

Marilandica

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A Publication of the Maryland Native Plant Society

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Marilandica

A Publication of the
Maryland Native Plant Society



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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.

Nature Knows No Boundaries—Letter from the President



Symphotrichum shortii, *Short's Aster*, S3S4, with bee fly, 2017 Conference field trip at Ferry Hill, C&O Canal Nat'l Park.

Dear Friends,

I recently read *On the Move*, the beautifully engaging memoir by the great writer and neurologist, Oliver Sacks, published shortly before his death in 2015. I was struck by this passage:

“I used to delight in the natural history journals of the nineteenth century, all of them blends of the personal and the scientific—especially Wallace’s *Malay Archipelago*, Bates’s *Naturalist on the River Amazons*, and Spruce’s *Notes of a Botanist*... It pleased me to think that Wallace, Bates and Spruce were all crisscrossing each other’s paths... and to think that all of them were good friends... This sweet, unspoiled, pre-professional atmosphere, ruled by a sense of adventure and wonder rather than by egotism and a lust for priority and fame, still survives here and there, it seems to me, in certain natural history societies, whose quiet yet essential existences are virtually unknown to the public.”

—Oliver Sacks, *On the Move: a Life*. Knopf 2015, pp. 330–331.

One such society is the Maryland Native Plant Society. And of course, the Virginia Native Plant Society and the West Virginia Native Plant Society – which brings me around to “Nature Knows No Boundaries,” the Tristate Conference co-sponsored by the three regional plant societies this fall at the National Conservation Training Center in Shepherdstown. Echoing Sacks, I’m confident everyone noticed and enjoyed the “sweet, unspoiled atmosphere, ruled by a sense of adventure.” This is what plant societies and other natural history societies continue to offer. Camaraderie and exploration. Beginners, experts, professionals and amateurs all in it together.

The great 19th century naturalists had continents to explore, whose flora and fauna were virtually unknown to western science. We still have the same continents to explore, and exploration is urgently important as the impact of human activity alters our natural environment. Each and every venture into the field—whether the field is a supposedly unspoiled forest in Garrett County or an alleyway in Baltimore City—proves that we simply do not know what’s out there, outside, among the plants and animals and algae and lichens. Nor do we have more than a clue as to how our natural world is changing and disappearing. Natural history exploration should be a top priority. Sadly, most of our universities and government institutions are failing in this regard. So that leaves us. We have a job to do.

Readers! Take up your hand lenses and your binoculars! Get outside and look around! And report what you find. (See page 10 for tips on where to report your findings.)

~ Kirsten Johnson, President

Your membership dues and donations support all of Maryland Native Plant Society’s activities, including speaker programs, field trips, conferences, publications, botanical research and conservation advocacy.

Wildflower in Focus - False Indigo-bush

Amorpha fruticosa L.

False indigo-bush, Tall indigo-bush, Desert false indigo
Pea Family, Fabaceae



I considered breaking with Wildflower-in-Focus tradition by featuring a non-native invasive legume like kudzu or *Lespedeza cuneata*, but I finally decided to stick with a native—that is, a supposedly “good” plant. Then, I will confess, I selected *Amorpha fruticosa* based solely on Jon Corcoran’s beautiful photo, perfect for the cover.

I knew nothing else about this species of shrub.

My first half hour of research taught me that false indigo-bush is considered an invasive nuisance in, at least, the Pacific northwest, and several northeastern states, Central Europe and Japan. In Washington state, it’s on the State Noxious Weed Control List, having spread along stream corridors throughout the state. The New Jersey Invasive Species Strike Team ranks its threat to open wetlands as “high.” It’s on the Suffolk County, Long Island, “Do Not Plant List.” It’s described as a “very troublesome environmental weed” in riparian habitats of southern and eastern Europe, and it appears to be spreading north and west in Europe. It’s considered one of the 100 worst invasive plants in Japan where it inhabits “vacant lots, roadsides, riversides, beaches, etc.” The list goes on.

How did this happen? False indigo-bush is known to have been planted as an ornamental from colonial times. This means that its precise native range is open to question. It is currently found in the wild in all the contiguous states except Montana and Nevada. Fernald (1950) states that the native range extends into southern Pennsylvania, Ohio and New Jersey. I found references to sightings in the late 1800s in Staten Island and the Hudson Palisades, but it is assumed that those plants had escaped cultivation. What about Maryland? I asked State Botanist, Chris Frye. He responded:

“This is another species where Maryland is near or at the northern range limit. There are multiple collections (mostly suspiciously recent) from Maryland and it appears to be a native shrub of the coastal plain with scattered stations west of the Fall Line—these almost certainly escapes from cultivation or intentionally planted. So, in my opinion it is native to Maryland but with a mix of naturally-occurring and planted/escaped-from-cultivation populations.”

The ornamental value of false indigo-bush is apparently limited. Dirr turns up his nose at it, commenting that “not a great deal of worth [is] attached to this plant; perhaps for poor soil areas where few

plants will survive.” Then why is it so widespread? Once again, a familiar story repeats itself. The combination of ornamental planting, roadside planting by highway departments, and use for hedgerows has dispersed this species well beyond its native range. It requires full sun, but it has a high tolerance for a variety of habitats including infertile and saline soils.



Cabera quadrifasciaria,
a moth for which *A. fruticosa*
is the host plant.

False indigo-bush is the larval host plant for the four-line cabera moth, *Cabera quadrifasciaria*. Interestingly, the moth’s range, as shown by the Moth Photographers Group, includes southern and midwestern states in which false indigo-bush is reliably considered native, but it does not include the states in which the plant is regarded as a non-native invasive. Apparently, those who planted false indigo-bush failed to bring its insect partner along.

~ Kirsten Johnson

References:

Bicknell, E.P. 1889. Notes on the Flora of the Palisades of the Hudson, Bulletin of the Torrey Botanical Club, Vol. 16, No. 2, pp. 51–53.

Dirr, M.A. 1983. Manual of Woody Landscape Plants. Stipes Publishing Company, Champaign, Illinois.

Fernald, M.L. 1950. Gray’s Manual of Botany 8th ed. Dioscorides Press, Portland OR.

L.H.H. 1872. Bulletin of the Torrey Botanical Club, Vol. 3, No. 6, p. 32.

Moth Photographers: <http://mothphotographersgroup.msstate.edu/species.php?hodge=6680>

Invasive in:

NJ: <http://www.njisst.org/files/plantidfactsheets.pdf>

Washington: <http://www.ecy.wa.gov/programs/wq/plants/weeds/aqua014.html>

New England: https://www.eddmaps.org/ipane/ipanespecies/shrubs/Amorpha_fruticosa.htm

Long Island: suffolkcountyny.gov/Portals/0/environmentandenergy/Management%20List_%202011%20pdf.pdf

Europe: alienplantsbelgium.be/content/amorpha-fruticosa

Japan: <http://www.nies.go.jp/biodiversity/invasive/DB/detail/>



Robert Ferraro

False indigo-bush at Beverly Triton Beach Park, Anne Arundel Co.

Meet the New Members of the Board of Directors



Vanessa Beauchamp, PhD

Vanessa is a plant ecologist and Associate Professor of Biological Sciences at Towson University. Her research looks at the effects of invasive plant species and habitat restoration on native plant communities. For an interview with Vanessa about wavyleaf basketgrass, see the Summer 2013 issue of *Marilandica*. She has served on the Society's Research Grant Committee for several years.

Elizabeth Matthews, PhD

Liz is a Botanist for the National Park Service's Inventory and Monitoring Program. She leads the forest vegetation monitoring program, which tracks forest vegetation at over 400 sites in the National Capital region. She has been an active participant and leader in the Society's Wild Washington Walks.



Mike Ellis

This photo shows Mike Ellis on a MNPS field trip at Fort Totten last February. He is the Non-native Invasive Plant Management Field Coordinator for the Maryland-National Capital Park and Planning Commission. Mike has been a participant and leader of MNPS field trips for several years

Jil Swearingen

Jil was a co-founder of both the Mid-Atlantic Early Detection Network and the Mid-Atlantic Invasive Plant Council. She is the lead author of *Plant Invaders of Mid-Atlantic Natural Areas*, published by the National Park and US Fish & Wildlife Services. She is also a founder and past Board member of Maryland Native Plant Society. Welcome back, Jil!



Honors for Board Members Brett McMillan and Carole Bergmann

Carole Bergmann, forest ecologist with the Montgomery County Parks Department, received Conservation Montgomery's "2017 Joe Howard Environmental Award" for her work protecting and restoring the County's forests. Conservation Montgomery is a coalition that addresses environmental and quality of life challenges facing Montgomery County.

Dr. Brett McMillan recently was awarded the Julia Clayton Baker Chair in Environmental Stewardship at Bryn Mawr School in Baltimore where he teaches Biology and AP Environmental Science. The holder of the Baker Chair serves as a leader for the larger Bryn Mawr community with respect to integrating environmental stewardship into all aspects of campus and community life. He will hold the chair for three years.

Farewell

And farewell to departing Board members Cris Fleming, Jane Hill, Liz Jones and Tenley Wurglitz. You will be missed.

Would you like to get more involved with MNPS? Serve on the Board of Directors? Do you know someone who would? For Board of Directors inquiries, please contact Nominating Committee Chair, Beth Johnson at info@mdflora.org. For other volunteer opportunities, contact Kirsten Johnson kh.johnson@gmail.com

The Flora of Virginia App is here! (And it's almost as useful for Maryland.)

The Flora of Virginia project released its new app this fall. It works on both your tablet and your smart phone. Let me say right up front — I love this app. It is packed with information and the navigation is simple.

From the first tab on the first screen you can go directly to browse all of the 3164 plants present in Virginia. And this includes almost all the plants present in Maryland. You can either key in the plant you're looking for or browse through the list. The list can be searched by scientific or common name, and it can be sorted by family or genus. Once you get to the plant you are interested in, you can view photographs and an artist's illustration of the plant. You can read the same detailed description that you would find in the hard-cover *Flora of Virginia*. There is also a map showing the distribution of the plant in Virginia, which will indicate which geophysical provinces the plant is likely to be found in Maryland.

If you have a plant that you don't recognize, then use the second tab. It offers a graphic identification key. I have not tested this key in the field with an unknown plant, but I have played with it with plants that I do know and it seems to work pretty well. I tested the key with Johnson grass (*Sorghum halepense*) in my back alley, and when I punched in its features to the app, Johnson grass came up on the shortlist of grasses to consider. I was impressed. I

suspect this key will need to be field tested and tweaked. For example, I found a few problems with the key to the ferns, which I notified the developers about. But it is an excellent start and I'm sure the inevitable glitches will be ironed out quickly.

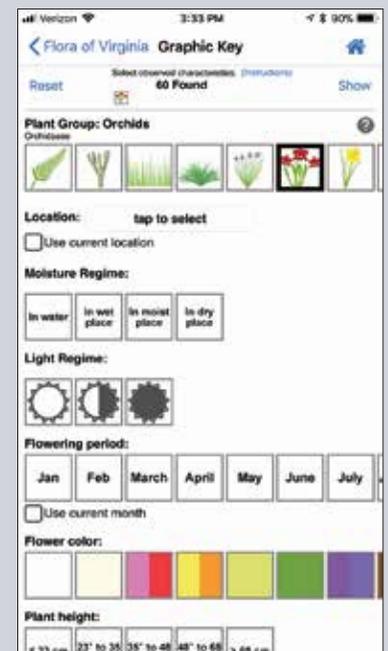
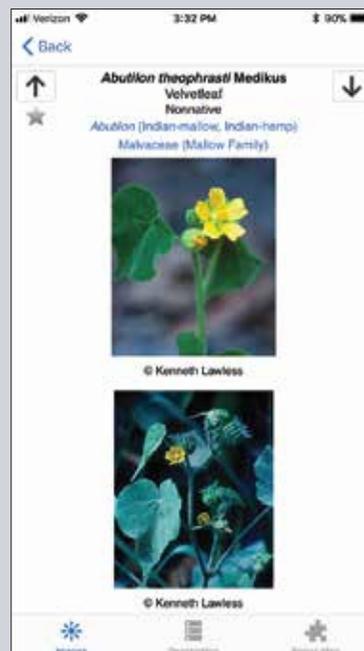
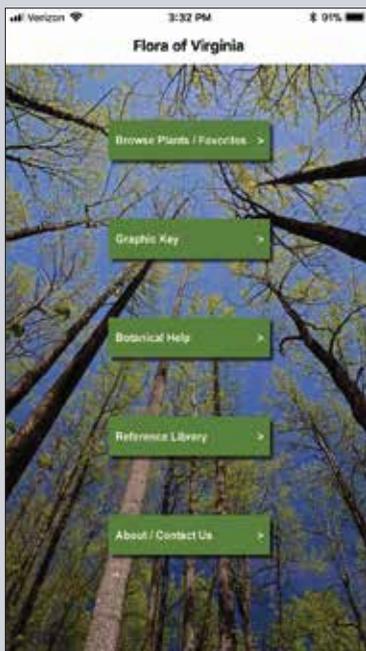
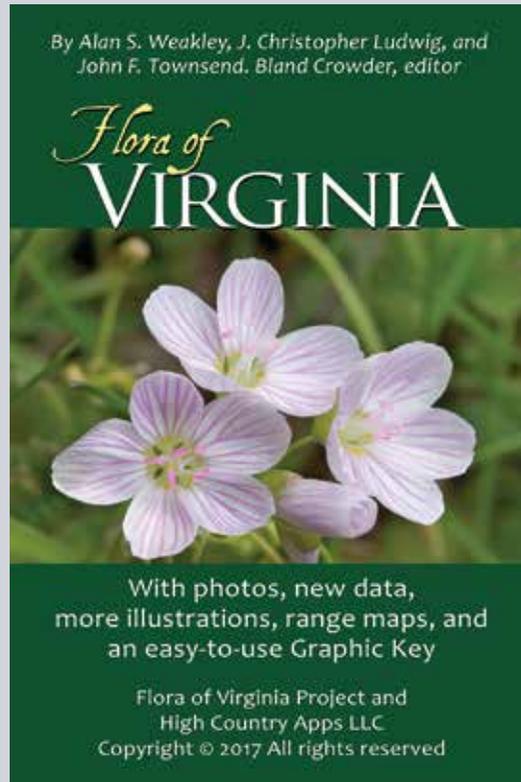
Another useful feature: You can mark a species as a "favorite," thus creating your own plant list. It's a quick and easy way to record the plants seen on a field trip as you go along. You can only create one list at a time, but the lists can be saved or shared so this is no problem.

The app does not yet include dichotomous keys, but I am told but they are in the works and will be coming in a later release within a year. At that point, virtually the entire *Flora of Virginia* will be incorporated into the app.

This is not your Peterson's or Newcomb's field guide. It is a true flora. Although a glossary of scientific terms is provided, some prior knowledge of plants and plant terminology is required to get the most from this app. But everyone who explores plants and who lives within a hundred miles of Virginia should have this app in their pocket.

The cost is \$19.95. Much cheaper than the book and you can carry it into the field.

- Dwight Johnson



These screenshots show the app's attractive design and give you a hint as to all the information literally at your fingertips.

A Brief Introduction to the Algae of Maryland

It may come as a surprise that algae play a significant role as primary producers in Maryland's aquatic ecosystems. According to the USGS, Maryland has about 6990 square kilometers of territorial waters. This includes coastal wetlands, a large portion of Chesapeake Bay and the many fresh, inland waters of the state. The Chesapeake Bay, with its scenic vistas, coastal towns and important fisheries, represents an aspect Maryland's identity to many of us.

For some people, the word algae has a negative connotation. We most often hear about algae when there is a bloom (green, red or yellow) that discolors the water. While an algal bloom results from increased nutrients, the algae themselves are an important component of a natural and healthy ecosystem. Like other submerged aquatic vegetation, macroscopic algae provide food and cover for fish and other small animals. Microscopic algae are critical food sources

for the zooplankton, crabs, fish and oysters that live in Chesapeake Bay and its tributaries. Even most nature enthusiasts know relatively little about algae, their communities or the role they play in our natural (and man-made) ecosystems. Some may not even realize that seaweeds are algae. There is no easy guide to Maryland seaweeds or freshwater algae, although several guides for the Atlantic Coast exist. There is also no up-to-date checklist of the Maryland species. Despite these challenges, the exploration and study of algae can be both productive and enjoyable.

Algae are not easy to define. In primary school, most of us learned that algae were 'plants'. Scientists now generally define algae as photosynthetic eukaryotes: organisms large and small that have a nucleus and do photosynthesis. As evolutionary principles have been incorporated into taxonomy and classification, it has become clear that 'algae' are not a natural group. That is, there is no single common ancestor whose descendants are all 'algae'. Rather the ability to photosynthesize has been acquired by eukaryotes several times over hundreds of millions of years.

For practical purposes, the algae of Maryland can be divided into a few smaller categories: marine macroalgae, marine microalgae, and freshwater algae. However useful these divisions may be, they are rather arbitrary – a fact apparent when considering the gradient of salinity encountered in Maryland's coastal wetlands. Sand beaches offer few hard surfaces to which marine seaweeds can attach, nonetheless Maryland's Atlantic marine flora contains about 100 macroal-

gal species. Around Ocean City, you can find larger brown seaweeds like bladder wrack (*Fucus vesiculosus* L.), knotted wrack (*Ascophyllum nodosum* (L.) Le Jolis) and red seaweeds like *Agardhiella* and *Gracilaria* attached to rock jetties and piles. One of the largest and most common red seaweeds is the feathery *Dasya baillouviana* (S.G. Gmelin) Montagne. This species can be found as far into the Bay as Baltimore County, and can be quite common on the Atlantic Coast and in the southern parts of Chesapeake Bay. Species of *Ulva* are also

extremely common in Maryland's tidal waters. Most naturalists have heard of sea lettuce (*Ulva lactuca* L.) but several other species of *Ulva* occur in this region as well.

Through casual observation over the last few years, several species not previously reported from Maryland have been encountered. Besides additions to the flora, taxonomy of seaweeds is in a state of flux due in part to molecular phylogenetic studies. Consequently, the

taxonomic list resulting from a modern investigation may differ significantly from lists published before the molecular era. Additional study of the Maryland seaweeds would prove very useful. Most of the introductory books on seaweeds are quite out-of-date. Nonetheless, E.Y. Dawson's (1956) *How to Know the Seaweeds* provides a good

introduction and guide to the identification of genera. For students with more experience, a new technical manual has been published which includes Maryland and Delaware seaweeds (Mathieson and Dawes, 2017).

A large number of freshwater macroalgae also occur in Maryland although they are often less conspicuous. In freshwater lakes and wetlands, stoneworts (particularly *Chara* spp.) can be quite common. These algae are so large and stout that they are



Chara longifolia in a freshwater pond in Deal Island SWMA, Somerset County.



Ulva spp. growing on a log in Chesapeake Bay at Calvert Cliffs State Park. The red seaweed floating to the left is *Dasya baillouviana*.

often mistaken for vascular plants, like coontail (*Ceratophyllum demersum* L.). Stoneworts prefer relatively clear, shallow water because they grow out of the sediments (like vascular plants).



John Hall, third from right, is a botanical researcher who lives in Maryland. He completed his doctoral dissertation on green algae at the University of Maryland in 2008. John has authored two dozen articles, mostly on freshwater green algae, and is currently working on an annotated checklist of the algae of Maryland. Photo at Assateague Island National Seashore.

Other species of green algae will form floating mats in ponds and lakes, with *Mougeotia*, *Spirogyra* and *Oedogonium* being among the most common. Fewer macroscopic species occur in rivers than in lakes and ponds.

In the summer, *Cladophora glomerata* (L.) Kützing can be common in rivers, where it will form long tangled strands of gray-green filaments. During the colder months, the red algae *Batrachospermum* and *Lemanea* can be found attached to stones and other hard surfaces in fast-moving water. In the late winter and early spring, green algae like *Draparnaldia glomerata* (Vaucher) C. Agardh, *Stigeoclonium* spp. and *Tetraspora lubrica* (Roth) C. Agardh become more common. All of these species will persist into the summer but they begin their growth phase earlier than most other algae and terrestrial plants.

Anyone who has placed a drop of pond water on a microscope slide knows that freshwater habitats are teeming with life. Many of these brown and green organisms—and some of the colorless ones too—would be considered algae. Most major groups (classes) of algae and cyanobacteria are known from Maryland. Although there are few

published reports on freshwater algae in Maryland, neighboring states harbor species-rich algal floras with a few thousand species each. There is no reason to think that Maryland's algal flora would be less diverse. In fact, studies performed in the mid 20th century named several new species of freshwater algae from Maryland waters! Dillard's illustrated key to freshwater genera is a good introduction (Dillard, 2008). Advanced students will find the keys in Wehr, Sheath and Kociolek (2015) more up-to-date.



Draparnaldia glomerata from a pond in Calvert County.

Next time you're at the beach and you see some seaweeds, think about the important role algae play in aquatic ecosystems. Maybe even check out a book on seaweeds or freshwater algae from the library. You'll be surprised by their diversity and beauty.

- John D. Hall

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DILLARD, G. E. 2008. Common freshwater algae of the United States: an illustrated key to the genera (excluding diatoms). 2nd Edition ed. J. Cramer Verlag.

MATHIESON, A. C., AND C. J. DAWES. 2017. Seaweeds of the Northwest Atlantic. University of Massachusetts Press, Amherst and Boston.

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Mountain Maryland Notes

When one thinks of flowering trees and shrubs, the seasons that typically come to mind are spring and summer. But there's one woody plant in our region that waits until autumn to bloom. After its leaves have turned yellow and fallen to the ground, its bright yellow flowers finally make their debut. Often they appear late enough to become imprisoned for a time by the ice of early winter storms. These "late bloomers" belong to the small tree or shrub with the scientific name, *Hamamelis virginiana*. Though commonly called witch hazel here, it is also known as bead-tree, winterbloom, and snapping-alder in other parts of the eastern United States.



Ice-covered witch hazel flowers.

In Garrett County witch hazel is commonly found in moist forests and along streams. It's easiest to identify by examining its distinctive leaves. They're roughly 4 inches long with wavy-toothed edges and uneven bases. In late fall and winter, the twisted, narrow petals of its yellow flowers will help reveal its identity. Though somewhat deteriorated, these flowers are still present into mid-January. In autumn another characteristic feature are the small, light-brown, nut-like seed capsules. As they mature and dry the capsules contract, shooting their seeds up to 20 feet away with a popping sound.

Witch hazel hosts over 25 species of caterpillar, including three moth species that specialize on it exclusively: three-spotted nola, figure-seven, and witch hazel dagger. Pictured here are two of the many other moth larva that feed on witch hazel, although in their cases, not exclusively. Various parts of this plant including its bark, twigs, seeds and leaves are also eaten by ruffed grouse, wild turkey, cottontail rabbits, fox squirrels, white-tailed deer, and beaver.



Definite tussock moth larva, Orgyia definita.



Spotted apatelodes moth larva, Apatelodes torrefacta.

Even if you've never walked in the woods, you'll likely recognize this plant's name. Witch hazel is a common ingredient in many modern pharmaceutical products, including hygienic cleansing pads, facial astringents, hemorrhoid creams and rubbing alcohol. Its medicinal properties have been appreciated for quite some time. Native Americans drank a tea made from its leaves to treat colds, and rubbed an astringent bark tea on sore muscles to relieve pain.

In addition to its wildlife and medicinal value, witch hazel has been used in a variety of ways over the years. Its dense wood has been crafted into brooms. Its branches

were favored for camouflage during military maneuvers. And when a new well was needed, old-timers reportedly located precious underground water using a divining rod made from a forked branch of witch hazel.

- Liz McDowell, Western Mountains Chair

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.

Winter Botanizing in Your Chair



Each of these plants is easy to identify in the winter.

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

- | | |
|------------------------|--------------------------------------|
| A. Spotted wintergreen | a. <i>Tipularia discolor</i> |
| B. Skunk cabbage | b. <i>Polystichum acrostichoides</i> |
| C. American holly | c. <i>Staphylea trifolia</i> |
| D. Bladdernut | d. <i>Chimaphila maculata</i> |
| E. Christmas fern | e. <i>Ilex opaca</i> |
| F. Cranefly orchid | f. <i>Symplocarpus foetidus</i> |

- Answers:
 1. C. e. [American holly, *Ilex opaca*]
 2. D. c. [Bladdernut, *Staphylea trifolia*]
 3. F. a. [Cranefly orchid, *Tipularia discolor*]
 4. E. b. [Christmas fern, *Polystichum acrostichoides*]
 5. A. d. [Spotted wintergreen, *Chimaphila maculata*]
 6. B. f. [Skunk cabbage, *Symplocarpus foetidus*]

Conservation Update: Serpentine Grassland Restoration at Lake Roland



Serpentine grassland restoration area, showing the surrounding Virginia pines. Stands of Chinese silvergrass are just visible on the right.

The Bare Hills serpentine area of Lake Roland Park hosts rare grassland comprising about 84 acres. Once maintained by fire, Bare Hills is no longer bare. Virginia pines (*Pinus virginiana*) have been steadily taking hold, to the point where only patches of the original grassland remain among the pines. And unfortunately a new threat has recently appeared: Chinese silvergrass (*Miscanthus sinensis*). MNPS has contributed funds to the Lake Roland Nature Council for an ongoing project to restore the grassland, still home to a number of rare and uncommon species. The project currently involves gradually expanding an open patch of grassland.

We have spotted in the restoration area essentially all of the plant species known to exist in the Bare Hills serpentine: Fameflower (*Phemeranthus teretifolius*) (S2), little bluestem (*Schizachyrium scoparium*), Indian grass (*Sorghastrum nutans*) and other grasses, forked fimbry (*Fimbristylis annua*) (S3), purple gerardia (*Agalinis purpurea*), whorled milkweed (*Asclepias verticillata*) (S3), small-flowered snake-root (*Ageratina aromatica*), lyre-leaved rockcress (*Salvia lyrata*), rosepink (*Sabatia angularis*), Small's ragwort, (*Packera anonyma*)... the list goes on.



Right: Variegated fritillary, *Euptoieta claudia*, on white heath aster, *Symphotrichum ericoides*.

Left: Small-flowered snakeroot, *Ageratina aromatica*

On winter workdays, volunteers have labored mightily to cut down and remove pines and greenbrier, gradually expanding the restoration area. (There's no waste; trees are mulched and used in the dog park along the lake.) The restoration area is now about an acre. The question always was—What plant species will move in? Is removal of the pines and greenbrier enough? Visits on beautiful days in July and September told the answer—the restoration is a success so far.

The Nature Council is also addressing the most recent threat. Stands of Chinese silvergrass have been proliferating throughout the grassland, apparently spreading from landscaping at nearby businesses on Falls Road. A major effort to apply herbicide to the silver grass has begun. Most of it has been treated and the treated plants appear to be dead. There are still a few pockets left to be treated next year. In addition, it is assumed that more will sprout next summer from the existing seed bank, and so the eradication effort will need to continue.

~ Kirsten and Dwight Johnson



February 2017 Work Day

Coming Events

All MNPS sponsored events are free and open to the public unless otherwise noted. This list is as of press time in mid November. Pre-registration is required for many field trips, and early registration is usually offered to members. 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

November 18, Saturday, 10:00 AM – 12:30 PM
Field Trip & Weed Warrior Work Day, Little Bennett Regional Park
Co-sponsored by Montgomery Parks Weed Warrior Program
Montgomery Co.
Leaders: Anne DeNovo and Ken Bawer

December 2, Saturday, 1:00 PM – 3:00 PM
Early Winter in Froggy Hollow, Little Bennett Regional Park
Montgomery Co.
Leaders: Ralph Buglass and Anne DeNovo

December 31, Sunday, Time TBA
Wild Washington Walk
Leaders: Claudine Lebeau and Allen Browne
Location: Fort Dupont

Monthly Programs

November 28, Tuesday, 7:30 PM, doors open at 7:00
Annual Meeting, Holiday Party, and Members' Share
Kensington Park Library, Kensington, MD

December
No program. Happy Holidays!

January 30, Tuesday, 7:30 PM, doors open at 7:00
Life on the Edge
Silver Spring Civic Center, Silver Spring, MD
Speaker: Karyn Molines



Where to Report Your Findings from the Field

Maryland Biodiversity Project.

Marylandbiodiversity.com, and its companion site, marylandplantatlas.org.

Maryland Biodiversity Project is an ongoing compilation of all species existing in Maryland. (It was featured in the Summer 2016 issue of *Marilandica*.) MBP incorporates existing databases and accepts photo submissions from volunteers through its flickr group, which has become a collegial nature study community. Starting in 2012, they have catalogued over 17,000 species, including over 9,400 species with photographs, and they feature the work of more than 800 naturalists and photographers.

All submitted photos are reviewed for accuracy before inclusion in the MBP database. For details on how to contribute photos, see "Read about how to help" on the MBP homepage.

Early Detection and Distribution Mapping System.

www.EDDmapS.org.

EDDMapS is a web-based mapping system for documenting invasive species, currently with over 3.3 million records. EDDMapS combines

data from other databases and organizations as well as volunteer observations to create a national network of invasive species distribution data that is shared with educators, land managers, conservation biologists, and beyond.

EDDmapS is easy to use. Simply follow the instructions on the website. You can also submit records directly from the field on your smartphone using the Mid-Atlantic Early Detection Network App. For details see www.eddmaps.org/midatlantic/.

iNaturalist.

<https://www.inaturalist.org>.

iNaturalist is a worldwide citizen science project and online social network of naturalists and citizen scientists, built on the concept of mapping and sharing observations of biodiversity. Observations can be added via the website or from a mobile app. iNaturalist also offers convenient features such as the ability to create and store your own lists.

Maryland Native Plant Society field trips.

Each field trip needs a volunteer to make a list of the plants identified on the trip. These lists are published on our website.

FIELD TRIPS

Do you know of a good place for a field trip? Whether or not you want to lead a field trip yourself, please let us know and we may be able to find a leader. Send your ideas to info@mdflora.org.



MONTHLY PROGRAMS

Do you know someone who would be a good speaker for a monthly program? If you do, we would love to hear from you. Please send contact information to info@mdflora.org.

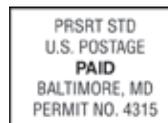
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Marilandica

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



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