

Blue Ridge Wildflower Society

A CHAPTER OF THE
VIRGINIA NATIVE PLANT SOCIETY

Vol. 19, No. 3

July, 2002

Schedule of Events

- Aug. 17** **Fern Foray.** We will meet at 2:00 p.m. A new area is being explored for this annual foray. Details will be announced later. Dorothy Bliss, 434-845-5665.
- Aug. 18** **Picnic with the Sheridans at Smith Mountain Lake.** Bring a covered dish. Al & Vi will provide the meat, lemonade and coffee. We will eat around 4:00 p.m. but come any time after 2:00 to enjoy the lake. **Please call the Sheridans at 540-721-8189 if you plan to attend.**
There will be a board meeting at 2:00 p.m. at the Sheridans.
- Sept. 13-15** **VNPS Annual Meeting.** Hosted by the Pocahontas Chapter, this year's meeting will be held in Richmond. Field trips will cover both Piedmont and Coastal Plain areas. See the June VNPS Bulletin for more details.
- Sept. 21** **Fall Plant Sale** at the Randolph Macon Woman's College in Lynchburg. Tentatively scheduled from 10:00 a.m. until 1:00 p.m. See article on need for help potting seedlings at Randolph-Macon Botanic Garden. Sandra Elder, 434-525-8433.
- Sept. 23** **General Membership Meeting,** 7:00 p.m., Center in the Square.
- Oct. 28** **General Membership Meeting,** 7:00 p.m., Center in the Square.
- Nov. 25** **An Evening of Shared Memories.** Bring 5 to 10 of your favorite photos or slides or a short video from the past year for us to share. A seed exchange will follow. Bring a friend and meet at 7:00 p.m., Center in the Square.

A Delightful Adventure

Esther Atkinson

Hiking along Catawba Creek on Westvaco-owned land in Botetourt Co. to see the ruins of an old grist mill, I happened upon a small stand of hoary puccoon. Never having seen this flower before I had to go through my wild flower book. The plants were growing in a limestone area. Later I found a few more, again in a ledge of limestone rocks. The butterflies were having a banquet with the blossoms. This plant was the highlight of Dora Lee Ellington's day on a recent field trip. If you've never been on a wild flower trip with Dora Lee, she is a "trip." Although she has difficulty remembering the names of flowers, she has the vision of an eagle when it comes to spotting a flower. She's a real joy.

Frieda enchants the trip as she records names of plants seen. Esther Atkinson contributes by being able to back up the car to check a flower that we missed. A combination of a guide, Dora Lee, a secretary and assistant guide, Frieda, and chauffeur and student, Esther, makes for a fun day. There is something about the beauty of spring flowers that draws one from the city life to go on a search.

Frieda recorded between 30 and 40 species, among these were a light veined and a dark veined Jack-in-the-Pulpit. The blue phlox growing among the Virginia blue bells created a picture book scene.

There was a pileated woodpecker in flight, giving out his call, several Canada geese, honking as they passed over the creek, the never-ending song of the indigo bunting, the remains of two spring houses and a waterfall. Bulbed spring flowers growing in a yard along with a nearby spring, with watercress, gave evidence of an old homestead. (Dora Lee picked enough cress for Frieda to make her a southern watercress sandwich.) Beside a stream, a foundation of what was once a store had huge boulders for foundation. Add one immature frog, really green, and a number of swallowtail butterflies enjoying their surroundings, and it all made for a great day!

A peanut butter and jelly sandwich helps to complete the day as you never know where you'll be come lunch time. Not my favorite meal but tastes great when you're on the back roads of VA. Only adventure Dora Lee missed was getting to see the oreo-cookie cattle.

President's Letter

Julie Alexander

I always look forward to my birthday because I know I am going to see some beautiful wildflowers. And this year was one of the best! On Saturday April 20, the Blue Ridge Wildflower Society and the Roanoke Valley Bird Club went for a birds'n'blooms trip in the Arcadia area. If you've never been on a hike with Bill Hundley of the Bird Club, I highly recommend you take one. He is well-versed on his birds and his blooms. We saw many wildflowers blooming: rue anemone, bleeding hearts, columbine, leather flower, bluets, geranium, star chickweed, fringed polygala, wood anemone, bird's foot violet, trout lily, fire pink, carolina pink and many others. Among the species spotted by the birders were pine warbler, worm-eating warbler, paralla warbler, solitary vireo, red-eye vireo, flycatcher, kingfish, and an oven bird. As I leaned over a bridge looking at some wildflowers by the water, a snake dropped off a bush and slithered under a rock. It was a great and informative walk and my thanks go the Bill Hundley and all the members of the Bird Club who helped me identify all those warblers.

I also want to say a special thank you to Allen and Robin Austin for donating six trees to my school - Fallon Park. In lieu of our regular meeting in April, we met at Fallon Park School for some tree planting in honor of Earth Day and Arbor Day. Allen and Robin brought the trees, some perennials, and all their equipment. We planted some perennials in the little butterfly garden I have started there and put trees in a large grassy area in front of the school. We did some weeding and planting. It was very enjoyable for me and I really appreciate Allen and Robin's contributions of plants, time, and energy. I also want to thank Joan

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Derenge and Linda Hall who came up to help. Working together made the whole project much more fun. I look forward to doing another project like that.



Lycopodium and Xerography

Alex Newmark

Consider the lowly clubmoss, *Lycopodium*, which the VNPS conservation guidelines caution us not to pull or cut. It's not very attractive, and isn't even a moss - it's a primitive vascular plant, and doesn't respond well to human intervention in terms of propagation or transplanting.

Yet, it was at one time harvested almost to extinction because of its utility in a variety of unique roles, and holds a key - if not prominent or well-known - place in the annals of technological history.

Lycopodium ("wolf foot") would have had a certain place in trivia history even if its applications had not gone far beyond the predictable medicinal/homeopathic and other practical uses: the ancients used it as a mordant (a dye setter). It was widely used as a flash powder for theatrical photographic purposes. It is an exceptional lubricant and protectant, so it has been used as a dusting powder, pill powder, and condom lubricant.

Lycopodium's crowning achievement was as catalytic midwife at the birth of photocopying. Yet it remains almost as anonymous as Chester Carlson, the first "electrophotographer."

Carlson (or his assistant Otto, the first "key operator") coated a zinc plate with sulfur, and placed over it a glass with India ink writing on it. In the dark, the sulfur was given a static charge and exposed to a brief bright light. The slide was removed, and *Lycopodium calvatum* - spore powder - was spread on the plate. When it was blown off, there was an image of the writing, which was "fixed" by heating wax paper over the spore-writing and then peeling it away. Why Carlson knew or guessed that the spores would do the trick is not recorded.

If this isn't sufficiently dramatic, another plant material - lavender oil - was instrumental in the making of the first photograph. The light sensitive bitumen received the image, with the oil being used as the solvent. The hardened (light exposed) bitumen recorded the image after the softer (still dissolved) bitumen was removed. Why someone in 1826 knew that a certain petroleum derivative was light sensitive and that lavender oil would work is also not recorded.

— With thanks to google.com

Photos: USDA, PLANTS

Alex encourages copying this article for distribution as you wish



Note of Appreciation

Alex Newmark would like to publicly thank those people who worked so hard to make the spring plant sale a success. Plants from our sale are the backbone of his collection.

Scholarships Awarded

The Blue Ridge Wildflower Society has awarded two scholarships to biology students and two to horticulture students this year.

Neil Cox attended VWCC for two years and recently transferred to VPI & SU. Neil is majoring in biology with an emphasis in agriculture. His family operates a farm near Bonsack and they own the Country Corner Store on Route 460 East. He would like to continue operating the farm and greenhouses after college. Neil has a B+ average. He completed the plant identification course two summers ago.

Heather Roy graduated from VWCC this spring. She is majoring in biology and plans to transfer to a college in Florida where she will also take courses in marine biology. Heather took the plant identification course last summer and currently has a B average in her course work.

Sonja Bisette is one of the very best students Lee Hipp says he has had in his 24 years at VWCC. She has a 4.0 GPA and is working on her AAS degree in horticulture with a specialization in landscaping. She has her Master Gardener certification, has worked in retail horticulture and loves gardening.

Robert (Bob) Morris will complete requirements for the Landscape Horticulture AAS degree this summer semester and he, too, maintains a 4.0 GPA. He plans to transfer to Roanoke College in the fall where he will pursue a degree. After experiencing burnout in his first career (telecommunications), he decided to pursue formal training in the two areas that interest him most - plants and writing.

Help Needed

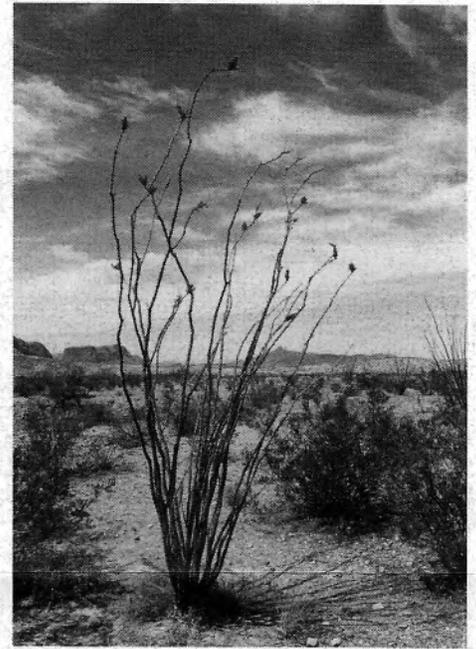
We need people to come to the Randolph-Macon Botanic Garden Saturday morning, August 10th to help pot seedlings from the garden for the plant sale. If you could take a few trays of plants home with you and take care of them until the sale, you will be greatly appreciated. For more information, call Sandra Elder, 434-525-8433, or Dorothy Bliss, 434-845-5665.

Big Bend's Amazing Plants

Sandra Elder

This spring my husband, Jim, and I spent ten days in Big Bend National Park. This park in southwest Texas, where the Rio Grande makes a big U shaped bend, is part of the Chihuahuan Desert. Most of Big Bend gets less than ten inches of rain a year and most of that comes during flash floods. Temperatures range from killing heat to freezing cold and very strong winds are common. Sounds like an interesting place to visit (it is) but not a good place to put down roots. Fortunately many wonderful plants have done just that. These plants have many ingenious ways to cope with their harsh environment.

The roots of the Mesquite, *Prosopis*, can go down thirty feet or more to find water. This is why old timers like to say that in these parts you dig for wood. Creosote Bushes, *Larrea tridentate*, spread their roots out to extract water from a large volume of soil and their roots also excrete a toxic substance that kills competing seedlings. Creosote leaves have a resinous coating to help retain moisture. The stems of the leafless Candelilla, *Euphorbia antisyphilitica*, fill with milky sap when it rains. Then during dry times this sap coats the stem like wax to protect the plant against water loss. Many desert plants are leafless to conserve water. Ocotillo, *Fouquieria splendens*, grows leaves if there is enough water but sheds them when conditions become dry. If more rain comes it will grow more leaves. This may happen many times throughout the year. The thorny stems contain chlorophyll allowing the plants to continue growing during a drought. In spring, each towering stem may sport a cluster of beautiful red flowers. Leatherstem, *Jatropha dioica*, with flexible, leathery, maroon colored stems is another plant that grows leaves only when there is sufficient moisture available. Another plant associated with the American southwest is the *Agave havardiana* or Century Plant. This plant may spend fifteen to fifty five years storing food in its root and succulent leaves. In its final year the Agave produces a very tall flowering stalk that may grow twelve inches in a single day.



Ocotillo

After the seeds mature the plant dies. In 2001 conditions were right for many Agaves to bloom. I saw many dried flower stalks at elevations above 3,800 feet. *Agave lechugilla* is a smaller relative of the Century Plant and is found only in the Chihuahuan Desert. The leaves of both Agaves have sharp, brittle points. Many species of *Yucca* grow in Big Bend. The Giant Dagger, *Yucca faxoniana*, can live seventy five years and reach tree like proportions. *Yucca torreyi* may bloom at any time of year and produces edible fruit.

There are over sixty species of cactus in Big Bend. They have the ability to absorb water quickly. Their spines are modified leaves that help conserve moisture and deter animals from feeding on them. On a hike in the desert, I stopped to photograph a Blind Prickly Pear Cactus. Compared to other cacti with their formidable array of spines this cactus appears harmless. Looks can be deceiving as I was soon to learn. On this cactus tiny bristles called glochids replace the spines. Shortly after photographing this plant my hand began to sting and burn. By the time we got back to our camper I noticed two red places on my hand. A look through a magnifying glass revealed two glochids. Later I felt a stinging sensation on my stomach and discovered there were a number of glochids on my shirt and a few had come through to my stomach. I became

(continued on back page)

Lynchburg Area Members

Dorothy C. Bliss

Where Have All The Trilliums Gone?

For many years, the large-flowered Trillium, *T. Grandiflorum*, had dominated the forest floor at Thunder Ridge Overlook on the Blue Ridge Parkway. On our May 4th field trip, however, mayapple, *Podophyllum peltatum*, had replaced the Trilliums with a panorama of solid green leaves and an occasional mayapple bloom evident. In the '50's and '60's, Thunder Ridge was known for its spectacular display of Trilliums, many of the flowers of deep pink. Several clumps of yellow lady slippers that grew around some of the rocks on these slopes vanished in the 1960's. In contrast, on this misty afternoon in 2002, on a short walk north on the Appalachian Trail, only a few Trilliums are encountered. It is possible there were more of these flowers further north but even in the past their numbers along the trail never approached the display near the Thunder Ridge parking lot. It is known that mayapple plants are aggressive and I do not recommend them for home wildflower gardens unless they can be restrained so that they do not "take over", replacing a variety of our native wildflowers.

Although this change on Thunder Ridge has been occurring over several years, the almost complete elimination of a species that had been dominant for years is not easily explained. Why have these Trilliums disappeared except for an occasional lone specimen or small groups of a few plants? I do not have the answer. Loss of the American chestnut tree in the canopy occurred several years ago and since the 1950's only dead snags and fallen trunks remain. Today, black cherry, oaks and tulip poplar are common in the area. Can the lower rainfall, warmer temperatures, increased sunlight due to loss of canopy trees or some other subtle alteration of the habitat have caused the rapid development of the mayapple population and the inability of the Trilliums and yellow lady slippers

to compete? I have not visited the VNPS registry site, the Trillium Slopes at Thompson, for several years and do not know if they have undergone any major changes.

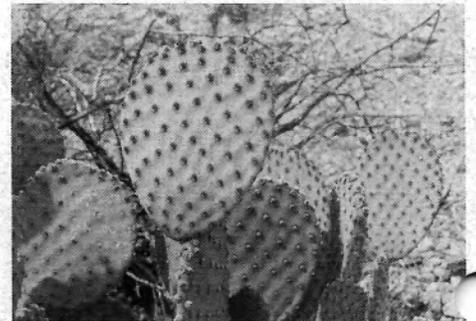
Henceforth, should the Thunder Ridge area be called the Mayapple Slopes?

The loss of the Trillium population on Thunder Ridge was not the only disaster to befall this area. The Carolina hemlock grove near the overlook was dying. Some trees were already dead, others showed significant death of branches. Underneath the needles were masses of wooly adelgids, the insect that has been destroying so many of the Canada hemlocks and the Fraser fir in our Southern Appalachians. Whether pollution, smog, acid rain or acid deposited in the soil is an important factor in weakening the hemlock trees before the onslaught of the adelgid, I do not know. Pollution, especially acid deposition in the soil, is a major factor in the loss of the spruce-fir forests in the Smoky Mountains and on Mt. Mitchell. This devastation of the Carolina hemlock population on Thunder Ridge is particularly significant since, except for one or two specimens near the James River, this is (was) the northernmost population of the Carolina hemlock.

BIG BEND'S AMAZING PLANTS

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familiar with this plant on several self-guiding nature trails. The brochures provided with these trails state that behind the name is the "belief" that the glochids blow into the eyes of browsing cattle, causing blindness. I then referred to The Peterson Field Guide of Southwest and Texas Wildflowers. It states that these glochids fly into the air when the plant is disturbed and can blind cattle that attempt to eat it. I felt slightly sick for about two days after this cactus encounter. It could have been the heat but it may have been the cactus. Flying glochids, amazing!



Blind Prickly Pear Cactus

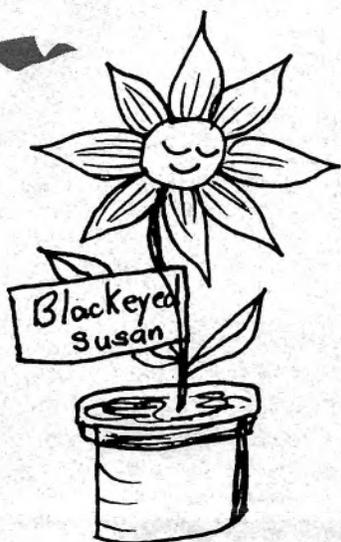
Veratrum and Melantium

Recently I was asked about the identity of a rather frequently encountered cluster of large leaves, somewhat resembling those of false hellebore, in our rich mountain woods. This is *Melanthium parviflorum*, small-flowered bunchflower, formerly classified as *Veratrum parviflorum*. The very poisonous *Veratrum viride*, false or white hellebore, is a much larger plant of swamps and low ground. Below are some distinguishing characteristics of these two species.

Flowers	Perianth segments clawless and usually glandless	Perianth segments clawed and with glands
Leaves	Strongly ribbed lengthwise, clasping the stem	Leaves oval, not deeply ribbed, petioled
Height	3' - 4'	2' - 3'
Underground structure	Plant bulbous	Plant rhizomatous
Habitat	Swamps & floodplains	Rich mountain woods
Range	Canada & Alaska, south to GA	Mountains of VA, WV, south to GA

July Field Trip

Saturday, August 17, 2:00 p.m. - Fern Trip. A new area is being explored for this annual fern foray. Details will be announced later. Dorothy Bliss, 434-845-5665.



WANTED

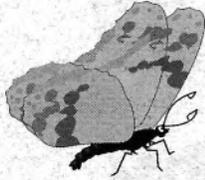
Happy, Healthy, Native Plants

**Potted and labeled
to sell at the Plant Sale,
September 21st at the
Randolph-Macon Botanic Garden
in Lynchburg**

REWARD

**Knowing you have helped the
Blue Ridge Wildflower Society,
The Randolph-Macon Botanic Garden
and encouraged the use of native
plants in the home landscape.**

*For more information call
Sandra Elder (434) 525-8433*



Discovery Center at Mill Mountain

Matt Chumbley



Time flies when you're busy and we've been busy at the Discovery Center at Mill Mountain Park. We celebrated our first anniversary just a few weeks ago. Wow! Fortunately we've had a lot of help from great people like Blue Ridge Wildflower Society members Allen and Robin Austin, A Wildlife Nursery, who were kind enough to donate some beautiful flowers/shrubs for our wildlife attracting area outside of the center and other area nurseries as well. Our Butterfly Bush plants are going strong! They also came up to educate visitors about attracting hummingbirds and butterflies to home yards. Thank you, Allen and Robin,

Consequently, we have been given our certificate of Certified Backyard Habitat by the National Wildlife Federation and their program. We hope to gain more resources to help with our goal of providing a nice habitat area for our wild and feathery friends. We will be installing our new rain barrel soon to help with watering issues and resource conservation efforts.

We've also been helped by the Roanoke Valley Birding Club who donated a nice Carl Little-style bluebird box and pole. We had a family move in within a week of it's erection!

The Discovery Center planned thirty five programs in our first year which included book signings by Erin Garvin and Sharyn McCrumb, music presentations by Curley Ennis and Wes Chappel/Jim Crawford and Crossties, and a family angling class which was very successful, along with a presentation on feeding winter birds. We reached out to our local schools and conducted a Project WET workshop for Fishburn Elementary school and a butterfly program for an area home school group.

The center was blessed to have been able to serve over 30,000 visitors it's first year! We had visitors from as far away as India and Pakistan, from South Africa and Norway, and as close as our great Roanoke Valley citizens from Roanoke, Salem, and even from "Almost Heaven", everybody knows Virginia is Heaven on Earth!

We have Great plans for our future and are looking forward to taking our piece of the Blue Ridge Mountains to the next level of customer service. We are currently working on an information kiosk to help visitors with anything from where to go to hike and observe wild flowers to where to find your local council member.

If you haven't been up for a program, please call to get a schedule or just stop by and relax and listen to the birds on our computer or better yet, on the "back porch" where you're certain to get a great view of our majestic landscapes (weather permitting of course). See you soon.

Matt is Mill Mountain Supervisor for Roanoke Parks & Recreation.

