



Marilandica

Spring 2022

A Publication of the Maryland Native Plant Society

Volume 13, Issue 1

From the President's Lens



Sujata Roy

Greetings, fellow plant enthusiasts! We are so excited to be celebrating our 30th anniversary!

Are you interested in connecting with like-minded plant lovers? Learning more about plants in your area? Or maybe you'd like to help govern and run the Society? That would be great! Here are a few ways you can get involved:

Programs. Do you know anyone who might be a good speaker for MNPS about native plants, ecology or related topics? Is there enough interest in your town or neighborhood to have a local watch party of the programs already scheduled? Are you interested in helping set up and run monthly programs when held on-site in addition to remotely? Do you have the technological know-how to edit and upload video of MNPS' monthly programs?

Conservation/Advocacy. Are there issues of development/restoration or other land uses that might impact native plant habitat? Tell us about them! We have some board members interested in this and actively following projects in their areas. They could mentor you, if this is your passion.

Field trips. Are there wonderful natural areas near you? Of course there are! If you choose the location, meeting point and give us some info about the trail we can talk about setting up a field trip. Even if you don't think of yourself as a field trip leader, this could be a way to host a walk. Think meet-up instead of class. It could be an opportunity to share a trail or park that others would love to experience. Or, another way to think of it is as a chance to bring in some experienced folks to identify plants that you've wondered about. We have plant lists from past field trips that need massaging into a standard format with the most up to date Latin names. This is a great way to learn plants.

Website. Could you help keep MDFlora.org up to date? Even checking regularly for broken links would be much appreciated.

Serving on the Board of Directors. It would be great to have representation from all over Maryland! We're looking for board members from the Western Mountains, the Eastern Shore, Southern Maryland and all those places outside the DC-Baltimore metro areas. At the moment, the greatest need is in three areas: 1) folks who are passionate about monthly programs; 2) those with small business or accounting experience; and 3) those who are tech savvy (or not tech-averse?) to help with the website. Board meetings are generally scheduled in the evening, last about two hours, and are held every other month via Zoom. Most of our interaction is by email. Serving on the board can be a one-year or longer commitment. We are flexible and willing to work with you to get you 'on board.'

We would love to connect with you! With your help, we can make this a memorable and productive milestone for the society.

Zoom Programs. Friends, we're taking a break from Zoom programs for the summer. Early in the pandemic (so long ago!) our programs committee pivoted from in-person monthly meetings to Zoom and it was amazing! We reached so many more people, across Maryland and nationally. Speakers who would not have come to Kensington library on a weeknight were able to share their knowledge with us from their homes to ours. MNPS started a YouTube channel, creating a library of webinar presentations that members and the public can see at any time. I am so proud of these accomplishments! We've been going full tilt, and now it's time for us to take a short break. We need to catch up on editing and posting videos, and just catch our breath for a minute. Watch the website for announcements of Fall programs.

The May 31 program will be a throwback. It will be held under a tent, and will allow us to share our love of plants in person. Attendance is limited to 50, to allow for appropriate distancing.

I have decided that I need to step down as President, effective June 1st, for personal reasons. I continue to strongly support MNPS and its mission and will help as a volunteer to the extent possible."

Happy Spring!
Sujata

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Skunks Anyone???

What a perfect time of year to be singing the praises of *Symplocarpus foetidus* aka “Eastern Skunk Cabbage”. And why is this the perfect time you ask? Because this is the time of year when this unusual plant performs its magic trick.

Before I tell you about the magic, let’s dispel with the obvious negative. First of all, this plant does not smell at all like a skunk and although the specific epithet (The second word in a scientific plant name, you would know this if you’ve read any previous columns that I’ve written), foetidus suggests, this plant does not stink. Of course if you should happen to bruise the foliage, it does present a strange “fragrance” that some folks may not embrace.

The magic comes in as the flower, which is called a spathe and is very similar in design to its cousin, *Arisaema triphyllum* aka “Jack In The Pulpit”, stirs up its sexuality and generates enough heat to melt the snow around it as it emerges. Quite a sight!, steamy sex in the plant world!

Symplocarpus foetidus is typically found in very wet soil such as wet seeps, bogs and marshes and that is the best place to locate it in your garden. However, I also have grown it for decades in average garden soil with no supplemental watering. It goes dormant around early summer in that situation, but in a wetter location, persists well into autumn.

Here in the “Mountain State” we call them “West Virginia Hostas” and they do somewhat resemble a Hosta with their huge leaves and robust growth, I’ve had them grow up to almost 36” tall and attain spreads of up to 48” in years of heavy rainfall, a very imposing stature in the garden.

Once established, they are very difficult to transplant as the root system can be larger than the plant above ground. They rarely produce offsets, so seed is the best way to propagate them, but you must sow the seed immediately when ripe, as they are very ephemeral.

This giant has no pests as the foliage contains heavy amounts of Oxalic acid as do all members of the Araceae family, in fact that’s the substance that numbs your tongue when you put a piece of Dieffenbachia in your mouth, why do you think that they call that familiar houseplant “Dumb Cane”? Philodendron is also a member of the Araceae family as are many tropical root vegetables.

Plants in this family are known as Aroids.

Symplocarpus foetidus has a cousin on the “Left Coast”, *Lysichiton americanus* aka, DUH, “Western Skunk Cabbage” similar in its love of wet feet, but it can’t perform the same magic trick that its eastern cousin can. There is also an Asian cousin, *Lysichiton camtschatcensis*.



Symplocarpus foetidus



Pollinating *Symplocarpus*. Photo: Barry Glick

Sooooo, to wrap it up here, if you have a hospitable area for “Skunk Cabbage”, try it. It’s a very worthwhile plant to grow and garners many a double take and conversation from garden visitors. If your garden doesn’t have any wet to moist areas, build yourself a bog and enjoy many of the very cool wetland plants that are available to the home gardener. You’d be surprised at the results when you Google “how to create a bog garden”! If you have average soil, don’t be discouraged. You can give this remarkable plant supplemental water with extra mulch and enjoy it for a shorter growing period.

~ Barry Glick

Berry-stained Artwork

One day I was cleaning freshly picked strawberries and using paper towels to dry them off when I noticed the beautiful red stains the strawberries left on the paper towels. I wondered if placing the strawberries on watercolor paper would create the same effect. The stains created an abstract, almost modern pattern. I took it to the next level. I got out my black permanent marker and started to draw over the strawberry stains. You can see the results below. It was a fun way to create gift cards to give to family and friends. Blueberries and raspberries also work well.

Maybe you could learn about what different fruits and vegetables can make stains on paper and create your own artwork or gift cards. Have fun!

Place the berries on the watercolor paper. The first time I created the stains I used fresh-picked strawberries. If you are using store bought

berries, freeze them before you place them on the watercolor paper. Store-bought berries may not have much juice in them.

Let the berries sit on the paper for about 10-25 minutes. It all depends on how dark of a color you want.

I used black permanent marker and drew on the berries stains to create my gift card.

- Karen Thompson

Karen is available to do the following types of work: InDesign graphic design; illustration including original artwork, logo design, watercolor illustration, black and white line art, oil painting artwork; and Photo-shop for color correction, old photo restoration, and creating original artwork. If interested, contact her at thompsonkaren624@gmail.com.



Rhododendron viscosum, Swamp Azalea artwork.

~ MNPS Call for Volunteers ~

We're looking for volunteers to help with the following:

Monthly Programs

Volunteers are needed to help with running Zoom programs; editing recorded talks for posting to YouTube and MNPS website; set up and running of in-person programs when held; and finding speakers.

Field Trips

We need volunteers to help recruit leaders and coordinate field trip registration and logistics.

Website Design

We are looking for a skilled website designer to help improve the organization and accessibility of our website.

Selling and Preserving a Nature Property — Our Story

We lived in a small house on a small lot in the wonderful neighborhood of Brookmont (Bethesda, Maryland), just west of the DC line. Being adjacent to the C&O Canal and Potomac River, our goal was to have native pollinators find their host plants, lay eggs and continue their life cycle here, year after year, allowing us to observe and enjoy them and the wildlife they attract. During the five years we lived there, we removed non-native and invasive plants and installed over 65 species of native plants. The result was a landscape dominated by native plants that attracted a rich diversity of native wildlife. We succeeded!

As we planned our move to another house our question was: what strategies can we pursue in order to pass our property on to someone who would love, maintain, and even enhance its ecological values. The property is not maintenance free and requires occasional weeding, pruning, cutting and other work throughout the year. Our hope was to sell our house to a boots-on-the-ground, dirt-under-the-fingernails type with a wardrobe of worn-out, permanently dirty clothes from working on the property, volunteering in the community to remove invasive plants, and rescuing native plants salvaged from construction sites. Finding someone sympathetic to this cause would be welcome but, more importantly, we wanted someone committed to our goals. Realizing there is no recourse after a standard contract is signed, we made a list of options including *promotional* and *legal*.

I. Prepare for the Sale

- **Make lists** of the native plants and animals, insects, birds, mammals, and other wildlife you've observed on your property. For some plants, note important associated insects such as butterflies and moths that use it as a "host plant" or pollinators that rely on it for nectar, etc. Provide hard copies of these lists for potential home buyers. Please email us if you'd like a copy of our full biota list.

- **Provide a landscape plan** based on your surveyed real estate map showing your house footprint and benefits such as water management, bird habitat, plant preservation, etc.

- **Label all native plants** on the property with common and scientific names (and estimated price?) using wide wooden popsicle sticks or old Venetian blinds cut into pieces large enough to enter all the information using an outdoor/garden marker.

- **Display conservation certifications and signage** conspicuously and attractively on the property. Make signs for special areas and/or pathways and relate them to written descriptions.

- **Maintenance considerations.** An issue for buyers may be the amount of maintenance involved, because most people don't garden. So as you get closer to moving, you might consider simplifying your designs and opting for more shrubs, trees, ferns and clumps of "ornamental" grasses, with fewer perennials and "meadow" looks (meadows without maintenance result in forests).



Golden Alexanders (*Packera aurea*).
Photo: Jil Swearingen

- **Plan to conspicuously display a few nice pictures** (e.g., butterflies nectaring on your plants) and a few books on native plants, birds and insects inside your home, such as:

- Doug Tallamy's *Bringing Nature Home, Nature's Best Hope and The Nature of Oaks*
- Cerces Society's *Attracting Native Pollinators*
- Larry Weaner's *Garden Revolution*
- Bruce Beehler's *Birds of Maryland, Delaware and DC*

II. Highlight the Native Gardens in the Property Advertisement

- **Write a short message to post in the promotional materials**, describing your enjoyment of the butterflies, pollinators, birds and other wildlife throughout the year. Suggested phrasing for the listing: *This unique property is planted with locally native trees, shrubs and groundcovers in consultation with expert horticulturists. Native plants reduce stormwater runoff and filter air pollutants. The shade from trees reduces heat in the summer.*

With local soil organisms, native plants are able to develop deep and healthy roots which allow them to survive in drought and prevent erosion.

- **Advertise wildlife and conservation certifications** you have obtained, most of which provide signage you can display conspicuously, such as: Audubon Bird Friendly Habitat (MD & DC) or Wildlife Sanctuary (VA); Homegrown National Park; National Wildlife Federation Certified Wildlife Habitat; North American Butterfly Association Certified Monarch Garden; Pesticide-Free Zone; Pollinator Partnership Pollinator Habitat; and Pennsylvania Department of Environmental Protection Watershed-Friendly Certified Property

- **Announce the sale through local and regional nature and conservation organizations**, such as: *American Rivers*, *Audubon Naturalist Society*, *Chesapeake Bay Foundation*, *Maryland and Virginia Native Plant Societies*, *Mid-Atlantic Invasive Plant Council*, *National Capital Region Partnership for Regional Invasive Species Management (PRISM)*, *Potomac Conservancy*, *Sierra Club*, *Wild Ones*

- **Announce the sale through neighborhood and other local listservs** and communication channels and to progressive private schools. You get the idea. There are many other organizations. We don't know if these organizations will advertise, but the effort may spread by word of mouth.



Luna moth (*Actias luna*). Photo: Kathy Daniel

III. Find the Right Real Estate Agent

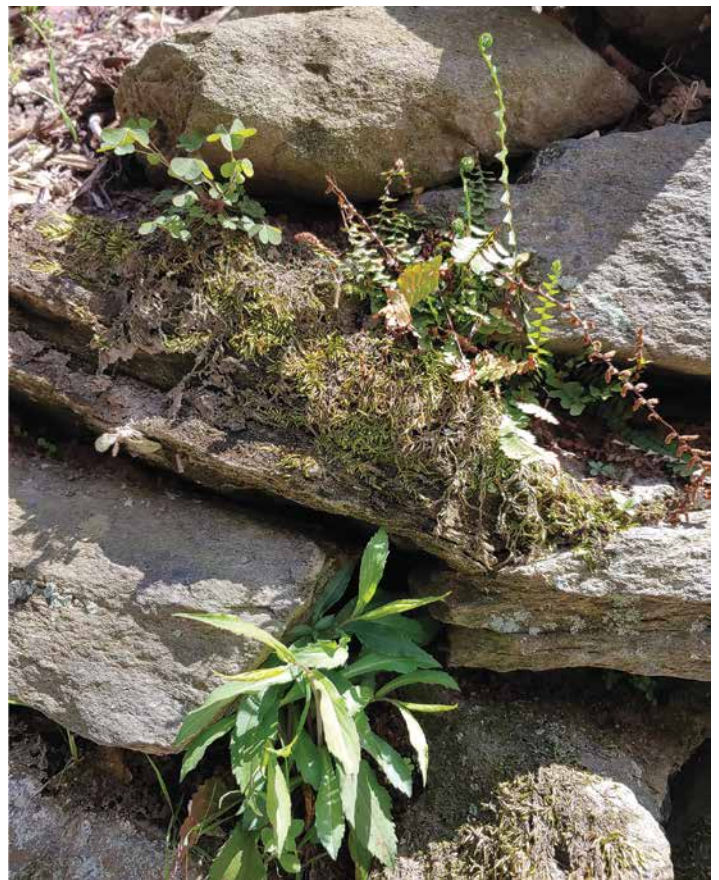
Recruit a real estate agent who is sympathetic to this movement. Mention the decreased expense and maintenance required in having native plants. Spread the word about the agent's expertise. We're happy to share some of the realtors recommended to us by environmentally-conscious friends if you're interested. Just drop us an email.

The National Association of Realtors has a "*Green Designee*" category (<https://green.realtor>) which is concerned with energy efficient building design and appliances but may attract people sympathetic to nature when buying a house. *The Zero Energy Project* website is geared toward helping sellers find a green certified real estate agent (<https://zeroenergyproject.org/zero-energy-home-realtors>) and might provide a route to realtors who understand what you're trying to do.

IV. Legal Options

If you have the foresight and financial strength, you may be able to have your property placed into a land trust or conservancy where the new owner will be unable to legally change the flora. This is not a quick action and can take months if not years to achieve. It will take research and may result in a lower selling price along with a possible legal fee. Some options include:

- Conservation Easements or Land Trusts. Start with Maryland Environmental Trust: dnr.maryland.gov/met/pages/land_conservation.aspx
- State, county and townships may have land trust options.
- Private organizations such as American Chestnut Land Trust: www.actweb.org



Native ferns, mosses and forbs in rock wall. Photo: Jil Swearingen

V. A Last Resort - Rescue the Plants

If you know that your property will not be kept as a nature habitat, obtain the new owner's written permission to allow friends to rescue your native plants.

Acknowledgements. We received many responses to our email requesting ideas about how to protect our native plants when we sell our home. Thanks to all of you.

Good luck and success,
David Braun dbraun7247@yahoo.com
Kathy Daniel kdaniel20816@gmail.com



National Wildlife Federation's Certified Wildlife Habitat plaque. Photo: Jil Swearingen

Stepping Back Into Field Trips, Cautiously

After a long hiatus, MNPS is returning to hosting field trips. The board recently approved a policy (below) for holding field trips safely, recognizing that new Covid variants are likely to emerge and will necessitate a more restrictive policy.

Field Trip Policy

- I. MNPS COVID-19 policy will follow current CDC guidelines to the best of our abilities. The CDC information will be updated on the MNPS website periodically, accompanied by the date of the most recent revision. Additionally, MNPS will provide links to appropriate CDC webpages.
- II. All leaders and participants will perform a health self-check on the day of the field trip (see below for details). Participants will stay home if they do not pass, and attempt to notify the leader. If the leader does not pass, the trip will be canceled.
- III. MNPS recommends that all leaders and participants observe social distancing of at least 3 feet during outdoor field trips.
- IV. MNPS recommends that each participant and trip leader bring a well-fitting face covering on all field trips—preferably an N95 or KN95 mask. Mask should be worn properly, including covering the nose and chin when it is not possible to maintain three foot spacing. Unmasked participants should maintain social distance at all times.
- V. Vaccinations for field trips. MNPS strongly recommends that leaders and participants be fully vaccinated and boosted unless an individual has a medical contraindication to vaccination.
- VI. Field trip leaders may choose to have more stringent policies than the above including, but not limited to, requiring a negative rapid test or a temperature check. If a trip leader has more stringent policies, they will be shown online as part of the trip description during participant sign-up. Add proof of vaccination as something that can be required. Field trip leader will supply a thermometer for temperature check.
- VII. Field trip leaders may choose to set a minimum and maximum group size.
- VIII. Each field trip will have a required checkbox for registrants to acknowledge these policies during sign-up.
- IX. Participant and Leader Health Self-Check on Field Trip Day. A participant should stay home and try to notify the trip leader if any of the check-offs below applies. Leaders should cancel the field trip if any of the check-offs below applies.
 - a) Signs or symptoms of any infectious illness
 - b) Temperature 100.4° or higher
 - c) Fever-reducing medications taken within the past 24 hours (e.g., acetaminophen, ibuprofen, naproxen)
 - d) Possible symptoms of COVID-19 (e.g., loss of taste or smell fever, shortness of breath, or persistent dry cough) in the 72 hours prior to the start of the field trip
 - e) Waiting for the results of a COVID-19 test—the participant/leader, an individual inside the participant/leader house-hold, or in contact with the participant/leader outside the house-hold (to the best of the participant's/leader's knowledge)
 - f) Diagnosed with COVID-19—the participant/leader, an individual inside the participant/leader household, or in contact with the participant/leader outside the household (to the best of the participant's/leader's knowledge)

Field Trip Plant Lists

Recognizing the extensive work that has already been done over the years to produce plant lists for many field sites across Maryland, we are planning to build upon that legacy by updating, expanding, and better organizing this information. This effort will serve to:

- 1) Help people who would like to lead a trip or enlist someone else to lead a field trip by providing them with site information and a list of plants known to occur there;
- 2) More fully document the plant species for each site;
- 3) Produce plant lists for new sites and sites that lack a plant list;
- 4) Establish a practical and systematic way to maintain our plant lists going forward; and
- 5) Encourage the use of plant lists during field trips to facilitate documenting species occurrences.

In addition, up-to-date information on occurrences of native, non-native, and invasive plant species and plant communities occurring at a site, will assist the State of Maryland in planning maintenance and protection efforts.

In order to get this project started, we will do the following:

- 1) Develop a new spreadsheet from the existing one.
- 2) Update plant names (taxonomy) using the USDA Agricultural Research Service's Germplasm Resources Information Network

(GRIN Global). We will try to set up a way for the taxonomy to be automatically updated.

- 3) Develop a new format and layout for the site plant lists.
- 4) Post the updated consolidated spreadsheet/database on the website so people can produce and print out an updated site plant list for field trips.

*GRIN Global: npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch

30th Anniversary Challenge

In celebration of our 30th anniversary, the board is offering the following challenge to members: **Explore a new place and post your plant list to iNaturalist under the Maryland Native Plant Society Discoveries project.** It's a great way to contribute your plant lists to the collective database.

How to join iNaturalist and the Maryland Native Plant Society Discoveries project: Download the iNaturalist app on your phone or go to the website www.inaturalist.org and create a login. Search for projects in the search box at the top of the page.

~ Jil Swearingen & Sujata Roy

Chapman Forest: An unusual floristic convergence on the inner Coastal Plain of Maryland

The ravines and rolling sandhills throughout the forested section of Chapman State Park (Chapman Forest North) from Mount Aventine southwest to Glymont comprise a globally-rare natural community called Shell-Marl Ravine Forest, coined by Harvard botanist M.L. Fernald in the 1930s after discovering similar forest communities in the Virginia tidewater region.

This community type occurs only on the Coastal Plain where river bluffs and deep ravines over millennia have eroded and exposed underlying calcareous and glauconitic marine sands and marl beds deposited during the Paleocene, Eocene, and Miocene epochs when the area was a shallow sea at the western edge of the Atlantic Ocean. The Brightseat and Aquia Formations are the prominent underlying strata in this section of Chapman State Park (Schultz and Compton-Gooding 1991). The combination of deep ravines, calcareous soils, and close proximity to the Potomac River has produced a remarkable flora predominantly composed of species typical of the inner Piedmont and limestone areas of the Appalachians that are otherwise rare to absent on the Coastal Plain, especially in association.

Such species include Chinquapin Oak (*Quercus muehlenbergii*), Northern Red Oak (*Quercus rubra*), Shumard's Oak (*Quercus shumardii*), White Ash (*Fraxinus americana*), Basswood (*Tilia americana*), Slippery Elm (*Ulmus rubra*), Sweet Pignut (*Carya ovalis*), Redbud (*Cercis canadensis*), Hop Hornbeam (*Ostrya virginiana*), Dwarf Hackberry (*Celtis tenuifolia*), Bladdernut (*Staphylea trifolia*), Glade Fern (*Diplazium pycnocarpon*), Narrow Melic Grass (*Melica mutica*), Eastern Brome Grass (*Bromus pubescens*), White Bear Sedge (*Carex albursina*), Hitchcock's Sedge (*Carex hitchcockiana*), James' Sedge (*Carex jamesii*), Eastern Few-fruited Sedge (*Carex oligocarpa*), Flat-spiked Sedge (*Carex planispicata*), Bur-reed Sedge (*Carex sparganioides*), Toadshade (*Trillium sessile*), Canada Lily (*Lilium canadense*), Showy Orchis (*Galearis spectabilis*), Wild Ginger (*Asarum canadense*), Black Cohosh (*Actaea racemosa*), Rock Crowfoot (*Ranun-*

culus micranthus), Dutchman's Breeches (*Dicentra cucullaria*), Smooth Rockcress (*Boechera laevigata*), Wild Stonecrop (*Sedum ternatum*), Golden Saxifrage (*Chrysosplenium americanum*), Foamflower (*Tiarella cordifolia*), Bishop's Cap (*Mitella diphylla*), Small-flower Baby-blue-eyes (*Nemophila aphylla*), Virginia Bluebells (*Mertensia virginica*), Ginseng (*Panax quinquefolius*), Harbinger of Spring (*Erigenia bulbosa*), Maryland Sanicle (*Sanicula marilandica*), Shining Bedstraw (*Galium concinnum*), Tall Bellflower (*Campanula americana*), Schreber's Aster (*Eurybia schreberi*), Elm-leaf Goldenrod (*Solidago ulmifolia*), and others.



Unusual floristic assemblage at the summit of an ancient alluvial bench (early to mid Pleistocene Epoch?) at the glauconitic soil phase (marine green sand) rolling sandhills section of Chapman Forest North (Chapman State Park), Charles County, Maryland. The center of the photo is the trunk of a twisted, wind-sheared, old-age Sassafras (*Sassafras albidum*). A large colony of Virginia Bluebells (*Mertensia virginica*) carpets the flat-topped hill. Black Cohosh (*Actaea racemosa*), Small-flower Baby-blue-eyes (*Nemophila aphylla*), and many other spring-blooming wildflowers carpet this section of forest as well. Photo: R.H. Simmons

Common and less disjunct species of the Coastal Plain, including Tulip Tree (*Liriodendron tulipifera*), Sweetgum (*Liquidambar styraciflua*), American Beech (*Fagus grandifolia*), Bitternut Hickory (*Carya cordiformis*), Black Walnut (*Juglans nigra*), Sassafras (*Sassafras albidum*), Pawpaw (*Asimina triloba*), and Spicebush (*Lindera benzoin*), occur with the above and together form the characteristic flora of this community type. Sassafras, as well as most other tree species here reaches enormous size in this section of forest, particularly on the calcareous, glauconitic sandhills.

Fernald's descriptions of calcareous coastal ravine forests are remarkably similar to those at Chapman State Park: "Here the fossiliferous sands and clays are near the surface and the banks of streams and the wooded gullies conspicuously display them. Calcareous springs and rills abound and the freely available

'marl' and the friable soil support rich forests of *Ulmus rubra*, *Asimina triloba*, *Juglans cinerea*, *Fraxinus americana*, *Tilia* sp., and many other trees and shrubs hardly characteristic of the Coastal Plain... The herbaceous flora is as rich as one could ask, with *Orchis* [*Galearis*] *spectabilis*, *Aplectrum hyemale*, *Cimicifuga* [*Actaea*] *racemosa*, *Dentaria laciniata* [*Cardamine concatenata*], *Heuchera americana*, and *Nemophila* [*aphylla*]... The flora is, however, definitely not a typically Coastal Plain one; it is of the Blue Ridge and the Appalachian Upland..." (Fernald 1939).



Eastern Anglepod (*Gonolobus suberosus* var. *suberosus*) [= *Matelea gonocarpos*]: A perennial twining vine in the Milkweed Family with a southeastern and central Midwestern distribution that reaches its northernmost Coastal Plain extension in Maryland. It inhabits edges and openings of nutrient rich or calcareous woodlands and thickets, and along streams and riverbanks. Eastern Anglepod is a highly state rare species (S2). Photo: R.H. Simmons.



Small-flowered Baby-blue-eyes (*Nemophila aphylla*): A diminutive, spring blooming annual wildflower that often forms extensive colonies in rich, sandy-loamy, moist woodland. This species has a primary range of distribution in the southeastern U.S. and reaches its northernmost extent in Maryland and the Delmarva. It is highly state rare (S2) in Maryland. Photo by R.H. Simmons.

Shell-Marl Ravine Forest is currently classified in the United States National Vegetation Classification (USNVC) as a coastal variant of Northern Coastal Plain / Piedmont Basic Mesic Hardwood Forest: *Fagus grandifolia* - *Liriodendron tulipifera* - *Carya cordiformis* / *Lindera benzoin* / *Podophyllum peltatum* Forest (USNVC: CEG006055). The coastal variant of this ecological community is globally rare because of its greatly restricted global range. Moreover, since Fernald's time most sites have been heavily logged with many remaining ones severely damaged by strong winds, non-native invasive species, and White-tailed Deer herbivory. The Shell-Marl Ravine Forest section at Chapman State Park is widely recognized as Maryland's finest and largest remaining example of this type.

Rare fauna has also been documented from the Shell-Marl Ravine Forest section at Chapman State Park, including a diversity of land snails. Wayne Grimm, Marc Imlay, and Ken Hotopp conducted extensive surveys of land snail at the site in the late 1990s. The species Perforate Dome (*Ventridens demissus*), Northern Threetooth (*Triodopsis tridentata*), Bladetooth Wedge (*Xolotrema fosteri*), Domed Disc (*Discus patulus*), and Velvet Wedge (*Xolotrema denotatum*) are particularly notable as rare or disjunct species. *Ventridens demissus* and *T. tridentata* are both endemic to the limestone regions of the Appalachian Ridge and have been reported along the western border of Maryland, but have not been discovered in the Piedmont and Coastal Plain. *Xolotrema fosteri* is mainly confined to the Mississippi drainage and is not recorded for the Appalachians. Isolated populations do occur in New Jersey and the Delmarva, but it is not reported within the Potomac River watershed (Grimm 1998).

Steury and Pearce (2014) documented *Xolotrema denotatum* as new records for Prince George's and Charles counties in 2011 from Shell-Marl Ravine Forest in Piscataway Park that includes sections of both counties.

In addition, the Shell-Marl Ravine Forest section at Chapman State Park has been documented as an old-age forest community by extensive work over the years by the Maryland Native Plant Society, Old-Growth Forest Network, and other researchers. Numerous indicators of old-age status are present, including counts of radial growth rings on typical canopy species throughout the forest (from cut stumps of selectively logged trees for veneer in the late 1980s) dating 180 to 220 years old; a number of state champion trees, including a national champion; and complex soil structure characteristic of old-age forests.

Surrounding the Shell-Marl Ravine Forest section and comprising the vegetation along much of the Ridge and Marsh Trails is the coastal variant of Mid-Atlantic Mesic Mixed Hardwood Forest: *Fagus grandifolia* - *Quercus (alba, rubra)* - *Liriodendron tulipifera* / *Ilex opaca* / *Polystichum acrostichoides* Forest (USNVC: CEG006075). It occupies mesic to sub-mesic, relatively infertile, acidic sandy loams of rolling uplands, slopes, and ravines and is the dominant vegetation type throughout Chapman State Park and Chapman Forest South.

Being a coastal variant of this ecological community, dominant species include Southern Red Oak (*Quercus falcata*) and Pagoda Oak (*Quercus pagoda*) instead of Red Oak (*Quercus rubra*), and Sweetgum (*Liquidambar styraciflua*); in addition to White Oak (*Quercus alba*), Black Oak (*Quercus velutina*), American Beech (*Fagus grandifolia*), Tulip Tree (*Liriodendron tulipifera*), and American Holly (*Ilex opaca*). Spicebush (*Lindera benzoin*) and Pawpaw (*Asimina triloba*) are common in moister areas, along with Jack-in-the-Pulpit (*Arisaema triphyllum*), various fern species, and other herbaceous plants.

Overall, it seems that much of the ancient flora of Chapman State Park is holding its own against the constant barrage of 21st century non-native invasive plants, though this certainly cannot be taken for granted in the years ahead. On a winding, several-thousand-foot

transect survey route on April 23, 2022, I pulled 748 Garlic Mustard (*Alliaria petiolata*), Burning Bush (*Euonymus alatus*), Privet (*Ligustrum* sp.), Wineberry (*Rubus phoenicolasius*), Oriental Bittersweet (*Celastrus orbiculatus*), Japanese Barberry (*Berberis thunbergii*), Japanese Honeysuckle (*Lonicera japonica*), and a Callery Pear or two (*Pyrus calleryana*). *Alliaria petiolata* was by far the most abundant

and funded plan to control non-native invasive plants. Local, state, and federal governments bear a public trust responsibility to properly steward their natural lands according to best management practices. Thus far, however, this is not happening in a meaningful way.

~ R.H. Simmons



Foamflower (*Tiarella cordifolia* var. *collina*) in bloom, captured in an exceptional photograph in a deep, shady section of Shell-Marl Ravine Forest at Chapman State Park. Foamflower is a very rare, disjunct plant when found on the inner Coastal Plain of Maryland and Virginia. The Digital Atlas of the Virginia Flora notes that var. *collina* forms "discreet clumps and lacks the stoloniferous habit so typical of var. *cordifolia*."

Photo: M.T. First.



Bishop's Cap (*Mitella diphylla*) in bloom, captured in an exceptional photograph in a deep, shady section of Shell-Marl Ravine Forest at Chapman State Park. Bishop's Cap is a very rare, disjunct plant when found on the inner Coastal Plain of Maryland and Virginia. The Digital Atlas of the Virginia Flora notes that this typical montane species "is rare in the Piedmont and Coastal Plain."

Photo: M.T. First.

weed encountered that could easily be pulled (not bagged; flowering tips broken off plant). The worst weed invasion at the site are the millions of Japanese Stiltgrass (*Microstegium vimineum*) individuals that form smothering carpets over large swaths of land. (This is especially disheartening to see for those of us who remember the days in the mid-1990s when there was no Japanese Stiltgrass in the forest.) Many native spring ephemerals easily push through the tiny Stiltgrass seedlings in spring — an example of native and exotic floras occupying separate and distinct ecological niches — though it is unknown if this situation will succeed long term and what the future sustainability of this exceptional forest community will be without a well-designed

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Showy Orchis (*Galearis spectabilis*) and encroaching Japanese Stiltgrass (*Microstegium vimineum*) seedlings in the calcareous, glauconitic sandhills section of Chapman Forest (Chapman State Park), Charles County, Maryland. Photo: R.H. Simmons.

We're taking a break from programs to catch up.

This is a great time to focus on getting out to enjoy and learn about Maryland's native plants. If you want to lead or coordinate a field trip, please send an email to fieldtrips@mdflora.org. We'll help you set it up. We hope to offer more field trips starting this summer.

Marilandica

A Publication of the
Maryland Native Plant Society
MDFlora.org



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Our Mission

To promote awareness, appreciation and conservation of Maryland's native plants and their habitats through education, research, advocacy, and service activities.



Andrew Macdonald is a geologist who helped quite a bit in the preservation of this forested tract in the mid-1990s and spent hundreds of hours with me in the field surveying the 2,250-acre site. The Beech Image dates to 1996.