

SPRING

QUARTERLY NEWSLETTER

POTOWMACK NEWS

Potowmack Chapter of the Virginia Native Plant Society

VOLUME 31, No. 2, APRIL-JUNE 2013



Upcoming Events

APRIL 11

Landscaping with Native Groundcovers

Janet Davis, owner and principal designer of Hill House Nursery, will broaden the meaning of groundcover, and discuss how many of our hardest working native plants can enrich our landscapes by "covering ground" in some of the most difficult garden situations. You'll be pleasantly surprised by the choices and delighted by the habitat you create when using these native plants.

MAY 9

Magnolia Bogs of the Fall Line

Rod Simmons, Natural Resource Specialist, City of Alexandria will introduce us to the "magnolia bogs" described in 1918, by W. L. McAtee as a distinctive habitat present in a few dozen places on the innermost Coastal Plain in our region. Occurring where water seeps from hillside gravel deposits, these specialized wetlands are characterized by the presence of the native sweetbay magnolia. While many have been badly degraded or destroyed by development a few good examples remain.

JUNE 3

To Be Announced

Watch for more information at vnps-pot.org or on Facebook at [facebook.com/vnpspot](https://www.facebook.com/vnpspot)

All events are free and open to the public.

All talk presentations are 7:30-9:00 pm.

Meet at Green Spring Gardens.

PLANTS AND THEIR NEIGHBORS

A COMMUNITY CONTEXT BY CHARLES SMITH

What value does a single organism have? We so commonly focus on a flower, a bird or a toad that we often fail to consider the forces that formed it or the context in which it exists. All living things are survivors of millions of years of selective pressure. Plants began producing showy flowers about 140 million years ago in response to factors in their environment which included the advantages of reproduction with the assistance of abundant insect pollinators. They still bloom for those pollinators whether they are in our house or a tidal marsh. The most amazing consideration of a plant is that of place. Where does that plant grow, under what conditions, and with what other organisms? It has an ecological/community role. It is part of the fabric and has relationships with fungi, bacteria, invertebrate and vertebrate animals. It is in the community context that we learn the most about a species.

FLORA CONTEXT

The recently released *Flora of Virginia* reinforces the importance of communities as an outgrowth of geologic, climatic and biological factors interacting over time. Virginia has a temperate, mostly humid subtropical climate, with 33 to 50 inches of precipitation and 150 to 250 days in the growing season. We have five geological provinces and tremendous variation of altitude, orientation, geology, soils, moisture, temperature, etc.

The *Flora of Virginia* contains descriptive accounts for 3,164 species of plants found in the 4,400 state data plots. For each species (taxon) data was retrieved from all of the state data plots where it was found, to include geography, associated natural community types, geologic

A COMMUNITY CONTEXT (CONTINUED)

substrate, topographic position, elevation, aspect, and soil chemistry. This data is used to establish patterns such as affiliation with environmental factors and vegetation types to establish the ecology and distribution of plants. Sounds exhausting, but it is precisely this attention to context and pattern that can help us better understand a species. The Virginia Natural Heritage Program (NHP) has a wonderful section of their website devoted to plant community ecology:

www.dcr.virginia.gov/natural_heritage/nchome.shtml

Virginia's native plant communities are organized into five systems: Terrestrial, Palustrine, Riverine, Estuarine, and Marine. The Natural Heritage Program has identified 94 community groups statewide, with 309 representative communities. Each of these communities is composed of different assemblages of the 3,164 taxa. By some estimates over 20% of the plants occurring in the wild in Virginia are introduced. Some native plants have disappeared, and according to the NHP, as of 2009, 609 native species were considered rare, 229 were "decidedly uncommon," and 46 non-vascular plants were rare – meaning that more than 30% of our remaining native plant species are threatened. Grouping organisms in communities aids us greatly in understanding the natural history of species, where they live, and what roles they play. But we also must understand how systems behave to fully appreciate them and to know how to preserve and restore them.

ECOLOGICAL MEMORY

Healthy natural areas are reservoirs of genetic diversity. They are only as rich and viable as their ecological memory. Ecological memory is the collective genetic biodiversity remaining in a given landscape locked up in living things and their roots, seeds, spores and eggs. Ecological memory in terrestrial systems cannot be separated from the soils. Soils are the foundation of our ecosystems. Once they have been heavily disturbed, biodiversity is generally low, non-native invasive species coverage is often high, the options for restoration are often very limited, and the time span for restoration is long.

To conserve biodiversity, we must preserve the best remaining places from disturbance. The best places are those with intact soils, high levels of diversity, and supporting habitat for animal species. These places retain a rich ecological memory. We should also focus on those that are large in size and connected to other natural areas. These places preserve ecological functions and provide connectivity critical for the maintenance of genetic diversity



Conservation is a state of health in the land. The land consists of soil, water, plants, and animals, but health is more than a sufficiency of these components. It is a state of vigorous self-renewal in each of them, and in all collectively.... In this sense land is an organism, and conservation deals with its functional integrity, or health.

-Aldo Leopold, 1944, University of Wisconsin report on agricultural practices

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A COMMUNITY CONTEXT (CONTINUED)

and the movement of organisms.

In addition to preservation, we must restore natural areas to expand native species richness and habitat, provide ecosystem services to include cleaning water and air, and to buffer our preservation areas. Restoration is more difficult than preservation because it usually focuses on disturbed places. It is important to consider land use history to understand where disturbance took place, to what degree, and how long ago it happened. Priority should be given to areas with good soil qualities and the most native plant species – the better the soils and species diversity, the more successful restoration efforts are likely to be.

DEER BROWSE

After human disturbance, the most important influence in our forested ecosystems is deer browse. Since game officials began rebuilding the deer herd in Virginia in the 1930s, the numbers have grown beyond the capacity of the flora to survive their browse. Deer are adaptive animals with a high reproductive rate and the ability to eat most of our native plant species. Contrary to popular belief, suburban development increases deer habitat. Released from predation and provided with huge quantities of fertilized lawns and ornamental plants, deer thrive. They have outstripped the ability of recreational hunting to control their numbers. The very framework of the forests, the trees, is being simplified as acorns and nuts are consumed along with seedlings. In many places only American Beech and Tulip Tree can survive the browse, resulting in forests with limited diversity and structure. If we are to manage and restore systems, we must begin managing the deer.

My thought is that ultimately we need to learn to get out of nature's way - remove stresses and allow the land to heal itself. But to remove the stresses, we must often intervene. If we cannot control the deer then removing invasive plants may not make a difference because no native species will replace them. If we do not work to rebuild soils, we have a low chance of success hosting our native flora and resisting non-native plant invasion. If we do not protect the best remaining places, we lose our reservoirs of biodiversity.

Our efforts to preserve and restore our natural systems have to begin with our own appreciation and humility. We must continue to educate ourselves and others about the amazing native species we have and the communities they make up. Next time you stop to look at a native plant, consider the species, where it grows, what species it grows with. When in a favorite natural landscape ask yourself, what plant communities are represented there, what species make them up and how do they interact? Do they have healthy structure and intact soils?

Just as knowing what family a plant is in and what animals pollinate it can greatly improve our appreciation of the species, knowing that the species exists as part of a much larger community of interacting organisms gives it greater context and importance than just a specimen to be admired in a garden. It also makes us far more humble.

Virginia Natural Heritage Program

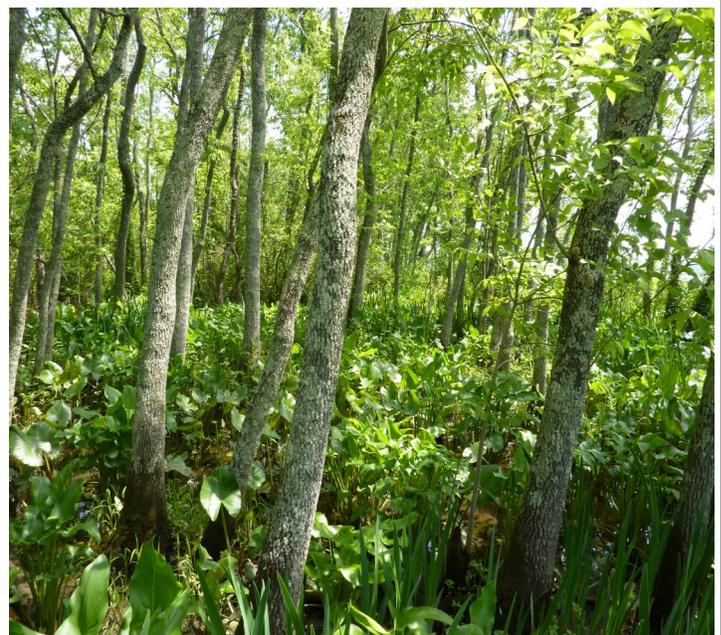
http://www.dcr.virginia.gov/natural_heritage/

Digital Atlas of Virginia Flora

<http://vaplantatlas.org>

USDA Plants database

<http://plants.usda.gov>



Tidal Hardwood Swamp - Dyke Marsh

VNPS REGISTRY SITES

THE TRILLIUM SLOPES AT G.R. THOMPSON WMA

BY SALLY ANDERSON

Each spring, throngs of visitors come to see the masses of Large-flowered Trillium (*Trillium grandiflorum*) at the G. R. Thompson Wildlife Management Area (WMA) on the Blue Ridge near Linden. Besides a busload of Potomack Chapter members, people from many other places, including overseas visitors, find their way to this spot to see this famous flower and other spring blooms. There are other showy plants such as orchids (*Cypripedium calceolus*, *Galearis spectabilis*) and bright yellow or blue violets (*Viola spp.*), but careful observers might also see Pennywort (*Obolaria virginica*) or Green Violet (*Hybanthus concolor*).



Cold seepage swamps just downhill from the main Trillium bloom are also frequently visited and botanically interesting, with large ferns (*Osmundastrum cinnamomeum*) and skunk cabbage (*Symplocarpus foetidus*) dominating rocky wetlands with many other moisture loving plants.

Birders too come to look for the rare Cerulean warblers, American redstarts and Scarlet tanagers.

The luck and joy of having this place preserved by the Virginia Department of Game and Inland Fisheries (VDGIF) has long been mixed with concern for its well-being. To emphasize preservation of the 'Trillium slopes', as they are sometimes called, members of VNPS met with VDGIF officials in 1990. They came to an agreement that resulted in the society's first Registry site. The Registry site includes the densest area of *Trillium grandiflorum*, which would also include populations of many of the other special flowering plants, and also populations of the rare Nodding Trillium (*Trillium cernuum*) and exemplary communities in the two cold spring seeps.

Problems noticed from the beginning had to do with wild collecting of plants from the area, probably including commercial digging. VNPS, and native plant societies throughout the country, took a firm stand against the selling and buying of wild collected plants. There are still sometimes issues with individuals digging various plants, including some of the wild orchids found on the mountain.

Later, gypsy moths changed the forest composition and invasive plants, especially Garlic Mustard (*Alliaria petiolata*) became a problem. Efforts to manage this plant are a little sporadic, but for the past 10 years or so, the Piedmont Chapter has held an annual workday, and much progress has been made, if only in a limited area. Another concern of late has been the perception that Mayapple (*Podophyllum peltatum*) is taking over patches of trillium. Looking at early registry reports though, Mayapple appears to have been a common plant there for years.

Perhaps gaps from tree damage, changes in weather and climate or increased deer browse are changing the species composition on the forest floor. The Trilliums were once reliably seen the first weekend of May, but now many groups visit at the end of April.

In the past, two studies have been proposed to try to document these changes in the plant community. One was meant to see if Garlic Mustard was out-competing the Trilliums, while a more recent proposal was a broader study to assess how the Trilliums were faring with browse as well as competition. Unfortunately, neither of these studies has been implemented.

VNPS REGISTRY SITES (CONTINUED)

Meanwhile, other disturbances such as VDOT road widening and paving, logging close by with use of the fire road to haul logs, and heavy use by all of us have all impacted the site, including the spread of Japanese stilt grass (*Microstegium vimineum*) along the fire road. An expanding patch of Oriental bittersweet (*Celastrus orbiculatus*) can be seen along the fire road.

Still, the wildflowers there are a wonder, and with a little effort and education this can continue, and another generation of native plant lovers will enjoy this resource. VDGIF continues to show interest in preservation of habitat and native plants, both here and at other Wildlife Management Areas. They have installed educational signs at the Trillium Trail parking area, and a few years ago the Trillium Trail was formally named and dedicated to conservationist and Trillium advocate Marjorie Arundel, who had passed away at over 100 years of age. Conservation is good for you!

Correction on Turkey Run Park article in January-March 2013 Potowmack News

In the article about Turkey Run Park in the last newsletter, John Dodge writes that "There does not appear to be such an inventory of Turkey Run Park alone". Cris Fleming reports that indeed there is an inventory of plants of Turkey Run Park as she did one in 1992-1993 and made a complete report with attached species list to the Natural Resources staff of the George Washington Memorial Parkway in May 1993. The report lists 415 species in the park along with information about the habitat, location, occurrence, and state status of each species. Also, Cris notes that she recognizes her day pack on the bent over figure in the accompanying photograph.

SPRING CHAPTER WALKS

ALL CHAPTER PROGRAMS AND WALKS ARE FREE AND OPEN TO THE PUBLIC. ALL CHAPTER WALKS REQUIRE REGISTRATION AS SPACE IS STRICTLY LIMITED. EMAIL VNPS.POT@GMAIL.COM UNLESS OTHERWISE NOTED.

April 13, 2013 9:00 am to 1:00 pm	<u>Spring in the Potomac Gorge</u> with chapter Botany Chair, Cris Fleming, at Turkey Run Park in McLean, VA. See back cover for details.
April 16, 2013 5:30 pm to 7:30 pm Barcroft Park Arlington, VA	<u>The Hunt for Flowering Shrubs at Barcroft Magnolia Bog.</u> Join Chapter Board Member Marty Nielsen in a search for beautiful flowers on the early flowering shrubs — including blueberry, chokeberry, azaleas, dogwood and more — in this magnificent bog habitat!
April 23, 2013 6:00 pm to 7:30 pm Wakefield Park Annandale, VA	<u>Spring in Wakefield Park</u> Join chapter Board member and Biologist John Dodge as he reprises a popular field trip. Last year we found a surprising number of species in bloom along Accotink Creek and in the meadow at this area park. Some species were unusual finds in this area.
April 27, 2013 1:00 pm to 5:00 pm Alexandria, VA	<u>Spring Flora of the Holmes Run Gorge</u> with Rod Simmons. Co-sponsored with the Ford Nature Center. <i>RSVP to: Jennifer Millwood at (703) 746-5559 or Jennifer.Millwood@alexandriava.gov</i>
April 28, 2013 10:00 am to 3:00 pm	<u>Trillium Trek</u> with Alonso Abugattas. Travel to Linden, VA to see one of the largest Great White Trillium displays in the world! See back cover for details.
May 7, 2013 6:30 pm to 8:00 pm Reston, VA	<u>Viburnum ID field trip.</u> Margaret Chatham and Ginny Yacovissi will lead us on a trip through some of the natural areas in Reston to identify and distinguish between native and invasive species of viburnums.
May 11, 2013 Time TBA Leesburg, VA	<u>Mountain / Piedmont Basic Seepage Swamp at Banshee Reeks Wildlife Preserve.</u> Ron Circe, Manager of Banshee Reeks, will lead us on an exploration of the only identified site for this community in the Piedmont.



POTOWMACK CHAPTER PICK OF THE SPRING

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April 13, 2013

9:00 am to 1:00 pm
George Washington
Memorial Parkway
McLean, VA

Spring in the Potomac Gorge with Chapter Botany Chair, Cris Fleming, at Turkey Run Park. Join us for a walk through one of our area's best spring wildflower displays. Famous for the spectacular show of Virginia bluebells along the Potomac River, Turkey Run Park also harbors many other early spring flowers. Participants need to be able to walk the zig-zag trail down the steep hillside and to cross the creek on rocks (there will be helping hands). *RSVP required to vnps.pot@gmail.com.*

April 28, 2013

10:00 am to 3:00 pm
Thompson Wildlife
Management Area
Linden, VA

Trillium Trek with Alonso Abugattas. Travel to Linden, VA to see one of the largest Great White Trillium displays in the world! This area is resplendent with many wildflowers and trees, including native orchids and a variety of wildlife to observe. On the somewhat rocky two-mile trail we'll discuss plant folklore, natural history, identification and ethnobotany. *RSVP required to vnps.pot@gmail.com.*

May 18, 2013

9:00 am to 3:00 pm
Green Spring Gardens
Annandale, VA

Potowmack Chapter Native Plant Sale

Over 80 species of native plants will be available for purchase during the Green Spring Gardens Spring Garden Day. Over 40 vendors will be onsite

PLEASE CHECK OUR FACEBOOK PAGE AND LIST SERVE FOR THE MOST UP-TO-DATE INFORMATION.

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