



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

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Forward

Welcome to the Summer Issue of Habi-Chat! This issue focuses on a variety of summer topics from succulent sedums to xeriscaping backyards! This issue also has a short article on ways to minimize pesticide impacts to pollinators.

As you may have noticed, our website is under construction. Please update your Wild Acres website links to our new page here:

<http://dnr2.maryland.gov/wildlife/Pages/habitat/wildacres.aspx>

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 Summer!



Maryland Native Plant Profile:

Sedums (*Sedum* spp.; *Hylotelephium* spp.)

Sedums (*Sedum* spp.; *Hylotelephium* spp.) are a mix of succulents in the Stonecrop (Crassulaceae) family. Most of Maryland's native sedums are fleshy groundcovers with star-shaped flowers. These species include the rare cliff stonecrop (*Sedum glaucophyllum*), stringy stonecrop (*Sedum sarmentosum*), and woodland stonecrop (*Sedum ternatum*). Allegheny stonecrop (*Hylotelephium telephioides*) is a larger wildflower with clusters of small, pinkish-white flowers.



Sedums come in all shapes, sizes and colors! Photo by: Eric Hunt, Flickr CC

As a group, sedums are typically easy-to-grow flowering perennials which thrive in sunny, dry areas. Woodland stonecrop and Allegheny stonecrop can both grow in partial to full shade. Their leaves often vary in color from medium green to bronze to gray-green. Many sedums can be cultivated from stem cuttings or detached leaves. These hardy plants flourish in slightly alkaline soil and most can grow in rocky habitats. Sedums are also excellent plants for pots. Sedums require little to no water, and often, sedums will rarely suffer from disease unless overwatered.

While native sedums can be difficult to find in Maryland, many garden centers offer non-native (and non-invasive!) cousins. One popular species from Asia is the showy stonecrop 'Autumn Joy' (*Sedum spectabile*) which can grow up to 24 inches tall with showy, pink flower clusters that bloom in late summer through the fall. This species is one of the few stonecrops that can tolerate partial shade. Another easy to find stonecrop is reflexed stonecrop (*Sedum rupestre*) which comes in luscious colors like the golden

'Angelina' or the cerulean 'blue spruce' variety. This species of stonecrop has the characteristic sprawling habit and often only grows up to 6 inches tall. In many areas in Maryland, this species is also evergreen.



Pollinators love sedums! Metallic sweat bees (left, Barbara Eckstein, Flickr CC) and butterflies (right, Crowcombe Al, Flickr CC) enjoy showy stonecrop

Most sedums have clusters of star-shaped flowers that range in color from white to pink to yellow. These flowers are attractive to many insect pollinators including bees, bee flies, moths, and skippers. Larger flowering sedums like Autumn Joy often attract red admiral butterflies while smaller sedums are a favorite of variegated fritillaries and skippers. Many sedum species are often avoided by deer and rabbits, too!



A sedum rock garden by Jacki Dee, Flickr CC

Maryland Native Wildlife

Common Five-lined Skink (*Plestiodon fasciatus*)

When the weather warms up, common five-lined skinks are frequent sights in many Maryland backyards. Common five-lined skinks are the most widespread of Maryland's 6 species of lizards.



Juvenile (left, Andrew Kraemer, Flickr CC) and adult male common five-lined skink (right, Ken Thomas)

Common five-lined skinks can grow up to 8 inches in length. As a group, the skinks are characterized by smooth, flat scales that make the lizard look shiny. Juvenile skinks have 5 yellow or white stripes on the head, a black body and a blue tail. This conspicuous blue tail is used to draw potential predators away from the lizard's head. The tail can detach if grabbed by a predator and can later regrow. Adult females resemble the juveniles but lack the blue tail and have slightly darker bodies. Adult males are uniform tan or olive with orange-red jaws during the breeding season (May-July), the color fading thereafter. Broad-headed skinks (*Plestiodon laticeps*) look similar to the common five-lined skinks but have 5 labial scales on their upper lips compared to the 4 scales on the common skinks.

Common five-lined skinks are found in moist woods where there are a lot of logs, stumps, and rock piles. They often can be seen in backyards scurrying over pavement or along the sides of houses. Common five-lined skinks are active throughout the day and can be seen foraging for insects or basking in the sun.

Five-lined skinks breed in May. A month later, females will lay 6-12 eggs which take up to 6 weeks to hatch. The eggs are often laid under decomposing logs or sometimes in mulch piles. During incubation, the female will guard the nest and occasionally will turn the eggs. However, after hatching, the female does not provide any additional parental care.

These skinks have a hefty appetite and are often on the search for their next forage.

Crickets, grasshoppers, beetles, and caterpillars are common meals for five-lined skinks. They also eat spiders, earthworms, snails, slugs, isopods, other lizards, and even small mice. In turn, common five-lined skinks can also become meals for hungry raccoons, foxes, opossums, hawks, and snakes.



Rock walls, rock piles, old logs and more all create excellent skink habitat! (Left: Vicki DeLoach, Flickr CC; Right: WhatsAllThisThenFlickr CC)

To attract skinks and other lizards to your backyard, then it is best to create shelter. Rock piles and rock walls, especially in sunny areas, are a favorite hang out for skinks. Wood piles also attract skinks and other reptiles that munch on slugs and snails. Be sure to keep both rock and wood piles away from house foundations to prevent unwanted houseguests.

Want to Learn More?

Check out our page on Maryland lizards here:
http://dnr2.maryland.gov/wildlife/Pages/plants_wildlife/herps/Fieldguide_SubOrder_Lacertilia.aspx



Habitat Tips: Xeriscaping

Maryland summers often bring heat and humidity. One healthy habitat practice is to plant drought tolerant plants that can reduce your summer water usage. Xeriscaping is a technique used to do just that!

Plants that are drought tolerant often have adaptations to deal with arid conditions. These adaptations include thick and waxy leaves, reduced leaf sizes, silvery or gray leaves covered in fine hairs, and/or fleshy leaves designed to store water. One common misconception is that lawn grass is easy to maintain, but in actuality, it requires much more water and maintenance than many other plants.

Water-Saving Tips

- Water only when necessary.
- Water in the morning.
- Prevent runoff.
- Mulch planting beds.
- Group plants with similar water needs together.
- Reduce your lawn.

Drought-Tolerant Plants

Below is a list of plants that typically require little to no extra watering during the growing season. These plants often only need water until they get established and during extended droughts.

- Allegheny stonecrop (*Hylotelephium telephioides*)- flower
- American holly (*Ilex opaca*)- tree
- Black-eyed susan (*Rudbeckia hirta*)- flower
- Butterflyweed (*Asclepias tuberosa*)- flower
- Canada goldenrod (*Solidago canadensis*)- flower
- Coral bells (*Heuchera* spp.)- flower
- Eastern prickly pear (*Opuntia humifusa*)- flower
- Eastern red cedar (*Juniperus virginiana*)- tree
- Eastern redbud (*Cercis canadensis*)- small tree
- Inkberry (*Ilex glabra*)- shrub
- Liatris (*Liatris* spp.)- flower
- Mapleleaf viburnum (*Viburnum acerifolium*)- shrub
- Mountain laurel (*Kalmia latifolia*)-shrub
- New England aster (*Aster novae-angliae*)- flower
- Northern red oak (*Quercus rubra*)- tree



Butterflyweed

- Pin oak (*Quercus palustris*)- tree
- Red chokeberry (*Aronia arbutifolia*)- small tree
- Red maple (*Acer rubrum*)- tree
- Sedums (*Sedum* spp.)- succulent
- Spotted beebalm (*Monarda punctata*)- flower

Once you have chosen a suite of plants for your site, then it's time to plant! Pay attention to water requirements for species that you plant together. For texture, consider adding rocks of various sizes between plantings and/or use mulch to reduce water loss.



Xeriscapes don't have to be devoid of color! For summer blooms that use little water, consider planting Liatris with Canada goldenrod. Photo by Patrick Standish, Flickr CC

Want more Habi-chats?: Check out our archives here:

http://dnr2.maryland.gov/wildlife/Pages/habitat/habichat_archives.aspx

Habitat Tips: Minimizing Pesticide Impacts to Pollinators

Unfortunately, pollinator populations worldwide are plummeting. The decline of our pollinator pals is due to multiple factors like habitat loss and degradation as well as increased use of pesticides. Pesticides are any substance used to control unwanted plants, pests, and diseases. So, how do backyard wildlife gardeners protect their habitat while minimizing the risks to pollinators?

Steps to Minimize Pesticide Use:

- Reduce pest problems by decreasing available habitat for pests, planting pest-resistant varieties, and properly disposing infested plants.
- Be confident of pest ID. Take sample of pest or picture to a [local extension office](#) or submit photos to [BugGuide](#).
- Diagnose pest problem and determine if pest control is necessary. Some species like tent caterpillars create aesthetic problems but won't kill plants.
- Evaluate pest control options. Try to attract pest predators. Pick, squish, or knock off offenders before resorting to pesticides.

Before Using Pesticides:

- Read and follow ALL label directions
- Pay close attention to the environmental hazards statement
- Call your local extension office to be sure you are treating the problem properly
- Wear protective clothing and equipment
- Only apply to targeted plants



Pesticides for Pollinator-Friendly Gardens

Name	Bees	Beetles	Butterflies
<i>Bacillus thuringiensis (Bt)-</i>	Non-toxic	Toxic (larvae)	Toxic (caterpillars)
Garlic	Non-toxic	Non-toxic	Non-toxic
Kaolin clay	Non-toxic	Non-toxic	Less toxic (caterpillars)
Limonene	Less toxic*	Unknown	Unknown
Milky spore	Non-toxic	Less toxic	Non-toxic
Neem	Less toxic*	Toxic	Toxic (caterpillars)

* Safer if sprayed at night

Bacillus thuringiensis (Bt)- Bt is a naturally occurring bacteria found in soil. Bt impacts ability to digest food for many larval beetles, butterflies, and moths. However, it is generally considered to be bee-safe.

Garlic- Garlic can be used as an insect repellent. However, the strong smell may discourage pollinators from visiting.

Kaolin clay- Kaolin clay can be made into a liquid slurry that can be applied to fruits and veggies. This solution creates a clay film that discourages sucking insects from feeding on tender plants.

Limonene- Limonene is made from citrus oils extracted from citrus peels. It is used as a contact insecticide and should only be sprayed at night to prevent toxicity to bees. Its impacts on butterflies, particularly caterpillars and larval beetles are unknown at this time.

Milky spore- Milky spore is a bacterium that can be applied to turf to control Japanese beetle larvae. It can persist in the soil if a substantial larval population is present. It is not known to impact bees or butterflies, but little research has been conducted to examine impacts to larvae of non-target beetle species.

Neem- Neem is a popular botanical extract that disrupts the hormone system of immature insects. This extract can negatively impact larval beetles and butterflies, so it should not be applied to host plants. In addition, to decrease possible impacts to bees, neem should be applied at night.



While tent caterpillars can defoliate shrubs and trees, they rarely kill the plants. These native caterpillars are a great food source for many wildlife species and are a species we encourage to leave alone. Photo by Matt Tillett

For More Information:

For additional information on ways to minimize risks to pollinators, then check out the [Xerces Society for Invertebrate Conservation](http://www.xerces.org).





Backyard Wildlife Fun for Kids: Reptile Hunt!

Did you know? Maryland has 52 species and subspecies of reptiles! How many can you name? Reptiles are group of scaly-skinned, backboned animals that contain lizards, snakes, turtles, and more! Most reptiles lay eggs and all are cold-blooded, meaning they don't maintain a constant body temperature. All of Maryland's reptiles are predators.

Types of Maryland Reptiles

- **Lizards:** There are 6 species of lizards in Maryland. Lizards have a long body, tail, and 4 legs.
- **Snakes:** There are 27 species of snakes in Maryland. Snakes are legless reptiles that can move across the ground by flexing their body.
- **Turtles:** There are 19 species of turtles in Maryland. Turtles have large shells.

Preparing for a Reptile Hunt:

Before heading out on a reptile hunt, it is important to properly prepare. First, it is important to wear closed-toe shoes and possibly long pants. It's also good to pack a reptile discovery pack. Some items you may want to include are:

- Field guide
- Pen/Pencil
- Camera
- Binoculars
- Nature Journal
- Map

Where To Look?

Once you are all packed, then it is time to head outside! Here is a list of places to look:

Group	When to Look	Where to Look
Lizards	Late April-September	Under rocks and logs. Look at stone piles and along houses.
Snakes	March-October	Under rocks and logs.
Turtles	Mid April-September	On logs in lakes and ponds. Look in forested areas.

Keep In Mind:

- **It's best to use your eyes and not your hands!** Most reptiles have sharp teeth or fangs and will bite if they feel scared. If you do decide to handle a reptile, then be sure your hands don't have sunblock or other chemicals on them. Also, thoroughly wash your hands after handling any reptiles.
- **When lifting rocks and logs, lift away from you.** If you lift rocks toward you, then you run the risk of having the rock's inhabitant jump on you!
- **When lifting rocks and logs, be sure to move them back!** Keep that habitat for our scaly friends!
- **Leave pets at home.** Sometimes, dogs or other pets can hurt reptiles or vice versa. It's best to leave your pets at home when searching for reptiles.

Reptile Journal

Name: _____

Date: _____

Weather (Circle One): Sunny Cloudy

Rainy

Reptiles are group of scaly-skinned, backboned animals that contain lizards, snakes, turtles, and more! Go check out your backyard, schoolyard, or other natural area to look for reptiles!

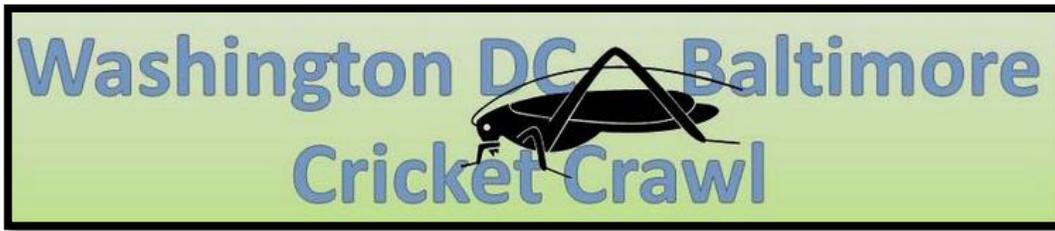
Draw a picture of a reptile you find.



1. Is the reptile you found a lizard, snake, or a turtle? _____
2. Where did you find your reptile? _____
3. What was your reptile doing when you found it? (example: sitting on a log, eating, etc) _____
4. Other neat observations: _____

5. I wonder: _____

Citizen Science: Washington DC- Baltimore Cricket Crawl



Summer air is usually filled with the serenading sounds of crickets and katydids. Crickets and katydids are both important groups of insects. Both groups serve as important food sources for birds and many mammals; however, many of these species are poorly understood.

To understand the status and health of common katydid and cricket species, the Washington DC & Baltimore Cricket Crawl was formed. This citizen science census focuses on 8 species- northern fall field cricket (*Gryllus pennsylvanicus*), jumping bush cricket (*Orocharis saltator*), Japanese burrowing cricket (*Velarifictorus micado*), greater anglewing (*Microcentrum rhombifolium*), lesser anglewing (*Microcentrum retinerve*), oblong-winged katydid (*Amblycorypha oblongifolia*), fork-tailed katydid (*Scudderia furcata*), and common true katydid (*Pterophylla camellifolia*).

How can you help? On Friday August 21st, go outside and listen for the calls of the 8 species listed above! Check out the Cricket Crawl website ahead of time to become familiar with the calls. Calls can be reported via Twitter, iNaturalist, or through email. The website with more information can be found here:

<http://www.discoverlife.org/cricket/DC/>



Lesser anglewing in Anne Arundel County by Kerry Wixted

Acknowledgements

- Sedums by Eric Hunt, Flickr Creative Commons
- Metallic sweat bee on sedum by Barbara Eckstein, Flickr Creative Commons
- Butterflies on sedum by Crowcombe Al, Flickr Creative Commons
- Sedum garden by Jacki Dee, Flickr Creative Commons
- Juvenile skink by Andrew Kraemer, Flickr Creative Commons
- Adult skink by Ken Thomas, KenThomas.us
- Juvenile skink on rock by Vicki DeLoach, Flickr Creative Commons
- Peek-a-boo skink by WhatsAllThisThen, Flickr Creative Commons
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- Xeriscape garden by Patrick Standish, Flickr Creative Commons
- All other photos by Kerry Wixted

We want to hear from you!

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

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