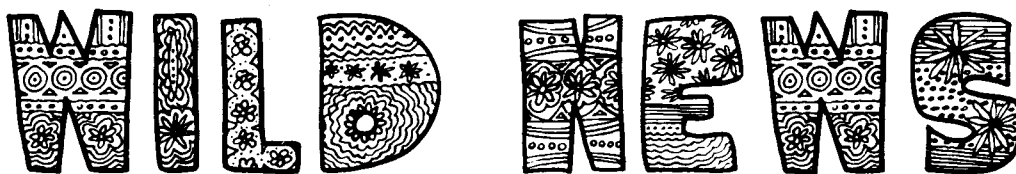


JAN.-FEB. 1991



PRINCE WILLIAM WILDFLOWER SOCIETY, A Chapter of the Virginia Native Plant Society

## JANUARY MEETING

### MEMBERS' SLIDE PROGRAM

**Monday, January 21, 1991, 7:30 p.m.**

**Bethel Lutheran Church, Sudley Rd. & Plantation Ln., Manassas**

Again this year our January meeting will feature trips to places near and far via members' slides. Marion Lobstein will show slides of a trip to Acadia National Park, Maine, and to the Bay of Fundry in New Brunswick and Nova Scotia. Then we'll travel south for a look at the Florida Everglades with Marion. Nicky Staunton will take us on a search for wildflowers and butterflies through North Carolina, South Carolina, Georgia and Florida and back home for some choice spots in local parks. Other members who have slides to share are encouraged to bring them.

### Native Plant Symposium

"Native Plants: Tradition and Innovation in American Landscape Design" will be presented at the U.S. National Arboretum, Saturday March 9, 1991, 9:00 a.m.-4:00 p.m. Four outstanding speakers will present lectures and slides on the use of natives in landscape design: Bill Brumback, plant propagator at the New England Wild Flower Society's Garden in the Woods; Tom Buchter, Deputy Director of the Garden Department at Winterthur Gardens; Leslie Sauer, of Andropogon Associates, one the the most innovative and ecologically oriented landscape architecture firms in the country; and Cole Burrell, former curator of Fern Valley and now a landscape designer in Minneapolis. These speakers will discuss the new and exciting trend toward ecological gardening and habitat restoration, and will take a fresh look at the role of native plants in traditional garden settings.

For more information or a brochure and application, write to the Arboretum at 3501 New York Ave., NE, Washington, D.C. 20002 or call the education office, 202-475-4657.

### February Board Meeting

The February board meeting will be held on the third Monday, February 18, at 7:30 p.m., Bethel Lutheran Church, Manassas.

### NEXT MEETING

Our March membership meeting will be on the usual third Monday, March 18, 7:30 p.m. at Bethel Lutheran Church.

### ● DUES ARE DUE

A red dot on your address label means your membership has expired and this will be your last newsletter unless you renew. Please use the enclosed membership application — we want you to stay with us! Call Marie Davis, membership chair, 361-1626, if you have any questions about your membership.

## VNPS Winter Workshop

Mark your calendar for this year's VNPS Winter Workshop to be held March 16 in Richmond. Details will be sent to members in a special mailing. Call PWWS President Claudia Deahl, 754-9235, for car-pooling.

## Evergreen Seedlings Available

Prince William Soil and Water Conservation District is offering White Pine, Scotch Pine, and Norway Spruce seedlings again this year. Seedlings are 20c each and must be ordered in minimum quantities of 25 of each species. Pre-ordered seedlings can be picked up at Marsteller Middle school or Coles Elementary School, March 16, 9 a.m. till 12 noon. To pre-order or for more information, call 361-1710.

## Trip To Bruce Peninsular

Though the registration deadline has passed space may still be available for a trip to the Bruce Peninsular, Ontario, June 14-23. The area is unusually rich in native species including many orchids. For information, contact Ted Scott, 12493 Spice-wood Rd., Orange, VA 22960, (703) 672-3814.

## Master Gardener Course

Day-time and night-time Master Gardener programs will be offered in Prince William County this winter and spring. The day class will be held at Bethel Lutheran Church, 8712 Plantation Ln., Manassas, Mondays and Wednesdays, noon to 3 p.m. beginning February 20 and running through April 24. The evening class will meet on the same days from 7:00 to 10:00 p.m. at Gar-Field Senior High School, 14000 Smoketown Rd. For more information and an application form, call the Prince William Extension Service, 335-6185.

## WILD NEWS

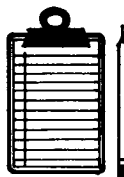
is published six times a year by Prince William Wild-flower Society, a Chapter of the Virginia Native Plant Society, P.O. Box 83, Manassas, VA 22110. Permission is given to use material with credit to source.

President, Claudia Thompson-Deahl, 754-9235

Editor, Nancy Arrington, 368-8431

Artist, Nicky Staunton, 368-9803

Deadline for the Mar.-Apr. issue is March 1, 1991.



## FROM THE PRESIDENT

CLAUDIA THOMPSON-DEAHL

It's a winter wonderland outside today and we've had a great chance to build a snowman and take snowhikes to view one of mother nature's best handiworks. Nothing looks quite so beautiful as freshly fallen snow on the tree bark, ice on the grasses or bird footprints in the snow. It always amazes me to listen to the news and hear everyone so horrified at the "threat" of snow -- as if it were toxic fallout. The only way to appreciate winter is to get out and enjoy it. Take a hike!

Speaking of hiking, it was on a rainy Saturday that Nicky Staunton and I met our community forester, Keith Hawkins, and Andy Hite from the Potomac Appalachian Trail Club at Conway Robinson Memorial Forest near Gainesville. We were there at Andy's and Keith's request to discuss how we can mutually benefit from each other's interest in this state forest. While there we gathered information about a possible sewer line through the forest and we are awaiting news about that. Also, there is a possibility of assisting with plantings or signs marking the trails. I will keep you updated about this as I learn more about these requests. In spite of the pouring rain, it was a productive day as we saw 12 wild turkeys, 2 groups of deer, a barred owl, and numerous interesting seed pods.

At this time of year we get so many plant and seed catalogs in the mail to entice us with thoughts of spring planting and seed starting. Remember to look closely and shop with conservation in mind. Some wildflowers such as trilliums, pink and yellow lady's-slippers have not been nursery propagated but have been wild collected. Don't be afraid to ask companies about their sources before you order. VNPS publishes a list of nurseries that propagate their plants and you can get a copy from Nancy Arrington by sending her a self-addressed, stamped envelope: P.O. Box 462, Manassas, VA 22110.

I am looking forward to seeing everyone again at our January 21st meeting. It will be a good one -- see you then.

## By-Laws Update

A committee is being formed to up-date our chapter by-laws. If you can help, please call Claudia Deahl, 754-9235, or Nancy Arrington, 368-8431.

# Ecological Factors Affecting Spring Wildflower Development & Flowering

MARION BLOIS LOBSTEIN  
Associate Professor, Biology, NVCC

This time of year wildflower enthusiasts are waiting for the beauty of the burst of activity of spring wildflowers in the deciduous woods. What are some of the ecological factors that affect the development and flowering of this special group of plants?

The deciduous forest spring wildflowers have a number of environmental challenges with which to cope by the end of winter. The temperature of both air and bare ground is below freezing much of the time in January and February. However, leaf litter as well as snow on the forest floor can maintain a temperature of 34 degrees F. even if the air temperature is as cold as 10 degrees. There is continued underground shoot development of many of these spring species in their rhizomes, corms, and bulbs. Many species such as *Erythronium* (trout lily) and *Dicentra* (Dutchman's breeches and squirrel corn) will not initiate growth unless exposed to a minimum cold treatment. This prevents their initiating growth in fall or early winter after a warm period. Other species such as *Claytonia* (spring beauty) do not require such cold exposure and may initiate growth in the fall.

The role of temperature in initiating growth in the early spring is a complex interaction of soil and air temperatures. Soil temperature is the more critical factor for initiating shoot growth (by stimulating rhizome development) while air temperature is more critical in controlling vegetative growth and flowering. Soil temperatures begin to rise quickly in early spring as snow melts. A temperature rise to 49-50 degrees F. can take place in only three days after snowmelt. Soil warming may not be as dramatic if there is no snowcover but it also may be significant. Air temperature in early spring may vary in one day from 32 to 77 degrees F. Most insect pollinators do not become active until temperature reaches 55 degrees. Bumblebees are an exception and become active at 41 degrees.

The overhead tree canopy begins developing in mid-April and completed by early May. In March 55% of the light is available, by mid-April it is 32% and it drops to 10% by early May. The filling in of the canopy not only affects the light intensity that reaches the forest floor but also the amount of moisture that reaches the ground. Moisture availability is another critical factor in considering the ecology of spring wildflowers and their seedlings.

In addition to the role of average soil and air tem-

peratures for an area of deciduous forest, micro-climate factors such as precipitation, soil moisture, relative humidity, evaporation, wind, orientation of slopes, altitude, soil temperature at various depths, nutrient variation, etc., are all important factors playing a role in controlling shoot development and flowering. For example, the threshold temperature or summation of air temperature is 40 degrees F. for spring beauty and wild bleeding heart, but 50 degrees for Dutchman's breeches and is slightly higher for squirrel corn. In the same general area for the same species there can be a two to three day delay of development on north facing slopes compared to south facing ones.

It is during the narrow time window from March or early April until early May that a balance must be accomplished by these species – enough warmth to begin and continue above ground development, enough light and moisture to sustain photosynthetic activity so that energy may be locked in underground storage structures for the next year's development, yet still enough warmth that insect pollinators can be active.

The ecological factors affecting spring wildflower development and flowering are complex but interesting to consider. Underground storage structure, pollination, and fruit and seed dispersal are other factors in the total life cycles of these special plants that will be considered in future articles. These plants have special fascination throughout all stages of their life cycles.

(I have compiled a bibliography of articles in scientific journals on spring wildflower life cycles and will be happy to send a copy to anyone who sends me a stamped, self-addressed long envelope: Marion Lobstein, 1815 N. Roosevelt St., Arlington, VA 22205.)

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## Gardening Seminars

Merrifield Garden Center is offering the following free seminars: "Create An Environment For Birds", Jan. 26, 10 a.m.; "Trees, An Environmental Asset", Feb. 16, 10 a.m.; and "Environmentally Sound Gardening" at 11 a.m. on the 16th. Call Merrifield, 560-6222, to register or for a complete list of programs.

## NATIVES FOR THE GARDEN

NANCY ARRINGTON  
Propagation Chairman



### Vernal Witch Hazel

*Hamamelis vernalis*

Our two native American witch hazels have the distinction of being the gardening year's first and last shrubs to bloom. Common witch hazel (*Hamamelis virginiana*) blooms in November after most trees and shrubs have lost their leaves, and vernal witch hazel (*vernalis* means "of spring") opens its fragrant yellow flowers on bare branches in February or March.

Vernal witch hazel grows along gravelly, often inundated, stream banks in the southern Mississippi valley but is hardy at least to zone 6. In the garden it performs best in rich moist soil with full sun; however, it is very adaptable and will thrive in heavy wet clay soil or in a dry infertile spot. It blooms in high open shade or with just a few hours of sun though it blooms better with more sun.

This dense multi-stemmed native grows 6-10' tall with an equal or greater spread. The 2-5" long alternate oval leaves are medium to dark green changing to an attractive golden yellow in fall. Small clusters of spidery flowers consist of four ½" long ribbon-like yellow petals attached to a calyx cup which is usually reddish-brown. However, some plants have solid yellow flowers and some have solid red ones. Petals ex-

tend or open on warm sunny days and curl up on very cold days to avoid freezing, an adaptive mechanism that extends the flowers' effectiveness for 3-4 weeks. Seed capsules, each containing two shiny black seeds, mature the following fall.

Take advantage of this witch hazel's early fragrant flowers by locating it near a house entrance or a main walkway, or where it can be seen from inside. A completely different landscaping approach suggests locating it some distance from the house where it will entice the gardener and others outdoors for a winter walk. Shrubs that bloom on bare stems are more effective with an evergreen background or when placed against a wall or fence. Witch hazels exhibit a special warm glow when sidelit or backlit by the afternoon winter sun.

For an attractive winter or early spring garden, surround vernal witch hazel with native evergreen ground covers such as our native pachysandra (*P. procumbens*), wild stonecrop (*Sedum ternatum*), winterberry (*Gaultheria procumbens*) and partridgeberry (*Mitchella repens*). For blossoms add hepatica (*H. americana*), spring beauty (*Claytonia virginica*), early spring bulbs and hellebores.

Seed can be sown in an outdoor seed bed but requires a double dormancy and may take two years to germinate. Cuttings taken in June root readily. The species is available from Woodlanders, 1128 Colleton Ave., Aiken, SC 29801 (Cat. \$1.) and several cultivars including 'Christmas Cheer', 'Red Imp' and 'Sandra' are available from Gossler Farms Nursery, 1200 Weaver Rd., Springfield, OR 97478 (Cat. \$2.)

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### WITCH HAZEL

*Hamamelis virginiana*

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