

# WISCONSIN NATURAL RESOURCES

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## Sharing some **WALLEYE** wisdom

Bird Cities concept takes flight

Duck banding is a blast

A love affair with oaks

# Tiny menace

Wisconsin is considered high risk for Lyme disease almost statewide. Follow some easy steps to keep your family safe this summer season.

Kathryn A. Kahler

Tami Ryan, DNR's wildlife health section chief, remembers that when she was hired in the early 90s, if someone from southeast Wisconsin was diagnosed with Lyme disease, it was likely they contracted it while traveling. At that time deer ticks — which carry the bacteria that cause the disease — were only found in areas along the Mississippi River in the northwest corner of the state.

"Now they are statewide," Ryan reports. "Wisconsin is now one of the highest risk areas in the country and the common conclusion that 'you got Lyme disease while vacationing' is no longer being made."

A recent study and map puts Wisconsin, parts of eastern Minnesota and northern Illinois in the same high-risk category as eastern states like New Hampshire, Massachusetts and Connecticut, where the disease was first recognized in 1975. Reported cases of Lyme disease in Wisconsin have increased more than tenfold, from 329 in 1990 to 3,498 in 2010. Because the disease is underreported, these numbers may only represent 10 to 20 percent of actual cases.

## It's all about the tick

Knowing something about the disease and how it spreads can help you take steps to prevent it. The disease is caused by a spiral bacterium, or spirochete, called *Borrelia burgdorferi*, and is transmitted to humans by the bite of an infected deer tick, *Ixodes scapularis*. Deer ticks, also called black-legged ticks, are about half the size of dog ticks. In the four stages of the tick's life cycle, they feed on various blood sources, including mice, birds, deer and humans. Humans are the only ones to contract the disease; wildlife hosts simply provide the blood source and suffer no harm.

In order for the immature nymphs and

adults to get the blood they need, they climb blades of grass or other vegetation and wait for a host to walk by. When one comes near, the ticks can detect odors from the host — like carbon dioxide, ammonia and lactic acid — and assume a "questing position," clinging to the grass with two pairs of legs while holding their front pair outstretched. When the host brushes against the grass, the tick grabs hold and either attaches to the skin or wanders the body in search of a thin-skinned area to attach and feed. That's when the bacteria in their stomachs can be transmitted to a human host.

The tick needs to be attached for 24 to 48 hours before the bacteria are actually transmitted. It is key to remove the tick within the first 24 hours to prevent infection.

Once infected, a person can have a range of symptoms, and if untreated can experience late stage problems months or years after the initial onset. Early symptoms include a skin rash — sometimes in the distinctive bull's-eye shape known for the disease — and flu-like symptoms like headache, fever, chills, fatigue or stiff neck. Later stage symptoms include arthritis, neurologic and cardiac problems.

The disease is highly seasonal, with over 80 percent of Wisconsin cases reported from May through August. That's when most nymphs (which are about the size of a pin-head) are feeding and when most people are enjoying the outdoors.

## Follow these steps to protect you and your family

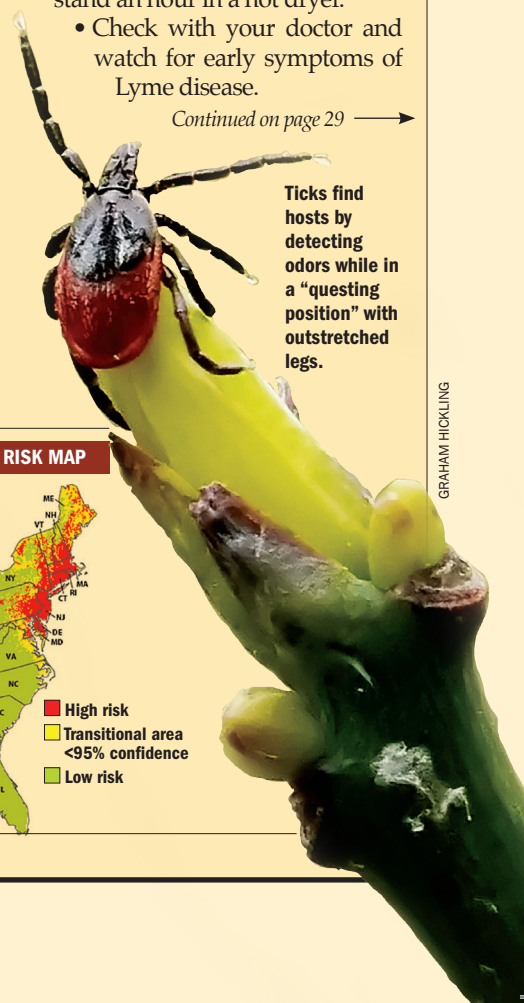
Whenever you plan outdoor activities this summer, these simple steps can help reduce your risk of getting Lyme disease:



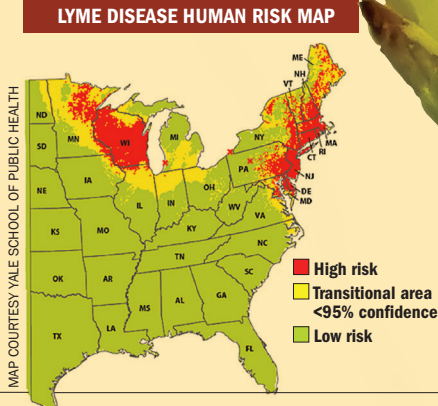
Deer ticks in nymph stage feed in summer and cause most cases of Lyme disease.

- Wear long sleeves and pants and tuck your pants inside your socks. Light-colored clothing will make it easier to spot ticks. Don't wear open-toed shoes and sandals.
- Use insect repellents containing .5 percent permethrin or 20 to 30 percent DEET. Be sure to follow the instructions on the label.
- Walk down the center of mowed trails to avoid brushing against grass and shrubs.
- At the end of each day, carefully inspect yourself, children and pets and remove any attached ticks. Tick bites are painless so you probably won't feel it if you're bitten. Remove attached ticks with thin-tipped tweezers by grasping them as close to the skin as possible and pulling straight up. Be careful not to squeeze the tick. It may contain infectious fluids. Clean the site with rubbing alcohol or skin disinfectant.
- Wash and dry all clothing. Ticks can survive a wash cycle but can't withstand an hour in a hot dryer.
- Check with your doctor and watch for early symptoms of Lyme disease.

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Ticks find hosts by detecting odors while in a "questing position" with outstretched legs.



Kathryn A. Kahler is a staff writer for Wisconsin Natural Resources magazine.

# WISCONSIN NATURAL RESOURCES

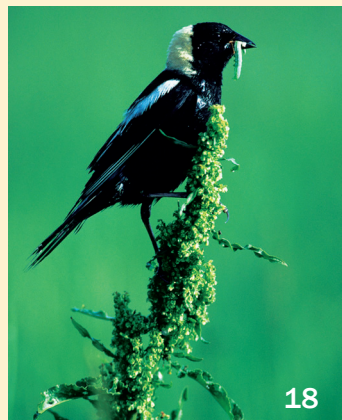
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**FRONT COVER:** The walleye is the largest member of the perch family and is one of the most highly prized game fish in Wisconsin.

© Doug Stamm

**BACK COVER:** Echo Dells at Houghton Falls State Natural Area in Bayfield County. **INSET:** Bunchberry (*Cornus canadensis*), a tiny member of the dogwood family. For more information, or to order a guidebook to State Natural Areas for \$18.00 (postage and tax included), contact the State Natural Areas Program, Bureau of Endangered Resources, DNR, P.O. Box 7921, Madison, WI 53707 or visit [dnr.wi.gov](http://dnr.wi.gov) and search "state natural areas."

Thomas A. Meyer, DNR



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A detailed underwater photograph of a walleye fish. The fish is positioned in the lower-middle section of the frame, facing right. It has a dark, mottled pattern on its body and a prominent, bright blue eye. The surrounding environment is a stream bed with numerous fallen branches and dark, rounded rocks. The water is clear, and the lighting is natural, highlighting the textures of the fish's scales and the debris on the bottom.

Wisconsin represents the heart of the national distribution of walleye; they are found naturally in our larger lakes and rivers. Excellent walleye angling opportunities exist in the Mississippi River and pools; the Wisconsin River and its impoundments; Lake Winnebago; the Wolf and Fox River systems; and larger lakes all over Wisconsin, especially in northern Wisconsin.



# LOVING THE CHASE AND TIPS FOR LANDING BIG FISH.

*Jordan Marsh*

I think humans are just programmed to want the next big thing. We strive to achieve a goal, and once we meet it, we are happy. For awhile, that is. But then we move on, looking for something bigger and better.

I think the same is true for fishing. Many of us start fishing as youngsters. All we want is to catch that first fish. Size doesn't matter. But when that first fish becomes just a memory caught on camera, that desire often changes and we start to yearn for a wall hanger, or something big to brag about above the fireplace.

**I like big fish and I'm a diehard walleye fisherman. I love chasing walleyes starting when the rivers are open and you are able to get a boat in through all the summer months when the weather is nice and the days are extra long.** In fall, my fishing gives way to hunting ducks and geese, but I enjoy every minute I can on the water chasing big walleyes.

Big fish can be found throughout the state. I live on a 200-acre lake and I've released many walleyes in the upper 20-inch range. It's true that there are small gem lakes that hold big fish, and some house them in good numbers. But your best odds for landing a big walleye are going to be on bigger lakes.

Consider the walleye's food source. If you have a lake or river with an abundance of food rich in fats (for walleyes this includes Cisco and shiners), you increase your chances of catching the fish of a lifetime.

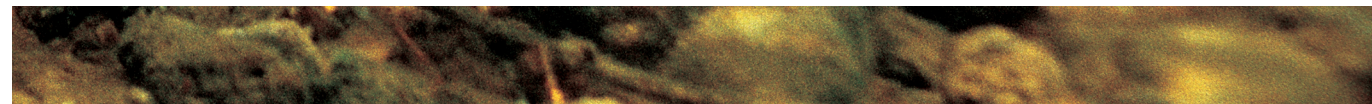
In my opinion, big fish are a different species from your everyday 15-inch walleye. They are bigger, just as a big buck got bigger, for a reason. Big fish are smart, and usually inhabit a different area of the lake than smaller fish. Once you've discovered these areas, the chance of catching big walleyes is tipped in your favor.

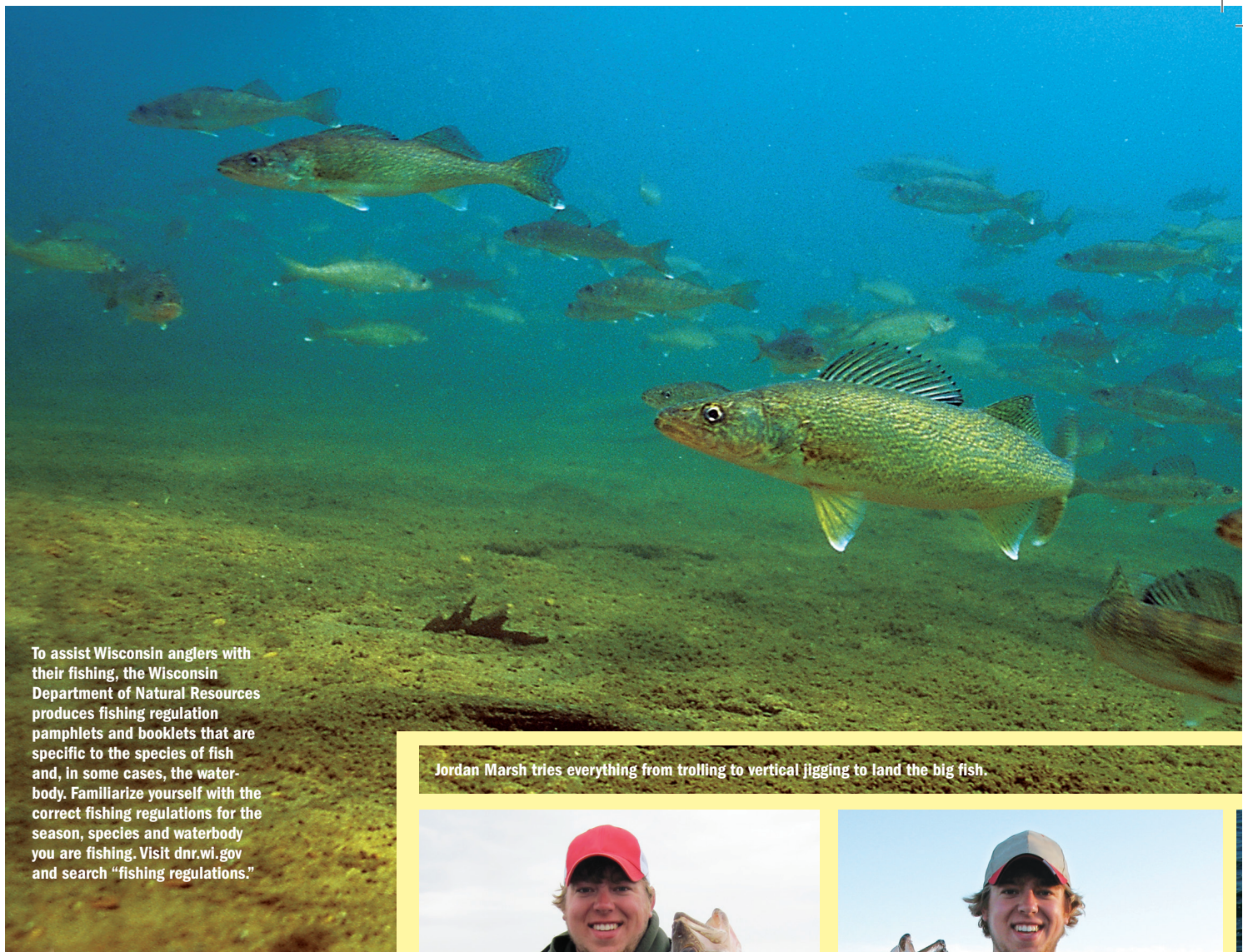


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# A WALLEYE GUY

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To assist Wisconsin anglers with their fishing, the Wisconsin Department of Natural Resources produces fishing regulation pamphlets and booklets that are specific to the species of fish and, in some cases, the waterbody. Familiarize yourself with the correct fishing regulations for the season, species and waterbody you are fishing. Visit [dnr.wi.gov](http://dnr.wi.gov) and search "fishing regulations."

Jordan Marsh tries everything from trolling to vertical jigging to land the big fish.



Some walleyes are structure fish, meaning they are going to hold to a given rock pile, sand flat or sunken tree. These fish don't venture too far off their territory unless they need to hunt for food.

Then there are nomadic walleyes, which are always on the move and often found somewhere in the water column chasing suspended baitfish. When you catch a walleye, one great way to tell if that fish is a territorial fish, or more of a nomadic on-the-move fish, is its color.

Generally, when walleye are darker they are territorial and don't swim and venture out too far. When a walleye is nomadic and moving from spot to spot, they are typically lighter in color. I use color classification day in and day out when I am fishing for fun or in tournaments. I know that if the fish is dark in color, it's usually sticking to that area and I will be able to come back and catch it again later.

A high end fish locator also comes in handy when looking for big walleyes. I chalk up much of my fishing success to electronics that allow me to motor around and find fish.

I think we get too caught up in going to the usual spots that Dad, Grandpa or our

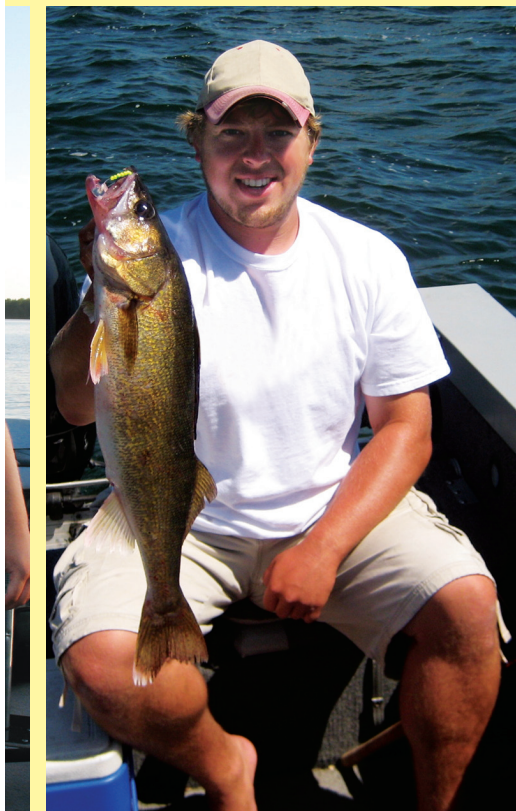
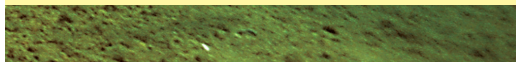
best fishing buddy showed us 10 years ago. Don't get me wrong. Many of those spots work year after year, but if you're looking for something different, and want to catch bigger fish, then you need to get off the beaten path or "community holes,"

as I like to call them.

There are times when I spend hours searching for fish rather than fishing. I remember two days before fishing a local tournament I spent two and a half hours covering the lake just looking for fish.



ERIC ENGBRETSON



PHOTOS SUBMITTED BY JORDAN MARSH

it was not going to move and would hold very close to the soft mucky bottom.

Dad and I returned to that area the day of the event and boated nine walleyes ranging from 18 to 27 inches. This was a small northern Wisconsin lake and those fish were all caught within 30 yards of each other. The spot was on a "transition" area, where the lake bottom goes from a hard bottom at the shoreline out into the lake, and then along the drop-off, and changes to a soft bottom of mud or muck. I know this from watching my electronics and seeing the echo width on the bottom. High end electronics can help identify bottom compositions.

Transition zones are great areas to look for walleyes, and many times, that is where the big female walleyes will sit because they don't need to move much to find their next meal.

By now it's also no secret that trolling helps anglers catch hundreds and thousands of big walleyes each year. I spend days on end trolling for big walleyes because it works. But many people don't want to put the time into learning how to do it, or make the huge investment it takes to buy the necessary equipment to be an effective troller.

And that's okay, too. I have caught many big walleyes with the everyday low-tech walleye tactics that most of us know. In fact, in spring I use jigs or cast crank baits to the shorelines. If targeting bigger fish on the shorelines, then the cranks are the way to go as you will help weed out many of the smaller fish.

If I am going to use a jig to catch the big girls, I will often slide out to a little deeper water and vertical jig on the nearest deep-water flat adjacent to a spawning area. Big fish will congregate in these areas to recuperate from the spawn and they will put the feed bag on. I use bigger jigs with a good size minnow and do a slow and steady vertical presentation.

Once summer rolls around I have a hard time deciding which tactic to use. So, I usually let the fish decide!

I love to run spinner blades, but I also love to use live bait with Lindy® rigs. One tactic that I think is overlooked for big walleyes is a simple slip bobber. Slip bobbers can get into areas that spinners and rigs can't. You can drop bobbers right above trees, in the weeds, along cribs, or simply stay in the strike zone on deep drop-offs.

But spinners and Lindy® rigs help me cover more water. I use spinners to help locate active fish and cover a lot of water

in a short time. I use Lindy® rigs to cover a small area that I know is holding fish. The rigs are very effective when fish are found on certain structures or at specific depths.

Remember, too, big walleyes are found all over the state from your small local lake of only 200 acres to big bodies of water like the Bay of Green Bay, Mississippi River and Lake Winnebago. Move around your favorite lake but also move around the state.

The key is to take time, get out of the box and search for areas that are not pressured all the time. Look for deep underwater structures and bottom transition areas. When you find these spots, make sure you know how to get back to them, as many fish will be there year after year.

I encourage catch and release for fish bigger than 20 inches as these are the spawning fish providing the fish of the future.

Introduce someone new to the outdoors. They will appreciate it for a lifetime. See you on the water!



*Jordan Marsh is a University of Wisconsin–Stevens Point graduate who majored in fisheries and biology. He also produces an outdoor TV show, Marsh Outdoors. Email Marsh at marshoutdoors@gmail.com, visit him online at marshoutdoors.com or tune into his show on the Charter Extra Channel 87 weeknights at 8 p.m. and weekends at 8 a.m.*

## FREE FISHING WEEKEND JUNE 2 AND 3

**Every year, the first consecutive Saturday and Sunday in June are designated as Free Fishing Weekend when you can fish without a license throughout Wisconsin.**

All the waters of the state are open, including state waters of the Great Lakes and rivers bordering Wisconsin.

Residents and nonresidents of all ages can fish without a fishing license (or trout or salmon stamps) over these two days. However, all other fishing regulations (length limits, bag limits, etc.) apply. This year, Free Fishing Weekend is June 2 and 3. Remember, kids 15 and under never need a license.

When I finally found an area with the size of fish I wanted, I dropped a line and sure enough, boated a 22-inch walleye right off the bat. I quickly packed up my gear and left the fish alone. The fish was dark in color and had a brown belly, which told me

# WALLEYE 101

The walleye is the largest member of the perch family and is one of the most highly prized game fish in Wisconsin.

**Common name:**

Walleye

**Scientific name:**

*Sander vitreus* (*Sander* refers to the German common name of the European relative and *vitreus* means “glassy,” referring to the large eyes).

**Distribution:**

It is believed that the walleye was originally confined to the larger lakes and waterways in Wisconsin. The extensive stocking of walleye fry and fingerlings that occurred early in many Wisconsin waters partly obscured the original distribution of the species. Today the walleye is present throughout Wisconsin.

**Spawning:**

The spawning migration of walleye begins soon after the ice goes out, at water temperatures of 38 - 44° F. Spawning in Wisconsin generally occurs between mid-April and early May, although it may extend from the beginning of April to the middle of May. Walleye spawning ordinarily reaches a peak when water temperatures are 42 - 50° F. The walleye is not a territorial fish at spawning time; they usually broadcast their eggs and exercise no parental care.

**Angling:**

Thousands of walleye are caught each year during their spring spawning runs. Walleyes are primarily minnow feeders, but leeches, small bullheads, nightcrawlers and various small plugs are favorite baits. In clear waters, walleyes usually stay in deeper areas during the day, moving into the shallows at night. In more turbid waters, they can be caught throughout the day. The large, unusual eyes of the walleye are designed to help them easily find their prey.

**Size:**

They can grow to lengths over 37 inches and weigh up to 25 pounds. Most catches are 14-17 inches and weigh about 2 pounds. Walleyes are easily distinguished from other fish by their golden color, and by the black triangle of membrane on the back portion of the dorsal fin. The lower half of the tail fin also has a white tip which helps in identification.

**State record catch size:**

18 pounds, High Lake, Vilas County.

Compiled from DNR fisheries factsheets.

## FISHERMEN 50 AND OLDER ARE INVITED TO TAKE ONLINE SURVEY

More male anglers 50 and older are needed for an online survey aimed at helping better understand how best to reach this group with information about fish consumption advice.

Wisconsin research has shown that older men have higher mercury and PCB levels than any other group, a concern because some studies have linked higher mercury levels to heart disease in older men and higher PCB levels are associated with higher risk of cancer and immune system problems.

“We’ve gotten a good response so far to our online survey, but we need more anglers to weigh in,” says Dr. Henry Anderson, the top medical officer for the Wisconsin Department of Health Services (DHS). “We want to know if older anglers are aware of and follow fish consumption recommendations, how they decide where to fish and what fish to eat, and where they get their information about eating fish.”

Such information can help DHS and the Department of Natural Resources advise people on how to enjoy the health benefits of eating their catch while reducing their exposure to environmental contaminants in the fish.

So far, more than 500 anglers have completed the brief survey. The goal is to receive about 5,000 responses. Among the anglers who have already completed the survey, almost all have fished in Wisconsin waters for more than 10 years. The Great Lakes provide fish meals for over half of the respondents and the most commonly consumed sport-caught fish include bluegill and walleye.

Initial responses show that anglers rely on the fishing regulations booklet distributed with fishing licenses for information on fish consumption advice. Television, radio, and newspaper messages play a significant role as well, Anderson says.

However, officials are still researching the best ways to reach and inform older anglers and want to know about all the ways in which fishermen learn about fish consumption advice, Anderson says.

The survey, developed by DHS and funded by the U.S. Environmental Protection Agency, will be available through 2012 and possibly longer. To participate, male anglers age 50 or older who live in Wisconsin all or part of the year are encouraged to visit: [study.uwsc.wisc.edu/anglers](http://study.uwsc.wisc.edu/anglers)

For more information about Wisconsin’s fish consumption advice, go to [dnr.wi.gov](http://dnr.wi.gov) and search “eating your catch.”

By Lisa Gaumnitz, DNR Office of Communications

ERIC ENGBRETSON



*Ed Peters*

# FISHIN' FOR PIKE WITH FRANK AND MIKE

## REMEMBERING DADS AND THEIR FLAIR FOR OUTDOORS ADVICE.

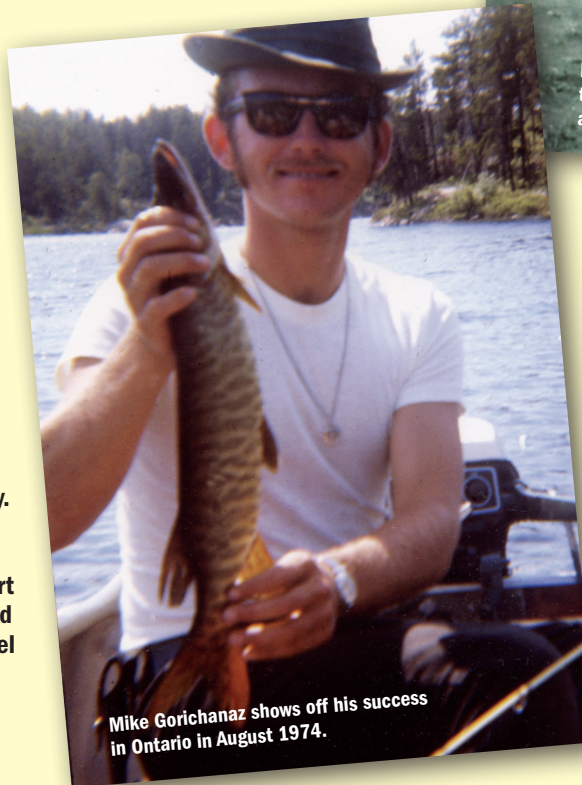
Over the years there is one group of fish that has always been my target, even though I have not always been able to catch them. These objects of my desire are the northern and the musky. Since I grew up in Wisconsin, this obsession with pike was reinforced almost every time I looked on the walls of gas stations and sporting goods stores.

I also remember gawking out the window of our family car as we drove past barns covered with huge gaping northern heads. I began to add jointed pikey-minnows, daredevil spoons and big bucktail spinners to my tackle box whenever I had saved up enough money.

Since our family vacationed in northern Wisconsin, I could hardly wait to get close enough to the water to start casting with my hand-me-down steel rod outfitted with 15-pound test line, a steel leader and my latest lure acquisition. I wanted to catch that big pike. But all I caught were panfish, bass and walleye.

The closest I came to catching a musky happened when I cast from a pier at a cabin my folks had rented for a week in northern Wisconsin. A huge musky (it grows in my mind every time I think about it) followed my bait up to the pier several times before finally tiring of it and slowly waving goodbye to me with its tail.

My dad and I fished together on family vacations, but he didn't seem interested in spending very much time fishing at other times of the year. But one of our neighbors, Frank Gorichanaz, was an avid fisherman and his son, Mike, and I were close friends.



Mike Gorichanaz shows off his success in Ontario in August 1974.

Mike and I used to pour over Frank's old issues of hunting and fishing magazines that he kept in the attic. When Frank finally asked my folks if I could go fishing with him and Mike, I didn't know it at the time, but I really had two dads teaching me what it meant to be a man and a father.

The areas we fished were mainly close to Milwaukee and generally day trips where we caught bullheads, bass and bluegill with equal frequency. But when we went to Horicon Marsh to fish specifically for northern, Frank and Mike



Frank Gorichanaz fishing the High Falls Flowage around 1949.

PHOTO SUBMITTED BY ED PETERS

caught all the fish.

This became a running joke and we tried all sorts of tricks to get me to land a pike. Mike and I both had spinning gear with identical line, rigged with identical spoons and we even went to the extreme of casting to the same area and then counting the cranks of retrieve so that we brought them in simultaneously. The only thing that was different was that Mike was right handed and I'm a lefty. Still, no northern for me, while on several occasions Mike and Frank caught their limits.

Since that time I have broken the dry spell during vacation trips with my family and friends to Canada, Minnesota, Nebraska and northern Wisconsin. Today I live in northwest Wisconsin and have been able to regularly catch northern and musky. I'm still thrilled by the strikes and charging runs of my favorite predators.

It has been many years since Mike and I have fished together and Frank passed away several years ago, but every time I land a pike, I think about the time and energy that Frank invested to teach me about fishing as I struggled to get that first northern to bite.

*Ed Peters writes from Loretta, Wis.*

PHOTO SUBMITTED BY ED PETERS

# Banding at the Grand River Marsh Wildlife Area.

A cannon blast sends a net over hundreds of ducks dining on corn bait. Volunteers and DNR staff have captured and banded ducks at the Grand River Marsh Wildlife Area for more than 50 years.



The waiting.

DNR FILE

*Jim Holzwart*

I'm sitting in a blind surrounded by excited people as daylight seeps into the eastern horizon. We are waiting and watching the marsh come alive. Dark silhouettes seemingly appear out of nowhere.

Suddenly, the silence is interrupted by mallards gabbling and wood ducks whistling. I whisper to the group to watch until the band of yellow near the water's edge disappears. When it does, I reach over and ask the 12-year-old next to me to push the button.

Cannons ignite a thunderous roar and the blind becomes a flurry as wildlife management staff and volunteers rush to secure

# Thirty years and nearly 35,000 ducks later



The capture.



The release.

a net over hundreds of ducks.

The Department of Natural Resources has captured and banded waterfowl at the Grand River Marsh Wildlife Area intermittently since the 1960s and the Berlin wildlife management field staff has been running the show there since 1982.

The Grand River Marsh Wildlife Area, located in Marquette and Green Lake counties in central Wisconsin, officially came to be on February 21, 1958, when the Wisconsin Conservation Commission (forerunner to the Department of Natural Resources) acquired the property. Local sports clubs that supported converting the area into a wildlife refuge conceived

of the project decades earlier.

Much has changed at the wildlife area since its founding, including a boundary expansion in the late 1990s to include more wetland habitat to the west.

What hasn't changed, though, is the importance of waterfowl banding at the marsh. The department gathered a lot of data over a four-year research project (1977-81), outlined in an excellent technical bulletin, *Duck Breeding Ecology and Harvest Characteristics on Grand River Marsh Wildlife Area (Number 145)*, and produced by William Wheeler, Ronald Gatti and Gerald Bartelt.

But the need for banding data continued even after the research project ended. That's when local wildlife management staff



Author Jim Holzwart, left, invites people to volunteer to join in bird banding statewide in August and September.

WWW.KATHEENMCGWIN.COM

stepped up. Tom Hansen (retired wildlife manager), Wayne Besaw (retired wildlife technician), Jim Radtke (retired wildlife technician) and Jerry Reetz (current wildlife technician) took over where the research staff left off.

While the basic capture method — using a cannon net over corn bait near the water — hasn't changed much through the years, several methods have changed and improved.

Originally, the netting site was a high spot next to open water. It was mowed to allow staff to place the corn bait and help the waterfowl feel secure coming up on shore (dense tall vegetation near a bait site can make birds wary of predators potentially lurking in the tall grass). But in wet years the birds were captured in very muddy conditions, so fill was hauled into the road and banding site to improve access and bird handling.

In the mid-1980s an elevated wooden blind allowed volunteers and department staff to observe birds as they came onto the bait. The blind provided an unobstructed view of the bait and made it easier for staff to determine when to launch the cannon net. Of course, on dense foggy mornings it's still difficult to see the bait and there have been a few times I've had to crawl into soaking wet grass with a radio in hand to get close enough to see the bait and give the "green light" for firing the net.

Over time, the blind and wooden ladder needed repairs and eventually the blind needed to be replaced. Jerry Reetz, the same Reetz who was there at the beginning, found an old metal staircase that was being removed from a second story apartment building in Berlin. The staircase was a perfect replacement for the wooden ladder. Reetz acquired the staircase for free and all we needed to do was pick it up. Several weeks later the staircase was dismantled, modified for height, repainted, put back together and ready for Grand River.

Through a gift from the Northeast Wisconsin Chapter of Safari Club International we also designed, purchased materials and constructed an elevated aluminum blind with sides, a roof and stadium seating big enough for eight people. Many bags of cement and large metal supports later, the staircase and blind were in place and sturdy enough to support a herd of excited duck banding helpers.

The new blind gives an outstanding view of the bait site and the marsh without fears of falling out or disturbing the birds.

Other major modifications included increasing the capture net size and adding additional cannons to propel the larger net. The capture net is 40 feet wide by 80 feet long and launched by five "cannons." Each cannon is a large metal weight attached to the net and slides over a solid metal pipe anchored in the ground. A standard

12-gauge shotgun shell loaded with 170 grains of black powder equipped with an electric match to detonate it is inserted into a hole at the end of the pipe.

The explosion provides enough energy to propel the weight of the net over the ducks. Each cannon trajectory and elevation is adjusted so the weights and net fly over the top of the birds, but low enough so they cannot escape from under the net. Each cannon charge is connected to a junction box connected to the elevated blind about 100 yards away.

### Why band waterfowl?

Besides the lure of big pancakes at a local restaurant (Did I mention we buy breakfast for our volunteers?), bird banding is critical to North American migratory bird management.

According to the North American Bird Banding Program, "Bird banding is important for studying the movement, survival and behavior of birds. Data from banded birds are used in monitoring populations, setting hunting regulations, restoring endangered species, studying effects of environmental contaminants and addressing such issues as Lyme disease, bird hazards at airports and crop depredations. Results from banding studies support national and international bird conservation programs such as Partners in Flight, the North American Waterfowl Management Plan and Wetlands for the Americas. About 58 million birds representing hundreds of species have been banded in North America since 1904. Over 3.1 million bands have been recovered and reported."

Wisconsin is considered an important component in the strategy because it is a "breeding state" for major waterfowl species.

"The Wisconsin Department of Natural Resources works with its Mississippi Flyway partners to identify banding needs, plan strategies and coordinate waterfowl banding operations," says Kent Van Horn, DNR's migratory game bird ecologist. "Our efforts are part of a larger picture and because Wisconsin is a breeding waterfowl state, our banding accomplishments are important to the continental management of mallards, wood ducks and Canada geese."

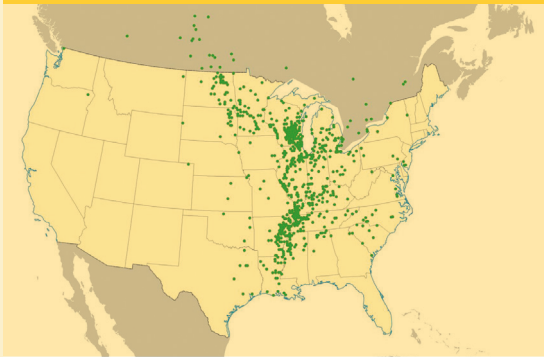
Banding data give the department and the U.S. Fish and Wildlife Service (the ultimate decision makers for all migratory bird species) the ability to evaluate harvest impacts on hunted species. Take mallards as an example. They are our targeted



Banding is critical to studying the movement, survival and behavior of waterfowl in the United States.

DNR FILE

**MALLARD INDIRECT RECOVERIES FROM WISCONSIN-BANDED BIRDS AT GRAND RIVER, 1977-2006**



DNR FILE

species at Grand River. We have been able to calculate a 56 percent survival rate from the banding recoveries for 2000-2007.

This is lower than the 60 percent survival rate in most other regions on the continent and supports the continued emphasis on a more conservative hen mallard harvest (one hen mallard bag limit) so as to not impact local mallard reproduction.

**That's a lot of banded ducks!**

Larry Vine, retired DNR researcher from Horicon and keeper of the Wisconsin duck banding information for many years, summarized banding recovery records from the early 1960s until 1998. Vine tapped into the database maintained by the U.S. Fish and Wildlife Service Bird Banding Lab in Laurel, Md., to determine recovery rates and locations for 23,281 mallards captured at and near Grand River.

A total of 2,149 recovered ducks (9.2 percent of the total banded) were shot in the same year of banding. When Vine looked at the percent of birds harvested in Wisconsin that came from Wisconsin it ranged from 63.4 percent to 68.93 percent, depending on the age of the captured mallard. It supported the thinking that most ducks harvested in Wisconsin, come from Wisconsin.

This may seem like a small number of band recoveries, but if you consider the number of mallards out there — about 187,000 Wisconsin birds in spring and 9.2 million birds continent-wide in fall of 2011 — it's not surprising that few of the harvested birds are banded. Nonetheless, that's enough recoveries to draw some conclusions on survival and movement.

So, just what are people catching and banding at Grand River and how many over the last 30 years? For the number lovers: 31,119 mallards (8,826 adults, 22,293 immatures), 591 wood ducks, 491 pintails, 134 black ducks, 12 Canada geese, five green-winged teal, two identified as hybrids (mixed genetic background), and one blue-winged teal were banded at Grand River since 1982.

The total is 34,966, not 35,000, but that is still a lot of banded ducks!

**Hunters, report bird bands to the Bird Banding Laboratory by visiting [reportband.gov](http://reportband.gov) or by calling 1 (800) 327-BAND (2263). If you report a band online, you'll receive an electronic certificate explaining where and when the bird was banded, the sex of the bird, and the person and/or agency that banded the bird.**

For me, one of the most interesting aspects of waterfowl management is where these birds travel. Banding data provide insight. Some of the earliest information from waterfowl banding helped us identify four flyways: the Pacific, Central, Mississippi and Atlantic. We also created separate areas for management and regulation.

The long history of banding, and many recoveries from birds banded at Grand River, gives us a good understanding of where these birds end up. As you might expect, many of the banded birds end up harvested or recaptured at Grand River.

The large-scale research project of the late 70s and early 80s showed birds moving locally between some of the larger Wisconsin wetland areas prior to the fall hunting season. Mallards captured

and banded at Grand River were recaptured at Collins Marsh (Manitowoc County), Eldorado Marsh (Fond du Lac County), Mead Wildlife Area (Wood and Marathon counties), Horicon (Dodge County) and Necedah (Juneau County) national wildlife refuges.

Even though the majority of Wisconsin mallards are recovered in the state, they travel all over North America. We have birds recovered from Alberta to Alabama, from Washington to West Virginia and about every place in between. The idea that a bird in my hands may end up in Saskatchewan is mind-blowing. Wildlife never ceases to amaze me!

**What does this mean for you?**

Most of this data collection would not be possible without the volunteers who help with our banding effort every year. Can you think of a better time than getting up hours before sunrise, climbing into a darkened blind, waiting to see a huge billow of smoke so you can crawl around on the wet ground and grab squirming, scratching, desperately-trying-to-escape ducks? I can't. And don't forget the pancakes!

If this sounds like fun, please contact me at the Berlin Wildlife Field Station or talk to your local DNR wildlife biologist (if they do not band ducks locally they will know who does) to find how you can help.

**To reach Jim Holzwart  
Call: (920) 361-3149  
Email: [James.Holzwart@Wisconsin.gov](mailto:James.Holzwart@Wisconsin.gov)**

The department bands statewide and is looking for help. Normally, we band in early August into early September, and at Grand River we look for about six to eight volunteers per attempt.

We try to schedule one or two bandings prior to school to get as many kids out as possible, but all ages are welcome. Bring waterproof shoes or boots, rain pants, long-sleeve dark or camouflage coat or jacket and a big appetite (the pancakes are huge).

As I write this, I can still picture myself sitting in my banding chair watching the kids wrestling the ducks out of the net and happily carrying them over to me to be banded. You won't forget the experience and the expressions on volunteer faces when the birds take flight after release. 🦆

*Jim Holzwart is a wildlife biologist at the Berlin Wildlife Field Station in Green Lake County.*



“... I hear the wind among the trees.  
Playing the celestial symphonies;  
I see the branches downward bent,  
Like keys of some great instrument.”  
- Henry Wadsworth Longfellow

# Reinforcing a foundation in oak

## Why I sleep well at night.



BOB ELBERT/IOWA STATE UNIVERSITY

The author, Lisa Schulte Moore.

## Lisa Schulte Moore

My dad and I like to debate politics, ethics, religion and science. There's no topic on which he won't try to get under my skin. The environment, though, is a common conversational theme given my professional pursuits in natural resource conservation and because my folks recently bought the farm my maternal grandfather grew up on.

I cite a report on the impacts of excessively high deer populations on understory flora; my dad sends me a picture, taken from the back window of his home in urban Eau Claire of the biggest buck he's ever seen.

I mention the importance of top predators such as red-tailed hawks, bobcats and wolves in food chains; he tells me a story about how his buddy's bird feeders were destroyed by a black bear the previous night.

I tell him how far the science of climate change has come in the last few years; he responds by sending me a 1971 paper from *Science* magazine warning of impending global cooling. It goes on.

But recently, rather than trying to rile me up, my dad asks if I'm doing okay. What am I doing to keep my balance? How do I stay positive? Do I get enough sleep?

As a scientist who studies the causes and consequences of changing landscapes, I consider human impacts on the biosphere on a daily basis. I work with data that document biodiversity declines due to loss of habitat, extensive top soil loss associated with common agricultural practices, and environmental and economic impacts of exotic pests and diseases introduced through global trade.

I understand how many small, seemingly inconsequential decisions, scale up to have large, sometimes global effects. And, I know all too well that the science will never be perfect, but the direction we must head is clear.

I do sleep well at night, though, because I also know that positive change begins with me. Change also begins with my dad, for that matter, because together we are taking steps to improve the environment for future generations by restoring oaks where we live and work.

### The foundational role of oak trees

Why oak? Oak is a foundational species in Wisconsin and throughout much of eastern North America and portions of the Pacific West.



The author, right, with her dad, left, getting ready to plant trees.

SHARON SCHULTE



DNR FILE

In contrast to a forest, which has a closed canopy, the oak savanna canopy ranges from about 10 percent to 50 percent. In such a habitat, the ground layer receives sun and shade, which permits growth of a wide diversity of grasses and flowering plants. Oak savannas are now considered one of the most threatened plant communities in the Midwest and among the most threatened in the world.

Foundational species are those that exert strong control on community dynamics and harmonize ecosystems. They influence the transfer or movement of energy, nutrients and water.

Most outdoorsy types are already familiar with the oak's foundational characteristics.

**Acorns:** this nut produced by oaks, in great abundance in some years, is a major food resource for many mammals, birds and insects. White-tailed deer, fox squirrel, gray squirrel, eastern chipmunk, wood duck, wild turkey, red-bellied woodpecker, tufted titmouse, white-breasted nuthatch and blue jay heavily rely on acorns for their fall and winter diets.

**Furrowed bark:** seeds get stuck in it and spiders and insects find ample habitat for hiding in the craggy oak tree bark. As such, oaks provide better foraging opportunities than smooth-barked tree species, such as maples and beeches, for many insectivorous birds, including brown creepers, white-breasted nuthatches, black-capped chickadees and black-and-white warblers.

**Leaves with short-petioles:** a petiole is the stalk that connects a leaf to a branch, and the petioles on oaks are fairly short, at least compared to maples. This characteristic allows birds that feed on leaf-eating insects to remain perched on branches as they glean insects off the leaves. In terms of bird energetics, feeding from a perched position is much more efficient than aerial feeding. Maples have comparatively longer petioles, demanding energetically intensive aerial feeding from birds, resulting in a lower net caloric gain.

There are a few more reasons why oaks are preferable to maples:

- Maples tend to have lower moth and butterfly larvae densities per leaf area compared to other hardwoods. This is important because moth and butterfly larvae comprise a key food resource for many birds, especially during migration. These larvae are packed with calories and are slow to move, making them easy prey.
- Oak tree canopies let more light through to the forest floor, where it can be used by understory plants. For this reason, understory plant diversity and cover tend to be higher in oak forests.
- The impacts of higher understory plant diversity and cover cascades through the ecosystem, translating to higher quality habitat for vertebrate and invertebrate communities. Lakes



SHARON SCHULTE

Planting at Heritage Knoll, the family farm in Wisconsin's Driftless Area.

and streams benefit from a healthy understory because higher understory plant cover translates to less soil erosion, which yields higher quality habitat for fish and other aquatic creatures.

Many plants and animals have adapted to the unique environmental conditions that oaks provide. Ecologically speaking, oaks are the foundation for many forests, woodlands and savannas in Wisconsin.

### Cause for concern

Oaks have been the dominant tree group throughout the eastern United States and portions of the Pacific West for millennia, and now we are losing them. While inventories from the Midwest today show that mature oaks still dominate the overstory of many forests, the next generation is missing from their understories. The reason why is tied to disturbance, and particularly the lack of it. As land use practices have changed, the characteristics that once provided oak trees with a competitive advantage now contribute to their potential replacement by other, later-successional tree species, especially maples.

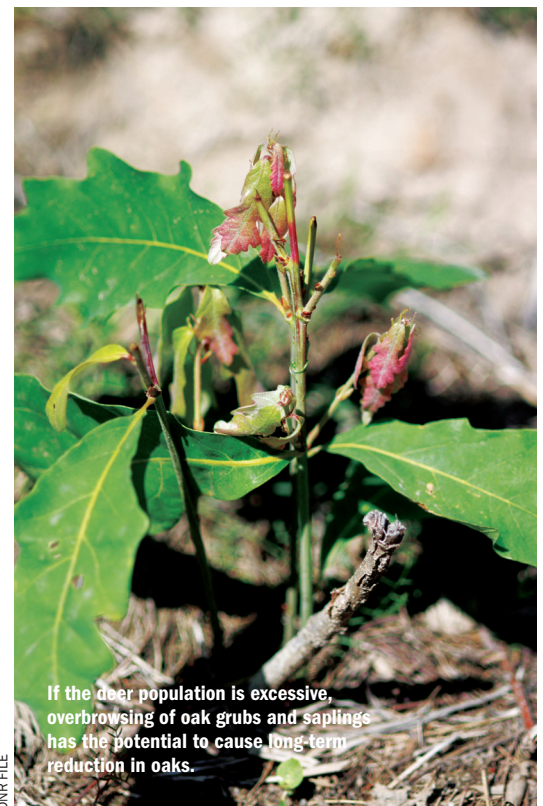
Oaks are fire-adapted. They evolved in landscapes where fires were common and over time they developed characteristics allowing them to survive, and even thrive, with fire. Fires were historically common throughout much of North America, often because Native people actively burned to facilitate travel, enhance hunting and favor preferred plants, among other reasons.

As Europeans and their descendants settled the United States, they heavily logged wooded areas, contributed to a proliferation of forest fires and widely used woodlands for grazing. Because young oak trees can readily sprout from their stumps, the combined effects of this harvesting, fire and grazing perpetuated



DNR FILE

The openness of the oak savanna is usually maintained by fire, and of the major tree species in the Midwest the oaks are uniquely fire-adapted.



DNR FILE

If the deer population is excessive, overbrowsing of oak grubs and saplings has the potential to cause long-term reduction in oaks.





Forest pests such as the gypsy moth are contributing to the widespread loss of oaks.

DNR FILE

oak dominance in many regions, including much of southern and western Wisconsin.

The lack of fire in Wisconsin landscapes today has allowed maples and other mesophytic tree species (those that do well under moist, shady conditions such as ash, elm and ironwood) to flourish in the understory of mature oak forests. These species are not fire-adapted and are prolific seeders. Without fire, they out-compete the oaks.

In addition, the predominant approaches to forest management today are to either do nothing (“hands off”) or to only remove a few trees here and there (selective harvesting). In either case, light levels within the forest understory are inadequate for oak seedlings to become established.

Other reasons for oak decline include:

- Competition with non-native invasive shrubs, such as common buckthorn. In the forest understory, these shrubs win out over oak seedlings in battles for light and nutrients.
- Widespread browsing by white-tailed deer, which often prefer oak seedlings and saplings to other tree species.
- Forest pests and diseases including oak wilt, oak tatters and gypsy moth.

The sum of these factors points toward future widespread loss of oak trees. Because oaks provide a vital foundation for biodiversity, there is a strong potential for subsequent declines in the populations of associated plants, insects, fish, birds and mammals. We are at a critical juncture for oaks.

### What can you do?

The good news is we still have mature oaks in the canopies of many of our forests and these trees can provide seeds for the next generation of oak forests. The bad

news is that the conditions in the understories of our current forests are generally not conducive to germinating those seeds and nurturing them into trees.

But you can create the fertile conditions oak need by taking a few small steps.

First, adjust your attitude. There’s a widespread perception that the best thing to do for biodiversity is to leave it alone — à la “nature knows best.” But in the case of oak and oak-dependent species, well-executed management activities, including prescribed fire, mechanical shrub removal (brushing) and/or harvesting, can do a lot to improve habitat for biodiversity.

When properly executed, prescribed burning is especially effective because many oaks are highly fire-adapted and their competitors such as ironwood and buckthorn are not.

Brushing and harvesting are useful in locations not suited to prescribed fire. Although these techniques do not perfectly mimic the fires, they are the only option in many places, because of the lay of the land, ownership boundaries, liability and financial resources.

Work locally and support local land stewardship organizations and group activities. Cut buckthorn and plant trees. Cage seedlings to protect them from deer. Volunteer on a prescribed burn. If you can’t do these activities yourself, consider donating to organizations employing summer field crews of student interns to do this important work.

Support conservation policies at federal, state and local levels. Reward landowners for providing environmental benefits, including oak forests and quality habitat, clean water and scenic views as well as producing marketable goods such as timber, corn and soybeans.

Show your love and appreciation for wildlife by maintaining the habitat they depend on. This includes hunting or supporting hunters. When there are too many animals of any species, they outstrip their habitat and starve causing a decrease in the population’s health as a whole.

And, finally, talk to your neighbors. If you own forestland, find out whether you share similar interests and goals for your land. Ask them what they have learned from their past management efforts: Have they worked with a forester? Who would they recommend? Have they tried thinning? To what stocking level (number of trees remaining per acre of land)? What was the result? How about planting? Where did they get their

seedlings? What about prescribed burning as an option?

Managing for oak goes beyond a one-time event and future collaboration may be needed to see progress and regeneration. Oak forests don’t end at property lines. Tackling the issue of oak conservation can’t end there either.

### Full circle

Now, back to me and my dad. What’s our latest debate? We’ve been arguing about how many oaks to plant and where to plant them.


As I mentioned, several years ago my folks purchased the farm my maternal grandfather grew up on in Wisconsin’s Driftless Area. My ancestors purchased the land and built there in 1869 at a time when the land was covered by prairie, oak savanna and marsh.

When my folks bought the farm, almost all of the 60 acres were row cropped, despite the land’s proclivity toward severe erosion. Today, 28 of the most sensitive acres are enrolled in either the Conservation Reserve Program (CRP) or a local prairie restoration program.

On all of the CRP acres, except those that are too wet, my folks have planted trees — predominantly oaks. Although these 20 acres do not look like much right now, the trees will provide many benefits as they grow.

They will stabilize the soil on this highly erodible land. They will capture excess fertilizer running off surrounding cropland, keeping it from entering the stream down slope. They will soak up and transpire water, contributing to flood control within the stream. They will help maintain a stable climate by capturing carbon dioxide from the atmosphere and trapping it in their roots, stems and leaves. They will provide acorn crops and habitat for wildlife long into the future. And, someday, they will provide a hearty source of income for my sons, niece and nephew.

My dad and I sleep easy because we know that positive change begins with us.

It also begins with you. Plant an oak tree and watch it grow. Take time to stop and listen to the wind in its leaves, birds building nests in its branches and squirrels scurrying to collect its acorns. Embrace the annual cycles of the sap run, flowering, leaf out, growth, seed set and leaf off. A simple, but boundless beauty. A service to society. A service to you. 

*Lisa Schulte Moore is an associate professor at Iowa State University.*



# Building Bird Cities

A feather in a  
community's cap.

*Carl Schwartz*

Imagine waking up one morning, looking out your back window and spotting a brilliantly-colored magnolia warbler visiting the native trees and shrubs that you planted.

Here's a tiny bird, a true jewel of spring, bound for the boreal forest after wintering in Guatemala and, for one day, it's dependent on your actions to help it get to its breeding ground and produce young.

At the same time, in communities all over Wisconsin, local governments and private citizens are teaming up to increase native plantings in parks and backyards, building nest boxes and chimney swift towers, preventing window collisions and educating cat owners about the need to keep their pets indoors.

That's the powerful story behind Bird City Wisconsin.

Being a Bird City means making the community healthier for birds such as this busy American goldfinch.

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### Sign of the times

This summer, the program's distinctive street signs will help welcome residents and visitors alike to 50 communities statewide. But even if you have seen a sign, you may still have wondered, what the heck is a "Bird City?"

When Bird City Wisconsin (BCW) announced in late March that it was awarding recognition to 11 additional communities, its collaborative program for urban bird conservation had reached the 50 mark. That's the number of cities, villages, towns and counties statewide it has honored for working with their residents to, as its website proclaims, "make our communities healthy for birds...and people."

Simultaneously, the 2-year-old program announced that all 15 of its inaugural communities, honored in December 2010, had successfully renewed their recognition for 2012, with five upgrading to "High Flyer" status by undertaking more aggressive bird conservation efforts.

One of those 15 was Green Bay, the largest Bird City in the state. Mayor Jim Schmitt has been a big backer of the program, appearing at the city's Bay Beach Wildlife Sanctuary to accept the city's initial recognition in a colorful ceremony joined by two alders, regional DNR leaders, a peregrine falcon and several mallards.

"Being a Bird City has generated more enthusiasm and community involvement given our focus and respect for bird habitat," Schmitt said in March after Green Bay renewed and was recognized as a High Flyer. "Green Bay is known as 'Titledown USA' and we're proud to add Bird City as one of our distinguished titles."

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Wild birds, such as this female scarlet tanager, are essential to pollinate flowers, disseminate seeds and help keep insect populations under control.

Bird City — modeled after the widely-successful Tree City USA program of community recognition — developed 22 criteria across five categories, including habitat creation and protection, community forest management, limiting hazards to birds, public education, and recognizing International Migratory Bird Day. Its aim was to see local governments expand their conservation efforts while educating residents to also do more.

In return, BCW offers highly visible recognition to those cities, villages, counties and towns that meet certain criteria: two street signs, a flag, a plaque and its own page on the BCW website. Its emblem was designed by renowned Wisconsin landscape painter Tom Uttech and his wife, designer Mary Uttech.

"Recognition as a Bird City will be a feather in the cap of any Wisconsin community," said Andrew Struck, president of the Milwaukee Audubon Society, chair of the BCW steering committee, and director of the Ozaukee County Planning and Parks Department.

"This unique program is not only recognizing existing efforts but is building partnerships among local governments, community groups and conservation groups that will spur other cities, counties, towns and villages to adopt the best practices we will spotlight," added Struck.

BCW intends to keep growing, and is currently working with more than three dozen other communities on applications, which are accepted three times each year on March 1, July 1 and November 1. Application and renewal fees of \$100 partially cover project costs.

Communities that successfully renew — BCW calls that "Sustained Flight" — receive decals to update their highway signs and new inserts for their plaques, as well as an updated Web page. Special decals are issued for signs in "High Flyer" communities.

### Beginnings

BCW's overall plan is a simple one: Encourage all communities in Wisconsin to implement sound bird conservation practices by offering highly visible recognition to those that succeed in enhancing the environment for birds and educating the public about the interactions of birds and people and about the contributions birds make to a healthy community.

The Milwaukee Audubon Society partnered with seven other Wisconsin conservation organizations in September 2009 to launch BCW with a small planning grant from TogetherGreen, an alliance between the National Audubon Society and Toyota. TogetherGreen increased its support in 2010 and 2011. Additional financing has come from Milwaukee Audubon (\$5,000) and the Natural Resources Foundation of Wisconsin, which donated \$10,000 from its Bird Protection Fund in 2012 and hopes to double that in 2013 and 2014.

"Birds are a vital component of a healthy ecosystem in our local communities and they provide environmental, as well as economic benefits," said Flo Miller, TogetherGreen co-director at Audubon. "As an early supporter of the Bird City Wisconsin program, Audubon and Toyota applauded the Wisconsin elected officials, citizens and volunteers who have made it possible for 50 communities across the state of Wisconsin to reach Bird City designation. The efforts of Wisconsin conservation groups are proving that this is a model program worthy of replication at the national scale."

### Resolutions

One of the signature elements of the Bird City program is its requirement that each community's elected leaders adopt a resolution recognizing International Migratory Bird Day (IMBD) and establish an event to celebrate it.

That means Wisconsin had at least 50 such celebrations this year, and that has drawn praise from Environment for the Americas, which coordinates IMBD events across two continents. It said recently: "One of the requirements to become a Bird City is hosting an IMBD event. In just two years, the state has become a leader in promoting bird conservation actions and community education."

### Why be a Bird City?

The rationale for creating "Bird City Wisconsin" has multiple layers:

Birds are valuable indicators of environmental health, locally and globally. Remember the role of the canary in a coal mine?

Birds capture our imagination with their flight and song, their annual migrations, their antics at our bird feeders and their beauty. Bird watching is second only to gardening as the most rapidly growing leisure interest. In Wisconsin, the Department of Natural Resources estimates that wildlife watchers spend \$1.3 billion a year



Being a Bird City is an excellent way to engage children in the outdoors. Here, students learn about bird identification using an application on an iPhone.

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Kids are playing dead to mimic carrion that might attract some birds, which work as nature's recyclers.

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In addition to being just plain fun and relieving stress, watching birds can be a class or family experience, with kids, parents, grandparents, friends and neighbors joining in.

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One goal of Bird City Wisconsin is to build community spirit. Bird-friendly actions by a community can build cooperation between public and private sectors to effectively manage many types of urban habitat, including forests, prairies and wetlands. Here a Winnebago Audubon member works on habitat improvements for birds.

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on their hobby. According to the National Survey of Fishing, Hunting and Wildlife-Associated Recreation, some two million residents and nonresidents over the age of 16 actively participate in various aspects of wildlife watching in Wisconsin.

Birds are unheralded assistants to backyard gardeners, flower fanciers, private and municipal landscapers, farmers and foresters. Without birds, communities would have to spend far more money keeping natural systems in balance. Insect-eating birds reduce the need for chemical pest control. Birds also are voracious eaters of weed seeds and rodents.

Bird populations are enhanced by practices such as creating, protecting, and managing green space, landscaping with native plants in backyards and parks, adopting architecture and lighting systems that reduce collisions, and keeping cats indoors.

Birds can be harmed by some kinds of economic development and technological innovation, and by accelerating urbanization that reduces native vegetation. A recent Texas study found that higher home values were correlated with the presence of less common bird species, which themselves were indicators of higher quality native habitat.

Populations of some species of both urban birds and birds of the countryside are declining due to shrinking habitats and lack of public attention to this decline. BCW is shining a spotlight on species that are declining such as the chimney swift, purple martin and common nighthawk.

Noel Cutright, founder of the Western Great Lakes Bird and Bat Observatory, notes that BCW “provides an excellent vehicle for communities to harness the human connection with birds — reaching

beyond bird watchers to new and essential audiences.”

“Over and over again, it has been demonstrated that a place that is a haven for birds and is doing good things to benefit them is a better place in which to live and work,” Cutright added.

#### Learning from partners

When an alliance of bird conservation groups put together the BCW plan, their hope was to do for urban bird conservation what the Arbor Day Foundation’s Tree City USA program has done to enhance urban forestry. Wisconsin boasts 178 Tree Cities, ranking third nationally, in a program that began in 1976. In Wisconsin, the program is administered by the DNR’s Urban Forestry coordinator Dick Rideout and his staff, who have strongly supported BCW’s outreach efforts. Two-thirds of the state’s Bird City communities also are Tree Cities.

Another key BCW connection with the Department of Natural Resources is through the Wisconsin Bird Conservation Initiative (WBCI), whose coordinator, Andy Paulios, works in the DNR’s Bureau of Wildlife Management. WBCI is a voluntary partnership of over 170 different government agencies, businesses, non-governmental conservation and environmental organizations, and bird clubs from around the state. It is widely recognized as the most active state bird conservation initiative in the United States.

The Natural Resources Foundation of Wisconsin’s (NRFW) support for BCW has taken on increased importance since Toyota’s grant rules preclude another year of support.

NRFW grants coordinator Barb Barzen,

a member of BCW’s Steering Committee, notes: “We raise money for conservation programs that have widespread meaningful impact. Bird City Wisconsin delivers conservation programming and networking to all sizes of communities statewide. Most people pay attention to birds to some degree, so Bird City Wisconsin’s message — birds do a lot for us and they face many threats, so let’s make things better for them in our own backyard — resonates with a large, statewide audience at the local level. And it translates directly into action on the ground. From a funder’s point of view, you can’t get any more widespread or effective than that.”

In addition to WBCI, the NRFW and Milwaukee Audubon, the Bird City Steering Committee includes representatives of the Wisconsin Society for Ornithology, the Madison Audubon Society, Wisconsin Audubon Council, Bluebird Restoration Association of Wisconsin, Riveredge Bird Club, Aldo Leopold Audubon Society, Ozaukee County and the Milwaukee Metropolitan Sewerage District.

BCW is using its website, [birdcitywisconsin.org](http://birdcitywisconsin.org), to guide foresters, parks directors, city planners, Audubon chapters, bird clubs, natural landscape groups and others through the application process, while offering how-to details on new conservation strategies. It also documents how communities earn recognition.

Steering committee members are particularly enthused at some of the partnerships that have developed in the application process:

- Trempealeau and the U.S. Fish and Wildlife Service at the adjacent Trempealeau National Wildlife Refuge.
- Ephraim and the Department of Natural Resources at adjacent Peninsula State Park.
- Grantsburg and the Crex Meadows Wildlife Education and Visitors Center.

They also are impressed with the increased conservation commitment seen during the recently completed renewal process, over and above those five communities that made the jump to High Flyer:

- Mequon, for example, achieved seven additional Sustained Flight criteria, jumping from eight to 15 met.
- Teamwork among the New London Parks and Recreation Department, the Mosquito Hill Nature Center and the New London Public Museum



The Bird City program has learned from the success of the Tree City USA program. Two-thirds of the state's Bird City communities also are Tree Cities.

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yielded a week-long IMBD celebration, dubbed Feather Fest 2012. Similar efforts in Oshkosh created a second annual Bird Fest, with bird banding, yard habitat tours, live birds of prey, children's activities and a downtown gallery walk.

- Green Bay has its own BCW committee that demonstrates particular strength in habitat creation and protection. Efforts to restore prairies and wetlands, to control invasive species and to promote natural lawns, have increased in Bird City communities and help maintain native bird populations.

To extend its outreach, BCW has relied on a heavy agenda of more than 100 public appearances, with talks to Audubon chapters, bird clubs and natural landscape groups, as well as appearances at statewide meetings of the Wisconsin Wetlands Association, The Wildlife Society, the Wisconsin Society for Ornithology, The Prairie Enthusiasts and the Wisconsin Lakes Association. And it often presents its recognition awards at village board and city council meetings, using the opportunity to reach a community audience in person and on cable television with a message that commends the community for its conservation efforts and reminds them that Bird City's recognition presents the kind of image that most citizens want to have for the place they live, work or vacation.

It's no accident then that the Department of Tourism's regional specialists have taken an interest in the program, distributing Bird City brochures. And among the communities that see the advantage in a "bird friendly" image are Manitowish Waters and Presque Isle in the Northwoods, Ephraim and Bailey's Harbor in Door County, along with the three neigh-

bors of Lake Geneva, Williams Bay and Fontana.

"If we are going to be successful in conserving Wisconsin's bounty of bird species, we need to unleash the energy found within the cities of our state," says Tom Hauge, DNR's wildlife management director. "It will take people who care enough to commit their talents to make sure future generations can enjoy the splendor of birds. We congratulate Bird City Wisconsin on your success and we pledge our continued support as we go forward."

*Carl Schwartz is the coordinator of Bird City Wisconsin. He also is president of the Wisconsin Society for Ornithology (WSO) and for the last eight years has led the Honey Creek Birdathon/Bandathon, a major fund-raiser for WSO. He also is field trip chair for the Riveredge Bird Club, president of the Friends of the Cedarburg Bog, and a member of the American Bird Conservancy, National Audubon Society, the Nature Conservancy, International Crane Foundation and the Horicon Marsh Bird Club. He retired in 2009 as senior editor for national and international news at the Milwaukee Journal Sentinel.*

## BIRDS NEED OUR HELP

now more than ever to help meet the growing threat of habitat loss magnified by global climate change. But millions of birds are killed due to other human-related causes that are more easily combated. Consider these facts:

- Scientists estimate that 300 million to one billion birds die each year from collisions with buildings.
- Up to 50 million die from encounters with communication towers and wind turbines.
- At least 11 million die from car strikes.
- One million birds may die EACH DAY from attacks by cats left outdoors.

## GETTING YOUR COMMUNITY TO JOIN THE FLOCK

So how can you play a role in making your community a Bird City?

Bird City Wisconsin celebrates the power of partnerships and seeks to foster collaboration between a range of birding and natural landscaping organizations and municipalities of all sizes. Audubon chapters, bird clubs and garden clubs already have played a huge role in helping many obtain Bird City recognition.

Often all it takes to get a Bird City application launched is one person intrigued by the idea and willing to contact the community forester, parks director, city planner, alder, village trustee, manager or mayor. The Bird City website makes the rest of it pretty easy, laying out the process, the conservation criteria and offering a page on each already-recognized community detailing how they met the recognition criteria.

So check out [birdcitywisconsin.org](http://birdcitywisconsin.org). Take advantage of the criteria your community already meets — knowing that your organization may be the reason for some of them — and start building your application around those.

Contact the BCW coordinator at [cschwartz3@wi.rr.com](mailto:cschwartz3@wi.rr.com) or (414) 416-3272.

Bird City Wisconsin also will send a speaker to meet with your group or a committee of residents and officials to further explain the program.

## CONGRATULATIONS TO THE 50 BIRD CITY WISCONSIN COMMUNITIES



DNR FILE

"Sustained Flight" — 2nd year renewals (in bold)

"High Flyer" — renewed with more aggressive conservation steps (IN BOLD CAPS)

Bailey's Harbor	La Crosse	Presque Isle
Bayfield	<b>Lake Geneva</b>	Racine
<b>Bayside</b>	<b>Manitowish Waters</b>	<b>River Falls</b>
Beaver Dam	Manitowoc	Sauk Prairie
<b>Brookfield</b>	Marquette County	(Prairie du Sac and Sauk City)
Brown County	Mayville	Sherwood
<b>Chenequa</b>	McFarland	Shorewood Hills
Elm Grove	<b>Mequon</b>	<b>STEVENS POINT</b>
Ephraim	Middleton	Taylor County
Evansville	<b>MUSKEGO</b>	Town of Grafton
Fond du Lac	<b>New London</b>	Trempealeau
Fontana	Newburg	Wausau
Fox Point	Oconomowoc	West Bend
Grantsburg	Oconto	Whitefish Bay
<b>GREEN BAY</b>	<b>OSHKOSH</b>	<b>Williams Bay</b>
<b>Hales Corners</b>	<b>OZAUKEE COUNTY</b>	
Horicon	Plover	
Kenosha	Plymouth	



Be on the lookout. Asian carp are a serious concern because they can aggressively compete with native commercial and sport fish for food and can potentially disrupt entire ecosystems. Also, silver carp can injure boaters when the fish leap out of the water. Multiple state and federal agencies have worked together to develop action plans to try to prevent the spread of the carp and other aquatic invasive species in the Mississippi River system and to the Great Lakes.

# Slow the spread by hand and tread

U.S. FISH AND WILDLIFE SERVICE

## June is Invasive Species Awareness Month in Wisconsin.

*Cary Kostka*

From Eurasian watermilfoil and Asian carp, to emerald ash borer and gypsy moth, the state is under attack from all directions. These invasive species cause serious damage not only to the ecology but to environmentally dependent industries such as timber, fishing and tourism.

Those who live, work or play in Wisconsin can, and should, play a vital role in slowing, stopping and preventing invasive species in this state.

As a response to the increase of invasive species in Wisconsin, the Department of Natural Resources in 2009 created Chapter NR40 in the administrative rules to teach people how to identify invasive species as well as ways to prevent their spread. The rule allows the department to take quicker action against a potential or known invader, as well as to ensure that any actions are consistent.

### What are invasive species?

Invasive species are non-native species that are introduced, often by human activity, into an area and cause damage to that area's ecosystems.

But not all introduced species evolve into ecosystem destructors. In fact, in most cases the introduced species has little, if any, impact on its introduced area and, in some cases, non-native species actually benefit some ecosystems.

It seems that almost everyone in a typical neighborhood has Japanese something-or-others, or a Colorado pine of some sort in their yards, but we do not see these taking over the Wisconsin landscape. Non-native plants cannot be all that bad then, right? Wrong.

Introducing non-native species can have unpredictable results on the surrounding ecology. There are many factors involved for a non-native species to move from being just an introduced species to becoming an invasive species.

Non-natives tend to lack natural predators in a new area. How do these species fair in Wisconsin winters? Can they thrive in the sandy soil of northern Wisconsin, or in the clay-based soils of southern Wisconsin? Will local bees pollinate introduced flowering plants, and how do the seeds and seedlings germinate?

These are just a few of the questions that factor into an introduced species' ability to become invasive.

### What can we do?

Landowners, those who lease land, or those who work or play on Wisconsin lands can help the Department of Natural Resources and other agencies take a stand against the spread of invasive species.

Be on the watch. According to the Department of Natural Resources there are over 70 NR40-regulated plants currently on the loose in the state, not to mention a large number of insects and animals. A full list of these can be found at the DNR's website. Visit [dnr.wi.gov](http://dnr.wi.gov) and search "invasive species."

Preventative steps and invasive species identification are the first and perhaps most important steps in attacking invasive species in Wisconsin. Your ability to identify and properly report an invader is vital to tracking and removing invasives. Reporting the invader(s) allows the Department of Natural Resources to track where an invasive species may be moving, as well as to determine a best course of action to eradicate the invader.



Eurasian watermilfoil is widely distributed and difficult to control. The introduction of milfoil can drastically alter a water body's ecology. Milfoil forms very dense mats of vegetation on the surface of the water. These mats interfere with recreational activities such as swimming, fishing, water skiing and boating.

According to the Department of Natural Resources there are five best practices for landowners and land users to be aware of: prevention, early detection and rapid response, control, monitoring and restoration.

### Prevention

Prevention is the safest and easiest way to ensure that an area remains invasive free. Here are some tips:

- After completing outdoor activities, be sure to inspect your clothing and footwear for any plant matter that may be tracked or fall off of your person outside of the area in which you were active.
- Consider bringing two sets of footwear to an area you will be walking through. That way, you can simply change shoes when moving into another area.
- Avoid traveling through areas where invaders are known to be.
- Clean all equipment used during your outdoors activity, including recreational equipment (such as bicycles, ATVs or rollerblades) and lawn and gardening equipment (such as lawn mowers, rototillers and chainsaws).

- When gardening or landscaping, do not plant seeds, seedlings or any other plants that are not native to the area.
- Properly dispose of all landscaping materials that you will not be composting.
- Minimize the amount of native species you remove from your property as well as the amount of soil you disrupt. Disrupted soil makes it easier for seeds that make it to the ground to germinate.
- Never transport firewood beyond 25 miles of where you found or bought it.

### Early detection and rapid response

Early detection means a rapid response can be mounted, saving both you and the Department of Natural Resources many hours of labor and preventing undue ecological and financial strains.

Familiarize yourself with the invasive species already present in the state. Also, it is important to remain up-to-date on newly identified invasive species by frequently checking the department's invasive species Web page, especially in the





DNR FILE

late spring and early summer months, as this is the time most invasive plants begin to flower or seed. If you come across an invader, report your sighting by calling your nearest DNR office or by following the steps on their website.

This way, the Department of Natural Resources will be able to formulate the best course of action not only for your property but for any of the surrounding properties, whether they are public or private.

**Containment and removal**

So you have found an invader on your land. Now what? In most cases you will begin by using a combined prevention and control method called integrated pest management (IPM). This means using destructive methods on the invaders while performing preventative measures in the affected area and surrounding areas.

Completely removing the invader is possible, especially if the invader is discovered early in its establishment. However, once the invader is widely established the best course of action is usually to control the pest in a way that reduces its density to the point of becoming balanced with the surrounding native species.

There are several methods to contain or remove invading species.

First on the to-do list is to slow and prevent further spread of the invader. How to do this depends on the nature of the invader (plant, tree, insect, mammal, etc.).

For plants, cut or mow the area frequently during the height of the invaders' growing season while making sure you fully clean any equipment used before using it in another area. Hand pulling an invasive plant can be effective, but when doing so make sure you are getting the entire root system. Smothering plants is especially effective against low-lying plants and should be done using mulch or other environmental landscaping plastic for at least one full growing season.

If available and allowed by local ordinances, you can use a grazing animal to eat the invader. An appropriate herbicide can lend a helping hand for the especially tough invader that does not appear fazed by any of the previously mentioned methods.

For trees, consider girdling, which is the process of removing bark in a ring around the tree and then applying herbicide to the removed area. A controlled burn is especially effective, but is probably best left to an expert.

Controlling invasive insects mainly requires the use of pesticides or unleashing



Japanese hops is a climbing, annual vine that grows rapidly, up to 8 feet.

U.S. FISH AND WILDLIFE SERVICE



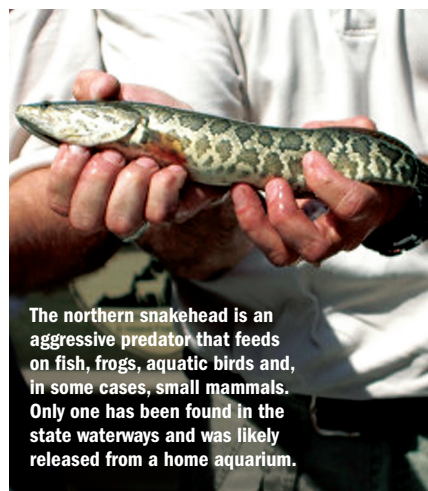
Garlic mustard reaches 12 to 48 inches in height as an adult flowering plant. Leaves and stems emit the distinctive odor of onion or garlic when crushed (particularly in spring and early summer).

U.S. FISH AND WILDLIFE SERVICE



Invading plumeless thistle may be found in disturbed areas such as pastures, roadsides, waste areas and ditch banks. It is also a problem in prairies, old fields and hay fields.

EMMET J. JUDZIEWICZ



The northern snakehead is an aggressive predator that feeds on fish, frogs, aquatic birds and, in some cases, small mammals. Only one has been found in the state waterways and was likely released from a home aquarium.

U.S. FISH AND WILDLIFE SERVICE



The round goby is a bottom dwelling fish with a large head, resembling a tadpole. Getting rid of these invaders is nearly impossible once they multiply. Do not use them for bait.

native predators.

Trapping may be in order for mammals or reptiles, but this technique should be handled by a professional so the effects have a minimal impact on native species.

These are only some examples of the many methods used to contain or remove an invasive species. A complete list of the methods available as well as herbicide recommendations and species timing cycles may be found on the DNR website.

One last thing to remember is that any invasive plants or trees that are removed should be disposed of in a landfill. Thanks to the DNR's enforcement abilities, local landfills must accept these plants. Place them in clear plastic bags, label them "invasive plants; approved by WI DNR for landfilling," and dispose of them according to your local landfill regulations.

### Monitoring

As your containment and removal activities come to a close, having a good monitoring strategy in place can help reduce the likelihood of an invasive's return. Regularly check previously infected areas and the surrounding areas early in the spring through the end of the invader's growing season (or mating season for non-plants). Check that no new invaders have taken up residence.

### Restoration


Restoring invader-affected areas on your property is an important step as it restores vitality and balance to your property's ecosystem. Following the DNR



A female zebra mussel can produce 30,000 to one million eggs in one year! They clog intake pipes and wash up on beaches in massive amounts.

best practice guidelines also helps prevent re-establishment. The easiest and most effective method is to plant (or release in the case of non-plant invasions) as many species native to your area as you can while maintaining a competitive balance among them.

### A team effort

Those of us who live, work and play in Wisconsin serve an important role in the battle against invasive species. Whether we contribute by securing our own properties, volunteering to pull garlic mustard plants at one of our great state parks or by alerting local authorities to a newly found patch of wild parsnip, we can all work together and turn the invaders back. 

*Cary Kostka has participated in various invasive plant cleanup programs, such as volunteering to clear garlic mustard from the trails within Highland Woods, a Mequon city park, and invasive plant clearing (as well as ephemeral pond monitoring) at the Schlitz Audubon Nature Center in Milwaukee. For examples of his writing visit [hikeforplay.com](http://hikeforplay.com)*

# The mighty phragmites, a bio-bully of the bay.



Phragmites can grow to 30 feet.

## Heidi Springborn

It's Wisconsin's largest attempt at phragmites control using an herbicide. In fact, in one year, about 3,400 acres of the invasive lakeshore weed were sprayed. This targeted effort was in partnership with over 1,530 riparian landowners who wanted to restore the shoreline and regain their view of Lake Michigan from a bio-bully.

*Phragmites australis subsp. australis* came to Wisconsin shores by hitching a ride in large ballast tanks of cargo ships. Here, it found prime real estate on the mucky, moist soil of exposed lakebed and coastal wetlands.

Phragmites (pronounced *phrag-my-teez*) causes significant cascading ecosystem disruptions such as alterations to food webs and nutrient dynamics, biodiversity and ecosystem stability. It competes with native species for limited resources including habitat, food and light.

Phragmites is highly aggressive and can grow up to 30 feet tall with sturdy, robust stalks and thick, feathery plumes that block lake views. Once established, it shades out native vegetation and makes coastal shorelines and wetlands unfit for wildlife. According to wetland experts, Wisconsin has already lost 70 percent of the original wetlands along Lake Michigan.

Phragmites also has overtaken public lands and invaded backyards of over 1,500 Green Bay West Shores and Lake Michigan shoreline owners. For the past several years, shoreline owners have tried to control infestations and some have spent thousands of dollars in the fight. Phragmites can be found in nearly every state. Globally, there is only one place it hasn't been found...yet. Antarctica!

The Department of Natural Resources was recently awarded \$805,600 from the Environmental Protection Agency Great Lakes Restoration

## WISCONSIN'S PRIORITY CONSERVATION OPPORTUNITY AREAS ALONG THE LAKE MICHIGAN SHORELINE FOR PHRAGMITES CONTROL

Initiative for a large-scale effort to reduce invasive phragmites and lyme grass from 3,600 acres of coastal wetlands along 118 miles of Lake Michigan shoreline in Brown, Door, Oconto, Manitowoc, Marinette and Sheboygan counties.

Target areas during the three-year grant term include 25 state natural areas, six state parks, three state wildlife areas, Point Beach State Forest and 1,530 private lands adjacent to the exposed bed of Lake Michigan.

During the summer of 2011, department staff treated 290 acres in Door, Manitowoc and Sheboygan counties, and two ecological restoration firms treated another 111 acres in Marinette, Oconto, Manitowoc and Door counties using several control methods including boom-mounted, ATV or boat spray units; backpack sprayers; and the bundle, cut and spray method in sensitive areas.

Three thousand acres along the Green Bay West Shores and Gardner Swamp in Door County were sprayed by helicopter because phragmites is tall, dense and occupies areas that aren't accessible from the ground. Conditions are wet, and many times it's difficult to get vehicles in or to work with backpack sprayers. A helicopter can get close to the vegetation by flying low and slow for better herbicide application. The helicopter is maneuverable and equipped with a GIS-controlled, boom-mounted low pressure sprayer.

Marinette: 735 acres 13 miles of shoreline

Oconto: 1,300 acres 30 miles of shoreline

Brown: 910 acres 10 miles of shoreline

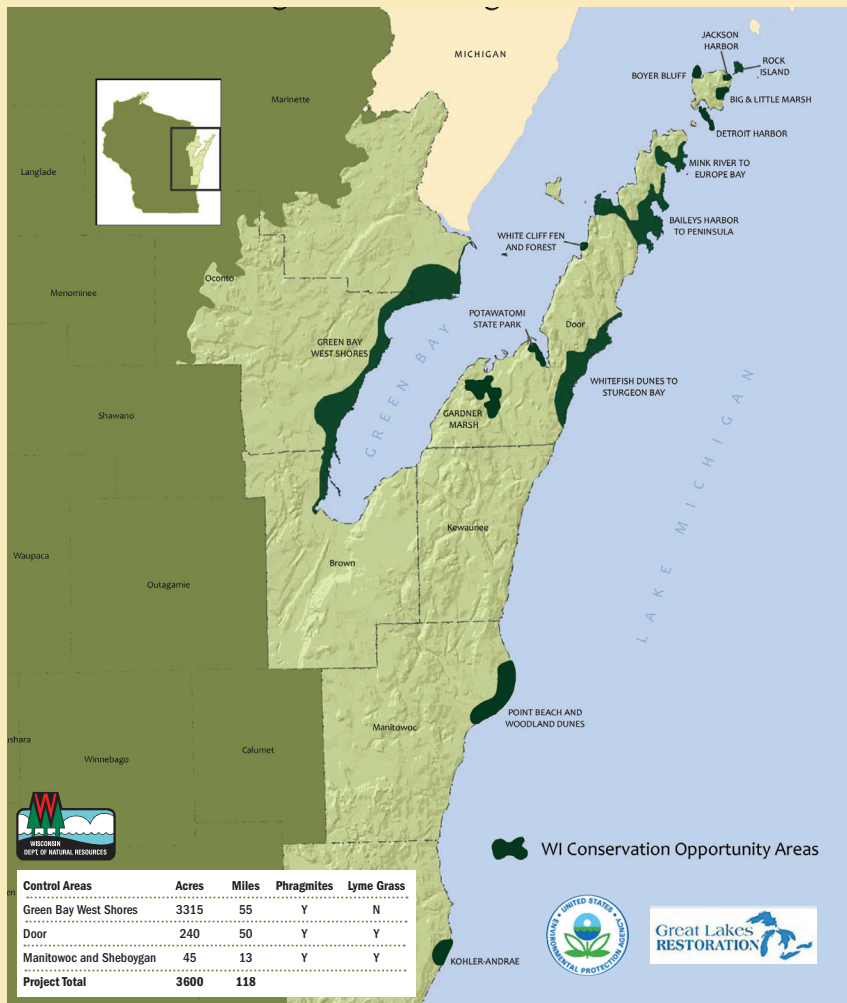
Door: 50 acres (*Gardner Swamp State Natural Area*)

The herbicide *Imazapyr* (brand name Arsenal®) is absorbed by phragmites and travels to the bulk of the plant and the roots where it does its damage. Sprayed plants don't die right away, so some vegetative material is visible for a while. This year, treated areas will be monitored for the success of herbicide application and follow-up spot treatments will take place. Some areas also were mowed where we couldn't definitively identify the plant.

This project is a first step. More work needs to be done. There are many challenges associated with this project. Among them, Lake Michigan water levels are at historic lows and phragmites has quickly filled in.

Phragmites is a monoculture: a biological desert of predominantly one species. Phragmites knows no boundaries and can be found on public and private land and in the riparian area (dry land on exposed bed). The department needs permission to access private areas for treatment. Many people have been involved and coordination is critical.

Another challenge is that funding is not



available for follow-up mowing of all private riparian areas and this application is not a cure-all. Some phragmites will still exist when the grant expires in December 2013 and it will take proactive management to keep phragmites under control.

The next steps include continued aerial and ground spraying this year and in 2013 if funded. Some areas missed in 2011 will get initial treatment this year. Ideally, all acres will receive one year of follow-up and most will receive two years.

We also will mail information to landowners to let them know what to expect and will continue to teach the public about phragmites identification and control techniques. A project coordinator was hired for all associated field activities and educational opportunities. The department also hosts a phragmites hotline so that people can call in and get day-to-day news of shoreline spraying August through October. The hotline number is (920) 662-5139 during spraying.

For more information on the project or for any phragmites-related questions, please call (920) 662-5447 or email Heidi.Springborn@Wisconsin.gov

Heidi Springborn is a conservation biologist with DNR's Bureau of Endangered Resources.



Aerial herbicide application is an important tool in the battle against this bio-bully.



Spraying phragmites in Marinette County in 2011.



### HORICON MARSH VISTA

I am a subscriber to *Wisconsin Natural Resources*. The magazine is great and informative. Attached is a photo of Horicon Marsh when my fiancé and I visited in August.

*Tommy and Michelle Nava  
Chicago, Ill.*



### SWALLOWTAIL CATERPILLAR

Any use for the attached backyard photo?

*Tim Hastings  
Elkhorn*

### COMMENT ON A STORY?

Send your letters to: Readers Write, WNR magazine, P.O. Box 7921, Madison, WI 53707. Or email letters to [dnrmagazine@wisconsin.gov](mailto:dnrmagazine@wisconsin.gov). Limit letters to 250 words and include your name and the community from which you are writing.

### NO ACCESS TO THE WEB?

Don't have access to a link we mention in a story? Let us know when you want to follow a link we list. We'll do what we can to get you a copy of the material if it is available free of charge and is relatively short in length.



### FLYING SQUIRRELS

I have been putting discarded mixed nuts on our deck for the animals to eat during winter. During the day we have squirrels and some birds visit. At night we have opossums and raccoons visit.

However, Tuesday night when I turned on the deck light there was a small squirrel-like animal darting around the deck. It then ran up an oak tree and sat on a limb before disappearing. It looked very much like a sugar glider which is native to Australia and Indonesia. My daughter used to have a pair of sugar gliders so I do know what they look like. Would you know what this small squirrel-like animal could have been?

*Richard Jorgenson  
Oconomowoc*

You were probably lucky enough to catch a glimpse of a flying squirrel. The two species native to Wisconsin look very similar, but the northern flying squirrel is larger, has a fuller tail and occupies a range that roughly cuts the state in half from Eau Claire to Green Bay. The southern flying squirrel's range is more widespread; they're found in all but the farthest northern counties.



### CATCH OF THE DAY

On Jan. 13, while visiting the Maywood Environmental Park in Sheboygan, I captured this mink with his "catch of the day," a tiger musky, coming up the Pigeon River. Thankfully, his journey up the river was towards me, not away from me!

*Sara Sonntag  
Cascade*



© GREGORY K. SCOTT

Both species have flaps of skin between their front and rear legs that they use for gliding between trees. They are strictly nocturnal so it's very unlikely you'll see them during the day. At night, they

## BOOK WORMS "READ TO LEAD" IN WISCONSIN STATE PARKS

*Jennifer Abplanalp*

The Wisconsin Department of Natural Resources wants children and their families to read in tents and while sitting on logs, an undertaking that might just land them a Kindle Fire®.

This year, the Wisconsin State Parks System is encouraging Wisconsin youth and their families to read everywhere, including in the state parks in the "Read to Lead" initiative to promote reading for Wisconsin's youth.

"Read to Lead" was initiated to improve the reading skills of the state's youth and to have them reading at their grade level by the fourth grade, which researchers say greatly improves the child's chances for graduation.

Each week during the year, a new nature book such as Marilyn Singer's *Fireflies at Midnight* and Melvin Berger's *Look Out for Turtles!* will be featured on the reading list. Books are available at one of the listed state parks and in local libraries around the state. Additionally, during the week that a book is featured, parks will offer special nature programs as a part of the reading program during their "Read to Lead" weeks.

Youngsters have an added incentive to read nature books in the state parks and at libraries, namely, the chance to win a Kindle Fire® or one of 10 other e-readers. For children between the ages of 5 and 9, reading 20 or more of these books and checking them off their list will qualify them to enter in a drawing co-sponsored by the Natural Resources Foundation of Wisconsin, Friends of Wisconsin State Parks and the State Park System.

Additional information can be found by visiting [dnr.wi.gov](http://dnr.wi.gov) and searching "read to lead."

*Jennifer Abplanalp is an editorial intern with Wisconsin Natural Resources magazine.*

forage among trees or on the ground where their movement is less graceful than their aerial gliding. During winter, they often abandon their leaf-based nests in favor of tree cavities or hollows that offer more protection.

#### CAT ARTICLE STRIKES A NERVE

The content of the magazine hit an all time low for me when I came to Johanna Schroeder's article on cat boxes ("When cats do more than think outside the box"). Some friends and family members have agreed with me. Not all of us share the admiration of cats. They are very harmful in nature, preying on bird species, rabbits and squirrels. In addition, they can become a nuisance by raiding trash cans and defecating on lawns, sandboxes and gardens. There were always hard-hitting articles by DNR staff in the *Wisconsin Conservation Bulletins* by experts in their field and they gave us a look at the important work being done in conservation efforts and protecting our natural resources. I would have to agree with others, that the direction the *Wisconsin Natural Resources* magazine has taken leans toward a quasi tourism content. We have a separate tourism department in this state. Why not leave tourism to them and give us some meat and potatoes articles?

Larry Koschke  
Monroe

We welcome reader input and ideas for editorial content. We do try to cater to a variety of reader interests in the magazine and the *Creature Comforts* and *Wisconsin Traveler* pages have been popular for years. Our focus with the one-page story you referenced in the February issue was indoor cats. We certainly are aware of the very serious issues with feral and free-ranging cats and have covered that in the magazine. We hope you also had a chance to look at the kayak safety story — which we hope will save lives — as well as the important issues of sturgeon management, hunters with a land ethic, migratory birds, upcoming season dates for hunting and a report on how the Department of Natural Resources spends fish and wildlife account dollars. A personal favorite in the issue was the story of a teenager who learned to hunt deer from his grandfather. We invite you to share ideas for articles you would like to see in the future.

Johanna Schroeder's article on cats, struck a nerve with me. I've

been an animal lover, biologist, hunter, dog owner for 60 years. In my contacts with cats, I found them too independent to learn a trick or obey any commands, often appearing dim-witted. They kill song birds, over-breed and become feral predators. Why would anyone pay vet fees, buy food and house an animal that urinates and defecates in their house? Need companionship? Buy a stuffed animal — no upkeep! Am I missing something?

Jim Cox  
Lodi

In your February 2012 issue, page 15, you state, "Each year 40 million Wisconsin birds are killed by Wisconsin cats." You gave no information on where this absurd number came from, most likely from some extrapolation of a bogus database. Recently, Nico Dauphine, a bird researcher at the Smithsonian National Zoo, was fired after being convicted of trying to poison cats. Her published statistic that a billion birds are killed by cats every year, has been discredited. Yet, many people and organizations still use her bogus data. Is that where your 40 million number comes from? If so, you owe your readers an apology. If not, at least an explanation of where the 40 million number comes from. Fifty years ago, the publisher of the *Capital Times* newspaper used to say, "Let the people have the truth and the freedom to discuss it and all will go well."

Roger O'Gara  
Bartlett, Ill.

Our December 1996 issue ("On the prowl") reported on research by University of Wisconsin-Madison professor Stanley Temple that estimated a range of birds killed by rural cats in Wisconsin. Based

on estimations of the number of free-ranging cats in Wisconsin (1.4 to 2 million), the percentage of their diet that birds make up (between 20 and 30 percent), and the number of animals killed by an individual cat, Temple calculated a range of estimates. At the low end, using the low population estimates and lowest kill rate, Temple estimated that rural Wisconsin cats kill 7.8 million birds each year; his high-end estimate, was 219 million birds. His intermediate estimate of 38.7 million is commonly rounded up to 40 million and seems to be widely used by wildlife agencies and other reliable sources. His estimates did not include predation by urban cats allowed to roam free.



#### ALBINO PORCUPINE

Sharing this picture I took Oct. 10, 2011. Was looking out the back window and saw this white thing climbing the tree. Grabbed the camera and to my surprise it was a porcupine. Have not seen it since.

Susan Brathol  
Lake Nebagamon

## Tiny menace

Continued from page 2

### Landscape management

Beyond that, there may be steps you can take to make your property less attractive to deer tick hosts (specifically, white-footed mice, birds and deer), or at least keep them away from your primary activity area, especially if your property is rural and you have woodlots.

"Essentially, you could remove the understory around the perimeter of your residence," suggested Ryan. "Put that woody edge further away from your primary activity areas. Also, consider planting vegetation that deer don't find palatable and would avoid. These are things you can do to keep small rodent and bird populations along your yard edges and away from primary activity areas."

You can also ask landscape specialists to incorporate tick management concepts into your design. But attempting to manage host species as a means of targeting the disease is tricky and something that needs further study.

"At the end of the day personal protection is the first and foremost preventative measure," says Ryan. "There is much still to be learned on landscape management and other practices."

#### Here are some options to make your property less attractive to ticks and their hosts:

- Keep grass mowed.
- Remove leaf litter, brush and weeds at the edge of the lawn.
- Discourage rodent activity.
- Move firewood piles and bird feeders away from the house.
- Keep pets out of the woods to reduce ticks brought back home.
- Use plantings that don't attract deer or exclude deer through various types of fencing.
- Move children's swing sets and sand boxes away from the woodland edge and place them on a wood chip or mulch foundation.
- Trim tree branches and shrubs around the lawn edge to let in more sunlight.

From "Tick Management Handbook," Bulletin No. 1010, Connecticut Agricultural Experiment Station

### CORRECTION

Two photos on the *Traveler* page (the sharp-tail and the red-winged blackbird) in the April issue of *Wisconsin Natural Resources* magazine should have been credited to Greg Yahr, Aurora Photography. We apologize for the error.

For more information about Lyme disease, visit the Wisconsin Department of Health Services' website, [dhs.wisconsin.gov/communicable/TickBorne/LymeDisease/](http://dhs.wisconsin.gov/communicable/TickBorne/LymeDisease/)

# Comforts

## Watching TV.

Anita Carpenter

**It's not chipper like a chickadee or regal like a bald eagle. It lacks the elegance of a snowy egret or the brilliance of a scarlet tanager. It can't sing like a winter wren or fly with the zip of a ruby-throated hummingbird. What this bird can do like no other is soar. On a 5-1/2 foot wingspan, it commands the sky with effortless grace and elegance, often staying aloft for hours, carried by the wind.**

Yet when it descends to roost or to eat, we see this superb aerialist is one large, black, gawky and ugly bird. Turkey vultures are like that. Even their name suggests ugly. But turkey vultures are interesting birds with an important role in recycling and we should be grateful for their services.

As nature's scavengers, turkey vultures (*Cathartes aura*), dine on carrion. Even *Cathartes*, derived from Latin meaning scavenger, refers to its dietary lifestyle. Dressed in black, the 27-inch tall turkey vulture lacks feathers on its head. We see wrinkly, bare red skin, bulging eyes, nostrils and a fierce-looking hooked beak on a very



Turkey vultures act as nature's ultimate garbage collector, recycler and scavenger using their keen sense of smell and sight to find ripe carcasses.

STEPHEN J. LANG

MATT THEISEN

sky space but overlapping on the edges. Each vulture is looking, or rather smelling, for food. If one bird finds something that piques its interest, it circles in for a closer look. The vulture in the sky space next to it notices the descent and follows in. Soon a ripple effect follows through the sky and more and more vultures circle in. With a potential meal in sight, the incoming vultures are very wary when approaching a dead animal. Eventually they overcome their hesitation, come in and dine on the delectable meal.

This feeding strategy makes sense. Since the presence of carrion is unpredictable, more vultures searching a larger area increases the chances of finding something. So, in a way, it's a group effort for finding food.

Turkey vultures roost in colonies. In late evening they drift in when the wind subsides. In the morning, they often sit with wings outstretched. They may be warming themselves or drying feathers from the night's dampness. As soon as the temperature rises and daytime thermals begin, TVs clumsily jump off their perches and with a few slow, heavy wingbeats become airborne. They circle to gain altitude and another day of soaring begins.

Turkey vultures return to Wisconsin in the spring. Look for them soaring high in the sky as they drift northward. They do nest in the state but it's easier to see a soaring TV than to find a nesting pair. Many non-breeding TVs also spend summer in Wisconsin.

I've seen thousands of turkey vultures and each time I observe one, I stop and watch and marvel as it gracefully soars through the heavens. These birds have such freedom in the sky. Despite its outward appearance, it really is a bird of beauty. I admire its ability to eat food most of us wouldn't look at twice. I thank them for cleaning up the landscape. Turkey vultures are an integral part of the circle of life and another example of nature's recyclers at work. Without them, we might be knee deep in — well, you get the picture.



An immature turkey vulture.

DNR FILE

very long. But if you lacked head feathers, you wouldn't need to spend hours preening feathers on a difficult location to reach.

How do turkey vultures (TVs) find their food? They soar. But how do you differentiate a soaring TV from a hawk or eagle? A soaring TV shows a black body and black feathers on the front part of the wings, giving the impression of a large black triangle. This black triangle contrasts with the rest of the wings and tail, which are silver-whitish. No other soaring bird has this wing pattern. The wingtips usually show individual feathers, which is an adaptation for maintaining

balance in soaring flight. The tail is long and the head appears disproportionately small.

When soaring, TVs hold their wings up in a "v" called a dihedral. They ride thermals or air currents, often soaring for long periods without flapping. While seriously searching for food closer to the ground, the flight may seem unsteady as the birds rock from side to side as if buffeted by wind. Sometimes it appears that they almost stall out. Learning their flight characteristics also aids in identification.

While soaring may seem like such freedom to us, the birds soar to search for food with another unique twist. Turkey vultures spread themselves out over the landscape with each vulture seeming to have its own

small head. Although the small, featherless head looks ugly, it is an important adaptation for a unique lifestyle.

Because turkey vultures are carrion eaters, they eat dead, decaying and smelly animals. Imagine sticking your head inside a dead animal. Your head feathers wouldn't stay clean for

Anita Carpenter marks the comings and goings of birds, bugs and plants year-round from her home in Oshkosh.

## Traveler

### Time travel.



Kathryn A. Kahler

The nascent Fox-Wisconsin Heritage Parkway cuts across the state, providing glimpses into our rich and vibrant past.

Heritage tourism \hər-ət-ij (ə)r-iz-əm\ *n* travelling to experience the places and activities that authentically represent the stories and people of the past – *Wikipedia*

Communities along the 280-mile waterway that follows the Fox and Wisconsin rivers hope one day soon to be able to hang their hats on a coveted National Heritage Area designation, the first in Wisconsin and one of 49 others across the nation. The title — bestowed by the National Park Service with Congressional approval — will boost local economies by promoting events, historic sites and scenic routes, and opening a multi-use water trail from Green Bay to Prairie du Chien. Traveler invites you to make “heritage tourism” your new pastime and take the family for a week or a weekend this summer. Here are some tools to help plan your trip.

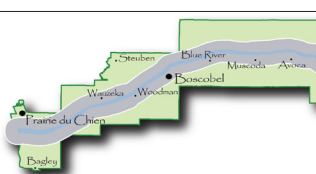
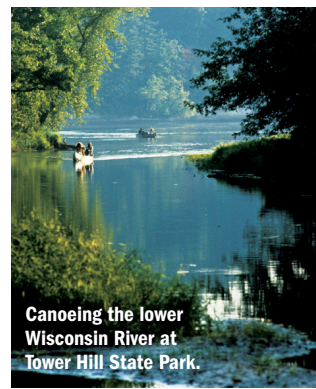
#### Maps and websites

First, get a map of the proposed parkway boundaries and learn more about the parkway planning process, its partners and how you can help support the effort at the parkway’s official website, heritageparkway.org. You’ll find nautical maps of the Appleton segment of the Fox-Wisconsin Water Trail — the first complete portion of the proposed trail, which will eventually extend the entire length of the Fox-Wisconsin Heritage Parkway — and links to multi-use land trails within the parkway boundary. While there, be sure to check out “Historic Topics” to get a flavor of the diverse heritage of the region.

Canoeists and kayakers take note — four paddles on the Wisconsin and Fox rivers are listed on the parkway’s website (click on “Events”): the **Eco-Heritage Paddle**, June 9-10, on the Wisconsin River from Lake Delton to Portage on Saturday, and on the Fox River from CTH O (three miles southeast of Endeavor) to Packwaukee Lake on Sunday; the **Eureka Lock Paddle**, June 23-24, from the White River dam to Riverside Park in Berlin on

Saturday, and from Riverside Park to Miller Park in Omro on Sunday; the **11th Annual Park-to-Park Paddle**, July 21, from Shattuck Park in Neenah, through the Menasha Lock to Lutz Park in Appleton; and the **Moonlight Paddle**, August 10, from Bornier Park in DePere, through the DePere Lock to the Green Bay Marina.

Portage is the midpoint of the parkway, marking the continental divide where the Fox flows north and



the Wisconsin flows south, where Indians, traders and explorers had to portage their canoes from one stream to the other. Visit [ci.portage.wi.us/](http://ci.portage.wi.us/) and click on “Learn more about Portage” for a history and map of the city, and see [portagecanalsociety.com](http://portagecanalsociety.com) for information about the Portage Canal. Commemorate the 339th anniversary of Marquette and Joliet’s 1.5-mile cross-land trek on June 14.

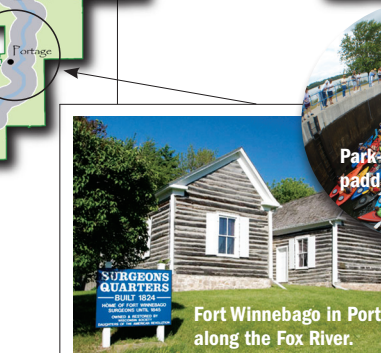
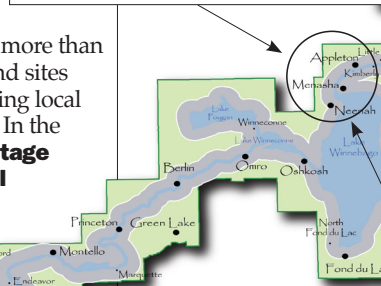
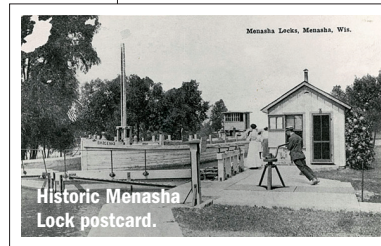
Downstream of the Prairie du Sac dam, the Wisconsin River flows unimpeded by dams or other structures to its mouth at the Mississippi River. Much of this portion of the parkway is protected for public use as the **Lower Wisconsin State Riverway**. Visit [dnr.wi.gov](http://dnr.wi.gov) (search “lower Wisconsin River”) for property maps and information about boating, canoeing, camping, hiking and horseback riding.

Round out your trip with a visit to **Wyalusing State Park** at the confluence of the Wisconsin and Mississippi rivers, where geologic forces, glaciers and an array of colorful people shaped the history of the area. Visit [dnr.wi.gov](http://dnr.wi.gov) and search “Wyalusing” for maps and other information.

#### Historic sites and museums

Within the boundaries of the parkway, you’ll find more than a dozen museums and sites dedicated to preserving local and regional history. In the Green Bay area, **Heritage Hill State Historical Park** (call 1-800-721-5150, or visit [heritagehillgb.org](http://heritagehillgb.org)), **Oneida**

**Nation Museum** (call 920-869-2768, or visit [oneidanation.org/museum/](http://oneidanation.org/museum/)) and the **Neville Public Museum** (call 920-448-4460, or visit [nevillepublicmuseum.org](http://nevillepublicmuseum.org)) devote permanent exhibits to Native American life; French, British and Yankee settlements; and the explorations of Father Jacques Marquette and Louis Joliet. In the Appleton/Kaukauna area, visit the **History Museum at the Castle** and the **Charles A. Grignon Mansion** (call 920-735-9370 or visit [foxvalleyhistory.org](http://foxvalleyhistory.org)), and further south, the **Oshkosh Public Museum** (call 920-236-5799 or visit [www.oshkoshmuseum.org](http://www.oshkoshmuseum.org)). In Portage, **Winnebago Surgeons Quarters** (call 608-742-2949 for more details or a calendar of events) is all that remains of Fort Winnebago, built in 1828 to protect commerce and serve as the center of local government for the region. At the far western end of the parkway, stop for a tour of **Fort Crawford Museum** (call 608-326-6960 or visit [fortcrawfordmuseum.com](http://fortcrawfordmuseum.com)).



MAP COURTESY OF FOX-WISCONSIN HERITAGE PARKWAY

MATT FRANK

MARK HOFFMAN

Kathryn A. Kahler is a staff writer for Wisconsin Natural Resources magazine.



## Wisconsin, naturally

### HOUGHTON FALLS STATE NATURAL AREA

**Notable:**

A scenic gorge cut deeply into reddish-brown Precambrian sandstone along the Lake Superior coast at Houghton Point is the highlight of this 76-acre nature preserve. An intermittent stream meanders through the site, cascading over exposed bedrock before descending 60 feet into a sandy cove flanked by dramatic lakeshore bluffs. Upstream is Echo Dells, a series of water-carved cliffs and caves interspersed with small waterfalls. Hemlock, yellow birch, white cedar, mountain maple, balsam fir, red pine and white pine provide a cool, shady environment. Canada yew, a shrub decimated elsewhere by browsing deer, finds refuge here on the mossy, inaccessible cliff walls. The understory harbors blue-bead lily, bunchberry, long beech fern, thimbleberry, wood sorrel and small enchanter's nightshade. This stretch of unfragmented Lake Superior shoreline supports many resident and migratory birds including merlin, least flycatcher, black-throated green warbler, winter wren, wood thrush and Canada warbler. The natural area is owned by the Town of Bayview and was acquired with funding provided, in part, by a grant from the Knowles-Nelson Stewardship Program.



**How to get there:**

From the intersection of Highway 13 and County Highway C in Washburn, go north on Highway 13 2.9 miles, then east on Houghton Falls Road 0.5 miles to a parking area. A trail leads through the site to the lake. Visit [dnr.wi.gov](http://dnr.wi.gov) and search "Houghton Falls" for information and a map of the site.

