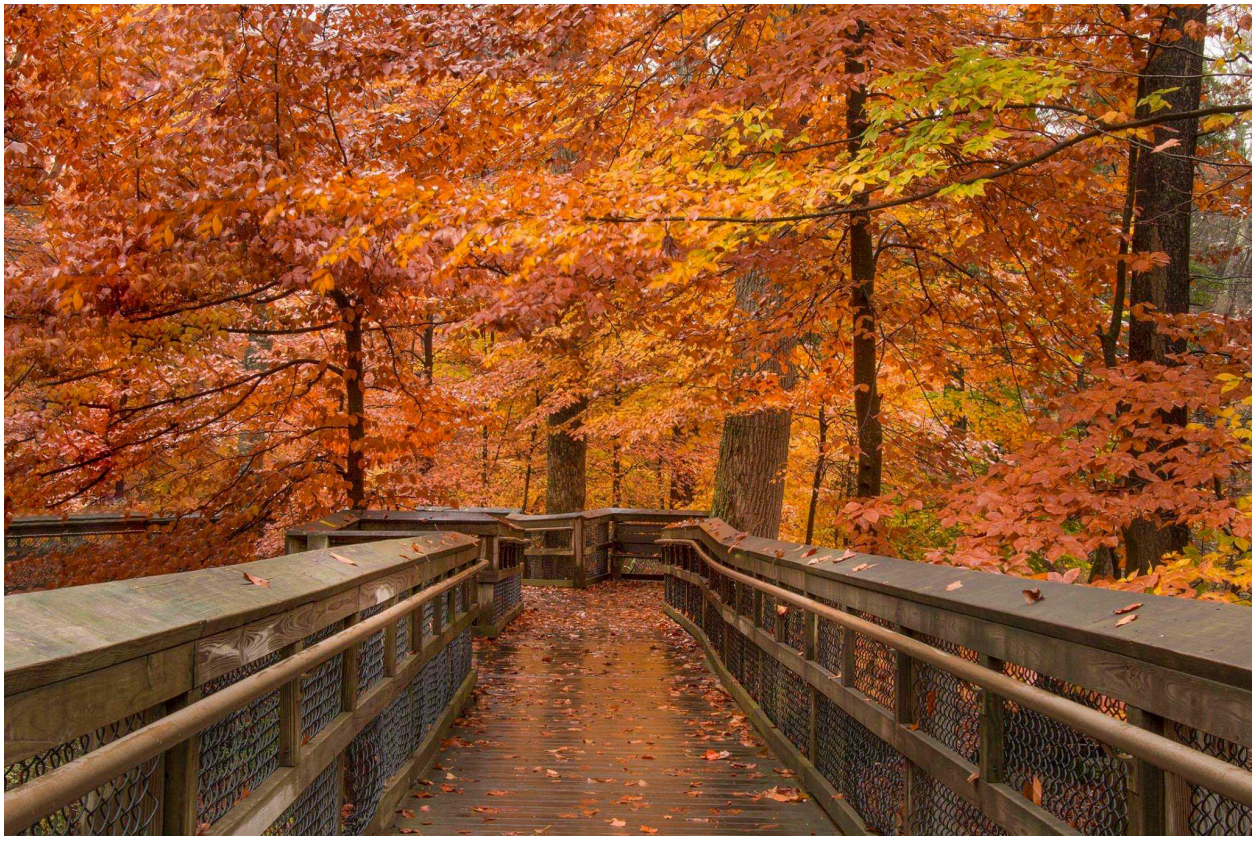
Happy Fall, Habichatters!

The weather is cooling down, but our love of the outdoors never does – and we bet you feel the same! In between admiring leaves and dodging acorns, we hope to entice you with an autumnal offering of articles to keep your wild side fed.

We'd like to welcome many of you to the newsletter for the first time! It was wonderful meeting and speaking with so many of you at the Maryland State Fair this year, and most importantly it reminds us why we maintain the Wild Acres program; to help our fellow Marylanders care for the beautiful natural setting we are lucky enough to live in!

To that end, we have an article about a couple in Chestertown who have been getting their hands dirty to help native Maryland wildlife, plus an article on enjoying the season (and the outdoors in general) with low mobility. Then, placate your palate with an article on our favorite native fruit trees and perk up your ears for a guest writer's article on acoustic monitoring of bats this past summer. There's something for every sense this season!

-- Team Habichat



“A Walk Among the Trees” by Sharon Horn,
Submitted to the 2021 Maryland DNR Photo Contest.

In This Issue:

Celebrating Stillness: Low Mobility Wildlife Appreciation

The world of outdoor recreation is vast and diverse in Maryland. Our residents live near natural spaces to enjoy biking, hiking, climbing, swimming, and other water sports - too many pursuits to list! That said, here at Wild Acres we know a secret: wildlife appreciation is often just as amazing (or even more rewarding) when you stay still.

Wild Acres in Action: A Beautiful Backyard Pond

Recently we received this correspondence from a homeowner in Chestertown, and we want to share his exciting success! Many thanks to Randall Cleaver and Ashley Flory for the inspiration - keep up the great garden work in support of Maryland’s wildlife!

Native Plant Profile: Favored Fruit Trees

In the ever-human quest to connect to the land and to ourselves, many of us turn to food gardening. Getting your hands dirty as a way to figuratively and literally “touch grass” is as old as humanity itself, but what can you do to help our native wildlife at the same time? Native fruits to the rescue!

Natural Heritage Program Spotlight: Summer Bat Recap

What’s going on in Maryland in the world of bat research? Read our guest writer Sadie Rozics’s recap of her summer data collection work and what DNR found doing acoustic monitoring at Soldiers Delight Natural Environment Area.

Celebrating Stillness: Low Mobility Wildlife Appreciation

Chicamacomico Sunset by William Whaley

Maryland's outdoor recreation opportunities are vast and diverse – biking, hiking, climbing, swimming, boating - too many pursuits to list! Most of these pastimes require a certain degree of athleticism or at least ample mobility to enjoy. And the rewards of deep treks into the woods or paddling into remote marshes include some spectacular wildlife sightings.

But here at Wild Acres we know a secret: wildlife appreciation is often just as amazing (or even more rewarding) when you stay still! If hunting, fishing, and chasing birds aren't your things, here are some suggestions of other ways to celebrate stillness in nature:

Sit spots: This term that comes out of preschool classrooms - referring to the colored dots on a carpet or tile that tell a child where to sit - has taken on new meaning in the field of outdoor education. A sit spot in this context refers to a favorite place in nature to just sit and observe, using all our senses and considering our connections to all living things. Often people revisit the same sit spot on regular intervals, enjoying the changes that occur constantly in nature.

Blue spaces: Any spot can offer wildlife views, but there is something special about sitting by the water. Blue spaces have been shown in numerous research studies to improve mental and physical wellness. Quiet observation by a body of water can also reward you with views of insects, fish, shorebirds or even a river otter.
Taking inventory: Those of us with analytical minds can use our quiet spot to catalog the animals and plants within our view, using a pen and paper, photos, or even a spreadsheet. Even just marking off a very small area and noting the changes in soil, insects, and plant life can help us become more intimately acquainted with our neighbors in nature.

Community science: Speaking of neighbors, do you know exactly who or what is sharing your outdoor space? Consider spending some time as a community scientist**,** honing your wildlife identification skills, learning from others and contributing your knowledge to science with apps like iNaturalist and eBird, or webpages like the Maryland Biodiversity Project. Some birders have enjoyed participating in The Big Sit annual fall event.

Direct contact: Maybe you haven't done it since you were a kid, but try taking off your shoes and walking or **standing barefoot** on a natural surface like soil, leaves, or grass. Explore the textures in nature with your feet and hands, or wrap your arms around a tree and let your whole body lean in. It may feel silly, but we promise, the trees won't mind.

Take a breather: Even something as simple as breathing can feel different outside, and requires no movement. Consider that everything alive is breathing in its own way too. With every exhale you're feeding the trees the carbon dioxide they need, as they feed you oxygen. That energy exchange is totally natural and intuitive; observing and appreciating it can enliven and sharpen our other intuitions. Practices like mindfulness, meditation, and forest bathing can also help develop this into an enjoyable and healthy habit.

Lie down: What a great time to observe the sky, finding migrating raptors and other animals or shapes in the clouds (or reporting cloud cover data through the NASA Globe app), or noting the stars and planets at night.

Feel the change: Have you ever considered why everyone loves a good sunset? **Transitions** in nature are perhaps some of the most interesting and beautiful times to appreciate. Make a point to observe or photograph the sunset or sunrise from the same spot for a short time, and note how it changes. The moon, the tides, and seasonal cycles can also be inspiring transitions to note and pay special attention to.

Visualize: Let's say you're stuck inside. Not to fear - as humans, we have imaginations that can transport us. Hold the memory of a favorite, peaceful outdoor place in your mind and remember how you felt, what you saw, smelled, or heard in that place. Even a few minutes of this exercise can bring a sense of peace and renewal.

Create habitat in your backyard: Facilitate amazing and accessible wildlife encounters without ever leaving home! There is nothing better than seeing a hummingbird visit your feeder, a frog in your pond, or a bee pollinating your potted native plant. Don't forget to explore all our resources at **Wild Acres** and care for Maryland wildlife with us!

For more on access to public lands for those with mobility challenges, visit:
dnr.maryland.gov/outdoorrec/Pages/accessibility.aspx

Wild Acres In Action: A Beautiful Backyard Pond

Randall Cleaver first reached out to Wild Acres in October of 2023; he and wife Ashley Flory just purchased a historic house with a unique backyard in Chestertown, Kent County. He wanted to install a meadow and backyard pond, and he knew that planting native will always mean the hardiest plants and the most wildlife attraction potential. Like many clever Wild Acres readers,

he had already done some homework, but we sent him links to our website with step-by-step instructions and recommended native plants for ponds.

Recently we received a correspondence from Randall Cleaver about his exciting success.

The results in the summer of 2025 speak for themselves! The Cleavers planted more than 100 native plants including 22 trees. They now own a self-described “dragonfly and frog farm.” Their favorite plants right now are the native wild asters, which attract and support a wide variety of insects. His words of wisdom for others taking on a similar meadow project:

Before the native plant garden.

After the native plant garden.

“It is a process, and you do have to maintain it,” Randall Cleaver says. “I do a search weekly to remove invasive plants… I have kept adding flowering perennials and see what does well in our situation, and add more of whatever thrives!”

Many thanks to Randall Cleaver and Ashley Flory for the inspiration - keep up the great garden work in support of Maryland’s wildlife!

Don’t forget to certify your garden; signs that explain why you’ve planted native species can go a long way, helping educate the public about the importance of biodiversity. Check out our list of free resources at the bottom of the Wild Acres page.

Do YOU want your garden to be featured in an upcoming issue of HabiChat? We’d love to hear from you! Email sarah.witcher1@maryland.gov.

Native Plant Profile: Favored Fruit Trees
By Katy Gorsuch

Pawpaw harvest; photo by Francis Smith, Maryland Forest Service

In the ongoing human quest to connect to the land and to ourselves, many of us turn to food gardening. Getting your hands dirty as a way to figuratively and literally "touch grass" is as old as humanity itself, but what can you do to help our native wildlife at the same time?

Native fruits to the rescue!

We've written before about native plants as sources for human food, but here's a topic extension featuring our favorite Maryland fruit trees.

Pawpaw

Look! Up there in the branches! It's a custard apple, it's an Appalachian banana, it's a….

Regardless of what you call them, pawpaws (or paw-paws, or paw paws, etc.) are one of the most well known of native North American fruits. It's impossible to fully encompass the cultural importance of the fruit (*Asimina triloba*), which was cultivated by indigenous peoples and quickly adopted by European colonists. The fruit appears again and again throughout United States history, from Jamestown to the Lewis and Clark expedition, to traditional Appalachian folk songs.

Ripe *Asimina triloba* by Sarah Stierch (CC BY 4.0) via Wikimedia Commons

The taste has been compared to countless other fruits, but perhaps the most tenacious description is in the colloquial name "custard apple" which perfectly describes the texture of a ripe pawpaw. The short shelf life of a pawpaw also points to this name – a ripe pawpaw is tender to the touch, and its color can be anywhere from green to full brown. Its shape resembles a mango, and the inside flesh is a vivid gold color. Opening the fruit reveals a line of brown seeds that may vary in size, but generally are about the length of a small paperclip. The seeds and skin are not edible, but the fruit can be eaten or frozen.

Growing pawpaws from seed is less complicated than you might expect. While many people choose to cold-stratify the seeds inside their fridge over the winter, simply popping them into the soil before winter begins is just as effective (and saves fridge space). Pawpaw saplings prefer partial shade, but as they grow they will produce more fruit in full sun. These trees grow well along rivers, and while they can get as tall as 40 feet, they tend to cluster together and are considered an understory tree. Notably, they are deer resistant. In fact, the National Park

Service has found that of monitored pawpaw saplings, less than 1% showed signs of deer browsing (for comparison, 27% of the total of *all* monitored saplings showed deer browsing). Deer seem to actively avoid the tree, which also is influencing an increase in pawpaws' growth as deer seek other young plants to eat instead.

A cluster of pawpaw in the Chagrin Valley, Ohio; photo by Liliumoryza (CC BY 4.0), via Wikimedia Commons

Pawpaws need another plant nearby in order to cross-pollinate, and their flowers attract flies and beetles as pollinators. While pawpaw leaves do not appeal to deer, the foliage will feed a wide variety of other Maryland wildlife and is a caterpillar host for zebra swallowtail butterflies, as well as several impressive and beautiful moth species.

Pawpaws generally become ripe in the first through third weeks of September in Maryland, and once ripe, begin to drop from the tree. The fruits vary from about 2-6 inches in length, and can grow in bunches of two or more (larger clusters of the fruits may include five or more).

American Persimmon

Ripe American persimmon in Virginia; photo by Judy Gallagher (CC BY-SA 4.0), via Wikimedia Commons

Less well known than its more marketable cousins, the American persimmon (*Diospyros virginiana*) has a charm all its own. Used in diverse ways historically as both a medicine and food, the tree is often overlooked in favor of the more cultivated relatives found in stores. But that doesn't stop the home-grown love of the native fruit; in fact, it has been proposed as the official state fruit of Maryland.

The persimmon may grow much taller than the pawpaw (up to 60 feet), but such heights are less common. Like the pawpaw, it thrives in well-drained soil and tolerates shade well.

American persimmon flowering along the C&O Canal; photo by Fritzflohrreynolds (CC BY-SA 3.0), via Wikimedia Commons

The American persimmon is generally dioecious, meaning that each tree produces either male or female flowers, and so requires another plant nearby in order to pollinate. However, many cultivars of the American persimmon can produce fruit without being pollinated. The pollinators of American persimmons are widely varied and include many species of native bees.

The orange, golf-ball sized persimmons ripen in late fall in Maryland and the fruit will have a slight give to the skin when ready to eat. The fruits begin to dry quickly after the first frost. When persimmons are ripe, they come easily off the tree. When eaten before they are ripe, they are unpleasant (an understatement). The astringency of unripe persimmons may turn your mouth numb for at minimum the length of time it takes to make your way back to your car in search of water. While the feeling may fade, the memory never will. That said, when ripe, the persimmon is so tasty that even those of us who have experienced the numb feeling will still eat them readily.

Even more species of Maryland wildlife enjoy the American persimmon as a food source, including serving as host to over 45 butterfly and moth species. Most famous among these is likely the luna moth, but the persimmon also hosts the majestic tersa sphinx moth and the vivid large necklace moth. Besides this, the persimmon is a late ripening fruit, meaning it is often one of the last available fruits for many birds and mammals before the proper onset of winter, and thus an important food source going into the coldest part of the year.

If you're looking for a native fruit addition to your yard for the next growing season, consider one of Maryland's peculiar and prolific possibilities! The John S. Ayton State Tree Nursery grows several native fruits and will soon begin taking orders for spring planting.

Read more about Maryland's native fruits here:
Native Trees of Maryand: The Pawpaw
Food Forests Bring Fruit Harvests and Deeper Connections to Land
Agroforestry Spotlight: Edible Forest Trail
UMD: Starting a Home Fruit Garden
UMD: Less Common Fruits for a Home Garden

Natural Heritage Program Spotlight: Bat Study at Soldiers Delight
By Sadie Rozics

When choosing my undergraduate thesis project at the University of Aberdeen in Scotland, I knew I wanted to collaborate with an organization in my home state of Maryland so that my work could be mutually beneficial and hands-on, giving back to my community.

After connecting with Natural Heritage Program staff, we collaborated to select a project, conducting acoustic surveys at Soldiers Delight Natural Environment Area to investigate the presence of bat species and their habitat use.

Soldiers Delight, near where I grew up in Baltimore County, is renowned for its rare serpentine ecosystem, which hosts unique plants and geology. Despite its rare habitat, it had never been surveyed for bats before, and we hoped that my project could help gather data for their summer surveys and inform future conservation efforts.

To fill this data gap, bat echolocation activity was recorded using stationary acoustic detectors that can pick up sounds our ears can't hear. These were deployed across four representative habitats: open meadow, riparian woodland, pond, and serpentine grassland. Recordings like this enable us to investigate the species that inhabit Soldiers Delight and their use of different habitats within this ecosystem.

An acoustic detector setup used to record bat echolocation calls in a meadow at Soldiers Delight. Photo by Sadie Rozics, University of Aberdeen.

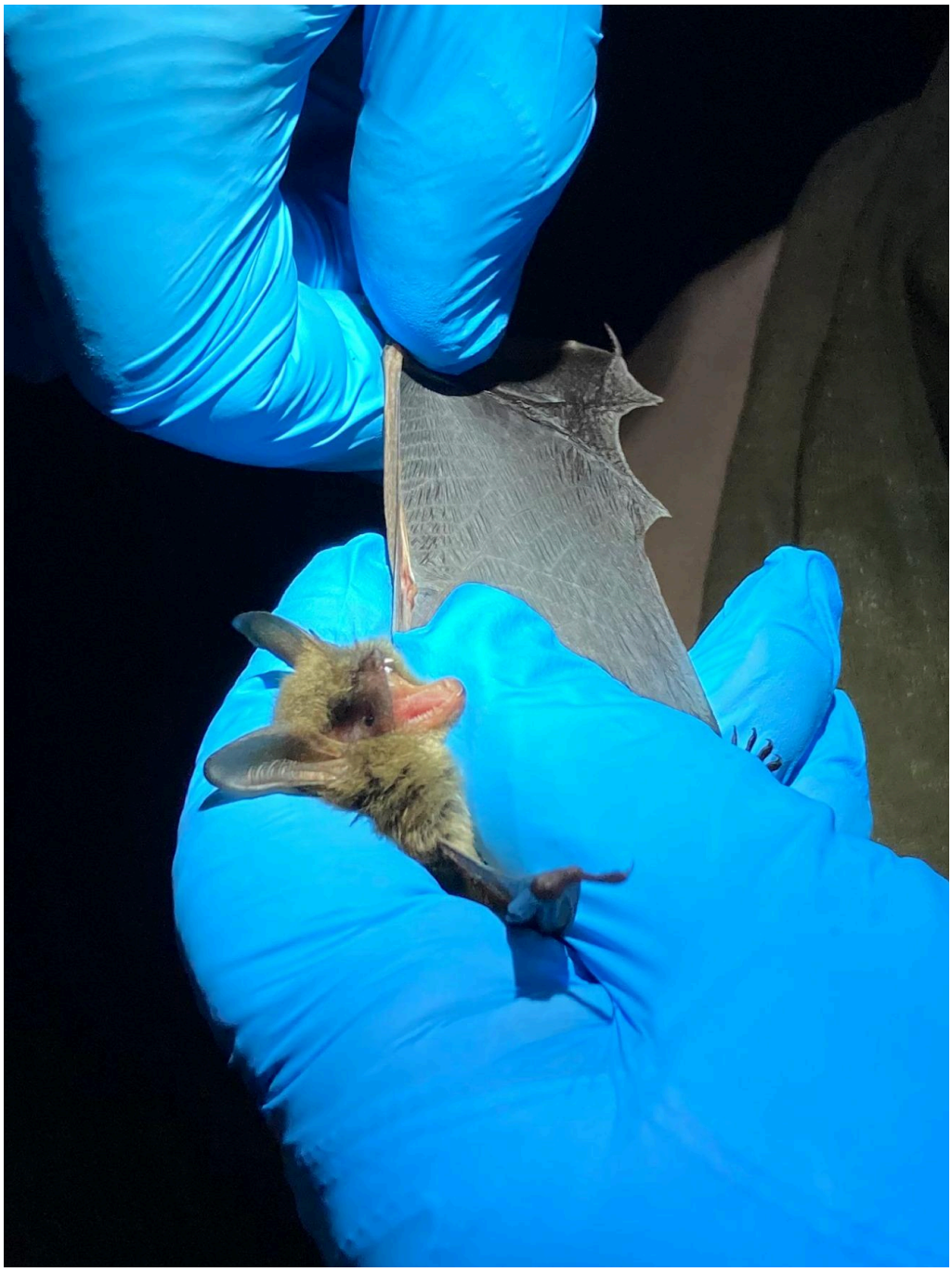
The results? Lots of exciting bat activity! Our surveys detected a range of species across Soldiers Delight's meadow, pond, and riparian woodland habitats, indicating that these habitats are essential for conservation. The big brown bat and Eastern red bat were the most frequently detected species.

However, a variety of less common species were also heard, an exciting indicator of local biodiversity. This discovery is prompting researchers to mark the area for further research like mist-netting. Interestingly, acoustic detections were absent in the serpentine grassland, raising questions about what environmental factors, such as prey availability, vegetation structure, or distance from water, might influence habitat avoidance. Overall, my project helped to show that Soldiers Delight plays an important role for bats in central Maryland. It also opens the door for future research into the use of the area by less common species, as well as how bats utilize the serpentine ecosystems, which is still poorly understood.

A Big Brown Bat (Eptesicus fuscus) being held for data collection during a field survey. Photo by: Sadie Rozics, University of Aberdeen.

During this project, I was given another unique and valuable opportunity to join researchers from Bat Conservation and Management for a mist-netting session in another part of Maryland. I learned a great deal from these incredible people, including what the process is like, what data they collect, and how to catch, handle, and survey bats quickly and safely. To top it all off, I had the chance to see the beautiful Northern long-eared bat up close and in person. Seeing and collecting data on this endangered

species firsthand was an unforgettable moment, reinforcing the importance of continuing to monitor and protect Maryland bat populations.



A Northern Long-Eared Bat (Myotis septentrionalis) with its wing stretched out while being examined during a field survey. Photo by Sadie Rozics, University of Aberdeen.

Why it matters: Maryland bats are insectivores and serve as natural pest controllers. Their feeding activity reduces pest populations, benefits agriculture, and decreases the need for pesticides. Bats also serve as bioindicators of environmental health as they are

sensitive to environmental changes such as climate, water availability, and habitat quality. Unfortunately, many of Maryland's species have declined due to habitat loss, deaths from wind turbine interference, and white-nose syndrome, a fungal disease that has decimated populations across North America. Many species, including the Northern long-eared bat, are now listed as endangered at both state and federal levels. Establishing a baseline for bat activity at Soldiers Delight supports ongoing efforts to monitor populations and identify key habitats for conservation across Maryland.

A Northern Long-Eared Bat (Myotis septentrionalis) being held upright for documentation during a field survey. Photo by Sadie Rozics, University of Aberdeen.

The good news: There are practical ways anyone can support bat conservation.

- Plant a bat-friendly garden with native host plants for nocturnal insects; this increases insect prey, providing foraging opportunities. Native trees, such as oaks, provide a roosting structure, and a clean water source creates a drinking spot; learn more about supporting bats with gardening on DNR's webpage and from Bat Conservation International.
- Install a bat box on your property to help restore lost or degraded habitat for roosting, and you can even build a bat box yourself!
- Find public engagement opportunities, such as guided bat walks at Maryland's nature centers and parks, where participants of all ages learn about local species and acoustic monitoring techniques.
- You can also participate in citizen science initiatives by identifying bats with the DNR's bat ID key and UMD's "Which Bat Is that?" and report roosts using the DNR's roost reporting form. Overall, these methods help support researchers in their ongoing efforts to protect Maryland's bats.
- As seasons change, Maryland's bats prepare for migration or hibernation. Turn off lights whenever possible at night, especially bright white outdoor lights that attract more insects than yellow-type lights, and leave the leaves to avoid interfering in these natural cycles.

Reflecting on my experience conducting fieldwork at Soldiers Delight, I'm grateful for the opportunity to contribute to the critical work the Maryland DNR is doing to understand and conserve these amazing animals. Understanding their echolocation calls and seeing them in person has sparked a deep love and passion for these animals, highlighting just how crucial they are for maintaining the health of our ecosystems. Continued research at Soldiers Delight will refine our understanding of local bat ecology and inform future conservation strategies to help support Maryland's bat populations.

For more information on bats or contributing to bat conservation, visit the DNR's Guide to Maryland's Bats and their Native Animal Profile.

The face of a Northern Long-Eared Bat (Myotis septentrionalis) being held during a field survey. Photo by Sadie Rozics, University of Aberdeen.

Sadie Rozics, undergraduate student at the University of Aberdeen studying animal behavior, graduating 2026.