



LIBRARY
NEW YORK
BOTANICAL
GARDEN

APR 19 1993

Bulletin

A publication of the **VIRGINIA NATIVE PLANT SOCIETY**
Conserving wild flowers and wild places

Society Registers Piedmont Wetlands

Through determined efforts of Piedmont Chapter, this past December, the Board of Supervisors of Fauquier County voted to accept VNPS Registry designation for a county-owned wetlands near Marshall, Virginia.

Known as Carters Run, this rich wetland area extends over 245 acres. In some parts, swampy expanses persist year around. Among the more interesting and unusual species found there are rough avens, *Geum laciniatum*, which is ranked S2 (state, rare) by the Virginia Natural Heritage Program; purple fringeless orchid, *Habenaria peramoena*, a beautiful plant infrequent in the region; green fringed orchid, *H. viridis*, also infrequent in the area; and cursed crowfoot, *Ranunculus scleratus*, an interesting buttercup which was first recorded in Fauquier County in this wetland. A remarkable expanse of green dragon, *Arisaema dracontium*, an unusual wooded wetlands species related to Jack-in-the-pulpit, also occurs there.

Rich and diverse wetlands, such as Carters Run, are becoming extremely scarce in this region of the Piedmont. As they vanish, the ecosystems which support numerous wonderful plant and wildlife communities are also being lost. Many areas have been permanently ruined or altered by development or agricultural practices.

VNPS Registry of Carters Run has already created a new awareness in the community of the existence of a valuable county-owned natural area, the responsibility for its stewardship, and the exceptional educational potential of the site.

Jocelyn Arundel Sladen
Piedmont Chapter

Endangered Plant List Proposed to Grow

The Virginia Department of Agriculture and Consumer Services (VDACS), which administers Virginia's Endangered Plant and Insect Species Act, has begun the process of revising the threatened and endangered species list. Under the draft regulation, seven new plant species will be protected: Addison's leatherflower (*Clematis addisonii*), Leo's clover (*Trifolium calcaricum*), Millboro leatherflower (*Clematis viticaulis*), sensitive joint-vetch (*Aeschynomene virginica*), small-anthered bittercress (*Cardamine micranthera*), smooth coneflower (*Echinacea laevigata*), and sun-facing coneflower (*Rudbeckia heliopsidis*). In addition, round-leaf birch (*Betula uber*), will be changed from endangered to threatened while mat-forming water hyssop (*Bacopa stragula*) will be removed from the list because it is no

longer recognized as distinct from the more common tropical water hyssop (*Bacopa inominata*). Further, VDACS is proposing to put two insects on the list of threatened species, a first for the state.

The Virginia Native Plant Society has joined numerous individuals, groups and agencies in supporting the addition of these species, plus an additional plant, prairie white fringed orchid (*Habenaria leucophaea*), to the threatened and endangered plant list. The Society has further recommended against changing the status of round-leaf birch. VDACS Board will consider these recommendations and formally propose a regulation in May. After a public comment period, the Board is expected to vote on the regulation in the fall.

Chris Clampitt

Virginia Division of Natural Heritage

Tax Check-off Helps Save Virginia's Natural Heritage

Virginians can help preserve the state's threatened natural heritage by contributing to the Open Space Recreation and Conservation Fund. It's easy to do. Any individual eligible to receive a Virginia Income Tax refund may designate all or a portion of that refund for the Open Space Recreation and Conservation Fund. The contribution can be entered on the bottom of the state income tax form. The value of the gift may be taken as a deduction on next year's Federal Income Tax return.

The Department of Conservation and Recreation has dedicated seventy-five percent of the fund for acquisition and management of Natural Area Preserves -- habitat for rare species and unique or exemplary natural communities. The remaining twenty-five percent is awarded, as grants, to Virginia localities for open space protection and outdoor recreation.

Direct donations to the fund can be made by sending checks (made out to the Open Space Recreation and Conservation Fund) to the Department of Conservation and Recreation, P.O. Box 721, Richmond, VA 23206-0721.

Inside This Issue

INSERT
**Virginia Wildflower
of the Year 1993
Brochure**

PAGE 5
**Virginia Wildflower
Celebration 1993
Calendar of Events**

FROM THE PRESIDENT

The regional nature of our nine chapters is the strength of the Virginia Native Plant Society. The diversity which results from ideas generated across the state is what drives our Society's "program."

Interest in native plants, wildflowers and habitat protection is paramount with each chapter. Thus, you read in "The Leaflet" from Piedmont Chapter about hedgerows; in "Wild News" from Prince William Wildflower Society about the invasive plant, *Polygonum perfoliatum*, in Reston and the fear it will soon invade closer to home; in correspondence from South Hampton Roads Chapter how it is aggressively promoting highway beautification projects which use native wildflowers ... All our chapters have their special concerns and projects.

The energies which put actions to thoughts come from the variety of our members' backgrounds. Each chapter has professional "plant people" ... educators, nursery personnel, botanists, landscape architects, etc. We have members in the Division of Natural Heritage, in the Parks and Forest Services, and in other public natural resource agencies. Add a generous portion of people who simply enjoy gardening and all who appreciate nature's bountiful splendor ... the birders, the wildlife watchers, the habitat protectors. That's our Society.

My point is that the "program" or action of VNPS originates from a suggestion from a member in a chapter, or a member-at-large (no chapter affiliation), or a non-member, but a friend of our interests.

The members of the VNPS Board are now looking to set some goals for VNPS for the "near range," the next three years. In behalf of the entire Board, I am asking that you tell a member of your chapter's Board your ideas for the Society. The last planning group discussed many good ideas and resulted in in the Virginia Wildflower of the Year program, our Virginia Site Registry, a paid editor of our *Bulletin*, and designation of the Virginia Wildflower Celebration, which we are about to enjoy again.

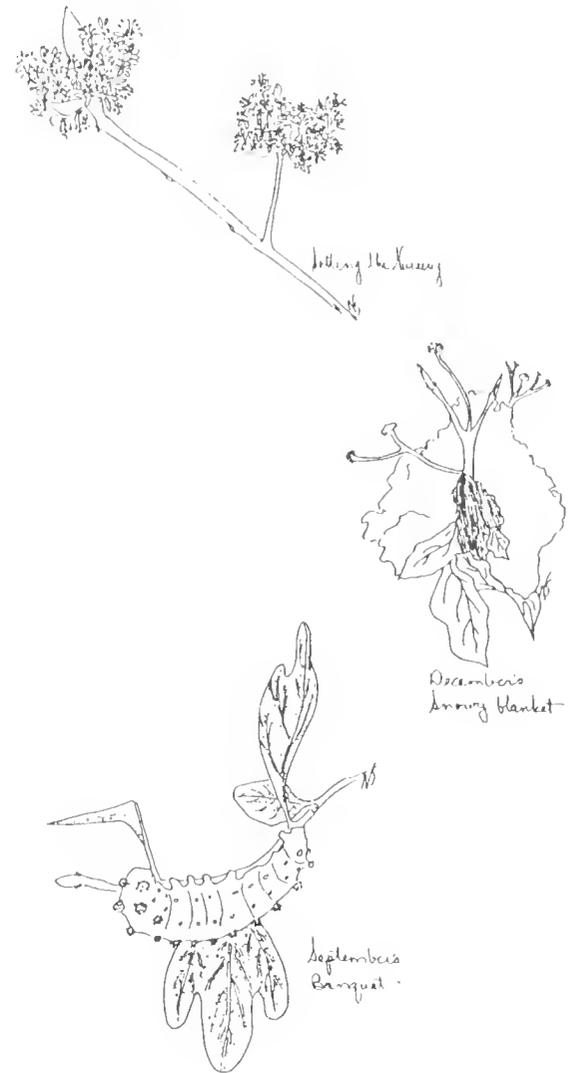
There is no time limit for good ideas; so, please share your brainstorm and your concerns, whatever you see as critical for VNPS to persue in the next few years. We have some left-over "long-range" ideas -- a VNPS office with staff, a VNPS journal for research papers, perhaps a Society display garden ... Still dreams.

For today though, enjoy these late days of winter and early days of spring. There is a native plant busy growing, blooming and even existing because you have been its advocate. Yes, the effort is worth it, especially when you find the Dutchmen's breeches where you saw them last year or the dogwood buds swelling where the trees still stand because you spoke to protect their habitat.

As for me, the Cecropia moth cocoon is still on the dogwood, next to the sassafras tree which hosted its caterpillar. When May gets here this glorious moth with a six-inch wingspan will emerge and I'll be glad all over again that the birds brought in the seed of the little sassafras which grows by my sidewalk, which in turn was home for the egg laid by last year's Cecropia. That's how it works.

I hope you, too, will be enjoying days full of Virginia's wildflowers and wonders.

Nicky Staunton



VNPS 1993 Board of Directors

Directors

President	Nicky Staunton
First Vice-President	Chris Clampitt
Second Vice-President	James Minogue
Recording Secretary	Open
Corresponding Secretary	Liz Smith
Treasurer	John White

Committee Chairs

Botany	Catharine Tucker
Conservation	Ted Scott
Education	Tim Williams
Fund Raising	Open
Membership	Phoebe White
Publications	Mark Gatewood

Directors-at-Large

Nancy Arrington	Holly Cruser
Bob Eubank	Cris Fleming
Chris Sacchi	Ken Wieringo

Chapter Representatives

(president except where noted)

Blue Ridge	Frank Coffey
Jefferson	Gay Bailey
John Clayton	Gale Roberts
Piedmont	Effie Fox
	Jocelyn Arundel Sladen, President
Pocahontas	Richard Moss
Potowmack	Anne Haynes
Prince William	Nancy Vehrs
Shenandoah	Michael Hill
South Hampton Roads	Lee Moomaw

Nominating Committee

Chair -- Open	
Frank Coffey	Doris True
Rebecca White	Fanny R. Williams

VIRGINIA NATIVE PLANT SOCIETY FY 1993 BUDGET

The VNPS Board of Directors has approved the following budget for fiscal year 1993. Members should remember that the proposed allocations do not wholly reflect current VNPS priorities, since the Society's budget can't show volunteers' time or chapter expenditures.

INCOME

Membership dues	\$11,000
Sales, fees & investments	\$6,160
Donations & contributions	<u>\$3,700</u>

INCOME TOTAL \$20,860

EXPENDITURES

Programs (conservation, botany, etc.)	\$2,440
Outreach (education, publications, etc.)	\$7,390
Administration (membership, correspondence, insurance, annual meeting, etc.)	<u>\$10,969</u>

EXPENDITURE TOTAL \$20,799

NET INCOME \$61

Total Assets Beginning FY 1992
(bank account & investments) \$15,143

Coming Events

Clayton's Work on Exhibit

In March 1993, we will have two chances to celebrate the life and work of the early 18th-century botanist John Clayton. Clayton was clerk of court for Gloucester County, Virginia, but is best remembered for collecting plant specimens in the New World. Participants will have an opportunity to view thirty of the original plant specimens Clayton collected in Virginia. These fragile relics of the Virginia botanist's work are on loan from the British Museum of Natural History in London. Along with the 500 or more pressings still in the Museum, these herbarium specimens are priceless for the study of botany and ecological changes since Colonial days. One highlight of the travelling collection is a specimen of spring beauty, *Claytonia virginica*; the genus was coined by Carl Linnaeus to honor Clayton, while the species speaks of the plant's origin.

James Madison University Arboretum will host The John Clayton Exhibition from March 23 through 26. Activities planned include a display of Clayton's herbarium specimens along with early botanical literature and illustrations, and lectures by experts on historical botany and John Clayton. For further information on activities planned at JMU, please contact Pam Brock, University Relations, (703)-568-6468.

The John Clayton specimens will be on display at the DeWitt Wallace Decorative Arts Gallery in Williamsburg on March 31 at 7:00 p.m. Dr. Charles Jarvis of the British Museum will give a lecture at the Gallery at 8:00 p.m. For more information on the Williamsburg showing, please call 804-220-7554.

Wetlands/Bayscaping Workshop

A day-long workshop on wetlands and bayscaping will be held March 26, 1993, at Glens Campus, Rappahannock Community College. The event will be conducted by the Alliance for the Chesapeake Bay in conjunction with the John Clayton Chapter of VNPS and others. The Workshop will consist of three speakers in the morning with an afternoon field trip to salt and fresh water marshes. A \$10 fee covers the seminar, lunch, educational materials, and bus trip to Deltaville. Registration deadline is March 19. To register, call Christina Cramer 804-642-2283.

National Trails Day

June 5, 1993 is National Trails Day. Organized by the American Hiking Society (AHS), this event is an effort to raise awareness of the benefits rail trails, urban walking paths, greenways, etc. Timed to commemorate the 25th Anniversary of the National Trails System Act, the celebration will be used to introduce "Trails for All Americans," a plan to establish a nationwide network of trails, crisscrossing the country. Trails for All Americans would establish a network of trails and greenways that would bring trails to within fifteen minutes of most American homes.

Thousands of trail clubs will sponsor exhibits and trail maintenance hikes on June 5. For more information on National Trail Day or a free copy of the Trails for All Americans plan summary, contact National Trails Day at 1-800-972-8608.

Society to Co-Sponsor Seminar on Invasive Exotics

As we continue to study invasive exotic plants, we realize that a very large portion of them were brought into the country for horticultural purposes and, in fact, that this trend continues today. Popular garden writers are recommending plants that are doing enormous harm to native habitats and the plants indigenous to them. Plans drawn by professional landscape architects continue to call for the use of some of these plants. The garden writers and landscape architects develop demand for certain plants; the nurseries attempt to meet that demand. The proliferation of invasive alien plants that results is, to a large degree, because those recommending and supplying the plants and those that use the plants are unaware of their invasive nature.

In an effort to attack this condition at its source, the Virginia Native Plant Society, the Department of Conservation and Recreation — Division of Natural Heritage, and the Department of Horticulture of Virginia Polytechnic Institute and State University are developing a two-day symposium for garden writers, landscape architects, nursery staff, and others on the subject of invasive exotics. The symposium will be held at Blacksburg, Virginia, on August 12-13, 1993. Additional information may be obtained by calling 703-231-5783.



Virginia Wildflower of the Year 1993

Wild Bergamot -- Early Season Features

Crush the dry, brown, seed heads of wild bergamot, *Monarda fistulosa*, and they will still release the fragrance associated with the lavender flowers in summer. Any part of the dry stems or leaves also retain the aromatic oils that produce the wonderful, mellow, minty smell, milder than peppermint.

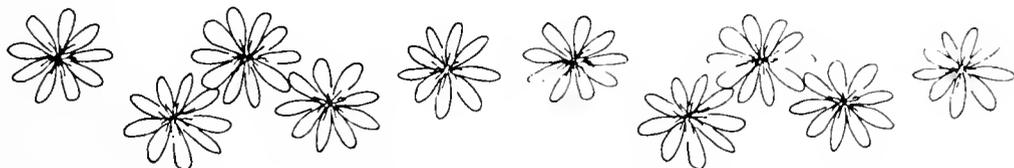
In winter and early spring, wild bergamot may be difficult to spot along field edges or roadsides. All that remains after flowering is a dried calyx tube, but once you identify the nickel-sized, button-shaped heads composed of tightly bunched calyx tubes, more plants become visible. The square stems, two- to three- feet high, with opposite leaves or branches are typical of members of the mint family.

Try adding these seed heads to dry bouquets indoors for a welcome variation on potpourri. Tea can be made from seed heads, stems and any remaining leaves by steeping in hot water. No cure is promised, but a pleasant, relaxing drink results. A pinch from young shoots may be used like fresh oregano with green beans or other vegetables. Since the flower heads are terminal, pinching garden plants will cause more profuse branching with the result of more flower heads.

Wild bergamot is a perennial, so watch for emerging new leaves at the base of last summer's stems in late April to May. Since the plants are relatively slow-growing, waiting to bloom until the end of June or early July, it is a challenge to identify the young plants by their leaves, branching pattern and fragrance.

Catharine Tucker
Botany Chair

A copy of the Virginia Wildflower of the Year 1993 brochure, which describes wild bergamot in the wild and in the garden, has been inserted in each issue of this Bulletin that was mailed. If you would like additional copies of this informative brochure, write Virginia Wildflower of the Year Brochure, VNPS, P.O. Box 844, Annandale, VA 22003.



Landscaping Workshop Well Received

Approximately 140 people attended "Landscaping with Native Plants", our 1993 VNPS Winter Workshop, co-sponsored by the Lewis Ginter Botanical Garden and held at the University of Richmond on February 13. Tim Williams, VNPS Education Chair, worked with representatives of the Botanical Garden to obtain speakers and make other arrangements for the symposium.

The first topic, "Why Use Natives?", was presented by Darrel Morrison, Professor in the School of Environmental Design at the University of Georgia. Darrel suggested looking to nature for design techniques and showed slides illustrating such principles as mystery, intricacy of detail, and pattern. He demonstrated that one important reason for using native plants is that they change from season to season, giving a landscape continual interest instead of the sameness of a typical planting of evergreens. A second reason given was that natives give the landscape a sense of place so that Georgia looks like Georgia and Virginia looks like Virginia. Darrel emphasized the need to preserve what's left of our natural areas and to incorporate them into man-made designs as often as possible.

Our second speaker, Alex Niemiera, Assistant Professor of Horticulture at Virginia Tech, Blacksburg, discussed "Native Woody Landscape Plants" for building the framework of a native plant garden. Though many of the plants Alex discussed are native to wooded areas, he explained that they are excellent plants for residential and commercial landscapes. Most are hardy and easy to grow in various locations and are not limited to the conditions found in their native habitats. In fact, as his slides showed, they fruit and flower better in man-made landscapes where they get more light and nutrients. Some of his favorites were bottlebrush buckeye (*Aesculus parviflora*), native witchhazels (*Hamamelis virginiana* and *H. vernalis*), deciduous hollies (*Ilex* sp.), and oakleaf hydrangea (*H. quercifolia*).

Kim Hawks, a residential landscape designer and owner of Niche Gardens, a retail mail order nursery in Chapel Hill, North Carolina, spoke about "Sunny Herbaceous Natives." In addition to using wildflowers in the usual beds and borders, Kim suggested using them in foundation plantings, in large peninsular beds that extend from the corners of the house, around patios and decks, and in roadside ditches. Since wildflower
(continued on page 10)

VIRGINIA'S RAREST PLANTS

Clematis addisonii, Addison's Leatherflower

If, in late spring, you are travelling down backroads that wind through the forested hollows of western Virginia, you may be lucky enough to spot the purple-and-cream-colored, urn-shaped, thickened flower of one of Virginia's endemic plant species, *Clematis addisonii*, Addison's leatherflower. This rare member of the buttercup family, Ranunculaceae, is found on calcareous slopes of limestone or dolomite and, at a few locations, can be seen on the banks of roads cut into these slopes.

Since first being identified in 1881, *Clematis addisonii* has been found only in the Virginia counties of Montgomery, Roanoke, Botetourt and Rockbridge. Some fourteen or fifteen occurrences of this species were known before 1992. In 1992, a status survey supported by the U.S. Fish and Wildlife Service and conducted by the Virginia Department of Conservation and Recreation's Division of Natural Heritage resulted in five new occurrences and updated five of the historical sites. Eight of the ten recently observed populations are in Montgomery County and two are in Botetourt County. Future survey work may rediscover the historical populations in Rockbridge and Roanoke Counties.

Although *Clematis addisonii* grows on calcareous slopes, other characteristics of its habitat are varied. It has been found on dry, open, rock outcrops, on steep slopes supporting either predominantly hardwood forests or more open woodlands, in ravines, on



Clematis addisonii
Illustrated by Megan G. Rollins

roadbanks, and even in the disturbed rights-of-ways of powerlines and railroad tracks. On shady forested slopes several clustered stems may support a few flowers but, where canopies open, more robust clusters of stems seem to explode with flowers.

Threats to *Clematis addisonii* include intensive logging, road widening projects, grazing and quarrying. Based on current information, the U.S. Fish and Wildlife Service considers *Clematis addisonii* to

be a candidate for Federal listing as an endangered plant. It has also been recommended for State listing as endangered by the 1989 Botany Committee of the Virginia Endangered Species Symposium.

Since the Federal Endangered Species Act of 1973, as amended, and Virginia's Plant and Insect Species Act do not protect listed plant species from the actions of private landowners, listing at the Federal or State level will not ensure protection for *Clematis addisonii*. All of the populations are on private land; only two of the populations are currently protected, both within The Nature Conservancy's Falls Ridge Nature Preserve, east of Blacksburg in Montgomery County. Educating the private landowners about the significance of *Clematis addisonii* and encouraging their cooperation in protecting it will be the keys to the long-term survival of this rarity.

Nancy E. Van Alstine
Virginia Division of Natural Heritage

Can You Contribute Something to Science?

Robert E. Lyons, Associate Professor of Horticulture at Virginia Tech, is looking for seeds of native wildflowers. He is working with the Virginia Department of Transportation (VDOT) on their roadside wildflower program and wants to see more native species in VDOT seed mixes. Lyons hopes to develop a "Virginia Natives Only" mix for experimentation and wants to test the performance of high density plantings of single species of native wildflowers.

If you can contribute seed of species suitable for roadside plantings (collected from your garden or from the wild, observing VNPS's conservation guidelines*) to this project, get in touch with Bob Lyons, Department of Horticulture, Virginia Tech, Blacksburg, VA 24061-0327; (703) 231-5451.

*For a copy of the guidelines send a SASE to Conservation Guidelines, VNPS, P.O. Box 844, Annandale, VA 22003.

Virginia Wildflower Celebration 1993

The nine chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each year in April and May. For the next two months, Society members will share their enthusiasm for wild plants and wild places on field trips and wildflower walks, and during garden tours, plant sales, and a variety of other programs throughout the state.

You are cordially invited to any of the activities listed below; they are all open to the public. As some events require reservations, fees or additional instructions, use the telephone numbers provided to obtain further information.

Virginia Wildflower of the Year 1993, lavender wild bergamot, is a summer bloomer and will not be in flower during our Wildflower Celebration. We will, however, have ample opportunities to learn to identify this indigenous plant by its distinctive foliage and aroma. Propagated plants will be available at chapter plant sales.

Calendar of Events

April 3, Saturday. 8:30 a.m. *Snow Trillium Walk.* Franklin, WV. Jacob Kagey (Shenandoah) 703-828-3297.

April 4, Sunday. 10:00 a.m. *Appomattox River Field Trip.* Frank Coffey (Blue Ridge) 804-332-5757.

April 4, Sunday. 1:00 p.m. *Monticello Spring Walk.* Gay Bailey (Jefferson) 804-293-8997.

April 10, Saturday. 2:00 p.m. *Woody Plants Identification Workshop.* Randolph-Macon Woman's College, Lynchburg. Dorothy Bliss (Blue Ridge) 804-845-5665.

April 13, Tuesday. Noon. *Wildflower Garden Walk.* Colonial Williamsburg. Gale Roberts (John Clayton) 804-229-7213.

April 14, Wednesday. 7:30 p.m. *Gardening with Wildflowers Program.* Branchlands Manor House, Charlottesville. Gay Bailey (Jefferson) 804-293-8997.

April 17, Saturday. 2:00 p.m. *Flowering Plants Identification Workshop.* Randolph-Macon Woman's College, Lynchburg. Dorothy Bliss (Blue Ridge) 804-845-5665.

April 17, Saturday. 2:30 p.m. *Riverbend Park Wildflower Walk.* Marion Lobstein (Prince William) 703-536-7150.

April 18, Sunday. 10:00 a.m. *Great Falls Park Wildflower Walk.* Marion Lobstein (Prince William) 703-536-7150.

April 18, Sunday. 2:30 p.m. *Balls Bluff Wildflower Walk.* Marion Lobstein (Prince William) 703-536-7150.

April 18, Sunday. 1:00 p.m. *Wildflower Walk along the James River.* Gay Bailey (Jefferson) 804-293-8997.

April 18, Sunday. 2:00 p.m. *Shagbark Woods Field Trip.* Hampton. Pat Baldwin (John Clayton) 804-838-2064.

April 18, Sunday. 2:00 p.m. *Sweet Annie's Hollow Field Trip* near Cahas Knob Overlook, Blue Ridge Parkway MP 139. Butch Kelly (Blue Ridge) 703-384-7429.

April 23, 24 & 25. *Annual Wildflower Pilgrimage of Roanoke Area.* Co-sponsored by Blue Ridge Wildflower Society and the Science Museum of Western Virginia. For more information, call the Science Museum 703-342-5710.

April 24 & 25. Time: TBA. *Garden Tours* featuring three wildflower gardens. Nancy Vehrs (Prince William) 703-368-2898.

April 25, Sunday. 1:00 p.m. *Tour of Two Members' Gardens.* Gay Bailey (Jefferson) 804-293-8997.

April 25, Sunday. 1:00 p.m. *Reddish Knob Field Trip.* Jacob Kagey (Shenandoah) 703-828-3297.

April 25 through May 9. *Trillium Display at G. Richard Thompson WMA.* Linden. For directions, plant lists, etc., call Jocelyn Arundel Sladen (Piedmont) 703-349-3248.

May 1, Saturday. 8:00 a.m. to 8:00 p.m. *Bus Trip to Thompson WMA.* For registration information, call Donna Ware (John Clayton) 804-565-0657.

May 1, Saturday. 10:00 a.m. *Point of Rocks Park Walk.* Richard Moss (Pocahontas) 804-748-2940.

May 2, Saturday. 2:00 p.m. *Thompson WMA Walk.* Marion Lobstein (Prince William) 703-536-7150.

May 2, Sunday. Time: TBA. *Bent Mountain Field Trip.* Frank Coffey (Blue Ridge) 804-332-5757.

May 6, Thursday. *Get Acquainted Picnic.* Doswell. Richard Moss (Pocahontas) 804-748-2940.

May 8, Saturday. 9 a.m. to noon. *Native Plant Sale.* Bethel Lutheran Church, Manassas. Nancy Vehrs (Prince William) 703-368-2898.

May 8, Saturday. 2:00 p.m. *Great Falls Walk.* Maryland side of the Falls. Marion Lobstein (Prince William) 703-536-7150.

May 8, Sat. 10:00 a.m. to 2:00 p.m. *Native Plant Sale and Arboretum Activities.* Virginia Western Community College Arboretum, Roanoke. Rich Crites (Blue Ridge) 703-774-4518.

May 8 & 9. *Native Plant Sale.* Virginia Living Museum, Newport News. Jane Showacre (John Clayton) 804-435-3912.

May 9, Sunday. Time: TBA. *Sugarloaf Mountain Hike.* Gay Bailey (Jefferson) 804-293-8997.

May 12, Wednesday. 7:30 p.m. *Wildflower Primer Slide Presentation.* Branchlands Manor House, Charlottesville. Gay Bailey (Jefferson) 804-293-8997.

May 14, 15 & 16. *Wintergreen Wildflower Symposium* including Jefferson Chapter Plant Sale. Gay Bailey (Jefferson) 804-293-8997.

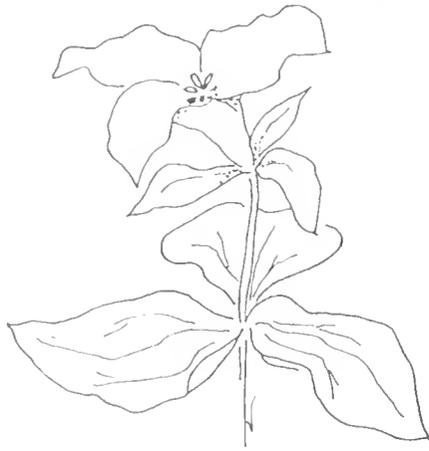
May 14 & 15. *Native Plant Sale.* Virginia Living Museum, Newport News. Jane Showacre (John Clayton) 804-435-3912.

May 16, Sunday. 10:00 a.m. *Great Falls Park Wildflower Walk.* Marion Lobstein (Prince William) 703-536-7150.

May 22, Saturday. Time: TBA. *Smith Mountain Lake Field Trip.* Frank Coffey (Blue Ridge) 804-332-5757.

May 24, Monday. 7:00 p.m. *"Rare and Endangered Species of Virginia" Talk* by Dr. Duncan Porter. Center in the Square, Roanoke. Frank Coffey (Blue Ridge) 804-332-5757.

Events of Interest -- Spring/Summer 1993



Additional Tours

VNPS members Marion Lobstein and Cris Fleming will be conducting wildflower viewing trips for other area organizations.

Natural History Tour

On May 8, Marion Lobstein will be doing two tours of Linden (Thompson WMA) for the Virginia Museum of Natural History. Contact the Museum at 703-666-8615 for registration information.

RAP Programs

Lobstein also will be conducting the following Smithsonian Resident Associate Program (RAP) tours:

- April 25, National Arboretum;
- May 2, Linden (Thompson WMA) and Blandy Farm;
- June 19, Shenandoah National Park.

Cris Fleming will be leading the following RAP tours:

- April 3 and April 18, Wildflowers along C&O Canal;
- June 27, Dyke Marsh;
- July 17, Jug Bay Sanctuary;
- August 1, Summer Wildflowers.

For information on Smithsonian RAP programs, call 202-357-3030.

ANS Programs

VNPS member Cris Fleming will be offering the following programs and classes through the Audubon Naturalist Society (ANS):

- March 27, Early Spring Wildflowers at Turkey Run;
- April 22-24, Mountain Lake and Synders Landing;
- April 25-May 2, Great Smokey Mts. Spring Wildflower Study;
- May 20-23, Western Maryland Nature Preserve;
- June 10-12, Suitland Bog;
- July 22-24, Wetland Plant Identification.

For information on ANS programs, call 301-652-9188 Ext. 3006.

Plant ID Courses

The following plant identification classes are being offered by VNPS member Marion Lobstein at the Manassas Campus of NVCC:

- April 5-17, BIO 295-72M Topics in Spring Wildflowers (1 credit);
- July 26-29, BIO 295-01M Special Topics -- Forest Ecology;
- July 26-29, BIO 295-02M Special Topics -- Summer Wildflowers.

For further information regarding these courses contact, Marion Blois Lobstein, Associate Professor of Biology, NVCC-Manassas, 703-257-6643 (Prince William Co.); 703-323-3000 Manassas ext. 6643 (Metro area).

One course will be taught by Lobstein at Blandy Experimental Farm near Winchester:

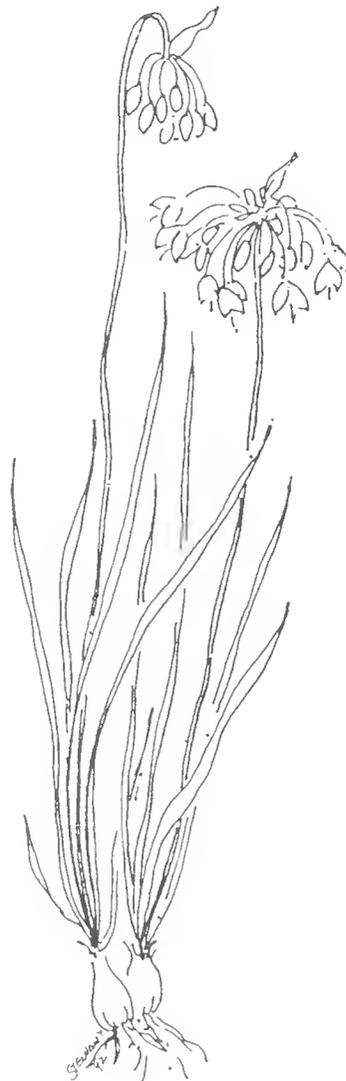
- June 28-July 15, EVEC 493/793 Field Botany (3 credits).

For further information, call Blandy Farm 703-837-1758.

The USDA Graduate School will be offering the following courses taught by VNPS member Cris Fleming:

- April 13-June 15, Spring Wildflower Identification (9 lectures and 3 fieldtrips);
- July 6-27, Summer Wildflowers.

For information on the USDA Graduate School courses, call 202-447-4419.



Regional Calendar

John Clayton Exhibitions

March 23-26, 1993

Sonner Hall, James Madison University, Harrisonburg, VA. FMI: 703-433-0163.

March 31, 1993

DeWitt Wallace Gallery, Williamsburg, VA. FMI: 804-220-7554.

(See page 3 for related article.)

Wetlands & Bayscaping Workshop

March 26, 1993

Glenns Campus, Rappahannock Community College, Glenns, VA.

Sponsored by the Alliance for Chesapeake Bay, in conjunction with the John Clayton Chapter of VNPS and others. Registration deadline March 19. FMI: Christina Cramer 804-642-2283.

(See page 3 for related article.)

Wintergreen Spring Wildflower Symposium

May 14, 15 & 16, 1993

Wintergreen Resort, Wintergreen, VA. Limited to 300 participants so register early. FMI: Lorrie Knies 804-325-2200 Ext. 992.

Maryland Native Plant Society -- Eastern Shore Field Meeting

May 15 & 16, 1993

Weekend outings and discussion of the formation of a Coastal Plain Chapter. FMI: Sue McIninch 410-745-9620.

National Trails Day

June 5, 1993

Organized by the American Hiking Society (AHS). FMI: NTD, 1776 Massachusetts Ave., NW Suite 240, Washington, DC 20036; 1-800-972-8608. (See page 3 for related article.)

Invasive Exotics Seminar

August 12 & 13, 1993

VPI&SU, Blacksburg, VA. Co-Sponsored by VNPS, Virginia Division of Natural Heritage, and VT Department of Horticulture. FMI: 703-231-5783.

(See page 3 for related article.)

VNPS Annual Meeting

September 17-19, 1993

Hosted by Prince William Wildflower Society. Please plan to bring your whole family to this fun, educational weekend. (See page 8 for related article.)

Why are Plant Names ALWAYS Changing?

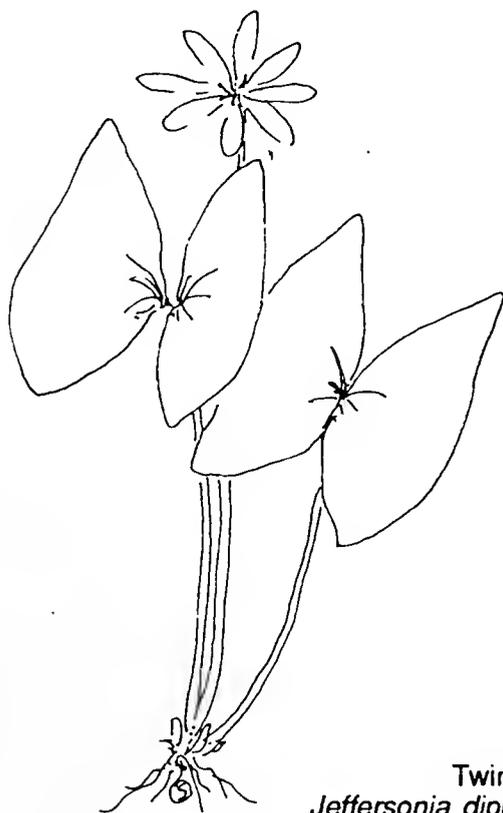
Botanists are fortunate that plant names (in Latin) are standard throughout the world and in all languages. However, with this standardization comes rules for naming plants, and these rules sometimes cause plant names to change.

The rules for plant names are set by the International Botanical Congress which meets every three years. The basic rules in the *International Code of Botanical Nomenclature* are simple. For a plant name to be valid:

1. The name must be published.
2. The plant must be described, in botanical Latin, when the name is published.
3. The earliest valid name after 1753 (the year Linnaeus wrote *Species Plantarum*) is the correct name for a plant.

It is this third rule that causes most changes in plant names. If a validly published name is found in an obscure journal that predates another (in some cases by only one day), than the earlier name is the only correct name, and the name that had been in common usage must be discarded.

Sometimes, as more is learned about the relationships between plants, the genera of a plant is changed to more accurately portray our knowledge of the plant. In this type of name change, only the genera is changed; the species name remains constant. This type of name change is much less frequent and is often open to interpretation and debate. This is why the author's name is included after the plant's name in botanical texts.



Twinleaf
Jeffersonia diphylla

Take, for example, *Jeffersonia diphylla* (L.) Persoon. Persoon refers to C. H. Persoon's view of Linnaeus' twinflower. Linnaeus originally named the plant. Later, Persoon changed the genus name to *Jeffersonia* to reflect its relationship to the other members of the barberry family. This change has been accepted by the International Botanical Congress and is no longer questioned.

Bending the Rules

Although not yet accepted by all, most orchid experts now use "new" scientific names. *Habenaria* has become *Platanthera* and *Orchis* is now *Galearis*.

Linnaeus described two genera of orchids in 1753. All our native orchids were originally included in the genus *Orchis*, which covered the temperate terrestrial orchids. The genus *Epidendrum* included all the tropical epiphytic orchids.

As more orchids were discovered and the relationship between them became better understood, the two original genera were divided into smaller, better defined genera. In 1805, C. L. Willdenow split off the genus *Habenaria* from *Orchis*. L. C. Richard then split *Habenaria* into two genera, *Habenaria* and *Platanthera*, in 1818. These two genera are based on differences in the arrangement of pollen in the flowers. All of our rein orchids were put into the genus *Platanthera*. The plants remaining in *Habenaria* are all tropical in distribution.

In 1833, C. S. Rafinesque created the genus *Galearis* for our native showy orchid. It does not fit into the current genus *Orchis* (which is limited to Europe) because it lacks tubers and because of differences in the arrangement of the anthers.

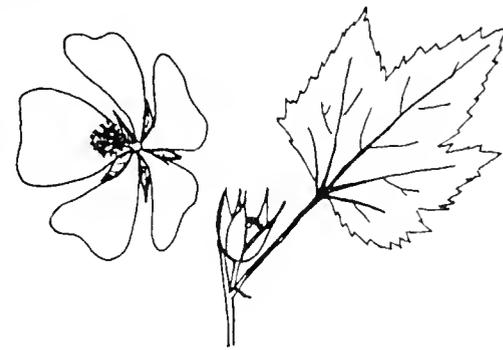
Although these names have been in existence for over 150 years, they have not been universally recognized. With the publication of *The Native Orchids of the United States and Canada* by Carlyle Luer, in 1975, these names and genera distinctions have become accepted by orchid experts.

Although these name changes are accepted by the authorities on orchids, the *International Code of Botanical Nomenclature* does not require us to use or accept the changes. Indeed, the two most recent works which cover the Virginia flora, *Atlas of the Virginia Flora* -- 3rd ed. by Harvill, et al., and *Manual of Vascular Plants* -- 2nd ed. by Gleason and Cronquist, continue to use *Orchis* and *Habenaria*. Thus, *Habenaria ciliaris* and *Platanthera ciliaris* are one and the same.

Tim Williams
Education Chair

Derivation of *Iliamna*

(*Iliamna corei*, Peter's mountain mallow, [pictured below] is listed as Endangered in Virginia.)



The name *Iliamna* was proposed by E. L. Greene for a genus of Malvaceae. Ira Wiggins, who monographed the genus in 1936 stated, "The name is of Greek derivation, but the significance is uncertain."

In my *Flora of Colorado: Western Slope*, I (Weber) wrote, "Name not explained, but probably not of Greek origin as usually supposed. In Alaska there are a Mount Iliaminsk and a Lake Iliamna, possibly named by Russian explorers. [*Iliamna* does not occur in Alaska.] Another suggested explanation from Paul Fryxell, Malvaceae specialist, is Greek, *ilyos*, mud, + Latin, *amnis*, river, but Greene [being a classical scholar] would never stoop to mixing two classical languages!" (Or would he?)

Greene was fiercely independent and iconoclastic, had many enemies, and carried on feuds with other botanists. Being a fluent classical scholar and eager to confound his botanical critics, he may have set others into seeking a classical derivation of a name that does not have classical roots.

Dictionary of Alaska Place Names by Donald J. Orth, USGS Prof. Paper 567, 1967, reported, "According to G. C. Martin, USGS, *Iliamna* is said to be the name of a mythical great blackfish, supposed to inhabit this lake, which bites holes in the bidarkas (boats) of bad natives." One suspects this to be the kind of reply given by local people to a stupid question asked by a non-native researcher.

Thanks to Dr. Lydia Black, Professor at the University of Alaska, the naming problem has been solved. She writes, "The name *iliamna* is a Russian version of the Dena'ina name *Nilamna*. The term derives from two words, *nila* for "islands" and *yana* for "lake" (islands in the lake) ... Why Greene named the genus (that) I have no idea at all."

Iliamna was on the maps of Alaska. Greene certainly had access to them. I (Weber) believe Greene was just putting his critics on!

William A. Weber & Paul Fryxell
(Excerpted from *Aquilegia*, newsletter of the Colorado Native Plant Society, March 1992)

For Your Library

Landscaping with Wildflowers: An Environmental Approach to Gardening by Jim Wilson (1992; Houghton Mifflin Co.; \$35) This book shows gardeners in every area of the country how to use suitable native plants, appropriately and imaginatively. Wilson, a host of the PBS TV show *The Victory Garden*, addresses each of the major types of wildflower landscaping -- woodland garden, meadow, damp and wet spots, etc., including gardens for attracting birds and butterflies. A detailed list of nurseries which obtain their plants in an ecologically secure manner is included.

The Environmental Gardener published by Brooklyn Botanical Garden (1992; BBG, 100 Washington Ave., Brooklyn, NY 11225; \$6.95 includes shipping & handling) In the usual BBG handbook format, *The Environmental Gardener* is a collection of papers centering around a theme: in this case, reversing the loss of biological diversity by recreating native plant communities in gardens.

Gardening with Native Wild Flowers by Samuel B. Jones, Jr. and Leonard E. Foote (1990; Timber Press, Inc.; \$32.95) This book provides detailed information on which native plants to choose and practical advice on how to use them in the garden and in landscapes. It covers more than 1000 species of herbaceous plants, native to the eastern and mid-western United States.

Growing and Propagating Showy Woody Native Plants by Dick Bir (1992; University of North Carolina Press, P.O. Box 2288, Chapel Hill, NC 27515; \$18.95) Bir is a former director of the Cullowhee conference on landscaping with native plants and Extension Horticulture Specialist at NCSU. His manual is a practical, hands-on guide to propagating and cultivating southeastern native trees and shrubs that have ornamental appeal. Flower, fruit, foliage, twig and bark characteristics are described and depicted for more than ninety species.

Field and Forest: A Guide to Native Landscapes for Gardeners and Naturalists by Jane Scott (1992; Walker & Co.; \$24.95) This easy-to-read book attempts to give an ecological overview of the landscape of eastern North America and the species involved, as well as guidance in gardening with native plants. The first section covers natural succession and plant communities, and man's impact on

them. The second describes the characteristics and species of specific plant communities. Section three delivers ecological advice to gardeners. The fourth part covers botanical nomenclature and plant identification.

Genetics and Conservation of Rare Plants edited by Donald A. Falk and Kent E. Holsinger (1991; Oxford University Press, 2001 Evans Road, Cary, NC 27513; \$49.95 plus \$2.55 s&h) According to Peter Raven, Director of Missouri Botanical Garden, this is the first book-length treatment of the subject of rare plant biology and conservation. It is the result of the 1989 conference, conducted by the Center for Plant Conservation, which focused on the biology and conservation of rare plants. Conservation recommendations are integrated with current knowledge of the genetics and population biology of rare plants.

Requiem for a Lawnmower by Sally Wasorski (1992; Taylor Publishing Co.; \$15.95) This book of essays, by a landscape designer and member of the Native Plant Society of Texas, provides useful information and humorous insights on gardening with native plants. Emphasis is on low-maintenance landscapes and the creation of habitats for indigenous plants and wildlife.

WOW!: The Wonders of Wetlands by Britt Eckhardt Slattery (1992; Environmental Concern Education Department, P.O. Box P, St. Michaels, MD 21663; \$12 includes s&h) This 160-page book is a comprehensive wetlands curriculum supplement for K-12 educators. It is full of ideas for projects to conserve, enhance and restore wetlands in the local community.

(EC educators offer teacher training workshops to help classroom teachers, outdoor education instructors, and others utilize the guide to its fullest potential. Contact EC for more information.)

A Child's Book of Wildflowers by M. A. Kelly. Illustrated by Joyce Powzyk. (1992; Four Winds Press; \$15.95) This appealing book introduces more than two dozen widespread wildflowers by their common and Latin names. A watercolor brings each plant vividly to life; the brief text adds depth to the description and tells something of the plant's history and folklore. Suggested activities invite readers to explore on their own -- watch for nocturnal moths on evening primrose, wash their hands with bouncing Bet, or paint with the juice of pokeweed berries.



Notable Updated Editions

Atlas of the Virginia Flora (Third Edition) by A.M. Harvill, et al. (1992; Virginia Botanical Associates, Route 1, Box 63, Dukesville, VA 23922; \$11 paper, \$12 spiral, plus \$1.48 s&h).

Flora of West Virginia by P. D. Strausbaugh & Earl L. Core (1992; Seneca Books, Rt. 6 Box 81-B, Morgantown, WV 26503; \$40 plus \$2 s&h) Since wild plants don't respect arbitrary boundaries, the reprinting of this informative, frequently requested manual is greatly welcomed by native plant enthusiasts in Virginia.

Botany For Gardeners by Brian Capon (1991. Timber Press, Inc.; \$15) This worthwhile text is now available in paperback.

Seeds of Woody Plants in North America by James A. and Cheryl G. Young (1992; Timber Press, Inc.; \$49.95).

Wildflower Handbook (Second Edition) published by the National Wildflower Research Center (1992; NWRC Book Orders, 2600 FM 972 North, Austin, TX 78725; \$15.95 includes s&h).

Americus Naturalis: Inventory of Virginia Flora (Second Edition) compiled by Richard Clelland (1992; Artemis Publications, 10922 Alta Vista Court, Fairfax, VA 22030; \$15 plus \$2 s&h) The goal of this inventory is to provide a comprehensive, convenient reference resource of native and naturalized vascular plants of the Commonwealth. It includes less well known plant forms (e.g., mosses, mushrooms, hornworts, liverworts, diatoms) as well as the more conspicuous and better known plant forms (e.g., trees and wildflowers). Incorporated within the text are 250 plant families, 1038 genera, and nearly 3100 species, subspecies and varieties. The common or traditional names applied to each genus and species are included. This inventory includes many species whose exact distributions in Virginia are unknown.

FROM NEAR AND FAR

Realized Recommendations

Samuel B. Jones, co-author of *Gardening with Native Wild Flowers*, promotes the understanding of natural landscapes and "Native Plants for Roadside Use in the Southeast" in *Perennial Plants*, Autumn 1992. Roadside management techniques and design considerations based on sound biological and ecological principles need to be appreciated at the managerial level with an understanding extended to tractor drivers and spray truck operators. Management options suggested to delay natural plant succession include: annual burning in parts of the Coastal Plain, mowing after desired plants set seed, and spot treatment with herbicides.

Consider roadside "beautification" projects which display wildflowers grown from seed gathered hundreds of miles away and sown in rectangular strips; they are neither naturalistic nor do they contain well adapted plants. Indigenous species from local seed sources are recommended. Ten, adaptable, attractive shrubs and small trees that might be utilized along highways from southern Virginia to northern Florida are suggested along with ten native herbaceous perennials, including Virginia Wildflower 1993, wild bergamot.

Setting a Good Example

Sally White of the Colorado Native Plant Society's Conservation Committee reminds native plant enthusiasts to practice what they preach in *Aquilegia*, September 1992. Consider how your treatment of plants on public lands affects the people, as well as the plants, around you. Most plants aren't seriously damaged by minor losses (such as the

removal of a blossom for positive identification) but, even if no lasting harm is done to a plant, a harmful message is sent to onlookers. Those who ought to be setting the best example for others may set the worst example, undermining the work of park naturalists. State, local and national parks go to great lengths to indoctrinate visitors with the "Take Only Pictures" ethic. The number of people out on natural lands has become too large for the cumulative effects of minor damage to remain unnoticeable. Think conscientiously about whether any snipping you do is absolutely necessary, whether you are willing to have others witness you, and whether you would be willing to have others, especially those with less ability to distinguish rare from common plants, imitate your behaviour.

Life Giving News

James A. Duke, renowned consultant on medicinal plants, reports in *Coltsfoot*, November 1992, that a sample of needles from eastern yew, *Taxus canadensis*, sent to the National Cancer Institute was found to contain nearly six times more of the cancer-fighting compound, taxol, than western yew bark. Needles harvested in moderation won't kill the trees as stripping the bark does.

Squash Survivor Identified

As reported in *Smithsonian Institution Research Reports*, Autumn 1992, archaeologists have located one of the five species of *Cucurbita* that were introduced to European settlers of North America by the American Indians growing in the wild. *Cucurbita pepo ozarkana* has been collected from the

Ozark River Basin at least since 1840 but the plants had always been regarded as escapes from cultivation. Through life cycle and environmental studies, and enzyme and genetic analyses, it has been established that the wild plants are the progenitors of zucchini and acorn squash. Archaeological excavations in the Ozarks have shown that, in addition to *C. pepo*, sunflower, marshelder and chenopod had been domesticated 4000 years ago.

Viral News

American Horticulturist, Jan. 1993, notes that researchers at Roche Institute of Molecular Biology have made a synthetic form of a virus that attacks the chestnut blight fungus. Naturally-occurring viruses can weaken the blight fungus so that it is no longer capable of killing trees but the native viruses have been slow to spread because over 100 different strains of chestnut blight are known, each with its own specific virus. It is hoped that the synthetic virus will disperse readily and not be strain specific.

Who Pays?

For several years, a state agency has attempted to add a tax to each nursery plant sold in Florida to generate funds to be used to control invasive exotic plants. Agency officials argue that the nursery industry should pay because they grew and marketed the plants in the past. The Florida Nurserymen and Growers Association, Inc. believes current growers should not be forced to pay for past actions as they were perceived as proper at that time; species were often introduced by government agencies and recommended by university officials.

See the address label for your membership's expiration date.

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____ - _____

Individual \$15 Family \$25 Student \$10

Patron \$50 Sustaining \$100 Life \$400

Associate (group) \$40; delegate _____

To give a gift membership: Enclose dues, name and address.

I wish to make an additional contribution to _____ VNPS _____ Chapter

in the amount of _____ \$10 _____ \$25 _____ \$50 _____ \$100 _____ \$ _____

Check here if you do not wish your name to be exchanged with similar organizations.

Check here if you do not wish to be listed in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Route 1, Box 381, Delaplane, VA 22025

The Bulletin

is published four times a year
(March, May, August, November) by

Virginia Native Plant Society
P.O. Box 844, Annandale, VA 22003
(703) 368-9803

Nicky Staunton, President
Virginia Klara Nathan, Editor
Barbara Stewart, Artist

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor's consideration. They should be typed (double spaced, please) or sent as a DOS text file to the Editor at Rt. 3 Box 119-F, Floyd, VA 24091.

The deadline for the next issue is
April 10.

Landscaping Workshop

(continued from page 4)

meadows are artificial situations that are difficult to establish and maintain in our area, she suggested making cultivated flower gardens that look like meadows. She showed slides of native species for wet areas, for dry spots, for birds and butterflies, and for fall color. She suggested an interesting design concept; using tall "see-through" plants, such as *Rudbeckia maxima*, for interest at the front of a border instead of always putting tall plants behind everything else.

Our final program was "Gardening in the Woods" presented by Jan Midgley, wildflower grower and owner of Wildflower, a nursery in Rockville, Maryland. Jan discussed trees, shrubs, perennials, ferns and one ornamental grass, northern sea oats (*Chasmanthium latifolium*) for shady gardens. For dry shade, probably the most difficult condition a gardener encounters, she recommended pussytoes (*Antennaria plantaginifolia*), white wood aster (*A. divaricatus*), white snakeroot (*Eupatorium fistulosum*), and mayapple (*Podophyllum peltatum*). Jan cautioned the audience about buying plants that have been wild-collected and said that pink lady's slippers offered in mail order catalogs are always wild-collected; trilliums are usually wild-collected, though there are a few sources of propagated plants. Jan also shared many propagation tips.

While we are very pleased that our first horticulture-related workshop and our first joint venture was so well attended, we are indeed sorry that some of our members missed the registration deadline. I will send a copy of the program and my notes to anyone who was turned away. Drop me a note at P.O. Box 462, Manassas, VA 22110.

Nancy Arrington
Horticulture Coordinator

Chapter News

Leader Lost

South Hampton Roads Chapter has again suffered a great misfortune, the death of Bunny Morgan, their newly elected co-president. Lee Moomaw has assumed the full responsibilities of the presidency of the Chapter.



In the News

Shenandoah Chapter members Bob Glasgow and Steven Croy were cited in the January, 1993, issue of *Natural History* for identifying and protecting the Cow Knob salamander, a unique amphibian whose range is limited to the Shenandoah Mountains near the Virginia-West Virginia line.

Chapter members Jacob Kagey and Anne Nielsen, who is Director of the Blue Ridge Community College Arboretum, were featured in a WVPT television episode of *Virginia Outdoors*. Chapter members have helped develop the Arboretum which is in Weyers Cave.

Piedmont's "Virginia Wildflowers," a newspaper feature appearing monthly in two local newspapers, has attracted much favorable attention. Chapter members submit the text and photographs for a spotlighted Wildflower of the Month.

Society Presents Exhibit

VNPS President Nicky Staunton, Conservation Chair Ted Scott, and member Faith Campbell developed a display on invasive exotics for the poster session at the national meeting of the Society of American Foresters in Richmond, last October. Ted and Nicky brought handouts and talked with foresters from around the country about the Society's program to control invasive exotic plants. Faith prepared the exhibit's text, which will be printed in the meeting proceedings.

Mark Your Calendar

The 1993 VNPS Annual Meeting will be held Friday, September 17, through Sunday, September 19, in northern Virginia. Prince William Wildflower Society will be hosting this year's event, which promises to be exciting one.

A variety of interesting fieldtrips are being planned along with special activities for children. Manassas Holiday Inn has been reserved for our banquet Saturday night. Rooms will be available at reduced rates.

Friday night, VNPS charter member Marion Lobstein, who is Associate Professor of Biology at Northern Virginia Community College, will speak on "Exchange of Plants between the Old World and the New."

If you have suggestions for the meeting weekend or are interested in assisting on the planning committee, please call Nancy Herwig at 703-745-2328. This is your meeting. Please plan to attend.



Virginia Native Plant Society

P.O. Box 844
Annandale, VA 22003

Non-Profit Organization
U.S. Postage
PAID
PERMIT NO. 347
Springfield, VA

THE NEW YORK BOTANICAL GARDEN
LIBRARY-SERIALS & EXCHANGE
BRONX, NY 10458-5126

Please note the expiration date on your mailing label and renew accordingly.

92455

.12
42

May 1993

Vol. 12, No. 2

MAY 24 1993

LIBRARY
NEW YORK
BOTANICAL
GARDEN



Bulletin

A publication of the **VIRGINIA NATIVE PLANT SOCIETY**
Conserving wild flowers and wild places

Board Makes Plans

After the March VNPS Board meeting, current Board members, plus several past Board members and other invited guests, participated in a two-day retreat at Peak of Otter Lodge to address short-range planning for the Society. Our goal was to identify priorities for Board action during the next three years.

Six issues were discussed: VNPS annual meeting; winter workshop and other state-wide activities; publications; children's programs; relations with nurseries; and fund-raising. Participants broke into small groups to brainstorm on the different issues. Each subgroup then reported back to the entire group, presenting several action goals for each area. At the final session, the goals were prioritized for action in 1993, 1994 or 1995, and different participants took responsibility for carrying through on 1993 action goals.

Among the 1993 action goals agreed upon were: continuing the mid-September, two-day Annual Meeting format, but making major changes in the auction; continuing the winter workshop in conjunction with the Lewis Ginter Botanical Garden; identifying all Society publications by displaying the VNPS logo prominently; developing several educational papers, including a guide to tree identification for youth leaders, a guide to leading botanical field trips, and a guide to leading field trips for families with young children.

Board members Cris Fleming and Catharine Tucker assisted President Nicky Staunton in organizing and leading the planning session. Participants agreed that an annual planning retreat would be very useful, and considerable enthusiasm was voiced for a planning retreat next year.

Cris Fleming
Director-at-Large

VNPS Annual Meeting Weekend September 17-19 in Manassas

Even though it's still Spring, begin making your plans to attend our VNPS Annual Meeting Weekend, September 17-19 in Northern Virginia. Our host chapter, the Prince William Wildflower Society, is already preparing a wide variety of events for us to enjoy.

As in the past, a Friday evening social hour followed by a special program will kick-off the Weekend. PWWS botany chair Marion Blois Lobstein will present a talk and slides on "The Exchange of Plants between the Old World and the New", at the Manassas Campus of the Northern Virginia Community College.

Saturday there will be something for everybody — field trips, speakers, and other activities for native plant enthusiasts at all levels of botanical expertise and physical ability, including captivating activities for our children. Outings will take us to national, state, county and city parks to view the splendor of Autumn in the Commonwealth. Additional walks and workshops will be held on Sunday.

Expect an especially lively time Saturday evening as we conduct our first live auction and host a multi-talented guest speaker, North Carolina naturalist Doug Elliott. If you've never seen and heard Elliott spin a tale, you're in for an entertaining, yet informative, treat. This keynote speaker knows how to hold an audience.

Make your plans now to join in on the fun with Society members from all parts of Virginia during the VNPS Annual Meeting Weekend. Details concerning activities, accommodations and the banquet will be covered in the next *Bulletin*.

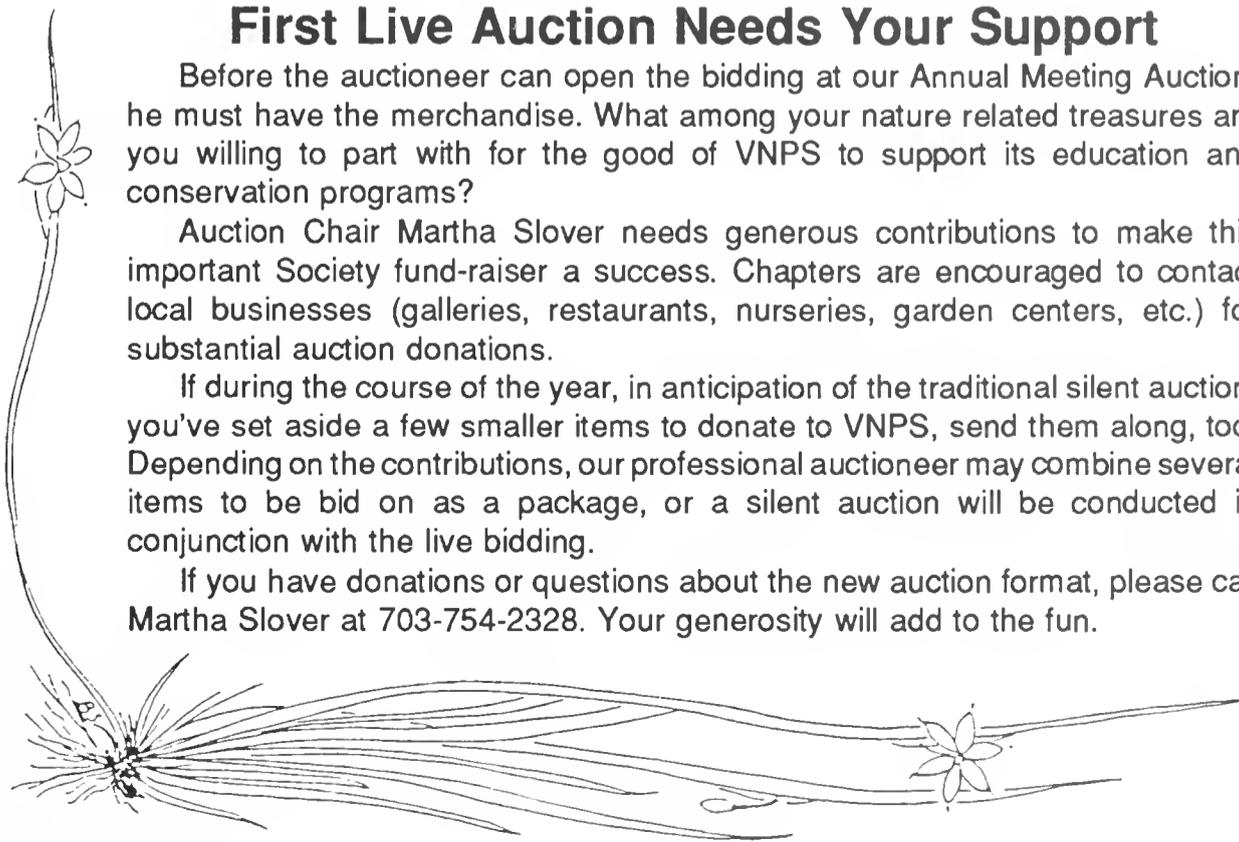
First Live Auction Needs Your Support

Before the auctioneer can open the bidding at our Annual Meeting Auction, he must have the merchandise. What among your nature related treasures are you willing to part with for the good of VNPS to support its education and conservation programs?

Auction Chair Martha Slover needs generous contributions to make this important Society fund-raiser a success. Chapters are encouraged to contact local businesses (galleries, restaurants, nurseries, garden centers, etc.) for substantial auction donations.

If during the course of the year, in anticipation of the traditional silent auction, you've set aside a few smaller items to donate to VNPS, send them along, too. Depending on the contributions, our professional auctioneer may combine several items to be bid on as a package, or a silent auction will be conducted in conjunction with the live bidding.

If you have donations or questions about the new auction format, please call Martha Slover at 703-754-2328. Your generosity will add to the fun.



DEQ Opens for Business

The Department of Environmental Quality (DEQ), Virginia's approach to environmental management for the 21st century, began operations April 1, 1993. DEQ consolidates Virginia's regulatory programs for air, water and waste management and expands crucial activities such as planning, policy development, and public outreach.

DEQ will focus on improving public service and enhancing the quality of the environment. The agency's top priorities will be:

Increasing the effectiveness of environmental decisions through enhanced pollution prevention, coordinated emergency responses, and comprehensive policy analysis;

Improving the efficiency of environmental permitting through establishing regional offices in Woodbridge, Hampton Roads, Roanoke, Lynchburg, Harrisonburg, Abingdon, and Richmond; The Department is currently seeking a central location in Richmond to house the consolidated staff from the Departments of Waste Management and Air Pollution Control, and the Council on the Environment.

Strengthening public outreach and participation, with the goal of promoting public involvement in Virginia's environmental decision making, by providing more opportunities for input by citizens and groups.

DEQ is responsible for a broad range of Virginia's environmental priorities, including compliance with the Clean Air Act, clean up of the Chesapeake Bay and Virginia's rivers, regulation of landfills, and recycling.

Give a Gift of Spring

Springtime is a perfect time to give VNPS gift memberships to ensure that friends and family enjoy the many wonderful activities available to VNPS members. Just fill in the membership form on page 7 and send a check to the Membership Chair. Add a note to indicate that the membership is a gift so that a gift card will be sent to your fortunate friends. Check the map and list on page 8 for the locations of the various VNPS chapters.



FROM THE PRESIDENT

"Spring Beauty" in Virginia

Several years ago when *Claytonia virginica* was VNPS Virginia Wildflower of the Year, I read *The Great Forest, John Clayton and Flora* written by VNPS member Harriet Frye. This little book allowed me to travel with John Clayton of Gloucester County, Virginia, as he located and identified floral records in our young state during the 18th century.

Clayton pressed his specimen plants and identified them using Ray's method. The specimens were shipped to Mark Catesby at Oxford to be included in his *Natural History of Carolina, Florida and the Bahama Islands*. To determine identity of some, they were sent to Gronovius. Carl Linnaeus met Gronovius and they shared recomposing Clayton's descriptions following the newly published Linnaean method. Linnaeus named some newly identified plants after John Clayton; *Claytonia virginica* was the name given to a small spring ephemeral plant found in Virginia.

Currently, the Clayton Herbarium has been partially reassembled at the British Museum of Natural History in London by Drs. James L. Reveal and Norlyn Bodkin, who compiled the collection from the millions of herbarium sheets in the Museum. Dr. Bodkin, Director of the James Madison University Arboretum, in Harrisonburg, Virginia, following his interest in taxonomy, traveled to the British Museum where he was inspired to bring some of Clayton's herbarium specimens to Virginia. Dr. Charles Jarvis of the Museum personally carried the invaluable relics throughout his flight to America in a cardboard box on his lap. These herbarium specimens were exhibited for several days in March during The John Clayton Celebration at JMU. Then Dr. Jarvis and the pressed plants travelled to Williamsburg where the specimens were exhibited at the DeWitt Wallace Gallery and an evening lecture was presented.

Members of Shenandoah and John Clayton chapters were fortunate to be close by for the events. Some VNPS members from farther away took a day to visit the "doings."

The John Clayton Society prepared an interesting seminar by Dr. Jarvis and Dr. Reveal in Harrisonburg. The exhibit of herbarium plants, botanical prints by Mark Catesby and George Ehret, and books from the 1700s were inspirational.

On March 25, the 200 year old *Claytonia virginica* specimen was waiting for my adulation. The little plant was worthy of all the attention it received! We noticed color pigment remaining ... a decorative technique of display on the herbarium sheet ... handwritten notes by John Clayton ... and more recent addenda by Dr. Reveal which heighten our knowledge and appreciation of all thirty specimens. It was a truly inspirational day with the experience heightened by an 18th century dinner, exciting company, and period music.

Reflecting on the opportunity brought to Virginians by Dr. Bodkin and the John Clayton Society brings to my mind contemporary students as they collect plants for botany classes. These classes will produce the botanists of tomorrow, some of whom will find plants previously undocumented for a region. They will conduct inventories to document occurrences, identifying where certain plants are declining or growing rampant.

During the recent short-term planning by the VNPS Board, education was among our top priorities, as it is with the new Virginia Department of Environmental Quality (DEQ, formerly the Environmental Council of Virginia). Recognizing the importance of botany in our survival, VNPS intends to identify the most effective way to encourage this area of instruction, both in our Society and through educational opportunities in schools, organizations and families. We hope our work will meld with DEQ efforts.

As I do every spring, I search for the solitary *Claytonia virginica* which has survived my inhospitable urban lot. It is still there — tiny, gorgeous, pale pink with darker pink stripes. It speaks to me asking to be moved to a more suitable spot so it might multiply and populate the earth. Today!

From now on, whenever I shall see this solitary little friend, or its cousins in the millions at Bull Run Regional Park or another woodland in Virginia, I shall remember the botanical pioneer John Clayton and say "Thank you." from my heart.

Nicky Staunton



Events of Interest — Summer 1993

Wildflower Weekends

May 14-16. Shenandoah National Park Wildflower Weekend. FMI: Joy Stiles 703-999-2243.

May 20-23. West Virginia Wildflower Pilgrimage. Blackwater Falls State Park. Davis, WV. FMI: Maxine Scarboro 304-558-3370.

Landscape Conferences

June 24-26. Native Plants in the Landscape Conference in Millersville, PA. FMI: FM Mooberry, 106 Spottswood Lane, Kennett Square, PA 19348; 215-444-5495.

July 21-24. Landscaping with Native Plants Conference in Cullowhee, NC. FMI: Sue Debord, Division of Continuing Education, Western Carolina University, Cullowhee, NC 28723; 701-227-7397.

(These annual conferences fill up quickly so reserve your space early.)

Eco-Literacy Conference

The Fourth Annual Conference for Environmental Literacy will be held June 23-25, 1993 at the Cascades Conference Center in Colonial Williamsburg. The conference brings together educators and communicators from schools, environmental groups, nature centers, and government agencies to learn more about environmental issues and education techniques. To receive a registration brochure, call the Council on the Environment at 804-786-4500.

Arboretum Events

The State Arboretum of Virginia, the Orland E. White Arboretum, is offering a variety of classes and events this summer, including Drawing Plants with an Artist/Naturalist by VNPS staff artist Barbara Stewart on May 28 or 29; Using Native Plants in the Landscape by VNPS past president Mary Painter on June 26; and a free slide/lecture on The Virginia Wildlife Habitat Program by Jeff Curtis of the Virginia Department of Game and Inland Fisheries on May 21. For details, call Blandy Farm at 703-837-1758.

Wetland Plant Course

A two-day intensive course "Wetland Plant Identification for Northeastern Virginia" will be held at Northern Virginia Community College, Woodbridge Campus, on June 11 & 12. The course is primarily field oriented but will also review plant characteristics used in identification. Excursions are planned to non-tidal wetlands and fresh-brackish tidal wetlands. The instructor, William S. Sipple, has over 20 years of experience in wetlands work and is the author of the EPA's wetland delineation manual. The cost is \$120 and the course is worth one and two-tenths CEUs. For registration information, inquire about ENVR 921-01W at 703-878-5756.

Nature Camp for Adults

Through most of its activities, Nature Camp, operated by the Virginia Federation of Garden Clubs, provides educational experiences in environmental education and conservation for young people, this summer an adult session entitled "Mountain Ecology Workshop — The Essence of Water" will be held August 20-24 in Vesuvius, Virginia. Sessions include Wildflower Photography with David Liebman; Trees on the Watershed with forester Lyt Wood; Native Plants with botanist Tom Wieboldt; and various plant and bird walks. For more information, call Dot Wilbur at 919-929-8587 after 6:00 p.m.

Invasive Exotics Seminar

On August 12 & 13, VNPS will co-sponsor the Invasive Exotic Plants: Contemporary Issues and Options Conference to be held at Virginia Tech in Blacksburg. Nursery staff, landscape designers, garden writers, and other interested persons are invited to attend. To receive registration materials, contact: Ms. J. C. Gordon, Donaldson Brown Continuing Education Center, Virginia Tech, Blacksburg, VA 24061; 703-231-5241.

(See page 5 for related article.)



Stalking Wild Bergamot

Spring ephemerals like bloodroot and trillium are in full bloom in the mountains, foothills and valleys in May. But along the roadsides and in fence corners and clearings, the summer-blooming flowers are just sprouting. Among all the new green shoots, can you pick out the square stems and thumbnail-size opposite leaves with short petioles that may be wild bergamot, Virginia Wildflower of the Year 1993?

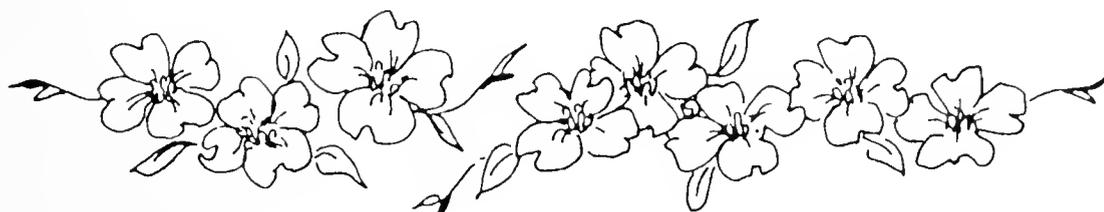
A perennial, lavender wild bergamot sends up its first shoots in May and early June, looking nearly indistinguishable from other mints. But its scent when crushed is readily identifiable, a "wilder" fragrance than peppermint.

Bergamot also tends to grow on drier sites than peppermint, the Old World flavoring mints, or even the scarlet bee balm which likes damp, if not actually wet, feet. Look for shoots among rosettes of mullein and ox-eye daisy along with new leaves of goldenrods and asters.

Keep a record of where you find these plants and watch for them to bloom in July and August. See if you can distinguish between different populations, as the Pawnees did, based on varying fragrance and stem stiffness. Use a hand lens to examine the hairs on stems. Are they downward curled, or long and spreading, or some combination of the two? Are they dense or sparse, even limited to the nodes at leaf bases? Throughout the distribution of this species, the pubescence shows geographic variation. Plants from the Appalachian area tend to have less curled and more straight hairs. Do you observe this?

In the garden, this is a good time to divide wild bergamot plants, if you have not already done so. Save any seeds not harvested by the birds, and trim back dead stalks to prevent spread of molds. Check the pubescence on these garden plants. Was their source local or distant?

Catharine Tucker
Botany Chair



For Wildflower Gardeners

Native Cultivars

If you garden with native plants or observe them in the wild, sooner or later you may notice a certain population of a species or even a single plant that stands out from the crowd because it is shorter or taller, more floriferous, has a different color blossom, or some other characteristic that sets it apart from the "standard" species. These special forms become named varieties, cultivars or selections when propagated and promoted by nursery personnel. Most will not come true from seed and must be propagated vegetatively. They definitely belong in cultivated gardens but not in strictly native restoration projects.

Named varieties of native aster and phlox species are standbys in perennial borders, and new ones are introduced each year as gardeners and nurserymen discover the merits of *Solidagos* and *Eupatoriums*. Selections may be named for physical characteristics of the plant, or, in the case of *Hexasyllis shuttleworthii* 'Callaway' and *Spiranthes odorata* 'Chadds Ford', for the place of their origin. Some such as *Chrysogonum virginianum* 'Allen Bush' and 'Mark Viette' are named for the nurserymen who selected them.

Most intriguing to me are those named to recognize certain people. A lovely yellow trumpet honeysuckle, *Lonicera sempervirens* 'John Clayton', honors the Virginia botanist. *Phlox stolonifera* 'Fran's Purple' is a miniature from the Connecticut garden of Fran Lubera. 'David' is a recent *Phlox paniculata* selection discovered by Maryland nurseryman Richard Simon in the Brandywine Conservancy's parking lot. Named for wildflower enthusiast FM Mooberry's husband, it has pure white fragrant flowers, good strong stems, and mildew-resistant foliage.

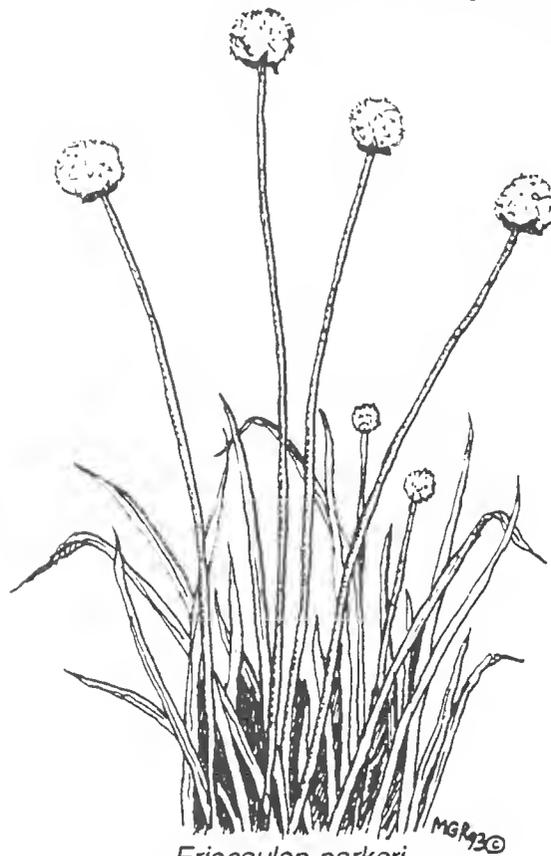
My own plant purchases for this spring include Niche Garden's 1993 introduction, *Solidago rugosa* 'Fireworks'. After observing its performance in the North Carolina Botanical Garden for the past 20 years, NCBG Assistant Director Ken Moore decided to share it with other gardeners. Nursery owner Kim Hawks describes this special goldenrod as three to four feet tall, clump-forming, more compact than the species, and very floriferous.

Be on the lookout in your own yard for outstanding forms of native species — perhaps you will discover a future "introduction."

Nancy Arrington
Horticulture Coordinator

VIRGINIA'S RAREST PLANTS

Eriocaulon parkeri, Parker's Pipewort



Eriocaulon parkeri

Illustrated by Megan G. Rollins

Eriocaulon parkeri, Parker's pipewort, is one of five species found in Virginia which belong to the pipewort family Eriocaulaceae. All five of these species are included on the Virginia Natural Heritage list of rare plants and all five are found in wetlands. Members of the pipewort family have narrow, grass-like basal leaves; leafless, unbranched stems; and numerous, small, usually white or grayish flowers clustered into dense heads at the ends of the stems.

Eriocaulon parkeri is restricted to a very specific habitat. The species occurs along the shores of fresh to slightly brackish tidal rivers, streams and pools. In Virginia, Parker's pipewort is usually found on firm mud flats which are inundated

during high tides and exposed during low tides. The species has developed mechanisms, which are not well understood, to cope with the harsh conditions of widely fluctuating water levels and periodic submersion.

The range of *Eriocaulon parkeri* extends from Quebec south to North Carolina. In Virginia, the species is restricted to the Coastal Plain physiographic province. Most extant populations in Virginia are found along the Chickahominy, Pamunkey and Mattaponi Rivers.

The habitat for *Eriocaulon parkeri* is fragile, and the species is vulnerable to several threats, including shoreline development, water pollution, and substrate erosion. The latter may be caused, in part, by wakes from motor boats. A species which once shared intertidal mud flats with Parker's pipewort, *Micranthemum micranthemoides* (Nuttall's micranthemum), has not been located anywhere throughout its range since 1941. Nuttall's micranthemum has been searched for intensively without success in recent years and is believed to be extinct by many botanists.

Eriocaulon parkeri is included on the Virginia Natural Heritage list of rare plants and is ranked G3/S2S3 to reflect its local global distribution and vulnerability to extinction (G3) and rare state status (S2S3). Portions of several Virginia populations of the species are located on lands owned by or registered with the National Park Service or The Nature Conservancy. However, because of nature of the threats facing *Eriocaulon parkeri*, land protection may not guarantee the species' survival.

Allen Belden, Jr.

Virginia Division of Natural Heritage

CPC/USDA Agreement has Nationwide Implications

The Center for Plant Conservation and the USDA Forest Service are banding together to save rare and threatened plants in national forests and grasslands. The two organizations signed a Memo of Understanding on November 16, 1992, through which native, imperiled plant populations will be conserved in the wild. Under the agreement, the organizations also will work jointly to further public understanding of the plight of endangered plants.

The potential of this landmark agreement is great because the Forest Service manages 191 million acres of public land in the 156 national forests and 19 national grasslands. The agency is responsible for the protection and management of fish, wildlife, and plant habitats; its lands provide habitat for at least 81 federally listed threatened or endangered plants and for another 1650 sensitive plant species.

Fauquier Supervisors Accept Registry Plaque

The Carter Run Wetlands VNPS Registry was on the agenda of the Fauquier County Board of Supervisors on Tuesday, April 6. The Wetlands, owned by Fauquier County, is the second registry by VNPS Piedmont Chapter.

A VNPS Registry plaque was presented to Georgia Herbert, Chair of the Board of Supervisors, by Nicky Staunton, VNPS President. Piedmont members present were Jocelyn Arundel Sladen, Chapter President; Effie Fox, Education Chair; and Betsy Manierre, Editor of *The Leaflet*, Piedmont Chapter's newsletter. Board Chair Georgia Herbert and County Administrator Robert Lee are also members of VNPS Piedmont Chapter.

Carter Run Wetlands, which contains several unusual native plants, has been under several threats of destruction, including cattle grazing and land development. Ways are being discussed to manage it for educational purposes and low-impact visitation by area residents.

The members of the Fauquier County Board of Supervisors stand out among northern Virginia leaders in their appreciation of the unique physiography of their County by protecting the natural beauty of open spaces, forests, wetlands, and native plants. VNPS is enthusiastic about being partners with Fauquier County citizens in the appreciation and recognition of this particularly interesting small wetlands.



May is Wetlands Month

To increase public awareness of wetlands values and functions and encourage people to become more involved in protecting wetlands, May has been designated as American Wetlands Month. This growing celebration offers us an opportunity to increase our understanding and appreciation of wetlands such as the VNPS Registry sites at Carters Run and Mueller Marsh. Questions, offers to help, and requests for educational materials on American Wetlands Month may be directed to the Wetlands Hotline: 1-800-832-7828.

VA Butterfly Society

The new Butterfly Society of Virginia, a non-profit organization, supports the educational and recreational interests, as well as the conservation efforts, of butterfly and moth enthusiasts. Dues are \$15 for year. For details, write Julia Bristow, 5408 Studeley Ave., Norfolk VA 23508.

Neighboring Society

The newly reactivated Maryland Native Plant Society has just completed its first year of operation. To be put on the mailing list or to receive membership information, write: MNPS, P.O. Box 4877, Silver Spring, MD 20914.



NCBG Offering Seeds/Plants

Woody plants, vines, perennials, carnivorous plants, and ferns are among the native plant seeds being offered by the North Carolina Botanical Garden through its 1993 Southeastern Native Plant Seed List. NCBG members can receive eight free seed packets from the list; non-members pay \$1 per species requested.

Great blue lobelia is the 1993 North Carolina Wildflower of the Year. This easy to grow late summer blooming flower sports beautiful blue blooms atop two to four foot stems. Both tiger and black swallowtail butterflies are attracted to the nectar of the blossoms.

To receive a free seed list and membership information, and a descriptive brochure containing a seed packet of great blue lobelia, send a business-size, stamped envelope with your request to: NCBG Seed Distribution Program, Box 3375 Totten Center, University of North Carolina, Chapel Hill, NC 27599-3375.

If you plan to visit NCBG this summer or fall, check out the wide selection of plants for sale daily at the Garden through October. Many wildflowers, perennials and herbs are offered, most of which are in 4-inch pots.

Dr. Ascher to Speak at Invasive Exotics Seminar

On August 12 and 13, a conference entitled "Invasive Exotic Plants: Contemporary Issues and Options" will be held at Virginia Tech, in Blacksburg, VA. The purpose of the seminar is to present a multi-faceted and balanced view of issues related to invasive exotic plants, including control measures, impact on native ecosystem diversity, alternative plants for ornamental purposes, and the impact on the nursery industry.

Among the speakers will be Dr. Peter Ascher, Professor of Horticulture at the University of Minnesota, who will present recent research concerning the reproductive biology and spread potential of purple loosestrife. Other experts from academic institutes as well as the horticulture industry will address the group.

The sponsors of this seminar cut across discipline lines, and include the Virginia Native Plant Society, the Virginia Tech Department of Horticulture, the Virginia Nurserymen's Association, the Virginia Department of Conservation and Recreation, and Riverbend Nursery.

Nursery staff, landscape architects, garden writers, and other interested persons are invited to attend. To receive registration materials, contact: Ms. J. C. Gordon, Donaldson Brown Continuing Education Center, Virginia Tech, Blacksburg, VA 24061; 703-231-5241.

(If invasive exotic plants have become a bane in your landscape, the article on page 6 offers some ideas for control of these plants. -Ed.)

Disappearing Plants

Many (or perhaps even most) of the best plant collections are in private hands, according to James P. Folsom, Director of The Huntington Botanical Gardens, San Marino, CA. Through enhanced communication and cooperation among private and public collectors, all could benefit since private collections are at risk of being dispersed or even destroyed when their owners are no longer able to care for them. In many cases, arrangements can be made to insure "perpetual care" of treasured plants through public gardens.

If you have a large number of rare plants in cultivation, contact curators at nearby public gardens to see if they would be interested in incorporating your plants into their collections at a later date. Also, consider allowing botanical gardens to use your plants for propagation and breeding.

Chemical Control of Invasive Plants

The following article was written at the request of the Virginia Native Plant Society by Dr. Jeffrey F. Derr, a weed scientist on the staff of Virginia Tech. We present this material for our members who have requested information on the use of herbicides on plants difficult to control, and who are also concerned about possible damage to the environment. If additional information is desired, please see the references at the end of the article.

Many of the weed problems in the United States are non-native plants, plants that were introduced from such areas as Europe or Asia. These introduced plants escaped and became nuisance pests of crop and noncrop areas.

There are various ways to control weeds, depending on the site infested. Control strategies include cultural and physical control (hand-weeding, cultivation, organic and inorganic mulches, black plastic, landscape fabrics, etc.), along with chemical control through the use of herbicides. In many cases, a combination of strategies is needed to manage weed pests. Growers and homeowners must determine the most environmentally-sound and cost-effective method to manage a specific weed problem.

Herbicides are either selective or nonselective. Selective herbicides control some plants but not others. Nonselective herbicides control essentially all plants. Listed below are some of the herbicides that have utility for controlling invasive plants. Read and follow all label directions when using a herbicide. Herbicide selection is based on the weed to be controlled and the site in which the weed is growing.

glyphosate (Roundup, Roundup L & G, Ortho Kleenup, other formulations)

Glyphosate is a nonselective postemergence herbicide that is primarily absorbed by leaves but can be bark absorbed. Glyphosate is inactivated upon contact with soil so desired plants can be safely planted a week after application. Use a directed or shielded spray to prevent the spray from contacting desired foliage. Safer ways to apply glyphosate include wiping a glyphosate solution or using a shielded spray on the weeds to be controlled. Glyphosate has low toxicity to people and animals so it is readily available to homeowners. Roundup is registered for use in many crop and noncrop areas.



Purple loosestrife
Lythrum salicaria

There is an aquatic formulation of glyphosate called Rodeo, that is registered for control of weeds in ponds, streams, irrigation and drainage ditches, and similar areas. Rodeo works best on emerged weeds and is less effective on submersed plants.

Glyphosate will control grasses, sedges, and broadleaf plants, including woody plants. Some of the weeds listed on the Roundup and/or Rodeo label include purple loosestrife, yellow nutsedge, Phragmites, johnsongrass, Russian olive, multiflora rose, honeysuckle, and kudzu.

triclopyr (Garlon 3A, Garlon 4)

Triclopyr is a selective postemergence broadleaf herbicide that will not injure grasses. It is used to control both herbaceous and woody broadleaves. For broader spectrum control, triclopyr is commonly combined with 2,4-D. A prepackaged mix of 2,4-D plus triclopyr is sold under the trade name Crossbow. Crossbow is registered for use in grass pastures, fence rows, roadsides, and other noncrop areas. In pastures, Crossbow will provide similar broadleaf control to a 2,4-D plus dicamba (Banvel) tank mix application. Some of the weeds listed on the Crossbow label include honeysuckle, multiflora rose, kudzu, and Russian olive. Use caution when applying these products as drift of small quantities of these herbicides can injure sensitive plants such as vegetables, fruits, and ornamentals.

Garlon 3A is an amine formulation of triclopyr, which is less likely to drift and injure sensitive broadleaf plants than the ester formation, Garlon 4. Garlon is mainly used for brush control in rights of way and noncrop areas, and in forestry.

A combination of 2,4-D plus triclopyr is sold under the trade name Turflon for broadleaf weed control in turf. It provides similar broadleaf control as 33 Plus or Trimec (2,4-D plus MCPP plus dicamba).

sethoxydim (Vantage, Poast, Poast Plus)
fluazifop (Fusilade 2000, Ornamec)

Both sethoxydim and fluazifop are selective postemergence herbicides for the control of true grasses (johnsongrass, bermudagrass, quackgrass, crabgrass). These herbicides will not control any broadleaf weed, wild onion or wild garlic, or sedges. Certain of these formulations are registered for grass control around many herbaceous and woody ornamentals.

Listed below are some sources of information on chemical control of weeds.

1. *1993 Pest Management Guide for Horticultural and Forest Crops*. \$12.00. Make check payable to Treasurer, Virginia Tech and send to: Virginia Cooperative Extension Distribution Center, 112 Landsdowne St., Blacksburg, VA 24061-0512. Herbicide, fungicide and insecticide recommendations for nursery and landscape plants, turf, small fruit, and other areas. Revised yearly.

2. *1993 Pest Management Guide for Field Crops*. \$12.00. Pesticide recommendations for corn, soybeans, peanuts, etc. Available for the same source as number 1 above.

3. *1993 Pest Management Guide for Home and Animals*. \$12.00. Includes pesticide recommendations for home vegetables, fruits, and ornamentals. Available from the same source as number 1 above.

4. *Lawn Weed Control* by S. W. Bingham. Revised 1992. Weed Science Publication 427-045. 8 pg. Available from the same source as number 1 above.

5. *How to Identify and Control Water Weeds and Algae*. 108 pg. \$6.95 plus postage. Contains color photographs of approximately 40 aquatic weeds. Includes information on physical, biological and chemical control. Available from Applied Biochemists, Inc., 6120 West Douglas Avenue, Milwaukee, WI 53218.

Jeffrey F. Derr
Weed Scientist, VPI&SU

FROM NEAR AND FAR

Digging In

Virginia volunteers dig right in when budget cuts begin chipping away at tree program reports D'Vera Cohn in "Tree Programs Grow at the Grass Roots", *The Washington Post*, March 28, 1993. Volunteer labor has enabled VDOT to economically plant nearly 8,400 tree seedlings this year on public lands. At one project, the Interstate 66 ramp in Fairfax, seedling trees supplied by the National Tree Trust were planted by community volunteers; VDOT workers prepared the ground, supplied tools, and mulched afterward. VNPS member Ed Mainland, who helped organize the I-66 project through Fairfax ReLeaf, one of more than two dozen tree-planting groups which have sprung up in the District recently, feels that many areas revegetated through the efforts of unpaid labor wouldn't get planted if citizens didn't pitch in.

Still Going Strong

Kathryn Orth's account of why "Herbarium at Longwood Blossoms in Harvill's Care" appears in the *Times Dispatch*, March 22, 1993. Some 75,000 specimens, representing almost every species of vascular plant found in Virginia, reside in the Harvill-Stevens Herbarium at Longwood College in Farmville. Though retired from teaching, Dr. Alton Harvill still goes to the Herbarium daily to identify plant specimens sent to him from around the state.

Harvill came to Longwood in 1963 and started collecting vascular plants in Virginia. Along with five other Virginia botanists, he documented the geographical distribution of the state's vascular plants in the *Atlas of Virginia Flora*. Dr. Harvill's associate, botanist Charles Stevens, who has contributed 22,000 specimens to the Herbarium, calls Harvill "the best in the state at plant distribution."

Enticing Imposter

As the winter snows retreated from Colorado's alpine meadows, an imposter was found among the bright yellow blooms of wild mustard plants. *The New York Times*, March 9, 1993, reports in "Fungus is a Flowerlike Con Artist" that the antics of a species of *Puccinia*, a manipulative fungus, have been uncovered by Dr. Barbara Roy. The fungal cells invade the mustard plants and trick them into assuming an entirely new shape topped by a pseudoflower fashioned of leaves. The flower mimics are very effective in attracting insects that aid in the fungus' reproduction; pollinating flies appear to favor the diseased plants over the real flowers. The question remaining: Are the pseudoflowers attracting more pollinators or reducing the time that available pollinators spend on true flowers?

Taming Aggressive Behavior

Landscape designer Tom Pellett discusses "Combinations for Aggressive Native Plants" in *Native Notes*, Winter

1993. To tame the aggressiveness of some of the "thugs" (a.k.a. vigorous perennials) of the late summer garden, Pellett uses them together in plantings. He combines the cool blue of hardy ageratum, *Eupatorium coelestinum*, with the bright pink of obedient plant, *Physotegia virginiana* 'Vivid'. Using them in the same bed makes for a "fair fight" in these species with aggressive root systems. These two also can be tamed a bit by placing them in slightly shaded situations or with shrubs.

Two "tough guys" suggested for an engaging foliage combination in wet areas are sensitive fern, *Onoclea sensibilis*, and scouring-rush, *Equisetum hyemale*. By combining *Itea virginica* with these species, one can have some floral interest.

Propagation Cooperation

The Nature Conservancy's Illinois Chapter sponsors an innovative program to produce seeds of native plants for prairie ecosystem restorations along the Chicago River. The Wild Garden Project provides home gardeners with plants having seeds which are hard to collect in the wild. The gardeners grow the plants in their yards and later share the seed with prairie restorers. Over 100 households participate in the program. For details about this program, contact Lindsay McGee, Wild Garden Coordinator, The Nature Conservancy, Illinois Chapter, 79 W. Monroe, Chicago, IL 60603.

See the address label for your membership's expiration date.

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

Individual \$15 Family \$25 Student \$10

Patron \$50 Sustaining \$100 Life \$400

Associate (group) \$40; delegate _____

To give a gift membership or join secondary chapters: Enclose dues, name, address, and chapter. (Secondary chapter dues are one-third your primary dues.)

I wish to make an additional contribution to _____ VNPS _____ Chapter
in the amount of ___\$10 ___\$25 ___\$50 ___\$100 ___\$_____

Check here if you do not wish your name to be exchanged with similar organizations. Check here if you do not wish to be listed in a chapter directory.

Make check payable to VNPS and mail to:

VNPS Membership Chair, Route 1 Box 381, Delaplane, VA 22025

The *Bulletin*

is published four times a year
(March, May, August, November) by

Virginia Native Plant Society
P.O. Box 844, Annandale, VA 22003
(703) 368-9803

Nicky Staunton, President
Virginia Klara Nathan, Editor
Barbara Stewart, Artist

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor's consideration. They should be typed (double spaced, please) or sent as a DOS text file to the Editor at Rt. 3 Box 119-F, Floyd, VA 24091.

**The deadline for the next issue is
July 10.**

Help Wanted

Whether you have time, money or plants to donate, various causes throughout the State need your help.

At Great Meadow

During mid-June, Great Meadow will install a roadside meadowscape of 8000 native plants, consisting of nearly 35 species of regionally native wildflowers and grasses. The planting will be hosted and maintained by Great Meadow and will border Route 17 between Marshall and Warrenton. Still in its planning stage, the project is already considered a national model for highway native plantings.

The Great Meadow Project needs your help installing plants over an 8 to 10 day period beginning in mid-June. Each day's planting will involve a 4-hour commitment working under supervision. To volunteer or find out more, please call Mary Painter at 703-364-1665 or 364-1001.

At Mason Neck

Bill Frailey, a volunteer at Mason Neck State Park, has asked VNPS help with a landscaping project at the park headquarters. Since the project is extensive and operating under a limited budget, Frailey is asking for donations of plants. The requested plants are of a limited number of species, as only plants identified as being within the Park will be used. Some plants needed are silky dogwood, American holly, jewelweed, mayapple, smooth Solomon's seal, columbine, cardinal flower, great blue lobelia, tickseed sunflower, and purple coneflower. For a complete list, contact Bill Frailey at 703-799-1393.

Near Dranesville

In an example of community pride, organizations and individuals are contributing funds to the Dranesville Wildflower Project. The goal of the Project is to plant wildflowers on heavily trafficked road median strips, e.g. Route 7 or Route 123 in the Dranesville District. With the donations, VDOT will finance the seeding and upkeep of the wildflowers. Each acre of wildflowers costs \$600 and portions of or a total acre(s) may be sponsored. Annual upkeep of a plot sponsored is 50% of the original investment per year. To make a donation or receive additional information on this program, write: VDOT Supervisor Ernest Berger, 1437 Ball Hill Road, McLean, VA 22101.

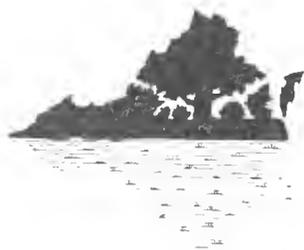
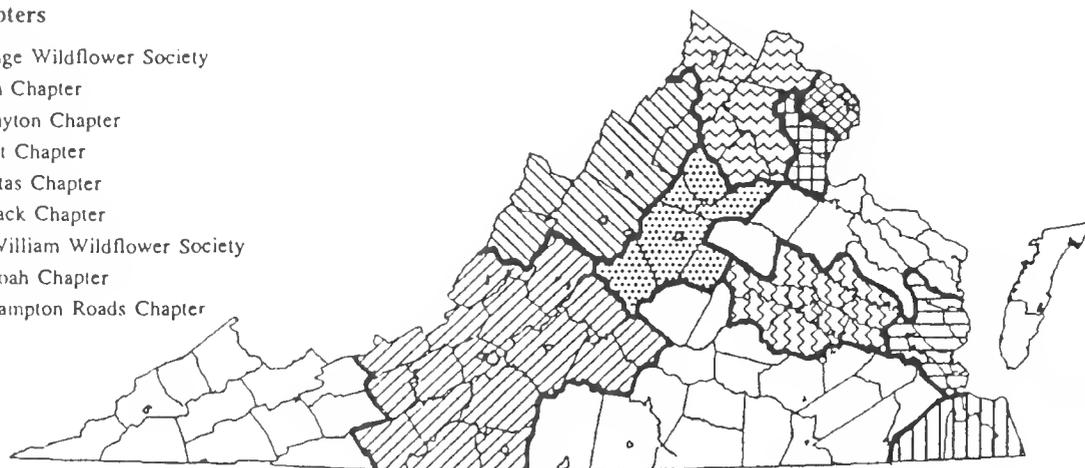
Consider Secondary Memberships

All Society members are eligible for secondary memberships in other VNPS chapters. For only one-third the cost of your primary dues, you can get all the benefits of another chapter, including chapter newsletters and special invitations to outings and programs. Members who live near the borders of chapter areas, those who spend portions of the year in different parts of the state, and those who enjoy various chapters' newsletters or field trips have all taken advantage of secondary memberships in VNPS.

To apply for a secondary membership in any of the nine chapters of VNPS, send a check for one-third of your primary dues to VNPS Membership Chair, P.O. Box 844, Annadale, VA 22003. Your name and dues will then be sent to the chapter(s) you designate. Soon you will receive those chapters' communications and may take advantage of more events, outings, and informative publications.

VNPS Chapters

- Blue Ridge Wildflower Society
- Jefferson Chapter
- John Clayton Chapter
- Piedmont Chapter
- Pocahontas Chapter
- Potomack Chapter
- Prince William Wildflower Society
- Shenandoah Chapter
- South Hampton Roads Chapter



Virginia Native Plant Society

P.O. Box 844
Annadale, VA 22003

Non-Profit Organization
U.S. Postage
PAID
PERMIT NO. 347
Springfield, VA

Please note the expiration date on your mailing label and renew accordingly.

THE NEW YORK BOTANICAL GARDEN
LIBRARY-SERIALS & EXCHANGE
BRONX, NY 10458-5126

U92455
12
3



Bulletin

A publication of the **VIRGINIA NATIVE PLANT SOCIETY**
conserving wild flowers and wild places

Enjoying Wildflowers In Prince William County

Prince William Wildflower Society is looking forward to hosting the 1993 VNPS Annual Meeting and sharing with participants a variety of botanical fieldtrip opportunities in Prince William County. Prince William County is blessed with a diversity of habitats ranging from freshwater marshes and swamps in the Coastal Plain, to rich meadows and forests in the Piedmont, to the granite outcrops of Bull Run Mountain. The choices of fieldtrip opportunities planned for the meeting will provide a sampler of these habitats.

Full Day Fieldtrip

An all day Saturday fieldtrip is planned for Prince William Forest Park. This 17,000 acre National Park has a 300 foot altitude drop from the northern end, located in the Piedmont, and the southern end, in the Coastal Plain. A great diversity of habitats ranging from mature secondary growth forest to wetlands and bottomland along the watershed for the Quantico Creek can be found. Catherine Tucker, VNPS Botany Chair, will lead morning and afternoon hikes which will focus on habitat diversity and the effect of human land use within this park. Wildlife and signs of wildlife will add interest to the botanical diversity of the sites to be enjoyed on these hikes.

Wetlands and Wet Meadows

A Saturday morning canoe trip to Leesylvania State Park, a state park located along the Potomac River, will afford participants a firsthand view of freshwater marshes with their diversity of plant and animal life. Elaine Haug, an expert on local marshes and a veteran canoe trip leader, will lead this foray. Along with the plants, wildlife such as beaver and a variety of birds should be seen or signs of these animals should be spotted.

Participants on this trip may join the afternoon hike at Prince William Forest.

Mason's Neck National Wildlife Refuge covers over 1131 acres along the Potomac and is noted for its extensive wetlands. Although the boundaries of the Refuge are currently located only in Fairfax County, plans are being made to transfer an area of federally-owned land along the Potomac River in Prince William County to the Refuge. Yvonne Schultz, a longtime ranger at the Refuge, will lead a Saturday morning trip to the site in Prince William County to afford participants the opportunity to observe the wetland flora and fauna of these freshwater marshes to be added to Refuge holdings.

James Long Park in western Prince William County is a county park known by most people for its soccer fields and other recreational opportunities. Hidden from the soccer fields is a wet meadow along a stream that has a population of bottle gentian and other species typical of this type of habitat. Beaver activity on the stream and a mature second growth forest provide additional habitat diversity to the site. Cris Fleming, an expert field botanist, will lead a Saturday morning walk to this special area.

The Deep Cut site at Manassas Battlefield Park will be the focus of a Saturday afternoon trip to see a wet meadow with a good diversity of fall flora. The fall-blooming composites will be at their blooming peak at this historical site in the Battlefield Park. Cris Fleming will lead this fieldtrip for viewing the richness of native meadow species at this site.

Historic and Urban Sites

Conway Robinson Park is a 400 acre state forest with a variety of wooded

habitats ranging from mature hardwoods to planted and naturalized pine woods. This forest is located near the rapidly developing Gainsville-Haymarket area and is an excellent example of an "urban" forest that has many uses by area residents. The bed of the historic Manassas Gap Railroad runs through the forest and will be seen this on this hike. Keith Hawkins, Forester for Prince William County, will conduct a Saturday morning walk to explore this diverse area.

Up a Mountain

A Saturday afternoon hike at Bull Run Mountain, located in western Prince William County, will provide us an opportunity to see the unusual flora of these granite outcrops. A mature chestnut-oak forest and a variety of fall-blooming wildflowers await participants in this hike to be lead by Claudia Thompson-Deahl, a naturalist with Reston Homeowners Associate and PWWS Vice President.

In the Gardens

The Nature Trail on Northern Virginia Community College — Manassas Campus is a half-mile trail through wooded habitats along a local stream. This is a woodland trail used for teaching purposes as well as by community groups and individuals. Continuing support for development of the Trail has been provided by PWWS for a

(Continued on page 7)

Annual Meeting
Manassas, VA
September 17, 18 & 19
Early registers save \$
See inside for details

VNPS FISCAL YEAR 1992
INCOME STATEMENT

INCOME	
DUES, MEMBERSHIP	\$8,436
DONATIONS	\$2,160
SALES, GIFTS & BOOKS	\$69
SPECIAL FUNDRAISING	\$123
AUCTION SALES	\$955
FEES, ANNUAL MEETING	\$2,330
INTEREST INCOME	\$625
OTHER INCOME	\$10
TOTAL INCOME	\$14,708

EXPENSES	
ADMINISTRATION, SOCIETY	\$2,355
INSURANCE	\$1019
MEMBERSHIP	\$1,970
TREASURER	\$400
PUBLICATIONS, PUBLICITY	\$4,983
FUNDRAISING	\$624
COSTS, GIFT & BOOK SALES	\$138
GIFTS & MEMBERSHIPS	\$260
NOMINATING COMMITTEE	\$59
EDUCATION	\$381
CONSERVATION	\$785
HORTICULTURE	\$78
ANNUAL MEETING	\$2,021
REGISTRY PROGRAM	\$326
WILDFLOWER OF YEAR	\$870
TOTAL EXPENSES	\$16,269
NET INCOME	-\$1,561

SUMMARY BALANCE

TOTAL ASSETS	\$15,143
LIABILITIES	
CURRENT LIABILITIES	\$7
LONG-TERM LIABILITIES	\$3,500
UNCLASSIFIED LIABILITIES	\$433
TOTAL LIABILITIES	\$3,940
NET WORTH	
TOTAL NET WORTH	\$11,203
TOTAL LIABILITIES AND NET WORTH	\$15,143

To the Board of Directors
of the Virginia Native Plant Society:

I have audited the accompanying fund balance of the Virginia Native Plant Society as of October 31, 1992, and the related statement of income for the year then ended. These financial statements are the responsibility of the organization's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with generally accepted auditing standards. In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Virginia Native Plant Society as of October 31, 1992, and the results of its operations for the year then ended in conformity with generally accepted accounting principles.

Robert K. Hersh, C.P.A.
3213 N. John Marshall Drive
Arlington, VA 22207
June 30, 1993

FROM THE PRESIDENT

A jumble: limestone escarpment . . . cecropia moth . . . ramshead orchid . . . butterflyweed . . . VNPS. What do these things have in common? (Answer appears below.)

Thanks to Ted Scott's foresight and generosity in leading the trip, sixteen VNPS members travelled to the Bruce Peninsula in Ontario, Canada, on June 5th. The entire trip was superb! The beginning was foggy, wet and cold — great for photography and the plants. Toward the end, sun shone on our every minute, and the days are longer!

Our spirits soared as "Ol' Sol" teased tight buds open — great for the plants and photography! Wintergreen naturalist Doug Coleman of Jefferson Chapter explained the escarpment and physiography of the peninsula. The features were awesome. Flat plains with ranches; bogs, fens, limestone paving; rocky climbs to marl beaches; a beautiful fir forest in which we enjoyed a rainy picnic; ruins of a mansion in a new park through which passes the Bruce Trail; sailboats seen in the bay from the clifftop . . .

Ted picked perfect dates for leading us to freshly opened Indian paintbrush, starry false solomonseal, yellow lady-slippers — all along the roadsides, polygala everywhere, the rare lake iris and ramshead orchid at Dorcas Bay, calypso orchid on Flowerpot Island . . . Other orchids were opening as we left, but our senses were so full of the beauty around us, one would have felt guilty to wish for more!

Upon returning home, fresh blooms of butterfly weed greeted us. And, wonder upon wonder, this was the exact day my long expected cecropia moth emerged from its cocoon. She had waited for me! Well, it seemed that way as I tumbled from the van, camera in hand, and wildly photographed the result of metamorphosis. Ms. Cecropia flexed her wings to dry. In three hours, she was gone. The cycle was complete and about to be renewed.

Answer: My camera. My camera is the common factor because it was always in my hand, resulting in slides from 20 rolls of film!

"Tread lightly!" is my message, quoted from the U.S. Forest Service. Excitement of the find can overwhelm us and we too easily stomp neighboring plants . . . maybe even another one of the species so thrilling to find.

Ted and Doug, aware of this possibility, were there to remind us. In an article about the Bruce Peninsula, the author warned against "gardening" photographers, those who tidy up their composition by removing plants neighboring their subject. This can destroy the habitat of the subject and often a desirable plant is wasted.

Develop the good habit of not disturbing the subject of your photography. Summer has a few months left with many opportunities to photograph our beautiful native plants and habitats, as well as those we visit elsewhere. Remember take nothing but photographs and *leave no trace of your having been where you were*. Strive for low impact use . . . better, no impact use.

Nicky Staunton

P.S. The VNPS trip to Canada's Bruce Peninsula is scheduled to be led next year by Doug Coleman. The week of June 11th is tentatively scheduled. The trip for 1994 has several members already signed-up — names from this year's waiting list. Watch for registration information in the *Bulletin* as it becomes available.

Lobstein Receives Teaching Awards

Marion Lobstein, Prince William chapter Botany Chair and Associate Professor of Biology at the Manassas Campus of the Northern Virginia Community College, has received two outstanding faculty awards for her teaching and community service. She is one of three faculty at NVCC chosen to receive an Outstanding Faculty Award sponsored by the NVCC Educational Foundation. At the state level, she is one of eleven faculty in higher education in Virginia chosen to receive the SCHEV (State Council of Higher Education for Virginia) Outstanding Faculty Award for 1992-93.

We are honored to have this great educator speaking Friday evening at our Annual Meeting opening and leading field trips later in the weekend. If you can't wait to see her there, Marion will lead wildflower walks at Great Falls Park at 10 a.m. and 12:30 p.m. on August 15, and also on September 19 and October 17. Call Marion at 703-536-7150 for reservations.



Annual Meeting of the Virginia Native Plant Society

September 18, 1993

SLATE OF CANDIDATES

The following slate of candidates is proposed by the 1993 VNPS Nominating Committee to replace officers, standing committee chairs, directors-at-large, and members-at-large of the Nominating Committee whose terms expire on October 31, 1993, and to fill existing vacancies in other classes.

Board of Directors

Class of 1994

CORRESPONDING SECRETARY: Elaine Smith, Shenandoah Chapter. Elaine's interest in VNPS the last two years has been primarily centered around the many nature-study hikes she takes with her chapter and as a member of the Potomack Appalachian Trail Club. She is on the Board of Directors of the Harrisonburg Community Theatre.

Class of 1995

RECORDING SECRETARY: Liz Smith, Potowmack Chapter. Liz previously served four years in this position and is currently Corresponding Secretary. She has been active in her chapter serving on the board for several years, now as chair of the education/programs committee. Liz is recently retired from staff of American Horticulture Society at River Farm.

Class of 1996

FIRST VICE PRESIDENT: Chris Clampitt, Pocahontas Chapter. Chris has served in this position for the last three years, having been a Director-at-Large previously. He is a plant ecologist with the Virginia Natural Heritage Program. When he lived in Washington State, Chris was Conservation Chair of the Seattle Chapter of the Washington Native Plant Society.

SECOND VICE PRESIDENT: Jim Minogue, Piedmont Chapter. Jim is currently serving a second term in this position. He has served as a guide for the West Virginia Wildflower Pilgrimage and is a trustee of the Belle Grove Plantation. Jim is past president of the American Rock Garden Society.

CONSERVATION CHAIR: Ted Scott, Jefferson Chapter. Ted is currently serving as VNPS Conservation Chair. He is Director Emeritus of the Piedmont Environmental Council and was Director of Programs for the Massachusetts Audubon Society before moving to Orange, VA. He is on the Property Committee for Montpelier and was instrumental in Montpelier's designation as a National Landmark.

FUND RAISING: Vacant. Search continues for a chairperson.

DIRECTOR-AT-LARGE: Nancy Arrington, Prince William Wildflower Society Chapter. Nancy has served as Director-at-Large for two terms and as Horticulture Coordinator for three years. She was one of the founders and first president of the Prince William Wildflower Society in 1982 and continues to be active with that group.

DIRECTOR-AT-LARGE: Faith Campbell, Potowmack Chapter. As a Senior Research Assistant for Natural Resources Defense Council since '78, Faith has been working for plant conservation. Faith served VNPS since 1982 as a charter Board Member, Conservation Chair for two years. Currently, she is on the International Union for Conservation of Natural Resources, Species Survival Commission, both Exotic Species and Trade in Wild Plants; and, Endangered Species Act.

1994 Nominating Committee (One Year Term)

Fanny R. Williams, John Clayton Chapter. Fan was President of John Clayton Chapter for two terms and continues to be active with the chapter. She was on this year's Nominating Committee.

Ann Regn, Jefferson Chapter. An Environmental Program Planner for the Virginia DEQ (Department of Environmental Quality), Ann works with public and intergovernmental Affairs for the newly formed agency. She has been an active member of VNPS since its inception (1st Vice President of VNPS) and her chapter (President).

The third position vacancy will be filled by the time of the Annual Meeting, September 18, 1993.

1993 Nominating Committee

Dorna Kreitz, Chairman, Potowmack Chapter
Doris True, Shenandoah Chapter
Becky White, South Hampton Roads Chapter
Fanny Williams, John Clayton Chapter
Frank Coffey, VNPS Board member, Blue Ridge Wildflower Society Chapter

PROXY, 1993 VNPS ANNUAL MEETING

I hereby authorize the Corresponding Secretary to cast my vote for the slate of candidates proposed by the Nominating Committee.

Signed _____

Address _____

Return by September 16 to:
Corresponding Secretary, VNPS,
P.O. Box 844, Annandale, VA 22003

PROXY, 1993 VNPS ANNUAL MEETING

I hereby authorize the Corresponding Secretary to cast my vote for the slate of candidates proposed by the Nominating Committee.

Signed _____

Address _____

Return by September 16 to:
Corresponding Secretary, VNPS,
P.O. Box 844, Annandale, VA 22003

The annual meeting of the membership of the Virginia Native Plant Society will be held on Saturday, September 18, 1993 at Holiday Inn/Mannssas, in Manassas, Virginia, to vote on changes in the bylaws and to elect certain officers, directors, and members of the Nominating Committee.

Those persons who have paid dues for the 1992-93 fiscal year may vote on the business conducted. Members in good standing who are not able to attend the meeting may vote in absentia by sending the proxy on this page to Liz Smith, Corresponding Secretary, VNPS, P.O. Box 844, Annandale, VA 22003. Proxies must be received by September 16, 1993. Each family membership is entitled to two votes, other memberships to one vote.

Liz Smith
Corresponding Secretary

Exploring In and Around Prince William County

Virginia Native Plant Society Annual Meeting Weekend

September 17-19, 1993

Make plans now to attend the 1993 VNPS Annual Meeting in Manassas. We will meet to enjoy speakers, share a banquet, conduct business, take field trips, participate in an auction, renew friendships, and start new ones.

Our host chapter, Prince William Wildflower Society, will be trying a new format for the annual fund-raising auction. A professional auctioneer will call the Saturday evening auction. We hope this innovation will prove both entertaining and profitable for the Society.

Guided field trips and garden tours are planned for Saturday, September 18, and Sunday morning, September 19. The diverse outings planned will give participants an opportunity to observe a variety of flora and fauna native to the Northern Virginia area. Field trip sites include local, state and national parks with a wide variety of topography from shore locations to mountainous terrain. In addition, selected native plant gardens will be open for viewing.

A full program of children's activities has been planned for Saturday. It will include a story hour with our featured speaker Doug Elliott, nature walks, and other fun activities, all conducted by experienced teachers and qualified guides. Parents signing up for field trips which could prove too lengthy, arduous or dangerous for small children may leave their youngsters in these well supervised programs.

Due to the sensitivity of some areas, some field trips are limited in the number of participants. With this in mind, plan to register for the Annual Meeting early. You can indicate field trip preferences on the form on page 4, and take advantage of reduced a registration fee (a \$5 savings) if your form is post-marked by September 3. (Banquet registration must be received by September 12.)

Holiday Inn at Manassas will hold a limited number of rooms for the Society until September 3. Contact them at 703-335-0000.

So don't delay. Register and make your arrangements now for a great weekend with VNPS.

Weekend Schedule of Events

Friday, September 17

7:00 p.m. — 10:00 p.m. **Social Gathering, Greetings, and Illustrated Talk** at NVCC — Manassas Campus, Route 234 next to the Manassas Battlefield. A special slide show *Exchange of Medicinal Plants Between the Old World and the New* will be presented by Marion Blois Lobstein, Associate Professor of Biology at Northern Virginia Community College and recent recipient of a State Council of Higher Education for Virginia's Outstanding Faculty Award. Come early, visit the NVCC wildflower garden, and stroll down the Nature Trail developed by Marion with support from her students and Prince William Wildflower Society.

Saturday, September 18

8:00 a.m. — 4:00 p.m. **Trips, Tours, and Children's Program.** Meet guides at Manassas Holiday Inn.

4:30 p.m. **Social Hour and Auction Preview.** All evening activities are at Manassas Holiday Inn.

5:30 p.m. **Annual Business Meeting** and election of officers.

6:00 p.m. — 7:00 p.m. **Buffet Banquet.**

7:00 p.m. **Live Auction** with professional auctioneer.

8:30 p.m. **Keynote speaker Doug Elliott** — naturalist, raconteur, and author of *Wildwoods Wisdom, Encounters With The Natural World.*

Sunday, September 19

9:00 a.m. — 2:00 p.m. **Board Meeting** at Prince William County Extension Office, 8805 Sudley Road (Rt. 234).

All Society members are invited to attend.

9:30 a.m. — 12 noon **Field Trips and Selected Garden Tours.** See field trip descriptions on page 5.



Virginia Native Plant Society Annual Meeting

September 17, 18 & 19, 1993



IMPORTANT INFORMATION

MEETING ACCOMMODATIONS

Holiday Inn at Manassas, 10800 Vandor Lane, will serve as headquarters for the VNPS Annual Meeting. Accommodations will be offered to Society members for the reduced rate of \$44 per night. Please be sure to inform the reservation desk of your membership in VNPS to get this rate.

Accommodations are the responsibility of individual participants. **Holiday Inn will hold a limited number of rooms for the Society until September 3.** After that date, rooms may not be available. For reservations, call Holiday Inn at Manassas; 703-335-0000.

Should you need other accommodations, other hotels in easy reach of the activities include a Ramada Inn, Hojo Inn, Day's Inn, Hampton Inn, Best Western Motel, and Shoney's Motel.

REGISTRATION INFORMATION

Please use the coupon below to let our PWS hosts know how many are coming. The registration fee of \$10 per adult includes admittance to the Friday evening lecture and Saturday field trips and tours, a box lunch on Saturday, and access to the Children's Program. **Members whose registrations are received by September 3 may take a 50% reduction in the registration fee** (cost is then \$5) and will receive a packet containing further details and pertinent maps. Advance registration is strongly encouraged.

Those who wish to attend Saturday evening's banquet should add this cost to their registration payment. Please be aware that registration for the banquet must be received by the PWS Annual Meeting Committee by September 13, as arrangements for the banquet facilities must be concluded by that date.

Walk-in registration for the Annual Meeting's activities (excluding the banquet) will be accepted at the Friday evening opening gathering at Northern Virginia Community College — Manassas Campus and at the Manassas Holiday Inn Meeting Center at 8 a.m. on Saturday morning. The on-site registration fee is \$10.

Since space will be limited on some field trips, please help your hosts by indicating your tentative trip choice(s) on your registration form. (See next page for description of field trips.) Final selections for trips and programs can be made on Friday evening.

Please make reservations for the Annual Meeting by returning the form below. If you need additional information, call Nancy Herwig at 703-754-2328 or Nancy Vehrs at 703-368-2898.

Items Needed for Auction

Something new has been planned to enliven the annual VNPS fund-raising auction which will be held on Saturday evening after the banquet. Instead of the usual silent auction, a professional auctioneer will conduct the proceedings and take your bids. We hope this format will prove a lively feature of the weekend.

Wondering what to contribute? Anything to do with nature and, if you stretch your imagination, this can include such diverse items as pictures, writing paper, home-made jellies, books, crafts, camping equipment, gardening tools, sculpture, ceramics, and, of course, plants from your garden or favorite nursery.

Nor must you confine yourself to objects. You could offer a service of some sort, like leading a field trip to some special place or preparing a landscape plan for a small property. If you are a photographer or artist, you could offer to make a study of someone's cherished garden or home, or a special plant or place.

Please telephone or send a brief description of donation(s) and approximate value of each before Sept. 15 to: Martha Slover
6078 Clay Spur Court
Centreville, VA 22020
703-818-9517

Please have donations at the auction site in Manassas Holiday Inn between 8:30 a.m. and 2 p.m. on Sat., Sept. 18. Auction items may be brought to the gathering at NVCC — Manassas on Friday, Sept. 17. Donors who will not be able to attend the Meeting but wish to support this fund-raiser may send contributions with a chapter member or mail them in advance to Martha Slover. Tag each item sent with the donor's name and an approximate value.

Let your imagination rise to the occasion! The more items to bid on, the more enjoyable the auction — so please look for, dream up, donate, and bid on as many items as you can to make this major fund-raising event a success.

VNPS ANNUAL MEETING REGISTRATION FORM

Number of adults attending activities _____ X Registration fee of \$10 each = \$ _____
(If postmarked by September 3, cost is only \$5 per adult. Registration fee includes Saturday box lunch.)
Number of adults attending dinner _____ X Dinner cost of \$20 each = \$ _____
Number of children (ages 3-12; under 3 free) attending dinner _____ X Dinner cost of \$10 each = \$ _____
If you need a special diet, please specify _____ Total enclosed = \$ _____

Number attending field trips: **Saturday** Full day _____ a.m. _____ p.m. _____ **Sunday** a.m. _____
Tentative field trip interest(s) _____

Ages of children interested in children's program: _____, _____, _____, _____, _____ years.

Name _____ Phone _____
Address _____

Make checks payable to VNPS. Send to:

Annual Meeting VNPS
Prince William Wildflower Society
P.O. Box 83
Manassas, VA 22110

Dinner reservations MUST be received by September 13.
No reservations will be held without payment.

Virginia Native Plant Society Annual Meeting

September 17, 18 & 19, 1993



FIELD TRIPS AND CHILDREN'S PROGRAM DETAILS

Prince William County is a naturally diverse area extending from shore locations through the Piedmont to mountainous terrain. Come along on some of these planned excursions which offer a wide variety of experiences.

On Saturday, September 18, and Sunday, September 19, participants will gather in the lobby of the Manassas Holiday Inn at 8 a.m. to meet with tour guides. One all-day trip is offered on Saturday, while the balance of the trips will be half-day events. **Please note that some field trips have limited space so register early.** A box lunch for Saturday will be furnished for all registered participants.

Stout walking shoes are advised, plus rain gear if weather is unsettled. Due to the conditions encountered on some field trips, children will not be able to attend. A full children's program is planned for Saturday. (See details below.) Notes pertaining to children's participation on field trips are indicated by * below.

SATURDAY — FULL DAY

Prince William Forest Park. This prime example of a piedmont forest and pristine watershed for Quantico Creek is located within a 17,000 acre National Park. Hikes to explore the local flora will be conducted both morning and afternoon. A visitors' center with frequently running video shows is on site. *Children, supervised by a parent, may participate.* Limited to 15.

SATURDAY — HALF DAY; MORNING

Leesylvania State Park. This state park is located along the Potomac River. A morning canoe trip is planned to explore wetlands areas and shore flora. Protective footgear is suggested. \$3 canoe rental charge. *No children please.* Limited to 14.

James Long Park. This Prince William County park is noted for its stand of bottle gentian and wet meadow species. We will take a morning trip to see this possible VNPS Registry site. Limited to 15.

Mason's Neck National Wildlife Refuge. This federal wildlife refuge is noted for its extensive wetlands. A morning tour will allow us to explore wetland flora and fauna in this area. Protective footgear is suggested. *No children please.* Limited to 15.

Northern Virginia Community College — Manassas Campus Nature Trail. Both morning and afternoon guided tours will be available at the garden and half-mile trail which winds through wooded habitats along a local stream. *Children encouraged to participate.*

Local Garden Tours. Some of the beautiful wildflower gardens cultivated by Prince William Wildflower Society members will be on display and should be ablaze with autumn flowers. Tours will be offered both morning and afternoon.

SATURDAY — HALF DAY; AFTERNOON

Manassas National Battlefield Park. Exploration of this 5000-acre National Battlefield Park will consist of an afternoon trip to the Deep Cut area to view a wet meadow with a good diversity of fall flora. This is a possible future VNPS Registry site. Limited to 20.

Bull Run Mountain. On an afternoon tour, take an easy hike to see a unique granitic outcrop and the flora indigenous to such terrain. Limited to 20.

Conway Robinson Park. This state forest features several trails and a variety of wooded habitats. Take the afternoon to explore this excellent example of an "urban forest." *Children over age 8, supervised by a parent, may attend.*

Northern Virginia Community College — Manassas Campus Nature Trail. Both morning and afternoon guided tours will be available at the garden and half-mile trail which winds through wooded habitats along a local stream. *Children encouraged to participate.*

Local Garden Tours. Some of the beautiful wildflower gardens cultivated by Prince William Wildflower Society members will be on display and should be ablaze with autumn flowers. Tours will be offered both morning and afternoon.

SUNDAY — HALF DAY

Great Falls Park. A 10 a.m. walk will allow us to view the Falls and explore the diverse autumn flora of this National Park located along the Potomac River. A \$3 entrance fee is required to enter the park.

Northern Virginia Community College — Manassas Campus Nature Trail. At your leisure, enjoy a self-guided tour (trail guides available) of the half-mile trail and nearby garden.

Selected local garden tours. Same as offered on Saturday. Map available at meeting.

VNPS Board Meeting. All members are invited to attend at Prince William County Extension Office.

Self-guided tours. A variety of tours to historic sites such as the Manassas Battlefield, as well as other attractions, are available.

SATURDAY — CHILDREN'S PROGRAM

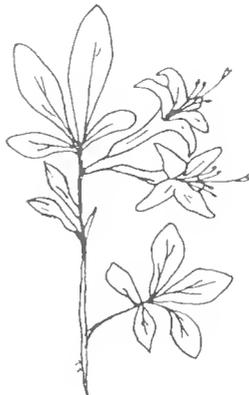
Special children's activities will be offered to the children of those members who may wish to engage in trips too lengthy or difficult for youngsters. Children's activities will be aimed at various age groups and include nature walks, workshops, environmental and ecological studies, and other activities, depending on weather. Doug Elliott, the featured banquet speaker, will conduct a workshop for children on Saturday morning featuring folk tales, woodlore, ancient legends, and encounters with "Native Americans, snake handlers, and Appalachian mountain men."

All children's activities will be well supervised by competent teachers and experienced guides. Please indicate on your registration form the number and ages of children who will be attending so that appropriate activities can be planned. As some of the children's activities are weather-related, locations for Children's Programs will be announced at the opening meeting. Lunch will be provided.

For Wildflower Gardeners

Summer Blooming Native Azaleas

Three species of azaleas native to Virginia offer lovely fragrant white flowers for our summer gardens. All grow naturally in wet areas and will thrive in similar conditions under cultivation. They will also grow well in drier sites in a slightly acid, humus-rich soil that is watered and mulched.



All native azaleas need three to four hours of sun to bloom well. Phosphate added to the soil at planting time and annually in early July will boost blooming. These azaleas are slow to develop a good root system and should be watered frequently the first year.

Sweet azalea, *Rhododendron arborescens*, named for its heliotrope-like fragrance, is found on moist mountain tops and along streams from New York and Pennsylvania south to Georgia and Alabama. In Virginia, according to the *Atlas of the Virginia Flora*, it is found in two northern and six southern counties. Plants may attain tree-like stature in the wild but are usually around eight-feet tall in the garden. Flowers with a prominent red style and stamens are normally pure white but may have a pink or reddish blush and a yellow blotch. This species typically blooms in early June, but a form found in Georgia blooms in July and occasionally into August.

Hammock sweet azalea, *R. serrulatum*, is native to wooded swamps and hammocks from Florida west to Mississippi and Louisiana. It is found in one western and several coastal counties of Virginia; however, in *Azaleas*, Fred Galle says that plants found in Virginia and the Carolinas may be variable forms of *R. viscosum*. Though taller in the wild, cultivated plants are usually four- to six-feet tall with white sticky flowers that have a delightful clove scent. This is the last species to bloom, beginning in July and sometimes continuing into September and October.

Swamp azalea (*R. viscosum*) is native to swamps and stream banks from Maine to Florida including the mountain, piedmont and coastal areas of Virginia. Average

Two Natural Areas Added to Virginia System

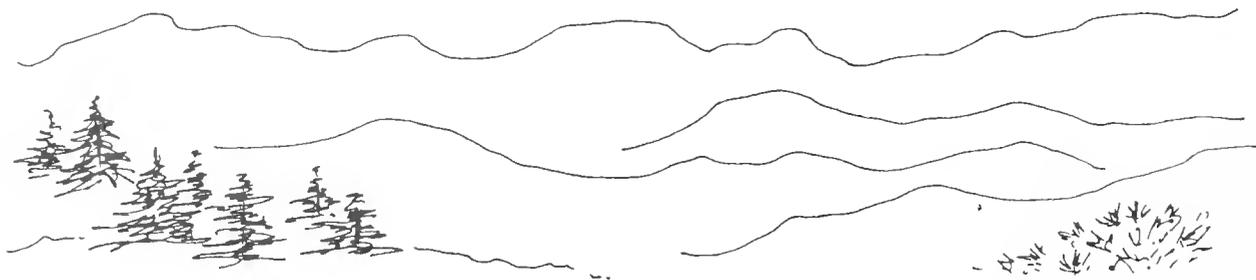
Virginia's Natural Area Preserve System gained two properties at the beginning of 1993: Bush Mill Stream in Northumberland County and the Pinnacles in Russell County.

Bush Mill Stream Preserve is the first property acquired as a result of the Open Space Recreation and Conservation income tax checkoff fund. Each year, state taxpayers may designate all or part of their refunds to benefit Virginia's natural and recreational resources. Of the \$140,000 purchase price, approximately \$90,000 was contributed from the checkoff fund. The Nature Conservancy and the Northern Neck Audubon Society also assisted with the purchase.

The 103-acre Bush Mill Stream Preserve is a nesting ground for great blue herons, and a hunting and resting ground for bald eagles. Currently, no public access facilities are in place.

The Pinnacles is a 600-foot rock formation. The surrounding ninety acres were previously owned and managed by Russell County, which conveyed the property to the Nature Conservancy for transfer to Virginia. This holding is one of the last refuges for the birdwing pearly mussel and has a variety of rare plant and animal species. Visitors can climb trails to scenic overlooks year-round.

The acquisition of these sites was not related to the recently approved bonds for parks and natural areas. (An update on the use of these funds will appear in the November *Bulletin*.) However, the Bush Mill Stream and Pinnacles preserves, managed by the Department of Conservation and Recreation, will receive bond funds to increase public access and environmental education opportunities. (Excerpted with permission from *Virginia Natural Resources Newsletter*, May 1993)



height is five feet with a similar spread. White to creamy white flowers have a spicy fragrance and are quite sticky. Swamp azalea begins blooming in mid-June, but this is a variable species with forms that can extend the bloom period into October.

Beginning in the early 1800s, European breeders crossed our native azaleas with their species to produce hybrids including the Ghents, Knap Hills, and Exburys, some of which are still available. With today's renewed interest in native plants, many varieties, including natural and man-made hybrids, are available from specialty nurseries and a few are even showing up in local garden centers. All are wonderful plants, bringing graceful form, sweet fragrance, and a lovely range of colors to our gardens from spring until fall.

Nancy Arrington
Horticulture Coordinator

Natural Resources Budget

Natural resources agencies received a \$3.1 million boost during the 1993 General Assembly session. Most of the increased revenue for the 1993-94 fiscal year will fund state park programs and will be used to meet the permitting needs of the Department of Environmental Quality.

A highlight of this year's amendments to the 1992-1994 biennial budget is the provision to handle growth associated with new state parks and natural areas acquired under the 1992 general obligation bonds. \$647,000 was appropriated for 16 new positions in the Department of Conservation and Recreation (DCR). DCR also received approval to use park revenues on preventive maintenance projects to extend the life of parks facilities.

(Excerpted with permission from *Virginia Natural Resources Newsletter*, May 1993)

Birds, Bees, Butterflies and Bergamot

Have you found wild bergamot blooming in a field or your garden yet this summer? Examine the head and see if you can distinguish that there are two "halves" of the inflorescence. Occasionally, one bud fails to develop into flowers and forms a vegetative branch instead. These compact flower heads have been shown to be derived from more open branched lateral inflorescences by condensation (reduction of internodes), forming a complicated double opposite cyme. One clue to this is the "collar" of leaves clustered around the base of the inflorescence. As in composites, this condensation of blooms mimics one large flower and may have adaptive advantage in attracting pollinators and favoring cross-pollination.

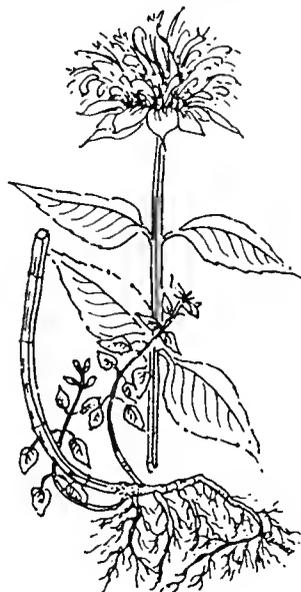
Garden plantings or wild patches of wild bergamot offer a chance to see a variety of pollinators visit the flowers. Bees, butterflies and hummingbirds all search them for either pollen or nectar. Because of the flower structure and their hovering posture, hummingbirds may acquire a visible yellow pollen spot on their foreheads. In smaller or newly open flowers, hummingbirds searching for that "good to the last" drop have been observed stuck and having difficulty extracting their bills. They may not be the most effective pollinators. If you have both red "bee balm" and lavender wild bergamot in your garden, do visiting hummingbirds prefer one color to the other?

On wild bergamot heads, bumblebees land with a belly-flop and pick up pollen on body and wings as they feed on nectar and lumber from flower to flower. Smaller bees pick up and transfer pollen on their legs, crawling into and among the blooms. Butterflies are somewhat more graceful, sipping daintily with long tongues, but are too large to be very effective pollinators.

It's All in the Timing

With all this mechanical disturbance, what prevents wild bergamot from self-pollinating or in-breeding? Most of the time, differential maturation within the flowers coupled with bee behavior ensures cross-pollination. Ten to twelve flowers at a time in an inflorescence open sequentially, from the center outward, between about 8 a.m. and 8 p.m. Only occasionally do adjacent flowers open at the same time.

Stamens mature first so that pollen falling on the shorter immature stigma in its "home" blossom fails to germinate.



Pollen from one flower carried to another and deposited on a receptive stigma will germinate. Bees of various species, foraging randomly throughout the day for either honey or pollen, apparently cannot distinguish between blossoms already visited and those newly opened. Consequently, they visit new pollen-laden flowers and re-visit "old" flowers with no pollen but with mature stigmas, effecting cross-pollination within the same inflorescence or between plants.

In Virginia, cross-pollination is possible between lavender wild bergamot and scarlet bee balm where both species grow wild in the Shenandoah Valley and surrounding foothills. Plants with purple blossoms and characteristics of leaf shape, pubescence and flower structure that are intermediate between the two species have been collected in Virginia and several other states and named *Monarda media*. As a result of extensive selection and hybridizing for horticultural purposes, you can find monardas in pink, white, rose, red, purple and mahogany. Many are named cultivars: Granite Pink, Cambridge Scarlet, Snow Maiden, Croftway Pink, Sunset, and Salmon Queen.

Catherine Tucker
Botany Chair

New Monarda Cultivar

Perennial Plants, Spring 1993, the quarterly newsletter of the Perennial Plant Association, published a feature on Marshalls Delight monarda, a new cultivar with *Monarda fistulosa* in its lineage. This selection features pink flowers and shiny yellow-green leaves, and is highly resistant to powdery mildew and moderately resistant to rust.

Enjoying Wildflowers In Prince William County

(Continued from page 1)

number of years. In the last year, new numbered station markers have been installed and a self-guided tour brochure has been developed for the Trail stations. I have worked on this project since coming to teach at the Manassas Campus in 1976 and look forward to sharing it with participants in both Saturday morning and afternoon walks. A lovely wildflower garden designed and installed by Marie Davis, a professional native plant landscaper and PWWS Treasurer, is located on the NVCC — Manassas Campus and will be featured during the tours.

A number of PWWS members have cultivated beautiful native plant gardens over the years. These gardens will be breathtaking with the beauty of fall-blooming native wildflowers at the time of the Annual Meeting. A select number of these gardens will be open for Annual Meeting participants to visit on both Saturday morning and afternoon.

Sunday Tours

Great Falls National Park, Virginia, located in Fairfax County along the Potomac River, affords a breathtaking view of the Falls. The diversity of habitats along the Potomac River setting of this Park results in a rich diversity of wildflowers. The third Sunday of each month I serve as a Park volunteer and lead a 10 a.m. wildflower walk. I invite Annual Meeting participants to take part in this walk and to enjoy the rich autumn flora of the Park. There is a \$3 entrance fee to the Park unless you have a National Park pass.

Also, on Sunday, the Manassas Campus Nature Trail and the Campus Wildflower Garden will be open for self-guided tours. You can enjoy this lovely one-half mile long trail and the garden on your own schedule and at your leisure.

Prince William Wildflower Society is looking forward to hosting the Annual Meeting and sharing the diversity of habitats and native plants with meeting participants. We hope this "sampler" of fieldtrip opportunities will help to make the 1993 Annual Meeting a most enjoyable meeting for VNPS members. Sign up early and enjoy the beauty of the autumn flora and of Prince William County.

Marion Lobstein
Prince William Wildflower Society

Appreciating and Identifying Grasses

Virginia's native grasses vary in form from the brownish, clump-forming *Andropogon scoparius*, present in early stages of old field succession, to the wispy sea oats and wild rice of our coasts and wetlands. After mastering identification of these distinctive natives, many autumn field walkers are tempted to learn more about grasses. The following article provides an introduction to grass identification.

Grasses are some of the world's most common plants, but they are often overlooked and under-appreciated, perhaps because they are not as striking as some of our more common showy wildflowers. We often don't even see the true grandeur of grasses because we usually choose to mow them to a "tolerable" height.

Autumn is an ideal time to learn to identify grasses because most of them flower and produce mature fruit then. The seedhead and flower have important characteristics to use when identifying grasses. It is best to use reproductive features to help identify grasses because they are less variable than some of the vegetative characteristics.

Terminology Basics

Learning to identify grasses can be a baffling experience unless you understand the terms used to describe the various parts. To help you develop a vocabulary and to simplify the terminology, these familiar words have their corresponding scientific terms in parentheses. The technical words are found in most taxonomic keys and source books.

Grasses are herbaceous plants that consist of stems (culms), roots, leaves (blades), and a seedhead (inflorescence) of small flowers (spikelets). The structure of a grass is as easy to understand as that of any other plant, if you remember that grasses have both vegetative and reproductive parts.

Grasses have stems that are made up of swollen joints (nodes) from which arise the leaves, branches and roots, and sections between those nodes, called internodes. The leaves are typically long, narrow, stalkless and flat, but can be V-shaped, folded or rounded.

At the intersection of the blade and stem is a tongue-like extension or appendage called the ligule. The ligule is either a parchment-like structure or a ring of hairs. The region on the back of the

leaf, at the same intersection, is called the collar. Occasionally, the collar may have clasping appendages called auricles.

In grasses, the flowering part of a seedhead can be arranged in one of three general types: spikes, racemes or panicles. The differences deal with whether the spikelets (flowers) are stalked (pedicelled) or stalkless (sessile) on the main axis and branches of the inflorescence.

In a spike, all the spikelets arise directly from the main stem. The spikelets on a raceme are either stalked, or both stalkless and stalked on an unbranched stem. The most common type of seedhead, the panicle, has spikelets that are stalkless or stalked on branches off the main stem.



Wild rice
Zizania aquatica

The spikelet, a unit of the seedhead, is really a reduced and modified flowering branch with two papery bracts (glumes) at its base. Above the glumes, one or more flowers (florets) may develop in the junction (node) of the central shaft (rachilla).

Each individual flower consists of two bracts which enclose the flower or seed. In most cases, the flower consists of a single-celled ovary or pistil, three male stamens, and two or three mounds (lodicules). This flower produces the fruit or grain (caryopsis). In cases with multiple florets, it is possible to have seed-bearing (perfect) florets and male (staminate) florets.

Other Aids

Anyone who is determined to identify grasses can learn with a little practice. If you have problems understanding the terms, keep a good glossary with plenty of diagrams close at hand.

Get a hand lens (10X) and dissecting needles so you can isolate the plant parts

and see them in greater detail. Grasses do not all look alike; you don't have to have steady hands and keen eyesight to identify them — all you really need is a taxonomic key and a regional or local source book for grasses in your area.*

While you are in the field, many clues can help you with identification. Notice the wide range of colors that grasses display and how well they complement wildflowers. Also observe the grasses' heights, the species they associate with, the type of soil they grow in, their longevity, the type of clump or sod they form, the time of the year they turn color, and the overall appearance of the seedhead and individual seed units. Be attentive to how the mature spikelet shatters to release the grain, how the spikelet is flattened, and the size, color and feel of the leaves.

Perhaps you will become good enough at grass identification that next season you can progress to identifying grasses in the field in their vegetative state. After several seasons of study, you might get to the point that you can "feel" the differences between the species.

Alison Hill
Ecologist

(Adapted from "Fall is the Time to Appreciate the Beauty of Native Grasses," *Wildflower*, newsletter of the National Wildflower Research Center, Sept. 1991)

* Suggested Books for Virginia

Grasses of North Carolina

by Hugo Blomquist

Wildflowers of North Carolina by

William S. Justice and C. Richie Bell.

Grass ID Course

This month, field botanist Cris Fleming will conduct a short course **Introduction to Grasses Identification** through the Audubon Naturalist Society. An evening lecture on Thursday, August 19, will be combined with a field trip on Saturday, August 21, to Great Falls, Virginia. For more information, call the Audubon Naturalist Society at 301-652-9188.

A course entitled **Woody Plant Identification** will also be taught by Cris this fall. It consists of nine evening lectures, Tuesdays, Sept. 21 through Nov. 23, and three Saturday morning field trips, Oct. 2, 16 & 30. For more information, call USDA Graduate School at 202-690-4280.

FROM NEAR AND FAR

A Reprieve for Yew

Faster than expected progress has occurred in producing a semisynthetic version of taxol, a cancer drug derived from Pacific yew tree bark (see Near and Far, *Bulletin*, Aug.1992). *USDA Small-Scale Agriculture Today*, Spring 1993, reports that it its expected by 1995, firms will no longer have to derive taxol from yew bark.

Market for Recycled Glass

As reported in *Recycling Today*, March 1993, the Virginia Advisory Committee for Recycled Materials in Highway Construction recently heard some great news. VDOT engineers calculate that highway construction could accommodate all the broken and mixed glass generated in Virginia for the foreseeable future. (Virginians purchase approximately 120,000 tons of glass products annually.) VDOT calculates that it requires 18,773 tons of base material beneath each mile of highway constructed. Suitably crushed glass is equivalent to sand and other sub-base materials used.

VDOT's conclusion is that all mixed broken glass currently generated in Virginia each year could be accommodated in less than a mile of newly constructed pavement. In fact, all discarded glass could be used in less than seven miles of highway construction. The remaining issues involve VDOT's willingness to authorize contractors to use this material, transporting the crushed glass to the

construction site, and the cost of crushing the material to meet VDOT specifications.

More than a Pretty Face

Author Frank Kuznik asks various specialists "What Difference Does the Dogwood Make?" to wild ecosystems, in *National Wildlife*, April-May, 1993. Flowering dogwood's disappearance as a food source may seriously impact rabbits, deer, squirrels and over forty species of birds which rely on dogwood fruit to survive winter, particularly in the South along the Blue Ridge Parkway. Dogwood fruit has one of the highest fat contents of any food in the forest, important to birds bulking up for migration, and game birds and mammals putting on fat for the winter.

Maps showing the progress of the deadly dogwood anthracnose trace the spine of the Appalachian mountains where conditions are ideal for the fungus — shady, wet and cool. Acidity in East Coast rain and snow aids survival of the disease.

Anthracnose fungal spores are carried by wind, rain, and many migratory birds. Until some naturally disease-resistant trees reproduce or the disease dies down (neither occurrence is likely in our lifetime), the hardy few dogwoods that tolerate the blight will be garnered by plant pathologists in hopes that one of the trees holds a resistance that can be reproduced.

And More Bad News

Mark Windham of the University of Tennessee, a lead researcher on the

dogwood anthracnose problem in the Southeast, related to readers in *Quill and Trowel Newsletter*, June 1993, that it is not necessarily true that *Cornus kousa*, a frequently suggested substitute for flowering dogwood, is unaffected by dogwood anthracnose. While most *C. kousa* 'Chinensis' he has seen in infected areas don't develop the disease, some do. His research has documented that these dogwoods were just as susceptible to dogwood anthracnose as *Cornus florida*: *C. sericea* (redosier dogwood), *C. controversa* (giant dogwood), and a line of *C. kousa* 'Chinensis.' *Cornus* species that were not totally immune to the disease but showed only minor leaf spotting when exposed are *C. alternifolia* (pagoda dogwood), *C. amomum* (silky dogwood), *C. mas* (Cornelian cherry dogwood) and a line of *C. kousa* 'Chinensis.'

Return of a Native

William Stolzenburg spreads good news about Canby's dropwort, *Oxypolis canbyi*, in *Nature Conservancy*, May 1993. This cousin of the carrot, once widespread throughout coastal wetlands of the mid-Atlantic region, has made a cautious return to the wild after a much-needed hiatus in captivity. In 1989, in a desperate attempt to propagate the species, botanists moved two of the three known survivors north of North Carolina to the North Carolina Botanical Garden. Although no seeds have been produced, dozens of offspring have sprouted from the roots, sixty of which were returned to their wetland home.

See the address label for your membership's expiration date.

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

Individual \$15 Family \$25 Student \$10

Patron \$50 Sustaining \$100 Life \$400

Associate (group) \$40; delegate _____

To give a gift membership or join secondary chapters: Enclose dues, name, address, and chapter. (Secondary chapter dues are one-third your primary dues.)

I wish to make an additional contribution to _____ VNPS _____ Chapter

in the amount of \$10 \$25 \$50 \$100 \$ _____

Check here if you do not wish your name to be exchanged with similar organizations.

Check here if you do not wish to be listed in a chapter directory.

Make check payable to VNPS and mail to:

VNPS Membership Chair, Route 1 Box 381, Delaplane, VA 22025

The *Bulletin*

is published four times a year
(March, May, August, November) by

Virginia Native Plant Society
P.O. Box 844, Annandale, VA 22003
(703) 368-9803

Nicky Staunton, President
Virginia Klara Nathan, Editor
Barbara Stewart, Artist

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor's consideration. They should be typed (double spaced, please) or sent as a DOS text file to the Editor at Rt. 3 Box 119-F, Floyd, VA 24091.

**The deadline for the next issue is
October 10.**

Chapter News

Commemorating a Loss

Shenandoah Chapter sadly reports the passing of long-time VNPS member Bill True. In memorial, the Chapter donated a book to the Augusta County Library inscribed "In memory of William True, valued member of the Shenandoah Chapter, Virginia Native Plant Society."

Also in Memorial

Donations of time and funds from Potowmack Chapter have made possible a wildflower display garden on a hillside next to the CIA's main entrance in McLean. The garden is part of a memorial to two CIA workers who were killed and three other men who were wounded by a lone gunman on Jan. 25, 1993. At the June dedication ceremony, survivors of the attack, their families, and the families of those slain symbolically sowed wildflower seeds into the garden.

Good Coverage

Pocahontas Chapter appeared two places at once at the Maymont Flower Show. Some volunteers staffed a wildflower display, while others answered questions in a booth sponsored by local TV and radio stations.

A Powerful Book

Piedmont Chapter members want you to see and spread the word about *Noah's Garden* by Sara Stein. The text has so influenced the Chapter's board that they have given copies to developers and county supervisors. Copies are available for \$15 from Effie Fox, P.O. Box 3362, Warrenton, VA 22186; 703-347-4090.

For Fun & Prizes

To test members' memories and botanical skills, several chapters have published custom-made crossword puzzles in their newsletters. John Clayton Chapter devised a matching game for its Spring quarterly. Some chapters even offer a prize to the member who sends in the first completed puzzle.

Native Highlighted

Nancy Arrington, VNPS Horticulture Chair and PWWS founder, published an article on the Virginia native, blue star (*Amsonia tabernaemontana*) in the May issue of *Horticulture*.



Editor Leaving—

HELP WANTED

After four years of producing the *Bulletin*, I will be acquiescing to the needs of my young family and resigning from my position as editor. I have truly enjoyed working from my home in this capacity for VNPS. It has allowed me to learn many aspects of Virginia's geology, geography, botany, and conservation issues.

A hiring committee has been formed to find a new editor for the quarterly *Bulletin*. Needed for the job are writing and editing ability, newsletter layout and design skill, computer word processor proficiency, and the desire to find out more about our Society. Interested parties may send resumes to Mark Gatewood, VNPS Publications Chair, 132 Wayburn St., Churchville, VA 24421.

Coming Events

Native Plant Symposium

Return of the Natives

Thursday, August 26

This one-day native plant symposium is sponsored by The Irvine Natural Science Center, St. Timothy's School, Stevenson, Maryland; 410-484-2413.

Wetlands Courses

Marion Lobstein will conduct a two-credit course BIO 295-73M, **Special Topics in Wetland Plants** at NVCC, Manassas. The course will concentrate on identification and ecology of wetland plants. Lectures on four Wednesdays, 4:30 p.m., Oct. 13 to Nov. 3. Fieldtrips Oct. 16 & 30, and an overnight Nov. 6 & 7. FMI: 703-323-3000 Ext. 6643 or 703-536-7150.

These wetlands courses are being offered at NVCC, Woodbridge. For more information, call 703-878-5755.

Winter Wetland Plant Identification -

a two-day course using keys and distinguishing characteristics in the field. Instructor, William Sipple, wetland ecologist with EPA and author of EPA's wetland delineation manual. Dec. 10 & 11.

Identification of Grasses, Sedges & Rushes for Wetland Delineation -

a two-day intensive field-oriented course taught by William Sipple and botanical consultant Yvette Ogle. September 24 and 25.

Wetland Ecosystems -

a three-day course which will review selected physical, chemical and biological aspects of various tidal and non-tidal wetlands in the mid-Atlantic states. Instructor William Sipple. October 29 & 30, and November 6.



Virginia Native Plant Society

P.O. Box 844
Annandale, VA 22003

Non-Profit Organization
U.S. Postage

PAID

PERMIT NO. 347
Springfield, VA

THE NEW YORK BOTANICAL GARDEN
LIBRARY-SERIALS & EXCHANGE
BRONX, NY 10458-5126

LIBRARY

SEP 13 1993

NEW YORK
BOTANICAL GARDEN

Please note the expiration date on your mailing label and renew accordingly.

u 92 455
12
4



Bulletin

A publication of the **VIRGINIA NATIVE PLANT SOCIETY**
conserving wild flowers and wild places

Urban Woods and Wetlands Registered

The newest VNPS Registry site is a section of James Long Park, a Prince William County park located off Route 15 in western Prince William County. The site, which was admired by over a dozen VNPS members on an Annual Meeting fieldtrip, is one of the few natural areas left undeveloped in the Park.

James Long Park is a multiple-use area with a branch library, recycling center, tot-lot and picnic facilities located on the property. The bulk of the Park property has been developed for athletic field activities, such as soccer and tee-ball, with recent additions of a horse exercise rink and riding trails. Each fall a reenactment of a Civil War encampment and battle, involving over one thousand participants, is carried out, much of it near the new Registry site.

The recently registered area includes two different plant communities that are next to each other: a wet meadow that parallels Catharpin Creek and an upland woods that slopes down to that same stream. In the wet meadow, a substantial number of closed or bottle gentian (*Gentiana clausa*) can be observed in late fall. This species-rich wetland is also habitat for other showy species such as cardinal flower (*Lobelia cardinalis*), New York ironweed (*Vernonia noveboracensis*), buttonbush (*Cephalanthus occidentalis*), both monkey flower species (*Mimulus alatus* and *M. ringens*), mistflower (*Eupatorium coelestinium*), and many others which provide a colorful display in late summer and into the fall.

The upland woods is dominated by oaks with an understory of fringe trees (*Chionanthus virginicus*). Several less common plants, including curly-heads

clematis (*Clematis ochroleuca*) and stiff aster (*Aster linariifolius*), occur in this community.

The James Long Park Registry site provides an opportunity for enjoyment of native wildflower species and also represents an important buffer along Catharpin Creek. Both housing and commercial development is planned for properties on the other side of Route 15, across from or very near the Park. The impact on the drainage patterns and on other natural areas along the corridor will be great as these developments are pursued in the near future, as expanded development continues in western Prince William County. The nearby developments will encroach on the quality of the habitat of the wetland area of the Registry site. As future development occurs, the wet meadow area along Catharpin Creek, in particular, will be even more important in flood control and water quality control.

Prince William Wildflower Society (PWWS) worked closely with the Prince William Park Authority to register this special urban site. The level of cooperation and encouragement extended by the Park Authority in this effort is greatly appreciated. PWWS looks forward to working with the Park Authority in the future to register other sites on county park lands.

Marion Lobstein
Prince William Botany Chair

A recently updated list of species for both habitats in James Long Park has been developed and is available on request from Marion Lobstein, 1815 N. Roosevelt St., Arlington, VA 22205. Please send a self-addressed, stamped envelope.

1993 Annual Meeting Wet and Wonderful

The VNPS Annual Meeting weekend, September 17-19, arrived as the previous week's sunny weather came to a close. Friday evening was a drizzly affair, but it didn't dampen the spirits of the participants. While a tour of the wildflower garden and nature trail at NVCC — Manassas Campus was rained out, VNPS members enjoyed several indoor events. Nancy Herwig, Co-Chair of PWWS Annual Meeting Committee, engaged the diverse group in an ice-breaking scavenger hunt. Members enthusiastically completed hunt lists by finding specific people; i.e., members from other chapters, left-handers, gardeners and world travelers.



Prince William's Botany Chair and NVCC Assistant Professor Marion Lobstein presented a slide lecture on "The Exchange of Medicinal Plants Between the Old and New Worlds", dedicating it to David Arrington, who had passed away several days earlier. David was a member of Prince William Chapter and husband of Nancy Arrington, VNPS Horticulture Chair. This sad loss was a quite a blow to Prince William Wildflower Society and to all who knew David.

(Continued on page 3)

Your Input Affects Legislation

Virginia's new legislative year runs January 12 through March 12, 1994. Get to know your legislators and share with them how important you feel legislation is to protect native plant habitats. VNPS will try to keep you informed about important bills and resolutions by phone tree, as this *Bulletin* is the last you will receive until the legislative session is completed.

On Species Listing

The Department of Agriculture and Consumer Services (VDACS) is the agency in Virginia charged to list both Endangered Species and Noxious Plants. The Board, composed of persons primarily oriented toward agricultural crops and consumer-oriented businesses, often asks, "What is the importance of this plant recommended for listing as endangered?" If you tell your representative to VDACS Board the importance of endangered native species, you will be doing valuable work for your plant friends. Out of many imperiled plant species in Virginia, only six have been recommended this year for listing as endangered. Read the article on page 4, then call Faith Campbell 202-783-7800 to find out the name of your VDACS Board representative.

On VDGIF Funding

Funding for Virginia Department of Game and Inland Fisheries (VDGIF) work has historically come from Hunting and Fishing Licenses. With an ever-growing constituency of "non-consumptive users" (hikers, for example) and a reducing numbers of hunters, there has been a shortfall of funding for the agency's work. The VDGIF Director's Funding Initiative includes a proposed \$6 per year Use Permit for citizens who "otherwise" use Department facilities. (Other sources of increased funding are proposed from the General Funds of Virginia, Watercraft Sales and Use Tax, a percent of Sales Tax, and specific license increases.)

As a member of the VDGIF Citizens Advisory Board, I endorse the Use Permit concept. This is the only direct way that we, who enjoy places such as the trillium colonies on the Thompson Wildlife Management Area, can contribute to specific work projects. For a copy of these proposals, write to David Whitehurst, VDGIF, P.O. Box 11104, Richmond VA 23230-1104.

(Continued on page 4)

FROM THE PRESIDENT



Closed gentian
Gentiana clausa

Autumn sunlight shining through amber, russet, scarlet leaves tells us that we've come to a season change. At the same time, this "closing out" season reveals tiny primary leaves under garden refuse, and tree buds are evident, preparing for spring flora explosions. No need to be sad at the death of one season because the next is receiving "the baton" as the seasonal relay laps evolve.

Our flora season began with the delicate blue of Virginia bluebells. Now we close the season with the rich royal blue of closed gentian. Gratitude fills our hearts for the glories of Virginia's native flora. And we are grateful for our fellow "wildflower friends" who have worked diligently through the past year to conserve Virginia's native flora.

More immediately, thanks must be given to our hosts for this year's VNPS Annual Meeting: Prince William Wildflower Society. Nancy Vehrs (President), Nancy Herwig (Programs), Claudia Thompson-Deahl (Youth program), Martha Slover (Auction), Marion Lobstein (Fieldtrips), Jeanne Endrikat (Computer records), Keith Hawkins and Marion Lobstein (Fieldtrip leaders), Marie Davis, Nancy Arrington, Helen Winn, Joann Krumviede ... all willing helpers ... along with many un-named members.

Special thanks to the volunteers from other Chapters and from outside our Society: Catharine Tucker (Pocahontas) and Cris Fleming (Potowmack) who led fieldtrips, as did Yvonne Shultz of Mason's Neck Wildlife Refuge and Jim Waggener of Prince William Natural Resources Council. Nick Arrington, a professional auctioneer, generously gave his services, crowding in several hours of bidding after a full day of tractor auctioning.

Our auctions (live and silent) brought in approximately \$1200. Sincere thanks to each of you who sent items and bid at the auction ... a wonderful array — canoe and sailboat trips, a *Franklinia* tree, several native plant collections, many books including a signed copy of *Hedgemaids and Fairy Candles* donated by author Jack Sanders; gift certificates given by White Oak Nursery of Catharpin, Virginia, and many other exciting finds. The proceeds from your generosity will help VNPS programs in the coming year.

The location for the 1994 Annual Meeting of VNPS will be announced in the next *Bulletin*, but make note now to join us to share in our 1994 year-end celebration.

Nicky Staunton

P.S. Jack Sanders' book, a delightful anthology of folklore about wildflowers, is published by Ragged Mountain Press, McGraw-Hill Inc.

P.P.S. Through word of mouth and response to inquiries generated by several lines I wrote in the August *Bulletin*, openings on the VNPS sponsored trip to the **Bruce Peninsula** have been filled. However, do not let that discourage you from letting us know if you would like to travel to this Canadian botanical paradise with Leader Doug Coleman and me as Co-leader. Cancellations may allow persons on the waiting list to participate. Our dates are June 11-18. You can call Doug at 804-325-2200 Ext. 988 or contact me at 703-368-9803.

Changes to the Board

Great thanks to members of the VNPS Board who have completed their elected terms or have needed to resign: Chris Clampitt, Bob Eubank, Ken Wieringo, Gale Roberts, Anne Haynes, and Michael Hill. We are fortunate to have had them work for the Society.

Re-elected to the Board are Jim Minogue, Liz Smith, Ted Scott, Dorothy Bliss, Nancy Arrington, and Gay Bailey. Thank you for your continued service.

New to the Board are Frank Coffey (1st Vice President); Elaine Smith (Corresponding Secretary); Faith Campbell and Pat Baldwin (Directors-at-Large); and Janis Miller (John Clayton), Nancy Luria (Potowmack), and Elizabeth Kyger (Shenandoah), newly elected chapter presidents.

Wet and Wonderful

(Continued from page 1)

Saturday morning the skies were gray and the air was cool, but most members were willing to take a chance on the weather to view some wonderful wildflowers. Armed with field guides and picnic supplies, fieldtrip participants set off to diverse parts of Prince William County. Unfortunately, the clouds poured out their contents, and many members returned with wet clothes. The poor canoe trip participants had been in the middle of the river when the downpour came!

As the afternoon fieldtrips began, the weather cleared and warmed. Spirits soared at the sightings of bluehearts, *Buchnera americana*, in Manassas National Battlefield Park and closed gentians, *Gentiana clausa*, at the new Registry site at James Long Park.

Saturday evening's program began with a lively social hour and silent auction. After the Society's business meeting, members feasted on a delectable buffet. Auctioneer Nick Arrington led the bids for about sixty items and services which ranged from books to boat trips. Naturalist Doug Elliott entertained the audience with his stories from the woods. His folksy style charmed most listeners.

Sunday morning many members took advantage of one of two additional fieldtrips. Some toured local wildflower gardens, while others hiked in Great Falls Park in neighboring Fairfax County. Board members conducted their meeting, then managed an afternoon fieldtrip to Manassas National Battlefield Park.



Prince William Wildflower Society was pleased to host this year's Annual Meeting. We hope there was something for everyone, and we encourage all members, especially those who have never come to an annual meeting, to think seriously about attending one of these fun, educational events.

Nancy Vehrs
Prince William Wildflower Society

When Old Meets New

Marion Blois Lobstein, Assistant Professor at NVCC, was on familiar turf when she presented her talk "The Exchange of Medicinal Plants between the Old and New Worlds", at the Annual Meeting Friday gathering on NVCC — Manassas Campus. Lobstein's topic grew out of two questions which came to her as she viewed the "Seeds of Change" exhibit at the National Museum of Natural History in 1991: What was the state of health and medical practices of Europeans and Native Americans in 1492, and what was the impact of the exchange of knowledge of medicinal plants that occurred?

The State of Health

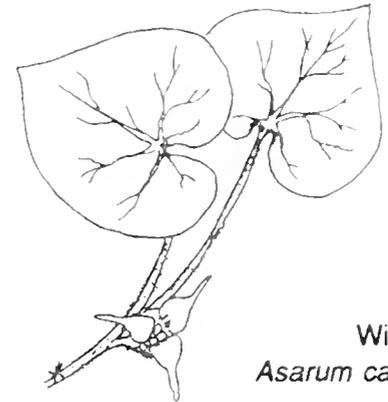
In the late fifteenth century, the average European lived in crowded, unsanitary conditions that bred and spread diseases and parasitic worms. Dietary deficiencies developed from a contaminated and nutrient-deficient diet. Many of medicinal practices were based on the work of Dioscorides, a first century B.C. physician. They involved the "balancing" of humors by practices such as blood-letting and the use of purgatives. Often the choice of medicinal plants was based on the "doctrine of signatures" (the idea that a plant part resembling the afflicted human body part would provide effective treatment) with the concept of disease being punishment for evil deeds.

Pre-Columbian Native Americans lived mainly in small groups in relative harmony with nature and, in North America, with only the dog and turkey as domesticated animals. The cities were more sanitary and the quality of personal hygiene much higher than that of the Europeans; however, Native Americans were not living in a disease-free paradise. Diseases, parasitic infections, dietary deficiencies, and food poisoning occurred.

Medical Know-how

As a group, pre-Columbian Native Americans had a vast knowledge of the identification, uses, preparations and dosages of medicinal plants. Some tribes developed their own versions of the "doctrine of signatures", used purgatives and sweat baths, and included a spiritual element in the healing process. Native American tribes north of Mexico had an estimated 750 or more species of medicinal plants in use to treat routine problems. Many of their techniques used near-aseptic measures, including the use

of wild ginger now known to have antiseptic properties.



Wild ginger
Asarum canadense

When early Spanish explorers, first encountered the Aztec culture, they were very interested in the advanced medical techniques and medicinal plant knowledge of the Aztecs; over 1200 species of medicinal plants were purportedly in use. Early adoption by the Spanish and other Europeans of the use of cinchona bark, a source of quinine, to treat malaria soon occurred. Tragically, this period of respect and exchange of knowledge was short-lived, as more conservative Spanish explorers destroyed the Aztec culture.

Early English and French explorers and colonists were more willing to exchange information about medicinal plants with Native Americans. The French explorer Cartier was losing his crew to the ravages of scurvy when he found Native Americans using the bark of some conifers as a source of vitamin C. In Quebec and other French colonies, French and Native American medicinal practices blended as a result of intermarriage and conversion of many Native Americans to Christianity.

Europeans brought to the New World several serious diseases, including smallpox, diphtheria and typhoid fever. Following contact with both white men and their diseases, American Natives eagerly adopted European medicinal plants to deal with the deadly new diseases. Some Old World medicinal plants, many of which are now considered lawn or roadside "weeds", quickly naturalized, for example, coltsfoot.

Culpepper in his European herbal of the mid-1600s lists many species introduced from the New World. One group of plants widely used by Native Americans and quickly adopted in Europe were the *Lobelias*. Linnaeus assigned the Latin epithet *Lobelia siphilitica* to great blue lobelia based on its purported use to treat syphilis.

(Continued on page 7)

Legislation

(Continued from page 2)

On National Concerns

The formation of a National Institute for the Environment has been proposed to focus exclusively on the environment, bridging the National Science Foundation and the Environmental Protection Agency. Patterned after the National Institute of Health, its goals would be to conduct problem-focused research, to provide comprehensive assessments, to expand access to environmental information, and to strengthen the capacity to address environmental issues by sponsoring education and training. A copy of the proposal is available free from the Committee for the National Institute for the Environment, 730 11th Street NW, Washington, DC 20001-4521; 202-628-4303. State coordinator is Dr. Joseph C. Mitchell, Department of Biology, University of Richmond, Richmond, VA 23173.

A National Biological Survey has been proposed by Secretary of the Interior Bruce Babbitt to "expand and improve the biological information available to decision makers within the Department of the Interior, and in other federal agencies, and in state and local governments and the private sector. For instance, the NBS will help ensure that management of National Parks, National Wildlife Refuges, and Bureau of Land Management lands is coordinated." Only qualified taxonomists would collect data, and private land would not be entered without the owner's knowledge and permission. "Cooperative Research Units of NBS are collaborative ventures among federal agencies (FWS, NPS, or BLM) and a state university, and in many cases a state fish and game agency", according to Babbitt.



Several other critically important bills soon will be considered by Congress. If you would like more information on the National Biological Survey or other environmental legislation, please let me know; I will send you a fact sheet.

Nicky Staunton
VNPS President

State Lags in Species Protection

Under the Commonwealth's Endangered Plant and Insect Species Act, only fourteen imperiled plants are currently protected. Some members of the Virginia Department of Agriculture and Consumer Services (VDACS) wish to offer protection to an additional six species of plants and two species of insects. All six plant species involved are either already listed under the federal Endangered Species Act or are candidates for such protection.

Unfortunately, the concerned VDACS members have been unable to persuade VDACS Commissioner, Clinton Turner, to place the issue on the agenda for the quarterly meetings of the Department's Board. Without the Board's approval, no formal steps can be taken to safeguard these plants in Virginia.

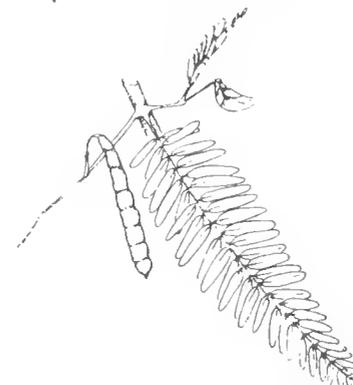
Special Species

Of the species concerned, two are found only in Virginia. Two others are found in Virginia and only one other state. A fifth species is more widespread, but Virginia's population is considered crucial to the species' survival.

Two wild clematis, Addison's leatherflower, *Clematis addisonii*, and Millboro leatherflower, *C. viticaulis*, are found only in a few mountainous counties in Virginia. Addison's leatherflower is extremely rare even within its restricted range. The largest populations are in Montgomery and Botetourt Counties. Threats to Addison's leatherflower come from road widening, quarrying, intensive logging, and grazing. Millboro leatherflower grows only on south-facing shale barrens in Bath and Rockbridge Counties. The principal threats are bulldozing the shale slopes for landfill material, shading by trees, and fire.

Leo's clover, *Trifolium sp. 1 (calcarium)*, (also called running glade clover) is known from only two locations in the world, one of which is in Lee County, Virginia. Within Lee County, twenty-four populations have been located, all within a twelve square kilometer area. The principal threat to the Virginia population is proposed construction of a state prison and an airport at The Cedars. Alternative sites for these projects exist.

Small-anthered bittercress, *Cardamine micranthera*, is found in wet areas and streambanks along small streams in Patrick County, Virginia, and adjacent North Carolina; five of the nine sites are in Virginia. Its habitat is being invaded by the exotic species, Japanese honeysuckle, *Lonicera japonica*. Other threats include agriculture and residential development, and disruption of the streams and seeps.



Sensitive joint-vetch, *Aeschynomene virginica*, occurs in slightly brackish tidal marshes along river shorelines from southern New Jersey to North Carolina. About half the total world population is at six sites in Virginia; the largest group is located on the Rappahannock River. Sensitive joint-vetch is threatened by construction, dredge and fill operations, damming of tributaries, and accumulation of flotsam.

Smooth coneflower, *Echinacea laevigata*, occurs from Virginia south to Georgia, but it is rare throughout this range. Fifteen populations are known in twelve counties in the piedmont and mountains of Virginia.

Sun-facing coneflower, *Rudbeckia heliopsidis*, is known from a few sites in Virginia, North and South Carolinas, and Alabama. The only known locality in Virginia is a moist roadside in Prince George County.

As time continues to pass without legislation in the Commonwealth to protect these botanical treasures in Virginia, the fragile status of these species becomes more imperiled. Concerned VNPS members can write to Commissioner Clinton Turner, Virginia Department of Agriculture and Consumer Services, P.O. Box 1163, Richmond, VA 23209, to urge prompt action to list these endangered plant species.

Faith Campbell
VNPS Director-at-Large

(Illustration of *C. addisonii* by Megan Rollins; illustration of *A. virginica* by Meryl Lee Hall)

The Society Store

The Virginia Native Plant Society and several of its Chapters offer a variety of interesting items for sale at reasonable and sometimes discount costs. Some items, such as VNPS patches and certain checklists, are exclusives, available no where else. Puruse the list below for holiday gift ideas and augmentations to your own array of botanical assets. Please contact the individuals or chapters listed to make purchases by mail.

Piedmont Bookstore

Piedmont Chapter offers a wide variety of nature books. Currently available titles:

Growing and Propagating Showy Native Woody Plants by Richard Bir \$18.95
Growing Woodland Plants by C. & E. Birdseye \$4.95
Pruning: A Step-by-Step Guide... by Christopher Brickell \$10.95
Grasses: An Identification Guide by Lauren Brown \$10.95
Honeysuckle Sipping: The Plant Lore of Childhood by Jeanne Chesanow \$10.95
Dictionary of Plant Names by Allen Coombes \$10.95
A Sierra Club Naturalist's Guide to the Piedmont by Michael Godfrey \$9.95
The Wildflower Meadow Book: A Gardener's Guide by Laura Martin \$16.95
Growing with Gardening: A Twelve-Month Guide for Therapy, Recreation and Education by Bibby Moore \$14.95
Newcomb's Wildflower Guide by Lawrence Newcomb \$16.95
Growing and Propagating Wildflowers by Harry Phillips \$16.95
The Bluebird Book, The Butterfly Book, and The Hummingbird Book. All three are by D. & L. Stokes. Each \$10.95

Special Discount Prices!
Earth in Balance: Ecology and the Human Spirit by Al Gore (list \$22.95) VNPS \$16
Noah's Garden: Restoring the Ecology of Our Own Backyard by Sara Stein (list \$21.95) VNPS \$15

A good idea for school-aged children:
American Wild Flowers Coloring Book by Paul Kennedy \$2.95

Book orders may be placed with Effie Fox, VNPS - Piedmont Chapter, P.O. Box 3362, Warrenton, VA 22186; 703-347-4090. Prices are subject to VA sales tax and postage.



Blue Ridge Offerings

Blue Ridge Wildflower Society sells a distinctive, colorful Blue Ridge Wildflower Patch for \$3.

In addition, Blue Ridge Chapter carries the following checklists:

- Spring Wildflowers of the Blue Ridge* \$1
- Ferns and Fern Relatives of Virginia* \$1
- Trees, Shrubs & Woody Vines of VA* \$1

To order items above, send a check plus a self-addressed stamped business-sized (#10) envelope to BRWS, P.O. Box 20385, Roanoke, VA 24018-0039.

PWWS Offerings

These regional checklists are offered by Prince William Wildflower Society:

- Spring Wildflowers of Northern Virginia* \$2
- Trees, Shrubs and Woody Vines of Northern Virginia* \$2
- Summer and Fall Wildflowers of Northern Virginia* \$3

(Checklists above can be purchased by writing to PWWS and enclosing a SASE business-sized (#10) envelope with \$.52 postage.)

The Flora of Prince William County \$3.52 (This checklist is too large for a regular envelope; price includes postage & envelope.)

Other publications available:
Gardening with Wildflowers and Native Plants published by the Brooklyn Botanic Garden \$5 (includes postage)
 Storey Publishing Bulletins:
Grow a Butterfly Garden by Wendy Potter-Springer \$5 (includes postage)
Creating a Wildflower Meadow by Henry W. Art \$5 (includes postage)

Send requests for these checklists and bulletins to PWWS, P.O. Box 83, Manassas, VA 22110.

VNPS Patches

Smartening up your trekking outfit or other casual attire with VNPS logo patches. An attractive, blue and green design depicts Virginia's native habitats on this 3-inch round patch. Order by sending a SASE with \$.52 postage and a \$3 check (payable to VNPS) to Pat Baldwin, 430 Yale Drive, Hampton, VA 23666.

Books and Gifts

Items to order from VNPS:

Good Books!

Fall Wildflowers of the Blue Ridge and Smokey Mountains by Oscar Gupton and Fred Swope \$12.95

Wild Orchids of the Middle Atlantic States by Oscar Gupton and Fred Swope \$12.50

Wildflowers of Tidewater Virginia by Oscar Gupton and Fred Swope \$10.95

Growing and Propagating Wild Flowers by Harry Phillips \$16.95

Spring Wild Flowers of West Virginia by Earl Core \$4.95

Gardening with Wildflowers and Native Plants, BBG Handbook #119 \$5.90

Wetlands by William Niering \$15.95

Great Stocking Stuffers!

Booklets and reprints:

Mowing Cycles and Native Roadside Plants by Kim Herman \$3.50

Wildflowers Recommended for Cultivation in Virginia (6 pages) \$1.50

Habitat Considerations and a Habitat Key for Landscaping (4 pages) \$1.00

Sources of Native Plants and Wildflowers (3 pages) Free

Wildflower Conservation Guidelines Free

10 VNPS Note Cards - 5 designs by Staff Artist Barbara Stewart \$6.50

All items above can be ordered from Phoebe White, Route 1 Box 381, Delaplane, VA 22025.

Gift Memberships

You provide a gift to a friend and to the Society whenever you give a gift membership to VNPS. An individual membership costs only \$15, but the benefits come for a whole year. To bestow this special present, send the membership form on page 7 along with a check to VNPS Membership Chair Phoebe White, Route 1 Box 381, Delaplane, VA 22025.

State Park and Preserve Acquisitions

The Department of Conservation and Recreation has been making excellent progress toward the acquisition of new natural areas and parks, providing public access to existing natural area preserves and improvements to state parks. The Pinnacle Natural Area Preserve was recently added to the State Natural Area Preserve System with the assistance of Russell County and The Nature Conservancy. Land acquisition options have been signed on properties in the City of Virginia Beach and Roanoke County. These acquisitions will provide land necessary for public access and protection of rare species at the North Landing River and Poor Mountain Natural Area Preserves. Three new state parks have been purchased: Belie Isle on the Rappahannock River, a park on the James River in Buckingham County, and the Karlan property in Lee County.

The Division of Natural Heritage expects to purchase fifteen natural areas with the \$11,475,000 provided by the 1992 Park and Natural Areas Bond Referendum. Negotiations have been initiated on twenty-three sites to date. Our focus is on areas harboring the state and the nation's most endangered species and exemplary natural communities.

Many of the landowners the Division of Natural Heritage contacts had no thoughts of selling their property prior to our discussions with them. Much of our work has involved negotiating with the owners and attempting to convince them to part with their distinctive properties. We expect to close on three natural area acquisitions by the end of 1993 and several more in early 1994.

Natural area dedication places a restriction on the deed, protects the site in perpetuity and from condemnation, and places it into DCR's Natural Area Preserve System. When the Division of Natural Heritage finds owners who truly have no interest in selling their property, other protection techniques are proposed. Options include: conservation easements, management agreements, and DCR's Natural Area Registry Program. Natural area registry is a voluntary agreement which places no restrictions on the land owner, but establishes an informal arrangement for protection of the rare species or exemplary community on the land.

Thanks to your support, your Virginia Natural Area Preserve System and State Parks continue to provide for the conservation of our most sensitive natural resources.

Tom Smith
Director, VA Natural Heritage

For Your Library

Noah's Garden by Sara Stein (1993; Houghton Mifflin Co.; \$21.95 retail; VNPS special price \$15 plus tax and shipping. Available from Effie Fox, Piedmont Chapter, 703-347-4090) Gardeners and native plant enthusiasts alike are applauding this outstanding book. True to its subtitle, "Restoring the Ecology of Our Own Backyards", this benchmark book chronicles the efforts and re-education of a naturalist/gardener as she and her husband landscaped their new property. They began by clearing, hauling and digging; later, realizing that they had "banished the animals from this paradise", they restored natural areas and created gardens that are natural communities as well as places of planned beauty. This book provides inspired direction and is packed with useable wisdom for all who want to make their yards and communities species-rich. (Excerpted from a review by Jocelyn A. Sladen, Piedmont Chapter)

Nursery Sources of Native Plants of the Southeastern United States by Jan Midgley (1993; Wildflower, 2292 Dunster Lane, Rockville, MD 20854; \$9 plus \$1.25 p&h) In his review, "Leo" Collins, Editor of *Native Notes* newsletter, calls this book a "must have" for native plant enthusiasts in the Southeast and adjacent areas. This very thorough sourcebook lists nursery sources for over 1400 native species of wildflowers, ferns, grasses and woody plants. Nearly 100 nurseries, all which propagate what they sell, are identified.

The Native Plant Sourcebook for Virginia by Brian Dobyns (1993; Native Landscape Design, 1138 Willow Woods Drive, Aiken, SC 29803; \$3 plus p&h) This tidy booklet, one in a state-by-state series by Dobyns, is an initial attempt to document native plants available in nurseries located throughout Virginia. Since only thirty-four nurseries are named, the booklet is far from complete, but it is a start. A short list of mail order sources located outside the state appears at the end. All nurseries mentioned propagate the plants they sell.

Wetland Planting Guide for the Northeastern United States by Gwendolyn A. Thunhorst (1993; Environmental Concern Inc., P.O. Box P, St. Michaels, MD 21663; \$19.95 plus \$3 p&h) This clearly illustrated, well-

organized, large-format guidebook consolidates a wealth of information on over 150 wetland species that can be used in wetland planting projects in the northeastern US. In notebook format, one species is illustrated and discussed per page; botanical and common names, physical characteristics, habitat, planting guidelines, geographic distribution, hydrologic considerations, and wildlife benefits are recorded for each species. This manual is intended for landscape designers and wetland "restorers", but it would be helpful to gardeners, too.

Rodale's Illustrated Encyclopedia of Perennials by Cole Burrell and Ellen Phillips (1993; Rodale Press; \$27.95) This comprehensive text, co-authored by a VNPS founder (Burrell), contains many attractive color photographs and much solid practical guidance on growing perennials, including a balanced discussion of the place of native plants in perennial gardens.

A Gardener's Guide to Plant Conservation by Nina Marshall (1993; World Wildlife Fund and Garden Club of America; WWF Publications Clearinghouse, P.O. Box 4866, Hampden Station, Baltimore, MD 21211; \$12.95 plus \$2 p&h) Several native plant specialists maintain that this volume contains the best available information to help gardeners concerned about plant conservation know what to buy and what to avoid. This manual provides guidelines on how to be certain plants from several groups, whose populations are under pressure from commercial trade, are not endangered, threatened or protected by law. Extensive lists report the status of available North American native species as "wild collected", "propagated", or both.

Taylor's Guide to Natural Gardening edited by Roger Holmes (1993; Houghton Mifflin Co.; \$16.95) The major premise of this book is to learn to work with nature in our surroundings, using plants which are well adapted to local conditions. Like other guides in the Taylor Series, this work contains guidance in essay and encyclopedia form. An essay describes the habitats and native species of the six major floristic provinces in the US; contributors include Kim Hawks, Sam Jones, and Craig Tufts. The encyclopedia highlights 300 species, each selected for availability and multi-season interest.

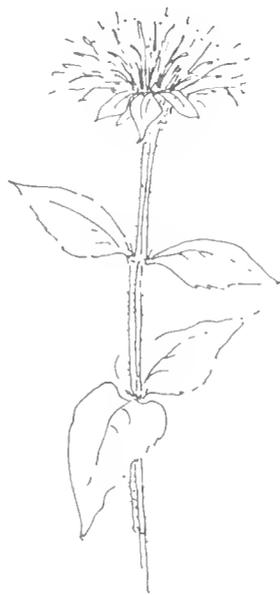
FROM NEAR AND FAR

For a Quick Change

Robert E. Lyons, of the Horticulture Department at Virginia Tech, explained "The Virginia Tech Transplanted Meadow: An Alternative to Direct-Seeded Meadow Cultivation" in *HortScience*, May 1993. A seed mixture of desired annual species can be planted in 4" by 4" pots in late spring. After the seedlings are off to a good start (about one month), they can be transplanted, at a one-foot spacing, into a roto-tilled site. The transplants need to be mulched and watered as needed.

Medicine & Moniker

Dyane Fry Cortez explores the widespread use of "*Monarda*: Medicinal Mints of Distinction" among early American settlers in NWRS's *Wildflower*, May-June 1993. The genus, species of which are found in most parts of the United States, is named for Nicolas Monardes, physician to King Philip of Spain in the late 16th century. The common name "bergamot", borrowed from the Mediterranean bergamot orange (*Citrus bergamia*), recalls the fragrance of some species.



Anyone Smiling?

USDA economic botanist Jim Duke responds to a controversy which has developed over using sanguinarine as a dentrifice in "White Teeth, White Flowers", *Wildflower*, Summer 1993. The conflict involves two issues: whether or not Viadent™ toothpaste and mouthwash contain enough of the toxic alkaloid to be of concern, and whether bloodroot (*Sanguinaria canadensis*), the manufacturer's source of sanguinarine, is in danger of overcollection. Two camps of researchers are divided on the toxicity question; as for the source of the sanquinarine, a renewable source, such as the exudates from the tropical tree *Bocconia*, could be substituted.



Plant Plague

Photographs by VNPS Board members Ted Scott and Nicky Staunton help illustrate the extent of the invasion of purple loosestrife in "Purple Plague," *Virginia Wildlife*, July 1993. Writer Stephen Capel, a farm and wetlands biologist in the the Wildlife Division of VDGI, states that as of 1992, twenty-five counties in Virginia contain naturalized stands of *Lythrum salicaria*. Throughout North America, the dollar value of losses of waterfowl and muskrat foods, livestock forages, and rare plants by this invasive alien species is estimated at \$230,000,000.

Old Meets New

(Continued from page 3)

Philosophical Battles

In the 1700s and 1800s, there was a battle among different groups in their approaches to medicine. Some physicians sought out Native American remedies, while others continued to practice traditional western medicine. Even when a plant-based remedy was agreed upon and found effective, quality control of purity and concentration of active ingredients was not always possible. Out of the exchange of medicinal plant knowledge on various levels, in the mid-1800s, the new area of pharmacognosy or pharmaceutical botany was developed to teach pharmacists how to use plants and analyze their chemically active ingredients. (This course of study is no longer routinely taught.) Some of our most beautiful wildflowers had medicinal uses by Native Americans which have been clinically proven effective; for example, mayapple rhizome extract as an antiseptic and bloodroot for its antitumor activity.

The "collision" of Old and New World medicine with the Columbian discovery of the New World and the ensuing exchanges of medicinal plant knowledge forever changed the face of modern medicine. Even today, the scientific search to understand and use the powerful chemical ingredients of native plants continues.

(Based on "Native American Medicinal Plants: A 'Seed of Change'," *The Northern Virginia Review*, Fall 1992)

See the address label for your membership's expiration date.

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

Individual \$15 Family \$25 Student \$10

Patron \$50 Sustaining \$100 Life \$400

Associate (group) \$40; delegate _____

To give a gift membership or join secondary chapters: Enclose dues, name, address, and chapter. (Secondary chapter dues are one-third your primary dues.)

I wish to make an additional contribution to _____ VNPS _____ Chapter

in the amount of \$10 \$25 \$50 \$100 \$ _____

Check here if you do not wish your name to be exchanged with similar organizations.

Check here if you do not wish to be listed in a chapter directory.

Make check payable to VNPS and mail to:

VNPS Membership Chair, Route 1 Box 381, Delaplane, VA 22025

The *Bulletin*

is published four times a year (March, May, August, November) by

Virginia Native Plant Society

P.O. Box 844, Annandale, VA 22003

(703) 368-9803

Nicky Staunton, President
 Virginia Klara Nathan, Editor
 Barbara Stewart, Artist

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor's consideration. They should be typed (double spaced, please) or sent as a DOS text file to the Editor at Rt. 3 Box 119-F, Floyd, VA 24091.

The deadline for the next issue is February 10.

Nominating Committee Looking For Next President

In 1994, I will complete my second term as President of VNPS. Prior to the March 1994 meeting of the VNPS Board of Directors, our Nominating Committee will be busy locating a candidate for the next President of the Society. Should you have any recommendations for this post, please share them with Committee members:

Ann Regn (Jefferson) 804-643-7003
 Anne Haynes (Potowmack) 703-836-0925
 Frank Coffey (Blue Ridge) 804-332-5757
 Fan Williams (John Clayton) 804-229-6252
 Bruce Boteler (Blue Ridge) 703-774-4072

If you are asked to consider this important position, please give it serious thought, knowing that you will have a strong team of Board members to share the work.

Sincerely,
 Nicky Staunton

Virginia Wildflower of the Year 1994 Chosen

With a touch of fanfare, Botany Chair Catherine Tucker introduced the Virginia Wildflower of the Year 1994 at the VNPS Annual Meeting. Mountain laurel, *Kalmia latifolia*, had been chosen by a fourteen-member committee to be the highlighted plant for the upcoming year.

Mountain laurel is the first shrub species to be chosen as Virginia Wildflower of the Year. The choice reflects our Society's broadening interest, moving from strictly wildflower preservation toward conserving all native plant species and their habitats.



Virginia Native Plant Society

P.O. Box 844
 Annandale, VA 22003

Roosevelt Island Project: Our First National Effort

VNPS members received an exclusive invitation by mail to share in a special day on Roosevelt Island on October 23, 1993. On that day, restoration of the native plants on the Island began. The long-range plan is to remove invasive alien species from the Island, one area at a time, in cooperation with the National Park Service. When suitable, native species will be planted with the eventual hope that the Island, a tribute to Theodore Roosevelt, will become a showplace of native plants of the Mid-Atlantic region of the nation.

Roosevelt Island, which is located in the Potomac River and is managed by the National Park Service as part of the Department of the Interior, has extensive

stands of non-native species such as ampelopsis. Realizing that this clean-up job is more than a few VNPS members can accomplish, there will be studies of removal techniques and consultations to plan work necessary.

October 23, 1993, was only the initial visit to renew Roosevelt Island. Members from the state-wide VNPS chapters are asked to share expertise, time, plants and enthusiasm. Mary Ann Gibbons (Piedmont) is commended for defining the problem and organizing the initial day of work and familiarization at Roosevelt Island. If you were there, you may well have been in on the groundfloor of a new area of emphasis for VNPS, that of restoration.

Protection Gained for Wet Meadows

The Harry Diamond Research Laboratory Facility near Woodbridge, Virginia, which is scheduled to be closed by the Department of Defense, has gained some protection by the transfer of the wetlands areas to the U.S. Fish and Wildlife Service. For the moment, some fine upland meadows have escaped being covered by warehouses of the Library of Congress. There is guarded excitement that the entire location will be placed in the care of USFWS.



Mountain laurel
Kalmia latifolia

Several members of Prince William Chapter spent several really hot mornings this summer recording a plant inventory near the Lab. Later, Cris Fleming visited the site and identified several plants of special interest. Jim Waggener, an Audubon Society member and a new member of PWWS, sounded the alarm on the potential destruction of "untilled-for-forty-years" meadows of gama grass which offer habitat for migratory birds and small mammals, and foraging areas for raptors.

Out of these efforts has arisen a new organization, the Prince William Natural Resources Council. Members will try to recognize threats to habitats in Prince Williams County and to share knowledge of these precious places with elected officials about the environmental effects of development proposals.

Non-Profit Organization
 U.S. Postage
PAID
 PERMIT NO. 347
 Springfield, VA

LIBRARY

NOV 22 1993

NEW YORK
 BOTANICAL GARDEN

THE NEW YORK BOTANICAL GARDEN
 LIBRARY-SERIALS & EXCHANGE
 BRONX, NY 10458-5126

Please note the expiration date on your mailing label and renew accordingly.