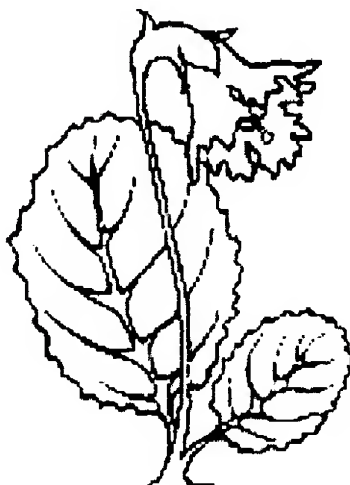


**SHORTIA**  
NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB  
WINTER 2014-15



*Shortia galacifolia*

Oconee Bells

## WESTERN CAROLINA BOTANICAL CLUB

President	Juanita Lambert	Secretary	Joy Charlebois
Vice-President	Penny Longhurst	Treasurer	Alan Graham

### MEMBER NEWS



Field Trip Cancellations: Occasionally, field trips must be canceled 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 canceled when Henderson County Schools are closed (see <http://www.hendersoncountypublicschoolsnc.org>) but NOT necessarily canceled because of delayed opening.

Any change of address, email or telephone number, please inform Alan Graham, 544 Tip Top Road, Brevard, N.C.. 28712. 828-884-3947



### President's Message

by Juanita Lambert

In November, eleven WCBC members visited the new Flat Rock Park, which is being converted from a golf course to other outdoor uses. At first glance, the site looked rather uninviting botanically, but members soon began to find, identify, and record various plant species. As we proceeded around the edges of the park we found some more natural (and therefore more interesting) areas of the park (the "rough" areas and "hazards" of the golf course). All told we found a total of 37 plant species, more than we had expected this late in the year.

However, we did not address an obvious aspect of the park, that the vegetation consists largely of non-native grasses in the fairways and in what is left of the tees and greens of the golf course. How is the park going to be developed, botanically? What will be the ultimate uses of the park? Here is an excellent opportunity for us to pursue a major goal of the Western Carolina Botanical Club "to advocate the protection of biodiversity in our natural world".

How do we feel about this "other" goal of the Club? Is it important to us as a club and/or individually? Four members of the Club have already answered a call for

assistance in identifying native plants in the park in September, and following this more recent outing to the park, we will likely put the park on our schedule for a sequence of visits in 2015.

What can the Club contribute to the park's development other than just a list of plants in the park? For starters, based on our extensive experience observing plants in their natural environments, we can document site conditions within the park, to recommend what species could be planted in the various locations. Perhaps more importantly, we might be able to influence what ultimate uses will result from the development process. We could advocate that a fair portion of the park be allowed to become naturalized areas where biology and natural aesthetics would be the primary emphasis.

Of course this means a lot of meetings and lobbying for the natural world, but it seems like a worthy cause. The case may not be too difficult to argue. The preliminary master plan available at the time of our visit showed a fair portion of the park is designated to be "natural" areas, and our argument might be for some of the extensive "open fields" to be left for native plant species to become established, and mowed only once a year.

**So think about it, and if you're interested, check out the park at <http://flatrocknc.govoffice3.com>. At that site, click on "The Park at Flat Rock" from the array on the left side of the page.**



## **New Members**

**Beth and Jerry Redmond** Beth and Jerry retired to Clemson, SC about 12 years ago. They had lived in Columbia, SC for 25 years prior to their move. It was a homecoming for Beth as she grew up in Clemson. Jerry grew up in the mountains of southwest Virginia near the Blue Ridge Parkway (BRP). Beth retired from teaching and Jerry retired from the federal government. They enjoy hiking in many different mountain and piedmont areas of SC, NC, GA and TN. Beth and Jerry especially enjoy waterfalls, SC heritage preserves, SC state parks, the Clemson Experimental Forest, and the BRP. They discovered the WCBC, by luck, when they were making a day trip to the Wolf Mountain Overlook on the BRP.

**James Poling** Jim grew up in the Appalachian mountains of Virginia and western Maryland. He and his wife, Nancy, have two children and six grandchildren. He is a retired pastor (PCUSA), writer, teacher and counselor living in Black Mountain, North Carolina. Until 2011 he taught pastoral theology, care and counseling at Garrett-Evangelical Theological Seminary in Evanston,

Illinois. Jim recently graduated with a Blue Ridge Naturalist Certificate from the NC Arboretum, and he is a member of the Board of the Elisha Mitchell Audubon Society. Jim enjoys bird watching, wildflowers, and photography.

**Kathleen Sanders** Kathleen grew up in Shreveport, Louisiana, the oldest of 13 children. In college, she majored in Health and Physical Education. Thirty two years ago she came and settled in Flat Rock, enjoying gardening, camping, hiking, and canoeing. Kathleen worked as a pre-school teacher for 17 years. She has 4 children and 4 grandchildren, three of whom are triplets! Over the years she has worked at various gardening centers, and now is working seasonally at Raymond's. She is also one of the "Bullington Bunch" who work Tuesday mornings at our Club's Native Woodland Garden at Bullington Gardens.

**Jean Bullivant** Jean grew up in western Pennsylvania. She majored in Biology and worked as a Middle School Science teacher in Florida and California. Jean is a plant fanatic and has discovered a way to have a woodland garden in Connestee Falls without having the deer continually eating up all her plants. She has put up a little electric fence all by herself, and now the deer leave her little patch of the woods alone. Jean's beginning to find orchids coming up! Her hobbies are cooking, reading, camping, and hiking. Now that she's joined our Botany Club, she'll be focusing on learning more about our native plants.



## Recorder Ramblings

by Ken Borgfeldt

As I promised Nancy Iha, I'm going to pick up where I left off with the visit to **Givens Estate**. A new trail section was included this year and we were treated to several blooming Tall Indigo Bush (*Amorpha fruticosa*), some over 4 feet tall.

The name of the **Black Balsam to Looking Glass** walk should be changed to Painted Trillium Trail because they were blooming everywhere. A patch of Ground Cedar (*Lycopodium tristachyum*) was an unexpected find on a narrow rock outcrop.

We walked a section of **Coontree Loop** for the first time, officially that is - it was a mystery walk last year. We found Feverwort (*Triosteum perfoliatum*) both in bloom and in seed so we weren't sure if we were early or late.

The **Eva Chandler Preserve** is a treat because we get to see bog plants up close without getting wet. They grow along a rocky creek with easy access.

Sweet Pitcher Plant (*Sarracenia rubra* ssp. *jonesii*) and Rose Pogonia (*Pogonia ophioglossoides*) were blooming on the rock.

The club considers the **Buck Springs Nature Trail** a special place as we have provided a brochure in the past for the Park Service. The major species for this trip was an abundance of blooming Clinton's Lilies (*Clintonia umbellulata*).

It was June when we walked **Craggy Pinnacle Trail** but it felt more like winter - jackets were the order of the day. Yet we seemed to be late for expected blooming plants - Bluebead Lily (*Clintonia borealis*) and Tassel Rue (*Trautvetteria caroliniensis*). Noteworthy plants included Appalachian Twayblade (*Listera smallii*) and Wine-leaved Cinquefoil (*Sibbaldiopsis tridentata*).

**Shut-In Trail** has a history of ending in rain. This year we decided to adopt the end conditions at the start and we walked the entire trail in the rain. As one of the participants, I have promised "never again". To compound the felony, the Turk's Cap Lily (*Lilium superbum*) were just starting to bloom.

The first of two scheduled walks on **Sky Valley Road** was a little early as a lot of the special plants were not in bloom yet. However, the Curtiss' Milkwort (*Polygala curtissii*) was everywhere.

If we are nothing else we are persistent. A walk was planned for the **Cedar Mountain Bog** but conditions were such that we could not gain admittance. To make up for the previous rainy outing, we returned to **Shut-in Trail** and this time we had success! The Turk's Cap Lily (*Lilium superbum*) were blooming in abundance.

The **Wagon Road Gap to Wolf Mountain Overlook** or, as we call it, **Parkway South**, is always a pleasure and this year was no exception. We deviated a little as the Log Hollow Overlook was excluded due to the absence of many blooming plants and the Parkway people had mowed. Wolf Mountain Overlook had peaked for Grass-of-Parnassus (*Parnassia asarifolia*) blooms. A special lunch time treat were surprise birthday brownies for Jeanne Smith.

We returned to **Sky Valley Road** and Bonnie gave us lessons on identification of sunflowers and other composites.

I've used up my space for this issue without reaching the end of the 2014 walks. On a closing note, I can say that the **Flat Laurel Creek** walk was canceled due to road repairs and the Franklin Overnight for the same day was also canceled. I guess we just weren't destined to be in the woods that day. But tune in next issue and I'll try to wrap up the 2014 outdoor activities.



## Dick Smith

Several Club members have suggested that I include past articles from old Shortias in our current Shortia, since our newer members have never seen these old articles. They are so well written and informative, I know everyone will enjoy getting to read them, either for the first time or a second time. A series of articles called "Look Again" was written by Dick Smith, Jeanne Smith's husband and the author of the book so many of us love and carry along on our outings, "Wildflowers of the Southern Mountains". Many of these articles cannot be reprinted in Shortia because Dick thought they were out of date. But he did agree to let us reprint a few articles and one of these is from the Winter issue back in 1982-83. I have scanned this "Look Again!" article just as it appeared originally, with the lovely drawings by Dick and his delightfully whimsical touches.

For all the new members of the Botany Club who never knew Dick, Jeanne Smith has written a little introduction for us:

For those of you who have joined the Botany Club since 2000, I would like to introduce you to a fellow botanist, former president of the Botany Club and author of "Wildflowers of the Southern Mountains."

Dick and I lived and worked in New York City, he at Texaco and I at Mobil Oil. We met "at the office" so to speak. We shared an interest in nature and our weekend walks in the woods led to marriage and a move from NYC to North Carolina. There were more people in Grand Central Station every morning during our daily commute than year-round residents of Brevard in 1978 when we migrated south.

We loved all that "greenness" and headed for the woods. Dick had planned to retire to paint flowers and scenery, but the magnificent variety of wildflowers, his new NIKON camera retirement gift from Texaco, plus all the trails off the Blue Ridge Parkway, in the Smokies, and in Pisgah Forest, as well as the Botany Club walks led to an accumulation of over 10,000 slides. So, he submitted a proposal to the University of Tennessee and they agreed to publish a guide book. The hardest thing for Dick was to choose which 600 slides to include in the book.

The dedication reads: "In memory of my mother who would have loved this book and my father who could have done it better." Creating this guidebook was his proudest achievement as an amateur botanist.



# LOOK AGAIN !

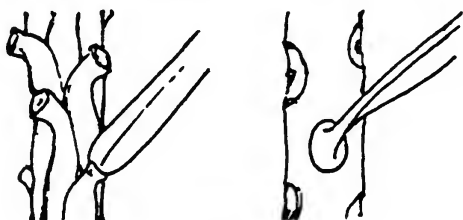
"He Balsam" and "She Balsam" - the names would seem to indicate a dioecious species, or at least very similar plants, but such is not the case at all. They differ from each other in many ways, and the wonder is that we can so easily be confused even when we see the two side by side.

First of all, the name "He Balsam" is simply a local one given to a Red Spruce (Picea rubens) that happens to be growing in the southern highlands instead of, say, the Adirondacks or Ontario. "She Balsam" probably has a little more legitimacy, since the tree it applies to is found only in the Southern Appalachians; technically it is a Fraser Fir (Abies fraseri).

Both trees are conifers, and that alerts us to a basic difference: On spruces the cones are pendulous and on firs they are upright. Also, the cones of spruces fall from the tree intact, but those of firs usually disintegrate, dropping their scales one by one.



So far so good, but often the cones are high on the trees and out of view. So let's look at the needles. Spruce needles are square in cross-section and can be twirled between the thumb and forefinger, while fir needles are distinctly flat. Just remember: "S" = Square = Spruce, "F" = Flat = Fir. Also look at their attachment to the twigs. Spruce needles are mounted on short stubby projections which remain after the needles are removed. Fir needles, on the other hand, are attached directly to the twigs and leave only smooth, flat, circular scars.



The name "balsam" does not belong to any genus, but it has been freely used in vernacular names not only for firs and spruces but for Balsam Poplar, the old-fashioned garden Impatiens, and other plants. The word also refers to resinous secretions of certain trees and shrubs, notably "Canada balsam", which is obtained from Balsam Fir and is used in preparing microscope slides. Such a substance is produced copiously by Fraser Fir and collects in blisters beneath the thin outer bark. It is this characteristic, with its suggestion of "a tree that gives milk", that is thought to provide an explanation for the colloquial term "She Balsam".

*Dick Smith*

## Red Spruce and Fraser Fir in the Spruce-Fir Forest

by Lucy Prim

One of the loveliest sorts of walks we take with our Botany Club is up to the high elevations, up above 4,000 feet. This area is called the "Spruce-Fir Forest" and it is different from all the other plant communities we visit. The canopy is dominated by two trees, the Red Spruce, *Picea rubens*, and the Fraser fir, *Abies fraseri*. As we walk along the trails in these high elevations we soon see the evergreen conifers, their dark green branches arching downwards, allowing heavy winter snowfall to slide off their sloping boughs. We usually stop for a little while and discuss the difference between the two trees, refreshing our memories as to their special characteristics. A quick touch of the needles is often enough to tell us whether we're looking at a "spikey" Red Spruce, or a "flat" Fraser Fir. We can pull off a needle to look at with our magnifying glasses, usually seeing the two white stripes on the underside of the Fir and the four-sided shape of the Spruce needle, the square base, the way we can roll it between our fingers, while the flat Fraser Fir just won't roll at all. If we remember "Spikey Spruce" and "Flat Fraser Fir" we can keep these two straight in our minds.

Out on the trail, they look confusingly similar, even when seen side by side.

### Red Spruce Needle



Notice the square base and the needle-like point that will poke your finger and feel quite sharp.

You can roll this needle between your fingers.

### Fraser Fir Needle



Notice the curving point that is not at all sharp and will not poke your finger.

Since it is flat it will not roll between your fingers.

Both the Fraser Fir and the Red Spruce can live for many years as little saplings, only a few feet high, shadowed and protected beneath their higher parent trees. We often see these smaller conifers lining our path like little Christmas trees, conjuring up images of Little Men with their green jackets, red caps and white owls' feathers solemnly marching through the miniature forest on some mysterious business of their own. Although these small trees look young, they might actually be quite old. A sapling can stay small for many years,

sometimes 50 years, waiting for the taller surrounding trees to fall. Then, with the sun suddenly full on its branches, a little sapling can shoot up very rapidly and take its own place as part of the canopy.



The Spruce-Fir Forest is one of the rarest habitats in the southeast. Over the years it has been threatened by one calamity after another. Tremendous damage was done to it decades ago by the lumbering industry's ruthless clear-cutting. This uninhibited tree felling opened up the forest floor to the glaring sun. The mossy wet ground dried out and the area became vulnerable to fires which ravaged the mountain sides, started accidentally by the lumbering process itself and started on purpose by settlers wanting grazing areas for their animals. Once the ground had burned, often down to the mineral soil, the trees have had a great deal of difficulty getting started again. Added to these difficulties, the forest is also contending with the Balsam Woolly Adelgid and Acid Rain. So, when we venture out into these special high elevation forests, we are in a threatened habitat and the trees we see are the survivors of many hardships.

The Red Spruce used to be much more common than it is today. During the last ice age, these trees were growing very abundantly on our mountains but when the weather began warming up, the trees at the lower elevations died out and only the ones at the highest elevations remained, along with a few in mountain bogs and cold air draining valleys down to 3,000 feet. But even though we have many fewer Red Spruce than Canada and states further north, we do have the biggest and tallest Spruce right here in our Southern Appalachians, in the Smokies. And we also have the oldest Red Spruce. It is on Grandfather Mountain. A core sample of this tree has been taken and now we know that the tree is over 450 years old!

### **Red Spruce Beer**

The Red Spruce has been used to make a drink, Spruce Beer. It was one of North America's earliest alcoholic beverages. The British Royal Navy would add Red Spruce to their ship-brewed beer on expeditions to North America, thinking it would help the sailors avoid getting scurvy. (It may not have helped with this. Some scientists think there might not be any vitamin C at all in alcoholic Spruce Beer.) A drink made with Spruce tips, water, hops, yeast and molasses was common in Colonial days.

Someone has tried to make Spruce Beer and here is his description of the taste: "This is the worst. It's overwhelmingly tree sap—and not the nice bits of the trees (like birch beer, root beer, sarsaparilla...). If ever offered a bottle, save yourself the trouble and drink some paint thinner. It will taste the same, but you can wash your brushes with the remaining thinner you don't drink. Spruce Beer would probably melt the bristles off. This soda is also disturbingly thick—it coats your tongue white and the nauseating flavor lingers on and on and on. This is soft-drink purgatory."

Although this doesn't sound promising, a few craft breweries are trying to come up with their own (hopefully better) recipes for Spruce Beer.

## **The Living Landscape - Designing for Beauty and Biodiversity in the Home Garden**

Authors - Rick Darke & Doug Tallamy  
Principal Photography by Rick Darke

This wonderful 392 page book inspires us to include native plants in our own gardens and advises us how to mix native and non-native plants to create beauty and attract wildlife. The photography of plants, birds, and insects is superb and the book is worth it for the photographs alone. At first I didn't think I'd be able to read the whole book but once I got into it I enjoyed what the authors had to say and I learned so much about ecology and the interrelationships of plants, wildlife, and people.

The primary concept the authors put forth is "layering" plants in your garden. They discuss using both vertical and horizontal layering of plants to enhance the design, vertical as in plant heights from ground layer to canopy layer and horizontal, as in front to back to create vistas and spaces.

I found their ideas to be very helpful to me in deciding what to do with my own property which is still evolving since we moved into a new house 5 years ago. I like the idea of mixing natives and non-natives as both are beautiful in their own way. Native plants are absolutely essential to feed and support our wildlife. I never realized until reading this book that most non-native plants cannot fully support our insects, birds, and other animals because those plants are toxic to the native wildlife which has evolved over millennia to only be able to eat native plants. This fact alone should alert us to the need to plant native! If you want to enjoy birds, butterflies, squirrels, and more in your garden then be sure to include native plants and trees on your property – the more the better!

I highly recommend this book. Originally I borrowed it from the Transylvania County Public Library but loved it so much I bought it. I found it online at Barnes and Noble (bn.com) on sale. Either way, it's yours to enjoy!

Reviewed by: Aleta Tisdale



## **Smokey Mountain Magic**

by Horace Kephart

I have just finished reading a very enjoyable, old fashioned sort of book, written by Horace Kephart and titled "Smokey Mountain Magic. Horace Kephart wrote this book back in the 1920s but his book was never published until 80 years later. Now that it has been published and is out in the world for us to read, those of us who get our hands on a copy have a treat in store.

The story takes place in the Deep Creek area, up near the Cherokee Reservation. This place, when undisturbed by lumber companies and the various villains of the story, is a perfect Eden of delight and beauty, described lovingly by Kephart in evocative, poetic passages which often include lists of the plants that are growing about. These lists of plants are fun for Botany Club people to read, allowing us to see the landscape in our imaginations populated with real trees and bushes and flowers.

The hero of the story, Cabarras, is an old fashioned manly fellow, self made to the point of choosing his own name, and ready for any sort of adventure. Brave, resourceful, cheerful, virtuous, he is the perfect fellow to win the heart of the delightfully lively Marian, a college girl from Raleigh who is spending her summer in the mountains collecting plants for her college's herbarium. When we first meet her she is riding her horse in the woods, plant press in her saddle bag, looking for rare specimens for her collection

This is a story that does not take a long time to grab your attention. Before the first 35 pages are read, there's a lot of good excitement and fun. Along with meeting the extremely likable hero and heroine, we also meet up with some very dastardly villains, dirty, sneaky, fellows who are so bad we feel no sympathy at all whenever they get a comeuppance from our hero. Right away we have some action: a dog attack, yellow jackets and a runaway horse, a car needing to be pulled out of the creek, and some funny scenes too. Before we know it, we're caught up in the story, wondering what will happen to Cabarras and how will he be able to defeat the villains and marry Marian.

Along with hearing this good story, the reader learns many interesting things about the mountain culture back in those days, the superstitions and the interesting phrases used in conversation, the skills of the intelligent woodsmen, the workings of the law, the point of view of the logging companies compared to the point of view of the mountain people. There's never a dull moment in this book, and for the Botany Club, the references to plants and the lovely botanist on horseback, Marian, make this a very enjoyable story indeed.

Reviewed by Lucy Prim

## Woods in Winter

Henry Wadsworth Longfellow

When winter winds are piercing chill,  
And through the hawthorn blows the gale,  
With solemn feet I tread the hill,  
That overbrows the lonely vale.

O'er the bare upland, and away  
Through the long reach of desert woods,  
The embracing sunbeams chastely play,  
And gladden these deep solitudes.

When, twisted round the barren oak,  
The summer vine in beauty clung,  
And summer winds the stillness broke,  
The crystal icicle is hug.

Chill airs and wintry winds! My ear  
Has grown familiar with your song;  
I hear it in the opening year,  
I listen, and it cheers me long.



A beautiful winter scene drawn by Dick Smith.



Please send me any Botanical articles or stories or tips on plant identification, or poems that you think would be good to include in one of our Shortias. If you are a new member who hasn't had a biography in Shortia, please let me know! I want to include everybody.

Lucy Prim  
828-693-6580  
32lucette@gmail.com



**REMINDER:Membership Dues are Due January First**

It is coming time to renew our membership in Western Carolina Botanical Club! Checks can be brought to our Cookie Fest, or mailed to Alan Graham at 544 Tip Top Road, Brevard, NC. 28712 Individual/Family Dues are \$15.



SHORTIA  
c/o Lucy Prim  
48 Oak Gate Drive  
Hendersonville, NC 28739

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FIRST CLASS

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**SHORTIA**

**A quarterly publication of the Western Carolina Botanical Club**

**Vol. XXXVI No. 3**

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Editor: Lucy Prim  
Winter 2014 - 2015

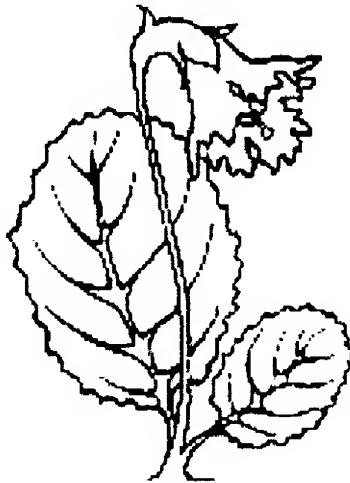
Proof-reader: Dave Lellinger

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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, 544 Tip Top Road, Brevard, NC 28712.

**SHORTIA**  
NEWSLETTER OF THE  
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SPRING 2015



*Shortia galacifolia*

Oconee Bells

## ATTENTION: FINAL NOTICE

The annual dues of \$15 for 2015 were payable by January 1<sup>st</sup>. For those of you who have not yet paid, please write a check to WCBC and immediately mail it to:

Alan Graham  
544 Tip Top Road  
Brevard NC 28712

If you can't remember if you have paid, you can check with Alan at 828-884-3947 or [adgraham@comporium.net](mailto:adgraham@comporium.net).

## WESTERN CAROLINA BOTANICAL CLUB

President	Juanita Lambert	Secretary	Joy Charlebois
Vice-President	Penny Longhurst	Treasurer	Alan Graham



## MEMBER NEWS

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For any change of address, email or telephone number, please inform Alan Graham, 544 Tip Top Road, Brevard, N.C. 28712. 828-884-3947



## Vice President's Message

by Penny Longhurst

In the Fall 2014 issue of Shortia, Juanita asked, why did you join the Western Carolina Botanical Club? Here are my reasons.

Growing up in the English countryside, I took nature for granted. However, until Howard and I retired and moved to this area I really hadn't had a lot of time to get out and be in the "Great Outdoors." Not only that, the plants here were completely different from those I had grown up with. Looking back through the thousands of

photographs I took on hiking trips in the past 15 years (digital cameras—such a marvelous invention), it's clear that a large part of my interest in the surroundings was actually in the plants we encountered. Probably one of the first hikes where I really appreciated spring in the Appalachians was during an April 2006 trip we took to Robbinsville. We hiked the Grassy Branch trail off the Cherohala Parkway and encountered an amazing number of wonderful flowers. We spent all day trying to identify them with the aid of the "Wildflowers of the Smokies" book; many of those were plants we'd never seen before.

Hiking with groups, it was much more difficult to identify plants—I'd get left behind! I decided the best way to do this was to take quick photographs of the flowers (it didn't really matter if they were in perfect focus as long as the main features were obvious) and then, after returning home, look at them on the computer. Using the internet and Dick Smith's "Wildflowers of the Southern Mountains" book, I'd spend hours trying to identify what I'd seen. Sometimes I'd have to look at almost every picture in the book! I didn't know about "Newcomb's Wildflower Guide" until my first walk with WCBC several years later! I started keeping a spreadsheet, listing what I'd seen on each trail—useful since each spring I need to re-learn several of the plants again. I also marked where I'd seen special favorites using my GPS. Of course, compared to Ken Borgfeldt's database, my attempt was fairly pathetic!

After several years, I got discouraged at not having enough time during the group hikes to "smell the roses," so to speak. I had met Ken and Joy while volunteering at Carolina Mountain Land Conservancy and knew they were members of WCBC, so finally one day I decided to join them on a field trip. My first walk was Coontree Loop in the pouring rain! Only about a dozen people showed up, so it was easy to meet people, and I saw my first Ginseng plant. A spectacular day! I joined on the spot!

Going on the field trips with the club has been a wonderful experience for me. I've learned so much from everyone, and I admire your patience when we ask the same questions again and again. I'm sad when the Monday outings stop! I often go back on my own to places we have visited to take pictures of the plants in different stages of their life (if I can find them). I got some great pictures of that Ginseng plant with first green and then red berries, but last year, despite several visits, I was unable to find it again to catch it blooming. I'll try again this spring.

One of the projects I've been working on is creating movies of the development of flowering plants, from bud to bloom to seed. Obviously that doesn't happen quickly. Some plants require several years to create a movie, especially if I miss a critical period in their development (like that Ginseng plant). However, I think I've got some good shots, and if you have nothing much to do on a rainy or snowy day you can see them at <https://www.youtube.com/user/colong7034>.

My learning experience hasn't just been with plants. I've met so many experts at identifying birds and insects among the club members, and I've spent (literally) hours chasing butterflies trying to get movies of them feeding on plants. I learned that, just like with plants, sometimes you have to slow down and look a little closer, and then you recognize that not all butterflies are the dark form of Eastern tiger swallowtails!

## New Members

**Don Galloway** Born in Middle Tennessee and raised in the Florida Panhandle, I moved to the Maryland suburbs of Washington, DC for graduate school and didn't leave for 49 years. When I retired 17 years ago, I was able to devote more time to the wildflower photography hobby I had begun in the mid-seventies. Both before and after my retirement I indulged that hobby in the lower 48, Alaska, southern Africa (to which I still return as often as possible), Costa Rica, and New Zealand. When I retired, I began volunteer work with the Nature Conservancy, National Park Service, and most enduringly with the MD Natural Heritage Program, breaking trail and taking notes for botanists doing rare plant surveys. My wife and I moved to Asheville in September of 2014, and I quickly learned that at age 75 it's time to abandon active field work when it involves climbing steep slopes! I still volunteer with the NC Natural Heritage program, doing GIS work and look forward to learning more about the flora of the southern Appalachians with the WCBC.

**Elizabeth Dicey** I am a retired teacher recently moved to the area who is enjoying finally having time to hike, ride, garden, and learn more about the local natural environment. I have lived in upstate NY, New Hampshire, and more recently Reidsville NC. I have horses and a vegetable garden that keep me outside most of the time, which is where I like to be. I have been hiking with the Pacolet Area Conservancy since we moved here and have taken advantage of many opportunities to learn about the geology and biology of this part of NC. Hoping to learn more botany with WCBC. My love of nature and wildflowers is at least in part due to my mother's life-long love of walking in the woods and fields observing the flora and fauna.

**Wylie Paxton** I am from Asheville and my hobby is gardening, both vegetable and perennial natives. I work for the National Park Service as a biological technician. I conduct vegetative monitoring in five National Park sites throughout the Southeast. The focus is on vegetation and restoring fire adapted ecosystems. I love to see native plants and to learn about their phenology.



### **A Disturbing Invasive Species: Fig Buttercup *Ficaria verna***

The South Carolina Native Plant Society has brought to our attention another invasive species to be on the watch for. It is *Ficaria verna*, Fig Buttercup, a very pretty yellow-flowered plant that is growing rampant here and there in the United States. It was first documented as being naturalized in Pennsylvania, in 1867. Now it can be found in many places here in the Southeast, including the Smokies, along the French Broad River, and near the UNC Botanical Garden in Asheville. When we are out on our walks we can keep our eyes peeled for it. It grows in moist, deciduous



woods, in the very places we find some of our lovely spring ephemerals. This plant grows so thickly it makes a carpet and crowds out everything else.

To see a very well done, fascinating video about this plant, do an internet search for 'Youtube Fig Buttercup' and you will find the video (or use this link: <https://www.youtube.com/watch?v=-v956AagLsU>). It is about 10 minutes long and describes the situation and how to identify this plant.



## **Appreciating Snags**

by Frances Jones

I didn't know what a snag was. Probably all birders know. It is a *dead* tree—and it turns out to be very valuable in your landscape.

Most of us, justifiably concerned with safety, quickly remove dead trees. Some of us see snags as unsightly or taking up space that a live tree could use to grow. How interesting then to learn that dead trees are one of the most creative forces in our yards. Their absence severely limits the abundance of woodpeckers. Hole creators need dead trees, and woodpeckers produce many holes, or cavities, during their lifetimes, producing new nest cavities each year. They are natural engineers whose abandoned cavities enable a great diversity of life such as invertebrates, fungi, moss, and lichens, as well as, of course, birds and small mammals that use snags for nests, nurseries, storage areas, foraging, roosting, and perching. Various-sized woodpeckers provide cavities that differ in accessibility. Flicker holes are the right size for blue bird nests, pileated woodpecker cavities support owls, and downy woodpecker hollows are good for chickadees and nuthatches. These birds would have fewer homes without woodpeckers.

Nest boxes are very helpful, but nothing is better than a real snag when it comes to keeping nest and roost sites in our environment. Appreciating and not removing dead trees, or even dead limbs on otherwise healthy trees, is the best way to ensure a steady supply of cavities for the critters that need them.

Some appreciators with a wooded acre create their own snags. How do they do this? By taking off the top third of a tree and half of the remaining side-branches, or by leaving the top alone and removing a majority of the tree's side-branches. This opens up the forest floor to more light, provides immediate perch sites, and creates a long-lasting supply of woodpecker cavities once decay sets in. It is a bit of a wait from dead trees to woodpecker homes, but insects and fungi help the process along. Sometime around year 4 or 5, created snags begin to evolve into real bird condominiums. I'm inspired. I'm going to hire a licensed, bonded, and insured arborist and put him to work. I'll report the results in a few years time.



## Hexastylis naniflora

by Millie Pearson  
and Lucy Prim

In North Carolina there are twenty six plant species on the endangered or threatened list. The Heartleaf (or Dwarf Flowered) Wild Ginger (*Hexastylis naniflora*) is one of them. It was put on the Federal register as threatened in 1989. Since that time, the number of identified populations has increased four-fold, and now it is said that the plant may sometime be dropped from the threatened list.

This species has the smallest flowers of any North American plant in the genus *Hexastylis*. The flowers are described as being less than 10 millimeters long and the sepal tubes, less than 7 millimeters wide. The jug-shaped flowers can be various colors, sometimes a greenish or purplish color, but usually light to dark brown. The leaves are evergreen and heart shaped. We cannot rely on any feature visible to the human eye to identify this plant with certainty. The size of the flowers overlaps with other *Hexastylis* members, as do the length and width of the calyx tube and other dimensions. However, the pollen of *H. naniflora* is distinctive, but seeing this feature requires extremely strong magnification. We cannot walk around in the woods with an electron microscope. It is a very frustrating plant to identify with confidence! Maybe the best we can do on our Botany Club walks is to be aware that this little *Hexastylis* exists, and that if we come upon an especially small Heartleaf, especially while walking about in South Carolina, it just might be this type.



## Aphaenogaster rudis



by Lucy Prim



There is a very useful and interesting insect living in our woods. It is *Aphaenogaster rudis*, a foraging, seed-dispersing ant. It is often the dominant ant living in our forests. It is a reddish color and is about a quarter of an inch long. It lives in rotten stumps or logs or under rocks or in the ground. Sometimes it lives in rubbish piles.

These ants play a very important role in the life of the forest. They wander about in the woods looking for food. When they find a seed with a fleshy lipid rich outer structure called an elaiosome, they carry the seed back to their nest and let the larvae eat the nourishing outer coating off. Then, the ants carry the seed out of the nest and put it in their garbage pile.

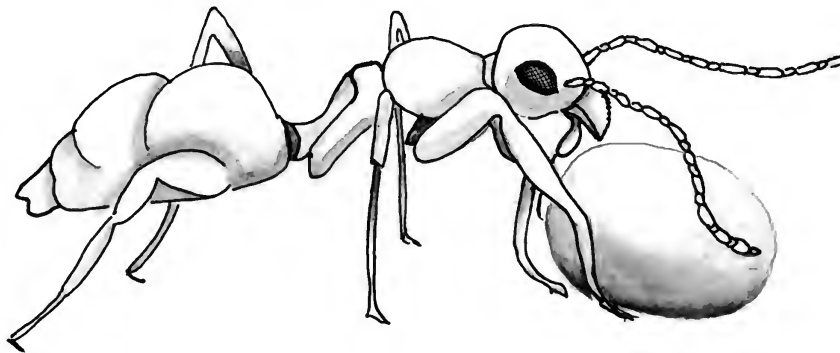
This is a very good arrangement for both the plant and the ants. The larvae get some good nutritious food and the plant gets its seeds delivered, and in effect planted, in a spot that is often rich with nutrients and offers a promising place for the

seeds to take root and flourish. Some scientists think that up to two thirds of the herbal seeds in the forest are picked up by these ants.

This type of seed dispersal is called “myrmecochory.” In ancient Greek, the word for ant was “myrmex.”

These ants have some additional interesting characteristics. They not only feed on elaiosomes, they also eat worms, termites, grubs, and other insects that they come upon on their forays across the forest floor. When they encounter some insect they want to take as prey, they handle the situation in a surprisingly effective manner. They paralyze the insect using a special chemical on their posterior. This chemical not only paralyzes the prey, it at the same time attracts other ants so more ants come along and kill more prey.

These ants, remarkably, have been shown to use tools. Upon finding food that is too fluid for them to carry, they find some pieces of leaves, bits of twigs, or some soil to use as tiny trays or sponges to carry the liquid food back to the nest!



## Trail Tidbits

by Kim Spencer

In anticipation of beginning our outside activities again, I'm educating myself about the trails on our schedule for this spring, and thought I'd share with you some tidbits I found interesting.

**Station Cove.** This trail is in Oconee Station State Historic Site near Walhalla, which preserves the blockhouse established to protect the original South Carolina frontier in 1792 and a house/trading post built a few years later. The structures are open on weekends and by appointment. (From Wikipedia)

**Glassy Mountain** is a monadnock (an isolated mountain) of 1647 feet elevation close enough to the Blue Ridge for some great views (from Wikipedia). If somebody

could tell me the difference between a monadnock and a pluton in 25 three-syllable words or less, I'd be happy to listen.

**Kingdom of the Happy Land.** This was “an autonomous community founded by freed slaves [from Mississippi]...after the Civil War...governed by a king and a queen...crops and earnings were distributed equally among community members...bulk of the kingdom's income came from a kind of 19th-century service industry. Working as teamsters, community members helped transport loads of market goods [up and down the mountains]...the coming of the railroad in 1878...spelled the beginning of the end for the kingdom.” (From an article in the Mountain Xpress by Jon Elliston and Kent Priestley dated Feb. 7, 2007). To find, google “Kingdom of the Happy Land.”

**Craven Gap.** Part of the Mountains to Sea Trail (MST), which is the 870-mile trail from Clingman's Dome to Nag's Head envisioned by Henry Arch Nichols, trail builder and leader of the Carolina Mountain Club. Several sections are still not completed, but it was first thru-hiked by Alan Householder in 1997, eight years after Nichols' death. (From The Mountains to Sea Trail: Western North Carolina's Majestic Rival to the Appalachian Trail, by Dossey and Hillyer, 1998).

**Pilot Mountain.** Part of the Art Loeb Trail, a 30+-mile memorial to a Brevard resident and member of the Carolina Mountain Club. The trail, dedicated in 1969, goes along the highest mountain ridges from the Davidson River Campground in Pisgah National Forest to Daniel Boone Boy Scout Camp in Haywood County. (From Wikipedia).

**Painted Trillium Trail** is a WCBC name for one of our walks on the Mountains To Sea Trail. (From Bonnie)

**Eva Chandler Heritage Preserve.** Part of the Mountain Bridge Wilderness Area, it includes a unique mountain ecosystem, the cataract bog, where a stream flows over a granite outcrop, making it technically a fen. (From Wikipedia)

**Craggy Pinnacle.** I was interested to learn that there is a picnic shelter at Craggy Gardens built with chestnut logs many years ago, when the chestnut dominated our forests. The shelter is still standing and sound, in contrast to structures built with other woods that would have rotted by now. I don't remember seeing a picnic shelter, but would like to find it. (From 100 Practically Perfect Places in the North Carolina Mountains, by Robert L. Williams, 2001, pp. 226-7).

**Pink Beds.** I have questioned the origin of this name several times and have never gotten a definitive answer. Kevin Adams in his book North Carolina Hiking Trails says the answer depends on who you're talking to whether the pink is for the blooms of phlox, mountain laurel, or the unusual swamp pink, which is not common anywhere and continues to grow from 1 foot to 3 feet while it blooms. I guess that is a good enough answer for me!

And collecting these tidbits is a good enough activity while I wait for our first walk!



## A New Bronze Statue of Olmsted for the Arboretum

by Lucy Prim

A very exciting project is underway for our Arboretum. The world famous sculptor Zenos Frudakis has accepted a commission to create an eight foot bronze statue of Frederick Olmstead to be placed in the area of the Arboretum called the Blue Ridge Court. Our very own Botany Club members John and Muriel Siddall have made this project possible through a very generous donation.

After John and Muriel moved here to Asheville, John began working as a volunteer at Bent Creek. He came to be very impressed with the Arboretum and its leadership. When he learned that the Arboretum had on its long-term wish list a statue of Frederick Olmstead, John and Muriel decided to add their own contribution to some funding that already existed. About two years ago the Siddalls began meeting with the Arboretum leaders and plans for this exciting project began to take shape. John died before the artist was selected, but Muriel knows he would be pleased that Zenos Frudakis has accepted the commission. Muriel told me that the project seems to be on schedule for completion by the end of the year. She and all the Siddalls will be there cheering when the statue is unveiled. And the Botany Club will send cheers too. What a happy occasion it will be!



## Bluets

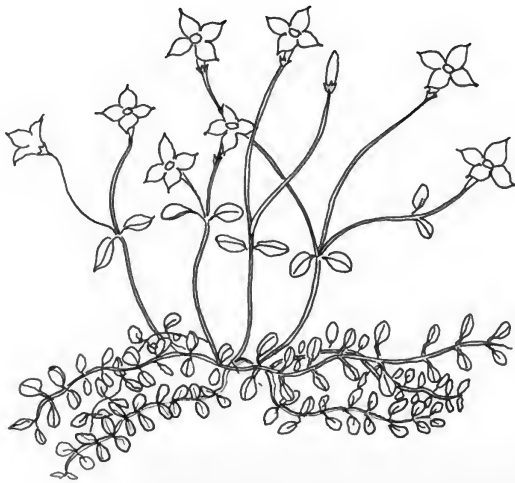
by Lucy Prim

What a surprise I had this winter while walking on a very cold mid-February day, temperature down in the low 30s and the wind whipping about and roaring through the tree tops. I was walking up Big Glassy trail at Connemara and noticed to my astonishment, a few brave little Bluets (*Houstonia caerulea*) blooming beside the path! I found them on a south-facing bank, out in the bright sun, the rosettes of leaves emerging out of a little damp patch of polytrichum moss. How jaunty those dainty blue flowers looked, gaily dancing about atop the wiry stems, buffeted to and fro in the blustery wind. Asa Gray, our famous 19<sup>th</sup> century botanist, remarked on this long-blooming proclivity of the Bluets when he wrote, "After finding the bluet in blossom ten months of the year, I have some hesitancy in calling it a spring flower. I should hardly be surprised to find it blooming on some little patch of ground that peeped above the snow during the January thaw."

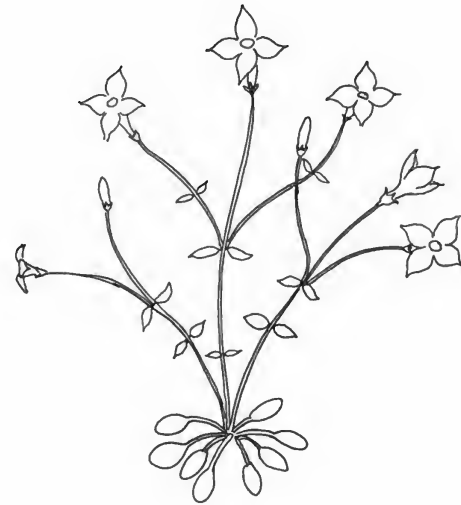
When we venture out on our Botany Club walks, we very often see three types of *Houstonia*, *H. caerulea*, *H. serpyllifolia*, and *H. purpurea*. We do not have any trouble telling these three apart from each other. The first two can easily be distinguished by their leaves and growth pattern, even though their flowers look identical to me. *Houstonia purpurea* is easy to identify too, and we see it more often than any of the



others, being almost weed-like the way it grows in all sorts of locations, from woodland paths, to roadside ditches and disturbed sunny banks.

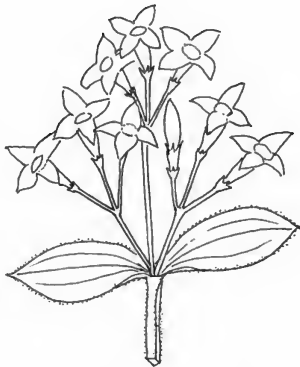


*Houstonia serpyllifolia*

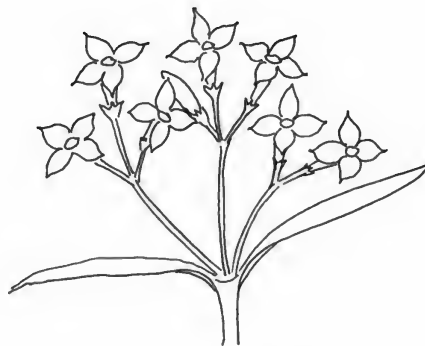


*Houstonia caerulea*

But there are some other less commonly seen *Houstonias* that we might come upon when we are out on our walks. If we see a *Houstonia* that reminds us of *H. purpurea*, but whose leaves look longer than usual, we should right away think that we may be looking at *H. longifolia*. If we see a *Houstonia* with extremely narrow leaves, it may be *H. tenuifolia*. When we see these slender leaves and wish to distinguish which *Houstonia* it is, we can study them more closely and refer to Richard Smith's book which will tell us that *H. longifolia* has leaves over 1/8 inch wide, whereas *H. tenuifolia* has leaves under 1/8 inch wide.



*Houstonia purpurea*



*Houstonia longifolia*



*Houstonia tenuifolia*

Another *Houstonia* we do not see often on our walks, but one which I've found growing in a lawn in Mills River, a frequently mowed and walked on lawn, is *H. pusilla*. It is a very tiny Bluet, only a few inches high, and its little blue flower has a tiny reddish eye in the center.

One *Houstonia* is extremely rare, so rare that it is on the list of Federally endangered plants. This is *H. montana*, Roan Mountain Bluet. (This plant is also called *Hedyotis purpurea* var. *montana* or *Houstonia purpurea* var. *montana*. The Bluets are a very

complicated genus when it comes to their names!) There are very few populations of this plant, all of them (except for one surprising exception) in the high elevations in North Carolina and Tennessee, along the Tennessee border. The one exception was recently found, in 2013, in Highland State Park in Virginia. It was quite a surprising discovery, since no other population has been found outside the limited high elevation areas in North Carolina and Tennessee. This Virginia population was found in one of the most popular bouldering areas in this park. ("Bouldering" is a form of rock climbing, done without ropes or harnesses.) One of the greatest threats to this endangered plant is being stepped on by hikers and boulderers, walking about or climbing on the rocky balds.



## The First Spring Day

by Christina Georgina Rossetti

I wonder if the sap is stirring yet,  
If wintry birds are dreaming of a mate,  
If frozen snowdrops feel as yet the sun  
And crocus fires are kindling one by one:  
Sing, robin, sing.  
I still am sore in doubt concerning Spring.

I wonder if the springtide of this year  
Will bring another Spring both lost and dear;  
If heart and spirit will find out their Spring,  
Or if the world alone will bud and sing:  
Sing, hope, to me;  
Sweet notes, my hope, soft notes for memory.

The sap will surely quicken soon or late,  
The tardiest bird will twitter to a mate;  
So Spring must dawn again with warmth and bloom,  
Or in this world, or in the world to come:  
Sing, voice of Spring,  
Till I too blossom and rejoice and sing.



Please send me any Botanical articles or stories or tips on plant identification, or poems that you think would be good to include in one of our Shortias. If you are a new member who hasn't had a biography in Shortia, please let me know! I want to include everybody.

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FIRST CLASS

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