

Parkway botany thrills VNPSers

On May 15, a rainy Sunday, 14 of us gathered at the Peaks of Otter lodge to join Butch and Betty Kelly as they shared with us the wildflower treasures of the Blue Ridge as part of a state VNPS field trip. Our leader the first day was Rich Crites, retired professor of biology and current president of the Blue Ridge Wildflower Society. We drove north to Flat Top, and, typical of wildflower folks, found two dozen species without leaving the parking lot! Once up the trail, we were met with a profusion of green violets (Hybanthus concolor). Driving up to the highest point on the Blue Ridge Parkway (3,950 feet), we passed huge stands of interrupted fern (Osmunda claytoniana). Rich and Butch had the uncanny ability to pull over on the drive and direct us into a thicket to see one lone orchid (Cypripedium acaule) blooming. Amazing!

Rich took us to a place where pirate bush (*Buckleya distichophylla*) had been introduced from Poor Mountain. Rare in the South, this parasite that is found on the roots of *Tsuga* spp., was thriving in its new location, and we considered the eth-

ics of its having been moved. Later we climbed hand over hand up a steep hillside to see turkey beard (*Xerophyllum asphodeloides*).

On Tuesday we drove south in the rain, with Butch revealing his considerable knowledge of Blue Ridge topography. At the Great Valley Overlook, we could see a part of the valley that stretches from Pennsylvania to Tennessee and realized that we were part of a much larger geographic picture. Once again, we did not have to go far from the parking area to be delighted. The tiny but robust thyme-

(See Botanizing, page 3)



Participants in the VNPS field trip to southwest Virginia gather on a shaded trail to learn about the ecosystems of the Blue Ridge Mountains. (Photo by Sally Anderson)

Discover our VNPS Registry Sites Pages 4 , 5, & 7

= Bulletin of the Virginia Native Plant Society =From the president VNPS field trips prove successful

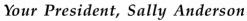
I've fortunate to see flora in several parts of the country this year. Besides our VNPS trips, I visited the north central part of New Mexico. While it was quite dry and hot, the Virginia temperatures were higher that week. Seeing the (contained) Los Alamos fire on the distant mountain was impressive, and the National Forests

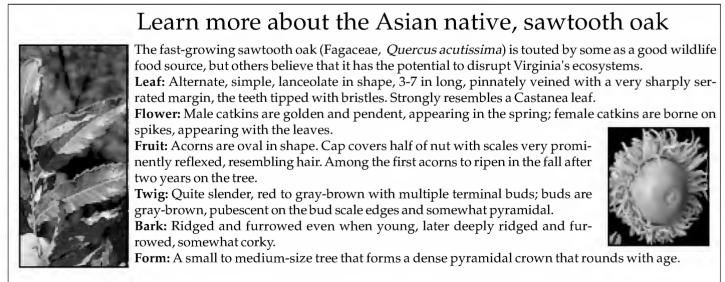
were closed for a while because of the extreme fire danger. Luckily, there was some rain in the mountains and the forests opened to hikers. Still there were wildflowers on the trails!

At the end of July I had the privilege of meeting with representatives from native plant societies from the southeastern U.S. I joined representatives from Florida, North Carolina, Kentucky, Texas and Georgia to discuss program ideas, communications between our groups, and issues on which we might want to join forces. This is the second year that the group has met. Last year we were represented by our Conservation Chair, Mary Ann Lawler. I hope the group will continue to meet, because I felt lucky to get to know experienced people from around the region and to hear their thoughts. We chose a couple of invasive plant issues to focus on; the first was to provide comments on the new U.S. Forest Service plan for invasive plants. I would not have been alerted to the issue in time to comment without this group of people, and was happy to get their take on it. We felt the plan was extremely thorough and well stated, with important inclusions like prevention, early detection, rapid response, and working with adjacent landowners. It's a happy occasion to write a letter that says "we like what you are proposing"!

The other invasive issue we chose to address is the growing and selling of sawtooth oak (Quercus acutissima) by some of our state forestry departments. This plant is on a number of invasive lists, albeit with a low ranking for invasiveness, but we felt it was a matter of time before it became more serious. We hope to present all the departments still selling this tree with a fact sheet and examples of states that have stopped supplying it. Through these efforts we hope to convince them to stick to our many native oaks. The meeting also gave me the opportunity to see a stretch of the Blue Ridge Parkway in North Carolina that I had never seen, and it was a comfortable 75 degrees with gorgeous mountain vistas. It felt like a taste of fall.

I hope you all have not been broiled yet, and that we have some cooling and rain before we meet in September.





Bot anizing the Blue Ridge



Photosonpages 3 and 6 by Sheryl Pollock.



Peaks of Otter Lodge on the Blue Ridge Parkway

(Continued from page 1)

leaved sandwort (*Arenaria serpyllifolia*) grew among the stones, and in a tree an indigo bunting (*Passerina cyanea*) dallied long enough for a good picture. We had our first good look at the aptly named flame azalea (*Rhododendron calendulaceum*), and each shrub seemed to trump the previous with color change from yellow to orange to gold and back again.

Wednesday morning we went to Rake's Mill Pond to see Indian paintbrush (Castilleja coccinea). It turns out that it is the flower's bracts that are colored brilliant scarlet, and that the plant grows semiparasitically on the roots of other plants. In the afternoon we drove to Buffalo Mountain Natural Area Preserve where the Virginia Natural Heritage Program's chief biologist Chris Ludwig was our guide. Buffalo Mountain was the favorite of many. The hike up was the only uphill hike, but we paused so frequently to note the species' richness, that we didn't notice much strain. There were terrific views from the summit when the sun came out: Floyd, Caroline, and Grayson Counties of the Blue Ridge Plateau to the north, and the mountains of North Carolina to the south. Chris reminded us that much of what we were looking at was remnants of a northern plant population, and he emphasized the stress these plants endure from the wind, drought, and thin soil. We were all the more delighted then in the rock spikemoss (Selaginella rupestris), mountain sandwort (Minwardia

(See Splendor, page 6)



Onion Mountain Overlook



Hybanthus concolor, green violet



Xerophyllum asphodeliodes, turkey beard

One of the most important Virginia Native Plant Society programs is the designation of Registry sites. The primary requirement for eligibility is that a site have regional or state significance because of its native plants. Significant sites may exhibit an exemplary occurrence of a habitat, a plant community, or a plant species. Sites may include an unusual, persisting variation of a plant species, or an assemblage of species. Or the site may exhibit some quality with the unique potential to inspire community awareness.

No financial reward accompanies site registry. Landowners receive a plaque recognizing the valued effort of each participant in the Virginia Native Plant Registry. By registering special plant sites, participants stake a claim in Virginia's own natural resources and take the first step toward ensuring their protection. The benefits from the program are derived from a landowner's direct involvement in the protection of community resources. Along with the pride inspired by such an effort, landowners provide botanists with information that might otherwise be overlooked and that could lead to better protection of native plants.

A landowner forfeits no rights by voluntarily registering property as a Virginia Native Plant Society Registry Site. A landowner who later wishes to sell registered land or alter its land use is asked only to share these plans with the Virginia Native Plant Society. A landowner agrees to allow field botanists to visit the property on mutually agreeable occasions. The landowner continues to manage the site, but can benefit from expertise available through the VNPS. Although some of the sites are on public lands, the exact locations of others are confidential, and access requires notice or permission. Some sites can be opened to the public if the landowner so desires.

The VNPS directs this Registry through its Registry Committee. Committee co-chairs direct the review for

Virginia Native Plant Society

> Registry Sites. What follows is a descriptive list of the unique ecosystems in Virginia that VNPS has designated as special by placement on its Registry. The general location of each area and the VNPS chapter instrumental in the registry designation are noted.

Rosebay Rhododendron Community *Altavista, Campbell Co., Blue Ridge Wildflower Society*

This unique ecological area at an elevation of 580-620 ft. includes a microclimate that has provided suitable growing conditions for several species of native plants that are not usually found in this part of the state. Century-old shrubs of Rhododendron maximum, rosebay rhododendron, which is usually found in the mountains, grow here along a creek. A proposed sewer line in Altavista would have destroyed much of the rhododendron site, but recognition as a VNPS Registry Site led to the choice of an alternate route. Among the disjunct species here are Woodwardia aerolata, netted chain fern, which is common on the Coastal Plain, and Stenanthium gramineum, featherbells, which is found mostly in the Alleghenies.

Cahas Mountain

Boones Mill, Franklin Co., Blue Ridge Wildflower Society

Located on the highest mountain in Franklin County, these 100-plus forested acres contain a rich diversity of plants, including a number of staterare plants and plants that are disjunct from their normal range. Acres of early spring flora provide an outstanding display each year.

Buffalo Creek Nature Area Campbell and Bedford Counties, Blue Ridge Wildflower Society Along Buffalo Creek, the Westvaco Corporation has preserved a unique hemlock forest, which does not usually occur at such a low elevation. In the spring a showy display of flora greets visitors to the nature trails, and an abundant variety of wildflowers can be seen throughout the year. The four trails that are open to visitors pass through six different plant communities.

Bear Garden

Buckingham Co., Jefferson Chapter This family property includes a variety of habitats: alluvial woods and fields and bluffs with rock outcrops along the James River and Bear Garden Creek; floodplains, oak-hickorypine woodlands, riparian wetlands, old fields in many stages of succession and a large pond. Once an active farm, it is now enjoyed for its rich diversity of plant life.

Greenhaven

James City Co., John Clayton Chapter Located in the York River watershed, this site with its deep ravine and buffering slopes is an example of calcareous ravine communities of the Coastal Plain of Virginia. The soils in these areas are high in calcium and other nutrients derived from the fossil shells in the substrate. This condition provides habitat for mountaincoastal disjuncts, plants that are primarily found in the western Piedmont and Mountain regions. The site is on private property and is not open to the public

Grove Creek Natural Area

James City Co., John Clayton Chapter Located in Williamsburg adjoining Busch Gardens, this site is in an area of ravines and ridges formed by Grove Creek's cutting down into the Yorktown Formation. Pliocene marine deposits are

(See Registry Sites, page 5)

• Registry Sites

(Continued from page 4)

found underlying the typical noncalcareous coastal plain sediments. It is the home of several rare plants and species at or near their northern limit or disjunct from their primary range. This habitat is threatened by the expansion of Busch Gardens and development.

Calmes Neck Bluffs

Clarke Co., Piedmont Chapter This site is the first listing with multiple ownership. It features bluffs, slopes and ravines along the Shenandoah River. The rich mesic forest is home to a spectacular diversity of spring wildflowers such as Virginia bluebells, *Mertensia virginica*, that carpet the forest floor. Throughout the season several rare and unusual plant species can be seen.

Carter Run Wetland

Fauquier Co., Piedmont Chapter This extensive wetland, with areas that are swampy year-round, contains a rich and diverse wetland flora dominated by native plants. Such areas are becoming rare as development increases. Registry emphasizes its value to the citizens of the county.

G. Richard Thompson Wildlife Management Area

Fauquier Co., Piedmont Chapter A portion of this area, which is managed for wildlife by the Virginia Department of Game and Inland Fisheries, contains an exceptional diversity of valuable native plants. A population here of Trillium grandiflorum, large-flowered white trillium, is the most outstanding in Virginia. The state endangered Trillium cernum, nodding trillium, is also found here. Huntley Meadows, Riverbend Park, Scott's Run Nature Preserve Fairfax County, Potowmack Chapter These three highly visible sites are owned by the Fairfax County Park Authority. Their location in a highly populated area ensures frequent visitation and threats from development, highway construction and commercial interests. Site registry promotes awareness of the rich natural resources of the area.

Runnymede Park

Town of Herndon, Potowmack Chapter This public park preserves and displays a diverse diabase community in the Triassic Basin of northern Virginia. Such communities are now rare in the area and, therefore, in need of conservation. Within its relatively small area, the park contains a remarkable variety of habitats with an unusually rich, intact and diverse flora that is representative of diabase soils.

James Long Park

Prince William Co., Prince William Wildflower Society

This county-owned park covers both wet meadow and upland forest plant communities. The area remains undeveloped and acts as a buffer to Catharpin Creek. Site registry emphasizes the importance of the area and encourages protection as encroaching development threatens habitat changes.

Manassas National Battlefield Park Prince William County, Prince

William Wildflower Society The meadows and the floodplain provide a diverse display of native plants. Protection of this flora is dependent upon proper management of the area. Recognition as a VNPS Registry Site emphasizes the importance of protecting these species, many of which were present at the time of the Civil War battles. Thus, there is human as well as natural history significance to this site. **Mueller Marsh/Folly Mills Creek Fen Natural Area**

Augusta Co., Shenandoah Chapter Mueller Marsh is a privately owned property that supports several acres of marshes and calcareous fens. It is the location of one of only two known populations of *Menyanthes trifoliata*, buckbean or bogbean, in Virginia. This and other disjunct and rare species have led to recognition of this area by the Virginia Natural Heritage Program. It is now part of the state system of Natural Area Preserves and has been renamed Folly Mills Creek Fen Natural Area.

Great Falls Park

McLean, Potowmack Chapter

This 800-acre park, owned by the National Park Service and managed by the George Washington Memorial Parkway, and is a popular outdoor spot. Vegetation includes upland and floodplain forest and rare vegetation communities on bedrock terraces, exposed rocks and frequently flooded Potomac River shores. One of the largest known examples of a state rare community is the Northern Piedmont/Lower New England Basic Seepage Swamp. Twenty-seven rare, threatened or endangered plant species in Virginia and several regionally rare plants are located here. **Merrimac Farm**

Prince William Co., Prince William Wildflower Society

This site was registered for the large stand of Virginia bluebells and other spring wildlflowers in the Cedar Run floodplain, and also for the upland forest community in the northern and western portions of the property. This forest is one of the best stands left in Prince William with high species diversity, low levels of deer browse, little human disturbance for 50-80 years and few invasive plants. A portion of the forest is classified as upland depressional forest, a fairly rare plant community type characterized by a perched water table and wet-tolerant species.

Turkey Run Park

McLean, Potowmack Chapter

This 700-acre park, owned by the National Park Service and managed by the George Washington Memorial Parkway, is considered the crown jewel of forested sites in the Potomac River Gorge. The forest is mostly mature with pockets of old growth. There are six forest community types many of which are ranked as state or globally rare including Beech/Sugar Maple Unglaciated Basic Mesic Forest, Northern Piedmont Basic Low-Elevation Boulderfield Forest, Central Appalachian/Northern Piedmont Mixed Oak Bluff Forest, Northern Piedmont/Lower New England Basic Seepage Swamp and Mixed Bedrock Floodplain Rocky Bars and Shores. There are 20 state rare, threatened or endangered species in the park, including some species more common in the Appalachians.

Arlington House Woodlands

Arlington, Potowmack Chapter This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House,

(See Rare places, page 7)

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•Splendor

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groenlandica), Michaux's saxifrage (*Saxifraga michauxii*), and my favorite, the silverling (*Paronychia argyrocoma*), a powder puff of silver.

The next day we drove to Rocky Mount, and there Chris took us to Bald Knob on the southeast side of the city. Despite the development stresses placed upon this area, the metabasalt with a southern exposure harbored a surprising diversity of plants. The mount, from which the city gets its name, has been recommended as a natural area preserve, and Chris is hopeful that it will receive such a dedication in a few years. His most exciting find there was a new fame flower (Phemeranthus piedmontanus). The plant has been described by Stuart Ware, of the College of William and Mary, and his write-up has just been published in the Journal of the Botanical Research Institute of Texas. Chris was invited to choose the species name, and he collected the type specimen from the very area where we were standing. Fame flower is another tough little plant growing in the rock cracks, which may be bone dry or puddled with water. From a basal rosette of tiny needlelike leaves, a hair-thin scape arises from which a single magenta flower blooms, opening shortly after noon and closing by the end of the day, presenting a narrow window for pollination. Another first for me at this site was curly heads (Clematis ochroleucra). This is the Piedmont Chapter flower, and I had never seen one.

After lunch we hiked up the Grassy Hill Natural Area Preserve on the northwest side of Rocky Mount. This is another ultramafic (high magnesium) plant community hosting a wide variety of plants and at least one relatively uncommon dragonfly, the gray petaltail (*Tachopteryx thoreyi*). A sharp pair of eyes found the endangered smooth coneflower (*Echinacea laevigata*) in a grassy clearing, which hosted a conference of box turtles as well. We found three of them there. We saw beautiful cucumber magnolia (*Magnolia acuminata*) and learned that sourwood (*Oxydendron arboreum*) is oval in its cross section. Then there was the unexpected find of some Canadian burnet (*Sanguisorba canadensis*). On the way back to the charming Hotel Floyd, we saw Buffalo Mountain at a distance, and then realized that it had been named for its profile, and not for some long-gone herd that grazed there.

On Friday morning we met naturalist and environmental historian Ralph Lutts and hiked up Rock Castle Creek. The trail was shaded and the greenery lush. It seemed like a secret place. Dr. Lutts showed us a pool, which is scoured by spring rains, but is quietly rebuilt each year by some unknown faithful who use it as a baptismal pool. He introduced us to stream piracy. Because of the steeper grade on the east side of the Blue Ridge, waters flow with greater force, and so there is more erosion as a stream cuts through the plateau. Streams can cut through to capture the waters of the streams that would ordinarily drain to the west. Later we visited a stone church that had huge quartz crystals embedded in the stonework. In the evening we enjoyed the authentic country music Floyd is known for. Butch and Betty could not have planned a nicer trip for us.



Chrysopilus thoracicus, gold-backed snipe fly



Aristolochia macrophylla, Dutchman's pipe

Marjorie Prochaska, VNPS Piedmont Chapter

• Rare places

(Continued from page 5)

home to George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree,

Getting dirty for a clean Bay

"Get your hands dirty and clean the Bay" is the motto of the Plant More Plants campaign launched in the spring by the Chesapeake Bay Program in partnership with a number of local governments and agencies including the Virginia Department of Conservation and Recreation. The Chesapeake Bay Program is a unique consortium that has led and directed the restoration of the Chesapeake Bay since 1983. Plant More Plants is the second personal stewardship campaign created by Bay program partners under the umbrella of the Chesapeake Club. The first campaign focused on the restoration of the blue crab population. Both campaigns strive to help homeowners learn about practices that will enhance their quality of life as well as improve the quality of the Chesapeake Bay.

The website, program www.plantmoreplants.com, offers tips on what to plant and how to plant and explains the benefits of adding plants to an area, such as diminished runoff, cleaner water, and the beauty that plants provide. The site also recommends using native plants as much as possible in order to provide a more balanced ecosystem and eliminate the need for fertilizers and pesticides that pollute the Bay. Supplier lists and recommended plants are included for easy reference. The site also explains why invasive non-native species are to be avoided. Tips on fertilizing, watering

(See Plant More Plants, page 8)

Name(s)	ership/Renewal Form
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Individual \$30	Student \$15
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witch-hazel, pinxter azalea, black haw and maple-leaved viburnum and a carpet of spring wildflowers.

Caledon Natural Area at Caledon State Park

King George Co., Fredericksburg Area Chapter

Caledon State Park is owned by the Commonwealth of Virginia and managed by the Virginia Department of Conservation and Recreation. Although 800 acres is a National Natural History Landmark because of its undisturbed climax forests, the park designated a natural area in order to protect its bald eagle population. Because there was no specific intent to preserve the flora of the park, potential delisting of bald eagles in the future could lead to different management, and so it was felt that Registry status might protect the vegetation. The site includes forests of several types, both mesic and dry, as well as fields, beaches and wetlands. The oldest forests have trees over 150 years old in ravines. There is a wealth of native plants, with more than 500 species documented, and at least 18 species of rare or unusual plants.

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Virginia Flora racing in final heat

With the press deadline looming in late winter and publication barely more than a year away, work proceeds apace on the Flora of Virginia. Time is spent on final steps: another summit for Flora authors Chris Ludwig, Johnny Townsend, and Alan Weakley; checking those last few circumscriptions; tweaking the shape of needles on an illustration of a conifer; writing the remaining dichotomous keys; nailing down those needed plant measurements; and copyediting. While noses are to this grindstone, eyes nevertheless are open toward the premiere of this much-awaited book in the fall of 2012 and to the Flora of Virginia exhibition at the Library of Virginia, March-September 2014.

Chris Ludwig and I recently participated in a first meeting, organized by Laura McKay, manager of the Virginia Coastal Zone Management Program, of a Virginia Native Plant Communications and Marketing Partnership. Chris and I represented the Flora Project, and Chris represented the Virginia Natural Heritage Program. Other groups represented were the Virginia Native Plant Society (Helen Hamilton sitting in for Jan Newton), the Virginia Department of Environmental Quality (including environmental educator and Flora Project board member Ann Regn), the Department of Conservation and Recreation, the Department of Game and Inland Fisheries, the Alliance for the Chesapeake Bay, and Wetlands Watch. This meeting was a first step allowing people from organizations dedicated to conserving Virginia's native plants to collaborate toward shared goals. The Flora of Virginia will be a conservation tool, and we're glad to be a part of this synergistic group.

Bland Crowder, editor and associate director, Flora of Virginia Project

Volume dedicated to Shetler

One of North America's most respected botanists and a leader in the Virginia Native Plant Society, Stanwyn Gerald Shetler, will have Volume 18 of the Flora of North America dedicated to him. The honor comes in recognition of his contributions to North American botany and as a pioneer in developing the strategy in the 1960s for the Flora of North America Project. Over the years he has served as executive secretary and program director for the project. Shetler spent his career in the botany department of the Smithsonian Institution's National Museum of Natural History. He is widely published, but has also gained acclaim as a field trip leader, especially in the Washington region, where he has become an expert on the area's flora.

• Plant More Plants

(Continued from page 7)

and mowing techniques that are less harmful to the Chesapeake Bay are included.

Plant More Plants was funded through a grant from the National Fish and Wildlife Federation with matching funds from the Virginia Department of Conservation and Recreation. The public service campaign is targeting homeowners in the Baltimore, Richmond, Hampton Roads, and Washington regions.

To learn more, visit the Plant More Plants website or become a friend on Facebook at www.facebook.com/plantmoreplants.