Helen Hamilton, “Plants Without Petals”
Monday, September 18, 7:30 p.m.
Bethel Lutheran Church
8712 Plantation Lane
Manassas, VA

Please plan to join us for an interesting program to be given by Helen Hamilton. Grasses, sedges and mosses accomplish reproduction without petals and perfumes to attract pollinators. Wind carries pollen to pistil in land plants, but sexual reproduction in tiny mosses and liverworts depends on a covering of moisture. Mosses grow in every continent, in full sun and deep shade, dormant during unfavorable conditions, and reviving with a little water. This talk will use slides and handouts to identify very visible local species growing on trees, logs, rocks, and in tiny spaces of asphalt and concrete, with emphasis on those suitable for moss gardening. Truly amazing life forms.

Helen Hamilton taught biology in the Williamsburg area high schools, worked as a plant technician for the National Park Service, and completed Master Gardening training in 2004.

For many years she was a board member of the Virginia Native Plant Society and the Williamsburg Botanical Garden, and president of her local chapter of the Virginia Native Plant Society. She co-authored *Wildflowers and Grasses of Virginia’s Coastal Plain*, and created plant guides for her local parks. Helen writes articles about native plants, leads plant walks and gives talks about gardening for wildlife. A second book, *Ferns & Mosses of Virginia’s Coastal Plain* has been printed as an 80-page spiral-bound field guide. Both books are available for sale at the September 18 meeting.

President’s Corner

While daylight is diminishing, masses of cheery yellow flowers, such as our tickseed sunflowers (*Bidens ssp.*), brighten our days in the fall. Our goldenrods, unfairly maligned for allergies which they do not cause, and colorful asters provide much needed nectar for our migrating monarch butterflies this time of year.

I hope that many of you had the opportunity to travel this summer. In my quest to visit all 50 states, I added Michigan as my 45th state when I traveled there with one of my nieces last month. It’s a large state and our mere six days did not do it justice. We flew into the Detroit Metropolitan Airport, rented a car, and spent our first day and a half exploring the renowned Henry Ford Museum and taking a factory tour where Ford trucks are manufactured. We were fed the expected
propaganda, but I was impressed with the Ford Motor Company’s “green efforts.” It is very proud of its extensive living roof (planted with sedums) over the factory and the natural light admitted by the roof design. Its Rouge (River) plant is even “an official wildlife habitat where business practices are in balance with nature.” We stayed a night in Dearborn and were very fortunate to find a lovely trail near our hotel for an early morning walk that led us along a tributary of the Rouge River and passed by an environmental interpretive center for the University of Michigan-Dearborn. It even had a fantastic native plant garden.

Our next destination was Sleeping Bear Dunes on Lake Michigan so we headed northwest toward Traverse City. We stopped at a highway welcome center rest area that featured a riot of colorful plantings, a mixture of natives and nonnatives, that was a project of the Michigan State University Extension Master Gardener Volunteer Program. Later in the trip we stopped at another rest area that was surrounded by a managed native plant meadow. It was just glorious—and beckoned me to explore. It featured prairie favorites such as Purple Coneflower (Echinacea purpurea) and Pinnate Prairie Coneflower (Ratibida pinnata) as well as Wild Bergamot (Monarda fistulosa) and Spotted Beebalm (Monarda punctata). Signage in the building declared “Wildflowers of Michigan a natural heritage worth protecting” and listed many species from Wild Lupine (Lupinus perennis) to Michigan Lily (Lilium michiganense). It was heartening to see native plants embraced by the Michigan Department of Highways.

Once in Traverse City, we connected with former PWWS members Kathy and Don Ehrenberger. Some of our longtime members will remember them well; their lovely City of Manassas garden was on our spring wildflower garden tour several times. After retiring from the Fairfax County School System, they decided to return to their hometown and live on Long Lake. Kathy maintains some impressive gardens on their acre lot, but she is quick to point out that the property came with a small frog pond and waterfall professionally installed. Don and Kathy were our guides to Sleeping Bear Dunes National Lakeshore, and we had perfect weather for the awesome scenery. They even took us to one of their favorite nurseries, Wildflower, where there was an impressive display of our VNPS Wildflower of the Year, Black Cohosh (Actaea racemosa).

We spent the rest of our trip on the Upper Peninsula where we chased waterfalls. Michigan has numerous waterfalls, the most crowded and famous of which is Tahquamenon Falls (rhymes with phenomenon) with its amber-colored upper and lower falls. While there I thought that I came upon some cool orchids right along the trail. Unfortunately, while they were orchids, they were Broad-leaved Helleborine (Epipactis helleborine), nonnative and somewhat invasive. Our favorite waterfall was Sable Falls, the trail for which led to a breath-taking outfall at Lake Superior. We drove as far west as Munising along Pictured Rocks National Lakeshore and took a glass-bottomed boat tour of a couple of shipwrecks. We also visited a place called Miners Castle, an impressive rock formation by Lake Superior. A large colony of Joe-Pye Weed was in bloom and was covered with dozens of Monarch butterflies, more than I had ever seen all at once. Wow! While I was disappointed that the roadsides were lined mainly with Queen Anne’s Lace and Spotted Knapweed, we did see striking stands of sunflowers, and I was delighted to find delicate harebells (Campanula rotundifolia) in unexpected places.
Michigan is not the only state with native plantings at its rest areas. As I have written previously, our own I-95 rest areas near Dale City have impressive natives, especially the northbound side. The northbound pollinator plantings were installed by volunteers two years ago and have thrived. A small group of PWWS members and Master Gardeners attempt to rid the plantings of the most noxious weeds. We plan to have another weeding party on September 22 at 9 a.m.

This month we are pleased to welcome the return of Helen Hamilton, a VNPS member from the John Clayton Chapter in Williamsburg. She recently published her second book *Ferns and Mosses of Virginia’s Coastal Plain* and will offer copies for sale. In addition, her friend Dr. Gerald Johnson, professor emeritus in Geology from the College of William and Mary, is traveling with her and will be our special guest. I hope to see many of you on the 18th.

~ Nancy

**Prince William Wildflower Society**

**Membership Meeting Minutes**

**Monday, July 17, 2017**

**Bethel Lutheran Church**

Vice-President William Carromero welcomed all and invited those present to the refreshments table, as well as to the table holding the *Flora of Virginia* framed prints. Raffle tickets can be purchased for $5 for the two prints, and the drawing will be at the annual meeting on September 18.

(Program: William introduced Matt Bright as our guest speaker. Matt is from Earth Sangha, a nursery that sells only locally sourced native plants. Matt’s parents started Earth Sangha, a non-profit, and he has worked there since 2011. The nursery gathers seeds from local natives and sells the plants grown from seed.

“Schoolyard Habitats” is a program in which Matt is active, and several area high schools created habitat gardens with guidance from Earth Sangha, some local groups, and the Virginia Department of Game and Inland Fisheries.

Matt stressed that mimicking natural plant communities is part of a good plan for native gardening. He encouraged us to work with our site and have the right place, the right plants, and the right proportions for a successful native garden. Go to [www.earthsangha.org](http://www.earthsangha.org) for information on their volunteer opportunities and plant sales.

**Announcements:** Botany Chair, Marion Lobstein had a prototype of the *Flora of Virginia* app available to demonstrate to anyone interested. Marion scheduled a plant identification class Thursday, August 3 at Manassas National Battlefield Park Headquarters. A sign-up sheet was available. Marion will also schedule a wildflower walk at MNBP later in August.

**Doorprizes:**

- Karen O’Leary - hummingbird feeder
- Diane Liga - hummingbird feeder
- Katherine Isaacson - socks
- Dee Brown - hanger for a hummingbird feeder
- Nsama Okeowo - *Native Plants for Central Rappahannock*

**In attendance:** Brenda Hallam, Karen Waltman, Jeanne Lamczyk, Muriel Devine, David Singman, Jannell Bryant, Libby Pemberton, Karen O’Leary, Tom Andrew, Joyce Andrew, Nsama Okeowo, Valerie Gaffney, Cathy Hindman, William Carromero, Nell Benton, Jeanne Fowler, Dee Brown, Glen Macdonald, Valerie Weitzey, Tom Attanaro, Nancy Arrington, Diane Liga, Mary Sherman, Carol Thompson, Marion Lobstein, Beverly Houston, Julia Sarr, Brigitte Hartke, Matt Sangha, Katherine Isaacson.

Karen Waltman, Secretary
Events

Please note:
For events not scheduled at the time this issue went to press, please continue to visit the PWWS web page: vnps.org/princewilliamwildflowersociety/

September

Sunday, September 17, 1-3 pm
Butterfly Walk at Merrimac Farm WMA
Join us as we search for butterflies! Learn how to identify butterflies and habitat diversity, meet new friends, and explore the great outdoors. No experience needed, families welcome. RSVP appreciated to alliance@pwconserve.org

Friday, September 22, and Thursday, October 19, 8 am to noon, Weeding Party at the I-95 NORTHBOUND Dale City Car Rest Area near Mile Marker 156. Please bring a reusable water bottle, gloves and your favorite garden tools, and join us any time on those mornings.

Sunday, September 24, 2 pm
Doug Tallamy: “Making Insects: A guide to restoring the little things that run the world” Little Washington Theatre, 291 Gay Street, Washington, VA  540-675-1253 (free)

October

Saturday, October 28, 10 am, The Occoquan Greenway Trail Ten Year Anniversary Hike!
Meet at the parking lot of Lake Ridge Park, 12373 Cotton Mill Road. RSVP required to alliance@pwconserve.org or 703-499-4954

Sunday, October 29, 8 am, Bird Walk at Merrimac Farm, last Sunday of every month.
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

Enjoy the fall season outside — for a list of Fall Hikes in the northern Virginia region in October and November, visit http://www.funinfairfaxva.com/great-fall-hikes-in-virginia/ (photo from their website, bridge over Quantico Creek, Prince William Forest)

Fall Native Plant Sales

Saturday, September 16, 8 am to 1 pm Vienna Community Center Native Plant Sale. Contact 703-255-6360 Located in the VCC parking lot.

Saturday, September 23, 9 am to 2 pm Northern Alexandria Native Plant Sale.
Location: The Church of St. Clement 1701 N. Quaker Lane, Alexandria, VA  571-232-0375.  12 vendors

Sunday, September 24, 10 am to 2 pm, Earth Sangha Fall Open House and Plant Sale, at their Wild Plant Nursery, off 6100 Cloud Drive in Franconia Park, Springfield. For directions — http://www.earthsangha.org/wpn

October 14 & 15 — ArborFest Fall Festival and Plant Sale, rain or shine, at Blandy Farm, State Arboretum. Entrance on Rt. 50, 400 Blandy Farm Lane, Boyce, VA. Fall perennials - small trees and native plants. Carload fee of $10
SAVE the DATES

PWWS is changing 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 are moving to that night. Please mark your calendars for the first Thursday beginning NOVEMBER 2. Please come for an informative program given by Veronica Tangiri who is with the Prince William Soil and Water Conservation District dealing with stream monitoring.

Late summer view of tickseed sunflowers cascading over a stone wall in Crooked Run Valley in Delaplane, Virginia, taken by Nancy Vehrs
PAWPAW (*Asimina triloba*)

Marion Blois Lobstein
Botany Chair, Prince William Wildflower Society
(a chapter of Virginia Native Plant Society)

"Pickin' up pawpaws, puttin' 'em in my pocket, way down yonder in the pawpaw patch" is a rhyme many of us remember from childhood. Pawpaw, *Asimina triloba*, is one of our loveliest native fruit-bearing trees. It is the only genus in non-tropical North America of the Annonaceae or custard-apple family. "Asimina" is a genus name derived from a French name of "asimin" which was taken from an Indian name for the plant while the species "triloba" refers to the arrangement of the six petals of the flower that are arranged in two whorls of three. *A. triloba* is found in moist, rich woods from Michigan and New York south to Florida and Texas and as far west as Nebraska. It is usually an understory tree averaging 8-12 feet but can reach heights of 40-50 feet in optimum growth conditions. As an understory species, pawpaw develops a spreading shape while if grown in the open it takes on a pyramidal shape. Other common names for the pawpaw (or papaw) are false banana, Michigan Banana, and custard apple referring to the tropical smell and taste of the fruit and to the custard-like consistency of the fruit. A second *Asimina* species, *A. parviflora*, the small-flowered or small-fruited pawpaw, is found in Virginia but only in four extreme southeastern counties.

The handsome first green and later maroon or wine-colored flowers of pawpaw bloom in the Northern Virginia area from early to mid-April. The one and a half-inch flowers are composed of a calyx of 3 green sepals, a corolla of 6 petals arranged in 2 layers (with the 3 inner smaller petals standing up to form a pointed "crown"), numerous stamens arranged in a spiral, and 1-15 separate ovaries (carpels) each containing 7-18 ovules which will become seeds if each ovule is fertilized. The stigma of each carpel after 5-10 days becomes shiny indicating that it is receptive to being pollinated and remains receptive from 4-6 days before turning brown. After the carpels are no longer receptive to pollen, the stamens then release their pollen. This prevents self-fertilization within the same flower. Pollinators are thought to be mainly beetles and flies. As the flower matures, the petals darken from green to pinkish to maroon in color as well as begin to emit an odor of fermenting grapes. One tree can produce many flowers but often only about 15% of the trees develop fruit and less than 1-2% of the flowers develop fruit. One flower can produce 1-4 fruits that are the largest native North American fruits. The kidney-shaped fruit can range from 3-5 inches in length and turns a brownish-yellow when it is ripe by late September. The fruits may ripen on the tree or after they fall to the forest floor (or one may take them home to ripen in a few days). Unlike the persimmon, the fruit does not require frost to ripen. The yellow flesh of the fruit has a custard-like consistency and a tropical banana-like flavor. The large, rich brown seeds of the fruit range in number from 5-7 and may be up to one inch in length. Small mammals such as raccoons, opossums, and gray squirrels are attracted to the mature fruits and will eat the fruit and disperse the seeds in their scats (droppings).

The opposite, obovate leaves of paw-paw have entire margins and may be up to a foot long. The upper surface of the leaf is smooth and darker green while the under surface is lighter in color and often covered with rust-colored down. The leaves have a petroleum-like smell that becomes more pronounced as the leaves mature. The leaves are used by the larvae of the swallowtail butterfly. These compounds most likely protect the leaves from being eaten by insects and other animals including deer. Extracts from leaves and bark in the past and currently are used as a natural insecticide.
(Pawpaw continued) The bark of the slender trunk (even if a tree is tall, its trunk seldom exceeds 6 inches diameter) is dark brown with ashen blotches in shallow, irregular fissures. The buds of twigs are not covered by bud scales but rather by rust-colored hairs. It is purported that the famous bird artist John Audubon used the twigs of pawpaw to paint fine lines in his bird paintings. Rhizomes (underground horizontal stems) are sent out from older stems of pawpaw and form separate trees that are genetically identical (a type of cloning) and that are all interconnected underground.

The fruits of pawpaw were highly favored by many tribes of American Indians and there is evidence that some tribes even planted seeds. The fibrous inner bark of pawpaw was also used by Indians to make rope, string, fish nets, even fiber cloth. Early pioneers used the bark to make fish stringers. Pioneers as well as modern day natural food enthusiasts also prized the fruit. Pioneers often stored pawpaw fruits in oats to extend their edibility range. A yellow dye can be extracted from ripe fruits. The fruit can be eaten directly as is or made into custard, pudding, marmalade, pies, or even ice cream. Ripe pawpaws must be used in a short time or the odor may become permeating and overpowering if the fruit is stored indoors.

In the spring enjoy the beauty of its unusual flowers and in early fall check for ripening fruits. Hopefully you will beat a squirrel or raccoon in finding the fruit at just the right stage of ripeness. The delightful flavor of the fruit will be well worth the effort!
Something told the wild geese
It was time to go,
Though the fields lay golden
Something whispered, "snow."

Leaves were green and stirring,
Berries, luster-glossed,
But beneath warm feathers
Something cautioned, "frost."

All the sagging orchards
Steamed with amber spice,
But each wild breast stiffened
At remembered ice.

Something told the wild geese
It was time to fly,
Summer sun was on their wings,
Winter in their cry.

Something Told the Wild Geese  by Rachel Field