

The BogHunter

the newsletter of the Friends of the Cedarburg Bog

Volume 13, Number 3 SUMMER 2018

MUDBUGS

More than 300 species of crayfish (crawfish, crawdads, mudbugs) inhabit North America, and a Wisconsin DNR publication from 2012 listed eight species of these “mini-lobsters” in the state at that time. Crayfish are classified in the Phylum Arthropoda (“jointed legs”) and in the Order Decapoda (“ten legs”).

A carapace covers the cephalothorax (fused head and thorax), and a snout (rostrum) protrudes from the front of the carapace. Antennae and stalked eyes are found on the cephalothorax, and there are five pairs of walking legs on its underside. The front pair has been modified into impressive claws that are used to crush or rip their food.



The abdomen consists of six, jointed segments that end in a flipper-like tail (“telson”). Below the first five segments are pairs of small appendages called swimmerets. Crayfish go forward by creeping and go backward by tucking/folding their abdomen under them several times, and they can walk sideways. If a limb is lost, a crayfish can regrow it.

They inhabit shallow waters and damp-lands away from standing water, and some settle at the base of a hillside where run-off from above provides their moisture. Species that live in drier conditions or whose aquatic

homes disappear seasonally have a unique method for achieving “climate control.” In search of water to keep their gills wet, they excavate vertical tunnels, constructing at the mouth of the tunnel a cylindrical pile of mud pellets called a chimney.



Chimneys mark the location of crayfish burrows

Crayfish species are grouped behaviorally into primary, secondary, and tertiary burrowers, plus some non-burrowers. The burrowing habit is stronger in species whose habitat dries up in the summer. Primary burrowers may live far from water. They make branched tunnels that reach down into the ground water, and they spend lots of time in them, leaving at night to look for food.

Secondary burrowers dig simpler tunnels that are associated with adjacent bodies of water, and they divide their time between the burrow and the open water. Tertiary burrowers live in lakes, ponds, and streams and use simple burrows briefly, only if conditions get dry. Crayfish may breed in their burrows.

Crayfish are omnivores and often scavengers, feeding on dead plants, live plants, snails (mainly those species with thinner shells), aquatic insects, small fish and carrion. They are eaten by screech owls, raccoons, otters, lots of fish, and by humans, who should cook them well in order to avoid a lung fluke that some cray-

fish are intermediate hosts of in the eastern part of their range.

Two of Wisconsin’s species, the Rusty crayfish (*Orconectes rusticus*) and the Red swamp crayfish (*Procambarus clarkii*), both native to the southeastern part of the US, are alien and invasive. Both are adaptable, aggressive to native species and to potential predators, and hard on their underwater environment.

Crayfish are tied to the only Federally Endangered dragonfly, the Hine’s Emerald, a Bog specialty. The immature stages of the Hine’s Emerald are aquatic, and it may spend two to four years underwater as a “naiad” before emerging as an adult. Naiads live and often overwinter in crayfish burrows (although their hosts do prey on them – only 1% to 5% of Hine’s Emerald eggs survive to maturity). They are associated with the prairie crayfish, a primary burrower, in the Bog, and the devil crayfish in Illinois. The water that the crayfish finds benefits the dragonfly.



An invasive rusty crayfish

Friends of the Cedarburg Bog:

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

OSPREYS IN THE BOG

During the winter of 2008, the Friends worked with the American Transmission Company to site five Osprey platforms around the periphery of the Bog. Osprey are one of the birds of prey that had almost disappeared from our landscape by the 1970's because of widespread use of DDT, which entered the food chain and "dosed" the birds with every fish they ate. Although it was suspected that they might be nesting in Ozaukee County, no Osprey breeding had been documented here for a century. Today, there are more than 550 active nests in the state. Osprey platforms give the birds an alternative to nesting on transmission towers.



The Cedar Sauk nest platform goes up

Within six weeks, one of the platforms was occupied! Two young were fledged that first year, and the nest has been productive most years since then, but no activity had been seen at any of the other platforms until early May, when Friends Board member John O'Donnell photographed nest-building activity at a second platform.

With their bright white and glossy brown colors and a wingspread of more than five feet, Ospreys are striking birds. Also called Fish Hawks, they feed almost exclusively on 8" to 12" long fish (when food is scarce they may take birds, reptiles, frogs, or small mammals), and they're very good at what they do.



Coming to the nest Photo by John O'Donnell

They catch their prey with dramatic, feet-first plunges into the water. Their nares - nostrils - close when they go underwater, and so does their third eyelid, producing a "goggle effect." They have the option of orienting their toes so that two point to the front and two to the rear (most raptors have three toes pointing forward and one toe in back), and the bottoms of their feet are raspy, all of which helps them grip their prey. They can shake off excess water while in flight. See an Osprey in action at birdnote.org/video/2012/04/osprey-hunts.

They make large stick nests and add to them each year – the first of our occupied nests has grown so deep that an incubating adult can scarcely be seen. The female lays two to four eggs, one each day or so, and starts to incubate immediately, which means that the young hatch sequentially, too. When food is plentiful, most of the brood survives, but if food is scarce, older mouths are bigger mouths, and the smaller chicks may starve. The young leave the nest at about two months of age.

Ospreys are migratory, some traveling south as far as 2,000 miles when northern lakes start to freeze over and returning as the ice melts. While a pair of Osprey don't winter together, individuals may return to the same nest and pair up for several years.

Will both platforms produce young this year? Stay tuned!

The Cedarburg Bog:
Designated an Important Bird Area and a Wetland Gem

LEAVES OF NINE, LET IT BE....

OK – it doesn't quite rhyme, and it may have 7 to 13 leaflets, but the principle is the same.

Poison sumac is an attractive shrub that grows on damp hummocks throughout the Bog. It has shiny compound leaves with red leaf stems, and its sprays of small cream-colored flowers produce greenish berries. The leaflets turn spectacular shades of red and orange in fall. Look, but don't touch.

Poison sumac (*Toxicodendron vernix*), a.k.a. poison dogwood and poison elder, is found in the eastern half of the country, growing in wet soils that its upland relatives, smooth and staghorn sumac, can't tolerate. Like them, it has sparse branching and an antler-like shape and can grow 25 or 30 feet tall. Its compound leaflets are arranged alternately, but it's often mistaken for a young ash tree, whose leaflets are opposite.



Poison sumac in spring

It shares with the related (and much-more-frequently-encountered) poison ivy the long-lasting, active ingredient *urushiol*, which is present on plant surfaces and in the sap. If you are sensitive to poison ivy, (and about 80% of the population is), you will be sensitive to poison sumac.

The chemical causes a delayed reaction in most people, with the itching and oozing usually starting a day or so after exposure (the affliction is *not* spread by touching the serum from the blisters). Direct contact isn't the only way to get in trouble – the heavy oil, carried in the smoke of burning plants (which is said to smell terrible), can cause serious respiratory

complications. It's also said that the oil is present in water around the base of the shrubs. The early settlers believed that the poisonous properties hung in the hot, damp, night air of mid-summer, the miasma making it dangerous to approach wetlands.

Poison sumac and poison ivy are members of the cashew family, and so are mangos, and commonly, people with a severe allergy to one will react to other family members.

As a State Natural Area, the Bog has a recreation plan; the Bog's plan includes hiking and hunting, but the wet and hummocky terrain punctuated by poison sumac – sometimes called "Guardian of the Swamp" – keeps most people from venturing very far from dry land.



Poison sumac's fall colors

Despite its toxicity, poison sumac has historically found a variety of uses. Its sap produces a black dye, an indelible ink, and a varnish ingredient. It was used medicinally (carefully) on ringworm, and it was applied to the limbs of paralyzed people in Victorian times as a way to stimulate their nerves.

BOARDWALK VANDALISM

Volunteers built a boardwalk at the south end of the Bog in the fall of 2016, fulfilling a long-standing goal of the Friends. The rustic boardwalk allows access to Mud Lake for hikers, and canoes and kayaks can be launched from it.



Volunteers muscle the floating, end section along the boardwalk.

In July of 2017, someone removed the pins that attached the final, floating section of the dock and shoved it out into the lake.



There was vandalism in 2017

At the end of May of 2018, an accelerant was poured onto the same section of the boardwalk and it was ignited, destroying it and burning several surrounding acres of marshland habitat, coincidentally incinerating active bird nests, too.



And again in 2018

The Friends organization is offering a \$1,000 reward for information leading to the arrest and conviction of those responsible.

WISCONSIN'S WILDFLOWER LAW

In 1923, the legislature of Wisconsin passed a law which gave protection to the American Lotus (*Nelumbo lutea*). In 1929, this law was revised to protect all of our native orchids, all of the trilliums, and Trailing Arbutus (*Epigaea repens*).

The old wildflower law stood for almost half a century until it was revised to mesh with the Federal Endangered Species Act. Today, except for wild ginseng, wild rice and endangered or threatened species, all other plants are unprotected on private lands and, with the exception of noxious and nuisance weeds, may be taken, transported, or sold.

On state property – state parks, forests, trails, recreational and wildlife areas, and State Natural Areas like the Bog – you cannot pick, cut, or remove any plants or plant parts (including dried plants for flower arrangements) except for edible fruits, edible nuts, wild mushrooms, wild asparagus, and watercress. These may be removed by hand without a permit for the purpose of personal consumption by the collector.

See the full version of the law and endangered species list at: dnr.wi.gov/topic/endangeredresources/laws.

Annual Fall Potluck (and Annual Meeting)

October 7

Starting at 1 PM, hike, hayride, music, and reptile and amphibian display.

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.

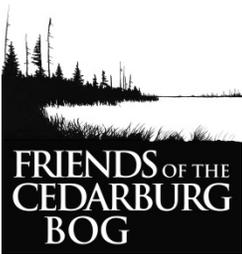
Please RSVP at bogfriends.org (Click on Events)

Questions?

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

More than 300:
Number of acres of buckthorn cleared in the Bog in the past 3 years

More than 700:
Number of people who attended programs sponsored by the Friends of the Cedarburg Bog in 2017



UWM Field Station
3095 Blue Goose Road
Saukville, WI 53080

ADDRESS SERVICE REQUESTED

Volume 13, Number 3

Summer 2018

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 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.

Summer in the Bog

July 1, 9 AM to noon

Find out what's cooking in the Bog as summer heats up.

Invasive Plant Species and Bog Guardian Program

July 21

With Bog Guardians coordinator Tyler Betry. Time and details will be posted on bogfriends.org.

International Bog Day Bog Walk

July 29, 9 AM to noon

Celebrate the day with a walk in the Bog and learn a little about how this amazing wetland works.

Wisconsin Reptiles and Amphibians

August 5, 1 to 2:30 PM

Fine out about Wisconsin "herps" from Randy Hetzel and his traveling menagerie.

Butterflies and Dragonflies for Beginners

August 12, 10 AM to noon

We'll search for these charismatic and colorful members of the insect world. At the north end of the Bog, Hwy 33 parking lot. No bathroom facilities.

Introduction to Ferns

September 9, 10 AM to 12:30 PM

Ferns and horsetails, have been around for a long time. Join us to see the Bog species. At the north end of the Bog, Hwy 33 parking lot. No bathroom facilities.

Out of the Ice: Gifts from the Glacier

September 22, 9 AM to noon

Explore the glacial land forms that contain and surround the Bog.

Invasive Plant Management Techniques

September 29, 9 AM to 5 PM

Ensure that you can identify invasive plants and that you're using the most appropriate, efficient, up-to-date, and environmentally sensitive methods to control them. This is a hands-on class. Workshop fee: \$60 (discounted to \$45 for SEWISC members). For information or to register, visit uwm.edu/field-station/workshops or call 262-675-6844.

Stargazing at the Bog

October 5, 7:30 PM (Rain/overcast date: October 12, 7:30 PM)

Join us for an evening of stargazing with the Northern Cross Science Foundation. We hope to see planets and other celestial sights. Bring your binoculars!

Cedarburg Bog Fall Potluck

October 7, 1 to 7 PM

See information on page 3 of this newsletter.



EVENTS ELSEWHERE

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

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

MNP – Mequon Nature Preserve 8200 W County Line Rd, Mequon mequonnaturepreserve.org (262) 242-8055

Noel J. Cutright Bird Club

First Tuesday of the month

6 PM bird walk; 7 PM meeting at RNC
Free and open to the public

Science for Everyone

An Evening with Jens Jensen

July 19, 7 to 8:30 PM at RNC

Monologist Roger Kuhns delves into the words and experiences of Jens Jensen, father of landscape architecture and visionary for the Chicago Parks and Forest Preserve system. Check the RNC website for other topics and driving directions.

Free – a \$5 donation is appreciated.

Discovering (and Counting) Dragonflies

July 21, 10:00 AM to 3 PM at RNC

Learn how to identify and document the dragonflies of Riveredge. Come for all or part of the day; wear comfy walking shoes, bring water and a lunch. Contact Mary Holleback for more information at 262-375-2715.

Cost: Free – a \$5 donation supports citizen science efforts at Riveredge.



Bat Monitoring

July 25, 7 PM at MNP

See bats up close & personal as we study the Preserve's population using echolocation technology. Learn why these fascinating creatures are our valued allies.

Meet/park at the Donges Bay Road parking lot.

After the Emerald Ash Borer

August 2, 9 AM to 3:30 PM at RNC

The Emerald ash borer has left lasting effects on our landscape and economy. **Join us for a tour of ash ecosystems and to discuss recovery solutions** for residential, rural, or Managed Forest properties.

Check RNC website for information and fees.

Southern Wisconsin Restoration Field Day

August 22, 8 AM to 4 PM at RNC

Explore a variety of land management tools, techniques, and services through presentations by experts in restoration ecology. Learn about planting native species, using dogs as an invasive species management tool, foliar herbicide applications, rare species preservation, and more! Space is limited and preregistration is required. Check the RNC website for information and fees.

Monarch Tagging

September 8, 1 to 3 PM at MNP

Help us tag Monarchs so we can learn more about these captivating butterflies. Nets and tags provided. To attend, contact Jason Nickels at jnickels@mequonnaturepreserve.org

Sturgeon Fest

September 29, 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.

