The Prince William Wildflower Society
2018 Winter Slideshow,
Thursday, January 4, 7:30 p.m.
Bethel Evangelical Lutheran Church,
8712 Plantation Lane, Manassas, Virginia 20110

Plan to join us for our annual winter slideshow on January 4. Charles Smith will present a slide show and talk that highlight his recent travels with his daughter in Peru. Nancy Vehrs will give a presentation, too, depending upon her schedule in early January; she has been caring for Harry Glasgow after his recent heart surgery in December. Come and bring a friend to enjoy the show, refreshments and door prizes!

President's Corner

I write this just as a beautiful sunrise beckons in the southeastern sky. Mid-December has been a difficult time for Harry, and me, by extension. Surgery for him had major complications, and now we face a long healing process. We are confined to a room with an east orientation with a big sky and a treed neighborhood as the view. Crows visit the pine trees by the parking lot, but Harry is not aware of such things yet. Soon, we hope!

Changes to one's health certainly make one appreciate good health! And, as most of us know, being in nature is very important to physical, mental, and spiritual health. Regardless of the temperature, it is vital that we get outside, breathe fresh air, and revel in the world around us. Prince William County has many spots for both solitary and communal walks such as Manassas Battlefield, Prince William Forest Park, Occoquan Bay National Wildlife Refuge, Dove's Landing Park, and Merrimac Farm Wildlife Management Area. New Year's Day offers several opportunities for group walks at Leesylvania State Park as well as Prince William Trails and Streams' walk from Lake Ridge to Occoquan.

Enjoy the intricate silhouette of trees in winter and watch their buds swell as spring nears. Look for the leaves of cranefly (Tipularia discolor) and puttyroot (Aplectrum hyemale) orchids, visible during the winter. Oddly enough, the leaves disappear when the flowers appear. Winter is also an excellent time to check out mosses and lichens with their variety of textures and shades of green that contrast with the brown leaf litter.

As one ages and loses the wonderment of snow experienced by children, try to look at that white fluff through their eyes. It's a magical playground! Trees are festooned in white, and a fresh snow makes everything look clean. Take a break from your snow shovel, and walk in the silence of that winter wonderland.

If winter gets you down, now is the time to look through your garden catalogs and wildflower guides to be ready when spring bursts into bloom. Our January 4 slide show will help to sustain your need for blooms, and our Larry Weaner lecture on February 11 will be a real botanical treat. Join us at both events to kick off 2018. Happy New Year to all!

~ Nancy
Nominations Sought for Prince William County 2018 Green Community Awards

It is time to consider sending in nominations for the Green Community Awards. Prince William County wants to recognize outstanding efforts to protect nature and green resources in our community. The goal is to spotlight local efforts so others can follow that lead! Recipients of awards are recognized at an annual awards event in May 2018, are honored with an award to display at their business or organization facility, are featured on the local government cable channel and www.pwcgov.org/gogreen, are provided information to share in business or organization newsletters and publicity materials, and are featured in local press announcements to be submitted to local media.

Applicants must demonstrate how they conserve, protect or preserve the natural environment; they must live in, do business in or work in Prince William County; and they must allow the sharing of their story with others.

There are six categories for the awards: Top Green, Program, Project, Process Change, Event and Individual.

Nominations must be received by March 23, 2018. Please contact Deb Oliver — doliver@pwcgov.org — to obtain the necessary forms so as to complete them by that date.
President Nancy Vehrs thanked Joyce Andrew and Marion Lobstein for bringing refreshments and recognized Brigitte Hartke for her excellent work with our newsletter, Wild News.

**Announcements:**
We are looking for a PWWS treasurer and a webmaster, and if anyone is interested in one of those positions, please notify Nancy at 703-368-2898. The webmaster should be familiar with Word Press.

Bird walks are led by Harry Glasgow and Nancy Vehrs every Monday at Huntley Meadows Park. Meet in the visitor center parking lot at 8 a.m. They also lead bird walks at Merrimac Farm in Nokesville the last Sunday of every month at 8 a.m., but not in December. Call Nancy for more information: 703-368-2898.

Marion Lobstein showed the new Flora app, priced at $19.99. All species in the Flora of Virginia are in the app.

**Virginia Native Plant Society news:** Nancy V. (VNPS president) reported that a VNPS fundraiser is being held to fund land acquisitions for Virginia Department of Conservation and Recreation’s Natural Heritage Program through the Heritage’s Natural Area Preservation Fund.

**Program:** Nancy introduced Veronica Tangiri, from Prince William Soil and Water Conservation District. Veronica began her talk by telling us of the two types of stream pollution - point source pollution and non-point source pollution. Point source pollution is obvious, such as a chemical or gasoline spill, but with non-point source pollution, you can’t determine its origin. It could be from farm animals defecating in the creeks upstream, and it could be from heated water that is drained into streams. Cold oxygen-bearing water is better for aquatic life, and the warm water downstream could cause die-off.

To assess the health of the Prince William County streams, Veronica is a coordinator for the Water Quality Monitoring Program with about 500 monitors in the County. Veronica invited anyone interested in monitoring to call PWSWCD (571-379-7514) and ask

for a kit, and you can then monitor a creek or stream in your area.

There is also a Floatable Monitoring Program, and volunteers collect floatable bags to identify sources of bags and other trash.

To improve the water quality around our own homes, Veronica provided information on PWSWCD’s Virginia Conservation Assistance Program. You can apply for landscaping grants to help pay for a project such as construction of a wetland area, a rain garden or a watershed, removal of impervious surfaces (asphalt or concrete driveways) and installation of a green roof. Thank you to Veronica for a very interesting presentation on what is being done by the Soil and Water Conservation District and other organizations to keep our water clean or to improve the health of unhealthy streams. Get involved! Give PWSWCD a call.

**Doorprizes:** Brenda Hallam - Bluestem goldenrod (Solidago caesia); Jeanne Endrikat - Nodding onion (Allium cernum); Veronica Tangiri - children's book entitled Leaflets of three, let it be! The story of poison ivy; Denise Rodgers - Plant Invaders of the Mid-Atlantic Natural Areas; Cathy Hindman - 2018 Calendar.

**In Attendance:** Nancy Vehrs, Jeanne Endrikat, Joyce Andrew, Tom Andrew, Cathy Hindman, Brigitte Hartke, Marion Lobstein, Brenda Hallam, Denise Rodgers, Bret Rodgers, Janis Stone, Janice Beaverson, Karen Waltman, Harry Glasgow, Carol Thompson, Cindy Smith, and speaker and PWWS member Veronica Tangiri.

Karen Waltman, Secretary

If you wish to order the Flora of Virginia app, visit [http://floraofvirginia.org](http://floraofvirginia.org)
Events 2018

Thursday, January 4, 7:30 pm, PWWS Annual Winter Slide Show. Join PWWS members and friends for a casual gathering to view photos from various locales, and to enjoy refreshments and door prizes.

LARRY WEANER LECTURE

Sunday, February 11, 2018, 2:00 to 4:00 p.m., Manassas Park Community Center, 99 Adams Street, Manassas Park, Va. 20111. Come and hear Larry Weaner present his “Living in a Liberated Landscape” lecture.

The event is co-sponsored by the Prince William Master Gardeners, Prince William Conservation Alliance, and the Merrimac Farm Master Naturalists.

In his lecture, Larry explores how a dynamic approach to gardening that takes advantage of plants’ natural abilities to reproduce and proliferate is more rewarding — and ecologically beneficial — than static compositions of traditional horticulture. Learn how Larry combines design with the reproductive abilities of plants as well as ecological process to create compelling, ever-evolving landscapes that bring new meaning to partnering with nature. Using examples from his own property as well as diverse client projects, Larry will share how this give-and-take approach can result in compelling, low-maintenance landscapes that free plants to perform according to their natural abilities and liberate people from having to cater to their landscapes’ every need.


The event is free and open to the public. Registration is requested. http://vnps.org/princewilliamwildflowersociety/events/living-in-the-liberated-landscape/

January

You can find a list of First Day Hikes being held on January 1 in our Virginia National Parks using the following weblink: http://www.dcr.virginia.gov/state-parks/blog/virginia-state-parks-first-day-hikes-2018

We have listed two area hikes just below:

Monday, January 1, 2 Guided First Day Hikes, at 10 to Noon, and Noon to 2 pm. Leesylvania State Park, 2001 Daniel K. Ludwig Drive, Woodbridge, VA. Start with a quick tour of the history museum and viewing of the Leesylvania program. Then walk down the Potomac Trail, to Freestone Point, through Lee’s Woods Trail and back to the Visitor Center. This 90-minute hike will start the year on the right foot. Reserve by Dec. 31 to sarah.Percival@dcr.virginia.gov or call 703-583-6904

Monday, January 1, 10:00 am, PWTSC First Day Hike on the Occoquan Greenway Trail. The hike will start at Lake Ridge Association offices on Oakwood Drive, ending in the Town of Occoquan, a distance of about 3.3 miles. This is a one-way hike, with limited capability to provide transport back to starting point, so please plan accordingly, prepositioning a car in Occoquan with a partner. For further info, contact neil.nelson@pwtsc.org. Registration required.

Sunday, January 7, 12 pm to 2:30 pm Water Quality Monitoring: James S. Long Park - Catharpin, Bull Run Watershed. Hosted by the Prince William Soil & Water Conservation District. Park at Old Library parking lot. Join Elaine Wilson, one of the District’s pioneer-certified monitor and her team for winter monitoring at this beautiful site in the Catharine Creek in the Gainesville area. This site has some outstanding critters that are unique only to this site. STEM kids are welcome, though spots are limited. For more info and RSVP, contact Elaine Wilson: elaine.Wilson@dcwater.com
Thursday, January 11, 7:30 - 9:00, Green Spring Gardens, 4603 Green Spring Road, Alexandria, VA. A Talk by Charles Smith -- "Native Plant Interactions Above and Below Ground: The Relationships Between Plants, Fungi, Bacteria and Insects". The Virginia Native Plant Society invites you to a lecture given by naturalist and ecologist Charles Smith.

Charles is a native of Arlington, VA and a naturalist and ecologist with 24 years of experience working primarily in natural resource management, including over 16 years with Fairfax County Park Authority and five years for Northern Virginia Regional Park Authority. He is currently branch chief of the Fairfax County Stormwater Planning Division, focusing on stream and natural area restoration. Charles is a US Army veteran; board member of Virginia Native Plant Society, Prince William Wildflower Society and Prince William Conservation Alliance; and member of Friends of the Potomac River Refuges. He has spoken at many events and has served as an instructor for three chapters of the Virginia Master Naturalists.Here is a link to the event flyer.

Please Note New General Meeting Night: PWWS has changed its meeting night! While we have been meeting on the third Monday for more than 30 years, Bethel Lutheran Church now needs the room for its own purposes every Monday night. The church can accommodate us on the FIRST THURSDAY so we have moved to that night. Please mark your calendars for the next meeting — January 4, 2018.

Saturday, January 13, 8:30 am, 91st Green Breakfast. “Salt Management Strategies in the Northern Virginia Region.” Introduced by Will Isenberg, an Environmental Specialist with Va. Dept. of Environmental Quality’s Office of Watershed Programs and Office of Ecology; Brion’s Grill (University Mall, Fairfax), $10 at the door includes hot buffet and beverages, no prior registration required.

Sunday, January 28, 8 am, Bird Walk at Merrimac Farm, last Sunday of every month. Join us! We meet at Merrimac Farm, Stone House, 15014 Deepwood Lane, Nokesville. Dress for the weather, bring binoculars and cameras. Info and RSVP, 703-499-4954 or alliance@pwconserve.org

February

Saturday, February 10, 2018, 9:30 to Noon Homeowner Rain Garden Workshop. Learn how to properly locate, design, construct and maintain a small-scale rain garden — a landscaped area that is designed to capture rain water and allow it to soak into the ground, slowing its flow and preventing pollutants from reaching local streams and the Potomac River, a drinking water supply for the region. The event will be held at the Providence Community Center, 3001 Vaden Drive, Fairfax. The workshop is free but registration is required. Please register at awinquist@arlingtonva.us.

Saturday, February 24, 10 am to 1 pm. Water Quality Monitoring — Powells Creek, Woodbridge. Parking location is along 15601 Northgate Drive, Montclair, VA. Join Master Naturalist Buck Arvin in monitoring water quality at this adopted site of the Powells Creek in the Montclair area. Residents and students are welcome to this outdoor water science class. Learn more about the water quality of your local stream. Come and collect data that will count towards student community service hours. For directions, please RSVP to Buck Arvin at buckarvin@comcast.net.

Please watch for announcements on our FaceBook page or in your email box for February events of interest. https://www.facebook.com/Prince-William-Wildflower-Society-a-Virginia-Native-Plant-Society-Chapter-142292732540373/

Help Wanted! PWWS is in need of a webmaster and is still seeking a treasurer. Familiarity with WordPress is a plus, but video training is available. If you would like to learn more about either of these two volunteer positions, please contact Nancy Vehrs at nvehrs1@yahoo.com or 703-368-2898.
SPRING WILDFLOWER LIFE CYCLE INFORMATION
Marion Lobstein
mlobstein@earthlink.net

SPRING WILDFLOWERS: ECOLOGICAL FACTORS

Wildflower enthusiasts are waiting for the beauty of the burst of activity of spring wildflowers in the deciduous woods. What are some of the ecological factors that affect the development and flowering of this special group of plants?

The deciduous forest spring wildflowers have a number of environmental challenges to cope with by the end of winter. The temperatures of both air and bare ground are below freezing much of the time in January and February. However, leaf litter as well as snow on the forest floor can maintain a temperature of 34 F even if the air temperature is 10 F. There is continued underground shoot development of many of these spring species in their underground rhizomes, corms, and bulbs. Many species such as trout lily (Erythronium americanum) and Dutchman's breeches and squirrel corn (Dicentra spp.) will not initiate growth unless exposed to a minimum period cold treatment. This prevents their starting to grow in the fall or early winter after a warm period. Other species such as spring beauty (Claytonia virginica) do not require such cold exposure and may begin growing in the fall.

The role of temperature in initiating growth in the early spring is a complex interaction of soil and air temperatures. Soil temperature is the more critical factor for starting shoot growth (by stimulating rhizome development) while air temperature is more critical in controlling vegetative growth and flowering. Soil temperatures begin to rise quickly in the early spring as snow melts. A temperature rise to 49-50 F can take place in only three days after snowmelt. Soil warming may not be as dramatic if there is no snow cover, but it also may be significant. Air temperature in early spring may vary in one day from 32 to 77 F. Most insect pollinators do not become active until temperatures reach 55 F. Bumblebees are an exception in becoming active at 41 F.

The overhead tree canopy begins developing by mid-April and is completed by early May. In the deciduous forest in March 50% of the sunlight is available, by mid-April it is 32%, and it drops to less than 10% by early May. The filling-in of the canopy not only affects the light intensity that reaches the forest floor but also the amount of moisture that reaches the ground by affecting the blocking of rainfall by that leaf canopy. Moisture availability is another critical factor in considering the ecology of these herbaceous species and their seedlings.

In addition to the role of average soil and air temperatures for an area of deciduous forest, microclimate factors such as precipitation, soil moisture, relative humidity, evaporation, wind, orientation of slopes, altitude, soil temperature at various depths, nutrient variation, etc, are all important factors in controlling shoot development as well as flowering. For example, the threshold temperature of summation of air temperatures is 40 F for spring beauty and wild bleeding heart but 50 F for Dutchman's breeches and is slightly higher for squirrel corn. In the same general area for the same species there can be a two- to three-day delay of development on north-facing slopes compared to south-facing slopes. Also, by the end of March less than 50% of days reach freezing temperatures and by early April less than 10%. It is during this narrow time window from March or early April until early May that a balance must be accomplished by these species — enough warmth to begin and continue aboveground development, enough light and moisture to sustain photosynthetic activity so that energy may be locked in underground storage structures, yet still enough warmth that insect pollinators may be active. Anderson contends that differences in moisture availability because of the relative presence or absence of canopy cover is as or more critical to spring wildflower as light intensity.

The ecological factors affecting spring wildflower development and flowering are complex but fascinating to consider. See how many of these you can observe this next spring.
Resolve To Install a Native Plant Area from Seed

Perhaps for some time, you’ve been thinking about converting some of your lawn expanses to native plantings, but time constraints have prevented it and you’re not sure what the endeavor entails. The following information may help you decide to make it a priority this year. It is true — “If you plant it, they will come,” — and you will have made a difference to those animals and insects thriving in ever-smaller habitat parcels. The following information was taken from the Audubon Society of Northern Virginia’s website — audubonva.org.

Make sure you plant only organic seed.

Choose your site:

- **Size** – meadows don’t have to be large, a small “pocket” or backyard meadow just 10’x10’ can support an amazing amount of beneficial plants and wildlife
- **Look for a sunny**, visible, accessible spot
- **A partial-shade meadow** is definitely possible, but a little more difficult and will attract less wildlife
- **Different moisture/soil types** can be dealt with; there are plants that live in almost any soil
- **Your meadow will attract more wildlife** if it connects/abuts with another habitat or structure (pond, stream, marsh, forest, tree/shrub hedge, shelter belt, garden, split rail fence, stone wall, large rock or brush shelters, etc.)

Prepare your site:

- **If your site already has a good mix of native species or if you’re not sure what lives there, just let it grow and watch what develops for a season or two.**
- **If you have undesirable plants** growing on the site that you wish to replace with native meadow species you can remove them by several methods:
  - Smothering them with newspaper, plastic/tarp, woodchips/mulch, etc.
  - Removal by digging with shovels or sod-cutter
  - Using a string-trimmer to severely “scalp” undesirable plants down to bare ground
  - Using a single treatment of a low-percentage solution of Round-up (3%-5%), being sure to carefully follow the label’s instructions and never apply herbicide on a windy or rainy day – herbicide is a last resort, but sometimes a useful option under certain circumstances
  - **Seed-to-soil contact** is essential, so be sure to clear away all debris (turf/grass, leaves, thatch, etc.) until you have exposed soil
  - **Use rake** to loosen and break up soil (no shovels / roto-tillers – they expose dormant weed seeds)

Mix and apply seeds:

- **Best time for installing** a native seed meadow (i.e., best germination results) is October through December, but it can be done anytime of the year – February through April is also good.
- **Mix seeds thoroughly** with peat moss (the best) or with vermiculite, potting soil or sawdust
- **Use approx. 1 part seeds** to 5-10 parts mixing medium (peat moss, potting soil, etc.)
- **Spread/scatter seed mixture** by hand or spreader evenly over your prepared site
- **Mix/scratch seed mix into soil** with rake – do not turn soil or bury seeds (no digging)
- **Press seed mix** into soil by stomping with feet, tires, rollers, etc.
- **Spread/sprinkle very light layer** (1/2” or less) of straw (not hay), mulch or woodchips over your site – this light, scattered layer helps to trap moisture and protects seeds from extreme weather.
- **No need ever to water** – seeds will sprout/grow at their own pace when they get enough rain.
“The Weather Outside is Frightful, but the Trails are so Delightful . . .”

It’s winter. At some point cabin fever catches up to us. Here are some useful tips before you hike:

Dress like an onion, in layers, as temperatures can vary from the bottom of the trail to the top.
Include a waterproof shell in case of foul weather. Wear thick, winter-weight socks. Wear two pairs of gloves or mittens - one for insulation, and one for waterproofing. If it’s sunny with ground snow, wear sunglasses. Take a thermos of hot tea or cocoa. Start small and early - the sun sets much earlier in winter; plan to be off the trial before dark. Check the weather beforehand. Take along an experienced friend; tell a friend at home where you are going. Take along a trail map and compass, a multi-tool with knife, a headlamp, and hand-warming packets if you have them. Invest in good quality gear. Be prepared to turn around if conditions look dangerous; if you are climbing, you must have time and energy left for the decent.

“Getting to the top is optional; getting down is mandatory,” said legendary mountaineer Ed Viesturs. At the end of the trail, treat yourself to a good meal of comfort food as reward for a hike well accomplished, a day well spent.

~ excerpted from Haley January’s Ten Tips for Safe and Comfortable Winter Hiking