

The Wonderful World of Native Plants and Pollinators

The birds in our yards, the food on our plates and the money in our wallets all benefit from native plants and pollinators. Want to know how? Join us for a free, online open forum to learn all about this interconnected system!

April 20, 2021 | 12:00-12:45 PM



https://www.chesapeakebay.net/action/attend/native_plants_and_pollinators

Welcome!



This presentation is being live-streamed to the Chesapeake Bay Program Facebook page:
<https://www.facebook.com/chesapeakebayprogram>



All participants have been muted. Please use the Q&A function to ask any questions you have! They will be answered during the discussion section after the presentation.



This webinar will be recorded. It can be accessed at
https://www.chesapeakebay.net/who/group/communications_workgroup by 5:00 p.m. on Friday, April 23.



Having technical issues? Please email mbaldine@chesapeakebay.net.

WELCOME!



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Insect populations in decline

Bird numbers falling

“It’s safe to say that in the natural world, birds are the best studied group of wildlife species...And it turns out, over less than a single human lifetime, we’ve lost almost a third of our birds.”

~ Adam Smith, biostatistician



Will Parson / Chesapeake Bay Program

BIRDS NEED INSECTS



Will Parson / Chesapeake Bay Program



Russ Wigh / Flickr

- 6,000+ caterpillars are needed to feed one clutch of chickadee babies
- 80 percent of a hummingbird diet is insects and spiders

POWER IN OUR YARDS



“A study published in the journal *Environmental Management* found that over 40 million acres of land in the continental US has some form of lawn on it.”

- Business Insider 2016,
America's Biggest Crop is Grass

NATIVE PLANTS

NOUN, plural. Plants naturally occurring in a particular region or ecosystem



NATIVE PLANTS

- Connected with other organisms in a balance
- Provide food for bees, butterflies, caterpillars, and more
- Support birds and larger animals
- Naturally thrive in the soil, moisture, weather of home region
- Help combat erosion and flooding
- Are less expensive to maintain

Will Parson / Chesapeake Bay Program



POLLINATION



"The Reason for a Flower"
BY Ruth Heller

POLLINATION

Noun. The transfer of pollen from the male part of a flower to the female part of a flower, enabling fertilization and the production of seeds.



WHO ARE POLLINATORS?

- *Birds*
- *Bees*
- *Butterflies*
- *Bats*
- *Beetles*



- *Mammals*
- *Moths*
- *Flies*
- *Wasps*
- *Wind*

FLIES?? Really?

Eastern Calligrapher,
Toxomerus geminatus



Emilio Concari / iNaturalist

Of our flowering plants, 90% are pollinated by insects.

Will Parson / Chesapeake Bay Program





Specialists have
a unique
relationship
with a
particular plant.

14/03/2022

Tom Murray / antwiki (top left); Brian Finzel / iNaturalist (bottom left); John Cassel / iNaturalist

HOST PLANTS

Pollinators can be generalists and specialists at different life stages.



"There are 13 species of insects that only use goldenrod. If you don't have that plant, you just lost those 13 species."

~ Doug Tallamy



118

Violets and Great Spangled Fritillary



25

Will Parson / Chesapeake Bay Program (left); slgckgc / flickr (right)

Rosemallow and rosemallow bee



Melissa Simpson / U.S. Forest Service (left); Will Parson / Chesapeake Bay Program (right)

Spring beauty and spring beauty mining bee



Judy Gallagher / Flickr (left); Will Parson / Chesapeake Bay Program (right)

NATIVE TREES

*"Oaks support more forms of life
and more fascinating
interactions than any other tree
genus in North America."*

~ Doug Tallamy



500+

Will Parson / Chesapeake Bay Program

Tree of heaven and spotted lanternfly



USDA Forest Service (left); tgrosser / iNaturalist (top center); supertransformingatp / iNaturalist (top right); Will Parson / Chesapeake Bay Program (bottom center); Caitlyn Johnstone / Chesapeake Bay Program (bottom right)

Invasive Bradford Pear crowds out a forest



Will Parson / Chesapeake Bay Program

Native serviceberry/shadbush



100

Will Parson / Chesapeake Bay Program

Native flowering dogwood



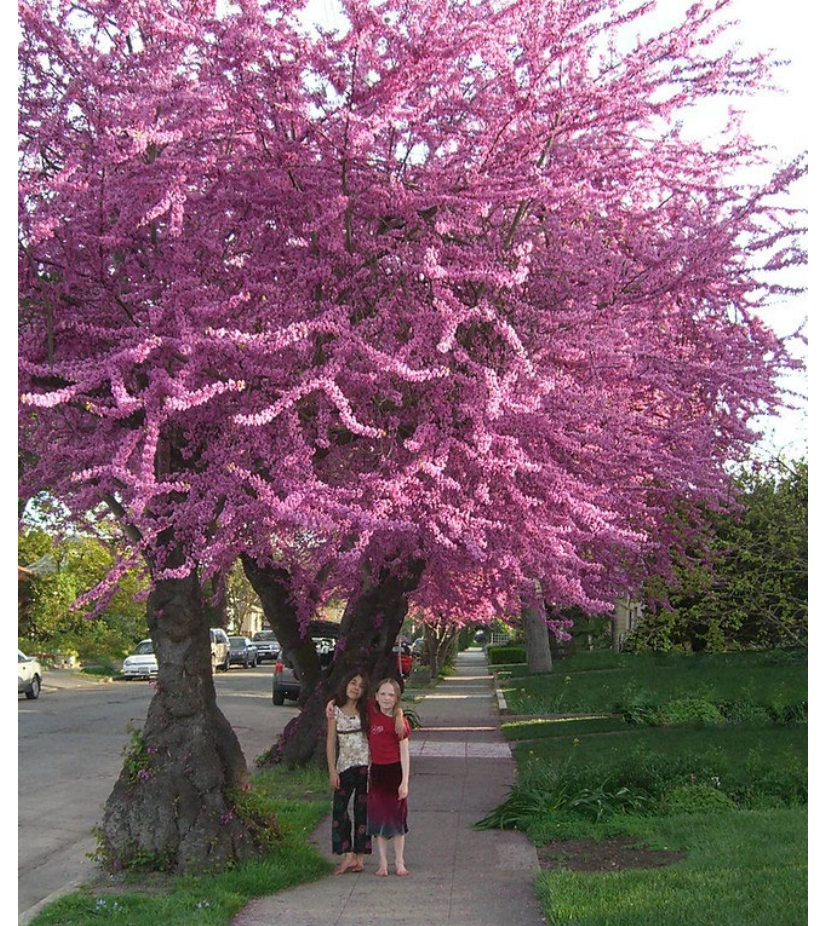
Will Parson / Chesapeake Bay Program

Native fringe tree



Mike Steinhoff / Flickr (left); Arthur T. LaBar / Flickr (right)

Native redbud



Will Parson / Chesapeake Bay Program (left); Robbi Baba / Flickr (right)



Photo Credit: Will Parson/Chesapeake Bay Program

Native plants for clean water

Laura Todd

Green Infrastructure Projects Manager

Alliance for the Chesapeake Bay

Stormwater runoff



What is stormwater runoff?

Water that flows over land or impervious surfaces, such as paved streets, parking lots, and rooftops, and does not soak into the ground.

How can stormwater runoff be prevented and treated?

- “Grey” and “green” solutions
- Stormwater BMPs or “best management practices”

Native plants in best management practices practices



Rain gardens



Bioretention cells



Conservation landscaping / "BayScaping"



Meadows

Rain gardens



Bioretention cells



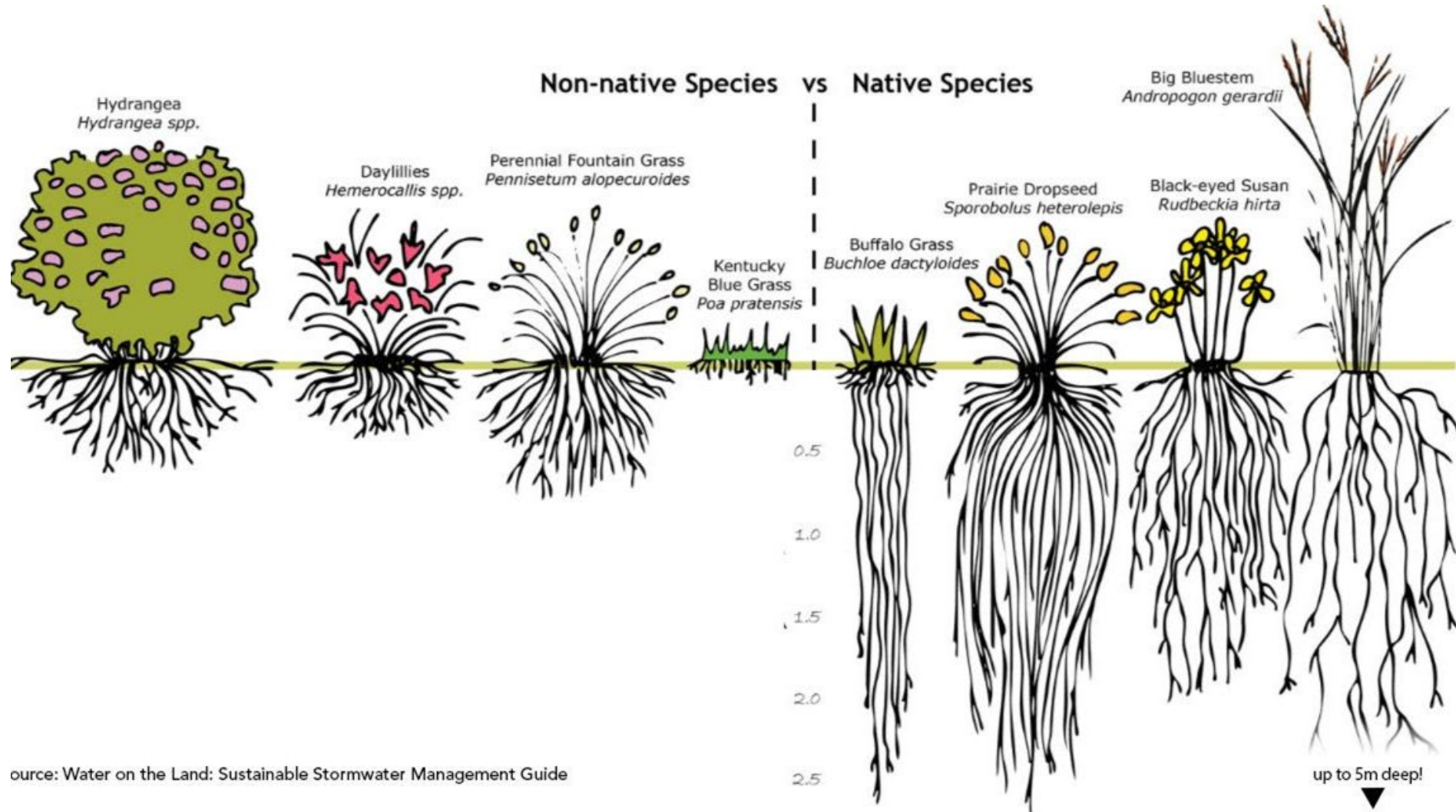
Conservation landscaping, “Bayscaping”



Meadows



Why native plants?



source: Water on the Land: Sustainable Stormwater Management Guide

Riversmart Homes

RiverSmart Homes is a residential stormwater management program for homeowners and property owners in the District of Columbia.



Native plant narratives



Native plant narratives

Native Plant Narratives

<https://www.allianceforthebay.org/project/native-plant-narratives/>

Native Plant Narratives YouTube Playlist

<https://tinyurl.com/nativeplantnarratives>

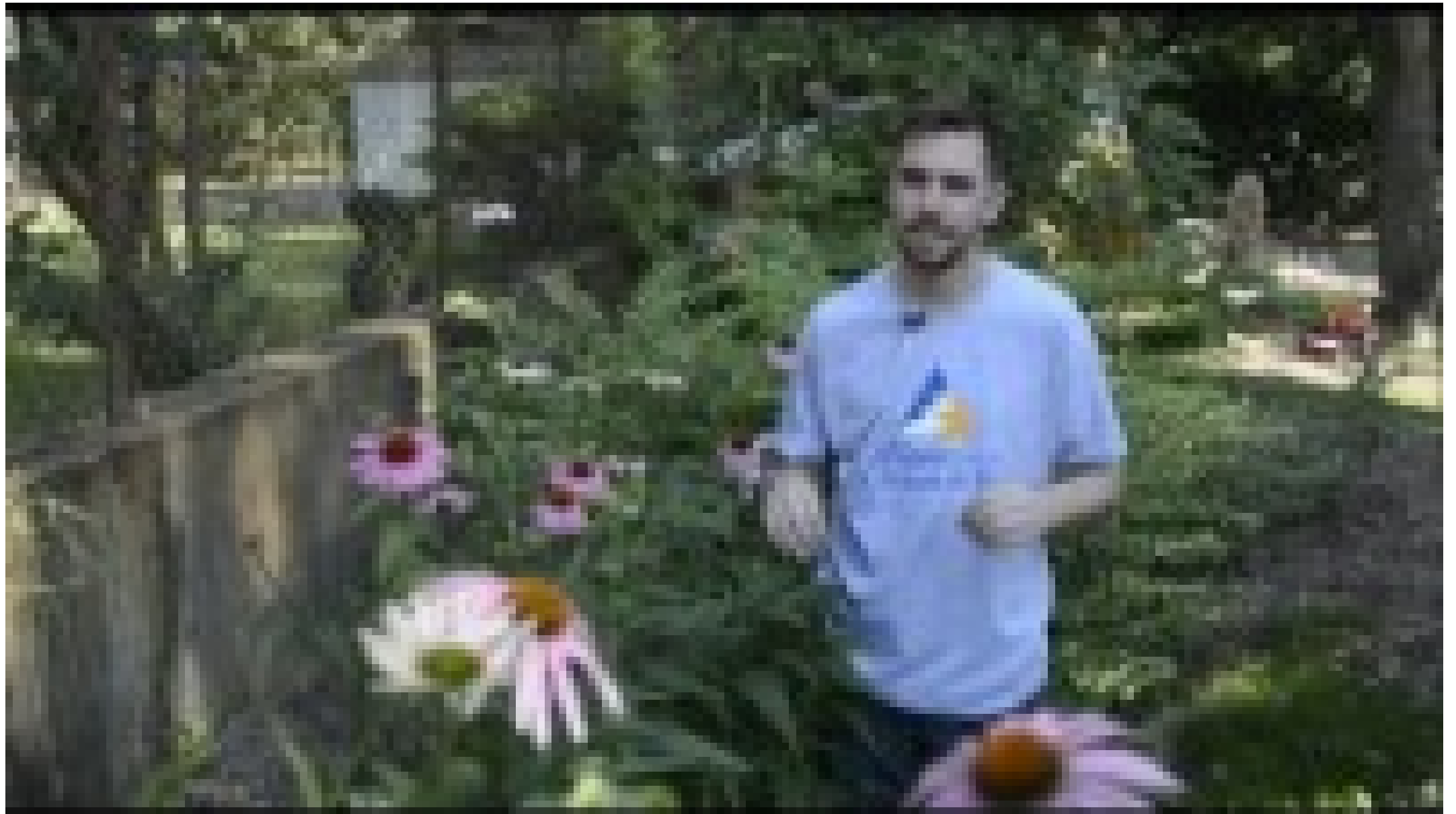
Upcoming videos

Root Division

Blazing star (*Liatris spicata*)

Moss phlox (*Phlox subulata*)

What would you like to learn about?





Thank You!

Photo Credit: Will Parson/Chesapeake Bay Program

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50 **ALLIANCE**
for the Chesapeake Bay



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RESOURCES

- Find local natives and their insect interactions: [NWF Plant Finder](#)
- Find natives by conditions and preferences: [Native Plant Center](#)
- Find plants for different regions: [USDA NRCS Plant Database](#)
- Learn about the ecosystem: [Chesapeake Bay Program](#)
- Find local resources on social media: [Pollinator Friendly Yards](#)
- Work with experts: [Alliance for the Chesapeake Bay](#)
- Find an organization near you: [Find a Group](#)
- Become an expert: [Watershed Stewards](#), [Master Naturalist](#), [Master Gardener](#), [Chesapeake Bay Landscape Professional](#)

Bring your garden to life.

Find Native Plants



Find Butterflies



My List



NWF NATIVE PLANT FINDER




FLOWERS AND GRASSES



☆ SAVE 118 🦋

goldenrod
Solidago
Asterales




☆ SAVE 34 🦋

joe-pye weed, thoroughwort, do ...
Eupatorium
Asterales



☆ SAVE 25 🦋

bulb panic grass, maidencane, ...
Panicum
Cyperales




☆ SAVE 22 🦋

St. Johns wort
Hypericum
Theales



☆ SAVE 20 🦋

flax
Linum
Linales




☆ SAVE 20 🦋

fleabane
Erigeron
Asterales



☆ SAVE 19 🦋

willowherb
Epilobium
Myrtales



☆ SAVE 16 🦋

dogbane
Apocynum
Gentianales

ATTRACTS:

🦋 500 species of butterflies and moths use this as a caterpillar host plant in your area. Our top 15:

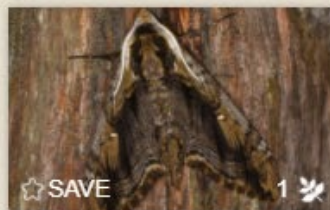


☆ SAVE

1 🦋

**Bantam Maple Dagger,
Retarded ...**

Acronicta retardata
Noctuidae



☆ SAVE

1 🦋

Elm Sphinx
Ceratomia amyntor
Sphingidae



☆ SAVE

1 🦋

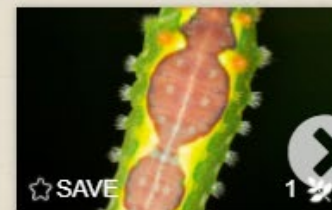
**Great Leopard Moth,
Giant Leap ...**
Hypercompe scribonia
Erebidae



☆ SAVE

1 🦋

Interrupted Dagger Moth
Acronicta interrupta
Noctuidae



☆ SAVE






1 🦋



Purple-Crested Slug
Adoneta spinuloides
Limacodidae

PLANT FINDER: QUERCUS (OAK)


NATIVE PLANT CENTER

ADVANCED SEARCH

 REGION ^  PLANT TYPE v  SUN EXPOSURE v  SOIL TEXTURE v  SOIL MOISTURE v

 FLOWER COLOR  LAST FRUIT v

<input checked="" type="checkbox"/> COASTAL PLAIN	<input checked="" type="checkbox"/> FERN	<input checked="" type="checkbox"/> FULL SUN	<input checked="" type="checkbox"/> CLAY	<input checked="" type="checkbox"/> DRY
<input checked="" type="checkbox"/> MOUNTAIN	<input checked="" type="checkbox"/> GRASS/GRASSLIKE	<input checked="" type="checkbox"/> PARTIAL SUN	<input checked="" type="checkbox"/> LOAMY	<input checked="" type="checkbox"/> FLOODED
<input checked="" type="checkbox"/> PIEDMONT	<input checked="" type="checkbox"/> HERBACEOUS	<input checked="" type="checkbox"/> SHADE	<input checked="" type="checkbox"/> SANDY	<input checked="" type="checkbox"/> MOIST
<input type="checkbox"/> SUBMIT	<input checked="" type="checkbox"/> EMERGENT	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> SUBMIT	<input checked="" type="checkbox"/> WET
	<input checked="" type="checkbox"/> LOW SHRUB			<input type="checkbox"/> SUBMIT
	<input checked="" type="checkbox"/> MEDIUM SHRUB			
	<input checked="" type="checkbox"/> TALL SHRUB			
	<input checked="" type="checkbox"/> TALL TREE (CANOPY)			
	<input checked="" type="checkbox"/> SMALL/MEDIUM TREE			
	<input checked="" type="checkbox"/> VINE			
	<input type="checkbox"/> SUBMIT			

 WHY NATIVES

Rain washes chemicals and fertilizers into the Chesapeake Bay. Ultimately, the Chesapeake Bay. Once in our waterways, these pollutants fuel the growth of excess algae, which threatens the health of fish, crabs and the entire Chesapeake Bay.

One of the easiest ways for us to reduce our pollution contribution to the Chesapeake Bay is to replace some of our lawn and typical landscapes with native

NATIVE PLANT CENTER

REGION ▾ PLANT TYPE ▾ SUN EXPOSURE ▾ SOIL TEXTURE ▾ SOIL MOISTURE ▾

SHOW MORE FILTERS ▲

FLOWER COLOR ▾ FALL COLOR ▲ FIRST BLOOM ▾ LAST BLOOM ▾ FRUIT TYPE ▾ FRUIT COLOR ▾ FIRST FRUIT ▾ LAST FRUIT ▾

<input type="checkbox"/> BLACK	<input type="checkbox"/> BROWN	<input type="checkbox"/> APRIL	<input type="checkbox"/> APRIL	<input type="checkbox"/> ACHENE (DRY, FLAT	<input type="checkbox"/> BLACK	<input type="checkbox"/> APRIL	<input type="checkbox"/> APRIL
<input checked="" type="checkbox"/> BLUE	<input type="checkbox"/> GREEN	<input type="checkbox"/> AUGUST	<input type="checkbox"/> AUGUST	<input type="checkbox"/> ACHENE (DRY	<input type="checkbox"/> BLUE	<input type="checkbox"/> AUGUST	<input type="checkbox"/> AUGUST
<input type="checkbox"/> BROWN	<input type="checkbox"/> ORANGE	<input type="checkbox"/> FEBRUARY	<input type="checkbox"/> DECEMBER	<input type="checkbox"/> BERRY	<input type="checkbox"/> BROWN	<input type="checkbox"/> JULY	<input type="checkbox"/> DECEMBER
<input type="checkbox"/> GREEN	<input type="checkbox"/> PURPLE	<input type="checkbox"/> JULY	<input type="checkbox"/> JULY	<input type="checkbox"/> CAPSULE	<input type="checkbox"/> GREEN	<input type="checkbox"/> JUNE	<input type="checkbox"/> FEBRUARY
<input type="checkbox"/> ORANGE	<input type="checkbox"/> RED	<input type="checkbox"/> JUNE	<input type="checkbox"/> JUNE	<input type="checkbox"/> CONE/CONE-LIKE	<input type="checkbox"/> ORANGE	<input type="checkbox"/> MARCH	<input type="checkbox"/> JANUARY
<input type="checkbox"/> PINK	<input type="checkbox"/> YELLOW	<input type="checkbox"/> MARCH	<input type="checkbox"/> MARCH	<input type="checkbox"/> FLAT SEED)	<input type="checkbox"/> PINK	<input type="checkbox"/> MAY	<input type="checkbox"/> JULY
<input type="checkbox"/> PURPLE	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> MAY	<input type="checkbox"/> MAY	<input type="checkbox"/> FLESHY	<input type="checkbox"/> PURPLE	<input type="checkbox"/> OCTOBER	<input type="checkbox"/> JUNE
<input type="checkbox"/> RED		<input type="checkbox"/> SEPTEMBER	<input type="checkbox"/> NOVEMBER	<input type="checkbox"/> NUT/NUT-LIKE	<input type="checkbox"/> RED	<input type="checkbox"/> SEPTEMBER	<input type="checkbox"/> MARCH
<input type="checkbox"/> WHITE		<input type="checkbox"/> SUBMIT	<input type="checkbox"/> OCTOBER	<input type="checkbox"/> POD	<input type="checkbox"/> WHITE	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> MAY
<input type="checkbox"/> YELLOW			<input type="checkbox"/> SEPTEMBER	<input type="checkbox"/> WINGED	<input type="checkbox"/> YELLOW	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> NOVEMBER
<input type="checkbox"/> SUBMIT			<input type="checkbox"/> SUBMIT	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> SUBMIT	<input type="checkbox"/> OCTOBER
							<input type="checkbox"/> SEPTEMBER
							<input type="checkbox"/> SUBMIT

native plants that suit local conditions, you can r
money. Native plants also provide food and
also saves ti
imals.

Search on Facebook for
**your state's
native plant resources**



Capital letters or lowercase it doesn't matter
hashtags aren't case sensitive

pollinator friendly yards on facebook

SOCIAL MEDIA RESOURCES

#pfypennsylvanianativeplants



Leslie Nelson Inman ▸ Pollinator Friendly Yards

March 9 · 🌐

PENNSYLVANIA ■ BUY LOCAL!

I'm going through the states alphabetically highlighting each state's native plant resources. PENNSYLVANIA has SO MANY:

[#pfypennsylvanianativeplants](#) [#pfypennsylvaniapollinators](#)

[#pennsylvanianativeplants](#) [#pennsylvaniapollinators](#)

These are just some of the beautiful plants you could learn about if you live in Pennsylvania and join YOUR native plant society.

LINK HERE TO WEBSITE: <http://www.panativeplantsociety.org/>

FACEBOOK Group FOR NATIVE PLANT SOCIETY:

<https://www.facebook.com/groups/panativeplantsociety>

South-Central PA Native Plants FACEBOOK: <https://www.facebook.com/groups/275055130585686>

FACEBOOK PA NATIVE PLANT GARDENING:

<https://www.facebook.com/.../PANativePlantG.../announcements>

Pennsylvania Audubon native plants website: <http://www.aswp.org/pages/native-plant-center>

Wild Ones in Pennsylvania: They are an incredible organization.

Facebook page Wild Ones: <https://www.facebook.com/wildonesofsepa>

LINK: <https://wildones.org/chapters/>



CHESAPEAKE BAY PROGRAM ARTICLES



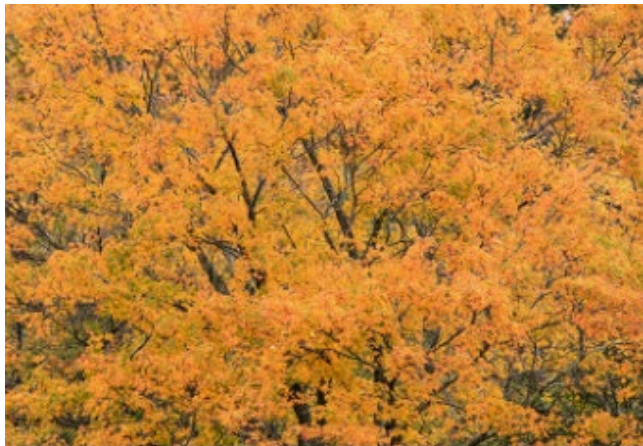
The buzz around buying native plants



Ringin' in spring with bluebells



Ten Chesapeake Bay native plants to plant in your yard this spring



Sugar maples face a sticky situation



By supporting key habitats, we support the ecosystem



Nine native Chesapeake Bay plants that look beautiful in winter

CHESAPEAKE BAY PROGRAM

Plant this, not that: https://www.chesapeakebay.net/news/blog/beautiful_invaders

Invasive: Burning bush (*Euonymus alatus*)

Displaces native species

Native: Red chokeberry (*Aronia arbutifolia*/*Photinia pyrifolia*)

Nutritional berries



Invasive burning bush, left, and native red chokeberry, right (Photo courtesy gailps/iNaturalist CC BY-NC, Photo courtesy Andrey Zharkikh/Flickr CC BY 2.0).

Invasive: Japanese wisteria (*Wisteria floribunda*), Chinese wisteria (*Wisteria sinensis*)

Pulls down trees

Native: American wisteria (*Wisteria frutescens*)

Hosts butterflies



Invasive Chinese wisteria, left, and native American wisteria, right (Photo by Caitlyn Johnstone/Chesapeake Bay Program, Photo courtesy csglenn/iNaturalist CC BY-NC).



<https://www.instagram.com/chesbayprogram/>

<https://www.facebook.com/chesapeakebayprogram>

<https://twitter.com/chesbayprogram>

GET IN TOUCH WITH US!

@CHESBAYPROGRAM

RESOURCES

NWF Plant Finder

<https://www.nwf.org/NativePlantFinder/>

Native Plant Center

<http://www.nativeplantcenter.net>

USDA NRCS Plant Database

<https://plants.usda.gov/java/>

Chesapeake Bay Program

<https://www.chesapeakebay.net/news/blog>

Pollinator Friendly Yards

<https://www.facebook.com/groups/QuietOrganicYards/>

Alliance for the Chesapeake Bay

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

Find an organization

<https://www.chesapeakebay.net/action/join>

Watershed Stewards Academy

<http://aawsa.org/questions>

Master Naturalists

<https://extension.umd.edu/programs/environment-natural-resources/program-areas/master-naturalist-program>

Master Gardeners

<https://extension.umd.edu/programs/environment-natural-resources/program-areas/master-gardener-program>

Chesapeake Bay Landscape Professionals

<https://cblpro.org/get-certified/>