



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

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Welcome to the Summer Issue of Habi-Chat! In this issue, you can learn about the easy to grow, wildlife-magnet flowers known as blazing stars. In addition, you can learn more about our local praying mantises that help keep some of bugs at bay as well as ways to garden using containers and to grow your own seed.

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!



A tiger swallowtail dines on swamp milkweed

Interested in Butterflies? Check out our MD Butterfly page
http://www.dnr.state.md.us/wildlife/Plants_Wildlife/mdbutterflies.asp

Maryland Native Plant Profile: Blazing stars (*Liatris* spp.)

Blazing stars, also known as gayfeathers or *Liatris*, are tall, perennial members of the Aster family. Six species of blazing stars can be found in Maryland along roadsides, in grasslands and in backyards. Interestingly enough, the most commonly sold blazing star in the horticultural trade, spike blazing star (*Liatris spicata*), is highly rare in Maryland. Spike blazing star is only known to naturally grow in one location in Maryland.

Blazing stars typically grow best in sunny areas that have dry soil. Normally, plants can grow 2-4 feet in height, but some can reach heights up to 6 feet! Most blazing stars bloom in late summer, from early July through September. They produce tall spikes of purple flowers. Each flower spike contains multiple flowers which bloom from top to bottom. Some species, like the scaly blazing star (*Liatris squarrosa*) produce globular flower heads while most others have cylindrical spikes of flowers. The showy flowers are extremely attractive to pollinators including bees, butterflies and the occasional hummingbird. In addition, unusual species like the non-aggressive thread-waisted wasp also enjoy the nectar. Just about all of the species of blazing star in Maryland have grass-like leaves and all arise from a bulb-like structure known as a corm.



Blazing stars in western MD



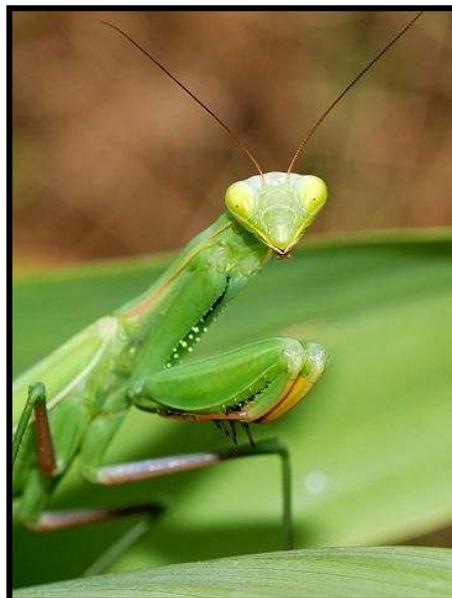
Bumble bees (left) and thread-waisted wasps (right) enjoy blazing star nectar. Blazing stars are prolific seed producers, and if left alone, their seed heads can usually persist through early winter. American goldfinches, in particular, fancy the seeds as well as other seed eating birds that may visit your yard.

The easiest way to establish blazing stars in your yard is to buy corms. Many local hardware stores and garden centers sell bags of corms. One large cause of corm failure is planting too deep- so pay attention to planting recommendations. Blazing star can be started from seed as well, but it takes time and patience.

Maryland Native Wildlife Praying Mantises

Praying mantises are often celebrated garden predators. Their beady eyes, swivel heads, folded front legs and camouflaged coloration all combine to make them adept at hunting prey. One word to describe their appetite is 'voracious'! Unfortunately, mantids do not discriminate among prey species, so even bees and butterflies can fall victim to hungry mantids. However, the benefits of mantids in the garden often outweigh potential pollinator losses.

Maryland is home to at least three species of mantids- the Chinese mantis (*Tenodera aridifolia sinensis*), the European mantis (*Mantis religiosa*) and the native Carolina mantis (*Stagmomantis carolina*). Both the Chinese and European mantids were intentionally introduced for insect control and are the more commonly seen mantids around the state. Praying mantises can grow up to several inches in length and come in colors ranging from brown to green in our area.



European mantis by Alvesgaspar, Wikimedia Commons

While females are notorious for consuming the males, only 30% of males lose their heads after (or during) mating. In the fall, females lay 100-400 eggs in foamy egg cases known as oothecae which later harden into a more papery texture. These oothecae can be found attached to branches, houses and grasses in the backyard. In May, young mantids break out of the egg casing and will begin hunting prey (which sometimes includes their slower siblings!). The tiny mantids will go through several molts until reaching their adult stage. Overall, most praying mantises live from 6 months to a year.



An egg case from a European mantis (left) and a young mantid (right) by Kerry Wixted

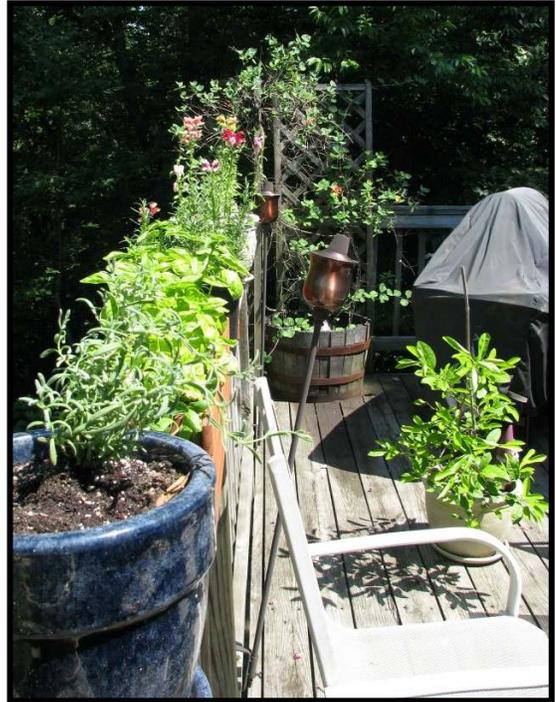
Praying mantises often show up to dine on insects on their own. However, they will not frequent areas sprayed with pesticides. While you can purchase mantises online, it is best to let the local residents hang out in your backyard. If you find an egg case in the fall or winter, then it is best to leave it outside in a safe place. Mantid cases brought indoors may hatch too early, and if the air vents on your container are too large, then you may have an outbreak in the house!

Habitat Tips: Container Gardening

Container gardening is great for folks who have only have deck or patio space as well as for folks who have larger backyards. You can easily experiment with different shapes, sizes and depths of containers to plant species that attract wildlife. Plants grown in containers can often survive year round. In addition, you can experiment with more unusual plants as you can easily manipulate soil moisture, pH and sunlight on a small scale. For example, you can grow a container bog with carnivorous plants and grasses.

The first step to container gardening is choosing the right plants to fit your needs. Are you interested in planting an herb garden, or would you prefer more color? What types of wildlife do you want to attract? Do you prefer annuals, perennials or a mix of both? These questions can help guide you to choosing the right plants.

The next step to container gardening is to choose the right containers for your selected plants. Always remember to use containers with proper drainage, unless you are creating a bog or water landscape. Containers without proper drainage can become waterlogged and can cause your plants to fail. In addition, be mindful of container volume. Choose containers based on the size of the plants you want to use and how much soil depth and volume the roots may need. Keep in mind that many containers dry out quickly, so shallow containers may not be ideal for sunny locations. If you want to plant a vine in a container, then be sure to include something that can provide support like a trellis.



Once you have your plants and pots, then it is time to think about soil. Most potting soil has components like sphagnum peat moss, vermiculite and/or perlite. A quality potting soil has 10-15% perlite. Perlite helps separate peat moss fibers, so the soil is more porous. Vermiculite works in a similar manner, but it tends to hold more moisture. If starting seeds, then a vermiculite-based potting soil is ideal. For most plants, an all purpose potting mix will suffice. However, some potting soils are designed for acid-loving plants or for cacti and succulent species. Additional container gardening tips can be found below:



Quality potting soil with perlite (white spots) by M Tullottes

- Check your containers daily to see if they need water. Container plant roots cannot reach the ground's subsurface water. In very hot weather; check small containers at least 2 times a day. Also be aware that clay and terra cotta pots dry out quicker than wood or plastic ones.
- Do not put container plants in full mid-day sun. Containers heat up faster than the soil. If you move containers to the shade, then think about placing them next to a wall that can reflect light, so they can get the benefits of indirect sunlight.
- Fertilize the plants. Container plant roots cannot reach the nutrients of a ground soil, so try a water-soluble fertilizer every 2-4 weeks. Keep in mind that cacti and succulents need specialized fertilizer.
- Make sure you have good drainage. Have holes in the bottom of your containers for this purpose. If not possible, then place 1 to 2 inches of gravel at the bottom of the container to help.
- Succulents and tropical plants like dwarf citrus trees can be grown outside during the summer but often need to be brought inside for the winter.



A container with poor drainage can cause problems for plants. This container has developed an algae mat.

Some plants that work well in containers include:

- **Herbs:** Basil, chives, cilantro, lavender, lemon balm, oregano, parsley, rosemary, sage, thyme
- **Annuals:** Calendulas, nasturtiums, pentas, petunias, salvia, snapdragons, zinnias
- **Cacti & Succulents:** Echeveria, hawthornia, hen and chicks, stonecrop,
- **Perennials:** Campanula (bellflower), coral bells, coneflowers, coreopsis, delphinium (larkspurs), hostas, salvia, tradescantia (spiderwort)
- **Vines:** Clematis, trumpet honeysuckle, wisteria (avoid non-native types),
- **Small Shrubs:** Blueberry, weigela 'Midnight Wine', Virginia sweetspire ('Little Henry'), coral berry 'Amethyst', dwarf junipers



Trumpet honeysuckle (left) and clematis (right) are easy to grow vines that work well in containers

Habitat Tips: Grow Your Own Seed!

Birds are always a wonderful addition to summer gardens. You can easily attract wild birds with feeders stocked with seed. However, an easier method to attract seed-eating birds is to include plants in your landscape that feed our feathered friends. If you have a sunny area in your backyard, then consider planting one or more of the plants below. The following plants are great for attracting American goldfinches, Carolina chickadees, indigo buntings, tufted titmice, grosbeaks and more!

Black-eyed Susan (*Rudbeckia hirta*)- Black-eyed susans are the state flower of Maryland. They grace areas with their yellow and black flowers in late June through August. Black-eyed susans can come in two forms- an annual and a short-lived perennial. Both forms require sunny areas to flower, and they often reseed in areas which they have been planted within. Some of the flower heads can remain and provide seeds through late Fall.



Black-eyed Susan

Blazing Stars (*Liatris* spp.)- Blazing stars often produce tall spikes of purple, feathery flowers. Some blooms can reach a height of 5 feet! Blazing stars are pollinator friendly plants loved by bees, butterflies and even the occasional hummingbird. These hardy, drought-tolerant plants form bulbs that are easy to transplant and bloom in late summer through early Fall.

Coreopsis (*Coreopsis* spp.)- Coreopsis are prairie plants with a daisy-like appearance. They often come in hues of yellow, red and orange and are usually annual in nature. Like blazing stars, coreopsis are hardy, drought-tolerant plants. They often attract butterflies while in bloom, and later go to seed just in time for hungry migrants to indulge upon.



Monarch on goldenrod

Goldenrod (*Solidago* spp.)- Often viewed as a weed, goldenrod has many endearing qualities. These hardy plants produce blooms in varying colors of yellow, though some in Maryland can also come in a white form. The blooms are magnets for pollinators, especially butterflies like American painted ladies, viceroys, clouded sulphurs and fritillaries. Finches of all types will flock to the dead flower heads. In addition, if left standing, insects will overwinter in the dead stalks, providing food sources throughout the winter for hungry birds.

Joe Pye Weed (*Eupatorium purpureum*)- Joe pye weed is a perennial aster that grows up to 7 feet tall! The towering flowers are often pink and fringed in appearance as well as sweet-scented. It blooms from July through September and thrives in sunny conditions, often in clayey soil. Flowers are attractive to butterflies, and the seed heads attract many birds in the fall. Unfortunately, deer also find this plant palatable!



Joe Pyeweed

Purple Coneflower (*Echinacea purpurea*)- Purple coneflower is a purplish aster that can grow in drought-prone soils. Like goldenrod, the

seed heads often persist through winter, providing an excellent food source for a variety of birds like American goldfinches. Purple coneflower is also great for butterflies such as red admirals, swallowtails and numerous skippers. While many colorful purple coneflower hybrids exist, the best plants are the true purple coneflowers as many of the hybrids have lost some of their tasty nectar in the hybridization process.

Sunflowers (*Helianthus* spp.)- Sunflowers are easy to grow annuals that bloom in mid-late summer. Sunflowers come in all shapes, sizes and colors! The flowers attract numerous pollinators while the seeds are tasty to people, squirrels and birds alike. Like the pye weed, sunflowers are also fancied by deer.

Zinnia (*Zinnia* spp.)- Over 20 species of zinnias exist with many more hybrids to boot! Zinnias are easy to start from seed and provide lots of beautiful blooms in late summer. Zinnias are annual plants that produce prolific numbers of seeds which are tasty for birds. In addition, it is simple to collect seeds to plant for next year. Zinnias are also popular with bees and butterflies.



Zinnia by Juanpdp, Wikimedia Commons

If you enjoyed this issue of Habichat, you might want to check out our [Online Habichat Archive](#) and the [List of Habichat Articles by Topic](#).

Upcoming Events

- **Saturday July 27, 7:45-9:15PM.** Bugs and Bats Night Out presentation and hike at Robinson Nature Center in Columbia, MD. \$8 per person. Registration required. <http://www.howardcountymd.gov/RNCprograms.htm>
- **Tuesday July 30, 7:30PM-** Let's Do Lunch-The Uneasy Relationship Between Ungulates and the Landscapes They Inhabit talk by Steve Parks. Maryland Native Plant Society at Silver Spring Civic Center. Free! <http://mdflora.org/events.html>
- **Thursday August 8, 7:00PM-** Rain garden workshop. Bowie Gardens for Wildlife (BG4W) Habitat Team and the University of Maryland Environmental Finance Center (EFC). All Saints Lutheran Church (ASLC) on Mount Oak Road in Bowie, MD. Questions about the workshop? Email the BG4W Habitat Team at bowiegardens4wildlife@yahoo.com .
- **Saturday August 10, 10-12:00PM-** Birds, Blooms and Butterflies. Jug Bay Wetlands Sanctuary in Lothian, MD. Registration required. Free! <http://www.jugbay.org/education/calendar-events>
- **Tuesday August 13, 8-10:00 AM-** Intro to birding for youth birders workshop. Free! Irvine Nature Center in Baltimore, MD. Registration required. <http://www.explorenature.org/>
- **Thursday August 15, 9-12:30PM-** Growing Up WILD workshop. Learn how to connect young children to nature. For parents, educators & naturalists. Free! MD Dept of Natural Resources in Annapolis, MD. Registration required. <http://www.dnr.state.md.us/wildlife/Education/ProjectWild/WorkshopSchedule.asp>
- **Saturday August 17, 9:00AM.** Milkweed, Monarchs, and Miracles of the Meadow talk with Mike Raupp at the Howard County Conservancy in Woodstock, MD. Free! <http://www.hcconservancy.org/upcoming-events.html>

- **Saturday August 24, 7:30am-** Native Plant seminar and sale. Irvine Nature Center in Baltimore, MD. Seminar requires registration. <http://irvinenaturecenter.net/experience-irvine/native-plant-seminar-and-sale>
- **Wednesday September 18, 6:30-9:00 PM-** Monarchs and Mojitos. \$20 for members; \$30 for non-members. Irvine Nature Center in Baltimore, MD. Registration required. <http://www.explorenature.org/>
- **Saturday September 21-Sunday September 22-** The Threatened Natural Communities and Rare Plants of Maryland's Mountains conference. Maryland Native Plant Society at Frostburg State University. Registration required. <http://mdflora.org/events.html>

Acknowledgements

- European mantis by Alvesgaspar, Wikimedia Commons
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- All other photos by Kerry Wixted

We want to hear from you!

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

Kerry Wixted
Maryland Wildlife and Heritage Service
580 Taylor Ave., E-1
Annapolis MD 21401
phone: 410-260-8566
fax: 410-260-8596
e-mail: kwixted@dnr.state.md.us

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