SHORTIA

NEWSLETTER OF THE

WESTERN CAROLINA BOTANICAL CLUB

Fall 2017

Shortia galacifolia

Oconee Bells
MEMBER NEWS

Field Trip Cancellations: Occasionally, field trips must be cancelled or changed either for weather conditions or other reasons such as road closings. Such changes are sent out by email to all members by 7 AM the day of the field trip. If you do not have email access, please call the leader, co-leader, or recorder (whose phone numbers are listed on the schedule) to be sure that the walk is going to go as planned. Indoor programs are cancelled when Henderson County Schools are closed (see http://www.hendersoncountypublicschoolsnc.org) but NOT necessarily cancelled because of delayed opening.

For any change of address, email or telephone number, please inform Alan Graham, 42 Autumn Glen Court, Brevard, N.C., 28712. 828-884-3947 — adgraham@comporium.net.

President’s Message

Thanks to all of you, I’m here and learning a lot about WCBC. Some of it may be new to you, too.

The website, https://wcbotanicalclub.org is a wonderful tool, established and maintained by Penny Longhurst. I first explored it on rainy day, a great time to do it! More rains coming, so hope you will explore this too. All Shortias, our quarterly newsletter, are there. “Look Again,” a section by Dick Smith, has his excellent information on specific plants. His book is the most often consulted on our walks. Those walks are in POSTS, the weekly photos we get via email. The WOW! is there, Jim Poling’s Wildflower of the Week. Other categories include Local Events and things of interest. The sidebar is a wealth of information on educational opportunities, hikes and groups to hike with. Its ‘Other Resources’ section tells about those Goats on Roan; want to adopt one? There’s an article on ‘The Meaning of Latin Names.’ The last part of the sidebar is on Plant ID; all three volumes of the 1913 Britton and Brown, illustrated, are there. So are several volumes of Alan Weakly! There’s also a very timely ‘Teaching Key to Asters’ you can download to your phone.

Other items are added as useful. Please let Penny know of your suggestions at wcbotanicalclub@gmail.com.
Do you know about the Scout Group, another working tool of the club? We like to see new places and flora! If you have a hike you'd like to take us on, suggest some SCOUT dates, email Ken to send out to those listed in the SCOUT Group, then lead the hike, filling in the form as you all go. If you'd like to be in the SCOUT Group, please notify Ken (kborgfeldt@gmail.com).

Another thing I've learned about is the support work of individuals. Probably you know the Board meets, usually twice a year, to consider policy and other questions. Some people attend (without vote) due to their great interest in WCBC. Several members put in even more effort and time: Ken on recording and communicating, Alan on finance and membership. Would you like to work with one of them, sharing your skills (or acquiring them), to make sure the work is shared?

Others who contribute greatly include: Joy, convening the Scheduling Committee twice a year to figure out the next 6 month schedule of hikes and indoor meetings. That's an open meeting. YOU'RE invited! Joy carries much of the work between meetings.

Lucy's work on SHORTIA is also a group effort, as we are the writers. Do you have a question you'd like to research and write up? Please do! Let Lucy know of your interest.

One lovely find was the quiet individuals. One is David Lellinger, who proofreads Shortia. Do you know of other quiet supports? And please contribute your efforts, as you see opportunities!

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**Minutes from the Annual Meeting**

The 44th meeting of the WCBC was called to order at 11:45 AM on July 7, 2107 by President Penny Longhurst, following a morning of work by club members at Bullington Gardens. Nineteen members were in attendance. Minutes of the July 15, 2016 annual meeting held at Bullington Gardens were read and accepted as corrected.

President Penny Longhurst reported that 2 board meetings were held during the year. The club website continues to attract viewers with some 49,000 views to date with 1,377 views of the June 2, 2017 botany walk between Graybeard Mountain Overlook and Glassmine Falls Overlook. The board approved the addition of a Wildflower of the Week page created by club member Jim Poling. Penny is also the webmaster and has received many positive comments about the website. She also thanked the photographers that have contributed to the success of the website.

Penny further reported that the board had approved the electronic nominations and voting for officers so that a larger number of members can participate in the election process and so that the names of the elected officials could be included in the summer issue of the Shortia newsletter. The board also decided that the immediate Past-President should become the chair of the Nominating Committee, serving a 2 year term. The club made donations to the Bullington Gardens and to the Asheville Botanical Gardens.

Treasurer Alan Graham reported that there were 87 club members, including 12 new members. The current fund balance is $4,739. $600 was spent for honoraria ($100 per speaker) and $800 was donated to Bullington Gardens. The club expenses were $530 more than receipts. At this rate the club treasury will be depleted in 5–10 years. There was a brief discussion of this situation with suggestions of raising dues.
by $5, bringing in more members, decreasing donations and honorarium levels. Penny suggested further
discussion of this topic at the next board meeting, including the possibility of setting a minimum balance
that should be maintained in the treasury.

Master Recorder Ken Borgfeldt reported that 35 botany walks had been scheduled with 4 cancelled due to
weather and that some 35 walks had been proposed. Check lists were handed out.

Scheduler Joy Charlebois reported that the July 2017 through February 2018 schedule had been emailed to
members with 8 additional copies sent to members without e-mail. The scheduling team meets twice a
year to program field trips and indoor meetings. New participants as well as suggestions for indoor
presentations and field trips are welcomed. Joy also shared her wish to gather a small group to simplify
and improve the schedule and offered to send anyone who needed it, a copy of the Guidelines for Leaders,
Co-Leaders, Recorders and Presentation Contacts.

Shortia Editor Lucy Prim was thanked for her drawings, work and contributions to the newsletter. Lucy
requested that club members contribute articles.

Juanita Lambert reported on the club’s work on the Bullington Gardens Native Woodland Garden during
the past year. Club members typically work in the garden for 3 hours on Tuesday morning from March to
November. There were both successes and failures, with the drought and rodents leading to plant loss in
the fall but in the spring 642 perennials were planted along with some shrubs. One-sheet brochures have
been prepared for visitors to the gardens, and a digitized version is planned as Bullington Gardens has ini-
tiated an electronic informational system accessed by smart phones. This has decreased the need for in-
trusive and costly signage.

Juanita Lambert, Chairman of the Nominating Committee, listed the new and continuing club officers for
2017–2018. President, Susan Sunflower; Vice-President, Gayle Mercurio; Treasurer, Alan Graham; Secre-
tary, Mary Standaert; and Members-at-Large, Joe Standaert and John Harrison.

Penny thanked the Nominating Committee for their work and asked for a moment of silence for Bud
Pearson, a longtime club member and Shortia Editor from 1991–1993 who passed away this past year. She
also expressed her appreciation to members of the club who worked with her during the past two years
before passing the gavel to new president Susan Sunflower.

President Sunflower thanked Penny for her leadership.

The meeting was adjourned, followed by a potluck lunch, a plant exchange, and a tour of the fairy garden
that Bullington had created for a fundraising event.

Respectfully submitted,

Mary L. Standaert, Secretary
The idea of the Buck Spring Nature Trail started long ago. In November 1984, Richard M. (Dick) Smith contacted Gary Everhardt, Blue Ridge Parkway Supervisor of the National Park Service, and on behalf of the Western Carolina Botanical Club offered to develop a self-guiding interpretive botanical trail between the North end of the Pisgah Inn parking lot and the historic site of George Vanderbilt's Buck Spring Lodge. A contract was signed by successive presidents Dick Smith and Elton Hansens and the Park Service under their Volunteers-In-Parks (VIP) program, a program that still exists today.

Teams of club members surveyed the route, eventually compiling an inventory of more than 200 species of flowering plants along the trail. Numbered posts were to be placed adjacent to significant botanical features. These would be keyed to a descriptive brochure written by Dick on behalf of the club for public distribution by the Parkway.

However, things did not go quite as planned! In the initial project report dated January 24, 1986 and presented at the Annual Meeting, Dick stated that although the start of the project was delayed due to closure of that section of the Parkway, 23 surveys of the trail were done in 1985, totaling 243 volunteer hours. Twenty-seven species were tentatively identified to be included in the brochure. The goal was to have the trail laid out with a preliminary brochure available in the spring of 1987.

In the project report of January 23, 1987, several problems were described. An over-exuberant weed eater wielder had removed some of the plants described in the brochure! The team decided that only plants far enough back from the trail to be invulnerable should be included and the text was revised accordingly. The original plan was to create a loop at the north end of the trail, along the stone wall. However, the Park Service withdrew approval for that section in order to keep trail maintenance to a minimum. Thus the trail would terminate at the hunting lodge site. Finally, vandals removed the temporary numbered tags,
necessitating resurveying of the trail. Nonetheless, on October 10, 1986 the final plan was submitted to the Assistant Chief Ranger, with the expectation that the posts could be installed soon. Volunteer hours on the trail in 1986 were 345.

In the January 22, 1988 project report, Dick wrote that progress on the trail had stalled due to problems the Park Service was having in deciding where to build housing for Pisgah Inn employees. The old buildings were dilapidated, and although some wanted them to be preserved as historical landmarks the costs were more than the Park Service was willing to spend. Therefore they would be razed and new buildings constructed near the gas station, necessitating moving the initial section of the Nature Trail.

By January 20, 1989, the Park Service had constructed 5 buildings without any detriment to the trail or its vegetation. The brochure was approved, but the Park Service informed the club that they had insufficient funds to permit Park personnel to install the posts; the club would have to enlist volunteers for that task!

In the January 19, 1990 report, there was finally some good news! In early November 1989, 9 club members and 5 members of the Brevard College Environmental Awareness group installed 24 posts sunk 2 feet into rocky soil, and the brochure was ready to be handed over to the Park Service for printing.

Press releases were published in the Transylvania Times and Hendersonville Times-News at the end of May 1990, announcing the opening of the trail. The original brochure was 4 pages, printed on 7” × 8.5” colored stock, to be kept at the Pisgah Inn registration desk, the gift shop cashier’s desk, and the gas station. They were to be kept under the counter and handed out only on request. Elton and Dick wondered how the public would ever know it was available! At some point the brochures ran out and apparently were not replaced.

In November 1997, the National Park Service wrote to then President, Don Herrman, asking if the brochure could be rewritten. In a letter dated December 12, 1997, Dick and Elton pointed out that although the Park Service requested that phenological data be included, it would not necessarily be helpful because wide fluctuations in flowering times were often observed and could be confusing. They also indicated that since plants have a tendency to wander, resurveying of the trail would be necessary every few years. The idea of moving the posts to follow the plants was nixed, since they were anchored by steel rods and removal would necessitate digging up a large number of surrounding plants. They mentioned that club members would not be doing any digging! Club members resurveyed the trail, and a new brochure was published in 1990. Eventually, it also went out-of-print.

In late 2015, Jeanne Smith asked then President Penny Longhurst to reevaluate the trail, rewrite the brochure, and provide the Pisgah Inn with copies. Members of the WCBC scouting team were invited to participate. Penny, Ken Borgfeldt, and Lucy Prim hiked the trail monthly during wildflower season in 2016 and early 2017, recording the plants that were present near the posts. As mentioned in 1997, several plants had moved and botanical names had changed (again). Some plants had given up the ghost, and descriptions of new ones had to be written. In many ways, it seems like it took us almost as long as the original building of the trail, but we finally completed our task and the new brochure, printed on green paper, was delivered to the Pisgah Inn on August 22, 2017. The Front Desk manager seemed very excited to see it and said that they had lots of people asking what the numbered posts were for! You can find a copy of
the new brochure on the Club website under “Hiking Trail and Parks Information” at Buck Spring Nature Trail Brochure.

Documents relating to the development of the trail, including letters, project reports, and plant lists can be found in the binder entitled “Project Reports, Buck Spring Lodge and Trails, Blue Ridge Parkway, Western Carolina Botanical Club” located in the Rowell Bosse North Carolina Room on the second floor of the Transylvania County Library at 212 South Gaston Street, Brevard, North Carolina, 28712. This binder also includes plant surveys compiled by Dan Pitillo for Parkway trailheads and overlooks between Tanbark Tunnel (milepost 373.8) and Barnett Knob (milepost 463.5). Summaries of the Buck Springs Nature Trail creation may also be found in Annual Reports printed in Shortia during 1986–1989.

Penny has added a Buck Spring page to our website, with lovely pictures to accompany the text. It works well on I-phones too. How amazed and delighted Dick Smith and Elton Hansen would have been!

What’s in a Name - Angustifolia?

by Penny Longhurst

I’ve been trying to identify the many plants I saw during my recent trip to Newfoundland, and time and again I come up with the specific epithet or adjective “angustifolia” when looking up botanical names, such as Sheep Laurel or Kalmia angustifolia. When I first joined the club, I thought the word was “augustifolia”, named for some ancient botanist called August, but now I know better and wanted to know what it really meant.

The word Angustus is Latin for “narrow”. Thus its inclusion in a botanical name means that some portion of the plant is narrow. Our database contains 11 species that include the term, although they are not commonly seen on our field trips. These are Northern Lady Fern (Athyrium filix-femina subsp. angustum), Slender Toothwort (Cardamine angustata), Fireweed (Chamerion angustifolium subsp. angustifolium), Russian Olive (Elaeagnus angustifolia), Narrow-leaved Sunflower (Helianthus angustifolius), Sheep Laurel (Kalmia angustifolia), Carolina Laurel (Kalmia angustifolia var. Carolina), Wild Crabapple (Malus angustifolia), Stout Blue-eyed Grass (Sisyrinchium angustifolium), Lesser Horse Gentian (Triosteum angustifolium), and Narrow-leaved Cat-tail (Typha angustifolia).

Angustifolia/angustifolium means having narrow foliage. Happily, the description is often included in the common name also, for example: Narrow-leaved Sunflower (Helianthus angustifolius). Generally we can also envision why they are described in that way by looking at the plant, as in Fireweed (Chamerion angustifolium subsp. angustifolium).

Angustatus/angustata/angustatum means narrow or narrowed, for example: Northern Lady Fern (Athyrium filix-femina subsp. angustum), which differs from Southern Lady Fern (A. filix-femina subsp. asplenioides) by having blades which are narrowed towards the base of the frond, and Slender Toothwort (Cardamine angustata), distinguished from the other Toothworts by having two stem leaves with three narrow lanceolate segments.

Although we have no plants in our database with these epithets, angustipetalum means with narrow petals, for example: Narrow-petaled Trillium (Trillium angustipetalum), and angustissimus means very narrow, for example: Slender Bird’s-foot Trefoil (Lotus angustissimus); we’ll have to travel to California to find those!
Book Review

LAB GIRL
by Hope Jahren, Knopf Doubleday Publishing Group, 2016

Reviewed by Jeanne Smith and Susan Sunflower

At Jeanne Smith’s suggestion, I read LAB GIRL, by Hope Jahren. The story for many readers is of a brilliant female scientist who survives and thrives in a man’s world, in spite of her manic-depression and other issues that cannot conquer her love of science. She describes her path to us, success by success, stumble by stumble.

Jahren has an amazing grasp of numbers and a way of presenting them. She starts right off on the first page:

“Plant numbers are staggering: 80 billion trees in protected forests of western US … people live among plants but don’t really see them. Since I’ve discovered these numbers, I can see little else.”

Leaves are a Jahren favorite. She asks, as she looks,


What’s your favorite tree? Jahren’s is the blue-tinged spruce (Picea pungens). Hers lived in her back yard for 80 years, felled before its prime. She learned of its childhood, beginning as an embryo sitting on the ground. After 80 years or so of just trying not to fall down, replacing fallen needles every morning, shutting down enzymes every night, the spruce grew thicker every year, surviving the newer generations trying to rise below. Her spruce was no doubt ill now and then, due to animals and insects using it for shelter and food. Late, heavy snows and wind were also dangers, and in 2013, that’s what felled Jahren’s tree. A May spring blizzard bowed the new needles, the full branches, then snapped them, to leave a tall, stripped trunk!

Here’s a sample from a section on the development of a leaf:

“The mining of the atmosphere, the cell-laying, the wax-spackling, plumbing, and pigmentation took a few months at most, giving rise to nothing more or less than a perfect leaf.”

Jahren concludes with this plea:

“plant one tree on your land, owned or rented—(see if the landlord notices!) But don’t plant Bradford pears ….. and remember, the first three years are critical, so take care of your tree.”
Sanicula

by Lucy Prim

I have a plant growing in my garden, unplanted and unbidden by me, with nice, palmate leaves. For years I have been assuming that my plant is a Buttercup and I have been expecting to see it in bloom with beautiful, bright yellow flowers. But year after year I never did see it bloom. I assumed I hadn't been watching closely enough. But one day last summer, I made a surprising discovery. I decided to get out my magnifying glass and have a good look at one of the little burrs. How astonished I was to see a tiny white flower imbedded in the bristles! As I continued to look, I saw a couple more little white flowers. For a few stunned moments I wondered if my eyes were deceiving me. These were the tiniest little flowers ever, barely visible at all. A search in Dick's book, *Wildflowers of the Southern Mountains*, taught me this was not a Buttercup at all. This was a Sanicle!

There are five Sanicles that grow here in our mountains. *Sanicula gregaria*, Clustered Snakeroot, is easy to identify because its yellow petals and styles are readily visible. The other four Sanicles need to be studied closely, as the flowers are minute and the differences between species consist of which has styles longer than the bristles and whether the staminate flowers are few or numerous and whether the fruit are stalked or unstalked. You probably will not see the flowers at all unless you look very closely. They will be found in the green burrs that grow in clusters of three at the end of little branches. Look closely and you should see a perfect flower emerging from the top of the burr and several staminate flowers appearing to peek out from amongst the bristles along the sides of the burr.

Some of us will undoubtedly be content to identify these plants as Sanicles and leave it at that. But those of us who really enjoy looking closely can get out our magnifying glasses and try to determine which Sanicle it is. Richard Smith's book describes the differences nicely.

Now that it is fall, we will not find the tiny white flowers but we can find the green burrs in clusters of three at the end of the branches. Take care not to let them get in your hair or on your sweater!

*Sanicula gregaria* (or *S. odorta*) - Clustered Snake Root

*Sanicula canadensis* as it looks in the late summer and fall.
Sanicula canadensis

The leaves at the base are palmately divided, appearing to be five or seven leaflets.

In some species of Sanicula, the styles are shorter or equal to the bristles. In other species, they are much longer than the bristles.

Perfect → flower at the end of each burr.

Can you see the tiny staminate flowers nestled in the bristles?
The Convolvulaceae or Bindweed family includes about 60 genera, but the species we are most familiar with are herbaceous vines belonging to the genera *Convolvulus* (Bindweed), *Calystegia* (False Bindweed), and *Ipomoea* (Morning Glory). Dodder was formerly the only genus in the family *Cuscutaceae*, but based on phylogenetic studies it is now also included in the Convolvulaceae.

When we started researching this article we thought it would be easy to find examples of these plants to photograph. It wasn’t. Checking the club database explained why we were having problems. The most common member of the Convolvulaceae recorded by the club was “a” Dodder (*Cuscuta sp.*), with 73 sightings between 1985 and 2016. If we included the few brave recorders who were willing to stick their necks out and identify which Dodder species were seen, we had 111 sightings over a 31 year period, mostly seen on trails along the Blue Ridge Parkway.

The next most common plant was Hedge Bindweed (*Calystegia sepium*), identified 53 times over the same period. Fortunately, Field Bindweed (*Convolvulus arvensis*), its alien cousin, was identified only 6 times. Again, it was found along the Parkway, mostly on the Haywood Gap Trail.

The plant we’ve seen most commonly growing alongside the roads east of the Parkway in Henderson and Transylvania Counties is Wild Potato Vine (*Ipomoea pandurata*). Each year when we visit Sky Valley Road we can be confident that we will find it in bloom, but it was identified on field trips only 41 times in the past 31 years.

The beautiful Morning Glory (*Ipomoea purpurea*), another alien, is rarely seen on our field trips (4 of the 5 sightings were at Lake Issaqueena). However, a plant growing on a field fence on Nix Road in Hendersonville caught the eye last month. They are hard to miss!

Clearly, the Dodders, leafless native twining annual vines with small white flowers (less than 0.5 inches in length) are very different in appearance from the rest of the Convolvulaceae. However, like the rest of the Convolvulaceae family, the flowers are tubular and five-lobed. Their orange/yellow stems form dense, tangled mats that engulf surrounding plants. Dodder parasitizes its host plants by attaching with small sucker-like projections called haustoria that penetrate the vascular system to obtain food. The Dodder root then dies. Spaulding (2013) has written a nice review of the 15 different Dodders found in Alabama and adjacent states. The two most common species found in Western North Carolina are Beaked or Appalachian Dodder (*Cuscuta rostrata*) which, as you might predict, is primarily found in the mountains, and Common Dodder (*Cuscuta gronovii*), which has a more widespread distribution. Differentiation of these two Dodders is complicated and based largely on the appearance of the capsule (dried fruit). The Beaked Dodder is so named because the ovary and capsule have a beaked appearance, as shown in Figure 1 or these nice photographs at Encyclopedia of Life. Apparently Appalachian Dodder also has very fragrant flowers, and Alderman (1997) reports that it prefers to grow on blackberries, although we’ve not seen that documented elsewhere. We’ll have to pay closer attention during our field trips and see if we can smell the Dodders, look for the beaks, and see which host plants they prefer.
Figure 1. Capsules of *Cuscuta gronovii* and *Cuscuta rostata* showing the distinctive beak of the *C. rostata* capsule. Modified from Yunker (1932).

Compared to Dodders, identifying the rest of the Convolvulaceae is a doddle! They are immediately recognizable by their large funnel-shaped flowers, composed of 5 fused petals and 5 sepals surrounding the funnel tip.

Hedge Bindweed (*Calystegia sepium*) is a native, twining, perennial vine. Its leaves are alternate, long-stalked, and arrowhead-shaped with pointed or squared bases. The white or pink flowers are solitary in the leaf axils and relatively large, measuring 1.5–3” long. The inside of the throat is white. A distinctive feature is the presence of a pair of large bracts beneath the flower which hide the calyx (Figure 2). A great example of this plant can be seen on the Blue Ridge Parkway just south of the gate at Black Balsam Road.

Figure 2: Identifying Features for Hedge Bindweed (*Calystegia sepium*). This plant was located at the intersection of Old CCC Road and Sky Valley Road, near Guion Farm.

Field Bindweed (*Convolvulus arvensis*) is a non-native, climbing or prostrate, perennial vine. Its leaves are alternate, long stalked, and also arrowhead-shaped, but smaller than *C. sepium* and with a rounder tip. Its flowers are small (only ⅜” long), white or white tinged with pink, and there may be up to 3 flowers in each leaf axil. The bracts of *C. sepium* are narrow and do not hide the sepals. It’s not very common around here, so we had to ask Penny’s brother in England to send us a photograph!
Wild Potato Vine (*Ipomoea pandurata*), the species that we see most often in the “lowlands,” is easy to identify, even when driving by. It’s a native trailing perennial vine. Its leaves are alternate and usually heart-shaped with a pointed tip. The distinctive flowers are white but the inside of the throat is red/purple in color. Generally 1 to 5 flowers are found on stalks coming from the leaf axils (Figure 4).

Morning Glory (*Ipomoea purpurea*) is a non-native, hairy, twining, annual vine. Its leaves are alternate and heart-shaped with pointed tips. One to 5 white, blue, pink, purple, or variegated flowers can be found on stalks from the leaf axils. When blooming, this plant can be spotted a mile away (Figure 5)!

Whether you consider them beautiful wildflowers or weedy pests, enjoy the Convolvulaceae while summer turns to fall.

References:


TABLE OF CONTENTS TO NEWCOMB’S WILDFLOWER GUIDE

(A SHORTCUT KEY TO THE GUIDE’S WILDFLOWERS)

by Larason Lambert

Back in the sixties, I was looking for a wildflower guide based on leaf characteristics, until a botany professor informed me that the proper approach was to use flower characteristics. So I reluctantly obeyed and waded through the flowers. It was tedious and laborious, and it probably inhibited my progress in the field of botany.

Then along came *Newcomb’s Wildflower Guide*, my prayers had been answered. Of course, it’s key is “artificial”, and related plants end up scattered across the pages. Nevertheless, it’s fairly easy to use, especially for budding botanists, and it has assumed a loyal following amongst us amateur botanical types.

I tend to look for quick and easy ways to access information in the field guides I use, and in *Newcomb*, I began to see a pattern in his keys, and so put this pattern into a spreadsheet. It seems to work fairly well, but I really haven’t used it that much, so give it a try, and let me know if you find mistakes or come up with a more-refined system. I just pasted my copy as a fold-out on the first page inside the front cover.
Malaxis

by Larason Lambert

My name is Malaxis, I live in the weeds.
I have just one stem to hold all my seeds.
I'm truly an orchid, though not very bright.
Get out your hand lens, I'm sure to delight.

Photograph by Ken Borgfeldt
The purpose of the Club is to study the plants of the southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are $15. New members joining from the period July 1-December 31 pay $8. All memberships are renewable on January first of each year. Send dues to Alan Graham, 42 Autumn Glen Court Brevard, NC 28712.

Please send me Botanical Articles or stories or tips on plant identification that you think would be good to include in one of our SHORTIAs. If you see anything that needs correction or if you have additional information about a subject or perhaps a personal experience related to a subject, send that in too, and I can include it in a future SHORTIA. Please try to get this to me by Nov. 25 to get it into the Winter issue.