

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

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Forward

Welcome to the Spring/Summer Issue of Habi-Chat! After this past long, cold winter, I found myself yearning for spring that much more. Now that spring is here, I am so excited to welcome the return of our local wildlife and the re-emergence of wildflowers and plants all around the State! One welcomed sight of spring is the return of the ruby-throated hummingbird which is highlighted in this issue of Habi-Chat.

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!



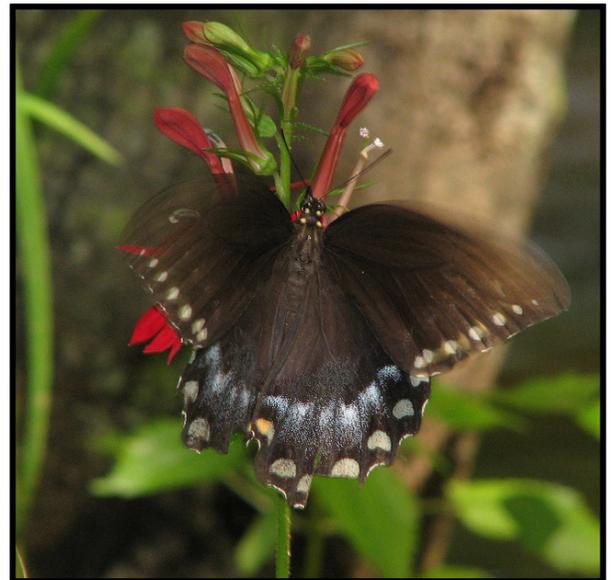
Maryland Native Plant Profile: **Cardinal flower (*Lobelia cardinalis*)**

Cardinal flower (*Lobelia cardinalis*) is a brilliantly colored native perennial in the Campanula family (Campanulaceae). Despite its name, this plant is not favored by northern cardinals. The common name stems from the similar color to a Roman Catholic Cardinal's vesture. Cardinal flowers grow up to 4 feet tall and have finely-toothed, alternate leaves. Cardinal flower can be found throughout the eastern half of the United States. Typically, this plant grows in medium to wet soils in full sun to part shade along streams, springs, swamps and low-wooded areas. It tends to prefer rich, slightly acidic soils with little leaf cover.

Cardinal flower is best known for its showy spikes of scarlet red flowers. The flowers are tubular and have 2-lips with the bottom lip having more prominent lobes. Flowers can get up to 1.5 inches in length and have contrasting-colored anthers which extend over the lower lip of the flower. White and pink forms also have been cultivated. Cardinal flower typically blooms from late summer (July) through early fall (September). The lower flowers on the stalks open up first, and their color and shape are highly attractive to ruby-throated hummingbirds. In addition, a variety of bees and butterflies will also utilize the nectar. In many cases, deer will leave this plant alone.

Cardinal flower can be purchased as seed or adult plants. Seeds should cold stratified for several months in a refrigerator and then can be germinated in shallow trays with a light soil covering. When transplanting, you should avoid the use of mulch around the plants as it will rot the roots. If need be, then cover the plants with a fine straw. Adult plants form multiple basal rosettes that can be split in the fall or spring to make new plants.

The Iroquois had many uses for cardinal flower. For example, the root was brewed in combination with other plants to treat fever sores. In addition, parts of the plant were made into a concoction to treat cramps. The Pawnees also used cardinal flower as a love charm.



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

Maryland Native Wildlife

Ruby-throated hummingbird (*Archilochus colubris*)

The ruby-throated hummingbird is often a very welcome sight in spring and summer as they flit around and sip nectar from flowers and feeders. The ruby-throated hummingbird is the only species of hummingbird that breeds within the eastern United States.

Ruby-throated hummingbirds are iridescent green with white bellies. Their common name refers to the brilliant reddish-orange coloring on the throat of mature males during the breeding season. Females, in contrast, have a grayish throat with white underparts and green coloring on the upper body. Juveniles and non-breeding birds look similar to females. However, adult females have white outer corners on their tails while adult, non-breeding males do not.



Ruby-throated hummingbird male (left) by Joe Schneid and female (right) by Dick Daniels, Wikimedia Commons

Ruby-throated hummingbirds migrate to Central America over the winter and then return to the eastern half of the United States in the spring. Some birds will continue as far north as Canada to breed. In Maryland, ruby-throated hummingbirds generally return in early April and begin breeding shortly after. Males will perform a courtship dance to woo the ladies. His dance includes making looping, U-shaped dives above the female.

After breeding, the male will leave the female to build the nest and raise the young. She will create a thimble-sized nest constructed of dandelion and thistle threads bound by spider webs and covered on the outside with moss and lichen. The spider silk allows the nest to expand as chicks grow while the moss and lichen provide camouflage. The female then will lay 2 eggs per clutch that take up to 2 weeks to incubate. The young will be born helpless and will take an additional 3-4 weeks to fledge.



Female feeding chicks by Rick McArthur, Flickr CC

Ruby-throated hummingbirds are primarily nectar feeders, though they also will dine upon flying insects and caterpillars, particularly while nesting.

Ruby-throated hummingbirds are naturally attracted to red and orange tubular-shaped flowers such as beebalm, cardinal flower, jewelweed, trumpet creeper, trumpet honeysuckle, and red buckeye. A list of plants that attract hummingbirds, butterflies and bees can be found on [this page](#). In addition, they will visit nectar feeders. One part of white sugar can be mixed with 4 parts of water to make nectar. Boiling the sugar water and/or adding red dye are not necessary to attract hummingbirds. However, feeders should be kept clean and free of mold to prevent the spread of illness and disease. In addition, roaming felines can be very problematic for hummingbirds, and birds at a feeder are easy targets. Therefore, cats should be kept indoors and away from feeders. Because hummingbirds also rely on insects for part of their diet, pesticide use should be limited in and around wild-scapes to ensure the safety of visiting hummingbirds.



Female

hummingbird enjoying bee-balm by Joe Schneid, Wikimedia

ruby-throated

To learn more about hummingbirds as well as to see a map of their migration, be sure to check out the [Hummingbirds website](#) or the [Hummingbird page](#) on the Smithsonian Migratory Bird Center site.

*For more information on Maryland Wildlife, check out our wildlife page here:
(www.dnr.state.md.us/wildlife/Plants_Wildlife/mdwllists.asp)*

Habitat Tips: I've got Worms: Adventures in Vermicomposting

As I shuffled through the door toting a large bin, my fiancé just stared at me, puzzled. When he asked what was in the bin, I excitedly exclaimed “Worms!” He just shook his head. As a biologist, I tend to come through the door with interesting items. However, most are transient in our household, unlike my bin of worms. I spent the next few days explaining reasons for my newest endeavor.

Vermicomposting is the process of using worms (red wigglers) and beneficial microorganisms to convert fruit and veggie scraps into compost. The process, when performed correctly, is much faster than conventional composting and produces slightly richer compost in the process. Best of all, vermicomposting can be done indoors which makes it ideal for those with limited outdoor space or neighbors which don't appreciate compost bins.

To begin the vermicomposting process, you need several key items:

- Red wigglers
- Bin
- Starter bedding
- Vegetable and/or fruit scraps

Red wigglers (*Eisenia foetida*) are a particular species of worm adapted to the composting lifestyle. Typical worms found outdoors, like nightcrawlers, are not ideal as they require cooler temps and a system to tunnel within. Red wigglers can be purchased online, from garden stores, or (in my case), can be obtained from friends. You should purchase one pound of red wigglers for every half pound of food scraps generated per day.



Red wigglers in compost with cocofibers by Kerry Wixted

The next key item in vermicomposting is the bin. The most elaborate worm bins can contain multiple levels that can be removed as needed. The simplest of worm bins are just a plastic bins with air holes drilled into them. Keep in mind that bins should have some airflow and should be opaque. Ideally, bins

should also have a method for drainage. However, excess water can be drained out of bins or can be extracted using turkey basters. Bins should be kept indoors as extreme cold or hot temperatures can kill the worms. Don't worry- as long as a lid is kept on the bin, and you are adding the right material, the bin will not be smelly.

Worm bedding should retain some moisture while also providing a place to live. While commercial worm bedding is available for purchase, bedding can be easily made at home. Shredded cardboard and paper are great worm bedding. The bedding should be moistened and placed in with the worms. If using cardboard, then soak cardboard strips in water for several hours until saturated then wring out excess moisture. Bins should be filled about 2/3 of the way with bedding. Bedding should always be kept moist. New bedding should be periodically added as worms convert bedding and scraps into compost.



Scraps from these fruits and vegetables are great for worm bins by Wikimedia Commons

Once the bin has been assembled, then it is time to add kitchen scraps. It is very important to start adding food slowly to allow beneficial bacteria to colonize the bin with your worms. Most vegetable and fruit scraps can be added to the bin. However, excess citrus and/or onions can alter pH in the bin and can accidentally kill your worms. Meat and dairy products should not be added to the bin as they can cause harmful bacteria to colonize the bin. However, boiled and crushed egg shells should be periodically added to help worms with digestion and reproduction. Occasional coffee grounds and paper filters can also be added to the bin. It is best to cover food scraps with a small layer of bedding to prevent fruit flies from finding your bin. It should be noted that finding springtails, sowbugs and pill bugs, and millipedes in your bin is normal as these critters also eat decomposing plant material.

Once the worm castings are ready, you can harvest the compost one of two main ways: 1) shine a bright light on the compost, causing worms to migrate to the bottom or 2) feed worms on one side of the bin for a week and then harvest the other side of the bin. Inevitably, you may still have a worm or two attached to the compost that you harvest. Red wigglers cannot survive outside for long, so you do not have to worry about accidentally releasing them.

For more in-depth information on vermicomposting, then check out Mary Appelhof's book "Worms Eat My Garbage",

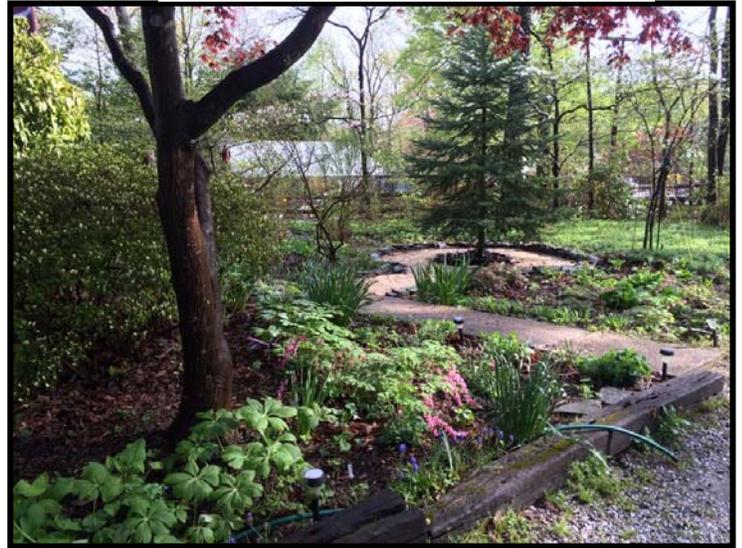


Habitat Tips: Shade Perennials for Wildlife Gard

Black gold, aka worm castings ready to compost by Wikimedia Commons

Finding perennial plants suited to shady conditions and are not invasive can sometimes be quite a challenge. However, shaded gardens can still be extremely important to wildlife- even for pollinators like bees and butterflies. Listed below are plants adapted to receiving less than 4 hours of direct sun each day and can thrive in moist soils. Most of the plants mentioned are also relatively deer resistant.

Astilbe (*Astilbe* spp.)- Astilbes come in a variety of colors and produce tall spikes of flowers in early-mid June. Most species of astilbes are not native to Maryland, but they are not invasive and attract small butterflies and bees. Astilbes can get up to several feet tall and are relatively deer resistant.



Columbine (*Aquilegia canadensis*)- The native columbine has red flowers with yellow parts, but other species and varieties can range from pinks to purples. These unique flowers typically bloom in late April-early May. Columbines, particularly the native species, are attractive to ruby-throated hummingbirds. Columbines can get up to several feet tall and are also relatively deer resistant.



Astilbe (left) and columbine by Kerry Wixted

Coralbells (*Heuchera* spp.)- Coralbells are best known for their foliage patterns which can range from

bright greens with reddish veins to deep purples. Depending on the species, coralbells can be semi-evergreen or evergreen in nature, making them a good groundcover. Tall spikes of flowers arise from the low-growing foliage in mid-summer and attract hummingbirds and butterflies. Coralbells typically grow 6-8 inches in height and usually are not favored by deer.

Foamflower (*Tiarella cordifolia*) – Foamflower is a native, evergreen groundcover with lobed leaves that look good almost any time of the year. In the spring, the plant produces upright spikes of white flowers that are visited by a number of pollinators. Depending on the variety, these plants can grow from 8 inches to 2 feet in height. Generally, deer avoid foamflower.

Mayapple (*Podophyllum peltatum*)- Mayapples are growing in popularity, so more native plant nurseries are beginning to sell them. Mayapples emerge as large, umbrella-shaped leaves in early spring. Not all plants flower, but those that do produce forked-leaves that cover a small white flower underneath. Mayapples make great spring groundcovers, and the foliage often lasts through mid-June. Mayapples typically grow up to a foot tall and are occasionally browsed by deer.



Foamflower (left) and mayapple (right) by Kerry Wixted

Violets (*Viola* spp.)- Violets make excellent groundcover and can often be transplanted easily from parts of your yard. The heart-shaped leaves are present throughout most of the growing season while the flowers often come out in April through early May. Violets are very adept at spreading and can sometimes be a little aggressive, so be sure to plant them in areas where they have room to spread out. Violets are host plants for fritillary butterflies. Violets typically grow 6-8 inches in height and will occasionally be browsed by deer and groundhogs.

Virginia bluebells (*Mertensia virginica*)- Virginia bluebells are a native spring ephemeral wildflower. In mid-April, plants produce bell-shaped flowers that start out pink and later develop into a creamy bluish-purple hue. These plants typically do not like to be transplanted and will look a little sad their first year but will bounce back the following year, so be patient. The flowers are loved by pollinators and the foliage lasts through mid-June. Virginia bluebells grow over a foot tall and are mostly deer resistant.

White wood aster (*Eurybia divaricata*)- White wood aster is a native wildflower that blooms in late August through September. White wood aster leaves are toothed and heart-shaped. The plants emerge in

late spring and will grow up to 2.5 feet tall. The flowers are loved by late season butterflies, and the plant often is not disturbed by deer.

Wild bleeding hearts (*Dicentra eximia*)- Wild bleeding hearts are a favorite garden plant for many people. The hybrid varieties produce large stems of drooping heart-shaped flowers in late Spring while the more native strains are a bit smaller. Both hybrid and native wild bleeding hearts attract pollinators. Depending on the variety, these plants can get up to several feet tall and will have sprawling habit to their appearance. Wild bleeding hearts are mostly deer resistant.

Wild blue phlox (*Phlox divaricata*)- Wild blue phlox is a tall wildflower that produces brilliant blue flowers in early spring. The flowers are visited by many pollinators. The plants can get up to 2.5 feet in height and typically are not favored by deer.

Wild ginger (*Asarum canadense*)- Wild ginger is a native groundcover with heart-shaped leaves. The flowers are often hidden and lay on the ground to be pollinated by tiny flies. Plants grow up to 6 inches in height and foliage will last throughout much of the growing season. This plant is relatively deer resistant.



From left to right: wild bleeding heart, wild blue phlox and wild ginger by Kerry Wixted

Want to Grow Your Own Seed for the Birds? Check out this article for more

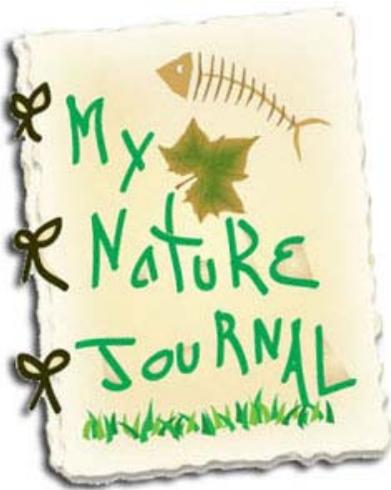
information:

www.dnr.state.md.us/wildlife/Habitat/WildAcres/habichat41.asp#story4)

Backyard Wildlife Fun for Kids: Nature Journaling

Creating a nature journal or nature notebook is an excellent way to increase observation skills. In addition, nature journals can help writers sharpen their skills at communication and expression. Simply put, nature journals are used to record information, but they can be powerful tools for all ages.

A nature journal can be as simple as several sheets of paper folded together or can be an elaborate journal. A composition book works for many people. The type of journal used may depend on the intended use of the journal. Will it be used for a one time observation, or will it be used to record multiple observations?



Below are some suggestions for entries:

- Find a quiet spot, sit down and close your eyes. What do you hear? What do you smell?
- Take a crayon and a piece of paper and make a bark or leaf rubbing.
- Revisit a certain spot several times during the day and record what you see. Did anything change?
- How many different kinds of plants can you find? Draw some of the plants you see.
- Find signs of wildlife in the area you visit.
- Record birds that visit a feeder or pollinators that visit a particular plant.
- Write a poem about something that you see.

To make your own nature journal, here are a few items you will need:

- Cardboard or cardstock
- Paper
- Hole punch
- Scissors
- Yarn or string
- Ruler and pencil (optional)

Cut the cardboard or cardstock as well as the paper to the size you desire for the journal. You may want to make the cardboard just a little larger than the paper, so it protects the edges. Use the ruler and pencil to measure the sizes if desired. Next, take the hole punch and create two to three holes on the edges of the cardboard where you would like the hinges to be placed. Carefully punch holes through the paper and the second piece of cardboard, making sure everything lines up. Once all of the holes have been punched, loop the string through the holes and tie it off to make a binding on the edges of the journal. *Voila!*

Once you have a journal and some ideas, then it is time to head outside and explore! The time spent outside will help children foster their appreciation of nature. It also will increase their creativity as they can journal about material that they find interesting. If you find neat observations while exploring, then feel free to write to me- it may end up in the next Habi-Chat!

Wild Acres in Action

Recently, Ilene Seidel from Owings Mills sent us this neat picture of a female snapping turtle that is ready to lay eggs. She also sent a picture from several years ago of the same turtle! Snapping turtles, like other turtles, will return to the same nesting location year after year and will travel great distances to do so. For these reasons, it is important to never move turtles to new areas as they have a strong homing instinct to get back to their habitat.



Female snapping turtle in Owings Mills by Ilene Seidel

Don't forget: the Maryland Reptile and Amphibian Atlas is still collecting reports on reptiles and amphibians throughout Maryland. If you see a reptile or amphibian, then snap a picture and submit your observation online here: <http://marylandnature.org/submit-observation/>



Upcoming Events

- **Thursday June 26th - 4:00pm**- Wild Berry Jam Making. Cromwell Valley Park. \$5 for nonmembers & \$3 for members. More info: <http://www.meetup.com/Cromwell-Valley-Park/events/187586672/>
- **Saturday June 21st - 2:00pm**- Preparing Wild Edibles with Nick Spero. Natural History Society of MD. \$15 for nonmembers & \$10 for members. More info: <http://www.meetup.com/marylandnature/events/181945802/>
- **Saturday June 28th - 1:00pm**- The Secret Life of Bees. Cromwell Valley Park. \$4 for nonmembers and \$2 for members. More info: <http://www.meetup.com/Cromwell-Valley-Park/events/187587292/>
- **Friday July 11th & Friday July 18th - 9:00am**- Wildflower ID for Beginners. Maryland Native Plant Society, Western Mtns. Elk Ridge Native Plant Preserve. \$50. More info: <http://www.mdflora.org/event-827504>
- **Monday June 23rd - 7:00pm**- Plant Identification lab. Natural History Society of MD. \$10. More info: <http://www.meetup.com/marylandnature/events/185101682/>
- **Saturday July 12th - 2:30pm**- Resourcefully Yours, Summer- A Home Decorating Series using natural objects. Robinson Nature Center. \$30 pp. More info: <http://www.howardcountymd.gov/RNCprograms.htm>
- **Tuesday July 29th - 7:30pm**- The Maryland Amphibian & Reptile Atlas by Sue Muller. Maryland Native Plant Society, Silver Spring Civic Center. Free. More info: <http://www.mdflora.org/event-912783>
- **Friday August 1st - 7:00pm**- Beneficial Bats in your Belfry by Kerry Wixted. \$10pp or \$15 for two people. Dinner and talk. More info: <http://www.cromwellvalleypark.org/NOWNBeneficialBatsInYourBelfry2014.pdf>
- **Saturday August 16th - 9:00am**- Butterflies and Insects in the Summer Meadow with Professor Mike Raupp. Howard County Conservancy. Free. More info: <http://www.hcconservancy.org/upcoming-events.html>
- **Saturday August 23rd**- Native Plant Sale & Seminar at Irvine Nature Center. Baltimore County. More info: <http://www.explorenature.org/experience-irvine/native-plant-seminar-and-sale>
- **Saturday September 13th - 10:00am**- Creating a Nature Journal: Observing Trees Year Round. Howard County Conservancy. Free. More info: <http://www.hcconservancy.org/upcoming-events.html>

Acknowledgements

- Cover photo by Steven Severinghaus, Flickr, Creative Commons
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- Ruby-throated hummingbird female by Dick Daniels, Wikimedia Commons
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- Female ruby-throated hummingbird feeding by Joe Schneid, Wikimedia Commons
- Vegetable medley by Wikimedia Commons
- Worm castings by Wikimedia Commons
- All other photos by Kerry Wixted



We want to hear from you!

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

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