

THE BOG HAUNTER

the newsletter of the Friends of the Cedarburg Bog

Volume 2, Number 3

Summer, 2007

Cattails

Wanted: Colonists to settle in wide open spaces. Must be adaptable, able to put down roots in submerged or soggy soil, and stand firm in the face of wind and waves, rodents and carp. Temporary accommodations only.

Within the Cedarburg Bog wetland are a number of cattail expanses, and cattails, it turns out, are ideal candidates for this not-so-attractive job description. Their tall, strap-like leaves and conspicuous "wiener-on-a-stick" flower and seed stalks emerge from standing water and from damp pond and stream edges. The leaves' slender shape is typical of "sun-catchers" in open spaces. They are designed to bend without breaking via a series of internal veins or "struts" that divide a leaf's interior into flexible cells.

But the infrastructure of a cattail marsh is as impressive as what appears above the waterline. That mass of leaves is anchored by a dense, interlocking mat of rhizomes.

Each fruiting plant may produce as many as 200,000 "nutlets", and this windborne fruit launches colonies. Though a new plant doesn't flower until its second summer, it develops, during its first year of life, a rhizome system that may span 10 feet in diameter and produce 100 shoots. This botanical exuberance allows colonies to advance as much as 15 feet annually.

Once a colony gets started, it spreads primarily by vegetative means – through the growth of rhizomes. Plants that sprout from the same rhizome are called clones; a dense cattail stand is an impossibly intricate interweaving of rhizomes from many clones, so crowded that there is no opportunity for its seed to germinate.

Unless openings occur between the closely-packed cattails, there are few other large plants in sight. But, what a cattail marsh may lack in plant diversity, it more than makes up for in animals.

Cattails attract a variety of aphids, caterpillars and painted turtles that feed on its rhizomes, leaves, sap, stem, and flower/seed spike. Their predators are attracted as well.

The female sac spider bends a leaf around herself to form a pyramid-shaped box. Inside, she lays eggs and dies; her carcass provides her young with their first meal.

Oxygen is added to the water during photosynthesis, and the forest of submerged stems is habitat for myriad aquatic critters. Carp (not present in the Bog) root at the rhizomes, breaking them up and aiding vegetative spread. Other fish, including sunfish, spawn and shelter there.



Muskrat lifestyles are bound to cattails; shoots and rhizomes are eaten, and the leaves and stalks are made into lodges. These lodges, in turn, provide nest platforms for ducks and geese, and, through their cattail harvests, muskrats create open water for waterfowl.

Many marshland birds find nesting material and cover in the cattail thickets. Large flocks of blackbirds roost there and enrich the community with their droppings.

In winter, cigar-like seed heads host the pupating caterpillars (birds pecking at seed heads are looking for this protein); the stalk is home to a variety of beetles, and the rhizomes conceal the larvae of cattail mosquitoes.

Two species of cattail grow in the Bog. Common or Broad-leaved (*Typha latifolia*) grows on damp soil and shallow standing water and is an aggressive colonizer. It is less tolerant of pollution but is found in a wider range of soil acidity. Its base is fan-shaped, and the male and female flowers touch.

Narrow-leaved cattail (*T. angustifolia*) can grow in deeper, more polluted water, prefers more alkaline locations and does not colonize as aggressively. Its base is cylindrical, its leaves narrower, and there is bare stem between the male and female flowers. The two species hybridize.

If cattails are community builders, cattail marshes are communities in transition. They generally grow with land on one side and open water on the other. Their decomposing vegetation makes soil, readying the marsh for eventual colonization by plants with dryer preferences. As the land encroaches, cattails move farther out into the wetland.

Wetlands are among the most productive ecosystems in the world, rivaling tropical rainforests in their production of biomass (the measurement of the weight or volume of biological material produced in an area).

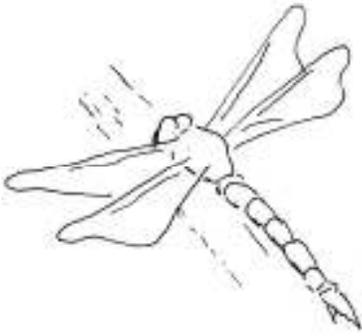
For more information about wetland issues, visit the website of the Wisconsin Wetlands Association at www.wisconsinwetlands.org or write them at 222 S. Hamilton, Suite 1, Madison, WI 53703.

Bog Hunter?

What, exactly, is a *Bog Hunter*? The spirit of an early settler who got lost picking cranberries and now appears in the moonlight? Someone who spends the day hummock-hopping, swatting mosquitoes and itching their poison sumac? Well... maybe. But our newsletter is actually named after a dragonfly.

There are two species of boghaunter dragonflies in Wisconsin, the Ebony Boghaunter (*Williamsonia fletcheri*) and the Ringed Boghaunter (*W. lintneri*). Both are rare. They are smallish (about 2"), dark dragonflies that typically perch on the ground. Their flight period occurs in late spring.

Boghaunters' preferred habitats are sphagnum pools in bogs and fens formed in glacial wetlands. Neither species has been recorded here, but the Field Station dragonfly list is incomplete. Maybe, some day, a Boghaunter will be discovered, as the Hines Emerald was found in 1999.



In the meantime, its name evokes the mists and music and mystery of this amazing wetland.

Tasty Invasive?

While many of our alien plant species landed here accidentally in bags of agricultural seeds or in the root balls of trees, Wild Parsnip's introduction was intentional. The second year root is tough and possibly poisonous, but the edible first year root is described as "containing a *mucilaginous* (not a word employed by today's food critics) sap of starch and sugar."

Wild parsnip (*Pastinaca sativa*) arrived in Virginia in 1609 and in Massachusetts by 1629. It was quickly adopted by Native Americans, who stored the roots for winter use. It is a tall plant, growing five or

more feet high. Its yellow flowers are arranged in umbels, like those of Queen Anne's Lace, which is in the same plant family. After they bloom, the declining plants have a scraggly appearance.

In the manner of many invasive plants, the sun-loving Parsnip can produce dense stands, pre-empting native species. And Wild Parsnip wields a secret weapon. Its sap contains the caustic chemical *xanthotoxin*. When *xanthotoxin* lands on wet or sweaty skin, especially in the presence of sunlight, it can cause a chemical burn that scars the susceptible. People who venture out to cut Wild Parsnip should wear gloves, long pants and long sleeves.

Great Blue Heron

One of the most ungainly-looking birds of the Bog – and one that turns many people on to birding because of its sheer impossibility – is the Great Blue Heron.

Of the six species of herons, egrets and bitterns listed for the Bog, the Great Blue (*Ardea herodias*) is the largest, standing close to four feet tall with a six foot wingspread. Its long legs and neck superbly adapt it for stalking the shallow wetlands. Its long toes help it stay upright on muddy substrates, and it stabs or grabs its quarry with a spear-like beak. Nonetheless, Great Blue Herons can land in and take off from deep water, and they have been observed feeding there.

Hérons find their food by stalking or by standing still, dining on tadpoles, frogs, salamanders, grasshoppers, mice and even ground squirrels. Though they eat a variety of fish, they prey mainly on non-game species. They can swallow fish up to about 12 inches long (their eyes are bigger than their gullets, and they may try larger fish, sometimes with regrettable results). Herons occasionally discover and become pests at fish hatcheries.

Great Blues fly with their long legs trailing behind them and, *usually*, with their necks bent so that their heads are near their shoulders.

They stroke through the air with deep and steady wing beats. Also

called "Blue Cranes", they are not related to the true Cranes. Cranes fly with neck and legs extended and with stiff, shallow wing beats. When startled, Great Blues leap into the air with a hoarse "Grawk" and, often, a trail of whitewash.



Though a few will brave Wisconsin winters if they can find open water, most Great Blue Herons are migrants. They return early (mid-March) and are communal nesters, establishing rookeries in isolated woods and wooded swamps and on islands. They build stick nests, which they "improve" annually, in tree tops, shrubs, and even on the ground. Both parents incubate and feed the young, which are typically flying by July.

A large rookery may contain over 500 nests. Consequences for the trees – both from the heavy nests and the accumulating guano – are predictable, though sometimes herons desert a rookery before the vegetation falters.

A small rookery on an island at the south end of the Bog was visible from the University's trail, but the herons moved on. A new rookery, consisting of about a dozen nests, is active on private property on the west edge of the wetland.

There is something reptilian about Great Blues – whether they are wading along a shoreline, standing motionless in a pond, or heaving themselves improbably into the air. It becomes easier to visualize dinosaurs on our landscape.

Snapshot of a Wetland

Bob Dylan said it all when he penned: "The times they are a changin'." And so it is with the natural world around us, including the Cedarburg Bog.

To get a handle on just how much change has been going on in the 2,500-acre wetland, UW-Milwaukee scientists are in the midst of updating their comprehensive 1991 vegetation survey so they can study changes in the composition of trees, saplings, shrubs and herbaceous species.

Leading the new research is James A. Reinartz, director of the UWM Field Station at the bog, who also led the 1991 survey as the field station's manager and resident biologist. The major field work for the survey was done last summer, 15 years after the first complete botanical survey was done to establish benchmarks for just such followup research.

Reinartz said the initial challenge was to relocate the 10 east-west transects established across the bog at quarter-mile intervals from north to south. The northernmost was just south of Highway 33, the southernmost a quarter mile north of Cedar Sauk Road. Some 170 sample points were spaced at 100 meter intervals along those lines.

Using a compass and fine cotton string to measure the intervals, Reinartz's team was able to relocate most of the wire metal marker flags with a metal detector. "This time we used a borrowed GPS with accuracy within a foot and marked them with PVC pipe and wire flags," Reinartz said.

In 1991, both early (May-June) and late season (August-September) samplings were done. Last year, researchers concentrated on the late season. "The early season doesn't add all that much to the data," Reinartz said.

With the cooperation of neighboring landowners, the survey covered the entire wetland -- not just DNR and field station land.

Much of the area is most accessible in the winter, but that won't work

for a vegetation survey. "This work isn't for everyone," Reinartz said. "You just wear leather boots and get wet," he added, describing how he "wore to tatters three pairs of bib overalls crashing through the swamp."

"The worst shrub is winterberry because all the stems grow crooked," Reinartz said, and then there is the poison sumac that dominates some areas.

The big surprise in the 1991 survey was discovering a real bog. "I've always said the Cedarburg Bog was not a bog," Reinartz said. "It's not acidic; it has no typical open bog assemblage of leatherleaf and sphagnum hummocks, no black spruce. This really is the Saukville Swamp." But his team found just that sort of bog on private land in the southeast corner of the survey area.

And what were the surprises of 2006? No horror stories have emerged yet, although "there is a lot more buckthorn, and native giant reed grass has spread and increased in abundance," Reinartz said. Also showing up in the species tally was the big tamarack die-off caused by root freeze in the winter of 2003-'04 when a dry fall led to low water levels, followed by no snow and extreme cold.

Other changes are more subtle -- "nothing just jumps out," Reinartz says -- and will take time to tease out from the data.

The survey results in "just a huge data set," Reinartz notes, and that's the part of the work he loves, since it is in understanding the interplay between the land and water and the flowering plants, ferns, horsetails, shrubs and trees that you can understand the bog and its nine different plant communities.

Collaborating with Reinartz are Gretchen Meyer, the field station's current manager and staff biologist; Erica Young, assistant professor at UWM; and Jason Mills, a postdoctoral researcher at UWM whose specialty is data analysis. Initial results of the resurvey were presented May 3 at the 2007 UWM Biological Sciences Research

Symposium. The team summarized their goals: "By exploring changes in the sensitive vegetation of Cedarburg Bog, we hope to better understand the effects of climate and land use changes on regionally rare communities that include species at the outer limits of their ranges."

Stay tuned for the unfolding details.

By Carl Schwartz

Gold Wagon

Around the turn of the last century, two men were returning home with a horse-drawn wagon full of rocks that, they hoped, contained "unrefined gold." Gold is not common in these parts, but in the 1890's, a Town of Saukville farmer found a 17 pound piece of metal that contained 7 pounds of gold, and he sold it for \$1,700.

They approached the west side of the Bog on a track about as wide as a cow path. At the edge of the Bog, one "prospector" pointed out that if they went straight ahead, they'd connect with Cold Springs Road on the east side. They tried the shortcut and, not surprisingly, got mired down pretty quickly. The wagon -- and the "gold" -- sank.



Get more information about the Saukville area from John Boatman's *At the Crossroads, the Saukville, Wisconsin Area* (, UW-M Press, 1993.)

Did You Know?

In 1928, three entrepreneurs received a license to breed beaver, muskrats, and raccoons at a fur farm they planned for Mud Lake.

And...Did You Know?

That the area around the Field Station has been rated one of the darkest spots in southeastern Wisconsin? Perfect for scoping the night sky!

DATES TO REMEMBER:

Riveredge Speaks Out
Ecology Program series
Third Tuesday of every month,
7:00 – 8:15 p.m. Admission is free,
a \$4 donation is welcome.
At: Pieper Power Center, Mequon.
Mequon Nature Preserve, 820
County Line Road, Mequon.

Friends of the Cedarburg Bog
Quarterly Board Meeting
July 11, 7-9:00 p.m.
At: UW-M Field Station
Members welcome

Poke Around the Prairie - Family
Event July 15; 1:00 – 4:00 p.m.
At: Riveredge Nature Center
Call 262-675-6888 to register and
for more information

Knee Deep in Prairies -Adult
Program Keynote speaker Nancy
Aten
July 18; 8:30 a.m. – 3:30 p.m.
At: Riveredge Nature Center
Call 262-675-6888 to register and
for more information

*Ozaukee Washington Land Trust Fish
& Steak Broil & Silent Auction*
August 26, 4 – 8:00 p.m.
Entertainment by Sawdust
Symphony.
At: Riveredge Nature Center
For information/reservations contact
Sally: 262-338-1794 or
spunzel@owlt.org.

This Old Barn: Bluegrass and Brats
September 14, Food 6 – 7:00 p.m.
(brats, beverages, homemade
desserts, prices vary)
Big Cedar Bluegrass Band concert
7:30 pm (ticket \$10)
At: Lac Lawrann Conservancy, West
Bend. For information: 262-335-
5085 or kpwbprf@ci.west-bend.wi.us

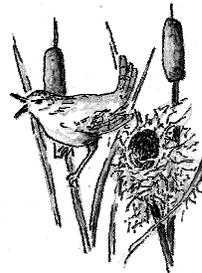
Friends of the Cedarburg Bog
Annual Meeting

September 15
3:00 Hike
5:30-7:00 dinner

We'll supply brats, buns and beverages;
you bring a dish to share:
Dessert (last names A to M), or
Side dish (last names N to Z).
UW-M Field Station

Please contact the Field Station at 262-
675-6844 or fieldstn@uwm.edu if you
plan to attend.

*Come one,
Come all!*



PUBLIC EVENTS

at the UW-M Field Station
Sponsored by the Friends

- *Historic Uses of Plants*
● July 22, 9:00 a.m. – noon.
- Got a headache? Find out what
● would have been in your medicine
● cabinet 300 years ago.
- *Seeing Stars*
● August 4, 9:00 p.m.
- Join the Northern Cross Science
● Foundation for a look at the night
● sky from the Field Station parking
● lot. Search for Jupiter and for the
● Swan, Dumbbell and Ring Nebulas.
- *Mud Lake Canoe Float*
● August 25, 7:30 – 11:00 a.m.
- Experience the serenity of Mud
● Lake and meet some of its
● denizens. (Rain date Aug 26)
- *Bird Banding*
● Sept 8---7:30 – 10:30 a.m.
- Join master bander Al Sherkow as
● he bands fall migrants at the Field
● Station. (Rain date Sept.9)
- *Except for the star-gazing evening,*
● *attendance is limited to 15 to 25*
● *people per event. To get more*
● *details or to Pre-register at 262-*
● *675-6844 or fieldstn@uwm.edu.*



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3095 Blue Goose Road
Saukville, WI 53080
(Phone: 262-675-6844)

Second Saturday Stewards

Like to build things, lop things or spray things? Join the Friends' Stewardship crew on the second Saturday of each month at the UW-M Field Station. The crew starts at 9:00 a.m. and works until 3:00 p.m. (or start at 9:00 and leave early if you need to); bring a lunch.

Leaders and learners welcome . . . we need both

Contact 262-675-6844 or fieldstn@uwm.edu to let us know you're coming or to find out more about this month's project.

The Friends' Board

This fall, the Friends of the Cedarburg Bog will celebrate our second birthday. The organization was born a year and a half before that when about 20 people sat down around a table to discuss ways to protect a piece of land that each of us had deep feelings about. Translated into action, that protection takes many forms, from monitoring Bog populations, controlling invasive species, and raising public awareness, and to trail maintenance, education, and fund raising.

If you're a Friend who would like to take your involvement one step further consider being nominated for our Board.

Board members are elected at the Annual meeting, September 15 this year, and they serve for three years. The Board meets five times a year, and each Board member is expected to serve on at least one of our committees, where the action really is.

If you are interested in Board service, please send your name, contact information and a little about yourself to Board Secretary Kate Redmond at the Field Station mailing address or at fieldstn@uwm.edu.

Questions?

Curiosity may have killed the cat, but *your* questions about the plants, animals or dynamics of the Bog could inspire a newsletter article. Send your questions to Editor Kate Redmond at the Field Station address or at fieldstn@uwm.edu



Wish List

All non-profit organizations have wish lists for both people and equipment that will help with our mission.. Here are our lists:

Volunteers needed:

- Data entry and database manager for our volunteers, membership and mailings.
- Web developer to take our website to the next level
- Trail manager to monitor and maintain the trails at the north entrance on Highway 33.
- Boardwalk builders – crew leaders and novices welcome!

Equipment needed:

- A PC that can run Windows XP or better.
- Barbeque grill.
- Two cordless electric chain saws, extra batteries.

Please contact Attention: Joanne at fieldstn@uwm.edu if you can help. Your material contributions are tax deductible.