

# *Marilandica*

Summer 2016

A Publication of the Maryland Native Plant Society

Volume 7, Issue 2







# Conifer in Focus – Eastern Redcedar

*Juniperus virginiana* L. var. *virginiana*  
Eastern redcedar

**H**ow to recognize this common conifer: Thin, shreddy bark; evergreen scale-like leaves; female cones that look like waxy blue berries. Don't confuse it with *Chamaecyparis thyoides* (Atlantic white cedar) or *Thuja occidentalis* (American arborvitae), which have fan-like sprays of leaves and are less common in the wild. *Juniperus communis* (common juniper), widely planted in landscapes, is a northern species, now extirpated in Maryland.

The Eastern redcedar, a pioneer in open areas, is a favorite of birds as the photos on this page and the cover show. Many different animal species feast on the small blue cones and use this small evergreen tree for cover. Very likely, the trees in our photos sprang from seeds "planted" by birds. Research on the cedar waxwing shows that it takes only about 12 minutes for redcedar seeds to pass through the birds' guts, and seeds that have been consumed by this bird have levels of germination roughly three times higher than seeds from uneaten cones. Birds often digest their food while sitting on fences, resulting in redcedar rows that faithfully follow fencelines.

Redcedar is often one of the first trees to repopulate old fields and other cleared, abandoned land. It thrives under a variety of adverse conditions, including drought and cold, and grows well in substrates from rocky to sandy to clay. Landscapers appreciate redcedar's ability to grow in tightly spaced rows, as competition between the trees is minimal. Thus, it can be used to create a solid wall or windbreak in a relatively short time. Like other pioneer species, redcedar does not tolerate fire, and historically its abundance was likely kept in check by fire. With wildfires now being suppressed, redcedar can become an invasive nuisance in grasslands, and especially in pasturelands where it outcompetes forage species. In one respect redcedar is unusual among pioneer species. It can be extremely long lived. Specimens in West Virginia and Missouri have been reported to range from 700 to over 900 years old.

Variety *virginiana* is native from Maine south to Georgia, and west into the plains states. Variety *silicicola* is native to the coastal plain from North Carolina, south into central Florida, and along the Gulf coast into eastern Texas.



Eastern redcedar in Talbot County. Photo by Dan Small.

~ Kirsten Johnson



Fish crow perched in a redcedar. Photo by Jim Stasz.



Yellow-rumped (myrtle) warbler eating redcedar cones. Photo by Bonnie Ott.



# Maryland's Bogs & Pine Barrens

**FORGOTTEN**



## SATURDAY September 17

The Atrium at Adele H. Stamp Student Union, University of Maryland, College Park, MD

- MORNING** 8:30 Registration  
9:15 Welcome and Introduction  
9:25 **Vanishing Pine Barrens Communities of the Fall Zone, Washington, DC Vicinity**  
Rod Simmons, Plant Ecologist and MNPS Board Member  
10:20 Break, Silent Auction Opens  
10:50 **Magnolia Bogs in the Mattawoman Watershed of Charles Co**  
Jim Long, President, Mattawoman Watershed Society  
11:30 **Distribution and Habitat of Maidenhair Ferns**  
Chris Hoess, MNPS Grant Recipient, Del Technical Community College  
11:50 **Update on Wavy-leaf Basket Grass**  
Marc Imlay, MNPS Board Member
- AFTERNOON** 12:00 Announcements followed by Lunch  
1:00 **Field Trips** — Carpool from the University
- EVENING** 5:00 Evening Social in the Atrium, Cash Bar with Appetizers  
6:00 Buffet Dinner  
7:00 Silent Auction Closes  
7:15 **Ecological Restoration on the Tidal Anacostia River**  
Jorge Montero, Natural Resource Specialist, Anacostia Watershed Society

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## SUNDAY September 18

**Field Trips** — Meet at the location, directions provided separately.  
*Water, hiking boots, sunscreen, hat, and bug repellent are highly recommended for all trips.*

# Maryland's <sup>A</sup>Bogs & Pine Barrens

FORGOTTEN

## FIELD TRIPS: Saturday, September 17

### Greenbelt National Park Bogs and Forests

Leaders: Kirsten & Dwight Johnson

We will explore the Oak-Heath and Pine forests of this coastal plain park, with a visit to a fall line Magnolia Bog, looking for a variety of unusual plants such as *Carex bullata* and *Smilax pseudochina*.

### Suitland Bog

Leader: Cris Fleming

Suitland Bog is well managed by MNCPPC. Once containing over 40 state rare plants, it still harbors about twenty, including red milkweed, rose pogonia, northern pitcher-plant, and bog goldenrod. The main area is traversed on a wooden walkway. Other areas involve walking along the edges of the bog.

### Rosaryville State Park

Leaders: Chris Puttock & Rochelle Bartolomei

The Fred Eskew Reserve Area in the northeast corner of Rosaryville State Park is an outlier of the Piedmont in the Upper Coastal Plain. The forest community is a closed oak-hickory-beech forest with little deer damage. Path is easy to moderate and can be muddy after rain.

### Pitch Pine Barrens at Beltsville Agricultural Research Center

Leaders: Rod Simmons & Jorge Montero

BARC protects some of the rarest biodiversity in the region. BARC Pine Barrens is a southern extension of the range of this rare vegetation. We will see a variety of trees and a forest understory with a diversity of heaths, ferns and other native plants.

### The Wooded Hillock on the UMD Campus

Leaders: Karyn Molines and Marla MacIntosh

The Wooded Hillock on the north edge of the campus contains an urban forest and a good example of a once-common terrace gravel forest, characterized by gravelly acidic soils with a diversity of oak trees, blueberries, huckleberries. Once threatened by development, the forest has been preserved and is used as a natural classroom to understand biodiversity and our native forests.

### Greenbelt Forest Preserve

Leaders: Carole Bergmann & Damien Ossi

The North Tract of the Greenbelt Forest Preserve holds remnant globally rare pine barren communities considered ancient outliers of New Jersey Pine Barrens. We'll hike up Blueberry Hill to view the Oak-Heath-Pine Forest and look for stands of various ericads, as well as Chinquapin, Dwarf Chinquapin Oak, Pitch Pine, and rare acidic seepage communities.

### Patuxent Research Refuge

Leaders: Bill Harms & Joe Metzger

Explore the largest contiguous natural area between Washington, DC and Baltimore, visiting plant communities not open to the general public, including Pine Barrens, upland mesic woods, wetlands, and various types of acidic seepage bogs. The Refuge is home to over 1200 species of vascular plants.

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## FIELD TRIPS: Sunday, September 18

### Canoe Trip on the Tidal Anacostia River

Leader: Jorge Montero, Anacostia Watershed Society Natural Resource Specialist

This once-neglected river is the center of a movement to restore it as a public asset in the nation's capital. The Anacostia protects unique eco-systems: riverine tidal swamp forests, tidal emergent wetlands and the adjacent non-tidal wetlands that protect outstanding wetland plant communities and provide habitat to a plethora of fish and other animals.

### UMd College Park Herbarium

Leader: John David Hall

Tour the Norton-Brown Herbarium. With over 87,000 records, it is the largest collection of preserved specimens of Maryland's flora.

### Buck Lodge Park and Bog

Leaders: Linda Keenan and Michael Ellis.

Buck Lodge harbors many rare and uncommon plants, a pristine oak-chestnut-heath forest, low-lying seepage forest, and old-age terrace gravel forest. See the efforts of park rangers and Sierra Club to preserve this diverse area. Gentle walk, no restrooms.

### Central Farm Bog Walk

Leaders: Rod Simmons & Beth Johnson

Explore expanses of globally rare Pine Barrens Pine—Oak Woodland, dominated by Pitch Pine, Scarlet Oak, Dwarf Chinquapin Oak, extensive heath colonies, and sandy graminoid glades—plus a large, rare, sphagnous Coastal Plain Upland Depression Swamp with many plants of saturated wetlands. Lastly, explore an unusual and ancient pine barrens hillside seepage wetland with towering, old-age Pitch Pine and Tulip trees, and a diverse shrub layer and understory.

### Tour of George Washington House in Bladensburg

Leader: Jo-Elle Burgard, AWS's Landscape Designer

The Anacostia Watershed Society Headquarters are located at the George Washington House (circa 1752). Years of road realignments had created poor drainage patterns. AWS installed permeable paving, a rainwater cistern, brick and dry stream channels, and rain gardens. The project demonstrates how sustainable storm water management can be successfully incorporated within historic sites challenged with a limited budget and very restrictive site constraints.

# The Maryland Biodiversity Project Moves Forward and Maryland Finally Gets a Plant Atlas



**A plant atlas is a compilation showing the distribution of plant species by geographic subdivision, in most cases by county, but in the case of the Maryland Plant Atlas, by USGS quad. An atlas is an essential tool for the study of plant diversity and richness, biogeographic patterns, and the shifting distribution and spread of both native and non-native plants.**

For decades plant atlases have been available in many states – but not in Maryland. That gap is being filled by the digital, on-line Maryland Plant Atlas. Even if you read no further, please take a look at [marylandplantatlas.org](http://marylandplantatlas.org).

The story begins with Bill Hubick and Jim Brighton, two avid birders, fishermen and amateur naturalists, who noticed the gaps in basic knowledge of our state's flora and fauna. You could not find an atlas or up-to-date checklist of Maryland's plants, bees, algae or earthworms, either on-line, or in a traditional library. This was a shocking revelation.



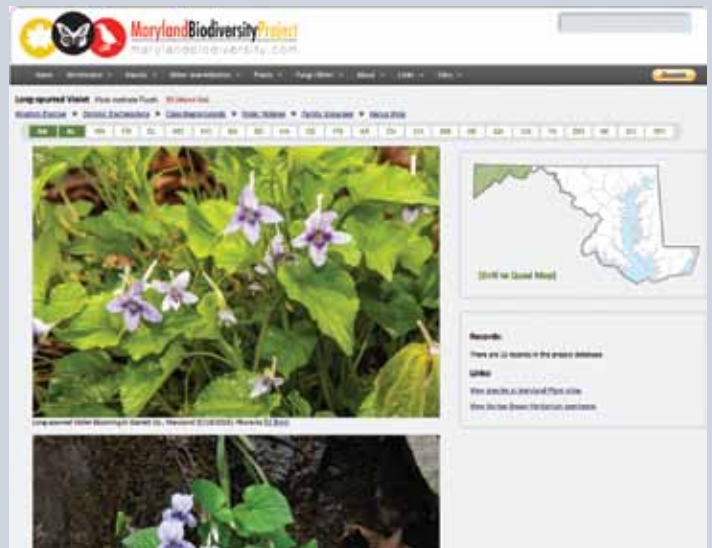
*Jim Brighton (left) and Bill Hubick. Photo by: Jay R. Thompson*

Now is a time of rapid and unprecedented environmental challenge. Ecosystems are facing compounding threats including development, invasive species, overabundance of deer and climate change. How can we know what we're losing or gaining if we don't know where we started? How do we prioritize the application of resources without baseline data? How do we promote change without an aware and engaged conservation community? In Maryland, as in most states, limited state resources are invested in tracking the rarest species. But there is very little tracking of species even just outside that category, not to mention common species. Jim and Bill realized they could combine their technological skills and their love of data with their enthusiasm for learning about the natural world.

Thus, in 2012, the Maryland Biodiversity Project (MBP) was launched: an on-line compilation of living things in Maryland, county by county and USGS quad by quad. See [marylandbiodiversity.com](http://marylandbiodiversity.com). It has become a powerful framework not only for collecting essential data, but for promoting conservation,

science, and education. MBP includes all multicellular species—mammals, insects, plants, reptiles, lichens, etc.

Here is a screen shot of a typical Maryland Biodiversity Project page.



The stats tell the story. Here's the Maryland Biodiversity Project today:

- Over 16,000 species, from algae to elms to eagles
- Over 7,000 species with photographs
- The work of more than 600 naturalists and photographers
- Approximately 20,000 photo submissions per year from hundreds of photographers

And the numbers are growing daily. The MBP approach hooks users with accessible content and beautiful photos, and then gracefully exposes them to important messages about conservation. It fosters a sense of community and people are excited about being involved.

Most of the photo records are contributed by volunteers, then vetted for accuracy by a team of knowledgeable volunteer editors in Maryland. Questionable identifications are double-checked with professional experts. In addition, existing historical records are constantly being digitized and added. As a recent example a bat researcher doing acoustic studies in Baltimore City asked if she could share her data. Thus, the Project combines the best of citizen science with expert professional records and input. In 2014, realizing that MBP needed





*Bill Hubick, Dan Small, Tom Feild, and Jim Brighton scouting for species at Fresh Pond. Photo by Richard Orr.*

support in order to grow, the founders formed a Maryland nonprofit corporation, which later received 501(c)(3) status from the IRS.

The Maryland Plant Atlas emerged as a natural outgrowth of the MBP. Working with Wes Knapp and Chris Frye of the Department of Natural Resources' Wildlife & Heritage Service, and Drs. John Hall and Maile Neel of the University of Maryland, Jim and Bill created a new website and an enhanced database for the Atlas. The Atlas shares web servers and database management with the MBP but it is a separate website that contains additional features. Sources of plant records include herbarium records, published botanists' reports, DNR records, citizen photographs and more. Users can download lists of all the plants recorded in a quad or a county.

**See Maryland Biodiversity Project's Facebook Page for a daily Maryland natural history post.**

The creation of the Atlas has highlighted the importance of herbarium records, especially those of the Norton-Brown Herbarium ("MARY") at the University of Maryland. After two decades of relative inactivity, the herbarium is currently being revitalized. Most Maryland specimens of flowering plants have now been digitized and added to the Atlas. This work is ongoing as new specimens are contributed. Sadly for an institution that is part of a major public university, funding is always insecure. The herbarium requires ongoing

support from both the University and the public.

The information on the Atlas and MBP websites comprises only a portion of the information in the underlying database. For example, detailed locations are not publicly posted, but are retained in the database and will be made available to legitimate researchers.

Public outreach is an important component of the MBP. The MBP Facebook page reaches tens of thousands of viewers. And Jim and Bill have initiated projects at schools, nature centers and the National Aquarium. One grade school class added multiple first state records along with perhaps 50 new records for Baltimore County. How empowering for elementary school children to be directly contributing to knowledge of our state's biodiversity. One educator says her students want to get out and gather data even on cold winter days and they are downright giddy about seeing their finds on the species pages.

Plans and hopes for the near future include adding new website features, as well as importing more existing compilations. Expanding educational outreach in schools is a high priority. The Project needs to recruit more qualified volunteer editors, as well as part-time paid staff in the areas of data-processing, expert content generation, and web development. With additional investment, MBP could expand all these activities as well as supplementing critically needed data collection on the part of DNR's Wildlife & Heritage Program.

*(continued page 7)*



**Maryland Biodiversity Project: Creating permanent records of living things in Maryland and building a vibrant nature study community to document and protect our forests, grasslands, waterways, and the Chesapeake Bay.**

### WHAT YOU CAN DO TO HELP:

- **Contribute photo records.** This is done through the MBP Flickr group, [www.flickr.com/groups/marylandbiodiversityproject/](http://www.flickr.com/groups/marylandbiodiversityproject/)
- **Participate in discussions** on the MBP Facebook page.
- **Donate.** Contributions made through the MBP website support both the Atlas and MBP. On-line contributions can also be made to the Norton-Brown Herbarium, whose web address is <http://www.nbh.psla.umd.edu/>.

- Kirsten Johnson

## MNPS Comments on the Draft State Wildlife Action Plan



animal—not plant—conservation, states are free to include plant conservation in their own plans. Here are the comments on the draft plan submitted in May on behalf of MNPS.

The State Wildlife Action Plan is a plan that each state is required to review and revise every 10 years as requested by the US Fish and Wildlife Service. The plan is a non-regulatory blueprint to guide wildlife managers in conserving habitat and keeping declining wildlife species from becoming threatened or endangered. Having such a plan in place is a condition for receiving federal funding for various conservation projects. Although USFW funds only

To the Maryland Department of Natural Resources:

Maryland Native Plant Society commends the Wildlife and Heritage Service staff for its impressive work on the 2015 revision of the State Wildlife Action Plan. We particularly appreciate the inclusion of plant conservation in the Plan. Maryland has thus joined other forward-looking states in recognizing that “wildlife” conservation critically depends on plant conservation and in addition, that plant conservation has value wholly apart from currently known impacts on particular animal species.

We urge the Department to provide sufficient state resources to implement needed plant conservation measures in Maryland, regardless of the availability of federal funding. Maryland citizens expect no less. The 2013 report of the Botanical Heritage Workgroup, in which DNR staff played a major role, describes current gaps in resources for plant conservation and makes clear that even the modest addition of resources could make a big difference to the preservation of Maryland’s natural heritage.

Thank you for considering our view.

Kirsten Johnson

Elizabeth Jones

Co-presidents, Maryland Native Plant Society

### A Thought to Consider

*“This is the heritage effect in a nutshell: protecting the odd pocket of wilderness or preserving the occasional building of historical interest is actually a license to trash everywhere else.”*

*Geoff Dyer, Essayist and Novelist*



## Harford Invasives Removal Day



Japanese knotweed, oriental bittersweet, English ivy, kudzu, wineberry, autumn olive, multiflora rose are a few of the introduced weeds that fell victim to the hardy band of workers in May at Emily Bayless Graham Park in Harford County. Many thanks to all! We hope to have a repeat in the fall.

~ Sam Jones

## Battling Botanical Bullies at Bear Pen

In April, a group of volunteers removed Japanese spiraea and 68.5 pounds of garlic mustard plants from Bear Pen Wildlands in Savage River State Forest. Their time and energy are deeply appreciated by Maryland Native Plant Society and the West Virginia White butterfly.

~Liz McDowell  
Western Mountains  
Chair





# The Elms: Teaching Students about the Chesapeake Bay Watershed



“Mommy, Mommy, look!” The little girl in red sunglasses held out her hand. A periwinkle marine snail sat in her palm, its head emerging from its shell.

At picnic tables a stone’s throw from the Chesapeake Bay, similar exchanges occurred as kindergartners enjoyed a lesson about “creatures that live in shells” led by Elms Environmental Education Center Director Margarita Rochow. Located in St. Mary’s County, the Elms is one of over 65 organizations and environmental education centers (EECs) in Maryland that work in cooperation with local school systems to foster awareness of environmental concerns and inspire students to become responsible caretakers of the natural world. The center also plays an integral role in the county’s implementation of Maryland’s 2011 environmental literacy law, which requires

high school students to complete a program of study that meets the state’s environmental literacy curriculum standards prior to graduation.

Because of its location, the Elms has an additional goal: to provide students with significant watershed experiences. In keeping with this goal, the kindergartners explored the shoreline as their lesson progressed, building sandcastles and interacting with turtles.

Meanwhile, in another area of the Elms, 7th graders learned about native plants with Program Assistant Kurt Reitz then worked in the Elms’ native plant nursery and demonstration gardens. Later, they tested water quality in the bay. “I’ve been coming here for many years,” a chaperone said as she watched her son rake out a nursery bed. “The kids always have fun and learn something too.”

~ Jill Spencer, Lexington Park



## New Invasive Plant Regulations in Effect

Almost five years after the enactment of Maryland’s Invasive Plants Prevention and Control Law, the first set of necessary regulations went into effect April 11 and will be phased in gradually. Maryland’s Invasive Plant Advisory Committee (IPAC), established by the law, uses a scientific weed risk assessment protocol to classify invasive plants as Tier 1 or Tier 2.



**Tier 1:** May not be propagated, imported, purchased or sold in Maryland.

*Ficaria verna* (fig buttercup)

*Geranium lucidum* (shining cranesbill)

*Iris pseudacorus* (yellow flag iris)

**Tier 2:** Retail display must include approved signage. See example left.

*Euonymus alatus* (burning bush)

*Ligustrum obtusifolium* (blunt-leaved or border privet)

*Wisteria sinensis* (Chinese wisteria)

*Wisteria floribunda* (Japanese wisteria)

*Wisteria x formosa* (floribunda x sinensis hybrids)



# PROGRAMS

All MNPS programs are free and open to the public. For details and up to date listings, see [mdflora.org](http://mdflora.org).

**July 26, Tuesday – 7:30 PM, doors open at 7:00 PM**  
**Creating Beautiful Landscapes for Pollinator and Wildlife Habitat**  
Silver Spring Civic Center Building  
Speaker: James Gagliardi, Horticulturist with Smithsonian Gardens

**August 16, Tuesday – 7:00 PM**  
**Conifers**  
Western Mountains Chapter, New Germany State Park, Lake House  
Speaker: Kevin Dodge, Director and Professor of Natural Resources and Wildlife Technology, Garrett College

**August 30, Tuesday – 7:30 PM, doors open at 7:00 PM**  
**Native Plant Production Utilizing Seeds of Local Ecotype**  
Location Silver Spring Civic Center Building  
Speaker: Leslie Hunter-Cario, Certified Professional Horticulturist

**September 17 and 18, Saturday and Sunday**  
**MNPS Annual Fall Conference**  
**Maryland's Forgotten Bogs and Pine Barrens**  
University of Maryland, College Park

**September 27, Tuesday – 7:30 PM, doors open at 7:00 PM**  
**Vulnerability of Tidal Wetlands to Sea Level Rise**  
Kensington Library  
Speaker: Patrick Megonigal, PhD, Senior Scientist and Deputy Director, Smithsonian Environmental Research Center

**October 25, Tuesday – 7:30 PM, doors open at 7:00 PM**  
**Native Medicinal Plants: Cultivation, Conservation, and Ethnobotany**  
Kensington Library  
Speaker: Helen Lowe Metzman, graduate of Tai Sophia Institute's masters program in herbal medicine

**November 29, Tuesday – 7:30 PM, doors open at 7:00 PM**  
**The Science behind Wild and Designed Plant Communities**  
Kensington Library  
Speaker: Claudia West  
The program will be preceded by a brief Annual Meeting at which new board members will be welcomed.

# FIELD TRIPS

MNPS field trips are free and open to the public. Pre-registration is required for some, and early registration may be offered to members. For up to date listings and details, and to register, see [mdflora.org](http://mdflora.org). Unless otherwise indicated, MNPS field trips are generally geared to adults.

**July 16, Saturday, 10:00 AM – 1:00 PM**  
**Wetland Plant ID**  
Jug Bay Wetlands Sanctuary, Lothian  
Leader: Karyn Molines

**July 23, Saturday, 10:00 AM – 2:00 PM**  
**Summer Wildflowers**  
Little Bennett Regional Park, Clarksburg  
Leaders: Sujata Roy, Allen Browne and Anne DeNovo

**July 24, Sunday 9:00 AM – noon**  
**Exploring Elk Ridge in Summer**  
Western Mountains Chapter  
Garrett County  
Leaders: Liz McDowell and Ron Boyer

**August 6, Saturday, 9:00 AM – noon**  
**Canoe Trip**  
Anita C. Leight Estuary, Abingdon, Hartford County  
Leader: Lauren Groeski, Park Naturalist

**August 13, Saturday, 10:00 AM – 1:00 PM**  
North Point State Park, Edgemere  
Leader: Matt Cohen

**September 11, Sunday, 10:00 AM – 2:00 PM**  
**Fort Chaplin, Washington, DC — Wild Washington Walk #144**  
Leaders: Mary Pat Rowan and David Culp

**October 2, Sunday, 10:00 AM – noon**  
**Seneca Creek Greenway Trail**  
Leaders: Ken Bawer and Anne DeNovo

**October 12, Wednesday, 9:30 AM – approximately 12:30 PM**  
**Shinrin-yoku or "Forest Bathing" Walk**  
Rock Creek Park  
Leader: Melanie Choukas-Bradley  
Under Melanie's guidance, participants will be introduced to Shinrin-yoku, a Japanese practice of "being" in the forest, and will learn about the health benefits of spending time immersed in nature.

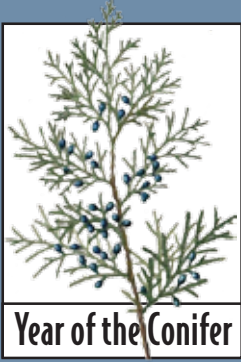
**November 13, Sunday, 10:00 AM – noon**  
**Little Bennett Regional Park**  
Leader: Carole Bergmann



Become a member. Join online: [www.mdflora.org](http://www.mdflora.org).

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## Maryland Native Plant Society Annual Conference 2016

Co-Sponsored by University of Maryland and Anacostia Watershed Society

# Maryland's Bogs & Pine Barrens



**Saturday & Sunday, September 17th & 18th**

**University of Maryland  
College Park, MD**

Register On-line at [www.mdflora.org](http://www.mdflora.org)