



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

Trees! Trees!

"I never before knew the full value of trees. Under them I breakfast, dine, write, read and receive my company."

Thomas Jefferson

Editor's Note: Sometimes the Bulletin's theme is planned in advance; at other times there is no thread other than native plants that draws the issue together. And then there are instances, like this time, where there was no pre-planned focus, but when articles began to be gathered, a theme emerged. Trees -- Virginia's biggest plants -- don't always get the notice they deserve, but in this issue quite a few articles have direct tree connections. In addition, the Wildflower of the Year brochure, which comes to you as an insert in this Bulletin, features a small tree this year -- witch-hazel.



Appalachian chestnut forests are memories lost

On Thursday, January 3, we awoke to a steady fall of snow in Central Virginia, and with the ground already covered with a substantial blanket, most of Richmond shut down for the day. It was a welcomed surprise to have this post-holiday time off just to stay at home with nothing specific to do and nowhere specific to be. My grandmother had been visiting us for the holidays and was due within the next day or so to go back to her home in Madison Heights outside of Lynchburg in Amherst County. I had wanted to talk with her about her childhood memories of growing up in Amherst at a time when chestnut trees were still to be found in the mountains of the Southern Appalachians. However, there was always something else to do, somewhere else to be, but today, as we sat watching the snow fall

on this January morning, I felt the time was right.

My grandmother, Nellie Dean Martin, born on September 5, 1916 in the Forks of Buffalo region of Amherst County, was the third child of Henley Reed Martin and Florence Staton. Henley, a young man of 24, worked for the government as a fire spotter, maintaining firebreaks on Cole Mountain where he additionally did some farming, growing mostly feed corn for his horses and other livestock. It was on this land that my grandmother first remembers gathering chestnuts. Her mother took the young family up Cole Mountain, across from Chestnut Ridge, to gather chestnuts in the fall of 1921. Unknown to them, it would be one of the last times they would collect them.

Chestnut gathering occurred af-

ter the first frost, usually in the second week of October. Locals would make for the mountain, particularly after a storm had come through, because the forest floor would then be covered in chestnuts. What they did not know was that a fungus, *Cryphonectria parasitica*, previously known as *Endothria parasitica*, imported on nursery stock from Asia, was also rapidly making its way to the mountains of Virginia. An arborist first discovered the fungus in 1904 on chestnut trees, *Castanea dentata*, growing in the Bronx Zoo. American chestnuts had no resistance to this Asian import, and a species that once comprised 20 percent of Appalachian forests would soon be a thing of the past.

That year my grandmother said that they bought a saddle and bridle (See *Chestnut memories*, page 8)

From the president

The edges of nature are soft today in the gray-beige tones of January's sunless day. Seeking the promise of spring, I've turned to some poetry and to reviewing photographs of the past year. Perhaps you, too, can visit the dogwood buds and seek signs of spring. Little sparrows have been visiting the nesting pottery. Soon. Soon, they will bring twigs. However, the real sign of spring for me will be the red buds of a silver maple (*Acer saccharinum*) near my window. This maple is my phenological tool. Remember Jim Gilbert last June at the VNPS Annual Meeting telling of "signs" from nature of changing seasons?

Change of seasons.

Changes ... Goethe said, "Life belongs to the living, and he who lives must be prepared for changes." Changes come in plant communities, in biological diversity, changes in our habitats, the ones in which we live, work, play. Every spring when I return on pilgrimages to visit our native plant sites throughout Virginia, it is with trepidation, with anxiety about what plant treasure will be gone. Forever.

In the past, when our directors have met with some leaders of plant trade associations they are asked, "Isn't the change from native to alien invasive plants "natural succession?" How could it be natural succession" when the countryside is assaulted and overcome in the blink of an eye, a day, even a week by human activities? Aggressive plants then are opportunistic and prevent the return of our native flora. "Why is diversity important?" is the second-most frequently answered question of our directors.

Nearby Bull Run Mountain ridges are beginning to look like a patchy, bad haircut now that there are about eight "mansions" on the eastern ridge. Bull Run Mountain divides Prince William and Fauquier Counties and these buildings overlook the roof tops of hundreds of houses that now are built upon the land saved from Disney. On the mountain, they join modest-sized homes nestled under the forest trees. The change there has occurred during the past year. Two of these huge

buildings went up in 2000, now six more in 2001. Huge swaths of trees were removed to allow their construction. Hopefully, the land will be allowed to revegetate to hide this change. The cynic in me believes it is not likely to happen. More likely there will be lawns and more formal English-style landscaping will be on the mountain to match these formal edifices.

Fortunately, a part of the mountain is protected by Friends of Bull Run Mountain at Thoroughfare Gap by I-66 and recently, 2,500 acres have come under the protection of the Virginia Department of Conservation and Recreation-Natural Heritage Program after being transferred from the Virginia

Outdoors Foundation. The march of architecture that doesn't blend with the landscape continues and now residents look over planned communities and golf courses as they watch the sunrise advance into the countryside.

To protect more natural areas of Virginia, I urge you to convince your Virginia Assembly representatives of the importance of funding Virginia agencies, such as the Virginia Outdoors Foundation, that acquire and manage protection of Virginia's regional flora and fauna. VOF needs your support. Other Virginia agencies that have suffered loss of funds during the past two years are Department of Conservation and Recreation's Division of Natural Heritage and the Department of Game and Inland Fisheries. All of Virginia's natural resource management agencies are under the stress of monetary cuts.

When last checked, Virginia was near the very bottom of the list of states for expenditure on natural areas. This is not good when we continue to allow natural land with healthy communities of flora and fauna to go under the bulldozer. Where is our Virginia pride?

When it all seems to be "too much," and you need a lift, head for a healing visit with nature: plants, birds, critters. Be renewed and come back ready to re-enter the struggle to protect Virginia's natural, diverse communities.

Your president, Nicky

Mayflowers to Mistletoe
by Sarah J. Day

*The buttercups with shining face
Smile brightly as I pass,
They seem to lighten all the place
Like sunshine in the grass.*

*And though not glad nor gay was I
When first they came in view,
I find when I have passed them by
That I am smiling too.*

VNPS Annual Symposium 2002

"Restoring Virginia's roadsides, hills, yards"

Focus on re-establishing nature on disturbed land in Virginia using native and non-native plants

WHEN: Saturday, March 9, from 8:30 a.m. until 3:30 p.m.

WHERE: University of Richmond - Gottwald Auditorium, Richmond, Virginia

SPEAKERS: John Townsend, Virginia State Botanist, Virginia DCR-Natural Heritage Program
 Jody Booze-Daniels and Lee Daniels, Virginia Tech, Blacksburg
 Deanne Eversmeyer, Landscape designer, VNPS Horticulture Chair

A special first-class postcard mailing with complete information will reach you with registration and attendance details.

Cooperation preserves globally-rare forest

The Northern Virginia Conservation Trust (NVCT), working with the Fairfax County Board of Supervisors, the Fairfax County Park Authority, and the Department of Planning and Zoning, preserved a globally rare forest in Centreville adjacent to 830 acres of pre-existing parkland. NVCT won a grant from the Virginia Land Conservation Foundation (VLCF) for \$730,000, the largest grant ever awarded by the foundation, toward the purchase of the property. The Fairfax Board of Supervisors provided the additional funds to save one of the largest forest communities of its kind in the Commonwealth.

The property is now owned by the Fairfax County Park Authority. Permanent protection of the most environmentally significant areas of the forest will be ensured through a conservation easement to be held by NVCT and a Deed of Dedication to the Virginia Department of Conservation and Recreation (DCR) designating the area as a Natural Area Preserve.

The forest was first visited by DCR Division of Natural Heritage Staff in October 1999 at the request of the Fairfax County Department of Planning and Zoning. Natural Heritage biologists found the largest remaining occurrence in Fairfax County and one of the largest intact stands in Virginia of the state and globally rare Basic Oak-Hickory Forest, a community characterized by

Planning for



Habitat Conservation

Editor's Note - This article marks the fourth of a five-part series organized by VNPS Conservation Chair Jessica Strother on the various ways to ensure and plan for habitat conservation. The series is intended to provide examples of successful and helpful ways taxpayers and professionals can purposefully plan for habitat conservation and biodiversity. The information provided is only an overview of the issues. This article, written by the Northern Virginia Conservation Trust staff, is reprinted, with permission, from that organization's periodical.

its restriction to circumneutral soils. Biologists also identified areas of the site containing the state and globally rare Piedmont/Mountain Basic Woodland community, characterized by an open, short-statured canopy and dense grass-dominated herb layer.

Three rare plant species were identified in the area as well. Torrey's mountain mint (*Pycnanthemum torrei*), a globally rare plant, and two state rare plants, white heath aster (*Symphotrichum ericoides*) and grove sandwort (*Moehringia lateriflora*) were found in 1999, but biologists have not confirmed the presence of the plants since then.

NVCT is now working with DCR and the park authority to designate the areas that will be protected as a preserve. The goal of the joint efforts is to allow the public to enjoy this land while protecting the significant biological resources as well. All the parties involved in the conservation deal are excited and relieved that the threat of imminent development of the area is over.

Greg Evans of the VLCF Board of Trustees stated, "The Pleasant Valley Road acquisitions will put the finishing touches on a new park exceeding 1,500 acres in one of the fastest growing parts of the county. For me, it marks the successful end of a long road. Obtaining more open space was a priority for me as a park authority board chair. I was very happy to be able to support NVCT's grant request."

"This project is another major step in the preservation of Virginia's rich natural heritage and a great example of what can be accomplished through private-local-state partnerships," said David G. Brickley, Director of DCR.

Legislative issues

What does it mean to have drastic funding cuts from an approved Virginia budget? A look at the previous budgets reveal sad losses for Virginia. We have a reduced car tax and a budget that is in very poor shape as we begin 2002. What agencies have been hurt?

At **DCR-Division of Natural Heritage**, eight positions were lost from Natural Heritage due to the budget impasse during the 2000 General Assembly session. Both the House and Senate recommended that the staff and funds be restored, but because of the budget impasse the restoration was not made.

Reduction of the \$250,000 general funds and staff resulted in four positions lost in the Division of Natural Heritage: Northern Mountain & Piedmont Regional Steward; Natural Areas Spatial Data Coordinator; Spatial Analysis Vegetation Ecologist; and Southwestern Virginia Inventory Scientist.

Southwest Virginia has been identified as one of the six most biologically diverse regions in the United States, yet Southwest Virginia inventory staff was eliminated, opportunities to find and conserve natural areas are being lost, and nature tourism economic development opportunities are not being realized.

Rural land conversion is occurring at the rate of 93,000 acres/year. Nevertheless, GIS staff needed to facilitate safe growth planning was eliminated. GIS staff could have expedited rare species, community and natural area identification, helped ensure that sound information is supplied to Virginia localities and growth planners, and facilitated open space land conservation.

Natural Area stewardship staff was lost and as a result the Commonwealth's investment in the growing natural area preserve system will go unmanaged and unprotected, rare species and communities may be lost, and public use and nature tourism opportunities will be lost.

The further reductions coming to the **Natural Heritage Program** mean fewer funds to manage invasive species, conduct controlled burns, and locate new populations of rare plant and animal species and exemplary natural communities. No funds currently exist to purchase new natural areas.

Some financial help was offered to the Division of Natural Heritage in 2001 by the U.S. Fish & Wildlife Service Endangered Species Act, Section 6. A Cooperative Endangered Species Conservation Fund Grant of \$554,847 was offered to DCR-DNH and was required to be sent to a fellow Virginia agency, VDACS (Virginia Department of Agriculture and Consumer Services) for signature. Though given advance notice, VDACS staff felt they did not have adequate time to process and forward the proposals. As a result, the grant was voided.

Another tragic financial situation exists for the **Virginia Department of Game and Inland Fisheries (VDGIF)** which is facing a substantial reduction! Visit the VDGIF webpage for details of scheduled cuts. Look for information about the Virginia Birding Trails that are being developed for passive recreation. One of the most promising industries in Virginia is that of ecotourism. We have a magnificent state and invite visitors to enjoy our mountains, piedmont and coastal regions. With proper and adequate funding, more land can be protected to bring revenues to Virginia and the very best result will be that future Virginians will receive from our generation land protected from sprawl, heavy traffic, polluted air and water. Now, that is a true gift for the next generation!

Virginia is in the bottom of the list of states for appropriations for natural lands and the management of natural resources. The fact that the DCR Virginia State Parks has been rated first in the country for work in the state park system does not mean that other land does not need to be set aside for protection. The state park system is organized for recreational use by Virginians with camping and some trails, but has much more dense and intense land use than the other areas that are home for our plants and for the mammals, insects, birds and other wildlife.

Your last *Bulletin* listed information about who represents you in the Virginia Assembly and how to reach them. Speak out on behalf of Virginia's natural areas and those who acquire and manage them so well ... when properly funded .

Virginia Senate considers "Tree Bill"

The General Assembly will soon be considering an amendment to State Code 15.2-961. Senate Bill 484 would enable some jurisdictions to require the preservation of some native forest cover during the land development process, and to also allow localities the authority to regulate the use of some planted native and desirable trees during the development process. Several jurisdictions statewide have presented proposals for the bill.

A summary of Bill 484 is as follows: conservation of trees during localities' development; increases current 20-year tree canopy requirements for certain localities adopting local tree conservation and replacement ordinances from 15 to 20 percent tree canopy for residential sites zoned between 10 and 20 units per acre, and from 20 to 30 percent for residential sites zoned for 10 or fewer sites per acre. Permits localities to include tree conservation provisions in their ordinance and sets forth requirements for such provisions. Such tree conservation ordinances may include provisions for the reduction of tree canopy requirements or the granting of tree cover credit in consideration for the preservation of certain trees. They shall provide for exceptions to and deviations from tree preservation requirements where the locality determines the requirements would preclude or significantly hinder uses otherwise allowed by the localities to meet minimum tree canopy requirements. The bill provides that the new law does not invalidate 10-year minimum tree cover standards adopted by cities established before 1780, or 20-year minimum tree cover replacement standards adopted by localities after July 1, 1990.

To track progress of this bill, go to <http://legis.state.va.us/> and type in SB484 in the section "Bills and Resolutions" and enter a bill number. Contact your state representatives and let them know you support increased protection for trees. For more information, go to www.pwen.org/html/tree-preservation.php.

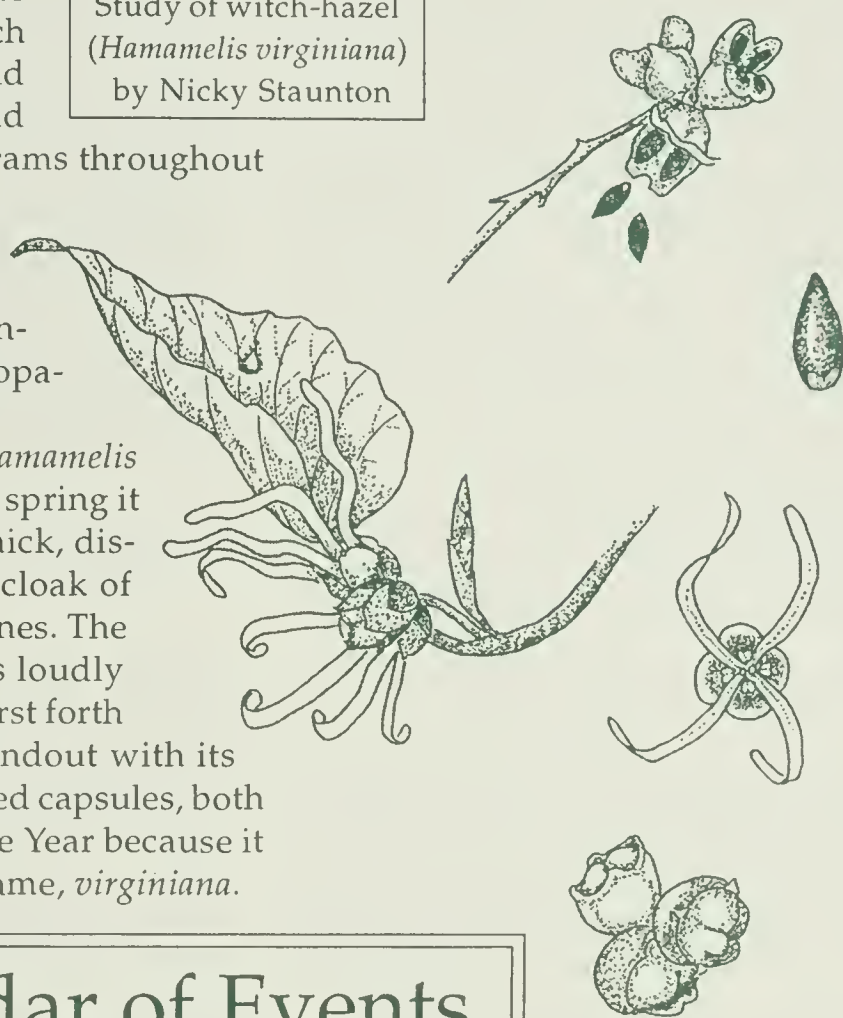
Virginia Wildflower Celebration 2002

The 10 chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each spring. 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 contact information provided to obtain further information. Plants propagated by members will be available at chapter plant sales.

The 2002 Virginia Wildflower of the Year, witch-hazel, *Hamamelis virginiana*, is a deciduous shrub or small tree for all seasons. In spring it bursts forth in a new robe of greenery, while in summer its thick, distinctively scalloped leaves with a matte finish form a dense cloak of dark green in the woodland understory. Autumn is when it shines. The leaves turn a rich buttery color, and last year's popping pods loudly announce its presence, as the spidery, lemon-yellow flowers burst forth on the suddenly leafless branchlets. Even in winter it's a standout with its zig-zag, naked twigs, bearing the squat, light brown, two-beaked capsules, both old and new. It is especially appropriate as a Wildflower of the Year because it was first discovered in Virginia, hence its specific scientific name, *virginiana*.

Study of witch-hazel
(*Hamamelis virginiana*)
by Nicky Staunton



Wildflower Calendar of Events

Habits and Habitats of Mammals Large and Small Saturday, February 16, 9:30 a.m. - noon, Dr. Bill McShea from the Conservation and Research Center to speak on deer, Dr. Michael Bowers to speak on squirrels and chipmunks. State Arboretum of Virginia, FOSA members \$15, non-members \$18, 540-837-1758 x 23 to register.

Planning, Designing and Caring for Water Gardens, Saturday, March 2, 9:30 a.m. - noon, Charles Thomas retired founder of Lilypons will explain the basics, State Arboretum of Virginia, FOSA members \$15, non-members \$18. 540-837-1758 x23 to register.

First Saturday Walk at Blandy, "Blandy's Beginnings, Hear the Inside Story of the Arboretum," March 2, 10 a.m. - noon, leader: Bill Koehler, Saturday, State Arboretum of Virginia, FOSA members \$4, non-members \$6. Children free.

Native Perennials with Panache: Choice Plants for American Gardens Lecture, Tuesday, March 12, 9 a.m. - 2 p.m. at 10 a.m. with C. Colston Burrell, then lunch at Millwood Country Club.

State Arboretum of Virginia, FOSA members \$55, non-members \$66.

Advanced Sketching Workshop, Tuesdays and Thursdays, March 12, 14, 19 and 21, 9:30 a.m. - 3:30 p.m., explore graphite and colored pencil with instructor, Merri Nelson, State Arboretum of Virginia, \$150 FOSA members, \$180 non-members. 540-837-1758 x23 before March 4 to register.

Great Falls Park Wildflower Walk - Sunday, March 17, 10 a.m.-12:30 p.m. Led by Marion Lobstein. (mblobst@mnsinc.com or 703-257-6643 NVCC for reservations)

First Saturday Walk at Blandy, "Stirrings of Spring, See the Sleeping Arboretum Awaken," Saturday, April 6, 10 a.m. - noon, leader: Carrie Blair, State Arboretum of Virginia, FOSA members \$4, non-members \$6. Children free.

Balls Bluff Wildflower Walk - Sunday, April 14, 2:30-4:30 p.m. Led by Marion Lobstein (mblobst@mnsinc.com or 703-257-6643 NVCC for reservations)

Great Falls Park Wildflower

Walk - Sunday, April 21, 10 a.m.-12:30 p.m. Led by Marion Lobstein. (mblobst@mnsinc.com or 703-257-6643 NVCC for reservations)

Prince William Wildflower Society Wildflower Garden Tours, Sunday, April 28, Contact Nancy Vehrs, 703-368-2898, nvehrs@attglobal.net, for a brochure and map.

First Saturday Walk at Blandy, "A Mantle of Flowers, Come Enjoy the Vibrant Colors," Saturday, May 4, 10 a.m. - noon, leader: Howard Slothower, State Arboretum of Virginia, FOSA members \$4, non-members \$6. Children free.

Prince William Wildflower Society Wildflower Plant Sale, Saturday, May 11, 9 a.m. - 12 noon, Bethel Lutheran Church, Manassas. Contact Nancy Arrington at 703-368-8431.

Botanical Watercolor, Tuesdays and Thursdays, May 14, 16, 21, and 23, 9:30 a.m. - 3:30 p.m., instructor Merri Nelson. \$150 FOSA members, \$180 non-members. 540-837-1758 x 23 before May 7 to register.

(More events, page 6)

VNPS trip to New Jersey Pine Barrens

VNPS will be sponsoring a trip to the New Jersey Pine Barrens on Saturday, June 8. Karl Anderson, botanist and birder, of the New Jersey Audubon Society has invited 20 members of VNPS to join him for a day in the savannahs and pine forests near Batsto, a restored 19th-century ironmaster's town in New Jersey's Wharton State Forest. Plant species that could be in bloom include rose pogonia (*Pogonia ophioglossoides*), grass-pink orchid (*Calopogon tuberosus*), turkeybeard (*Xerophyllum asphodeloides*), Nuttall's lobelia (*Lobelia nuttallii*), lance-leaved sabatia (*Sabatia difformis*), pine barrens sandwort (*Arenaria caroliniana*), orange milkwort (*Polygala lutea*), and others. Also to be seen are three species of sundews (*Drosera* spp.), two or three species of bladderworts (*Utricularia* spp.), pitcher plant (*Sarracenia purpurea*), and goldcrest (*Lophiola aurea*). Ferns and "fern allies" include curly-grass fern (*Schizaea pusilla*) and three species of clubmosses including Carolina clubmoss (*Lycopodiella caroliniana*).

More information will be in the next issue of the VNPS *Bulletin*. If you have questions or would like to sign up, please contact Nicky Staunton (703-368-9803 or e-mail: nstaunton@earthlink.net).

Bruce Peninsula 2002 trip is on track

Enough wildflower enthusiasts have registered for the June 15-22 trip to Canada's Bruce Peninsula that the trip is a go. Space remains for eight more participants to join the three leaders: Dr. Stanwyn Shetler, Botanist Emeritus of the Smithsonian and his wife, Elaine Shetler, and Nicky Staunton (VNPS President). The cost is \$550 for lodging, meals and the boat ride to Flowerpot Island. Reserve space by sending \$100, payable to VNPS and mail to Nicky Staunton, 8815 Fort Drive, Manassas, VA 20110 as soon as possible. Details are in the November 2001 *Bulletin* or you can find them on the VNPS website: www.vnps.org. If you have questions, Call Nicky at 703-368-9803 or e-mail: nstaunton@earthlink.net. Hartstongue fern, calypso orchid, ramshead orchid, birds, the Niagara Escarpment, alvars and Lake Huron are just a tiny sample of the natural world and beauty that you will see at this UNESCO biosphere classed with the Galapagos and Everglades. It is a rare opportunity.

Wildflower Events

Great Falls Park Wildflower Walk
- Sunday, May 19, 10 a.m.-12:30 p.m.
Led by Marion Lobstein.
(mblobst@mnsinc.com or 703-257-6643 NVCC for reservations)

Wintergreen Wildflower Symposium

The Wintergreen Nature Foundation's 19th Annual Spring Wildflower Symposium will be May 10-12 at Trillium House, Wintergreen Resort, in Central Virginia. This is an opportunity for beginner and expert botanists to learn more about the spectacular flora of central Virginia's Blue Ridge. From identification to propagation and wildflower gardening, the guided hikes, lectures and workshops are excellent opportunities to meet some of Virginia's top botanists. (Info@twnf.org, www.twnf.org, 434-325-7451)

Smithsonian Associates

During the spring, Marion Lobstein will be conducting the following Smithsonian Associates tours: the C&O Canal (Carterock area) April 20, 10 a.m. - noon and 1-3 p.m.; U.S. National Arboretum April 28, 9:30 a.m. - 2:30 p.m. On May 11, Cris Fleming will conduct tours of the C&O Canal (Carterock area), 10 a.m. - noon and 1-3 p.m. For information: 202-357-3030 or www.residentassociates.org/rap.

Fairfax Audubon Society

Marion Lobstein will conduct a Spring Wildflower Workshop for the Fairfax Audubon Society. Includes two lectures April 3 and April 10, 6:30 - 9:30 p.m. and fieldtrip April 13 from 9 a.m. to 1 p.m. at Ball's Bluff Regional Park, Leesburg. Call the FAS office at 703-256-6895.

Flora of Virginia Project update

The Foundation of the *Flora of Virginia* Project, Inc. is now the Virginia non-stock corporation that will carry out the work of producing the *Flora of Virginia*. This is the first step toward achieving federal 501(c)3, non-profit status for the project. For details on the makeup of the board of directors of the foundation and background on the first meeting of the board, see the last *Bulletin*.

A second board of directors' meeting of the foundation was held on Nov. 30, 2001. The strategic plan, fundraising plan, budget and other aspects of organization and development to support the project were major points of discussion. The Flora Advisory Committee, comprised of top botanists from around Virginia including significant VNPS representation, met on January 19 to discuss the content and format for the *Flora of Virginia*.

A Memorandum of Agreement between the Virginia Department of Conservation and Recreation's Division of Natural Heritage (DCR-DNH) and the Foundation of the *Flora of Virginia*, Inc. has been formalized that will enable Chris Ludwig to stay at the Division of Natural Heritage and serve as Executive Director of the project. This agreement also provides resources from DCR-DNH for the project including supplies, equipment, office space and travel expenses.

Donations to the *Flora of Virginia* Project may be made through a special account of the Virginia Academy of Science's Flora Committee. Checks should be made to The Foundation of the *Flora of Virginia* Project, Inc. and should be sent to: The *Flora of Virginia* Project, c/o UVA-Wise Foundation, 1 College Avenue, Wise VA 24293. As fundraising efforts seek support from individuals, organizations and agencies to produce our *Flora of Virginia*, VNPS support is paramount. With VNPS support, the *Flora of Virginia* Project has already gone from dream to reality.

A meadow grows in the suburbs

When I purchased my little house in the suburbs of Northern Virginia, Dad thought he'd found a home for a lawn mower that he no longer needed. He seemed a bit perplexed when I declined his offer and explained that instead of a front lawn, I would have a meadow of grasses and wildflowers. And when I told the neighbors that I was replacing the lawn, they were a bit dismayed that the horticulturist for an established country club was not planting a putting green. But four years later, I think that the neighbors and Dad have come to accept my meadow, and even appreciate it for its year-round beauty and low maintenance.

I live in a rather free-thinking neighborhood just inside the Capitol Beltway. The houses, built 50 years ago, are far from fancy, but the lots are roomy — about a quarter acre in size. The transformation began with the removal of a 40-year-old red maple (*Acer rubrum*) and the killing of the lawn with Roundup. A small mountain of wood chips, the remains of the maple, were spread over the dead lawn. By not disturbing the turf layer, dormant seeds were not given a chance to see light and sprout, and the organic matter in that top layer was left to enhance the soil. Unfortunately, I did this site preparation in the fall of the year and did not know until spring that the lawn was home to healthy populations of then-dormant buttercups and violets. Applying another round of herbicide in April would have eliminated these.

Since the meadow area is not very large, about 1,000 square feet, I decided to plant it with plugs instead of seeding it. Deep plugs performed best; planted through the mulch layer, their longer roots ensured good contact with the clay beneath. Once planted, regular watering for the first summer was all that was needed. The meadow has never been fertilized or raked out. In late winter the dried remains are cut down with hedge shears and a weed-eater. A light surface raking removes

the bigger remnants to the compost pile. The smaller bits filter down to mulch and feed the soil.

The meadow starts off slowly with early summer's purple coneflower (*Echinacea purpurea*), sunny false sunflower (*Heliopsis helianthoides*) and true-orange butterfly weed (*Asclepias tuberosa*) amongst tufts of new green grasses. Mexican feather grass (*Stipa tenuissima*), a Southwest native, adds to the opening act with soft, sun-bleached, ponytail plumes. By mid-July the meadow is at its riotous peak when black-eyed Susans (*Rudbeckia* 'Goldsturm', *R. subtomentosa* and *R. triloba*) and blazing star (*Liatris spicata*) join in the eruption of color. To allow access into the meadow, I laid out a loop path carpeted with pine needles. Between the far edge of the yard and the loop, taller grasses and wildflowers create a screen from summer through late winter. A gang of seven-foot-tall cup plants (*Silphium perfoliatum*) crown themselves with bouquets of sunny yellow daisies. These prairie natives collect rain in cups formed by the bases of their paired leaves; days after a shower, small birds will quench their thirst at these giants. Later, shattered seedheads attest to the plant's popularity with hungry finches. Hovering just below the cup plant are the royal purple ironweeds (*Vernonia* spp.) and the mauve-pink Joe-Pye weed (*Eupatorium maculatum*), always alive with swallowtail and monarch butterflies. The button-heads of black-eyed Susans and purple coneflowers, as well as the gaudy purple wands of blazing star, are also butterfly and finch magnets. By summer's end the horizontal sprays of goldenrod (*Solidago rugosa* 'Fireworks') are turning yellow, just in time to provide a backdrop for purple New England aster (*Aster novae-angliae*) and self-sown, white heath aster (*Aster ericoides*).

Although the matrix of grasses takes a back seat to the wildflowers during summer's show, it plays the vital role of tying the various compo-

nents together. Our native little bluestem (*Schizachyrium scoparium*) at two to three feet and the taller Indian grass (*Sorghastrum nutans*), along with the summer-blooming, non-native dwarf fountain grass (*Pennisetum alopecuroides* 'Hameln'), make up most of the meadow. The fountain grass is especially useful as a neat, tight border at the sidewalk. Switch grass (*Panicum virgatum*), purple top (*Tridens flavus*) and side oats grama (*Bouteloua curtipendula*) are sprinkled throughout. Once the floral fireworks die down, the grasses claim the spotlight. The Indian grass sends its feathery seedheads up on wands of five feet or so, while the foliage goes from a lovely, light blue-green to the color of pale parchment. The fountain grass morphs into straw-yellow mops of hair which contrast wonderfully all winter with the rich russet sheaths of the little bluestem.

The meadow is left through the short days of winter, taking on a quieter beauty. The stark spikes left by the blazing stars contrast with the soft fog of the goldenrod thickets. The thousands of black eyes, all that remain of the Susans, form reverse constellations against a background of bleached grasses. The empty pods of the butterfly weed, bent backwards from the effort of dispersing silky parachuted seeds, wave in the cold wind. And wintry precipitation becomes a treat when ice and snow transform the meadow into a crystalline wonderland.

In four years of its existence I have had only one person complain about my meadow; he was told by the lady across the street to go home and leave "us" alone! Butterfly weed, goldenrod and little bluestem are popping up in neighboring gardens as visitors to the meadow are sent home with the excess. And while the rest of the neighbors spend their weekends making noise and polluting the air with their lawn mowers, I enjoy the play of butterflies jockeying for position on (*See Meadow, page 9*)

Chestnut memories

Threats to biodiversity are everywhere

(Continued from page 1)

for her father for Christmas with the money made from selling chestnuts. They were gathered by people in the region and sold by the bushel basket to the local grocer as a cash crop. In her case, my grandmother remembers taking the chestnuts to Davis' Store near Buena Vista to sell. Chestnut wood, straight and rot resistant, was also used to make Virginia split-rail fences. The bark and hulls of the chestnut were used as a leather dye. The trees supported local economies throughout the Appalachians, but this was all about to change.

Soon after 1921, the blight overtook the Amherst forests, and within two years, most of the chestnut trees were dead. My grandmother told me that soon after the trees died, the bark would peel off revealing a pale gray wood beneath. The mountain was covered in tall, ghostly, dead chestnut trees, which the government came in to try and harvest. Prevention efforts had failed; the best that could be done was to claim what timber they could from the disaster.

With the loss of the chestnuts, the region's economy was permanently altered, and people began to move off of the mountains, my grandmother's

family included. It is the speed at which this all happened that I find so amazing. My grandmother said that the next year she started school at Forks of Buffalo, but before the year ended, the family moved away from Cole Mountain to the Allwood section of the county because life at the

mountain had changed. nut forests of my grandmother's time; other trees have filled in the gaps left by those magnificent trees. My grandmother told me that when her father died in the 1970s, he still had the saddle and bridle they purchased for him with chestnuts that Christmas of 1921. Without hearing these kinds of stories I never would have known what was lost or how the world had been forever altered.

We are witnessing the erosion of biodiversity on our planet at an alarming rate. This is what I see as the great danger: as a new generation comes of age, perspective is lost; they inherit a world made poorer, yet they don't know it. Losses occur in their time as well, whether due to imported pathogens or just plain urban sprawl, and yet another generation inherits a world a little bit poorer still. Perhaps the next time it will be a world without hemlock forests. Unless we make a conscious effort to educate ourselves about the risks of introducing non-native plants into our environment, who knows what Pandora's Box the next international cargo ship or transcontinental flight might bring to our shores, physically changing the environment and life as we know it?

Michael Andrew Sawyer, VNPS 1st vice-president

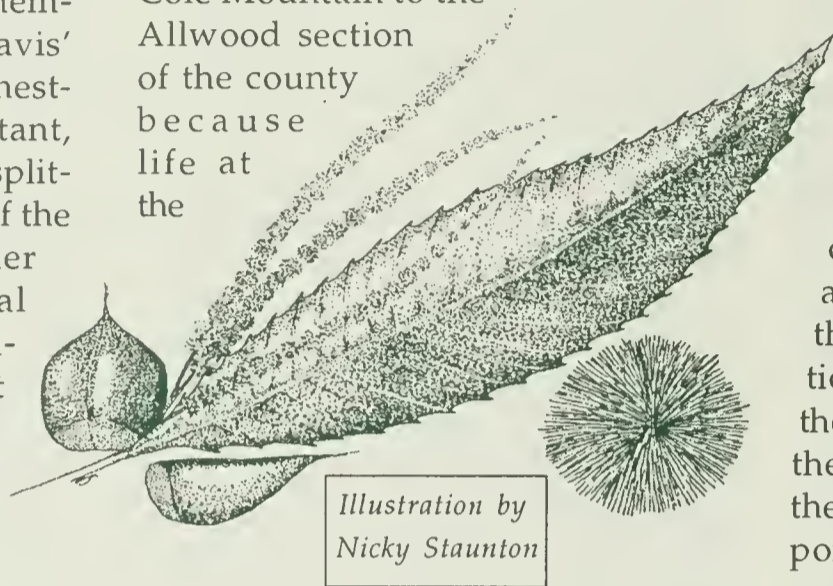


Illustration by Nicky Staunton

mountain had changed.

The story makes me wonder what else might be out there waiting for us—something brought in carelessly, unknowingly or perhaps illegally as a new plant to introduce to the American market. What new assault is waiting to be unleashed on American forests already decimated by the chestnut blight, the woolly adelgid and the butternut canker? The list goes on. I have never known the chest-

Oak pathogen could unleash incredible damage

Please consider acting to help protect native plants from another exotic scourge: "sudden oak death." Help persuade the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) to adopt regulations restricting movement of material potentially infested with the sudden oak death pathogen (*Phytophthora ramorum*) through either interstate commerce or imports of horticultural stock from Europe. Ask your representative and senator to urge USDA to prevent the spread of sudden oak death (SOD).

SOD is one of the most damaging

plant pathogens now in North America. It attacks a wide variety of plants, including several oak species, rhododendrons, madrone, evergreen huckleberry, and California buckeye. To date, no cure has been found. Since the disease was discovered in 1995, it has killed more than 100,000 tanoaks, coast live oaks, California black oaks and Shreve's oaks along the California coast. In California, SOD is now found in seven counties. (For more about SOD, see <http://camfer.cnr.berkeley.edu/oaks/>) The disease is also killing trees in southwest Oregon.

(See *Sudden Oak Death*, page 9)

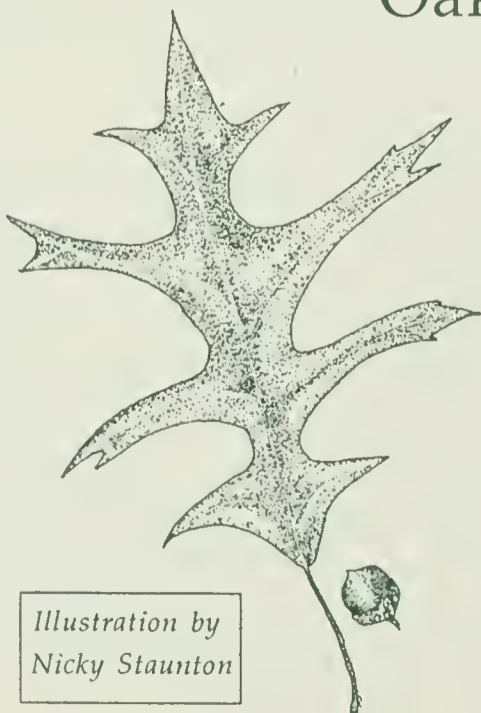


Illustration by Nicky Staunton

• Sudden Oak Death

(Continued from page 8)

Sudden oak death threatens forests across America. Tests have shown that seedling northern red and pin oaks are also killed; scientists believe that mature trees in these species would probably also be affected. Red and pin oaks dominate forests covering a combined range from northeastern Texas to Nova Scotia.

While no one yet knows where the sudden oak death pathogen originated, it appears likely that it was introduced to the United States on rhododendrons imported from Europe. Like several other pathogens in the *Phytophthora* genus, *Phytophthora ramorum* is easily transported in soil or on plants, stems or leaves. Unfortunately, huge quantities of potentially infested material are shipped from affected regions of northern California and southwestern Oregon. For example, in 2000, more than 177 tons of foliage, including tanoak, huckleberry and madrone branches, were put into the interstate floral trade. Rhododendrons and azaleas are also shipped across the country from nurseries in the region.

If the disease does spread to the East, there is great potential for ecosystem havoc because of the important role oaks play in wildlife food

webs according to Dr. Steve Zack, a wildlife ecologist with the Wildlife Conservation Society.

Despite the danger, the U.S. Department of Agriculture's Animal and Plant Health Inspection Service has taken no action to minimize the likelihood that SOD will spread. APHIS has ignored pleas for action by the USDA Forest Service, National Association of State Foresters, members of the National Plant Board, and officials at the American Nursery and Landscape Association.

However, APHIS pays attention to Congress. Please contact your representative and senators. Ask them to urge APHIS to immediately adopt regulations that would: 1) prohibit interstate movement of potentially infested material from affected parts of California and Oregon and 2) prohibit imports of rhododendrons, azaleas and other potentially infested plants from Europe.

Because of the anthrax contamination of U.S. mail, Congress is not receiving letters at present. If you know your members' telephone, fax number, or e-mail, use that. Or call the Capitol switchboard at 202-224-3121 and ask for your representative and senators by name.

Faith Thompson Campbell, VNPS Director at Large

Virtual forest CD available

The Virginia Department of Forestry has produced *The Virtual Tour of the Forest* CD as an educational tool. The CD uses narration, video and 360-degree virtual reality to allow students to take a virtual walk in the woods. The conservation messages are middle school level and 13 different forest stand sections can be explored. Additional sections feature riparian forests, forest products, urban forestry, water quality and fire. The topics correlate with Virginia's Standards of Learning. The CD is \$5 and comes with a teacher's guide on the disk. For the CD and the teacher's guide in book form, the cost is \$10. *The Virtual Tour of the Forest* can be ordered on-line from the Virginia Department of Forestry at www.dof.state.va.us/.

• Meadow

(Continued from page 7)

the Joe-Pye weed and the full-throated call of the song sparrow who has claimed my meadow as his and the bright yellow flash of the goldfinches alighting on the pink-purple wands of blazing star. Who needs a lawn when you can have all of that?

Deanne M. Eversmeyer, Potowmack Chapter

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

Individual \$20

Family \$30

Student \$15

Patron \$50

Associate (groups) \$40*

Sustaining \$100

Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

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

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

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The Bulletin

ISSN 1085-9632

is published five times a year
(Jan., March, May, August, Nov.) by

Virginia Native Plant Society

Blandy Experimental Farm

400 Blandy Farm Lane, Unit 2

Boyce, VA 22620

(540)837-1600

vnpsofc@shentel.net

www.vnps.org

Nicky Staunton, President

Nancy Sorrells, Editor

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. Items should be typed, on disk in Microsoft Word or e-mailed to: Editor, 3419 Cold Springs Rd., Greenville, VA 24440, or lotswife@rica.net

The deadline for the next issue is March 1

X13
U 92455-

21 April 2002
2

Vol. 21, No. 2
ISSN 1085-9632



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

Mark your calendars for the Annual Meeting

Remember the Virginia Native Plant Society Annual Meeting is September 13-15 at the Glen Allen Cultural Arts Center (near Richmond). Plans are coming together for our weekend of fall field trips, speakers and a banquet. VNPS Pocahontas Chapter President Richard Moss has invited us to come to enjoy the flora communities, gardens and other attractions of the Richmond area. The elegant and interesting Cultural Arts Center at Glen Allen, Henrico County, just northwest of Richmond, will be the home base for our weekend.

Full plans will be in the next *Bulletin*, but meanwhile, block off those three days in September to celebrate both natural areas and gardens in Richmond along Virginia's fall line.

VNPS Symposium: What a day!

One of the VNPS-sponsored events that my wife, Linda, and I always look forward to, and always enjoy, is the annual Symposium at the University of Richmond. This year was no exception. The program was well attended and speakers offered thought provoking, informative and diverse views centering on a theme of "Restoring Virginia's Roadsides, Hills and Yards." We heard about restoration, revegetation, urbanization, incorporation of native and non-native plants in a variety of settings, the Virginia Department of Transportation roadside

St. Louis Declaration results in agreement about invasive plants

In December of 2001, a diverse group representing distinct horticultural interests convened in St. Louis for intensive discussions on the subject of "Linking Ecology and Horticulture to Prevent Plant Invasions." Jointly sponsored by the Missouri Botanical Garden, the Royal Botanic Garden, Kew and the American Association of Botanical Gardens and Arboreta, the purpose of this important workshop was to explore and develop workable, voluntary approaches for reducing the introduction and spread of non-native invasive plants. The invited participants were key stakeholders: landscape designers, professionals from the nursery industry, representatives of botanical gardens, gov-

ernment agency officials, and representatives of the gardening public.

program and alternatives to the traditional lawn. And we discussed one of the biggest questions of all, what exactly is a "native" plant anyhow? Most can probably agree on common horticultural terms, but that definition is not so easy.

What a day! The meeting came at the end of a dry, dry winter and, as we began our drive to Richmond, it was a foggy, soft day, with promise of rain forecast for later in the day. Registration and reception provided opportunity to meet VNPS members from other chapters and excellent handouts were available.

(See Virginia's landscape, page 7)

ernment agency officials, and representatives of the gardening public.

For many of those present, new plant introductions were the 'bread and butter' of their businesses and professions. Nonetheless, none were there to deny the existence of a real problem or the absolute need to work in concert toward solutions. Dr. Peter Raven, Director of the Missouri Botanical Garden and one of the world's most highly respected botanists and conservationists, offered a keynote speech and was a guiding presence throughout the workshops.

Some difficult questions challenged all groups. Should a grower in one region voluntarily refrain from selling a plant that could be invasive in a different part of the country? Can invasive plant characteristics be reliably predicted? At what point should government regulation override self-regulation? After three work days, the participating groups succeeded in reaching consensus, first separately and then as a whole, on a set of "Overarching Principles" and then voluntary "Codes of Conduct" for the respective groups.

The Declaration's Codes of Conduct are still considered subject to refinement by the key groups. The process of refinement and the extent of changes that will be acceptable are not clear. The St. Louis working group plans a second workshop, tentatively

(See St. Louis, page 10)

From the president

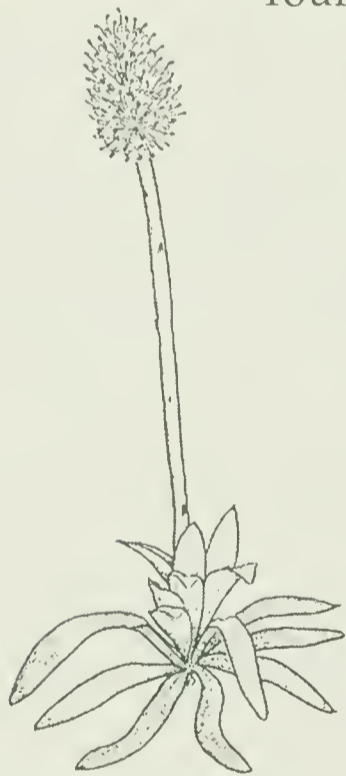
Be an advocate for our native plants

Have you made your 2002 pilgrimage to visit *Symplocarpus foetidus*? Without snow and ice melting (evidence of the heat it produces inside its spathe), part of the excitement of visiting is lost, but skunk cabbage is surely the sign of changing seasons.

The progression of wildflower pilgrimages will continue now through the year. May they bring you pleasure and inspiration and the will to protect their habitats.

Enjoy your home habitats for our flora, but look beyond to the natural homesites for threatened plants like *Helonias bullata* (swamp pink), unusual plant communities, and submerged aquatic vegetation. Be alert for threats to them. Know who to contact about impending doom for colonies of rare plants. Persist in their protection. If you need information or help in advocacy, let us know. We will help to the best of our ability. You can then anticipate next year's flora pilgrimages with hope.

Your President, Nicky



Helonias bullata

*Sun searches for its shy lovers
lilies like none other
Helonias bullata
tall sparkler shaft
of tiny pink stars
no longer threatened
dead
gone
beavers continue watery frolic
over the residue of four hundred
sun retreats behind clouds
to weep.
.....Nicky Staunton*

Our fund raising gifts from the year-end 2001 appeal are each appreciated. We are happy to report \$3,505 has been received to help VNPS. These gifts have enabled us to upgrade the computer for our office and replace the malfunctioning printer with a new one. Thank you!

VNPS Board of Directors

D.C. Herbarium on line

The entire "D.C. Herbarium" (Washington-Baltimore Area) of the National Museum of Natural History, Smithsonian Institution, has been posted at the Flora of the Washington-Baltimore Area site (www.nmnh.si.edu/botany/projects/dcflora) with a direct link to the VNPS site. You can look up a species and get a list of specimens in the herbarium and their label data. For a specimen, you can ask for a map plot of the collection locality. For a species, get an outline dot-map for the area covered in the *Annotated Checklist of the Vascular Plants of the Washington-Baltimore Area*, by Stan Shetler and Sylvia Orli. At the VNPS site, click "Related Links," then "Flora of the Washington-Baltimore Area," and "DC Herbarium Collections on-line."

Hugs & Handbooks for VNPS volunteers

As the level of volunteerism continues on its downward spiral in this country, I believe it becomes more important to hug the volunteer -- the person who carves out the time and shares the talent; the one who comes to the table and antes up with generosity and integrity.

In this case, I commend those who lead our chapters and who serve on our chapter boards. The men and women who chair meetings, who attend those meetings, lead wildflower walks, serve as botany instructors, bring the munchies, write the articles and pull together the programs.

A chapter can only be as strong and effective as its leaders. As VNPS Membership Director, I want to help them grow even stronger and be more effective. To that end, a forthcoming tome, the *VNPS Chapter Handbook*, is a work in progress. By summer it will be in the hands of our chapter presidents. Its contents include: administrative guidelines, detailed material on building a cohesive board and its working committees, directions on financial reporting, useful forms, model bylaws, and so very much more.

The intent is not that this document replace our *VNPS Administrative Handbook*, but rather build upon it. The *VNPS Chapter Handbook* should serve as an invaluable aid to established chapters, as well as those steering the formation of new chapters. And if a hug and a handbook are not enough, Nicky Staunton and I are working on plans to conduct a summer workshop/retreat, hosted by the VNPS, for the presidents, treasurers and membership chairmen representing each of our 10 chapters. We're looking at a July or August gathering in the mountain resort of Wintergreen. Quite possibly by then we may enjoy the added company of those representing one or two newly-formed chapters. In the meantime, we direct an appreciative nod to our volunteer members and directors throughout every chapter territory.

*Mary Painter
VNPS Membership Director*

Skunk cabbage ranks at the top of nature's curiosities

One of the most curious, unique, and unusual plants in nature is the skunk cabbage. It starts its reproductive cycle in autumn, has a thermostat to regulate temperatures of its flower that appears in late winter, makes its food for the following year with leaves that have no stem and goes dormant in the summer. Furthermore, it does not have what we consider a typical flower, but rather a spadix shielded by a spathe.

Skunk cabbage has accumulated many common names. Most American Indian tribes called the plant *Skota*. The white settlers added Indian cabbage, meadow cabbage, clumpfoot cabbage, swamp cabbage, stink cabbage, Irish cabbage, collard or colewort (suggesting a cabbage), cow-collard, skunkweed, polecat-weed, bear's-foot, bear's-leaf, bear's-root, Byron-blad, Byron-Ritter, dracontium, fetid-hellebore, Midas-ears and parson-in-the-pillory.

This plant is known scientifically as *Symplocarpus foetidus* and belongs to the arum family, Araceae. Araceae is a cosmopolitan family of 105 genera and about 2,950 species. Most are tropical, such as *Anthurium*, *Caladium*, *Calla*, *Dieffenbachia*, *Philodendron* and others. *Symplocarpus* has several local relatives, *Acorus calamus* (sweet flag), *Arisaema dracontium* (green dragon), *Arisaema stewardsonii* (Jack-in-the-pulpit) and *Orotium aquaticum* (golden club).

Symplocarpus has a relative in the western United States, *Lysichitum americanum*, which is also called skunk cabbage. This example calls attention to a weakness of using common names for organisms, two different genera within the same plant family, Araceae, commonly bearing the same name. Which one is THE REAL Skunk Cabbage, *Symplocarpus* or *Lysichitum*?

If you find it disturbing that two different plants share the same common name, skunk cabbage, what about a third one? Yes, skunk cabbage is the common name for *Veratrum californicum* of the northwestern United States! This is reason enough to learn the generic name *Symplocarpus* (*symploke*, "connection" and *karpos*, "fruit," referring to the joined ovaries that form a fused fruit) and the specific name, *foetidus*, meaning "evil smelling." There is no other organism in the world called



Symplocarpus foetidus
skunk cabbage
Illustration by
Anita Cooper

Symplocarpus foetidus!

The *S. foetidus* leaf releases a "skunk-like" odor ONLY when it is bruised. The flower radiates an odor offensive enough to deserve adjectives such as stinking, fetid, rancid, putrid, noisome, rank, fusty or malodorous. To me, the flower has an odor not like a skunk, but rather like a blend of decaying meat mixed with garlic and burning rubber tires. The phrase, "Take time to smell the flowers," definitely was not coined with the skunk cabbage in mind. You do have to get fairly close to detect the unpleasant odor it releases.

With its odoriferous handicaps, one would not expect it to be highly recommended as a suitable subject for a home garden, but it is. Helen S. Hull, a Vassar College graduate, author and scientist, in her *Wild Flowers for Your Garden*, recommends it for moist locations in a garden. Hull also cites Mrs. B. F. Mills, then the president of the Garden Club Federation of Indiana, as using columbines, larkspurs, trilliums and skunk cabbage in a wildflower garden along the north side of her house. However, most home gardens do not have the habitat suitable for the requirements of this plant.

I have fond memories from boyhood of a large patch of skunk cabbage in a bog near the road I traveled in my one-mile walk each way to the one-room elementary school that I attended during the first six years of my formal education.

I was very impressed by "the little hermits of the bog" as they were always the very first wild plants to flower. Their humble beginnings first appeared in autumn, each plant repre-

sented by two types of buds beneath the duff of decaying vegetative matter that covered the mucky bog.

The flower bud develops first. It is constructed of a rounded, cowl-like sheath called a spathe with a camouflaged surface pattern of pale green that is mottled with purple, reddish-brown and rusty-yellow. This spathe, shaped like cupped hands, envelops the centrally located spadix, a spherical inflorescence covered with pistils and stamens that are purplish in color. The spathe will grow to 8-15 centimeters (3-6 inches) by pollination time.

The leaf bud likewise forms in the fall and arises near the spathe from the top of a short stalk (or underground stem) attached to the root. It is about the size of the spathe, pale green in color and sharply pointed. It unfolds in a cabbage-like manner, giving rise to that part of its name.

In late winter, usually by February, the flower bud enlarges, its unique wall thickens and becomes more sponge-like (structurally similar to styrofoam) and the spadix gradually begins to generate heat. Roger M. Knutson, in his article, "Plants in Heat," has determined that the large rootstock, 30 centimeters (1 foot) long by 5 centimeters (2 inches) wide, is filled with starch that is gradually oxidized to generate heat as a by-product of increased metabolism.

The thermal regulation within the spathe is astonishing. The spadix acts like a thermostat. With ambient air well below freezing, the internal heat remains near 70 degrees F. constantly.

These unique thermal traits appear to have several functions. The soil is thawed, allowing the contracted lateral roots to extend and thereby push the spathe upward into a position more favorable for pollination. The increased heat promotes development of sex organs. Heat also increases the release of volatile odors that will attract insect pollinators. Lastly, the flower will be prevented from freezing.

Many animals die from starvation and/or freezing during winter. During spring thaws, their carcasses decompose, releasing heat and a strong stench that attracts flesh flies, carrion beetles and other insects. Skunk cabbage flowers

(See *Skunk cabbage*, page 7)

Equal protection needed for endangered plants

Few people realize that the Federal Endangered Species Act (FESA) provides almost no protection for most federally endangered and threatened plants -- among the most imperiled species in our nation.

Why Equal Protection? Science tells us that plants and animals are inextricably intertwined and contribute equally to the health of the ecosystems that sustain us all. If we are to conserve healthy ecosystems and biological diversity, we cannot pick some species to save and ignore others.

Healthy environments are complex and intricate assemblages in which all life forms -- plants, animals, butterflies, ants, birds, fungi -- are integral and essential. These systems need all of their parts if they are to be stable, sustainable, and thrive.

Once we allow the loss of species, the death of entire ecosystems cannot be far behind. The current FESA neglects not one species, not merely a group of species, but the entire plant kingdom. If we continue to tolerate unlimited destruction of our rarest plants, efforts to preserve biological diversity and a healthy environment will inevitably fail.

The California Native Plant Society (CNPS), in 1999 formulated an Open Letter calling for Equal Protection for Plants under the Federal Endangered Species Act. Plants and animals contribute equally to the stability, health and functions of the ecosystems on which we all depend for survival. However, plants and animals are not treated equally under the Federal Endangered Species Act.

Federally listed plant species are among the rarest and most imperiled species in our nation. But although the Federal Endangered Species Act prohibits the unauthorized destruction or even harm of federally listed animals everywhere they occur, it allows many listed plants to be killed, without limit, on non-federal lands, except in restricted circumstances.* In fact, some plant species can be knowingly driven to extinction without violating the Federal Act.

Lesser protection for plants is unsupportable biologically. It disregards our current understanding that plants and animals are inextricably intertwined in the structure and functioning of healthy ecosystems. Unless plant species are protected from extinction as vigorously as animals, efforts to conserve biological diversity will inevitably fail. Plants and animals depend upon each other for food, habitat, indeed for their very survival. We cannot arbitrarily pick only one kingdom to protect. Ecosystems cannot survive with only one group or the other.

For these reasons, the undersigned individuals and organizations urge that the Federal Endangered Species Act be amended to provide the same protection for plants that it currently provides for animals through all of its policies, programs, and penalties. Signed, in addition to CNPS, as of November 19 were:

1. National Parks and Conservation Association, Washington, D.C.
2. Natural Resources Defense Council, Washington, D.C.
3. American Lands Alliance, Washington, D.C.
4. Endangered Habitats League, San Diego, California
5. Endangered Species Coalition, Washington, D.C.
6. Sierra Nevada Forest Protection Campaign, Sacramento, California
7. Pacific Rivers Council, Portland, Oregon
8. California Botanical Society, Sacramento, California
9. Oregon Natural Resources Council Action, Eugene, Oregon
10. Sequoia Forest Alliance, Weldon, California
11. Safe Alternatives for our Forest Environment, Hayfork, California
12. Cold Mountain, Cold Rivers, Missoula, Montana
13. Forest Issues Group, Grass Valley, California
14. Center for Sierra Nevada Conservation, Georgetown, California
15. Whidbey Environmental Action Network, Seattle, Washington
16. Oregon Natural Desert Association, Portland, Oregon
17. Grassroots Environmental Effectiveness Network, Washington, D.C.

18. Center for Biological Diversity, Tuscon, Arizona
19. Society for Conservation Biology
20. Student Environmental Action Coalition, Normal, Illinois
21. Defenders of Wildlife, Washington, D.C.
22. John Wesley Powell Audubon Society, Normal, Illinois
23. U.S. Public Interest Research Group, Washington, D.C.
24. Florida Native Plant Society
25. Native Plant Society of Oregon
26. Texas Committee on Natural Resources
27. Washington Native Plant Society
28. Southern California Botanists
29. Indiana Native Plant and Wildflower Society
30. The Wilderness Society, Washington, D.C.
31. The Sierra Club, Washington, D.C.
32. Friends of Georgia, Inc., Stone Mountain, Georgia
33. North Carolina Wild Flower Preservation Society
34. Botanical Society of America
35. Society for Conservation Biology, Missouri Chapter
36. T&E Inc., Cortaro, Arizona

*Section 9 (a) (1) of FESA (16 U.S.C. § 1531 et seq.) gives animals full protection from destruction "within the United States or the territorial sea of the United States" or "upon the high seas." But Section 9 (a) (2) (B) of FESA prohibits destruction of federally listed plant species only on "areas under Federal jurisdiction." Plants also cannot be killed in knowing violation of state law, while trespassing, or in violation of Section 7 of FESA which governs Federal agency actions.

Therefore, listed plants are only protected (1) on federal lands or during activities that are funded, permitted, or carried out by a federal agency and are therefore under federal jurisdiction, or (2) in the unlikely event that it can be proved that they are destroyed in knowing violation of state law or during trespassing. Logging, housing development, mining and other activities may all kill unlimited numbers of federally listed plants, even cause species extinction, as long as the destruction does not meet these conditions.

Virginia Wildflower Celebration 2002

The 10 chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each spring. 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 contact information provided to obtain further information. Plants propagated by members will be available at chapter plant sales.

The 2002 Virginia Wildflower of the Year, witch-hazel, *Hamamelis virginiana*, is a deciduous shrub or small tree for all seasons. In spring it bursts forth in a new robe of greenery, while in summer its thick, distinctively scalloped leaves with a matte finish form a dense cloak of dark green in the woodland understory. Autumn is when it shines. The leaves turn a rich buttery color, and last year's popping pods loudly announce its presence, as the spidery, lemon-yellow flowers burst forth on the suddenly leafless branchlets. Even in winter it's a standout with its zig-zag, naked twigs, bearing the squat, light brown, two-beaked capsules, both old and new. It is especially appropriate as a Wildflower of the Year because it was first discovered in Virginia, hence its specific scientific name, *virginiana*.

Wildflower Calendar of Events

First Saturday Walk at Blandy, "Stirrings of Spring, See the Sleeping Arboretum Awaken," - Saturday, April 6, 10 a.m. - noon, leader: Carrie Blair, State Arboretum of Virginia, FOSA members \$4, non-members \$6. Children free.

Botany Short Course - Saturdays, April 13 & 20, course taught by Hal Wiggins, Fredericksburg Area Chapter, contact Kiki Keske, detkat@erols.com or 540-659-6649.



Balls Bluff Wildflower Walk - Sunday, April 14, 2:30-4:30 p.m. Led by Marion Lobstein, 703-257-6643 or mblobstein@earthlink.net at NVCC for reservations.

Annual Bluebell Walk - Sunday, April 14, 2 p.m., Bull Run Regional Park, Centreville, \$6 non-residents, 703-528-5406.

Deep Run Ponds Field Trip - Sunday, April 14, noon. Shenandoah Chapter walk in eastern Rockingham County, reservations necessary, contact Chris Bowlen 540-289-6801, bowlenchris@mail.firstva.com.

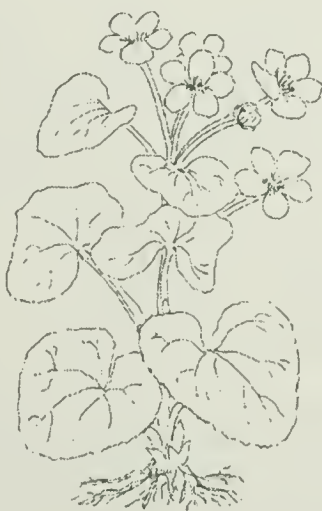
Wildflowers of Caledon Lecture - Tuesday, April 16, 7 p.m. Fredericksburg Area Chapter, program by Mrs. Shelkey

at Community Center, Canal Street, Fredericksburg, contact Kiki Keske, detkat@erols.com or 540-659-6649.

Birds and Blooms Field Trip - Saturday, April 20, 7:30 a.m., Joint hike between Blue Ridge Wildflower Society and Bird Club of Arcadia. Meet at Botetourt Commons Shopping Center in Daleville, call Julie Alexander, 540-427-0117.

Potowmack Chapter Walk at Great Falls - Saturday, April 20, 2-4:30 p.m., Stan Shetler will lead a walk at Great Falls Park, call 703-920-1913.

Botanical Sketching Workshop - Saturday, April 20, 10 a.m.-noon, Green Spring Horticulture Center, Alexandria, Barbara Stewart will share techniques, participants work indoors and outdoors, no artistic experience necessary, \$20, 703-642-5173.



Great Falls Park Wildflower Walk - Sunday, April 21, 10 a.m.-12:30 p.m. Led by Marion Lobstein, mblobstein@earthlink.net or 703-257-6643 NVCC for reservations.

Blooms and Butterflies - Sunday, April 21, 1-3 p.m., Stroll through Green Spring Gardens Park in Alexandria with entomologist Dr. Dexter Hinckley, \$20, 703-324-3988.

Great Smoky Mountains 52nd annual Wildflower Pilgrimage - April 22-28. Contact Great Smoky Mountains National Park, 865-436-1290 or register on line at www.goldsword.com/wildflower/pilgrimage.html.

Shenandoah Chapter Plant Sale - Saturday, April 27, 10 a.m.-3 p.m. The chapter will be selling native plants and their cultivars at Waynesboro's Riverfest in Waynesboro.

Friends of the National Arboretum's 11th annual Garden Fair and Plant Sale - Saturday, April 27, 9 a.m.-4 p.m., National Arboretum, Washington, D.C., 202-544-8733.

(More events, page 6)

Wildflower Calendar of Events

Prince William Wildflower Society Wildflower Garden Tours - Sunday, April 28, Contact Nancy Vehrs, 703-368-2898, nvehrs@attglobal.net, for a brochure and map.

Rock Garden Tea - Sunday, April 28, 1-3 p.m., Green Spring Gardens Park in Alexandria, take in the beauty of the park's rock garden and join award-winning garden designer Don Humphrey as he talks about his garden, \$20, 703-324-3988.

Bent Mountain Field Trip - Saturday, May 4, 10 a.m. See an abundance of birds and butterflies on this Blue Ridge Wildflower Society trip, meet at the Bent Mountain School. Allen and Robin Austin to provide lunch afterward. Call Robin Austin, 540-929-9071.

The Conservation Collection at Meadowlark Botanical Gardens - Saturday, May 4, join Potowmack Chapter members in this visit to see Meadowlark's collection of native plants of the Potomac River Valley, tour led by park administrator Keith Tomlinson, 703-920-1913.

First Saturday Walk at Blandy, "A Mantle of Flowers, Come Enjoy the Vibrant Colors," - Saturday, May 4, 10 a.m. - noon, leader, Howard Slothower, State Arboretum of Virginia, FOSA members \$4, non-members \$6, children free.

Spring Wildflower Sale - The Virginia Living Museum & the John Clayton Chapter, Saturday & Sunday, May 4 & 5, Saturday & Sunday, 11 & 12, Saturdays 9 a.m.-3 p.m., Sundays noon-3 p.m. Held at Virginia Living Museum, 524 J. Clyde Morris Blvd., Newport News, 757-595-1900 or visit www.valivingmuseum.org.

Wildflower Tour of Caledon - Sunday, May 5, 2 p.m., Fredericksburg Area Chapter, meet at Caledon Parking Lot, contact Kiki Keske, detkat@erols.com or 540-659-6649.

Wintergreen 19th annual Spring Wildflower Symposium - Friday-Sunday, May 10-12 at Trillium House, Wintergreen Resort, Info@twnf.org, www.twnf.org, 434-325-7451.

Prince William Wildflower Society Wildflower Plant Sale - Saturday, May 11, 9 a.m. - 12 noon, Bethel

Lutheran Church, Manassas. Contact Nancy Arrington at 703-368-8431.

Blue Ridge Wildflower Society 18th annual Spring Plant Sale - Saturday May 11, 9 a.m.-noon, Community Arboretum, campus of Virginia Western Community College, rain or shine, call Rich Crites, 540-774-4518.

Shenandoah National Park's 16th Annual Wildflower Weekend - Saturday & Sunday, May 11 & 12, hikes, slide programs and children's activities, 540-999-3397, www.nps.gov/shen, or mara_meisel@nps.org, cost is \$10 per car.

Botanical Watercolor - Tuesdays and Thursdays, May 14, 16, 21, and 23, 9:30 a.m. - 3:30 p.m., instructor Merri Nelson. \$150 FOSA members, \$180 non-members. 540-837-1758 x 23 before May 7 to register.

Green Spring Gardens Plant Sale - Saturday, May 18, 10 a.m.-3p.m., with Potowmack Chapter, native plants donated by members or propagated at Green Spring Gardens, commercial native plant nurseries also participate. Directions to Green Spring Gardens Park: from Interstate 395, exit at Route 236 West (Little River Turnpike) in Alexandria, turn right at Green Spring Road and proceed 1 block north to the park entrance, 703-642-5173.

Jeeters Chapel Field Trip - Saturday, May 25, Blue Ridge Wildflower Society, time and place TBA, call Allen and Robin Austin, 540-929-9071.

Herb and Garden Festival - Saturday, June 1, 10 a.m.-4 p.m., James Madison Edith Carrier Arboretum, Harrisonburg.

Rhododendron Day on the Blue Ridge Parkway - Saturday, June 8, Blue Ridge Wildflower Society to host a field trip. Meet at Peaks of Otter for breakfast at 8:30 or at visitor center for trip at 10 a.m., pack a lunch, call Julie Alexander, 540-427-0117.

Crow's Nest Update & Discussion - Tuesday, June 18, 7 p.m., Fredericksburg Area Chapter, at Community Center, Canal Street, Fredericksburg, contact contact Kiki Keske, detkat@erols.com or 540-659-6649.

Rhododendron Day at Altavista - Saturday, June 22, 10 a.m., meet at Ross Laboratories, pack a lunch, call Sandra Elder, 434-525-8433.

Hickory Hollow Hike

A Hickory Hollow Hike (Monday, May 20, 11 a.m. - 1:30 p.m.) is a wonderful opportunity to start the week in Lancaster County, Virginia. Hickory Hollow is a Virginia Natural Area Preserve, part of a system that now includes 33 dedicated natural areas totaling 20,152 acres.

Hickory Hollow's 254 acres of mixed pine-hardwood forest, ravines and Cabin Swamp form an important habitat for migratory songbirds, wild turkey and rare plants. Cabin Swamp is an exceptional quality wetland community that supports a high plant diversity - perhaps 500 plant species - including several mountain disjuncts. Of 500 plant species reported, eight are orchids.

Hickory Hollow Nature Trail offers 3.5 miles of footpaths that meander through second growth deciduous forest. The site is protected by the Northern Neck Audubon Chapter. Hike leader will be Rebecca Wilson of the Virginia DCR-Division of Natural Heritage. She works as a Natural Area Steward for the Chesapeake Bay Region. To reserve space on this 15-person trip and get directions, contact Shirley Gay by e-mail, shirleywg@comcast.net or by phone, 703-920-1913 (leave your phone number). Remember to bring a lunch or snack.

Walks, tours, courses

Marion Blois Lobstein, Associate Professor of Biology, NVCC-Manassas & Adjunct Professor, Blandy Experimental Farm (UVA Field Station), will conduct a number of wildflower walks and tours as well as teach workshops and a botany/plant identification course through the University of Virginia at Blandy Experimental Farm and State Arboretum of Virginia. For information about these events and her spring wildflower video, e-mail her at mblobstein@earthlink.net or visit <http://home.earthlink.net/~mblobstein>.

• Skunk cabbage

(Continued from page 3)

emulate the heat, odor and appearance of decaying meat and thereby draw insects that will pollinate the flowers on the spadix.

After pollination has been completed, the spadix forms the seeds and gradually bends toward the earth as the spathe decomposes. Seeds need prolonged cold-moist stratification to germinate. Exposed seeds are sometimes eaten by rodents, such as squirrels, and by certain birds, especially grouse, quail and pheasants.

While the spadix is completing its development, and the spathe is withering, the leaf bud is developing rapidly as spring days lengthen and the sun gives its warmth. The leaves are vivid green, usually 1-2 feet long, but can reach 3 feet. Thoreau was impressed by this plant and entered it 39 times in his journals. Regarding the plant's leaf, he said it "...makes the best vessel to drink out of at a spring..." He also noted that it grows nearby, it is dish-shaped, and the odor is offensive but does not flavor the water.

Bears often eat the leaves, especially as their first meal after coming out of hibernation. They also will eat the large rootstalk (underground stem) that bears numerous, long feeder roots that are up to an inch in diameter and go deep into the soil. Bears hibernate on a full stomach and require a large mass of vegetable matter to flush the "food-plug" from their gastro-intestinal tract when they cease hibernation. A patch of skunk cabbage is a timely answer.

Some naturalists think this plant has a very long life span with estimates up to 1,000 years. It is often called the Methuselah of the plant kingdom. However, I have not found any documented literature to support its longevity.

It is often considered a good indicator plant since it will not grow in a polluted habitat. Too many sites in its endemic range are now becoming polluted, or destroyed, as our wetlands are being drained for various reasons.

Its geographic distribution includes bogs, marshes, and other seasonally damp sites, both open and wooded, from Nova Scotia westward through Ontario and Minnesota, then southward to Iowa and eastward through the Carolinas and points within.

Elwood Fisher, Shenandoah Chapter

• Virginia's landscape

(Continued from page 1)

Nicky Staunton kicked off the meeting with remarks, followed by John Townsend, Virginia State Botanist with the VA-DCR National Heritage Program, who spoke about creation versus restoration and lessons learned. We saw many examples of hard work being done to reclaim bottom lands, mined out areas and property devoted to power lines. Unfortunately, some of that work has proven to be counterproductive when flora, both native and non-native, are introduced to an incompatible location. The message? Sometimes no management is better and you let nature take its course.

Dr. W. Lee Daniels, from Virginia Tech, talked to the group about revegetation challenges, particularly when topsoil has been removed and subsoils compacted. Dr. Daniels spotlighted compaction and low levels of organic matter as major impediments to restoration of natives in disturbed areas. His tips on rebuilding soils are particularly relevant and useful to any of us who live

in a home where bulldozers and other equipment were used during the construction process. Mixed soil horizons, compaction, and inclusions of debris and building materials in the soil are problems confronting most homeowners.

Jody Booze-Daniels, a research associate at Virginia Tech, has been working with VDOT since 1993. She spoke to us about the incorporation of native grasses and flowers into the roadside program. I found the section on warm and cool weather native grasses to be especially informative but, if you missed it, all is not lost. She has a web site at <http://filebox.vt.edu/users/jodaniel>, and she encouraged us to e-mail her at jodaniel@vt.edu. Booze-Daniels left us, and everyone of like interest, with the challenge to persuade government agencies to expand their use of native plants.

After lunch, Dr. Stanwyn Shelter, a long time VNPS member and professional botanist, gave us his perspective on when natives are aliens. If you have attended statewide functions be-

River's Edge outdoor weekend

Mike and Pat Jones will open Springview Farm/River's Edge on Saturday and Sunday, April 20-21. This sprawling property adjoins the beautiful Nottoway River in northern Greensville County, Virginia. It is located on the fall line, 12 miles north of Emporia, and offers excellent birding opportunities in a variety of ecosystems on 350 contiguous acres.

Existing ecosystems include non-tidal wetlands, mature hardwood forest, regenerated pine forest, old-field sites and riparian haunts. Approximately four miles of walking trails will be open to birding and wildlife-watching enthusiasts. Two individuals recorded 62 species of birds in one morning last spring. Mountain bicycles will be allowed if desired. Guides will be provided as necessary.

A \$10 per person donation will be requested for the American Cancer Society. Attendees provide their own food, drink and/or picnic lunch. The area will be open sunrise to sunset. Preregistration recommended (434-634-9719, after 6 p.m., or mpkact@telpage.net). Springview Farm/River's Edge is located at 11254 Purdy Rd. (Hwy 619), Jarratt.

fore, you know Stan and, what can I say? I sure didn't see anyone sleeping after lunch! His bottom line? We are only simulating natural landscapes, not creating them, when we plant roadside gardens with natural plants. If we want "natural habitat" we have to work to save what little we have left - we cannot recreate it.

Deanne Eversmeyer, from the Washington Golf and Country Club, closed out the seminar with a program titled "Little House on the Suburban Prairie - A Natural Alternative to the Lawn." Deanne's "before" pictures of the front yard in her (then) new home and her "after" pictures, tracked the conversion of her traditional lawn into a low maintenance meadow. The meadow combines the liberal use of mulch, to reduce work, with native grasses and flowers.

When we left Richmond, it was in the low 70s and as we started the drive home, it began to rain - who could ask for more? It was a fun, entertaining and informative day. See you there next year?

Leo Stoltz, PWWS Vice-President

Invitation to The Virginia Academy of Science Symposium on the *Flora of Virginia*

Marion Lobstein, vice president of the Virginia Academy of Science, VNPS member, and board member of the Foundation of the *Flora of Virginia* Project, Inc., extends a special invitation to VNPS members to attend the Symposium on the *Flora of Virginia*. It will be held on May 24 at the 80th Annual Meeting of the Academy at Hampton University in Hampton, Va. The symposium is co-sponsored by the Virginia Academy of Science and the Foundation of the *Flora of Virginia* Project, Inc.

For more information, contact Marion Lobstein at 703-536-7150 or by e-mail at her address: mlobstein@earthlink.net. The following is the schedule and description of the Symposium on the *Flora of Virginia*.

2002 Virginia Academy of Science Symposium: The Flora of Virginia Hampton University May 24 9 a.m. until noon

9:00-9:15	Introduction - Marion Lobstein & Dr. Camellia Okpodu
9:15-9:45	Historical Exploration of Virginia's Plant Diversity - Dr. Donna Ware
9:45-10:15	Virginia's Rare Plants - Johnny Townsend
10:15-10:30	—Break—
10:30-11:00	Conserving Virginia's Plants - The Nature Conservancy
11:00-11:15	The Problem of Invasive Plants in Virginia - Dr. Ruth Douglas
11:15-11:45	The <i>Flora of Virginia</i> - Chris Ludwig
11:45-12:00	Flora of Virginia History at Hampton University: The Emancipation Oak and an Invitation to Visit - Dr. Camellia Okpodu

Description of the Symposium on the *Flora of Virginia* - This symposium on the plant life of Virginia will cover the rich heritage of the Commonwealth's botanical exploration from 1607 to current efforts to produce a modern identification manual to Virginia plants, the *Flora of Virginia*. Only 12 states, all larger in landmass than Virginia, have more plant species than the Commonwealth. Reasons for this floristic diversity and the importance of rare species will be considered. Challenges in conserving this diversity and the problem of invasive species are other topics that will provide symposium participants with a wider view of the present and future status of Virginia's flora. With over 3,700 vascular plant taxa in Virginia, the critical need for a modern *Flora of Virginia* will be addressed. At the conclusion of this symposium, the head of Hampton University's biology program will present her research on the historic Emancipation Oak located on the Hampton University campus and will extend an invitation for participants to take a short fieldtrip with her to visit this important Virginia tree specimen.

Flora of Virginia Project News Update:

The Flora Advisory Board Has Been Established

Significant progress continues to be made on the *Flora of Virginia* Project. The Flora Advisory Board (FAB) has been established to contribute to the development of the *Flora of Virginia*. The FAB is made up of almost 50 botanists from around the Commonwealth and had its first meeting in Richmond in February. Thirty-four members took part in this meeting together with Chris Ludwig and Alan Weakley, the two primary authors of the *Flora*.

At this meeting the role of the Flora Advisory Board was discussed. Members will provide advice on questions of format and content. Among other possible roles discussed were the testing of dichotomous keys, providing plant material for illustrations, and assisting with the website or other electronic media associated with the project. Ludwig and Weakley outlined their current approach to writing the *Flora*. The mission of the *Flora of Virginia* Project was also clarified by Ludwig and Weakley and the mission statement was supported by the FAB participants. This mission of the *Flora of Virginia* Project is to:

- Provide a tool for plant identification and study for use by the broadest of professional and avocational users from academia, government, industry and the public.
- Assimilate and build on the rich tradition of botanical exploration of Virginia culminating in works such as the 1739 *Flora Virginica* by John Clayton.

The third Board of Directors meeting of the Foundation of the *Flora of Virginia* Project, Inc. was also held in February. At this meeting Joslin Gallatin, fundraiser for the project, was nominated as a new board member and unanimously elected to the board. Plans for seeking grants and other sources of funding were the main points of focus at this meeting. Updating the website was discussed and will occur by the middle of March.

Marion Lobstein, board member and vice president of the Virginia Academy of Science (VAS), reported on plans for a Symposium on the *Flora of Virginia* to be held at the May 23-24 annual Meeting of the academy. Board members Ludwig, Ware and Lobstein will take part in the symposium. The VAS Symposium is open to the public and VNPS members are invited to attend.

Be sure to check out the updated website for the project at: www.dcr.state.va.us/dnh/vaflora.htm.

See the address label for your membership expiration date
VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$20

___ Family \$30

___ Student \$15

___ Patron \$50

___ Associate (groups) \$40*

___ Sustaining \$100

___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

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

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

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The *Bulletin*

ISSN 1085-9632

is published five times a year

(Jan., March, May, August, Nov.) by

Virginia Native Plant Society

Blandy Experimental Farm

400 Blandy Farm Lane, Unit 2

Boyce, VA 22620

(540)837-1600

vnpsofc@shentel.net

www.vnps.org

Nicky Staunton, President

Nancy Sorrells, Editor

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. Items should be typed, on disk in Microsoft Word or e-mailed to: Editor, 3419 Cold Springs Rd., Greenville, VA 24440, or lotswife@rica.net

The deadline for the next issue is June 1

•St. Louis

(Continued from page 1)

scheduled to take place in Chicago in late September. However, the Codes have already been endorsed by several key stakeholder groups, including the American Nursery and Landscape Association, American Society of Landscape Architects and the Garden Club of America. VNPS members who have discussed the matter, including Faith Campbell, have recommended that our

organization consider formal endorsement, a move which would lend weight and encouragement to all who hope the codes will evolve into effective guides not only for the gardening public but for industry and professional groups. To read the entire resolution, visit www.vnps.org or Missouri Botanical Gardens website, www.mobot.org/iss.

Jocelyn Sladen, co-President, Piedmont Chapter (Jocelyn was a participant in the St. Louis workshop, representing the Garden Club of America.)

Study shows exotic plants affect soil properties

For many years environmentalists have been concerned about the relentless invasion of exotic plants into natural areas. The fact that alien species invade areas once inhabited by native species is obvious. What may not be so obvious are the changes taking place underground. Recently the USDA sponsored a research forum in Annapolis. Dr. Joan G. Ehrenfeld of Rutgers spoke on "Soil Properties and Exotic Plant Invasions: A Two Way Street." Dr. Ehrenfeld studied soil properties in three New Jersey sites where two exotic species, Japanese barberry (*Berberis thunbergii*) and stiltgrass (*Microstegium vimineum*), grow. Her observations included:

- soil pH significantly elevated under *Berberis* and *Microstegium* as compared to natives
- nitrification rates are higher in both exotics as compared to native vegetation and increase is associated with increased soil pH
- extractable NH₄ concentrations higher under the exotics as compared to natives
- leaf litter under *Berberis* decomposed extremely quickly as compared to natives
- fine root biomass of native species significantly lower in the presence of exotics
- significantly higher earthworm densities found under exotic plant species but they were all European earthworm species
- exotic species invasions often associated with nutrient-rich habitats such as riparian zones, sites with high cation (a positively charged ion) concentrations or sites with native N-fixing species
- soil changes induced by exotics will likely persist and may impede restoration of native flora in cleared sites.

Those interested in a copy of this research should send a SASE to: Sam Jones, 620 Pyle Rd., Forest Hill, MD 21050.

Virginia tax check-off helps natural resources

Protecting the Commonwealth's open spaces and restoring the health of the Chesapeake Bay are two of the state's leading environmental concerns. Virginians can now help do both when they file their state tax returns. Schedule ADJ allows taxpayers to contribute any or all of their tax refund to either the Open Space Conservation Fund or the Chesapeake Bay Restoration Fund. And there's an added benefit: these contributions are tax-deductible on next year's income tax returns. Designate your voluntary contribution on line 24 of Schedule ADJ, to accompany the individual income tax return Form 760. If you choose the "Open Space Conservation and Recreation Fund," write in the code numbers 6-8. If you choose the "Chesapeake Bay Restoration Fund," write in the code numbers 7-1.

"A recent survey of Virginians revealed that 92 percent felt it was important to protect open space resources," said W. Tayloe Murphy Jr., Virginia Secretary of Natural Resources.

For more questions about either contribution fund, call the Virginia Department of Conservation and Recreation at 804-786-7961.

www.vnps.org

Printed on recycled paper



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

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

LESTER T. MERTZ LIBRARY

APR 22 2002

NEW YORK BOTANICAL GARDEN

Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620



PRSR STD
POSTAGE PAID
PERMIT 161
HARRISONBURG VA
HARRISONBURG, VA

924.55



A publication of the VIRGINIA NATIVE PLANT SOCIETY

www.vnps.org

Conserving wild flowers and wild places

Explore Fall Flora on the Fall Line at Annual Meeting

The Pocahontas Chapter of VNPS invites you to attend this year's Annual Meeting, to be held at the Cultural Arts Center of Glen Allen, Friday, September 13 through Sunday, September 15.

The greater Richmond area, home to this year's annual meeting, is known for the ever-changing James River, an interesting skyline, and intriguing social history. What's less well known is Richmond's complex natural history, which is the theme of this year's annual meeting. Richmond straddles the Fall Line, a natural geological hurdle for plant and animal life. The annual meeting program is equally complex and varied, offering wildflower walks, informa-

tive presentations on both Friday and Saturday evenings, visits to hard-to-locate sites, and half-day and full-day trips to some of the best kept secret wild areas in the Piedmont. There's

life, go raptor-watching and catch a glimpse of resident bald eagles and osprey, watch heron spear their dinner, or meander through the quiet woods of our state and local woodlands in search of wildflowers, ferns and mosses.

On Friday evening at 7 p.m., plan to join your friends and fellow members for dessert and coffee, and at 7:30 p.m. enjoy a lively talk by aralia expert Gregory M. Plunket, assistant professor of biology at Virginia Commonwealth University, about his work in Virginia and on the exotic island of New Caledonia.

On Saturday, pick up a fancy box lunch, and take a half-day or all-day

(See Fall Line, page 10)

*VNPS Annual Meeting
September 13-15
Richmond area*

something for everyone, whether you're a new member or a returning veteran. So come and slog through our wetlands, amble along the lazy James River in search of avian or plant

Natives enhance golf course

Chip Heartfield, a member of VNPS and the Chevy Chase Club in Maryland, arranged for a tour of the club's nature trail. He has supported and encouraged the development of the trail emphasizing use of native plants and wanted to share the results.

A golf cart carried us across a green of the Chevy Chase Club golf course, past a planting of fringe trees (*Chionanthus virginicus*) an image of which still lives in my memory. A group of the trees in full bloom formed the edge of the understory of an island of mature hardwoods. There were clouds of white near each other, but planted in a random pattern.

David Hall, arborist for the Chevy Chase Club, was sharing the results of how he has incorporated native plants into the club landscape over the 12 years since his arrival. The islands containing beautiful groupings native plants flowed along the golf course greens. There was one containing flame azaleas, *Rhododendron calendulaceum*, he had obtained from North Carolina. The blossoms varied in color from white with one golden petal to all petals of a dark flame color. Ferns

(See Chevy Chase, page 9)

Inside this issue

- Special insert - Annual Meeting Registration form
- Page 3 - Planning for Better Habitat Conservation

From the president

Many people, many places need a Virginia flora

The Flora of Virginia Project is under way and descriptions are now being written by the co-authors. Past *Bulletins* have brought you progress reports on this project.

This floral manual, which will contain descriptions and illustrations of all 3,700 plant species identified in Virginia, is needed now. A more than 300-year-span between the time the first flora was written and sent to England and the present does not mean that there is no urgency in producing our *Virginia Flora* as speedily as possible.

Botanists and everyone who works with plants and ecosystems need this manual now. As habitats diminish, natural areas shrink and plant species are lost, there is a race to identify plant species across Virginia. Looking in the other direction, new plants are being discovered for the first time and need to be classified and named.

We needed this *Flora of Virginia* for educators years ago. Can you imagine teaching botany and having to use six or eight volumes to identify a plant? None of the books identify all of the plants which are peculiar to Virginia; rather, each volume has some of the plants in Virginia, but not all of the state's 3,700 identified flora species!

In May, I met with a team of high school students competing at the state level in the Virginia Envirothon II. This year's theme is invasive alien plants. The team requested some intensive study in order to identify trees and differentiate between those that are invasive and look-alike natives. We were out for several hours as they learned to recognize the identifying features of the trees we found. Several tree books, including *Wildflowers* by Peterson/McKenny and *Woody Plants of Maryland*, were used but it would have been better to use one definitive book of our Virginia flora.

The point is, identifying plants you live with and work with is essential, no matter what your field might be. Students need this floral reference manual now. The *Flora of*

Virginia will give the field of botany a boost in Virginia by giving Virginians the tool that has been missing for our state.

Back to the students. You cannot control invasives unless you recognize them and sometimes it is difficult. For example, *Ailanthus altissima* has pinnate leaves. Walnut and sumac have a similar leaf arrangement as do many other species. If that were the only key to identifying, it could lead us to removing the wrong tree. So, descriptions of native as well as non-native trees are necessary.

VDOT work crews who eradicated most of the roadside sumac along a state road last year believed they were spraying *Ailanthus*. They needed the information in our *Flora of Virginia*. Members of VNPS-Shenandoah Chapter who are going to be monitoring an area of the George Washington National Forest as a spraying program gets under way need the book. Members will be visiting the site ahead of the work crew and will advise the managers of what and where native plants are located in the spray zone. They will probably use Core's *Flora of West Virginia* for plants they don't recognize. Why not have the *Flora of Virginia*, an overdue reference to all of the plants in Virginia?

The challenge for us as VNPS members is to generously support the writing and illustrating of the *Flora of Virginia* immediately and through the next seven years. Individual gifts -- substantial or modest -- will be the fuel for the production of our flora. Several VNPS chapters are deciding how much support they can give and when.

The *Flora of Virginia* will let us each learn about the flora in our ecosystems and increase our appreciation of their beauty and use by human and other species. That, in turn, makes us willing to work to conserve them where they live in natural settings. It's a mighty challenge and VNPS members are "up to it."

Your President, Nicky Staunton

Military fort provides unique approach to habitat management

Fort A.P. Hill Military Base, located in northern Caroline County, is a 76,000-acre site that is an excellent example of a portion of Virginia's Piedmont ecosystem. The base contains a variety of habitats and unique flora and fauna, some of which are becoming less common or are threatened today. The primary purpose of the base, which was established in 1941, is to serve as an important on-the-ground training facility for the army's various training needs.

Over the years and more recently, there has been a strong commitment to manage the base's natural resources in concert with the military's training activities. A group of natural resource professionals employed through the base's Environmental and Natural Resource Division collectively manage the site with the military staff. The group has collaborated with the Virginia Division of Natural Heritage and other state and federal offices to conduct various assessments and inventories of some of the base's flora and fauna resulting in quality protection and stewardship.

One of the unique management efforts has been to encourage and direct some of the training activities that create fires in the "impact zones" of the base. Approximately one third of the base is used for high intensity activities, some of which result in various levels of fire and burning. As a result, these fires have contributed to creating a grassland-loblolly pine savannah with open or partially closed forest canopies. This type of open forest mimics long ago savannah-like habitats created by fire from lightning strikes. Some of the grass-

land species include little bluestem, numerous species of goldenrod, and broomsedge. This particular grassland environment is also home to one of the two habitats statewide for the state threatened Bachmans's sparrow.

Other vegetation management efforts include the removal of the highly invasive exotic autumn olive which was planted throughout the base in the late 1970s. A large severe-duty shredder to clear the shrub is used in concert with periodic controlled burns to eliminate re-sprouting. Native warm season grasses and other herbaceous plants have been used to revegetate these areas.

In order to provide habitat for bobwhite quail as well as provide an area for the military's tactical maneuvering activities, selective thinning of a 16-acre loblolly pine stand has been performed. Controlled burning has followed the thinning activities in order to maintain an open forest canopy with native grasses and forbs at ground level. The goal has been to allow for natural regeneration in the stand to a mix of 75 percent pine and 25 percent hardwood.

A large portion of Fort A.P. Hill also contains groundwater seepage wetlands which occur near the headwaters of streams. Some of these wetlands, which contain a large diversity of plants on the base, have also been affected by various disturbances including fire, resulting in the creation of "bog-like" habitats. These areas have produced habitat for cuthbert turtlehead and sizeable populations of the state endangered swamp pink. The Virginia Division

Planning for



Habitat Conservation

Editor's Note - This article marks the last of a five-part series by VNPS Conservation Chair Jessica Strother on the various ways to ensure and plan for habitat conservation. This series has been intended to provide examples of successful and helpful ways taxpayers and professionals can purposefully plan for biodiversity. The information provided is only an overview of the issues.

of Natural Heritage conducted an inventory of the swamp pink population on the base in 1994 and this information has been used to manage for and protect the swamp pink from disturbance.

Upland habitats that contain small whorled pogonia have also been studied resulting in recovery plans that have been used by the base staff for protection efforts. The Virginia Native Plant Society is investigating the possibility of a field trip to Fort A.P. Hill to study the special and unique habitats found there. Watch for a possible announcement in the future.

Flora of Virginia Foundation is granted non-profit status

In an early ruling, the IRS has granted a 501-(c)-3 status for the Foundation of the *Flora of Virginia* Project in May 2002. The Foundation now has a permanent address for all communications and gifts for the *Flora of Virginia* Project: P. O. Box 512, Richmond VA 23218-0512. This address may be used for all correspondence relating to the project. An account is being opened to handle gifts of securities.

For any questions you have, you may call Flora of Virginia Executive Director Chris Ludwig at 804-371-6206 or e-mail: jcludwig@dcr.state.va.us or check out the website at www.dcr.state.va.us/dnh/vaflora.htm.

VNPS has pledged to support this, the most important project in our history in every way possible. Members gifts will be gratefully received to support the writing and editing of the *Flora of Virginia*.

The lawn is gone, but the beauty has increased

When I moved into my house in the fall a few years ago, the next door neighbor told me that the our back-yards were full of small flowers in spring. In March I was pleasantly surprised to find spring beauties littering the lawn. Now the lawn is gone, but the spring beauties thrive in the company of Virginia bluebells, wild phlox, partidgeberry and many

Pachysandra procumbens
Last year's mottled leaves
Illustration by Nicky Staunton

nial erupts into a display of soft white foamy flowers in April and May. The maple-leaf foliage is a bright green, sometimes marked with a wine stain in the center, and persists through the winter after taking on a coppery cast in the fall. Many named varieties have popped up in specialty catalogs, including pink flowered forms and those with foliage deeply incised or even variegated. In rich, humusy soil the foamflower can cover ground quickly, sending out runners in all directions, but it tolerates and even performs well in drier, shady sites. This is a great companion to spring ephemerals such as bluebells, filling in the vacated spaces left as they go dormant for the summer.

Competing with the foamflower for favorite native groundcover is the wild sweet William (*Phlox divaricata*), another herbaceous evergreen spreader. From a low, dark green carpet of foliage arise foot-tall wiry stems topped with clusters of sweet-scented, soft lavender-blue flowers in May. When planted in large masses the effect is of a fragrant cloud floating just above the ground. A few varieties are available, including one with white flowers and another with purple. This phlox is fairly self-cleaning, with the old flower stems melting back to earth as the plant puts out new ground-hugging growth for the summer. Stem cuttings can be rooted easily after this new growth has hardened or just bury part of the stem and come back after a couple of months to separate it. Given a fairly humusy soil and high, partial shade, this native makes an attractive, low-maintenance groundcover.

A n o t h e r

spreading native, golden ragwort (*Senecio aureus*), should come with a warning, for this spring lovely will take over when planted in the moist garden. But, for covering a large, wet area quickly, this one can't be beat. The dark purplish-green foliage emerges in early, early spring and is followed by one to two-foot-tall stems topped with clusters of bright, golden-yellow daisies in April to coincide with the bluebells. The foliage remains attractive through the summer.

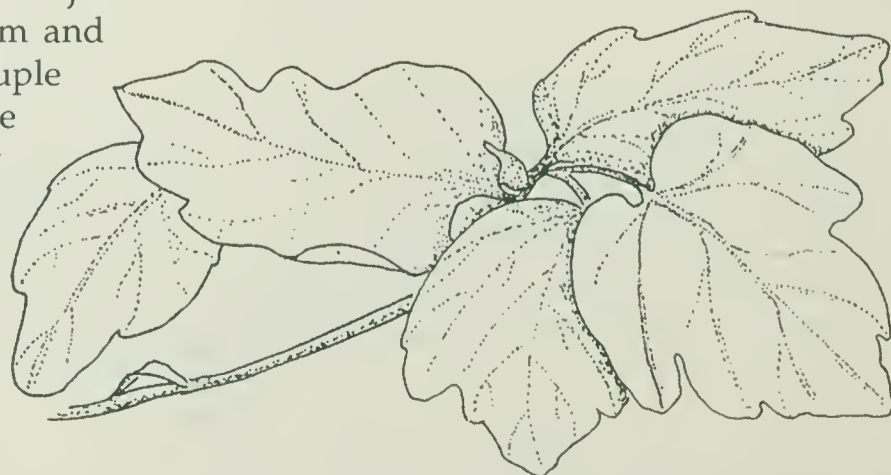
Everyone is familiar with the ubiquitous groundcover, Japanese spurge, *Pachysandra terminalis*, but the Southeast is home to our own species, *Pachysandra procumbens*, the Allegheny spurge. This evergreen member of the Boxwood family is found in deciduous woods from West Virginia to Kentucky and south to Florida and Louisiana. By winter the old foliage is a mottled bronze-green with a dappling of silver, mostly prostrate, radiating out from the center. In midwinter, tight chains of flower buds can be found at the crown, waiting for the earliest signs of spring. As soon as the weather begins to warm, short, bottlebrush-like spikes of fragrant pinkish-white flowers emerge. The floral display is followed by the emergence of new, bright green foliage. The new foliage stands upright and unfolds into a matte green

(See Spurge, page 6)

Pachysandra procumbens
Illustration by Nicky Staunton

other woodland natives. I brought in these other beauties and planted them through a layer of smothered, decaying turf that had been a thin lawn under a huge, old tulip poplar. So now, instead of following a noisy, stinky lawn mower around on Saturday, I spend my spare time marveling at the early emergence of the bloodroot, hunting for the odd little flowers of the wild ginger, or watching a Christmas fern frond unfurl.

The tulip poplar is the best thing in my quarter-acre suburban yard. Its roots are fleshy and deep and its canopy is elevated, leaving the ground beneath in high, open shade. It's the perfect combination for our native woodland plants. One of my favorite natives is the foamflower (*Tiarella cordifolia*). This four- to six-inch tall, running peren-



Wildflower Calendar of Events

Raingarden Program - Wednesday June 19, 7:30 p.m. Lake Jackson Garden Club program on raingardens at the Lake Jackson Fire Hall, Coles Drive, Manassas. For more information contact Diane Flaherty at 703-330-9862.

Green Spring Garden Sprout Program - Wednesday June 19-Friday June 21. Green Spring Gardens Park program for children 3 to 5 years of age. "Water, Water Everywhere." Help collect stream water from Turkeycock Run, learn about the Chesapeake Bay and make an ocean in a bottle. For more information contact Sherrie Chapman at 703-642-5173 or go to Green Spring's website at www.greenspring.org.

Dragonflies Program - Saturday June 22, 1:30-3 p.m. Green Spring Gardens Park. The family can go down to the ponds to study the dragonflies perched on the cattails and grasses at the water's edge. Limit 20 families, \$15 fee. For more information contact Sherrie Chapman at 703-642-5173 or check www.greenspring.org.

Rhododendron Day at Altavista - Saturday June 22, 10 a.m. Blue Ridge Wildflower Society trip. Meet at Ross Laboratories. From Roanoke, take the 460 bypass to the Rt. 29S Danville exit which is near the Lynchburg airport. Take the first exit and turn left at the end of the ramp. This will take you to Altavista. Ross Labs has a large sign and is by the railroad track. Bring a lunch. For more information, contact Sandra Elder at 434-525-8433.

Green Industry Professional Field Day and Trade Show - Thursday July 25. Held at American University, Washington, D.C. It is sponsored by the Northern Virginia Nursery and Landscape Association and the D.C. chapter of PGMS. This day-long event features landscape design/architecture discussions, a tour of the new campus arboretum, talks about uses of perennials and hardscapes, equipment demonstrations, demonstration of tree fertilization and much more. Lunch will be served. Free parking and Metro access. For information call 703-250-1368 or e-mail Lanelle Kyle at greenisdcs.com.

Exotic Pest Plant Council to meet in West Virginia

The Mid-Atlantic Exotic Pest Plant Council is planning its annual business meeting and member gathering for August 7-8. This year's meeting is at Canaan Valley State Park in wild and wonderful West Virginia! The gathering starts with a social on the evening of August 7; the MA-EPPC business meeting will follow on the morning of August 8. The remainder of August 8 will be spent learning about the impact of one species invading the bog, yellow flag iris (*Iris pseudacoris*); and working on a removal project in this sensitive wetland habitat. For further details, contact Faith Campbell at phytadoer@aol.com or by telephone at 202-547-9120. Hope to see you there!

Forest & tree bills update

Earlier this year the Virginia General Assembly considered two bills that would amend and reenact 15.2-961 of the Virginia Code relating to the conservation and replacement of trees during development in certain localities. House Bill No. 105, sponsored by R.G. Marshall and McQuigg, and Senate Bill No. 484, sponsored by Howell, Byrne, Puller and Ticer; and Delegates Amundson, Bolvin, Callahan, Devolites, Plum and Watts were tabled until 2003, when they will be reconsidered.

Atlas of Virginia flora once again available

Because of continuing high demand, the Virginia Botanical Associates, Inc. is now offering reprints of the 1992 publication, *Atlas of the Virginia Flora, Edition III* while supplies last. This volume is the most up-to-date information offered on the state-wide distribution of individual vascular plant species in Virginia. It is an indispensable tool for educators, avocational naturalists, environmental professionals and amateur scientists alike.

With *Atlas III*, you can discover:

- The range of any plant known from Virginia on a county-by-county basis
- Which wildflowers grow in any region of the Commonwealth
- A comprehensive listing by family, genus and species of trees, shrubs, vines, herbs and weeds
- A history of botanical exploration in Virginia
- The floristic diversity of Virginia
- A commentary on the Coastal Plain flora
- A comprehensive list of floristic novelties and waifs

To receive this book postpaid, send check/money order for \$22.75 payable to Virginia Botanical Associates at the following address: Robert Wright, Sec./Tres., Virginia Botanical Associates, Inc., 10210 Commonwealth Boulevard, Fairfax, VA 22302. Larger orders can be accommodated on request.

Olmsted Woods: Urban woodlands restoration project

"The great charm of approaching the Cathedral through and up a wooded hillside, leaving the city far behind and below, helping one to forget the hurly-burly, and busyness of a work-a-day world, must be taken advantage of to the fullest extent. The great sweeping branches of the trees seem to brush off...the dust of the city, so that one at last reaches the Cathedral cleansed in mind and in spirit." Frederick Law Olmsted Jr.

Anne Petri of the Washington National Cathedral's All Hallows Guild in a 1996 interview by Adrian Higgins of the *Washington Post*, cited the pilgrim experience from middle ages as shown in art from that period that included Gothic cathedrals of Europe. The guild chose the restoration of Olmsted Woods as a monumental project to fulfill Olmsted's vision.

The vision of Frederick Law Olmsted Jr. had dissolved with the decline of the urban forest at the Washington National Cathedral and the Cathedral's All Hallows Guild is currently continuing its quest to restore the small track of five acres that one would enter from Garfield Street off of Wisconsin Avenue.

The forest was filled with compacted soil and devoid of native plants. Storm water damage areas, the result of considerable impervious surface on the close (grounds), soil erosion, aging and diseased trees and invasive alien plants were evident throughout the tract.

Anne Elsbree, of All Hallows Guild and a member of VNPS, is working toward restoration of the site through the efforts of the guild. Storm water control is the focus at this initial stage of restoration. Leslie Sauer and her colleagues at Andropogon Associates Ltd. in Philadelphia have furnished a new plan for the forest. Elsbree and ecologist Elizabeth Brewster met me at the forest to lead an early

spring walk to see what has been accomplished since June 2000.

My pilgrimage began on Garfield Street with a dash up through the forest on the efficiently and beautifully designed quarter-mile stone path. Traffic had been bad that Cherry Blossom celebration day. As Olmsted had planned in 1927, the path was crafted with a perfect grade winding up the hill to frame the cathedral. The group for the walk had gathered at the statue of George Washington at the beginning of the forest. "The new path was completed mainly by hand and without use of large mechanical equipment in order to minimize soil compaction and damage to existing tree roots and doubles as an innovative stormwater collection system, directing surface water away from steep slopes. Stone gutters and infiltration pits in turn help decrease water runoff," said Elsbree.

Following the clearing of undergrowth, brush and debris, the oak-beech forest floor is mostly clear of understory and trees were beginning to leaf out when I visited. A few spring ephemerals greeted us: bluebells, sessile trillium, spring beauties and ferns were under dogwood, viburnum, redbud,

sycamore and spice bushes. There were isolated remnants of non-native species. One was *akebia* that was in bloom, growing on a sapling near Garfield Street. The petals of chocolate brown had strange stamen that resembled snail's eyes -- a stalk with a very glossy terminus. This sole plant on a steep slope remained due to inability to reach its roots.

Seeing this restoration in progress moves one to want to visit again to see the progress and to help to replant the site. A "wish list" for Olmsted Woods Restoration includes *Phlox divaricata*, *Mertensia virginica*, *Claytonia virginica*, *Asarum canadense*, royal fern, ebony spleenwort, Christmas fern, *Ilex opaca*, *Cornus florida*, *Cercis canadensis*, *Hammamellis virginica*, varieties trees and andropogon grass species. This would be a perfectly grand place to offer your divided plants, saplings, and plant sale surplus. With a \$1.5 million project cost, financial donations are also welcomed. For more information, contact: All Hallows Guild, Washington National Cathedral, Massachusetts and Wisconsin Avenues, NW, Washington, D.C. 20016-5098, 202-537-2937.

Nicky Staunton, VNPS President

• Spurge

(Continued from page 4)

canopy 6 to 10 inches tall, bigger than its Japanese cousin in all parts. There are a few named varieties in commerce, based on the amount of mottling on the leaves.

Allegheny spurge performs best in a rich, moist, woodland soil in part to full shade. Propagate by cuttings taken in June or division of mature plants. Instead of spreading by runners, our *Pachysandra* forms a clump, radiating out from the center. This, according to Carole Ottesen in her book *The Native Plant*

Primer, makes the Allegheny spurge ideal "as an edger along a shady path, where its beautiful coloration can be appreciated and where more robust groundcovers would be too invasive." Although Allegheny spurge is easy to grow and not troubled by the problems which plague Japanese spurge, it is not always easy to find. Ask at your local native plant nursery — with demand comes supply.

Deanne M. Eversmeyer, Potomack Chapter
VNPS Horticulture Chair

Virginia Native Plant Society
Annual Meeting, September 13-15, 2002
The Flora and Fauna of the Fall Line

The Pocahontas Chapter of the VNPS invites you to the 2002 Annual Meeting. Explore the varied flora and fauna in the historically rich region of Central Virginia. The greater Richmond area and the James River provide an exciting backdrop for hiking, canoeing and kayaking, exploring the urban and rural wilds, hearing exciting speakers, and visiting with old and new friends.

Weekend Schedule of Events

All meetings, programs, gatherings, and banquet take place at the Cultural Arts Center at Glen Allen. All field trips leave from the Cultural Arts Center at Glen Allen (CACGA).

Friday, September 13

Dinner on your own—many restaurants nearby (list available)

- 3-5 p.m. **Quarterly Board Meeting** (Cultural Arts Center at Glen Allen)
- 6 p.m. **Registration. Chapter and state displays**
- 7 p.m. **Dessert Social**
Silent Auction items available for viewing
- 7:30 p.m. **Opening remarks and featured presentation by Greg Plunket, Assistant Professor of Biology, Virginia Commonwealth University**

Saturday, September 14

Breakfast on your own

*Note: Glen Allen Days, a local event, will be held at Meadow Farm on Mountain Road. Exit the parking lot of the Cultural Arts Center going east to avoid the heavy traffic. All other events take place in the **CACGA Ballroom**.*

- 8 a.m.-4:30 p.m. **Field trips.** All trips leave from the CACGA parking lot.
- 5-7 p.m. **Social, silent auction, cash bar**
- 6 p.m. **Annual Business Meeting, Election**
- 7-8 p.m. **Dinner (casual dress)**
- 8:15 p.m. **Evening program: Cole Burrell, contributing editor, *Horticulture Magazine* & VNPS Director-at-large**

Sunday, September 15

Breakfast, lunch on your own

9 a.m. – noon **Field trips and short workshops**

Accommodations

*Because the meeting site is separate from motel/hotel accommodations, no motels/hotels have been set aside. Richmond, Va. and the Glen Allen area contain a wide variety and price range of accommodations. Listed below are three motels close to the Cultural Arts Center of Glen Allen. Use on-line reservations (such as *Expedia.com*; *Travelocity.com*), call the motel directly, or contact your travel club to obtain discounts. All information subject to change. Book early. Ask for any discounts you may be entitled to.*

Spring Hill Suites—a new suite motel, closest to the **Cultural Arts Center of Glen Allen, Va.** Located next to Virginia Center Commons on 9701 Brook Road, Glen Allen, Va. 23059. Phone: 804-266-9403; Toll free: 1-888-287-9400.

Residence Inn Richmond NW (a Marriott motel)—a suite motel located on West Broad Street toward Innsbrook near Capital One. Quiet. Includes a continental breakfast. 3940 Westerre Pkwy, Richmond, Va. 23233. (Directly off West Broad Street) Phone 804-762-9852. (No toll free number listed).

Courtyard Richmond NW (by Marriott)—a suite motel located on West Broad Street right next door to the Residence Inn. Quiet and off the main road. Restaurant/coffee shop on the premises, 3950 Westerre Pkwy, Richmond, Va. 23233. (Directly off Broad Street) 804-346-5427; Toll free: 1-800-321-2211.

Both **Residence Inn** and **Courtyard** are conveniently located next to **Panera Bread** a really great place to eat breakfast or lunch. **Panera Bread** 10301 West Broad Street, Glen Allen, Va., 804-270-2266. Open only for breakfast and lunch.

The Cultural Arts Center of Glen Allen is located at 2880 Mountain Road, Glen Allen, Va. 23060, off Springfield Road. It is easily accessible to Rt. I-295, I-64, I-95 (via I-64, I-295). Glen Allen, Va. is located between Rt. 1 and Innsbrook in Henrico County, slightly northwest of Richmond, Va.

FIELD TRIPS & WORKSHOPS

Field trips leave from the Cultural Arts Center at Glen Allen at 9 a.m. (canoe trip leaves at 8:30 a.m.) Box lunches will be provided. Trips are full-day or half-day. On the registration form circle your field trip preferences. Please mark a second choice. Field trip questions, contact Dean Walton (dwalton@dcr.state.va.us); all other information, Karen York at 540-837-1600 or (vnpsoc@shentel.net).

SATURDAY FULL-DAY FIELD TRIPS

1 Cumberland Marsh and Warreneye Trail: See a sea of yellow tick-seed sunflowers in the freshwater tidal marshes of the Coastal plain. These interesting plant communities support several rare plant species including sensitive joint-vetch and Parker's pipewort. Then go to the Chesapeake Co. Nature trail where you can see marl outcrops that support a host of montane disjunct plant species. (Strenuous)

2 Henricus/Dutch Gap Conservation Area: Travel to one of Virginia's earliest settlements and see a potpourri of Virginia and natural history; a site where dozens of blue heron nests look down on a host of other waterfowl. See osprey and juvenile bald eagles. Walk on the bluff overlooking the James and follow the boardwalk through the wetlands and bottomland forests. (Moderate)

3 Pocahontas State Park: Hike along classic piedmont forests at this state park and site of the May "Virginia BioBlitz," an all-species inventory where 1,377 species were documented in a 24-hour period. (Moderate) \$3 fee.

4 Flowerdew Hundred: Stroll along the borders of this working farm with its fringe of riverine forests along the James River. View bald eagles as you scan upland woods, streams, and freshwater tidal wetlands. Search for the rare partridge pea, *Cassia sciculata* var. *macrosperma*. (Moderate)

5 Lee Park-Petersburg: Explore history, both natural and human, with expert botanist, author, and herbarium curator, Donna Ware. This trip to the edge of the Appomattox River ties field biology together with development of women as professional documenters of our state's flora. (Moderate)

*** Canoe trip: Come paddle the Pamunkey, one of Virginia's most pristine rivers. This strenuous trip (requires previous experience) follows the meandering inlets of Cumberland Marsh where tickseed sunflowers gild the landscape and rare flowers dot the marsh edges. Trip starts just past high tide (8:30 a.m.) and against the outflowing current, but returns with the current. \$25 charge; minimum 10 people. ***

SATURDAY HALF-DAY FIELD TRIPS AND WORKSHOP

6 Three Lakes Nature Center: Visit one of Richmond's finest Nature Centers with a wonderful bog garden jam-packed with wonderful plants, a host of habitats, and a wonderful setting. (1-2 hours) (Easy)

7 Early bird bagels and birding at Bryan Park: Planning on getting up early? Join us for an early bird walk at Bryan Park to check fall migrants and anything else flitting about in the open woodland garden park (1-2 hours) (Easy).

8 The where-in-the-world of GPS/GIS or in other words: Understanding global positioning devices and geographical information systems in plant conservation. Workshop will help explain how wildflower conservationists currently document the locations of rare plants and find new habitat. See how a personal GPS device can help. Look at the differences between \$200 units and \$2,000 ones. Look at mapping software that can simultaneously show geology maps, topographic maps and any location determined by your GPS device.

Please take full advantage of all the other wonderful public and private gardens in the Richmond Area.

Check the VNPS website (www.vnps.org) for a list of specialty sites.

SUNDAY TOURS & WORKSHOP

9 The Moss Gardens of Norie Burnet: Explore the miniature world of mosses at the gardens of Norie Burnet. This garden has been featured in several magazines and supports a host of exquisite and delicate patterns. Limited to 15. (1-2 hours) (Easy)

10 Chickahominy Wildlife Management Area: Check out the coastal plain at this WMA to see cypress swamps, tidal marshes, ravine woodlands, open fields, streams and a warm slow moving river. (Full day; Moderate)

11 Plant Pressing: Learn how to press and mount plants as a way to document the flora of your area. Botanists are dependent on pressed specimens or vouchers to understand the differences between varieties within species and differences between species. These vouchers form a way to verify the geographic distribution of plants. This workshop shows how to press native plants in your backyard, plants that might be very big, plants that might be very small and even delicate aquatic species.

VNPS REGISTRATION FORM

Annual Meeting

September 13-15, 2002

Name _____

Signature ** _____ (required)

Address _____

Chapter Member _____

City _____

State _____ Zip _____

Telephone () _____

Email _____

All events take place at the Cultural Arts Center at Glen Allen (CACGA). Field trips leave from the CACGA parking lot.

Registration Fees

<u>Event</u>	<u>Fee</u>	<u>Amount</u>
<u>Full Annual Meeting</u> (Friday evening programs, Saturday box lunch, Saturday Evening Banquet, Sunday a.m., All field trips except canoe program**)	\$65 (\$55 Earlybird)*	_____
<u>Optional Canoe trip—Saturday ***</u> Separate registration/liability/canoe rental information will be sent to you if you check yes)**	TBA	(yes) _____
<u>Saturday/Sunday only</u> (Saturday programs, Saturday box lunch, Saturday Banquet, Sunday programs)	\$60 (\$50 Earlybird*)	_____

Total Amount Enclosed _____

For more than one person, copy the registration page and complete one form for each person. Please make out separate checks. Most programs have minimum and maximum participant limits. Register early. Programs are rain or shine except for the canoe trip.

SAVE MONEY!* Register by August 13 and save \$10 per participant! Final registration deadline is August 28. No refunds after August 28.

**Signature required on all registrations. By signing this form the above registrant shall hold harmless the staff and volunteers of the Virginia Native Plant Society and those designated to serve as their providers.

***Canoe registration is covered by an independent contractor and a signed liability waiver provided by the canoe livery will be required.

Mail this form with check payable to VNPS to:

**VNPS Annual Meeting
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620**

*For information, please contact Karen York, VNPS Office Manager
At 540-837-1600 or vnpsoc@shentel.net*

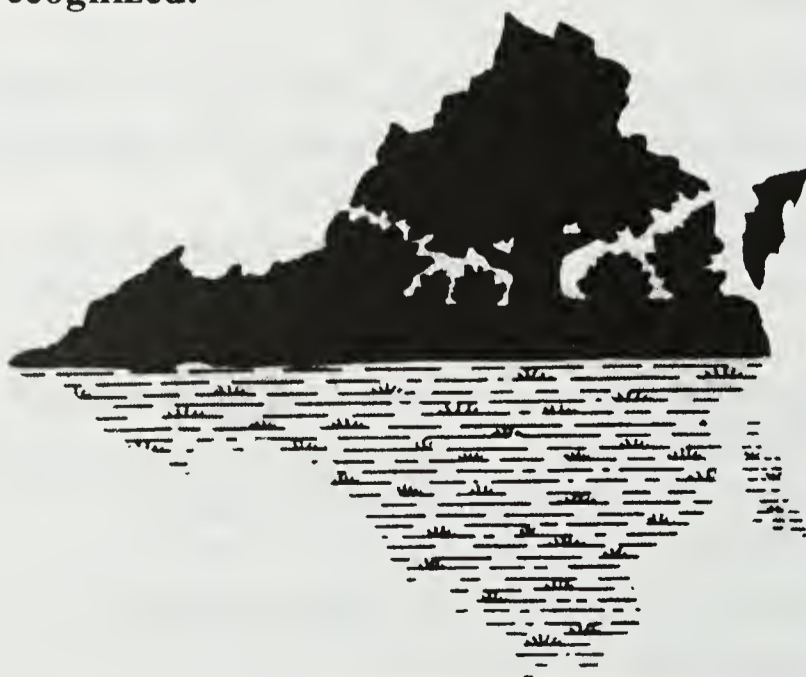
About our Guest Speakers

Gregory M. Plunket, Assistant Professor of Biology, Virginia Commonwealth University, received his Ph.D. from the College of William and Mary. He is the author of *Flora of Isle of Wight County, Va.* His specialty is aralias and he focuses much of his time on the Island of New Caledonia, the center of aralia diversity on Earth. Conservation International lists the little island on its top seven biodiversity hot-spots of the world. He will speak about his work in New Caledonia and on local flora, such as the watch-listed *Panax quinquefolius* (G4/S4) and rare local species *Aralia hispida* (G5/S2)

Cole Burell, is a garden designer, award winning author, photographer, naturalist and teacher. A certified chlorophyll addict, Cole is an avid and lifelong plantsman and gardener. He is currently designing and planting a 10-acre garden of natives and the best plants of the global garden in the Blue Ridge Mountains near Charlottesville, Va. He is principal of Native Landscape Design and Restoration, which specializes in blending nature and culture through artistic design. Cole is author of several books, including *Perennials for Today's Gardens*, *Perennial Combinations* and *A Gardener's Encyclopedia of Wildflowers*, which won the 1997 AHS Book Award. He serves as contributing editor to *Horticulture Magazine*, writes regularly for *Landscape Architecture*, *Fine Gardening*, *American Gardener* and the *Brooklyn Botanic Garden* and lectures internationally on topics of design, plants and ecology. He worked as curator at the U.S. National Arboretum and the Minnesota Landscape Arboretum and has devoted a lifetime to studying native plants in the wild and in gardens which led to undergraduate degrees in botany and horticulture. He has an M.S. in horticulture and has coalesced his interests in botany, horticulture, ecology and design with a master of landscape architecture from the University of Minnesota. He is a VNPS charter member and a Director-at-large.

Silent Auction

Each VNPS Chapter will be providing nature-theme gift baskets and other items for the Silent Auction. Proceeds benefit VNPS. Bidding opens at 5 p.m. on Saturday at the Cultural Arts Center at Glen Allen Ballroom and closes at 6:30 p.m. Cash or personal checks accepted. Winners will be announced at the meeting. Sponsors and patrons will be recognized.



Development compromises habitats

Rescuing relations in the land community

Many of us, some 30 persons, mostly women and several men, had not met before. Yet, we spoke with each other and shared what we knew as if we were related.

We came together on a mid-April morning with a common purpose: to rescue plants and animals from a 23-acre rectangle of forested land, a last place of nature between a road and a 10-lane freeway, where an office building will be put on the land.

It was a young oak-hickory-red cedar forest, a place of second growth trees about 20 to 40 years old, with some older, pioneering successional Virginia pine. The land had probably been cleared for farming, and then left to grow into a forest again.

The young forest was compromised with the usual exotic invasive plants, especially Japanese honeysuckle. And here and there, people had dumped an assortment of items: stoves, washers, dryers and automobile parts. But amidst the invasive plants and rusting machinery, we found native herbs, ferns, shrubs and tree saplings to rescue from the coming bulldozer blades, which will scrape bare this forest place, except for a narrow "tree shelter" strip

parallel to the road.

We found, dug out, and carefully placed in plant pots and bags: deer-tongue grass, huckleberry and blueberry shrubs, Christmas fern, lady fern, New York fern, bellwort, wintergreen, crane-fly orchis, partridgeberry, blue and green sedges, dogwood trees and other plants.

One fellow found a baby black rat snake, and someone found a ringneck snake. Both were put in a bucket for release later in a place of nature.

There were droppings of deer too. Where will they go to live? Probably in unwelcome places, such as peoples' back yards. And what about the insects, reptiles, mammals, and birds we didn't see: such as bees, salamanders, moles, flying squirrels and owls. Where will they go?

We carried our bags and pots out of the forest to cars and pick-up trucks, and wished each other well in re-planting the saplings, shrubs, ferns and herbs in nature parks and back yard wildlife habitats.

Later, I wondered, what are we? Persons who hear the call and come together to rescue and restore. Perhaps, kin of the land — people making islands and connecting corridors of native

plants and animals, amidst the burgeoning roads, houses and buildings.

The rescuing of plants and animals, and the restoring of habitats can be seen as a preparing for a rebirth of the land community, where plants, animals and humans live well together. In doing this, people may be learning just how long we have known each other, and how closely we are related to the land.

I am appreciating more and more a saying of aboriginal peoples, for expressing our close connections with each expression of life: *All my relations*.

When we rescue plants and animals, we are rescuing relations, our fellow inhabitants of the land. And maybe we human beings are also rescuing relations with each other by learning to live and work together in the land-community.

Lorne Peterson, a writer and photographer, lives in Spring Branch Valley, Arlington, Virginia. The plant/animal rescue took place on April 12, in Reston (Eastgate), Virginia. The rescue was sponsored by Friends of RunnyMede Park, Herndon, Virginia. Further rescues continued through June. A schedule of rescue dates will be posted on the Virginia Native Plant Society website: www.vnps.org

Checkerspot-turtlehead relationship endangered

Tramping through 100 yards of tall grass on a humid, sticky afternoon, Susan Muller could see her triumph clearly. There, perched on a green thistle, was a beautiful Baltimore checkerspot butterfly - perhaps the first to appear in Howard County in years.

"That was exciting," said Muller, who has toiled to set the environmental stage for a checkerspot renaissance.

Her work is part of a growing effort by a loose coalition of allies to reverse a grinding assault on Maryland's most attractive, but least seen natural symbol. Deer and development have destroyed most of the habitat for Maryland's official state insect -- including the turtlehead plant

(*Chelone glabra*), which this increasingly rare species relies upon.

"The butterfly is becoming more and more scarce," said microbiologist Fred Paraskevoudakis, president of the Maryland Entomological Society. In 1973, his group persuaded the Maryland General Assembly to name the Baltimore checkerspot -- adorned with the orange, black, red and white colors of Maryland's founder, Cecilius Calvert, the second Lord Baltimore -- the state insect.

"The problem is a creation of man's. We develop and develop and develop," Paraskevoudakis said.

Phil Kean, a co-founder of the society, said suburbanization has created

another problem. In order for the butterflies to spread, "there has to be an opportunity for them to migrate from one suitable location to the next. Suburbanization increases the separation between these islands of habitat."

And butterflies aren't just pretty, said Wayne Wehling, an entomologist for the U.S. Department of Agriculture. "They're probably second only to the bees as pollinators," he said.

Now efforts are mounting to save the checkerspot, both for its utility and its beauty. Pat Durkin, who helped found the Washington Area Butterfly Club, is trying to breed checkerspots in her backyard garden

(See Butterfly, page 8)

• Butterfly

(Continued from page 7)

in Washington, and Pam Jones is making a documentary film about them, using Jay W. McRoberts' butterfly breeding facility in Montgomery County and money from Potomac Electric Power Co., the Washington-area utility company that has offered its 10,000 acres of power line right of way for ecological projects.

"Informally, we're trying to restore the Baltimore checkerspot," Durkin said, describing how much she has learned tending the turtlehead plants she put in her garden. Mature butterflies, including one female, have developed from caterpillars she brought home, she said.

"The real test is going to be whether these young caterpillars that come from these eggs will hatch and get through the end of summer," she said.

The eggs, which are deposited on the underside of a leaf, hatch during the summer. The young caterpillars eat the leaves, molting periodically as they grow. Eventually they crawl down the plant, convert their body fluids into a sort of natural antifreeze, and burrow into the ground for winter. The next spring, they wake up, crawl back up the plant and begin eating again until they develop into adults in June.

If all that sounds encouraging, consider the effect of development over the past several decades, said Muller, who is a Howard County natural resources worker. The spread of new homes over woods and farmland has led to an explosion in the local deer population, which can't be hunted in residential areas. The deer, in turn, have eaten virtually all the dark-green, arrow-shaped leaves of the turtlehead plants that *Euphydryas phaeton* -- the Baltimore checkerspot -- relies upon almost exclusively as a breeding site.

Despite the obstacles, Muller and her friends are determined to shift the balance. "Every species has its niche in the ecosystem," said Muller, who works for Howard County's Department of Recreation and Parks. "I think any species that used to exist here -- if there's a possibility to restore it, the ef-

fort should be made," she said.

Muller used \$130 in county grant money to buy turtlehead plants and caterpillars. Last spring, she planted the turtleheads in four marshy county-owned spots, including Cabin Branch Farm in western Howard and Timbers of Troy golf course in Elkridge, protecting each planting with a mesh cage. Another site is at Warfield Pond Park near Glenwood.

Her efforts were rewarded when she checked her site off Route 108 in Clarksville and found a checkerspot. The insects live about 10 days after emerging from their cocoons as adults -- enough time to lay eggs for the next year. Later, just off the eighth hole at the county-owned Timbers course, two large deer grazed at the edge of a wood a few feet from Muller's caged turtlehead plants.

Jones, who has created an independent firm called Checkerspot Communications, said she hopes to show the documentary film about the butterfly around the state. And Stephen Genua, chief forester for PEPSCO, said that in the past three years, the utility company has begun using the acreage under its 330 miles of transmission lines for habitat-creation projects, often in partnership with citizen groups.

Genua said the company has a partnership with Durkin's group, the McRoberts' International Butterfly Breeders Association, and the National Capital Park and Planning Commission to create another butterfly habitat along a transmission line near a privately run butterfly breeding facility in northwest Montgomery County near the Potomac River.

McRoberts, a retired orthopedic surgeon who raises butterflies on a farm near Poolesville, said he has about 300 checkerspots. He also raises turtlehead plants, in hopes of re-establishing colonies of the insect.

"It's fun to do, and it's very worthwhile. Everybody loves butterflies. They're ambassadors of good will for all insects," he said.

Copyright © 2001, The Baltimore Sun, By Larry Carson, Sun Staff, originally published June 24, 2001.

Ragweed

If wildflowers could choose
their incarnation
many would select the
Sunflower for their family,
though few, if any, would want
to be

that particular member,
Ragweed—

a fall placed plant with
sickish-green blooms
that wave in moldy wands
beside the bold, yellow flares of
its sister, Goldenrod;
she, a family favorite with her
gilded locks,

setting fields and roadsides
ablaze in golden blossoms,
with such a shimmering beauty
the bees ignite with passion
to collect her pollen in their
leggy baskets,
while Ragweed, indistinct,
can't attract a single insect
and must cast its pollen
to the wind

until the air is laden with its
discharge,
and from July to September
folks respond with hay fever;
their noses run,
eyes are red and itchy,
they sneeze until they can only
breathe in wheezes.

But Ragweed with a
sibling's revenge,
inconspicuous, is able
to shift the blame
until these sufferers in their
ignorance
rail to God and any
who will listen
against the innocent
Goldenrod.

Karla S. Souder
Shenandoah Chapter

•Chevy Chase

(Continued from page 1)

were randomly growing near them.

We passed a berm where fescues had been removed and replaced with plugs of native grasses, switch grass (*Panicum virgatum*), Indian grass (*Sorghastrum nutans*), and *Andropogon* spp. Autumn will bring a bank of grasses with the golden seedheads.

The proximity of the natural areas to the greens exhibited a striking contrast. There was an island containing huge, blooming, mature wild black cherry trees (*Prunus serotina*) mixed with other hardwoods that was approached through a meadow of little blue stem and andropogon species. 'Husker Red' penstemon leaves were here and there in this meadow of grasses with some Joe-pye weed leaves in their first growth spurt. Several *Baptisia australis* were in bloom throughout the meadow showing areas of blue spikes above the grasses.

Around the edge of the club, oaks, tulip poplars and other trees were in leaf. Nearby were three *Magnolia tripetala*. They were in full bloom and a welcomed city surprise bringing back the memory of seeing one in bloom along the Blue Ridge Parkway years ago. These trees and native plants formed a buffer from the nearby traffic. There was a mixed sprinkling of invasive alien plants, lending a note of reality. A wetland has been encouraged nearby and the surprise plants blooming happily on the high points of land were *Phlox divaricata* profusely happy surrounded by grasses, Joe-pye weed, and a generous planting of a variegated leaf cornus that was accompanied by *Senecio aureus*.

Golfers at the Chevy Chase Club are enjoying the best of both worlds! David Hall has moved native trees into areas that had been planted with exotic trees. Many of the exotics have been moved back to a remote area. There were some non-native trees in bloom, including a grouping of *Paulownia tomentosa* that had been left from years ago. Not far away, a lovely newly planted *Aesculus* sp. sported its pale pink to white flowers, repeating the same inflorescence structure as the *Paulownia*.

A brief stop at a bluebird box and our tour continued for a little over an hour. Respecting the members playing where we would have next visited, we headed for the club. There was more to see another day. The Chevy Chase Club members chose their arborist well by putting their natural areas in the hands of David Hall. He has used native plants and their cultivars with a free and artistic flair.

Nicky Staunton, VNPS President

Wild-collected plants still in chain stores

For the second year in a row, Maryland Native Plant Society member and native plant nurseryman Sam Jones has brought to our attention that Home Depot is selling *Trillium grandiflorum*, six rhizomes for \$7.96 under the Growing Colors line. WalMart is selling *Trillium grandiflorum*, and two other species, six rhizomes/rootstocks for \$6.47, under the Better Homes & Gardens label.

Both have the MISLEADING statement: "Grown in the USA from cultivated stock. Inspected by the US Department of Agriculture." According to the Investigative Division of the USDA (APHIS) the USDA does NOT inspect any plant material. Not only is the label blatantly false, the price of these plants is so low, that the plants are surely wild-collected.

The shelf life of the plants is probably less than a month. Head to these stores immediately and protest the sale of unethically, and often illegally, collected plants. Bring the plant cards available from the Maryland Native Plant Society website at http://mdflora.org/publications/shopping_cards.html.

Inform those who may not know about this threat to our native plants, so that they won't purchase them.

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$20

___ Family \$30

___ Student \$15

___ Patron \$50

___ Associate (groups) \$40*

___ Sustaining \$100

___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

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

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

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The Bulletin

ISSN 1085-9632

is published five times a year
(Jan., March, May, August, Nov.) by

Virginia Native Plant Society

Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620
(540)837-1600
vnpsoc@shentel.net
www.vnps.org

Nicky Staunton, President
Nancy Sorrells, Editor

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. Items should be typed, on disk in Microsoft Word or e-mailed to: Editor, 3419 Cold Springs Rd., Greenville, VA 24440, or lotswife@rica.net

The deadline for the next issue is July 1

Last call for Virginia wildflower license plates

We have been waiting for several years for Virginia to issue a new wildflower license plate, one with real native wildflowers that is to replace the earlier one with cosmos and other Virginia Department of Transportation (VDOT) plantings of non-natives.

The latest tally as of mid-April is 299 subscribed plates. Before June 30, a total of 350 plates needs to be ordered before plates will be printed and issued to us. That means 51 more orders are needed.

Everyone who orders a Virginia Wildflower License Plate will be:

1. Endorsing the roadside planting of regional native plants along Virginia's highways - not the garden flowers now used.
2. Financing future plantings for the current beds and for new sites. After the first \$1,000 sales, \$15 of every license plate sold will purchase plants

and pay for labor and equipment for the native plant roadside areas.

3. Even if you are not "into" special license plates, your purchase is a "YES" vote and an endorsement for

Virginia's highway plantings. Your immediate one-time support will get the plates released to the public, and your

fee will help finance the enhancement of the VDOT highway flowerbeds of native plants.

To learn more about the plate designed with Virginia bluebells, butterflyweed, and black-eyed Susans, visit the VDOT website at www.virginiadot.org/infoservice/prog-wflower-faq.asp. You can even print an application from the website.

Again, the minimum order of 350 is short only 51 orders. There is only a short time left to reach our goal and you can be the Virginian to do it!

• Fall Line

(Continued from page 1)

field trip or enjoy the GPS/GIS (Global Positioning System Devices and Geographical Information Systems) for Plant Conservation workshop. That evening, enjoy a cash bar and sumptuous banquet prepared by the Reflections Restaurant staff and hear fellow VNPS member Cole Burrell, a well-known lecturer on gardens and plants and contributing editor of *Horticulture Magazine*, give his program.

Also on Saturday evening, plan to bid on Silent Auction baskets and other items of natural and horticultural interest provided through the courtesy of all the VNPS chapters.

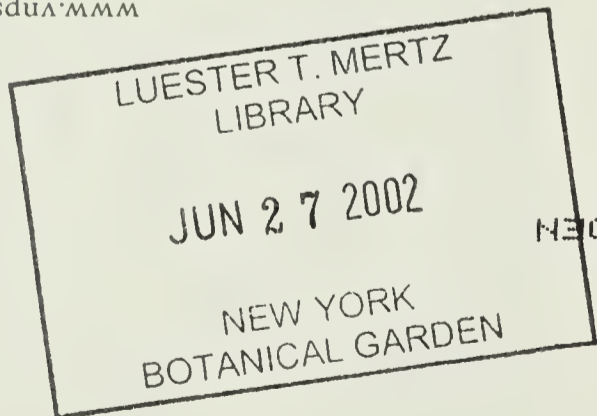
On Sunday, cap off the weekend by sleeping in or get an early start with a marvelous visit to the famous moss garden of VNPS member Norie Burnet in Bon Air. You could also hike the Chickahominy WMA, attend our in-house workshop on Pressing Wildflowers: The secrets of the trade or explore greater Richmond.

The Cultural Arts Center at Glen Allen (CACGA) is the site for all speakers and banquets. All field trips leave from the CACGA parking lot. Hotel/motel accommodations this year are on your own. See registration form for details.



www.vnps.org

Printed on recycled paper

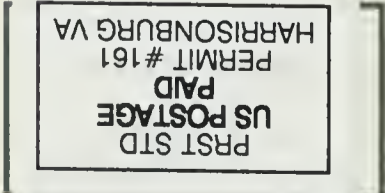
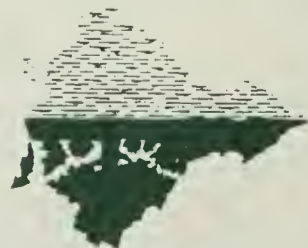


THE NEW YORK BOTANICAL GARDEN LIBRARY-SERIALS & EXCHANGE BRONX NY 10458



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

Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620





Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

Long live the longleaf pine...hopefully

Longleaf pines



Longleaf pine (*Pinus palustris*) is a long-lived tree species that conjures up images of open park-like forests, tar kilns, and frequent low-intensity fire. Diverse virgin longleaf pine forests dominated more than 75 million acres of southeastern forests at the time of early settlement.

Longleaf pine is classified as a pyrophytic or fire climax species, requiring bare mineral soil for seed germination and having the advantage of thick insulating bark and a fire-resistant seedling stage. Today, due to fire exclusion/suppression and conversion of longleaf sites to other fast-growing timber species such as loblolly pine (a commercial pine species intolerant of fire in the seedling/sapling stages), the area once dominated by this ecological cornerstone species has dwindled to less than four million acres.

Longleaf pine ecosystems are also characterized by high vegetative diversity, with an estimated 900 endemic plant species. This high level of plant diversity also leads to high insect and invertebrate species richness.

The northern extent of the native longleaf range just barely extended into southeastern Virginia and the Eastern Shore. After nearly 400 years of settlement in this region, longleaf pine has been nearly extirpated and is considered an extremely rare and critically imperiled species.

In Virginia, fewer than 800 acres remain of an estimated 1.5-million-acre historical level of occurrence, mostly concentrated in Southampton and Isle of Wight Counties, and the City of Suffolk (formerly Nansemond County).

Active ecosystem restoration work is currently under way in one of these areas, the Blackwater Ecological Preserve in Isle of Wight County, a dedicated state Natural Area Preserve owned by Old Dominion University (ODU). This preserve is managed by a team of scientists and land managers from the Department of Conservation and Recreation (Division of Natural Heritage), The Nature Conservancy, International Paper and ODU. Portions of the preserve are characterized by a 45-year-

(See Longleaf, page 3)

- Remember to vote - proxy ballot inside
- Attend the Annual Meeting from Sept. 13-15

From the president

I hope to see you at our VNPS celebration of friends and flowers this coming September. It is an exciting meeting for us. Our current year ends on October 31, so this is the gathering where we celebrate the accomplishments of the year and the people who have been effective advocates for native plants and their communities.

Our Pocahontas Chapter is hosting the September 13-15 Annual Meeting and our gathering will be held in the Cultural Arts Center of Glen Allen. I expect that this will be a bit different atmosphere than our usual motel banquet room.

You have received the registration form that gives you a choice of motel suggestions and choice of field trips. Get your reservation in now to ensure your spot on the field trip of your choice.

Dr. Gregory M. Plunket of Virginia Commonwealth University is an international specialist in the plant family Araliaceae. In addition to his work in New Caledonia, he will speak about Virginia's *Panax quinquefolius* and *Aralia hispida* on Friday evening. The next night, Saturday, Cole Burrell, will talk about some wonderful native plants we can use instead of non-indigenous invasive plants. Cole authored one of my favorite wildflower books, *A Gardener's Encyclopedia of Wildflowers*. His company, Native Landscape Design and Restoration, in Free Union is near Charlottesville, Virginia.

We will have some business to conduct for our organization on Saturday evening. There we will give recognition to members who are going off the board of directors and we will elect new members to serve. We have a wide variety of opportunities on our VNPS Board of Directors for those who want to be active advocates for Virginia's native plants. Perhaps you are the person who could make a difference in issues that affect our native plants and the habitats where they live. If you are invited to serve, please carefully consider serving and conclude that you will be happy to say, "Yes."

The opportunities include: Chair of Conservation, Fund Raising, and Registry. Please call me or send me an e-mail (nstaunton@earthlink.net) if you would like to talk about the responsibilities of each office and an estimate of time each would require.

It is a pleasure for me to serve on the board because I believe in the important VNPS mission and I believe we are effective as we advocate for native plants and their habitats. Besides, I welcome the opportunity to interact with people who have the same goals and values and are really fun to know.

See you in September!
Nicky Staunton

Welcome Upper James River Chapter!



We welcome the 11th chapter of the Virginia Native Plant Society, the Upper James River Chapter (UJR). The petition to become a chapter of the Virginia Native Plant Society was presented by Katherine Smith, representing members of the forming chapter, and approved by the board of directors in June.

Our newest chapter will cover Rockbridge, Bath, Alleghany and Amherst Counties and their included independent cities all sharing a connection with the Upper James River and its tributaries. This connection was the basis for the selection of their chapter name. The group selected *Sanguinaria canadensis*, bloodroot, to be its chapter logo.

The organizing group has grown to nearly 34 members in the past several months and will have meetings at Boxerwood Arboretum in Lexington. It is anticipated that most meetings will be daytime meetings. Organizing officers will be: Katherine R. Smith, president; Peggy Dyson-Cobb, vice president; Dorothy Perkins, secretary; and Laura Neale, treasurer.

We welcome our newest chapter and we look forward to partnering with its members as we pursue the VNPS mission as advocates for native plants.

Research station focuses on restoring ecosystem

Meadowview Biological Research Station is a non-profit IRS 501(c)(3) organization that was started in 1995 to preserve and restore the remaining fragments of Virginia and Maryland's imperiled pitcher plant ecosystem. Many pitcher plant habitats have been lost in both states through drainage, development, fire exclusion, agricultural land silvicultural practices, urban expansion, or neglect and most of the associate plants found in these unique ecosystems are threatened with extinction.

The rarity of these habitats is further highlighted by the rarity ranking of many of the plant species found in these sites. Many of these species are either state threatened or endangered in Maryland or extremely state rare in Virginia (Virginia has a very conservative listing process of rare species despite clear biological endangerment of species). The significance of these sites is further highlighted by the fact that southern Virginia is the northern limit for *Sarracenia flava* and the associated longleaf pine, *Pinus palustris*, ecosystem. The longleaf pine ecosystem has emergent properties that support the pitcher plant community.

One of the major properties provided by longleaf pine is mediation of natural, lightning caused fires. Longleaf pine needles, longer than other southern pines, provide a matrix of aerated fuel in the groundcover, and are both slower to decompose and have a higher resin content than other southeastern U.S. pine species. All of these factors come

into play to provide the requisite frequent fire to maintain pitcher plant habitats in an early successional state.

Unfortunately, 400 years of settlement in Virginia has resulted in almost the complete destruction of the longleaf pine-pitcher plant ecosystem. Less than 100 clumps of *S. flava* remain in the wild in four natural sites in southern Virginia. Virginia longleaf pine covered 1.5 million acres at settlement but now only 4,432 trees remain on less than 800 acres, based on a 1998 census by Meadowview Biological Research Station. Unfortunately, half of these remaining trees are less-fit, non-native planted Louisiana trees. Clearly the longleaf pine-pitcher plant ecosystem is in need of preservation and restoration in Virginia.

To successfully accomplish preservation and restoration of the longleaf pine-pitcher plant ecosystem Meadowview Biological Research Station developed a five-step process. In this manner the staff can intelligently address the challenges of modern conservation. The process involves the following steps:

Discovery - This involves identifying new bogs or seepage wetlands that contain rare bog species. Meadowview biologists have an active field schedule and have found several new populations of bog species at the edge of their range in Maryland and Virginia.

Research - The staff is conducting studies on the genetics, biochemistry, ecology and population biology of the pitcher plant genus *Sarracenia*,

long leaf pine and white cedar. Understanding these factors is central to effectively managing, preserving and restoring remaining sites.

Propagation - Plants of rare populations are propagated both from seed and divisions to serve as a backup for wild populations, augment existing populations and to return to the wild.

Reintroductions and Outplantings - Most biologists have come to recognize that preservation of habitats is simply not enough to maintain biodiversity in the face of continued fragmentation and loss of natural areas. Restoration of rare plants requires a vigorous effort to return rare plant populations to at least their historical ranges. Meadowview is actively soliciting landowners with appropriate environmental conditions to receive and maintain unique populations of bog plants.

Education - This is key to preserving our natural heritage in the future. Biologists are available for instruction on the proper care and maintenance of bog habitats. Several projects have been successfully completed involving elementary school students raising, experimenting with, and reintroducing rare plants to their historic range.

The Joseph Pines Preserve, Restoring and Preserving Virginia's Rare Plant Heritage

The five-step process has enabled Meadowview to almost meet its five-year goal of having one yellow
(See *Bog preserves*, page 6)

• Longleaf

(Continued from page 1)

old mixed loblolly pine (*Pinus taeda*), pond pine (*Pinus serotina*) and longleaf pine forest. Frequent low-intensity prescribed fire has been reintroduced to the system, and the result is a lush and diverse herbaceous understory with a reduction in competing woody shrubs.

With natural regeneration as a

restoration goal, cone production has been monitored for the last three years, and some areas that lack seed trees have been identified for planting with native Virginia containerized seedling stock. More than 150 permanent forest sampling plots have been established on the property. Several other state-rare plant species have also been discovered that are associated with

longleaf pine on dry, sandy soils of the Virginia Coastal Plain. The Division of Natural Heritage is currently working with The Nature Conservancy to seek out and protect additional habitat for this important species in southeast Virginia.

Curtis J. Hutto, Virginia Division of Natural Heritage, State Natural Area Steward.

The Bruce offered quest for orchids and more

What better way to describe our week-long search for the showy lady slipper orchid (*Cypripedium reginae*) in Ontario, Canada's Bruce Peninsula than Frost's poem? On the first day, leaves and a few tight and colorless buds by week's end became fresh white blooms with rose purple striped lips. The sense of completion, though, was punctuated with people leaping into cars or wandering the grounds in search of one last something.

In the meantime, while the orchids unfolded, Nicky Staunton led us to various sites on the peninsula and nearby Flower Pot Island, as we checked plants, birds and other creatures off our lists at a surprising pace. Stan Shetler was a personable and knowledgeable guide, sharing not only the names of plants, but many other pieces of information. For instance, we learned that ferns may have odd geographic distributions because the lightweight spores become a component of atmospheric dust, and can travel far. And that wet areas like bogs and fens become a refuge for plants when the climate changes, because they are somewhat insulated from temperature changes. And that the hollow stems of the ninebark shrub (*Physocarpus opulifolius*) were once used to tap sugar maples. Elaine Shetler organized our carpools expertly, and recorded every plant we saw. After supper, we met to go over the lists of plants and birds we had seen that day. It was a good way to fix the plants and places in our minds, and to clear up questions about plant identification. Joe Coleman gave us an interesting presentation on bird songs, and he, Stan, Lisa Billow and Ellis Squires were all able to pick out birds by their songs, and willing to share that with the musically challenged among us.

The week started out cold, the kind of days you disliked at the

time, but can remember fondly in these way-over-90-degree July days. Even the feel of slanting rain seems appealing now, although at the time

it drove us inside early. But after the first day or two, the weather warmed and more flowers began to unfold. As we traveled from place to place, certain plants could always be spotted along the roadsides. The best of the roadside spectacle included the yellow lady slipper (*Cypripedium calceolus*), the Indian paintbrush (*Castilleja coccinea*), and blue-eyed grass (*Sisyrinchium mucronatum*). We also regularly saw roses of several species, with showy single pink blooms and *Iris versicolor*. Forests of northern white cedar (*Thuja occidentalis*), spruces (*Picea glauca*, *P. mariana*), white ash (*Fraxinus americanus*), paper birch (*Betula papyrifera*), and quaking aspen (*Populus tremuloides*) lined the roads, with red, white and jack pine (*Pinus resinosa*, *P. strobus*, *P. banksiana*) in the sandier, drier woods. Nannyberry and cranberry bush (*Viburnum lentago*, *V. trilobum*) often lined the wood's edge, and red-osier dogwood (*Cornus sericea*) gets the ubiquitous plant of the peninsula award.

The part of the Bruce Peninsula we traveled is about 50 miles long and 10-15 miles across. It divides Lake Huron on the west side from Georgian Bay on the east. Wildwood Lodge, our home base, is on Red Bay on the Lake Huron side. The water is shallow for a long way out and there are islands offshore. Sunsets were usually wonderful, and when it was cold, a moody fog rose off the lake. Following closely the east side of the peninsula is the Niagara Escarpment, a sometimes steep cliff, which continues underwater, making the waters of Georgian Bay deep and cold, and giving the bay a beautiful blue color. Our first visit to Georgian Bay was on a day so crisp that the white cobble beach terraces and the deep blue water took our breath away. The escarpment, the same feature that

(See Bruce adventure, page 5)

The Quest of the Purple-Fringed

*I felt the chill of the meadow underfoot,
But the sun overhead;
and snatches of verse and song of scenes like
this
I sung or said.*

*I skirted the margin alders for miles and miles
In a sweeping line.*

*The day was the day by every flower that
blooms,
But I saw no sign.*

*Yet further I went to be before the scythe,
For the grass was high;
Till I saw the path where the slender fox had
come
And gone panting by.*

*Then at last and following him I found—
In the very hour
When the color flushed to the petals it must
have been—
The far-sought flower.*

*There stood the purple spires with no breath of
air
Nor headlong bee
To disturb their perfect poise the livelong day
'Neath the alder tree.*

*I only knelt and putting the boughs aside
Looked, or at most
Counted them all to the buds in the copse's
depth
That were pale as a ghost.*

*Then I arose and silently wandered home,
And I for one
Said that the fall might come and whirl of
leaves,
For summer was done.*

(Poem by Robert Frost, from *Robert Frost Seasons*, Poems selected by Edward Connery Lathem, with Photographs by Christopher Burkett, MJF Books, N.Y.)

Virginia Native Plant Society Slate of Candidates & Bylaws Changes

The following slate of candidates is proposed by the 2002 VNPS Nominating Committee to replace officers and standing committee chairs whose terms expire and to fill existing vacancies in other classes. In addition, the following VNPS bylaws changes are proposed by the board of directors. To be counted, proxy ballots **MUST BE MAILED BY SEPTEMBER 9.**

SECOND VICE PRESIDENT (2002-2004) - Sally Anderson (Piedmont) - Sally lives in Winchester, is currently co-recording secretary of VNPS, and vice-president and regional director for Clarke-Frederick in the Piedmont Chapter. She is also Eastern Panhandle Native Plant Society representative at the West Virginia state organization. She has a B.A. in Botany from the University of Texas (1976) which was updated in 1999 by taking Blandy's Field Botany class. She chairs the Nancy Larrick Crosby Native Plant Trail at Blandy.

TREASURER (2002-2005) - Rebecca Rice Clay (Piedmont) - Rebecca has been a self-employed accountant for 19 years with offices in Middleburg, Virginia. She has a Bachelor of Science degree from Shippensburg University in Pennsylvania. She lives, gardens and wages war with the deer population near the State Arboretum of Virginia in Boyce, Virginia.

HORTICULTURE CHAIR (2002-2003) - Cole Burrell (Jefferson) - Cole is a VNPS life member. He is a garden designer. Native Landscape Design and Restoration is the name of his business in Free Union, Virginia. Cole is a freelance garden writer (one of his publications is *A Gardener's Encyclopedia of Wild Flowers*), photographer and native plant zealot.

EDUCATION CHAIR (2002-2005) - Shirley Gay (Potowmack) - Shirley has been a member of the Potowmack Chapter since 1992 and has helped the chapter by working in its propagation beds, helping with plant sales, and, for the last two years, serving as program chair. She is a retired high school mathematics teacher. Her local activities include helping plan, plant and maintain a native plant and butterfly garden at a local elementary school.

BYLAWS CHANGES

It is recommended by the Virginia Native Plant Society Board of Directors that the Bylaws Article XII Budget and Finances Section 5 be changed to read:

Annual Review. The Board shall provide for an independent **review** of the Society's financial records at the close of each fiscal year, and shall send an audited financial statement to the membership in the next regular correspondence after ninety (90) days following the end of the fiscal year.

changed from: **Annual Audit.** The Board shall provide for an independent **audit** of the Society's financial records at the close of each fiscal year, and shall send an audited financial statement to the membership in the next regular correspondence after ninety (90) days following the end of the fiscal year.

Rational: This motion came at the recommendation of Treasurer Roma Sherman from the CPA who filed the required IRS 990 report for 2001. The reason for recommending the change is that a full audit by a CPA is more expensive than our annual budget requires or can sustain. It was suggested that a review of the financial records for the year by a qualified member or committee of members is more appropriate.

Your vote helps us reach our quorum for the Annual Meeting. Please mail by Sept. 9.

<p>PROXY, 2002 VNPS ANNUAL MEETING</p> <p>I hereby authorize the Corresponding Secretary to cast my vote for the proposed bylaws changes and for the slate of candidates proposed by the Nominating Committee.</p> <p>Signed _____</p> <p>Address _____</p> <p>_____</p> <p>Mail by Sept. 9 to: Corresponding Secretary, VNPS 400 Blandy Farm Lane, Unit 2 Boyce, VA 22620</p>	Individual ballot	<p>PROXY, 2002 VNPS ANNUAL MEETING</p> <p>I hereby authorize the Corresponding Secretary to cast my vote for the proposed bylaws changes and for the slate of candidates proposed by the Nominating Committee.</p> <p>Signed _____</p> <p>Address _____</p> <p>_____</p> <p>Mail by Sept. 9 to: Corresponding Secretary, VNPS 400 Blandy Farm Lane, Unit 2 Boyce, VA 22620</p>	Ballot for 2nd VNPS family member
--	--------------------------	--	--

Weekend Getaway to Chincoteague Island VNPS Fundraiser Drawing

\$2 tax-deductible donation for one ticket; \$10 donation for 6 tickets.

Win a 3-Day, 3-Night Weekend Getaway at Chincoteague Island, Virginia. Relax in a renovated 1906 farmhouse with 4 bedrooms, 2 full baths, central heat and A/C, microwave, TV, VCR, W/D, porch, outside shower & grill. Available April through May and Labor Day through Christmas. Have a look at some of the rooms by going to www.harbourrentals.net, click onto "3 to 5 bedrooms" and scroll down to Summer Quarters. Estimated value is \$350. (Donated by Jim and Joslin Gallatin. Call 703-528-0125 to schedule your adventure.)

To enter, fill out one or six tickets to the right (For additional tickets, make photocopies.) Mail tickets and your tax-deductible donation to:

Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

Come join us for Fall Flora on the Fall Line

Flora this fall on the Fall Line of the James in Richmond will be the focus of the 20th annual meeting of the Virginia Native Plant Society. Recently someone asked, "What is a fall line?" The dictionary tells us that the fall line is an irregular line joining the waterfalls on numerous rivers that marks the point where each river descends from the upland to the lowland. Usually the fall line marks a river's limit of navigability.

The falls of the Potomac form a section of Virginia's fall line and one can follow the line across Roosevelt Island through Prince William Forest Park and southward to Richmond and beyond to Emporia where the Meherrin River crosses the Fall Line. Keith Frye, author of *Roadside Geology of Virginia* is the source for this and more information about Virginia's Fall Line. He says the Chickahominy River is distinctly flat-bottomed and swampy...the upper portion of a once deeper valley now filled with swamp debris piled in during the last 10,000 years. The Chickahominy Wildlife Management Area is a Sunday destination with cypress swamps, tidal marshes, ravine woodlands, open fields, streams and a warm slow moving river.

The Cumberland Marsh and Warreneye Trail on Saturday promises yellow tickseed sunflowers in the fresh-

water tidal marshes and the plant communities that support sensitive joint-vetch and Parker's pipewort. The second leg of this field trip at the Chesapeake Co. Nature trail will reveal marl outcrops supporting a host of montane disjunct plant species. Large evergreen trees dominate this biogeographic zone of relatively moist cool upland slopes below timberline.

There are many other field trips offered to meet every interest of VNPS members. One is the location of the depression era conservation work done by women in Petersburg and described in "With Paintbrush and Shovel." Women documented the regional flora with an herbarium collection and watercolor illustrations. Dr. Donna Ware of William and Mary College will lead this trip.

The other part of our weekend celebrating our native plants will be highlighted with two speakers unmatched in their fields. Cole Burrell, originally of Richmond, will guide us to use some native plants that can outshine those invasive alien plants that have enjoyed popularity to the point of overuse. Cole is principal of Native Landscape Design and Restoration, has been published widely and lectures across the United States and abroad.

Have you been wondering about

Panax quinquefolius? Well, Greg Plunket Ph.D., of Virginia Commonwealth University, will be able to tell you about ginseng and also *Aralia hispida*, bristly sarsaparilla, a rare local species. His studies on the Island of New Caledonia center on aralias. The small island is one of the top seven biodiversity hot-spots of the world.

Add a delicious Saturday night banquet at the Cultural Arts Center of Glen Allen (our headquarters for the weekend) after a silent auction of wonderful flower related gifts donated for this fund raiser and there is only one other thing we need -- you. You and fellow VNPSers bring the warmth of seeing friends of 20 years and new friends from our Fredericksburg Area, Upper James River Chapter and the now-forming Kilmarnock area group. Oh, yes, and the Annual Meeting is held to conduct the formal business of elections and, this year, a recommended change in our bylaws will be considered. Come and exercise your vote.

If you have misplaced your last newsletter that contained the registration form, please let us know. (540-837-1600; vnpsoc@shentel.net or visit www.vnps.org where you will find the form under "Events.")

Bruce adventure filled with new and strange habitats

(Continued from page 4)

forms Niagara Falls, was designated a UNESCO Biosphere Reserve in 1990. The purpose of this program is to reconcile conservation of biodiversity with sustainable development. Each reserve is intended to fulfill the functions of conservation, development and research concerning the ecosystem and human interactions with the land. A regional commission is set up to oversee the reserve. There are public lands owned by the Foundation of Ontario Naturalists (FON), Parks Canada, and the provincial government, while some special sites are on private property and First Nations lands.

Visits to the escarpment side of the peninsula included rich woods at Kemble Forest, Bruce Caves and the trail at the (charmingly named) Halfway Log Dump. These are shady and damp, and there are often areas of boulders, outcrops and caves. Kemble Forest is considered a Carolinian or Appalachian forest, and would feel familiar to anyone in our area. Sugar maple (*Acer saccharum*) is a prominent species in these woods, and of course, a Canadian symbol. There are mixed hardwoods and understory trees, and a carpet of ferns, mosses and flowering plants that are mostly well known here. Species that set it apart include the hart's tongue fern (*Phyllitis scolopendrium*), northern holly fern (*Polystichum lonchitis*), male fern (*Dryopteris filix-mas*) and red baneberry (*Actaea rubra*). The view from this steep portion of the escarpment was beautiful. At Bruce Caves we found the walking fern (*Asplenium rhizophyllum*, a.k.a. *Camptosorus rhizophyllum*). In the woods at Halfway Log Dump we added squawroot (*Conopholis americana*) to the master plant list.

Between the coasts the landscape is rolling farmland, with lakes, marshes and swamps interspersed. The more hilly topography is formed by glacial drumlins. These lakes are great birdwatching territory, and in nearby fields we saw bobolinks, meadowlarks, tree swallows, kingbirds and red-wing blackbirds. On Isaac Lake we watched blue winged teals, back terns and saw a tagged tundra swan. A special sighting there was a coyote.

Away from the escarpment the forests were more likely to contain conifers mixed with hardwoods, and the forest floor ranged from sandy through dry organic to boggy. *Taxus canadensis* was seen frequently. This is a species that occurs in western Virginia, but is not often found because it is a favorite of deer and therefore heavily browsed. A visit to Walkers Woods and Sauble Beach North, a dune area along the road, gave us a taste of these habitats. At the roadside dune, we were shown a single plant of moonwort (described as underwhelming by some, the plant is quite small to begin with, and was not fully grown when we saw it). In the same area, we found three *Pyrola* species growing side by side. Bearberry (*Arctostaphylos uva-ursi*) grows in low mats on the dunes. In Walkers Woods we saw royal ferns (*Osmunda regalis*), goldthread (*Coptis trifolia*), pitcher plants (*Sarracenia purpurea*), bog rosemary (*Andromeda glaucophylla*), Labrador tea (*Ledum groenlandicum*), and buckbean (*Menyanthes trifoliata*). A visit to the picnic area at Sauble Falls was made during this part of the trip.

Fens, wet areas that have both an inflow of water and an outlet, were visited at Oliphant and Petrel Point. These are marl fens, so the substrate is basic instead of acidic, and the wet soil appears chalky. The fens are now mostly seen from boardwalks that have been erected to protect the vegetation. We visited them on the cold and rainy first day, and so we revisited them as the weather improved. Most conspicuous during our visit were the deep red flowers of the pitcher plants, but by week's end some previously unseen showy lady slippers (*Cypripedium reginae*) had come up and begun to bloom. You cannot call sundews (*Drosera rotundifolia* and *D. anglica*) conspicuous -- they are best seen by lying on the boardwalk with your head hanging off the edge! The yellowish leaves and blue flowers of butterwort (*Pinguicula vulgaris*) were eye-catching, especially since they are only a little taller than the sundews. The tall spikes of the tall white bog orchid (*Habenaria dilatata*) were just beginning to come up, and the spikes of common arrow grass (*Triglochin maritimum*-not a grass) were often seen. On a nice boardwalk in the woods at Petrel Point, we got our first glimpse of gaywings (*Polygala paucifolia*), which we would later see in many places, and starflower (*Trientalis borealis*), often seen with the gaywings.

Beaches on Georgian Bay at the end of Halfway Log Dump Road and Lake Huron at Dorcas Bay (Singing Sands Trail) had some plants in common with these fens, but each beach had special plant and animal features of its own. At the beach on Georgian Bay, we saw two water snakes, a garter snake, a loon and a spotted sandpiper. An area of flat rock had a stream trickling over the rocks and supported a wide variety of plants, including the rare lakeside daisy (*Hymenoxys herbacea*), the Ontario goldenrod (*Solidago simplex*) just beginning to bloom, one flowered cancer root (*Orobanche uniflora*), birdseye primrose (*Primula mistassinica*), and masses of a western shore violet (*Viola nephrophylla*) in the stream itself. At Dorcas Bay, we had the Masasauga rattlesnake as a lunch companion, and watched Caspian and common terns diving. On the trail in open woods near the beach, we found numerous stems of the ram's head orchid (*Cypripedium arietinum*).

The day of our trip to Flower Pot Island was stunning, and we cruised over shipwrecks (easy to see in the remarkably clear water) and past several islands studded with caves. The first trail we took led us past a carpet of twinflower (*Linnaea borealis*), gaywings (*Polygala paucifolia*) and rattlesnake fern (*Botrychium virginianum*), to a world of blue bead lily (*Clintonia borealis*) and several, often inconspicuous, orchids. Two of the showier species were a single remaining calypso in bloom (*Calypso bulbosa*) and large roundleaved orchid (*Habenaria orbiculata*). Beyond this, we stood on a quaking sedge mat at the edge of a marl pond to see dwarf lake iris (*Iris lacustris*), tall white bog orchid (*Habenaria dilatata*) and tall northern bog orchid (*H. hyperborea*).

The afternoon hike took us to the cave area where study of a fern wall added green spleenwort (*Asplenium viride*),

(See *Explorations*, page 7)

Bog preserves protect unique habitats

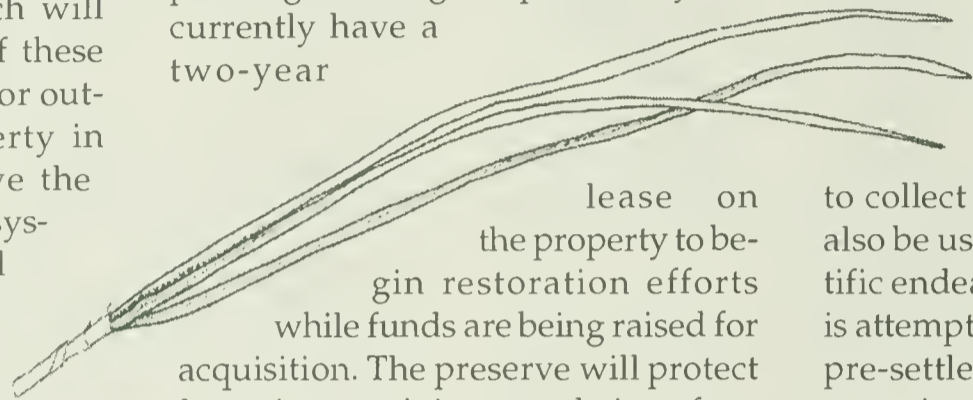
(Continued from page 3)

pitcher plant population in each historic county of its original range (and they would have it completed if they could have found landowners who wanted the plants).

The project's 10-year goal is to have a system of bog preserves in Maryland and Virginia which will guarantee the preservation of these unique ecosystems. The case for outright acquisition of a property in southern Virginia to preserve the longleaf pine-pitcher plant ecosystem is demonstrated by several factors. Chief among them is the fact that there is no preserve in Virginia for native longleaf pine and yellow pitcher plants. While reintroduced *S. flava* populations have served as important stopgap efforts to maintain biological diversity, there is no guarantee that they will be managed or maintained indefinitely. Populations of both these rare plant species, as well as their important associates, continue to go extinct on unprotected land. While buying all of these remaining rare plant sites may be desirable, this goal is unrealistic from a financial, political (some landowners may not want to sell), and biological point of view (some sites are degraded to the point that only a few rare plant elements are left).

The Meadowview Biological Research Station staff thinks that the solution to this problem is the creation of a preserve to protect remaining rare plant stocks of Virginia's longleaf pine-pitcher plant ecosystem. A parcel they are working on acquiring is

located in the gently rolling terrain of Sussex County, Virginia in the heart of the historic range of the yellow pitcher plant, *S. flava*. They have worked with the landowner over the past several years to successfully reintroduce the native Sussex County yellow pitcher plant and have performed test plantings of longleaf pine. They currently have a



two-year lease on the property to begin restoration efforts while funds are being raised for acquisition. The preserve will protect the entire remaining population of native Virginia yellow pitcher plant. Meadowview is currently maintaining six Virginia yellow pitcher plant populations in raised beds at the research facility. Two of these populations have gone extinct in the wild.

The preserve will also be dedicated to capturing the entire Virginia longleaf pine (*Pinus palustris*) genome by grafting, fascicle rooting, or seed propagation. With less than 4,432 native longleaf pine trees left in Virginia, capturing the entire genome of this economically and ecologically valuable tree species is entirely possible. Longleaf pine is an associate species of yellow pitcher plant and is a keystone species in fire-maintained ecosystems. The preserve will perform the vital role of preserving rare components of the longleaf pine-pitcher plant ecosystem which are left in small, isolated, unprotected fragments in southern Virginia. Examples of the many extremely

rare components which will be protected are toothache grass, pink and dwarf sundew, short-leaf sneezeweed, bog buttons, white-fringed orchid, spreading pogonia, and purple pitcher plant.

Due to extensive field work in southern Virginia by the Meadowview staff, the locations of the fragmented populations are known and contact has been made with the landowners to obtain permission to collect divisions. The preserve will also be used for educational and scientific endeavors. In brief, Meadowview is attempting to restore a property to its pre-settlement condition while at the same time preserving rare biological diversity in Virginia. By gathering together fragments of an ecosystem at the limits of its range, breeding populations will be restored and genetic reservoirs for future restoration work will be maintained. Without this effort, the loss of valuable genetic material and subsequent loss of diversity will continue. Meadowview feels competent to handle this undertaking because its staff members have the requisite field experience and understanding of the ecology of the respective species. They also have designed the preserve to ensure that hydrologic regimes are maintained in seeps and ecological processes are restored for species persistence and spread.

For more information about Meadowview and Joseph Pines go to meadowview@pitcherplant.org, www.pitcherplant.org or call 804-633-4336.

Phil Sheridan, Meadowview Biological Research Station, Woodford, Virginia

Momentum continues to grow for Flora of Virginia Project

The Flora of Virginia Project continues to make important progress and gain momentum. As reported in the last issue of the *Bulletin*, the 501(c)(3) (Federal tax exempt status) for the Foundation of the Flora of Virginia Project, Inc. (FFVP) was granted in May. On May 24 at the 80th Annual Meeting of the Virginia Acad-

emy of Science at Hampton University, a symposium on the *Flora of Virginia* was held. There was an excellent turnout for the symposium with approximately 50 attendees. FFVP executive director Chris Ludwig, and VNPS members Donna Ware, Johnny Townsend and Ruth Douglas were presenters. Work on keys, plant de-

scriptions, illustrations, and other technical aspects of the *Flora of Virginia* has begun. Chris Ludwig and Alan Weakley have been working with the Flora Advisory Committee on details of the descriptions. As of June, Alan Weakley, a co-author of the *Flora*, is the Curator of the Uni-

(See *Flora Project*, page 10)

• Explorations

(Continued from page 5)

fragile fern (*Cystopteris fragilis*), bulblet fern (*C. bulbifera*), wall rue (*Asplenium ruta-muraria*) and Steller's rockbrake (*Cryptogramma stelleri*) to our list. Some of us took the remainder of this trail to the lighthouse and over the high part of the island. We were rewarded by yet another incredibly rich woods, but punished by having to race through it to catch the boat. Flower Pot Island seems to have most of the various habitats that we saw on the peninsula, and the flora was extremely varied for such a small place.

Another very unusual habitat on the peninsula is called alvar or pavement, and is a dolomitic limestone rock surface that looks like a piece of abandoned asphalt from a distance. These may have been formed when an ice dam from a glacial lake burst and swept the rock clean of soil and vegetation. The water would also have dissolved the rock in areas where cracks had been. The plants live in cracks or on thin accumulations of organic matter in shallow depressions. The alvars are characterized by flooding and drought alternately, and temperatures that may reach 140 degrees. That doesn't deter the lakeside daisy (*Hymenoxys herbacea*), the harebell

(*Campanula rotundifolia*), or the Virginia saxifrage (*Saxifraga virginiana*) that grow on the alvar on Halfway Log Dump Road. Diminutive plants with needlelike leaves, such as sandworts (*Arenaria stricat* and *A. serpyllifolia*) and the fragrant calamint (*Calamintha glabella*) are at home here too. On the Dyers Bay Crossroads alvar, limestone oak fern (*Gymnocarpium robertianum*) and purple cliffbrake (*Pellaea atropiurpurea*) were found in cracks in the open sun.

All of the wonders of our trip should be well documented. Lots of photos were taken, both film and digital, drawings were made, and lists were kept. We added at least 15 plants to the list VNPS members have been compiling over the years. We saw 37 of the 47 ferns on the list, and half of the 29 listed orchids (I'm counting half for an uncertain identification here). I feel like I've left out so many trees, shrubs and herbs that we saw, and I'm having a hard time thanking everyone who helped because there are just so many. The bird list topped 90 species seen and/or heard. We also saw a young porcupine waddle under the cabin one evening -- Nicky has the photos.

Sally Anderson, Piedmont Chapter

Dreamtime Center hosts two herbal programs

The Dreamtime Center for Herbal Studies, located in Washington, Virginia, has two upcoming events with a native plant focus. On September 21, a "Backyard Medicines" Dreamtime Garden Tour will be held. Visitors can see plants organized into beds representing the major systems of the human body (cardiovascular, digestive, etc). The event is from 10 a.m.-2 p.m. There is a \$40 fee and visitors should bring a bag lunch.

From October 9-13, a Native Plant Apprenticeship will take place at Peter Heus' Enchanters Garden Nursery in Hinton, West Virginia. This is an extraordinary opportunity to see hundreds of native species and to learn the techniques of seed gathering, preparing woodland beds, transplanting and more. The fee is \$500 (room and board not included).

For registration or more information about these events, contact Dreamtime at 540-675-1122, drmtime@shentel.net or visit www.dreamtimeherbschool.com.

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

Individual \$20

Family \$30

Student \$15

Patron \$50

Associate (groups) \$40*

Sustaining \$100

Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

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

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

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The Bulletin

ISSN 1085-9632

is published five times a year
(Jan., March, May, August, Nov.) by

Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620
(540)837-1600

vnpsofc@shentel.net
www.vnps.org

Nicky Staunton, President
Nancy Sorrells, Editor

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. Items should be typed, on disk in Microsoft Word or e-mailed to: Editor, 3419 Cold Springs Rd., Greenville, VA 24440, or lotswife@rica.net

The deadline for the next issue is October 1

Virginia wildflower license plates released

We did it! Enough calls were received from our members and others to meet the required 350 orders necessary to release the new Virginia license plates that sport *Asclepias tuberosa*, *Rudbeckia hirta* and *Mertensia virginica*. You may already be seeing them on cars in your area. The non-personalized plates are out there now.

Ken Oristaglio of Virginia Department of Transportation called to express appreciation to all who helped make possible this design honoring Virginia native plants.

After the initial orders are met, a portion of each fee will be routed to VDOT's project wildflower to maintain and establish new median strip plantings of wildflowers. What a great thing you are doing by ordering the Virginia Wildflower Plate.

If you would like to order a wildflower plate you may do it online by going to the website for Virginia's Division of Motor Vehicles (DMV). Every time your wildflower plate is noticed, you are speaking out for our native plants. Thank you.

•Flora Project

(Continued from page 6)

versity of North Carolina Herbarium in Chapel Hill.

The next FFVP board meeting, which will mark the one-year anniversary of the FFVP, will be on Saturday, August 24, at the Wintergreen Nature Foundation Trillium House. Public outreach regarding the Flora of Virginia Project continues. During the last few months, two major newspaper articles on the project were published, one in the *Washington Post* and the other in the *Virginian-Pilot* from the Hampton Roads area. A new flier about the project is available at the FFVP address. Ludwig and other members of the

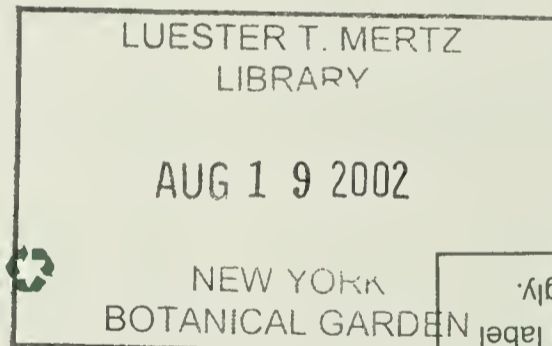
board of the FFVP continue to make presentations on the project. Lobstein is currently working with Ludwig on details on how VNPS volunteers can be involved. VNPS chapter and member financial and moral support continues to be crucial to the start-up and progress of the Flora of Virginia Project. Donations may be made to the following address: The Foundation of the Flora of Virginia Project, Inc., P.O. Box 512, Richmond, VA 23218-0512. If you wish to donate securities, please contact Ludwig at 804-371-6206. For more information, visit the Flora of Virginia Project website at www.dcr.state.va.us/dnh/vaflora.htm.

Thanks go to members for special donations

Gifts to the Virginia Native Plant Society are still arriving. An important VNPS source of financial support is from members through their dues and from gifts. Chapters have plant sales and some sponsor seminar workshops for additional income, but VNPS has no other source of income.

Each of you who has sent gifts in response to our appeal at the end of last year and the beginning of this year deserves the sincere appreciation of the VNPS Board of Directors.

Several chapter boards have sent gifts to VNPS in response to the needs of the state organization. This genuine, helpful response helped keep our membership dues at their current level. These special gifts create a close chapter-state organizational bond as we continue to work to protect native plants and the natural areas of Virginia. Thank you.



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

T4 P1
THE NEW YORK BOTANICAL GARDEN
LIBRARY-SERIALS & EXCHANGE
BRONX NY 10458



Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620



www.vnps.org

Printed on recycled paper

Non-Profit Organization
U. S. Postage
PAID
PERMIT NO. 161
Harrisonburg, VA

92455



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

Tragedy at Spring Pond shows flaws in the system

Spring Pond, a natural spring-fed depression in the Maple Flats area of Augusta County, is one of a series of globally unique wetlands hosting remnants of late Pleistocene flora. Pond sediments have yielded spruce, fir and jack pine pollen from the great boreal forests of 15,000-18,000 years ago.

The site lies generally in the north shadow of the Blue Ridge and still contains species that are northern relicts as well as coastal plain disjuncts that are likely descended from plant migrations that happened thousands of years ago. Scientists believe boreal forests held on here until about 9,500 years before the present. Some experts think the Coastal Plain genetic element is even older than the northern relicts and may have "held on" from some previous interglacial Gulf Coast migration route. Some animals associated with this site and adjacent vernal wetlands are also uncommon or rare and likely have ancient lineage (tiger sala-

manders, several species of dragonfly and several reptiles). The unique and rare assemblage of plant species at Spring Pond prompted the Virginia Division of Natural Heritage biologists Chris Ludwig and Gary Fleming to give the site a Global One ranking.

Sometime during the early 1990s

of the potential impact, the U.S. Forest Service implemented some low-level cooperative intervention measures. Sometimes local field science experts voluntarily helped by breaching the dam to allow the fragile "littoral fringe" plant community to "breathe." The beavers increased in numbers and volunteer in-

!! . . . the ancient, globally ranked community we knew as Spring Pond will take many years to recover (if ever). . . !!



beavers appeared at Spring Pond and dammed the narrow eastern outlet raising the water one to two feet above its traditional level, inundating the rare plant community. After being advised

intervention was not enough to keep up with constant inundations. Volunteers were chastised on March 20, 2000 by the U.S. Forest Service District Ranger (See Spring Pond, page 5)

Wildflower of the Year: A lily of many aliases

The great lily family flourishes in springtime in our gardens and in our native hills and hollows. Whether you skip through April's garden among the snowdrops, daffodils, and tulips or walk in April's sunlit woods amid entrancing drifts of trilliums or trout-lilies, spring would not be spring in Virginia without the lily kin.

Yellow trout-lily, *Erythronium americanum*, a Paul Revere of spring, is

a signature member of that band of ephemerals of the forest floor that march through their life cycles and disappear for another year almost before you have time to notice them. It is one of the earliest to send up its leaves—broad, yellowish to dark green, pointed tongues dappled with brownish maroon spots—and flowers soon after. Some would say that these leaves, which suddenly

(See Trout-lily, page 8)

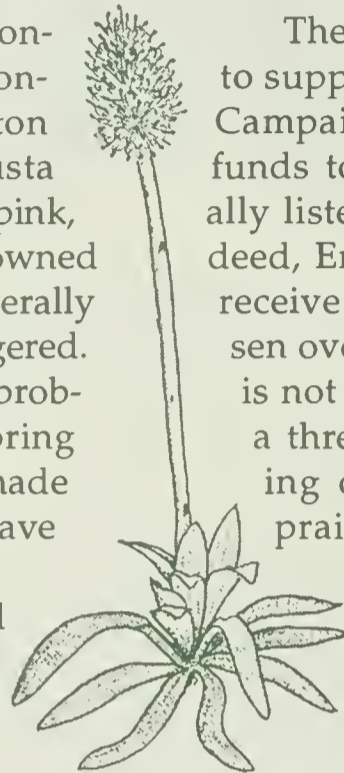


From the president

All is not equal for our endangered plant friends

An interesting conjuncture of events occurred earlier this year. The first was an alert by Doug Coleman, the Wintergreen Nature Foundation director and a VNPS member, to scientists and conservation leaders, including VNPS. The alert concerned Spring Pond in the George Washington National Forest near Sherando Lake in Augusta County. Four hundred *Helonias bullata*, swamp pink, and an ancient Global One community were drowned after two years under water. Swamp pink is federally listed as threatened and Virginia lists it as endangered. When the U.S. Forest Service was notified of the problem resulting from beaver construction on Spring Pond, a service decision of "no action" was made because beaver had been nearly extirpated and have an important ecological role in nature.

Shortly after our being alerted, we received information about the National Native Plant Campaign by the California Native Plant Society and the Center for Biodiversity focus on an Equal Protection for Plants Campaign. Their premise is that under the Endangered Species Act, plants do not receive the same protection as animals. To correct this situation, increased funding is proposed for the federal agencies responsible for protecting listed plants so they can increase their botanical staff.



We have been told that the George Washington National Forest has one botanist for 1,061,080 acres. This tells part of the story.

The VNPS board of directors voted to sign on to support the national Native Plant Conservation Campaign. It is unacceptable to have insufficient funds to protect our native plants that are federally listed and on federal property in Virginia. Indeed, Endangered Species Act listed plants do not receive equal protection when their death is chosen over moving a beaver family to a location that is not a home for a globally rare community and a threatened plant species. We mourn the passing of the huge colony of swamp pinks and praise the vision of the Native Plant Conservation Campaign.

As we enter our 21st year as advocates for native plants and their habitats, your support is appreciated. Your membership and your personal commitment and actions on behalf of all of our plants, especially our rare, threatened and endangered species are needed now more than ever. Four hundred swamp pinks rejected by the agency charged to protect them must not happen again.

With hope,
Your President, Nicky

Important work with native plants funded with dues increase

The board of directors has been struggling for two years with the problem of how to support our first-ever office without increasing dues for members. When we hired our first employee, duties included the book-keeping that had been done by our volunteer treasurers. The work of receiving, recording, and depositing funds and preparing financial reports has grown beyond what we can expect of any volunteer. In addition, processing membership records, recouping expired memberships and creating new efforts for membership growth had demanded more

of the membership chairs than was reasonable. Karen York's job description for four hours a day, five days a week, fills her time when in the office. All communications by mail, phone and website come through our office. It used to come to the home of the president.

At the September meeting of the board, following examination of the baseline proposed budget for 2003, an increase for individual membership of \$10 was approved unanimously. The current individual membership fee is \$20 and will now be \$30, effective January 1, 2003. All other membership categories will remain the same at this time.

Your board has determined that there is no waste in expenditures. After considering reducing our *Bulletin* by one issue, the board decided to continue with five issues a year of our newsletter. However, in order to hold the line on costs, there were no salary increases this year for newsletter editor, Nancy Sorrells, or for Karen York. Our office space at Blandy continues to be free, supported by the State Arboretum of Virginia for the Virginia Native Plant Society. Our webmaster, Sylvia Orli-Stone, volunteers her time on web work for VNPS.

On behalf of your board of directors, I thank you.

Nicky Staunton, VNPS President

Visitors to Cumberland Marsh find *Desmodium* paradise

After a 40-mile drive east from the VNPS Annual Meeting being held at the Cultural Arts Center at Glen Allen, we stopped first at the Warreneye Trail, which belongs to New Kent County. Our leaders, Rebecca Wilson and Phil Coulling, from the Virginia Natural Heritage Division of the Virginia Department of Conservation and Recreation, showed us the marl outcroppings and plants that typically grow in that environment. We found not only calcareous outcrops, but also huge chunks of disturbed soil masses containing whole shells.

Not much was blooming along the woodland trails. One participant noted elephant's foot (*Elephantopus carolinianus*) and said it grew rampant along her driveway. I had never seen it before, but only a week later saw it again on a VNPS walk at Banshee Reeks in Loudoun County. We saw a cardinal flower (*Lobelia cardinalis*) in bloom along the creek and several clumps of walking fern (*Camptosorus rhizophyllus*). In the open area of a high-tension wire cut we saw Maryland meadow beauty (*Rhexia mariana*) and two species of boneset growing side by side: tall and round-leaved (*Eupatorium altissimum* and *E. rotundifolium*).



Desmodium lineatum
All *Desmodium* illustrations by
Nicky Staunton

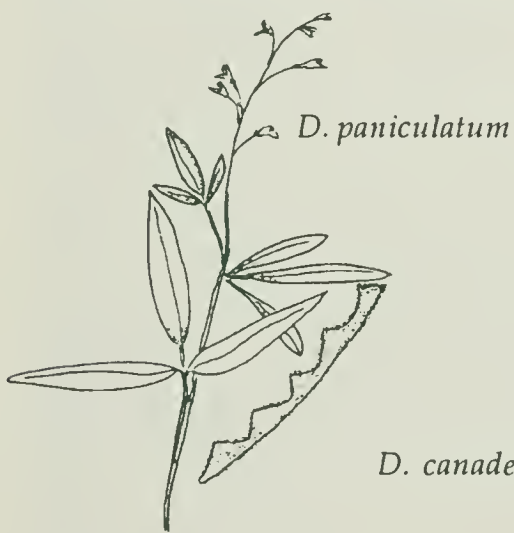
We drove to the Nature Conservancy's Cumberland Marsh Natural Area Preserve and ate our box lunches on a wooden platform at the edge of the Pamunkey River. We looked over the freshwater tidal marsh with spatterdock (*Nuphar variegata*) below us and grasses blooming all around. Rebecca set up a spotting scope to show us sensitive joint-vetch (*Aeschynomene virginica*), a federally threatened member of the pea family, on the other side of the river. Unfortunately, the yellow mass of blooming *bidens* we expected to see across the marsh wasn't there. Phil speculated that the drought had lowered the fresh water flow in the river, raising the salinity level, which keeps the *bidens* from sprouting. However, the seeds are still there to sprout when

the fresh water rises in the future.

After lunch we hiked to another marsh overlook, through the woods, and around some ponds. Sally Anderson and I tried to identify some evening primroses (*Oenothera*) at a pond, but couldn't get close enough without getting wet. Nearby on safer ground we found buttonweed (*Diodia teres*), wild sensitive plant (*Cassia nictitans*), mad-dog skullcap (*Scutellaria lateriflora*), and another *Eupatorium*, the beautiful mistflower (*E. coelestinum*), which looks like tall ageratum.

Back near the cars at the edge of a soybean field, we saw a strand of wild grapes hanging down from the vine in the trees. I had been taking digital pictures of the flowers as we went, and realized on reviewing them that we had seen five different species of tick trefoil (*Desmodium*): lined (*D. lineatum*), Maryland (*D. marilandicum*), naked-flowered (*D. nudiflorum*), panicled (*D. paniculatum*) and showy (*D. canadense*). All of them still showed some of the beautiful purple, pea-type flowers on the panicles, along with the jointed pods ready to attach their triangular segments to our clothing.

Richard Stromberg
Piedmont Membership Chair



Flora of Virginia update

As your director from VNPS, I'm excited to be able to report that in August of 2002, the Foundation for the Flora of Virginia Project celebrated its one-year anniversary. Executive Director Chris Ludwig reported that both text and illustrations have been started. Chris and Alan Weakley are writing descriptions of the plants and the Flora Advisory Board members are reviewing the descriptions.

The illustrator is receiving live plant material from which to draw illustrations for each described plant. The task is expected to continue at least until 2007 since Virginia is blessed with immense plant diversity (over 3,700 species).

Elections were held at the August meeting and officers are: Chris Ludwig, president; Chip Morgan, vice president; Michael Garson, treasurer; and Donna Ware, secretary. Meanwhile, many of you

who volunteered to assist with the *Flora of Virginia* have been contacted to furnish photographs, to work on the website data and about other specific jobs for which you are best qualified. Your support is an important part of the production of the *Flora* and its support media of CDs, website, history and uses of plants.

Your financial support for the *Flora* is what makes it possible to move ahead on
(See *Flora*, page 7)

VNPS Invasive Alien Plant Display put to good use

Psst! Wanna see a great display of invasive plants, fresh off the roadsides and natural areas, tastefully arranged in Mason jars and delicately draped over a backdrop of photos of invasive plants on a RED background? Come on by the next time the exhibit is up at an event near you—or borrow it from VNPS and use it yourself at a natural history event. Ted Scott created this exhibit with support from Nicky Staunton, in partnership with the folks at the Virginia Department of Conservation and Recreation's Natural Heritage Division. It all packs up into a (relatively) handy case for easy transport. It's been used twice recently, and draws a good crowd, attracted by a striking stem of tree-of-heaven, a.k.a. stink tree (my favorite name) and a delicate vine of kudzu, not to mention other favorites such as autumn olive, Oriental bitter-sweet, Japanese honeysuckle, privet, multiflora rose and porcelain berry. When we have folks looking at our "lovely" collection, we then begin to engage them in discussion about the problem of invasive plants in Virginia, and provide them with fact sheets and other information on invasives. Not wanting to strike only a negative note, we also provide information on Virginia natives to plant in the home landscape, and then encourage them to consider joining the Virginia Native Plant Society.

In early September, I brought the display and my own handpicked collection of fresh invasives (all collected within about three miles of my home in Charlottesville) down to Virginia Tech's Farm and Family Showcase, a three-day extravaganza held on VT's farm several miles outside of Blacksburg. (It's a wonderful event, rather like a county fair without the rides and very educational for folks of all ages. Only in its second year, the event attracted 12,000 visitors the first year, a staggering 38,000 this past September, and a projected 50,000 visitors next year.) A number of VNPS members in southwest Virginia provided great help with the display, including Vicky and John Barden, who helped in many ways; Suzie Leslie, Pat Polentz and Julie Alexander who helped recruit other volunteers; and display volunteers Vicky Barden, Pat Polentz, Jan Spahr, Butch and Betty Kelly, and Al and Vi Sheridan. We had a great location, in the horticulture tent next to the Virginia Apple Growers display, with free apples, which drew quite a crowd. We hope we educated the many visitors who stopped by the display, and we sure did have a good time talking with them, too. We were so busy we didn't have enough time to visit the many other exhibits at the showcase, so next year we hope to have

more volunteers staffing the display so we can all take the time to visit the farm animals, various plant displays, and other informative exhibits. For more information on this event, visit the website: www.farmand-family.vt.edu. To learn more about the display and how you can help with it, contact me (Ruth Douglas) of the VNPS Invasive Alien Plant Project at 434-293-6538 or ruthd@cstone.net. In addition, I has an illustrated presentation on invasive plants (also created by Ted Scott), which may be borrowed, or I will come along with the slides and do a presentation for your chapter.

In October, Jessie Strother and I attended the Virginia Environmental Assembly in Williamsburg, and used the display and more fresh invasives to educate others concerned about the environment in the state. While the number of visitors was far smaller than at Virginia Tech, they were all people concerned about the environment, and active in various conservation organizations. It was a worthwhile day of talks and discussions, especially focusing on legislative matters.

Ruth Douglas, VNPS Director-at-large

Plant invaders guidebook

Plant Invaders of Mid-Atlantic Natural Areas, a guidebook produced by the National Park Service and the U.S. Fish and Wildlife Service Chesapeake Bay Field Office, will be available this month. The book provides color photographs and information on 49 species of highly invasive plants affecting aquatic and terrestrial natural areas in the mid-Atlantic region. The intent of the publication is to increase public awareness about this threat to our environment, our economy and human health. The manual includes an introductory section explaining the invasive species problem, write-ups on each species, a glossary, references and information sources. The target audience is the general public. The majority of the content of the guide was obtained from the Plant Conservation Alliance, Alien Plant Working Group's "Weeds Gone Wild" web page at: <http://www.nps.gov/plants/alien>. To request a copy, call U.S. Fish and Wildlife Service at 410-573-4582 (Kathy Reshetiloff), 410-573-4581 (Britt Slattery), or the National Park Service at 202-342-1443, ex. 218 (Jil Swearingen).

California Equal Protection for Plants Campaign

Few people realize that the Federal Endangered Species Act (FESA) provides almost no protection to most federally endangered and threatened plants. In fact, although FESA protects federally listed animals everywhere, it allows nearly unlimited destruction of federally listed threatened and endangered plants outside of federal lands — where more than 80 percent of federally listed plants live in California.

This outdated policy flies in the face of biological reality. Science tells us that plants and animals are inextricably intertwined and contribute equally to the health and survival of the ecosystems that sustain us all. If we are to conserve healthy ecosystems and biological diversity, we cannot pick some species to save and ignore others.

For these reasons, the California Native Plant Society has launched the Equal Protection for Plants Campaign. The goal is to amend FESA, and state species protection laws where necessary, to provide plants with the same protections that are currently provided to animals. CNPS has launched a public education campaign and a petition drive to build support for this idea. For more information on the Equal Protection for Plants Campaign, contact Emily Roberson — EMILYR@cnps.org or the CNPS office 916-447-2677.

Spring Pond gives reason for new legislation

(Continued from page 1)

in a stern letter of reprimand when they "breached" the dam and water rushed downstream, resulting in a phone call from an adjacent land owner who suffered no damage but noticed the change in water level. The letter further stated that the George Washington National Forest Service botanist as well as the U.S. Fish and Wildlife Service knew that a federally listed "threatened" plant species was at stake and that they were taking required measures to protect the swamp pink (*Helonias bullata*).

All volunteer cooperative efforts were stopped at this point and later visits revealed that Spring Pond's rare plant community stayed inundated until severe drought conditions occurred in the summer of 2002. During this period, the Virginia Division of Natural Heritage on several occasions contacted forest service representatives offering help and recommending mitigation to protect the site's rare plants. All offers and recommendations were refused with little explanation.

In late September, the Wintergreen Nature Foundation called a meeting of its Field Science and Education Advisory Committee, a group of scientists with over 200 years of combined knowledge and research history on the site. The group included co-authors of *Atlas of the Virginia Flora*, a Smithsonian plant ecologist, a former head research forester from the Virginia Division of Forestry, a herpetologist, a macroinvertebrate biologist, an ornithologist, and our VNPS president among others from various state agencies. The Virginia Division of Natural Heritage was asked to present "before and after inundation" site information and a trip to the site followed. Dismayed by what had transpired, the group immediately contacted the U.S. Forest Service Supervisor and staff in hopes of precipitating a meeting for discussion. Twelve letters were written on institutional letterheads. Not one letter was answered by the supervisor, but forest service personnel did respond by convening a meeting with the group in Feb-



ruary 2002. They heard the concern of the group and pledged to respond and a pipe to maintain constant water levels was installed in Spring Pond in late July of this year.

Repeated trips to Spring Pond by field science experts during the spring and summer of this year to look for recovery of the federally listed swamp pink were not encouraging. Not a single submerged plant appeared to survive the prolonged inundation. Not a single bog orchid was observed. Some of the rare state ranked "obligate" wetland species (spike rushes, pipeworts, pondweed and maidencane) have reappeared in smaller numbers. Some invasive species such as fireweed (*Erechtites*) have appeared and will likely dominate until water levels return. It remains to be seen whether propagules of swamp pink and bog orchids like grass pink (*Calopogon*) and rose pogonia (*Pogonia*) survived the inundation. All are apparently slow growers from seed. (Mt. Cuba experts indicate that the tiniest rosette of swamp pink may take three years to appear from seed.)

In summary: the ancient, globally ranked community we knew as Spring Pond will take many years to recover (if ever) according to all biologists but one who viewed the site and understood its ecology and the associated species.

How did this happen? Who is responsible? Should we blame an overworked, under-budgeted forest service which has millions of acres to manage and all of the general public to please? Yes, for not prioritizing management on a site with this ranking. How about the U.S. Fish and Wildlife Service? Most certainly to some degree. They actually have an expert dedicated to the preservation of swamp pink, they knew of the problem, but they did not engage until too late. Should we blame the botanists, ecologists, and wildflower enthusiasts? For those of us who knew and didn't put enough pressure in the right places to get mitigation quickly, I certainly feel some share of blame. We must be more vigilant and sometimes more outspoken on behalf of special plants in special places. (This has not been my style in the past. I have too often wrongly assumed that good science always precipitates correct decisions.)

Perhaps most importantly, future legislation should be considered to give rare plants the same degree of protection as rare animals. Almost every rare animal is associated with a rare plant community and until this is understood, appreciated, and acted upon, we will likely continue to witness compromise on globally ranked sites in our Commonwealth and our nation.

Doug Coleman, *The Wintergreen Nature Foundation Director*

Take a trip (or two) with VNPS to Virginia places and beyond

Native Plants & Habitats

Our successful visit to Hickory Hollow and the Kentucky lady slipper has encouraged us to continue to schedule trips in Virginia to visit our flora where it lives.

We have had many inquiries about the Virginia Native Plant Registry sites. We will try to schedule visits to them throughout the year, coordinating with the chapters which recognized their value and registered them. Visit the VNPS website at www.vnps.org to read about our registry sites. Let us know of any special site you would particularly like to visit.

The Department of Conservation and Recreation, Natural Heritage Program (NHP) has acquired 36 Natural Area Preserves, such as Hickory Hollow in Lancaster County. We would like to begin a series of visits to these locations, but need to coordinate with the land stewards of the sites through NHP to arrange trips before announcing dates and locations. To learn more about the Natural Area Preserves, visit www.dcr.state.va.us/dnh or write to VDCR Natural Heritage Program, 217 Governor Street, Richmond, VA 23219 and ask for the brochure about Virginia's Natural Heritage Program that contains a map and list of current Natural Area Preserves. The bond issue on November 5 would enable more locations of importance to be purchased and added to the Natural Area Preserves protection.

Orchids & Ferns of the Bruce

VNPS members are invited to travel to Wildwood Lodge, Mar, Ontario to enjoy the Bruce Peninsula flora along the Niagara Escarpment

and shore of Lake Huron from June 8-14. The visit begins Sunday afternoon with check in at Wildwood Lodge. Field trips will occur daily on both sides of the peninsula, Lake Huron (west) and Georgian Bay (east). One full day will be spent on Flower Pot Island.

Nicky Staunton is organizing the trip, her eighth. If you are interested, please let her know and trip information will be sent to you. The August 2002 *Bulletin* contained a detailed article by Sally Anderson about the 2002 trip. She described the orchids, ferns, other flora, wildlife and Lake Huron sunsets. If you do not have it, a copy will be mailed with the other information about the week-long visit in the territory of the Objibway and Scotch settlers. An updated 2002 plant list will be made available before the trip.

Trip cost is \$600 a person. Cost includes lodging and all food plus the boat ride and fee to Flower Pot Island across the Georgian Bay. Transportation to and from Canada is not included. It is approximately 650 miles from Northern Virginia. The first evening of the drive is usually spent near Buffalo, N.Y. To reserve your space, send a deposit of \$200 (payable to VNPS) to Nicky Staunton, 8815 Fort Drive, Manassas, VA 20110.

Wildflowers of Newfoundland

VNPS members will enjoy this trip, July 12-21, led by botanist-birdernaturalist and fellow VNPSer, Karl Anderson, and Gale Cannon, an accomplished plant and bird field trip leader.

Karl is an expert field botanist, co-author of *Plant Communities of New Jersey* (Rutgers, 1993), and former director of the New Jersey Audubon Society's

travel program. He has led 18 natural history tours to the Canadian Maritime Provinces, including six to Newfoundland, two of which were specifically for wildflowers. Gale has been on all of the Newfoundland tours.

Newfoundland is perhaps the most scenic, unspoiled area of eastern North America. Habitats visited on this tour will include conifer forest, peatlands, coastal limestone barrens, heath-crowberry barrens, coastal headlands and cliffs, ocean shores, serpentine outcrops, and marshes and pond edges. The focus will be on plants — not just the most showy wildflowers, but also trees, shrubs, grasses, and sedges. Similar tours in 1998 and 2001 each took note of over 300 species of plants (with over half of them in bloom), including 20 species of orchids. Birds and mammals will not be ignored, and the group will also learn something about local history.

Cost of the trip, excluding round trip transportation: \$960 includes motel accommodations for nine nights; tour leadership; and van transportation in Newfoundland. Meals are not included. The group will be traveling from site to site and staying at nearby motels. Local restaurants near each motel will be our source of meals.

Travel to Newfoundland by air is recommended. Estimated airfare roundtrip to Deer Lake where the week begins is \$600 to \$700.

To reserve a place, send a deposit of \$250 (payable to VNPS) to Nicky Staunton, 8815 Fort Drive, Manassas, VA 20110; 703-368-9803; nstaunton@earthlink.net. For more information about the trip, a detailed itinerary will be sent to you.

Travel to the desert with plant lovers and friends of Blandly

Join Foundation of the State Arboretum (FOSA) members for an "Arizona - The Desert In Bloom" travel tour. Experience the striking beauty of Arizona's desert gardens . . . from captivating cacti to desert succulents to specialty gardens! Plans are currently under way for an April 3-8 tour to the Phoenix/Tucson area. This six-day tour features visits to the Desert Botanical Garden, Heard Museum, Boyce Thompson Arboretum, Arizona-Sonora

Desert Museum, Taliesin West (Frank Lloyd Wright's desert masterpiece), Mission San Xavier del Bac, and other unique gardens and sights.

Tour includes airfare, lodging at first class hotels, 10 meals, admission fees, and a professional tour manager. Estimated tour cost is \$1,750 per person (price may vary depending on the number of participants). This cost includes a donation

to either the Foundation of the State Arboretum or VNPS.

Future tours planned by FOSA include "The Gardens and Art of Northern Italy" in September of 2003 and "The Gardens of Charleston and Savannah" in April of 2004. For additional information about the Arizona trip, including a complete itinerary, please call FOSA Development Coordinator Jen Peachey at 540-837-1758 Ext. 21.

Chapter News

Jefferson Chapter

This fall Jefferson's long-serving Chapter President Pat Willis concluded her distinguished reign. Asked how long it had been, she replied, "a thousand years." With an uncanny knack of finding the best speakers and also to fledge our plant sale transplants we will undoubtedly still draw on her many talents.

Fall speakers included nature writer Marlene Condon who captivated us with stories and slides of her backyard wildlife refuge, including one of a bear carrying off a birdfeeder.

Without our expert guide, Ruth Douglas, chapter members set off in pursuit of the elusive green violet (*Hybanthus concolor*) on a September wildflower climb at Humpback Rocks on the Blue Ridge Parkway. A wondrous assortment of plants was discovered. However, to our embarrassment, the green violet was sighted but not positively identified until after our return.

Shenandoah Chapter

The Shenandoah Chapter is working on a book that compiles the ethno-

botanical writings of retired James Madison University biology professor and chapter member Elwood Fisher. Elwood's plant personality articles have been staple for the chapter newsletter for years. The book will be well illustrated by professional artist Anita Cooper, another chapter member. Chapter member Nancy Sorrells is working on the book layout and design and is writing an introductory essay based on interviews with Elwood. Chapter member Elaine Smith is editing the book. The publication is being sponsored through a grant from the Special Collections Library at James Madison.

Upper James River

The Upper James River Chapter met on September 26 at Boxerwood (just west of Lexington in Rockbridge County) to celebrate its official recognition as a chapter and to approve by-laws and elect officers. The charter officers are Katherine Smith, president; Peggy Dyson-Cobb, vice-president; Laura Neal, treasurer; and Dorothy Perkins, secretary. Welcome Upper James River!

Prince William Society

The summer garden tours sponsored by the Prince William Wildflower Society were a big hit with more than 150 visitors. Gardens were opened by Ken and Fran Bass, Tiana Camfiord, and Marie and Paul Davis. Volunteer hosts were Nancy Arrington, Charlotte Cochard, Kathy Ehrenberger, Jeanne Fowler, Nicky Staunton, Linda and Leo Stoltz, Nancy Vehrs, and Helen Walter.

•Flora

(Continued from page 3)

the Flora of Virginia Project. Our major development program is being written by Joslin Gallatin, Chair of the Flora of Virginia Project Development Committee. It is possible for you to help with the production of this long-anticipated listing of all flora in Virginia. Your financial donations or gifts of securities may be sent directly to: The Foundation of the Flora of Virginia Project, Inc., P. O. Box 512, Richmond, VA 23218-0512. Please visit the Flora of Virginia Project website: www.dcr.state.va.us/dnh/vaflora.htm to learn more.

Nicky Staunton, Director, Flora of Virginia Project

Holiday shopping?

A Virginia Native Plant Society membership would be a fine gift throughout 2003!

See the address label for your membership expiration date
VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$20 (until 1-1-03) ___ Student \$15

___ Family \$30 ___ Associate (groups) \$40*

___ Patron \$50 ___ Sustaining \$100

 ___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

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

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

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The Bulletin

ISSN 1085-9632

is published five times a year

(Jan., March, May, August, Nov.) by

Virginia Native Plant Society

Blandy Experimental Farm

400 Blandy Farm Lane, Unit 2

Boyce, VA 22620

(540)837-1600

vnpsofc@shentel.net

www.vnps.org

Nicky Staunton, President

Nancy Sorrells, Editor

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. Items should be typed, on disk in Microsoft Word or e-mailed to: Editor, 3419 Cold Springs Rd., Greenville, VA 24440, or lotswife@rica.net

The deadline for the next issue is **January 15**

Trout-lily a welcome spring ephemeral

(Continued from page 1)

arch above the dried leaf litter like a serpent's tongue and virtually pant for sunshine, are the basis for one of the plant's well-known common names, "adder's-tongue." Personally, I suspect it was the extruding stamens of the flower that, to some name-coiner long ago, conjured up the darting tongue of a snake poised to strike.

The trout-lily has more vernacular aliases than a scam artist, bespeaking its widespread occurrence and popularity as a wildflower. Each features some prominent characteristic of the plant. Most apt are "trout-lily" and "fawn-lily," said to have been coined by naturalist John Burroughs to replace the inappropriate name "dogtooth-violet." Indeed, the plant is a lily by affinity, and its nodding 1-2-inch flowers that bloom a mere 5-10 inches above the ground are shaped like miniature lilies. Why "trout"? Maybe because the flowers bloom at the beginning of trout season, maybe because the mottled leaves suggest the speckled sides of a brook or brown trout. Why "fawn"? The up-thrusting, mottled leaves suggest the fawn's spots, and to some the two basal leaves that flank the

solitary flower on its naked, 4-6-inch scape also mimic the fawn's erect ears.

Probably the earliest English name was dogtooth-violet, originally applied to the European species, *Erythronium dens-canis*, first described by Linnaeus. Its white corm was fancied to look like a dog's tooth, hence the *dens-canis*. *Erythronium* referred to the red or purplish flower, suggesting a violet. Of the approximately two dozen species of *Erythronium* worldwide, all but this one are North American and yellow- or white-flowered. Thus, while the "dogtooth" shape of the corm applies as well to the North American species, the "violet" color of the flower does not.

From seed to blooming takes 4-7 years, and a mature plant may not bloom every year. The corm gets larger and goes deeper into the soil the older it gets, sometimes going down well over a foot. Until the corm reaches flowering size, it produces only a single, ground-level leaf per season. Flowering plants bear two basal leaves. The species spreads not only by seeds but also by offshoot runners from the corms, forming extensive clonal colonies, carpeting the forest. Most plants in any given colony are single-leaved,

not yet reproductively mature. In one study the colonies were found to average nearly 150 years in age and were as old as 1,300 years.

The yellow flowers track the sun and more or less close at night. The three sepals (outer whorl), which may be tinged with brownish red on the outside, and three petals (inner whorl), which may be spotted at the base inside, are otherwise similar. In bright sunlight all may recurve so strongly as to give the flower an almost spherical look.

The yellow trout-lily grows in moist deciduous upland and especially bottomland woods and even in meadows almost throughout the eastern states and adjacent Canada. In Virginia it can be found in most counties, often in profusion. It blooms primarily in April.

Most of the 22 American species of *Erythronium* are western. A second yellow species, *E. umbilicatum*, has been recognized recently in the Southeast, which occurs less commonly in Virginia than *E. americanum*. The two are separated by small technical differences. The wide-ranging midwestern white trout-lily, *E. albidum*, reaches Virginia only in the Washington, D.C., area along the Potomac River.

Stanwyn G. Shetler, VNPS Botany Chair

www.vnps.org

Printed on recycled paper

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



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

LUESTER T. MERTZ LIBRARY

NOV 19 2002

NEW YORK BOTANICAL GARDEN

Virginia Native Plant Society
Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620



Non-Profit Organization
U. S. Postage
PAID
PERMIT NO. 161
Harrisonburg, VA