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Discover what's cooking at wild rice camp

Back in the day

Party permits, red wool plaid and deer-draped Chevies were icons of Wisconsin deer hunting in the 1960s.

Kathryn A. Kahler

DEAN TVEDT

Successful hunters in 1969 near Black River Falls tying a buck on the hood of a car.

While the nation struggled through tumultuous events, Wisconsin deer hunters saw the 1960s as a decade of increased opportunity. The deer herd continued to grow in numbers and range in southern Wisconsin, making treks to the Northwoods unnecessary, and laws were passed enabling hunters to harvest more deer of either sex.

Unit-specific deer population goals were first established and a new herd monitoring system was initiated. It was the birth of modern deer management in Wisconsin and it became a model for North America. Deer license sales exceeded 400,000 for the first time in 1965, only to be topped by 500,000 in 1968. Harvests in 1966, 1967 and 1968 topped 100,000 each year.

The party permit was first enacted in 1957 as a way to regulate antlerless harvest by regions (e.g., 16 days north and nine days south of U.S. Highway 8). A "party" consisted of a group of four hunters who went as a group to purchase the permit. For the $5 the group paid, they got a paper permit with the four hunters' names on it, an armband and the tag. The tag could be used on either a buck or doe of any age, but only the hunter wearing the armband could shoot it. Once taken, the deer was usually used for the purpose the law intended, as camp meat during the hunting season.

Unit-specific quotas for antlerless harvest were authorized by law in the early 1960s. The four-man party permit continued through 1979 and was replaced with the hunter's choice permit in 1980. That same season, hunters hung up their red wool plaid jackets and took to the field in newly-required blaze orange. While some hunters at the time grumbled about the change, modern statistics show it to be the most important factor — next to mandatory hunter education — in preventing deaths and injuries from accidental shootings.

Another tradition that went the way of red plaid was the practice of strapping deer to car hoods. In the 1960s hunters were required to keep their deer exposed while transporting them to registration stations to prevent manipulation of the locked tag. Once registered, deer could be concealed in trunks or beds of pickups, but it was common for hunters to carry them on car hoods and tops, perhaps to boastfully show off their prize to passing motorists.

Gradually hunters have become more aware of how others perceive them and their sport and now, more often than not, tuck their trophies in the trunk or under a tarp. Car styling has also changed such that front fenders are not easily used to support a deer carcass. Since 2002, hunters are no longer even required to expose their deer before registration.

Kathryn A. Kahler is an editorial writer for Wisconsin Natural Resources *magazine.*

STABER W. REESE

A crowd waits for the county clerk's office to open to purchase deer permits in Rusk County in the fall of 1970.

"The Gamekeepers"

Hunting history buffs will enjoy a new book by retired Wisconsin wildlife manager David L. Gjestson. "The Gamekeepers: Wisconsin Wildlife Conservation from WCD to CWD," takes a thorough and insightful look at the origin of the wildlife management profession in Wisconsin and how it evolved from 1945, when the Wisconsin Conservation Department hired its first official game manager, to the game-changing discovery of chronic wasting disease in February 2002.

DNR FILE

The book is not just a timeline of changing rules and regulations, but a behind-the-scenes look at the people who developed them. Gjestson summed up the purpose of the book in a note to fellow wildlife biologists in the preface: "Historical recollection is not simply nostalgic reminiscing but rather a vital process of learning about the whole. History creates a continuum for the human experience and a true sense of belonging. It weaves the lives of early participants with your own, connecting you with Aldo Leopold, Wallace Grange and Bill Grimmer. Knowing your professional roots will give you purpose, pride and passion for what you do."

The book is available free as a downloadable PDF, or for $25 hard copy. Visit the DNR website (dnr.wi.gov and search "Gamekeepers") for ordering information.

WISCONSIN NATURAL RESOURCES

JENNIFER SERENO

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FRONT COVER: Forestry in Wisconsin entails many things and at this time of the year we especially revel in fall colors. Take a peek at our cover story on sustainable forestry.
Catherine A. Khalar

BACK COVER: American beech and sugar maple at Kurtz Woods State Natural Area in Ozaukee County. INSET: Maples in the fall make lovely canopy and ground cover. For more information, or to order a guidebook to State Natural Areas for $18.00 (postage paid), contact the State Natural Areas Program, Bureau of Natural Heritage Conservation, DNR, P.O. Box 7921, Madison, WI 53707 or visit dnr.wi.gov and search "SNA."
Thomas A. Meyer, DNR Inset: Dave Caliebe

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Associate Editor Joseph Warren
Business Manager Ellen C. Corso
Art Direction Thomas J. Senatori
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Wisconsin's forests benefit from active management

FOREST PLANS ENHANCE ECOLOGICAL DIVERSITY AND EXPAND RECREATIONAL AND ECONOMIC OPPORTUNITIES.

Wildlife and forestry experts work together to manage state forests to balance environmental, social and economic benefits. Increased forest diversity achieved through selection cutting improves wildlife habitat and ensures opportunities for future generations.

Story and photos by Jennifer Sereno

If you want to be a tree hugger, you have to cut some trees.

Joe Hovel, who has practiced sustainable forestry for more than 30 years, offers up this seeming paradox as he stands under a cathedral ceiling of hardwood boughs and leafy green. The proof of what he preaches covers the surrounding 400 acres in the town of Conover, where selection cutting allows sunlight to pierce the dense canopy and reach the forest floor to invigorate a new generation of trees.

"The overarching goal is to keep the forest in good health," says Hovel, whose family owns this Vilas County land covered with a diversity of hardwoods, pine, aspen and birch. "You have to monitor the changing conditions and, at times, make adjustments."

It's a lesson that is increasingly important as the Department of Natural Resources works with public and private landowners to strengthen forested lands through active management and sustainable forestry practices. Doing so is no easy job.

Wisconsin's 17.1 million acres of public and private forested lands are aging, and with them, the experienced loggers who possess the skills, knowledge and equipment needed to help the forests grow in health and diversity. Public misunderstanding about the important role of strategic forest management complicates the picture.

"Forest management is a dynamic process and many people find timber cutting to be disconcerting," says Jeff Olsen, a DNR forestry team supervisor who covers an area including the Northern Highland-American Legion State Forest. "But we're managing our forests in ways that support growth and regeneration. The logger is the engine that keeps our forest management plans alive."

Working with public and private partners, the department is addressing the challenges of modern-day forest management with a combination of technical experience, education and initiatives that put science-based principles into practice. Leading by example, the department is making steady gains in reducing the backlog of timber on state lands that needs to be cut to implement approved, forest-specific master plans that ensure a long-term balance of ecological, recreational and economic considerations.

"A major part of the planning process involves integrating input from citizens and working with a variety of groups," Olsen says. "The plans also incorporate input from wildlife experts and silviculturists as well as experts on lakes, watersheds and public amenities such as trails and roads."

Joe Hovel manages land in Vilas County to encourage pine and hardwood regeneration.

Jeff Olsen is the regional forestry team supervisor covering the Northern Highland-American Legion State Forest.

Long-term practice

Loaded on a semitrailer awaiting the trip to the sawmill, logs from a forest thinning project in the town of Plum Lake tell an important tale about Wisconsin's Northwoods. The forests that covered some 22 million acres of the state during pre-settlement times disappeared more than a century ago.

Groundbreaking partnerships among federal, state and private interests led to the historic replanting of Wisconsin's northern forests, often with fast-growing jack pine, white spruce and red pine. Wisconsin's first state tree nursery was planned and built in 1911 at Trout Lake in Vilas County and today, it's time for some of the early plantings from the nursery to make way for a more diverse mixture of trees, including the longer-living white pine and hardwoods.

"Forestry is a long-term practice," Olsen says, noting the struggle to balance early successional species such as white birch and aspen with slower maturing white pine and oak. "It takes time to replicate what was naturally here."

As part of the effort, the department establishes timber harvest goals on the more than 975,000 acres of state forest land and works with private and county landowners to achieve similar beneficial outcomes that respect the unique local soils, waters, wildlife and modern-day uses or goals for various properties. Through this active

Lee Steigerwaldt, chief operations officer for her family's forestry business, uses the cabin and surrounding maple sugar bush to welcome visitors and educate groups about sustainable forestry practices. The efforts are among the ways public and private organizations are working to inspire the next generation.

management, the department creates current environmental, social and economic benefits while ensuring there is more to come for future generations.

For example, Wisconsin's forest and paper products industry generates total production valued at nearly $19 billion each year and employs more than 46,800, according to the Wisconsin Economic Development Corporation. Despite this productivity, the number of forested acres in the state continues to grow while the trees themselves get bigger. Each year, state forests produce about 490 million cubic feet of timber growth while about 332 million cubic feet is removed.

Significant success; challenges to come

While the benefits of harvesting timber may be clear, getting the job done is not always easy. Guiding the allowable harvests are property-specific master plans that require significant reconnaissance, including identifying and marking individual trees.

"Foresters conduct the inventories and draft the plans, then set up the sales," Olsen says. "We put the sales up for public bid and loggers who meet the requirements compete for the contracts. Then, we monitor the logging activity."

Roger Pluedeman, Eagle River, is a master logger working on some of the stands. Gaining the elite master logger designation requires a significant investment in documentation, performance and career development, and puts him in the company of just 55 master loggers statewide.

His credentials make him a good fit for the job: maneuvering his computer-controlled timber processor through a carefully marked stand of mixed hardwoods and softwoods in Vilas County. With amazing dexterity, he directs the machine's retractable arm to carefully cut, trim and section logs from the marked trees.

He notes that the DNR's plan for the property includes leaving some dead-wood "snags" to provide forage and habitat for animals and birds.

"We're here to fulfill our part of the plan," he says, and from the recent signs of pileated woodpeckers tearing up large swatches of the standing dead wood for bugs, there's evidence it's working.

In recent years, hard work by Pluedeman and others has helped the department significantly reduce its backlog of timber sales, providing an economic boost to the region. During 2011-2013 for example, DNR lands achieved 118 percent of the long-term harvest goal statewide, an illustration of the department's success in reducing the number of backlogged harvests. Currently, on all DNR lands, approximately 45,000 acres remain backlogged for harvest evaluation, yet this is a 58 percent reduction from the 107,000 acres backlogged in 2011.

In comparing the six-year average saw log volume for 2002-2007 versus 2008-2013, for established, sold and completed sales, there are 53 percent, 50 percent and 58 percent respective increases in log volume. Beyond the obvious economic, ecological and social benefits of this logging is another significant advantage — a reduction in wildfire potential.

Yet keeping up the current pace of timber sales and further reducing the backlogged harvests may prove challenging in the years ahead as the industry faces a declining number of loggers.

Family businesses, diverse solutions sustain state forests

Pluedeman says the comforts of his heated timber processor cab make the job more pleasant and a lot safer than the days when most of his work was done on foot with a chainsaw in the dead of winter. Computer controls also appeal to a more technologically savvy younger generation of operators.

"A younger person who is used to the hand-eye coordination needed for working the joystick would find those skills to be a big part of it," he says. Yet the high cost of today's equipment presents a new and more challenging business model than the days when the chainsaw served as the primary tool.

The Department of Natural Resources and forestry industry support educational opportunities, on-the-job training and the possible development of loan programs as diverse solutions to the aging demographics of the state's forest management industry. Henry Schienebeck, executive director of the Great Lakes Timber Professionals Association, says the association also is working to encourage federal changes that would allow the sons and daughters of logging business owners to participate in forest work at age 16 instead of 18.

"The agricultural community can do this and has had success in bringing an up-and-coming generation into family operations," Schienebeck says. The diversification of some existing family businesses offers another promising route.

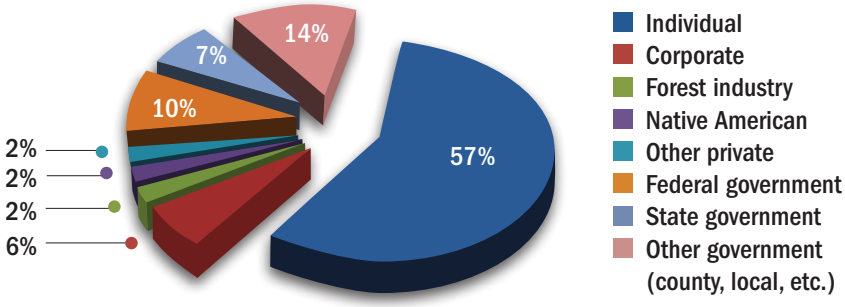
Lee Steigerwaldt, chief operations officer of Steigerwaldt Land Services in Tomahawk, represents the third generation of her family to participate in the business and she has every intention of contributing to the operation's sustainable growth. A certified general appraiser, forester and arborist with a Bachelor of Science degree in forestry from the University of Wisconsin–Stevens Point, she specializes in forest appraisals and strategic planning using the latest technology for a variety of clients.

Today's best practices in forest management are based on science and balance, she says, with careful attention to the ideal use and potential of the land in conjunction with the owner's goals. When success is achieved, the results often serve to inspire the next generation.

"The ground that I'm standing on right now used to be pastureland," Steigerwaldt says, pointing to the maple sugar bush forest that produces enough syrup to treat the family's numerous clients and educational groups that visit the land each year. "That's what sustainable forestry is all about."

Jennifer Sereno is a public affairs manager for DNR's Office of Communications.

ACREAGE OF TIMBERLAND BY OWNER GROUP



DNR FILE

An increment borer (pictured here) is used to drill into the tree by hand. A core, such as this exquisite sample (below) taken from a bur oak located on the Swamplover's Foundation property in Dane County, is then extracted and taken back to the lab where it is prepared and analyzed. The timing of core extraction is very important. Caution is taken by extracting cores in the fall after diseases are less active and the tree has shut down its growing season.

Driftless oaks

THEIR RINGS TELL THE ENVIRONMENTAL HISTORY OF SOUTHWEST WISCONSIN.

Story by Sara Allen with Evan Larson, Ph.D., contributing

The sun is bright and gleaming off the snow-covered hills as my boots crunch across the frozen landscape. I breathe the crisp winter air in deeply as I scan a ridge in search of old oak trees. As I work my way up the slope, their gnarled branches fill my vision. I can't help but smile.

The oaks I'm looking at on this bright winter day are located outside of the village of Rewey, tucked away in the southwest corner of Iowa County amidst the rolling hills of Wisconsin's Driftless Area. I have visited similar sites across 10 of the Driftless Area counties in southwest Wisconsin in a search of the old prairie oaks that dot the landscape like weathered sentinels, their spreading canopies iconic, and their very presence defining Wisconsin's physical and cultural landscape.

These trees have endured tremendous changes over their life spans — the sweeping fires that maintained the open prairies and savannas of the region, the arrival of the plow and the passing of the seasons with their cycles of rain and drought. All the while, these trees have steadfastly recorded their history — told their story — through the annual growth rings they lay on year after year.

I am here to give a voice to their stories. I am a dendrochronologist and my work is the Driftless Oak Project.

There is a lot of conversation about weather patterns, including dramatic swings in moisture conditions; from the floods of 2008, to the extraordinary drought of 2012 and back to the cold wet spring of 2013.

In Wisconsin, these conversations are more than just academic. We live by the land and feel these droughts and floods in our bones and our pocketbooks. Southwest Wisconsin is the state's agricultural heartland and extreme events play a decisive role in local and regional economic stability. Recorded history gives us measurements of rain and temperature over most of the state for nearly 100 years, but as the 1,000-year storms of 2008 illustrated, our recorded history does not capture the full range of weather variability in Wisconsin.

We need a broader perspective. That brings us to dendrochronology, the science of tree rings.

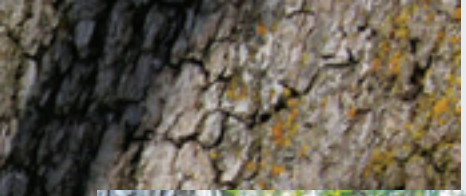
In southwest Wisconsin, warm years with plenty of rain typically lead to good growth and a wide annual growth ring within the trees of the region. Short, cool summers and years of drought tend to result in narrow rings. This relationship is often particularly strong in oak trees.

Oaks are conservative by nature, with slower growth than many other Wisconsin trees during years of plenty, a strategy that provides insurance against growing more than can be supported during years of drought. Their thick, insulating bark enables oaks to withstand the fires that maintained prairies throughout much of southwest Wisconsin prior to European settlement. Matched with their longevity, which can often span centuries, these traits provide sound reasons for why we still find oaks occupying sites that were too dry, or in the past, too fire-prone for most other tree species in Wisconsin.

Perhaps it is this rugged persistence of oaks, the propensity to stand alone on a windswept hill or resolutely keep watch over a field, that lead so many people to revere them. It is also these traits that make oaks exemplary candidates for reconstructing drought patterns.

The Driftless Oak Project is a two-year research program being conducted through the University of Wisconsin-Platteville Tree-Ring, Earth and Environmental Sciences Laboratory (TREES Lab for short) with funding from the University of Wisconsin Water Resources Institute.

With this project we are developing a network of tree ring chronologies, or records of tree growth, across southwest Wisconsin in order to better understand drought patterns. The open-grown bur and white oaks of the Driftless Area are



EVAN LARSON

Sara Allen coring a tree at Weir White Oaks State Natural Area in Lafayette County.

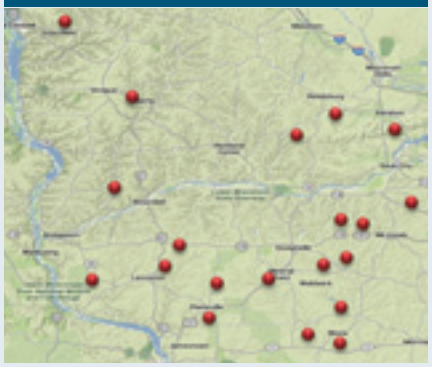
CASSIE JORGENSON

of particular interest. Savanna oaks can often be found growing on south- or southwest-facing slopes, which tend to be warmer and drier than slopes facing other directions. This setting reduces the growing ability of other, less hardy trees, while also enhancing the link between tree growth and moisture availability.

By collecting tree ring samples from these oaks and examining their growth patterns, we are developing exact date records of tree growth that can be compared to records taken using instruments to measure temperature and rainfall. If a strong relationship is identified, the data can then be used to estimate conditions over the life span of the trees.

To date, we have visited 20 sites and collected samples from 175 trees. A regional picture of tree growth is emerging and many of the oldest trees we have cored so far have inner ring dates extending into the early 1700s.

SAMPLING SITES



GOOGLE EARTH

Mapping the sampling sites helps create a regional picture of tree growth.

Back on that hill by Rewey, the day is winding down and my arms, as well as those of my colleagues, are exhausted. We have collected our tree ring samples with a tool called an increment borer, similar to a hollow drill bit, that we turn into the trees by hand. Anyone who has worked with oak knows that this is not an easy task! The bur oaks that we sample on this brisk winter day have experienced their share of drought, and the stories they have to tell are tantalizing, if I am reading their weather-beaten trunks and contorted branches correctly.

Later, in the laboratory, I'll find out that these trees have been growing on this site for over 300 years and have seen droughts far worse than any we have recorded using instruments. What are the implications of this work? We are only now getting to a stage where we can begin making inferences about past conditions, but before we do, there are more hills to hike, trees to discover and rings to count.

SARA ALLEN

A bur oak that dates to 1740 overlooks a beautifully restored oak savanna located in Pleasant Valley Conservancy State Natural Area, in western Dane County.

How do you ask a tree?

One of the first questions we often get from people potentially interested in offering up their oaks for this study is if we are going to hurt their trees. The answer is "no."

We only core during the late fall, winter and early spring to avoid damaging oaks during the oak wilt season. Even in areas with little or no known oak wilt, we simply don't want to bear the slightest risk of opening up some of the most spectacular trees in the state to potential infection.

Once we are inside that seasonal window, the process is simple. Using an increment borer, we collect pencil-sized core samples along two radii of each tree included in the study, typically from opposite sides of the tree and parallel to any slope contours. This allows us to determine an average growth rate for that tree, which can then be compared and combined with the growth patterns of other nearby oaks.

In addition to collecting tree ring samples from living trees, through the scientific principle of cross-dating, we can compare patterns of tree growth from living trees to those of trees that are long dead. This includes stumps, logs or even the furniture and timbers in historic buildings. We have already incorporated records of tree growth from timber samples in historic structures near Shullsburg, Mineral Point and Stitzer, with some of these samples extending into the early 1700s. Samples from long-dead trees will be key to moving further into the past.

We need your help

One of the most interesting parts of this project has been meeting people from all over the state and from all different backgrounds, but who are unified by their shared love of the Driftless Area and take pride in their oaks. As guardians of these oak relics, their pride is justified and, as Aldo Leopold so eloquently states in "A Sand County Almanac," "He who owns a veteran bur oak owns more than a tree. He owns a historical library, and a reserved seat in the theater of evolution."

The response from Wisconsin residents is essential to locating the trees we need for this research and we are once again asking for your help. Although we sampled extensively throughout the region last fall and winter, there are still gaps within our research area that we are hoping to fill.

If you have an oak tree that you think is old, interesting, weathered, unique or just may have a story to tell, please contact Sara Allen at (608) 342-6149 or email allensara@uwplatt.edu, or Evan Larson at (608) 342-6139 or email larsonev@uwplatt.edu at the UW-Platteville TREES Lab.

Sara Allen is a research associate at UW-Platteville in the Tree-Ring, Earth and Environmental Sciences (TREES) Laboratory. Evan Larson, Ph.D., is a UW-Platteville associate professor of geography.

An urban teen with a taste for the outdoors

MEET MILWAUKEE'S DEVAN JENKINS.

Marcus Smith

How do you make a love of the outdoors relevant or foster an appreciation for it? It begins, as with so many things, with a supportive family.

For Devan Jenkins that's the case. Devan, a 13-year-old African-American from Milwaukee, is already seasoned in the sports of fishing and deer hunting.

"The thing I remember was the first time he went fishing," recalls Tasha Jenkins, Devan's mom. "He was about 5 or 6 and I thought we would be fishing for a couple of hours and he would lose his patience and he would be ready to go. But it turned out he was out there all day and enjoyed fishing, so I knew that was something that he would want to continue to do and he has done that."

Today, Devan has a favorite fishing spot in Beaver Dam and likes to catch bass "because they give a fight when you catch 'em."

Devan also has been around rifles since he was 10, even hunting in Arkansas with his dad, which is where he bagged his first deer. Devan can clearly describe the differences between how hunters dress a deer in Arkansas and how they do it in Wisconsin.

Like many young people (and adults) Devan has taken part in the DNR's Learn to Hunt program. The program was created to address trends indicating a decline in the number of hunters in the future and to keep the tradition alive.

The program has a list of ambitious goals including increasing the number of Learn to Hunt participants by 5 percent. It's working. In fact, the number of Learn to Hunt participants increased by 23 percent from 2012 to 2013, with 2,637 hunters attending a Learn to Hunt event in 2013. The department is also moving forward with more multicultural Learn to Hunt events to boost participation among diverse populations.

Tasha believes in the importance of the Learn to Hunt program in fostering an appreciation of outdoor recreation for city kids like Devan. "It gives them a chance to get exposed and learn things that they normally wouldn't get exposed to growing up in the city," she says.

MARVIN JENKINS

Devan shot his first deer at 10 years old while hunting with his dad.

At the urging of Natural Resources Board (NRB) Chairman Preston Cole, Devan testified at the NRB's June meeting in Milwaukee. Devan thanked the board for holding the meeting in Milwaukee.

"I think it's important that you hear from people like me," he said. "I think it's great that the Department of Natural Resources is doing so much to support kids in the community with fishing clinics and Learn to Hunt programs. I hope you keep up the good work."

Devan added, "Because of my love for the outdoors, I would like to be part of the Youth Conservation Congress. I would appreciate your help in making that happen."

One of the people in that audience was Rob Bohmann, chairman of the Wisconsin Conservation Congress, who approached Devan and his mom and offered to mentor Devan in his quest to be part of the youth congress, an NRB-developed initiative.

"I talked to Devan briefly after the meeting about his interest in natural resources, discussed his favorite pastime — he said that was fishing — and I told him that as chair of the Congress, I attend many of the committee meetings and that he is more than welcome to come to any of the meetings that I will be attending," recalls Bohmann.

In fact, the Department of Natural Resources, the Wisconsin Conservation Congress, and parents and kids like

A spring fishing trip with dad yields big results.

Tasha and Devan Jenkins are coming together to work to maintain Wisconsin's rich outdoor traditions and are pushing to increase African-American participation in them.

"It starts with parents being motivated," Tasha suggests. "The people I know who hunt or fish tend to be older. I haven't noticed the younger generation of parents really even participating in those activities themselves, so it's hard for them to pass that interest on to their kids. But I think exposing kids to the outdoors, regardless of whether the parents do it or not, gives young people the opportunity to see something and experience something that they actually might like and may want to continue, but had not considered before."

Devan has advice for his peers when it comes to this topic: "Get out and try new things, 'cause that might be what you like to do in the future."

Building participation among African-Americans

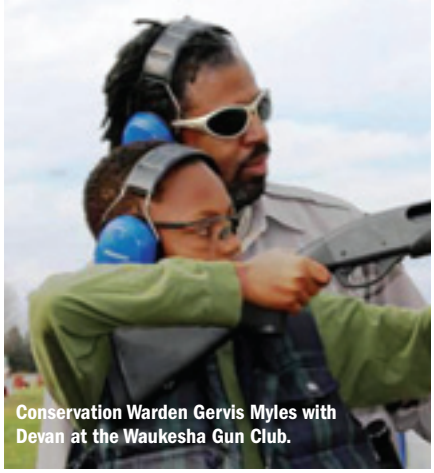
It's another busy Saturday at the A and C Live Bait shop on the edge of Milwaukee's Harambee neighborhood. In between sips of coffee, customers buy night crawlers, discuss where the fish are biting and prognosticate about the success of upcoming fishing trips. On this visit, like many over past years, the clientele are middle age and elderly African-American anglers.

But as they socialize among themselves, they're also hopeful that they won't be alone in their outdoor pursuits and that they've already inspired their daughters, sons, nieces, nephews and grandchildren to join them at the family fishing hole.

They know that Wisconsin's fishing and hunting industries are counting on them to help keep those traditions alive and that the key to a healthy outdoor economy is increased participation by people from all walks of life, including an urban audience such as Milwaukee and its large community of African-Americans.

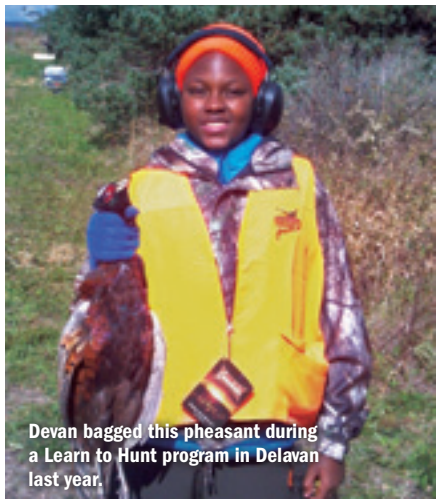
Richard Aiken, a natural resource economist with the U.S. Fish and Wildlife Service, helps prepare the National Survey of Hunting, Fishing, and Wildlife-Associated Recreation. The survey, issued every five years, began in 1990 and shows that not much has changed since it started in the area of African-American outdoor recreation participation rates, so

MARVIN JENKINS



Conservation Warden Gervis Myles with Devan at the Waukesha Gun Club.

DNR FILE



Devan bagged this pheasant during a Learn to Hunt program in Delavan last year.

TASHA JENKINS

there is still a lot of work to be done.

"I looked at participation rates (for African-Americans)," Aiken says, "and it was 10 percent in 1991, and is still 10 percent in our most recent survey (2011) for fishing and hunting."

Aiken adds, "Compare that to the total participation rate (in hunting and fishing) in the country for the average American at 16 percent."

What accounts for a stubborn 10 percent participation rate among African-Americans? When you speak with people who work in the field of outdoor recreation you hear common themes: lack of access and too few youth mentors.

Charles Young, regional manager for youth programs for the Pacific West region of the National Park Service explains that African-Americans "just haven't had the resources or the education around outdoor recreation the way mainstream America has. It's an issue of not knowing where to go, not understanding the type of gear and not really having some of the resources."

Young works with African-American kids from south Los Angeles and says that to get more black youth outdoors, you have to understand their experiences. He argues that trying to link the relevance of a John Muir personality to these kids won't work.

"These kids don't know who John Muir was," Young says. "But if we go and say 'This is the first nature trail ever built by Charles Young (the first black superintendent of a national park), or if we say black folks were some of the first rangers in the United States, that's very different. You have to interpret the area so that there's some relevance."

Inner City Sportsmen Club is helping closer to home

One group working to build the next generation of outdoor enthusiasts in Wisconsin is the Inner City Sportsmen Club. Founded in 2011, the Milwaukee-based club has nearly 60 members consisting of young and old alike.

"We hadn't seen anything in the city like it so we just decided to start it," says club president Reggie Hayes.

DNR's Southeast District staff is involved with the group, from providing speakers at the club's monthly meetings to being active members.

"We have met with some of the DNR people who lead Learn to Hunt programs," says Hayes. "We also had six of our club members take hunter safety courses to become instructors. So we're positioning ourselves to get the tools to start advertising to bring more young people in."

The club's long range plans include partnering with organizations that serve urban youth and reaching out to the elderly with church groups interested in linking up with the club.

Growing up in Baton Rouge, La., Hayes appreciates the value of family and its role in fostering a love of the outdoors at an early age. He started hunting when he was 9 years old and remembers his hunting group would often consist of uncles, fathers, grandfathers and great-grandfathers.

"Sometimes there would be three or four generations out there hunting and fishing with us," says Hayes.

The tradition starts young.

The Inner City Sportsmen Club meets at 6 p.m. on the second Monday of each month at DNR's Southeast District Headquarters, 2300 N. Dr. Martin Luther King Jr. Drive, Milwaukee. Contact the club by sending an email to icscmke@gmail.com or calling (414) 502-7025. New members and visitors are welcome.

Marcus Smith is the public affairs manager for DNR's Southeast District.

Stand up for safety

TAKE TREE STANDS SERIOUSLY FROM THE START.

Natasha Kassulke

Hunting from heights provides great benefits including increasing your field of vision. But with those benefits, comes serious risks. In fact, one in every three hunters who hunts from a tree stand will fall at some point in their hunting career. Of those falls, 75 to 80 percent will occur while ascending or descending the tree.

An International Hunter Education Association (IHEA) study found that nationally 300 to 500 hunters are killed annually in tree stand accidents and another 6,000 will have tree stand-related injuries from not being harnessed properly including suspension trauma when the pressure of hanging motionless in leg straps can pool blood in the legs, limiting circulation, depriving organs of oxygen and leading to unconsciousness followed by death.

An article in the winter 2012 edition of the *Hunter & Shooting Sports Education Journal* explains that 80 percent of tree stand accident victims will require surgery, 60 percent will have fractures, 30 percent will have spinal fractures and 10 percent will have permanent disabilities or paralysis.

Last year, Wisconsin had two fatal tree stand falls, according to Jon King, DNR's hunter education administrator.

The good news, though, is that tree stand accidents are preventable.

"I see hunters spend a lot of money on a bow or gun, but then they don't want to spend money on tree stand safety gear," opines Bill Wright, a longtime Wisconsin hunter education instructor. "So, I ask them, 'What is your life worth to you?' And I tell them that tree stand safety is just as important as firearm safety."

Wright often hears from hunter education students who say they know someone who is paralyzed from a tree stand accident. Yet, these accidents don't garner much media attention since most states, including Wisconsin, don't track them as hunting accidents unless they involve a weapon discharge.

Tree stand safety has evolved as new research and statistics have become available. What were once considered "safe" tree stand safety practices 15 years ago are simply not considered safe today.

Wright was a member of the North Bristol Sportsmen's Club, which produced one of the first tree stand safety videos in the early 1990s. Today, tree stand safety factors prominently into his hunter education classes and he brings along

Learn more about the National Bowhunter Education Foundation's Project Stand to prevent tree stand falls at projectstand.net/.

a duffle bag to illustrate his point. As he unpacks the contents of his bag, he meticulously explains the role of the vest and each strap and carabiner. He recites every step in the process for properly hooking up the gear and the order in which that should occur. He demonstrates the climbing moves, both up and down the tree. He reminds hunters to inspect their own gear to make sure that it — like them — is in shape.

Supplies for safety

Wright wants hunters to invest in safety, meaning that they take the time to learn how to be safe and they purchase the gear necessary, including a full-body harness, also known as a fall-arrest system (FAS) that is manufactured to Treestand Manufacturers Association (TMA) standards.

"A harness will keep you in the stand if you slip or fall," Wright explains. "But you have to wear the harness for it to work."

According to TMA, 82 percent of hunters who fall from tree stands do so because they are not wearing full-body harnesses.

Never use single-strap belts or chest harnesses. Attach your FAS to the tree while at ground level and keep it attached throughout your hunt from the time you leave the ground and climb up until the time you get back down.

When climbing in and out of a tree stand, Wright recommends the following equipment:

- **Body safety vest** – This is an effective style of full-body harness and comes in different sizes, so find one that fits your body size and shape.
- **Lineman's belt and/or climbing belt** – Use this when climbing up and down the tree.
- **Haul line** – Leave your gear on the ground, and once safely in your stand, use a haul line to raise it up to you. Make sure firearms are not loaded. If using a bow, put the arrows in a covered quiver that is secured to the bow. Never sling your firearm or bow when climbing.
- **Suspension relief strap** – It is best to attach it to your full-body harness from the time you leave the ground to the time you return to the ground. It provides a loop to stand in if you fall.
- **Tether strap** – Secure a short tether/safety strap between you and the tree when seated in the tree stand. A safety strap should be attached to the tree to prevent falling more than 12 inches.
- **Tree strap** – Use this to connect the tether strap.
- **Gun cover** – This keeps the gun clean and makes it easier to attach to a haul line. Make sure the gun is unloaded, the safety is on and the action open.

Stands

There are four basic tree stand types:

- **Lock-on or hang-on stands** – These provide about 4 square feet of space and must be hauled into place and secured to the tree with belts or chains. These require climbing aids such as ladders or climbing sticks.
- **Climbing stands** – These are self-climbing stands that allow the hunter to "walk" up the tree by moving the top section with the hands and the bottom section with the feet.
- **Ladder stands** – These provide a platform usually 10 to 20 feet above the ground. Hunters usually assemble them before the first day of hunting and it can take several people to erect.
- **Towers and tripods** – These do not require a tree. Wright cautions against using free standing towers and homemade stands. Commercially manufactured tripods can be used following manufacturer's instructions.

Always inspect stands that are left up all year for dry rot and watch for

Bill Wright demonstrates tree stand safety techniques during his hunter safety class.

BRENDA VON RUEDEN

NATIONAL BOWHUNTER EDUCATION FOUNDATION

TESTIMONIALS

"A few bow seasons ago, a friend of mine was putting up his stand in his favorite tree," recalls hunter education instructor Jim Charmoli. "He was screwing in the steps and was using the same holes as he used the year before. He said they felt sturdy and he continued upward. As he was preparing to attach the stand, a step pulled loose and he fell 20 plus feet, striking branches as he fell. He had a 4X4 but his hands would not work to operate the controls. Between episodes of passing out, he managed to walk the trail to the blacktop. He said there was a cabin by the trail and as luck would have it, the owner was there that weekend. He was treated by the medics and transported via helicopter to the hospital.

"He had numerous broken bones and has had several surgeries and a lot of physical therapy. He has lost some motion in his hands and has numerous screws and plates in his hands, wrists and back. Thankfully, he is able to function and is back bow hunting, although he uses a crossbow now. He said he knows how lucky he is to have survived."

KIM ZUHLKE

The tree stand that Kim Zuhlke fell from near Kendall, Wis.

"The year of my fall I had eight stands out," recalls Kim Zuhlke, a bow and firearm hunter who grew up on a farm near Kendall where his fall occurred. "On two of the eight, I did not have climbing ropes because I viewed those stands as very safe. The stand from which I fell was a favorite and one I had climbed many times over the years. I had made a very sturdy and safe ladder out of treated lumber. The ascent took only one step, from ladder to a branch about 5 inches in diameter. I would clip in to my safety tether after my step from the branch into the stand. It was the last step before clipping in that I fell on as the branch had become wet and slippery on the arch of my rubber scent-control boots."

rust on the mechanisms that secure the stand to the tree. Check the straps — animals may have chewed on them. Pull on the stand and move it around and see how much it moves. Inspect the seat and foot stand and make sure the nuts and bolts are tight.

If you are letting a friend use your tree stand, make sure they know how to use it and that they are safe.

And never hurry. While climbing with a tree stand, make slow, even movements of no more than 10 to 12 inches at a time. Make sure you have proper contact with the tree and/or tree stand every time you move. On ladder-type stands, that means maintaining three points of contact with each step — either two hands and one foot or two feet and one hand at all times. Keep a firm hold on the climbing system as you enter or leave a platform and don't let go until you're sure that you are secure.

Pre-hunt preparations

Before the day of your hunt, consider the area that you will hunt and inspect the tree you plan to use. The tree should be healthy and strong. Never select a diseased or leaning tree. The tree should be substantial enough to support your weight and that of your stand. Never support your weight with a tree limb as it can break.

The day of the hunt, make sure to let someone else know where you are hunting (be specific), where you'll be parking and what time you intend to return. If possible, hunt with others. Carry a cell phone with you so that you can call for help if needed. Check the weather forecast and be prepared. Know that you are likely to be climbing into your stand when it is still dark or foggy. You may encounter slippery conditions such as snow or ice.

Fatigue is another consideration. "When you sit in the cold for hours," Wright says, "your muscles might not work the same as you would normally expect."

Hunting from a tree stand is not like riding a bike, Wright contends. Refresh yourself before you go out and practice the skills needed to maneuver in a tree stand before using it.

Natasha Kassulke is editor-in-chief of Wisconsin Natural Resources *magazine.*

WATCH a tree stand safety video from the National Bowhunter Education Foundation online at treestandvideo.com.

TAKE the Treestand Manufacturers Association's (TMA) free tree stand safety course at huntercourse.com/treestandsafety/.

VISIT the TMA website at tmastands.com for a list of TMA-recommended gear and stands.

GO to dnr.wi.gov and search "tree stand safety" for more information.

THE DOCTOR'S ORDERS

UNIVERSITY OF WISCONSIN HOSPITAL AND CLINICS

Dr. Lee Faucher, a trauma surgeon at the University of Wisconsin Hospital and Clinics and professor in the Department of Surgery, has seen too many injuries from tree stand falls during his career. He knows the toll they take on affected families.

"I was seeing young, 30-year-old guys, coming in paralyzed and their lives — their family's lives — had changed forever during what was supposed to be a recreational event," Faucher says.

He sees head injuries, broken ribs, broken legs and arms, broken backs, spinal cord injuries, broken pelvises — the same injuries he sees from those working in careers most prone to falls such as roofers.

That's why a couple of years ago, he approached the Department of Natural Resources with an idea to focus efforts to prevent tree stand falls — not just to tell people to be careful in tree stands, but to give them concrete steps they can take to prevent a fall. He likens the need for tree stand safety messages to other popular safety program messages such as promoting child safety seats and air bags in cars.

There is a nationwide trauma registry with nearly 10 million patients in it, including tree stand fall victims, but what it lacks is detailed information about what led to the trauma occurring.

Faucher seeks to fill in the gaps and is tracking tree stand fall victims who come to major trauma centers around the state. He is part of a team of trauma surgeons interviewing those who fall and asking about the conditions surrounding the accidents and what the hunters might do differently if given the chance. The team is using questions developed with the help of serious hunters so that they make sense to other hunters — questions about harnesses, tree stands and their conditions, weather conditions and time of day.

By learning what causes falls, Faucher hopes to come up with a plan to educate the public about how to prevent them. He expects his study to wrap up early next year.

Joining Faucher on the team is Becky Turpin, University of Wisconsin Hospital and Clinics adult injury prevention coordinator.

"At this point, when someone comes in after they have had a fall, we collect their medical data as we always did," Turpin says. "But we also perform an interview using the questions that Dr. Faucher mentioned so that we can learn what actually happened in their particular case."

Turpin says they have had 100 percent cooperation among fall victims in their interviews and the victim's identities are kept confidential. They see the most severely injured hunters. There are others who have a fall and are seen in an emergency department, treated and discharged and never admitted so are not captured in the study.

"No matter what, there is cost associated with these falls," Faucher says. "It might be an emotional toll or, in a tough economy, the cost of having to be off work for a few days — not getting paid even for a short time can be devastating to a family. And then you take it up a step to the people who will never be able to go back to work because of a head injury or paralysis. That exponentially compounds the problem when it was preventable."

Watch a DNR video on how to build a bat house: youtu.be/iS8Ycz2Cy_w.

Building a better life for bats

HOW A HOUSING PROJECT CAN HELP.

Story by Laura Lane and photos by Becky Hunter

The bad news for Wisconsin bats came last spring when DNR biologists found the deadly white-nose syndrome (WNS) in Grant County. WNS is a fungal disease that kills insect-eating bats when they are hibernating in caves and mines. Over 6 million bats and counting have been killed by WNS and it's spreading across the central United States.

The microscopic fungus spores thrive in cold temperatures and attack bats when their immune systems have shut down during hibernation. The disease passes from bat to bat, and the fungus particles may also attach to people's clothing or shoes and can be transported to different areas.

The benefits of bats

Bats play a critical role in keeping insect populations in balance. Insectivorous bats will eat mosquitoes, moths, beetles, flies, termites and spiders. They also eat agricultural pests such as corn borers, cutworm moths, potato beetles and grasshoppers.

"They eat massive quantities of insects. One single big brown bat that is nursing will eat 110 percent of its body weight in insects every night," says Dee-Ann Reeder, associate professor of biology at Bucknell University. "It would be like me eating 500 hamburgers every night."

While bats are often overlooked, they are among the most economically important, non-domesticated animals in North America, according to a recent study in the journal *Science*. Pest-control services provided by insect-eating bats in the United States likely save the U.S. agricultural industry at least $3 billion a year, the study reported.

"In the context of white-nose syndrome, every single bat we have left is precious," Reeder says.

Safe havens for bats

While scientists across the country race to discover ways to save bats from the deadly fungus, there are things you can do to help bats. One of the best ways is to leave them alone.

"It's really important not to disturb bats that are hibernating," Reeder says.

Building a bat house is also a great way to give bats a safe place to roost in the summer. Mother bats give birth in bat houses and can raise their pups there.

"When built and placed correctly, bat houses offer safe, warm habitat for maternity colonies," says Heather Kaarakka, a conservation biologist with DNR's Bureau of Natural Heritage Conservation. "Mother bats leave the roost nightly to feed while the pups remain in the roost, and bat houses act as shelter for the pups that are not able to fly yet."

Wisconsin's four bat species that might roost in bat houses include: little brown bats, big brown bats, eastern pipistrellle bats and northern long-eared bats. The little brown and big brown bats are the most likely of the four species to take up residence in bat houses. A bat nursery house can provide shelter for 100 to 300 little brown bats.

Building a bat nursery house

The DNR's *Building a Bat House Handbook* recommends using naturally decay-resistant materials such as rough-sawed black locust, white oak, cedar or old barn wood to build your bat house. Also make sure the wood is not treated because the chemicals can be toxic to bats.

Painting the bat house dark brown or black helps the house heat up and stay warm through the night.

This spring, DNR's Heather Kaarakka helped Girl Scouts from Troop 2330 assemble, caulk and stain two bat houses. The troop donated one bat house to the Friends of Indian Lake and the other bat house to Prairie Elementary School in Waunakee.

"Bats like it warm, because it helps the baby bats mature," Kaarakka says.

Avoid Kilz brand primer or paint as bats tend to avoid it, she adds.

As you follow the step-by-step instructions, remember to seal all the joints with caulk, because it protects the wood from decay and also prevents the house from becoming too drafty.

Mounting your bat house

Kaarakka says bat houses should be mounted 10 to 15 feet in the air on a pole or a building (not a tree as it provides too much shade), be located within one quarter mile of water and be protected from wind, but still exposed to southern or eastern sun.

"The first thing a bat thinks about when it emerges in the evening is getting a drink of water. The closer the bat house is to water, the more likely bats are to use it because it reduces commuting costs," Kaarakka says. "Little brown bats especially, also like to forage over water consuming small, soft-bodied aquatic insects like midges and mosquitoes."

Because predators such as owls can attack bats when they emerge, place your house 10 to 15 feet away from trees, but keep it sheltered from winds. Trim back tall shrubs and bushes below the base of your bat house.

"If there is a colony within a mile or so, the bat house may get used within a couple of months, especially in the late summer and fall as juvenile bats are exploring and learning to forage," Kaarakka says. "If there is no established roost in the area, it can sometimes take several years for bats to find and inhabit the bat house."

Monitoring your bat house

Once bats take up residence in your bat house, do not shine lights up into the house. If the bats are disturbed, they will abandon the roost and the pups might die. The best way to monitor whether bats are using your bat house is to look for guano under the house or sit outside in the evening and watch for bats to emerge.

Once your bat house is inhabited, join the DNR's roost monitoring project and share what types of bats are in your bat house, how many bats you have and the best methods you've found for encouraging bats to roost in your house.

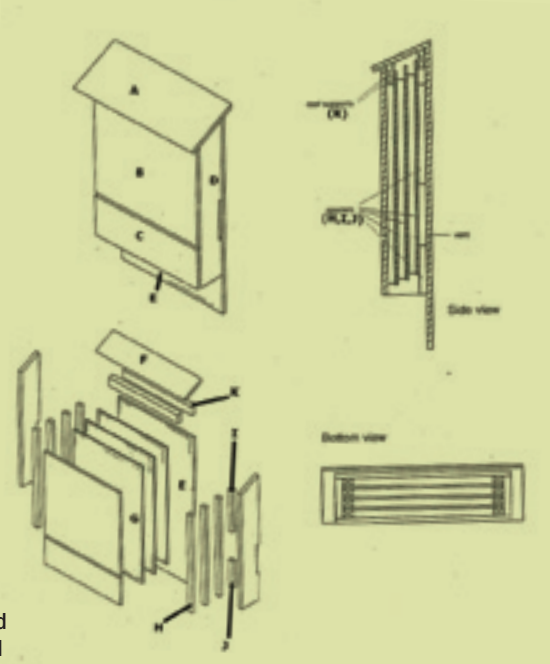
Laura Lane writes from Madison, Wis.

BUILD YOUR OWN BAT HOUSE

Here are the materials you will need:

- One-half sheet (4' x 4') ½" cdx (outdoor grade) plywood
- One-half sheet (4' x 4') ⅜" cdx (outdoor grade) plywood
- Two pieces 1" x 6" (¾" x 5 ½" finished) x 8' pine or cedar
- One lb. 1 ⅝" coated deck or exterior grade screws
- 20-25 1 ¼" coated deck or exterior grade screws
- One quart non-toxic, black, water-based stain, exterior grade
- One quart non-toxic, water-based primer, exterior grade
- Two quarts non-toxic, flat water based paint or stain, exterior grade
- One tube of non-toxic, paintable exterior grade caulk (latex caulk is the easiest to use)
- Tools you will need include a drill, drill bit, table saw, paint brush, caulk gun, utility knife and tape measure.

Watch a video on how to build a bat house on the DNR's YouTube channel at youtu.be/iS8Ycz2Cy_w.



Follow these instructions from the DNR's *Building a Bat House Handbook* (found online at dnr.wi.gov/topic/WildlifeHabitat/documents/BuildBatHouse.pdf) to build your bat nursery house:

1. Measure and mark all wood as per the cutting diagrams found on pages 14-16 of the handbook. Cut out all the parts.
2. Bats need something to hang on to, so it's important to score or groove the interior and landing surfaces. Score the inside back wall (E), and partitions (G) with a utility knife or a sharp object. Space grooves ½" apart, cutting 1/32" to 1/16" deep.
3. Apply two coats of black, water-based stain to the interior surfaces. Do not use paint, as it will fill in the grooves.
4. Screw back (E) to sides (two Ds), caulking whenever wood meets wood. Drill pilot holes so the wood does not crack.
5. Drill pilot holes, caulk and use screws to attach 5" & 10" (I, J) spacers to inside corners per drawings.
6. Place a partition on, to within ½" of the roof. Place 20" spacers (H) on partition (G), screw and caulk to first spacers (through partition). Be careful not to block the vents. Bats can overheat, so the vents allow for cooler areas of the box where bats can choose their preferred temperatures.
7. Repeat step 4 for remaining partitions (G) and spacers (H).
8. Caulk first and then screw front piece (B, C) to sides (Ds). Be sure top angles match (sand if necessary). Leave a ½" vent space between the top and bottom front pieces. A bar clamp may be useful if sides have flared out during construction.
9. Attach roof supports (K) to the top inside of front (B) and back (E) pieces. Be careful that screws do not protrude into roosting chambers.
10. Caulk around all top surfaces, sanding first if necessary to ensure a good tight fit.
11. Screw roof (A) to side (D) and roof supports (K). Caulk all outside seams to properly seal the roosting chamber.
12. Cut a line on the underside of the roof to act as a drip edge.
13. Attach mounts to the back of the box, making sure there is ½-¾" between the box and mounts.
14. Prime the exterior of the house. Paint the exterior with two coats. Be sure to use stain on the landing surface on the back wall (E) and not paint as paint will fill in the grooves.

What's cooking at wild rice camp?

A student taps rice sticks to harvest wild rice.

DISCOVERING A TASTY AND HEALTHY TRADITION.

Story and photos by Marilynn Nash

Last fall I went shopping for wild rice at — the lake!

A new world was revealed to me when I attended a wild ricing camp hosted by Washburn County's Hunt Hill Audubon Sanctuary in Sarona. Although I love eating wild rice, harvesting it wasn't something I had considered doing before.

To prepare for the camp, I purchased a wild rice harvesting license from the Department of Natural Resources. To satisfy my curiosity about wild rice harvesting — my homework before the camp — I also visited the DNR website to learn more about wild rice harvesting regulations and lakes open to harvesting. I learned that wild rice harvesting in Wisconsin is open to Wisconsin residents only and that rice ripens at varying times depending upon water depth, clarity and sediment type for each water body. I also learned that the Native American Tribal Ricing Authority works with the Department of Natural Resources to announce when each lake is open to harvest wild rice, after conducting ground and air surveys.

Excited by my new knowledge, I was ready for camp. On departure day I took country roads and the winding, tree-lined drive to Hunt Hill's flora- and fauna-filled site. Checking in, exploring the grounds and getting to know the other participants filled the time before dinner. Dinner, like the rest of the meals served at the camp, included wild rice dishes. We savored dinner, which featured wild rice as a side and in rice pudding for dessert, along with spinach salad and fish.

After dinner we carved rice harvesting sticks. We used white cedar because it is rot-resistant, floats and is light-weight, helping prevent tired arm muscles and, more importantly, damage to rice plants. We shaped our sticks while listening to a presentation by instructors John Haack, a University of Wisconsin-Extension natural resources educator, and Mike Bartz, a retired regional conservation warden. Both are experienced wild rice harvesters.

They informed us of the cultural significance of wild rice to the Dakota, Menominee and Anishinaabe (Chippewa or Ojibwe, who call wild rice "manoomin"). Haack explained that manoomin has been harvested for centuries, an important, spiritual part of Ojibwe culture and a food staple.

"That feeling and that respect for the rice is still there," Haack said.

Wild rice was also an important food source for early European explorers and fur traders. Their journals refer to wild rice. The significance of wild rice in the region is reflected in lakes, rivers and towns that have "rice," "manoomin" or "poygan" (Menominee word for gathering rice) in their names.

Haack and Bartz went over the rules and regulations of wild rice harvesting, which are designed in part to protect future rice crops. Boats must be no longer than 17 feet and no wider than 38 inches, and must be propelled by muscle power only, using a push-pole or canoe paddle. Harvesting sticks must be smooth, rounded, wooden rods or sticks that are not longer than 38 inches, and must be operated by hand. No mechanical device may be used for gathering or harvesting wild rice in any water of the state.

The following day, after a hearty breakfast which included piping-hot wild rice topped with hot milk, brown sugar and cinnamon, we went out twice to harvest wild rice. The first time out I used one of my handcrafted pair of sticks to bend the rice stalks over the canoe and the other to tap the stalks to release ripe grains, which dropped into the canoe. I resisted the urge to tap harder to dislodge the grains that remained clinging to the stalk, because they weren't ripe enough yet. Excessive force damages the plants, preventing further harvest from them. I left them to be harvested another time.

We had tucked our pants into our socks and used duct tape at the top of

Rice poles are long and forked to allow gently propelling canoes through rice beds.

our shoes to block wild rice from entering. As we worked, some of the rice stuck to our clothing. We were careful to keep sand and rocks out of the rice for food safety reasons, but also to protect the processing equipment.

The second time out, after a refreshing shore lunch, I took my turn poling the canoe while my husband harvested the rice. Poling was harder than it looked! We tried two different poles. Ricing poles are usually 15 to 19 feet long. Some are aluminum and others are handcrafted out of tamarack, designed with forked ends to protect rice beds. It was awkward at first, because the pole never did touch a firm lake bed. A thick layer of silt or muck covered the bottom of the lake, which is what wild rice beds need. I took care to avoid damaging the wild rice plants. Placing the pole into the water to propel the canoe, then retrieving it hand-over-hand from the water and switching sides as needed, while standing taxed muscles in my entire body. But seeing the wild rice collecting in the bottom of the canoe made it worth the effort.

We paddled ashore, gathered the rice from the bottom of the canoe and packed it into bags before heading back to camp for dinner.

Evening activities included spreading the rice we had harvested on tarps to dry overnight before carpooling to take in a guided visit to the Wisconsin Canoe Heritage Museum in Spooner. The guide there showed us the workshop adjoining the museum, where canoes are built and canoe building classes are conducted.

On the third day, participants packed up the wild rice, which had been air-drying overnight. It was time for our rice to be parched, hulled and winnowed. We had all agreed to combine our rice and then redistribute it in equal amounts after processing. Instructors led us to one of the wild rice processors in the area. We were fascinated by the parching process, in which our rice was loaded into a revolving metal drum over a very hot fire to further reduce moisture content and loosen the sheath covering the seed.

Then our rice was machine-threshed and winnowed.

Mechanized wild rice processing is common in the area. However, some harvesters prefer traditional processing, which is more labor-intensive and is also used ceremonially. Parching consists of continuous stirring in a cast iron kettle over a fire. Threshing is accomplished by stomping on wild rice wearing clean moccasins and clothing. Then to remove the chaff from the grain, wild rice is winnowed using a tray made by attaching birch bark to an ash rim with basswood fiber.

Whether traditional or mechanized, I gained valuable knowledge and experience.

Now my pantry contains two gallon jars of wild rice that I harvested. The rice sits on the shelf alongside wild rice I had purchased in previous years, which is labeled as cultivated (not hand-harvested). Before attending the camp I had not realized the difference. Cultivated or paddy-grown wild rice may be grown using fertilizers, herbicides or insecticides and has a genetic difference.

Other things I learned:

- I was impressed by interagency wild rice management, which includes monitoring of abundance and harvest, restoration, research, legal protection and public information.
- Wild rice is gluten free and nutritious. It contains more than 12 percent protein, iron, potassium, phosphorus, B vitamins and fiber, and is low in fat.
- Many people harvest wild rice for their annual supply.
- Wild rice harvesting has its own interesting history.
- I harvested my own food and know for sure where it came from!
- I now understand and appreciate all the work that goes into harvesting and finishing true wild rice.
- Wild rice harvesting isn't limited to tribal members.
- I came to see the value of what I previously considered to be shallow, weed-clogged lakes, to be support systems for fish, waterfowl, mammals, insects and wild rice.
- I acquired new wild rice recipes and plan to try "popping" wild rice.

My classmates and I agreed that wild rice harvesting was a significant experience that allowed us to connect with nature in a way that is hard to put into words.

As interest in local foods increases, wild rice harvesting is an option to consider.

Referring to wild rice harvesting, Haack said, "In the future it's going to be much more appreciated than it is now."

Marilynn Nash is a travel and outdoor writer and journalism graduate from the University of Wisconsin-Eau Claire.

LINKS FOR MORE INFORMATION:

- For wild rice harvesting license information, visit dnr.wi.gov and search "wild rice."
- For information on the wild rice camp at Hunt Hill Audubon Sanctuary, visit hunthill.org/.
- Find wild rice sales information and recipes from the Great Lakes Ojibwe at manoomin.com/.
- Plan a visit to the Wisconsin Canoe Heritage Museum at wisconsincanoeheritagemuseum.org/.

The soy of cooking...up great environmental ideas

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Andrew Savagian

Imagine you're a proud, family-owned Japanese company. You're built on tradition that dates back more than 300 years and you offer a unique taste and natural complement to Asian food via your world-renowned soy sauce.

You deliver your product to the four corners of the planet. With that success, you're looking to expand your operations to North America. As a successful business model, you have your pick of any spot on the continent, so you choose to make your mark...in tiny little Walworth, Wis.?

On the surface, it would appear an odd match. The Kikkoman Corporation, a company born out of 17th century samurai battles, lost family and ancient creeds, seeking to spread its footprint among the cows, corn and Scandinavian farmers of rural southern Wisconsin.

Yet there they were, company officials smiling broadly with then-Governor Patrick Lucey as they cut the ribbon on the company's new plant in Walworth in 1973.

Forty-some years later, upon closer look, you'll see that planting the Kikkoman flag in the heart of Cheeseland not only made good business sense, but was an equally good environmental decision — one that has paid dividends many times over for Kikkoman, the business community and Wisconsin's natural resources.

SUBMITTED BY KIKKOMAN

Kikkoman employee Tabitha Bishop at the company's Wisconsin operation in Walworth.

THOMAS J. SENATORI

Naturally brewed environmental protection

Despite the broad array of tasty products offered and the different lines of business you'll see if you peruse Kikkoman's website, the company's naturally brewed soy sauce is truly its bread and butter — or wheat and soy, in this case.

Using a family brewing process passed down through generations — beginning with, as the story is told, the family matriarch, after she fled Shogun warriors and settled in the farming community of Noda, Japan — Kikkoman has carved out a strong niche in the food industry. But strict adherence to environmental protection and community stewardship is the credo that sets this business apart.

Or creeds, to be exact. Sixteen ancient Japanese creeds, which include such commitments as "Strive to prosper together with the public," "Virtue is the cause, fortune the effect," and "Approach all beings with love," are epitomized by the company's slogan: "Make Haste Slowly" (in Japanese: Isogaba maware) — or to advance and grow with tremendous thought and care.

Those tenets are manifested in the reuse of practically all the company's wastes, including soy cake and soy byproducts used in animal feed and to control intestinal bugs in cattle; a 40-1 reuse/recycle ratio for their waste stream (40 pounds reused/recycled for every pound of waste); and a promising new way to reuse the company's brine waste as an anticing agent and deicing additive on area roads, helping limit the use of salt during the winter months.

Dan Miller, Kikkoman's vice president, oversees administration functions and environmental initiatives, and believes the company does "walk the walk."

"There are a lot of companies that put a plaque on a wall that says what they believe in," Miller explains. "You can tell what a company truly values by where they make their investments, where they spend their time and where they apply their limited resources."

Wisconsin's home field advantage — clean water

Adding to the fact that Wisconsin is centrally located for North American distribution and close to wheat and soy growing regions, Miller cites the state's water resources as a critical reason for moving here.

"We needed a good supply of pure, clean groundwater, which Wisconsin has," Miller says. "We have so many tremendous resources in Wisconsin that other parts of the world do not enjoy."

A gutsy move for any business, but

for a Japanese company to move to the United States in the 1970s — when feelings for any Asian-based company weren't so positive due to a bitter marketing battle between the two countries' competing automobile industries — was, in Miller's own words, the "biggest chance" ever taken by the company.

But the chance was still consistent with the company's age-old belief.

SHELLEY HEILMAN

DNR Secretary Cathy Stepp welcomes Kikkoman into the Green Tier program with company President and CEO Kaz Shimizu.

"We don't hesitate to make the investment to do the right thing in the areas of food safety, employee safety and environmental protection," Miller says.

A new approach — DNR's Office of Business Support and Sustainability

Jon Raymond is Kikkoman's environmental, health and safety coordinator, and the main reason the company's long and storied history wound its way to the door of the Wisconsin Department of Natural Resources.

Raymond has worked in the environmental field for nearly 30 years, and Kikkoman's environmental ethic is a main reason he joined the company and why he contacted the DNR's Office of Business Support and Sustainability about joining Green Tier, the state's flagship environmental program that aims to provide credible, creative ways to enable businesses to be powerful, sustainable forces for environmental good and enhance their productivity, cut their costs and strengthen the health of their culture and community (visit dnr.wi.gov and search "Green Tier" to learn more).

"Given our mission, joining Green Tier was pretty much a 'no-brainer,'" says Raymond. "We've had recognition before, but to get recognition from your regulator has some extra clout and weight. We're always looking for everything and anything to get a little bit better."

Greg Breese works for the Office of Business Support and Sustainability as its brewing sector specialist. Breese worked with connecting Raymond and the company to Green Tier. This effort included a ceremony attended by DNR Secretary Cathy Stepp, welcoming Kikkoman into the program.

Through this new office and through out-of-the-box thinkers like Breese, department leaders are hoping to better mesh environmental protection with pro-business thinking. Sector specialists have a deep understanding of the issues an industry encounters and position the department to assist with implementing approaches that are beneficial to a company's bottom line and also to improve their environmental performance.

"Our job as sector specialists is to tie it all together," says Breese. "We want to provide flexibility, as well as a vision beyond regulation, while at the same time helping businesses work through DNR's traditional environmental programs."

A big part of that assistance is providing companies with a single point of contact. For Kikkoman, that individual was Bryan Hartsook, a DNR water resources engineer in Waukesha.

Like a number of other department staff, Hartsook's engineering background naturally draws him to programs like Green Tier and the Office of Business Support and Sustainability.

"We're problem solvers by nature. Also, given the current times, with all the new technologies and innovations being developed, companies develop at a much faster rate than our codes and statutes do," adds Hartsook. "So it helps to have one DNR person to go to, to think outside that box and work with other program experts."

Raymond couldn't agree more.

"The DNR has been very good to work with," he says. "To have that one-on-one point of contact with Bryan, he kind of works it through the bureaucracy and saves me time. And the feedback and info that comes back has been great."

Innovative examples from cardboard to salt

A good example of this partnership is Kikkoman's change to the way it "drop packs" — the method used to wrap packaging around glass containers for shipping. Instead of using different boxes and colored packaging for the various products they ship, Raymond says they consulted with the department on changing to jet printing the code right on the wrap.

"The result was we eliminated the cardboard insert, saving hundreds of tons of cardboard per year, and we also saved on colored printing, on the chemicals we used in the process and on energy use," Raymond says. "Of course, there was a manufacturing benefit driving this. But there's an incredible environmental benefit as well."

Another innovation the company is working with the department to pilot is using brine wastewater as a de-icing and anti-icing additive on winter roads, something the dairy industry is also keen on piloting.

"One method is to mix the brine solution with the salt to help make it stick to the roads, which lessens the amount of salt applied for de-icing. The other method is to put the brine in saddle tanks that can be sprayed before the salt is applied, pre-wetting the roads before a storm to help prevent ice from forming in the first place," explains Hartsook.

Normally with municipalities, the salt-water mix contains about 23 percent sodium chloride, Hartsook notes, but the company's brine only has a little more than 8 percent sodium chloride.

"It won't address all winter events, but it can address the majority of them, and can be done with less chloride," says Hartsook.

Keeping that extra salt off the roads and out of the waterways helps the environment and is cost effective for counties that don't have to purchase as much raw salt, especially during snowy winters like last year.

From centuries-old family traditions steeped in ancient creeds, to modern-day technologies bent on improving business and protecting the environment — as Miller looks at it, it's just another way the company is "Making Haste Slowly."

"You're never really done, you never really get to your destination with sustainability, and that's okay — that's the point," says Miller.

Andrew Savagian is a public affairs manager for DNR's Office of Communications.

Connecting with outdoor enthusiasts

DNR'S MOBILE APPS MAKE IT EASIER TO FIND PLACES TO HAVE FUN.

Dana Kampa

The Department of Natural Resources launched the free Pocket Ranger® Fish and Wildlife Guide app last year for the deer season opener as part of continuing efforts to engage with users, and has been improving on it ever since.

SCREEN IMAGES BY PARKSBYNATURE NETWORK, LLC

"The Wisconsin Pocket Ranger connects old traditions with new technology," explains DNR web manager, Chris Welch.

The guide makes it easier for outdoor enthusiasts to connect with each other and for the department to deliver information to increase outdoor safety. The app is part of a nationwide network of state Pocket Ranger applications, which the department created in partnership with the Wisconsin Interactive Network and ParksByNature Network.

The app features include GPS mapping to find places to hunt and fish, a safety communications tool, fish and game species identification, severe weather alerts and more. The "Nearest Me" feature helps explorers find places including state wildlife management areas, shooting ranges, state forests, fisheries management areas and boat landings. The advanced GPS mapping features allow users to save maps for later when they might not have an internet connection.

"A couple of our customers are in more rural areas where they may not have a data connection," Welch says. "The app can record their tracks and times so they can relocate their favorite fishing spots when they do get a better connection."

The GPS mapping also helps users connect with friends and family by allowing them to track one another on hunting or hiking trips with a unique set of PINs. Give your friends your PIN and they will be able to see your location on the app map for 24 hours when the app is open.

Looking for something beyond hunting and fishing? The app features "GeoChallenges," which are "fun, eco-conscious ways to explore and learn about parks, historic areas and wildlife viewing trails," according to the app.

The "Fish and Wildlife Guide" works with the free Pocket Ranger Trophy Case app, a social component that allows users to post and view hunting, fishing, wildlife watching and scenic pictures, and connect with other social media outlets such as Facebook.

"Trophy Case" uses a color-coded system to rank users based on points earned by posting, commenting on other photos and awarding trophies to other posts.

"It's really geared toward the outdoor enthusiast, to join the community of anglers and hunters, share photos of their harvest and become part of that outdoor network," Welch says.

The app showcases a wildlife viewing guide to help identify birds, dragonflies, frogs, lizards, mammals, mussels, salamanders, snakes and turtles.

The app also includes outdoor reports, weekly DNR news and information about different seasons such as hunting hours and registration.

The app incorporates elements of the Sunrise-Sunset app released two years ago by DNR law enforcement, which helps hunters find legal hunting times and regulations every day.

State parks, trails and forests app

Wisconsin also has a new app available for state parks, forests and trails — the free Pocket Ranger® Wisconsin State Parks and Forests app available for iPhone and Android users. The app features photo galleries and park description pages and has an "Explore" feature that optimizes search capabilities by location, activities, category and park, trail or forest name.

The app includes descriptions of each park, forest and trail, along with what amenities it offers, and maps and directions. The app includes an advanced GPS mapping feature that will locate the closest state properties and allows users to take GPS tours, record trail distances and time elapsed, and mark photo waypoints.

There is a real-time calendar of events that allows users to search by property, date and type of event.

The app includes a social networking and photo/video sharing feature and a "Friend Finder" that allows companions to keep track of each other when on a trail or at a park or forest.

The app also links to the DNR website and features a built-in compass, weather alerts and a potentially life-saving emergency alert feature.

To download these free apps, visit dnr.wi.gov and search "mobile apps."

Dana Kampa interns with DNR's Office of Communications and attends the University of Wisconsin-Madison.

In the fall, turkeys spend a lot of time feeding in woodlots on mast crops such as acorns and searching for insects until a hard freeze occurs. Find a good food source and you just might find turkeys congregating.

JERRY DAVIS

A "tail" from the field

WHY I TRADED SPRING TURKEY HUNTING FOR FALL.

Tony Rzadzki

The author with his turkey hunting buddies and their prize.

DENISE RZADZKI

Years ago, Wisconsin started allowing the use of dogs for fall turkey hunting. I was surprised and drove to a DNR office to confirm that it was true. I've never had much luck getting close to a turkey when hunting quietly by myself and so wondered how I could ever get close to a wary turkey while hunting with a curious canine?

"Try a well-behaved dog like a border collie that you can manage well to locate the birds and that will return to you on a whistle," the DNR customer service representative suggested.

"But, I have three Labradors," I answered.

"Well, good luck with that," she responded with a knowing smile.

I walked away pondering my predicament. Labs are a lovely but lively breed.

Opening day for fall turkey hunting arrived a week later. It was warm and sunny when I arrived at a friend's farm. My dogs went nuts when they realized we were at *the farm* where I had taken them since they were puppies. Huck, the male black Lab, Hazel, his sister, and their mom, Heidi, a miraculous handicapped chocolate Lab, accompanied me. As my Labs tore from the truck, I remembered the suggestion that I try an obedient dog like a border collie.

I followed my dogs as they bounded down the hill and into the Mullet River. History told me that I'd most likely find turkeys on the other side of the river.

The dogs joyfully splashed in the riverbed and lapped up a drink. I didn't worry about their noisiness, yet. The plan was to scamper up the tree-lined bank to an alfalfa field and gauge if there were gobblers to be had.

Once across the river, I shed my hip waders and changed into my boots. My Labs were patient and stayed close to me — a major achievement for any Lab. Their instinct is to hunt, and hopefully, flush under the gun and retrieve.

Reaching the edge of the field, the dogs raced out into the greenery. I looked up and down and spied two turkeys near the tree line 150 yards away. Then, the gobblers saw me and alarmed, raced into the trees followed by 11 other frightened birds.

Fortunately, my dogs were too busy sniffing to notice the birds. I made my way up the field until the dogs perked up. Huck took the lead running 20 yards ahead of me followed by his sister and then his mother. They soon scented the birds and the fastidious females plastered their noses to the greens, taking in the wild scent. Huck found the line first, but instead of heading into the trees after the turkeys, he raced into the opposite direction.

"He's going the wrong way!" I panicked. Then, as if reading my thoughts, Huck hit the brakes. He turned and beelined it back into the trees. Hazel and Heidi followed.

The dogs were then out of sight, but I could hear a raucous cacophony. Squawks, yelping, the thumping of wings and the sounds of birds fleeing — 13 of them by my count.

Then, above the tree line, one of the turkeys took off flying. I pulled my 12-gauge to my shoulder, put a snap lead on the bird and pulled the trigger. My gun barked back, the turkey fell, and the dogs — hearing the shot — returned to the field. They reached the bird before I did and gently mouthed it with eager eyes and wagging tails.

The whole event took less than five minutes, but in that time I learned a lot about hunting turkeys with Labs.

First, if you discover a flock of turkeys in a field and they see you, they will run to the nearest cover — usually trees. The goal then is to quickly get your dog on their scent and let the dog do the work in flushing the turkeys back into the field.

I was lucky to get a clean shot at a flying turkey my first time hunting with my dogs. But by shooting at a turkey in flight, you run a greater risk of merely winging it. But that's another benefit of hunting turkeys with a dog — if you do wing a bird, chances are your dog will find it.

And you don't need as much gear. You can shed camouflage suits, turkey calls and face paint. Blue jeans, a T-shirt, water for you and the dog and a well-fitted 12-gauge will do the job just fine.

Finally, hunting with a four-legged friend is fun. They are a joy to watch especially when they feel frisky and the season inspires. Spring in Wisconsin can be very fickle. So I hunt turkeys in the fall instead. The weather tends to be more to my liking and I enjoy that the dogs can tag along, too.

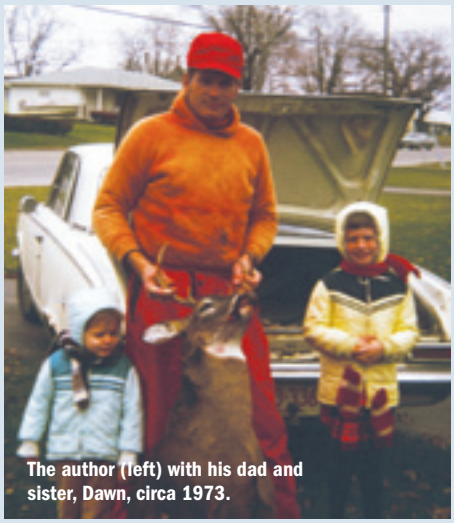
Tony Rzadzki writes from Sheboygan Falls.

COFFEE, CONVERSATIONS AND
COMING TO GRIPS WITH CHANGE.

Reflecting on dad

Troy Anderson

"Dad, can I have some more coffee?" I asked. It was late October in 1982. I was in a cramped and cold 14-foot row boat in the Grand River Marsh Wildlife Area goose hunting. My dad had pulled the boat into some standing cattails for some good cover after rowing along a long ditch in the early morning blackness. He smiled as he poured. His only son was asking for a second cup of black coffee at 8:30 a.m.



The author (left) with his dad and sister, Dawn, circa 1973.

SUBMITTED BY TROY ANDERSON

I thanked my dad, peeked over my shoulder to make sure he had gone back to looking the other way, and then slowly dipped my bare fingers into the hot beverage.

At 12 years old, I couldn't stand the taste of black coffee. But I will never forget the joy it gave me when it warmed up my frozen fingers. I practiced this warming routine until I was 14 and didn't tell my dad about it until I was in my 30s. By then, of course, I wouldn't dream of wasting hot coffee on finger warming! The revelation seemed to both disappoint and amuse my dad.

I am now 44 and have a family of my own. But I also still hunt and fish with my dad. Recently, we even started managing invasive species together. Our relationship isn't unique. Thousands of other adults across the country grew up doing things in the outdoors with their fathers.

SUBMITTED BY TROY ANDERSON

Troy Anderson hired a guide as a Father's Day gift in 2013 and he and his dad "nailed the crappies" near Laona.

Being outdoors is just something that many dads are good at. Sharing their love of it with their children creates a bond that is forged at an early age and pleasantly reflected upon as those children grow into adulthood.

In the fall of 2013, though, my partnership with my dad did take a dramatic turn. After a successful pheasant hunt my dad announced, "I think I'm done pheasant hunting."

He had turned 74 in September and I knew what he meant. But in the immediate stages of denial I replied, "You mean for the year?"

He paused. "No, I think I am finally done pheasant and duck hunting."

Over the next several days I relived memories of being outdoors with my dad: building a tree stand, pheasant hunting, fishing in Canada. The years ran together and sometimes it felt like just one long memory.

Some of the significant memories are of my first deer hunt when I missed a trophy buck. Dad was there, turning it into a teachable moment to help me cope with the rite of passage. Dad also was there on the duck hunt when, as a teenager, I tipped the boat over and we almost lost everything. Even our shotguns wound up in the water. So many adventures. Sometimes I can't believe what we did.

Take navigating a 14-foot boat in Canada in a storm with thick fog and using only a hand held compass and a map (no GPS) to find our way. We could barely see each other, let alone the hazards. Still we nailed the walleyes.

There was pheasant hunting in North Dakota in a blizzard when we couldn't see the road — or the pheasants for that matter.

From an early age I tried to learn everything I could from my dad. When I went to college I returned the favor and taught dad a few things including the significant impact that invasive species can have on habitat and wildlife. Cutting down buckthorn and honeysuckle became a shared passion of ours, along with managing garlic mustard.

But this is not a sad story. It is a transitional one. My dad still fishes and plans to go deer hunting this fall and turkey hunting in the spring. He intends to go grouse hunting with me and my dog but will stay on the logging trails leaving it to me to bust through the heavy cover.

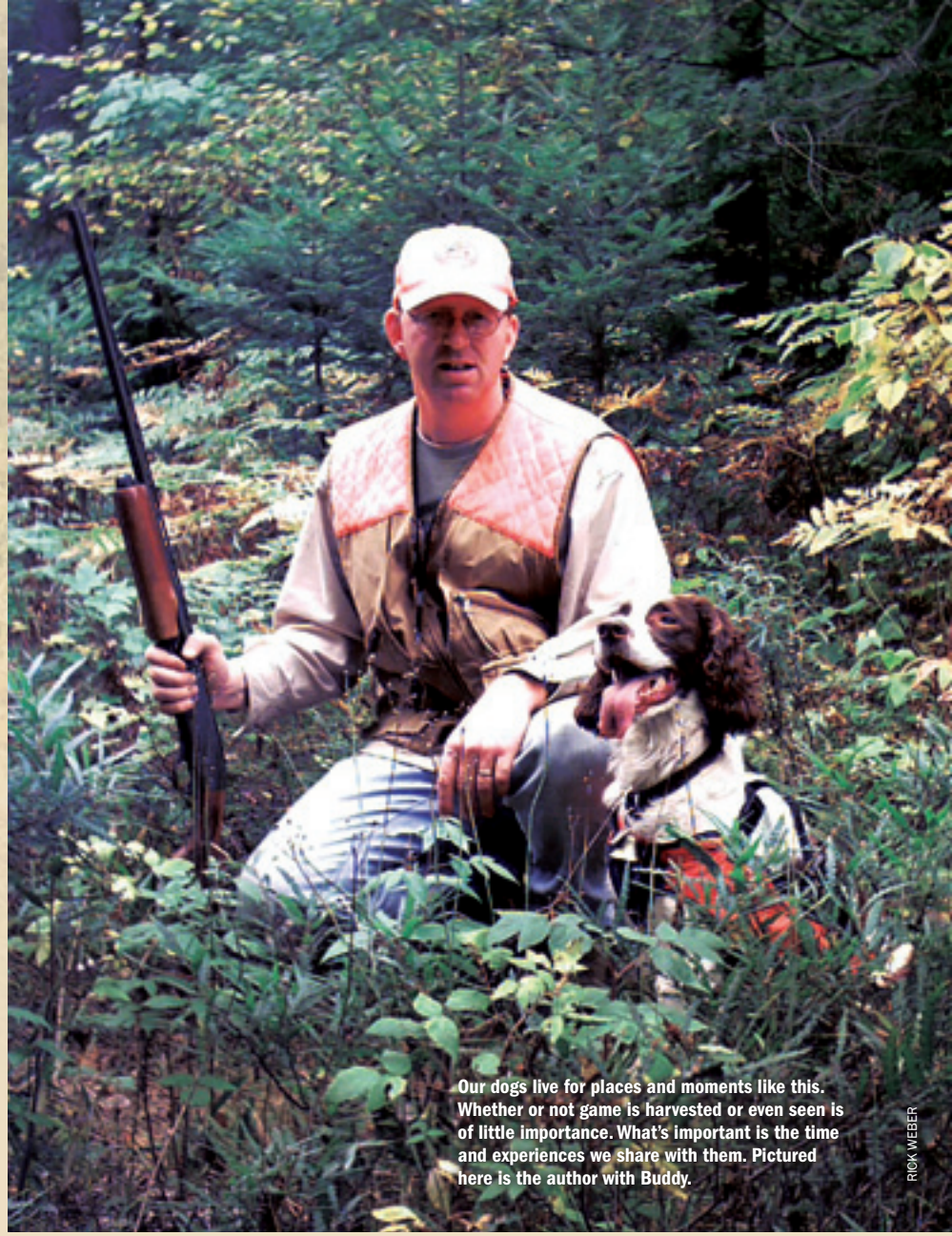
But there are some other things he will not be doing any more and we accept that. I am thankful for the years I have had with him in the fields and look forward to the years yet to come. I've found that keeping a journal helps cement and define those memories. It may be age that catches up or a job that forces you to move far away. Each of us has a finite amount of time in which to enjoy the outdoors. But sharing those times with someone else makes it all the more special.

Troy Anderson grew up in Wisconsin and is a senior ecologist for a private consulting firm and a speaker at conferences focusing on ecological restoration.

A GROUSE HUNT AWAKENS THE SENSES AND REVIVES MEMORIES OF A BELOVED DOG.

The bells of autumn

Ron Weber



Our dogs live for places and moments like this. Whether or not game is harvested or even seen is of little importance. What's important is the time and experiences we share with them. Pictured here is the author with Buddy.

RICK WEBER

It was just the kind of day I had been waiting for. The temperature hovered in the low 40s with a light northwest wind gently rattling the golden leaves of the quaking aspens in my yard. Overnight a cold front had moved through, bringing with it some light rain and noticeably colder temperatures. In its wake this day were clear blue skies which foretold of steadily falling temperatures, and by morning, the season's first frost. The birds, insects, plants and animals all sensed the change and were busily preparing themselves for what was coming. So was I.

As I spent a good part of the day readying my yard and garden for the approaching winter season, my mind was busy planning an evening grouse hunt. I had actually begun planning this hunt back in March, but I had been waiting for the first real day of autumn, though the calendar claimed that was three weeks earlier. I didn't want to waste this hunt on a warm afternoon with the woods still green and buzzing with mosquitoes. The setting had to be just right.

Though grouse season runs from the middle of September to the end of January, this October is what I had longed, sometimes impatiently, an entire year for. I knew a place.

After crossing a small fallow field as I walked through a shaded stand of balsam firs and scattered large white pine, I rousted a barred owl from its roost. Leaving the darkness of the conifers I stepped into the dappled light of the hardwoods, the sunlight revealing brilliant orange sugar maples and the crimson of red maples. I wish I had the words, but maybe it is enough to just say it was beautiful. It has always been a lament of mine why this beauty has to be so short-lived. I guess it is the relatively brief life of autumn in which so much activity must be crammed into a few short weeks that makes us treasure every moment of it.

My destination was close now so my mind started to focus earnestly on the hunt at hand. Looking up a small rise my eyes came to rest on a large red oak spreading its gnarled branches skyward. The oak stood guard above a steep ridge which descended into a mixed forest of balsams, quaking aspen and red maples. Beneath the trees was a layer of thick brush, hazelnut and blackberry mostly, the berry leaves a brilliant red in the October sunlight. It was the kind of place that neither a grouse, nor I, could resist.

Reaching the oak, I took a seat at the base, leaning back against its mighty trunk, and surveyed the landscape be-

low. This was a great spot for a wanderer to rest the legs and let the eyes do the wandering. Having done just that so many times, I felt so much richer than any Wall Street banker will ever know. My eyes having finished their trek across the landscape, now closed so that I could begin my hunt.

With the kaleidoscope of fall colors no longer blinding me, I began to feel the warmth of the sun on my skin, the light breeze on my face as it made the oak leaves sing. The dank, earthy smell of the soil and leaf litter, which would be growing thicker soon as leaves continued to fall and plants were laid low by impending frosts, filled my nostrils. Above this bombardment of the senses rose a sound that cocked my ear.

There! At first it was hard to decipher as it was thin and wispy, as if distant. It was becoming clearer now, closer. It was the unmistakable tinkling of a bell, a sound I loved, a sound I would never forget. In my mind's eye I saw the dog, a chiseled springer spaniel, working out from a thick patch of balsams, his rear end wiggling wildly as he decoded a litany of scents known only to him, looking for that one that made his life worthwhile. As he neared a blow down, I noticed his wiggling intensify and on cue, a bird flushed, and soon after, a second. The first was an easy straight away shot and the bird crumpled and fell into a casket of bracken ferns. The second bird veered sharply to the right, and as it sailed behind a screen of balsam boughs, the shot did not feel true.

After retrieving the first bird to my hand, my guide went looking for the second bird but to no avail. Over the years I have grown to trust his ability and his wisdom on such things without question, so I have no doubt that my shot missed. In that same time he has grown accepting of my propensity to fail to put a bird in his mouth, but if he held a grudge against me for that, he did not show it.

We sallied onward, jumping grouse here and there. A single flushing wildly from a fortress beneath a huge oak limb, which had broken off during an ice storm, was brought down with a shot the dog would call lucky, though I would argue required some level of skill. I know he is perplexed how I can pull off shots like this from time to time but miss easy flushes as often as not.

Though in many ways he is much smarter than I, little did he know the real reason behind this inconsistency in my shooting prowess was done for his benefit. I was more than happy to leave the woods with one or two birds in the game pouch. His excellence at flushing birds required me to miss many that I had no intention of killing, but knew that the shot would make his heart race with excitement. This shame I brought upon myself as a poor wing shot I did for the noblest of reasons — love and friendship. There were times as we sat and took a break from the hunt that I looked into his eyes and sensed he appreciated that.

Approaching a thicket of hazel and blackberry, the dog became birdy. He rushed headlong into the tangled mess, leaving me to fight through it as best I could. Suddenly I noticed the sound of the bell beginning to fade, becoming more distant.

"Buddy!" I yelled. No response. "Buddy!"

My eyes opened at the second call. I realized that I was again back in this mean world in which time did not stand still but ticked insidiously forward. My hunt was over, but what a hunt it had been. I let my eyes wander again and I marked a huge oak on the side of the ridge, the victim of a violent wind that pulled its roots from the ground. From under that blow down one December day Buddy had flushed seven grouse one right after the other. I knocked down two of the first three. The last four I let go and called a truce for that season. I would never forget the excitement Buddy felt that day.

The sun sinking in the western sky signaled that I begrudgingly rise to my feet to begin the journey back home. I hated to leave as this was such a special place, a restful place. It was here under the big red oak that I left him in March to keep watch over the thickets below. I am sure it is a common lament of all who share their hunts with a dog as to why the time has to be so short. It is the relatively brief life of a dog in which so much to do must be fit into the 10 or 15 years they are given that makes us try to treasure and remember every moment.

As I walked back through the darkening woods, the excitement of the hunt began to fade, and a more somber mood crept into my being. Pushing through the thick balsams and into the field, I heard it.

There! That distant tinkling just as before. Up above the long grass I saw the head of a springer bouncing up and down as it ran to greet me. For a moment I wanted to believe it was Buddy, but instead I was greeted by his younger brother Buck whom my wife had let out the back door. As he excitedly jumped around me, I knew it was not fair to Buck that I felt a tinge of disappointment, but at that moment I did.

Still, the cloudless orange horizon hinted that tomorrow would be another day perfect for grouse hunting. There were other places where Buck and I could go to continue making our own memories. And like Buddy, he seemed to accept the fact that he was doomed to do the dirty work for a lousy wing shot.

In his classic poem, "The Power of the Dog," Rudyard Kipling warned of giving one's heart to a dog. "In the end we cannot help ourselves but to do just that again and again."

DIANE WEBER

Ron Weber writes from Weyerhaeuser, Wis.

Flipping lakes

Gretchen Hansen and Laura Conner working on Sparkling Lake.

KATIE HEIN

AN EXPERIMENT TURNS STUDENTS INTO SCIENTISTS AND MOVES ONE LAKE FROM AN INVASIVE TO A NATIVE STATE.

Adam Hinterthuer

Minnow traps packed with invasive rusty crayfish.

GRETCHEN HANSEN

In the summer of 2002, Gretchen Hansen and Katie Hein were spending long days together reaching into buckets full of writhing rusty crayfish and carefully pinching the carapace of the captives right at their identifying rusty spots — the precise place where human fingers are safe from crustacean claws. It was their first season together in the field, and they spent it trolling the shoreline of Sparkling Lake, a 150-acre lake in Vilas County, in a rickety old Army boat. Their job was to retrieve the more than 100 minnow traps packed with invasive rusty crayfish that had ventured into the cages overnight, then set the traps back in the water to do it all again the next day. By the end of their workdays counting and measuring crayfish, their shoulders would be baked by the summer sun and their hands pinched, poked and smelling of the dead fish used to bait the traps.

Hansen couldn't have been happier.

"I couldn't believe people got paid to do jobs like this," she remembers. "I had been a pre-med student, but once I realized I could do science out on the lake, I changed my mind."

What's more, their daily catch often ended up as that night's dinner. The two women weren't about to toss the invasive species back in the lake, and besides, they'd found a few delectable recipes to add into the rotation along with the more traditional crayfish boil.

Hansen was then a junior at the University of Wisconsin-Madison, while Hein had just started work on her master's degree. They both hoped that all of this trapping and sorting and steaming and shelling would not only restore Sparkling Lake, but also help them get their degrees and launch their careers. What they didn't know, is how similar those arcs would be.

Rusty crayfish are just one of a long list of aquatic invasive species that have made their mark on Wisconsin waters. They first appeared in the state in the 1960s, and are now widespread in lakes and rivers across the state and Midwest. In some lakes, rusty crayfish reach exceptionally high densities, where their voracious foraging decimates aquatic plant populations. This loss of plant cover then leads to declines in aquatic invertebrates and panfish like bluegills and pumpkinseed.

Sparkling Lake saw this effect firsthand. During Hansen and Hein's summers, the bottom was crawling with rusty crayfish, while aquatic plants, snails and panfish were sparse. Lake residents complained that their grandchildren would not swim for fear of their toes encountering crayfish claws.

As is the case in many lakes and rivers, Sparkling Lake's future seemed uncertain. The harsh reality for many of Wisconsin's waterbodies is that management options are limited and often focused on preventing the spread of invasive species, not removing them once they are there. That's because eradication, or completely eliminating the species, is possible only in select situations and generally involves tremendous effort and cost while controlling, or reducing invasive abundance, rarely reaches a point where

To see a slideshow of photos from the Sparkling Lake project, visit limnology.wisc.edu/blog/slideshow-sparkling-lake-rebounds-from-invasion/.

invasives can't bounce back once management pressure is gone.

It was a depressing prognosis, but Sparkling Lake did have one thing going for it — it was part of the National Science Foundation-funded Long-Term Ecological Research (LTER) program. The North Temperate Lakes LTER site was established in 1981 by the University of Wisconsin-Madison Center for Limnology (CFL). Sparkling Lake is one of the LTER study lakes, meaning that the explosive population growth of rusties and the resulting decline of aquatic plants, snails and fish had been well-documented in Sparkling Lake for two decades. And that data provided the perfect backdrop for testing whether rusty crayfish could be controlled and their undesirable impacts minimized, or even reversed.

In 2001, the CFL and Department of Natural Resources embarked on a long-term experimental removal of invasive rusty crayfish in Sparkling Lake, allowing them to test an emerging ecological idea in real life. Some mathematical models of lakes show the possibility for a lake to be permanently "flipped" from one state to another as long as an ecological "feedback loop" is in place.

"We wanted to test whether we could lock Sparkling Lake into a new state where plants, snails and panfish thrive and rusty crayfish are rare," says Jake Vander Zanden, a professor at the CFL and one of the experiment's principal investigators. "In other words, we wanted to replace the 'vicious cycle' with a virtuous one."

Katie Hein honed her sampling skills on Sparkling Lake while a student. She is a professional scientist today.

BRIAN ROTH

A tasty way to dispose of invasives — a crayfish boil.

GRETCHEN HANSEN

Restoring healthy populations of panfish is critical to the success of Sparkling Lake's rusty crayfish removal.

GRETCHEN HANSEN

In Sparkling Lake, the feedback loop looked like this — panfish like bluegills and pumpkinseed can eat enough young rusty crayfish to keep crayfish numbers low, but those fish don't thrive if rusties destroy the aquatic plant beds where they live and spawn. If researchers could remove rusty crayfish to the point where aquatic plants returned, panfish populations might be able to rebound and take it from there.

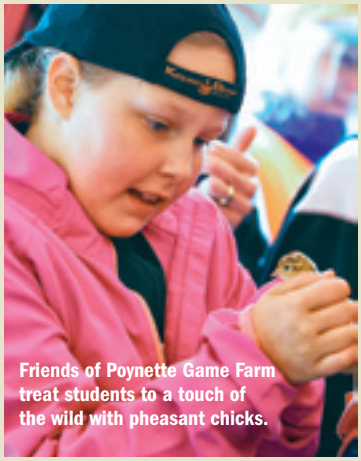
UW-Madison researchers and the Department of Natural Resources put their hypothesis to the test from 2001 to 2008, changing fishing regulations to keep larger predators of crayfish in the lake and intensively trapping rusties each summer.

"We would pull up several hundred crayfish traps daily," Hansen remembers. "We released the few native 'virile crayfish' we caught back into the lake and removed the rusty crayfish — sometimes up to hundreds per trap."

As a result, crayfish boils became a popular pastime at nearby Trout Lake Research Station, the researchers' home base.

UW-Madison researchers returned to Sparkling Lake each summer for the next seven years to continue their blitz on rusty crayfish. In that time, Hein received a master's degree from UW-Madison, a Ph.D. from Utah State, and headed to Sweden for a post-doctoral

Continued on page 29 ⟶



Friends of Poynette Game Farm treat students to a touch of the wild with pheasant chicks.

Outdoor youth expo enjoys new home

MACKENZIE CENTER IS CENTER OF ATTENTION.

Story by Mark LaBarbera and photos by Michael Chico LaBarbera

The MacKenzie Center in Poynette is thriving under Department of Natural Resources management and attracting a growing number of students and supporters. In May, the MacKenzie Center and the Poynette Game Farm welcomed the historic first Midwest Outdoor Heritage Education (MOHE) Expo.

More than 1,400 students, 200 chaperones and teachers, 120 volunteer instructors and dozens of partnering organizations joined conservation educators and other DNR professionals for the two-day, hands-on event.

"This is a great opportunity to highlight this special place and to connect students to the outdoors, conservation and the environment," explained DNR Secretary Cathy Stepp at the event. "The most fun thing is seeing so many girls who are really diggin' all these activities."

Later, at a Natural Resources Board meeting, Stepp added, "Here was a way to get kids off the blacktop and into nature."

Students tried their hand at bird identification, wildlife tracking and forestry activities correlated mostly to academic standards for fourth and fifth graders, and sampled archery, airguns, fly-tying and casting. They came face-to-face with wolves, bison, coyotes and other live animals. They saw up close how to skin muskrats and filet and fry fish. They tried calling ducks, turkey and elk, and they handled snakes, turtles, fish, pheasant chicks and ducklings.

They also discovered a touch of the

DNR fisheries staff teach students interesting facts about bass.

wild from around the world in the Sensory Safari walk-through trailer provided by the Badgerland Chapter of Safari Club International (SCI), a major funder of the event, along with the Wisconsin Chapter and Southeast Wisconsin Bowhunters Chapter. Wisconsin Friends of the National Rifle Association helped teach firearms safety.

Trout Unlimited's Bob Haase said, "We need events like this to help connect kids to the environment. Nowadays, instead of young people going deer hunting, they're playing deer hunting games online."

Lou George of the Rocky Mountain Elk Foundation talked to students about the role of hunters and anglers in conservation, including funding for wildlife restoration success stories, such as elk in Wisconsin.

"It's important for young people to not only understand natural resources and the environment, but to also engage in outdoor activities," George said. "They will never protect what they don't know and understand. Once they know it, they'll love it. Once they love it, they'll use it. And the more they use it, the more they'll want to protect it."

Educators attending the Expo agreed with George that events like this are a step in the right direction and consistent with the organizing group's mission. The Midwest Outdoor Heritage Education Expo aims to "increase understanding, appreciation and sense of stewardship for the environment, natural resources and professional resource management."

Organizers also provided take-home materials with information about how students and educators can get involved with on-going outdoor skills, safety training and conservation education programs as well as mentored opportunities.

Teacher Jeff Droessler of Benton said, "Having all of these groups give students a sampling of outdoor skills that they might take up and do for the rest of their lives is a pretty cool opportunity."

Secretary Stepp praised the partners and DNR professionals, saying, "People came together in the conservation community with an impressive wave of enthusiasm I've never really seen happen."

That enthusiasm continues as partners, schools and others begin planning for next year's Expo on May 14 and 15.

The Expo is booked for the next three years at MacKenzie. According to post-event surveys, 100 percent of educators and partners said the DNR's MacKenzie Center is a great place to host the event, with its woods, prairies, live animals, trails, pond and central location in the state.

Mark LaBarbera is an outdoor writer and member of the state's Sporting Heritage Council.

Students shoot Wisconsin-made Genesis bows from the National Archery in the Schools Program provided by the Wisconsin Bowhunters Association and the Department of Natural Resources.

Jerry Gorman of the Aldo Leopold Chapter of Trout Unlimited helps students tie flies while learning about clean water and stream ecology.

Students listen to Chad Hermanson's waterfowl calls.

Students embrace conservation and outdoor activities hook, line and sinker.

Readers Write

ANN SCHEIBL

ABANDONED WILDLIFE CONTACT

Today, while launching our boat, we saw a duckling in the water alone. Four fishing hours later, we came back to land our boat and it was still there. While tying down the boat to the trailer, the baby duck, unnoticed, left the water and came to shore. It then sat down on Mike's feet. We definitely noticed. I called a friend who used to raise ducks to ask what to do. She was in Wausau, but gave me a name of someone in St. Nazianz [who] gave me a wildlife contact. For all of you nature lovers, the immediate contact to help is Wildlife of Wisconsin (WOW) at (920) 323-5609. As it turns out, the duckling was actually a gosling (different webbed feet) and we didn't catch any fish.

Ann Scheibl
Kiel

COMMENT ON A STORY?

Send your letters to: Readers Write, WNR magazine, P.O. Box 7191, 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.

WALLEYE STAMP NOT THE ANSWER

The article in the April 2014 issue ("Your fish wish answered") is filled with encouraging news for the folks planning on vacationing in northern Wisconsin and the people who make a living providing service to those visitors. That being said, I find it hard to believe that this restocking will guarantee an increase of walleye availability, in the form of the daily bag limit, to the public in the future. [Regarding] the idea of a walleye stamp: What is the incentive to buy a walleye stamp if the daily bag limit is one? Why would fishing men and women, who fish the bay of Green Bay or the Winnebago chain of lakes, want to support just the ceded territory lakes with planted walleyes? What is there to stop politicians from diverting these walleye funds into a more "worthy cause?" When we add additional fees to the fishing public, we restrict resource availability for those who cannot afford it. I don't believe there is a solution that will make everyone happy, but I do see the "extended growth" stocking program as a first step in giving hope to the northbound vacationers, and especially those who are trying to make a living serving them.

Art Chevrier
Sheboygan

GOOD LUCK CHARM

Though he is now a college graduate, mechanical engineer and a productive member of society, my son, Nathan, has always been an outdoors kind of guy. When he was younger, our friends were camping on the farm with us for a fall, small game hunt. After lunch one day they brought out a youth model single shot .410 and a box of shells. His eyes lit up with excitement; he had never shot a "real" gun before. We let the two boys take turns shooting cans lined up on a dirt bank so they had easy targets. About half way through the box of shells I noticed Nathan rubbing his shoulder so I asked him "Do you want to quit Buddy?" He couldn't say "no" fast enough, he was just fine to keep shooting his half of the box of shells, thank you very much.

Nathan's first .410 empty from that day is in my game vest or backpack on most every hunt I take. I've been carrying that empty shell for nearly 18 years and have had more than my share of good luck while hunting, but, has it truly made a difference in my hunting luck? I can't say for certain, however, I can without a doubt say I'm the luckiest man in the world. My son still loves to spend time with his dad hunting and fishing and it just doesn't get better than that.

Dave Page
McFarland

FIREWORKS CAUSE FOREST FIRES TOO

I appreciate the focus in your June issue on forest fires. However, I cannot understand why there was no mention of fireworks as a cause of forest fires. There are more fireworks sales outlets in Burnett County than there are churches. To my knowledge, none of them requires any identification or licensure of purchasers as required by law. As a result, fireworks are a constant presence from Memorial Day through Labor Day.

In addition to the noise and the risk they represent to people, they present a very real danger to our forests and lakes. Is the fireworks lobby so powerful that the DNR doesn't dare to take a stand to limit fireworks? I'm happy to follow "Firewise" instructions for protecting my property. But I wish the agency in charge of protecting our natural resources would at least address the damage a bottle rocket can do — to our forests or my roof.

Martha Malan
Town of Swiss

Trent Marty, director of DNR's Bureau of Forest Protection, provided this response: *Thank you for taking the time to read our June issue on "One year after the Germann Road Fire." Since fireworks were not associated with the Germann Road Fire we did*

LISA SPOTT

BIG BLAKE LAKE OTTER

I took some beautiful pictures at my home on Big Blake Lake near Luck of an otter. I thought they might be used in your publication.

Lisa Spott
Luck

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.

not provide any reference to our efforts with fireworks in the article. The priority focus of our fire prevention program is related to human-caused wildfires and as you mention fireworks are one of our concerns. Nearly 4 percent of all wildfires in Wisconsin are caused by fireworks use. Historically, this number can increase during summer drought periods. The department and fireworks industry acknowledge that fireworks can be responsible for causing forest fires and have worked cooperatively in the past to produce and distribute forest fire prevention materials related to fireworks.

While the primary law enforcement responsibility for general fireworks violations rests with local law enforcement entities, DNR officers enforce fireworks-related issues when their use poses a direct threat of fire to wild lands of the state or public safety. Anyone found responsible for starting a wildfire as a result of fireworks use is liable for suppression expenses, damages and law enforcement action. Furthermore, the department does prohibit the possession and use of fireworks on all DNR lands, which would include state parks and forests.

RARE SIGHTING

I live on the southeast side of Milwaukee. My office is in the basement of a school. I have a window which looks out on a small grassy hill. Today I saw a bright red bird in the grass about 6 to 10 feet from my window. The bird was entirely red with a size and shape similar to a robin. I was able to gaze at the bird at this range for at least two minutes. I did some research immediately after this encounter and am convinced that what I saw was a male summer tanager. It was definitely not a cardinal and definitely did not have black wings. My dad is a birder and wonders if last night's storm didn't blow this bird out of his typical range. Thought I should report this as I read that sightings are extremely rare.

Gretchen Kuhnen
Milwaukee

Ryan Brady, Wisconsin Bird Conservation Initiative Bird Monitoring Coordinator stationed at DNR's Ashland office, replied: *Gretchen, that is indeed a wonderful find! The summer tanager has been expanding northward a little bit in recent years and this past spring was fantastic for them as dozens were seen statewide, including several in my neck of the woods all the way up here on Lake Superior. They are rarer in summer months, though, and breeding in the state has not yet been confirmed. In the future, you might consider reporting your bird sightings to ebird.org/wi. This is the single best way to get the information into the right hands and contribute to a large database of bird observations used for conservation and other purposes.*

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Flipping lakes

Continued from page 25

position, while Hansen earned her bachelor's degree from UW-Madison, a master's degree from Michigan State University, and made it back to Madison to pursue her Ph.D. and get back out to Sparkling Lake.

In 2008, trapping drew to a close and the lake-wide effects of the rusty crayfish removal were, as Vander Zanden says, "stunning."

Not only had rusty crayfish declined 100-fold, but populations of virile crayfish rebounded 100-fold, resulting in approximately equal abundances of invasive and native crayfish. Furthermore, as predicted, aquatic plants, snails and panfish began to bounce back. Over the short term, at least, the project was a success.

The follow up question, however, was the biggie — what would happen next? Would Sparkling Lake stay in this low rusty crayfish state without intense trapping, or would it be overrun again?

In summer 2013, 12 years after she first encountered Sparkling Lake, Hansen dove back in. Suited up in her SCUBA gear and working with Ali Mikulyuk, a CFL Ph.D. student and research scientist with the Department of Natural Resources, Hansen helped lay white PVC grids on the bottom of the lake to survey plants growing in each transect. It was obvious that Sparkling Lake was still flipped to a more native-friendly state.

"There were plants everywhere," Hansen says. "What had been basically mud flats eight years earlier were now filled with diverse species of plants and all kinds of fish."

Sparkling Lake was clearly still in the low rusty crayfish state and fish like bluegill and smallmouth bass appeared to be eating enough rusties to prevent them from taking over again. But only time and continued monitoring will tell how long this will last.

Still, the good news raises a question dear to lake residents and resource managers alike — could other rusty-infested lakes in Wisconsin be "fixed" like Sparkling Lake? While it took a dedicated team of students and scientists eight years to remove more than 91,000 rusty crayfish from the lake, the idea of replicating the effort isn't outside the realm of possibility. It depends on resources available to support such a high level of trapping over several years. But the benefits in terms of lake restoration are potentially large, and would provide valuable scientific insight as to whether the "flipped lake" theory can transfer to other lakes.

For today, at least, Sparkling Lake is as beautiful below the surface as any lake in Wisconsin, a product of an experiment that provided insights into how invasive species can be managed in the future, and demonstrated the connectedness of natural systems and the value of understanding links between habitat, native species and healthy ecosystems.

But the experiment wasn't just a success for Sparkling Lake. Hansen and Hein "flipped" states as well. Both women are still working to understand and protect Wisconsin's waters, but now they're professional scientists instead of students. Hansen is a DNR fisheries research scientist and Hein is DNR's statewide water quality monitoring coordinator — careers made possible, at least in part, by that first summer job with the UW-Madison Center for Limnology, an old Army boat and buckets full of rusty crayfish.

Adam Hinterthuer is an outreach/communications specialist for the University of Wisconsin-Madison Center for Limnology.

Toasting Wisconsin's wine country.

Story and photos by Ellen C. Corso

Unique wineries and vineyards are cropping up across Wisconsin featuring their own personalities and distinct variations of red, white and fruit wines.

Fox River State Trail bikers enjoy a sunny afternoon and a bottle of wine on the LedgeStone Vineyard patio.

Wisconsin has a long history of grape growers, as the state's rich soil and sloping landscapes create a good environment for vineyards. European immigrants brought with them the tradition of growing and fermenting grapes to wine, although only special varietal grapes have the fortitude to survive our harsh winters.

According to a study by the University of Wisconsin-Madison Department of Agricultural and Applied Economics, the combination of wineries and vineyards has positive economic impacts, adding 700 jobs and $151 million in industry sales. The Wisconsin Wine Association indicates that wineries in Wisconsin have been increasing steadily over the last decade and are anticipating this trend will continue.

Wisconsin has five distinctive wine regions: Driftless, Door County, Fox Valley, Glacial Hills and Northwoods. Regardless of which area you decide to explore, you will find wine tastings, tours and events. Here is a sampling to get you started.

The hillside vineyard at Wollersheim Winery in Prairie du Sac.

Driftless region

Botham Vineyards in Barneveld is named for the family that owns the vineyard and winery. This is a pristine vineyard with a large open tasting room, gift shop, gallery and terrace. The property features a rustic room decorated with automotive memorabilia and is used for private parties and events. Botham Vineyards offers tasting of their distinctive wines and recently added a line of cotton seed cooking oil. The oils are infused with flavors, have a low fat content and are great for cooking. Ten flavors can be purchased as a gift set or individually. This fall, take the time to sample a glass of wine on the terrace while looking over the rugged terrain, deep valleys and high bluffs surrounding the vineyards. For more information, visit bothamvineyards.com/ or call (608) 924-1412.

Don't let the trolls keep you away from the Fisher King Winery in Mount Horeb. This winery is uniquely named for the pagan legend of the Fisher King. The complete story can be found on the winery website at fisherkingwinery.com/. The Fisher King Winery has a light, airy tasting room and gift shop located in the heart of downtown Mount Horeb. Along with friendly, knowledgeable wine stewards, Fisher King Winery offers live music on Friday nights. While in the area, you can easily access the scenic 40-mile Military Ridge State Trail. Trail parking is available within a few blocks of the winery. For a trail map visit dnr.wi.gov and search "Military Ridge." For more information on the winery, visit fisherkingwinery.com/ or call (608) 437-6020.

Wisconsin's rich soil is good for growing grapes.

Door County region

Door County has several boutique wineries and vineyards and a great way to visit is by joining a Napa Valley-style tour. Get on board the Door County Trolley Premier Wine Tour. The trolley stops at Door Peninsula Winery in Carlsville, Simon Creek Winery in Jacksonport, Harbor Ridge Winery in Egg Harbor and Orchard Country Winery in Fish Creek.

On tour you will meet the vintners one-on-one and be invited to a private wine tasting at each winery. Let the trolley take care of the driving and arrangements while you relax and concentrate on tasting these private-labeled wines.

This fall enjoy riding the trolley with a full view of scenic fall colors. Grapes are typically harvested mid-September through mid-November and visiting this fall you are likely to encounter harvesting events. For more information on this tour, visit doorcountytrolley.com/ or call (920) 868-1100.

Fox Valley region

LedgeStone Vineyards in Greenleaf borders the Fox River State Trail, making this boutique winery a great place to stop when hiking or biking the trail. Owner Tim Abel says, "I woke up one morning and told my wife that I am going to start a winery and vineyard."

It took several years to learn the craft and find land for his venture, but in 1999 Abel began operating this family-owned business. The winery makes and labels wine under two names: LedgeStone and Monarch Creek.

Monarch Creek is named for the creek that runs through the vineyards. Abel's children named the creek for the but-

terflies they saw while playing among the grape vines. Proceeds from sales of the Monarch Creek wines help support the Monarch Butterfly Fund fostering conservation of North American monarch butterflies (monarchbutterflyfund.org/).

In addition to selling their own exceptional wines, LedgeStone sells premium wines from around the world and grape juice that is fermented from grapes grown in the 15-acre vineyard.

Along with tasting and free music on Thursday nights in the summer and fall, the family grooms cross-country ski trails in the vineyard during winter. This friendly and comfortable winery is located in the heart of the Fox Valley and is surrounded by the LedgeStone Vineyards, rich farmland and hills. This is the perfect place to start or end your exploration of the Fox River State Trail.
For more information about LedgeStone Vineyards, visit ledgestonevineyards.com/ or call (920) 532-4384.

Glacial Hills region

Vetro Winery is located in Jefferson with a vineyard 12 miles northeast in Concord. The Vetrano family grows a variety of grapes that are used to ferment the wines they make and sell at the winery. In addition they use fruits from local farms.

Vetro Winery has a large, sunny, upbeat tasting room and gift shop. It offers complimentary tastings in a friendly atmosphere. The Special Olympics of Wisconsin (specialolympicswisconsin.org/) is very near and dear to the Vetrano family and they encourage contributions to Special Olympics for tastings.

The Sicilian art and tradition of wine making has been handed down in the family for over 125 years. Mikele Vetrano brought the tradition of wine making with him from Italy's Castelvetrano province.

Vetro Winery is located a few miles from the Glacial Drumlin State Trail, which runs between Madison and Milwaukee. The trail stretches for 52 miles through farmland and glacial topography. Treat yourself after this industrious ride with a seat at Vetro Winery's large outdoor patio, drink a glass of wine and enjoy the view of the lush area surrounding the winery. For more information, go to vetrowine.com/ or call (920) 674-9650.

Northwoods region

White Winter Winery in Iron River is owned and operated by Jonathan and Kim Hamilton. This unique winery was started 18 years ago with a commitment to using locally-grown fruit and honey.
Iron River is located near the shores of Lake Superior which is home to a unique 12 square-mile microclimate, which produces some of the finest fruit, honey and wild blueberries in Wisconsin.

White Winter Winery takes full advantage of this in the fermenting of their fruit and honey wines. They label several varieties of mead, an alcoholic beverage created by fermenting honey with water. Mead or honey wine is often assumed to be sweet, but White Winter has several varieties of dry mead, including a white that has the dryness of a Chardonnay. Mead is one of the oldest alcoholic beverages in history; records show the fermenting of honey preceded the fermenting of grapes by centuries.

While enjoying a wine tasting you are welcome to relish a complimentary cup of Plain Jane Coffee, just the thing to warm up with on a cool fall day. The White Winter Winery tasting room includes a small coffee shop that sells Plain Jane Coffee in bulk, as well as offering daily lunch specials. Guests are welcome to enjoy a glass of wine on the outdoor porch.

The winery has regular hours throughout the year and will set up tastings by appointment if you call ahead. This charming winery and coffee shop with one-of-a-kind products is a great stop while exploring the Northwoods. For more information, go to whitewinter.com/ or call (800) 697-2006.

Ellen C. Corso is the business manager for Wisconsin Natural Resources *magazine.*

Orchard Country Winery & Market offers tours of their vineyards and orchards and an opportunity to try your skill at the Cherry Pit game.

- **For more information about growing grapes in Wisconsin, visit the Wisconsin Grape Growers Association website at wigrapes.org/.**
- **For information about agricultural tourism, visit the Wisconsin Agricultural Tourism Association website at visitdairyland.com/.**
- **To find a list of all Wisconsin wineries and fall and winter wine events, visit the Wisconsin Winery Association at wiswine.com/ or call (877) 297-2827.**

What's cooking?

MAGIC BURGUNDY MUSHROOMS

Ingredients:
1 cup butter
1 medium onion, chopped
2 garlic cloves, minced
4 cups Burgundy wine
2 tablespoons Worcestershire sauce
1 teaspoon black pepper, freshly ground
2 cups beef broth (or use 3 bouillon cubes dissolved in 2 cups boiling water)
4 lbs. fresh mushrooms (use white button mushrooms or baby bella mushrooms)

Directions:
In a large Dutch oven melt butter and sauté onion and garlic until transparent.

Add the ground pepper, Worcestershire sauce and Burgundy wine. Stir and mix well.

Add the beef broth (or dissolved beef bouillon cubes) to the butter mixture and bring everything to a boil.

Clean mushrooms very well and remove the ends of stems. Add cleaned mushrooms to liquid and reduce heat to simmer.

Cover and cook five or six hours.

Remove Dutch oven lid and cook two more hours to reduce the juices. When cooked, liquid should just cover mushrooms. Salt to taste and serve hot.

To cook in a crockpot, transfer all the mixed ingredients and cook for six to eight hours on low setting.

The mushrooms make a great side dish with beef or venison. They can also be served as a hot appetizer.

Submitted by Ellen C. Corso

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Wisconsin, naturally

KURTZ WOODS STATE NATURAL AREA

Thomas A. Meyer,
State Natural Areas Program

Notable: The rolling glaciated plains of eastern Wisconsin once supported swaths of upland forest dominated by smooth-trunked American beech, sugar maple, red oak, basswood and ash. Today, little remains of this "southern mesic forest," most having been lost to development, lumbering, and conversion to agricultural lands. Most, that is, except for a few isolated woodlots like Kurtz Woods. Despite some selection harvesting in the past, many of the trees here are large — more than 30 inches in diameter — forming a canopy that soars over a rich ground flora. The 45-acre woods is at its best in spring, when the floor is carpeted with wild leek, nodding trillium, hepatica, Canada violet, Solomon's plume, maidenhair fern and other wildflowers. Returning during "fall color" season in autumn rewards visitors with the copper-colored leaves of beech, gold of basswood, burgundy of oak and vibrant red and orange of maple. Small kettle depressions in the woods and large glacial boulders strewn about the forest floor attest to the origin of this landscape in the wake of the Lake Michigan lobe of Wisconsin's last glaciation. The Ozaukee Washington Land Trust and The Nature Conservancy acquired land at Kurtz Woods with funding provided in part by a grant from the Knowles-Nelson Stewardship Program.

How to get there: From the intersection of State Highway 33 and County Highway O in Saukville, go south on County Highway O for 1 mile, then west on Cedar-Sauk Road 0.1 miles, then south on Knollwood Drive 0.2 miles, then west one block on Lily Lane, then south one block on Iris Lane, then west one block on Lilac Lane, then south a half block to a gravel walkway between two homes on the west side of Dahlia Lane. The access is marked with a nature preserve sign and kiosk. Visit dnr.wi.gov and search "Kurtz Woods Preserve" for a map and more information.