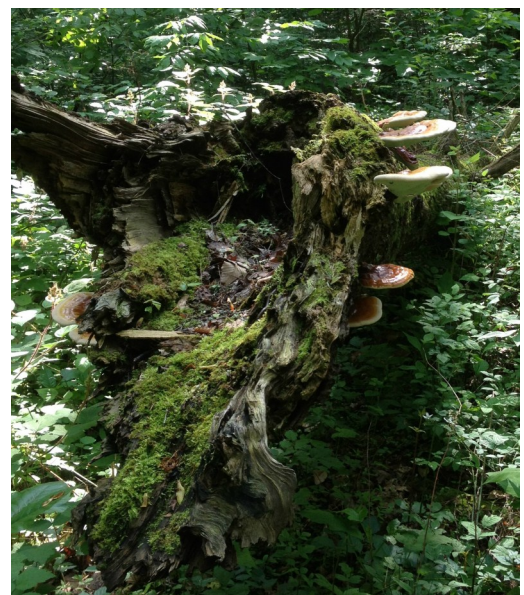
Uncommon *Cardamine*

Blue ridge bittercress (*Cardamine flagellifera*), another plant with 3, sometimes 5 leaflets, was past flowering, but its bloom somewhat resembles those of toothworts (formerly *Dentaria* sp., now also *Cardamine*). Tom watched over our group carefully as we approached this uncommon plant so that we would not trample it with our enthusiasm. Despite Tom's worry, we were an especially soft-trodding group.

Not only did the bittercress survive our admiration, but Olivia Stone found a dead promethea moth on the trail (*Callosamia promethea*). The moth, identified by John Brower, was in very good condition despite the fact that almost everyone in our large plant-focused group had walked right over it on their way up the mountain.



Also at Swallow Creek, Tom pointed out the increasing prevalence of a hemlock shelf fungus (*Ganoderma tsuga*). Shaped like a giant, furrowed kidney bean, the mushroom is often called hemlock varnish shelf because its dark reddish-brown upper surface is so shiny it appears varnished. At Warwoman Dell, photographers had gathered around one particularly beautiful cluster of the fungi on a fallen hemlock - its beauty a sad reminder of the large numbers of our mountain hemlocks killed by the hemlock woolly adelgid.



Upcoming Field Trips

Date	Description	Directions	Leader
Sept 15 10:00 am	<p>Plant ID Workshop (Asters, Asters, Asters!), Floyd County</p> <p>We will learn how to identify late summer flowers, with emphasis on the aster family (Asteraceae) or whatever is in bloom in September, using dissecting scopes and keys. After lunch, we will continue keying as long as folks want, possibly followed by a wildflower walk, if desired and weather permitting.</p> <p>Meet in Room 147, Plant Sciences Bldg., Berry College</p>	<p>Take I-75 to exit 290 (GA 20).</p> <p>Follow GA 20 and US 411 to Rome. At first traffic light (GA Loop 1) turn right, go to US 27, turn right.</p> <p>At next traffic light, turn left into the main entrance to Berry College. Pass guard house, go ¾ way around the circle; turn right between Hermann Hall and the Plant Sciences Building.</p> <p>Take first left, park in lot on right anywhere not marked "F/S." Enter via back door on left side and follow BotSoc signs to Room 147.</p> <p>Lunch: Bring to eat outside building,</p>	<p>Richard and Teresa Ware 706-232-3435 (home)</p> <p>706-766-5143 (cell)</p> <p>gabotany@comcast.net</p>
Sept 23 10:00 am	<p>Annual Meeting—Vogel State Park</p> <p><u>Location</u></p> <p>7485 Vogel State Park Road Blairsville, GA</p>	<p>See page 11 for directions.</p>	
Oct 6 10:00 am	<p>Fall Wildflowers: Chattahoochee NRA, Indian Trail Unit in East Palisades</p> <p>Meet for a lovely fall walk through the palisades. This unit is located at 1425 Indian Trail NW, Sandy Springs, GA 30327. GPS coordinates are 33° 53' 2.54" N, 84° 26' 12.79" W</p> <p>We'll have an opportunity to look at beautiful trees in fall colors and practice our tree identification skills along with identifying the late blooming wildflowers and some birds.</p> <p>We'll use the trail down to the Whitewater unit but make a detour into Mystery Valley. It is a cool and quiet place on the floodplain and behind the swamp. We'll visit an old "Indian cave" used by some of the earliest settlers along the river and continue along this trail back up to the ridge, where we'll find a fantastic overview of both sides of the river.</p>	<p>Directions: Traveling West on I-285, take exit 22, Northside Dr, New Northside, Powers Ferry. At the exit ramp you must turn right. Then make the first left back over the highway. Go through the intersection at Powers Ferry and continue uphill for 1.1 miles. Turn right on Indian Trail (small sign) which leads into the park. Traveling East on I-285, take the same exit above but continue straight on Powers Ferry until the light at Northside Dr (CVS on corner) where you turn right and continue uphill as above.</p> <p>Difficulty: Moderate ~ 3 to 4 miles. 2 gradual big hills.</p> <p>Facilities: None. Nearest public restrooms – on Northside Dr., there is a Publix.</p> <p>Bring: \$3 parking fee or annual pass, a pack lunch and water. Camera, hand lens, field guide and binoculars (for viewing ducks on the river) are optional. You may wish to bring walking sticks.</p>	<p>Maureen Donohue macaire75@att.net 678-687-7963 -cell</p>

Upcoming Field Trips

Date	Description	Directions	Leader
Oct 7 10:00 am	<p>Gentians and Other Fall Wildflowers. Brasstown Bald, Towns County and Track Rock Gap areas</p> <p>At 4,784 feet, Brasstown Bald is Georgia's Highest Mountain. From the summit, on a clear day, you can take in breathtaking views of four states. We will hike from the parking lot up the paved trail to the summit. Lunch will be outside at the visitors' center on the summit. After lunch we will hike back down to the parking lot and caravan to the next locations near Track Rock Gap. On the Brasstown Bald section of the trip, we should see nice examples of Showy Gentian (<i>Gentiana decora</i>) plus other fall blooming wildflowers such as members of the Composite Family. At the Track Rock Gap location, we should find several examples of the rare Fringed Gentian (<i>Gentianopsis crinita</i>) plus the more frequently seen Agueweed or Stiff Gentian (<i>Gentianella quinquefolia</i>).</p>	<p>Directions: You can take US 19/GA 400 north from Atlanta; continue past Dahlonega toward Blairsville. Go past Vogel State Park. DO NOT turn left on GA 180 just past the park but continue a few miles further to turn right on GA 180 east toward Brasstown Bald. Continue east on GA 180 and turn left (north) on GA 180 Spur to parking lot on the mountain. Meet at the end of the parking lot near where the trail starts up to the summit.</p> <p>Bring: Lunch to eat at top of Brasstown Bald mountain at visitors center, water.</p> <p>Walking: The paved trail to the summit is 0.6 mile one way and steep (moderate to strenuous). Total walking distance is about 2 to 2.5 miles. A shuttle is usually available to take visitors to the summit (for an additional fee). Those choosing the shuttle option up and walking down will find a mostly downhill trip of about 1 mile. The Track Rock Gap area will be mostly roadside with short walks along the road and optional walks in the fields.</p>	<p>Jim and Candee Drake</p> <p>678-482-2127 (H), 678-793-2127 (C). Cell coverage on day of trip not guaranteed.</p> <p>drake3800@charter.net</p>
Oct 8 10:00 am	<p>Fall Line Sandhills Natural Area</p> <p>This will be an exploratory trip to a fairly new State Natural Area in the sandhills of West Central Georgia. Target species will include sandhills golden-aster (<i>Pityopsis pinifolia</i>), and Pickering's daisy (<i>Stylisma pickeringii</i> var. <i>pickeringii</i>), both protected plants. We may also find sandhill specialties like Carolina pineland-cress (<i>Warea cuneifolia</i>), farewell-to-summer <i>Dalea pinnata</i>, and elegant blazing-star <i>Liatris elegans</i>. Besides plants, we'll also look for burrows of Georgia's official state reptile, the gopher tortoise.</p>	<p>Directions: Take US 19 S to Butler. In town at the light, turn right onto GA 96 and go about 2 miles until you see a large sign that reads 'Taylor County Industrial Park and Airport'. Turn right onto Industrial Rd & immediately turn left onto a dirt road with a kiosk in front of you. Park at the kiosk.</p> <p>Facilities: None; closest facilities are about 2 miles away in Butler.</p> <p>Difficulty: We'll be walking on old sand logging roads. Walking will be fairly easy, but the sand will be deep at times and it could be very hot. Total walking for the day shouldn't exceed 2 miles.</p> <p>Bring: Hat, sun screen, bug spray, hand lens, water, lunch and something to sit on.</p>	<p>Hal Massie</p> <p>478-836-4907 478-957-6095 (cell on the morning of the hike)</p> <p>massiefarm@aol.com</p>

Upcoming Field Trips

Date	Description	Directions	Leader
Oct 13 10:00 am	<p>Coosa Prairies Part II</p> <p>Part 2 finds us examining a different set of flowers from Part 1. This time is when most species of composites on the prairies come into bloom. Some plants we hope to find in bloom: At least 9 species of Asters including New England aster (<i>Aster novae-angliae</i>), tickseed sunflower (<i>Bidens polylepis</i>), swamp thistle (<i>Cirsium muticum</i>), narrow-leaf sunflower (<i>Helianthus angustifolius</i>), whorled sunflower (<i>H. verticillatus</i>), blazing star (<i>Liatris squarrulosa</i>), prairie lion's foot (<i>Prenanthes barbata</i>), orange coneflower (<i>Rudbeckia fulgida</i>), white-flowered goldenrod (<i>Solidago ptarmicoides</i>), Riddell's goldenrod (<i>S. riddellii</i>), and <i>S. rigida</i>.</p>	<p>Directions: Take I-75 north to the second Cartersville exit (exit 290, GA 20). The sign says Rome / Canton. Turn west on Ga. 20. Follow Ga. 20 and then US 411 to Rome, around 20 miles. In Rome, Ga. 20 and US 411 will split. Follow US 411 (left fork) toward Cave Spring. At 2nd light turn right (stay on US 411) and follow to Cave Spring. At traffic light in Cave Spring, go straight, cross bridge and immediately turn left into Rolator Park. Meet at parking area for cave on right.</p> <p>Lunch: Bring lunch to eat near cars, not carried on walk.</p> <p>Walking: Easy, mostly flat terrain, 1-2 mi., depending on road conditions.</p> <p>Facilities: Meeting site only</p>	<p>Richard and Teresa Ware 706-232-3435 (home)</p> <p>706-766-5143 (cell)</p> <p>gabotany@comcast.net</p>
Oct 20 10:00 am - 2:00 pm	<p>Dobbins Mountain, Cartersville</p> <p>This is a rare opportunity to see the large population of Georgia aster (<i>Symphotrichum georgianum</i>) that Jim discovered last fall in a power line right-of-way on a private estate.</p> <p>Limit: 25 persons</p> <p>After checking the Georgia asters we will walk through the adjacent hardwood forest in the "saddle" between the unusual double ridges of Dobbins Mountain, protected by a conservation easement designated as a wildlife refuge and administered by the city of Euharlee. To see last fall's flowers, visit http://jimbotany.com/dobbins_mountain/late_October_at_Dobbins_Mountain.htm.</p>	<p>Location: Cartersville Ranch; 2051 US Highway 411 NE; Cartersville, GA 30121. From I-75 take exit 293 and go south (toward Rome) on US Hwy. 411 for 0.9 miles. Turn left (look for sign) and go through open gate; then follow the signs to the meeting spot. A map can be downloaded from http://www.jimbotany.com/dobbins_mountain/map_to_ranch.doc. You will pass the Tellus Science Museum.</p> <p>Facilities: a "porta-John" will be provided</p> <p>Difficulty: Moderate.</p> <p>Bring: a picnic lunch and, if the weather is warm, plenty of liquids. Dress for the weather. Insect repellent is recommended. And perhaps a hand lens and a camera.</p>	<p>Jim Allison 706-818-0210 jimbotany@aol.com</p> <p>Note: reservations are required by emailing or calling the trip leader prior to the date. Attendees will be required to sign a liability waiver.</p>
Oct 27 10:00 am	<p>Blackland Prairies</p> <p>A late growing season hike to see Georgia aster and other autumn flowers on the blackland (chalk) prairies of Oaky Woods. We will take a 5-mile slow hike through two restored prairie sites. We will visit the largest known prairie, noting the plentiful grasses, legumes and composites. Come check out the results of prescribed fire management of a Georgia chalk prairie. Also, learn one of our strangest oaks – the Durand oak (<i>Quercus sinuata</i>).</p> <p>Meet at Flash Foods/Taco Bell, Bonaire, corner of GA Hwy. 247 and 96</p>	<p>Directions: From Macon, take Exit 160A, Interstate 75, south on GA Hwy. 247, pass Robins Air Force Base, continue to Bonaire, jct. with GA Hwy. 96, about 5 miles south of Warner Robins.</p> <p>Difficulty: Easy to moderate, lasting all day, some bushwhacking, covering up to 5 miles, but mostly in grassy habitat and along jeep trails.</p> <p>Facilities: Only at meeting place. Participants invited to nearby Yoder's Mennonite restaurant for dining afterwards.</p> <p>Bring: Lunch or snacks, water, repellent, comfortable shoes or sneakers.</p>	<p>Tom Patrick 706-476-4541 (Cell)</p> <p>tom.patrick@dnr.state.ga.us</p>

Society News

2012 Annual Meeting

10:00 – 11:00 Board Meeting

11:00 – 1:00 Social gathering and brunch (cooking permitted, but you must bring your own pots/etc. and clean up your mess)

1:00 – 2:00 General meeting and elections

2:00 – 2:30 Clean up the room and break down tables

2:30 choice of walks

Location

7485 Vogel State Park Road
Blairsville, GA
11 miles south of Blairsville via U.S. Hwy. 19/129

From the NE Atlanta metro area:

I-85 north to I-985; stay on I-985 for 20 miles
Exit 24 toward US 129 (go to end of ramp), left onto US 129
Jesse Jewell Pkwy. for .6 mile. Right onto US 129 Limestone
Pkwy for 2.1 miles. Right onto US 129 which eventually merges
with US 19/GA 11 (stay on US 129/US 19/GA11) for 41
miles total. Left onto Vogel State Park Road

From the NW Atlanta metro area:

Get on GA 400/US19 north for approximately 38.8 miles
(depending on entry point). Left onto S Chestatee St/US-19/
GA-60 for 5.1 miles. Right onto Morrison Moore Pkwy E/US-
19/GA-9/GA-52/GA-60. Continue to follow US-19/GA-9/GA-60
for 8 mi. Right onto US-19/GA-9 for 5.3 miles. Left onto US-
19/US-129/GA-9/GA-11. Continue to follow US-19/US-129/
GA-11 for 10.5 miles. Left onto Vogel State Park Road.

In Memoriam

Marion Bennett Duncan

December 26, 1918 – June 4, 2012

Marion Bennett Duncan co-authored, with her late husband Wilbur, Wildflowers of the Eastern United States and Trees of the Southeast with the University of Georgia Press, and the Smithsonian Guide to Seaside Plants of the Gulf and Atlantic Coasts. These books were researched and written during their “retirement years”. The primary goal of the books was to share knowledge with others. They were a team.

Marion grew up in Jesup, GA where she graduated high school as valedictorian. She attended Georgia State College for Women on a full scholarship, with her meals paid by her grandmother’s Civil War Widow’s pension. She majored in biology, and served on the student council, honor council, and the editorial staff. After receiving her BA, she continued her studies at the University of Georgia, earning her Masters in Botany. It was there that she met Wilbur H. Duncan, a botany professor. They were married in 1941 and, following the hiatus of World War II, remained in Athens for the rest of their lives.

In 1952 Marion and Wilbur moved to “Transplantation”, a 33-acre parcel of land on the outskirts of Athens. It was here that they nurtured their family and a great assortment of native and cultivated plants. Their son Mack and his wife Julie now live there.

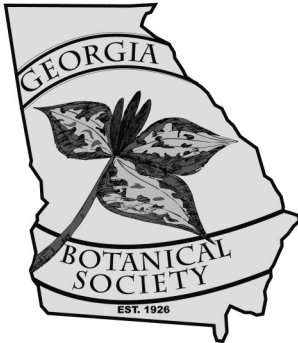
Marion suffered from increasing dementia over the past few years, yet she was graceful to the end, dying as she lived: with love, dignity, humor and poise; the deeply rooted and innate characteristics that were part of her very core.

Marion is survived by her son Mack and daughter-in-law Julie Duncan, Athens, GA; her daughter Lucia Duncan, Atlanta, GA; her son Douglas Duncan, Arlington, VA; and four grandchildren. Wilbur passed away in 2005.



Text and picture courtesy of Mack Duncan.

Society Contacts



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