

**PLUS:**

**Friends of Wisconsin State Parks Calendar  
Natural Heritage Conservation Field Notes**

# WISCONSIN NATURAL RESOURCES

[wnrmag.com](http://wnrmag.com)

Winter 2018 \$3.50

# ICE

## SHOVES SHANTIES SHORELINES & SAILS

**Eagle encounter  
on the Mississippi**

**When the outdoors  
lets in healing**

**Tech progress drives DNR**





BEN PIERSON

## A message from DNR Secretary Dan Meyer

Residents of Wisconsin know a thing or two about winter. And one of the best suggestions for getting through the season is simple: Stay active.

At the Department of Natural Resources, we offer plenty of ways for folks in the state to keep moving throughout the winter months. That includes cross-country skiing, one of the most popular cold-weather activities at our beautiful state properties.

Hundreds of miles of ski trails are maintained during the winter at dozens of parks, forests and recreation areas statewide. Last year, the department launched an online ski conditions report for trails at state properties, and this well-received tool will continue for the upcoming winter season. You can find this trail report, trail pass information and everything else you need to know about cross-country skiing at state properties by checking [dnr.wi.gov](http://dnr.wi.gov), keyword “ski.”

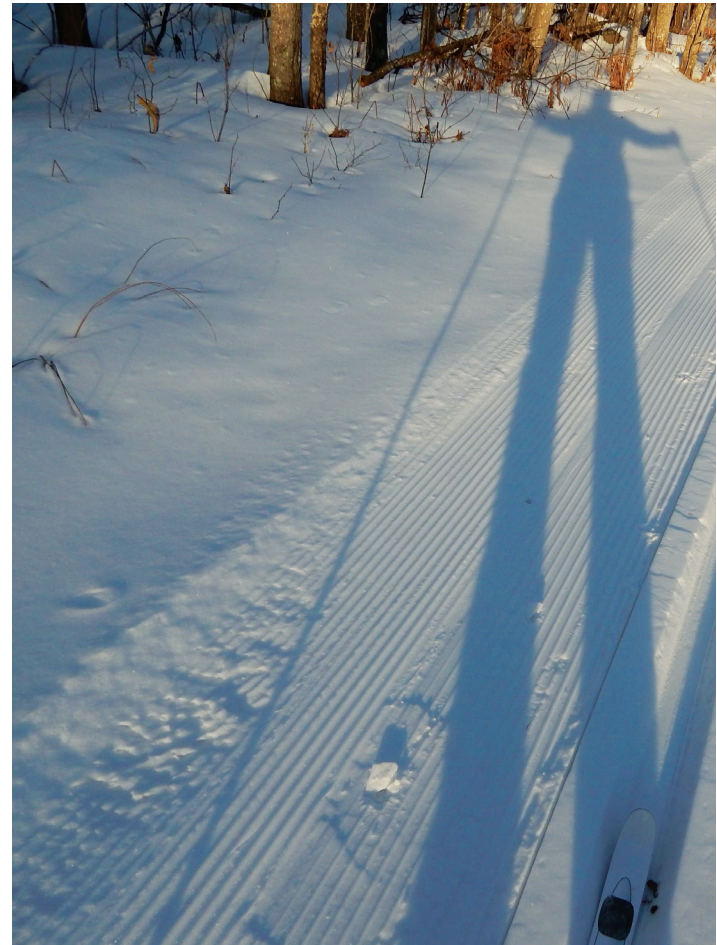
In addition, state properties offer hiking and snowshoeing on non-ski trails when conditions allow it and there is winter camping in many locations.

Ice fishing is another winter favorite in Wisconsin. If you’ve never gone ice fishing or haven’t been in a while, the DNR’s Free Fishing Weekend is always a good time to try. It’s Jan. 19-20 this winter and allows free fishing with no license required on most state waters.

Remember to be safe when you’re out on the ice — don’t go alone and don’t take chances in unfamiliar areas. Find other safety tips and fishing information at [dnr.wi.gov](http://dnr.wi.gov), keywords “ice fishing.”

Snowmobiling also is a popular winter activity in the state and the DNR works diligently to provide a safe experience there, too. Check [dnr.wi.gov](http://dnr.wi.gov), keyword “snowmobile,” for regulations, safety information and details on required snowmobile registration and trail passes.

The nine-day gun deer season may have closed but there are still plenty of deer hunting



opportunities out there. The archery and crossbow season runs through Jan. 6 and there will be an antlerless-only holiday deer hunt in Zone 2 farmland counties Dec. 24-Jan. 1.

The popular Christmas pheasant hunt will be back again this year. Pheasants from the State Game Farm will be stocked by DNR for a holiday hunt at select properties. Find out more about that by going to [dnr.wi.gov](http://dnr.wi.gov), keyword “pheasant.”

Looking ahead, we hope to bring you updates in the coming months on next year’s elk hunt following the first managed elk hunt in state history this fall.

Speaking of looking ahead, we are already making plans for next spring and summer. As you’ll read later in this edition, a major part of DNR’s planning involves the new camping reservations system we are putting into place. Camis is replacing ReserveAmerica as our new vendor and the system is set to go live before the end of the year. Check [dnr.wi.gov](http://dnr.wi.gov), keyword “parks,” for updates and information on how to use the new system.

We’re here to help you enjoy your Wisconsin winter — it wouldn’t be our great state without it. #OutWiGo.



# WISCONSIN NATURAL RESOURCES

Winter 2018 | Volume 42, Number 4



EVELYN REGAN

**ABOVE:**  
The Friends of Wisconsin State Parks photo contest always draws great images, including this one from Governor Thompson State Park.

**FRONT COVER:**  
Ice shelves resemble mini-glaciers on the shores of Lake Winnebago at Calumet County Park.

PHOTO BY TIM SWEET

**BACK COVER:**  
Copper Falls State Park in Ashland County turns 90 next year. Along with many water features — beautifully frozen in winter — it features historic buildings such as this shelter pictured in 1939.

PHOTOS BY BEN PIERSON (TOP)  
AND EUGENE SANBORN, DNR FILES

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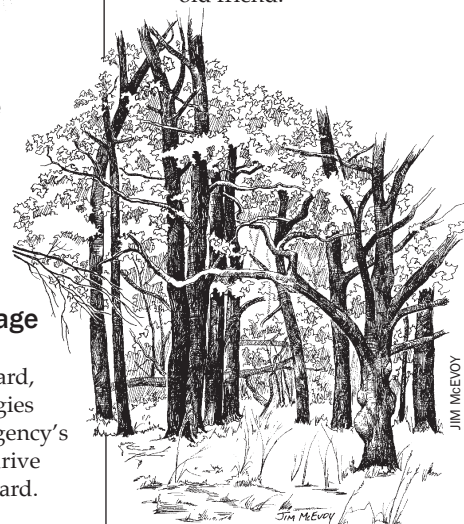
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IMAGES OF WINTRY SCENES CAPTURE  
WISCONSIN'S FROZEN SPLENDOR.

# FREEZE

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*Text by Andrea Zani and photos by Tim Sweet*

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Don't look now but winter is at our doorstep. That means literally, in the case of the incredible photo on page 9. The other photos featured on the next few pages show winter all around and at its frozen best.

Taken by Tim Sweet, a magazine contributor from Appleton, the images capture scenes on central Wisconsin's Lake Winnebago, Lake Michigan, Door County and elsewhere. They represent some of the best winter in Wisconsin has to offer: Ice fishing and other outdoor activities, and seasonal beauty that just can't be found in more temperate locations.

We hope you enjoy these cold snaps and, more importantly, enjoy the winter.



Anything to avoid "Death's Door," especially in winter. The Sturgeon Bay Ship Canal, a seven-mile stretch completed in the late 1800s, allows ships to pass from Lake Michigan to Green Bay without having to go around the Door Peninsula, that far more dangerous northern passage known as "Death's Door." Several lighthouses mark the way along the canal including the North Pierhead Light on the Lake Michigan end. The distinguished red structure dating to 1881 is located at a fully operational U.S. Coast Guard station. The light has been automated since 1972 and only the lower level break wall area is open to the public.

> **Sturgeon Bay's North Pierhead Light**

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## ICE | HOUSE



# FRAMES



When winter's frigid winds whip themselves into a frenzy and broad sheets of thick, clear ice glisten in the sun, it's the perfect time to ... go boating? If it's ice boating, the answer is a resounding yes. Such conditions are perfect for the sport that puts sailing into a deep-freeze. Ice boats are like sail boats in most ways, except they use runners, or skates, to glide along over the ice. The boats come in several classes, including the popular and common DN, and A-, B- and C-class "skeeters," some of the fastest boats on ice. Winds can push even recreational ice boats to speeds topping 50 mph and some racing skeeters have been clocked at more than 100 mph. In Wisconsin, when conditions are right, ice boats can be found in places such as Lake Winnebago, Pewaukee Lake, Geneva Lake and Madison's Yahara Chain of Lakes, as well as the Great Lakes, Michigan and Superior.

**> Smooth sailing across Lake Winnebago**

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## ICE | BOATING





At 1,000 feet long with a carrying capacity of more than 63,000 gross tons, the M/V Mesabi Miner, a motor vessel of the Interlake Steamship Co., is a Great Lakes monster. Built in 1977, it travels four of the five lakes, moving cargo such as coal and iron ore to dozens of ports. It's among a class of ships, Great Lakes freighters, whose history is entrenched in upper Midwest lore — what fan of '70s music can't hum a few bars of Gordon Lightfoot's "Wreck of the Edmund Fitzgerald"? Because of the kind of weather that delivered the fateful blow to that ship in 1975, lake freighters do face a lull in action in the heart of winter, mostly mid-January to late March. The Soo Locks connecting Lake Superior to the lower Great Lakes and the Welland Canal joining lakes Erie and Ontario are closed during this time and boats layup, many in Door County's Sturgeon Bay, to undergo annual maintenance before fitting out again for another season.

> Mesabi Miner freighter navigates the Sturgeon Bay ship canal

## ICE | BREAKER





The only-in-Wisconsin musical hit “Guys on Ice” has given many an audience member a chuckle or two about what might go on inside the fishing shanty. Originally developed for the theater company that performs at Peninsula State Park, “Guys on Ice” follows the characters Marvin and Lloyd as they fish and philosophize — and sing such tunes as “Fish Is a Miracle Food,” “The Wishing Hole” and “The One That Got Away.” It’s a humorous look at an activity taken entirely seriously by ice-fishing die-hards: shanty life. With so much time spent by many out on the ice, it’s no wonder the shanty is such a big deal. Sure, an angler can make do with a pop-up fishing tent or a couple of boards thrown together and covered with a tarp. But many choose to go all-in — solid roof and walls, heat and electricity, bunks, cooktops, TVs (tuned to the Packer game if it’s Sunday). There have even been reports of luxury shanties complete with a sauna or hot tub — just imagine what Marvin and Lloyd would say about that.



An angler on the way to “shanty town” is a regular sight in the dead of winter. When spring nears and the state starts its annual thaw, though, shanty users should keep in mind there are deadlines for getting the shack off the ice. That’s generally in late February or early to mid-March depending on the water body. Other regulations apply to ice shelters, too, including rules on locking the shelter (not permitted while occupied) and how to mark identification on the exterior. For these details and more, see the DNR’s complete fishing guidelines at [dnr.wi.gov](http://dnr.wi.gov), keywords “fishing regulations.”

> Ice shanties on Lake Winnebago



Wisconsin anglers know some of the best fishing comes when the state’s waters change from their liquid state to solid. The pastime is a uniquely northern winter pleasure and has its own language, really. You’ll need an auger and a spud — that’s pretty much a long chisel — probably a skimmer, too. Tip-ups tell you something’s on the line. If you’ve never tried it before, put ice fishing on your bucket list. Check [dnr.wi.gov](http://dnr.wi.gov), keywords “ice fishing,” for all you need to know including equipment, safety tips, regulations and even where to try for best results.

> Brian Lederhaus readying a line

## ICE | FISHING

## ICE | SHANTIES





Door County's Cave Point County Park is beautiful year-round — uniquely so in winter when wind-whipped waves crash in from Lake Michigan, coating rocks and trees with layers of ice. The effect is an icy cave appearance with sharp frozen fingers that glisten in the sunlight. Similar ice formations can be found at nearby Whitefish Dunes State Park. For ice caves of a bigger sort, check out another Wisconsin location: Apostle Islands National Lakeshore in Bayfield County. There, sea caves that can be reached only by boat in summer are sometimes accessible on foot in winter if the area sinks into a deep enough deep freeze. To find out if conditions are right this winter, check the National Park Service website, [nps.gov/apis/mainland-caves-winter.htm](https://www.nps.gov/apis/mainland-caves-winter.htm); access the Apostle Islands Facebook page, [facebook.com/apostleislandsnationallakeshore](https://www.facebook.com/apostleislandsnationallakeshore); or call the park service "Ice Line" at 715-779-3397, ext. 3.

**> Cave Point County Park, Door County**

## ICE | CAVES





Some folks just never stop pedaling, even when the snow flies. DNR trails otherwise open to bikes are open for winter bicycling as well, including fat-tire biking, unless the trail is groomed for cross-country skiing or a local government trail operator (usually county) has indicated no winter biking on the property's master plan. See [dnr.wi.gov](http://dnr.wi.gov), keywords "bicycle trails," for more.

## ICE | BIKING



It's safe to assume one thing regarding ice safety: No ice is ever 100 percent secure. Factors such as thickness, outdoor temperature or how long the ice has been frozen are no guarantee. The strength of ice can vary by water body and even in different areas of the same water body. The DNR's ice safety page has tips for when you decide to head out onto the ice and for what to do if you fall through. Find it at [dnr.wi.gov](http://dnr.wi.gov), keywords "ice safety."

## ICE | SAFETY



Take some sheets or chunks of ice floating on a thawing lake. Aim toward a slightly sloped shoreline, add a few strong winds and push. The result is a fairly unusual but often incredible phenomenon known as ice shoves. Sometimes it's even referred to as an ice tsunami! Spring is the best season for this, as ice shoves can occur only when ice on a body of water is partially thawed and breaking up but not totally melted. Winds must be strong enough to move the ice to shore, where it can move inland as far as a few hundred yards. Loud crackling sounds can accompany the movement as the ice piles up to create natural works of art. These installations are fleeting, however, melting away as soon as the weather warms.

## ICE | SHOVES

> Lake Winnebago: Winter biking and beauty with a vengeance



# One foggy morning on the Mississippi

## BIRD ENCOUNTER BRINGS NEW MEANING TO 'THE EAGLE HAS LANDED.'

*Jon Chapman*

I love the Mississippi River, having grown up on its banks in Moline, Illinois, and having fished nearly 400 miles of the river from Burlington, Iowa, to Red Wing, Minnesota. My favorite portion is the area that runs along western Wisconsin near Buffalo City, north of La Crosse — specifically lock-and-dam pools 4, 5 and 5a, which I've fished for nearly 60 of my 70 years.

Upon retiring in 2004, after having lived in eight states plus Germany, I was drawn to Buffalo City by the river there, with its gorgeous bluffs and coulees, and by the wonderful people. I built a fishing cabin, where I spend about 120 days a year, with the balance of my time as a snowbird in Fort Myers, Florida.

In late summer of 2017, on Aug. 30 to be exact, a memorable experience occurred that I'd like to share. I had launched at the Belvidere Slough Boat Ramp and, in a heavy fog, idled away. Several hundred yards upstream a dark object in the water caught my attention. As I wondered what it might be, it waved to me!

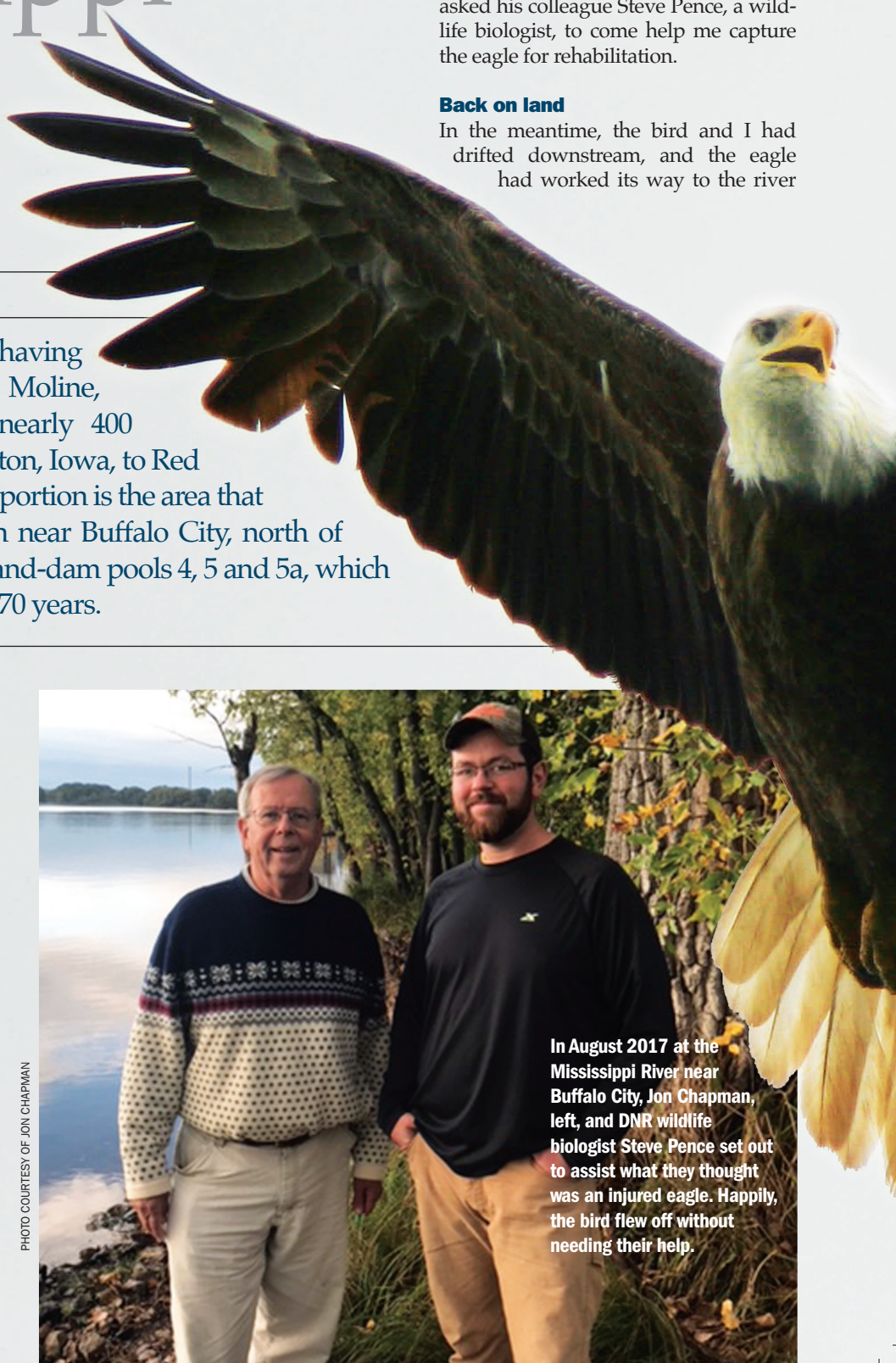
Holy cow, I thought, it's a person! I sped up to offer assistance and as I got closer, I saw it actually was a mature bald eagle — its "waving" had been wing movement. It seemed bedraggled, yet alert. I concluded it must be injured

and, aware of raptor rehabilitation programs, I called my friend Brian Brecka, a Department of Natural Resources fisheries biologist in Alma, for guidance.

Brian steered me to Gary Wolf, a DNR wildlife technician in the Alma office, who was helpful but unable to come to the river on short notice. He asked if I might be able to get the eagle into my dip net. I explained I had no net — and no appetite to deal with a distressed eagle and its talons! Gary understood; he asked his colleague Steve Pence, a wildlife biologist, to come help me capture the eagle for rehabilitation.

### **Back on land**

In the meantime, the bird and I had drifted downstream, and the eagle had worked its way to the river



In August 2017 at the Mississippi River near Buffalo City, Jon Chapman, left, and DNR wildlife biologist Steve Pence set out to assist what they thought was an injured eagle. Happily, the bird flew off without needing their help.

PHOTO COURTESY OF JON CHAPMAN



bank, exiting at the landing where I had launched 20 minutes earlier. I thought that was fitting — giving new meaning to the phrase, “The eagle has landed.”

As it stood on the concrete boat ramp, I could see no visible injury, although it made no attempt to fly and seemed exhausted. After resting a few minutes, the eagle apparently became concerned with my close presence. It hopped a few yards upstream into the brush along the river bank, where it rested again. The bird continued to hop then rest several more times until it was about 40 yards upstream from me and the ramp, a more comfortable distance away it seemed.

It rested there for perhaps 25 more minutes until Steve arrived with a blanket, to capture and calm the eagle, and a large wooden box for transport to rehab. Steve and I discussed a plan: Steve, with the blanket, would hide behind a large cottonwood tree. I would swing the boat wide to avoid disturbing the eagle, idle about 50 yards upstream of the bird, then come in close to the bank and move slowly downstream to “herd” it toward Steve.

This sounded like a good plan and it was working well until I had herded the eagle to within

## >>> EAGLES IN WINTER

Along the Mississippi River and other areas of open water, eagle activity remains high throughout winter as the birds search for food. Here are a few places and events for seasonal eagle viewing.

- **WINGS OVER ALMA NATURE AND ART CENTER**

Below Mississippi lock and dam No. 4 in Alma, the center has a 50-foot deck for eagle watching all winter long; [wingsoveralma.org](http://wingsoveralma.org).

- **SOUTHWEST WISCONSIN**

Several cities along the Mississippi River in this part of the state have sites for seeing eagles in winter and celebrate the birds with seasonal festivities. From north to south, this includes Ferryville, just north of lock and dam No. 9, [visitferryville.com](http://visitferryville.com); Prairie du Chien, which holds Eagle Appreciation Days in February, [prairieduchien.org/visitors/eagles](http://prairieduchien.org/visitors/eagles); and Cassville, near lock and dam No. 10, [cassville.org](http://cassville.org). This stretch of the river also includes the Upper Mississippi River National Wildlife and Fish Refuge, several state natural areas and two scenic Wisconsin state parks: Wyalusing and Nelson Dewey.

- **SAUK CITY AND PRAIRIE DU SAC**

Open water on the Wisconsin River creates perfect conditions for wintering eagles, and the Ferry Bluff Eagle Council will hold its annual Bald Eagle Watching Days here Jan. 18-19. There also are regular eagle-watching bus tours in winter; [ferrybluffeaglecouncil.org](http://ferrybluffeaglecouncil.org).

- **FOX CITIES**

The Fox River in the Appleton area is yet another good spot for eagles in winter and the annual Eagle Days along the Fox River will mark the occasion on Jan. 26; [eagledaysalongthefox.org](http://eagledaysalongthefox.org).


about 20 feet of Steve. At that point, it simply flew away!

### Splash landing likely

Steve and I laughed and scratched our heads. His theory made sense to me: In

the low light and heavy fog conditions, the eagle probably had been flying and looking for breakfast. It likely spotted a fish and dove for it, but in the fog became disoriented and hit the water hard, stunning itself and becoming sufficiently water-laden that it couldn't fly. It then exhausted itself trying to fly out of the water, which is when I entered the picture.

In retrospect, while my intentions were honorable, I suspect all I accomplished was to add further stress to an already difficult morning for the eagle. Yet, both Steve and I preferred the outcome — we kept wildlife wild, without human intervention.

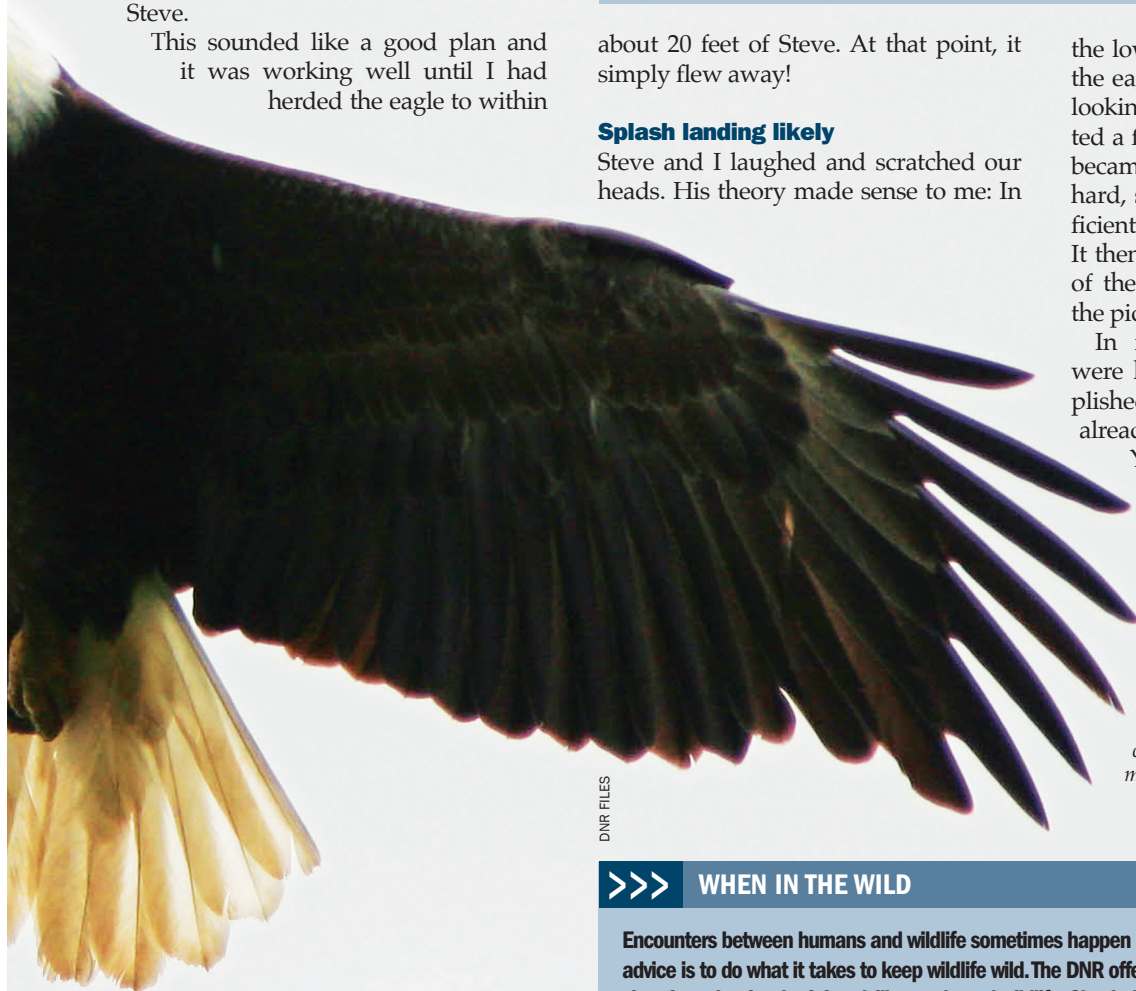
And I have an indelible memory from the experience, reinforcing my love of the Mississippi River and Wisconsin. 

*Jon Chapman is an Army veteran and retired MBA/CPA who had a 32-year career with John Deere, including a mid-1970s assignment in Horicon.*

## >>> WHEN IN THE WILD

Encounters between humans and wildlife sometimes happen in Wisconsin's outdoors, and the best advice is to do what it takes to keep wildlife wild. The DNR offers information and tips for dealing with situations that involve injured, ill or orphaned wildlife. Check [dnr.wi.gov](http://dnr.wi.gov), keywords “keep wildlife wild.”

DNR FILES







# The nature of healing

IN NORTHWEST WISCONSIN, A YOUTH TREATMENT CENTER FINDS THE OUTDOORS TO BE POWERFUL MEDICINE.

*Ben Thwaites*

*“Shh, don’t move. Stay right here,” Alice instructed me with a tense whisper. She crept ahead toward a cluster of trees on the banks of the Namekagon River, her zoom lens trained on something I couldn’t yet see. She stopped, took a steadying breath and fired her shutter.*

That’s when I finally glimpsed the small butterfly’s orange wings a couple of feet in front of her lens. Alice snapped a few more photos with the calm intensity of an experienced pro before her subject fluttered away to a nearby limb. She peered at her camera’s LCD screen and a smile came across her face.

“I think I got a good one! Come check it out,” she exclaimed, the sparkle in her eyes releasing the tension of the moment.

She handed me her camera. “Wow, that is incredible,” I said, nearly speechless. Alice beamed.

The photo was perfectly composed, sharp, in great light. It would appear at home alongside the art of professionals in any gallery.

But Alice isn’t a professional photographer. She’s not even out of high school. In fact, Alice is in a fight for her life.

She is a resident at Northwest Passage, a nonprofit residential mental health treatment center for children ages 12-17 based in Webster and Frederic, nestled in the rural northwestern corner of the state. Severe and often life-threatening mental health crises result in placement here for durations of several months to up to a year.

## **A journey of hope**

The stakes couldn’t be higher for the more than 300 kids per year who come to Northwest Passage from around Wisconsin and beyond. They make the journey because the mental health resources in their home communities cannot meet





BRETT SEYMOUR/NATIONAL PARK SERVICE

monitor and adjust medications. Regular schedules and routines are tightly followed.

However, the day-to-day experience of every resident is anything but typical. Instead of the sterile, white-walled hospital experience one might expect, kids experience a treatment setting designed around the natural world. These young people are immersed in the region's rivers, lakes, forests and prairies. Nature is infused into nearly every aspect of their daily life.

Such a deep role of nature in the treatment model is unique among organizations like it, but for Northwest Passage, nature has always just made sense.

"At Northwest Passage, we have always believed that nature is a fundamental source of healing," Executive Director Mark Elliott said. "Our kids often come to us disengaged with the world around them and nature provides an important building block to help kids reengage with the world in a positive way. Nature's therapeutic values are endless."

#### Natural forces at work

Northwest Passage's roots in nature go back to its beginnings in 1978, when it was founded by several former employees of a large Twin Cities mental health hospital who knew there had to be a better approach than a cold, impersonal, institutional setting. Motivated by the intuition that struggling youth could heal best in a serene natural environment, they purchased a small house on the Clam River in Webster and began their test run.

Early treatment programming centered on the region's endless camping, canoeing, fishing and hiking opportunities. The founders' intuition was quickly proven correct. Their innovative nature-based treatment model worked, and word got out.

Northwest Passage steadily grew and gained a reputation as one of the leading mental health providers in the state. Fast-forward 40 years, and the organization now employs more than 190 staff in state-of-the-art facilities.

As Northwest Passage expanded, it never lost sight of why it was created in the first place. The two large modern campuses were built with nature in mind.

"Our campuses are designed so nature is a dominant force in our kids' lives," said Ian Karl, the center's experiential programming coordinator.

"For example, in transition times, the kids aren't walking down hallways. They're walking through green space. That gives the kids a chance for an emotional reset numerous times throughout the day.

"In addition, if kids are having a bad day, staff can take them for a walk on our trails. It always helps."

#### Plenty more to explore

Nestled among towering white pines, Northwest Passage's Webster campus, called "Riverside," is situated on the original Clam River site. Great fishing waits just out the back door and deer wander through the grounds. The Frederic campus, named "Prairieview," is near an ongoing prairie restoration crisscrossed by more than a mile of trails through prime pollinator habitat.

The experiences in nature also extend far beyond the borders of Northwest Passage's campuses. The region's vast tracts of public land serve as an extension of the treatment center itself and field trips are an almost daily routine.

Nature photography is a centerpiece of these off-grounds excursions, with the St. Croix National Scenic Riverway, Interstate State Park, Apostle Islands National Lakeshore and Crex Meadows State Wildlife Area serving as some of the kids' favorite photography hotspots.

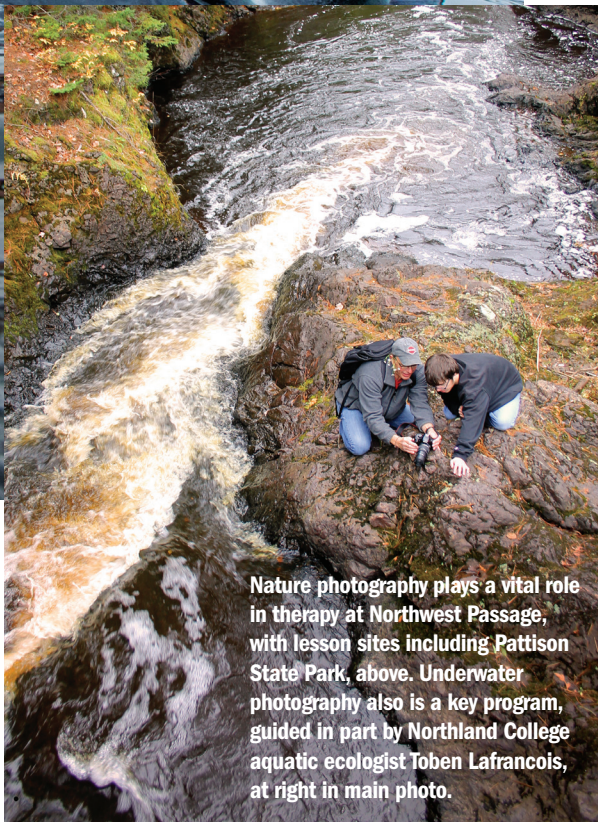
Guided by skilled staff mentors, kids learn advanced photography techniques they use to create stunning photos that have been featured in exhibitions around the nation. For many, it's the first time they've been publicly recognized for positive accomplishments.

Even more importantly, the kids' own photos provide a new window through which they can interpret their experiences, their pain and their hopes.

Thirteen-year-old Bobby wrote about his photo of an eagle perched on a branch with wings spread, ready to fly: "Taking flight is a jump of hope, flying to do other things. Flying is part of life, but it's the easy part. Taking off is hard."

Over the past few years, the nature photography program evolved to new depths, quite literally. Armed with partnerships and funding through the National Park Service and Wisconsin Sea Grant, Northwest Passage's kids began submerging their cameras — and themselves — underwater.

With this new element of the photography program, a new and unprecedented view of northern Wisconsin's rivers and lakes emerged alongside a novel



NORTHWEST PASSAGE

Nature photography plays a vital role in therapy at Northwest Passage, with lesson sites including Pattison State Park, above. Underwater photography also is a key program, guided in part by Northland College aquatic ecologist Toben Lafrancois, at right in main photo.

their level of medical need.

Many have multiple complex and overlapping diagnoses, often a result of past trauma, and most have undergone numerous unsuccessful past treatment attempts. For many, Northwest Passage is a last hope.

At first glance, Northwest Passage might seem like any typical large treatment center. It employs teams of highly skilled neuropsychologists, therapists, case managers, counselors and special education teachers. Psychiatric staff





Crex Meadows Wildlife Area and Schaefer Cabin serve as natural creative outlets for Northwest Passage students, who often are joined by artists-in-residence such as painter Cait Irwin, seated at far right in cabin photo.

understanding of the therapeutic power of water.

"When I'm underwater taking photos, I feel complete," said Lexi. "I am able to leave behind the part of myself that wants to control everything and just go with it."

### Learning to reconnect

When not searching for sandhill crane photos in Crex Meadows or shots of small-mouth bass in the St. Croix River, Northwest Passage's young artists tap into other creative outlets at the Schaefer Cabin on the banks of the Namekagon River near Webb Lake. This 100-year-old restored National Park Service log cabin serves as a secluded retreat where artists-in-residence come for month-long stays and share their skills and passion with the kids.

Painters, musicians, sculptors and potters have left their mark on the lives of students. But the inspiration goes both ways.

"I'm not sure words can even capture the inspiring and transformative nature of my experience in this residency," said Cait Irwin, a painter from Iowa. "Each kid I met renewed my belief that art and nature heal."

Amid the countless hours the kids spend exploring wild areas, they also must keep up with schoolwork. Northwest Passage is an accredited academic institution and ensures kids don't fall behind academically during their treatment. However, school time at Northwest Passage is anything but traditional.

"So many of our kids have failed in past traditional academic environments," Karl said. "We need to create an environment where they can learn how to learn again, to engage them and trigger their curiosity. And that's going to happen in nature."

Rather than desks and textbooks, academics are designed around the rhythms of the seasons. In spring, for example, the kids run a maple syrup operation and learn tree physiology along the way. Summer is filled with ecology curricula brought to life through habitat restoration, beekeeping

and gardening. Birding lessons run throughout the year.

"We try to make learning multisensory, kinesthetic, tactile," Karl added. "You're not just doing, but feeling it."

### More outdoors, less stress

For Northwest Passage, it's clear that outcomes rely heavily on a multidimensional nature-based approach to healing. But why invest so heavily in these seemingly unconventional treatment methods? The short answer: because these methods work.

After we returned to the classroom from our day out photographing along Namekagon River, I asked Alice and her peers what they liked about being out in nature.

Kimi, a bright-eyed 16-year-old, chimed in first. "When I'm out in nature or doing photography, I feel more part of this Earth. It's almost spiritual," she said. "I just feel more relaxed and more myself. It's hard to explain."

But the tools to explain Kimi's reaction are rapidly emerging. Science is beginning to discover the underpinning of nature's feel-good effects, something Northwest Passage seems to have known all along.

As center director Elliott noted, "More and more research shows how nature has an impact on our mental health. Psychiatrists are now prescribing time in nature as part of an individual's treatment regimen. More and more mental health programs in the country are incorporating nature at a level never seen before."

Some studies have shown time in nature lowers levels of stress hormones as well as blood pressure. Other research indicates being near green

space sharpens cognitive performance, especially related to the ability to focus. Yet another study shows time in nature quiets the part of the brain responsible for "depressive rumination," and even seeing pictures of nature is shown to lower stress and improve cognition.

For the field of mental health, a provider's capacity to minimize stress is a big deal. "Reducing stress and anxiety is a key that opens up many other doors on the path to healing," Elliott said.

### Benefits go beyond what the eye can see

While key in understanding and refining approaches to mental health treatment, the science doesn't quite capture what I observed the day I spent photographing along the Namekagon River with Alice and her peers. It doesn't see the sparkle in kids' eyes, the moments of deep wonder and fascination at the smallest of critters, or the beaming pride and excitement accompanying a successful photo.

I watched kids — many who had lost their childhoods to pain — playing and exploring the way kids are meant to. These were kids fully alive, the best versions of themselves, with so much to offer the world.

It was then that I realized Wisconsin's vast natural resources have benefits far beyond their ecological or recreational value. Every mile of shoreline and every acre of forest holds within it the potential to be a stage for healing, and not just for organizations like Northwest Passage that intentionally harness this therapeutic power.

Wild places can be the best kind of medicine for all of us.

*Ben Thwaits is the former program development coordinator for Northwest Passage. He currently is a writer, photographer and consultant.*



## CATCH-AND-RELEASE TROUT SEASON ON THE MECAN RIVER BRINGS BEST OF TIMES IN WORST OF CONDITIONS.

*Jacob Friede*

For the last several years, the Department of Natural Resources has offered an early catch-and-release trout season on many of the state's inland streams. Beginning in January and ending in early May, it allows anglers the chance to pursue trout during some of the best times to be on the creek, even though winter and early spring can often bring Wisconsin's worst conditions.

But trout are renowned for being found when pursuit is put most to the test, whether that be making an impossible cast between branches or pulling it off with frozen hands.

This past early season, I found such challenges in Marquette County, on the Mekan River. I also found fish that proved the tough task was worth every bit of its trouble.

The Mekan is a masterpiece of a stream that makes an angler work. To get to its deep-cut banks and hidden holes, you have to traverse endless thickets of willows through which the river winds. The benefit of the cold early season is that the lowlands are still frozen, allowing travel through bogs that would bury a person in

the summer.

I spent weeks clawing through branches on treacherous trails recently blazed by deer, keeping my eyes open for enough space to cast. When I found such a spot, I'd approach the river, which often moved with a raging current due to snow melt and early spring rains.

High water is another advantage of the early trout season. Floods can fill every bit of space under the branches and banks, multiplying the number of deep holes where fish might hide.

On the Mekan, I made many casts to spots that were dry ground most of the year. More often than not, I was able to coax a trout from these seasonal homes.

What's more, it was the big fish that


were up for chasing spinners through the strong current. During the regular harvest season, a trout has to be a foot in length to keep on the Mekan, and almost every fish I caught exceeded this requirement.

Those are some good-sized brown trout on that river, the kind that cause you to ignore a blizzard with 30-mile-per-hour winds. That happened to me one morning in late April, when I emerged from the woods and directly into a storm crashing through the river plain.

Branches were flying under a frigid sky that cycled through rain, sleet and snow. Nothing could be heard except the roaring wind — until a frightening snap broke through the fury. Just downstream, a violent gust had blown over a full tree. Not long after, another tree went down and I finally doubted my safety.

Amid the chaos, I caught sight of a back-swirl that beckoned me toward one more cast. It appeared like the calmest place in the woods. The eye of the storm was in the water.

After my cast it felt like another sort of blizzard, this one hitting the spinner as I reeled in a 17-inch monster.

As the Mekan proved, the catch-and-release season can bring tests of temperatures and other conditions. But the trout found in the creek when those challenges are met at its banks may likely blow you away. 

*Jacob Friede is an outdoors writer who hunts and fishes near his home in Beaver Dam.*

# Early Advantages

In early trout season, when conditions can be less than ideal, it's often the bigger fish that are up for the chase.

LEN HARRIS



# NRB turns 50

STATE OF WISCONSIN NATURAL  
RESOURCES BOARD MARKS  
MILESTONE ALONGSIDE THE DNR.

*Paul Holtan*

This year's 50th anniversary of the Department of Natural Resources goes hand-in-hand with another milestone: 50 years of the State of Wisconsin Natural Resources Board.

In 1967, the state Legislature approved the report of the Kellett Commission, established by Gov. Warren Knowles to study the reorganization of state government. A year later, the Kellett Reorganization Bill merged the departments of Conservation, which included wildlife, fisheries and forestry management, and Resource Development, whose Water Resources Division was responsible for environmental protection functions.



**Current members of the State of Wisconsin Natural Resources Board are, from left: Gary Zimmer, William Bruins, Dr. Frederick Prehn (vice-chair), Terry Hilgenberg (chair), Julie Anderson (secretary), Preston Cole and Greg Kazmierski.**

That action resulted in the creation not only of the current DNR but also its governing body, the State of Wisconsin Natural Resources Board (NRB). This was done by merging members of the two departments' previous oversight boards into a new seven-member citizen board.

The governor appoints NRB members who serve without compensation, except for their expenses. The state Senate must confirm the appointments. Board members serve six-year staggered terms.

The NRB is the policy-setting body for the DNR. All rule proposals, land acquisitions, property management master plans

and budget proposals from department staff must be approved by the board before advancing for legislative or gubernatorial review and approval.

#### **Important work to be done**

The decade that followed the creation of the NRB was one of significant work. Christine Thomas, dean of the College of Natural Resources at the University of Wisconsin-Stevens Point, wrote a thorough history of the NRB published in the spring 1991 Environmental History Review.

"The increased awareness of environmental degradation resulted in a proliferation of state and federal environmental regulations," wrote Thomas, who herself served on the NRB from 2004 to 2015.

Throughout that early period, the board oversaw new rules to implement the federal Clean Air and Clean Water acts and approved a State Endangered Species Act. The board guided implementation of the Safe Drinking Water Act and was behind one of the most comprehensive groundwater protection acts in the nation.

In the 1980s, the board approved DNR air program studies that led to the first rules in the nation to control acid rain and surpassed the goal of cutting sulfur dioxide emissions by half. In the 1990s, the NRB approved rules for one of the nation's first and strongest comprehensive recycling programs and also oversaw implementation of the Knowles-Nelson Stewardship Program, which has protected more than 500,000 acres of Wisconsin's most beautiful and diverse lands and waters.

Through the early part of the 21st century, the NRB guided a series of rules to oversee management of hazardous materials in Wisconsin and to develop a new Remediation and Redevelopment Program. That has led to the cleanup of hundreds of contaminated properties across the state.

#### **Citizen input is key**

Throughout all of these initiatives, one of the most important aspects of implementing them has been citizen involvement at NRB meetings. The board takes citizen comments on almost all rules and decisions it considers.

The idea of public input is a key part of the board's history. "In 1933, the Conservation Commission authorized public hearings to gather input," Thomas wrote in her history of the board.

At meetings these days, it's not uncommon for the board to listen to comments from dozens of citizens. People can register to testify on any agenda item noticed for testimony at a given meeting or to testify under "citizen participation," bringing to the board's attention any concerns they have on state natural resources management.

Current Board Chairman Terry Hilgenberg says public engagement is a critical part of being an NRB member. "The more people we have engaged, the better the process will be." He adds this is especially true in situations where there are many divergent voices to be heard.

"The biggest challenges are when we are dealing with controversial issues," he says. On deer management, for instance, "everyone has an opinion on deer." Each year the NRB must approve deer population and harvest goals for the upcoming seasons.

"More public engagement strengthens our ability to balance what is in the best interest of not just an individual but the general public," Hilgenberg says. "I reach out to CDAC (County Deer Advisory Council) members to see what is going on (in their counties). We have to weigh the science presentation of DNR staff and the input of CDACs, the public and legislators and come to a balanced decision."

Despite the challenges, Hilgenberg says being an NRB member is extremely rewarding. He particularly enjoys being able to participate in tours of DNR projects when the board is on the road for meetings around the state.

"I have a much greater appreciation of the work department staff are doing after having the hands-on opportunity of seeing it in the field," he says. "It makes us appreciate the fees and grants the department receives to carry out its mission, because as board members we have to emphasize that these are state resources and we need to be using them efficiently." **50**

*Paul Holtan works for the DNR Office of Communications, editing the DNR's weekly news and outdoor report packets and serving as public affairs manager for the Bureau of Parks and Recreation.*



# DNR's next 50: Thriving in a digital age

Andrea Zani

ACROSS THE BOARD, NEW TECHNOLOGIES SUPPORT THE AGENCY'S MISSION AND DRIVE PROGRESS FORWARD.

At one time in the DNR's half century of history, using computers was an exciting new way to collect data, monitor our environment and store information. Other developments such as the new wave of satellites suddenly coursing overhead brought an innovative approach to natural resources management.

Through the agency's first 50 years, technological advances have helped shape the way the DNR has tackled its mission to protect and enhance our state's abundant natural resources.

In 2018, *Wisconsin Natural Resources* has been featuring stories celebrating 50 years since a merger of the Department of Resource Development and the Conservation Department created the DNR. But now it's time to turn our attention from looking back to looking ahead. Where will we go in the next 50 years?

In an ever-increasing digital world, a continued focus on technology helps the DNR to keep pace. Critical improvements to our computers, databases and other vital tools the DNR and its customers use every day ensure top-notch operation and interaction.

Recognizing the importance of information technology in today's world, the DNR a little more than a year ago hired a Chief Information Officer, Ricki Koinig, to lead the department's IT efforts.

"The role of the CIO is to leverage how the DNR uses technology now and how we prepare for an even more digital future," said Koinig, who brings a Ph.D.

in computer science to the position.

The IT tools being employed by DNR are everywhere, both internal and public-facing, and their uses are vast and varied. "These allow us to get our job done for the public and for our Wisconsin natural resources in the most cost-effective, productive and diligent way," Koinig added.

The DNR's Bureau of Technology Services (BTS) is a major player in making this happen at the agency. BTS duties include data management, cybersecurity, devices and software, app development, web services and more, with bureau employees spread throughout DNR to manage these many tasks. DNR's many divisions also have their own staff with IT expertise in place.

In addition, DNR works with other state agencies to maximize the use of technology, Koinig said.

"DNR IT collaborates with the State Department of Enterprise Technology (and) other departments as well as the Wisconsin Historical Society and the UW System to leverage sharing best practices, lessons learned, new innovations and ideas," she said.

With so much IT out front and underneath a successful DNR, it's impossible to mention everything. We've selected just a few examples to highlight here — some that show how technology has evolved over recent years and others that are brand-new. This list may barely scratch the surface, but it gives at least some idea of the DNR's many tech tools.

And these valuable tools keep on coming, with new technologies developed and implemented regularly. It's all about keeping the DNR responsive, efficient and effective in a digital age.

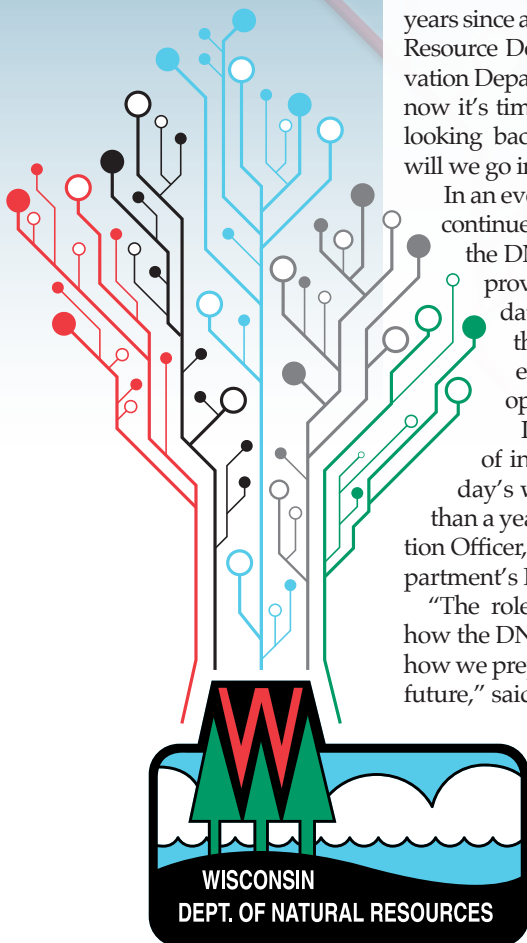


ILLUSTRATION BY BEN PIERSON



## WILD ABOUT TECHNOLOGY

When discussing agency technology, it makes sense to talk about the DNR's Go Wild system first because it is one of the most visible tools introduced in recent years. Go Wild has transformed the way DNR interacts with customers for sales of hunting and fishing licenses, permits and other products. This is your easy online stop for buying.

Launched in 2016, it allows users to browse and buy licenses, stamps, parks admission stickers, trail passes and more. Boat, ATV and snowmobile registrations also can be done through Go Wild. Or even register for a safety education class.

Just create an account and do it all to get ready for your outdoor experience. If you prefer to use the system via a station at a designated retailer or DNR service center, you can do that, too. Check [gowild.wi.gov](http://gowild.wi.gov) for all you need to know about the Go Wild system.

Related to Go Wild — and even newer — the DNR now offers Hunt Wild Wisconsin, a mobile app for smartphones. The app debuted in early fall, with more than 70,000 users already downloading it, and is designed to be everything a hunter needs at their fingertips.

Android and iPhone users can download the app for free. Then use it for a variety of purposes: Search for public hunting lands; check up-to-date regulations; find new areas to explore and save those spots in the app to find again later. You also



can access DNR audio podcasts to listen while you're driving to your favorite hunting spot or waiting in the tree stand. As an added bonus, the Hunt Wild app can be used to access the Go Wild system and individual accounts.

"Hunt Wild Wisconsin is going to help our hunters from day one," DNR Secretary Dan Meyer said. "This is something our staff have worked extremely hard to roll out. I think people are going to love using this app."

For details, including information on how to download the app and tutorials for using it, check

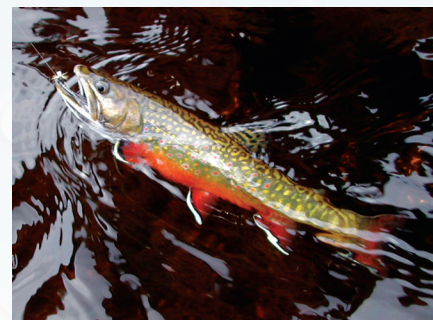
[dnr.wi.gov](http://dnr.wi.gov), keywords "hunt app."

Another important digital tool for hunters is the Fields and Forest Lands Interactive Gamebird Hunting Tool, known as FFLIGHT, a mapping application that helps hunters find the best places to pursue particular gamebirds. It can be used on a desktop computer, tablet or smartphone.

FFLIGHT has information on



properties stocked by the DNR with pheasants, for example, or areas with ideal habitat for woodcock and ruffed grouse. It provides aerial photos and maps of possible hunting areas and also helps hunters determine land acreage, walking distances and topography. To learn more, visit [dnr.wi.gov](http://dnr.wi.gov), keyword "FFLIGHT."



ED CULHANE

**The DNR continues moving forward with valuable technology including digital tools for trout fishing and pheasant hunting, Go Wild electronic license sales and, most recently, the Hunt Wild app for smartphones.**

For anglers, the DNR offers TROUT, or the Trout Regulations and Opportunities User Tool. With this tool, anglers looking to take advantage of Wisconsin's 13,000 miles of trout streams have a way to optimize their search. Access maps to find classified trout waters, public lands, roads and bridge crossings, habitat projects and DNR fishing easements, and use the "Find Me" option to locate trout streams close to you. The tool also makes fishing regulations available at your fingertips.

Like FFLIGHT, TROUT also can be used on a desktop computer, tablet or smartphone. For details, visit [dnr.wi.gov](http://dnr.wi.gov), keyword "TROUT."

## PARKS PROGRESS

The Wisconsin State Parks System, one of the DNR's most public-facing programs, has a big change in store when it comes to technology. The upcoming debut of the new camping reservations system, Camis USA, already has created great buzz for its user-friendly features, cost savings and other enhancements (see sidebar).

But there are other tech-related happenings involving parks as well. The cross-country ski trail conditions report, an online tool heading into its second





season, has been a hit. When the snow starts to pile up and ski season gets underway again in earnest, you can find it at [dnr.wi.gov](http://dnr.wi.gov), keywords "ski report."

There's also another parks tool that's garnering praise from customers. Electronic payment kiosks for park and trail passes have proven popular at areas where they are in use, said Chris Pedretti, who handles recreation business operations for DNR's parks division.

These kiosks allow users to purchase passes electronically on the spot, which can reduce time spent waiting in line on busy days and get people on their way to enjoying the outdoors, Pedretti said. Eight kiosks have been in place already, including two at Devil's Lake State Park, an area of generally high demand and attendance. Another kiosk is on the way for Lake Kegonsa State Park, paid for by that park's Friends group.

The pay stations are portable so they can be moved from place to place depending on seasonal needs, staffing levels or other considerations. "The vast majority of people are very happy with them," Pedretti said.

Kiosks can take credit cards, which makes the process more convenient, Pedretti noted, since "a lot of people want

to pay with credit cards now" and may not always have cash on hand when out hiking or biking.

The kiosks also eliminate the need for self-pay envelopes, added Bob Ramsey, another recreation business operations specialist with parks. That saves time, costs and paper waste. "It's a win-win," Ramsey said.

## SNAPSHOT SENDS IT STATEWIDE

A quick word about another public technology success story: Snapshot Wisconsin. This project is a partnership involving the DNR, UW-Extension, Zooniverse and other groups, with citizen-based monitoring at its core. It utilizes an ever-growing network of trail cameras to collect images that provide valuable data for wildlife management.

Nearly 1,500 cameras are now part of the Snapshot Wisconsin network, which recently expanded statewide. The images collected are made available online, where volunteers anywhere in the world can identify and classify the wildlife pictured. The information becomes part of datasets used to inform DNR staff and help make decisions regarding Wisconsin wildlife.

To learn more, including how to volunteer to host a trail camera or identify photos, check [dnr.wi.gov](http://dnr.wi.gov), keywords "Snapshot Wisconsin."

## NOT ALL TRACKING IS FOR HUNTING: KEEPING TABS ON CLEANUPS

Technology advances at DNR extend far beyond the highly visible realms of hunting, fishing, parks and wildlife. Every agency program has a layer of IT supporting it.

Take the DNR's Remediation and Redevelopment Program, for example. Tracking the status of thousands of hazardous substance spills, contamination investigations and cleanups around the state could be a daunting task, but a comprehensive online database helps organize this work and inform interested parties.

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, or BOTW, houses troves of data that include details on spills, groundwater and soil contamination cleanups, Superfund sites, funding assistance, redevelopment information and more.

## >>> NEW RESERVATIONS SYSTEM COMMENCES FOR CAMPING

**Campers, start your search engines. A new system for making campsite reservations at state parks and other properties will launch on Dec. 17, bringing improved features and lower costs.**

Camis USA Inc., current provider of reservations systems in three other states and throughout Canada, was awarded the Wisconsin State Parks System reservations contract via competitive bidding process. It replaces ReserveAmerica.

All camping reservations already booked will be transferred automatically to the new system. Customers will receive email notifications confirming their reservations are in the new system. Note that there will be a two-week transition period leading up to the Dec. 17 Camis launch during which campsite reservations will not be available.

With Camis, customers can expect a number of enhancements in making reservations such as better searchability for campsites and added visual elements. What's more, customers will save money; the reservation fee under the new system will be \$7.75, down from \$9.65 with the previous system.

The new reservations website is mobile-friendly for easier use from a smartphone or tablet. Reservations by phone also remain an option. As before, customers can reserve campsites up to 11 months in advance, and some additional facilities such as shelters and amphitheaters will now be available to reserve.

Ben Bergey, state park system director, said anticipation has been building for the debut of the Camis reservations system.

"We're really excited to launch this new system because we are so confident our customers will find the enhanced system easier to use, will have more options for booking facilities, and it will cost them less than under the previous system," Bergey said.

An added element is that a Camis call center in Kenosha will employ between 12 and 15 operators depending on the season.

— Andrea Zani

## >>> INFORMATION

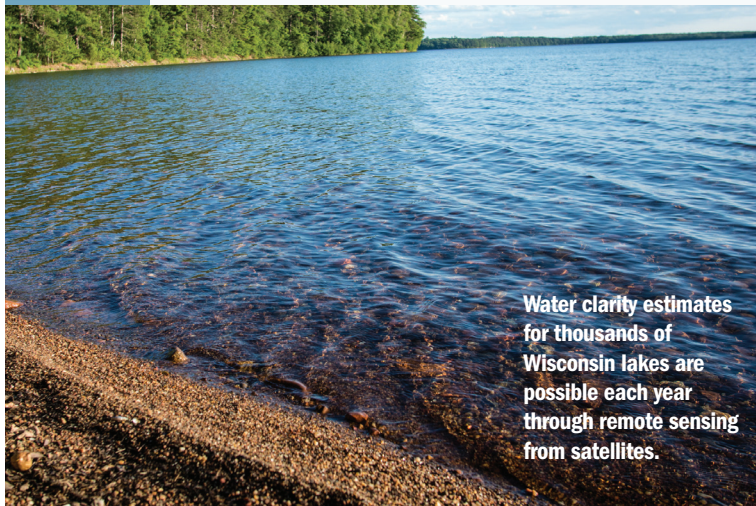
The Camis reservations system for campsites, shelters and amphitheaters at Wisconsin State Park System properties launches on Dec. 17. For information about making reservations, click the "Reserve a Campsite" link found at [wiparks.net](http://wiparks.net).





BOTW is part of the DNR's Wisconsin Remediation and Redevelopment Database, which also includes the RR Sites Map, a web-based mapping system with details on cleanup sites. BOTW can be searched by categories including location, type of activity or start and end dates of a particular event. It is updated daily and used regularly by real estate professionals, environmental consultants, local governments, homebuyers and more.

"BRRTS on the Web is easy to find and available to everyone in Wisconsin. It's a good source of information about contamination that's been reported to the state and a great place to learn more about cleanups in your community," said Darsi Foss, RR program director.



Water clarity estimates for thousands of Wisconsin lakes are possible each year through remote sensing from satellites.

BEN PIERSON

## ASSESSING LAKES FROM A SATELLITE FAR AWAY

With 15,000 lakes in Wisconsin, it wouldn't be possible for DNR lakes program staff to visit and sample every one to determine water clarity. So, enter remote sensing.

This technology allows for the retrieval of water clarity data using satellite images. The current method was developed from 1999-2001 through research of the UW-Madison Environmental Remote Sensing Center and volunteers from the Citizen Lake Monitoring Network. It requires on-the-ground corroborative data collected by volunteers and has provided more than 150,000 satellite water clarity measurements since 1999.

Today, remote sensing is used by DNR

to provide water clarity estimates for thousands of lakes annually and to evaluate trends over time. These water clarity estimates can be accessed by clicking the Satellite Derived Water Clarity layer on the Lakes and Aquatic Invasive Species Mapping Tool — [dnr.wi.gov/lakes/viewer](http://dnr.wi.gov/lakes/viewer). Using this interactive tool, it's possible to see that water clarity in Wisconsin lakes can range from less than a foot to over 32 feet.

"Advancements in technology are definitely helping us do our jobs more efficiently," said Carroll Schaal, lakes and rivers section chief for DNR's Water Quality Bureau. "With remote sensing, we're able to assess the water quality of over 8,000 lakes at one time, something we could never do with staff and volunteers in the field."

Ongoing research also is moving ahead that may allow for greater uses of satellite imagery, including to estimate color, dissolved organic carbon, chlorophyll and other parameters that give a more detailed view of water quality.

Lakes fieldwork is evolving from a practical point of view as well, Schaal noted: "In the not-too-distant future, the department hopes to replace paper field forms for other data collection efforts, like

Clean Boats Clean Waters inspections, with tablets and smartphone apps that allow people to enter information directly from the field or lake rather than waiting to go back to the office and enter it again."

It will be one more tool in DNR's efforts to safeguard the state's beautiful lakes.

## WITH SAFETY IN MIND ONLINE

In the realm of law enforcement as tasked to DNR, one thing that stands out in terms of technology involves hunter education. Last year, the agency celebrated a half-century of its hunter safety program, enacted by the Legislature in 1967. In the past 50 years, hunter education has been an important part of DNR's Bureau of Law Enforcement.

While the focus of hunter safety remains the same — to teach responsible, ethical and safe hunting practices — the tools and technology have grown over the years. Notably these days, online education courses are offered for adult hunters. In addition, hunters of any age can take an online course, capped off by an in-person field day, to complete their hunter education training.

Beyond hunting, online safety courses are offered for such things as operating ATVs, snowmobiles and off-highway motorcycles, boating and archery education. Check [dnr.wi.gov](http://dnr.wi.gov), keywords "online safety," for information.



## FORESTRY FIELDWORK IS WELL IN HAND

The burgeoning use of technology means DNR employees are constantly incorporating new practices in their work, adding tools to make them more efficient and effective every day.

"DNR staff are utilizing technology in the field on a daily basis to support natural resource management activities," said Chris Welch, a DNR data services specialist.

That's certainly true with the DNR's Division of Forestry, whose work in the field is benefiting in a big way from new technologies in use.

Janel Pike, information systems supervisor for the Forestry Division, offers the Electronic Field Data Collection (EFDC) initiative as a prime example. The effort involves foresters throughout the state using portable iPads in the field to collect and record data, such as forest surveys for wood volume, identifying priority habitats, planning for management activities, tracking timber sales and prescribed burns. The data is then quickly and easily made available for forest management purposes from assessments to accounting.

"We're collecting data in the field using iPads, reducing the amount of time we need to transcribe the information to get it into our management systems," Pike said.

The use of the iPads and automated





## IF IT'S DATA, THERE'S PROBABLY A MAP FOR THAT

processes in forestry's management system — the Wisconsin Field Inventory & Reporting System (WisFIRS) — eliminates the need for paper forms to track data and route approvals.

"Recent system improvements allow foresters administering timber sales to collect data in the field, which populates forms in our management system, electronically routes approvals and sends invoices upon completion," Pike said. "It's saved an incredible amount of time."

On the heels of implementing iPads for data collection, the division also is in the process of phasing in iPhones for use by field staff, some of whom have not been using a cell phone or have been working with old-model flip phones, Pike said. In most cases, the iPhones will replace land lines, with nominal cost increases for much greater functionality. Smartphones provide access to many apps that offer useful tools to staff for managing their workday activities, planning routes and sample points and collecting data, photos and videos in the field, she added.

Even everyday communications among forestry's dispersed offices throughout the state — from DNR's office in Madison to

In 1978, the Wisconsin Legislature directed DNR to create an inventory with maps to show all areas of the state's wetlands acreage. The first Wisconsin Wetlands Inventory was completed in 1984 using aerial photography to identify and map wetland types and locations.

These days, wetland maps are among a spectacular amount of mapping and geospatial data available digitally from the DNR. Geographic information systems (GIS) technology has transformed mapping beyond what anyone likely would have thought possible when the wetlands inventory was first ordered 40 years ago.

All sorts of maps are now available digitally. These aren't the paper maps of yore that were often hard to read and always impossible to refold. These are what can, without hyperbole, be called digital extravaganzas of information.

Applications such as FFLIGHT and TROUT use mapping and GIS data to make hunting and fishing easier, as mentioned in the main story, which also covers several ways the DNR incorporates data and digital mapping tools in its work. But there are so many other uses that make this area of technology relevant and highly valuable to the DNR and its customers.

Public users can go to [dnr.wi.gov/maps](http://dnr.wi.gov/maps) to start mining these geospatial riches, generally accessible by desktop browser, tablet or smartphone.

Click here for data on dam safety, floodplain analysis, fish management and other categories in the Surface Water Data Viewer. Click there for information on the current air quality statewide. Click yet again for maps showing chronic wasting disease data or for information from the Lakes and Aquatic Invasive Species Mapping Tool.

If it's recreation opportunities you seek, look no further. Want spots for a family-friendly hike? Public shooting ranges, boat access or shore fishing sites in Wisconsin? Details on the Lake Michigan State Water Trail for paddling? Private forest lands open for public recreation? These interactive mapping applications have you covered.

In addition, the DNR's GIS Open Data Portal, a free resource, offers access to a wealth of other GIS data developed and maintained by the agency. Interactive maps available through the portal are found in categories including Parks and Recreation, Water, Environmental Protection, Managed Lands, Fish and Wildlife, Land Cover/Vegetation and more.

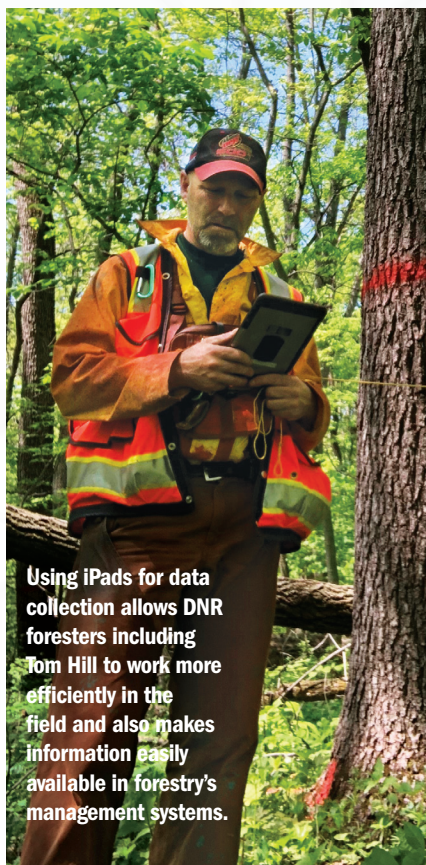
There's no end to the ways in which mapping applications and GIS data can help DNR reach and serve the people of Wisconsin.

— Andrea Zani



Mapping data can be helpful in finding places to fish, hunt, hike, bike, boat and otherwise enjoy the outdoors.

DNR FILES



Using iPads for data collection allows DNR foresters including Tom Hill to work more efficiently in the field and also makes information easily available in forestry's management systems.

CHRISSEY SHAW

the forestry headquarters in Rhinelander to the division's numerous statewide service center offices — are getting improved technology to help them communicate. A new "telepresence" video conferencing system will help facilitate interaction among forestry employees.

"We have great staff developing innovative tools to help staff, partners and the public — that's pretty exciting," Pike said.

## TECH HELPS BEAT THE HEAT OF FIRE SEASON

Many of the technologies in use at the DNR cross over between divisions and from internal to external uses. The Individual Forest Fire Reporting System (IFFRS) is a good case study for this, Pike said.

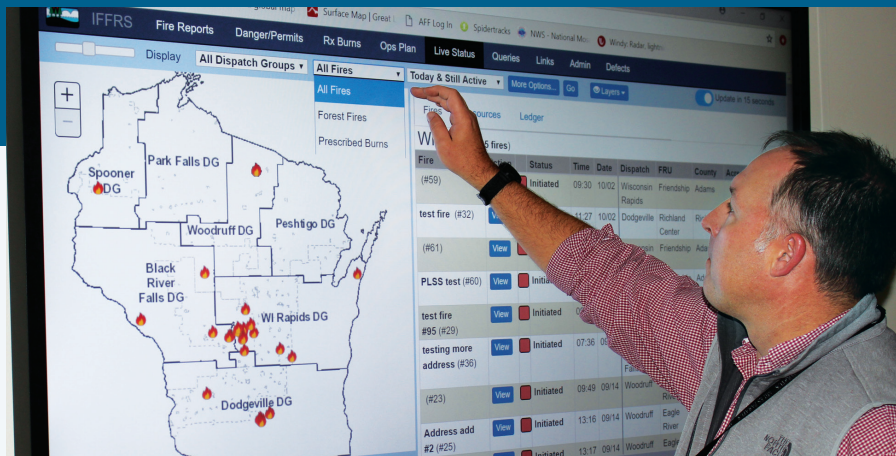
As its name implies, the IFFRS, an internal tool, allows for rapid reporting of wildfire events by DNR dispatchers

across the state. Fire resources (staff and equipment) from throughout the agency can be managed more efficiently because of access to real-time information.

Especially in spring, when fire season ramps up "from snow melt to when vegetation greens up," Pike added, dispatch centers and the DNR command center in Madison can use large touchscreen monitors to view fire occurrences and resource allocation using the IFFRS technology. Staff statewide also have access to this information from their computers.

In addition, some fire activity data is available for external viewing via the DNR's fire activity web page. Here, the public can see information on active and past wildfires — including fire name, total acreage and cause, if known, and prescribed burns happening that day — as well as learn the latest on conditions that might affect those with burn permits such as when it's too dry to burn.





**When fire season ramps up in spring, DNR staff such as Forestry Deputy Division Administrator Mike Warnke use the Individual Forest Fire Reporting System, or IFFRS, to monitor and manage wildfire events and resources.**

The public can see real-time fire activity and burning restrictions by visiting [dnr.wi.gov](http://dnr.wi.gov), keyword “fire.”

“This lets the public know there are fires happening around the state,” Pike said. “It helps with prevention, it helps with awareness, it helps with communication.”

## DATA COLLECTIONS AID CONSERVATION

The DNR’s Bureau of Natural Heritage Conservation is another program whose day-to-day work, both internally and externally, has been greatly aided by the use of technology.

Preserving Wisconsin’s native animals, plants and landscapes is the mission of the NHC and the program works to make use of all tools at its disposal, including — and, these days, maybe especially — digital tools. The ability to input and access data regarding the state’s endangered and threatened species can go a long way toward helping in their conservation.

The Natural Heritage Inventory (NHI) is one way the NHC does this. Established by the state Legislature in 1985, the inventory program keeps track of the status of rare species and natural features and communities statewide. Over time, this data has become much more digitally based, now curated by a team of mapping specialists and data managers, and offers the most comprehensive source of rare species information for Wisconsin.

NHI data is updated

regularly and can be used for such purposes as research, master planning and land management with an eye toward species protection. Wisconsin property owners have access to the NHI’s Public Portal to help with land use planning that may impact resources. DNR staff can access the full NHI database for their work and non-DNR partners can enter into a licensing agreement to access data. For details, check [dnr.wi.gov](http://dnr.wi.gov), keyword “NHI.”

Also falling under the realm of the NHC is the Aquatic and Terrestrial Resources Inventory. The ATRI program collects data from projects in the Wisconsin Citizen-based Monitoring Network and a variety of statewide surveys. Birds, bats, turtles, frogs and toads, rare plants and more are part of this data collection, with public involvement not just encouraged but a necessity. For information, see [wiatri.net](http://wiatri.net).

The Wisconsin Breeding Bird Atlas II is another project involving efforts of the DNR and citizen-based monitors, along with partner organizations. This field survey, which just completed the fourth of five seasons, relies more heavily than ever on digital tools for entering data.



**Technology has provided a boost to data-driven projects like the Wisconsin Frog and Toad Survey, which has existed since 1981 to monitor species including the green frog.**

When completed in 2019, WBBA II will create a database of valuable information on birds breeding in the state, available online as well as in an atlas printed form. Find details, including how to volunteer, at [dnr.wi.gov](http://dnr.wi.gov), keywords “Breeding Bird Atlas.”

## STILL A PAL, BUT DIGITAL

Speaking of atlas information, it’s a good time to mention the PAL atlas — Public Access Lands. This tool can be used to make the most of Wisconsin’s thousands of acres of public lands. There is the 465-page printed atlas, of course, but users also can find this same information at their fingertips in the form of a digital interactive mapping application.

Locate places from state parks, trails and natural areas, to publicly accessible rivers and lakes to hunting lands and much more. Search for spots based on chosen activities such as hiking and biking, and download and save maps for use anytime. There are even new features to PAL including information on locations of historic shipwrecks.

Find information and access the atlas data at [dnr.wi.gov](http://dnr.wi.gov), keyword “PAL.”

The PAL atlas is like so much else at DNR — going digital in a big way. Thousands of documents, both current and historic, are now digitized and available for internal and external use, from reports and guidebooks to technical information to planning documents to study results and analysis.

Just imagine the paper that once piled up to create these documents. Now, users inside and outside the agency can access and download this vast amount of information with just a few clicks.

Even this magazine has found its ways to embrace technology. A monthly e-newsletter, *News & Reviews*, now supplements our quarterly print publication, and story archives are available online dating back to the inception of the magazine in 1977, when it took over for the Wisconsin Conservation Bulletin. Find links to this wealth of content at [wnrmag.com](http://wnrmag.com).

It’s all part of how the DNR is finding success and forging ahead — into the next 50 years and beyond.

*Andrea Zani is managing editor of Wisconsin Natural Resources magazine.*



## >>> DNR CONNECTS WITH SOCIAL MEDIA

*Sawyer Briel*

Choose a direction — left, right, up, down. Look in that direction and chances are you'll see someone using a smartphone, tablet, laptop or some other type of technology.

Like it or not, the world we live in today is dominated by what's new, what's popular and what's easy. But with new technology comes new opportunity.

Here at the Department of Natural Resources, we're working hard to use today's technology to keep people interested and engaged in Wisconsin's beautiful outdoors. The new Hunt Wild Wisconsin mobile app is our latest example of that — see the main story for details.

Another big way we are striving to do this is through social media. Everyone has their opinion of social media and its role in society. Whether you think it's the greatest thing since sliced bread or the downfall of Western civilization as we know it, there's no denying social media is incredibly useful to share stories, engage with others and learn something new.

The beauty of social media lies in the fact that there truly is something for everyone. Are you a budding wildlife photographer? Instagram has your name written all over it. Do you take your GoPro video camera on every hike? Sounds like YouTube is right up your alley. We now have more opportunities than ever to find a community that suits us online.

How does this relate to the DNR? Quite simply, we need to reach people. We need to share content. We need to share timely updates. We need to share news about our daily work. We need to do all these things, and we need to do them efficiently.

Enter social media. In a time when it has become seemingly more difficult than ever to get people interested in an outdoor lifestyle, we're using social media to show you can make your way into the great outdoors and bring your smartphone with you. In fact, we want you to do just that!

So, time for a roll call. What tools are being used by DNR to reach all of you, our customers? We'd like to think we have a pretty diverse portfolio, and we're always looking to learn more and expand when it makes sense. Here's where we stand at the moment.

### ● FACEBOOK

Facebook is the catch-all for social media. Videos, photos, comment sections — you can do it all here. Chances are you already have an account, but have you checked out our page? We share everything here, from our followers' own stories to an inside look at DNR's work and how it directly relates to you. Engagement is the name of the game here — ask questions, share your opinions and learn new things.

### ● INSTAGRAM

The DNR Instagram page is filled with high-quality photos and videos of all kinds. The bonus here is that we love to share your stuff. Here, you can use hashtags, tag people and show off your chops as a photographer or videographer. We're putting a lot of horsepower behind sharing interesting things daily including cool photos, great videos and other content for our users.

### ● YOUTUBE

Whether you are looking to find a new place to enjoy the outdoors or thinking about building a bat house in your backyard, our YouTube page has all the content you need — lots of do-it-yourself videos to help you learn more and find a new hobby in the outdoors. Here you'll also find Wild Wisconsin — our podcast and web series (more on that below).



wi\_dnr Did you get a deer this season? Buck or doe, big or small, we want to see your photos! #whatgetsyououtdoors #deerhunting #WildWisconsin #RutReport 📸: @erikbarber8

### ● TWITTER

Think of it like reading a newspaper on your phone. Head to the DNR's Twitter page for daily news updates and other helpful information, plus plenty of tweets and memes from other Twitter users.

### ● LINKEDIN

Want to work for us or know someone who does? Interested in learning about the research being done through the DNR? LinkedIn is a great way to check out job listings online and we always list the biggies on our page. We also keep the page up-to-date with the latest reports and studies being published by our staff.

### ● PINTEREST

Recipes? Hike suggestions? Tons of other cool DIY? If these are the sorts of things you want, you're going to enjoy Pinterest.

### ● WEB SERIES AND PODCASTS

Going beyond social media, there's lots more out there if you are looking to learn about DNR and the outdoors. In 2017, the DNR launched its own web series — Wild Wisconsin — dedicated to all aspects of hunting and also started a podcast channel called Off the Record to reach additional users. Podcasts are audio-only, and DNR is using them to make complex topics more digestible.

### WHAT DOES IT ALL MEAN?

The moral of the story here is that the world is changing at a rapid pace, not just in terms of how we interact with others but how we provide and receive information. Here at DNR, we know as well as anyone that to stay relevant and continue to get people interested in the outdoors, we need to adapt.

If you've already checked out some of our social media content and enjoyed it, we're flattered. It also means we're doing our job. If you haven't given us a look or a "Like" yet, we hope you will soon.

With social media, we're able to show just how much there is to this agency and provide a direct channel to interact with our users — you! 50

# WILD WISCONSIN



*Sawyer Briel is an administrative policy coordinator who handles communications for DNR's Division of Fish, Wildlife and Parks.*

## >>> INFORMATION

Learn more about DNR's social media platforms at [dnr.wi.gov](http://dnr.wi.gov), keyword "connect."



# Buck of a lifetime

MAJESTIC ANIMAL LIVES ON  
IN LONG-LASTING MEMORIES.

Ron Weber

I was 7 years old the first time I ever laid eyes on my buck. He was a 10-pointer with a wide, sweeping rack. The tips curled toward each other in front, leaving a gap of about 6 inches between them.

Each side of the rack was a mirror image of the other with long, thick tines stained dark brown, almost black, from spruce and tamarack pitch. It was a perfect specimen, the most majestic animal I had ever seen, and I wanted one for my own. It would have been inconceivable as a 7-year-old to think I'd have to wait 43 years for the chance to have it.

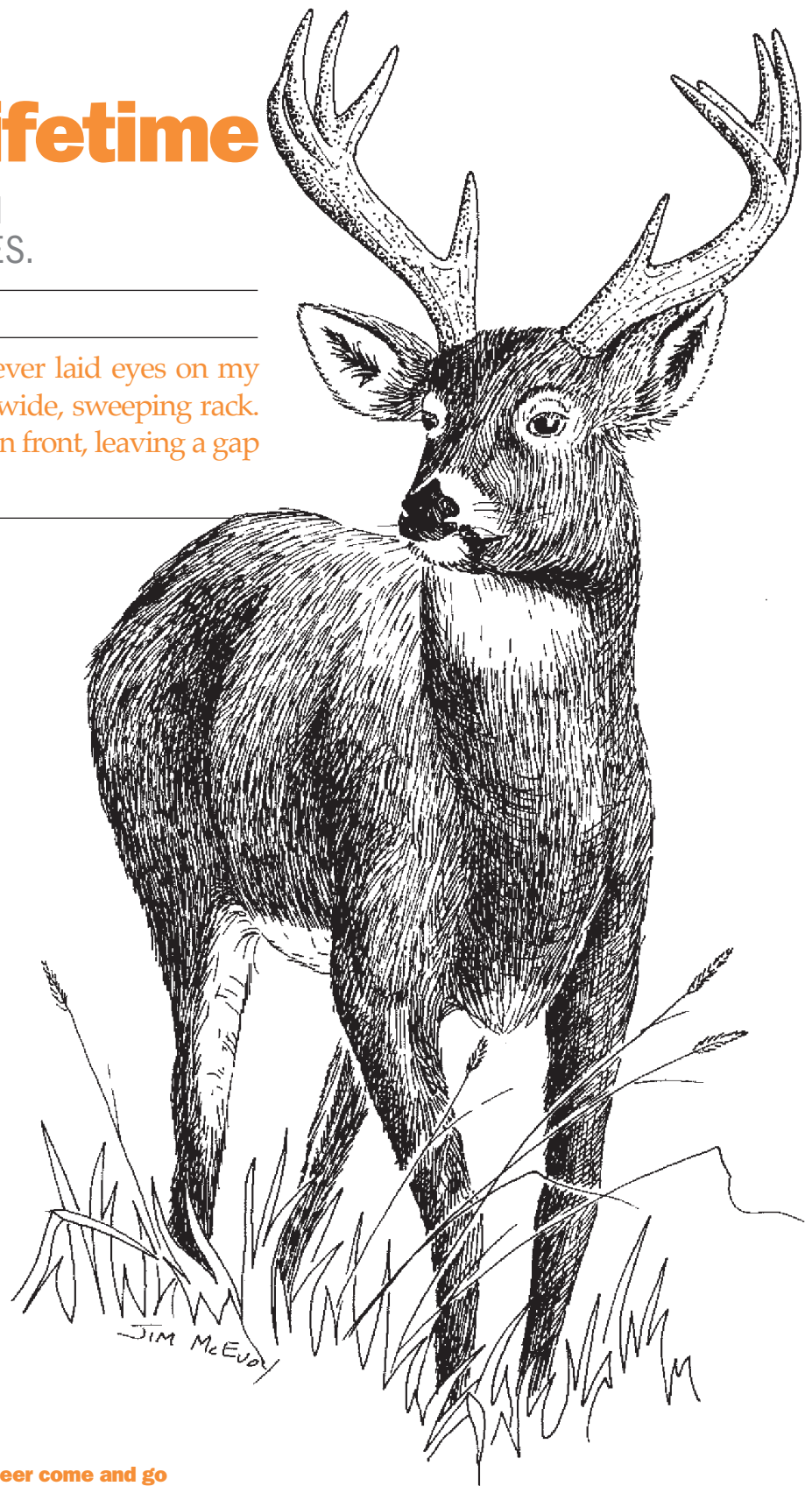
The buck I dreamed of hung on the wall in my grandparents' guest room above the bed I slept in on our visits there. Each night before the lights were shut off, I would stare up at that buck, the life-like gleam in his eyes hinting that his spirit was still very much alive. In the morning as the daylight slowly brightened the room, I would wait and watch as he materialized out of the darkness.

Even then I was a hunter and dreamed of the day I'd be able to join Grandpa and the others during hunting season and get my buck as Grandpa had done many years before.

A few years later, having missed deer season due to strep throat at age 12, I was looking forward to the following season to hunting with Grandpa at last. That October, a month before deer season, Grandpa had spent the day at the hospital visiting Grandma, who was very sick. He returned home for the night, went to sleep and never woke up.

Even at that age, I knew Grandpa was the embodiment of what an ethical sportsman was supposed to be, that how one conducted oneself in the field mattered. I have always wished I could have hunted at least one season with him, but that wasn't where the trail led.

Grandma moved out of the house a couple of years later and my buck went to an out-of-state relative. From then on, it lived only in my memory.



## Deer come and go

As I started down my own path as a hunter, I desperately wanted to get my buck. Like most young people, I thought it would come quick and easy. By the time I was in my early 20s, I had learned that though the chance might be there every time out, it was not going to come

quick or easy. Also, like many people, I was tempted to try things to better my odds — things that didn't mesh with the ethical values Grandpa and my other hunting mentors had instilled in me.

No, how I got my deer mattered much more than what I got. If I had to bend or



break ethical boundaries to get my buck, I'd never be able to look him in the eye the way I had looked at that buck hanging on Grandpa's wall.

It's funny how one year can turn into five and soon a decade. One decade turns into two then three. As the years went by, there were many bucks seen, many shot and many more that slipped away. Though I crossed paths with numerous very nice bucks, none fit the mold of the one that once hung on Grandpa's wall.

More than four decades later, on Nov. 8, 2015, that would finally change.

I had always imagined I'd find the buck I was seeking in some desolate spruce or cedar swamp in the vast Chequamegon-Nicolet National Forest, where I had bow hunted and gun hunted most of my life. That's the way it had played out in my fantasy, anyhow. I never anticipated our rendezvous taking place in the broken woods surrounded by farm fields behind my own house in Rusk County.

I have resisted using wildlife cameras, as I still enjoy not knowing exactly what deer are out there and wondering what fate would bring down the trail. As I headed out to sit in my stand that early November afternoon, I had no idea that my buck existed anywhere other than in my mind.

### Magnificent as imagined

It had been a warm and windy day with temperatures in the low 50s, and though the rut was in full swing it just didn't seem like November when no gloves and only light clothes were needed. After raking leaves and doing some other end-of-year yard chores, I didn't climb into my ladder stand until around 3 p.m.

I would only have a couple of hours to hunt, but with high deer numbers in the area I was confident I would see deer. By 4 p.m., several deer had come and gone into the corn field about 100 yards south of my stand.

At 4:15, I caught a glimpse of a deer moving toward me through an opening in some balsam firs 80 yards to the north of me. I thought I saw horns, but the deer disappeared into the balsams before I could get a clear look.

A finger of balsams extended through the area where my stand was in a large white pine and it was a natural travel route for any deer heading to the corn field. As I stared into the shadows of the balsams, I could see a deer start to ma-

## >>> ABOUT THE ILLUSTRATIONS



For years, drawings by longtime staff artist Jim McEvoy were used to illustrate printed materials at the Department of Natural Resources. McEvoy's beautiful and detailed work captured a huge variety of plant and animal species, landscapes, habitat scenes and more, and his drawings were used for everything from fishing and hunting reports to environmental posters. *Wisconsin Natural Resources* magazine is fortunate to have several binders full of original illustrations from the now-retired McEvoy. Using a few of these classic black-and-white drawings seemed like the perfect way to add visual interest to this pair of retrospective hunting-related essays. Because of McEvoy's decades-long contributions to the agency, it also seemed like just one more great way to celebrate 50 years of DNR.

50

terialize out of the darkness — just like those mornings in bed at my grandparents when my buck would appear.

Suddenly, there he stood, 30 yards away. He was magnificent. It was him, the buck I had waited for my whole life. The sweeping rack, the long dark tines — a perfect 10-pointer. And he was going to walk right past me.

At 10 yards through a light veil of pine branches, I watched him make a scrape and rub his antlers on the branches of a hawthorn tree. He proceeded to walk out in front of me, sniff the ground and stand there seemingly waiting for something.

Two does moving along the edge of the corn field caught his attention and he moved off toward them. I watched as he followed the does and the corn field swallowed him up.

I had never moved, never even considered taking a shot. It was then that I knew.

Five years earlier, I had harvested a small buck with my bow and at that time had pledged to myself that the only deer

I had left to shoot was the buck living in the shadows of my memory. But after my buck had come and gone, I realized the truth: I had no more deer left to shoot.

That is a tough thing for someone who has been a hunter since age 7 to admit even to himself, much less to any other hunters who might be reading this.

Two weeks after I saw my buck, on the second day of the gun deer season, my buck of a lifetime became just that for one of my neighbors. I was happy for him and though I had no problem sharing the buck, part of me wished he would have stayed swallowed up by that corn field forever.

Each of us may have a very vivid memory of when our path has crossed with that majestic animal. My neighbor's now hangs on the wall of his den, a beautiful mount, I'm told. My buck of a lifetime hangs where it always has — in my mind's eye. It looks just fine there. ▀

*Ron Weber is a DNR forester working out of the Ladysmith Service Center.*





# It's what hunters do

SIMPLE GESTURE MEANS 'WELCOME TO THE CLUB.'

*Brian Wettlaufer*

After years of dodging invitations, I reluctantly joined some colleagues on a pheasant hunt in September 2017 at Wild Ridge Game Farm near Watertown. Having little practice with shotguns, my aim that day exposed my inexperience.

But I was not troubled. Hunting was new to me and I didn't expect to bag a bird my first time out. Content just to tag along, I considered the excursion more an enjoyable autumn hike than a test of hunting prowess.

Like all unexpectedly enjoyable adventures, the day vanished too quickly. With senses keen and guns ready, we shouldered our way through harvested corn fields, hiked slippery and mud-rutted tractor tracks, slogged through soggy lowland and huffed up hills that looked deceptively flat from the long gravel driveway.

Outfitted in borrowed orange and armed with my father-in-law's well-worn Remington 12-gauge, I spent more time imitating behavior than looking for prey. Listening to the hunters, I discovered the terms "birdy," "bust" and "lead" referred

to, in order: dog behavior, the unintended flushing of birds and a preferred shooting style.

As the day progressed, Jay, the organizer, rotated me with different hunters so I could learn a little from each. I might not get a bird, he explained, but if I observed, tried various shooting techniques and fired some quality shots, perhaps I'd get lucky. Maybe I'd awaken the hunting habit and feel the ancient hunter's twinge with its primal connection of man to land. I had my doubts.

But good hunters are persistent. Not only are they stewards of the land and its bounties but also of their age-old calling. They're also advocates, sometimes not-so-subtle salesmen. Realizing the hunting tradition will continue only with the addition of new members, they bait others with an





innocent invitation. And once a newbie is within grasp, they do everything possible to cajole, convince and entice them into the hunting family.

The allure of the hunt often involves nothing more than being content on a quiet stream bank or perched lazily in a creaking tree. Or perhaps it's daydreaming on a stump in a shaded wood, watching over a fertile field where you're invited to deep-breathe the musty, fallow sweetness of land. Those who seek to bring in new hunters convince you there's always hope and promise in the next time, and if next time never comes — well, there was always this time.

### First flush of the hunt

At least that's the theory. The reality of my experience was that out of the large collection of ring-necks and chukars released earlier, I'd shot exactly none.

Still, in the dying light as we made a final pass of the fields before turning back to



the clubhouse, I was starting to get it. The day's lessons and activities tag-teamed an impression on me and I was at least beginning to think of myself as a hunter, albeit one without a bird.

Now, teamed with Jamie on the left flank, we followed the wet-bottom trough of a hilly field while more experienced hunters Beth and Jay worked the corn patch with their dogs toward others waiting at the far end for the flush. Jamie and I slow-strolled, guns cradled, and chatted in whispers, more interested in the moment than the reason.

Sudden shots chased a single pheasant from the corn, up and almost directly overhead. It flapped and squawked toward a nearby line of pine trees that marked the farm's boundary. Jamie and I raised our guns in tandem and shot, he first, but me so close behind that the crack of fire was almost simultaneous.

His shooting style was measured, seamless, straight — a single, smooth, belly-to-sky motion from rest to shot. Mine was nowhere near so refined — more like an involuntary jerk, a loose, arcing, hope-shot. But the bird fell.

### With deference to the newbie

Jamie and I smiled at each other in astonishment and felt the warm adrenaline rise. Beth's dog Piper crashed from the corn, all bark and spittle, eyes afire, fueled by good training and desire to please.

Young Piper emerged from the dark green curtain of trees with the bird in its gentle jaws, the dog did not stop at our feet or even look us in the eye. Never even considering the reward could be ours, it trotted back into the corn. Minutes later the group emerged and the dog owner offered the bird to Jamie and me.

We hesitated. "It's yours," Jamie said.

"No, I'm sure I missed. I think you got it," I replied.

And so the scene was set. While Jamie and I politely dickered and deferred, neither wanting undue credit, the others gathered around, amused at our banter yet knowing the outcome.

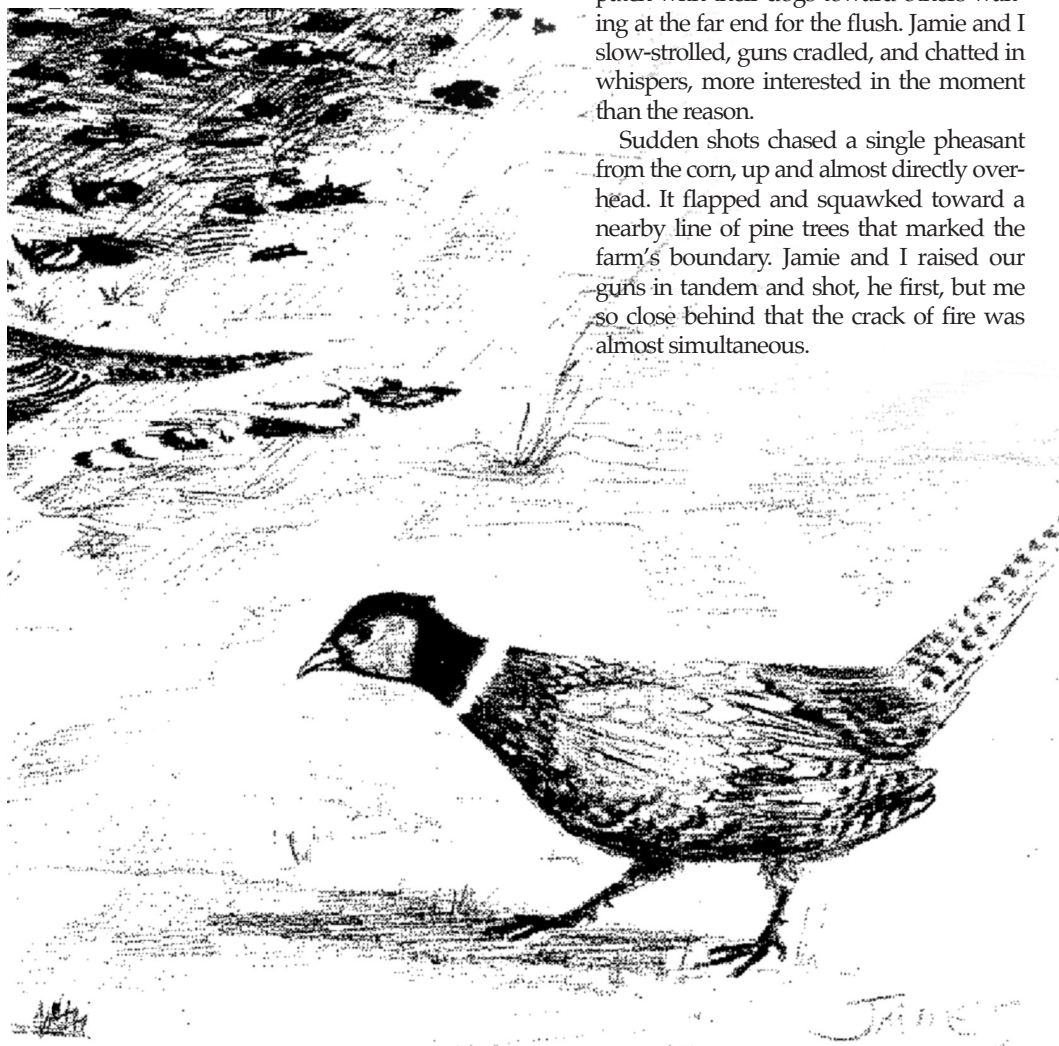
Each had lived this moment before, whether over antlers, feathers or fur, in snowy fields or green forests. They knew how the conversation would end.

Only one way decides the outcome — the hunter's way. And those who know it relish it for the life-affirming joy it brings them.

Now it was bringing that same joy to a new member of the club.

Jamie, proclaiming loud and proud that he's shot plenty of birds before, steps aside. I humbly accept the bird. It's what hunters do.

Brian Wettlaufer is a freelance writer in Franklin. Visit his website at [blwwrites.weebly.com](http://blwwrites.weebly.com).





# Readers

## Write



### MUNCHING MONARCHS

While my wife was watering her flowers, she saw that she had 12 visitors on her butterfly weed. We are hoping maybe these guys are monarchs. Hungry little fellows anyway, I guess that's why they call it butterfly weed. Love your magazine!

Doug and Karen Kurschner  
Almena

*DNR conservation biologist Owen Boyle provided this reply: Commonly referred to as butterfly milkweed, Asclepias tuberosa is our only native orange-flowered milkweed. Frequently planted in native plant gardens and prairie restorations for their beautiful orange flowers, monarch caterpillars clearly love them, too!*

### KUDOS FOR 'HUNTER AND GATHERER'

I enjoyed reading the article about Wayne Whitmarsh and his collection of Wisconsin Natural Resources magazines and Wisconsin Conservation Bulletins ("Hunter and gatherer," Summer 2018). My father, Jim Taylor, was a past editor of this magazine. As editor, he used the name J. Wolfred Taylor. Unfortunately, he passed away in 2014 at the age of 94. He would have been thrilled to know his work continues to be appreciated by others. Thank you for sharing this story.

Julie Taylor  
Lake Mills

### WHITEMARSH STORY PROMPTS VISIT

A friend gave me a one-year subscription to your magazine; it was a wonderful surprise. Congratulations on producing such a terrific product that showcases Wisconsin resources.



### ANOTHER DEER AND BLACKBIRD TALE

This is a very late response to a letter in your October 2017 issue ("Symbiotic de-bugging"). I went to the park at 6 a.m. and saw a doe standing in a field with a red-winged blackbird on her back! It was slowly but steadily working its way up her back and neck to the top of her head and down her face, eating bugs intently. The doe looked so blissful.

After about 25 minutes of this, the blackbird fell off her nose. It flew back to her rear end, only to be met by another blackbird who wanted in on the action. There was a flurry of wings and the first bird won. I sadly ran out of film. This was in 1992 or 1993.

Karen Kropp  
Milwaukee

### STORIES SPARK READER MEMORIES

I was reading the 2018 Fall WNR and enjoyed the stories about the history of DNR ("DNR memoirs"). It reminded me of the summer job in '69 or maybe '70 working in the Youth Conservation Camp at Lake Nancy in northwestern Wisconsin. Seems like it may have been six weeks long, and we spent a week on a certain task.

I remember walking through forest land pulling weeds (currant bushes, I think) to curb pine tree blister rust one week, cleaning and fixing trails in a state park a different week. Then back at camp we also had some sessions about fire control and other outdoor/wildlife activities. Free time was for swimming, fishing and other camp activities.

I remember it was a great job for 14- to 15-year-old boys who loved hunting and fishing. I came close to attending UW-Stevens Point for a conservation major, but went another direction. Anyway I enjoyed the issue, thanks.

Jim Sainsbury  
Monona



I live in the Phoenix area but my heart is still with Wisconsin. Years ago, I graduated from UW-Stevens Point with a conservation major. It is a joy to see that Wisconsin still continues to be a leader in conservation and natural resource management.

I spent a week in Wisconsin this summer and got up to visit Wayne Whitmarsh at the McFarlane's True Value Hardware in Sauk City. The article in your magazine ("Hunter and gatherer," Summer 2018) prompted me to make the visit — it was great! I gave him a book about Fran and Frederick Hamerstrom's research on prairie chickens to add to his collection. I had helped briefly with the research while a student at Point. Thanks for a job well-done!

John F. Knight,  
Sun City West, Arizona



### YOU CAN TELL FROM THE SMELL

Can you tell me what kind of frog this is?

Darrell Naze  
Suamico

DNR conservation biologist Rori Paloski replied: It is a bit tough to tell from the angle, but I believe it is a green frog, rather than a mink frog. Green frogs have more pronounced ridges on their sides/back and the patterning on their legs resembles bars rather than spots. These two species are often very difficult to tell apart even when you have them in hand. One sure way to definitely tell if it is a mink frog is to smell it — mink frogs usually have a strong mink odor!



### GIVE OR TAKE A FEW THOUSAND YEARS

The Ice Age Trail article ("1,000 miles to remember," Fall 2018) states that the ice left Wisconsin 70,000 years ago. But the ice entered Wisconsin during the Wisconsin Ice Age about 70,000 years ago and didn't leave till 10,000 or 11,000 years ago. Thought you might want to clarify that. Not sure when the glacier was at maximum extent, maybe 35,000 years ago? If the trail follows the edge of maximum extent, then those features would be 35,000 years old or less.

John Balaban  
Chicago

As John points out and the Ice Age Trail Alliance notes on its website, iceagetrail.org, the most recent period of the Ice Age, known as the Wisconsin Glaciation, did end about 10,000 years ago. There are "recent" deposits of gravel, boulders and soil from this period in nearly every county along the Ice Age National Scenic Trail. Areas of the trail in Green, Rock, Dane and Marathon counties were covered by earlier continental glaciations, the website notes, between 25,000 and 2.5 million years ago. And other geologic features along the trail date back more than a billion years!



JOSEPH WARREN

### BLACK SQUIRREL HOT SPOT

Hi. In the Fall issue of Wisconsin Natural Resources magazine I subscribe to was a notation from Mark Witecha, DNR upland wildlife ecologist, explaining about genetic mutations. While eating in a café a couple of summers ago in Reedsburg, I remarked on how many black squirrels I noticed and I was informed Reedsburg was the "Black Squirrel Capital of Wisconsin." Any truth to this statement?

Any hoot, I surely am impressed with the magazine for pictures and general info you all provide. Thank you.

Bob Honel  
Tomah

Thanks for the letter, Bob. There doesn't seem to be any official designation regarding Reedsburg's black squirrel status, but reports like yours indicate they are widely seen in the area.



### FAMILY FAVORITES

My family has a lake house on Ballard Lake in Star Lake, Vilas County (we are from Cincinnati) and are always collecting photos while enjoying the lake. These are a couple of our favorites.

The first was taken by my mother, Theresa Nurre, when she was kayaking on Ballard Lake in July 2017. She saw two northern water snakes sunning together on a log near our house. I took the second looking out at the island on Ballard Lake from our lake house early one morning in fall 2017 when the leaves were just starting to change.

We are subscribers and love the magazine! Thanks for your work!

Amanda Nurre  
Cincinnati



### Magazine makes a great gift!

Looking for last-minute gift ideas this holiday season? Try a gift subscription for Wisconsin Natural Resources. Published four times a year, the magazine provides coverage of Wisconsin's beautiful outdoors delivered with every season. Give a gift today — just \$8.97 for the year!

Call 1-800-678-9472 to order, or buy online at [wnrmag.com](http://wnrmag.com).



### 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.



## BUMBLE BEE ID



In the Fall 2018 issue of the *Wisconsin Natural Resources* magazine, there is a picture of a bee on joe-pye weed on page 23. The bee is identified as *Bombus borealis*. Am I wrong in thinking it's more likely to be *Bombus impatiens*?

Ann Pedder Reilly  
Janesville

This is yet another great example of an eagle-eyed reader being right on the money with species identification. In this case, a late switch was made with bumble bee photos in the magazine and the caption was not updated. The originally planned northern amber bumble bee photo (*Bombus borealis*), from DNR conservation biologist Jay Watson, is shown above. It turns out Ann is a member of the Wisconsin Bumble Bee Brigade, a new monitoring project that relies on volunteers to conduct small area surveys in which they look for, count and photograph bumble bees at a given location and submit a record of their observations. Volunteers are welcome for this important project; find out more at [wiatri.net/inventory/bbb](http://wiatri.net/inventory/bbb).



Can you verify if this is the endangered rusty patched bumble bee? Many in my flower garden recently. Thank you.

Phyllis Lorenzo  
Hayward

This is not the rusty patched bumble bee (*Bombus affinis*), which is listed as federally endangered and of special concern in Wisconsin, where it is rarely seen. Rather, DNR biologist Jay Watson responds, it is a male tricolored bumble bee (*Bombus ternarius*).

# Back in the day

## Ice fishing tale stirs memories of an old friend

Kathryn A. Kahler

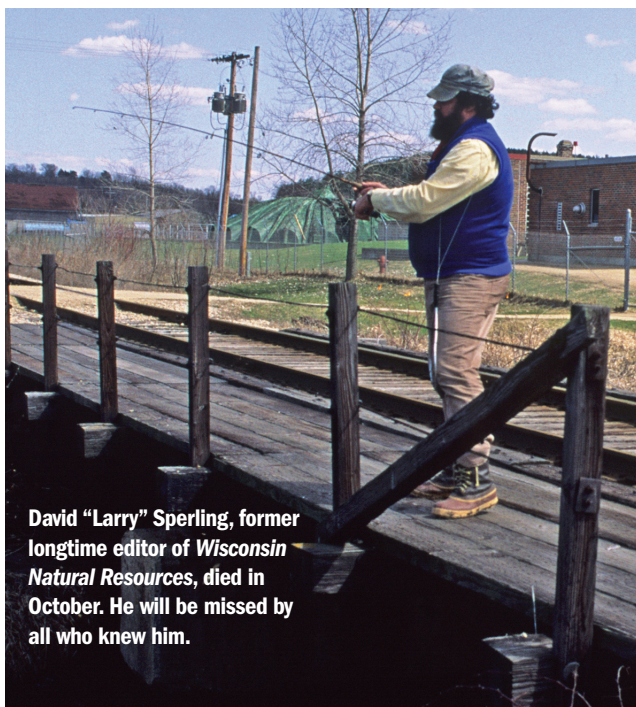
The DNR family was saddened in mid-October with news of the passing of former magazine editor David "Larry" Sperling. Sperling, 66, grew up in White Plains, New York, came to Wisconsin to attend UW-Madison in 1970, and decided to make Wisconsin his home. He edited this magazine from September 1987 until he retired in April 2011. Prior to his work for the magazine, Sperling was a public information officer for the DNR's solid waste program.

"He was a proud editor of *Wisconsin Natural Resources* magazine," according to his obituary, and "also a leader in the community. He was a strong advocate for environmental conservation. David was a talented cook and entertainer, and loved to travel, especially with his family. Family was a primary focus of his life. He was a husband, father, son, brother, and friend, who loved and protected pas-

sionately and relentlessly and impacted everyone he met."

An author search of our magazine archives yields almost 100 stories written by Larry, about subjects as serious as the Public Trust Doctrine, groundwater protection or dealing with hazardous waste, to a feature piece about harvesting wild rice. He was a skilled storyteller, no matter the subject, but that was just one of his talents.

Larry had a way with words that inspired readers to volunteer their time to environmental causes, go afield in search of fish and game, or simply enjoy a hike in the woods. But the stories most cherished by readers were those that offered a glimpse of his persona, when he shared a little about himself with his readers. It was that kind of story that developed a bond with the reader, who was introduced to a truly kind, generous and caring person.



David "Larry" Sperling, former longtime editor of *Wisconsin Natural Resources*, died in October. He will be missed by all who knew him.







We share an excerpt from one of those stories, “Sanctuary on ice,” from the February 2001 issue. Writing under his byline of “David L. Sperling,” Larry asked readers to send photos and stories about their ice-fishing shacks to be shared later in the year. With our current ice-themed issue, it seems appropriate to highlight Larry’s fishing tale — almost as if he wrote it just for “Back in the day.”

**I** moved to Wisconsin 30 years ago, but my distant relatives didn’t sense they were losing me until I not only accepted, but embraced Wisconsin winters. Though I still don’t relish driving icy streets, a bright, sunny day in winter is darn enjoyable, and a day of ice fishing is a charmed day, indeed.

Then as now, I like keeping it simple. My first ice-fishing sled was bequeathed to me by Spud, a fellow student who was leaving Wisconsin to seek fame and fortune in Oklahoma. The sled was two wooden soda crates bolted together and hinged with plywood tops. Nailed to the bottom was some scrap of tough plastic, so the rig glided effortlessly across the snow. The sled held everything I needed for an outing, and more — a small tackle box with tiny festive-colored jigs, a small hemostat, drop weights, tube weights, two rods, a few tip-ups, an ice scoop, film canisters containing assorted fishing grubs, a Thermos, a flashlight, a brown paper bag with a bologna sandwich and a plastic bag for fish. Moreover, it easily fit in the back of my aging Chevy Vega.

That rig sufficed for 20 years, and it is still my favorite sled. When I turned 40, my spouse decided I should get out of the wind a little, so she bought me a molded plastic ice fishing sled complete with a molded holder for a minnow bucket and three metal tent poles that fit into holes around the seat. I can drape a simple black cloth around the poles to form a windbreak. It’s quite comfortable on a mild day with a light breeze.

Well, winter doesn’t always provide mild days, and we all know the ice fishing season has been way too short for several years. So last year I seized the chance to join a friend who has a portable shelter that collapses into a big sled. We needed his minivan to haul it near the ice. We dragged it out across the frozen scape a mile or more, drilled a few holes, set up the tent, lined the plastic sled with a beat-up remnant of oriental rug, started the propane heater, opened the door, loosened our winter clothing, and sat in comfort searching for perch despite cold and bluster.

One cold night when the wind chill had dipped enough to warrant a block heater on the dog, I got a call from the same buddy, who said, “Let’s go fishing. The walleyes are hitting in the shallows.” I reminded him that even on my best days, walking across the ice at nine in the evening to set up a tent in a steady wind just won’t have the ring of “fun.” He said another friend of his owned a permanent wooden shanty that we were welcome to use. Further, it was posi-



KEVIN HERMANSON



KEVIN HOPPMANN

A more recent photo of shanties off-ice, top, fits well with two images from the December 2001 issue of *Wisconsin Natural Resources*. Those photos and story, “Shack time,” were the result of editor Larry Sperling’s call for shanty shots from readers. “We gently knocked on the door to ask if we could spend time with you on ice. We just wanted to chat a bit,” he wrote. “As in the past, you didn’t disappoint. Thanks to all for making us feel welcome.”

tioned on a “key spot” over a deep weed bar and some rocks. So off we went, carrying nothing but a bait bucket.

In the distance, the shanty emerged from some swirling snow. As we got closer, it seemed a modest rectangular affair. We unlocked the door and lit a gas lantern. I couldn’t believe my eyes. Here sat a propane heater and two comfortable chairs. Here was a small table with a window. Here were hooks on the wall for our heavy jackets and a small rack of ice-fishing rods and tip-ups all rigged up for success. Here was a boombox with a stack of CDs. And in the middle of the false floor, here were two pre-drilled holes covered with some Styrofoam and carpeting to ward off freezing.

The fishing wasn’t great that night, but I have to admit I got a bit spoiled by the experience. It added a whole new dimension of comfort that could make a winter angler out of a Caribbean bone-fisher.

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*Kathryn A. Kahler worked with Larry for 25 years, savored his office potluck contributions as much as his fishing tales, and will miss his friendship.*

#### FOR MORE OF LARRY’S STORIES

If you’re a longtime subscriber and want to reminisce about Larry Sperling’s work, or a newbie just wanting some good reading, you can find his stories in our archives. Visit our website at [wnrmag.com](http://wnrmag.com) and click “Search our archives.” Search by author under “S” and scroll to his story listing. The stories from before 1986 that don’t have hyperlinks can be found in the UW Libraries Digital Collections, which is linked on the search page.



## Outside in Wisconsin

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### COPPER FALLS STATE PARK

Copper Falls State Park turns 90 next year and it's the perfect illustration of the idea that beauty never fades.

The park, near Mellen in Ashland County, is known for its gorgeous vistas including the namesake Copper Falls. These spectacular falls occur as the Bad River flows through the steep-walled, rugged canyons of the park and rushes over a 29-foot drop. Downstream, another drop forms Brownstone Falls, where the gorge walls rise up to 100 feet high.

Unique geology of the park includes layers of hardened ancient lava flows, conglomerate rock, shale and sandstone, plus giant granite boulders and other glacial debris deposited during the last Ice Age. The waters of the Bad River's main branch and Tyler's Fork have spent millions of years cutting through these rock layers on their journey toward Lake Superior, creating the falls and gorges that make the park so special.

Established in 1929, Copper Falls benefited from work done during the Depression era by both the Works Progress Administration and the Civilian Conservation Corps. The groups built trails (the park's CCC 692 Trail recalls this history), shelters and other structures, some of which still stand today.

Even earlier, in 1920 and '21 before the area earned state park status, the first bridges and trails were built by veterans returning from World War I. A reference to this work is found in the name of the 1.7-mile Doughboys Nature Trail, since "doughboy" was a term used for members of the Army or Marines in WWI.

The park has 17 miles of hiking trails in all, with several overlook areas to take in views of the waterfalls. It also includes a stretch of the North Country National Scenic Trail.

Copper Falls is open year-round and offers two camping areas, recreation at Loon Lake and numerous seasonal activities. In winter, about 20 miles of trails are groomed for skiing, with both classical and skate-ski available. Snowshoeing and winter hiking are permitted in non-ski areas. Hunting and fishing also are allowed in the park following normal season rules.

— Andrea Zani

