

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

www.vnps.org

Crow's Nest on track to be natural area preserve



The protection of the 3,000-acre Crow's Nest peninsula in eastern Stafford County has been one of the Commonwealth of Virginia's highest land conservation priorities for almost a decade. Bounded by the Potomac and Accokeek Creek, the Crow's Nest property contains 746 acres of tidal and non-tidal wetlands, 2,200 acres of mature coastal hardwood forest (including two forest types that are recognized as globally rare by NatureServe and the Virginia Natural Heritage Program), habitat for about 60 species of neotropical migratory songbirds, nearly 11 miles of shoreline and over 15 miles of stream. Crow's Nest is an ecological jewel located less than 45 miles from downtown Washington, D.C.

In December, after years of unsuc-

cessful negotiations, Stafford County signed a contract with the landowner to acquire 1,780 acres by the end of April, and a second phase to include 1,167 acres by the end of 2009. Thanks to support from the county, the Virginia Department of Conservation and Recreation's Natural Heritage Program, The Nature Conservancy and others, the 19 million dollar funding is in hand for phase one. The funds have not yet been identified for phase two.

Once acquired, the property will be managed by DCR's Natural Heritage Program as a state natural area preserve. If staffing and management funds are identified, the property will be open to the public for passive recreation including hiking, bird watching and nature study in early 2009.

Flora Project moving toward publication date of 2011-2012

Virginia's first contemporary Flora, *Flora of Virginia*, 2011-2012, will give a full list of plants identified in Virginia, a description of each plant (3,650) and illustrations. Preceded 268 years ago by *Flora Virginica* before 1743, it is of significant importance for botanists, students, natural resource managers and teachers who

need to identify, learn about, and locate the plants that are in Virginia.

VNPS members have been a major source of financial support, and that support has been greatly appreciated by the Flora of Virginia Board. Work on the Flora will continue past the book's 2011-2012 publication date. There will be a need for the continued updating of

content including adding new species, new names, and facilitating the *Flora's* expected availability on the internet. In other words, the *Flora of Virginia* publication does not end with a hard-cover book. Once published, there will be more financial support needed in order to keep information current and available.

A special award of financial assistance was given by VNPS John Clayton Chapter to support the essential work by Michael Terry (doing herbarium review and *Poaceae* illustrations) and Bland Crowder, working with Chris (See *Flora Project*, page 6)

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From the president

Learn to observe native habitats and changes around you

I want to make note of a change in the **Annual Meeting** date for next September from the formerly announced dates to **September 12-14**. We apologize for any inconvenience this causes, and hope those of you who plan to come will be able to do so.

It never fails to amaze me when I go out after a few icy days and find some living thing with very new and fresh looking pieces. I'm going to participate in Project Budburst*, and from the list of plants on the website I chose box-elder, **Acer negundo** because I have several out back of my house. So I thought I'd go out and take a preliminary look at it. It looked like a tree in winter -- buds wrapped up tight. I have a bud collection and I wasn't sure I had a piece of box-elder, so I brought a twig in to take a closer look with a binocular microscope. If you haven't used one of these I



Acer negundo
box elder
By Nicky Staunton

highly recommend it. There are so many things to see! The leaf scar of box-elder is very narrow, and since it is in the maple family and has opposite branching, the leaf scars are right across from each other. In this case, they encircle the twig and several of the keys remark on the point formed where the scars come together. Now, here is the good part: I was looking closely at the scar and found a line of very fresh-looking white hair-like projections interspersed with tiny, stalked red glands. How can these little things survive single digits and coatings of ice and look brand new?

*Project BudBurst is a national field campaign for citizen scientists designed to engage the public in the collection of important climate change data based on the timing of leafing and flowering of trees and flowers.

**Your president,
Sally Anderson**

Project BudBurst

[http://www.windows.ucar.edu/
citizen_science/budburst/](http://www.windows.ucar.edu/citizen_science/budburst/)

Join us in collecting important climate change data on the timing of leafing and flowering in your area through Project BudBurst! This national field campaign targets native tree and flower species across the country. With your help, we will be compiling valuable environmental and climate change information around the United States.

Register Now - Become a member of the Project BudBurst community! This allows you to save your observation sites and plants that you are monitoring throughout the year and for coming years.

Subscribe to the Project BudBurst mailing list to receive updates and announcements about the new features added for 2008. Read about us in the **News!**

Last year's inaugural event drew thousands of people of all ages taking careful observations of the phenological events such as the first bud burst, first leafing, first flower, and seed or fruit dispersal of a diversity of tree and flower species, including weeds and ornamentals. The citizen science observations and records were entered into the BudBurst data base. As a result of the pilot field campaign, useful data was collected in a consistent way across the country so that scientists can use it to learn about the responses of individual plant species to climatic variation locally, regionally, and nationally, and to detect longer-term impacts of climate change by comparing with historical data. Due to the enthusiastic response and robust participation in 2007 the website features for Project BudBurst in 2008 have expanded!

VNPS Volunteers needed

September and our VNPS Annual Meeting may seem far away, but our search for directors to be elected is already under way. Please consider serving the society in one of the following capacities. If you are interested in knowing more about the jobs or have an interest in a particular one, please contact VNPS President Sally Anderson at rccsa@comcast.net.

Available positions are: **First Vice-president; Recording Secretary; Treasurer; Membership Chair; Publications Chair; Publicity Chair; and Director at Large**. Also, membership on the Executive Committee is open for any member of the board of directors. Five to eight members are needed. Details of programs, policy and finance are discussed and recommendations are made to the full board. The Executive Committee meets quarterly in the month prior to the board of directors meeting.

Virginia Wildflower Celebration 2008

The 13 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.

As you travel about the state, watch for the 2008 VNPS Wildflower of the Year, Virginia spiderwort (*Tradescantia virginiana*). It is widespread in the eastern U.S. from New England to Georgia and even west in Minnesota and Missouri. It has been documented in about half of Virginia's counties. Perhaps you can add to that list of documented sites. Spiderwort flowers from April to July.

Wildflower Calendar of Events

South Hampton Roads Chapter meeting and talk - Thursday April 24, 7 p.m. at the Norfolk Botanical Garden, Karen Forget of Lynnhaven River NOW will speak on "Gardening to Save the River." For information call 757-482-9120.

Shenandoah Chapter Annual Plant Sale, Part I - Saturday April 26, Riverfest in Waynesboro, 10 a.m.-2 p.m. Contact Anneli Tattersall at annelitatt@yahoo.com or 540-322-1146.

Buffalo Creek Field Trip - Saturday April 26, 1 p.m. Blue Ridge Wildflower Society trip with leader Sandra Elder to this VNPS Registry Site. See bluebells, dwarf ginseng, walking fern, dwarf iris during some easy walking along a flood plain and wooded hillside. Take U.S. 460 east to Rt. 811 at New London. Turn right onto Rt. 811 at the Sheetz. Follow 811 to Rt. 711 and turn right on 711 for about two miles. Turn left onto Rt. 24, go one mile, cross Buffalo Creek. Parking lot on right. Contact Elder at 434-525-8433.

Jefferson Chapter Annual Native Plant Sale - Sunday April 27, 1 - 3 p.m. at Ivy Creek Natural Area's Educational Bldg., Charlottesville. In conjunction with Natural History Day with other environmental displays. Spring ephemerals including bluebells, trillium, columbine, numerous other perennials, ferns, shrubs, and trees. Located on Earlysville Rd. just south of Woodlands Rd. intersection. 434-293-4217.

Prince William Wildflower Society Garden Tour - Sunday April 27, 12-5 p.m. Visit three gardens and a natural stand of bluebells. Email pwww-vnps@yahoo.com.

Blue Ridge Wildflower Society Meeting - Monday April 28, 7 p.m. at the Roanoke Church of Christ at 2606 Brandon Ave., in Roanoke. Learn about the Virginia Department of Transportation's median and roadside flower plantings.

Shenandoah Chapter Annual Plant Sale, Part 2 - Saturday May 3, Staunton/Augusta Farmers Market in downtown Staunton, 8 a.m.-noon. Contact Anneli Tattersall at annelitatt@yahoo.com or 540-322-1146.

Paul James Garden Field Trip - Saturday May 3, 9 a.m. Blue Ridge Wildflower Society trip led by Jim Bush to this garden known for rhododendrons and azaleas. After the garden, the group will visit the Cahas Knob Registry Site. Meet in parking lots at Lowes in Roanoke on U.S. 220 south of Tanglewood Mall. Bring a lunch. For information, 540-929-4775.

Native Plant Sale at the Norfolk Botanical Garden - Saturday May 10, 9-10 a.m. members preview, 10 a.m.-5 p.m. general public. Regular garden admission rates apply. Contact Nicole Knudson at 757-858-5443.

Blue Ridge Wildflower Society Spring Wildflower Sale - Saturday May 10, 9 a.m.-noon. Located at Virginia Western Community College in parking lot behind arboretum.

Prince William Wildflower Society Plant Sale - Saturday May 10. Email pwww-vnps@yahoo.com.

Wintergreen Spring Wildflower Symposium - Friday-Sunday, May 16-18. Wintergreen Nature Foundation's annual symposium. Instructors for the weekend include well known botanists, authors, and artists, each prepared with a full weekend of activities and lectures that will reconnect you with nature. For info, www.twnf.org.

Potowmack Chapter Native Plant Sale - Saturday May 17, 9 a.m.-3 p.m., at Green Spring Gardens in Alexandria during Spring Garden Day event. With over 40 vendors, Spring Garden Day is the largest plant sale in the Northern Virginia area and a great place for a wide variety of

plants. The Potowmack Chapter will be selling plants from its propagation area behind the Horticultural Center. Discounts for VNPS members. Located at 4603 Green Spring Rd., Alexandria, VA 22312. (www.greenspring.org)

Blue Ridge Wildflower Society Meeting - Monday May 19, 7 p.m. at Roanoke Church of Christ at 2606 Brandon Ave., in Roanoke. Chapter registry site chair Sandra Elder will present a program on registry sites in the chapter's area.

South Hampton Roads Chapter meeting and talk - Thursday May 22, 7 p.m. at the Norfolk Botanical Garden, Chapter member Gail Farley will speak on "The Freedom Lawn is for the B's: Honeybees, ladybugs, butterflies, and the Chesapeake Bay." Call 757-482-9120.

Dedication for the Dorothy Crandall Bliss Botanic Garden - Friday May 30, 5:30-6:30 p.m. at Randolph College in Lynchburg. Bliss is a member of the Blue Ridge Wildflower Society. Take U.S. 460 east to U.S. 29 to Main Street, Main Street to Rivermont Avenue and right onto Norfolk Avenue. Park in open lots and follow signs to botanic garden.

Blister Swamp and Sinks of Gandhi - Saturday June 7, Shenandoah Chapter walk with leader Jay Shaner. Contact Chris Bowlen at bowlenchris@comcast.net or Shaner at 540-886-5763.

Rhododendron Day on the Blue Ridge Parkway - Saturday June 7, 8 a.m./10 a.m.. The Blue Ridge Wildflower Society will meet at Peaks of Otter Visitor Center at 8 a.m. for breakfast and 10 a.m. for the event. The group will be "overlook hopping" under the guidance of Rich Crites (540-774-4518). Pack a lunch. Walking will be minimal.

Discover Virginia's plants on a VNPS field trip

The Virginia Native Plant Society announces a series of field trips for 2008 to some of the most botanically interesting preserves the state has to offer. We are making these trips yearly events to allow our members to visit some of our preserves, parks and Registry sites with expert guides.

Trips vary in level of difficulty so please read descriptions carefully. Space is limited and registration is required at least 10 days before the hike. There is a fee of \$10 per hike and a limit of 20 participants. Only heavy rain will cancel

trips. For more information, contact the VNPS office at 540-837-1600 or vnpsoc@shentel.net. This year we are offering the following field trips:

1. Reddish Knob - May 17 (Saturday), 10:30 a.m.-3:30 p.m. Easy to moderate. Reddish Knob, in the George Washington National Forest is one of the highest peaks in the state at 4,398 feet, with sweeping views and mountain flora. Members of the Shenandoah Chapter will lead us on a trip along FR 85 South and the side road that leads up to the peak. Both roads are veritable arboreta and are lined with ferns, heath shrubs and many mountain wildflowers such as turkeybeard, Clintonia, gaywings, painted trillium, black cohosh, dwarf crested iris,

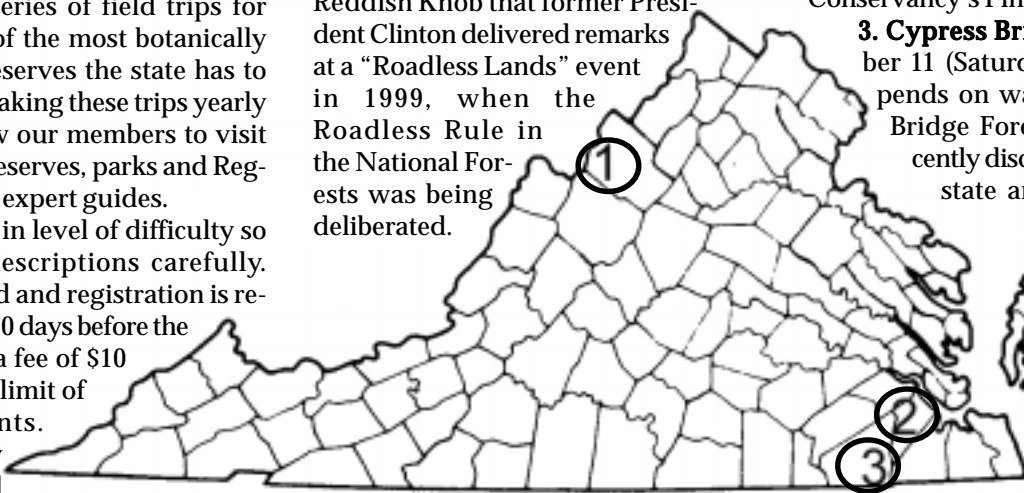
stargrass, and much more. It was at Reddish Knob that former President Clinton delivered remarks at a "Roadless Lands" event in 1999, when the Roadless Rule in the National Forests was being deliberated.

2. Blackwater Ecological Preserve - June 28 (Saturday), 10 a.m.-1 p.m. Easy to moderate. Blackwater Ecological Preserve in Isle of Wight County, with an area of 318 acres, is situated on dry to mesic sand ridges and has two of Virginia's rarest plant communities - longleaf pine-turkey oak flatwoods and longleaf pine savannas. These and other communities at the preserve were once more common in southeastern Virginia, but are now limited to a few precious stands. Preserve Steward Darren Loomis will lead this trip, which will also feature a stop at the Chubb Sandhill Natural Area Preserve's longleaf pine restoration site and a drive through the red cockaded

woodpecker habitat at The Nature Conservancy's Piney Grove Preserve.

3. Cypress Bridge Forest - October 11 (Saturday). Difficulty depends on water level. Cypress Bridge Forest is the fairly recently discovered site of many state and national champion cypress and swamp tupelo trees. In 2006, Fleming and Patterson reported in our newsletter that at least 12 individual swamp

tupelos, and six individual bald cypress exceeding eight feet in diameter were measured. The largest individuals are between 10 and 12 feet in diameter. All of the large trees are hollow, which appears to be one of the principal reasons this forest has never been cut. Purchase of this land as a Natural Area Preserve is being negotiated. Byron Carmean will lead us on a trip to see these magnificent giants. We hope for low water at this time of year in order to be able to walk among these trees, but will likely need to paddle a short distance to the site. Be prepared for wading and possibly for paddling depending upon conditions at the time. This may therefore be a more difficult trip.



Field Trip Registration

For all hikes, wear sturdy shoes or boots and be prepared for bugs and sun. Bring water and lunch or snacks. Directions and meeting places will be provided to registered participants. Please provide your email address for this purpose, or request directions by mail on the form.

Please mail your registration with your field trip choice(s) and check to:

VNPS FIELD TRIPS, 400 Blandy Farm Lane, Boyce VA 22620.

Name _____

Address _____

City _____ State/ Zip Code _____

Telephone _____ email _____

_____ please mail directions to me

Field trips (\$10 each):

_____ 1. Reddish Knob

_____ 2. Blackwater Ecological Preserve

_____ 3. Cypress Bridge Forest

_____ Total enclosed

Magnolia bogs: keepers of unique flora

Magnolia bogs have long been regarded as one of the most interesting natural features in the Washington, D.C. area. W.L. McAtee, a Washington area naturalist who first defined these bogs in 1918, termed them "magnolia bogs" for the unique assemblage of sweetbay magnolia (*Magnolia virginiana*), sphagnum moss, and other bog flora. Occasionally they are referred to as "McAteean Bogs," after McAtee, or "seepage bogs." These bogs usually form on hillsides or slopes where a spring or seep flows from an upland gravel and sand aquifer over a thick, impervious layer of underlying clay which prevents the downward infiltration of water. This seepage flow and the highly acidic, gravelly soils create optimal conditions for the formation of bogs.

The term "bog" as applied here, although technically a misnomer, has traditionally been used by people in general, including botanists, to describe acidic, sphagnum wetlands that strongly resemble bogs. Magnolia bogs are actually acidic, fen-like seeps uniquely associated with high elevation gravel terraces of the inner coastal plain near the fall line, which divides the coastal plain and piedmont physiographic provinces in the Mid-Atlantic region. Their distribution generally follows the fall line in a narrow east-west band from the Laurel area, at the northern extent of their range in Prince George's County, Maryland, to their southern extent near Fredericksburg, Virginia.

Throughout their range, magnolia bogs were never common or very large, usually occupying an acre or less in size. Nevertheless, they are vitally important resources both for the pure, naturally filtered waters which flow continuously from them -- even in drought periods -- and the relic populations of ancient northward and westward migrations of often rare coastal plain flora, which have persisted in small communities well inland and fairly close to the piedmont. Included in these relic communities are plants

such as bog clubmoss, twisted spikerush, slender beaksedge, bunched beaksedge, hairy umbrella-sedge, darkgreen sedge, bog yelloweyed grass, ten-angled pipewort, smooth winterberry, red milkweed, zigzag bladderwort, and Elliott's goldenrod. Other well-known bogs in Anne Arundel County, Maryland, that are more eastward of the fall line -- such as the extirpated Glen Burnie Bog and the Magothy Bogs -- are not characteristic magnolia bogs, despite some floristic similarities, because of different geological conditions and plant assemblages.

Peatlands, pocosins, fens, and bogs throughout the coastal plain are now extremely rare as a result of habitat disturbance, fire suppression, and fragmentation. Magnolia bogs are also increasingly rare, and surviving ones are degraded throughout their range because of extensive development of the gravel terraces that surround the bogs -- destroying or severely depleting their water supply. Most of the famous ones surveyed by the Smithsonian Institution and W.L. McAtee nearly a century ago, like the Holmead Swamp, Terra Cotta Bog, and Powder Mill bogs, have long been destroyed (although we recently uncovered a small remnant of the latter, along with a small population of ten-angled pipewort). Some, like the Suitland Bog and Oxon Run bogs, have survived, although the Suitland Bog is greatly disturbed with the addition of a boardwalk, numerous outplantings of non-native (to the site) carnivorous pitcher plants that rob valuable habitat for native species, a sewer line, and encroaching housing developments. Urbanization, storm water runoff, siltation, off-road vehicles, and invasive exotic plants have degraded most of the few remaining magnolia bogs and greatly threaten their future survival.

For the past five years, as part of a research project mainly for conservation purposes, we have been conducting an exhaustive search for any remaining magnolia bogs in the re-

Annual Meeting

As an ecosystem unique to the Fall Line, a magnolia bog tour will be offered as a field trip at our Annual Meeting. Please note that the date for the Annual Meeting will be **September 12-14, 2008**. In our last issue we printed a date later in September. We regret the confusion.

gion. All available information regarding the historic magnolia bogs -- going back to the Civil War -- was also researched and documented. We have been aided in these surveys by other botanists with the Maryland Native Plant Society (MNPS), and the preservation of surviving magnolia bogs has become a major campaign of MNPS. Although most of the historic bogs have been destroyed, some new sites have been discovered -- the mostly pristine but threatened Araby Bog is a stellar example.

A dozen magnolia bogs are known to exist today in Maryland, D.C., and Virginia, three of which are in the path of the proposed InterCounty Connector, and several small remnants of historic bogs like the Ammendale and Powder Mill Bogs have been discovered. While most of the rare orchids and lilies have largely disappeared, several very rare plants that had not been seen for many decades -- halberd-leaved greenbrier, low rough aster, and Long's rush, for example -- have been rediscovered. Several previously unreported plants for Maryland -- including featherbristle beak sedge (*Rhynchospora oligantha*) -- have also turned up.

By Roderick Simmons and Mark Strong. Article was first published in **Audubon Naturalist News**, October, 2002. *Audubon Naturalist News* is a publication of the Audubon Naturalist Society. The following article has been reprinted with permission. Simmons is a field ecologist with the city of Alexandria; Strong a botanist with the Smithsonian Institution. They expect to publish their research on coastal plain magnolia bogs soon.

Students test eradication techniques for garlic mustard

I am a teacher at the Mountain Vista Governor's School, a special high school program for advanced math and science students that draws attendees from seven school districts. The school is located at the two Lord Fairfax Community College campuses in Warrenton and Middletown. One of the goals of our school is to promote student research. My environmental science class at the Warrenton Campus, while studying biodiversity and the issue of invasive aliens, conducted a project on the eradication of garlic mustard. Since I am a member of the VNPS, I thought that their findings might be of interest to other members.

Clelia LaMonica

Common garlic mustard, also known as poor man's mustard, jack-in-the-bush, and mustard root, is a biennial introduced into North America in the 1860s as a culinary herb. Today it is considered an invasive alien, spreading easily into undisturbed plant communities. One such proliferation has been noted in the G. Richard Thompson Wildlife Management Center in northern Fauquier County, Virginia. This area, a registry site of the Virginia Native Plant Society, is known for its large population of *Trillium grandiflorum*. In recent years the trillium habitat has been infested by the garlic mustard. Efforts to eradicate the garlic mustard have con-

centrated on hand pulling, which is time consuming and labor intensive.

A different method of eradication that has been suggested is mowing. If the plant is repeatedly mowed during the growing season, it cannot flower and spread. This is obviously impractical in an area such as the Thompson Center where mowing in the growing season would seriously disturb the very plants that are being preserved. During the winter, however, the native lilies and orchids, such as the trillium and lady's slipper species, are dormant, while the winter rosette of the garlic mustard is above ground, and could be selectively removed.

This experiment was designed to test the efficacy of mowing the winter rosette as a deterrent to its growth. Garlic mustard rosettes of various sizes were dug from a somewhat disturbed wooded edge. These were then planted in planters filled with potting soil. The planters were placed in windows on the north side of a building and were regularly watered throughout the two months for which the experiment was conducted. Cutting with scissors modeled the mowing process. The leaves and stems of the experimental group were cut back to soil level every ten days for thirty days. The plants were then allowed to continue growing for another ten days and compared.

In both the control group and the

experimental group, approximately one-third of the plants died, while the remaining two-thirds continued to grow. The average size of the control group plants was larger, but the experimental group plants continued producing leaves, even after three clippings.

Mowing the winter rosettes, then, would not seem to be an effective method of eliminating the garlic mustard plants. The clipping process did not significantly affect the mortality rate of the plants studied; approximately one-third of the plants in both groups died, probably due to uneven watering or irregular planting. While the experimental group plants were smaller, they were alive and growing. Possibly different results would be obtained if the experiment was conducted under cold temperatures to better model the winter conditions, but at the present time hand pulling appears to be the only effective and ecologically sound method of removing the garlic mustard.

If this subject interests you, visit the following websites to learn more.

<http://dnr.metrokc.gov/wlr/lands/weeds/pdf/Garlic-Mustard-Control.pdf>

<http://www.vnps.org/conservation/registry.htm#sites>

<http://www.nps.gov/plants/ALIEN/fact/alpe1.htm>

Article by Mountain Vista Governor's School Environmental Science Class

• Flora Project

(Continued from page 1)

Ludwig with various support assistance. They joined the Flora production team during the past year to help reach the targeted publication date.

Right now, to insure meeting the 2011 publication date of the *Flora of Virginia*, financial support by VNPS members is important. The name of donors to the *Flora of Virginia* will appear in the first edition list of "Subscribers." A gift up to \$1,000 is listed in the "Spring Beauty" category. Small gifts are accumulative and can move the donor to the next level of subscription to the project.

A recent generous gift at the Great Laurel level (\$10,000) was given as a memorial for a loved one who loved

wildflowers. I can imagine botanists in the future, in the year 2277, reading through the list of subscribers and noting how very important Virginia flora was to the subscribers. Memorials are an impressive legacy.

If any project deserves VNPS financial support, it is the *Flora of Virginia*, the key single source of information to support conservation of our native plants and their habitats. Knowledge about plants increases appreciation and the desire to protect them. Visit www.floraofvirginia.org for more information.

Nicky Staunton, VNPS member of the FOVP Board of Directors

27th REPORT ON PRODUCTION of The Flora of Virginia 1st Edition:
Alan Weakley family treatments -

completed 155 of 200 family treatments. 78 percent (Co-editor)

Literature accounts - completed.

Herbarium work - 1,950 of 3,650 species 53 percent (review of specimens)

Chris Ludwig review - 1,600 of 3,650 44 percent (Co-Editor)

John Townsend review - 650 of 3,650 18 percent (Co-Editor)

Lara Gastinger, Michael Terry: Illustrations - 1,100 of 1,200

Glossary - Bland Crowder - nearly completed.

Chapter on history of botany - Nancy Hugo, Donna Ware start April 15

Chapter on natural history - Gary Fleming

Gary Fleming - ecology

Alan Weakley Family Key and final review

Discover the Kansas prairie from the past

Deep in the heart of the Kansas Flint Hills there is a place that is dedicated to preserving and interpreting the natural history and the ranching legacy of the tallgrass prairie. This place, called Tallgrass Prairie National Preserve, is two miles north of Strong City in Chase County. Fortunately for us all, the Tallgrass Preserve is open to the public year round to learn about and enjoy our natural and cultural heritage. For native plant enthusiasts there are 10,894 acres of rolling hills and open prairie. The Tallgrass Preserve's vascular plant list documents nearly 500 species of grasses, trees, and wildflowers. With miles of hiking trails the hard part is deciding which route to take first. Be sure to pick up a plant checklist before heading out.

On an early spring walk you might see the tiny wedgeleaf draba (*Draba cuneifolia*) with white flowers on wiry stems or field pussytoes (*Antennaria neglecta*). Not only does the pussytoes' inflorescence look like the soft pads of a cat's foot, but part of the flower reminds people of insect antenna, thus the scientific name. If you have a sharp eye, in mid-April you might

find the limestone adder's tongue (*Ophioglossum engelmannii*). This is an unpretentious little plant closely related to ferns. Its oval leaves are most easily spotted on open ground where the prairie has been burned. Pincushion cactus (*Coryphantha missouriensis*) is found on rocky hilltops, and their glossy, dazzling red fruits will persist until early spring. The pinchusion's yellow flowers are produced in May.

The scenery is continually changing. As the season progresses, tufts of lotus milk-vetch (*Astragalus lotiflorus*) come into flower with mounds of violet-blue blossoms. The waving heads of silktop prairie clover (*Dalea aurea*) have a silvery inflorescence with a ring of yellow flowers. In early summer colorful prairie clovers (*Dalea* spp.), cat-claw sensitive briar (*Mimosa quadrivalvis*), foxglove penstemon (*Penstemon cobaea*), butterflyweed (*Asclepias tuberosa*) and many more are blooming on the South Wind Hiking Trail. Standing two to five feet tall with large, parallel-veined, smooth and ovate basal leaves, In-

dian plantain (*Arnoglossum plantagineum*) has white tubular florets in broad, flat-topped clusters. The glowing pink-violet flowers of the fineleaf foxglove (*Tomanthera densiflora*) are a contrast to its stiff and bristly leaves.

Some interesting grasses to look for are wedgegrass (*Sphenopholis obtusata*), Florida paspalum (*Paspalum floridanum*), prairie dropseed (*Sporobolus heterolepis*), and red sprangletop (*Leptochloa filiformis*). Take the Lowland Trail and you may see anise root (*Osmorhiza longistylis*), Maryland figwort (*Scrophularia marilandica*), American bellflower (*Campanula americana*), or hairy sunflower (*Helianthus hirsutus*) at the woodlands edge.

During late September and into October, lady's tresses orchids (*Spiranthes*) can be found along the prairie trails. Two species of lady's tresses bloom in the fall, but a third species, the tallest and most delicate, *S. vernalis*, flowers in July. Of course, fall is the time for grasses. Big bluestem (*Andropogon gerardii*), In-
(See Kansas, page 8)

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____
 Address _____
 City _____ State _____ Zip _____

<input type="checkbox"/> Individual \$30	<input type="checkbox"/> Student \$15
<input type="checkbox"/> Family \$40	<input type="checkbox"/> Associate (groups) \$40*
<input type="checkbox"/> Patron \$50	<input type="checkbox"/> Sustaining \$100
	<input type="checkbox"/> 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.

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Sally Anderson, President
 Nancy Sorrells, Editor

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 The deadline for the next issue is **April 30**

• Kansas

(Continued from page 7))

dian grass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*) stand four to six feet tall with waving seed heads. The preserve is home to 71 species of grasses and 28 species of sedges and rushes.

Riparian forests line two of the major creeks that flow through the preserve. The forest was present along these creeks at the time of the original government surveys in 1856. Some interesting herbaceous forest species include green dragon (*Arisaema dracontium*), sweet-scented bedstraw (*Galium triflorum*), Tennessee bladder fern (*Cystopteris tennesseensis*), and American beakgrain (*Diarrhena americana*). In the springtime before the trees have their full set of new leaves, those who take the county road that crosses Fox Creek may spot the great blue heron rookery in the top of one large, old sycamore (*Platanus occidentalis*). Common along Fox Creek are bur oaks (*Quercus macrocarpa*), some estimated to be nearly 300 years old. The largest bur oak at the preserve has a circumference of 17 feet, 5 inches.

Springs and wet areas are abun-

dant at Tallgrass Preserve. Wetland plants are especially showy in autumn. Intensely luminous yellow patches of coreopsis beggar-ticks (*Bidens polylepis*) cover large seep areas on the hillsides and can be seen from the Red House Hiking Trail. It is also spectacular to see masses of cardinal flower (*Lobelia cardinalis*) and narrow-leaf gerardia (*Agalinis tenuifolia*) blooming side by side in prairie draws.

The Tallgrass Prairie National Preserve is a very new addition to the National Park Service. The preserve was established by an act of Congress in 1996. Management continues to evolve, and little by little more areas are returned to their historic condition and opened to visitation. Someday soon there will be American bison roaming on the preserve prairie.

VNPS will visit the Tallgrass Prairie National Preserve and other sites during the week of May 31 to June 7. There are a few spots left on the trip. If you are interested in getting more trip details, contact Helen Hamilton at helen44@earthlink.net or 757-564-4494 or see our website, www.vnps.org.

Iralee Barnard

(See Kansas City Native Plant Society

Water lettuce threatens submerged vegetation

Add water lettuce (*Pistia stratiotes*) to the list of invasives that threaten Virginia's native ecosystems. These floating plants, which usually die off in the winter, could threaten the freshwater submerged aquatic vegetation that is so vital to the health of the country's east coast rivers. The plant was found in the Potomac last year and researchers worry that the plant could be capable of returning and becoming established through seeds deposited on the river bottoms. The group monitoring the situation in the Potomac is the Freshwater Submerged Aquatic Vegetation Partnership that is coordinated by the Chesapeake Research Council. If you find water lettuce on any of the Commonwealth's rivers this year, please report the finding to the Interstate Commission on the Potomac River Basin at info@icprb.org.