

THE WILD NEWS

Number 98-02

March-April, 1998

March Meeting

The next general membership meeting will be Monday, March 16, 1998 at 7:30 p.m. at Bethel Lutheran Church and will feature a program by Carol Pollio, Resource Manager, Prince William Forest Park, on "Plants, Plant Communities, and Resource Management Efforts at the Park." In addition, the Chapter will hold a book sale to liquidate the current collection of library books. Please plan to stay for the business meeting to hear about exciting spring activities. For further information call President Helen Walter at 703-330-9614.

New Wildflower Video

A new video entitled *Spring Wildflowers of the Mid-Atlantic Region* is now available. Our own Botany Chair Marion Lobstein, Associate Professor of Biology, NVCC-Manassas Campus, and Adjunct Faculty, Bland Experimental Farm (UVa Field Station), co-authored it along with John Demary, Teacher and Naturalist in Residence, Smithsonian Naturalist Center, Leesburg; and Suzanne Lohr, Biology and Chemistry Teacher, Loudoun Valley High School, Purcellville. One hundred species of spring wildflowers are covered in this video which includes information on identification as well as medicinal and edible uses, life cycles, conservation, and plants to be avoided. Videos can be purchased by mail for \$23.85 (\$19.95 + \$3.00 shipping + \$.90 VA. sales tax)

from Botanical Views, LLC, PO Box 2756, Purcellville, VA 20134 OR buy a copy from Marion at the March meeting and receive a 10% member discount. Marion will provide refunds to anyone who has already purchased a copy at full price. Call Marion at 703-536-7150 for more information.

Upcoming PWWS Meetings

The next PWWS Board Meeting is scheduled for Monday, April 20, 1998 at 7:30 p.m. at Bethel Lutheran Church. All members are welcome to attend.

Mark your calendar for Monday, May 18, 1998 for the next general membership program meeting.



From the President -
Helen Walter

This is shaping up to be the biggest spring PWWS has ever had. As usual, our annual garden tour will be the last weekend in April, with several new gardens in the east end of the county, and our plant sale will be at its usual time and place on the Saturday before Mothers' Day. Do I need to mention that we need all the help that you can give us to make them a success?

As mentioned in the Nearby Nature enclosure, Nicky Staunton is leading three wildflower walks this spring, at the Battlefield, the Thompson, and the Conway. The Nearby Nature workshops are something totally new for us, featuring a variety of subjects, instructors, and locations. This is a great chance to expand our knowledge of natural history and have fun doing it. We also need volunteers to represent PWWS by introducing and assisting the instructors at each of the workshops. I had a preview of "Mushrooms and Other Fungi" when David Farr did a program for the Prince William Natural Resources Council that covered the subject from chanterelles to the awesome stuff you can grow on a chicken leg if you leave it out on the counter long enough. We also have a program on Prince William Forest at our membership meeting March 16. 'See everybody then.

The Piedmont Chapter is hosting the dedication of a tree for Mary Painter [founder of VNPS] at 11:00 a.m. on Good Friday, April 10 and has invited our chapter to attend. Carrie Blair is organizing this, so if you are interested and want further information, call her at 540-364-1232.

-Helen

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Editor: Nancy Vehrs, 703-368-2898

Deadline for the May-June issue is May 1, 1998. Mail information to Nancy Vehrs at 8318 Highland St., Manassas, VA 20110-3671.

Garden Tours

This year's Spring Garden Tours will be south of Manassas and will feature two new gardens as well as one from a previous tour. Phyllis and Billy Teel's five acre garden, featured in 1992, will again be on tour. Mary Lou Chiarito's garden in Woodbridge, and Judy Jones' garden in Woodbine Woods are newly featured this year. Tour dates are Saturday, April 25, 11 a.m. - 5 p.m., Sunday, April 26, 12 noon - 5 p.m.; tour brochures will be mailed to members in April. Tours are free to the public because they serve an educational function and provide a preview for plants available at the annual plant sale.

Volunteers are needed to provide refreshments and serve as hosts. For more information, call Helen Walter at 703-330-9614.

Green Spring Garden Day Plant Sale

Spring plants from the Friends of Green Spring (FROGS), the Virginia Native Plant Society, specialty nurseries, plant societies, and other vendors will offer plants at the annual Green Spring Garden Day Plant Sale on Saturday, May 16 from 10 a.m. - 3 p.m. at Green Spring Gardens Park, 4603 Green Spring Road, Alexandria. For more information, call the special projects coordinator at 703-642-5173.

PWWS Plant Sale May 9

The 16th Annual Wildflower Plant sale will take place Saturday, May 9, 1998 from 9 a.m. - 12 noon in the parking lot of Bethel Lutheran Church, Plantation Lane and Sudley Road. This event serves as the major fundraiser for our Chapter. Please consider contributing plants to the sale when you divide your wildflowers this spring. Bring labeled and priced plants to the church by 7:30 a.m. the morning of the sale. Plant labels will be available at the March meeting or from Nancy Vehrs, 703-368-2898. For horticultural or pricing guidance, or to volunteer to pot plants or assist at the sale, please call Nancy Arrington at 703-368-8431 or Marie Davis at 703-361-1626.



Nearby Nature Workshops

Look inside this issue for a brochure for the "Nearby Nature" series of workshops this spring. Space is limited for these outstanding seminars so please sign up early. Volunteers are needed to assist with the workshops; please call Kim Hosen, PWWS Education Chair, at 703-491-8406 for details.

30th Annual Bluebell Walk

Bull Run Regional Park in Centreville will celebrate its 30th Annual Bluebell Walk at 2 p.m. on Sunday, April 19. Meet at the pool parking lot. The walk is free, but there is a \$4 per car admission charge to the Park for non-residents. Call 703-528-5406 for further information.

US Botanic Garden Open House

The U.S. Botanic Garden will hold an Open House of its Production Facility on Saturday, March 21. This growing facility in Anacostia is the largest greenhouse complex supporting a public garden in the United States. Call 202-226-4082 for further information and to register for a \$3 tour. If demand warrants, staff may hold another open house in the fall.

Wildlife Art and Photography Show

The Fairfax County Park Authority is sponsoring its 23rd annual Wildlife Art and Photography Show on Saturday and Sunday, March 7 and 8, from 10 a.m. to 5:00 p.m. at Lee District Park, 6601 Telegraph Road in Alexandria. Cost is \$4 for adults and \$1 for children over 2. Over 75 wildlife artists will exhibit and sell their works at this two-day event which also features live animal presentations, children's art activities, the Wildlife Awareness Hall of Environmental

Organizations and special exhibits. Call Michael McDonnell at 703-941-1065 for more information.

Ecological Lawn Care Workshops

Learn how to have a great looking lawn and landscape while protecting water quality by attending free Saturday morning seminars presented by the Virginia Cooperative Extension, Prince William Unit, 703-792-6285. The following seminars will be held at the Montclair Property Owners Association (MPOA), 3561 Waterway Drive in Montclair, or Ben Lomond Community Center (BLCC), 10501 Copeland Drive in Manassas:

Spring green up, mowing and pruning:
March 21 (MPOA)/March 28 (BLCC)
Backyard composting and landscape design:
April 18 (MPOA)/April 25 (BLCC)
Integrated pest management:
May 9 (MPOA)/May 16 (BLCC)
Plant to avoid problems and watering:
June 13 (MPOA)/June 20 (BLCC)

More on Lawns/Conservation

Thanks to Gina Yurkonis, Conservation Chair, for sharing the following statistics provided by the EPA at a conference she recently attended on *Creating and Marketing Natural Landscapes* at the Morris Arboretum in Philadelphia:

- 50 million acres are in turf grass in the U.S. - 20 million are residential lawns

(3 times the size of Maryland!).

- 30% of water consumed on the east coast goes to watering lawns.
- 18% of municipal solid waste collected is organic yard waste - 31 million tons per year. (Imagine the compost pile THAT could make!)
- Over 70 million pounds of chemical pesticides are applied to U.S. lawns each year - 10 times that of farmland per acre.
- 50% of homeowners don't read pesticide warning labels before use. Do you?
- Of the most commonly used lawn pesticides, 13 can cause cancer, 14 can cause birth defects, 11 can interfere with reproduction, and 21 can damage the nervous system.
- Per hour of operation, a lawnmower emits 10-20 times as much hydrocarbon as an automobile, a string trimmer 21 times, and leaf blower 34 times!
- Kudzu now covers more than 7 million acres in the U.S.
- It costs an average of \$700 per acre per year to maintain a lawn; a wildflower meadow costs \$30!

Gina also noted that the EPA has a new booklet entitled *A Gardener's Guide to a Healthier Environment* which discusses preventing pollution, planting for wildlife, pest repellent plants, natives, and invasives. For a copy write to US-EPA Region III, 841 Chestnut Bldg., Philadelphia, PA 19107-4431.

PW Natural Resources Council News

The Prince William Natural Resources Council will be sponsoring a morning shoreline cleanup on Saturday, April 4 from 9:00 a.m. until 12 noon as part of the annual Potomac Watershed Cleanup. For further information or to volunteer, please call Sue Coulson at 703-846-1538 or 703-494-3455.

The next monthly wildlife survey of the Woodbridge Refuge is scheduled for 7:30 a.m. on Wednesday, March 25. Call Jim Waggener at 703-497-0506 for information or reservations.

The Northern Virginia Community College's Dr. Walt Bulmer will present a free program on local mammals on Thursday, March 26 at 7:30 p.m. at the McCoart Building. Call Jim Waggener at 703-497-0506 for more information.

Internet Web Sites of Interest

Marion Lobstein has her own homepage on the Web! Check it out at www.mnsinc.com/mblobst/.

Education Chair Kim Hosen has reported finding an Internet site of interest to PWS members: <http://washington.sidewalk.com>. This site provides information about local events and topics such as parks (click on Sports and

Recreation), as well as categories such as arts and music, restaurants, and places to go.

Prince William County offers information on Parks, Recreation, Sports and Entertainment on its web site:
www.co.prince-william.va.us.

The Fairfax County Park Authority lists its events on the County's home page:
www.co.fairfax.va.us. Click on "Leisure" with the tree icon.

(NOTE: If you know of other web sites of particular interest, please bring them to the attention of the editor.)

Fairfax Audubon Society Program



The next meeting of the Fairfax Audubon Society (FAS) will take place at 8:00 p.m. on Tuesday, March 17 at the National

Wildlife Federation in Vienna. It will feature a program by journalist, editor, and conservation writer Pat Durkin entitled *50 Ways to Reconnect with the Natural World Around You*. She will share photographs of the butterflies she attracts to her downtown home, along with the many lovely native wildflowers that provide butterfly habitat. FAS meetings are free and open to the public. For more information, call FAS President Paul Zeph at 703-242-2632.

Brochures Available

Propagation Chair Nancy Arrington has recently updated and reprinted two popular brochures: *Wildflowers for Butterfly Gardens* and *Wildflowers for Woodland Gardens*. They will be available at the plant sale on May 9 or you can call Nancy at 703-368-8431 for copies.

State Arboretum's Native Plant Trail

Spring work days on the State Arboretum's native plant trail are planned for Saturday, April 18, and Saturday, May 23 from 9 a.m. until 2 p.m. With construction in the woodland section now complete, more extensive planting of trees, shrubs, grasses, ferns, and perennials is planned, as well as needed maintenance. PWWS members are cordially invited to help for any part of either day. Tools will be available, or you can bring your own favorites, and beverages will be provided. On April 18, bring your own lunch; on May 23 a simple picnic lunch will be served. The Arboretum is about 10 miles east of ("before") Winchester, on Route 50.

In addition, a new, expanded plant list is ready for anyone who is interested in contributing plants for this project. To obtain a copy, or for more information about the work days, please contact Mary Pockman at 703-356-7425, 7301 Hooking Rd., McLean, VA 22101, e-mail pockman@alumni.princeton.edu.

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 tip 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 with-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 hymenoptera 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.

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A Chapter of the Virginia Native Plant Society
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exp. 10/98

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Please send address changes to PWWS, Attn. Membership Chair.

☞ March Meeting: Monday, March 16, 1998, Bethel Lutheran Church, Manassas