

The BogHaunter

the newsletter of the Friends of the Cedarburg Bog
Volume 17, Number 2 SPRING 2022

Listening to the Bog

If a bird sings in the Bog does anyone hear? In mid-March, 2021, Friends of the Cedarburg Bog Director Cory Gritzmacher and I hiked into the rarely visited east-central part of the Bog with staff from the Mequon Nature Preserve. We set up two digital sound recorders which made over 4,300 recordings of sounds in the Bog. Back in the lab, we selected 15 early morning recordings in June from each recorder, and analyzed them for bird song. Why June? This is when birds are on breeding territories and their presence indicates that the habitat is supporting them as they raise their families.

This research has several objectives. First is to begin archiving a record of the Bog soundscape. This documents how the sounds in the Bog may change as noise pollution and wildlife communities change. This is a relatively new window into the world, enabled by recent developments in the field of bioacoustics that allow us to document and analyze the soundscape. A second objective is to survey breeding



Bioacoustic monitoring devices in the Bog

birds in a remote area where few surveys have been completed. This is accomplished by having expert birders listen to the sound recordings and list every bird species detected. It is a little known fact that on typical breeding bird surveys (point counts) most birds are detected by sound rather than seen visually, especially in forested habitats. The birders must be experts in identifying birds both visually and acoustically. With digital recordings,

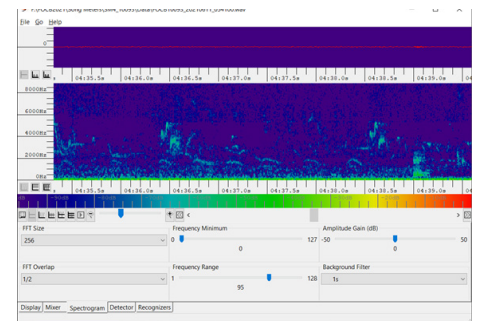
we can also use computer automation to search for species in the soundscape.

We were able to describe the avian community around each recorder in detail. Site 1 had 37 species and Site 2 had 35 species, with a total of 49 species detected when checklists were combined. Because we sampled throughout June (every other morning), we were also able to determine a minimum number of days each species was present. This is important because species around for only one or a few days were likely transients, and not breeding nearby. By filtering results for on-site duration in this manner we determined that 17 species were likely breeding at Site 1, and 20 species at Site 2.

Some highlights were Black-billed Cuckoo (on the Partners In Flight Yellow Watch List), Northern Bobwhite (a grassland bird utilizing bog habitat), and Wood Thrush (on the State of the Birds Watch List). We also discovered a Yellow-bellied Flycatcher calling on June 11 – a northern species perhaps lingering as a late spring migrant in the Bog before continuing north. Other species assumed to be on breeding territories included: Alder Flycatcher, Black-and-white Warbler, Eastern Towhee, Nashville Warbler, Northern Waterthrush, Red-breasted Nuthatch, Sandhill Crane, and Veery.

This study documented the breeding bird communities in a little known area of the Bog, providing data on species composition and abundance. Years from now, as climate change progresses, plant and avian communities and bog hydrology are likely to change. This record of the soundscape, and the analysis for breeding birds, will become increasingly valuable over time. Managers utilize monitoring data such as these, data from weather stations, and plant surveys, to log how plants, animals, and physical parameters are changing. This in turn informs habitat management activities for preservation of rare species, biodiversity, and reducing

noise pollution in this sanctuary. The effectiveness of habitat management measures is assessed by collecting monitoring data such as these. Moreover, the sound archive can be used by future students and researchers to discover more information about the soundscape, with analyses for frogs, insects and mammals. We will continue acoustic monitoring of remote areas in 2022.



Spectrogram of a Yellow-bellied Flycatcher call

I thank Tim Hahn and Nathaniel Reinartz for acoustic analyses; Cory Gritzmacher, Nick Gall and Jamie Schiesel for equipment maintenance (Mequon Nature Preserve); and Doug Hurth (Saukville Land Corporation) and the Bell family for property access. This project was funded by Friends of the Cedarburg Bog.

-Gary S. Casper

Great Lakes Ecological Services

Welcome Lisa Miller to the Friends Board of Directors

We are pleased to announce that Lisa Miller has joined the FOCB board as of January this year. Lisa has attended classes and events at the Bog and is passionate about supporting the work of the Friends of the Bog. She showed her willingness to help with the FOCB mission by volunteering to be our new Editor of the BogHaunter newsletter. The Board is very excited about having Lisa join our ranks.

Born and raised in Hales Corners, Wisconsin, Lisa has worked for Northwestern Mutual for 20 years. She is their Senior Director of Strategic Communications where she supports



Lisa Miller - FOCB BogHaunter Editor

financial, investment, expense management, and government relations functions of the company. Lisa currently lives in Shorewood. She enjoys the outdoors in all four seasons, birding, hiking, and biking. Please help us welcome Lisa to the Friends when you see her at one of our public events.

-Jim Reinartz

Early Risers

The first chorus of wildflowers that trumpets the spring is predictable. Wetland pioneers like skunk cabbage, marsh marigold and pussy willow are joined by upland trout lily, trillium, meadow rue, spring beauty, hepatica (insulated by its fuzzy stalks), violets, and bloodroot (whose coiled leaves shield both stem and bud from cold).

The study of nature's calendar – phenology – tells us to look for these flowers in roughly the same order each year, but it doesn't tell us when the show is going to start. During the freakishly-warm spring of 2012, many plants bloomed three or four weeks earlier than usual, but the following spring was a long, cool one.

In early spring, the true ephemerals break through the gray, weather-beaten leaves of past summers using energy reserves stored in underground bulbs, corms, tubers or rhizomes. Their life cycles are telescoped – within a few weeks they develop leaves, then flowers and seeds,

and they pack away enough carbohydrates to do the same thing next year. Evidence of these early bloomers is hard to find by mid-summer.

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

What's the advantage of risking a late freeze and blooming so early? A leafed-out tree canopy produces shade that is unsuitable for many plants. Bare trees allow the sun a direct path to light and heat the forest floor. Early blooming solves the shade problem.

High soil nutrients and soil moisture nourish the new plants. Damp earth moderates extreme changes in temperature and protects these low-growing wildflowers. Some, like hepatica and bloodroot, have adaptations that protect the young plants from cold. Bloodroot, which blooms for just a day, is able to self-fertilize if that day is too cold for its pollinators; and hepatica gets a head start from last year's leathery leaves, which persist through winter and photosynthesize until they are replaced in late spring.

Ephemerals burst onto the scene just as the early insects like mining bees, sweat bees, flower flies, bumble bees, blue bottle flies, and gnats are emerging, providing nectar for them to eat and pollen for them to spread. Pussy willows, with their massive amounts of pollen, are insect magnets.



Skunk cabbage flowers - photo by Kate Redmond

To attract pollinators, the flowers of spring ephemerals produce odor and inviting "landing strips." Many are pale in color and stand out against the forest floor. The dead-meat color and odor of skunk cabbage may attract beetles, small carrion flies, early bumblebees, and ants; and skunk cabbage may also be pollinated by honeybees that shelter in the warmth of its insulated spathe (hood) on cool days.

Ants are attracted to the seeds of several ephemerals. An oil and protein-rich structure (the elaiosome) that is attached

to a bloodroot seed provides a nutritious reward for ants that gather them, and the inedible seeds germinate in the organic richness of the anthill.

Although maple sap begins to rise when daytime temperatures reach above freezing, and skunk cabbage can melt a hole in the surrounding snow, most plants wait until air temperatures in the fifties warm the soil before they start to grow.



Royal fern fiddlehead - photo by Kate Redmond

Latitude plays a part in the emergence of sugar maple leaves. The sugar maples of northern forests leaf out at colder temperatures than do their southern counterparts. This shortens the window during which the sun can reach the floor of northern forests and may limit the range of ephemerals.

Whether caused by man, or by a natural climate cycle, or both, the timing and temperature of seasons is changing. In a phenomenon called "season creep," eons-old synchronies between migratory birds and their insect foods, between plants and the pollinators they evolved with, are unraveling. The journals of Henry David Thoreau and Wisconsin's Aldo Leopold give us information about historic blooming dates, and scientific studies document cases in which affiliated species now miss each other due to time shifting by one of them. While the earth has gone through cycles of heating and cooling for millennia, the speed of this up-tick presents a challenge to life forms that must adapt to it.

The trails at the north end of the Bog, off of



Marsh marigold - photo by Kate Redmond

Hwy 33, are great for wildflower-watching, and if you just can't wait, mosses, ferns, and liverworts start their show even earlier than spring ephemerals do. A hike in mid-May should find ephemerals at their peak (please – no picking or digging!).

-Kate Redmond

Use of Trail Cameras in the Bog

Believe it or not, the invention of the trail camera goes all the way back to the 1880s when an outdoorsman named George Shiras lugged an old-fashioned box camera out into the Pennsylvania woods and set it up to flash when an animal triggered a trip wire. National Geographic began publishing some of his photos in 1906 and Shiras became famous for his pictures. Flash forward to the 1980s when deer hunters began to use newly minted motion detector trail cameras to determine the overall presence of deer and especially a trophy buck! Not long thereafter, wildlife researchers and outdoor enthusiasts began to use trail cameras for purposes of doing wildlife inventories, documenting the presence of rare species, and collecting really cool pictures of wildlife just for fun.



Badger - Trail cam photo

Trail cameras have been historically used on a periodic basis in and around the Cedarburg Bog to document and confirm the presence of new species or species of special conservation interest. Recent examples of species being confirmed by trail cameras in the Cedarburg Bog area were Southern Flying Squirrel in 2015 and

Badger in 2017. In 2021, the Friends of the Cedarburg Bog in collaboration with the UWM Field Station made the decision to systematically employ trail cameras on a prolonged basis in select habitat locations in order to gather data on what species might be utilizing these habitats and in what frequency over the course of all four seasons in a full calendar year.



Coyote - Trail Cam photo

The “kick-off” began on July 21, 2021 when a trail camera on loan from the DNR Snapshot program was installed at the base of a tree overlooking the Mud Lake outflow creek at a spot where several game trails intersect the creek. This camera will continue to be in place for a full year. Thus far, this camera has already provided images of difficult to observe species such Mink, Otter, Long-tailed and/or Short-tailed Weasel, Coyote, and Barred Owl. Species found to be abundant at this site during the Fall of 2021 were White-tailed Deer, Raccoon, Opossum, and Great Blue Heron.

Inventories of the types and numbers of the different species present in a natural area are critically important with regard to biodiversity monitoring and conservation stewardship decision-making. In 2022, the Friends of the Cedarburg Bog in conjunction with the UWM Field Station are planning to install more trail cameras in additional locations in or around the area comprising the Cedarburg Bog.

Might you be interested in being a trail camera steward in the Bog? We are looking for adventurous volunteers in love with the outdoors to monitor these cameras on an approximate four to six week basis throughout the year. Interested? **Feel free to contact the Friends of the Cedarburg Bog Stewardship Committee at bogfriends@gmail.org**

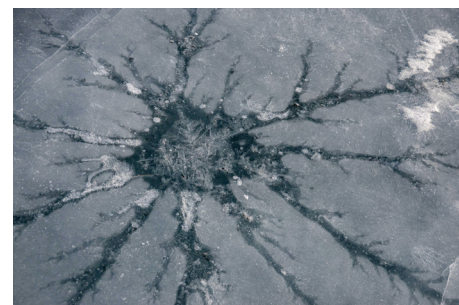
-John O'Donnell

Seasons of the Bog: Winter

Photos by Andy Holman



Frozen stream in the bog



Ice cracks



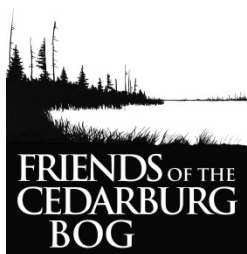
Winter freeze



Snow covered boardwalk



Greenery in the snow



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

ADDRESS CORRECTION REQUESTED

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SPRING 2022

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 Programs & 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.

Quarterly Board Meeting

Thursday, April 7, 6:00 pm

All members are welcome to join the FOCB board meeting. The April meeting is being held in person and over Zoom. If interested in the agenda and to receive access to the meeting, please contact admin@bogfriends.org.

Woodcocks and Frogs

Thursday, April 21, 7:30 - 9:30 pm

Led by Jim Reinartz and Kate Redmond. The Woodcocks should be dancing and the frogs calling. Come witness an active spring night if the weather cooperates. Bring a flashlight.

Frogs and Maybe Woodcocks

Tuesday, May 3, 7:30 - 9:30 pm

Most woodcocks are settled on nests, but we'll listen for the last of the sky-dancers and the late spring frog species. Bring a flashlight.

Spring Flowers

Wednesday, May 25, 4:00 - 5:30 pm

Led by Danielle Bell. The symphony of spring flowers is on full display at the Cedarburg Bog. Danielle

will take us on a hike to explore the forest floor of the delicate spring blooms. Meet at the North End Public Access parking off Hwy 33.

Birding in the Bog

Friday, May 27, 6:30 - 8:30 am

Led by John O'Donnell. Spring migration of warblers and vireos should still be in progress, and nesting birds will be advertising territories. Join John as he searches for the regulars and for uncommon birds of the Bog. Bring your binoculars!

A Morning Stroll in the Bog

Wednesday, June 8, 8:30 - 10:30 am

Led by Liz Herzmann, DNR Wildlife Conservation Educator. Come explore the late season migrants and resident nesting birds of the Cedarburg Bog. Listen for the drumming of the Pileated Woodpecker, tea kettle call of the Song Sparrow and watch the aerial displays of Tree Swallows. All birding levels are welcome as we traverse different habitats and learn about the birds that call the bog home. Bring a pair of binoculars if you have them and join us for a hike that is for the birds!



2022 Winter Hike, 75 attendees - photo by Pam Uihlein

Plants from an Evolutionary Perspective

Saturday, June 11, 9:00 am - 12:00 pm

Led by Paul Engevoold. Please consider joining Paul on a "bog walk" not only to botanize but also to explore the fascinating evolutionary relationships in the plant world. A short presentation will be followed by a walking tour of the bog to hunt for specimens representing the major plant groups.

Butterflies & Dragonflies

Sunday, June 26, 10:00 - 11:30 am

Dragonflies and butterflies thrill us with their beauty and their aerial acrobatics. Join naturalist Kate Redmond to find out about their life styles and how to identify them. Bring binoculars. We'll meet at the north end of the Bog in the Hwy 33 parking lot. (No restrooms)

Ozaukee- Washington Birding Coalition

The newly formed **Ozaukee-Washington Birding Coalition (OWBC)** has scheduled events coming up. The coalition consists of the Friends of the Cedarburg Bog, the Lac Lawrann Conservancy, Mequon Nature Preserve, and Riveredge Nature Center. Each organization will offer events and handle registration for the event.

Birding by Canoe

Sunday, May 29 2022, 6:30 - 8:30 am

Event Capacity: 12

Led by John O'Donnell. The Cedarburg Bog is one of the top ten birding areas in Ozaukee County with Mud Lake being the largest and least visited lake. During this outing, we will be in search of late migrants and avian residents uncommon to rare in southeastern Wisconsin, e.g., two bittern species, Veery, multiple warbler possibilities, and Alder, Willow, and Yellow-bellied Flycatchers. Raptors, rails,

and waterfowl of all ilk abide here. We will do some trail walks and about 1.5 miles of paddling. Canoes are provided. A \$10 donation is requested. A limited number of personal kayaks are also allowed, but only by advance request.

Registration is required for attendance. Go to the Friends of the Cedarburg Bog website: Bogfriends.org and click on the events button to attend.

Ways to Stay Connected with FOCB

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

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

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

Additional OWBC Events

Woodcock Wanders

Tuesday, April 19, 6:30 PM

Email ngall@mequonnaturepreserve.org to register

Hummingbird Banding Demo

Saturday, May 14, 8:00 - 9:30 am

Email info@riveredge.us to register