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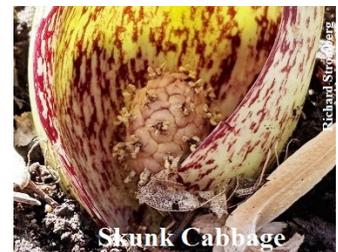
Leaflet

Early Spring at the Thompson Seep—Karen Hendershot & Ron Hughes

SUMMER 2018

“The Seep” may sound a bit creepy but “mysterious or magical” are much better descriptors. That’s how it seemed on March 11, when we toured a Central Appalachian basic seepage swamp at the Thompson Wildlife Management Area. Ron Hughes, Land Manager for the Department of Game and Inland Fisheries, led us to this rare plant community covering approximately 30 acres. He described how, unlike a spring, the water of a seep does not bubble up at a single place but seeps out of the ground. It has been created by a dike of talus (rock fragments) that backs up the water. Relatively little water is visible on the surface. The area is more a mosaic of streamlets and muddy areas intermixed with drier sites. It lies below surrounding ridges, so cold air sinks down into the network of seeps, yielding microclimates that are much cooler than the surrounding landscape. These cooler conditions support plant species normally seen further north, as well as a few endemic (found nowhere else in the world) invertebrates.

While most of the forest floor still slumbered, the seep was alive with growth. Mysterious-looking blossoms of Skunk Cabbage (*Symplocarpus foetidus*) were all around us. A member of the Arum family (*Araceae*), Skunk Cabbage inflorescences have a large spathe surrounding and protecting a short, round spadix on which the flowers grow. Ron explained that they generate heat and smell like carrion, attracting ants, spiders and flies. The picture at the right shows the open spathe, allowing a peek inside to the flowers on the spadix.



In the wettest areas, we found Marsh Marigold (*Caltha palustris*) blooming, not far from the deeply-ribbed leaves of False Hellebore (*Veratrum viride*) and the evergreen Shining Clubmoss (*Huperzia lucidula*). We also saw Bedstraw (*Galium*) and Swamp Saxifrage (*Saxifraga pensylvanica*) as well as the basal leaves of Two-leaved Miterwort (*Mitella diphylla*).

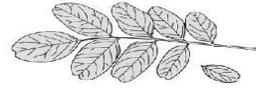
Among the most precious inhabitants of the Thompson seep is Black Ash (*Fraxinus nigra*), a tree species uncommon in Virginia, a disjunct from its main populations further north. They enjoy the cold, damp environment of the seep. Their soft, irregular, corky bark, which can easily be rubbed off, distinguishes them from other Ashes. Last winter Piedmont Chapter members helped Ron Hughes locate and mark individual trees that were subsequently chemically treated in the spring to protect them from the Emerald Ash Borer (*Agrilus planipennis*), which is a non-native insect destroying Ashes throughout our area.



The Black Ash is particularly vulnerable to this insect, having been extirpated throughout 97% of its range by the borer! This year the Department of Game and Inland Fisheries will be releasing parasitic wasps in the seepage swamp to try to help stem the invasion.



We also saw other signs of higher elevation spring. A few delicate lavender blossoms of Round-lobed Hepatica (*Anemone americana*) were pushing up from the forest floor in advance of their shiny, three-lobed leaves. The dandelion-like (and alien) yellow blossoms of Coltsfoot (*Tussilago farfara*) were also seen. Finally, the previous week’s wind storm had sent us a unique opportunity for a close-up look at the duckbill-shaped buds of a Tuliptree (*Liriodendron tulipifera*). The Thompson WMA is a true treasure. We’ll be back soon to witness the beauty of its diverse inhabitants later this spring.



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 point 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 www.vnps.org/piedmont
The Chapter's email address is piedmontvnps@gmail.com



Ron Hughes explains the seep on March 11

Invasive Pull at Thompson WMA–Karen Hendershot



Emily Southgate with Bittersweet

Early each spring, the Piedmont Chapter visits the Trillium Trail at the Thompson Wildlife Management Area to pull up the invasive alien Garlic Mustard (*Alliaria petiolata*). Not only does the mustard crowd out native plants, but it produces a chemical that makes the soil inhospitable for them. Pulling it before it goes to seed helps prevent its spread.

After 12 years of pulling, not much Garlic Mustard was found so we tackled an aggressive infestation of Oriental Bittersweet (*Celastrus orbiculatus*), whose vines are clearly visible even in winter.

Annual Trillium Walk at Thompson WMA–Sally Anderson

May 3 Ron Hughes led us to see the Great White Trilliums (*Trillium grandiflorum*), always a beautiful walk at a special place. Each year has something different stand out. The carpets of Yellow Violets (*Viola pubera* or *V. pennsylvanica*, or both) beside the fire road were remarked upon by everyone. We were serenaded by migratory birds for the entire walk and ushered out at dusk to the flute-like sound of Wood Thrushes (*Hylocichia mustelina*).



Yellow Violet

We started down the fire road, turned onto the Appalachian Trail, and returning on the Tri-Co Trail/ Marjorie Arundel Trail. Springtime was not so far advanced as it has been for the last decade, and the Trilliums did not peak until a few days later, though there were plenty to see.

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A Tour of Rady Park–Jocelyn Sladen

On a cool and misty Sunday afternoon, February 25, Carrie Blair led a tour of the arboretum at Town of Warrenton’s Rady Park. A Master Gardener Project sponsored by Virginia Cooperative Extension, this truly leading civic achievement deserves wide attention and support. The plantings of native trees and forbs, including imaginative choices and grouped effectively along an extensive pathway, held the attention of all.

Native plants of our region dominate the Rady collection, but thoughtfully chosen non-natives and selections are deliberately intermixed here and there. They must meet the “do no harm rule,” noted Winny Buursink, a co-leader of the Arboretum project. A hybrid European/US Smoketree (*Cotinus coggygia* ‘Grace’) provided an irresistible stop-and-marvel moment along the way. So did the Dawn Redwood from China. The true natives hold center stage, however, and provide a testimonial to the stunning range of woody species around us.

Trees and shrubs are labeled with signs using both common and Latin names, region of origin and a QR code that links the name of the plant to the Arboretum website, where more information is available, <https://www.plantsmap.com/organizations/rady-park-arboretum>.

A portion of the Rady path follows Cattail Branch and invites plants that like their feet wet. Wetland shrubs such as Buttonbush (*Cephalanthus occidentalis*) and Red-osier Dogwood (*Cornus stolonifera*) were happily established. A bit off the trail, we discovered Skunk Cabbage poking first leaves above very damp soil. As part of their developing master plan, Master Gardeners hope to create a riparian area. They seek funding for improved signage.

In 1999, the land for the Arboretum was given to Fauquier Master Gardeners to show the general public underutilized trees and shrubs that grow well in the Fauquier area and to demonstrate good practices for woody plants. Their skills and hard work have given this neighborhood park a value over and beyond the obligatory swing sets and picnic tables.



Sky Meadows State Park and Natives in a Suburban Landscape–Diane Krumme



The last presentation of our Winter Speaker Series on March 18 was by Emily Sinclair, a park naturalist at Sky Meadows State Park. She gave an engaging, energetic talk with information we can use to improve our home habitats.

Sky Meadows State Park conserves over 1800 acres of open space in northern Fauquier County. Last year the park hosted over a quarter million visitors making the park system an important bridge between a diverse public and the natural world. Sky Meadows and other state parks are implementing many programs to support pollinators and native plants. Modern parks are leading by example. Sky Meadows has reduced mowing by 20%, posted habitat signage, held pollinator and native plant programs and are removing invasive plants. Sky Meadows currently has two pollinator plots and two more in the works. Virginia Master Naturalists Shenandoah Chapter, including Piedmont Chapter members, is putting in two new native plant gardens.

(continued on page 4)



Sky Meadows State Park and Natives in a Suburban Landscape (continued)

Ms. Sinclair told us that lawn is the largest single “crop” in the USA. We spend an estimated 40 billion dollars a year and use 33% of our residential water on lawns. Residential lawns are the recipients of 90 million pounds of fertilizer and 78 million pounds of pesticides yearly. The goal is to reduce lawns and incorporate more native plants into the typical suburban home landscape. Native cultivars are often found in nurseries instead of the straight native species. Some research shows native cultivars are not always desirable to pollinators. Decisions about what plant or cultivar to use need to be made on a plant by plant basis. You can find research on-line at <http://content.yardmap.org/learn/nativars-native-cultivars> and other sites discussing the effects of specific native cultivars on pollinators.

Many proven methods exist to help native plants blend into the typical suburban landscape. Ms. Sinclair’s first suggestion is to have clearly defined flower beds by using edging or just keep a sharp division between lawn and flower beds. She also recommends that plantings along walkways should be less than two feet tall. She explained that trees add height to your landscape and evergreen plants scattered throughout give you pops of color in the winter. A shrub layer provides habitat, interest and color to the suburban landscape. Another interesting point is to plant flowers in groups of three or five plants, since pollinators tend to visit all the same type of flower in one outing. By planting in groups, you increase the chances of pollination. Ms. Sinclair suggested Spreading Jacob’s Ladder (*Polemonium reptans*), Wild Columbine (*Aquilegia Canadensis*) or Golden Ragwort (*Packera aurea*) in shady areas under trees instead of the often-used, non-native Hosta.

Bluebell Walk at Calmes Neck—Diane Krumme

April 8 we took our annual walk at Calmes Neck led by Dr. Emily Southgate and Jocelyn Sladen. Emily has an enthusiasm for botany and willingly shares her vast knowledge of plants and the ecosystem. Jocelyn, a founding member of the VNPS with a long history of advocating for native plants, added great depth of understanding and was happy to answer any questions. I found this hike delightful and very educational.

The walk covered three types of areas. It started on a northeast facing slope that led to a ravine you follow down to bluffs overlooking the Shenandoah River. This area is over dolomite limestone, rich with magnesium, that creates a lime-rich soil that grows a magnificent array of spring ephemerals. Calmes Neck at one time was timbered, but was not plowed, thereby preserving the roots and seedbank of the native plants. Cattle grazed on the area for some time but when the grazing stopped, the deep-rooted native plants came back.

Spring ephemerals are late this year. Bluebells (*Mertensia virginica*) were just starting to open, but we saw plenty of ferns and flowers. Heading down the slope towards the ravine, we saw Cutleaf Toothwort (*Cardamine concatenata*), Puttyroot (*Aplectrum hyemale*), Twinleaf (*Jeffersonia diphylla*), Toadshade (*Trillium sessile*) and Trout Lilies, (*Erythronium americanum*). Jocelyn explained how Trout Lilies have a symbiotic association with Maple trees (*Acer sp.*). Trout lilies provide nutrients to the nearby Maples by passing nutrients to them through mycorrhizae fungi in the soil.

Many more flowers were in the ravine plus a massive grape vine. Emily explained how the grapevine climbs a sapling and then as the tree grows the grapevine grows along with the tree. On the bluffs above the Shenandoah were Blue Cohosh (*Caulophyllum thalictroides*), Dutchman’s Breeches (*Dicentra cucullaria*), Rock Twist (*Draba ramosissima*) and Walking Fern (*Asplenium rhizophyllum*).



Twinleaf

Diane Krumme



Bluebell Driving Tour 2018–Karen Hendershot

Usually carpeting the Shenandoah riverbanks along Tilthammer Mill Road in early April, the blossoms of Virginia Bluebells (*Mertensia virginica*) were in only partial display this year, but other spring ephemerals were abundant on our April 9 driving tour. The flowers of Dutchman’s Breeches (*Dicentra cucullaria*), hanging like upside-down pantaloons, dotted the roadside, as did Bloodroot (*Sanguinaria canadensis*) and Spring Beauty (*Claytonia virginica*). The yellow, powder-puff blossoms of Spice Bush (*Lindera benzoin*) floated delicately on their branches.



Spring Beauty



Dutchman's Breeches

Our *botanical* discoveries were not entirely pleasant, however. What we thought at first to be Marsh Marigold (*Caltha palustris*) turned out to be Lesser Celandine (*Ranunculus ficaria*), an aggressive alien.



Marsh Marigold



Lesser Celandine

The Marigold has 5 to 9 yellow petal-like sepals, while the Celandine has 3 green sepals and 7 to 12 yellow or whitish petals. A good website for native/alien comparisons is “Mistaken Identity, Invasive Plants and their Native Look-Alikes”

(www.nybg.org/files/scientists/rnaczi/Mistaken_Identity_Final.pdf)

The Shenandoah River also provides a pleasant “birding” opportunity. A Bald Eagle (*Haliaeetus leucocephalus*) soared above us, while a Great Blue Heron (*Ardea herodias*) huddled in a cove. Avian expert Diane Holsinger pointed out the ear-like tufts of feathers that represent the courting plumage of the Double-crested Cormorants (*Phalacrocorax auritus*) and identified the colorful Common Mergansers (*Mergus merganser*) with their bright red bills.

Spring Flowers on an Appalachian Trail Walk–Karen Hendershot

We started out in search of spring ephemerals but a scramble for extra clothing was the first order of business on our April 15 Appalachian Trail walk with Richard Stromberg. An oncoming cold front caused temperatures to tumble from the high 70s when we left our nearby homes into the low 50s at our destination on Mosby Mountain near Linden. Even so, the drizzle and fog lent a mystical feel to the woods and we couldn’t complain when veritable bouquets of Bloodroot (*Sanguinaria canadensis*) awaited us. Sally Anderson tallied more than 35 species on our walk.

Dainty white – and sometimes pink – flowers of Rue Anemone (*Thalictrum thalictroides*) lined CCC Road, where we parked. They often stood in close proximity to Early Meadow Rue (*Thalictrum dioicum*), which had similar three-lobed leaves.

We saw both Cutleaf Toothwort (*Cardamine concatenata*) and Slender Toothwort (*C. angustata*). In addition to the differently shaped stem leaves, the Slender Toothwort has a basal leaves. Early blossoms of the native Star Chickweed (*Stellaria pubera*), and the alien, smaller-flowered Common Chickweed (*S. media*) were found. Yellow Corydalis (*Corydalis flavula*) was beginning to bloom.



Several Violet (*Viola*) species appeared: Downy Yellow (*V. pubescens*), Smooth Yellow (*V. pennsylvanica*), Common Blue (*V. sororia*) and Wood Violet (*V. palmata*). (continued on page 6)



Sunday June 10 1pm **Second Sunday Carson Trail Walk**
Warren County. Join Master Naturalist Richard Stromberg for a walk through woods and fields above the Shenandoah north of Front Royal. Limit 20; register at piedmontvnps@gmail.com to get meeting instructions.

Sunday July 8 10am **Second Sunday BRCS Walk**
Fauquier County. Emily Southgate and Sally Anderson will lead a walk at the Blue Ridge Center of Environmental Stewardship., email piedmontvnps@gmail.com.

Sunday Aug 12 10am **Second Sunday Drive-Skyline Drive**
Warren & Page County, VA. Join us in a car caravan along Skyline Drive in Shenandoah National Park stopping to see flowers, geological formations and views. For more information, contact piedmontvnps@gmail.com

Sunday Sep 9 1pm **Second Sunday Walk at Clifton Institute**
Fauquier County. Autumn fields at Clifton Institute, by invitation of Environmental Studies on the Piedmont. Easy hike through fields at ES the field station near Warrenton. Identify grasses, native trees and shrubs, and late wildflowers. For more information, contact piedmontvnps@gmail.com

Spring Flowers on an Appalachian Trail Walk (continued)

The trail traversed a swampy creek bed, which harbored a variety of wet-loving plants. Among them was a chartreuse wonderland of False-hellebore (*Veratrum viride*), dotted with Skunk Cabbage (*Symplocarpus foetidus*) and Marsh Marigold (*Caltha palustris*). Black Gum trees (*Nyssa sylvatica*), recognizable by their dark, blocky bark, also enjoyed this damp environment.

Part of the joy of early spring walks is discovering first signs of things to come. Showy Orchis (*Galearis spectabilis*) and Great White Trillium (*Trillium grandiflora*) were just becoming visible. Little stems of Elderberry (*Sambucus canadensis*) pushed through the leaf litter and we found a Pennywort (*Obolaria virginica*) in bud. Sally discovered a Columbine (*Aquilegia canadensis*) in bud, though it seemed early. But most surprising were the bright pink blossoms of a tree blooming with gay abandon in the midst of the forest. It was *Prunus persica*, a Peach tree. All of these signs suggest there will be plenty to see along this path in coming weeks.



Peach

Richard Stromberg

Cedar Creek Battlefield–Karen Hendershot

Stormy weather caused us to cancel our May 6 walk at Cedar Creek Battlefield, but walk leader, Sally Anderson, offered to take us May 9. Blue-eyed-grass (*Sisyrinchium sp.*) flowers were abundant as we entered the forest, and lots of Wild Ginger (*Asarum canadense*) was along our path. But the main color was gold. Non-native Bulbous Buttercups (*Ranunculus bulbosus*) were frequent. Round-leaved and Golden Ragworts (*Packera obovata* and *P. aurea*) were beginning to fade. The toothed petals of Green-and-Gold (*Chrysogonum virginianum*) and the flowers of Hoary Puccoon (*Lithospermum canescens*) were bright as could be. The unusual word “puccoon” is of American Indian



Wild Pink

derivation and relates to the use of the plant’s flower as a dye. We also saw Smooth Rock Cress (*Boechera laevigata*), the white-flowered stalks of Bastard Toadflax (*Comandra umbellata*), a couple of types of Fleabane (*Erigeron ssp.*) and the lovely (if alien) Star-of-Bethlehem (*Ornithogalum umbellatum*). As we approached a beautiful overlook onto Cedar Creek we came upon a small cluster of Wild Pink (*Silene caroliniana*) and large colonies of American Hound’s-tongue (*Cynoglossum virginianum*).



Green-and-Gold

Karen Hendershot



Hoary Puccoon

Karen Hendershot



Bluebells and More at Ball's Bluff—Karen Hendershot

Finally! Our long wait for the tardy spring was richly rewarded on April 18, when Phil Daley led us along the Potomac River at Ball's Bluff near Leesburg. Ball's Bluff was the site of one of the first Civil War confrontations. Today, by contrast, it is a place of peaceful natural beauty as part of the Northern Virginia Park System. In beautiful weather, we found bluebells in full bloom and many other spring flowers.



The pathway near the parking lot was carpeted with Spring Beauties (*Claytonia virginica*). Early Saxifrage (*Micranthes virginiensis*) stood like proud sentries announcing what proved to be a treasure trove of spring plants. A clump of Bluets (*Houstonia caerulea*) showed their happy four-petal faces.

Two different maroon beauties were on display: Toadshade (*Trillium sessile*), with its forthright flower front and center, and the shy little blossoms of Wild Ginger (*Asarum canadense*), only visible when we tilted back the plant's heart-shaped leaves.



Nature teased us a bit. We first found groups of Twinleaf (*Jeffersonia diphylla*) and Shooting-star (*Primula meadia*) with no signs of flowers. Eventually, we came upon a Twinleaf in bloom and a group of Shooting-stars in bud. This walk also offered a chance for those of us who saw Blue Cohosh (*Caulophyllum thalictroides*) at Calmes Neck without blossoms finally to view its flowers.

Among the many plants were Squirrel Corn (*Dicentra canadensis*), its flowers suspended like tiny white valentines, flared at the bottom. Then a surprise—a White Trout Lily (*Erythronium albidum*) rather than the usual yellow ones. We also saw Rock Cress, Solomon's Plume and Wild Columbine not yet in bloom.



In addition to the ephemerals, our walk involved looking at spring developments among the woody plants: opening fat leaf buds on the Hickories (*Carya*), the elegant, thin caramel-colored buds on the Beech (*Fagus*) trees, and the developing flowers on the Viburnum (*Viburnum*). Kristin Zimet noted the tight little leaves on the Flowering Dogwood (*Cornus florida*) look like praying hands.



Elated with our findings, we were in for one last pleasure. Phil suggested a swing around the parking lot where in the past he and his wife, Ellie, had seen Birdfoot Violets (*Viola pedata*). Indeed, almost hidden among the leaf litter was a solitary, if slightly tattered, example—a sweet ending to a lovely day.

Clifton Bioblitz—Karen Hendershot

Real botanizing often means getting down and dirty and that's what Sally Anderson and Richard Stromberg were doing on the ground on May 4. As an effort to help the Clifton Institute, seven members of the Piedmont Chapter joined with Clifton's Director, Bert Harris, in taking the first step in identifying plants in a 110-acre cow pasture that is to be converted to a more natural landscape. During the five-hour field study, the *Flora of Virginia* app was a key resource in down identifying the more than 90 species we found. Richard also discovered this Shaggy Mane mushroom (*Coprinus comatus*) [picture credit Richard], edible in a younger state but now just dripping black ink. We will be back regularly to track the plants in this field.



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Curlyheads (*Clematis ochroleuca*)



False Helebores

Short Takes on Books We Love (*Do you have a nature book you love? Send us a short take.*)

Braiding Sweetgrass by Robin Wall Kimmerer (2013, 384 pp.) This book is science plus philosophy. Kimmerer lays out big ideas about the interaction of humans with plants throughout history and in contemporary research. She imbues her stories with a love for Native American ways of living in the world, partnering with all life--whether she is gathering plants for basket making, or doing field experiments, or studying ecology. Her previous book, Gathering Moss, is also worth reading..

[review by Sally Anderson]