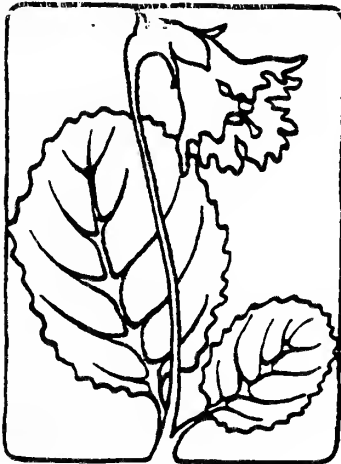


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# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB  
SPRING 1999



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FEB 22 1999

NEW YORK  
BOTANICAL GARDEN

Anne Ulinski

Editor

A

WESTERN CAROLINA BOTANICAL CLUB - 1999

President:	Anne Ulinski	Recorder:	Betty Jones
Vice President:	Bonnie Arbuckle	Historian:	Anne Matthes
Secretary:	Peggy Ellis		
Treasurer:	Rachel Conway		

From the President.....Anne Ulinski

Annual Meeting. With cooperation from the weather we had a good turnout for our annual meeting. Carl and Margaret Byrd again coordinated the food and service. Connie Updike assisted them and made the colorful table decorations. Many thanks to all of them.

Don Herrman, Elaine Montgomery, Aline and Elton Hansens and Erica Parmi are all "retiring" from their official duties with WCBC. Thanks to all of them for their service to the Club. The 1999 leadership met after the annual meeting to exchange ideas. We hope to continue the 25 successful years of the Club with another successful year.

"Shortia". We need an editor(s) for "Shortia" to replace the retiring Elton and Aline Hansens. Please call me if you are interested in being editor or in helping with the newsletter. Until we find a replacement, I'll edit Shortia with assistance from Dean Crawford who has volunteered his computer skills for typing and layout.

We will be reprinting one of Dick Smith's articles Look Again! in each issue this year. The Look Again! in this issue was the first of Dick's series, printed in Shortia in 1981.

Program. Our Vice-president, Bonnie Arbuckle, will be doing the programming this year -- scheduling our field trips and indoor meetings. Preliminary work on the Schedule for the period July 1, 1999 to January 31, 2000 has already begun. If you have some ideas for field trips or meetings, call Bonnie at 696-2077.

Scouting for new field trips. Erica Parmi has agreed to take on a new Club position as scout for new locations for our field trips. We have had suggestions for Dupont State Forest, Green River Game Lands, the old growth forests of Mackey Mountain (Old Fort area) and a spring overnight trip to Athens, Ga. If you know of some new trails that would be interesting to the Club pass the information on to Erica.

Telephone tree. Peggy Ellis is putting together a "telephone tree" which will be put into action when a field trip or indoor meeting is cancelled and we need to contact all the members. If you are willing to make calls or if for some reason, such as you don't attend field trips and prefer not to be called, please let Peggy know. Her telephone number in Fletcher is 684-3918.

## MEMBERSHIP RENEWAL

It's time to renew your membership in the Club. Please notice the current dues are now \$12 for each individual/family. For new members who join during the year from July 1-December 31 the dues will be \$6 to the end of the year for each individual/family. All membership renewals will be on January first of each year.

The Western Carolina Botanical Club was founded in 1973 and it was not until 1983 that the Club assessed dues. These first dues were set at \$3 for an individual and \$4 for a family. The following year, 1984, the dues were raised to \$8 per individual/family and remained at that level until the increase this year.

Please send your dues promptly to our Treasurer, Rachel Conway, 211 Aldersgate Circle, Asheville, N.C. 28803 so that we can prepare the 1999 membership list and mail it to you as soon as possible. If you have a new address or telephone number, please alert the Treasurer to those changes.

### **GETTING TO KNOW YOU .....Aline Hansens**

**Ballard, Larry** - 161 Surrey Land, Hendersonville, N.C. 28791.  
Tel: (828) 891-4318. Originally from Indiana, Larry retired to this area two months ago. With a general interest in plants, a newspaper notice led him to look us up and join the Club.

**Lenhart, Jean** - Rt. 4, Box 285C, Hendersonville, N.C. 28739.  
Tel: (828) 693-6849. Originally from the Cumberland Mts. in Kentucky, Jean moved to this area 10 years ago from Maryland. She is very interested in all aspects of nature and the environment.

**Middleton, Dave and Milly** - 301 C. Kensington Place, Asheville, N.C. 28803.  
(828) 681-5841. During their early years the Middletons lived in the Piedmont area of N.C. Their work led them to Wisconsin with transfers to other places in the U.S. and to Canada and Australia. They retired to Atlanta, Ga. where they both volunteered at the Chattahoochee Nature Center. They moved to Asheville in 1997. One of their hobbies is photographing wildlife, particularly wildflowers.



WESTERN CAROLINA BOTANICAL CLUB ANNUAL MEETING MINUTES  
January 15, 1999 St. John Episcopal Church, Hendersonville, NC  
Attendance: 38

The meeting was called to order by Don Herrman, President at 11:00 am. A reading of last years annual meeting minutes by Peggy Ellis was followed by the treasure's report by Rachel Conway. Both were accepted as read.

Treasure's Report: December 31, 1998 -- balance on hand.....\$1,797.65  
Harry Logan Account:.....\$261.88

Details of debits and credits is attached to minutes.

Elton Hansens reported he looked over the financial records of the club, by request of Rachel, and found them to be in excellent order. (See report attached to minutes)

Report from historian, Ann Matthes: She thanks all the people who have contributed items to keep the clubs events recorded accurately. We thank Ann for her dedication to this immense project.

Elton reports on Shortia: He has put together several complete copies of Shortia which are being held at: The New York Botanical Garden, Hunter Library of Western Carolina University at Culliohee and at UNC Asheville: University Botanical Garden Library. We also have our own complete set which is presently in the hands of our new President, Anne Uliński.

Elton formally announces to the group his and Alines' resignation as co-editors of Shortia. They produced 23 issues since 1993 and the club is extremely grateful for all of their efforts.

Recorders Report: Read by Betty Jones due to absence of Erika Parmi.

In spite of the drought it was a good botanizing year with 41 field trips scheduled, 4 canceled and 3 reports not received. The 1998 Champion Trip was to Coleman Boundary Road where 76 species were in bloom on May 8th. Runner up was the trip to Grassy Ridge Mine Overlook on the Parkway, June 26th, where 70 species were identified. Lake Issaqueenas on September 11 had 51 plants in bloom, followed by Kurinsky's Garden with 50 on May 11th.

Average attendance was 16 people per trip. Two trips drew over 30 people: Pearson's Waterfalls and the picnic at Don Herrman's. Least attended was the Hardy Souls trip on Feb. 28 when 4 people walked in a downpour on the Laurel Mtn. Trail.

Erika resigns as recorder. Betty Jones has agreed to take over the position with her combined knowledge of botanical names and computers.

Aline Hansens reports on the condition of Don Bender who is coming home from Thom's Rehab today after suffering from a hemorrhage to the brain. A card is being

sent from the club members.

The Nominating Committee, which consisted of Dick and Jeanne Smith and Aline and Elton Hansens, presented the slate for officers for 1999 as follows: Anne Ulinski, Pres., Bonnie Arbuckle, VP., Rachel Conway, Treas., Peggy Ellis, Sec. All were elected unanimously.

Dues Increase: Discussion was held on the necessity to increase the clubs dues from \$8.00 per year to \$12.00 per year with a pro-rate of \$6.00 after July. All dues being due on Jan. 1st of each year. Anne Ulinski estimates expenses for the coming year to be between \$1200.00 and \$1300.00. Connie Updike make a motion to raise dues to \$12.00 per year with the \$6.00 pro-rate after July. Al Dupree seconds motion. Motion revised by Connie to include the honorary members non payment of dues as in the past. Al seconds the revision and dues increase is voted in unanimously.

Discussion was held on the gas monies given to the car pooling drivers. Many members refuse payment even though it is club policy to pay the driver. One suggestion by Bonnie is to keep an envelope in the car for receiving monies and when it's your turn to pay take the money out of the envelope and if there is any left over at the end of the year, donate it to the club. Many agreed this was a great suggestion.

Don Herrman, as outgoing President, welcomes in Anne Ulinski as the incoming President. She gives a warm speech regarding her support and intent to the original purpose of the club written down on March 27th, 1973 and reprinted in Shortia Vol. XX, NO. 4. Anne asks for volunteers to fill the Editor position. Elton offers to assist the new editor when that time comes.

Bonnie Arbuckle mentions the study going on by the Bartram Garden to collect data from people growing Franklinia. You can pick up a form from her.

Meeting adjourned.

Respectfully Submitted, Peggy Ellis  
January 15, 1999.

WESTERN CAROLINA BOTANICAL CLUB

Treasury Report

Year Ending December 31, 1998

January 1, 1998 - Balance on hand \$2,170.21

Receipts

Membership dues	\$768.00	
Donations	20.00	
Interest	14.67	
	<u>\$802.69</u>	<u>802.69</u>
		<u>\$2,972.88</u>

Disbursements

Program schedules inc. postage	\$247.64	
Shortia " "	578.89	
Membership list	61.09	
Plant list	39.91	
St. John in Wilderness	75.00	
Annual meeting supplies	7.03	
Botanical Gardens at Asheville	100.00	
Treasurer, postage/supplies	16.06	
Bank Service Charge	6.61	
Check starting kit -new account	43.00	
	<u>\$1175.23</u>	<u>1,175.23</u>
December 31, 1998 - balance on hand.....		<u>\$1,797.65</u>

Re: Harry Logan Bequest:

January 1, 1998 - on hand	\$840.77
Disbursements	<u>578.89</u>
December 31, 1998 balance .....	\$261.88

(This balance is included in the total balance above.)

Respectfully submitted

Rachel M. Conway  
Rachel M. Conway  
(Treasurer)

It was a good year in spite of the drought, although we did not do as well as in 1997 when all the field trips were held. This year, of the forty-one field trips scheduled, four were cancelled and I received no reports from three. The following statistics are based on the remaining thirty-four. Despite the dry year we had two trips where more than seventy species in bloom were counted.

The 1998 champion was the Coleman Boundary Road where we found seventy-six species in bloom despite the effects of a hailstorm a few days before. That trip was held on May 8. The runnerup was the trip to Grassy Ridge Mine Overlook on the Parkway on June 26 where we found seventy species blooming. From the 70's we dropped down to the 50's with only two other trips producing that much bloom: Lake Issaqueena on Sept. 11 with fifty-one and the Kurinsky's garden on May 11 with fifty. Four trips produced species in bloom in the 40-49 range, eleven trips in the 30-39 range, four trips in the 20-29 range and nine trips had less than twenty. (Last year we had only four trips with less than twenty species blooming).

Our attendance of 511 was comparable to 1997's 564, which was based on more trips. As with last year the attendance averaged out to around sixteen people per trip. Of the thirty-two outings for which we have attendance reports, two attracted more than thirty people (the same popular outings as in 1997), namely to Pearson's Falls on March 27 and the picnic at Don Herrman's in June. Five outings attracted 21-29 folks, twenty attracted 11-20 people and only five times did less than ten show up. The lowest turnout was for the Hardy Souls trip in February when only two people appeared and one went on home on that cold, foggy, drizzly day!

With this 1998 report I am resigning as your Recorder. My first report was in the Summer 1992 Shortia. I've enjoyed the work over these years and have found it the best way to learn the scientific names of plants in our area. I want to thank everyone who has been a field recorder, especially those who pitched in with more than their share of assignments. If it weren't for you there would be no Recorder's Report. A special note of thanks to Anne Ulinski who has this year put most of the plant lists on her computer and has suggested new computer-friendly formats for reporting lists and trip reports.

Now it is time to turn over the reins to someone who has mastered computers in addition to botanical names. Betty Jones has consented to be our new Recorder and I am sure that she will do a superb job. Let's all support her. I know that I will enjoy continuing as one of the field recorders and I hope others of you will volunteer as well.

On January 27, Millie Pearson, Ivan Kuster and I spent the morning walking the trails on the FENCE property near Columbus, N.C. enjoying the warm (60 degree) weather and listening to the kingfisher scold as we crossed on the boardwalk at the pond. Our purpose was to look at plants in winter.

We collected some specimens and took them to the January 29 indoor meeting. A few of the specimens identified were: An agrimony(*Agrimonia sp.*), asters(*Aster spp.*), elephant's foot(*Elephantopus sp.*), broom sedge(*Andropogon virginicus*), seedbox (*Ludwigia alternifolia*), pale meadow beauty(*Rhexia mariana*), a foxtail grass(*Setaria sp.*), goldenrods(*Solidago spp.*) and ironweed(*Vernonia noveboracensis*).

Some of the plants that we saw but did not collect were: Rattlesnake plantain orchid (*Goodyera pubescens*), swamp thistle(*Cirsium mutilum*), a pussytoes(*Antennaria sp.*), spotted wintergreen (*Chimiphila maculata*), partridgeberry(*Mitchella repens*), a Joe-pye-weed (*Eupatorium sp.*), virgin's bower(*Clematis virginiana*) and the ferns: Resurrection fern(*Polypodium polypodioides*) and Christmas fern (*Polystichum acrostichoides*).



a foxtail grass

Nature guides for winter:

Herbaceous Plants\*

Wildflowers and Winter Weeds by Lauren Brown 1997 W.W. Norton

A Guide to Wildflowers in Winter by Carol Levine 1995 Yale U. Press

Grasses only: Grasses by Lauren Brown 1979 Houghton Mifflin

Native Trees & Shrubs: Winter Botany (Third revised edition) by William Trelease 1983 Dover Publications

Weeds, birds, insect evidence, etc.: A Guide to Nature in Winter by Donald W. Stokes 1976 Little, Brown & Co.

Many of these books are written for the northeastern U.S.A. but with a range as far south and west as Kentucky, Tennessee and Virginia.

Also of interest: Fall Wildflowers of the Blue Ridge and Great Smoky Mountains by Gupton and Swope 1987 U. of Virginia Press

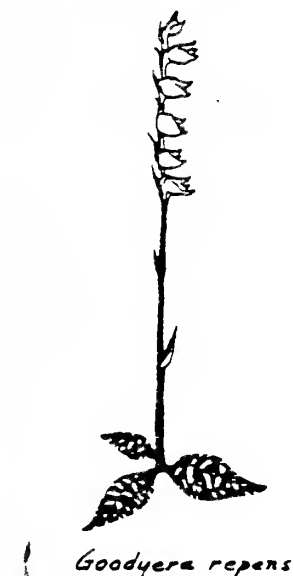
\* Although herbaceous plants die down to the ground in winter, dried remnants of stems, leaves and fruits often remain standing above ground.



# LOOK AGAIN !

One of the difficulties that we amateur botanists have with unillustrated keys is that the characteristics cited to differentiate similar species often appear to be minor ones and give the impression that we are going to have trouble deciding which is which.

Actually, it usually comes as a surprise that the second species, when we finally come across it, looks so unlike the first - and in so many respects.



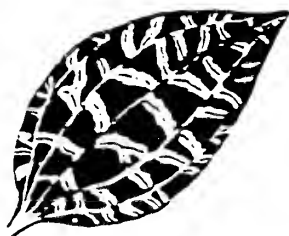
*Goodyera repens*

The two species of rattlesnake plantain orchid (*Goodyera*) found in our area are good examples. The average amateur probably will see hundreds of the relatively abundant *Goodyera pubescens* before finding his first *G. repens*, which is much less common. When he does, it will indeed look very different, but since he might put it down as a depauperate *G. pubescens*, it would be well to fix the differences in his mind beforehand:

In the first place, *Goodyera repens* is a smaller plant, and it is this, more than anything else, that is immediately evident. It is perhaps two-thirds as tall as *G. pubescens*, the leaves half as long, and the raceme definitely shorter. Also, the flowers are fewer, less crowded, and distinctly secund.



*G. pubescens*



*G. repens*

But the best field mark (and this will serve for year-round identification) is the leaf venation. *G. pubescens* has a prominent whitish midvein and a network of numerous fine, pale green veinlets. In *G. repens* these markings are dark green instead of light, and in our plants (which are distinguished from the European ones as "var. *ophioides*") they are bordered in greenish white. The veinlets seldom are branched, run roughly at right angles to the veins, and having wider bands of white are more conspicuous than the veins.

*Goodyera repens* is confined to a more northern range than *G. pubescens*, and in our region grows in the cold Canadian-type forests of the mountains. Look for it under spruces and firs along the Blue Ridge Parkway, for instance. And think small!

*Dick Smith*

A quarterly publication of the Western Carolina Botanical Club

Editing & Production: Anne Ulinski, Dean Crawford

Distribution: Ruth Hoerich

Please submit contributions for the next issue by May 15 to: Anne Ulinski  
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are \$12. New members joining from the period July 1-December 31, pay \$6. All memberships are renewable on January first of each year. Please send dues to:

Rachel Conway, Treasurer  
211 Aldersgate Circle  
Asheville, N.C. 28803

~~SHORTIA~~  
~~c/o Ruth Hoerich~~  
~~215 Newport Road~~  
~~Hendersonville, N.C. 28739~~



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William Buck  
New York Botanical Garden  
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# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB  
SUMMER 1999

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*Chelone lyonii*

Pink Turtlehead

WESTERN CAROLINA BOTANICAL CLUB - 1999

President:	Anne Ulinski	Treasurer:	Rachel Conway
Vice President:	Bonnie Arbuckle	Recorder:	Betty Jones
Secretary:	Peggy Ellis	Historian:	Anne Matthes

From the President.....Anne Ulinski

Sometimes if we are lucky, a gifted person comes into our lives, one willing to share his knowledge with others. Dick Smith was such a person. In his quiet way he challenged us to open our eyes, stretch our minds, sharpen our senses. With him we looked up mountain ridges to see the unusual Appalachian St. John's-wort and the rare Canada burnet. We looked down to see the tiny Round-leaved sundew and the elusive Pennywort. With infinite care he showed us the disk and ray flowers of the composites and the sessile central floret of the Golden Alexander. Each year he reminded us to use our hands lens to examine the unique structure of Flowering spurge. Dick, often with his wife Jeanne, took us to Lake Issaqueena, Station Cove, Frying Pan Gap and to the rock faces on the Blue Ridge Parkway. We learned from him the disciplines required of a good botanist: Careful observation (Look Again!), the use of keys and reference materials and the accurate recording of our field notes.

For almost 20 years until his death last month, Dick gave generously of his time and knowledge to enrich those of us in the Botanical Club. We are grateful for all that he shared with us.

This issue of Shortia is dedicated to him.

\* \* \*

For more on the life and accomplishments of Dick Smith, see the article by long-time friend and colleague, Elton Hansens on page eight of this issue.

\* \* \*

### 1999 Membership List

The 1999 membership list has been mailed. If there are any changes to your name, address or telephone #, please call Ruth Hoerich. Winter addresses are not shown but mailings will be made to those addresses as usual.

A correction: Annual dues are \$12.

Cover: Line drawing by Richard M. Smith from Wild Plants of America

GETTING TO KNOW YOU.....Aline Hansens

**Carlson, Betty:** P.O. Box 918, Bryson City, N.C. 28713  
(828) 488-2422.

**Coleman, Persis:** P.O. Box 1057, Etowah, N.C. 28729  
(828) 698-8010. Attracted by this area and moved here  
from Florida last June. Loves gardening and has taught  
some botany courses in Florida. Wants to learn native  
plants of this area.



**Kelly, Thomas & Barbara:** 162 Campbell Drive, Pisgah  
Forest, N.C. 28767 (828) 884-6143.

**Petteway, Jo:** Rt. 4, Box 285B, Hendersonville, N.C. (828) 692-7345. Winter  
address: 775 Milano Circle, Apopka, Fl. 32712.

**Tierney, John:** P.O. Box 291, Edneyville, N.C. 28727. (828) 685-7291. Retired  
Episcopal minister. Moved here from Canada in 1992. An ardent birder until some  
hearing loss changed his focus to botany. Loves nature and the outdoors. Learned of  
the Club from Erica Parmi & Anne Ulinski.

**Williams, Barbara:** #3 Sandrock Trail, Pisgah Forest, N.C. 28768. (828) 877-5009.  
Moved here last August from New Orleans. Loves the four seasons and the natural  
beauty of the area. Enjoys painting, plants, gardens and landscapes. Learned of the  
Club from Connie Updike.

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Behind the Scenes

Bob Gunn Maintains the membership list  
Harriet Kuster Types the twice-a-year schedules  
Ruth Hoerich Coordinates all the mailings and sees that they are on their way to you.

Their services are much appreciated.

---

Each time I study a new plant I am amazed to find how much more I see after I have  
become thoroughly acquainted with it.

-Niko Tinbergen  
"Curious Naturalists" (1959)

## RECORDER RAMBLINGS .....Betty Jones

Our 1999 field trip season got off to a good start with 16 botanizers taking to the trails in the area of the Pisgah Forest Visitor Center on February 26. It was sunny and warm for that date - not "hardy souls" weather. Most of the group continued their hike up onto the Andy Cove Trail and were treated to blooming Trailing Arbutus (*Epigaea repens*).

The 24 participants in the walk at Holmes State Forest three weeks later were disappointed to find that spring flowers had not yet emerged. Last year's putty root leaves were in abundance, however.

The "Hardy Souls" sobriquet goes to Millie Pearson and Barbara Butenhof who did the Pearson Falls walk in a mixture of snow, rain and sleet. Though the trip was officially cancelled, Millie and Barbara turned in a trip report that included 28 identified plants, 15 of which were in bloom!

In sharp contrast to Pearson Falls was the walk along the South Pacolet River a week later - heat and very little shade. One special plant there was the rare *anemone berlandieri* which was in full bloom. The Station Cove Falls walk gave us a rich display of spring varieties: anemones, flowering trees, bloodroot, chickweeds, violets, etc. and the promise of more to come.

Dark overcast skies threatened to spoil the walk along the Davidson River and into the Sycamore Flats area. But the clouds drifted away and we had a relaxed pleasant walk. There were no spectacular displays of flowers, but just enough individuals to capture our interest.

Glassy Mt. Preserve served up its usual offering of uncommon plants: Appalachian Sandwort (*Minuartia glabra*), False Garlic (*Nothoscordum bivalve*) and Elf Orpine (*Sedum smallii*). The group spent some time identifying *Woodsia scopulina*, a fern which has limited distribution in this area.

Oohs and aahs were the response to the wonderful displays of trillium along the Pacolet Falls trail. Hikers at Kanati Fork also raved over the thousands of *Trillium grandiflorum*. A nearby stop yielded expanses of White or Fringed Phacelia (*Phacelia fimbriata*) and Wild Blue Phlox (*Phlox divaricata*).

Hikers who missed the Pacolet Falls and Kanati field trips had a chance to see *Trillium grandiflorum* on the Horse Cove walk. Since the season is late, the Wild Geranium (*Geranium maculatum*) and Gay Wings (*Polygala paucifolia*) had not yet reached their peak.

Lowell Orbison was our expert guide to the flora of the UNCA Botanical Garden. We kept no lists and just admired the well-over-a-hundred blooming plants among which were the azaleas and the "double" dogwood.

The Shinn Garden walk was cancelled due to rain. The Pilot Mountain field trip was cancelled so that our members could attend the memorial service for Dick Smith whose loss to our club is incalculable.

## A NEW LOOK ..... Betty Jones

Thanks to the computer, our checklists have a new look. I am experimenting with a variety of formats and I would welcome comments and suggestions for enhancing its readability and usefulness. Occasionally we will be using old copies of checklists until the supply runs out.

Several features are much easier with the computer: adding gridlines, inserting new species, using large and small print on the same document, etc. I have even eliminated the need for typing all those Latin and common names by using a table lookup that gives me the same spelling (possibly incorrect) every time. Please let me know if I have a misspelling so that I can correct my table. Also, if there is a change in a plant's Latin name, I would appreciate your telling me.

There are two schools of thought regarding numbering the species on the list. Numbers are easy to call out when we are on the trail where it is difficult to pass information to the end of the line. But is this too much of a crutch? Should we be using the Latin names consistently until they become comfortable for us? What is your opinion? Do you prefer "Number 29" or "*Medeola virginiana*" when you are on the trail?

With the aid of a computer database manager, I am attempting to transfer our 10+ years of botanical checklist data to a history file. Thus far I have keyed in the data from 74 walks, but with an average of 40 walks per year for more than ten years, I have at least 400 more to go. When this project is completed, we will be able to answer a question like the following: "Have we ever seen Gray's Lily (*Lilium grayi*) on our walks, and, if so, where and when?" Perhaps some of you have questions that you would like to pose to this database. Can you think of any interesting statistics we might extract?

Finally, if you are recorder for one of our field trips, just mail your report to me (at 186 Johnson Rd., Brevard NC 28712) as soon as possible after the walk. Also, if you have any checklists left over, just return them to me at your convenience - we'll use them the next time that walk comes up. Thanks, everyone, for your cooperation and encouragement.

~~~~~

### WORKSHOP: LET'S LOOK AT MINTS

All mints have square stems; but all plants with square stems aren't mints. Have you heard this comment? Do you want to learn more about the mint family, Lamiaceae? If so, join the study group that will meet at the Cradle of Forestry on August 16. In the morning session we will look at flower structure and family characteristics. After lunch we will go to the field to apply our identification techniques. Call Bonnie Arbuckle to register for the workshop (828-696-2077). Registration is necessary to obtain free entry to the Cradle of Forestry and prepare worksheets to the class.

## PEARSON'S FALLS GLEN History and Mystery

Pearson's Falls Glen is located approximately three miles below Saluda and six miles above Tryon, off U.S. 176. Here the waters of Colt Creek rush down the face of a 91 foot rock cliff into the gorge and glen below to form unique waterfalls and park areas.

The 375 acres comprising the sanctuary contain over 300 species (including many rare ones) of flora native to Western North Carolina. Entrance is through a rustic iron gate supported on either side by a low stone wall with arches. Several trails lead to the waterfall crisscrossing rain-fed mountain freshets, small streams and springs as Colt Creek carves its way over boulders to join the North Pacolet [River].

The main trail winds along the creek from sunshine to shadow where the only sound may be the trickle of cold spring water over rock ledges covered with greenery of ferns and mosses and wild lettuce. Trillium, dutchman's breeches, wild anemone and foam flower bank the trail in profusion each spring. One import, the rare *Shortia galacifolia* or Oconee-bells, has been added to the park's flora in recent years.

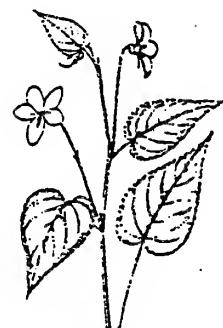
Long before reaching the end, the roar of water can be heard; then mist drifts through the air and the roar of rushing water fills the gorge. Bright sunshine and deep shadows, warm and cool breezes fill the glen, making understandable the Native Americans' belief that it was inhabited by spirits, a forbidden place where water spirits gathered, played, danced and sang. Game was never followed into the gorge; no campfires were built at the foot of the roaring waters. These beliefs were passed on to early white settlers. Hunters called off their dogs or left them to make their way home if they ventured too near this glen of magic and mystery.

\* \* \* \*

When the Asheville-Spartanburg railway (now the Southern) was looking for a pass through the mountains, they sent a young engineer, Capt. Charles William Pearson, down the river of the laughing waters, Pacolet. He discovered the nameless glen and in 1876 he bought the glen as a part of a larger tract where he settled his family. Many of Capt. Pearson's descendants, including Club member Millie Pearson still live on land of the original purchase.

The article above, modified for publication by Pat Arnett, was written by Millie Pearson's niece, Priscilla Pearson at the celebration of 50 years of ownership of the glen by the Tryon Garden Club. Priscilla is the great-granddaughter of Capt. Pearson.

Canada violet (*Viola canadensis*)  
grows in profusion at Pearson's Falls







*C. sativa*  
(male plant)

The genus *Cannabis* is one of two genera in the Cannabaceae: *Cannabis humulus*, the hops of beer brewing and the controversial crop, *Cannabis sativa* (marijuana). I will leave it to others to decide whether marijuana in the cigarette form should be legalized and taxed. We want to consider *Cannabis sativa* from the botanical viewpoint.

When I lived in Iowa, 1961-1965, I saw many plants of *C. sativa* along stream banks and in low waste places. The plants, whose seeds were spread to these areas by birds and then became naturalized, originally came from fields of *C. sativa* or hemp grown for fiber, oil, and seeds. There are USDA/ARS publications covering the farming of hemp and the storage of its seeds. By federal law passed in 1938 our valuable crop plant, hemp, became the illegal plant, the scourge of our youth, marijuana!

Thanks to Ernst Small, Canadian Department of Agriculture, and Arthur Cronquist, New York Botanical Garden, we now know *Cannabis sativa* is a species complex which includes:

Plants of limited intoxicant ability - subsp. *sativa*, hemp, with two varieties - var. *sativa* and var. *spontanea* (the variety I saw in Iowa).

Plants of considerable intoxicant ability - subsp. *indica*, marijuana, with two varieties - var. *indica* and var. *kafiristanica*.

*Cannabis sativa* is one of the oldest crop plants, cultivated for its bast fibers in the stem, oil in the fruit, seeds and intoxicating resins produced by epidermal glands. The subspecies and varieties are the result of human intervention.

In 1998 in Canada 5930 acres of hemp were planted by certified Canadian farmers. and this can be sold legally for fiber and seed oil.

A legal case in Kentucky may clarify the federal law on *C. sativa*. Did Woody Harrelson (of Hollywood fame) plant hemp or marijuana seeds? As an outcome of this case, perhaps the law will be changed to name only subsp. *indica* as marijuana and hemp may become available as a replacement crop for tobacco.

*Bob Gunn as former director of the U.S. National Seed Herbarium was assigned to the New Crops Research Branch and thus has more than a passing interest in new crops for the United States and the world.*

## **DICK SMITH, OUR MENTOR AND FRIEND ..... by Elton Hansens**

On the corner of my desk are two books, Wild Plants of America and Wild Flowers of the Southern Mountains, both by Richard M. Smith, the amateur botanist we knew so well. In the "Acknowledgements" in "Wild Plants of America" he wrote, "For me, getting to know wild plants has always meant going trudging up a steep trail peering for trailing arbutus, ambling through a sunny meadow aglow with goldenrods and asters, scuffling through fallen leaves to uncover the year's last gentian, crunching over crusted snow to tell the fortunes of swollen tree buds. This was the way my father taught me. It happened to be the only way, for I never knew him to uproot a plant from the wild for his garden, but I also saw it as the right way; and am grateful for his example.....I moved to the botanical treasure house that is the southern Appalachians, and I was not disappointed. The Western Carolina Botanical Club proved to be an exceptional group of energetic, imaginative, and compatible individuals with interests identical to my own....."

Dick Smith retired from New York to Connestee Falls in Brevard in 1978. Here he was free to pursue his love for flowers, photography, and to explore the Blue Ridge Parkway.

In 1982 he led five WCBC meetings between January and June ---1. Pioneer Botanists of Western North Carolina, 2. the Heath Family, 3. a hike along the Davidson River, 4. a visit to the Clemson U. Experimental Forest, and 5. Kephart Prong Trail. This was quite a contribution from a new member.

In 1981 Dick introduced "LOOK AGAIN!" as a regular contribution to SHORTIA , the WCBC newsletter. Recently he revised some of the early issues for use in 1999.

Dick was elected WCBC President in 1983 and 1984.

The Buck Springs Nature Trail on the Parkway was proposed by Elton Hansens and Dick won approval from the Parkway. Many club members helped with identification of flora and marking locations with numbers. Dick and I worked together every step of the way. Finally Dick prepared a brochure, "Buck Springs Nature Trail, a Botanical Tour", which was published and distributed by the Parkway. The project was completed in 1989. The trail and brochure now need revision.

Dick's latest book Wildflowers of the Southern Mountains is special!! I am particularly impressed by his dedication: "In memory of my mother who would have loved this book, and my father, who could have done it better." This guide focuses on more than 1200 species found in the Blue Ridge physiographic province. The 600 color plates are the most impressive feature of the book. Dick with his special talent was able to photograph the details of each plant.

Our WCBC members are very aware of the many contributions of Dick and Jeanne to our Club. Several years ago they were named Honorary Members.

# LOOK AGAIN !

The average garden contains so many exotic species and artificial hybrids that it is easy to forget that some native North American wildflowers were long ago brought into cultivation unchanged. A few that come to mind are the hardy and beautiful New England Aster, the Blazing Stars (Liatris spp.), and the so-called Moss Pink or Thrift (Phlox subulata).

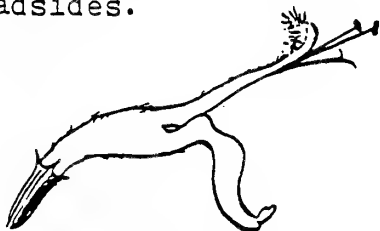
Another familiar example is Bee-balm, or Oswego Tea (Monarda didyma). This showy member of the Mint Family was used by Indian tribes in the northeast as a flavoring agent, and during the colonial period the residents of Oswego, New York, made a beverage from its leaves in protest against the tax levied by the English on imported Oriental teas. This particular species is the one with bright crimson flowers, and in the wild it favors wet situations.



MONARDA DIDYMA

There are several other Monardas in our area, and all of them have a dense terminal head of long, tubular, two-lipped flowers subtended by leafy bracts which tend to be suffused with color corresponding to that of the corolla. All bloom in the summer and early fall.

The most abundant is Wild Bergamot (M. fistulosa), with pink or lavender flowers each having a distinctive tuft of hairs near the outer end of the upper lip. This very fragrant species is more likely to be found in dry open woods or fields or along roadsides.



M. FISTULOSA

Basil Balm (M. clinopodia) is widely distributed in the southern mountains. It has white or pinkish flowers which are spotted with purple and lack the tuft of hairs.

Occasionally one will find what appears to be a color variant of Oswego Tea, with flowers of rich purple instead of red. This is thought to be a natural hybrid of M. didyma and M. fistulosa, and has been named M. media.

*Dick Smith*

**S H O R T I A**

Vol. XXI. No. 2

Summer 1999

A quarterly publication of the Western Carolina Botanical Club

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Editor: Anne Ulinski

Editorial Assistance: Pat Arnett

Distribution: Ruth Hoerich

Please submit contributions for the next issue by August 15 to: Anne Ulinski  
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

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# SHORTIA

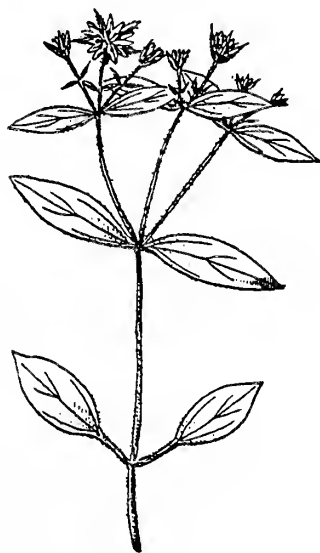
NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB

Autumn 1999

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*Stellaria corei*

Tennessee Chickweed

4

WESTERN CAROLINA BOTANICAL CLUB - 1999

|                 |                 |            |               |
|-----------------|-----------------|------------|---------------|
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| Vice President: | Bonnie Arbuckle | Recorder:  | Betty Jones   |
| Secretary:      | Peggy Ellis     | Historian: | Anne Matthes  |

From the President.....Anne Ulinski

One of the goals of the Western Carolina Botanical Club is “the collection and compilation of information and data on the plants of Western Carolina and “the education of interested persons in the enjoyment and appreciation of wildflowers and other plants”.

This spring the Club received a request from Cindy Carpenter, U.S. Forest Service Interpretive Specialist, that we undertake a project at the Pisgah Forest Cradle of Forestry. With the support of the Executive Committee I submitted a proposal to the U.S. Forest Service for the Club to undertake what the Forest Service calls a “sponsored voluntary services” project. The project consists of an inventory of the plants along the Forest Legacy Trail and the Biltmore Campus Trail. After collecting the data we will work with Cindy to design wildflower brochures for the trails.

Bonnie Arbuckle and I are the co-chairs for the project. Other Club members volunteering are: Peggy Ellis, Elisabeth Feil, Betty Jones, Elaine Montgomery, Erika Parmi and Helen Smith. The volunteers are divided into two teams so that each team goes to the trails one day a month. We could use some alternates -- those interested in filling in when almost everyone on a team leaves town at the same time! Please call Bonnie or me if you are interested. The qualifications are: good eyes for spotting plants, patience and assistance as the team works through keys, and a commitment to wildflower education.

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*A gift in memory of Dick Smith was made by the Club to Preservers of the Blue Ridge Parkway. The following is the acknowledgement we received from Jeanne Smith.*

Dear Friends:

I wish to thank you all for the gift to the “Preserve the Parkway” program in memory of Dick. You could not have chosen a more appropriate memorial as the Blue Ridge Parkway was Dick’s favorite botanical hangout. If regulations had allowed, he would have camped at Wolf Mt. Overlook. One of our last trips up there was in March with snow all along 215. He wanted to make sure an early spring landslide had not damaged this spot. He loved every overlook, every trail, every plant and every one of his Botanical Club friends. Bless you all. - Jeanne

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Cover drawing from An Illustrated Flora of the Northern U.S. and Canada (Dover Publication)

**Fishback, H.D. and Jan:** 516 Panther Branch Road, Canton, N.C. 28716 (828) 648-7842. Moved here from Florida 25 years ago. They own a large tract of land ranging in elevation from 2500' to 5000'. They have counted some 150 to 200 wildflowers on the property including the starflower, *Trientalis borealis*, rare in this area except at high elevations. They learned about WCBC from Bonnie Arbuckle.



### **This and That from the Club and the Community**

- Millie Blaha is appearing as a guest naturalist on John Sarpy's GREEN THUMB program each Saturday morning from 8 a.m. to 9 a.m. This program is broadcast live on Brevard radio station WSGL AM 1240. Millie provides information about native wild flowers, trees, shrubs, birds and other bits of information about the world of nature. John Sarpy, owner of Whitewater Gardens on Rosman Highway in Brevard, discusses garden plants, planters and plantings.

- During a trip to the Northeast this summer Peggy Ellis visited the Bartram Gardens and sent Shortia her comments. " A trip to Philadelphia would not be complete without a visit to the oldest gardens in the country. I have to admit I went with a certain expectation of the 200 year anniversary celebration and my own ideas of what the gardens would be like. I expected big and beautiful!

This is not the case for Bartrams. Just the fact that it is the oldest organized garden has its own unique romantic flavor. To step into that time period with the city skyline in the distance is a juxtaposition of the 1800's right on top of the 2000's!

The layout of the gardens is not anything special for viewing. The lawns, however, with one of the first three Gingko biloba trees brought into America held a fascination for me. There were other magnificent trees as well beautifying and shading the whole area which was more appreciated during that off-the-record heat wave for the Northeast in July. Would I go back? Probably not, but I am glad to have experienced a little bit of botanical history."

- The Environmental and Conservation Organization (ECO) is updating its Speakers Bureau. If you are interested in giving a program to Henderson County school children on a nature subject, call Juanita Lambert at 685-0180. You can designate your subject and the grade level you'd like to address.

## RECORDER RAMBLINGS ..... Betty Jones

The nineteen people who participated in the Rivercliff Farm field trip were treated to an easy walk, a variety of blooming spring flowers (46 species in bloom), an abundance of Spring Beauty (*Claytonia virginica*) and cool drinks and snacks at the end, provided by our hosts.

The recorder's report for the Tanbark Tunnel to Bull Gap walk says it all: "In spite of soaking wet papers and steamy eye glasses, we had a spectacular show of flowers. I was especially excited to see the whorled pogonia for the first time! We were really hardy souls with a wonderful fearless leader (Elisabeth Feil) - Great fun." Eighty plant species were identified - a high for the season.

The walk through the woods from the Greybeard Mountain Overlook was a new one for the group. I was particularly excited by the patch of Cream-colored Wake Robin (*Trillium erectum*) - a first for me. And for most of us it was our first encounter with Ramps or Wild Leeks (*Allium tricoccum*).

The stop-and-go trip along the Blue Ridge Parkway South yielded its usual variety of plants. A bonus drive to Grassy Ridge provided the highlight of the trip - blooming Indian Paint Brush (*Castilleja coccinea*). The North Carolina Arboretum presented us with a whopping 67 different species in bloom along the service roads. This was an easy shady walk and we had comfortable seating for lunch on the logs in the azalea repository.

"Magnificent, spectacular and awesome" were the recorder's words to describe the large patch of Bluebead Lily (*Clintonia borealis*) in bloom on the Big Butt walk. But they were nearly outdone by the splendid displays of Canada Mayflower (*Maianthemum canadense*) and Solomon's Plume (*Smilacina racemosa*). It took sharp eyes to spot the little flowers of Rose Twisted Stalk (*Streptopus roseus*).

Thirty-two members and guests enjoyed good food and fellowship at the annual summer picnic at Holmes State Forest.

The Bee Tree Gap / Craggy Gardens walk attracted the largest attendance this season - 25. As usual, the Flame Azalea, Catawba Rhododendrons and Mountain Laurel drew special attention.

Roan Mountain was special for the abundance of some plants and the rarity of others. Three plants took the prize for abundance: Michaux's Saxifrage (*Saxifraga michauxii*), Wine-leaved Cinquefoil (*Sibbaldiopsis tridentata*) and Tassel Rue (*Trautvetteria carolinensis*). Gray's Lily (*Lillium grayi*) - the plant on the cover of Dick Smith's book - was in bloom, but not in the numbers reported on previous walks. Other special plants seen on this trip were *Senecio schweinitzianus*, *Veratrum viride* in bloom, *Lysimachia ciliata*, *Geum radiatum*, *Potentilla argentea* and *Houstonia purpurea v. montana*.

Haywood Gap lived up to its promise of a splendid display of Fly Poison (*Amianthium muscaetoxicum*). Fire Pinks (*Silene virginica*) and Purple Bluets (*Houstonia purpurea*) colored the meadow area, but the Phlox have nearly disappeared. Those limber enough to stoop down examined the tiny Dwarf Enchanter's Nightshade (*Circaea alpina*) through a hand lens.



## THOSE LATIN NAMES ..... Betty Jones

Folks have asked what authority I am using for the plant names I use for our botanical walk checklists. Answer: For scientific names I am using Dick Smith's Wildflowers of the Southern Mountains and Wofford's Guide to the Vascular Plants of the Blue Ridge (©1989) for those species not included in Dick's book. Common names come from a variety of sources: Dick's book, Newcomb, Wofford .. but I try to include a name that the club has used in the past. Often I will show a second common name. If you are not native to this area (as few of us are), you may call a plant by yet another name.

For those of us who are newcomers to the field of botany, the Latin names can be intimidating. Why say *Trifolium repens* when White Clover seems so much easier? The reason, clearly, is that the Latin names are universal, understandable by Italian, Japanese or English speaking people alike. Not so the common names which are not even "common" to all parts of the English speaking world. So Latin it is.

What's in a name? ... a Latin name, that is. Quite a bit as it turns out. Let us consider a few simple Latin plant terms:

- *florus, flora, florum* Refers to the flower. Derived English words: flower, floral, flord
- *folius -a -um* Refers to the leaves. Derived English words: foliage, folio
- *foliatus -a -um* Same as above.
- *phyllus -a -um* Also refers to leaves, but the root of the term is Greek. Cooks will recognize this term in "phyllo", that extremely thin pasty dough.
- *petalus -a -um* Refers to petals, of course.
- *partitus -a -um* Refers to parts

Next we learn the number forms:

1-uni 2-di 3-tri 4-quad or quadri 5-quin or quinque 6-sex 7-sept 8-oct 9-nona 10-dec  
12-dodeca 1000-mille

Now, let's look for combinations of them in our checklist plants:

***Monotropa uniflora*** (Indian Pipe) - *uniflora* tells us that this plant has one flower in contrast to related species which have more.

***Arisaema triphyllum*** (Jack-in-the-Pulpit) - *triphyllum* = three leaves.

***Viola tripartita*** (Three-parted Violet) - Refers to the three parts into which the leaves are divided.

***Panax trifolius*** (Dwarf Ginseng) and ***Panax quinquefolius*** (Ginseng). See how the names describe one obvious difference between them?

Consider these plant names. Do the names give you a clue to plant features?

*Lycopus uniflorus*  
*Orobanche uniflora*  
*Cardamine diphylla*  
*Angelica triquinata*  
*Asimina triloba*  
*Bidens tripartita*  
*Delphinium tricorne*  
*Galium triflorum*  
*Magnolia tripetala*  
*Porteranthus trifoliatus*

*Prenanthes trifoliata*  
*Rudbeckia triloba*  
*Sibbaldiopsis tridentata*  
*Trifolium sp.*  
*Trillium sp.*  
*Zizia trifoliata*  
*Asclepias quadrifolia*  
*Lysimachia quadrifolia*  
*Anemone quinquefolia*  
*Angelica triquinata*

*Viola septemloba*  
*Aesculus octandra*  
*Agalinis decemloba*  
*Dodecatheon meadia*  
*Achillea millefolium*

Next time:  
Shapes and sizes

**EASTATOE CREEK HERITAGE PRESERVE.....Erika S.Parmi**

Last fall Anne Ulinski, Gisela Smith and I investigated one of the nearby South Carolina natural heritage preserves, the Eastatoe Creek Heritage Preserve. The trail into the preserve is a five mile round trip and follows old logging roads until the final mile when it becomes very narrow, rough and steep as it descends into a deep gorge. We were hoping to find three rare ferns which have been identified on rock faces in the gorge.

The first mile of trail leads through a recently logged area in the early stages of regrowth. Here one can catch a glimpse of the highest peak in S.C., Sassafras Mountain at 3560 feet. Shortly thereafter the road descends to a scenic forest of large old tulip, hemlock, American beech, birch and oak trees. There is a magnificent white oak nearly three feet in diameter and later on a tulip tree reputed to be at least eight feet in circumference.



Near the end of the trail are several rock faces where constantly dripping water provides just the right high humidity for ferns and a variety of liverworts. Here is the site for three uncommon ferns, the very rare Tunbridge fern *Hymenophyllum tunbridgense*, (Radford p.15-16), and the Eastern and Dwarf filmy ferns *Trichomanes* ssp. (Radford p.14-15). Anne and I believe we found the tiny Tunbridge fern, but we would not stake our lives on it! We could not identify the filmy ferns. According to the "Flora of North America" (Vol II. 1993), only about two dozen small populations exist in North America and these are in this river gorge in Pickens County, S.C.

*Hymenophyllum tunbridgense*  
Tunbridge Fern

The trail finally descends to a large flat park-like area beside the creek--a wonderful place for lunch. Large rocks offer resting spots and old hemlocks dominate the canopy. It is this area that is supposed to be carpeted with trilliums in the spring. According to the Preserve leaflet this last mile of trail also has varied spring wildflowers including 16 species of violets.

The Eastatoe Creek Heritage Preserve trailhead can be reached at the Foothills Trail off U.S. 178 about eight miles north of the intersection of S.C. 11 and U.S. 178. If you would like more information on this trail, please call me at 883-8021.

Tunbridge fern drawing is by Pat Arnett

## TENNESSEE CHICKWEED

Did We Overlook It Up to Now?.....Elisabeth Feil

I'd often seen the low carpet of opposite-leaf plants, but never paid any attention to them. On our outing on the Mountains-to-Sea Trail from Graybeard Overlook to Glassmine Falls Overlook this spring, I noticed for the first time white flowers on these plants that looked like crippled Giant Chickweed (*Stellaria pubera*) flowers, and I dismissed them as just that. (My excuse: I was late and in a hurry to meet the group.)

Upon Anne's suggestion, I started to look a bit closer. What I saw - as Anne had suspected - is a different species: Tennessee Chickweed, *Stellaria corei*. It is on the North Carolina Watch List.

The two species are not always easy to distinguish, so a close look is required. Giant Chickweed grows in clumps, and the leaves are sessile. The blunt sepals (4-6 mm), which have ciliate margins and usually some hairs on the back surface, are barely visible between the longer petals. Tennessee Chickweed is stoloniferous, sometimes forming extensive "carpets" and has the middle and lower leaves on 1-2 cm petioles. The pointed sepals (7-11 mm) are equal to or longer than the petals; they have ciliate margins but are usually glabrous on the back surface.

I think we need to keep our eyes open for this plant that has puzzled researchers for a long time, as reflected in the many different scientific names it was given over time:

|                        |                                               |
|------------------------|-----------------------------------------------|
| Britton & Brown, 1913, | <i>Alsine tennesseensis</i>                   |
| Britton & Brown, 1952, | <i>Stellaria silvatica</i>                    |
| Gray's Manual, 1950,   | <i>Stellaria pubera</i> var. <i>silvatica</i> |

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Radford, Ahles, Bell, 1968, | <i>Stellaria corei</i>                        |
| Strausbaugh & Core, 1971,   | <i>Stellaria corei</i>                        |
| Wofford, 1989,              | <i>Stellaria corei</i>                        |
| Gleason & Cronquist, 1991,  | <i>Stellaria pubera</i> var. <i>silvatica</i> |

They report the chromosome numbers for *S. pubera* var. *pubera* as  $2n=30$ , for *S. pubera* var. *silvatica* as  $2n=60$ , but did not give var. *silvatica* species rank.

|                      |                        |
|----------------------|------------------------|
| Smith, 1998,         | <i>Stellaria corei</i> |
| Weakley, unpublished | <i>Stellaria corei</i> |

Tennessee Chickweed, *Stellaria corei* Shinnery, was named after Earl L. Core, who taught at the University of West Virginia from 1928 until 1972 where he was Curator of the Herbarium for 38 years until his retirement. He was influential in founding The Southern Appalachian Botanical Club and served as editor of its journal *Castanea* for 35 years. He was also involved in civic affairs in his home town of Morgantown. Among his many publications is "The Flora of West Virginia" which he co-authored with P. D. Strausbaugh. Dr. Core died in 1984. (Source: *Castanea*, Vol. 50, 1985)

I remember visiting a large garden in England where each group of plants was labeled not only by the common name, genus and species, but also the traditional medicinal usages. You've probably noticed the rapidly increasing interest in the use of herbs and medicinal plants, including many found in our area to the point where the commercial farming of them is feasible. In fact, there's a place in Brevard [GAIA] doing just that. Sure, we'd often heard before about alleged benefits from a few plants like ginseng....., but St. John's-wort!

It used to be that the only places to buy botanical health and nutrition supplements were health food stores or through a local herbalist who prepared them from scratch such as our own member Peggy Ellis or our friend Cindy Carpenter who knows some of the old-timey remedies. Now even the supermarket chains and pharmacies find such supplements to be marketable.

Maybe the biggest challenge is to know which of the items is truly useful for needs specific to each of us as individuals. Several sources are available: the Internet, local herbalists whom one trusts, the few doctors who are open to so-called "alternative medicine", dietitians whom one knows, newspaper articles or relevant books from the library. The goal in all of this is to find "natural" (i.e. nature's) ways to counteract or replace the effects of highly processed foods and chemically-assisted production, as well as individual medical problems created by our polluted environment.

It is alarming that a number of our most serious health problems seem to be getting worse in spite of our vaunted progress in medical science. New strains of harmful bacteria and viruses seem to be developing or mutating. It is scary to learn that many of the foods advertised heavily as "fat free" may actually be more harmful than the fats they replace in our diet. Now it's beginning to look like cholesterol control is not the most effective approach to heart disease and that counting calories has little value without giving attention to the manner in which these calories are burned. These are complex issues but foods produced with heavy uses of chemical fertilizers and pesticides are surely part of the picture.

Botany is at the heart of production of food and fiber from the soil and air. Have chemical alterations in the botanical simplicity of true food production become so pervasive that it is now impossible to reverse negative effects of non-organic farming? Few of us are qualified to do more than raise such questions. However, do not believe, as I once did, that specific health problems that beset you are either unique or inevitable. We all love to study wildflowers....but botany is so much more than that. Botanical researchers are starting to prove that we may have brought many of our diseases on ourselves. Is it too grandiose to think that in the future of botany lies the future of the human race? I don't think so.

# LOOK AGAIN !

Only rarely do we find it necessary to resort to using a hand lens in order to distinguish between two species of plants that are as tall as we are, but the genus Cimicifuga, in the buttercup family, proves that it can happen.

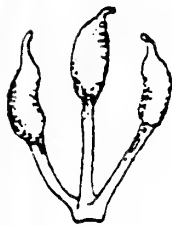
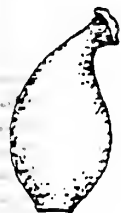
Cimicifuga racemosa (popularly known as Bugbane, Black Cohosh or Black Snakeroot) is so conspicuous and so familiar that we feel confident of being able to call it from twenty feet away without fear of contradiction, but in doing so we often forget that there is another species, C. americana.

There are not many factors to help us avoid misidentification, either. Vegetatively, the two are very similar, although C. americana does not achieve the stature of the larger specimens of C. racemosa. The former is strictly a mountain species and is restricted to the southern part of the Appalachians at that - but of course they both share that territory. It tends to bloom later, but in a given area their blooming seasons can pretty much coincide.

All this overlapping would make it difficult to separate them were it not for the fact that a close look at an individual flower will take care of the problem quickly and positively:

Cimicifuga racemosa has but a single pistil, which is stout and sessile, with a truncate style. C. americana, on the other hand, has from three to eight pistils each of which has a slender stalk, and the styles are awl-shaped.

There are other slight differences, mostly in the follicles and seeds, but if you have the plant in flower this is all you need to know.



Dick Smith

# SHORTIA

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Editor: Anne Ulinski  
Editorial Assistant: Pat Arnett

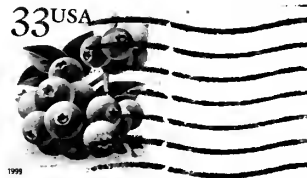
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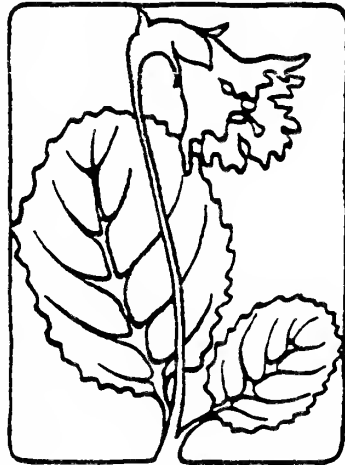
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# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB  
WINTER 1999



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BOTANICAL GARDEN

*Shortia galacifolia*

Oconee Bells

WESTERN CAROLINA BOTANICAL CLUB - 1999

President: Anne Ulinski  
Vice President: Bonnie Arbuckle  
Secretary: Peggy Ellis  
Treasurer: Rachel Conway

Recorder: Betty Jones  
Historian: Anne Matthes

**From the President.....Anne Ulinski**

The underlying idea of Chinese medicine is the creative cycle as seen in the seasons -- each season giving way in turn to the next. As with our understanding of the seasonal cycle, Chinese medicine recognizes spring, summer, fall and winter. Late summer and early fall they name as a separate season called "harvest time".

If you were out with the Botanical Club this fall, especially the field trips to Daniel Creek and to Coon Branch, you had an opportunity to enjoy the fall season to the fullest. Different books were needed and Weeds in Winter and Winter Botany came out of car trunks and backpacks. We were challenged to identify Joe-pye-weed, Green-headed Coneflower, and everyone's old favorite, Heal-all, without their blooms. Gentians challenged us by holding their petals close. Grape ferns appeared with their golden bead-like spores.

Some of us wanted to walk slowly -- to enjoy the brilliant colors around us and the sense of quietness broken only by falling leaves and the flowing water of a nearby stream. This quietness the Chinese would interpret as the energy of spring and summer beginning to wane as the earth passes through fall into the deep quiet of winter.

Following the idea of Chinese medicine we might want to try adapting our personal energy to the seasonal cycle as we go through the botanical year. Winter is a time for rest, a time to prepare for the surge of energy to come with spring and all those trilliums and violets and the new green on shrubs and trees. We need to sustain our energy through summer and late summer as we try to sort through the composites, mints and early fruiting plants. And then we are back to fall. The days are shorter. Seeds have buried themselves in the earth and become dormant. It is a time to slow down and let go. It is a time to reflect and be thankful for another year of enjoying our natural world as we watched the earth pass through the universal seasonal cycle.



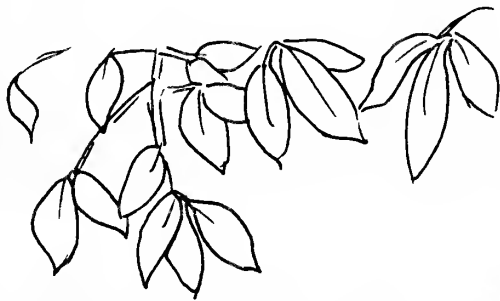
Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.



**Membership Dues** are payable January 1, 2000. We don't have the resources to make a renewal mailing so please send your dues to Rachel Conway (address is on back cover) or bring your dues to one of our indoor meetings. Dues are \$12 per individual/family.

**Annual Meeting** will be on Friday, January 14, 2000 at St. John's in the Wilderness Parish House, Flat Rock. The meeting begins at 11 a.m. and will include reports of the past year, election of officers, and a preview of the year to come. A special award will be made to one of our members, an award not made before in the history of the Club.

For one reason or another some of you have not been able to come on the field trips this season. Please come to the Annual Meeting so we have an opportunity to see you.



Reminder: This is a pot-luck affair and the food is always wonderful. Stay after lunch to see some slides of candid shots taken on the field trips this year.

### **Learn and Share**

The program committee has scheduled Learn and Share as an indoor meeting on Friday, March 17, 2000. Learn and Share was an idea of Barbara Hallowell, now one of our out-of-town members. The sessions were previously held in private homes but we will experiment with holding the session at the First Citizens Bank Community Room so there will be room for all.

We are inviting Club members to research a subject of interest to them and prepare a short (no more than 10 minute) presentation. Props are welcome such as charts, pictures, specimens. If you have learned of a new book or read an interesting article, have heard of a new discovery in the plant or animal world or want to share with the group your favorite plant or an unusual plant you have seen in your travels, think about sharing those interests with the Club. As long as the subject is in the realm of our natural world, anything and everything goes.

We need 5-6 members to volunteer as presenters. The program is open to everyone. Those not presenting a subject we envision as a supporting audience free to ask questions. Volunteer presenters: This will be an informal session. We plan to arrange the chairs so everyone will feel comfortable.

Helen Smith has agreed to coordinate the volunteer presenters. We are giving everyone plenty of time to think about a subject and come forward to make this program a success. Just telephone Helen at 883-4946 to sign up.

Rhododendron leaf sketch by member Pat Arnett

**RECORDER RAMBLINGS .....Betty Jones**

On the Buck Springs Nature Trail, the group reviewed the numbered stops that Elton Hansens and Dick Smith designated several years ago. Things have changed in the intervening years and it appears that an update is in order. Rosebay (*Rhododendron maximum*) and Starry Campion (*Silene stellata*) made showy displays on this walk.

Fields of Purple Coneflower (*Echinacea purpurea*), viewed from the old farm house, were a pleasing sight indeed at the GAIA Herb Farm. This certified organic farm grows 45 different plants used for extracts and ointments. We were favorably impressed by the bright, clean, uncluttered processing plant.

Although blackberry brambles made part of the trail at Black Camp Gap impassable, 15 hikers identified 61 species, 49 of which were in bloom.

Sky Valley Road offered up a variety of plants not often encountered on our walks. But the hot dry weather had taken its toll on many plants and a veneer of dust covered everything. Plants of special interest were Nuttall's Lobelia, Grass-leaved Golden Aster and Pale Corydalis.

At Holmes State Forest the group was instructed in the identification of insects and ferns by Elton Hansens and Bonnie Arbuckle, respectively. After our lessons, we split into "fern" and "insect" groups, walked the trails and applied what we had learned.

The blueberry picking was a bit disappointing for the 18 participants on the Tennent Mountain walk, but the botanizing was good. Plants of note were the abundant White Wood Asters (*Aster divaricatus*), Narrow-leaved Houstonia (*Houstonia tenuifolia*) and Round-leaved Sundew (*Drosera rotundifolia*).

On a comfortably cool day, participants in the Lake Issaqueena walk compared two species of *Elephantopus* and three species of *Verbesina* and identified a variety of vines. A special treat was the floating fern called Water-clover (in the *Marsilea* family).

Twenty-five participants came out to enjoy the final Parkway field trip of the season. Fall asters, gentians, goldenrods, turtleheads and Grass-of-Parnassus were among the plants identified.

The Jackson Park wetlands area was a blaze of color this year. Cited as abundant were "Ditch Daisy" (*Bidens polylepis*), Virgin's Bower, Joe-Pye-Weed, Tearthumb, Climbing False Buckwheat and New York Ironweed.

The late date (Oct 1) plus extensive mowing and installation of a fence reduced botanizing opportunities along Butter Gap Trail. Witch Hazel was reported for the first time this season.

## THOSE LATIN NAMES ..... Betty Jones

In the summer issue of *Shortia* we looked at the Latin forms of numbers and the names of some plant parts. Little did I know when I promised shapes and sizes for this issue that I had selected such a large topic. Using the *Dictionary of Word Roots and Combining Forms*, I found at least 40 different Latin forms that are used in plant names to describe size or shape. About one-third of those have Greek origins.

Let's look at a few **size** forms:

| Form          | Lang. | Meaning  | Examples                                                         |
|---------------|-------|----------|------------------------------------------------------------------|
| <i>gigant</i> | G     | gigantic | <i>Helianthus giganteus</i> - Tall Sunflower                     |
| <i>grandi</i> | L     | large    | <i>Solidago gigantea</i> - Late Goldenrod; why not Tall Gold...? |
| <i>macro</i>  | G     | large    | <i>Aristolochia macrophylla</i> - Dutchman's Pipe                |
| <i>maxim</i>  | L     | largest  | <i>Rhododendron maximum</i> - Great Laurel                       |
| <i>long</i>   | L     | long     | <i>Stellaria longifolia</i> - Long-leaved Stitchwort             |
| <i>micro</i>  | G     | small    | <i>Helianthus microcephalus</i> - Small Wood Sunflower           |
| <i>parvi</i>  | L     | small    | <i>Agrimonia parviflora</i> - Small-flowered Agrimony            |
| <i>alti</i>   | L     | tall     | <i>Prenanthes altissima</i> - Tall White Lettuce                 |

Other size forms are *sub* (less than or somewhat), *brachy* and *brevi* (short) and *pusill* (small). Often the Latin name tells us more about the plant than the common name, as in Late Goldenrod above.

Now to some **shape** forms:

|                 |   |         |                                                                                                      |
|-----------------|---|---------|------------------------------------------------------------------------------------------------------|
| <i>obtus</i>    | L | blunt   | <i>Gnaphalium obtusifolium</i> - Rabbit Tobacco                                                      |
| <i>clavat</i>   | L | clubbed | <i>Thalictrum clavatum</i> - Lady Rue                                                                |
| <i>crispi</i>   | L | curly   | <i>Rumex crispus</i> - Curly Dock                                                                    |
| <i>cornut</i>   | L | horned  | <i>Corylus cornuta</i> - Beaked Hazelnut                                                             |
| <i>angust</i>   | L | narrow  | <i>Cardamine angustata</i> - Slender Toothwort                                                       |
| <i>acuminat</i> | L | pointed | <i>Aster acuminatus</i> - Whorled Wood Aster<br><i>Clethra acuminata</i> - Mountain Sweet Pepperbush |
| <i>gyro</i>     | G | round   | <i>Agrimonia gyrosepala</i> - Tall Agrimony                                                          |
| <i>rotundi</i>  | L | round   | <i>Drosera rotundifolia</i> - Round-leaved Sundew                                                    |
| <i>acuti</i>    | L | sharp   | <i>Hepatica acutiloba</i> - Sharp-lobed Hepatica                                                     |
| <i>dicho</i>    | G | split   | <i>Silene dichotoma</i> Forked Catchfly                                                              |
| <i>lati</i>     | L | wide    | <i>Kalmia latifolia</i> - Mountain Laurel                                                            |
| <i>tenui</i>    | L | slender | <i>Stachys tenuifolia</i> - (Hedge Nettle)                                                           |

Other shape forms are *cylind* (cylindrical), *ovate* (egg-shaped), *platy* (flat or wide), *acri* and *oxy* (sharp), *obliqu* (slanting), *lepto* (slender), *pachy* (thick), *strobo* (twisted) and *undulat* (wavy). All of these forms can be found on our plant lists.

Next time: colors. This should be fun.

**The Richard M. Smith Memorial.....Lowell Orbison**

Richard M. Smith grew up in Millersburg, Pennsylvania on the east bank of the Susquehanna River in a home where art, gardening and nature were important parts of daily life. Throughout his life Dick carried this love of art and nature with him. His drawings and later his photographs were his principal means of artistic expression. During all his years with Texaco in New York City, he and his wife Jeanne spent each week-end traveling by train to sites for the study of nature, especially wild flowers.

His field notes were always precise and complete and formed the basis for his two books Wild Plants of America and Wildflowers of the Southern Mountains. In the first, his accurate and esthetically pleasing drawings and in the second his superb photographs speak to his artistic talent. The dedication of each of his two books provides us with an insight into Dick the man--the first "To Jeanne who shared it all" and the second "In memory of my mother who would have loved this book and my father who could have done it better". Fortunately for all of us Wildflowers of the Southern Mountains was published just a few months before his death.

When he retired and he and Jeanne moved to Connestee Falls his hobby became his full time occupation. The results of his work, his experience, his knowledge and expertise, he shared generously with his new friends in the area, especially those in the Western Carolina Botanical Club and the Botanical Gardens of Asheville.

In memory of Dick, both his accomplishments and friendships, many have made gifts to the Botanical Gardens at Asheville. These gifts make it clear that Dick's extensive and precise knowledge of wildflowers as well as his enthusiasm and love of plants had been shared with many.

It is to the memory of this man that the Botanical Gardens at Asheville will dedicate a new Bog Garden with its community of plants.

The resources made available in Dick's memory have coincided with the Botanical Gardens' plans to develop typical plant communities that characterize the Southern Appalachian Mountains. As one of the first of these, the aquatic and bog garden will illustrate the diversity and beauty of one of these communities. It is anticipated that many plants will flourish here. Some of these, White and Yellow Water Lilies, Water Shield and Cattails will grow directly in the water. Others such as Arrow Arum, Pickerel Weed, Golden Club, Swamp Pink, Pitcher Plants and Skunk Cabbage will thrive at the water's edge. And in the drier areas Cardinal Flowers, Honey Cups, Leather Leaf, Leatherwood and Titi will grow. Even trees typical of wet areas such as Bald and Pond Cypress, Water Elm and perhaps even Ogeeche Plum will find a place here.

## The Richard M. Smith memorial (continued)

It is hoped that this variety of plants, all lovers of water, will compose a community that will epitomize Dick's dedication to our plant world.



*Orontium aquaticum*, Golden Club, one of the plants which will find  
a home in the new Bog Garden  
(Line drawing by Richard M. Smith from "Wild Plants in America")

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"Identifying a specimen is often a long, tedious and frustrating task. A curator must have a good knowledge of the type of specimen at hand, a library of appropriate reference texts, scientific articles if possible, and a comprehensive collection for comparison." - - A legend copied from an exhibit in the City Museum, St. John's, Newfoundland.

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The real voyage of discovery rests not in seeking new  
landscapes, but in having new eyes

-Marcel Proust

On April 23, 1999, the front page of the Hendersonville Times News featured an article about the upcoming pollen season. Illustrated and named in a box on the front page were five plants:

Bermuda grass blooms from June through September and is widely distributed in the southern United States as a lawn and golf course greens grass. It is a noxious weed. If you have it you do not want it.

English plantain (May through September) is an introduced plant used mainly for lawns.

Giant ragweed (August through September) when well developed can be over six feet tall. It and its brother, small ragweed, are the two worst plants for those who suffer from pollen allergies.

Orchard grass (May through July) is a crop plant and much of it is produced in Virginia and used in pastures and orchards.

Timothy (*Phleum pratense*) is the basis of this article. It is listed as one of the five worst plants for pollen allergy sufferers, yet I wonder how many have seen this plant. Imported from Europe, it was planted throughout the United States and Canada. But have you seen a timothy plant? I have seen some near the restrooms along the path to Clingman's Dome but few other places.



Timothy

What happened to timothy which blooms from May through July and is one of the worst pollen producers? It slowly stopped being planted by farmers before World War II and tapered out of favor in the 1950's. It is a tall annual that has no weedy characteristics so it does not spread from the fields. It fell out of favor as a crop plant because horses fell out of favor with farmers. With no horses, there is no need for timothy hay. Timothy seeds can still be purchased from places like Southern States (on US25 in Fletcher) and occasionally may be planted. Your best chance to see timothy is along roadsides (or paths) where work has been done and the margins reseeded.

A timothy "seed", really a fruit called a caryopsis, is roundish and harvested naked. That is the "seed" is not covered by a lemma and palea and/or glumes like the majority of grass "seeds". The "flowering head" resembles a miniature cattail head, and the plant resembles a miniature corn plant.

And please remember that insect-pollinated flowers do not cause allergies. Only wind pollinated plants like the above and most apetalous trees, but not pine trees with their heavy, large pollen.

**SPECIES SPOTLIGHT: Evergreen Ginger..... ...Paul Myers**

Most people are familiar with the well know Wild Ginger (*Asarum canadense*) which occurs in rich cove hardwood forests and on rocky slopes. The large, soft heart-shaped leaves of this species are deciduous and arise from an underground rhizome in the early spring, remain for the summer, then wither in the fall. In the Southern Appalachians, there are several other Wild Ginger species which have dark, thick, evergreen leaves that remain above ground through the winter. These plants, called Evergreen Wood Gingers, are all in the genus *Hexastylis*, which is closely related to the genus *Asarum* of the deciduous Wild Ginger.

The flowers of both the deciduous and evergreen Wild Gingers usually lack petals, but display three fairly large maroon or puce sepals. (Sepals in most flowers in other families are typically green and occur as bract-like structures whorled just beneath the petals.) These sepals may also be mottled, or variegated with streaks. In both the deciduous Wild Ginger and the species of Evergreen Wood Ginger, these flowers can often be found resting on the ground at, or just beneath, the leaf litter. This is a good strategy since most of the Wild Gingers are pollinated by ants. In spring and early summer, it's always a thrill for me to pull away the leaf litter from the leaf base to find these hidden flowers.

Three of the species of Evergreen Wild Gingers occurring in our region are federally listed as being rare by the U.S. Fish and Wildlife Service. *Hexastylis contracta*, or Mountain Heartleaf, is endemic to the Cumberland Plateau in central Tennessee but some disjunct populations occur in the Blue Ridge Mountains of western North Carolina. This species prefers highly acidic soils and is often found growing under and along with Rhododendron (*R. maximum*) and Mountain Laurel.

Two others, Dwarf Flowered Heartleaf (*H. naniflora*)(US Threatened) and French Broad Heartleaf (*H. rhombiformis*)(U.S. Species of Concern) also occur in the upper Piedmont and Blue Ridge respectively. Both of these species also prefer acidic soils and are found associated with Mountain Laurel. The French Broad Heartleaf is endemic to the southern Blue Ridge Mountains and is found in only a few counties (Henderson, Polk, Buncombe and Transylvania) near the French Broad watershed in N.C. Since their habitat is common in our area, there is a real potential for discovery of additional populations of these rare species.

Note: The French Broad Heartleaf (*H. rhombiformis*) was first identified as a separate species by botanist, Chick Gaddy, a resident of nearby Walhalla, S.C. whom some of you may know.

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*This article was excerpted with permission from "Wild Mountain Times" published bimonthly by the Southern Appalachian Biodiversity Project, headquartered in Asheville. Paul Myers, the author of this article, is a botanist living in Hendersonville. He will present a program to the Botanical Club on Friday, January 7, 2000.*

# SHORTIA

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A quarterly publication of the Western Carolina Botanical Club

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Please submit contributions for the next issue by January 31, 2000 to: Anne Ulinski  
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The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are \$12. New members joining from the period July 1-December 31, pay \$6. All memberships are renewable on January first of each year. Please send dues to:

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