

Blue Ridge Wildflower Society

A CHAPTER OF THE
VIRGINIA NATIVE PLANT SOCIETY

Vol. 15, No. 2

April 1998

Schedule of Events

- April 11** **New River Nature Area Field Trip.** Patrick Mikesell, Radford Univ., will lead a trip to a 400 acre site near Radford U. Meet at the Orange Market near the Hanging Rock Park & Ride at 9:30 a.m. Bring your lunch.
- April 11** **Woodpecker Ridge Nature Center Big Walk Day.** 8:00 a.m. Bird Walk, 10:00 a.m. Wildflower Walk, 1:00 p.m. Butterfly Walk. For additional information call 540-890-4984.
- April 18** **Dragon's Run Wilderness Area Field Trip.** Bob Eubank is arranging a trip to this Chesapeake Bay area. A land trust, abundant with flora and fauna, Dragon's Run is normally closed to the public. If you have signed to participate in the trip, Bob will be contacting you with details.
- April 19** **Woodpecker Ridge Nature Center** - 1:00 p.m. Garden Work Day for the WR Butterfly Chapter.
- April 24-26** **Twenty-Ninth Annual Wildflower Pilgrimage** by the Science Museum of Western Virginia. Cosponsored by the Blue Ridge Wildflower Society and the Roanoke Valley Bird Club. Dr. Dorothy C. Bliss will present "The Great Smoky Mountains: A Botanist's Paradise" Friday evening, 7:00 p.m., Hopkins Planetarium, Center in the Square. A reception will follow. For additional information or a brochure/registration form, contact the Science Museum.
- May 3** **Buffalo Creek Nature Area Field Trip.** Meet at 2:00 p.m. at the Nature Trail which is two miles east of Evington, near the Bedford-Campbell County line. This property, owned by Westvaco, is one of our VNPS Registry sites and is noted for the diversity of its flora. Bring your supper. Dot Bliss, 804-845-5665, leader.
- May 9** **Fourteenth Annual Plant Sale** at the Virginia Western Community Arboretum from 10:00 a.m. until 2:00 p.m. Members may begin purchasing at 9:00 a.m. Rain or shine!
- May 9** **Woodpecker Ridge Big Spring Day.**
- May 18** **General Membership Meeting.** 7:00 p.m., Center in the Square. Robert Wooding will be discussing Edible & Medicinal Plants. Note a change from the fourth to the third Monday in May due to the Memorial Day weekend. Also, we will have a Pot Luck at this meeting — not a covered dish but a potted plant exchange. You are invited to bring a plant to exchange with another member. Please join us whether or not you participate in the plant exchange.
- An Executive Board Meeting is scheduled for 6:00 p.m.
- May 23** **Buffalo Mountain Field Trip.** Meet at 10:00 a.m. at the Buck Mountain Overlook (Blue Ridge Parkway milepost 125). Bring your lunch. Tentative date based on projected road repairs. Call us before coming. Butch Kelly, 540-384-7429.
- June 13** **North Carolina Botanical Gardens and the Sarah P. Duke Gardens Bus Trip.** The bus has been chartered. Details are being arranged. If you wish to participate, we must know by May 16. See brief article in this Newsletter.
- Sept. 18-20** **VNPS Annual Meeting.** The Potowmack Chapter will host this year's event.

Letter From The President

by Karen Shepard

On a cold, windy day in early March the signs of spring are beginning to appear. The hint of color on the maples is evident against the gray sky, the willows are showing some green, and the Eastern Bluebirds are house hunting. Spring is just around the corner!

The next several months offer opportunities to explore new wildflower sites and revisit old favorites. Please check the calendar of events for details of upcoming field trips. Remember instead of an April general membership meeting, we cosponsor the annual wildflower pilgrimage.

As we get out into our own gardens to assess the winter damage, and look for signs of emerging plants, keep the wildflower plant sale in mind. Spring and fall plant sales are our only fundraisers. If last year is an example, we can use many more plants as we completely sold out by 11:30! We will also need volunteers to help with other details of the sale. In addition to the revenues generated, the plant sales help us accomplish the VNPS goals of appreciation and conservation of Virginia's native plants and habitats as well as encouragement of appropriate landscape use.

Due to Memorial Day, the May general meeting has been changed to May 18th. This is also the evening of our first annual POT LUCK, not a covered dish but a potted plant exchange. Come with or without a plant.

Again, I would like to thank Dr. Steve Adams for the excellent program presented during the March meeting. It was a great opportunity to learn more about Virginia's forests.

As the earth slowly warms and Mother Nature once again works her magic, let's get out and **CELEBRATE!**

Annual Spring Plant Sale

Our Fourteenth Annual Plant Sale is scheduled for Saturday, May 9, at the Community Arboretum at Virginia Western Community College. The sale is from 10:00 a.m. until 2:00 p.m. but members may begin purchasing at 9:00 a.m. (Perhaps this is the incentive some of your friends need to join BRWS.)

Now is the time to pot your plants; they need three to four weeks to become established before the sale. As you thin and divide your gardens, be thinking of what you might like to share for our sale. If you need pots or have questions, contact Rich Crites, 540-774-4518, or Paul Cowins, 804-239-4884.

All plants need to be at the Arboretum no later than 8:30 a.m. **PLEASE HAVE THEM LABELED.** Although taxonomic names are preferable, they are not necessary. Please at least have the common names.

This is an excellent opportunity to not only share what you have but also to purchase plants for yourself or for friends.

Remember, our sale takes place **rain or shine**, so don't let cloudy skies or a sprinkle deter you from attending.

Your help is needed, whether donating plants, helping with arranging and pricing prior to the sale or helping people make their selections.

Scholarships Awarded

Two students were honored at our March General Membership Meeting as recipients of our BRWS Scholarships.

Heidi Collier is the recipient of the scholarship for a student from Virginia Western Community College in the horticulture program. Heidi has a 4.0 GPA in her studies. She is working at Cindy's Greenery as she puts some of her knowledge to work.

Joe Handerhand is the recipient of the scholarship for a student from Virginia Western going into a biology field related to plants. Joe had a GPA of 3.5 and graduated last spring. He is currently taking a dendrology class as he continues his pursuit of a degree in forestry.

It is a pleasure to be able to offer these scholarships to two very deserving individuals.

Dorothy C. Bliss Keynote Speaker For Pilgrimage

We are very fortunate this year to have Dr. Dorothy C. Bliss as our speaker for the Friday evening Wildflower Pilgrimage Kickoff. Dorothy has been one of the most active members of the Blue Ridge Chapter since its inception. Seeing a need and potential for local interaction of our members living away from Roanoke, she formed and continues to guide those living in the Lynchburg area.

Dorothy Crandall Bliss was born in Westerly, Rhode Island and spent her early years on the Crandall family farms where she gained an appreciation of nature. Since 1949 she has made her home in Lynchburg, Virginia. Here she taught botany and conservation at Randolph-Macon Woman's College until her retirement in 1983. Several years of intensive research on the vegetation of the Great Smoky Mountains led to a doctorate from the University of Tennessee in 1957. Her interests in photography, travel and the natural world have taken her to Europe, Australia, the Galapagos Islands, Canada, Hawaii and Alaska. Today she shares her botanical knowledge with her many friends in her writings, her presentation of slide shows and various wildflower activities. She continues to express her love of nature in the development of her native wildflower garden and in the establishment of the Randolph-Macon Woman's College Botanic Garden.

Mary Painter to be Honored

On April 10, Arbor Day, the Piedmont Chapter of VNPS and the Foundation of the State Arboretum will formally dedicate a *Nyssa sylvatica* given in honor of Mary Painter.

In 1982 Mary founded the VNPS (then named the Virginia Wildflower Preservation Society) and served as its first president. Marie Minor, current VNPS President will officiate at the dedication which will take place at the Blandy Experimental Farm, State Arboretum of Virginia.

Permission is hereby given to reprint.
Please give credit.

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Spring Wildflowers - Pollination

Marion Lobstein

Associate Professor, Biology, NVCC

Pollination among most deciduous forest spring wildflower species is primarily accomplished by insect groups such as members of Hymenoptera (e.g. native bees including bumblebees and honey bees), Diptera (e.g. syrphid flies, carrion flies, and ground walking flies), and Thysanoptera (such as thrips), and mushroom gnats. Most of the spring-blooming species share or compete for the same pool of pollinators (primarily bee, bumblebee, and syrphid fly species). The plants compete for these pollinators by offering nectar and/or pollen rewards, using various shapes and colors, different smells, and/or staggered blooming times.

Neither bloodroot nor hepatica produce nectar but they are capable of self-pollination; cross pollination does not occur. Mayapple flowers compensate for a lack of nectar by offering a very generous pollen reward. The staggering of blooming dates is also important especially in the same genera such as *Dicentra* where *D. cucullaria* (Dutchman's breeches) begins blooming two weeks or so before *D. canadensis* (squirrel corn).

A common shape of many spring flowers is that of a disk which attracts a range of pollinators. Other species have flower shapes specialized for only a single pollinator species: Dutchman's breeches are accessible to only queen bumblebees and wild columbine are specialized for hummingbirds.

Often color is an important factor in

attracting pollinators: yellow and violet often reflect ultraviolet (UV) radiation while white and green do not. Pollination lines on petals are generally non-reflective so that they stand out between light-reflecting areas. In some species only parts of the flower structure are UV reflective such as the filaments of spring beauty, the petal tips of Dutchman's breeches and squirrel corn, and the outer side of the petals in white trout lily. Also, what we see is not always what a bee sees. "Bee colors" are based on different combinations of yellow, blue-green, blue and UV. "Bee violet" is 50% UV and 50% blue light. In yellow flowers with UV reflection, the UV often dominates so that bees see pure UV. Colors of flower parts are determined by the presence of chlorophylls, carotenoids, xanthophylls, flavonoids, and anthocyanins in flower tissue. Bright UV patterns may be due to presence of one or more of these pigments.

In most white-flowered spring-blooming species, the petals contain flavonoids that absorb UV which may play a role in altering the flowers' appearance to attract pollinators. Different distribution of flavonoids may serve as nectar lines as well as protecting the flowers against UV radiation and herbivory. These factors are especially important in attracting bee and fly pollinators, since many of these plant species have generalized shapes and share pollinators. The flavonoids of

bloodroot, mayapple, spring beauty, Dutchman's breeches, squirrel corn spp, hepatica, (as well as dogwood spp, chickweed spp, Canada violet, and blue cohosh) are all similar. The flavonoids of large-flowered trillium and apple species are different. The white color may also result in the flowers standing out against a neutral or reflective background.

One point that should be emphasized regarding the sharing of pollinators by so many species is that most individual insects are constant foragers. One researcher followed 109 foraging trips by bee species and found that with each insect 81% of its trips was to a single flower species. Smell may also play a role in attracting pollinators. Many of the species that are pollinated by bees have a sweet odor such as hepatica, twinleaf, toothwort, and squirrel corn. Other species have a musty or even carrion smell such as skunk cabbage, Jack-in-the-pulpit, wild ginger, and sessile trillium that attracts a different group of pollinators.

Temperature is another important factor in spring pollination. Only bumblebees can fly at 42 degrees F while most other hymenopterans require a temperature well above 51 degrees F. Fly species often become active at 56 degrees. This creates a delicate balance that must be struck by the earliest spring bloomers.

From March-April, 1998, *Wild News*
Prince William Wildflower Society

Events of Interest

April 23-25 Great Smoky Mountains National Park 48th Annual Spring Wildflower Pilgrimage. For more information, call 423-436-1290.

May 8-10 Wintergreen Nature Foundation's 15th Annual Spring Wildflower Symposium. Highlights of this event are in the March 1998 *Bulletin*. For more information, call 804-325-8172 or write P. O. Box 468, Wintergreen, VA 22958.

May 16-17 Shenandoah National Park's 12th Annual Wildflower Weekend. Contact Mara Meisel, 540-999-3282.

Registry Visit Planned

by Sandra Elder

If you would like to visit the Rosebay Rhododendron Registry Site in Altavista please let me know. Our visit must be during the week when Ross Laboratories is open. Since the average date of bloom is around Father's Day, we plan our visit sometime around that date. Call me at 804-525-8433 if you are interested.

Lynchburg Area Members

by Dorothy C. Bliss

Spring is several weeks away but lawns and gardens are already colorful with daffodils, crocuses, forsythia, Japanese flowering quince and several other shrubs, all introduced or exotic. Many weedy alien species are already in full bloom and some have mature seed pods. Most are too aggressive to be welcome in our yards. Among these invasives are the ubiquitous bitter cress, *Cardamine hirsuta*, the extensively creeping gill-over-the-ground, *Glechoma hederacea*, the purple dead nettle, *Lamium purpureum*, and henbit, *Lamium amplexicaule*. The latter two with their many small lavender flowers may form an attractive carpet; attractive, that is, if they didn't take over our lawns and flower bed. This year I am considering letting these flowers remain in some areas in my yard. Actually, further north, purple dead nettle is used as a ground cover by many landscapers. All of these weedy species are naturalized from Europe.

But what of our native flora? The catkins of pussy willow, *Salix discolor*, are well-developed and red maples, *Acer rubrum*, dot the roadsides and woods with their red blooms.

On a leisurely walk in the Randolph-Macon Woman's College Botanic

Garden in early March, I was greeted by a few blooms of Greek Valerian, *Polemonium reptans*, both the blue and white forms. One bloodroot, *Sanguinaria canadensis*, was in full bloom but most of the flower buds, tightly enveloped by a dark purplish-green leaf, were just poking through the mulch. The acrid red-orange juice in the rhizome has had many medicinal uses in the past, among these as an astringent, a cure for ulcers, cancer, ringworm, etc. In addition, the Algonquin Indians stained their faces with the dye obtained from these rhizomes. Today the sap is considered toxic and should not be taken internally. In Virginia, bloodroot is common in upland woods being found in nearly every county but in some states it is endangered or threatened.

Several flowers of liverleaf or Hepatica, *H. americana*, were nearly out but a few days later the wind had whipped off the bluish petal-like sepals exposing the conspicuous bracts. Early European physicians used a close relative, *H. mobilis*, as a remedy for disorders of the liver. This was a classic example of the theory of the Doctrine of Signatures in which it was believed that the appearance of a plant signified its use. Since the 3-lobed leaf resembled

the human liver, it was thought to have curative value for diseases of the liver. Early American settlers used *H. americana* to relieve irritations of coughs and sore throats but the use of this plant medicinally has fallen into disuse.

The greatest surprise to me in the garden were the white racemes of leatherleaf, *Chamaedaphne calyculata* var. *angustifolia*. The one-sided clusters of small white urn-shaped flowers were already past full bloom. I estimated that these bell-like blossoms must have opened in February. This low, much branched shrub, a member of the heath family, is not known from Virginia but occurs from Newfoundland to Alaska and south to the mountains of Georgia.

Even a few flowers of the naturalized ox-eye daisy, *Chrysanthemum leucanthemum*, were in evidence several months ahead of their usual date. This introduction from Europe to North America is disliked by farmers because it can produce an unwanted flavor in milk when eaten by cattle.

These first blooms are just a glimpse of the discoveries that await us as we explore our woods and fields during the coming months. Come join us on our spring and summer walks.

N. C. Botanical Gardens & Sarah P. Duke Gardens Bus Trip

We've planned a bus trip June 13 to the North Carolina Botanical Gardens at Chapel Hill and the Sarah P. Duke Gardens in Durham. Our agenda has not been completed at this time but we will get details to you prior to the trip.

The Blue Ridge Chapter will be absorbing most of the cost for this trip. The fee for our members is \$15 per person. Registration is open until May 16 and limited to the first 40 people responding.

We must have payment by that date. Make checks payable to Blue Ridge Wildflower Society and mail to Pam Wieringo, 2740 Derwent Dr. SW., Roanoke, VA., 24015.

Rich Crites is handling the details. If you need more information at this time, please contact him at 540-774-4518. To make reservations, contact either Rich or Pam Wieringo, 540-343-8596.

Wildflower Pilgrimage Kickoff

Speaker: Dr. Dorothy C. Bliss

Program:

*The Great Smoky Mountains:
A Botanist's Paradise*

Time: 7:00 P.M.

Date: April 24, 1998

Place: Hopkins Planetarium,
Center in the Square