



# APRIL 2021

WHAT'S UP AT UP YONDA FARM

## MARCH REVIEW

Thank you to everybody who attended Maple Festival and Homeschool Maple Days! Every event sold out, and we had so much fun teaching about the science and history behind maple syrup. If you missed it, the Sugarhouse will be open this summer for you to check out on your own.

## APRIL EVENTS

**April Break** - Get outside at Up Yonda Farm during April Break from Monday 4/5 to Saturday 4/10! Daily family oriented programs include a citizen science themed guided hike, Explore Up Yonda Activity Challenge, nature journaling starter workshop, walking stick workshop, and a New York State symbols themed guided hike. We'll also have brief "Naturalist Snapshot" programs each day that are free with a paid \$5 per vehicle day use fee. Registration and additional fees required for some events, and more information is available at [www.upyondafarm.com](http://www.upyondafarm.com)



**Spring Junior Naturalist Program** - The Spring Junior Naturalist Program has started! You have until June 20th to register and start having some fun! Make sure you email photos or a scan of your completed work to Up Yonda at [uyfeec@gmail.com](mailto:uyfeec@gmail.com) so that we can mail you your Spring Junior Naturalist badge and certificate.



## APRIL EVENTS - CONTINUED

**Earth Week** - Complete what you can in an Up Yonda Farm Earth Week themed activity packet to celebrate Earth Week from Monday 4/19 until Saturday 4/24. Activities can be completed on-site at Up Yonda Farm, or at a location of your families choice. Activity books will be available at Up Yonda Farm or digitally, via request to [uyfeec@gmail.com](mailto:uyfeec@gmail.com).

**Earth Day Homeschool Programs** - On Wednesday 4/21 and Thursday 4/22, homeschool students can learn about composting, how to help pollinators, and can participate in an invasive species action project at Up Yonda. Registration required, and more information is available at [www.upyondafarm.com](http://www.upyondafarm.com)

**Invasive Species Action Project** - In celebration of Earth Day, visit Up Yonda Farm on Saturday 4/24 at 11:00 am to learn about commonly found invasive species in our area. Then, put your knowledge to use and help us work towards eradicating some invasive plant species at Up Yonda. Registration required, please bring your own garden clippers and gloves. For more information, please visit [www.upyondafarm.com](http://www.upyondafarm.com)

**Introducing... Naturalist Snapshot!** - As we're gearing up for a busy spring season, we're trying something new. On select days in April, when you pay the \$5 per vehicle day use fee you gain free access to 15-20 minute Naturalist led programs we're calling a "Naturalist Snapshot". Topics range from STEM experiments to bird identification to meeting one of our turtles! So pack your lunch and head up to Up Yonda Farm for a hike or program, and while you're here, take advantage of these free educational programs!

# Freezin' for a Reason!

By Anna Moreau

This spring to get outside, you can try “herping,” or, looking for herptiles (reptiles and amphibians). There are a few things to keep in mind while you’re herping, to minimize your impact and keep the animals you may see safe. Cornell Wildlife Health Lab's Melissa Fadden wrote some good guidelines in her article “What the Heck is Herping.” The best time to go is on a warm night (by upstate New York standards, think 45-55 degrees F), especially if it’s a little rainy. On these spring nights, lots of critters like salamanders, frogs, and turtles are out.



One animal you may see is the wood frog. Don’t let their mundane name fool you - these frogs are quite special, and have even been called “biological miracles” (National Park Service). Like other frogs, the wood frog eats insects, spiders, worms, slugs, and snails (National Wildlife Federation). In New York you may find them in bogs, temperate forests, and wetlands.

The wood frog’s range is where they start to differentiate themselves. Wood frogs are the most widespread amphibian in the Northeast. They’re found from the South Appalachian Mountains of Georgia, north to Canada, and west to Alaska (Virginia Herpetological Society). Many other amphibians wouldn’t be able to survive in the highly varying climates from Georgia to Canada, and cold winters present an especially large challenge.

In the winter, most frogs survive by hibernating underwater, where water gets very cold but doesn’t freeze (NPS). Amphibians want to avoid freezing for several reasons. First, freezing can rupture cell membranes causing dehydration. Second, ice in the blood can puncture blood vessels, and frozen blood can't transport oxygen (NPS). Freezing can cause irreparable damage or death in most frogs.

The wood frog, on the other hand, is a different story. Instead of spending winter tucked into unfrozen mud, wood frogs freeze - literally. As soon as a wood frog comes in contact with an ice crystal, it starts preparing for winter. Burrowing under a layer of insulating leaves, their body slowly freezes. Water inside the frog’s body is pushed outside, and the frog’s liver kicks into overdrive producing extra glucose (NPS). Ice forms outside of their cells and in the spaces between cells, but the cells themselves don’t freeze (NPS). The extra glucose acts as a natural “antifreeze” and lowers the freezing point of the cells, allowing the frogs to overwinter in a state of suspended animation with no damage. Their heart stops beating, and they don't move (NPS). By most scientific accounts, they would be considered dead.

But reliably, every spring, as soon as the temperatures raise above freezing, the wood frogs thaw and emerge. They are among the first in spring to mate and lay eggs, avoiding any late sleeping predators (Anderson & Martin).

If you’re out herping, keep your eyes out for these amazing little critters. Since wood frogs emerge so early, they can be found even when few other herptiles are out. Keep your ears peeled for their distinct calls, which sound like a duck’s quack. They’re just one of the wonders you can find in nature this spring.

National Park Service (NPS) (December 16, 2020). Biological Miracle.

National Wildlife Federation (undated). Wood Frog.

Virginia Herpetological Society (2021). Wood Frog.

Dave Anderson & Chris Martin (March 25, 2016). Frozen Wood Frogs Thaw Out! Something Wild.