

The BogHunter

the newsletter of the Friends of the Cedarburg Bog

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SALAMANDERS IN THE BOG

Amphibians were the first vertebrates to climb up on land, many millions of years ago. They've adapted to supporting their own weight and developed air-breathing lungs, but for most, reproduction takes them back to the water. The trip is a brief one - many amphibians deposit their soft eggs in the water, but the adults live on land.



Tiger Salamander

Unlike the similarly-shaped lizards, salamanders are clawless and scale-less, with thin, moist, sometimes toxic skin, and short legs, which they can regenerate. They have good eyesight, use touch and chemical signals to communicate, and can feel vibrations in the ground. Young salamanders eat small invertebrates that swim in the water with them (including larval mosquitoes), and adults feed on insects, worms, slugs, pill bugs, and spiders. Some big salamanders will eat little ones. When they shed their skin, they consume it for its nutrients. Most are nocturnal, which helps them keep their skin moist, and all but one of Wisconsin's seven salamander species are aquatic when young.

"Salamander" comes from an Arabic term that means "lives in fire," because it was thought that they could walk through a fire. Three species of salamanders are listed for the Bog – the blue-spotted and tiger salamanders and the Central newt.

Blue-spotted salamanders (*Ambystoma laterale*) emerge from their winter sleep

while ice still rims the woodland pools. Females attach gelatinous globs of eggs (as many as 500) to sticks or rocks, often in ephemeral ponds. Because these ponds often disappear by mid-summer, their "tadpole" stage is a quick one. The larvae are initially legless – essentially a tail with a mouth, gills, and eyes – but within a month they have four legs and look like mini-adults. They are about two inches long when they emerge from the water.

Adults live in moist microclimates on the woodland's floor. How they spend the winter isn't fully known, but they may stay active in burrows below the frost line.

Although small (three to five inches), they aren't defenseless. They can be speedy, their size makes them easy to overlook, and their spots visually disrupt their outline. Glands in their tail make a foul liquid that deters predators, and when alarmed, they wave their tails over their bodies so that the tail is the first thing the attacker encounters.



Blue Spotted Salamander

Eastern tiger salamanders (*Ambystoma tigrinum*) are easily mistaken for Spotted salamanders, which are more common in the northern half of Wisconsin, because both are large and chunky with variable yellow spots. This huge salamander averages six to eight inches but can grow to almost a foot long (it's the largest terrestrial salamander in America) and can live for a decade or more.

Like the blue-spotted, it's in the mole salamander family Ambystomatidae, whose members spend much of their

time under leaf litter or logs or in tunnels as deep as two feet; but unlike other salamanders, it can dig its own burrow. It's found in woodlands, but also in grasslands and agricultural fields and suburban areas. It's hidden much of the time, but heavy rains that flood its tunnel may force it to the surface. Its large size allows it to add small mice and frogs to the usual salamander diet.



Tiger Salamander

And, like the blue-spotted, it breeds early, attaching up to 40 eggs to underwater structures.

The Central newt (*Notophthalmus viridescens louisianensis*), a true salamander in the family Salamandridae, flip-flops the lifestyle of the first two species. It has four stages instead of three, and there are a number of possible variations in its life story. Typically, a central newt hatches from eggs in the water and spends a few months there as a gilled, aquatic larva before emerging in fall as brilliant, red-orange, spotted juveniles called a red eft. The eft lives on land for several years and then returns to a pond where it becomes an aquatic adult.

Red efts are conspicuous on land, but their coloring warns predators that they are poisonous. In their eft stage, they feel grainy and dry, the coarseness caused by poison glands under the skin, but the better-camouflaged adults are also toxic. Like all wildlife, mortality is very high in the first year of life, but if they survive, central newts may live for 12 to 15 years. Aquatic adults stay active in winter and

can be seen swimming below the ice.

Salamanders are eaten by fish and large water beetles in their aquatic stages, and then by snakes, owls, and mammals. Many succumb while crossing roads on the journey between their winter/summer habitat and their breeding pools, and they're susceptible to pesticides and acid rain.

Annual Fall Potluck

(and Annual Meeting)

September 29

Starting at 3 PM hike

5:30 PM eats

6:30 campfire (and meeting)

We supply brats, burgers, and beverages. Join us for the walk, the potluck or both.

Please bring a dessert or a side dish to share.

Please, No Pets.

Please RSVP at bogfriends.org
(Click on Events)

Questions? Call 262-675-6844,
or email fieldstn@uwm.edu

MUD LAKE BOARDWALK REPAIRED

On a sunny spring day at the Bog, a crew of volunteers gathered at Mud Lake. Their objective was to replace floating pier sections at the end of the board walk that had been set on fire and vandalized the previous spring.

At 245 acres, Mud Lake, is the largest lake in Ozaukee County. This shallow lake is home to a wide variety of birds, mammals, amphibians, and plants. The boardwalk, built by the Friends in 2016 with support from the DNR and UWM Field Station, allows public access to the lake for low impact recreation. Mud Lake is part of the Cedarburg Bog, which contains wilderness

that cannot be found anywhere else in southeast Wisconsin. The many hours FOCB volunteers put into this boardwalk reflect their passion for caring for, protecting and preserving this beautiful state natural area.

Since the board walk is long, narrow and winding with water on either side, getting the heavy floating sections to the end of the boardwalk, into the water, and installed was a challenge. Except for those choosing to wade, the volunteers managed to stay dry. One volunteer, Bob Strand, did take an unplanned dip in the lake. All had a few laughs. Bob, the senior volunteer on the project, kept the young folks on their toes and kept the mood light by cracking jokes. Given his involvement in the project from its start, he was a great mentor. At the other end of the age spectrum, we had a new volunteer, Braden Meyer. A teen, he was motivated by his love of the Bog as a place to get a good start on his life list of birds. Bridging the gap in age from old to young is important for the future stewardship of this land.

by Brennan Delap, Stewardship Committee

BIRD BANDING IN THE BOG

Have you ever been looking at a bird in a tree or at your feeder when suddenly something bright and shiny catches your eye? Welcome to the world of bird banding, one of many ways to gather information about bird movements and migration. It is truly amazing what a tiny little leg band can teach us about the ways of birds!

How does bird banding work? It starts with birds getting caught in a nearly invisible fine mesh net called a mist net, from which they are removed by trained researchers and volunteers. Then the birds are taken to the nearby banding station where they



A female Northern Cardinal is released.

are identified by species and sex, and banded, measured, weighed, aged, and assessed for overall health.

Finally, the birds are released unharmed back into the wild wearing shiny miniature bracelets with identification numbers on them! These numbers are recorded and tracked by the United States Geological Survey Breeding Bird Laboratory (USGSBBL). Any time a banded bird is recaptured or found injured or deceased, the initial banding location and the bird's subsequent movements can be determined by reporting the banding number to the USGSBBL.



*A Magnolia Warbler with a new bracelet
Photo by Andy Holmen*

More than 1.1 million birds are banded in an average year, and 57 million birds have been caught, banded, and released in North America since the beginning of modern scientific banding in the 1920s. But bird banding dates back much further. In the time of the Punic Wars (218-201 BC) Roman generals communicated information to far flung legions of soldiers by tying various colored threads around the legs of domesticated doves, aka "homing pigeons", and releasing them as couriers. In the Middle Ages, European falconers and royals marked their birds with leg bands to show ownership if a bird was lost. In the USA in the early 1800s, John James Audubon banded young Eastern Phoebes with silver thread and found that



Volunteers putting things back together.

they returned the following spring to the same area where they hatched.

On May 18 at the UWM Field Station in the Cedarburg Bog, Tim Vargo (current FOCB board member) and Vicki Piaskowski (a former board member) led the Urban Ecology Center Bird Banding Team in a demonstration of modern bird banding. Nineteen people attended, including a few families with children. All came to learn about the natural history of wild birds and their migration patterns, and to experience them close up. In all, 37 birds representing 12 species were caught and banded. All were excited about being in such close proximity to the birds, but the greatest delight was in the children who volunteered to assist in the release of the freshly banded birds!

by John O'Donnell, Board member

AMAZING SLIME MOLDS

Slime molds are strange and wonderful life forms that can exist as tiny, single cells, but can also form a mass of cells that acts like an organism - and moves!

Back in the days when fungi (now placed



Chocolate tube slime

in their own Kingdom) were classified as plants, slime molds were classified with the fungi. Today, slime molds defy exact classification (slime molds aren't plants because they eat!). They're placed in a catch-all group that some people call the kingdom Protista, made up of often unrelated single-celled or colonial single-celled organisms that have similar structures and life styles. Australian researcher Chris Reid calls Protists "*a taxonomic group reserved for everything we don't understand.*" They've been around for a billion years.

They may be so small that they live their whole lives without notice, moving slowly through the soil, or they may aggregate to form bright yellow or white, spongy blobs on the forest floor, or pink spheres on decaying wood, or tiny, brown cattail



Dog vomit slime

shapes on branches. Or, they might start as the first and end as the second. They have great names, like wolf's milk, tapioca, pretzel, white coral, red raspberry, chocolate tube, dog vomit and scrambled egg slime.

Two of the main groups are the cellular slime molds (Dictyosteliida) and the plasmodial or acellular slime molds (Myxogastria). Both kinds start out as tiny, single-celled amoeba-like critters in soil or rotting material, both can use chemicals to communicate, and both, upon some sign from their environment, may congregate and go into reproductive mode, transforming from a single-celled organism to a giant "megacell" (one scientist calls them "*a bag of amoebas*"). They feed on bacteria, algae, and fungal spores and help organic materials to decompose. They are eaten by many small animals, and some are said to be edible by humans.

Their orientation is deliberate, their ability to pick the most direct route to food mimics the efficient layout of expressways and railroad systems, they were the inspiration for the Sci-fi movie "The Blob," the math that describes their orderly aggregation is applied to video games, and some can anticipate change, learn to solve mazes and remember. And when they are chopped up, they reassemble and remember.



Wolf's milk slime mold

For more information, see <https://www.scientificamerican.com/article/brainless-slime-molds/> <https://www.pbs.org/newshour/science/the-sublime-slime-mold> and <http://www.wisconsinmushrooms.com/>

WELCOME DANIELLE BELL

We are pleased to welcome Danielle Bell to our team. Along with the skill sets necessary to supporting us in the administrative aspects of our work, Danielle brings a passion for the Bog and nearby State Natural Areas. This passion has grown with her experiences in taking various classes offered by UWM and FOCB.

Danielle's love of nature has its roots in her upbringing on a farm in rural Wisconsin where she learned to love the land and its flora and fauna. She earned Bachelor's Degrees in Architectural Studies and in Conservation and Environmental Sciences from UWM. In her work for various landscaping firms she has focused on natural landscapes and restoration of native ecosystems.

Danielle will be working with FOCB committee chairs and executive committee to support their endeavors to advance their work in the conservation and preservation of the Bog through Stewardship and Education.

by Jim Ellis, Friends' Vice President

Did you know....

...that red-osier dogwood (*Cornus sericea*) was used to weave baskets, as a dye and a tobacco?

*Friends of the Cedarburg Bog:
Supporting stewardship and
appreciation of the Cedarburg
Bog through land management,
preservation, research and education.*



C/O UWM Field Station
3095 Blue Goose Road
Saukville, WI 53080

ADDRESS CORRECTION REQUESTED

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SUMMER 2019

CEDARBURG BOG FRIENDS EVENTS

Unless otherwise noted, walks meet at the UWM Field Station on Blue Goose Rd. Space is limited, so please register. To register, visit www.bogfriends.org (click on Events). Walks are free and open to the public; a \$5 donation is appreciated. Questions? Contact (262) 675-6844 or fieldstn@uwm.edu. Please, No Pets.

Friends of the Cedarburg Bog Quarterly Board Meeting

July 25, 6 to 8 PM Members are welcome

International Bog Day Walk

July 28, 9 AM to Noon

Discover the birds, flowers, bog history, and ecological significance of the Cedarburg Bog and bogs from around the world.

Bog Ethnobotany: Plants Used by Great Lakes Native Americans

August 11, 9 AM to noon

Join ethnobotanist Lee Olsen in search of plants used by the Great Lakes Nations for food, medicine, basket weaving, dyes, and technology. Bring your taste buds!

Plants from an Evolutionary Standpoint

August 25, 9 AM to Noon

Join Paul Engevoold on a "bog walk" not only to botanize but also to explore the fascinating evolutionary relationships within the plant world.

Mushrooms and Other Fleshy Fungi

September 7, 1 to 4 PM

Everything you ever wanted to know about mushrooms – including where to find morels! Walk and talk with Alan Parker about the identification and ecology of fungi.

Annual Fall Potluck, Celebration of the Cedarburg Bog, and brief Membership Meeting

September 29, 3 to 6:30 PM

More info elsewhere in this newsletter and TBA.

A Walk in the Beech Woods

October 20, 9 AM to noon

The Cedarburg Beech Woods State Natural area is spectacular in fall. Come and learn what makes this community tick.

Owl Prowl

November 9, 7 to 9 PM

Join us as we search for resident and migrating owls. Location to be determined check for more information at www.bogfriends.org in fall.

How Do Trees Grow?

November 17, 9 AM to Noon

How do trees do what they do? Find out as this indoor-outdoor presentation. Dress for the weather.



EVENTS HAPPENING ELSEWHERE

CALENDAR

See the *Treasures of Oz* website treasuresofoz.org and the websites of our partner organizations for more details about these and many other events.

Noel J. Cutright Bird Club at RNC

1st Tuesdays Bird hike at 6 PM; program at 7 PM at RNC. See RNC website for programs. Free and open to the public.

Monarch Events at MNP

August 3 – Raising and Saving Monarchs

September 7 – Monarch tagging

Learn about the amazing life of a monarch butterfly and about their marathon journey. See MNP website for times and fees.

Pre-registration required at komassa@wi.rr.com for August event, and center@mequonnaturepreserve.org for September event.

OWLT Annual Dinner

August 22, 5:30 to 9:30 PM

at Shully's Watermark in Theinsville

Proceeds from this annual Ozaukee Washington Land Trust fundraising and fellowship dinner will go

toward purchasing agricultural land.

For reservations or more information, call 262-338-1794 or visit <https://owlt.org/>.

Monarch butterfly Tag & Release Celebration

August 24, 1 to 3 PM at FBMP

What's a "Gen 5" monarch and why are we throwing a party for them? We will be tagging monarchs as they set off for Mexico, giving tours of the prairie in full bloom, and of course, there's a butterfly cake. The event is free to the public.

"ARTservancy" Exhibit Opening

September 13

See the artwork inspired by this magical, year-long partnership between OWLT and Gallery 224 and created by artists-in-residencies at 12 OWLT Preserves. At Gallery 224 in Port Washington <http://gallery224.com/ARTservancy.html>

Where Ecology Meets Economy -

Creating Landscapes for a Healthy Planet

September 25, 8:00 AM to 4:30 PM

At Boerner Botanical Gardens, Hales Corners
All-day event sponsored by the Southeastern Wisconsin Invasive Species Consortium (SEWISC) with presentations by Doug Tallamy, catered lunch,

panel discussion, vendor booths, silent auction, tours, and more.

For more information or to register, see <https://sewisc.org/weme-s6> after mid-August.

Sturgeon Fest RNC

September 28, 11 AM to 3 PM.

For more than a decade, Riveredge volunteers have raised sturgeon for release in Lake Michigan. Be a part of this great comeback story. Enjoy the celebration, tours, games, and more at Lakeshore State Park in Milwaukee.

To release a sturgeon, contact Riveredge.

FBMP – Forest Beach Migratory Preserve
4970 Country Club Road, Belgium
<https://wglbbo.org/>

MNP – Mequon Nature Preserve
Pieper Power Education Center
8200 W County Line Rd, Mequon
center@mequonnaturepreserve.com

RNC – Riveredge Nature Center
4458 County Hwy Y, Saukville
riveredgenaturecenter.org
(262) 375-2715