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Magnificent monarchs

Hooked on catfish and sturgeon

Lumberjack life at Peninsula SP

Working to aid an aging Green Lake

Back in the day

Road trip revival

IN 1947, WITH WAR BEHIND THEM, AMERICANS WERE READY TO ROLL.

Andrea Zani

Summer vacation season is upon us, a time for packing up the SUV for a family getaway or getting a few good friends together for a fun and relaxing road trip. State parks are popular destinations as are other outdoor activity spots, waterparks, festivals, music events and all sorts of vacation resorts. Just getting away from it all, if only for a few days, is what matters.

And so it has been forever, it may seem — or at least since the advent of the automobile. A look back at a historic issue of the “Wisconsin Conservation Bulletin” tells us as much.

“Rediscovery of Vacation Attractions,” by C.L. Coon, appeared in the July 1947 issue of the bulletin from the Wisconsin Conservation Department (predecessor of the DNR). Coon, who was supervisor of publications and exhibits those 70 years ago, tells of “various Midwest outdoor and travel shows” that offered a “glimpse of what the 1947 tourist and outdoor sports conditions would be like.”

He also paints a vivid picture of vacationing in the immediate post-World War II era, when Americans once again could indulge their wanderlust after years under the clouds of war. And he sings the praises of “Wonderful Wisconsin,” where summer attractions “still continued to rank high among vacation objectives.”

Here are excerpts from Coon’s report.

A glorious summer

The wandering tourist is on the move again. He has thrown off the shackles of the long “winter up to summer” season. Along Wisconsin highways, railways and airways thousands of vacation-minded people are wandering into the state, rediscovering old haunts, finding new beauty and settling

down at comfortable resorts that provide relaxation and opportunity for healthful outdoor exercise.

It might be well said that 1947 will be the year of the rediscovery of America. Countless vacationers will learn anew that the greatness of their country can be measured not only in terms of mammoth industry and military effort but equally in terms of natural grandeur and picturesque beauty.

For the traveler in Wisconsin, the season ahead should indeed be a “glorious summer.” From the vacationer’s viewpoint, the prospects for 1947 are as bright as the years starting in 1941 were dark and dreary. During the long war period, travel in the country was largely a matter of necessity and the troop train was one of its primary symbols. Hotels were converted into barracks and rest resorts set aside for uniformed men. These symbols are now fast fading from memory.

As vacationers proceed to the destination of their choice, traveling conditions will be more adequate and more pleasant than any time during the past half dozen years. While postwar construction on a grand scale still lies in the future, the highways and other facilities along the route are in good shape — still the best in this world.

This year, if all predictions are not mistaken, the volume will be far greater than that registered in the years immediately before the war, for Americans have their cash in hand and are determined to satisfy their appetites for travel. The open-handed American traveler is bound to go somewhere and wherever he goes he intends to have a good time. Such is his spirit and it has made him an inveterate traveler — a sort of person who refuses to stay put when new and old horizons beckon.

For the first time since the war, passports to Europe will be granted to tourists bent on pleasure. Even though the bars are down,

travel officials forecast only a limited tourist trade to Europe this year. There are still too many obstacles in the way. The big shortage is still housing and food on land, and transportation space over land and water. Also the prices are still a long ways from the all-expense trips that sold before the war for as low as \$350.

With tourist travel still being made difficult to faraway places, Wisconsin resort owners will benefit. With materials and labor more plentiful this year, many Wisconsin resorts have been improved and enlarged. Many are building new cottages with housekeeping arrangements, installing new furniture and making investments in boats and motors.

Although the big vacation appeal is still fishing — golf, horseback riding, swimming, hiking, canoeing and just plain resting will be stressed this year. July and August are still the most popular months and most resorts will stay open through September, some into November, and all will be making a strong bid for the late vacation business.

All in all, Wisconsin still is considered the state of enthralling vacation contrasts — thousands of crystal clear lakes and exciting fishing streams and vast areas of wild timberland; a vacationland where in summer it is possible to choose between the pleasantly warm climate and the pleasantly cool, between the rugged hill country and lake shore, between the interesting big cities and the wilderness areas, between the fashionable resort and the lakeside cabin.

By every forecast, the urge to rediscover the peacetime beauty and favor of Wonderful Wisconsin will be irresistible among thousands of Midwesterners. ❧

Andrea Zani is assistant editor for Wisconsin Natural Resources magazine.

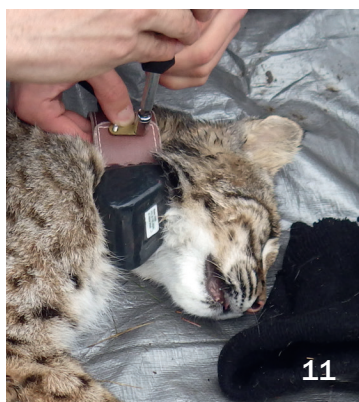


The Northern Highland American Legion State Forest has long been home to summer resorts, including this one on White Birch Lake in Vilas County, pictured in 1943.

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PAUL SKAWINSKI

BACK COVER: Magenta-colored grass pink orchids (*Calopogon tuberosus*) flower beneath tamarack trees on the boggy shoreline of Kissick Alkaline Bog Lake State Natural Area in Sawyer County. For more information about the State Natural Areas Program visit dnr.wi.gov and search "SNA."

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Minding our monarchs



A properly planted butterfly garden contains a diversity of native plants that bloom across the growing season. Such a garden can earn Monarch Waystation certification from the Monarch Watch conservation program.

CONCERN AND CARE FOR THESE BEAUTIFUL BUTTERFLIES WILL HELP KEEP THE SPECIES GOING STRONG.

Paul Skawinski

If you had to name one butterfly, what would it be? For nearly every person in Wisconsin, the answer would likely be the monarch.

Perhaps you've been lucky enough to see a tiger swallowtail, a Karner blue or a Baltimore checkerspot. Wisconsin is home to more than 150 species of butterflies. But none is as well-known as the magnificent monarch.

The monarch butterfly, known to scientists as *Danaus plexippus*, occupies the eastern half of the United States and parts of the West Coast. It is typically seen in Wisconsin from mid-May to October. As one of our migratory butterfly species, the monarch leaves Wisconsin in autumn to seek warmer refuge in the mountains of central Mexico. Some monarchs along the coastlines of the U.S. will head to southern Florida or

southern California.

For several months, monarchs cluster in trees in the mountains of Mexico. This generation of monarchs will spend the entire winter in Mexico and fly back to the southern U.S. to lay eggs on young milkweed plants as they begin emerging from the ground. It will take an additional one to two generations before the population reaches the northern U.S. states in May.

The overall population of monarchs is calculated each year by estimating the area that the monarchs occupy in Mexican forests. The winter 2016-17 population was estimated at 2.91 hectares (7.2 acres), which translates to a population

of about 146 million monarchs. This is substantially lower than the long-term average of about 300 million, with a peak of 1 billion monarchs in 1996.

The population has been declining for many years. Unfortunately, milkweeds and native plants are often targets of herbicides that are applied in and around farm fields, eliminating sources of nectar and egg-laying sites for monarchs. Much of the monarch's migration route is over states where the dominant land cover is agricultural fields, so this represents a real concern.

While 146 million monarchs sounds like a gigantic number, many of these overwintering butterflies will perish before they can reproduce. Storms, vehicle collisions, predators and parasites continuously take their toll on the monarchs, leaving only the strongest (and perhaps the luckiest) to keep the species going. A single winter storm can have a devastating effect on their population.

Need for milkweed

In Wisconsin, the monarchs that spend their adult lives here in the summer have two things on their mind: eating and mating. Monarchs fuel up by drinking nectar from a wide variety of flowers.



SHANE RUCKER

Before flying south on their long journey to Mexico in the fall, monarchs must first fuel up on nectar from a variety of flowering plants including swamp milkweed.

Since monarchs can be observed here for nearly six months, they must be able to find flowers that are blooming over that entire period. The most likely habitat to attract and sustain monarch populations is one containing a diversity of native plants that bloom in sequence across the growing season.

In addition to nectar sources, the females are searching for the only group of plants that can feed their babies — milkweeds. Without milkweeds, the monarch caterpillars cannot survive.

Wisconsin is home to about a dozen species of milkweeds, with the most abundant being common milkweed (*Asclepias syriaca*), swamp milkweed (*Asclepias incarnata*) and butterfly milkweed (*Asclepias tuberosa*). Wisconsin milkweeds occur in every habitat from marshes and lakeshores to prairies and forests.

Female monarchs use sensory organs on their legs called chemoreceptors to identify milkweeds. When a milkweed is located, the female will often lay a single egg on a milkweed plant and fly off to the next milkweed to lay another one.

Occasionally, females will struggle to find enough milkweed and will lay many eggs on a single plant, referred to

as “egg-loading.” This concentration of eggs is not good for the monarch population, since all of the caterpillars now have to compete with each other for food and these abundant caterpillars are more likely to attract predators.

Steer clear of insecticides

How can you help monarchs? First off, avoid using insecticides. You may be targeting other types of insects, but butterflies can easily be harmed by these chemicals as well.

Also, be wary of plants purchased at big chain stores. These plants often contain systemic insecticides called neonicotinoids, which move to all parts of the plant, including pollen and nectar. The plants become toxic for butterflies, bees and other insects that feed on them. If you buy plants without a sign saying they were not treated with systemic insecticides, ask a store manager if they can guarantee that they weren't.

Everyone can help provide food and egg-laying habitat for monarchs. A simple butterfly garden with many flowering plants will provide nectar sources. Adding milkweeds to the mix will provide monarchs with appropriate host plants to support the next generation.



DAVID MOSKOWITZ

That's not fuzzy bark or some odd fungus on these tree trunks but thousands of monarch butterflies packed together in early March at their winter roosting area, El Rosario Monarch Butterfly Preserve in Michoacán de Ocampo, Mexico.

>>> MONARCH FACTS

- The male monarch has two dots near the back of its wings, which distinguish it from a female. A female that is ready to mate will land next to a male on the ground. If the male is interested, he will scoop up the female and they will fly together into a tree or other vegetation to mate.
- It takes about a month to metamorphose from egg to caterpillar to chrysalis (a caterpillar with a self-produced veneer-type coating) to butterfly.
- Three newly hatched caterpillars will fit on a grain of rice, but as they eat milkweed, they grow to 1,000 times their initial size in two weeks.
- In fall, monarchs fly from Wisconsin to Mexico, taking about a month to fly up to 1,500 miles. They spend the winter in the mountain forests of central Mexico, and their children fly north in the spring. Their grandchildren fly further north and their great-grandchildren are born in Wisconsin and other northern states. Those monarchs then continue the cycle, flying back to Mexico.

Better yet, add multiple species of milkweed to extend the blooming season and provide a variety of colors. Swamp milkweed flowers range from pink to red, common milkweed is light pink and butterfly milkweed is a brilliant orange. Blooming milkweeds will attract all kinds of other pollinators as well, including other butterflies and a wide range of native bees.

Farmers can turn marginal cropland (areas that are difficult to farm because of wetness or other issues) into pollinator gardens. Wet edges of farmlands can be great places to plant swamp milkweed and many other wetland plants, which prefer moist habitats and would not be likely to become “weeds” in the drier crop fields.

Seeking energy sources

Monarchs need an abundance of flowers in the fall to supply them with the energy they need to fly all the way to Mexico. Three adult monarchs still weigh less than a dime, but these remarkable butterflies make a journey of up to 1,500 miles, flying more than 50 miles per day.

This journey is only possible if the monarchs can find enough nectar to fuel their southward flight. Plants in the aster family are especially important at this time, as many of them bloom from August to October. In fact, New England aster (*Symphotrichum novae-angliae*), shining aster (*S. firmum*) and frost aster (*S. pilosum*) can continue blooming into early November in Wisconsin.

The simplest way to start a butterfly garden is to till up an area of soil and install some native plants. Butterfly gardens are best planted in the sunniest place you have available. Butterflies need to warm their bodies before they can fly, so they like to be in the sun.

Look around your property for that place you hate to mow or an area you rarely use. Another great location for a butterfly garden is along a property line where the flowers can screen a road, neighboring house or other undesirable view.

Avoid using non-native plant species, which may become invasive and cause management headaches down the road. Native species tend to be more well-behaved, provide much more value to native wildlife and typically require no watering or fertilizer when planted in appropriate habitat.



PAT MCGRATH

Milkweed is the lifeblood of monarchs, providing a place for them to lay their eggs along with a food source of leaves for caterpillars and flower nectar for adult butterflies.

Occasionally, you may see native species for sale with unusual looking flowers. These varieties have been artificially bred or modified to alter their appearance and they often have little to no value to butterflies and other pollinators. If you don't see native species at your local garden center, don't be afraid to ask. Find a list of Wisconsin native plant retailers by visiting the DNR website at dnr.wi.gov and search for “native plant.”

The UW-Madison Herbarium has a collection of county checklists with names and photos of all the species known from each county. Keep in mind that these lists include all plants found in each county, including non-native species. Find the checklists at wisflora.herokuapp.com.

Citizen scientists needed

There are many opportunities available for citizens to help researchers learn more about monarchs. In fact, most large

studies on monarchs rely heavily on information provided by citizen volunteers. Consider joining one of these great citizen science projects.

Journey North: Each year, thousands of people report sightings of monarchs and emerging milkweeds during the spring migration and other important events during the fall migration. This information helps scientists track the leading and trailing edges of the monarch migration (learner.org/jnorth/monarch).

Monarch Watch: Volunteers catch and tag adult monarchs with tiny stickers that contain an identification code and reporting information. Recovery and observation of these tagged monarchs provide details on the current migration. When a tagged monarch is observed, a person can report it directly to Monarch Watch through a phone line or online reporting form. Some people raise monarchs from egg or larval stages and tag the adult monarchs before releasing them.

Monarch Watch also offers a Monarch Waystation certification program. Citizens can establish a butterfly garden and apply for Monarch Waystation certification and purchase a sign designating the site. These waystations provide crucial habitat for monarchs and a wide variety of other butterflies, bees, birds and other wildlife, while the signs inform people about the purpose of these habitats (monarchwatch.org).

Monarch Larva Monitoring Project: Volunteers report observations of monarch eggs and caterpillars, and milkweed plants. Comparisons of milkweeds with and without monarchs on a monitoring site offer information on plant traits that are attractive to monarchs. Some volunteers also monitor parasitic flies that attack monarch caterpillars (mlmp.org).

Monarch Joint Venture: Learn more about monarchs and how you can help study monarchs or contribute to their recovery through this partnership of federal and state agencies, non-government organizations and academic programs (monarchjointventure.org). 🦋

Paul Skawinski is an avid native plant gardener and a Monarch Watch volunteer. He works for UW-Extension's Lakes Program at UW-Stevens Point. Contact him at pskawins@uwsp.edu.

>>> PORT EDWARDS EARNS MONARCH CROWN



VERN BORTH

Port Edwards, in central Wisconsin, has been recognized as a monarch-friendly community by Monarch City USA for efforts to create habitat and foster conservation.

RETIRED TEACHERS NET RECOGNITION FOR BUTTERFLY EFFORTS.

Vern Borth

Port Edwards, in central Wisconsin, has become the first spot in the United States to be designated a “Monarch Village USA.” The honor caps an effort of more than 17 years by now-retired Port Edwards schoolteachers Kathy and Pat McGrath to gather and raise caterpillars to become more than 6,000 new monarch butterflies.

It all began as a school project for Kathy’s kindergarten kids and the fourth-grade students of Beth Welniak (now Willcome) and Ann Pickett. The children became fascinated by the metamorphosis of butterfly eggs to new butterflies. And so did Kathy.

Imagine spending summer with five screen-covered aquariums at home — some on an end table in your tidy living room — each full of tiny insect eggs, caterpillars and milkweed leaves. Imagine foraging for hours in fields and woods searching for the eggs and caterpillars to foster in those aquariums, safe from spiders, stink bugs and birds.

Caterpillar hunting is “not for wimps,” said Kathy. “You have to put up with poison ivy, wood ticks, mosquitoes, flies and, of course, usually heat and humidity.”

Kathy recalled one year when she discovered both her pant legs full of wood ticks. “I just screamed.” Any ticks found are usually captured with clear tape on sheets of paper

to help remove the nuisance from the wild.

Over the years, the McGraths have encouraged friends and neighbors to grow milkweed, where monarchs lay their eggs and caterpillars munch leaves. Those folks let Kathy and Pat know when they see monarch eggs and caterpillars on the plants. Some acquaintances have even started collecting their own eggs and caterpillars to grow butterflies.

The McGraths give monarch demonstrations in central Wisconsin — in their driveway on occasion and other places upon request. In July last year they drew 350 people, ages 3 to 83, to their yard for a presentation during South Wood County’s annual garden walk.

Only one out of 100 monarch eggs survive to become butterflies in the wild. But Pat said, “We have a 90 percent survival rate” with their in-home nurturing.

In 2015, the McGraths hatched and released 990 monarchs. They put tiny round tags on 300 of the butterflies and, to date, four of those butterflies have been identified in a wooded area of Mexico. The tags are retrieved by Mexican residents who report them to Monarch Watch, an ecology program at the University of Kansas aimed at reversing a shrinking monarch population.

The McGraths’ yard is designated an official “Monarch Waystation” by Monarch Watch because the McGraths grow milkweeds and nectar sources



PAT MCGRATH

Kathy McGrath has spent more than 17 years working on behalf of monarch butterflies including filling her living room with multiple aquariums containing insect eggs, caterpillars and milkweed leaves to feed them.

that feed butterflies and also provide shelter for migrating monarchs.

Monarch City USA, an organization headquartered in Washington state, has started a program for monarch-friendly communities. To be designated, a community must commit to work with its citizens and environmental groups to create butterfly habitat and foster conservation in land-use planning. The community also must investigate the creation of monarch sanctuary sites, hold a yearly butterfly festival and work with schools to promote land conservation.

In January, Kathy contacted a 79-year-old woman in Cole Camp, Missouri, who had managed to get her city named the first “Monarch City USA.”

“She’s the one that got me started” on the village designation for Port Edwards, Kathy said.

In mid-February, the Port Edwards Village Board approved the request from Kathy and Pat to seek “Monarch Village” status, and the first “Monarch Village” sign went up near the village limits on March 29.

On Aug. 12, the annual “Port Fun Fest” also will be labeled “Monarch Fest” and feature a tent where the McGraths and others will demonstrate monarch-saving efforts and provide butterfly-related activities. Kathy also may have tiny envelopes of milkweed seeds to hand out.

Since the “Monarch Village” designation, about 40 people have told Kathy they’re interested in forming a “Friends of the Monarch” group in the Port Edwards area. The message they’re sending, Kathy said: “This is so cool.”

Vern Borth of Wisconsin Rapids is the Wood County field editor for Our Wisconsin magazine.

ROADMAP

TO A REVITALIZED

GREEN LAKE

Maintaining the beauty of central Wisconsin's Green Lake requires contributions from a variety of stakeholders in the region.

COOPERATION AMONG SEVERAL GROUPS PRODUCES A PLAN TO AID THE AGING BEAUTY.

Stephanie Prellwitz and Alison Thiel

Green Lake, located in central Wisconsin, is a treasured lake of statewide significance. Measuring 236 feet at its greatest depth, it is the deepest natural inland lake in the state whose pristine waters and diverse ecology have been revered by many.

While all lakes naturally age, human pressures and the impact of more intense and more frequent rain events can accelerate the lake aging process from centuries to decades. Reflecting such long-term degradation, in 2014 the Department of Natural Resources classified Green Lake as an impaired waterway because it does not meet optimal water-quality standards for dissolved oxygen.

A band of low dissolved oxygen consistently develops at certain lake depths

in Green Lake and has been getting more pronounced over time. The likely cause is a high concentration of phosphorus.

"Green Lake was listed as impaired because the thermocline, which is about 30 feet below the water surface, goes without oxygen for a few meters within the summer months," explained Ted Johnson, lake biologist with the DNR.

Low concentrations of dissolved oxygen at Green Lake's bottom also are being carefully monitored. Dissolved oxygen in water bodies is essential for the

survival of organisms important in lake ecosystems, from small zooplankton all the way up to large trophy fish.

Call to action

Green Lake has benefited greatly from decades of work by dedicated local entities, and in 2013 these groups worked together to develop a Lake Management Plan (LMP) to study issues facing the lake and identify recommendations for improving water quality and aquatic habitat.

The LMP team consists of government entities, local municipalities and non-profit organizations working together throughout the watershed. The team regularly partners with environmental experts, including the Nelson Institute for Environmental Studies, Delta Institute and University of Wisconsin.

Charlie Marks, administrator of the Green Lake Sanitary District (GLSD), has been involved in restoration efforts on and around Green Lake for 20 years. He emphasized the benefits of compiling past and future conservation efforts

DNR FILES

into an official LMP. This plan represents the commitment and collaboration of the LMP team, which has led to an increase in grant awards for Green Lake restoration projects.

The LMP team is doubling down on initiatives that prioritize phosphorus reductions throughout the Green Lake watershed, including shorelines, cities and agricultural areas. The group also is coordinating research to align water-quality goals with science-based scalable solutions.

Understanding the issues

As an initial step, the Green Lake LMP team is working to better understand the mechanisms causing Green Lake's low dissolved oxygen zones and high phosphorus concentrations.

The Green Lake Association (GLA) is collaborating with the U.S. Geological Survey, DNR and other lake scientists on a three-year study to investigate the dissolved oxygen issue. The project is funded by a \$200,000 DNR Lake Protection Grant, with additional financial support by the GLSD and Geological Survey.

"This study will take into account the biological and chemical factors contributing to this phenomenon of low dissolved oxygen," Johnson said.

Ultimately, the research will develop evidence-based management strategies and phosphorus reduction requirements to achieve Green Lake's water-quality goals.

Because the lake study will take several years to complete, the LMP recognizes that phosphorus reductions are a smart preliminary plan of attack. With limited resources, efforts need to be as efficient as possible. That means prioritizing science-based solutions that target the causes instead of simply chasing after the symptoms.

Agricultural impacts

One pound of phosphorus can fuel the growth of 500 pounds of algae, so the LMP team is looking for reductions beyond the lake and into the entire 107-square-mile watershed, the likely source of much of the phosphorus found in the lake.

As an essential nutrient for plant life, phosphorous is found in fertilizers and manure. However, ineffective management of water runoff can lead to excess phosphorous entering waterways and depositing in the lake.

Several agriculturally focused projects have been gaining momentum. In Green Lake County alone, more than 100 agricultural best management practices (BMPs) have been installed in the watershed thanks to six consecutive years of grant funding from the Natural Resource Conservation Service's National Water Quality Initiative (NWQI).

This effort partners Land Conservation Department staff with farmers to install "hard" conservation practices, such as grassed waterways and retention ponds, and to implement "soft" management techniques, including cover crops and tillage practices. These practices keep nutrients and sediment on the land, upstream and out of the lake.

What makes this program even more unique is that many of the practices are installed at no cost to farmers. NWQI funds typically cover 70 percent of the cost of each of these BMPs, with the remaining expenses covered by the GLSD courtesy of a separate \$200,000 Lake Protection Grant.

"In many cases the additional cost-share money from the GLSD and DNR, which sometimes pays for the entire project, is the breaking point for implementing some of our most important BMPs," said Paul Gunderson, Green Lake County conservationist.

In exchange for free BMPs, the practices are left intact in perpetuity and are maintained by the GLSD.

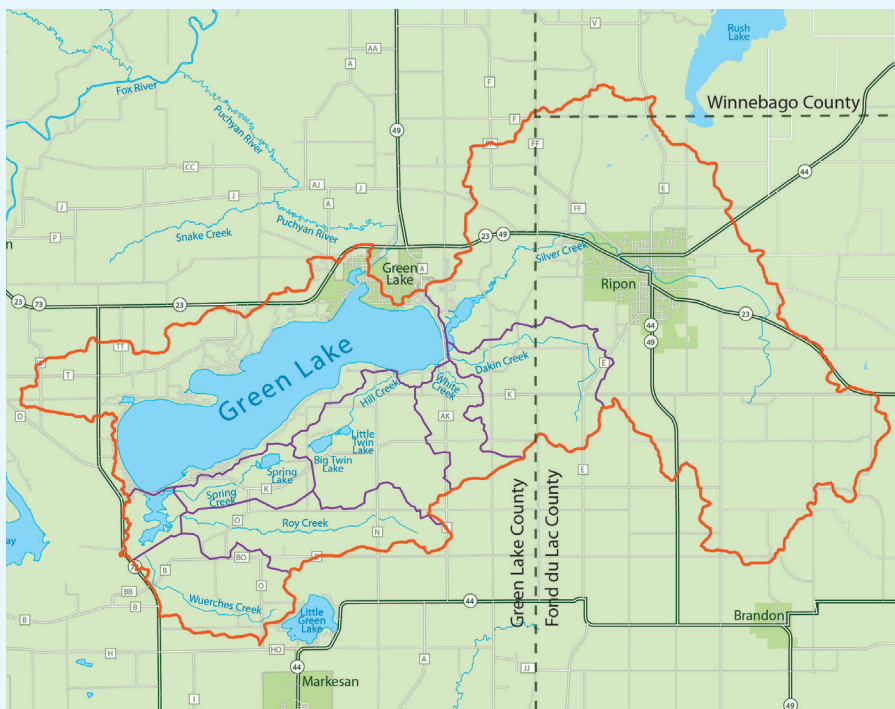
The LMP team is hoping to duplicate this model in Fond du Lac County, which accounts for 41 percent of Green Lake's watershed area. In 2016, the GLSD received an additional \$200,000 Lake Protection Grant from DNR to install BMPs to divert nutrients from entering Green Lake. The GLSD and GLA are providing a local match to the grant.

Future projects that aim to prevent nutrient runoff will be guided through the GLA's Phosphorus Prioritization Plan, a recently completed project by the Delta Institute that identifies fine-scale nutrient-loading priority areas within Green Lake's watershed.

Eyeing the urban footprint

The cities of Green Lake and Ripon are located in Green Lake's watershed. As an LMP team member and economic beneficiary of a healthy lake, the City of Green Lake recognized that its participation was vital before the team approached partners further upstream who were less directly connected to the lake.

In 2015, the City of Green Lake was awarded a \$19,000 DNR Urban Non-point Source and Storm Water Grant.



The Green Lake watershed lies mostly in Green Lake and Fond du Lac counties and includes miles of streams that have been documented for erosion and buffer issues in a comprehensive study designed to prioritize restoration projects.



Interns from the Green Lake Association and Ripon College, including Ricardo Jaimes shown here, documented erosion on every mile of tributary stream in the Green Lake watershed.

ALISON THIEL

This municipality-wide initiative will identify, quantify and improve the city's urban footprint to Green Lake. Some of the proposed activities include addressing water infiltration and reviewing city ordinances to better manage storm water. The City of Green Lake, GLSD and GLA are contributing funds to pay costs not covered by the grant.

"The city has a responsibility to do our part to protect our water resources so that future generations have the same opportunities that we have now," said Green Lake Mayor Jon McConnell. "We take that obligation very seriously, and we are willing to do our part to make that happen."

Shore up shorelines

Miles of streams meander throughout the Green Lake watershed. Some sections have eroded banks that deposit sediment and nutrients into the waterway, especially during storm events like the infamous 2008 flood.

Since these stream sections are often hidden or inaccessible, the LMP team sponsored a multi-year stream inventory project. Interns from the Green Lake County Land Conservation Department (LCD), GLA and Ripon College walked every single mile of stream, documenting erosion and buffer issues every 150 feet along the stream corridor. Data were compiled into a series of maps that provided a systematic method for the Green Lake County LCD to identify and prioritize future stream restoration projects.

One recent restoration project replaced 1,700 feet of deeply eroded stream banks with gentle slopes to mimic natural systems. During future larger rain events,

stream flow will be able to expand into the floodplain and return to the channel during normal flow conditions, reducing erosion and nutrient loading to Green Lake.

A people approach

These voluntary agricultural and urban solutions are only as successful as their participants, so the LMP team is utilizing social science to build more effective conservation programs. In 2015, the GLA was awarded a \$10,000 DNR Lake Planning Grant to conduct a survey of farmers in the Green Lake area. The grant is supported by additional contributions from the GLA and GLSD.

The voluntary assessment seeks to better understand farmers' land-management decisions and ask for input on solutions that collectively benefit crops, soil health and downstream water resources.

"The best way to get conservation on the land is to work together with the farmers. Their input and knowledge guides us to find solutions that reach the same goals," Gunderson said. "In fact, knowing what they are doing or would be willing to do to conserve soil is a starting point in all our conversations."


Results of the survey will be used as the foundation of future programs and

potential incentives to increase the adoption of conservation practices in the Green Lake watershed.

Taking a wider view

Green Lake has big challenges that will require the investment of big minds. The Green Lake LMP team is reaching throughout the state, region and nation to align partnerships of unprecedented proportions.

Yet, Green Lake is not alone in its water-quality challenges. In Wisconsin, 1,437 water bodies are classified as impaired because they fail to meet optimal water-quality standards. Of those, 562 have high concentrations of phosphorus and 149 have low concentrations of dissolved oxygen.

With sufficient resources and intellectual capacity, the partners around Green Lake are embracing an opportunity to implement solutions that can become a model for lakes throughout Wisconsin and the Midwest where similar conditions exist. 

Stephanie Prellwitz is executive director of the Green Lake Association, and Alison Thiel is GLA project manager. Josh Knackert of University of Wisconsin-Extension also contributed to this story.



ALISON THIEL

Efforts such as retention ponds, stream bank restoration and grassed waterways near agricultural fields in the Green Lake watershed area help to reduce runoff into the lake.

BIG on bobcats

Mark Mumm, Fond du Lac, holds one of six bobcats he found in his traps that were collared and tracked as part of DNR's research program.



TIM WATSON

TRACKING PROGRAM ASSISTS RESEARCH ON THE STATE'S GROWING POPULATION.

Nathan Roberts and Nick Forman

Despite a reputation of secrecy and elusiveness, bobcats are increasingly in the spotlight in Wisconsin. With a recent uptick in citizen sightings, a healthy bobcat population and current research efforts by the DNR, people are taking notice of bobcats, especially in areas where many thought they weren't around.

In recent years, the Wisconsin DNR has received reports of numerous sightings of bobcats by citizens across a large portion of the state. Many of these sightings have been reported by hunters who spotted a bobcat while in a tree stand or blind, as bobcats move relatively unaware of — or uninterested in — the camouflaged observer watching their moves.

The increasing popularity of trail

camera use among landowners in Wisconsin also has opened the door to unprecedented observations of bobcats in the wild. There are frequent submissions of photos to DNR staff of bobcats with litters of kittens moving through fields, bobcats marking their territories and bobcats sitting at birdfeeders on back decks, taking full advantage of an easy meal source.

In the same way that landowners

have been able to identify a cherished big buck repeatedly caught on camera, many landowners have been able to distinguish big toms who frequent their areas or queens who occasionally bring their kittens through on a stroll.

The increased sightings aren't only a result of a more observant and interested public, they also are due to the apparent natural expansion and growth of Wisconsin's bobcat population. Once thought of as strictly a denizen of the northwoods, these cryptic predators are now taking advantage of a wide variety of habitats across Wisconsin.

Bobcats are ambush predators, and their size (up to 50 pounds in Wisconsin) makes them best suited to small game such as rabbits, squirrels and other rodents. Wherever you might find small mammals, given there is ample cover for safety and comfort, a bobcat might call that place home.

Based on bobcat sightings, it seems the general trend in Wisconsin is that bobcats are expanding their range across the state, a good indication of a healthy population. However, the specific details of this expansion — where bobcats are, how they're proliferating, what resources they're using and how they're moving — aren't well-documented.

Beginning in the fall of 2014, DNR researchers began placing GPS tracking collars on bobcats in two counties in northern Wisconsin to better understand the state's bobcat population and its apparent ongoing expansion. These GPS collars collect multiple locations per day, and this data informs research on where these bobcats are, what habitats they're using, what factors affect their movements and survival, and what kind of territories and territorial overlap these animals have.


The bobcats being collared by researchers are, in large part, voluntarily reported by trappers who incidentally catch bobcats during efforts to trap other species. These trappers are eager to learn more about the population and enthusiastic to have research staff come out to collar the animals. In fact, a portion of the funding for this research is derived from an increase to the bobcat license fee that was requested by hunters and trappers.

In some cases, researchers may coordinate with landowners who report frequent sightings of bobcats to try and capture the bobcats they see. Trappers

and landowners who help to capture a bobcat receive updates on “their” collared bobcat as to how it’s been faring and whether it’s still in the area.

The opportunity to collaborate with landowners and trappers has immensely increased the number of bobcats researchers have been able to collar. These growing numbers are impressive to anyone who knows how difficult it is to lay eyes on, let alone get their hands on, a bobcat.

Three years after the start of the tracking project, researchers are collaring bobcats in 20 counties: 12 in northern Wisconsin and eight in southwestern Wisconsin. They have collared upwards of 60 bobcats in that time frame, which is unheard of for most radio-collaring research studies on such an elusive carnivore.

All of the data collected from collared animals will be combined with information on bobcat sightings across Wisconsin, as well as data on age and reproductive success collected from harvested animals, to feed into the population estimation and monitoring that informs species management decisions in the state. By combining the knowledge and efforts of trappers and citizen scientists with cutting-edge research techniques, the DNR is learning more than ever about this elusive species and its role in Wisconsin. 

Nathan Roberts is bear, wolf and furbearer research scientist for the DNR. Nick Forman is the agency’s predator project coordinator.



Placing GPS collars on bobcats in northern Wisconsin has helped DNR scientists to gain better understanding of the animal’s apparent population expansion in the state.

DNR FILES



TO CATCH A CRAYFISH

HIGH SCHOOL BIOLOGY STUDENTS LEARN HANDS-ON LESSONS WHILE HELPING THEIR LOCAL ECOSYSTEM.

Tracy Arnold

In a small central Wisconsin town, students in a high school biology class are helping to protect Wisconsin’s native species and aquatic ecosystem.

The project at Pittsville High School started seven years ago with efforts to trap the invasive rusty crayfish (*Orconectes rusticus*), which had taken over the Yellow River. As conservation program coordinator for Wood County’s Land and Water Conservation Department, I teamed up with Todd Steward Sr., life science and psychology teacher from Pittsville High School, to develop the hands-on project for his students.

Together we constructed traps, purchased waders and presented the project to students. They took the lead in developing plans, deploying the traps and waiting for the rusty crayfish to be caught.

The rusty crayfish is an invader in Wisconsin. Native to the Ohio River Basin, rusty crayfish are most commonly a

reddish-brown color, hence their name. In some instances they can be greenish or grey. During mating season, males can have blue claws.

“The most recognizable characteristic of a rusty crayfish is two ‘rust’ spots located on either side of their carapace and black circles around the tips of their front claws,” said Laney Garrels, a student who has worked on the project. “It is easy to distinguish between a male and female rusty crayfish. The male crayfish have an extra pair of swimmerets that fold upwards under their abdomen, whereas the females do not.”

Research and removal

Pittsville High School’s rusty crayfish project involves research as well as removal of the invasive species. Every



Biology students at Pittsville High School in Wood County take to the Yellow River to participate in ongoing research and removal projects involving the rusty crayfish, an invasive species in Wisconsin.

SARAH DOWNS

other day while involved with the project, the student researchers head over to the Yellow River — just across Riverside Park from the high school — pull on waders, trudge through the river to retrieve their traps and drag the catch back to shore.

Once the traps are out of the water, teams of students pull out each crayfish to verify the species, take measurements and document sex, color changes and behaviors. Students also collect data on variables such as water temperature, water flow, river substrate, bait and bait containers used for trapping.

The students have learned over the years that water temperature dictates which crayfish they most likely will catch. Male crayfish come out first and tend to fill the traps at the beginning of the trapping season. Students take note of color changes on the claws of the male crayfish and when the claws start to turn blue, they know to be on the lookout for females. After the water reaches a certain warmer temperature, the females start to appear in traps.

Once the females start to appear, the students make observations of the underside of the tail. Females can be seen “in berry,” meaning they are carrying eggs under the tail. These eggs will stay there until they molt three to four times before they leave the mother’s tail. Ma-

ture female crayfish can carry between 80 to 575 eggs.

By determining the gender of each crayfish, the students can do population projections to help predict the future of the Yellow River ecosystem. By catching and removing the crayfish, they are helping to regenerate the river’s native ecosystem. Over the last three years of the project, students have started to see numerous macroinvertebrate, fish and amphibian species begin to return.

Great way to learn

Giving students a chance to see rusty crayfish up close is a great way for them to understand more about this invasive species, Steward said. “Everyone learns in different ways, but immersing yourself in your work is the best way to learn.”

Often the lessons are entertaining, and sometimes they are more of a practical nature, as noted by Paula Alvarez Pola, an exchange student from northern Spain.

“At first when I took biology class, it was because I just needed the credit to validate my school year, but I would never imagine how fun it would be,” she said. “I am always going to remember the first time I went to the river to start this experiment. Mr. Steward told us to pick some rocks to put them inside our traps (to weight them down), but he never said, ‘Don’t bend over picking your rocks or you will get wet.’

“So when I got in the river, the first thing I did to pick up a rock was bend over — so all the water came inside the waders. It was so cold and so wet. Even though it sounds pretty bad, it was the funniest thing I have ever done in biology class.”

The experience working on the rusty crayfish project, she added, is something she will carry with her when she returns to Spain.

“I was impressed how lucky these students are to take part in this experiment, because back home I would never be able to do it,” she said. “From this experience, I have learned so many new things and I would like to do the same project again, but with the invasive species from my country.”

Positive impact

Over the last seven years, students have caught thousands of rusty crayfish. So what becomes of them upon removal from the river?

After emptying all the traps and documenting their findings, the students put each day’s catch into storage bags and load them into a freezer donated by a local Maytag store. Once all research on the specimens is completed, they are loaded into coolers and taken to the Bay Beach Wildlife Sanctuary in Green Bay, where they become food for animals such as raccoons and otters in the sanctuary’s R-PAWS wildlife rehabilitation program.

Pittsville High’s rusty crayfish project continues to evolve and expand over time. The number of crayfish trapped has decreased while the number of native species documented in the Yellow River has increased, so students know they are making an impact.

Every year seems to bring a different obstacle during trapping season, whether it is low water temperature, extreme flooding or even snow. Still, the students are eager to get to the river each working day. To deal with any issues, they brainstorm potential solutions, make adjustments and put their ideas to the test in the field.

As word has spread about the project, it has even expanded. After school is out for the year, equipment used in the research is moved to North Wood County Park, on the Yellow River just north of Pittsville, where campers can continue the work of catching and removing the invasive crayfish throughout the summer.

The rusty crayfish research project started as an idea to connect high school students to real-world conservation problems and solutions. It has turned into a memorable experience for all involved. ❧

Tracy Arnold is the conservation program coordinator for Wood County’s Land and Water Conservation Department. Pittsville High School students Laney Garrels, Paula Alvarez Pola and Sarah Downs contributed to this story.

>>> FOR MORE INFORMATION

For more information on Pittsville High School’s rusty crayfish research and removal project, contact Tracy Arnold at tarnold@co.wood.wi.us or Todd Steward Sr. at stewardt@pittsville.k12.wi.us.

Milwaukee duo plans walk on WATERS



Alyssa Armbruster, inset left, and Julia Robson will spend late August and much of September on a walk of 300-plus miles to raise awareness of issues facing the Great Lakes, including Lake Michigan, shown here.

FROM MICHIGAN TO SUPERIOR, GREAT LAKES ARE FOCUS OF OUTREACH EFFORT.

Julia Robson and Alyssa Armbruster

The Great Lakes are the largest freshwater system on our planet, containing 20 percent of the world's freshwater supply and providing more than 30 million people with clean drinking water every day. This finite resource generates billions of dollars in annual economic impact, according to numerous reports, and provides jobs to millions in Great Lakes communities. What's more, the Great Lakes Basin provides critical habitat for a variety of fish and wildlife species in the region.

In spite of their majesty, the Great Lakes are part of a fragile ecosystem that faces serious threats from pollution, invasive species, degradation and loss of wetlands. Much progress has been made toward improving the health and vitality of the Great Lakes since the passage of the federal Clean Water Act and establishment of programs such as the Great Lakes Restoration Initiative. But the need for research, restoration, regulation and education on local, statewide

and national levels remains imperative.

In a unique effort to promote the progress that has been made toward restoring the Great Lakes while also drawing attention to the issues the lakes still face, we are planning a Walk to Sustain Our Great Lakes. Our two-person hike across Wisconsin will cover 332 miles over the course of four weeks, beginning Aug. 26 on Lake Michigan in Milwaukee and ending on the shores of Lake Superior in the Porcupine Mountains of Michigan's

Upper Peninsula.

The journey will take us across both urban and forested landscapes and pass through three of Wisconsin's five Great Lakes Areas of Concern. These AOCs — as designated by the U.S.-Canada Great Lakes Water Quality Agreement first signed in 1972 — are Great Lakes rivers and harbors that have experienced severe environmental degradation due to pollution and habitat loss. There are 43 AOCs throughout the Great Lakes Basin between the United States and Canada.

In each of the AOCs we pass through, we plan to meet with local individuals and organizations that have partnered to restore these areas, so they can share their success stories from a community perspective. By focusing on our route and outreach efforts in both coastal and inland communities, we hope to stress that no matter where you live within the Great Lakes Basin, your everyday actions can have an effect.

Our Great Lakes journey will take place in various phases. After a sendoff event open to the public at Discovery World on Milwaukee's lakefront, we will first complete a 47-mile trek along Lake Michigan to the sandy dune beaches of Kohler-Andrae State Park in Sheboy-

gan. Our route will include the Oak Leaf Trail, Ozaukee County Interurban Trail and Sheboygan Interurban Trail.

The next jaunt will be approximately 54 miles up to Green Bay, where we will spend two days (scheduled for Sept. 9 and 10) meeting with the community and touring important sites such as the Cat Island Chain Restoration Project and the Point au Sable Nature Preserve. We then will resume our trek along the Fox River State Trail and Mountain Bay State Trail for 38 miles up to the Chequamegon-Nicolet National Forest, where we will hike the 89-mile Nicolet State Trail through the forest until reaching the Wisconsin-Michigan border.

Upon reaching Michigan, we plan to take trails and forest roads through the Ottawa National Forest to the entrance of the Porcupine Mountains on roughly Sept. 17. The final leg of our trek will take us through the Presque Isle River Scenic Site, a designated National Natural Landmark managed by Michigan's Porcupine Mountains Wilderness State Park.

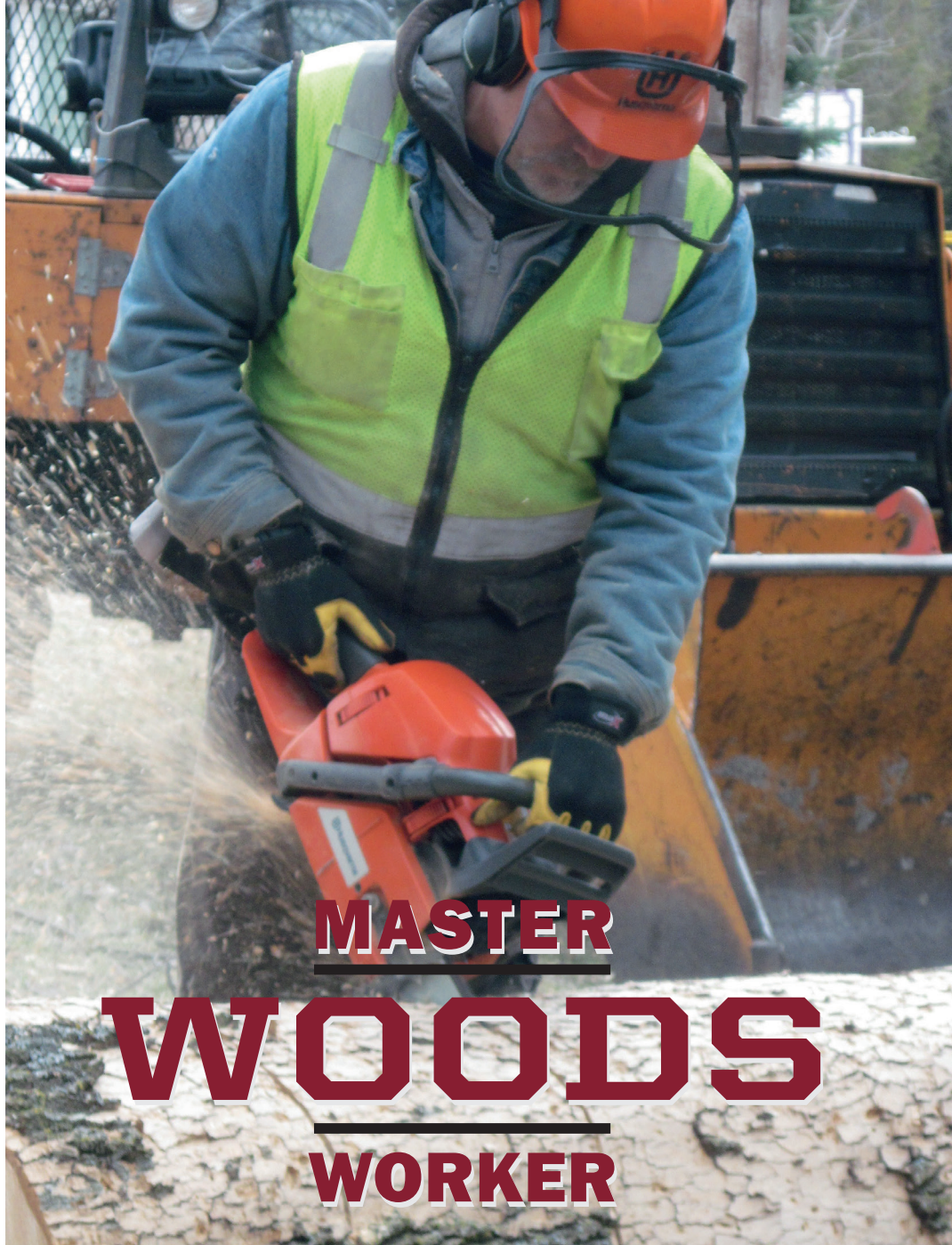
Accommodations along the way will be mostly camping, with the occasional motel or similar stay in the more urban communities.

To garner as much awareness as possible for Great Lakes issues, we have partnered with Rayni Day Productions to produce a feature-length documentary. The film will feature our journey through Wisconsin as well as interviews with researchers and community groups about the multitude of projects being implemented throughout the Great Lakes Basin to improve and protect our lakes. 🌲

Julia Robson and Alyssa Armbruster are both graduates of UW-Milwaukee's Conservation and Environmental Science Program and work in natural resource management for Milwaukee County Parks.

>>> FOR MORE INFORMATION

For more about Julia Robson and Alyssa Armbruster's Walk to Sustain Our Great Lakes — including the Aug. 26 sendoff event, social media updates and ways to get involved through community participation or donations — check the website at wsogl.com.



MASTER WOODS WORKER

LANCE OLSON LOGS 30-PLUS YEARS AS PENINSULA STATE PARK'S LUMBERJACK.

Kathleen Harris

Sven's Bluff skewers the sky like the jagged blade of a steel gray saw. In late April, hundreds of Dutchman's breeches spill down this cliff, their green leaves and white flowers softening the edges of the 420-million-year-old rock.

It was here, about that time of year in 2001, that Peninsula State Park lumberjack Lance Olson nearly met his maker.

The U.S. Bureau of Labor Statistics rates logging as the most dangerous oc-

cupation in the U.S. What happened to Olson on Sven's Bluff proves the point.

"I was felling a large dead birch on a steep incline below Sven's Bluff," Olson recalled. As always, he estimated where

Sven's Bluff in Peninsula State Park certainly looks beautiful, but no one knows better than lumberjack Lance Olson about the dangers that can be encountered there.



NICK MEIERS

the tree should fall by pacing 20 steps. The birch was about 60 feet tall and nothing seemed to be in the way.

But the tree had other ideas. "The birch got held up by a group of cedars," Olson said. It suddenly snapped.

"The bottom of the tree, where it broke off, slid down the bluff. The top, still suspended, reversed direction and fell towards me," Olson continued. "I ran for shelter behind the nearest standing cedar and rested my right hand on a piece of deadfall to support myself."

Olson's hand extended past his cover. "The birch hit my hand and smashed and broke one of my fingers." The fel-

low working with him that day called it a lucky break.

Despite Olson's years of experience, the unpredictable still happened. "You can't look inside a tree," he said. Birch is especially notorious for splitting and falling at unforeseen angles.

Adrenalin took over to help Olson avoid a tragedy. "I didn't look back to see where the tree was falling," he said. For people who only cut trees occasionally, a failure to consider the unexpected can be deadly.

Handling hazards

Peninsula State Park hired Olson to run its woodyard in 1984. He took over from Ray Hamm, who owned Camp Tel Campground in Egg Harbor. Olson had worked for Hamm since graduating from high school four years earlier.

"Being outside in the park environment was and is a favorite part of the job," Olson said.

Providing campers with firewood may seem to be this private concessionaire's primary purpose, but Olson also provides a more critical service. Hazardous trees are his firewood source. "I remove diseased or dangerous trees," he explained.

Visitor safety is a primary concern in the Wisconsin State Park System. Olson cuts about 200 cords of wood each year, using a log splitter as well as splitting much of it by hand.

The arrival of emerald ash borer (EAB) and beech bark disease to Peninsula State Park has intensified hazardous tree removal in high-use areas like campgrounds and trails. To manage the increase, Department of Natural Resources foresters and the park superintendent are marking problem trees that may appear to be healthy but are not. Campers may notice stumps where favorite trees once stood.

Woodsmen like Olson know how to recognize telltale signs of tree disease. Flecking, the absence of bark on ash from woodpeckers searching for beetles, can indicate the presence of EAB. A scant covering of soft, white fluff on the gray bark of a beech signals beech bark disease. Bracken or shelf fungus suggests a tree is decaying fast.

Olson recognizes lightning strikes on trees, too. "A lot of the big white pine on the bluffs have lightning strikes," he said. "But those pines can still live a long time."

People ask why he doesn't cut and split downed trees lying on the forest floor.

"Downed trees are too decayed to be of good firewood quality," he said. "Besides, rotting logs and branches release nutrients into the soil." Hollow stumps also provide homes and even food (insects) for wildlife.

Each tree has different merits. Basswood is easiest to cut and pine is messiest because of sap. Cedars almost always have some rot inside. But Olson said his favorite tree to fell is "one without nails."

Campground trees can contain hidden nails, pounded in years ago by folks wanting to hang a lantern or string a rope to dry beach towels. New wood grows around nails, absorbing and concealing them. When struck by a chainsaw, they dull blades and make logging more dangerous.

Changes through the years

The Peninsula State Park woodyard has been on Bluff Road for decades, perhaps starting as a staging area for Peninsula's former sawmill. Early on, rangers delivered firewood, often free, to campsites. Crews spent all winter making firewood then worked a couple of hours each summer night selling it.

Changes came in the winter of 1974, according to Gary Patzke, who was park superintendent from 1974-84.

"A huge pile of 8-foot logs was piled in Nicolet Bay campground, ready for bucking," said Patzke, now retired. "Park facilities were in poor shape and I thought the effort put into the firewood operation could be better spent upgrading facilities, so I developed the current (private contractor) operation."

Over time Olson initiated changes, too. He added wagons for campers to haul racks of wood to their cars and a large canopy and tarps to cover wood in rainy weather. And he began selling kindling and fire starters.

Beginning about 10 years ago, restrictions on where firewood could originate as well as laws prohibiting removal of firewood from the park were put into place to help prevent the spread of destructive insects and disease. Olson began selling certified wood and also sells "natural chimneys." These hollow logs are easier to start and keep flames more contained, making them safer. The chimneys have become a Peninsula tradition.

A family affair

For Olson personally, the biggest change came with a game of darts in Sturgeon Bay, where he met a young woman named Sue Kramer. Within a few years, Olson was hitched to the hardworking southern Door girl, who gave up showing quarter horses for lumberjack summers. Sue Kramer Olson also teaches at Gibraltar School in Fish Creek.

The Olsons have two daughters, both born in the month of May, which means they came to the woodyard the day after getting home from the hospital.

"The woodyard opens in May so we had to be there," Olson said. "We would arrive early then drive in circles around the park until the girls fell asleep. We covered the rolled-down car windows with mosquito netting. When they got bigger, we put them in a Pack 'n Play covered with mosquito netting."

Helping at the woodyard was expected of the girls, Cassie and Anissa, as they grew up. At first, they alternated between filling racks with wood and playing in the woodyard — always within view of their watchful parents. They looked for critters such as frogs and salamanders in the nearby black ash swamp and watched bats swoop between the cedar trees.

The family also camped at Peninsula, usually at site 602 in North Nicolet Bay. "It is close to the beach and we could see the girls from the campsite if they wanted to go to the playground," Sue said.

By high school, Cassie and Anissa had started to accompany their father occasionally when he cut hazardous trees. They dragged branches off park campsites and trails, and rolled heavy logs toward his truck.

"When the girls got older, they asked why we did not get to go on summer vacation like everyone else," Sue said. "I told them it was because we lived in a place where people come to vacation."

Learning the value of hard work has paid off. Today, Cassie is completing Doctor of Physical Therapy studies and Anissa is pursuing a degree in interior architecture.

Memories, friendships and no regrets

Like his daughters, Olson has experienced tradeoffs in running Peninsula's woodyard.

"My job is labor-intensive," he said. "The equipment can be expensive, as

can the insurance. A chainsaw, a wood splitter and a dump truck are essential. So is a tractor. I didn't have either one when I started."

On the other hand, he has seen amazing sights. "In 1992, a black bear was treed on Bluff Road. She was big — maybe 300 pounds," he recalled. People came from all over to gawk, but when night fell and the crowds disappeared, so did the bear.

Olson saw bear tracks near Middle Road in 2015. He has spotted fishers, raccoons and a weasel "probably eating mice in the woodyard." He also has seen porcupines, noting "they do a lot of damage to the tops of trees, especially maples." And he "watched an eagle catch and eat a snake at Tension Bay."

Weather events have provided memories, too. Olson was on cleanup duty following the September 2011 storm that closed all Door County state parks for five days. And he remembers the 1988 drought that caused great damage. "(It) wiped out a lot of birch that weakened then deteriorated," he said.

After the drought, Olson said the park ranger at Peninsula marked so many trees as hazardous that the superintendent became alarmed.

"(He) painted over some of the orange blaze," recalled Olson, chuckling. "But you know all those trees eventually died. There was so much wood from the drought that I filled the field on the south side of Middle Road, across from Kodanko Field." Pines grow there now.

That drought also killed red oaks at Welcker's Point campground. Oaks that survived were further weakened by disease. As of this publication, oak wilt disease is not present at Peninsula, but other maladies are.

It's been a good run for Lance Olson, with no regrets. He and Sue have been around so long they now are meeting the children of adults they knew as toddlers.

"Ed Beaman was a campground host in the 1980s," Olson reminisced. "After Ed passed away, his daughter continued to camp at Peninsula. Her daughters and ours became lifelong friends."

With so many friendships, a love of hard work and a dash of luck, Olson plans to remain Peninsula's lumberjack for a few more years. Why leave when you can experience the best of Wisconsin outdoors? 🌲

Kathleen Harris is the Peninsula State Park naturalist.



Working at the Peninsula State Park woodyard has been a group effort for the Olsons, from left, Anissa, Sue, Lance and Cassie, with family dogs Vessie and Jericho.

KIM BEAMAN-LEE



Reintroduction of wild turkeys in Wisconsin has been an unmitigated success since it began in the 1970s, with self-sustaining populations now thriving in all 72 counties.

TRIUMPH FOR WILD TURKEYS

HERBERT LANGE

REINTRODUCTION CAME THREE DECADES
AGO TO KETTLE MORaine STATE FOREST-
SOUTHERN UNIT.

R.J. Longwitz

It was 1986 and I'd just returned to my home state of Wisconsin after completing a master's study of ruffed grouse in southern Appalachian hardwoods. Wisconsin was in the midst of a major reintroduction effort of the eastern wild turkey (*Meleagris gallopavo silvestris*), work I'd been involved with six years earlier (see "Trading ruffed grouse for wild turkey," February 2015, *Wisconsin Natural Resources*).

Turkeys once were native to Wisconsin, inhabiting most of the southern half of the state. Clearing of mature oak for-

ests, the bird's primary habitat, and uncontrolled harvesting of the species were significant causes of its extirpation from

the state back in the late 1800s.

A DNR project initiated in 1976 using Missouri live-trapped wild birds released in Vernon County of southwest Wisconsin was highly successful. A decade later, estimates placed Wisconsin's turkey population at more than 45,000 birds. As densities increased, birds were live-trapped and released into other areas of the state to accelerate range expansion.

Looking to help on the project again, I contacted a few state workers and learned — as it turned out — birds were being released in Waukesha County, my home territory, in the Kettle Moraine State Forest-Southern Unit (KMSF-SU). Turkeys were released in the area during January and February 1986, and I was hired to help monitor dispersal, nesting, habitat use and survival of the birds through the end of the year.

The KMSF-SU expands through three counties along an interlobate moraine, an area where ice sheets made edge-to-edge contact. Large amounts of glacial debris were deposited, creating a hilly landscape, with depressions or "kettles" eventually forming when large buried ice blocks later melted.

More than 18,000 acres of state land are found in the KMSF-SU in an area 20 miles long and varying from a mile to 3½ miles wide. Forested uplands dominated by oak trees make up about 75 percent of the KMSF-SU, a multiple-use forest emphasizing outdoor recreation. More than 192 miles of trails have been used for hiking, skiing, snowmobiling and horseback riding. Agricultural activities dominate the land immediately outside of the state forest boundary.

The 1986 turkey release in the KMSF-SU featured source birds from Crawford County. There were 11 males and 31 females, a total of 42 birds that included 16 adults and 26 juveniles. Each was fitted with wing tags to facilitate identification from a distance and transported to one of two release sites 9 miles apart.

Public involvement was heavily recruited for the project, especially to assist with bird sightings and locations throughout the study. Solar-powered radio transmitters were attached to nine hens at the southern release site and two gobblers at the northern site. My understanding was that this would be the first-ever wild turkey study in Wisconsin involving data transmitted by radio-telemetry.

Here's a look at what the study discovered about the birds.



R.J. LONGWITZ

On the move

Regarding turkey dispersal, the majority of the total area traversed by radio-tagged turkeys fell inside the KMSF-SU boundary. Most bird sightings reported by the public occurred inside this area as well. Bird movements averaged 1.8 miles from the release sites, with a range of 0.3 to 4 miles.

Seven of the nine radio-tagged hens were monitored through the nesting season. Each nested in a different spot, up to 4 miles from the release site. In addition, four nests were monitored during the study. The two radio-tagged gobblers remained together until the onset of the breeding season in late March, when they established separate home ranges 4.7 miles apart.

Based on radio locations recorded, the turkeys preferred hardwood stands — the most abundant habitat type in the KMSF-SU. They visited these and scattered hardwood stands more often than expected. Hardwoods, scattered hardwoods, conifers and agricultural lands were utilized by the birds year-round.

Ultimately, both bird movements and habitat use indicated that sufficient food and cover existed within the KMSF-SU to support a wild turkey population.

Effect of human activity

Wild turkey abundance is usually inversely correlated with human abundance. Because the KMSF-SU is a high-use area, human disturbance of turkeys is inevitable. The greatest potential for disturbance is in areas where trails and

roads pass through forested habitats.

Two incidences of nest abandonment due to disturbance were detected during this study. One of these occurred when a weekend cross-country race with many participants was too much for a nesting hen who, unfortunately, had built her nest too close to one of the trails. Also, exaggerated November movements by radioed birds were likely caused by the influx of hunters.

Survival and reproduction

During the study, 177 sightings were reported by the public and 292 radio locations were charted. Nine of the 11 released gobblers were heard during a spring gobbling survey. There were four clutches of eggs located, and two of these were completed, averaging 15½ eggs per clutch.

At least nine broods were hatched throughout the forest during 1986. Also, at least two additional broods were believed hatched as a result of late or second nesting attempts. Brood size varied, with as many as 13 poults per brood.

One brood was monitored through summer. It showed a decrease from 11 to seven poults, a 36 percent loss, during July. All seven remaining poults were still alive in September.

Of the 11 radio-tagged turkeys to begin the study, six survived the 11-month study period, yielding a 55 percent survival rate.

Based on observed survival and the number of broods produced, the mid-summer turkey population was esti-

mated at 100 birds, more than double the initial releases of 42. An established population was now well on its way.

Wild turkeys today

These days, wild turkey reintroduction is seen as arguably the single-most successful wildlife recovery story ever, especially in Wisconsin. There are now self-sustaining populations in all 72 counties. Wisconsin's bird totals, in fact, grew to lead the nation in state harvest numbers in 2009.

It is a tribute to the bird's hardiness and adaptability that it now inhabits the northern half of Wisconsin, an area where turkeys historically didn't exist. Seven Canadian provinces and portions of Mexico also support populations and even have hunting seasons. Continent-wide, some 7 million birds now occupy more square miles of habitat than any other game bird in North America, according to National Wild Turkey Federation records.

For this Wisconsin turkey success story, appreciation goes out to the people of Waukesha, Walworth and Jefferson counties for their efforts of assistance. Additional thanks to those involved with reintroduction attempts, though unsuccessful, back in the 1950s and '60s, as well as initial stockings in 1976 and 1978 and the repeated supplemental stocking and management efforts of the last 37 years, financed mostly with hunter-supplied dollars. ▀

R.J. Longwitz writes from Fall Creek.



Angling for summer catfish

From big rivers to small streams, shallows, lakes and even the occasional farm pond, catfish can be found in just about any waters of Wisconsin, though rivers are usually the best bet for fishing.

IN THE DOG DAYS OF AUGUST, WHEN OTHER FISH SKE-DADDLE, CONSIDER FISHING FOR MUCH-MALIGNED CATS.

Nicholas Saiia

I was brought up in a walleye-fearing, bluegill-respecting household. My brothers and I believed what other anglers told us about catfish: “They’ll sting ya, and they are poisonous! And even if you survive layin’ a finger on ‘em, don’t even think about eating ‘em!”

I don’t pretend to be an expert on catching catfish and have to admit that although I’m a lifelong fisherman, last summer and fall were the first I spent targeting catfish. But quite honestly, what I found out surprised me and made me want to share with others what I recently learned about one of Wisconsin’s most abundant, delicious — yet wrongfully scorned — resources.

Debunking catfish myths

Wisconsin is home to two species of catfish: channel catfish (*Ictalurus punctatus*) and flathead catfish (*Pylodictis olivaris*). Looking at them, you can see why they inspire so much negativity. They don’t

have scales, have big whiskers and make odd croaking noises — a big departure from what most anglers are used to finding on the end of their lines. But let's take a look at some of the features that inspire those myths.

“Stinging” whiskers: In fact, a catfish's whiskers are completely harmless. They do have tiny spines on the ends of their three front fins — the two side, or pectoral fins, and the top dorsal fin — and can impart a nasty little stab if the fish is handled improperly or thrashes unexpectedly.

These spines secrete very mild “venom” that can cause the wound to swell a bit and make the wound bleed a bit more than normal. Typically, however, it is the smaller catfish — especially channel cats — that have these barbels. With age, the barbels become duller, as this defense serves the younger catfish well to help them avoid being prey.

Avoiding these “stings” is actually quite easy. Simply form your thumb and pointer finger into a U-shape by placing your thumb behind one pectoral fin and your pointer finger behind the other, allowing the dorsal fin to rest harmlessly above the top of your hand.

These precautions are no different than with other fish that can stab you with a fin or bite you with needle-sharp teeth. Handling a catfish is easy, so don't let it keep you from enjoying catfishing. I now handle a cat and remove a hook as second nature as if it were a bluegill.

“Foul” flavor: As a youth, I was told that catfish are bottom feeders, taste bad and are full of pollutants. So it took me a while to work up the courage to fillet and eat some catfish I caught from a muddy river, during the middle of summer, when they are supposedly at their worst.

As I started filleting, I was surprised how white the meat was. I pan-fried them in butter with a little flour and lemon pepper. I hesitated with the first bite when something unexpected happened — it tasted great! Not quite walleye, but a very tasty fish with no muddy flavor.

Catfish don't actually eat the mud on the bottom of the river, as some people think and the label “bottom feeder” conjures up. Granted, they do feed along the bottom where they eat fish, clams, insect larvae, worms, invertebrates, tadpoles and dead fish. But this behavior of feeding along the bottom is no different than walleye, white bass or any other river



Summertime is the right time for catching catfish, which tend to increase their activity then, and cut bait or stink bait works best. As for eating, younger and smaller cats — like Mitch Steldt holds at right — will have whiter, milder meat than author Nicholas Sallia's older, larger fish.

fish, even trout.

The flathead cat is even more exclusive and rarely eats anything but live, fresh fish. So the diet of catfish is not very different than that of our other favorite eating fish such as bluegill and walleye.

Younger, smaller catfish in the 12- to 20-inch range, of course, will have whiter, milder meat than an old 30-inch catfish, and their flesh will have lower levels of pollutants than older fish. As with all fish, check out DNR's website (dnr.wi.gov, and search “eating your catch”) for recommendations on how many fish you should eat from specific waters.

A tip for cleaning catfish is to fillet them just like you would a bass or walleye. The old method of stripping the skin and breaking off the head is messy business. Once filleted, simply slice off any red meat on the top or bottom of the fillets. Take these few practical steps, and you'll be pleasantly surprised by how good a catfish can taste.

Where and how to catch catfish

Think “Huckleberry Finn” when it comes to summer catfish fishing. You don't need a huge boat full of livewells and electronics to do well. While most other species are done spawning and becoming harder to catch, catfish are amping up their activity and might well be the easiest fish to catch during the summer. Here are some pointers to get you started.

The where: Pull out a map of Wisconsin, point to where you live and I guarantee that within a half-hour's drive you'll find catfish water. Cats can be found in small streams, large rivers, large natural



NICHOLAS SALLIA PHOTOS

lakes or small farm ponds.

In general, though, they love rivers and the rule of thumb for fishing rivers is to look for holes and eddies. Catfish will hold up in holes and feed in front of the holes in the area called the “riffle,” where the water runs faster and quicker before gouging out the hole behind it. A common place to find holes is at the outside bend of a river, where the current slams into the bank going around the corner, creating a hole.

Catfish love to rest and wait for food in eddies, which are areas of slack water created by an obstruction such as a pile of rocks or a log jam. If you can find a log jam next to or in deep water, you're likely to find catfish.

The how: Catfish have a legendary sense of smell and taste. They can smell certain proteins in concentrations of as little as 1 part per 100 million. Anglers can use this sense of smell to their advantage.

For channel cats, baits such as chicken livers, dough balls laced with limburger cheese, hot dogs soaked in garlic and beer or other home concoctions have caught countless catfish. If that's your idea of fun, the internet is full of videos on making your own catfish bait. Night crawlers, raw shrimp and canned clams are other traditional favorites.

Two baits stand alone at the top of the channel cat list: dip bait, also called stink bait, and cut bait. The reality of stink bait is this: Although stink bait does smell a little bit, it can be among the cleanest baits to use for cats, and if you do it correctly you shouldn't even have to touch it. Simply take a wooden paint stick or some other long piece of wood, drop your dip

tube — a perforated hollow plastic tube with a hook in it — and mash it into the tub of bait, coating it. You never have to touch the bait yourself.

Cut bait for channel cats is just that — cut up fish. Fish that make great cut bait are carp, sucker, bluegill, shad and others. For larger fish such as carp, you may find it easier to fillet the fish before cutting the fillets into smaller pieces.

For smaller cut bait like bluegills, don't bother with filleting. Simply chunk the fish into appropriate-sized pieces. Finally, one thing is key with cut bait: Don't wash it off. The slimier and stinkier it is, the more it will attract cats.

Flatheads tend to be different cats. Occasionally, one will be taken on cut bait, even minnow-mimicking lures. However, to take flatheads consistently, a live minnow — especially a small bluegill after dark — is the true key.

Flatheads love brush piles in deep water. So after dark, slip your tail-hooked bluegill down close to a wood pile, making sure the bluegill is properly anchored in one spot with a weight, and then hold on!

My catfish conversion

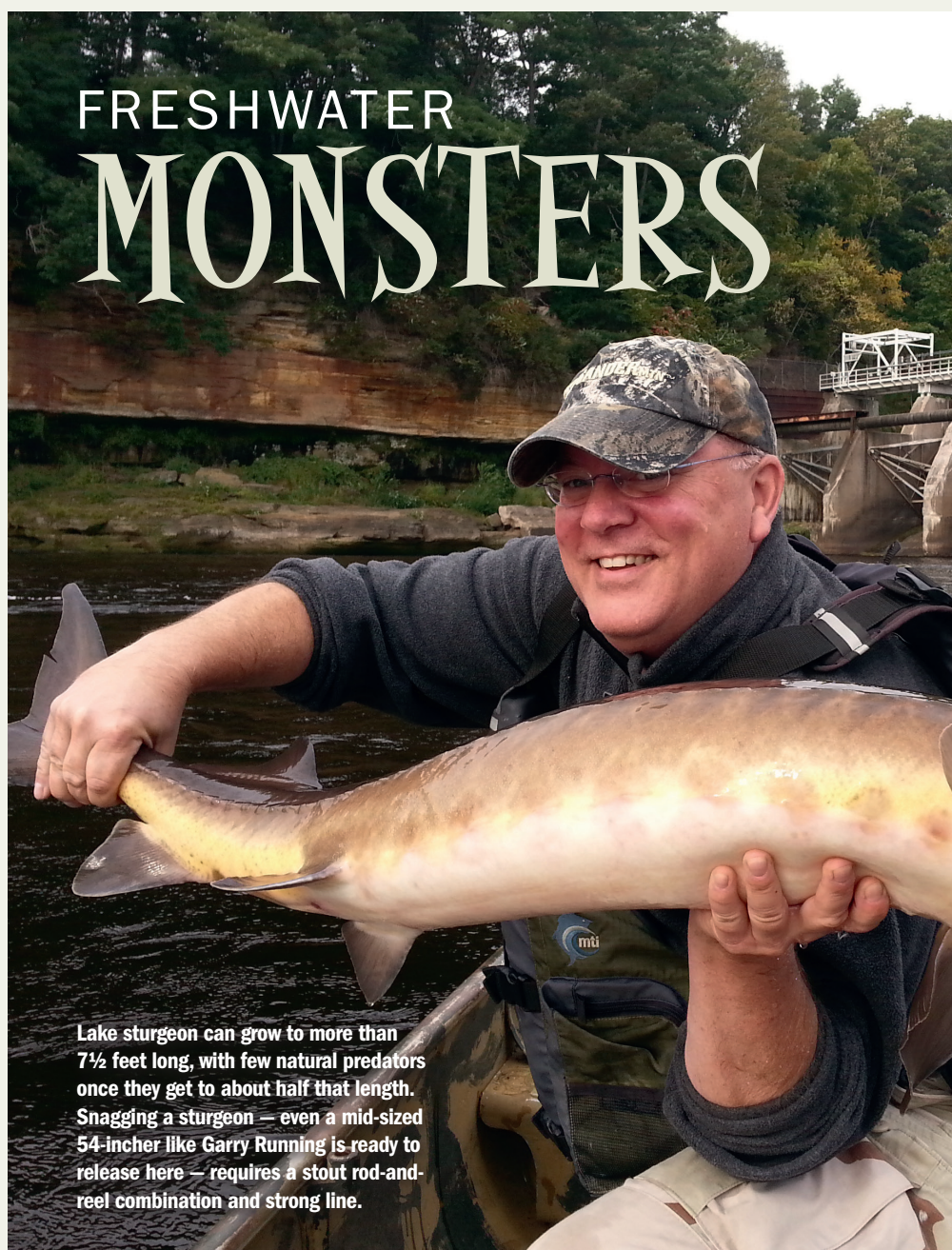
I started catfishing because I wanted to do something I had never experienced. I had always heard about catfish being caught near my home in southern Wisconsin, but I was hesitant because of their reputation.

It's interesting how viewpoints can be so different depending on where you live. In the South, the catfish could probably make its way onto many state flags it is so popular. Here in the North, however, we focus more on game species like the revered walleye and the ever-popular bluegills, crappies and perch.

So promise yourself that when fishing slows down in the lazy month of August — when the bluegills and walleyes run deep and the bass get soft and fishy-tasting — to take a day to go catfishing. To make your adventure even more special, take a kid fishing with you, or the friendly older man up the street.

When you sit in the sunshine, listening to the red-winged blackbirds calling, and the first cat makes your rod tip bounce, it will be hard to tell which of the three of you is the kid. 🍷

Nicholas Saiia lives in Mukwonago. His favorite catfish hole is on the Rock River.



FRESHWATER MONSTERS

Lake sturgeon can grow to more than 7½ feet long, with few natural predators once they get to about half that length. Snagging a sturgeon — even a mid-sized 54-inch like Garry Running is ready to release here — requires a stout rod-and-reel combination and strong line.

LAKE STURGEON ON HOOK AND LINE

Garry Running, Chris Mackey-Natz and David Harkness

Several sturgeon species inhabit North American freshwaters. In most places where they are found, sturgeon populations are crashing, with most species either threatened or endangered. Few viable sturgeon fisheries exist in North America, but in Wisconsin — if you're lucky — there may be a viable lake sturgeon fishery near you.



CHRIS MACKENZIE

Wisconsin waters are actually home to two species of sturgeon: the comparatively smaller shovelnose sturgeon (*Scaphirhynchus platorynchus*) and the lake sturgeon (*Acipenser fulvescens*), the grandmother of North American freshwater fish. You can find lake sturgeon in the Great Lakes and rivers that feed them, Lake Winnebago and the Mississippi River and its tributaries. Shovelnose sturgeon are only found in the Mississippi River drainage area. The lake sturgeon is the focus of this story.

First, a word about respect

Lake sturgeon are amazing creatures.

They grow 1 to 1½ inches per year and can grow to more than 90 inches long — you do the math. Young sturgeon may grow as fast as an inch per month in summer, but that slows down as the weather cools and as they approach 20 years of age. Once they are about 4 feet long, their most significant predator is humans.

Lake sturgeon share some characteristics with some shark species such as: general body design; big eyes; powerful, fast swimming; “toothy” skin instead of scales; extra senses in their snout; and a skeleton of cartilage instead of bone. However, sturgeon and sharks are not close relatives, despite the fact they are both predators.

Instead of sharp teeth, lake sturgeon boast a vacuum-hose-like mouth they can extend from their sensitive snout to feed. They are clearly designed as bottom-oriented predators, but can eat wherever in the water column they choose.

Normal sturgeon fare is invertebrates siphoned up out of bottom sands and gravels, but we’ve witnessed them take live sucker minnows, cut bait and masses of night crawlers. We’ve even seen them, snout out of the water, sucking up freshly hatched mayflies from the water surface.

Please respect these fish. They are rare, even here in Wisconsin. They have been around since before the dinosaurs and can — and should — live longer than people. We will share some tips for how to catch them, but also for how to take care of them and return them safely to the water.

Note that it is unlawful to target species out of season. However, when you’re fishing for catfish or walleye in waters that support freshwater lake sturgeon, we think you should be prepared to bring one in and then release it unharmed in case you hook one accidentally.

Why fish for lake sturgeon?

On our favorite river, lake sturgeon season happens every September. A lake sturgeon tag is required and is not included in our regular fishing license. One fish per tag holder per season is the limit and the minimum length is 60 inches.

We’ve all caught our share of big freshwater fish of various species in North America over the years. However, in our experience, 60-inch or longer lake

sturgeon — and other similarly large sturgeon species — are the most powerful and acrobatic freshwater fish we’ve ever encountered. They run like tarpon and many an unprepared angler has been “spooled” by a big lake sturgeon.

Nor do lake sturgeon just sit on the bottom after being hooked. They jump like smallmouth bass on a mission. There is nothing like seeing a 60-plus-inch fish launch itself out of the water, which it can do three or more times before you finally haul it in. Hauling in a lake sturgeon is the most exciting and exhausting 20 to 25 minutes of freshwater fishing we’ve ever experienced.

Where to find them

We are most familiar with fishing for lake sturgeon in rivers. Predatory fish in rivers share some of the same haunts. You can find lake sturgeon in the same places you find catfish or walleyes, such as deep holes or eddies, or where currents change direction or speed.

We mostly hook lake sturgeon where riverbeds are composed of pea-sized to robin’s-egg-sized gravel and the current is fast. Depth doesn’t seem to matter as long as the riverbed is gravelly.

Others claim lake sturgeon feed mostly in low light or at night and, therefore, recommend fishing for them during those times. We have not experienced any such pattern and find that lake sturgeon take advantage of food sources wherever and whenever they are available.

Lake sturgeon don’t seem to be schooling fish but we often catch more than one at a time. Perhaps they independently cruise the same areas when food is available.

Tips for catching lake sturgeon

To be respectful of these ancient fish, you don’t want to leave terminal tackle — like a fish hook — in your quarry. The best way to maximize the odds of landing a lake sturgeon and removing the hook swiftly with a minimum of fuss is to use a heavy fishing rod.

We recommend an 8- to 10-foot rod, preferably in the medium-heavy to heavy range. In the case of a big lake sturgeon, a long rod will help you steer the fish away from obstacles in the fight.

Use a sturdy surf-casting reel designed to deal with the strain of catching powerful fish weighing more than 60 pounds in heavy current and capable of



GARRY RUNNING

Taking a photo of your prized catch? Chris and Grace Mackey-Natz (with David Harkness, left) demonstrate the best way to pose a lake sturgeon for pictures: Grab it by the tail with one hand and cradle it with the other arm, keeping it horizontal to help avoid injuring the fish.

holding 150 or more yards of 65-pound test braided nylon line. A good stout rod-and-reel combo and strong line are your best tools for ensuring success. Although a skilled angler can bring in a lake sturgeon on light gear, the higher risk of losing the fish and leaving it with a hook in its mouth doesn't seem worth it to us.

We recommend you build your own two-part 9-foot leader from 80- to 100-pound test fluorocarbon and use swivels rated to 35 or 40 pounds. Tie the hardware with a uniknot, or use size 8 or 10 leader crimps. Allow about 1 foot of leader between the sinker and the hook to keep your hook and bait on or near the bottom, even in fast current.

Terminal tackle getting snagged on something is inevitable when river fishing. You want the swivel to break, not your rod or reel, so use 3- to 5-ounce weights, depending on current speed. Sometimes we have to use two of them.

Several large galvanized or steel nuts can be used to replace lead sinkers. Run a loop of abrasion resistant fluorocarbon leader material through them; the threads in them are hard on the line.

Why the 9-foot leader? Lake sturgeon roll when brought near the bank or boat. Their skin is protected by five rows of scutes along the top, sides and belly, which can easily cut your line. Heavy fluorocarbon is resistant to abrasion. A

lake sturgeon only has to roll once or twice to reach the end of a 5-foot leader, so we now make our leaders 9 feet long.

Use an improved Albright knot to connect the end of the fluorocarbon leader to the braided line coming from your reel. That will allow the long heavy leader to pass through the line guides on the rod for easier casting.

Nylon-coated steel leaders may work, too, but can emit tiny electrical currents in the water. Sensory organs in a lake sturgeon's snout can detect these subtle currents, much like a shark's can, so we use fluorocarbon leaders.

Tip your leader with a circle hook large enough to hold six large night crawlers simultaneously. A hearty gob of night crawlers or a hefty piece of cut bait requires a big hook. Check your bait often because smaller fish will steal your crawlers. We've found redhorse sucker or mooneye steaks cut into 5- to 6-inch strips to be the best cut bait.

We recommend size 6/0 to 9/0 circle hooks — with the barb of the hook exposed — for two reasons. First, they don't require a well-timed hook set, so even novice anglers can use them successfully. Second, they almost always hook in the lip. We've rarely had a sturgeon — or any other fish species for that matter — swallow a circle hook, so they are easy to remove with minimal dam-

age to the fish. Don't try to remove a circle hook if it has been swallowed. Instead, cut the line and let the fish's own body deal with it.

Skip the landing net. If you're fishing from a riverbank, be prepared to go in after your sturgeon to keep it from injuring itself in the shallows. You want to be able to release a fish too small — or a legal size fish that you can't bring yourself to kill.

You can remove a circle hook safely from a played-out fish with pliers while your fish is in the water by gently grabbing it in front of the tail and rolling it on its back. The fish will calm down and allow you to remove the hook. Use the same procedure over the side of a boat.

If you plan to remove your lake sturgeon from the water to measure it or take a photograph, grab it by the tail with one hand and cradle it with your other arm, keeping it horizontal. Holding fish vertically can injure them. Protect the lake sturgeon by holding it securely on shore to keep it from thrashing around. Once you have your measurement and photos, return the fish to the water as quickly as you can.

We suggest that before release, you hold your trophy by the tail and move the fish back and forth to force water over its gills. You'll know when it's ready to go. One powerful flick of its tail and it's gone. You will have a couple of great photos and sore arms to remember it by. 🐟

Garry Leonard Running is a professor in the Department of Geography and Anthropology at UW-Eau Claire. Chris Mackey-Natz is a science teacher at Fall Creek Middle School. David Harkness is a recently retired English, geography, math and humanities teacher from Nelson McIntyre Collegiate in Winnipeg, Manitoba.



LAKE STURGEON REGULATIONS

Check out DNR's website for more information on the lake sturgeon hook and line season, including season dates, harvest tag availability and listing of registration stations. Visit dnr.wi.gov and search "sturgeon fishing"

Confessions of a 'river keeper'



Paul Hayes, a retired high school teacher now "living the dream" near the Kickapoo River, has been a vital part of numerous stream restoration projects including efforts to reclaim Weister Creek as a trout fishery.

JUDY NUGENT

LONGTIME SCIENCE TEACHER TAKES LEADING ROLE IN RESTORATION OF WEISTER CREEK.

Jim Schmiedeskamp

On a sunny day last year after fishing Wisconsin's Driftless Area, I rendezvoused with Paul Hayes to get a walking tour of the Weister Creek stream restoration project, supported in part by regional Trout Unlimited chapters and the Department of Natural Resources.

If you enjoy flora, fauna and critters of all types, then this outing to southwest Wisconsin was like spending an hour with Marlin Perkins, remembered as the friendly and knowledgeable host of "Mutual of Omaha's Wild Kingdom" during the 1960s-'80s. Hayes' vision, passion and commitment to the Weister Creek project are what make it a success and an ideal template for other Trout Unlimited conservation initiatives.

Here are excerpts of my interview with Hayes on the restoration project, including the role of Trout Unlimited and the DNR, and his idea of "living the dream."

Q: First, provide some background on your professional career.

A: My background includes a Master of Science degree in biology from St. Mary's University in Winona, Minnesota. It was there that I caught my first trout and came to love the biotic diversity of the Driftless Area. I spent my professional career teaching high school science for 43 years, 38 of those at Loyola Academy in Wilmette, Illinois.

Q: Why did you retire to the Driftless Area?

A: Our family bought an old dairy farm in 2000 near Westby on the West Fork of the Kickapoo River. We restored the stream, took the cows out of the woods and planted prairie and oaks in most of the corn fields. In 2009, I retired and we built a new home on the hillside overlooking our little valley and have been living the dream.

Q: What are your personal hobbies and interests in retirement?

A: I have been a Trout Unlimited (tu.org) member since 1970 and have worked on countless stream restoration projects, which have allowed me to combine my scientific training with my passion for the outdoors. My wife, Bernadette, and I are "river keepers" and spend many hours doing stream monitoring. We are also active in the National Audubon Society, the local prairie group and woodland owners group.

Q: How would you describe Weister Creek?

A: Weister Creek is a spring-fed stream some 15 miles long in Vernon County in the Driftless Area of southwestern Wisconsin and is a tributary of the

Kickapoo River. The lower 5 miles of Weister Creek are surrounded by wetlands, forests and fields and lie in the Kickapoo Valley Reserve (kvr.state.wi.us) — an 8,000-acre public land that was rescued from an Army Corps of Engineers dam project in the 1970s.

Q: How and when did the Weister Creek restoration project originate and what has been your role?

A: I was appointed to the Kickapoo Valley Reserve management board in 2012. At that time, the Reserve's primary outdoor activities were hiking, biking, horseback riding and skiing. My wife and I did a thorough assessment of all the feeder streams to the Kickapoo on the Reserve. We identified Weister Creek as having the most potential for restoration as a trout fishery. The project was proposed and approved by the Reserve's board. My role has been twofold: to raise funds for the 30 percent match that most of the major grants require, and to provide scientific advice to promote biological diversity and stability to the project.

Q: What makes this project unique from the typical Driftless Area stream restoration project?

A: The project is a demonstration site for a number of practices that enhance biological diversity and sustainability. Many of these are documented in the "Nongame Wildlife Habitat Guide," by Jeff Hastings from the Trout Unlimited Driftless Area Restoration Effort (dares-toration.com). Some specifics of what's been done or is planned include:

- Providing still water wetland habitat, some connected to the stream and some not connected. These areas provide habitat for minnows, tadpoles and larva of many aquatic insects.

- Incorporating natural logs, root wads and shallow-sloped grassy banks for turtles and frogs to use for basking and egg-laying.
- Connecting spring water outflows directly to deep water pools for thermal refuge in summer and winter.
- Constructing snake and turtle hibernacula to provide refuge in winter.
- Removing willow and box elder brush from the stream corridor to discourage beaver while keeping some large hardwoods for songbirds and raptors. Some standing dead trees are saved for woodpecker habitat.
- Planting the 100- to 200-foot stream buffer in prairie grasses and flowers. Once established, the prairie plantings are managed with fire to keep out woody brush. These plantings will enhance pheasant hunting opportunities as well as nongame species.
- Protecting some sandbars to provide shorebird habitat.
- Creating areas for dens of small mammals and furbearers by saving some brush piles or partially burying them outside the floodway.
- Enhancing some vertical banks for bank swallows and kingfisher nest holes.

Q: Who is responsible for project planning and construction?

A: Project planning is shared by the Kickapoo Valley Reserve staff, myself and the Department of Natural Resources' fisheries crew chief. Construction has been contracted to the DNR on a yearly basis — July to June. We may contract with other governmental agencies as well as the DNR in the future.

Q: How is the project funded?

A: More than \$95,000 was funded for Phase 1 and Phase 2, with major contributions including about \$28,000 from

Trout Unlimited in Illinois (Oak Brook, Lee Wulff and Elliott Donnelly chapters) and Wisconsin (Blackhawk and Coulee Region chapters), \$15,000 from Vernon County (Ho-Chunk Trust) and \$45,000 from the DNR Trout Stamp fund. In addition, Pheasants Forever provided financial support for planting 30 acres of riparian habitat along the creek banks. We are currently completing Phase 3 and raising funds for Phase 4.

Q: How would you describe the contributions of the DNR?

A: I refer to the DNR contractors as "artists with backhoes." There are many aspects of this work that are very subtle. Some examples would be visualizing the stream during high-water events — where will the energy be spread out? How can we use flood energy to scour out pools? How to manage farm field runoff? The "artist's eye" will break up long, straight stretches with some gentle curves. Natural logs are used to cover fish cribs or lunker structures rather than squared-off face rock. There is a mix of sun and shade. Some trees are in groves, some alone.

Q: How would you describe each phase and when do you see the work completed?

A: Phase 1 was 1,622 feet above the 24 Valley Road bridge; Phase 2 was 1,693 feet below the bridge. The total project is planned at 9,627 feet. We are currently working on Phase 3. My involvement with Weister Creek will be ongoing once the actual stream restoration work concludes. With a new "adopted" stream, my wife and I as "river keepers" will have plenty of biotic diversity to monitor and maintain at Weister Creek. 🍷

Jim Schmiedeskamp is a contributing writer for Oak Brook Trout Unlimited.

Weister Creek is a tributary of the Kickapoo River and runs through the Kickapoo Valley Reserve, an 8,600-acre public land parcel in Wisconsin's Driftless Area.

Keeping it wild:



Outdoor food and forays

PANFISH PLEASURES

John Motoviloff

There's something about the word panfish that sets anglers at ease. You don't have to make 10,000 casts, sneak along dense-wooded streams or crowd below dams, flotilla-style, in ugly March weather to catch them.

No, panfish have a Norman Rockwell sense about them. They are green willow evenings tossing a worm and bobber into the quarry. They are Plum Lake Memorial Day with your buddy Brad working the lily pads off Field's Island. They are a dancing wine cork suspended above a minnow just before it's yanked into the weeds.

And they are skillet sizzling, potatoes frying, beer flowing. In short, panfish are fun fish.

Year-round bite

Part of the fun of panfishing is that you can catch them year-round. As readers open this issue of *Wisconsin Natural Resources*, panfish will be in their summer suspended mode. Troll or drift around deep-water weeds, trying various depths, until you locate fish.

Fall finds panfish seeking shallow water as they bulk up for cold weather. In winter, they may be found anywhere there are weeds — deep or shallow. Perhaps the easiest time to panfish is during the spring spawn, when sunfish and crappie seek out sand and gravel flats. During these times, they can be sight-fished with bait or flies.

Just what are panfish? For regulatory purposes in Wisconsin, they are sunfish (bluegill, pumpkinseeds, etc.), black and white crappie, and yellow perch. The statewide bag limit is 25 total per day and 50 in possession, with no minimum size. Check the "Guide to Wisconsin Hook and Line Fishing Regulations" for special-reg-

ulation waters in the county you're fishing. Panfish season runs year-round.

Rock bass, yellow bass, white bass and bullhead — all commonly caught while panfishing — have no bag limit, minimum size or closed season. These species do not count toward your panfish bag.

Spin or fly?

Panfish anglers fall into two camps — spinfishers and fly fishers. Spinfishers use small hooks or jigs either beneath a float or with a small sinker. Wax worms and spikes work for all three species. Red worms will catch sunfish and perch, while minnows are the preferred bait for big crappie and perch. Two- or 4-pound test on an ultralight rod are best for spinning gear. Fly anglers typically fish a 4-weight rod and offer nymphs or dry flies, depending on where in the water column fish are feeding.

As the name "panfish" implies, these tasty morsels are usually targeted for food. Keeping them fresh is job No. 1. The best bet is to store your catch in a cooler with plenty of loose ice — more ice means quicker cooling. Livewells work when the water is cool. However, they need to be drained and rinsed when traveling between waters to help prevent the spread of aquatic invasive species.


Clean your catch

Filleting is the neatest and easiest way to clean your catch. Begin with a sharp, flexible knife. Place fish flat on a cutting board and make a shallow cut behind the gills from the top of the fish to just below the pectoral fin. Run the knife parallel to the backbone, continuing to just above the tail. The knife blade will "click" as it touches the bones; this is fine as long as you don't cut into the bones. Leave the fillet attached and repeat on the other side. Remove both fillets.

The skin can be discarded by placing fillets flesh-side up on the cutting

board. Insert the knife where skin meets flesh and keep cutting until all skin is removed. If you prefer your panfish skin-on, scale fish thoroughly before filleting. The remaining carcass (with entrails removed) can be used to make stock or chowder.

Panfish cookery is pleasantly simple. Dry fillets on a paper towel, then dredge them in your breading of choice. I use a seasoned mix of half flour and half cornmeal, but Panko, standard breadcrumbs, soda cracker crumbs and even crushed corn flakes all have their followings. Keep the number of fillets in the pan to a minimum — three or four to a 10-inch skillet — and the oil sizzling hot.

If you aren't craving a batch of fresh bluegill, it might be time to rethink your priorities. 

John Motoviloff is a hunter, fisher, forager and proud Wisconsin transplant. He also wrote "Wild Rice Goose and Other Dishes of the Upper Midwest" (University of Wisconsin Press, 2014).

WISCONSIN FRIED PANFISH

1 pound panfish fillets

½ cup white flour and ½ cup cornmeal, seasoned with one tablespoon Old Bay (or use breading mix of choice)

1 cup peanut oil

Baking sheet

Paper grocery bag for draining

Homemade tartar sauce (1 cup mayonnaise mixed with a quarter cup chopped pickles)

Lemon wedges

Dredge fillets in breading mix, shaking off excess, and place on a plate.

Preheat oven to 250 degrees; put baking sheet in oven.

Heat oil ¼ inch deep in skillet until just smoking. Add three or four fillets and cook until crisp on one side, then turn.

Drain cooked fillets on paper grocery bag and place them on baking sheet in oven to keep warm. Repeat until all fillets are cooked, adding oil to pan as necessary.

Serve with homemade tartar sauce, skillet potatoes, coleslaw and lemon wedges.

SINNIPPE CREEK

We have maintained our subscription of your magazine for many years and it brings back great memories! My wife and I are both from Wisconsin. We moved to Iowa 34 years ago, but have made many trips back to our home state. During our visits, we would occasionally stop at Finley Recreation Area in southern Grant County. My brothers and I fished this area back in the 1960s and '70s. It was privately owned but we were allowed to fish in a small stream called Sinnippe Creek. It flows through Jamestown Township in southwest Grant County.



We brought our three children with us in 1994 and took a few photos. We returned in about 2012 with our oldest daughter and grandsons. During our visit in 1994, cattle were allowed to graze around the stream. However, prior to our visit in 2012, cattle were fenced out and the vegetation flourished. Thought you may want to publish this information in your magazine.

*Terry and Nicholas (Nick) Kieler
West Burlington, Iowa*

EASY WAY TO PLUCK TURKEYS

I liked the article and the recipes provided by John Motoviloff in his article "Keeping it wild: Outdoor food and forays" in the April 2017 issue. He discussed plucking a wild turkey as being time-consuming and needing to pluck individual feathers out one by one. I did that in 1981 with my first wild turkey shot in Montana and it took several hours.

The following year when my late wife and I shot turkeys on the same Montana ranch, the rancher's wife had us heat 2.5 gallons of water on her stove until just short of boiling and then pour it into a 5-gallon plastic pail. We cut the lower legs off at the knees and stuffed the whole turkey except the head down into the hot water and left it there for four minutes. When we pulled it out, the feathers easily pulled out and the bird was clean-plucked in less than eight minutes.

The same process works with pheasants or chickens, as most farmer wives know and have done for centuries. I hope that reading this will help other hunters to quickly pluck their birds, but they should not remove the entrails before putting the bird in the hot water.

*Dr. Philip Whitford
Cross Plains*

"BOB" WHITE

While my wife and I were sitting on our deck this past summer, this bobwhite quail wandered into our yard and hung around for about two hours. He was so comfortable he actually fell asleep in the sunshine. We never saw it again but one of the neighbors mentioned they saw an unusual bird a few days later so we figured it must have been "Bob."



*Jeff Baker
North Prairie*



INJURED GRAY FOX?

This fox was found sleeping in our yard Easter afternoon. I was able to get a few photos of it before it woke and went into the woods. It is now in the woods and does not seem right. Maybe it was hit by a car? What breed of fox is this? It is rather large. Could it be a coyote?

*Barb Glessing
Spooner*

Thanks for sharing your photo, Barb. This is a gray fox. Since you mention that something didn't "seem right" with its behavior, it's best to steer clear of it. Nancy Businga, a wildlife disease specialist in DNR's wildlife health section, gives this advice: Gray foxes in Wisconsin are susceptible to several diseases shared with dogs including canine distemper, parvovirus and rabies. It is not possible to tell from observing a sick animal what disease it may have. Citizens should avoid any wild animal that appears sick and report it to their county wildlife biologist (visit dnr.wi.gov and search "county wildlife biologist"). The DNR's wildlife health program tracks reports of sick wildlife and investigates the cause if multiple sick animals are reported. If contact such as a bite or scratch occurs between a sick fox and a person or domestic animal, the citizen should contact their county public health office for advice on submitting the fox for rabies testing.

ROBIN WHITE-BREAST

I spotted this unique fellow in my backyard. I was doing spring yard work when I noticed it on my garage roof — since it's quite easy to spot! I ran into the house to get my camera hoping it would still be there when I returned and it was. It even flew down onto the yard where I got some real close and special pictures of it.



*Nancy Champeau
Sheboygan*

Thanks for sharing this great photo showing leucism, which is loss of pigmentation in an animal caused by a genetic mutation.

KUDOS FROM MINNESOTA NEIGHBOR

I live in Minnesota and just want you to know how much I enjoy your magazine. I read it cover-to-cover whenever my neighbor will part with her copy and wish Minnesota had one similar to yours. We do have a magazine but not as nice. Thank you for the many different aspects you cover.

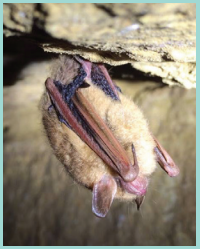
*Joan Taylor
St. Francis, Minnesota*

WONDERFUL WYALUSING

The article in the current edition about Wyalusing State Park ("A century of scenic grandeur," June 2017) reminds me of a visit I made there a couple of years ago. There was a couple standing on the overlook and as I approached I heard the man say to his companion, "Look at all that scenery!" There's not much that can be added to that.

*Rick Jones
Madison*

WISCONSIN BAT FESTIVAL



Consider hanging out at this year's celebration of the unique role that bats play in our world. Learn how bats help you, and more importantly, how you can help them! Explore techniques you can use in your own backyard that will make you look at bats in a whole new way.

When: Aug. 26, 9 a.m.-5 p.m.

Where: Mitchell Park Domes, 524 S. Layton Blvd., Milwaukee

Cost: Free with paid admission to Domes (\$7 for adults, \$5 for ages 6-17 and free for 5 and under).

BLUEBIRD HOUSE EXPERT

I would like to raise awareness about the efforts of Wisconsin citizens working to restore the habitat of the eastern bluebird by placing bird houses in the spring months. Each spring, year after year, my cousin's husband monitors his bluebird boxes, which he builds himself. His name is Leonard Place, from Oshkosh. After retiring from schoolteaching, he designed his own predator-proof boxes. At the peak he had 70 boxes but is now down to 34. Last spring, the boxes produced 96 baby bluebirds. He has done so much for the preservation of the bluebirds in the Oshkosh area. I was raised in northwest Wisconsin and only saw one eastern bluebird when I was growing up. It is so good to see the return of the bluebird, as they are such a beautiful blue color.

Gary Knerr
Bakersfield, California

We encourage readers interested in helping restore bluebirds and other cavity-nesting songbirds to check out the Bluebird Restoration Association of Wisconsin website at braw.org. BRAW was organized as a nonprofit in 1986 when it was found that eastern bluebird populations had declined by 90 percent during the preceding half century. Efforts by BRAW members to coordinate nestbox construction and monitor boxes and trails have been successful in boosting bluebird populations, which are currently stable or increasing throughout their range.



BASKING AT VERNON MARSH

On Memorial Day my wife suggested we take a hike through the Vernon Marsh since it is only 15 minutes from our house. For anyone who has never been there, I would highly recommend it. There is such a variety of wildlife — some permanent residents and many that stop briefly on their migration. Toward the end of our hike we were lucky enough to spot this spiny softshell turtle just basking in the sunshine. I was even luckier to snap a few quick photos before it disappeared into the water. Visitors will also see osprey, sandhill cranes, marsh hawks and a variety of ducks that migrate through in the spring and fall. A trip worth taking!

Jeff Baker
North Prairie



BLUFFING BULLSNAKE

Every year around this time I see bullsnakes wandering. I typically find them crossing roads. I escort them across after properly identifying them. They look very similar to rattlesnakes. They even make a similar rattling sound with their mouth when messed with.

In Gays Mills, I saw this magnificent bullsnake crossing the road. It was approximately 6 feet long. I looked for the classic diamond-shaped head of a rattler and there was none. After I looked for rattles and there weren't any I got closer to take a few photos. I did an immediate about-face when I heard loud rattling from this long snake. After my fear subsided, I moved in for a couple photos. The rattling sound was coming from the snake's mouth. I believe the snake learned to rattle to scare away potential predators. I have taken many photos of bullsnakes. Their colors vary and there is a subspecies called gophersnake that is identified by a "mask" across its eyes. Bullsnares are imposing and scary. I was chased by a large bullsnake a couple years ago. They are aggressive to bluff animals and people to stay clear. They are misidentified as rattlesnakes lots of times and are killed. Bullsnares are an endangered species.

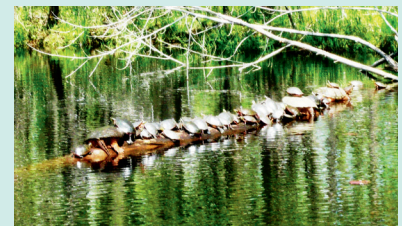
Len Harris
Richland Center

Rori Paloski, conservation biologist with DNR's Bureau of Natural Heritage Conservation, provided this reply: This is a great photo of a bullsnake! They are one of our largest snakes in Wisconsin; however, because they are so rare and spend a lot of time underground in mammal burrows, they are not often seen. They are not endangered at this point, but are considered a Species of Special Concern, which means the DNR is keeping a very close eye on their status. Both the bullsnake and timber rattlesnake are also listed as Protected Wild Animals in Wisconsin, meaning they cannot be intentionally killed. The bullsnake is one of several snake species in Wisconsin that is considered a rattlesnake mimic — they "rattle" their tail to imitate a rattlesnake when they feel threatened. The noise made by vibrating their tail against gravel or dry vegetation sounds very convincing! Bullsnares are also known for their ability to hiss loudly, which may also sound similar to a rattlesnake. Taxonomists and geneticists have been doing a lot of research on amphibians and reptiles recently and have been making many changes to common and scientific names. While many of us still call this species a bullsnake, the official name has now changed to a gophersnake. The DNR is always looking for reports of our rare animals, including the bullsnake/gophersnake — reports can be submitted to: <http://wiatri.net/nhi/>.

NO SUNSCREEN REQUIRED

At a popular log on the Menominee River — you need to get a spot early or learn to share.

Rick Armstrong
Cedar Grove



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. Limit letters to 250 words and include your name and the community from which you are writing.

NO ACCESS TO THE WEB?

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

Traveler

Get ready to roll with biking events statewide.

Andrea Zani

There may be no better time for bicycling in Wisconsin than August and September. Late summer brings plenty of pleasant weather along with all sorts of opportunities to hit the road on two wheels. Here are 10 ride events to consider, representing just a sampling of the bountiful biking activity offered throughout the state in the next two months.

Tour de Cheese

When: Aug. 12

Where: Green County

Distances: 15 and 50 miles

Cost: \$40

Ride details: Tour de Cheese is staged at Monroe Middle School, 1220 16th Ave., Monroe, winding through the rolling hills of Green County. Riders can enjoy rest stops at several cheese factories along the way. The course is supported from 8 a.m. to 2 p.m., and rides start at 8 a.m. (50-mile) and 10 a.m. (15-mile). Same-day registration is available at the middle school from 7:30 to 9:30 a.m.; must be 18 to register. Proceeds benefit Big Brothers Big Sisters of Green County.

Website: bbbsgreencounty.org/events/tour-de-cheese

Hitting 4 the Cycle

When: Aug. 12

Where: Milwaukee

Distance: 25 miles

Cost: \$50, plus \$50 in fundraising required

Ride details: Hitting 4 the Cycle is a quarter-century ride starting and ending at Miller Park, raising money to benefit the Brewers Community

Foundation, Urban Ecology Center, American Cancer Society and DreamBikes. The route includes portions of the Oak Leaf Trail along Milwaukee's lakeshore and the Hank Aaron State Trail. Online registration closes at midnight on Aug. 9; day-of-event signup is available for \$125 (no additional fundraising required). Open to all ages. All riders start at 1:30 p.m., returning to the Miller Park lot for a free post-ride tailgate party until 6 p.m. The Brewers play the Cincinnati Reds at 6:10 p.m., and registered riders receive one Club Outfield Box ticket to the game (or option to choose another selected Brewers game).

Website: brewers.com/bikeride

Ride to the Barns

When: Aug. 19

Where: Hartford area

Distances: 30 and 60 miles

Cost: \$75 through Aug. 14; \$95 after

Ride details: Event begins and ends at Camp Quad, 6886 County Road Q (highways Q and 83) south of Hartford; 8 a.m. departure for 60-mile route and 9 a.m. for 30-mile



ERIC FRYDENLUND

route. The ride travels through Lake Country with rest stops at area farms featuring locally sourced foods, plus a post-ride party until 3 p.m. back at Camp Quad. Riders under 18 are welcome if accompanied by parent or guardian. Ride benefits the Tall Pines Conservancy in Waukesha County, which works to preserve farmlands and natural areas.

Website: tallpinesconservancy.org (under "events")

La Crosse Area

Bicycle Festival

When: Sept. 1-4

Where: Staged at Cameron Park, 4th and King streets in downtown La Crosse

Distances: Numerous routes are offered

Cost: Basic registration is free; premium registration, which includes map booklet, T-shirt, entry to Saturday night tour party and more, is \$40 through the end of August and \$45 after.

Ride details: A variety of road ride options take cyclists into the scenic Mississippi River Valley areas around La Crosse during this Labor

Day weekend event. These self-supported and self-guided rides have suggested start windows and maps accessible via smartphone or on cue sheets available at Cameron Park. There also are guided interest rides within the city, suitable for families and leaving Cameron Park at designated times.

Website: bicyclacrosse.com

Nicolet Wheel-A-Way

When: Sept. 2

Where: Three Lakes area

Distances: 18 and 36.5 miles

Cost: \$40 for individuals; \$80 for family of two adults and two children, plus \$20 for each additional child ages 6-17

Ride details: Beautiful scenery of the Nicolet National Forest and Three Lakes chain of lakes area is on display at this annual leisure ride in Wisconsin's Northwoods. The ride, suitable for all ages, starts at 9:20 a.m. at Don Burnside Park in Three Lakes; check in and register on-site from 7:30 to 9 a.m. Lunch is served back at the park from 11 a.m. to 1:30 p.m.

Website: threelakes.com

Fat Tire Ride of Lake Geneva

When: Sept. 9

Where: Lake Geneva, Fontana and Williams Bay

Distance: 21.5 miles

Cost: \$35 through Aug. 31 when online registration closes; \$40 after that by mail or on-site at event

Ride details: This ride is for ages 21 and older, traveling on paved roads clockwise around Geneva Lake. It begins at rider's leisure at Champs Sports Bar & Grill, 747 W. Main St., Lake Geneva, between 9-11 a.m. There are rest stops at pubs along the way and a post-ride pig roast at Champs, 2-7 p.m. Event proceeds benefit area charities including the Walworth County Alliance for Children.

Website: fattiride.com

SepTimber Ride

When: Sept. 9

Where: Vilas County

Distances: 28 miles (trail ride) and 31 miles (road ride)

Cost: \$50

Ride details: The trail ride option takes cyclists along the scenic Three Eagle Trail (limestone aggregate surface) from Tribute Brewing Co., 1106 N. Bluebird

Road in Eagle River, to the Three Lakes Winery in Three Lakes, where sampling is included. Full round-trip is 28 miles, but riders can turn around at any point for a shorter outing. The road ride begins at Tribute Brewing and travels on county roads to the Conover area and back for a 50K loop (31 miles). Event check-in and same-day registration begin at 8 a.m., and the ride window is 9 a.m. to 1 p.m. Participants from both rides are welcome to a post-ride brat picnic and beer tasting from noon to 2 p.m. at Tribute Brewing. Rides are self-guided, and participants must be 21 or older.

Website: eagleriver.org (under "events")

Kickapoo BRAVE Ride

When: Sept. 16

Where: Gays Mills and the Kickapoo Valley

Distances: approximately 11 to 100 miles, depending on loops ridden

Cost: \$45 by Sept. 1 or \$50 after (add \$10 for tent camping site); children 12 and under are free

Ride details: The ninth annual Kickapoo BRAVE Ride (Bluffs, Rivers and Valley Event) starts and ends at the Kickapoo Stump



Ride to the Barns

KEELIN MCMURTAGH

Dodger Campground, 388 S. Railroad St., in Gays Mills. It features a four-loop cloverleaf system that allows riders to select from beginner, intermediate and advanced ride options with different destinations. One loop heads west to the Ferryville Fall Fest and Mississippi River Valley, for example, while another goes north to the Driftless Area Art Festival in Soldiers Grove. Participants can pedal multiple loops for a longer ride, and new this year is a shorter family-friendly loop. Check-in begins at 6:30 a.m., with a mass start at 8 a.m.

Website: kickapoobraveride.com

Peninsula Century Fall Challenge

When: Sept. 16

Where: Door County

Distances: 25, 50, 62 and 100 miles

Cost: \$50 through Aug. 30, \$55 Sept. 1-13 and \$60 on-site Sept. 15-16 if available; 25-mile route is \$5 less

Ride details: The scenic sights of Door Peninsula's northern tip are on display in this ride, open to all ages, which offers routes of varying distances and difficulties. All rides start and end at Sister Bay's Waterfront Park, 648 N. Bayshore Dr., with well-stocked rest stops along

the way including tiki party and Viking pep rally themes. The three longer rides have a rollout start beginning at 7 a.m., and the 25-mile ride begins at 9 a.m. Post-ride food will be provided from area chefs, with refreshments from Door County Brewing Co., 11 a.m. to 5 p.m. Register early, as ride spots are limited.

Website: peninsulacentury-fallchallenge.com

Autumn Trek Ride

When: Sept. 17

Where: River Falls

Distances: 25, 45, 65 and 101 miles

Cost: \$35 online through Sept. 13 or \$40 on-site day of ride; \$10 for ages 18 and under

Ride details: Four routes are offered, with varying lengths and degrees of difficulty. All rides start at Hoffman Park, at Division Street and Highway 35 in River Falls, and take riders through the scenic countryside of western Wisconsin. Rest stops offer food and drink along the way and there will be hot dogs and brats at ride's end. Register online in advance or 7 to 10 a.m. at the park on ride day.

Website: rivervalleytrails.org

Andrea Zani is assistant editor of Wisconsin Natural Resources magazine.



SepTimber Ride

EAGLE RIVER CHAMBER OF COMMERCE



KISSICK ALKALINE BOG LAKE STATE NATURAL AREA

Thomas A. Meyer
State Natural Areas Program

Native orchids donning flowers in an impressive array of exotic shapes, alluring colors and differing strategies to attract pollinators find refuge in the wetlands surrounding Kissick Alkaline Bog Lake just west of Hayward in Sawyer County. Nodding ladies'-tresses, dragon's-mouth, grass pink, boreal bog orchid and 10 other species in the family *Orchidaceae* are known to grow in the natural area. Blooming from early spring until autumn, the diversity of orchids is believed to be fostered by the unusual combination of both acidic and alkaline waters flowing through the wetland system and creating an equally diverse range of substrates and habitats. Anchoring the site is a 10-acre wild lake encircled by a floating, quaking mat of living sphagnum moss and grass-like sedges. The mat harbors not only orchids, but also a rich variety of other bog-dwelling plants, including marsh fern, bog bean and carnivorous pitcher plant, sundew and bladderwort. To the north, the sunny, open mat grades into a thick, shady conifer swamp dominated by black spruce, tamarack, white cedar and balsam fir. A transition zone between the two holds low-growing shrubs like leather-leaf, bog rosemary, Labrador tea and bog birch. Look for a different suite of orchid species in the swamp, including coral root, moccasin flower and twayblade, growing among Canada mayflower, goldthread, starflower and fringed polygala. Perhaps you'll also spy a boreal deer mouse, bog lemming or one of the many species of birds, reptiles and amphibians that inhabit the preserve.



Kissick Alkaline Bog Lake is owned by the DNR and was designated State Natural Area No. 191 in 1983. There are no designated trails or other facilities on the

property other than a parking area on the south end. Visit dnr.wi.gov and search "Kissick Alkaline Bog Lake" for a map, access directions and more information about this site and the State Natural Areas Program.

