

The



Leaflet

Piedmont Chapter Winter Speaker Series

SUMMER 2019

Historical Botany: Recording the Present at BRMC—Diane Krumme

Our Winter Speaker Series continued February 17 with Anna Ritter, Research Director of the Bull Run Mountain Conservancy for the past six years. She spoke to us about recording the present through herbarium specimens for the Native Plant Specimen Project at BRMC.

The Bull Run Mountains are the eastern most mountains in Virginia. The Bull Run Mountains Preserve permanently protects 2,500 acres of this biologically and geologically unique mountain terrain. The mountains run from Route 29 in Fauquier County to Route 50 at Aldie. In the 1930's Henry A. Allard collected over 15,000 vascular plants from the Bull Run Mountains, most of which are now preserved at the Smithsonian Institution. This was just the beginning for this frequently studied mountain range

The Native Plant Specimen Project built off of research done in 2001 by Gary Fleming, ecologist with the Virginia Department of Conservation and Recreation Natural Heritage Program. Gary documented 72 vegetation plots on the Bull Run Mountains that represented nine native ecological communities. Gary's work was important to obtaining the designation of Natural Area Preserve for the Bull Run Mountains.



The Native Plant Specimen Project is designed to make the work done in 2001 more readily accessible to visitors. Herbarium species were made of the indicator species for each community type. Specimens are grouped according to their community and photographed. These photos and photos of the communities on the landscape will be made into a PowerPoint presentation that features information about each community and where they are located on the Bull Run Mountains.

Anna discussed some of the types of communities found on Bull Run and the challenges of collecting specimens to represent the communities. Not only do the herbarium species record the present vegetation on the Bull Run Mountains, but they also help teach people about native plants and the role they play in their ecological community. The Native Plant Specimen Project was funded by the Piedmont Chapter of the Virginia Native Plant Society and the Sacharuna Foundation.



The Virginia Native Plant Society (VNPS), founded as the Virginia Wildflower Society in 1982, is a non-profit organization of people who share an interest in Virginia's wild plants and habitats and a concern for their protection.

The Piedmont Chapter is a sub-group of VNPS in the northern part of Virginia east of the Blue Ridge Mountains. It includes Loudoun, Fauquier, Culpeper, Rappahannock, Warren, Clarke, and Frederick counties.

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The Leaflet can be seen online in color at

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The Leaflet

Piedmont Chapter Winter Speaker Series

Historical Botany: Evidence from the Past—Diane Gulick

On March 17 historical ecologist and author Dr. Emily Southgate addressed a full house of attendees gathered in Delaplane's Emmanuel Episcopal Church's parish hall. In reconstructing the vegetative landscape in eastern North America (particularly in Virginia) for the past 20,000 years, Dr. Southgate explained how her theories and conclusions are derived from the careful study of pollen sedimentation, archaeological excavations, historical documents, and field evidence. Supportive data gathered by her utilization of each of the four methods cited above was shared with the audience. Glaciations, Native Americans, poison fields, diminishing forests, European contact, blights, and Tidewater buffalo were among the intriguing topics discussed that played significant roles in her scholarly story of the changing vegetation of eastern North America. Dr. Southgate brought her informative presentation to a close by urging everyone to actively support increases in botanical diversity, agricultural activities, and undisturbed habitats in concerted conservation efforts to ensure constructive vegetative landscapes in the future.

Invasive Pull at Thompson WMA—Karen Hendershot

Armed with pruning shears, shovels, loppers, saws, and a lethal Hori-Hori (Japanese weeding knife), nine participants set off March 31 for our annual invasive removal campaign around the Marjorie Arundel Trillium Trail in the Thompson Wildlife Management Area. Our Chapter's efforts to protect native plants from the invasion of alien Garlic Mustard (*Alliaria petiolata*) began many years ago. Garlic Mustard releases a chemical that makes the soil inhospitable to natives. It is recognizable by its scalloped, kidney-shaped leaves.



We started down the fire road. As we found last year, significant headway has been made against the Mustard, but a new enemy has emerged: Oriental Bittersweet (*Celastrus orbiculatus*). It eventually vines, pulling down and shading out surrounding vegetation. When we had doubt about what we were removing, we looked for an orange root just below the soil line. Denise Rivers was determined to conquer a particularly large infestation of this evil invasive.



We had pleasant moments: white and gold blossoms of

Bloodroot (*Sanguinaria*), emerging Mayapple (*Podophyllum peltatum*), Slender and Cutleaf Toothwort (*Cardamine angustata* and *C. concatenata*), and Yellow Corydalis (*Corydalis flavula*) not yet in bloom. Sally Anderson also found a little Salamander. Down the Trillium Trail, we found Garlic Mustard seedlings—more work for next year!



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Shumard Oak Walk at Weston WMA—Diane Krumme



Our second Sunday walks do not stop for winter. If you look around, there is still so much to see, so on a chilly March 10 we headed to Weston Wildlife Management Area in Fauquier County. It covers 271 acres open to hiking and dog training, but, oddly enough, hunting is prohibited.



Turkey Run meanders through the hardwood forests of Weston, and it is here



that we find an unusual northern population of Shumard Oaks (*Quercus shumardii*), one of the largest of the oak species in the red oak group. A mature Shumard can reach 130 feet tall with a trunk diameter to 39 inches. Our walk was led by DGIF employee Ron Hughes.

Royal Shenandoah Greenway—Karen Hendershot

The Royal Shenandoah Greenway is a 4.5-mile loop that runs through Main Street in Front Royal to a park along the Shenandoah River and then back to town. Frequented by dog-walkers, joggers, and residents out for a breath of fresh air, Richard Stromberg discovered that it is also a worthy destination for native plant enthusiasts.. On April 20, he led nine of us along the roughly half mile of the trail between Skyline High School and the river. We found a nearly 70 species (including some non-natives).

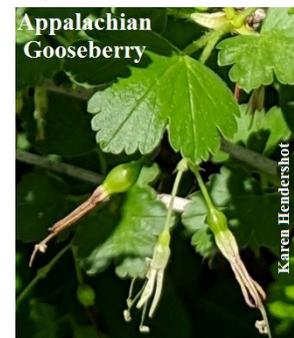


Black Haw (*Viburnum prunifolium*) greeted us in woodlands, that were also brightened by Flowering Dogwood (*Cornus florida*) and Eastern Redbud (*Cercis canadensis*). Clumps of Needle-tip Blue-eyed-grass (*Sisyrinchium mucronatum*) lined the path. Wild Blue Phlox (*Phlox divaricata*) hugged the margins of a neighboring creek. Heart-leaf Golden-alexanders (*Zizia aptera*) and Bristly Buttercup (*Ranunculus hispidus*) punctuated the walk with yellow.

There was so much to see. Wild Geranium (*Geranium maculatum*), Spring Beauties (*Claytonia virginica*), Rue-anemone (*Thalictrum thalictroides*), and Star Chickweed (*Stellaria pubera*) formed a cheerful pink and white tapestry. We saw a Common Jack-in-the-Pulpit (*Arisaema triphyllum*) and Toadshade (*Trillium sessile*), while Moonseed (*Menispermum canadense*) vine climbed the surrounding vegetation. Dense mounds of Twinleaf (*Jeffersonia diphylla*) were not in bloom.



We saw five members of the Violet (*Violaceae*) family, including the lighter form of the Common Blue Violet (*Viola sororia*), Confederate Violet (*V. sororia* fo. *priceana*) and a Green Violet (*Hybanthus concolor*) with its tiny, bell-like flowers. Colonies of the daisy-like flowers of the fleabanes (*Erigeron*) were also abundant, including Daisy Fleabane (*E. annuus*), and Robin's Plantain (*E. pulchellus*).



But what was that bush with fading, papery flowers that bordered the pathway? It was Appalachian Gooseberry (*Ribes rotundifolium*). And there was lots of it! We'll have to visit again later in the year to sample the berries.



Calmes Neck Walk–Paul Zeisset

On April 14, 23 wildflower enthusiasts joined the annual walk at Calmes Neck, led by Dr. Emily Southgate and Sally Anderson. The group was about evenly split between residents



of the Calmes Neck community and nonresident VNPS members. The timing of the walk was good, as there were still a few Twinleaf (*Jeffersonia diphylla*) in bloom, even as early Dwarf Larkspurs (*Delphinium tricorne*) were ready to show off.

The walk renewed my enthusiasm for Calmes Neck spring ephemerals and for the iNaturalist app. As I snapped photos of wildflowers along the way with my cellphone, iNaturalist helped me confirm their identity and posted them with labels to <https://www.inaturalist.org/projects/vnps-calmes-neck-wildflower-walk-apr-14-2019?tab=observations>. iNaturalist volunteers have confirmed the identity of most of them, promoting them to “research grade”, indicated by the “RG” in the upper left of the photo. The collection includes 53 photos, including a couple of shelf fungi and one of a spider with a large egg case. I will refer to this website to brush up on my wildflower ID skills before next year’s walk.



Calmes Neck Driving Tour–Robin Williams

On April 14 Mary Keith Ruffner and Karen Hendershot led a driving tour along the Shenandoah River at Calmes Neck in Clarke County. The Virginia Bluebells (*Mertensia virginica*) were plentiful and in peak flower as were numerous Dutchman's Breeches (*Dicentra cucullaria*), making this a beautiful riverside drive. Eighteen people made the trip stopping along the route to see other native wildflowers and interesting sites such as white Virginia Bluebells and a barely-alive Eastern Sycamore (*Platanus occidentalis*) that is a partial shell of its original size. Many of the Sycamores along the river are notably massive.



smothers trees and shrubs.

Our meeting spot and parking was kindly provided by the Blue Ridge Wildlife Center where emergency care for wildlife species is performed and supported by donations.



The route taken for the bluebell drive has the added benefit of many bird sightings, and we occasionally see bald eagles, belted kingfishers and woodpeckers.

Sadly, such a lovely area is invaded by the exotic invasive Winter Creeper (*Euonymus fortunei*) whose dense cover overwhelms native flora and





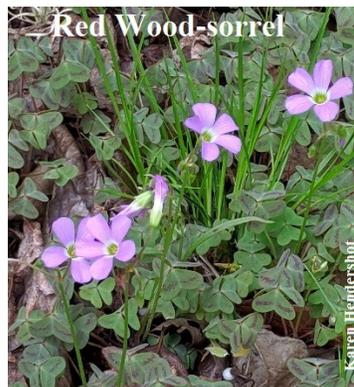
Curlyheads at the Phelps WMA—Karen Hendershot and Ron Hughes

The Piedmont Chapter flower is Curlyheads (*Clematis ochroleuca*). Nicky Staunton provided the logo drawing on page 8. Yet many of us had not seen it in real life. On April 28, Ron Hughes satisfied our quest to see it, as he led us on a walk through the Hogue tract of the Phelps Wildlife Management Area in Sumerduck. The fruiting of part of this plant looks like a tangle of golden hair (similar to other *Clematis*), giving the plant its name, although I think the curled petals are justification enough!



The Phelps WMA is geologically part of the Culpeper (Triassic) basin, tending more to the prairie conditions of an oak savannah than a forest. Curlyheads likes the alkaline (mafic), hardpan soils of the region. Before transformation to agricultural use by European settlers, the area was prone to regular fire from natural causes and native peoples. So the region’s trees are fire-adapted, including Black Jack Oaks (*Quercus marilandica*), Post Oaks (*Q. stellata*) and, in damp sections, Willow Oaks (*Q. phellos*).

We saw Crane-fly Orchid (*Tipularia discolor*) leaves, green on top and purple on the bottom. The leaf persists throughout the winter, allowing the plant to photosynthesize, but will wither before blooming in a few weeks. We saw many rosettes of Lyre-leaf Sage (*Salvia lyrata*) and were pleased finally to come upon some in bloom, with soft blue trumpet-shaped flowers. Sharp eyes caught a delightful patch of Red Wood-sorrel (*Oxalis rubra*), with its shamrock-like leaves. A surprise was Yellow Stargrass (*Hypoxis hirsuta*). We also saw Narrow-leaved Blue-eyed Grass (*Sisyrinchium angustifolium*).





Sunday	June 16	1pm	Sunday Walk: Canada Lilies at G. Richard Thompson WMA
Fauquier County. Master Naturalist Sally Anderson will lead a walk to Canada Lilies and other late spring flowers. Limit 18; register at piedmontvnps@gmail.com .			
Sunday	June 23	pm	Using Native Plants in Your Landscape
Fauquier County. Learn why native plants matter and how to use them in your landscape with Virginia Master Naturalist Diane Krumme and Master Gardener Alice Shelman at the John Marshall Library in Marshall. Information at piedmontvnps@gmail.com .			
Sunday	July 14	1pm	Shenandoah NP Fire Regeneration Sunday Walk
Shenandoah National Park Southern Section. Aa 2 - 3 hour hike through the area that burned in 2016. The hike will leave from either Rocky Mount or Brown Mountain overlook. Participants will need to be prepared for some steep terrain. Limited to 15 people. To register email piedmontvnps@gmail.com .			
Sunday	Aug 11	1pm	Piedmont Prairie Sunday Walk
Culpeper County. The twenty foot grassland along Raccoon Ford Road has not been overtaken by woody plants because it is periodically mowed offering a unique habitat in northern Virginia. This is a level roadside walk. For more information, email piedmontvnps@gmail.com .			
Friday-Sunday	Sep 27-29		VNPS Annual Meeting
Warren County. The Piedmont Chapter will be hosting the 2019 State Annual Meeting at the Holiday Inn Blue Ridge Shadows, five miles north of Front Royal on Route 522. Dr. T'ai Roulston, Curator of the State Arboretum of Virginia, will be the opening-night speaker and Dr. Woody Bousquet, Professor Of Environmental Studies And Biology at Shenandoah University, will be keynote speaker on Saturday.			

(*Trillium grandiflora*) of the G. Richard Thompson Wildlife Management Area—Cathy Mayes
[PART 2--continued from the Spring, 2019, issue of The Leaflet]

Some Fun Facts about trillium: It is the provincial flower of Ontario and the state wildflower of Ohio; Trillium has been featured on a U.S. postage stamp once (1992) and twice in Canada (1964 and 1970); it is classified by botanists as G5, which means it is globally secure; tea prepared from the rhizome is said to treat female complaints, aid in childbirth, and to work as an antiseptic and astringent.

During the Wisconsin glaciation (120,000-8,000 years ago), Trillium found refuge in Alabama and Arkansas. It has been spreading slowly northward ever since. It should find refuge in central Canada next, if the climate doesn't change too quickly.

Trillium, as its name implies, has parts in threes at maturity: three leaves, petals, sepals, pistils, but six stamens and a six-sided berry. Trilliums are native to the east and midwestern United States and southeastern Canada in rich, moist woods. They were part of the Lily family but now have been separated into their own family, *Trilliaceae*. There are 48 species of Trillium world-wide; 35 in the eastern U.S.

The Thompson Wildlife Management Area is one of the largest, if not the largest stand of Large-flowered Trillium in the world, estimated over 30 million plants. Two other species of Trillium are found in the WMA, the Toad Trillium (*T. sessile*) and the Nodding Trillium (*T. cernuum*). Like the Large-flowered, the Nodding Trillium's white flower is on a stalk, but as its name implies, it nods or droops under the leaves (*cernuum* means nodding). The Toad Trillium is stalkless: its red flower sits on top of the leaves (*sessile* means stalkless) and never fully opens. The leaves of the Toad and Nodding Trilliums are smooth on the edge, unlike the Large-flowered Trillium, which has wavy-edged leaves. Also, the petals do not overlap at the base like those of the Large-flowered trillium.





Trillium Walk at the Thompson WMA—Karen Hendershot

Like so many ballerinas taking a brief bow, thousands of Large-flowered Trillium (*Trillium grandiflorum*) nodded in the gentle breeze as we entered the Marjorie Arundel Trillium Trail at the Thompson Wildlife Management Area on the evening of May 2. Sally Anderson led us on our annual pilgrimage to what is thought to be the largest population of Trillium on the East Coast. It is also a site that the Piedmont Chapter has placed on the Virginia Native Plant Society Registry for special protection because of the unique characteristics of this plant community. Over 600 species of flowering plants bloom at the Thompson WMA throughout the year. Sally explained that the greenstone underlying much of the Thompson contributes to the very rich soil beloved by many spring ephemerals. Also, the rockiness of the area made it unsuitable for cultivation so it is undisturbed.



There was a dazzle of spring awakening in the forest. Canada Lilies (*Lilium canadense*), whose flowers we plan to see in June, were emerging. The umbrella-shaped leaves of Mayapple (*Podophyllum peltatum*) formed a nice backdrop to the pink flowers of the Wild Geranium (*Geranium maculatum*).

Wild Ginger (*Asarum canadense*), Star Chickweed (*Stellaria pubera*), Early and Appalachian Meadow-



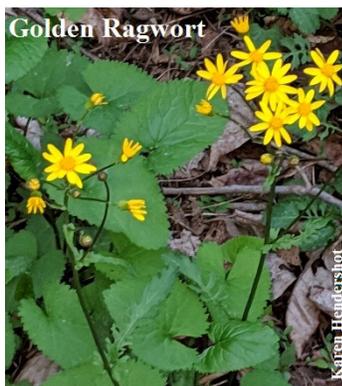
rue (*Thalictrum dioicum* and *T. coriaceum*), Jack-in-the-Pulpit (*Arisaema triphyllum*), and Common Blue Violets (*Viola sororia*) were all visible. But wait! The leaves of some blue violets were different. Deeply cleft, they belonged to the Wood Violet (*V. palmata*). As we travelled down the trail, we started looking for another spring confection: Showy Orchis (*Galearis spectabilis*). While the Trillium impress with their abundance,

the orchid's rarity makes it a special delight.



Descending into damper areas, we encountered a number of ferns: among them, Broad beech fern (*Phegopteris hexagonoptera*), Cinnamon Fern (*Osmundastrum cinnamomeum*), and a lovely Northern Maidenhair Fern (*Adiantum pedatum*).

At the seep along the fire road, the leaves of the Skunk Cabbage (*Symplocarpus foetidus*) had grown big and mixed in with False Hellebore leaves (*Veratrum viride*), and the mossy



surrounding stones were decorated with a Marsh Blue Violet (*Viola cucullata*).

Dusk was approaching but in the shadows we finally saw the glow of several Yellow Lady's-slippers (*Cypripedium parviflorum*) another orchid celebrity of this unique place. While they were too distant to photograph, we nonetheless got a final shot at Golden Ragwort (*Packera aurea*) a cheerful way to end a lovely evening.

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Curlyheads (Clematis ochroleuca)

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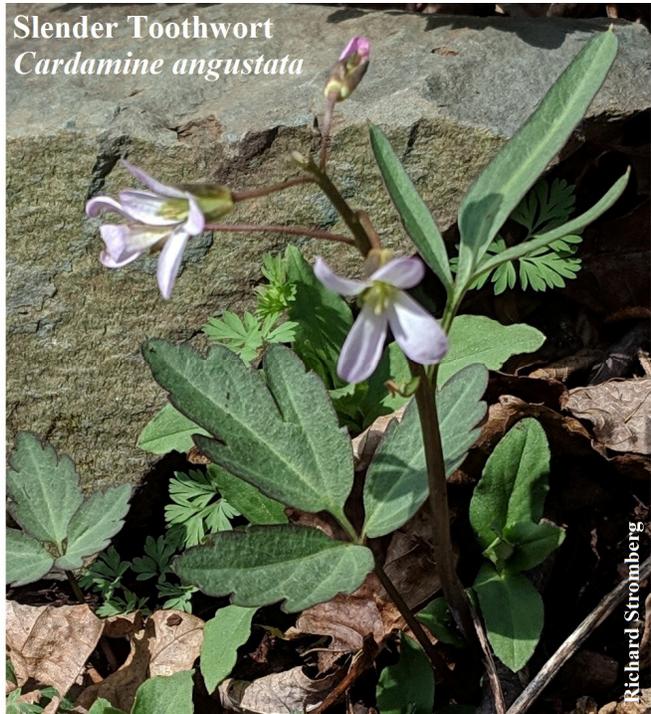
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Cutleaf Toothwort
Cardamine concatenata

Richard Stromberg



Slender Toothwort
Cardamine angustata

Richard Stromberg