

Marilandica

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A Publication of the Maryland Native Plant Society

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A Publication of the
Maryland Native Plant Society



www.mdflora.org
P.O. Box 4877 Silver Spring, MD 20914

CONTACTS

Membership & Website

Karyn Molines, membership@mdflora.org

Marilandica Editor

Kirsten Johnson, kh.johnson@gmail.com

General Inquiries

info@mdflora.org

MNPS CHAPTERS

Eastern Shore

Info@mdflora.org

Greater Baltimore

Kirsten Johnson, kh.johnson@gmail.com

Montgomery County

info@mdflora.org

North East

Tracey Ripani, info@mdflora.org

Prince George's/Anne Arundel Counties

Robinne Grey, info@mdflora.org

Southern Maryland

Karyn Molines, info@mdflora.org

Washington, DC

Claudine Lebeau, claudine_l_lebeau@yahoo.com

Western Mountains

Liz McDowell, lmcnativeplants@hughes.net

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Our Mission

Promote awareness, appreciation and conservation of Maryland's native plants and their habitats. We pursue our mission through education, research, advocacy, and service activities.

Letter from the President



*Are there any native plants on this stream bank? Uhh. . .let's see. . . oh look!
Yellow trout lily! Get up close. Take a picture. Day lilies? Ground ivy? Don't look at those!*

Dear Friends,

Sad to say, this is a very common scenario. A good proportion of the species in the herbaceous and shrub layers may be native but the vast bulk of the green biomass is non-native—the stuff we pick through, hoping to find a native plant somehow hanging on. Next time you're in the field with your camera, try for a photo showing three or more plant species, but not showing any non-natives. It isn't easy. There's bound to be a ground ivy or a multiflora rose lurking in there somewhere. But you already know this.

The non-native species are not going away. We can pull and dig and spray, and we might "save" some acres of native habitat. But as long as the native plants continue to lose the competitive battle, it's a hopeless cause. The non-natives have a major helper on their side, namely the white-tailed deer, an animal that, like many non-native invasive species, has no predators (other than humans) to curb its population. It is interesting to note that many of our non-native invasive plants, such as garlic mustard, have existed here for centuries, yet their numbers didn't explode until the late 20th century – along with the exploding deer population.

The Department of Natural Resources is working on a 15-year revision of the agency's Deer Management Plan. This is the agency that manages and licenses hunting and fishing in Maryland. On behalf of MNPS, I recently attended a stakeholder meeting at which DNR solicited input from hunters, conservationists, state and federal government agencies and others. I was pleased to hear that reduction of Maryland's deer herd remains a priority. DNR plans to hold public meetings during the summer. I hope our members and friends will participate to support effective deer management in Maryland.

~ Kirsten Johnson, President

2018 Research Grants Awarded

We're delighted to announce that the following applicants will receive MNPS research grants.

Lyntana Brougham, grad student at Southern Georgia University: *Are leaf gas exchange rates in salt marsh plants altered by experimental field warming and elevated CO2?*

Karin Burghardt, PhD, Postdoctoral Fellow at Smithsonian Environmental Research Center: *Do diverse vs. monoculture tree neighborhoods change caterpillar host use of native trees?*

Eric Griffin PhD, Postdoctoral Fellow at Smithsonian Environmental Research Center: *Assessing how changes in native tree diversity affect trophic interactions and plant productivity.*

Jones, Kathryn M. and Andrew P. Landsman, *The Link Between Herbivores and Native Plant Communities.*

Martina Mateu, grad student University of MD College Park: *Effects of fungal endophyte inoculation on salinity tolerance of native and invasive Phragmites australis.*

Margaret Park, grad student, Towson University: *Ecological impacts of a potentially invasive plant: Miscanthus sinensis.*

Kathy Thornton and Sylvan Kaufman, Adkins Arboretum: *Tracking changes in coastal plain plant communities.*

Congratulations to Liz McDowell! Our Western Mountains Coordinator was the recipient of the 2018 Richard A. Johnson Environmental Education Award, conferred by the Appalachian Laboratory of the University of Maryland Center for Environmental Science for outstanding contributions to environmental science and education.

Wildflower in Focus – Smooth Orange Milkweed

Asclepias lanceolata Walter

Smooth orange milkweed, few-flowered milkweed

Dogbane Family, Apocynaceae

State Rank S1: At very high risk of extirpation in the state and probably occurring in five or fewer populations.



This year MNPS focuses on the Dogbane Family, and that includes the milkweeds. Once again, my choice for our cover was dictated by a beautiful photo, in this case by Jared Satchell.

Maryland is at the northern end of the range of smooth orange milkweed, as it is for many species. According to Jim Brighton of the Maryland Biodiversity Project, “*A. lanceolata* is super rare and I only know of two populations in Dorchester. The good news is that there are lots of stems in both locations. The biggest issue is that I’m sure there would be a lot more stems but the plants are being crowded out by phragmites. Both locations are in the oligohaline zone. This is basically the zone between fresh and brackish marshes. This habitat is disappearing quickly due to salt inclusion. Many rare plants are found in this zone including long-leaved lobelia (*Lobelia elongata*)(S3), which is found in one of the *A. lanceolata* locations. Other interesting plants that are found in the same area are rattlesnake master (*Eryngium aquaticum*), and marsh rose gentian (*Sabatia dodecandra*)(S3). All these plants bloom around the same time in mid-summer.”

Milkweeds and Insects:

A Co-evolutionary Arms Race

Everyone knows that monarch butterflies (*Danaus plexippus*) specialize on milkweeds. They have evolved strategies to cope with the milkweeds’ defenses against insect herbivory. After a monarch caterpillar hatches, it finds itself on a milkweed leaf in a bed of dense hairs. But the caterpillars have evolved the ability to shave the hairs in order to access the leaves. Next, when the caterpillar sinks its mandibles into the leaf, it encounters a sticky, poisonous liquid called latex. Some of the larvae are killed by this latex. But most survive by cutting off the veins through which the latex flows. In the third level of defense and counter defense, milkweed contains a highly toxic chemical called a cardiac glycoside. Again, the monarch has evolved not only to tolerate the cardiac glycoside, but to sequester it and put it to work in its own defense from its bird predators.

Monarchs aren’t the only insects that can feed on milkweeds. Others include red milkweed beetles (*Tetraopes tetraphthalmus*), stem weevils (*Rhysomatus lineaticollis*), small milkweed bugs (*Lygaeus kalmii*) and milkweed leaf miner flies (*Liriomyza asclepiadis*), as well as aphid

species. All these insects have evolved strategies for avoiding or tolerating the milkweed defenses. Natural selection favored the evolution of those strategies just as it favored ever more effective defenses on the part of the milkweeds. Hence the term “co-evolutionary arms race.”

Given the number of insect species that successfully feed on milkweeds, what’s the next evolutionary step for *Asclepias*? Will the arms race continue, with milkweeds becoming ever more toxic? Or will natural selection favor a shift of strategy? Researchers at Cornell examined growth habits of numerous species of milkweeds, and mapped their evolutionary tree. It turned out that the evolutionary

trend is for milkweeds to grow back more vigorously after insect damage, and that other defenses are actually getting weaker. That is, more recently diverging *Asclepias* species have relatively weaker chemical defenses, but greater capacity for regrowth compared to earlier evolved species. The researchers propose that this is due to the dominance of specialist insects among milkweed herbivores. Those insects have been so successful in overcoming the milkweeds’ defenses that selection has favored a new evolutionary path for their host plants. This path—vigorous regrowth—makes plants more tolerant of the inevitable damage from insect specialists. How will the story play out? Check back in a few million years.

–Kirsten Johnson

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Maryland Natural Heritage Program. 2018. Rare, Threatened, and Endangered Plants of Maryland, C. Frye Ed., Maryland Department of Natural Resources, 580 Taylor Avenue, Annapolis, MD 21401. DNR 03-010418-43.

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Above: Red milkweed beetles (*Tetraopes tetraphthalmus*)
Below: Monarch caterpillar (*Danaus plexippus*)



O Where are the Pines of Piney Branch?

Whenever I see the black metal door on the sewer pipe outfall in Piney Branch, a Rock Creek tributary in Washington DC, I think of the classic 1960s science fiction film, *The Time Machine*. In that story, the time traveler hurtles 800,000 years into the future and discovers a world ruled by monsters who live in underground factories and eat the clueless flower children dwelling above. One entry to the hellish domain is behind a large steel panel at the base of a sphinx-like structure.

The Piney Branch sewer entrance resembles a giant garage door, concealing a tunnel that leads to an urban version of hell: the combined sewer overflow system. When rainstorms overwhelm the sewer system in that part of the city, raw sewage is mixed with storm water and the entire mess is spewed out onto a 12,000 square foot concrete apron that dissipates the energy of the torrent before it hits the natural streambed.

This brutalist concrete conveyance, possibly the ugliest water utility feature in the city, was a direct consequence of early twentieth century development that paved over 95 percent of the 2,500-acre Piney Branch watershed. (The stream's headwaters were in the Takoma neighborhood of DC.)

The runoff surges can raise the water level of the natural stream bed by 10 feet, leaving plastic bags, clothing and other trash decorating the trees between the creek and Piney Branch Parkway.

Piney Branch no doubt got its name from groves of Virginia pine, the characteristic conifer of the Rock Creek area. Besides the pines, nineteenth century observers were struck by the beauty and natural richness of the stream valley.

The rambling writer John Burroughs, in his 1871 book *Wake Robin*, described Piney as "wild and savage ... abounding in dark recesses and hidden retreats." By the first week of March, he usually found hepatica in bloom, and a month later, anemone, saxifrage, arbutus, houstonia, and bloodroot. In that same period, pioneering botanists documented Magnolia Bog flora at what was known then as the Holmead Swamp, at the present-day intersection of Spring Street and 13th Street NW. The wetland drained to a Piney tributary.

Another Magnolia Bog was studied a bit to the north, where Ingraham Street NW now meets 5th Street NW.

Rapid construction of rowhouses and commercial buildings sealed the fate of the watershed. W.L. McAtee wrote in 1918 (*A Sketch of the Natural History of the District of Columbia*) that Piney Branch "has been a most interesting locality for naturalists, but is nearly ruined now." He described Holmead Swamp as "one of the most interesting of the Magnolia Bogs, and one most thoroughly explored."

Today, Virginia pines are a rare sight in what's left of the Piney Branch watershed. It might be more fitting to rename it the "Chestnut Oak Branch," as *Quercus montana* is widespread on the stream valley ridges. Chestnut oaks have more concentrated tannins, and thus less deer predation, than the red oaks and other white oaks. One can find a few substantial red oak saplings in the area, but hardly any young white oaks of any size.

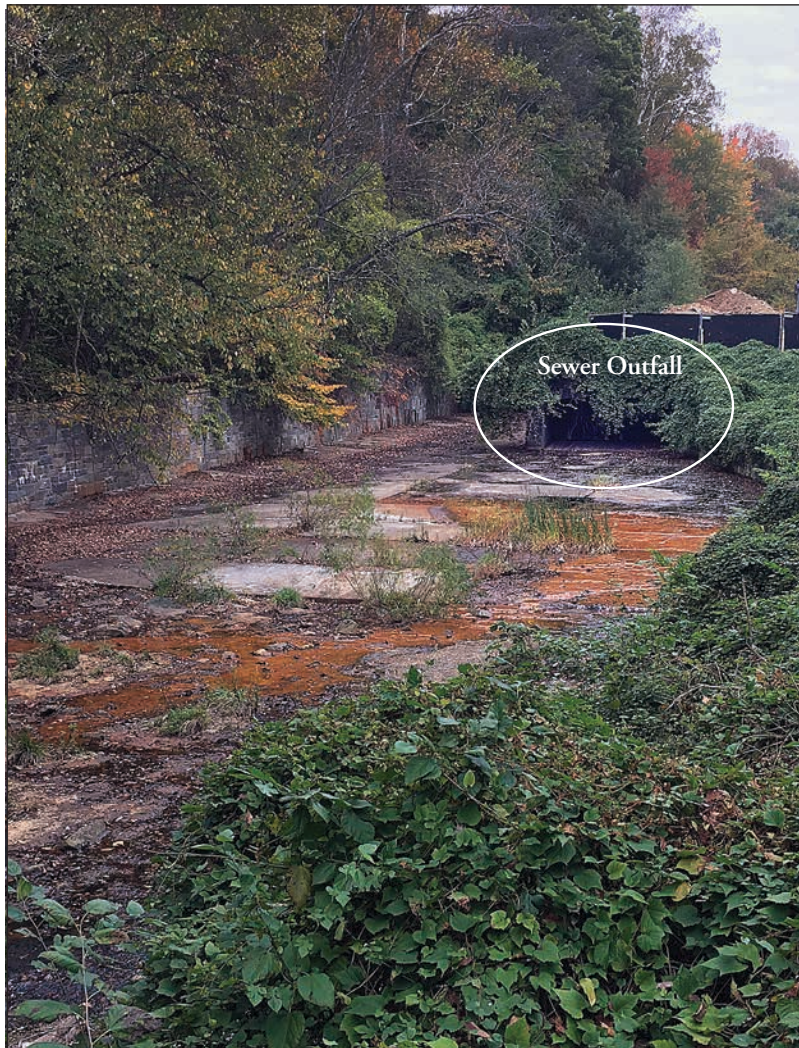
The plentiful chestnut oak acorns have produced a large number of seedlings, and a recent thinning out of Norway maples by the National Park Service, and caging of the saplings by volunteer stewards, have given the young trees a better chance of survival. Also helpful has been the Park Service's reduction of the deer population using hired hunters.

Photos of the construction of the Piney Branch Parkway in the 1930s show a moonscape of cleared land on slopes bordering Arkansas Avenue NW, just beyond the 16th Street "Tiger Bridge" that towers over the stream valley. Apparently, however, the destruction didn't extend as far south as the Quincy Street NW entrance to the park. There, on about an acre of rocky hillside, survives not only a grove of chestnut oak, but other characteristic species such as greenbriar, white wood aster, poison ivy, poverty oat grass, deer tongue grass, black locust, sassafras, and persimmon.

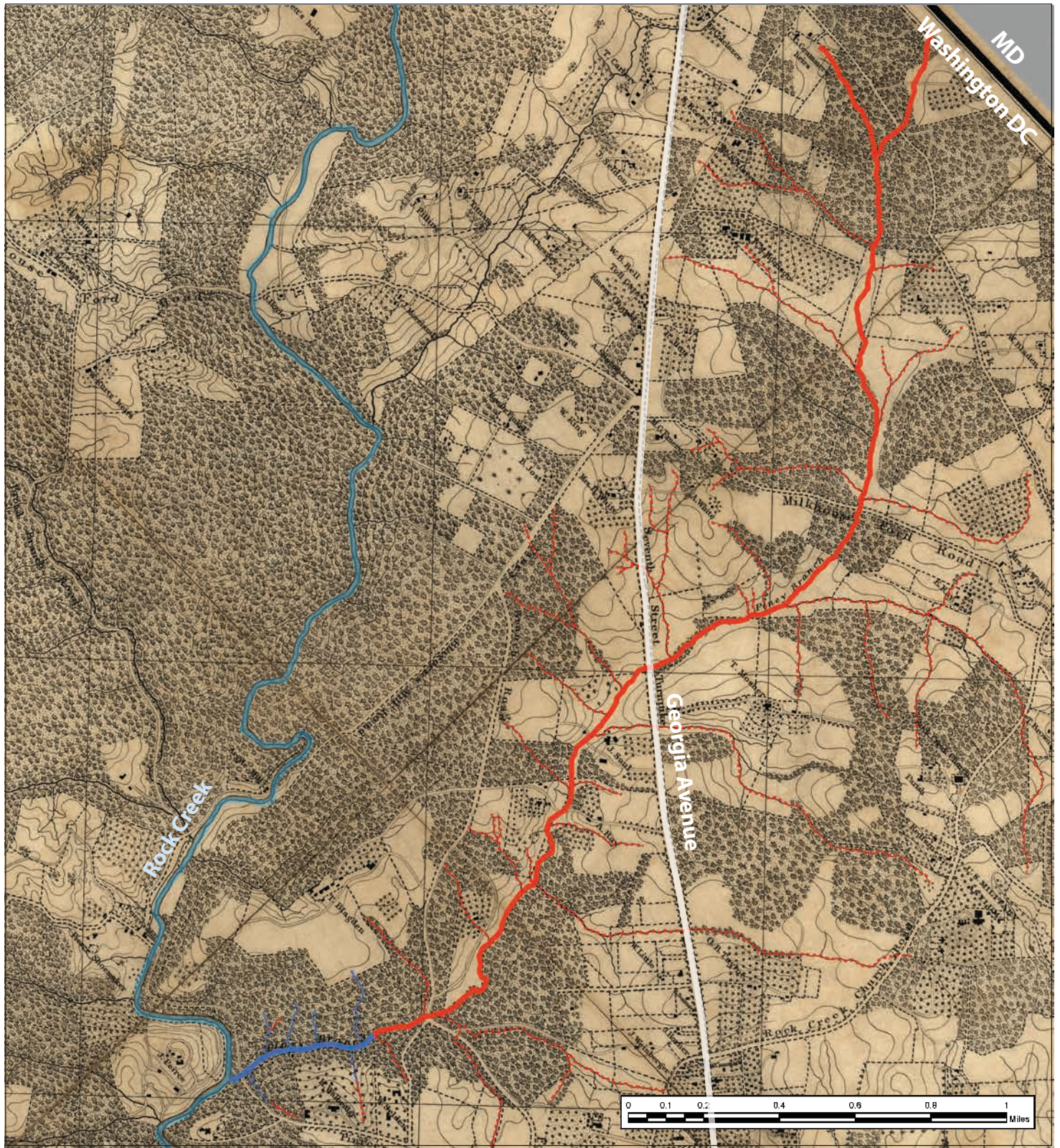
For good measure, a small plot of thinleaf sunflower thrives at the edge of the alley extension of Quincy Street NW that borders the park.

Elsewhere in the surviving 67-acre Piney Branch stream valley, such familiar natives as skunk cabbage and spring beauty have their own corners of healthy existence.

Map follows on page 4, article continued bottom page 9



Piney Branch Sewer Outfall



This Civil War-era map shows the historic reach of Piney Branch (red) and the remaining natural streambed (blue) that wasn't buried by development.

LEGEND

- Remainder of Piney Branch natural streambed
- Historic reach of stream

1861 background map Library of Congress / stream overlay Noam Raffel

Maryland Native Plant Society Conference 2018

Co-sponsored by the Department of Geography and Environmental Systems
at University of Maryland Baltimore County and the Mid-Atlantic Invasive Plant Council

The Times They Are A'Changin'



SATURDAY September 15

Lecture Hall 105, Public Policy Building, University of Maryland, Baltimore County, MD

MORNING 8:00 Registration

9:00 Welcome and Opening Remarks

9:10 **Overview of Threats to Maryland's Flora**
Jil Swearingen, Board Member, MAIPC

9:30 **Why Should We Care About Invasive Species?**
Dr. Vanessa Beauchamp, Associate Professor, Towson University

10:15 **Greening Baltimore's Vacant Lots**
Dr. Christopher Swan, Professor, University of MD – Baltimore County

10:30 **Break**

11:00 **Invasive Plant Management Decision Systems**
Art Gover, Invasive species specialist, Penn State University

AFTERNOON 12:00 Lunch. Library, 7th Floor Open Space

1:00 **Field Trips** — Carpool from the University

EVENING 5:00 Evening Social, Cash Bar, Appetizers, Posters, Treasure Table

6:00 Buffet Dinner

7:15 **Climate and Rising Carbon Dioxide: It's Good To Be Invasive**
Dr. Lew Ziska, Research Plant Physiologist, USDA

SUNDAY September 16

Field Trips — Meet at the location, directions provided separately.

Water, hiking boots, sunscreen, hat, and bug repellent are highly recommended for all trips.

The Times They Are A'Changin'

FIELD TRIPS AND WORKSHOPS: Saturday, September 15

Patapsco Valley State Park ~ Rochelle Bartolomei

One of Maryland's largest parks, Patapsco Valley State Park extends along 32 miles of the Patapsco River. Rochelle will select an area with a good variety of Maryland piedmont plants for September viewing.

Oregon Ridge State Park ~ Carole Bergmann

At close to 900 acres, the Oregon Ridge State Park forest has been called Baltimore County's premier public forest. A forest study found that 20 of the 22 forest stands have trees more than 100 years old, and that 84% of all trees are 18" dbh (that's approximately 54" in circumference) or greater. Oaks dominate 80% of the forested acres, but we will see several natural community habitats, a diversity of canopy trees, understory shrubs, ferns and herbaceous plants.

Gunpowder State Park, Hereford Area ~ Dwight Johnson

On this trip we will explore a variety of diverse habitats, from highland to riparian, along the Gunpowder River, one of most pristine natural areas in greater Baltimore.

Benjamin Banneker Historical Park ~ Judy Fulton

Benjamin Banneker Historical Park and Museum is dedicated to the life and times of Benjamin Banneker, often considered the first African-American man of science. The park's wooded trails harbor a variety of native and invasive plants. Participants will learn how to identify common and uncommon non-native

plants, as well as natives that are seen along the way. Easy walk. The park is located near UMBC.

Gwynns Falls-Leakin Park ~ Rod Simmons

This 1200 acre park complex overlies the Baltimore Gabbro Complex - a base-rich mafic rock that gives rise to floristically diverse plant communities and a high number of species. We will see several state-rare sedges, numerous grasses, a diversity of shrubs, understory, and canopy trees, many of which are massive in size, and several natural community types. We will also explore a mafic seepage swamp via boardwalk. This is a relatively unexplored area.

Soldiers Delight Natural Environmental Area ~ Wayne Tindall

This 1,900 acre of serpentine barren harbors many rare and uncommon plant and animal species. Efforts are underway to restore the natural serpentine habitat by removal and prescribed burning of invading Virginia pine. Wayne Tindall has been a leader in the conservation and restoration of Soldiers Delight for many years.

Plant ID and iNaturalist workshop on UMBC campus ~

Laura Sebastianelli and Karyn Molines.

In this workshop, Laura will guide you through the iNaturalist app and web site for on-line nature information sharing, while Karyn will help participants learn how to identify the plants found on the UMBC campus.

FIELD TRIPS: Sunday, September 16

Ferns on the Gunpowder ~ Dwight Johnson

On this trip along the Gunpowder River just north of Perry Hall, we should see close to twenty fern species, plus other plants. You will learn to identify some common and less common ferns.

Lake Roland Park ~ Kirsten Johnson

We will walk through the park's deciduous forest to the rare serpentine grassland where a restoration project has been started. We should see blackjack and post oak, as well as a variety of composites and grasses. This park is a good example of the management of natural plant communities in a park surrounded by suburban development.

Harlem Park Green Project ~ Chris Swan, Professor, University of MD Baltimore County

This field trip follows up Chris Swan's Saturday morning talk. We tour vacant lot sites that are part of the West Baltimore Wildflower Project, whose goal is to transform vacant lots into low-maintenance, attractive green spaces that bring natural beauty into urban neighborhoods and positively impact the environment.

Severn Run Natural Environmental Area ~ Karyn Molines

This is an undeveloped park protecting the Severn Run watershed. We will look for climbing fern, maleberry, poison sumac, and other interesting species.

Carroll Co location TBA ~ Bob Ringler

Naturalist Bob Ringler will decide on a good place for a field trip in Carroll Co based on his exploration near the date of the conference. Participants will be looking down at the plants and up at the birds.

Gwynns Falls-Leakin Park ~ Rod Simmons

This 1200 acre park complex overlies the Baltimore Gabbro Complex - a base-rich mafic rock that gives rise to floristically diverse plant communities and a high number of species. We will see several state-rare sedges, numerous grasses, a diversity of shrubs, understory, and canopy trees, many of which are massive in size, and several natural community types. We will also explore a mafic seepage swamp via boardwalk. This is a relatively unexplored area.

Mountain Maryland Notes

It's late May and you're walking on a forest floor littered with the crumpled, brown leaves of last fall. Enough new, green growth has poked its way to the surface that you know spring is in full swing. Then you see them...a cluster of pink lady's slippers against a fallen log. Their color and shape seem more in tune with a tropical rainforest, but here they are on a wooded slope on the Allegheny Plateau.

Cypripedium acaule has many common names, but the ones heard most frequently in Garrett County are pink lady's slipper and moccasin flower. It is a member of the orchid family, which contains at least 25,000 species world-wide, with over 700 in North America, and almost 60 in Maryland. The pink lady's slipper has two large, pleated leaves attached at the base. Its stem, reaching up to a foot high, holds the unique flower with its inflated deep-pink pouch. One of the largest North American orchids, it thrives in a variety of habitats from bogs to upland forests, that share the common feature of poor, acidic soil.



Left: Further north the white form of the pink lady's slipper becomes more common. This cluster was growing in a native stand of mature red pine near Flagstaff Lake in Eustis, ME

Right: A cluster of pink lady's slippers brightens the day in an upland oak-dominated forest in Garrett Co.



The pink lady's slipper can be fertilized only with pollen from a different flower. Its sweet fragrance attracts various species and sizes of bees, but honeybees, and similarly sized bumblebees and solitary bees, are the best fit. Each bee pushes through an opening in the front of the pouch and is directed along a specific route by the plant's inward-pointing hairs. It first must squeeze past the female stigma, where any pollen it carried into the plant is rubbed off. Next the bee "picks-up" a new batch of pollen as it moves past the male anther. When the bee finally exits the flower, it has nothing to show for all of its effort, since the pink lady's slipper provides no nectar. The bee will only make this mistake a couple of times before learning to avoid this so-called "lady". The plants must rely on "naïve" bees to do their bidding. If you see a hole in a pouch, it's likely from a large, frustrated bumblebee that "tired of the game" and created its own exit by biting through the flower.

If the lady's slipper is lucky enough to be pollinated, the resulting seed pod will contain upwards of 20,000 minute seeds. These seeds are easily dispersed by the wind. The flower's luck must still hold, since its seeds must find the right habitat. The soil it falls on must

contain one of several types of fungus if the seed is to germinate and grow. The fungus absorbs nutrients for the orchid until its leaves emerge several years later.

Though *Cypripedium acaule* is not on the Maryland state endangered species list, local populations have declined. Habitat destruction is one reason, however collection by "wildflower lovers" is also a problem. If you know of a patch of pink lady's slippers, cherish them where they are. Rescue them only from areas being destroyed due to development with the clear realization that despite your best efforts

they will likely not survive. Though there are a few nurseries with specialized labs that ethically propagate certain species of *Cypripedium*, *C. acaule* is not one of them. If you do see pink lady's slippers for sale, question the vendor about their provenance. Sadly, the most likely case scenario is that the plants have been wild dug—another loss to our fragile biological heritage. For more information on the correct way to obtain wildflowers for your garden, visit the Maryland Native Plant Society's web site at www.mdflora.org.

~ Liz McDowell

MNPS Western Mountains Chapter Coordinator

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- Cullina, William. 2000. *Growing & Propagating Wildflowers of the United States and Canada*. Boston: Houghton Mifflin Company.
- Eastman, J. 1992. *The Book of Forest and Thicket: Trees, Shrubs and Wildflowers of Eastern North America*. Mechanicsburg, PA: Stackpole Books.
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- Rhoads, A.F. and T.A. Block. 2007. *The Plants of Pennsylvania: An Illustrated Manual (Second Edition)*. Philadelphia: University of Pennsylvania Press.

Websites:

- Lady Bird Johnson Wildflower Center www.wildflower.org
- USDA National Plant Database plants.usda.gov
- US Fish & Wildlife Service International Affairs www.fws.gov/international/plants/orchids

The Western Maryland Chapter sponsors regular evening programs usually held at Frostburg State University. See our website for details about these, and about field trips and invasive removal projects in Western Maryland.

Field Botany Quiz ~ Featuring Plants with White Flowers



Triple Matching — Match the photo with the common name and the scientific name.

- | | |
|------------------------|----------------------------------|
| A. Dutchman's breeches | a. <i>Actaea pachypoda</i> |
| B. Indian hemp | b. <i>Dicentra cucullaria</i> |
| C. Doll's eyes | c. <i>Osmorhiza longistylis</i> |
| D. Bloodroot | d. <i>Sanguinaria canadensis</i> |
| E. Aniseroot | e. <i>Asclepias exaltata</i> |
| F. Poke milkweed | f. <i>Apocynum cannabinum</i> |

ANSWERS
1. D. d.
2. A. b.
3. E. c.
4. F. e.
5. C. a.
6. B. f.

Battling Botanical Bullies at Bear Pen Wildlands

On April 23, 2018, assorted Japanese spiraea and 35 pounds of very small garlic mustard plants were removed from the Savage River State Forest thanks to our intrepid team of volunteers from the community and the Plant Taxonomy class at Frostburg State. The time and energy they donated are deeply appreciated by the MNPS and the West Virginia white butterfly.



Prince Georges/Anne Arundel Chapter Reinvigorated

A group of active volunteers is bringing fresh energy to the Prince George's/Anne Arundel Chapter of MNPS. Thirteen enthusiastic MNPS members attended an initial meeting on April 2. The group reviewed MNPS field trips held in Prince George's County for the past three years and compiled a list of parks and natural areas in PG County. They also discussed possible advocacy for natural areas and native plants in PG County.

Eight people volunteered to serve as the Steering Committee for the Chapter. They met on April 23 to make plans and to draft a communication detailing activities of the Chapter in recent years. Steering Committee members also brainstormed a list of broad goals for the chapter in the areas of education, outreach/participation, advocacy, and conservation/plant rescue.

The Chapter welcomes the involvement of MNPS members who reside in Prince George's and Anne Arundel counties, and anyone else with an interest in the plants and natural areas in those counties. If you'd like to lead a walk and/or work on native-plant-related issues with other Chapter members, please send an email to info@mdflora.org.

Chapter coordinator, Robinne Gray, commented, "I had an eye-opening experience at an MNPS walk in April at Governor Bridge Natural Area in Bowie. With guidance from Karyn Molines and Lisa Bierer-Garrett, we were treated to the sight of many spring wildflowers, including Virginia bluebells, Dutchman's breeches, spring beauties, toothwort, corydalis, trout lily, saxifrage, and a ton of mayapples. We don't have to travel out to Carderock or Black Hill - we've got these lovelies closer to home and in the midst of suburbia!"

The Pines of Piney Branch continued from page 4

About 30 years ago, a vigorous spring burst open directly behind the Piney Branch picnic pavilion, flooding the grassy area with water that had been suppressed by the parkway construction. In the intervening period, porcelainberry, multiflora rose and other exotics smothered the shoreline. Nevertheless, clumps of soft rush and common beggar-ticks are thriving amid the overgrowth.

In 2016, the habitat restoration project I direct, Rock Creek Songbirds, received a grant from the ERM environmental consulting company to fund native plants for the wetland area. Company volunteers helped pull out the invasive species and plant the natives. A new grant will pay for the removal of an asphalt basketball court that became unusable when the spring flooded the pavilion area. The removal will open up new space for the Songbirds project, which has already planted or protected 500 oaks, redbuds, black walnut,

serviceberry and other native species.

Last year, DC Water launched a \$27 million initiative to install what's known as "green infrastructure"—street side gardens, permeable pavement on road and alleys, rain barrels connected to downspouts—that will increase the infiltration of storm water into the natural underground hydrological system of the watershed. If successful, the effort could greatly reduce the discharge of raw sewage into Piney Branch. And perhaps hasten the day when the concrete outfall eyesore can be replaced by plantings of spicebush and sycamore.

~ Steve Dryden

Steve Dryden is director of the Rock Creek Songbirds habitat restoration project (audubondc.org/rock-creek-songbirds), and served as media relations manager for the Audubon Naturalist Society from 1998 to 2005. He grew up near Little Pimmit Run in Arlington, Virginia.

Upcoming Events

All MNPS sponsored events are free and open to the public unless otherwise noted. Pre-registration is required for many field trips, and early registration is usually offered to members. Unless otherwise indicated, MNPS field trips are generally geared to adults. New field trips and programs are continually being scheduled. See our website, mdflora.org, for up to date listings and details.

Field Trips & Other Outdoor Events

May 19, Saturday, 10:00 – 1:00
Greenbelt Park (US Park Service)

Leaders: Marney Bruce and Robinne Gray

June 29, Friday, 9:00 – 10:30 AM

Weed or Wildflower? Help remove unwanted plants from the native plant garden and to learn about common weeds.

Leaders: Christine Campe-Price, Friends of New Germany SP and Liz McDowell, MNPS
New Germany State Park

July 14 – Saturday

Dorchester Co Wetlands. Details TBA.

Leader: Jim Brighton

July 16, Monday, 9:00 – 10:30 AM

Weed or Wildflower? Help remove unwanted plants from the native plant garden and to learn about common weeds.

Leaders: Christine Campe-Price, Friends of New Germany SP and Liz McDowell, MNPS
New Germany State Park

July 13 & July 20, 9:00 to noon each day
Wildflower ID for Beginners

Instructor: Liz McDowell, Western Mountains Chapter Coordinator
Cost \$25 MNPS members, \$50 non-members.
Pre-registration is required.
Elkridge Native Plant Preserve, Garrett County

August 6, Monday, 9:00 – 10:30 AM

Weed or Wildflower? Help remove unwanted plants from the native plant garden and to learn about common weeds.

Leaders: Christine Campe-Price, Friends of New Germany SP and Liz McDowell, MNPS
New Germany State Park

October 21, Sunday, 9:00 AM – 12:00 PM
Exploring Elk Ridge in Fall

Leaders: Liz McDowell and Ron Boyer
Garrett County

Programs

May 29, Tuesday, 7:30 PM, doors open at 7:00
Ferns in the Landscape

Speaker: W Carl Taylor
Kensington Library

June 26, Tuesday, 7:30 PM, doors open at 7:00
The Algae of Maryland:

Diversity, Distribution and Environmental Importance
Speaker: John D Hall, PhD
Kensington Library

July 31, Tuesday, 7:30 PM, doors open at 7:00
Maryland Milkweeds in the Garden

Speaker: Rochelle Bartolomei
Kensington Library

August 28 & September 25
TBA

Kensington Library

September 15 – 16, Saturday & Sunday
Annual Conference

The Times They Are A'Changin' –
Threats to Maryland's Native Plant Communities
University of Maryland Baltimore County, Baltimore, MD

October 11, Thursday, 7:00 PM

From the Mountains to the Sea: Maryland's Natural Areas

Kerrie Wixted, Wildlife Education & Outreach Specialist,
Department of Natural Resources
Frostburg State U, Compton Science Center

November 8, Thursday, 7:00 PM

Topic TBA

Speaker: Elizabeth Green, FSU Grad Student
Frostburg State U, Compton Science Center

HELP DNR TRACK WATCHLIST PLANTS

The Department of Natural Resources monitors and ranks rare and uncommon species. But they don't have the resources to monitor "watchlist" species—those ranked S3. We can help. Here are some that bloom in the spring and are easy to ID: *Cypripedium parviflorum* (Yellow Lady's-slipper), *Delphinium tricornis* (Dwarf Larkspur), *Hybanthus concolor* (Green Violet), *Kalmia angustifolia* (Sheep Laurel), *Myosotis verna* (Spring Forget-me-not), *Primula media* (Eastern Shooting star).

If you see any of these—or any other ranked plant—please note the exact location and try to take a photo. Then either contribute the record to the Maryland Biodiversity Project, marylandbiodiversity.com, or send an email to info@mdflora.org. We'll take it from there. Locations of species are not shared publicly. You can find the complete list of Maryland's Rare Threatened and Endangered Plants on DNR's website.

Become a member. Join online: www.mdflora.org.

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Maryland Native Plant Society
PO Box 4877
Silver Spring, MD 20914

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Frode Jacobsen