

HABITAT - the arrangement of food, water, cover, and space - IS THE KEY.

In This Issue:

- [Native Plant Profile: Wild Bergamot](#)
- [Maryland Native Wildlife: Eastern Tiger Swallowtail](#)
- [Habitat Tips: Perennial Plants that Attract Natural Pest Control](#)
- [Citizen Science: Statewide Eyes](#)
- [Printer-Friendly Version](#) 

Forward

Welcome to the Summer Issue of Habi-Chat! It finally feels like summer is on its way as the sun and heat are starting to be prominent. National Pollinator Week is June 14-20th so please be sure to check out resources with the [Pollinator Partnership](#) and [Wild Acres](#) to learn how to make your backyard pollinator friendly! This issue is dedicated to summer wildlife, plants, and habitat practices for Maryland backyards.

If there is a particular topic that you would like to see on our site, then please don't hesitate to contact me to let me know! My information can be found at the bottom of this newsletter. Happy Habitats!

Check out the Maryland Native Plant Society website for Native Plant Sales near you!
(<http://www.mdflora.org/plantsales.html>)



Maryland Native Plant Profile:

Wild Bergamot (*Monarda fistulosa*)

Wild bergamot (*Monarda fistulosa*) is a lovely native perennial in the Mint family (Lamiaceae). This tall wildflower can grow up to 4 feet in height and prefers partial to full sun environments. While wild bergamot can tolerate moist soil, it grows best in well drained sites.

Wild bergamot has angled stems with opposite leaves. The leaves are lance-oval in shape and can vary in color from a dark green to a lighter color with hints of red. The leaves have serrations on the edges and give off an oregano scent when touched. This smell is likely why deer often avoid chewing on wild bergamot!

Wild bergamot flowers are pink to light purple in color. The flowers are tubular in shape and occur in rounded clusters that are 1-3 inches in length. Blooms sometimes can last from mid-June through early September. These flowers are attractive to many insect pollinators including bees, bee flies, moths, and skippers. Occasionally, ruby-throated hummingbirds will sample the nectar too. In addition to attracting pollinators, wild bergamot also attracts predators such as thread-waisted wasps that prey upon caterpillars to feed their young.



By: *wplynn Flickr (CC BY-ND- 2.0)*

In the late summer/early fall, wild bergamot will go to seed. Often, goldfinches and other tiny, seedeaters enjoy the bounty. Like most mints, wild bergamot will spread into new locations via seed. So, give it plenty of room!



Thread-waisted wasps are beneficial insects that nectar on wild bergamot by Kerry Wixted

Wild bergamot's relatives include spotted beebalm (*Monarda punctata*) and beebalm (*Monarda didyma*). The latter contains brilliant red flowers that are highly attractive to hummingbirds. Beebalm grows best in moist soils in full sun while spotted beebalm prefers drier soils. All three species have high pollinator value and attract predatory insect as well!



Beebalm (left) and spotted beebalm (right) also are great wildlife plants by Kerry Wixted

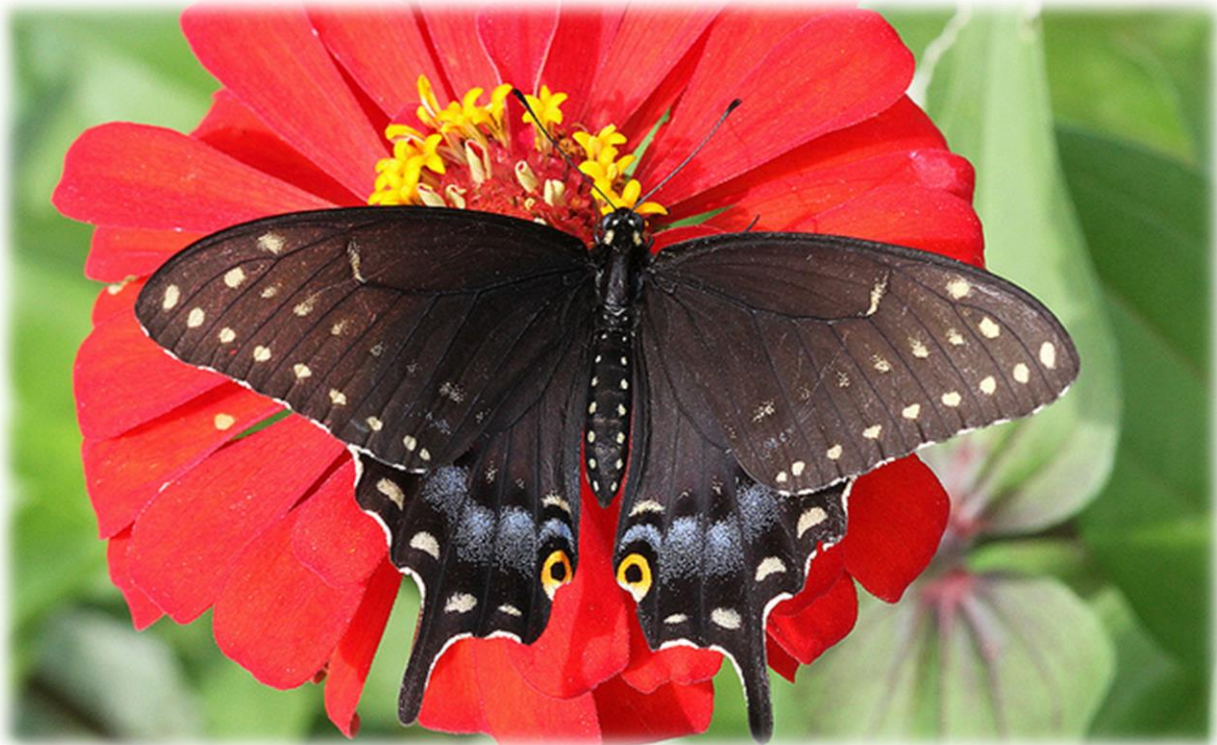
Want more Habi-chats? Check out our archives here:
http://dnr2.maryland.gov/wildlife/Pages/habitat/habichat_archives.aspx

Maryland Native Wildlife

Eastern Black Swallowtail (*Papilio polyxenes asterius*)

Swallowtails are large, striking butterflies. Most swallowtails also are relatively easy to attract to backyard habitats! The eastern black swallowtail is one of our most common swallowtail species.

The black swallowtail is found throughout southern Canada as well as throughout most of the eastern and mid-western United States. It is common throughout Maryland.



Adult black swallowtail by John Flannery, Flickr CC by ND 2.0

Adult black swallowtails are mostly black in color and have 2.5-3.5 inch wingspans. The upper surface of the wings contains two rows of yellow spots that are large and bright in males and are smaller and lighter in females. On the hind wings, females have a powdery, iridescent blue area between the rows of spots. In males, the blue area is not as conspicuous. Both sexes have a distinct red spot with a black bulls-eye on the inner edge of the hind wings and an isolated yellow spot on the outer edge of the front wings.

In both the spring and summer, females will lay single eggs on specific host plants. The tiny yellow eggs will hatch into small caterpillars that are mostly black with a white patch. This early instar strongly resembles bird poop for camouflage! As the caterpillar grows and molts, it later becomes green with black bands that contain yellow dots. When agitated, the caterpillar will present yellowish colored 'horns' known as

osmetrium that secrete a foul liquid.



Early instar (left) by Kerry Wixted; Later instar (middle) by Ken Slade, Flickr CC by NC 2.0; Later instar (left) by Lynette MT, Flickr CC by NC 2.0

To attract black swallowtails, it is important to provide both host (caterpillar) and nectar (adult) plants. Black swallowtails host on plants in the carrot family (Apiaceae) including dill, fennel, parsley, Queen Anne’s lace, rue, and others. Adults prefer to nectar on plant such as milkweed, thistle, and joe pye-weed.

Summer Habichat Tips

Want more tips on summer wildlife gardening? Check out our previous summer Habi-Chat newsletters for ideas!

- 1) [Backyard Wildlife Fun for Kids: Reptile Safari](#)
- 2) [Container Gardening](#)
- 3) [Grow Your Own Seed](#)
- 4) [Minimizing Pesticide Impacts to Pollinators](#)
- 5) [Shade Perennials for Wildlife Gardens](#)
- 6) [Xeriscaping](#)



Habitat Tips: Perennial Plants that Attract Natural Pest Control

Did you know? Many wasps and other natural enemies of insects rely on plant nectar or pollen as adults and invertebrates as juveniles. Therefore, planting flowers that attract adult predators and parasitoids can increase natural pest control in your backyard. Predators are animals that attack and consume other animals whereas parasitoids live in or on their host and kill the host in the process. Most parasitoids are specialists and only attack certain species. For example, a common parasitoid is the braconid wasp (*Cotesia congregatus*) which lays its eggs inside of tobacco and tomato hornworms.



Hornworm with braconid wasp pupae by Kerry Wixted

Why attract natural pest control?

- It's easy!
- It's cheap!
- It doesn't contribute to pesticide pollution.
- It prevents development of pesticide resistance.
- It aids in maintaining a natural balance.

Common beneficial predators and parasitoids in the garden include: beetles (soldier beetles, ladybugs, etc), green lacewings, spiders, syrphid flies, and [wasps](#). Below is a list of plants that have been found to attract beneficial predators and parasitoids!



Syrphid fly larvae eating aphids by Kerry Wixted

Perennial Plants that Attract Beneficial Insects

Common Name	Scientific Name	Bloom Time	Notes
Golden Alexanders	<i>Zizia aurea</i>	April-June	Host plant for black swallowtail
Canada Anemone	<i>Anemone canadensis</i>	May-July	Likes moist soil
Dill	<i>Anethum graveolens</i>	May-June	Attracts green lacewings, syrphid flies, and ladybugs; host plant for black swallowtail
Lanceleaf Tickseed	<i>Coreopsis lanceolata</i>	June-October	Great bee and butterfly nectar plant
Indian Hemp	<i>Apocynum cannabinum</i>	June-August	Nectar source for monarchs
Meadowsweet	<i>Spiraea alba</i>	June-September	Grows best in western Maryland
Spotted Beebalm	<i>Monarda punctata</i>	June-October	Attracts wasps
Wild Bergamot	<i>Monarda fistulosa</i>	June-September	Attracts wasps
Canada goldenrod	<i>Solidago canadensis</i>	July-October	Great nectar source for migrating monarchs; attracts beetles and wasps
Boneset	<i>Eupatorium perfoliatum</i>	July-October	Great for bees and butterflies
Blue Lobelia	<i>Lobelia siphilitica</i>	August-October	Likes moist soil
New England Aster	<i>Aster novae-angliae</i>	August-October	Great nectar source for migrating monarchs

When planting, it is best to either interplant the species listed above within your garden design or to create small borders around your garden. These flowers can be used in all types of gardens from edible gardens to pollinator gardens.

Resources:

Fiedler, A., Tuell, J., Isaacs, R., and D. Landis. 2007. [Attracting beneficial insects with native flowering plants](#). Extension Bulletin E-2973.

Xerces Society. 2014. *Farming with Native Beneficial Insects: Ecological Pest Control Solutions*. ISBN-13: 978-1612122830

Citizen Science: Statewide Eyes

Do you hike, ride, bird, camp, fish, or otherwise recreate in state parks, forests or wildlands? Lend YOUR eyes to help Maryland's biodiversity! Did you know? Maryland has over 1,200 rare, threatened or endangered native species, of the more than 16,000 species recorded in the state. Unfortunately, habitat loss and invasive species threaten our native species, even the common ones. One of the best ways to protect Maryland's native species is to remove invasive plants and restore invaded sites. To tackle the problem quickly and efficiently, we need more information about **how much of which invasive plants grow where**. That's where you can help!



Calling all Citizen Scientists!

The Maryland Natural Heritage Program designed Statewide Eyes to allow volunteers and researchers alike to collect more information about invasive plants on state lands quickly. Volunteers (like you!) use a free mobile application called the Mid-Atlantic Early Detection Network (MAEDN) to identify, photograph and map the location of invasive plants, focusing on ecologically significant sites.

Be Our Eyes!

Are you ready to help? If so, then please sign up here, via Google for a day-long training session to learn species identification, and how to use the MAEDN app to collect and report invasive plant data.



The sessions will be held from 9:00 am to 3:00 pm, and will include both classroom and field work. Please bring a bagged lunch, your smart phone or handheld device, and the right clothes to head outside for part of the workshop.

Statewide Eyes Trainings - Spring 2016 - 9 am to 3 pm	
Location	Date
Pocomoke River State Park, Worcester County	Postponed - Check Back for Updated Date
New Germany State Park, Garrett County	June 11, 2016
Elk Neck State Park, Cecil County	June 21, 2016
Patapsco State Park/Soldiers Delight Natural Environmental Area, Baltimore County	September 22, 2016

For More Information, please check out our website here:
http://dnr2.maryland.gov/wildlife/Pages/statewide_eyes.aspx

Sign up to help! Please contact:

- Kerrie Kyde - kerrie.kyde@maryland.gov; 301-948-8243
- Paula Becker - paula.becker@maryland.gov
- Or by completing [this Google Form](#)

Acknowledgements

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- Bergamot by wplynn Flickr CC by ND 2.0
- Adult black swallowtail by John Flannery, Flickr CC by ND 2.0
- Later swallowtail instar by Ken Slade, Flickr CC by NC 2.0
- Later swallowtail instar with osmetrium by Lynette MT Flickr CC by NC 2.0
- All other photos by Kerry Wixted

We want to hear from you!

Letters, e-mail, photos, drawings, etc!

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