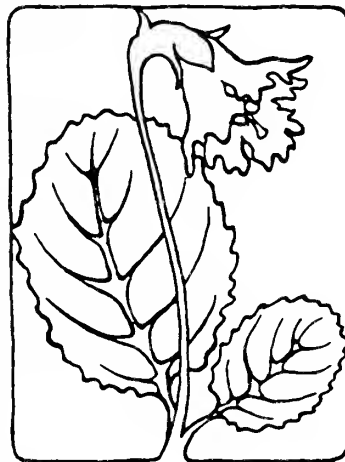


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SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

SPRING 1997



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NEW YORK
BOTANICAL GARDEN

ELTON and ALINE HANSENS
Editors

WESTERN CAROLINA BOTANICAL CLUB

President:	Don Herrman	Treasurer:	Rachel Conway
Vice-President:	Elaine Montgomery	Recorder:	Erika Parmi
Secretary:	Laverne Pearson	Historian:	Louise Foresman

FROM THE PRESIDENT.....DON HERRMAN

Riding home from the annual meeting, I had a very good feeling. This had been a good meeting with good socializing and a good exchange of ideas. Even the ice, cold and snow could not dampen the spirit of the meeting.

Everyone at the meeting said they had received the new schedule. It is a good one. Look it over, the field trips and meetings are diversified and interesting. There is something there for everyone. "Macho", my big white male cat is helping me write this. He would like to point out that even though there is not as much botanizing in the ice and snow, the waterfalls and the meadow have a distinct beauty of their own.

Standing here looking at the meadow, it is hard to realize what is going to happen in a few months. The crunch of the ice leaves you with the impression that nothing will grow. But come spring we know it will.

By then our field trips will be in full swing. Read and reread the schedule. Pick out the trips that appeal to you. Contact the leaders. They know what they are doing---come out and enjoy as many as you can.

When talking with different individuals at the annual meeting, I was struck by the many different and interesting experiences I was hearing. The Editors of SHORTIA would be more than happy to receive your stories---so, send them in. Thanking you very much!

WCBC TREASURER'S REPORT, 1996

Balance on Hand, Jan. 1, 1996		\$2,638.01
Receipts		
Members dues	\$680.00	
Donations	12.00	
Interest	28.50	
Total Receipts		<u>720.50</u>
		\$3,358.51
Disbursements		
2 schedules (incl. postage)	\$182.30	
4 SHORTIA (incl. postage)	429.96	
Plant lists	65.18	
Address list	35.00	
Annual Meeting '96	79.90	
Prepaid Rent, Annual Mtg. '97	75.00	
Treasurer's Expenses	28.17	
Secretary, Misc.	52.95	
Total Disbursements		<u>948.26</u>
Balance on Hand, Dec. 31, 1996		\$2,410.25
Elaine Montgomery, Treasurer		

WESTERN CAROLINA BOTANICAL CLUB ANNUAL MEETING MINUTES

January 17, 1997, St. John in the Wilderness Church

Attendance 31

The meeting began with the reading of the minutes from last year's meeting, followed by the treasurer's report. Both were accepted as read.

Elton Hansens informed the members of the exciting news that the New York Botanical Gardens wishes to acquire a complete set of SHORTIA. A staff member at NYBG and friend of Dan Patillo (WCU) contacted Elton about this. The UNCA Botanical Garden and WCU also intend to catalog SHORTIA into their systems. Dan Patillo has offered to help implement this plan. At this point, the cost factor is unknown. Elton reminded the members that SHORTIA is always in need of material, and encouraged all to contribute.

Dick Smith gave us some interesting sidelights about other connections between WCBC and NYBG, where, incidentally, he gave his first lecture. Harry Logan, a co-founder of WCBC, and Harvey Krouse, an early member, were both members of the Torrey Botanical Club, which was a highly scientific group related to the NYBG. Both of these organizations were affiliated with Columbia University. Dick sees many similarities between the Torrey Club and WCBC, probably because of the influence of Harry Logan's membership in the Torrey Club.

Dean Crawford raised the issue of the future of WCBC. Many of the original, knowledgeable members have passed on or have moved away. How do we keep it going and vital? We need to attract more people who will provide leadership, planning and responsibility. Dean offered suggestions: 1) The officers should prepare a brochure or welcoming letter to be included in the materials that Welcome Wagon brings to new arrivals to our area. This letter/brochure would plug the joys of the outdoors, and include an application to join WCBC with the bonus of free membership for the remainder of the year. 2) Newspaper listings of our field trips in the weekly calendar of events in the Times-News and in the Tryon newspaper. It was suggested that the field trips could be placed in the Sunday sports section with the hiking schedules.

Jeanne Smith mentioned the Wildflower Weekend in Asheville and the teachers at Blue Ridge Community College as other vehicles for getting our message out.

The Nominating Committee, which included Lois McDaniel and Erika Parmi, and was headed by Don Bender, presented the slate of officers for 1997 as follows: Pres., Don Herrman; VP, Elaine Montgomery; Treas., Rachel Conway; Secy., LaVerne Pearson. All were elected unanimously.

Ruth Hoerich reported Challice Weiss had a stroke and was currently recovering at Thoms Rehabilitation Center.

President Don Herrman spoke encouragingly about the club's activities, saying that some of those who cannot attend field trips do attend the indoor winter meetings. He also thanked those who so efficiently produce and mail our schedules and SHORTIA. He reminded members that dues are due NOW. The meeting was adjourned, after which the group enjoyed a potluck lunch.

NOTE: Former members George and Opal LeMieux, friends of the Smiths, brought some of their magnificent enlargements of wild flowers for our enjoyment and/or purchase. They were much appreciated by everyone present.

LaVerne Pearson, Secretary

RECORDER'S REPORT THE YEAR 1996.....ERIKA S. PARMİ

Each season has its own beauty. As I write this the trees are covered with ice and snow outlining the branches with dazzling light against vivid blue sky. It is a fairyland! The many uprooted trees and broken limbs will change some familiar views. Nature, however, will soon conceal these wounds under a cover of green leaves. In a few years the dead wood will be recycled into the soil enabling plants and flowers to grow where they may not have grown before. "Mother Nature" may have some surprises for us this spring with changed vistas and altered plant locations!

In the year 1996, 41 field trips and two picnics were scheduled. Of these, seven were cancelled and for three no Recorder's reports were made. Thus, this years statistics are based on 33 reports. There were 566 participants, down by about 100, with an average of 17 people per trip. Last year the average was 19 per trip. The Givens Estates trip on April 12, Grassy Ridge on June 28 and the Sandburg mushroom walk on Aug. 16 each attracted 30 or more participants. Ten field trips had 20 or more participants, and 18 trips attracted 10 or more participants. There were only 4 trips with less than 10 participants.

In 1996 we had 3 trips on which we saw more than 60 species in bloom or in bud. They were the Snowbird overnight trip on April 23-25. Douglas Falls/Coleman Boundry Rd. on May 10 and Pinnacle Mt. on Aug. 23. There were 8 trips on which we found from 40 to 54 species in bloom. On 15 trips 20 to 38 species were in bloom or in bud. Only 4 trips had less than 20 species in bloom. These statistics were formulated from the 30 trips for which I received plant lists. As during the 1994 and 1995 seasons approximately half the trips provided us with at least 30 species in bloom.

This spring it will be interesting to see how the extremely warm weather in December followed by January's snow, ice and cold will effect the spring flowering season. Whatever we see, I am looking forward to it.

April 21,21,23 THE SMOKIES
(Mon, Tues, Wed)

(Erika Parmi 883-8021)
(Elton Hansens 227-7486)

Two nights at the Talley-Ho Inn in Townsend, TN on the lush side of the Smokies! Rates will be \$39 plus tax for two beds and \$29 for a single. We will have a mixture of walks and stop and go viewing of an amazing array of spring flowers, revisiting some old favorites plus some new walks and roads. Walks will be from 1/2 to 4 miles in length with shorter options available for the longer hikes. Reservations required. Please call Erika by April 11. MEETING PLACE: Ingles North TIME: 8:30 AM Join others at Mills River Restaurant TIME: 8:45 DRIVING DISTANCE: 400 miles COST: \$7.00.

NEW MEMBERS

Walls, Kenneth W. & Harriet H.: 132 Frazier Road, Brevard, NC 28712-9743.

THE COLOR PURPLE.....Dick Smith

Don Herrman's query as to whether *Aster puniceus* should not be called "Red-stemmed" instead of "Purple-stemmed" Aster reminds us that there is widespread perplexity about the meaning of the word "purple" as it is used in botany.

Clearly, Linnaeus knew what he was doing when he assigned the epithet *puniceus* to this species. To him, the suffused color on the stems resembled that seen in the pulp of Pomegranate fruit. This was a tree he had named *Punica granatum*, so *puniceus* must have seemed an appropriate choice.

At that time, a Latin or Latinized binomial was considered sufficient to identify a species, and Linnaeus doubtless expected we would leave it that, but inevitably there arose the need for a colloquial name which English-speaking peoples could use when referring to this plant. In response, someone came up with "Purple-stemmed Aster," which was just as descriptive as the scientific name conferred upon it by Linnaeus, and was a perfectly suitable equivalent--although today we seem to have our doubts.

We need to realize that the English language had many words for denoting hues that were blends of red and blue, and that originally these were carefully divided between the "purples," which were near the red end of the spectrum, and the "violets," which were closer to blue. "Purple" was an inclusive term, encompassing and not always differentiated from similar colors such as maroon, garnet, and magenta. The word was used to describe such flowers as we see in our Northern Pitcher Plant, *Sarracenia purpurea*; Purple Trillium, *Trillium erectum*; Leather Flower, *Clematis viorna*; and Meadow Beauty, *Rhexia virginica*. As to the second category, "Violet" really has no synonym, and the term as it was applied to flower color can best be visualized from examples like Zigzag Spiderwort, *Tradescantia subaspera*; Self Heal, *Prunella vulgaris*; and of course many Violets, *Viola* spp.

If the sharp distinction between these two color groups had been consistently maintained we would be less confused today, but that would have been too much to expect. One reason is that the difference between them has been blurred by the discovery that there are many "borderline" flower hues between red and blue--more than anywhere else in the spectrum--especially when it comes to the lighter tints. Also, taxonomists have sometimes leaned over backwards to extend epithets like *purpurea* to flowers that are decidedly bluish; possibly they were reluctant to use *violacea* because it would translate into English as "violet," a noun already too widely applied to well-known flowers as a common name for us to welcome it as an adjective for others.

Finally, think about this: Isn't it true that most of us have gradually slipped into the careless habit of using the words "purple" and "violet" interchangeably in our speech and writing? If so, all we need to do is adjust our conceptions of color to conform to traditional standards. We have nothing to lose, except possibly part of our reputation for imprecision in the use of language.

California Fuchsia

by
Kathryn K. McNeil

I am a fellow member of yours who lives in San Francisco in the winter and the Smokies in the summer. After spending the lush, wet months of June, July and August in my home on a mountain top near Waynesville, it is always a shock to return to parched California where no rain has fallen since May. The rainless months stretch to November and turn much of California into a true Mediterranean ecosystem.

There is a survivor of such conditions, a charming wildflower, which often begins to bloom in mid summer and continues through weeks of high temperatures until December when the rains return again. It is affectionately called "California Fuchsia," though it is a member of the Evening Primrose family, because it looks like a fuchsia with its tubular shaped flower head, its petals slightly recurved, and protruding stamens and stigma. For over a century it has been known botanically as *Zauchneria* until California flora was lately re-classified. Now it is called *Epilobium canum* and grouped with the Fireweeds. The mountaineer of this genus is *E. canum* ssp. *latifolium* and is found at 10,000 feet in the Sierras.

California Fuchsia likes the stoniest, most inhospitable of soils where it perches in rocky crevasses and on dry, flinty hillsides, dazzling the eye with its scarlet bugles in a monotone world of burnt grasses and parched chapparal. The flowers have a habit of blooming horizontally on their woody stems, deliciously appealing to hummingbirds, offering flaming miniature trumpets one to two inches long. Their growth habits vary depending on their location, rising from rhizomes into straggly clumps of grey green lance-shaped leaves, variable in size, and often covered with white hairs. The bark is shreddy as one would expect, surviving as the fuchsia does on hot dry slopes with no rain for four to five months.

Over the years many horticultural hybrids have been developed from *Zauchneria californica*, some with pink trumpets, some with white. It is well to remember, however, their true nature is to die back after flowering, so their winter appearance in a garden setting is not admirable.

To hikers, finding California Fuchsias blooming on the dusty trails is reward enough. They gladden the eye and quicken the heart and reaffirm the resilience of Nature.



Epilobium canum (*Zauchneria californica*)

Illustration by William Pierson---
used with permission of artist
& FREMONTIA (Calif. Native Plant Soc.)

NOTES FROM WHITE SQUIRREL.....CHARLES R. GUNN

My avowed intention has been to write about regional plants and plant families. However, this column will report on other matters.

First - A new genus has been officially named for me: Bobgunnia. This is an unusual African genus whose species were previously assigned to a South American genus. The paper is being published by the New York Botanical Garden. But more about this later.

Second - In November I was in Mission Memorial Hospital, Asheville and a pacemaker was installed. I am feeling a lot better and I am also walking again. This little "vacation" caused me to miss the first meeting of tropical drift seed collectors held in Cocoa Beach, FL on December 4 and 5.

In 1966, Robert Mossman of West Palm Beach sent seeds that he had collected to the Smithsonian Institution for identification. Because I identified seeds for the Smithsonian, these seeds were sent to me. My response to Bob and the resulting correspondence with him and Corinne E. Edwards of Coconut Grove resulted in my first tropical drift seed paper in the March/April 1968 Garden Journal of the New York Botanical Garden. Seeds and fruits found on the beaches are produced by tropical plants, and float in sea water. They are transported from the tropics via sea currents to beaches in the temperate zone.

Cathie Katz (in Florida) and I (in Brevard) started The Drifting Seed, a semiannual newsletter. Our newsletter will be printed and distributed from Florida. At least I can still write for it! My obscure avocation, started in 1968, now has become a worldwide organization.

CRACK WILLOW---A NEW WAY TO GET AROUND.....BILL VERDUIN

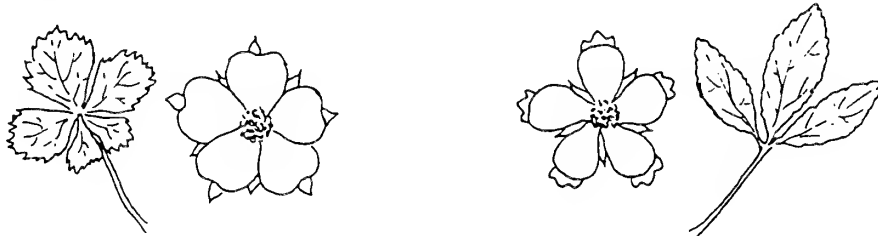
Seeds, stump sprouts, sprouts from shallow roots, low hanging branches that root where they touch the ground, twigs cut by man and rooted in the nursery--

And then there is Salix fragilis, crack willow, which has its own unique (as far as I know) way of reproduction. We all know how easily willows of all kinds root if a twig is stuck into wet soil. Crack willow takes full advantage of this ability. It deliberately produces a weak spot in the lateral twigs just an eighth of an inch or so beyond the point of connection with the main branch. Comes a winter wind brushing branch against branch and -- voila -- twigs here and there crack off and are carried by the wind. The lucky few dropped on wet soil promptly take root and we have a new crack willow tree.

This willow is a native of Europe and was introduced into this country in early colonial times. It escaped from farmyards and pastures and is common in the eastern states. It occurs at the Kanuga Conference Center near Hendersonville, NC.

LOOK AGAIN !

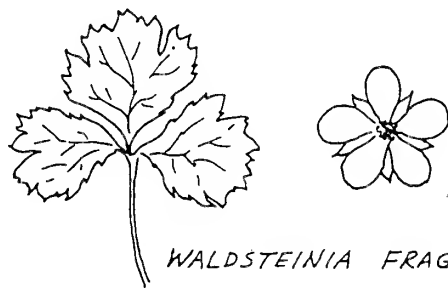
Amateur botanists--and not just beginners either--are often baffled when coming across what they perceive to be "strawberry plants with yellow blossoms." Usually they are already well enough acquainted with the Cinquefoils to have dismissed most species on the basis of their having more than 3 leaflets, and the one that does have trifoliolate leaves for having undersized flowers.



POTENTILLA CANADENSIS

DUCHESNEA INDICA

Along the way they would have observed that in both Strawberries (Fragaria) and Cinquefoils (Potentilla) the 5 sepals alternate with 5 similar but smaller bracts. If, however, the plant in question has bracts that are larger than the sepals and have 3 or more distinct teeth, it can be put down as Indian Strawberry, Duchesnea indica, an immigrant from Asia that produces a red but dry fruit resembling a Strawberry.



WALDSTEINIA FRAGARIOIDES

On the other hand, if there are no bracts at all interspersed with the sepals, the plant is another impostor (although a native one), Waldsteinia fragarioides, known as Barren Strawberry.

Dick Smith

S H O R T I A

VOL. XIX, No. 1

SPRING 1997

A QUARTERLY PUBLICATION OF THE WESTERN CAROLINA BOTANICAL CLUB

Editors; Elton J and Aline Hansens Distribution: Ruth Hoerich

Please submit contributions (articles, Letters to the Editors, notes, etc. for the next issue by April 20 to Aline Hansens, 125 Far Horizons Lane, Asheville, NC 28803.

1997 WCBC Membership Dues are \$8.00. If you have not paid, send your check to: Western Carolina Botanical Club, Rachel M. Conway, Treas., 211 Aldersgate Circle, Asheville, NC 28803.

SHORTIA
c/o Ruth Hoerich
215 Newport Road
Hendersonville, NC 28739

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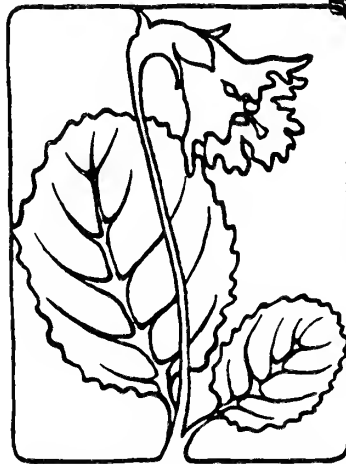
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FROM THE PRESIDENT.....DON HERRMAN

Spring is here! Now that you have paid your dues, come out and participate. The field trips are many and varied. The Program Committee has met again and the second half of the year looks just as good as the first half. While attendance has been good, we can handle larger groups safely, without trampling the environment. Oh yes, to a few of you, there is still plenty of time to send in your dues.

Today it is raining - a great day for hiking! (See Dean). The dog and cats went down to the meadow with me. Moss is everywhere and thriving but where are the spring beauties? Maybe it is too early - or maybe I am the only one who doesn't know that.

Yesterday, as I was washing the dishes, I glanced out the kitchen window. A white squirrel was headed for the yard. I got all excited! By the time I got the camera it had disappeared. Later I saw him again but he took off before I could get that picture.

But guess what? Standing in my front yard, stretching all the way down past my 5 tree orchard are all the violets you will ever want. They are everywhere. Only the arbutus are able to stand in their way. This has been a great year for arbutus. It hugs low to the ground and is blooming and spreading. Between the two, arbutus and violets, I won't worry about mowing. There is one other thing about violets---they are too successful in the vegetable garden. Would you believe I am transplanting violets to an undeveloped area of my yard.

Excuse my rambling. (After all this is "Ramblewood"). There is one last question. I have noticed there are quite a few different and varied colors of violets. Does anyone know the names of all of these violets?

FROM THE EDITORS.....ELTON and ALINE HANSENS

"LOOK AGAIN" has been a feature of every issue of SHORTIA since the spring of 1982 when we joined the WCBC. DICK SMITH has written and illustrated four pages each year for more than 15 years. We are sure that all members of WCBC recognize the skill and dedication of the author. This issue of SHORTIA presents the last of the series. We hope Dick will produce further copy for SHORTIA from time to time. We need his expertise.

Your editors are delighted to present this issue of SHORTIA with a challenging array of contributions. Our members have responded to our urging and we ask many more of you to help. This number introduces the "WCBC Forum --- A Place for Open Discussion".

GETTING TO KNOW YOU.....ALINE HANSENS

Davies, Walter and Betse: 200 Crestview Dr., Hendersonville, NC 28791 (704) 891-5926. Betse originally from Ohio and Walter from Wales, UK, moved here from FL about 1½ years ago. Walter's business as a chemical engineer kept them on the move in this country and overseas but now the rolling stones are slowly coming to a halt in H'ville. Time to stop and smell the wild flowers.



Hilton, James (Jim) L. and Mary: 20 Indigo Way, Hendersonville, NC 28739, (704) 696-1629. Jim Originally from TN and Mary from VA, moved to this area a year ago, drawn by the lure of the mountains. Both have degrees in botany and science. Mary, a teacher and Jim with a PhD in botany and biochemistry, retired from the USDA. Both joined the club hoping to learn the local flora.

Matthes, Herbert F. and Anne M. 151 Arthur Lane, Hendersonville, NC. 28791. (704) 891-9700. Moved here from New England 9 years ago, as semi-retirees, to escape cold winters and drawn by the natural beauty of the area. Both have had a lifelong interest in botany but with no formal training. They learned of the club from Dean Crawford.

Vande-Weghe, Linda: P. O. Box 302, Cedar Mountain, NC 28718 (704) 966-9481. Grew up in NJ but moved here from Chicago drawn by the beauty of the mountains and nearness to family. Linda established a landscape design business specializing in woodland and shade gardens---has a degree in Horticulture and Landscape Design.

Yeamans, Meg: 20 Nottingham Rd., Brevard. NC 28712. (704) 884-6980. A biology major, Meg enjoys the outdoors and nature. Originally from Michigan and Ohio but with close ties to western Carolina since childhood and finally made her home in Sherwood Forest. She learned of the WCBC through friends.

PEARSON'S FALLS

*By saxifrage and trillium,
By violet and by rue,
Such tiny, fragile flowers
We passed them - me and you!*

*We walked in the wet morning
And in wakening Spring.
We felt old Nature's promise
And heard the river sing.*

- Walter Davies

RECORDER'S REPORT, FEBRUARY - MAY 1977.....ERIKA S. PARMİ

The FENCE trip on March 21 inaugurated the spring flower season with 22 plants in bloom. The trips to the waterfalls were inspiring both for their beauty and their flowers---Pearson's Falls on March 28, Oconee Station on April 7, and Pacolet Falls on April 14. The Givens Estates trip was especially rewarding in spite of a temperature in the 30's and a strong, cold wind. Fifty-two species were recorded including several plants of the rare spotted mandarin (Disporum maculatum).

On April 11 a star was born! The field trip to Glassy Mountain Heritage Preserve in SC was an unqualified success. We hiked on 3 rock faces highlighted with spectacular displays of white smooth sandwort (Minuartia groenlandica var. glabra) and false garlic (Allium bivalve) interspersed with the blue and pink of an uncommon spiderwort (Tradescantia hirsuticaulis). The undisputed star of the show was the tiny elf orpine (Sedum or Diamorpha smallii). The red stems and leaves with their tiny pink and white flowers bathed the rock faces in a fiery glow. In addition to all this glory, there were great views of the Blue Ridge Escarpment and of Table Rock. The fourth rockface which had the most spectacular view had a beautiful red buckeye on its face along with a mass display of bluestar (Amsonia tabernaemontanum) at its edge.

The Smokies overnight April 21-23 was headquartered at our favorite motel, the Talley Ho, in Townsend, TN. Despite inclement weather the first day we walked the Nature Trail and Sutton Ridge Trail at Cosby and the Ashopper Branch Trail near Sugarlands Visitor Center. Although Tuesday was mostly cloudy we had a full day of botanizing in all the usual Little River areas. The rain arrived after dinner, so we did not visit Cades Cove. Showy orchis and trilliums were everywhere this year, both on the Smokies trip and on our local trips.

Perhaps the star performer was the Horse Cove Trail on May 2 when five species of trillium were found -- Trillium erectum (the red form), T. grandiflorum, T. undulatum, T. vaseyi and T. cernuum. The last named may actually be T. rugelii as some of the ovaries were deep red rather than lavender. Trillium catesbaei was prolific along the Pacolet Falls trail. Jackson Park on April 28 was the only trip cancelled because of rain.

If the summer season continues as the spring season has begun, it should be a great wild flower year. Let's all get out and enjoy!

THE SMOKIES, APRIL 21-23.

In spite of weather this was a wonderful trip. Two of the highlights were seeing the cross vine, Anisostichus capreolata and one-flowered cancer root, (Orobanche uniflora). The cross vine was spectacular on Little River Road. We also saw a very large display of wild ginger, Asarum canadense, on the Little River Trail at Elkmont.

We owe a big hand of gratitude to leaders, Erika Parmi and Elton and Aline Hansens. Erika, especially, put great effort into scouting many trails and planning a detailed schedule. All we had to do was follow! Our accomodations were nice.

I feel very priveleged to be a part of this group of nice people. Mary Helen Harris.

HARDY SOULS AND COOKIES.....by THE SHADOW

Is Western Carolina Botanical Club a misnomer? Can a Club be botanical? In any case, when something is accepted long enough, it becomes a tradition. Another of our traditions is that each winter, usually in February, we schedule the Hardy Souls Hike. The original idea was to whet the appetites of members experiencing a little "cabin fever" and provide anticipation that soon we'd be taking our gatherings into the field to observe and identify plants in bloom..

In spite of its title, this hike has sometimes been canceled because of inclement weather! This year the decision was made, and incorporated into the printed schedule, that the hardy souls would hike regardless of weather. So it was that February 28 dawned in a cold drizzle. Two members showed up at the Hendersonville meeting place; another two were waiting at the secondary site.

These four intrepid souls piled into one car and headed into increasing rain, proceeding to the trailhead. This year's goal was to discover the first wildflower blooms of the year, always a possibility with trailing arbutus. The intent foursome slogged onward and upward, peering in vain under one arbutus leaf after another. Finally a bud about to open was sighted and the search was arbitrarily declared a success!

As a reward, the rain diminished enough to allow our brave pioneers to have lunch at a nearby campground in relative dryness. They even ventured across a river for a short distance to explore a trail which might hold promise for a future expedition. Aren't you sorry you didn't take part? Will you plan now to be a hardy soul in 1998?

Another of our traditions is the annual December Cookie Fest. At this year's event we will have a special contest with a fantastic prize! If you give the designated recorder a slip of paper containing the correct names of the aforementioned "Hardy Souls" from the 1997 hike (and your name as the contestant) you will be the winner. The prize: you will be selected to take home some of the leftover cookies!! (The true Hardy Souls are not eligible. They already had their own intrinsic reward and may not be brave enough to feast on cookies. Anyone even hinting that four of our members trudging through the mud are anything less than heroic will be in danger of having their cookies cut off!

WCBC FORUM

Dick Smith writes "Rhode Island is a small state and its flora must be limited but its Wild Plant Society members are long on enthusiasm!" He enclosed an announcement from the Rhode Island Wild Plant Society as follows: "Painted Trillium Viewing. Date, time and place: To Be Announced. Here's an opportunity to see a Painted Trillium, if it blooms this year! RIWPS member Norm Boyer will notify registrants when the trillium is blooming, (usually in the first week of May) and will lead us to the site on private property. Participants must be able to adjust their schedule on a day's notice."

WCBC FORUM --- "A Place for Open Discussion".

I purchased "Wild Flowers of Pearson's Falls Glenn", published in 1995 by the Tryon Garden Club (cost \$2.50). Pen and ink drawings illustrate 40 flowers with a description of each. An acknowledgement states "Special appreciation must be expressed to Ivan Kuster, Botanical Consultant, who has given so generously of his time, expertise and support in compiling this guide".

Millie Blaha.

An inexpensive guide to N.C. trees, COMMON FOREST TREES OF NORTH CAROLINA, a pocket manual, 1995 edition, can be ordered from the Division of Forest Resources, P.O. Box 29581, Raleigh, N.C. 27626-0581.

This small 9" x 5" paperback covers 84 of the most common N.C. trees. Drawings are from The Book of Trees by William C. Grimm and include the flower, leaf, fruit, and in some cases both leaf scar and end bud, as well as a map showing where the plant grows in our state. Enclose \$1.95 to cover costs. -- Anne Ulinski

LOOK - SEE! PICK - NIX!

Picture touring Arizona on a sunny blue sky day. A beautiful patch of Eschscholzia californica (California poppy) appeared beside the road. In a moment we were parked, my camera was in hand, and I was crouched to shoot a close-up.. Louisa was also examining the blossoms. Then we heard the crunch of tires on gravel and saw the Highway Patrol. Fortunately the camera satisfied him as to our intentions. I still have the picture. But we were lectured impressively about the depredation of wildflowers and particularly cacti by visitors as well as residents.

On a WCBC hike several years ago Habenaria ciliaris (yellow fringed orchis) was featured. None were seen. Instead, plainly visible, were many rather uniform bare shallow holes left by a poacher. Only one bedraggled specimen was left to prove its existence.

Last year on a trail in early spring I encountered two pleasant elderly ladies. They were openly carrying off several Sanguinaria canadensis (bloodroot) plants. They assured me they meant no harm, that there were plenty of plants and that they only wanted some to plant in their gardens, all of which was undoubtedly true. I told them that this was not condoned, and that the plant would probably not survive, which was also true. What I did not say is that they were stealing. That was true, too.

This spring, friends showed us two sizable patches of Epigea repens (Trailing arbutus) in full bloom in a grassy area near a foot path. Two days later I had occasion to walk past again and observed an area of bare soil where a third of one patch of arbutus had already been removed

As WCBC members we are aware of our own admonition against destroying wild plants. We know transplanting seldom succeeds. Furthermore, club leaders invariably set a good example in carefully minimizing plant damage when pointing out plant characteristics. Many others need to know and care!

Don Bender

THE BYRD'S AND THE FLOWERS.

Our farm in McDowell County is an old place where we go to camp, play in the creek, do wild flower surveys, etc. Which brings me to the subject of this letter. There is an unusual blue flower which grows abundantly in the meadow in the fall. I tried to identify it with my only resource at that time, Peterson's Field Guide to Wildflowers, but couldn't seem to fit it into any category. After getting Newcomb's Wildflower Guide, I was sure I would find it, but again no luck. I also tried Wildflowers of North Carolina, which didn't help, and tried describing it to a couple of botany club members, but my powers of description were not too great, so....

Last fall I was reading the newest issue of Shortia (Autumn '96) when I came to Dick Smith's "Look Again". About halfway through the article a light bulb went off in my head. This sounded like the flower I had been trying to identify for so long. The drawing looked just like it. EUREKA! Now I know that the mystery flower is Elephantopus tomentosus. THANK YOU DICK SMITH AND SHORTIA!

Now I have another mystery flower. I would love to have some help. They were seen at Linville Falls campground on August 23, 1996. Lots of them were growing in a damp, shady, woodsy area under tall pine trees. They were green all over, leaves like Clinton's lily, racemes 2 to 3 feet tall, green 6-petaled flowers arranged up the stem like a Cranefly Orchis. The green seed pods above the flowers were triangular and heavy enough to make the plant droop somewhat. Does this ring a bell with anyone??

Long live SHORTIA! I always read it from cover to cover and save all issues for future reference. --- Margaret Byrd.

It's very obvious I'm not a botanist (or a writer), but believe me I am married to a true wildflower enthusiast. A few years back all of those pesky weeds were transformed into beautiful untouchable wildflowers, after we joined the WCBC. This club is very fortunate in having so many talented and knowledgeable people available. I now thoroughly enjoy each outing and never cease to be amazed at all the different "things" to be seen out there!

We never go anywhere without my "driving consultant" spotting things along the roadside that only she can see. We have suddenly stopped on interstate highways, side roads, mountains and foothills - risking life and limb - to look at something interesting. I don't know how she does it, but she can spot anything different a mile away!

This is truly a great group of people and I enjoy and appreciate every minute of it. -- Carl Byrd.

Flora of North America: The third of 14 volumes has been published--Vol. 1. Introduction, Vol. 2. Pteridophytes and Gymnosperms, Vol. 3. Magnoliophyta. In this volume the 'lower' angiosperm families including: Birch, Buttercup, Dutchman's Pipe, Elm, Lotus, Magnolia, Oak, Poppy, Walnut, and Water-lily families. These families (plus others) are keyed, described, mapped, and habitat and ranges summarized. Lets ask the Brevard, Hendersonville, and Arboretum libraries to subscribe to this series from Oxford University Press. Up to May 31, 1997, the first three volumes are \$68.00 each plus NC sales tax and a shipping charge of \$3.50 for the first book and \$1.50 for each book thereafter.

Legume Update: One of my specialities with the USDA/ARS was working on the identification of legume seeds and fruits. I am pleased to note that the third volume (the first 2 volumes have been published) on seed and fruit morphology of the subfamily Faboideae is being readied for a USDA/ARS Editor. It will be included in the Technical Bulletin series. My estimate is that it will run 1,250 pages.

Deerlake Checklist Update: I am still finding new species in Deerlake. The last two were a naturalized peach and a weeping cherry. I have a list of 227 species, representing 62 families. I am sorry to note that we lost some species due to building and general cleanup of some wild areas. We have formed a garden club, renovated the beds around the club house, and the club house is completed.

Times-News

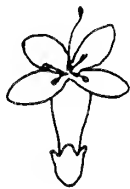
EDITORIAL

■ **Bouquets** – To Anne Ulinski for her long-time interest and activism on the behalf of conservation. She was recently honored by the Environmental and Conservation Organization of Henderson County with its highest honor, the Founder's Award, for her work. Ulinski not only was the motivating force behind the formation of the Henderson County Natural Heritage Inventory in 1994, but she worked closely with state staff to perform the actual inventory. She and her associate Millie Blaha have inventoried a number of sites in the county, including the wetlands along the Jackson Park Nature Trail and the Mud Creek Nature Trail, which resulted in both areas being put on the N.C. Registry of Natural Areas. She and Blaha have also completed an inventory of the Carl Sandburg National Historic Site and are creating an herbarium there. More recently she played a key role in transforming the former Natural Heritage Trust of Henderson County into the Carolina Mountain Land Conservancy and in its acquisition of a 590-acre plot in the Gerton community. The Founder's Award is presented in recognition for outstanding contributions to preserving and conserving Henderson County's natural heritage. Obviously, Ulinski deserves the recognition.

LOOK AGAIN !

The Madder Family (Rubiaceae) is a largely tropical group of plants which include those that gave us quinine and coffee, as well as many ornamentals such as Gardenia and Bouvardia. Among our wildflowers it is represented chiefly by the Bluets (Houstonia), Bedstraws (Galium) and Partridge Berry (Mitchella), all of which are familiar to most of us and are amply treated in the literature.

There are, however, several species that are just as attractive but apparently are considered too insignificant to be included in most field guides. Two are so widespread as to be almost impossible to overlook. They are Diodia teres and D. virginiana, commonly called Buttonweeds; both are low herbs with narrow, opposite leaves and 4-lobed flowers in the axils. In D. teres the corollas are funnellform, $\frac{1}{4}$ " long and pink, subtended by 4 short sepals. D. virginiana has white salverform flowers and 2 more elongate sepals.



D. TERES



D. VIRGINIANA

Field Madder, Sherardia arvensis, is a sprawling weed of European origin with a more sparse distribution in our region. Its flowers resemble those of Bedstraw but are pink or lavender, have a slender tube $\frac{1}{8}$ " long, and are crowded into heads. Its leaves are linear, mostly in whorls of 6.

Dick Smith

S H O R T I A

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SUMMER 1997

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Editors: Elton J and Aline Hansens Distribution: Ruth Hoerich
Please submit articles, "Members Comments" notes. etc. for the
next issue by July 20 to Aline Hansens, 125 Far Horizons Lane.,
Asheville, NC 28803

SHORTIA
c/o Ruth Hoerich
215 Newport Road
Hendersonville, NC 28739



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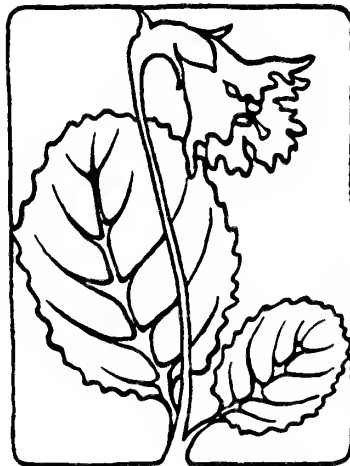
NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

AUTUMN 1997

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BOTANICAL GARDEN



ELTON and ALINE HANSENS
Editors

WESTERN CAROLINA BOTANICAL CLUB

President:	Don Herrman	Treasurer:	Rachel Conway
Vice-President:	Elaine Montgomery	Recorder:	Erika Parmi
Secretary:	Laverne Pearson	Historian:	Louise Foresman

FROM THE PRESIDENT.....DON HERRMAN

I am sitting here on the front porch overlooking the valley and up toward Mt. Pisgah. A blue haze still obscures Pisgah as it did when we were on top. However, it was great hike, up and down. Despite previous storms we did find a great variety of flowers in bloom. A club like WCBC can always find something of interest and in bloom.

This was true at the picnic at Ramblewood. Millie left me with a plant list larger than I know. This led to some good botanizing for those who rambled. Again weather cooperated, so it was a good day for walking and eating outside. Even though some "unknown" 130 lb. heavyweight collapsed one of the rotten benches, no one missed a lick. It has been repaired with 2 x 4's. Can't wait 'til next time.

The kitchen crew did a fabulous job. This place hasn't been this clean in a long time. As I returned from showing everyone out, they were still washing the dishes and even running the vacuum. That's what I like about this club. It is the cooperation of the membership.

If only the meadow would do as well. The spring beauties have finally made their appearance but only on the outer fringes of the meadow. Now the mosses are really taking over. I know a lot of people love mosses, but they are crowding everything else out. This makes the dogs very happy--they love to roll in the luxury of the moss. The cats don't care. So be it!!!

Keep your eyes on the schedule--more is on the way. A meeting of the Scheduling Committee is coming soon. If you have any suggestions please contact your club officers; we would like to hear from you. New ideas and suggestions are always welcome.

JOHN KUHN -- A TRIBUTE

JOHN KUHN, a long time member of WCBC passed away early this year. He and his wife Margaret joined the club in 1975 and became active, interested members. John knew his plants and willingly shared his knowledge. He led many hikes and presented slide programs of native flowers each spring and fall for many years. In 1987 John and Margaret were made Honorary Members, an honor well bestowed. In 1986, after moving to Carolina Village, failing health took its toll, preventing active participation in the club. To those who knew John, he will always be remembered for the flower he loved to call "the poor man's orchid", Prunella vulgaris.

DOING YOUR PART?.....DEAN CRAWFORD

All of us are surely aware of the truism that a club made up of volunteers, such as ours, is only as strong as the active support the members give. There are also the corollaries that every member (recent or longterm) who is physically able should feel obligated as part of membership to take on some jobs from time to time; and that hardly ever does any one member want to feel compelled to repeat a job over and over. There should be a continual influx of new workers.

As chair of the current Nominating Committee, I've become more aware of (1) the many jobs there are to be done in and for the club (some elective, some appointive) and (2) how little time and effort is truly necessary for most of the tasks; almost any of us can handle almost any of the jobs.

Among the elective offices we have a President (presides over one annual meeting and two schedule-planning meetings, plus makes appointments); a Vice President who assists the President and fills in if needed; a Treasurer who collects dues, pays bills and keeps financial records; a Secretary who takes and reports minutes of our one annual meeting; a Recorder who keeps plant lists of most of our field trips and recruits trip recorders; and an Historian who keeps the archives of past publications, etc. Some of these take more time than others, to be sure, but none are jobs that you couldn't handle if you live in the region and are physically mobile. Some would be particularly useful experience for those truly interested in learning more about wildflower identification or club operations.

There are also many tasks done by people who are appointed. This includes those in charge of, with others assisting, editing, printing and mailing our twice-yearly Program Schedules and quarterly newsletter Shortia; field trip leaders and co-leaders who can be people who are not necessarily accomplished botanists but will be conscientious about locating the assigned trail and scouting it in advance to identify what's there; people to help with planning, setup and food supplies for potluck events such as picnics, cookiefest and annual meeting; coordinators for overnight journeys; and others.

We admire and honor those who started the Club and those who've kept it going all these years. Isn't this a good time for YOU to step forward? It's so easy, and also rewarding. All you need do is make your willingness known to the President or any other elected officer (names are listed in each Shortia) and they will surely see that your message is relayed to the proper persons. Don't feel that you somehow must be an expert at anything; all you must be is willing to try!

A SMOKIES JEWEL.....ERIKA S. PARMI

In my explorations of the Great Smoky Mts. Nat. Park trails for the WCBC overnight, I finally hiked the Kanati Fork Trail which I had always wanted to do, since it is always listed in the spring issue of "The Smokies Guide" as a good place for flowers. In my opinion it rates the top of the list along with the Cove Hardwoods Trail at the Chimneys Picnic area. Apparently WCBC passed it over because of a presumed difficult 2000 foot elevations gain. I hiked it twice on April 9 and 16. This trail is on Rt. 441 (the Newfound Gap Rd.) on the NC side about 8 miles north of Oconaluftee Visitor Center. There is a large parking area on the right and the trail enters the woods on the other side of the highway.

The trail does climb continuously, but by way of switchbacks at a moderate incline. The trail is smooth underfoot with very few roots or stones. Flowers are along the entire distance of three miles to the junction with the Thomas Divide Trail, so if some of the lower elevation flowers have gone by, you may see them at a higher elevation.

On April 9 at the very beginning of the trail a large patch of huge trout lilies and a couple of painted trilliums were noted. On April 16 the trout lilies were gone but the painted trilliums had increased to a half dozen or so. Numerous violets (purple, white, and yellow), yellow mandarin, purple meadow parsnip, blue cohosh, star chickweed, and Solomon's plume (in bud) bordered the trail. Showy orchids, large-flowered bellwort, wild oats, yellow and red trillium, dwarf ginseng, squirrel corn, dutchman's breeches, and trailing arbutus also were along the trailside, but all of these were overshadowed by the numerous slopes covered with large white Trillium grandiflorum. On April 16 some of the lower slopes of trillium were beginning to turn pink, but the upper slopes were at or near their peak. Kanati Fork, a branch of the Little River, is visible below the first part of the trail and as you go up through a lush forest you cross small branches of Kanati Fork. Each of these stream crossings was covered in lettuce saxifrage. Because of the elevation gain and the abundance of flowers this trail provides the wild flower enthusiast with outstanding displays for all of April and the first part of May. Turk's cap lilies and black cohosh were coming up and were abundant, so it should be good in summer, too. Give it a try!!

ERIKA S. PARMI

SNOWBIRD TRIP

My guest was impressed, not only with the variety of spring flowers, but with the hospitality and friendliness of the Botanical Club members. The many birds at the new feeders at the Lodge almost made as colorful a display as the flowers.

A REMINDER TO ALL LEADERS AND RECORDERS

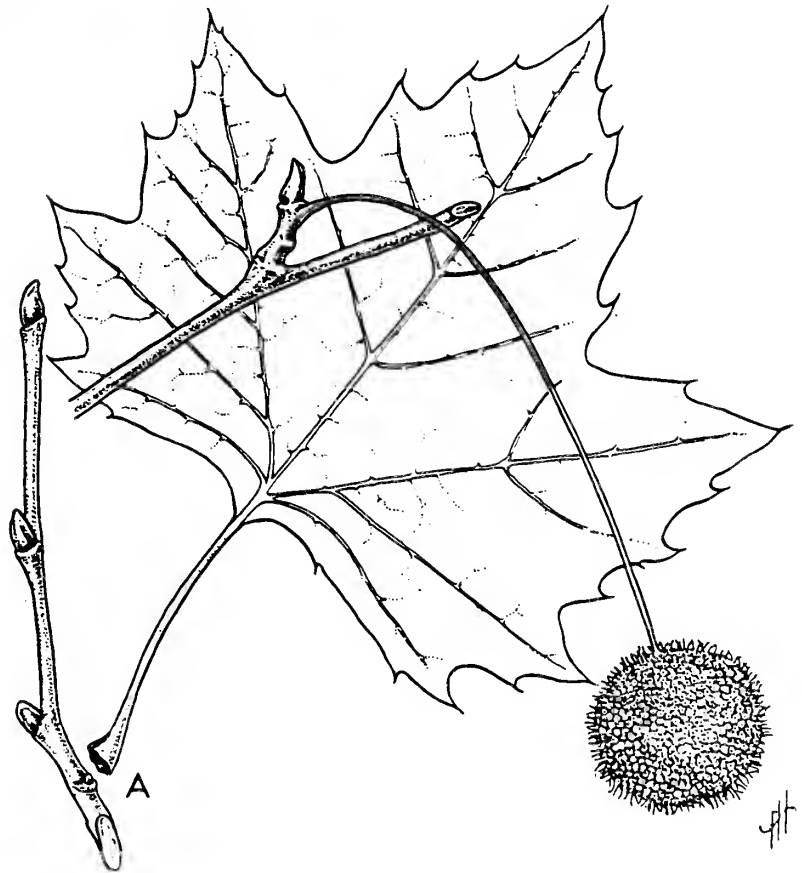
If you are unable to fulfill your obligation it is your responsibility to find a substitute and to inform the remaining leader of this substitution. Also, the first-named leader should include the co-leader and the recorder on his/her scouting trip, if at all possible.

Erika Parmi

The American Sycamore, Platanus occidentalis, commonly known as the buttonball or more correctly, plane tree, belongs to the family Platanaceae, and is the most important of the 6 or 7 species native to the U.S., Mexico, and Central America and one, Platanus orientalis, native to southwestern Asia. Once worldwide in range, the plane tree family can be traced through geologic evidence to remote times.

Platanus is the classical genus name of the Asiatic plane tree while P. occidentalis, meaning western, records the sycamore as belonging to the western world and distinctly American. Found throughout most of the eastern half of the U.S., the sycamore commonly grows along streams and in rich bottom lands where its smooth variegated bark is a familiar sight. This tree may reach a height of 75' to 140' where conditions are favorable and attains the most massive proportions of any American hardwood in the east.

AMERICAN SYCAMORE



Most easily recognized are the young to moderately old trees in which large thin plates of bark peel off the trunk exposing whitish to yellowish inner bark. This is probably due to the inability of the bark to stretch as the trunk expands. The alternate, broadly ovate leaves are fastened by long petioles with a hollow base which fit snugly over next years bud. (see figure A).

Inconspicuous male and female flowers are borne on the same tree and appear with the leaves in early May. The dark red male flowers arise in the leaf axils while the light green pistillate or female flowers occur at the tips of the twigs and form closely packed ball-like heads. By October these become dense balls that dangle through the winter on long slender stems and eventually break up into many hairy, one-seeded nutlets. The seeds are abundant but germinate only in favorable moist conditions.

Bob Gunn asks in this SHORTIA if anyone noticed the ragged looking sycamores this spring. I am told this could be frost damage or, more likely, is sycamore anthracnose, a fungus disease that occurs only as the new leaves appear, causing them to blacken and drop. However, the tree puts out another crop of leaves and usually is unharmed.

THOUGHTS UPON MEETING A "STRANGE" PLANT..... BILL VERDUIN

I recently happened on a strange plant the likes of which I had not seen before. An herb, about a foot high, with two pairs of opposite, simple, entire leaves and one terminal flower well past bloom. MUCH to my surprise, it was a clematis, Clematatis ochroleuca or curly heads. How inconsistent! The familiar members of this genus, C. viorna (leather flower), C. virginiana, (virgin's bower) and the cultivated clematis in our gardens, are all vines with compound leaves and axillary flowers.

I know, I know, it's the flower that counts. All classification is based solely on the characteristics of the flower, but common sense--no, common ignorance -- leads one to expect at least some measure of similarity in the vegetative forms of plants as closely related as the same genus.

Mulling over this gross misfit prompted me to take a close look at the family to which it belongs---Ranunculaceae. Buttercups belong and so do anemones and hepaticas. But what about meadow rue (Thalictrum) and tassel rue (Trautvetteria)? Strange bedfellows with buttercups! These two genera, however, illustrate clearly one of the elements that is shared by most members of the family, numerous stamens and pistils. Look closely at the next meadow rue that you meet.

Now with that clue to relationship in mind, look closely at three very different flowers vaguely similar to each other but totally different from buttercups. Columbine (Aquilegia), larkspur (Delphinium), and monkshood (Aconitum) display much more complicated architecture but you find numerous stamens. And when you look at black snakeroot (Cimicifuga) you are looking at nothing but stamens! What a show they make.

Not every flower with numerous stamens is in the buttercup family, of course, nor does every member of the family have numerous stamens. The "odd" member with which we are familiar is yellowroot (Xanthorrhiza). which has five to ten stamens. Curious, too, that this is a shrub, -- all the others are herbs.

So what's the moral of the story? If you want to identify an unknown plant, work strictly with the flower. Don't be led astray by leaves, form, etc. After you succeed in naming the family and genus, take some time to enjoy getting acquainted with some of the close relatives and even some of the not so close kith and kin. It's a lot of fun -- and full of surprises.

WCBC FORUM

With you, I also salute ANNE ULINSKI in celebrating the Founder's Award of the Environmental and Conservation Organization of Henderson County! She is a tireless and well informed public servant and we often fail to recognize the valuable contributions made by such selfless good citizens.

--J. Dan Pittillo

SOME EXCITING WILDFLOWER AREAS.....ELAINE MONTGOMERY

Why were there so many showy orchis (Galearis spectabilis) blooming this year? We've seen a bumper crop at Snowbird, the Smokies, Holmes State Forest, and at Red River Gorge, KY at the Kentucky Native Plant Society (KNPS) Wildflower Week-end.

Several years ago I visited Red River Gorge in the Daniel Boone National Forest (east of Lexington, KY) having learned about the area from literature given to me by fellow WCBC member Bill Verduin. The gorge has the largest concentration of natural arches and rock shelters east of the Rockies. The 30 mile drive features overlooks and views of the arches as well as the National Wild and Scenic Red River at the bottom of the gorge. The 36 miles of trails which interlace the area give you a choice of short or long hikes to a variety of ecosystems. The KNPS has a Wildflower Weekend on the first weekend in May at the adjacent Natural Bridge State Park. About 20 different hikes are scheduled for botanists and naturalists plus two evening programs. The following hikes were especially noteworthy--the Whittleton Creek Trail (1 mile) to see yellow lady's slipper (Cypripedium calceolus pubescens), Rock Garden Trail (2+ miles) for a great mix of flowers and particularly the one mile section of Sheltover Trace Trail south of KY 715 along the Red River. Here park in the backpackers parking lot and walk to the bridge to see green dragon (Arisaema dracontium), delphinium (Delphinium tricorne), meehania (Meehania cordata) and syandra (Syandra hispidula) among others. Across the bridge is a great mix including Virginia bluebells (Mertensia virginica) and purple phacelia (Phacelia bipinnatifida).

For information on Daniel Boone NF call (606) 663-2852 or for National Bridge State Park call 1-800-325-1710.

GETTING TO KNOW YOU.....ALINE HANSENS

Ash, Joanne: RR#1, Box 260D, Hendersonville, NC 28792 (704) 625-8383. Moved here from FL and has lived in Bat Cave area about 1½ years. Initiated and was an active member of the FL chapter of the National Native Plant Soc. She is excited about the wild flowers in this area and at the moment her focus in on herbs.



Jones, Morgan & Elizabeth (Betty): 186 Johnson Rd., Brevard, NC 28712 (704) 884-3860. Moved here from Tampa, FL about 5 yrs. ago. Liked the climate and beauty of this area as well as a place to continue an avid interest in nature. Learned about WCBC from Dick & Jeanne, Smith.

McCurdy, Dale & Carol: 129 Ben Mar Lane, Hendersonville, NC 28791 (704) 891-2212. Moved here from IL 8 yrs. ago drawn by the ideal location and climate, as well as a place to continue strong interests in plants. Both volunteer at the Arboretum where they met Lois McDaniel who directed them to WCBC.

Morton, William & Juliette: 40 High Ridge Rd., Pisgah Forest, NC 28768. (704) 883-4903. Moved here from FL 1½ years ago. Both have an avid interest in plants and learned of the WCBC from member Edmund Farrar.

THE OLDEST LIVING PLANT INDIVIDUAL

A team of scientists at the University of Tasmania and the Parks and Wildlife Service, Tasmania, have announced the discovery of the oldest living plant individual known to date.

King's holly, Lomatia tasmanica, a member of the Proteaceae family, is known by only one population which is located in the World Heritage area of Southwest Tasmania, Australia. It is found growing along creek gullies in remnant rain-forest.

An isozyme analysis found the Lomatia tasmanica possessed zero genetic diversity, meaning that all the living plants of the species are exactly the same. L. tasmanica appears to be sterile (it flowers but never forms mature fruits) and this evidence strongly suggests that the entire species is a single clone.

A closely related species, Lomatia tinctoria, which also propagates vegetatively, had a normal level of genetic diversity.

The L. tasmanica clone is the second longest in the world after the box-huckleberry clone (Gaylussacia brachycera) found in Pennsylvania. The scientists believe that a clone of the size of L. tasmanica must be very old especially under the cold climate of Southwest Tasmania where vegetative propagation is likely to be very slow.

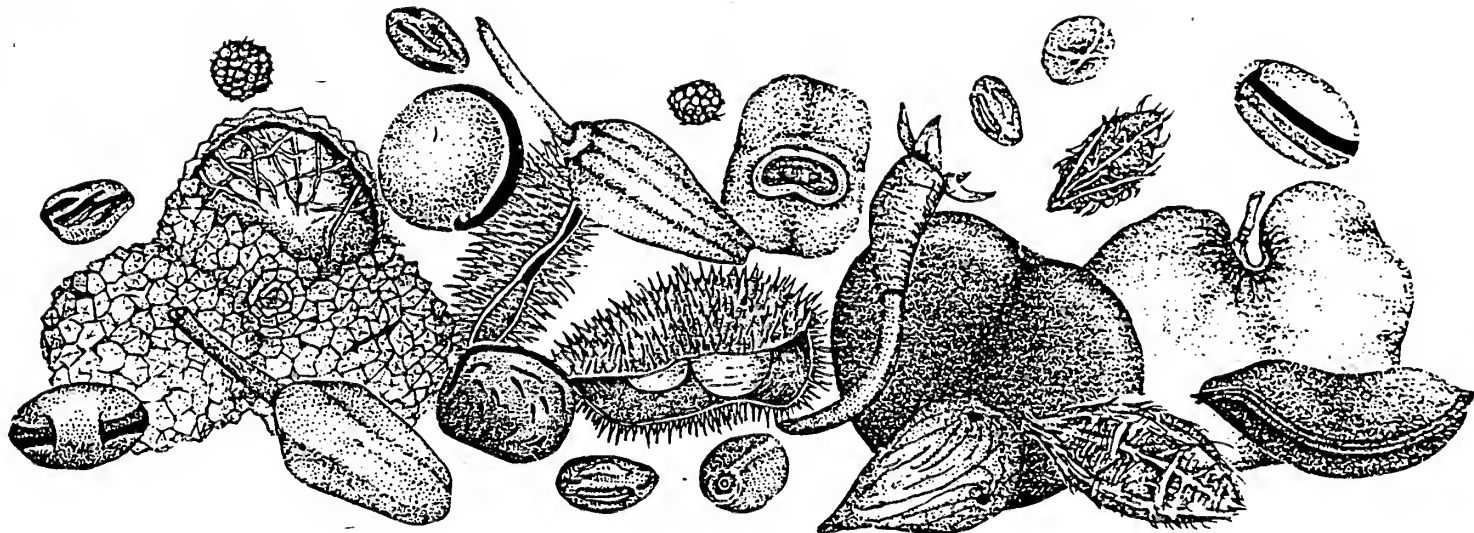
Fossil leaf fragments identical to living L. tasmanica have been found within 8.5 km of the extant population. They have a ¹⁴C age of 43,600 years thus becoming the oldest living plant individual known to date. Box huckleberry was aged at 13,000 years by Wherry in 1972. The oldest living tree is believed to be the bristle cone pine (Pinus aristata) in Arizona which has been dated at 4,700 years.

--The above is excerpted from an article by Dr. A. Ceska of Victoria, B.C. Canada and appeared in BEN BOTANICAL ELECTRONIC NEWS ISSN 1188-603X, No. 149 November 8, 1996 aseska@freenet, victoriabc.ca Victoria B.C. -Anne Ulinski

WCBC FORUM ---

Margaret Byrd is a good observer. Her description of the mystery flower is one that is often seen but not well known in the popular books because it just is not quite the showy flower that Clinton's lily (Clintonia umbellata or C. borealis) or even the Flowering onion (Allium cernuum) are. Undoubtedly she has found Hellebore (Melanthium parviflorum [Michx.] Wats. or what Radford et al. give as Veratrum parviflorum Michx.). Sometimes amateurs ask about the White hellebore (V. viride), but this one is much more restricted to higher elevations and either in grassy balds or seeps in the woods. The pleated feature of the blades for these two is similar but Melanthium has long petioles.

-- J. Dan Pittillo



NOTES FROM WHITE SQUIRREL.....Charles R. Gunn

Spring in Deerlake has brought some interesting and rare plants (for us) along White Squirrel Lane: Shiny-leaved Bellwort (Uvularia pudica), Adam-and-Eve Orchid or Puttyroot (Aplectrum hyemale), Cockspur Thorn (Crataegus crus-galli), and another colony of False-Indigo (Amorpha fruticosa). All are under "protection". Another oddity, a Yellow-flowered Yarrow (Achillea millifolium), is growing in a weedy lot along Deerlake Road. The plant itself is not weedy, but I can only wonder about its history. I also am wondering if you have noticed how ragged the sycamores looked this spring?

Betty and I were sorry to miss this year's WCBC picnic, but we were staying over night in the beautiful town of Summerville, SC, on our way to Savannah, GA for the combined meeting of the Society of Commercial Seed Technologists and The Association of Official Seed Analysts. They have been meeting for over 75 years. My Coco-de-mer talk brought together about 200 attendees. At the last meeting I attended in Annapolis, MD, 1992, I set an attendance record when over 400 heard my USDA/ARS symposium.

In 1950 I was the youngest member ever to join the SCST; then I became an AOSA member before starting my career at the USA/ARS U. S. National Seed Herbarium. And now, alas, I was one of the oldest to attend the Savannah meeting. I have every intention in 2000 to celebrate my 50th year by attending the Ames, IA meeting.

WCBC FORUM ---

It is with mixed emotions that I received your announcement that Dick Smith was discontinuing his SHORTIA "Look Again" feature. I fully appreciate the fact that he is due for a break, but his insight into the variations between confusing species is much appreciated by many of us, professionals as well as amateurs. Members of the Southern Appalachian Botanical Society are also appreciating his contributions and the willingness of Western Carolina Botanical Club to allow us to reprint those features. Perhaps those of your members who missed his clearly stated ways to differentiate closely related species will want to watch for them in future CHINQUAPIN newsletters.

-- J. Dan Pittillo, CHINQUAPIN Editor

S H O R T I A

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AUTUMN 1997

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Editors: Elton J and Aline Hansens Distribution: Ruth Hoerich
Please submit articles, "Members Comments", notes, etc. for the
next issue by November 10 to Aline Hansens, 125 Far Horizons
Lane, Asheville, NC 28803.

Add this name to your 1997 WCBC Membership List:

Taylor, Sarah Gen. Del., Cedar Mtn. NC 28718.

SHORTIA

c/o Ruth Hoerich
215 Newport Road
Hendersonville, NC 28739



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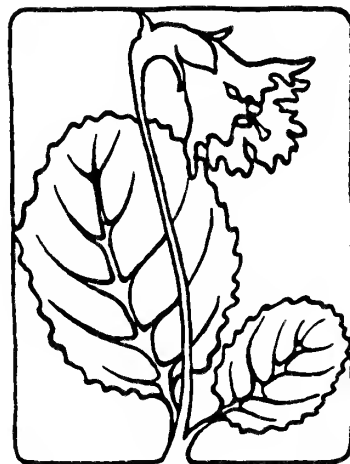
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SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

WINTER 1997 - 98



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ELTON and ALINE HANSENS
Editors

WESTERN CAROLINA BOTANICAL CLUB

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Vice-President:	Elaine Montgomery	Recorder:	Erika Parmi
Secretary:	Laverne Pearson	Historian:	Louise Foresman

FROM THE PRESIDENT.....DON HERRMAN

October again and the year is slipping away. Looking back, it is great to note what a fine, active group of people we have in our club. Even in questionable weather we have good turnouts.

As we approach our annual meeting, January 16, 1998, we will be remembering that this will be 25 years of field trips and other get togethers. Even SHORTIA will look forward to its 20th year of binding us together. Such a pleasant history is a credit to the participation of our membership.

Now there is the question of membership. We have been basing our mailing list on those who pay their dues. But what about the people who forget? Please, pay your 1998 dues of \$8.00 by the time of the annual meeting or shortly thereafter. Our treasurer will certainly appreciate early payment. Those who forgot to pay in 1997 are welcome to pay 1998 dues.

Although the year may be slipping away, October in the meadows is the time of the ladies' tresses and on the first of the month they arrived. But I must admit the purple asters are stealing the show. What is "stealing the show" at your house?? Let the Editors of SHORTIA know--thank you.

NEW LOCATION FOR JANUARY 23 PROGRAM.

"A YEAR IN THE WHITE MOUNTAINS" by Erika Parmi will be presented at the First Citizens Community Room at 2:00 p.m. on Friday, January 23, 1998. MAKE A NOTE OF THIS CHANGE IN YOUR SCHEDULE.

The meeting on FRIDAY, NOV. 14 "LET'S LOOK AT MUSHROOMS" has been cancelled; the meeting room is unavailable.

The meeting on Friday, January 30, 1998, "MYSTERY" has been cancelled and will remain an open date.

1998 -WCBC 25th ANNIVERSARY YEAR

In recent months no field trips were cancelled due to inclement weather. Raven Cliff Falls was substituted on October 3 for the Chandler Preserve because the road into Chandler is in poor condition. In spite of the rather dry summer, botanizing was good throughout the season. The trips to Highlands, the North Carolina Arboretum, Buck Springs Nature Trail, Shut In/Elk Pasture Gap, Lake Issaqueena, Parkway South, and the Byrd Farm all yielded between 40 and 60 species in bloom.

One of the highlights of the season was the large display of northern pitcher plants (Sarracenia purpurea) and other bog plants at the Highlands Nature Center. For those of you who have never been there, the Center is definitely worth a visit. The plants are labeled and identified for you. On their way to the fogged-in peak of Mt. Pisgah, nine members enjoyed outstanding displays of blooming galax, fly poison, rosebay rhododendron, and clammy azalea.

August 8 on Mt. Mitchell also was foggy, but abundant green wood orchis, St. Johnswort, green-headed coneflower and Michaux's saxifrage were seen. There were also many grasses and sedges that remained unidentified. The participants on the Buck Springs hike were able to compare the fruits of the American and beaked hazel-nut trees. On the August 15 trip to Carl Sandburg comparatively few mushrooms were seen because of the hot dry summer. At Lake Issaqueena we found more than 60 species of flowers in bloom, but no mass displays.

Twenty-five members enjoyed the hospitality of Margaret and Carl Byrd at their farm. We walked through several different habitats - woods, fields and stream-side finding about as many species as we had at Lake Issaqueena. We enjoyed a picnic lunch at the tables and chairs that the Byrds had set up at the site of the old homestead. Many of us were interested in the photo scrapbook history of the farm.

The June picnic at Don Herrman's was attended by 35 persons. Those who attended the picnic at Connestee Falls enjoyed the company of Bill Verduin who was visiting from Virginia. He has been missed by the Club. It has been good to see Dick and Jeanne Smith on so many of our field trips, now that Dick's book is at the printers. Field trip leaders can count on his vast knowledge of wildflowers and his willingness to assist in identification.

BELIEVE IT OR NOT

All sorts of surprises can be encountered on WCBC trips. On the return trip from Lake Issaqueena on Sept. 5, we were travelling on Route 11 near the turn to Jones Gap State Park when cars on both sides of the road slowed to a crawl and the drivers became very cautious. The cause was soon evident. A pig about 2 feet long was walking nonchalantly up the center of the highway and, "Believe it or not", was followed by a small piglet. We soon passed the pig and piglet without difficulty and resumed normal speed.

EJH

Known as the monarch of the eastern forests, northern white pine, Pinus strobus, flourishes from Newfoundland to Manitoba and from New England west to Iowa and Minnesota and south along the Appalachians to Georgia. European foresters know it as the Weymouth pine for Lord Weymouth who planted it on his English estate more than 200 years ago.

EASTERN WHITE PINE

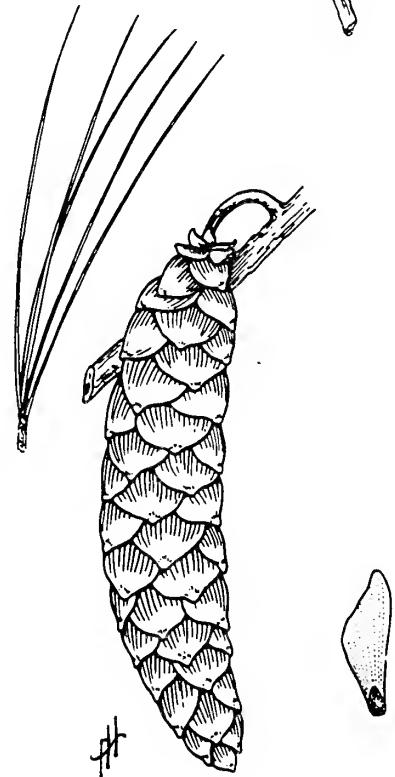
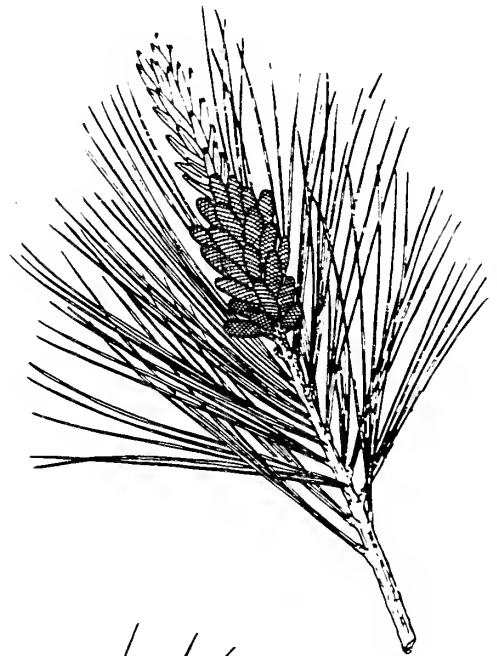
This tree, with its sturdy, tapering trunk is characteristic of many northern forests where it may grow to a height of 250' with a trunk 6' in diameter. Next to the sugar pine of California, the northern white pine is the largest pine of the U.S. It will grow on deep sandy loams but prefers fertile, moist, well-drained sites.

Young trees develop moderately long tap roots with spreading lateral roots. The latter develop rapidly as the tree matures, resulting in a shallow root system.

This is the only native pine with 5 needles in a bundle. Its separate male and female flowers are borne on the same tree. In May and June, the yellow staminate flowers appear, producing quantities of yellow pollen. At the same time, pink pistillate flowers occur. By the end of the first season these become tiny, upright green cones about 1" long. These cones elongate during the second season, growing 5 to 11 inches before turning brown and maturing in August. By September winged seeds are spread by the wind and consumed by red squirrels ("boomers) as their major winter food.

The scientific name, Pinus strobus, derived from Greek and Latin, refers to the conspicuous spindle-shaped cone.

White pine forests are very valuable. The wood of white pine is light and easily worked. In colonial days the British Crown found the wood suitable for ship building and a great many white pines were reserved for the Royal Navy. Today it is a favorite lumber for construction of many types but is less available commercially because of the tree's susceptibility to white pine blister rust and the white pine weevil.



GETTING TO KNOW YOU.....ALINE HANSENS

Bockoven, Paul & Beth (Elizabeth): 105 High Rocks Trail, Hendersonville, NC 28739. (704) 697-5998. Paul, originally from the Midwest, is Director of Outdoor Education at Kanuga Conference. Beth, a native North Carolinian, is a full time student at WCU in Cullowhee, presently working for a Masters Degree in Biology. Both are very interested in botany and ornithology and lead nature hikes at Kanuga. They learned of WCBC from Peggy Polchow.



Bokerman, Sandra L.: 247 Tanasee Gap Road, Balsam Grove, NC 28708. (704) 862-5722. Sandra is a native of Ohio and moved to NC about 5 years ago. She has an interest in plants but is a novice with a keen desire to learn. Loves the outdoors and hiking.

Kilmer, Lori: 67 Gosling Circle, Hendersonville, NC 28792. (704) 697-6431. Encouraged by friends in this area, Lori moved here from southern CA about 4 years ago. Was attracted to and bought Louise Foresman's house and its wealth of natural habitat sparked her interest in plants. She learned of WCBC from Ruth Hoerich.

SHORTIA AVAILABLE IN LIBRARIES

SHORTIA, Vol. 1 No. 1 to date is now catalogued in the library of UNCA and is housed in the library of the Botanical Gardens At Asheville. Shortia is also available at The New York Botanical Garden Library in NYC and at the Hunter Library of WCU at Cullowhee, NC. J. Dan Pittillo, Editor, Chinquapin: newsletter of the Southern Appalachian Botanical Society also has a set.

This project was started about a year ago when the Editors of SHORTIA received a letter from Dr. William R. Buck of The New York Botanical Club who expressed interest in obtaining back issues of SHORTIA. After considerable effort we were able to round up a complete set and copies were made at cost for the above 4 sets under the direction of Mr. George Frizzell. The Editor of Shortia has the original set. We had no idea that there was such interest in SHORTIA.

Working for Wildlife!

By the spring of 1998, the Pisgah Center for Wildlife Education's indoor and outdoor exhibit areas will be fully open to the public. Volunteers will be an important component to the wildlife center's success. There are a variety of volunteer opportunities available at the wildlife center including the following: Exhibit Gardening, Information Desk/WILD Store personnel and V.I.P. (Visitor Interpretive Personnel). If you are interested in volunteering, please call the wildlife center at (704) 877-4423.

BUCK SPRINGS NATURE TRAIL REVISITED

No one who walks the one-mile trail that parallels the Blue Ridge Parkway between Pisgah Inn and Buck Springs Gap Overlook can fail to note the extraordinary number and variety of its wildflowers and other plants.

Recognizing this diversity, the Western Carolina Botanical Club approached the National Park Service in 1984 with an offer to develop this segment into a self-guiding interpretive botanical trail as a public service, and the following spring entered into a contract under their VIP ("Volunteers in the Parks") Program, charging its successive presidents, Dick Smith and Elton Hansens, with coordinating the project. During the next five years, teams of Club members surveyed the route, eventually compiling an inventory of more than 200 species of flowering plants along the trailside. Significant botanical features were selected and identified by 24 numbered posts; these were keyed to a descriptive brochure written by Dick on behalf of the Club for public distribution by the Parkway.

Seven years have now elapsed since completion of the "Buck Springs Nature Trail," and although the natural appeal of the trail itself remains undiminished the brochure is no longer available. To partially remedy this situation, and to enable its members, both old and new, to renew their enjoyment of this resource at the fullest, the Club has arranged for a limited reprinting and the Editors of *SHORTIA* are pleased to enclose a copy in this issue as a "pull-out."

Save the Blue Ridge Parkway The nation's oldest, longest rural parkway needs your help!

Many of the breathtaking scenic vistas of North Carolina's Blue Ridge Parkway are threatened by encroaching development. Preservers of the Blue Ridge Parkway has a direct and effective solution. We are raising a private fund to purchase land and conservation easements that will permanently preserve the spectacular Southern Appalachian hillsides, valleys, forests, streams and waterfalls that the Parkway celebrates.

The threats to the Parkway's beauty are real and immediate. Become a Preserver of the Blue Ridge Parkway today. Your special gift in any amount will go right to work protecting the "Blue Ridge Parkway experience" for generations to come. Donors of \$500 or more receive a beautiful full-color certificate signed by the Governor of the State of North Carolina and inscribed with the donor's name. All gifts are tax-deductible. The Preservers fund is administered by the Conservation Trust for North Carolina. Send contributions to: CTNC/Preservers of the Parkway, PO BOX 33333, Raleigh, NC 27636. For donations of \$500 or more, please include the name(s) that should appear on the certificate. Allow 3-4 weeks for delivery.



tiny flowers seem hardly worth noticing, but they are unique in that their parts are not in threes, fours, or fives—as is the case with most plants—but in twos. Accompanying it are mat-forming plants with numerous little leaves; these are Thyme-leaved Bluets (*Houstonia serpyllifolia*).

20. Wild Columbine (*Aquilegia canadensis*)

Columbines have unusual flowers with their nectar stored at the ends of long, hollow spurs. Although there are many kinds of columbine in the western mountains, this red-and-yellow species is the only one native to the eastern United States. It is primarily a spring wildflower but can be found blooming sporadically almost until frost.

21. Mountain Laurel (*Kalmia latifolia*)

A relative of the rhododendrons, mountain laurel is another spectacularly blooming heath shrub. Each of its white to pink cup-shaped flowers has ten curved stamens with their anthers tucked into little pockets. When a bee alights, its weight releases the spring tension and the stamens snap out and over the insect, showering it with pollen. On contact with the next flower, some of this is brushed off on its stigma, and this helps to promote cross-fertilization.

22. Oriental Bittersweet (*Celastrus orbiculatus*)

This vigorous climbing vine was introduced into this country from Asia. Its flowers are inconspicuous, but in the autumn its bright red fruits are revealed when the round orange husks split apart into three spreading segments.

23. Goldenrods (*Solidago* spp.)

With more than 40 kinds in North Carolina alone, the goldenrods are the despair of those who try to tell one from another, but with the help of a field guide you may be able to identify several between here and the overlook. Among those that have been recorded are Slender Goldenrod (*S. erecta*), Curtis' goldenrod (*S. curtisii*), Late Goldenrod (*S. gigantea*), and Rough-leaved Goldenrod (*S. rugosa*). One that should give you no trouble at all is *S. bicolor*, or Silverrod, the only white-flowered species.

It is unfortunate that such an attractive native American wildflower as goldenrod should have been blamed at one time for causing hay fever—an unjust accusation since its pollen is heavy and sticky and is disseminated by insects. Such allergies are much more likely to be caused by the fine windborne pollen of plants such as ragweed.

24. Asters (*Aster* spp.)

Nothing contributes more to the beauty of the early fall scene than the white and pastel tints of the wild asters. They are especially numerous here where they share the sun with the goldenrods. Among the more conspicuous are the freely branched Frost Asters (*A. pilosus*) with numerous white flowers, and the sky-blue Heart-leaved Asters (*A. cordifolius*).

Many other species will be seen both here and along the trail as you retrace your steps to the Pisgah Inn parking lot. Watch for Large-leaved Asters (*A. macrophyllum*), which often form big colonies of sterile plants, and Galico Asters (*A. lateriflorus*) with small reddish-centered flowers borne on arching stems. Curtis' Asters (*A. curtisii*) can be recognized by the recurved green bracts beneath the blue ray-flowers.

This marks the end of the botanical tour. The path continues for about a tenth of a mile to Buck Spring Gap Overlook and the parking area where the Shut-in and Mt. Pisgah Trails commence.

This leaflet was written for your enjoyment by members of the Western Carolina Botanical Club in cooperation with the Blue Ridge Parkway.

**DOWN SPRINGS RAIL
A Botanical Tour
Blue Ridge Parkway**

This fairly level one-mile path is a section of the longer Buck Spring Trail. The botanical tour begins at the Pisgah Inn parking lot (milepost 408.6 on the Blue Ridge Parkway) and ends at the hunting lodge site near Buck Spring Gap overlook (milepost 407.7) and returns via the same route.

Along the trail you will see an extraordinary concentration of plant species. Much of this diversity is due to the fact that it passes through what, despite the southern location, is termed a "northern hardwoods" forest—the vegetation zone lying between the high altitude spruce-fir forests and the eastern deciduous woods that occupy vast areas at lower elevations.

In the fall, many trees, shrubs, and woody vines drop their leaves, and herbaceous plants wither or disappear completely. Some can be recognized even in winter, however, by their empty seed pods or other fruiting structures.

To minimize the impact of heavy trail use upon these plants, please stay on the established path.

As you approach the trail map sign, notice the two evergreen trees that have been planted to the left of the steps. The one bearing upright cones at the very top is a Fraser Fir (*Abies fraseri*) and the other is a Carolina Hemlock (*Tsuga caroliniana*). Although both are native to the North Carolina mountains, they do not occur naturally on this trail.

1. Highbush Blueberry (*Vaccinium corymbosum*)

Although they are not as large and succulent as the "improved" varieties that are grown commercially, wild blueberries are delicious and have a special tangy flavor of their own. The heath family, to which they belong, is a predominantly northern group of plants requiring acidic soil. It is well represented here by such shrubs as mountain laurel, the rhododendrons and azaleas, and mimic-bush, as well as trailing arbutus and even Indian pipe. Only one tree in this family, *Sourwood* (*Oxydendrum arboreum*), is present here.

2. Canada Mayflower (*Maianthemum canadense*)

Canada mayflower is common in the northeast, where it spreads over large areas, but here, where it approaches the southernmost limit of its range, the colonies are smaller. Its floral parts are in sets of four, which is unusual since most other members of the lily family are three- or six-parted.

3. American Chestnut (*Castanea dentata*)

It is hard to believe that less than a hundred years ago the American chestnut was a dominant tree of the eastern forests. An alien fungus has virtually wiped it out, and, although stump sprouts persist and often produce nuts, they are almost certainly doomed. A related shrub, *Allegheny Chinquapin* (*C. punctata*), also grows along the trail and might be mistaken for chestnut, but the lower surface of its leaves is white-downy instead of light green and smooth.

4. Deerberry (*Vaccinium stamineum*)

Unlike its relatives the blueberries, deerberry has fruits that remain green and hard and are inedible, but its many blossoms, with their long-protruding stamens, appeal to the eye. Another common name for the shrub is Squaw Huckleberry.

5. Starry Campion (*Silene stellata*)

These white flowers with their bowl-like calyces and fringed petals are an attractive feature of the mountains. Fire Pink (*Silene virginica*) is a related species; it is impossible to miss, as its five bright red petals stand out vividly against the green background of the woods.

are composed of a fungus and an alga living together in an apparently mutually beneficial arrangement—vary from the whimsical **Pyxie Cups** to the fragile multibranching tufts of **Reindeer Lichen**, so called because some arctic forms are important food for caribou; both are species of **Cladonia**. Behind these may be seen the tapered fronds of **New York Fern** (*Thelypteris noveboracensis*).

12. Lily-of-the-Valley (*Convallaria majalis* var. *montana*)

At first glance, these may appear to be cultivated lilies-of-the-valley that have escaped from someone's garden, but actually they are a variety thought to be native to the southern Appalachians. One difference that will be readily apparent is that the mountain plants do not grow in densely crowded colonies as do those of European origin.

13. Witch Hazel (*Hamamelis virginiana*)

Witch Hazel is the last of all our trees to bloom, its yellow, ribbon-like flowers not opening until mid-September or later. When the woody seed capsules mature, they suddenly burst open with a loud "pop" and eject the seeds for long distances. This is its method of populating new areas.

14. Red Spruce (*Picea rubens*)

Red Spruce is the predominant evergreen tree in this area. A boreal species, it is widespread in Canada and New England but ranges south only as far as North Carolina, and there only in the higher mountains. Superficially, it resembles Fraser fir but has cones that hang downward and has sharp-pointed needles.

15. Catawba Rhododendron (*Rhododendron catawbiense*)

This is the rose-purple rhododendron that has become world-famous for its displays on the open, sun-drenched mountain balds. It is also the native species from which many horticultural varieties have been obtained. Although it has created its own dark tunnel of shade here, there is no tree canopy above it to block the light. Very few other plants can grow in dense rhododendron thickets, but the ghostly white **Indian Pipe** (*Monotropa uniflora*) is one that does. It feeds on decayed organic material and, having no chlorophyll, does not need sunlight for photosynthesis. Also, the gray threads of **Old Man's Beard Lichen** (*Usnea* sp.), which can exist without contact with soil but needs a humid environment, can frequently be seen hanging from the branches.

16. Galax (*Galax aphylla*)

These beds of galax are a beautiful sight in summer, when slender spires of little white flowers arise from the glossy evergreen foliage. Galax leaves often turn dark red or bronze, especially when growing in full sun.

17. Fetter-bush (*Leucothoe recurva*)

One of several shrubs in the heath family to share this common name, **Leucothoe recurva** bears graceful racemes of white urn-shaped blossoms in early spring before the leaves appear. At that time the plants are inconspicuous, and the fragrance of their flowers often gives the first hint that they are nearby.

18. Painted Trillium (*Trillium undulatum*)

Plants of painted trillium, whose flowers appear briefly in early spring, are scattered here and there on both sides of the path. Despite its dainty appearance, this crimson-striped species thrives on the cold summits of our loftiest mountains. While other trilliums may also be seen here, they do better in protected coves at lower elevations. All trilliums have three leaves, petals, sepals and stigmas, and six stamens.

19. Dwarf Enchanter's Nightshade (*Circaea alpina*)

Opposite this marker is a patch of dwarf enchanter's nightshade. The specific name indicates this to

This species is abundant in the cool mountains and can be distinguished by its purple-spotted corollas. A red **Monarda** (*M. didyma*) may be seen in wet ditches along the Parkway. Although it is native, it has been cultivated for many years by gardeners, who call it **Oswego-tea**, and is a favorite of hummingbirds.

7. Mountain Holly (*Ilex ambigua* var. *montana*)

This is one of the deciduous hollies—that is, it loses its leaves in the fall. Except for its bright red berries, it is very unlike **American Holly** (*I. opaca*), which has spiny evergreen leaves and is used extensively for Christmas decorations; the latter is a common understory tree in the south but does not grow at this high altitude.

8. False Solomon's-seal (*Smilacina racemosa*)

Although they have similar leaf arrangements, true and false Solomon's-seal cannot be confused, whether they are in flower or in fruit. **False Solomon's-seal** has creamy white flowers in a branched pyramid at the end of the stalk, and the berries are reddish and speckled. In the **True Solomon's-seals** (*Polygonatum* spp.), which also are frequent along this trail, the flowers are bell-shaped, greenish, and dangle beneath the leaves. These are succeeded by dark blue berries. As each year's stem of Solomon's-seal dies back, it leaves a round scar on the creeping rootstock, and these are what suggested the common name.

9. Vines

The arching stems of the **Blackberries** (*Rubus* sp.) in this bramble-patch support a number of vines, among them **Leather-flower** (*Clematis viorna*), which bears crimson urn-shaped flowers formed of thick, fleshy sepals, and the very dissimilar white-blossomed **Virgin's Bower** (*C. virginiana*). Others are interesting for their fruits; **Wild Yam** (*Dioscorea villosa*) has strings of parchment-like capsules, while **Carriion-flower** (*Smilax herbacea*), a thornless relative of the catbriers, produces dense round clusters of blue berries.

10. Minnie-bush (*Menziesia pilosa*)

Minnie-bush has flowers like those of a blueberry and leaves like an azalea. A good clue to identifying it is the callous at the tip of each leaf, looking like a tiny drop of white paint.

Beaked Hazel (*Corylus cornuta*)

Nearby are several beaked hazels, which are among the most abundant shrubs along the trail. The hairy green bracts that enclose the nuts of this species fuse together and form a long, narrow tube. In **American Hazel** (*C. americana*), which also grows here, these bracts look like leaves with ragged edges. This makes it easy to tell them apart—provided you find the nuts before they are harvested by squirrels and other wildlife.

Horse-balm (*Collinsonia canadensis*)

A few yards farther along you will begin to see horse-balm, a perennial herb that combines very large leaves with small, delicate flowers—which are worth examining closely. Their structure shows the plant to be a member of the mint family, which may come as a surprise because it has a subtle fragrance more like lemon than mint.

11. Primitive Plants

Along the right-hand edge of the trail are a number of non-flowering plants (which reproduce by means of spores rather than seeds). Mosses are represented by the flat, aptly-named **Fern Moss** (*Thuidium*) and the upright "bottle-brush" stems of **Haircap Moss** (*Polytrichum*). Lichens—which

Neither Betty nor I knew John Kuhn, but we do know his favorite plant: His "poor man's orchid", Prunella vulgaris (see below for a discussion of the scientific name), is a member of the mint family. Heal-all or self-heal is one of many European herbs brought to America because of healing powers. It has become abundant from coast to coast; the American plants have deep-purple flowers. In Europe the flowers vary in color from light purple to white. Some 400 years ago John Gerard wrote that heal-all flowers around Heningham Castle in Essex, England were all white.

Our heal-all flowers are beautiful shades of purple, especially the deep purple at the top of the flower's hood. Thoreau admired the flower color, which he recorded deepens in color towards night. The flowers, which are seen from June to fall, are in cylindrical heads. After flowering, the rusty brown, boxy calyxes remain in whorls on the stem, colorful in their own right. Later, the four seeds (really a four-parted fruit) are shed as the wind bends the heads to and fro.

We have five heal-all colonies growing along our stone steps. Alas, now that I am writing this, Betty suggests that I control the size and number of colonies. They are easily transplanted; three of them will be moved. The survival of this perennial also is aided by the plant's basal offshoots that spread it quickly. While it grows anywhere, it probably does best in shady damp areas.

Like most weeds, heal-all has a number of common names: Slough-heal, heart of the earth, blue curls, Hercules woundwort, panay (a corruption of Panax, Latin for "all-healing"), brownwort, prunella, brunella, sicklewort, and thimbleweed (probably from the shape of the flowerless head). Vulgaris may be translated into English as "common", while Prunella has its origin in an old affliction of soldiers. Cole in his book Adam in Eden published in 1657 recorded that the German word Brunella is derived from Brunellen, and this is the word given to the plant that cured inflammations of the mouth. We now know the disease as quinsy. The cure was to wrap the neck in heal-all leaves.

While I doubt the value of this medicinal application, its juice has been used for centuries, externally for wounds and internally for mouth and throat ulcers, internal bleeding, piles, and diarrhea. Culpepper wrote that when added to the oil of rose, the blended juice rubbed on the temples would remove a headache. In the United States; Chippewas, Delaware and Mohegens used heal-all as a body wash, tea, and a treatment for dysentery in babies. While there are doubts about the medicinal value of the heal-all my colleague Jim Duke noted that the plant has antibiotic qualities and contains ursolic acid, an anti-tumor compound.

Margaret, we have enjoyed heal-all for years. In fact, heal-all was the first seed I collected for my fledgling seed collection. By the time I deposited my collection with the Maryland Turf and Seed Laboratory it contained over 15,000 accessions. At times like this I miss the collection.

S H O R T I A

Vol. XIX, No. 4

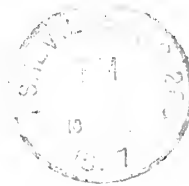
WINTER 1997

A QUARTERLY PUBLICATION OF THE WESTERN CAROLINA BOTANICAL CLUB

Editors: Elton J and Aline Hansens Distribution: Ruth Hoerich

Please submit contributions (articles, Letters to the Editors, notes, etc. for the next issue by January 20, 1998 to Aline Hansens, 125 Far Horizons Lane, Asheville, NC 28803.

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FIRST CLASS

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