



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

ADDRESS CORRECTION REQUESTED

Volume 16, Number 3 SUMMER 2021

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.*

Bog Ethnobotany: Plant Use by Great Lakes Native Americans

Saturday, July 24, 2021, 9:00 AM – Noon

Walk into the Cedarburg Bog on the boardwalk with ethnobotanist Lee Olsen. He will name and reveal plants that ten Wisconsin Indian Nations use for food, medicine, and technology such as basket weaving, fiber, & dyes. Dress appropriately for the weather.

Annual Meeting & Fall Potluck Picnic

September 19th – Save the Date

All members are welcome to join the FOCB for our annual meeting of members, and vote on candidates for board positions. More details to follow.

Ways to Stay Connected with FOCB

 Join our Email List
<https://bogfriends.org/mailling-list/>

 Subscribe to our YouTube Channel
<https://www.youtube.com/channel/UCHHu5IWILc0mc4GTpDzScOQ>

 Like us on Facebook
<https://www.facebook.com/TheFriendsoftheCedarburgBog/>

 Follow us on Instagram
https://www.instagram.com/friends_cedarburgbog/



A newly found Compton Tortoiseshell
Photo by Kate Redmond

EVENTS HAPPENING ELSEWHERE

MNP - Summer Playdate

Saturday, July 31 1 pm-4 pm

An afternoon full of fun! This event is FREE. Food and drinks can be purchased at the event. Stay tuned for more details. Tickets can be reserved starting July 1st.

MNP - Monarch Tagging Event

Saturday September 11 1 pm-3 pm

Monarch Tagging event. Email Amanda at amanda@mequonnaturepreserve.org to let us know if you will be coming!

RNP - Into the Magic Forest

Saturday, September 11

A Celtic-inspired evening of whimsy, fun, and magic at Riveredge! Laugh, explore, and reconnect with each other. As Riveredge's largest fundraiser, it's a year's worth of programs to connect communities to the magical natural world.

RNP - Frothy Forage Festival (21+)

Saturday, October 9

Riveredge's Frothy Forage has become the premier outdoor craft beer, wine, cider, and other delectable 21+ drink festival in the area. This unique experience invites participants to explore the great outdoors by hiking through the forests, prairies, and wetlands of Riveredge while enjoying beverages from some of our favorite local purveyors.

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
<https://mequonnaturepreserve.org>

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



A Great Spangled Fritillary (*Speyeria cybele*), seen June 27, 2021 at the Bog's south end boardwalk canoe launch. Visitors can access the south side of the Bog by parking at a pull off on Cedar Sauk Road. A trail leads to a boardwalk that provides access to Mud Lake.
Photo by Chuck Stebelton

The BogHaunter

the newsletter of the Friends of the Cedarburg Bog

Volume 16, Number 3 SUMMER 2021

SPRING BIRDING HIKE RECAP

Our first in-person event this year was held Saturday, May 23. An eager group of eight hikers met at the Field Station to identify birds in the Upland Woods, the Boardwalk, and a few stops along Blue Goose Road. Young birder Braden Meyer assisted, lending his quick eyes and keen ears to find a number of the



Prothonotary Warbler
Photo by John O'Donnell

rarities seen and heard. Luckily, the threat of rain held off. The weather remained pleasant and the birding was excellent. We had 71 species in total. Among the highlights and rarities were a Brewster's Warbler (a hybrid), Connecticut Warbler on the UWM Boardwalk, a Prothonotary Warbler going in and out of a duck nest box that was recently vacated by a hen and nine Hooded Merganser ducklings, three Henslow's Sparrows, and an Olive-sided Flycatcher. A number of seasonally typical warblers, flycatchers, blackbirds, sparrows, etc. rounded out the total of birds seen. A bonus: Small Yellow Lady-slippers were in bloom at the boardwalk.

Our walk began at the field station with a dawn chorus of Sedge Wren, Wood Thrush, and Sandhill Cranes. We started toward the Upland woods, where the Wood Thrush song grew louder, while Eastern Wood Pewee, House Wren, and Red-eyed Vireo joined in a constant refrain. Wild Turkeys could be heard in the distance, and an occasional Great-crested Flycatcher's call. Ovenbird echoed

in the woods; "teacher teacher teacher." Most birds were distant, or high in the tree canopy until we reached the edge of the upland woods, where the beech maple woods meet more open habitats. Here a Scarlet Tanager treated us to our first excellent viewing, two males and a female chasing and chattering and calling away. A half dozen flycatcher species were identified in this area, most of them by ear. These included Eastern Wood-Pewee with their glissando peee-weeee call, Acadian Flycatcher, Alder Flycatcher, Eastern Phoebe, Great Crested Flycatcher, and Eastern Kingbird in the more open area adjacent to the Upland woods. In the open glade, a bird which appeared through binoculars to be a Golden-winged warbler was singing the Blue-winged warbler's distinct buzzy, beeee-bzzzzz song. With documentation, this bird was confirmed to be an unusual hybrid known as Brewster's Warbler, a cross between the Golden-winged and Blue-winged Warblers, which it turns out can occasionally interbreed. More typical and no less wonderful warblers included Blue-winged Warblers themselves, Black-and-White Warbler, Common Yellowthroat, American Redstart, Cape May Warbler, Northern Parula, Blackburnian Warbler, Chestnut-sided Warbler, Blackpoll Warbler, and Black-throated Green Warblers with their zee zee zee zee zo zeet refrain.

-Chuck Stebelton

NEW EXECUTIVE ASSISTANT

Friends of Cedarburg Bog now has a part-time Executive Assistant. In June, 2021 the Friends hired Michelle Inhofer to serve as the new Executive Assistant. Michelle recently finished up a Major in Conservation and Environmental Science from the UWM this past Spring. Prior to that she earned her bachelors from the Milwaukee Institute of Art & Design in Communication Design, with a minor in Advertising from Marquette University.

Michelle's love for the environment and appreciation for conservation began at a young age, inspired by her time in Michigan's Upper Peninsula along Lake Superior. She enjoys being with her family which includes husband Miles and son Eddie. They like to go hiking, biking, and exploring around the Great Lakes Region. FOCB are happy to welcome Michelle and look forward to working together to support stewardship, understanding, and appreciation of the Bog through land management, preservation, research, and education. Michelle, welcome!

-Chuck Stebelton



New Executive Assistant - Michelle Inhofer

BIG BROWN BAT

From the newsletter of the Western Great Lakes Bird and Bat Observatory

Big brown bats are one of Wisconsin's largest bat species (only the hoary bat is bigger) and one of our most widely-distributed non-migratory bats, and they're frequent-flyers on the acoustical monitoring road surveys sponsored by the Western Great Lakes Bird and Bat Observatory.

Their range stretches from Alaska and western Canada across all of the US, through Central America, and into the Caribbean and northern South America. Tolerant of human neighbors and not too

picky about habitat, they're found in open spaces and edges - grasslands, shorelines, and open woods - in rural, agricultural, suburban and urban locations. They use tree holes, caves, mines, bat boxes, wood piles, loose bark, and buildings for daytime roosts, and in winter, they hibernate alone or in small groups in trees, walls and attics as well as caves and mines.

With a body length of four to five inches and a wingspan of about 13 inches (females are slightly larger than males), they are half again as big as the thumb-sized little brown bat. They vary in color from light to dark brown, with lighter fur on their undersides, and their face, muzzle, ears, tail, and wings are hairless and black.



Big Brown Bats
Photo by Connor Long

They find their prey (and avoid collisions) by echolocation, sending out high-pitched ultrasonic, sonar-like calls that bounce off solid objects. They filter out extraneous background noise and get information about the size, solidity, mobility, and distance of an object from its echo, and they are agile enough to react almost instantly. They are mostly nocturnal, and when they venture out in daylight, they use their eyes to navigate.

Big brown bats forage in open areas, and their flight is slow, steady, and powerful. Strong, sharp teeth help them handle their main prey, beetles, but they also feed on soft-bodied insects like flies, mayflies, wasps, moths, and some true bugs. They are important biological controls of lots of agricultural pests; according to the Wisconsin Bat Program, "It is estimated that bats in Wisconsin save farmers up to \$658 million dollars every year in the form of pest control services." Young big brown bats eat a general diet at first but become more "beetle-centric" as they age. They start foraging around sunset, but rain and cold will suspend their feeding. After a big

meal, they find a sheltered spot and hang upside down while they digest their food. To prepare for hibernation, they must feed heavily during summer and fall.

Their enemies include owls, falcons, and hawks that chase the adults as they hunt or as they leave their roosts, along with raccoons, snakes, and cats that may hang out near roosts to pick off emerging adults or harvest young bats that fall to the floor.

Bats are classified in the order Chiroptera, which, with 1,200 species worldwide (one-fifth of known mammal species) is the second-largest mammal order. Despite their size, big brown bats (*Eptesicus fuscus*) are in the family Vespertilionidae, whose members have traditionally been called the microbats. Microbats eat insects and use echolocation to find them; megabats are larger, mostly fruit-eating bats that do not use sonar. Along with the little brown bat, they are sometimes called "house bats," because of their favored roost sites. Four of Wisconsin's eight bat species (silver-haired, hoary, eastern red, and evening bats) are grouped as "tree bats," which migrate south in fall. The other four (little brown, big brown, northern long-eared, and eastern pipistrelle) hibernate locally and are called "cave bats."

Although big brown bats may travel up to 50 miles between their summer and winter habitats, they are not considered migratory. They are Wisconsin's most cold-tolerant bat species, usually the first species out of hibernation and the last to enter it, and they may become active during a winter thaw. They tend to sleep closer to the entrance of a cave or mine

than other bat species, whose roosts in the depths of a cave have a more constant temperature and humidity. According to the Wisconsin DNR, "Big brown bats are the only Wisconsin bat species known to roost in buildings during winter (all other Wisconsin cave bat species hibernate exclusively underground in caves or mines)."

They mate before hibernation in fall, but the female stores the sperm and fertilization doesn't occur until she becomes active again in spring. Pregnant females form maternity colonies in warm, sheltered spots, often in buildings, give birth to one or two pups in early summer, and raise their young in these colonies. If the mothers decide to relocate, they will carry their pups to the new roost, and if a pup falls to the ground, its mother will retrieve it, but they don't carry their young when they hunt like some bat species do. The pups can fly in three or four weeks and are weaned a few weeks later. Some big brown bats have survived for 15 to 20 years in the wild, but like many kinds of wildlife, mortality is very high in their first year.

Along with their sonar, which is too high-pitched for most people to hear, big brown bats make a variety of hisses, squeaks and chattering sounds. Bat pups that have been separated from their mother will squeak until she finds them.

Most of us only encounter bats when we co-habit the same building. Many people find their appearance off-putting, and although only a small percentage carry the rabies virus, they should not be handled or



The Neda Mine, owned by UWM and managed by the Field Station, is one of the largest bat hibernacula in the upper midwest. A research project aimed at understanding how white nose syndrome is affecting bats is currently being conducted at the mine. In the photo here, a group of cavers led by Joseph Hoyt of Virginia Tech prepares to enter the mine.

The Cedarburg Bog is a Wetland Gem and an Important Bird Area

evicted by amateurs.

Although big brown bats are considered “Threatened” in Wisconsin, their overall population is considered safe because they are fairly common across a very broad range.

WHITE-NOSE SYNDROME UPDATE

In 2006, bats in a cave in Schoharie County, New York were found with a curious, white fungus on their noses. The cave adjoined a larger cave that was a tourist attraction. The fungus turned out to be endemic in Europe, where infected bats are only mildly affected by it. In America, however, the fungus is devastating, killing 70% to 90% of the infected bats in the caves (hibernacula) where they overwinter. By 2018, the fungus that was first seen in a single cave in New York State in 2006 (it probably arrived at least a year earlier) had spread to 33 mostly-eastern states and seven Canadian provinces, and close to seven million bats had died. The fungus has been found in five additional states but is not infecting bats there.

“White-nose syndrome” (WNS) is caused by the cold-loving fungus *Pseudogymnoascus destructans* (Pd), and the bat species that are susceptible to it are those that hibernate with other bats in caves. The fungus can be spread from bat to bat, and it can also be picked up from the walls of a cave or mine. It is also spread by humans who carry it from infected caves; there was early speculation that the fungus had been carried to America on the clothing or equipment of American spelunkers who visited Europe.

At least 13 species of North American bats have been infected, a few of them so drastically that they may face regional extinction; eight more species can carry it but are not troubled by it. There is no evidence that this fungus can be spread from bats to humans.

The trick to successful hibernation is keeping the metabolism at a low, steady rate so fat reserves aren’t used up too quickly. Besides visible fungus on the nose and wings, eating into the tissue, bats with WNS wake up more frequently, fly earlier, and use more energy than unafflicted bats, and they become dehydrated. The disease was found in Wisconsin in 2014.

What’s next for Wisconsin bats? The only good thing about WNS is that it caused agencies around the country to study their

bat populations, and so we’ve learned a lot about Wisconsin’s bats in the last decade. With the help of Citizen Scientists, the DNR has located and mapped more than 200 hibernacula and hundreds of summer roost spots and has censused the species and numbers that use them. Individual bats have been marked or tagged to find out if they return to the same cave every year. Four of Wisconsin’s eight bat species hibernate in Wisconsin, and all four “cave bats” were put on the State “Threatened” list to give them extra protection from non-WNS stresses.

Although treatments are being studied, there is no cure for the fungus right now, and Wisconsin bats continue to die in large numbers. Researchers are developing a vaccine that may be effective, but it’s labor-intensive. In the fall of 2019, workers trapped bats and dripped vaccine into their mouths as they prepare to hibernate. Studies in the spring and summer of 2020 will determine if the vaccine is effective, and if it is will address how to deliver it to a large number of bats (right now, a gel spray that bats would lick off their wings as they groom looks like a good bet.

It appears that some bats resist or tolerate the disease. Bats typically hibernate well into a cave where the temperature is a constant 45 to 55 degrees. Warmer caves have higher mortality rates, but researchers speculate that some bats now chose caves that are too cold for the fungus.

-Kate Redmond



*Breeding Bird acoustic installation
Photo by Cory Gritzmacher*

BREEDING BIRD ACOUSTICS

The FOCB approved a proposal from Dr. Gary Casper, Great Lakes Ecology Services, to install two acoustical monitoring devices on the east side of the Cedarburg Bog this past winter. The purpose of the monitoring project is to gain more data about the bird species that can be found in some of the

more remote and less monitored portions of the Bog. The information will be collected throughout spring migration and the spring breeding season. Once the data has been analyzed it will help guide future monitoring efforts throughout the bog. Dr. Casper will prepare a report to provide species checklists for each site, and metrics on phenology and calling activity. The site location was made possible with the help from a former FOCB Board member, John O’Donnell. Volunteers from the Mequon Nature Preserve helped with the installation and maintenance of the acoustical devices throughout the season.

-Cory Gritzmacher

DANIELLE BELL’S TRANSITION

Danielle Bell has resigned her position as Administrative Assistant to meet the demands of her growing business, Native Roots, LLC., an ecological landscape design company dedicated to creating and preserving healthy native habitats, starting at the roots.

As our Administrative Assistant for the past 2 years, Danielle Bell has kept the Friends on track and moving forward. In addition to routine office tasks of data entry, checking mail, etc., she has expanded our social media presence on Facebook and Instagram. She has also set up a FOCB YouTube channel for which she has created several short videos. These videos have allowed folks to stay connected to the Bog virtually during the pandemic. She also developed our new membership brochure and has been steadfast in formatting our quarterly newsletter and getting it out on schedule. Excellent best describes her work and her contribution to the Friends.

Danielle will continue to be involved with and supportive of the Friends. She will remain available for training and support our newly hired Executive Assistant, and she will lead an occasional hike to share her passion about the Bog as well as her knowledge of plants and native pollinators.

Thanks to Danielle for her invaluable contributions! And congratulations on the success of her business, Native Roots, LLC.

-Jim Ellis

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