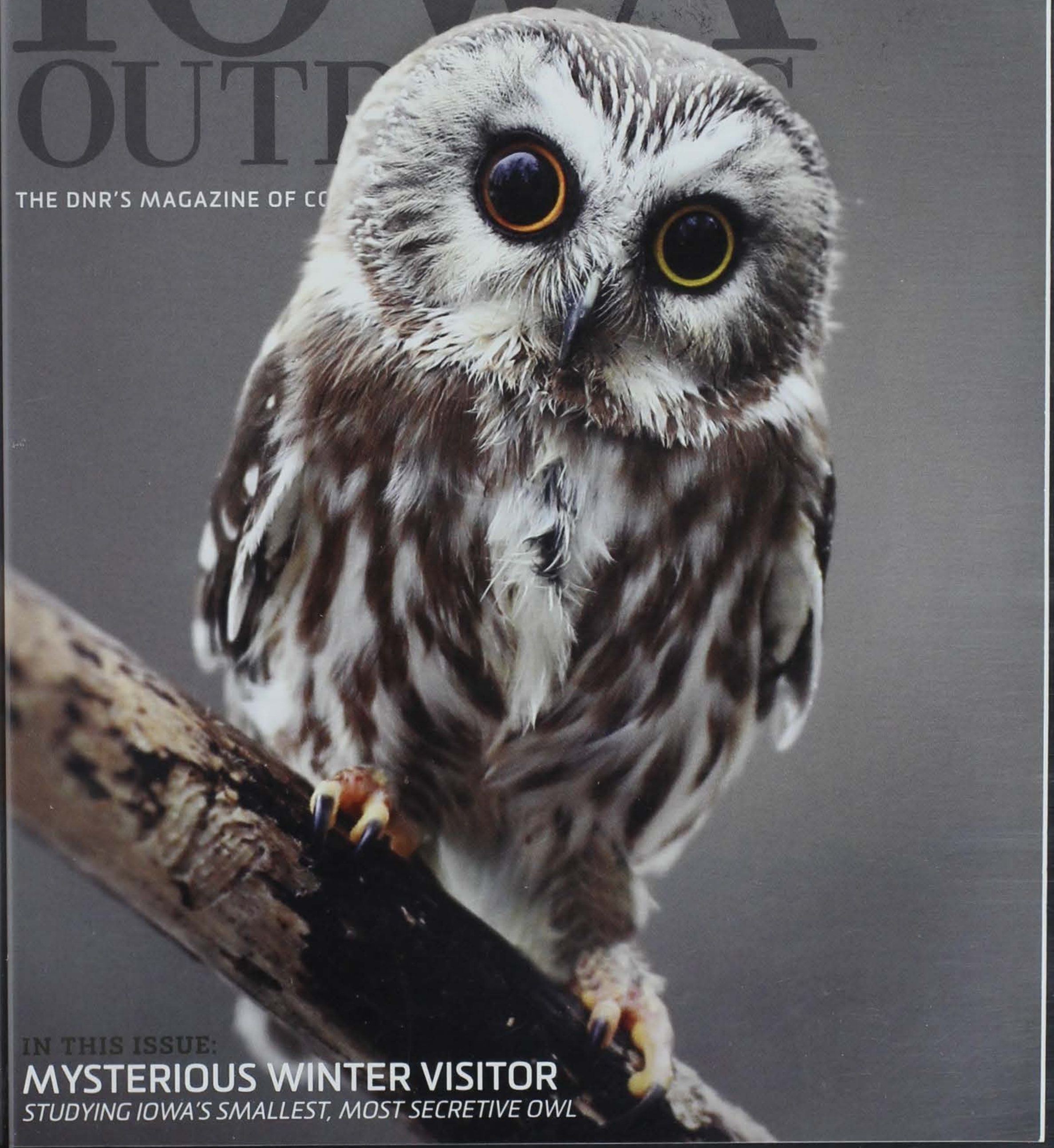
IOWA OUTDOORS

JANUARY / FEBRUARY 2014

THE DNR'S MAGAZINE OF CO



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MYSTERIOUS WINTER VISITOR

STUDYING IOWA'S SMALLEST, MOST SECRETIVE OWL

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ABOUT THIS PHOTO

On dawn patrol, staff photographer Clay Smith captures the pinks and blues as light first touches eastern Iowa. Braving the blustery, cold winter day, Smith set up in the city park in Bellevue which fronts the Mississippi River. Read more Bellevue winter escapades in Lost in Iowa on page 18.

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Meet a common summer resident with a beak for bugs.

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ABOUT THIS PHOTO

Iron oxide in the sandstone at Lake Red Rock creates photographic opportunities galore. The sands were carried there 300 million years ago by a river running from the Appalachian Mountains to a shallow sea in the Great Plains. Today, erosion and sedimentation continue, this time, soil is washing into the lake, all but sure to fill the reservoir with mud. Read more about sedimentation on page 40. Photo by Ron Huelse.

ABOUT THE COVER

The tiny Northern saw whet owl is Iowa's smallest owl. It is "Probably a lot more common than we realize, this owl is very secretive," says Doug Harr, an avid birder and retired head of the DNR nongame program. "This is a species we are just starting to understand more about," he says. They winter in Iowa and can be found in red cedar trees. They perch close to tree trunks and sometimes close to the ground. Unafraid of people, they can be approached within a few feet. Learn more about them on page 28.

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Little known, the tiny saw whet owl is garnering attention from western Iowa researchers studying habits and migration patterns.

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BY *KAREN GRIMES* **PHOTOS BY** *RON HUELSE*

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Get tips on putting more of the statewide winter urban trout in your creel in open water or frozen water.

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Reflections of youth—a boy's clever, determined trickery ensures Dad will hunt on cold days.

BY *BILL KLEIN*

Outdoor Fit

BY *TIM LANE* PHOTO BY *JAKE ZWEIBOHMER*

TARGET PRACTICE

TIM LANE is a nationally recognized authority on public health and physical activity. He is the current president of the Iowa Association for Health, Physical Education, Recreation and Dance.

Today's column is of immense significance and also basic information. Let's start with the immense end. Do you know how much the U.S. spent on health care in 2013? If not, don't feel bad. No one does. It takes two years to tally it all up, but when done, it will be somewhere north of $3 trillion. In 2011 it was $2.7 trillion, or $8,680 per person.

My biggest problem with that number is that we spend 99 percent of our time figuring how to pay (or not pay) for health care, and by my observation, 1 percent trying to figure out how to reduce the figure. A nice goal would be cutting it in half in 10 years. So the rest of this article focuses on that effort and what readers can do.

Let's revisit some important numbers, the first being your doctor's phone number. When was the last time you used it to schedule a physical? If you can't remember, it is time to set an appointment for a physical. Imagine the U.S. is going to war against preventable disease and you just got drafted.

At that physical, learn your blood pressure and if you can start shooting for your target heart rate with exercise. As you know, I am pleased when anyone just walks. But for those who wish to not just attack the enemy, but overrun them, stepping up your pace to elevate your heart rate to a safe level is a good approach.

Start with your resting heart rate, or the number of heart beats per minute while you are at rest. Measure this in the morning after a good night's sleep and before caffeine. An average resting heart rate is between 60 to 80 beats per minute. That rate will go down for fit folks and up for old ones.

Now when you walk, ski, hike, bike or paddle, retake your pulse and see if you are improving your cardiovascular fitness. You accomplish this by lightly placing the tip of your first two fingers on the blood vessel running inside your wrist on the thumb side. While watching a second hand on your watch count the beats for 10 seconds and multiply by six.

When exercising, your heart rate (aka your pulse) rises and falls with intensity levels. As you step it up, your muscles require more oxygen and blood for fuel and the heart is signaled to meet the demand. By gradually increasing your exercise intensity, heart rate increases. In this process your body will become more efficient at both using and replenishing oxygen and blood fuel, or improved cardiovascular fitness. Improving cardiovascular fitness can impact your mental health, image, reduce the risk of chronic diseases, control weight and improve your balance, coordination and increase your ability to perform physical activity. The end result? More fun during outdoor activities. Get fit and get outside. —TIM LANE

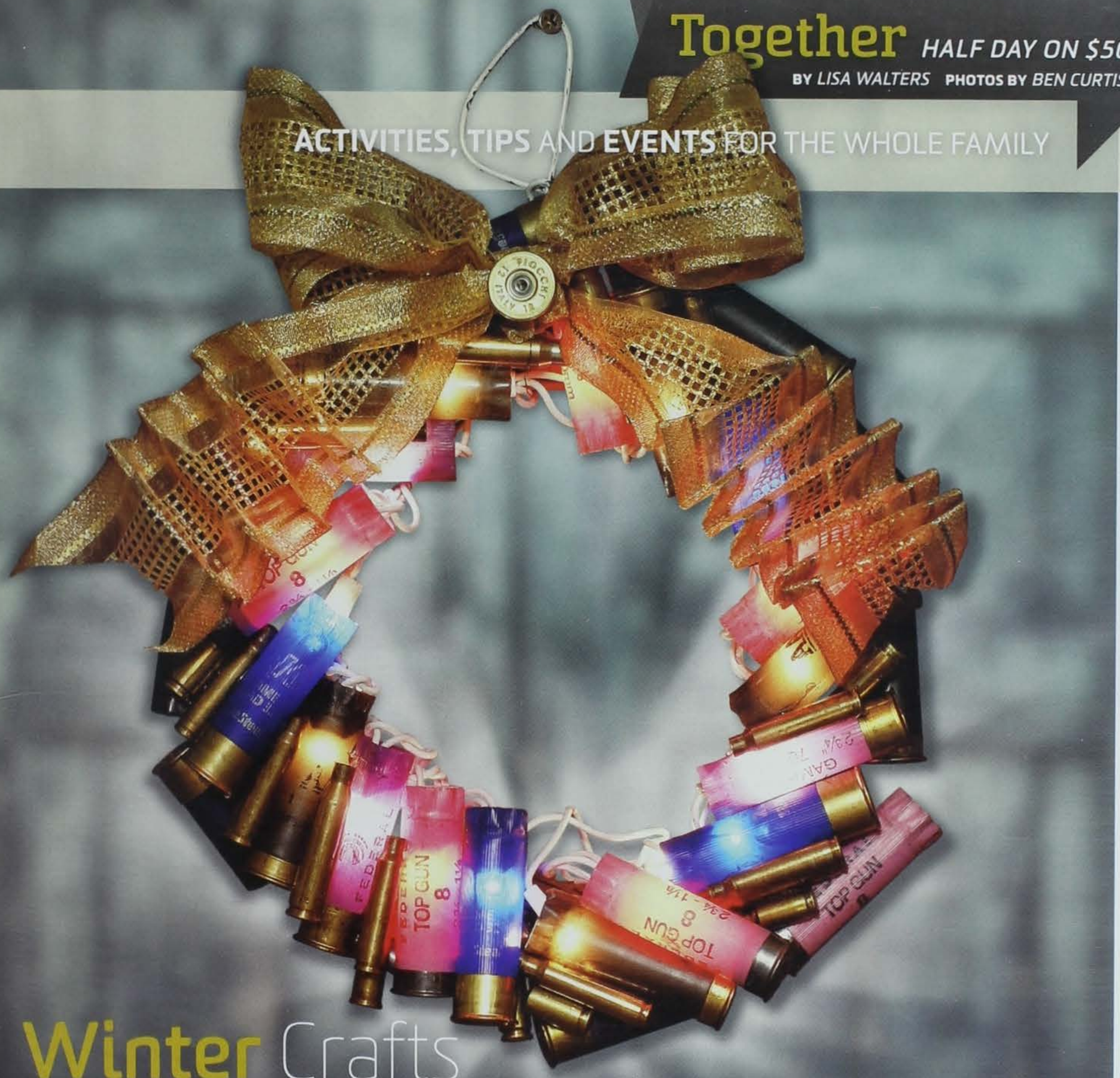
The table below shows target heart rates for different ages. In the age category closest yours, read across to find your target heart rate. Your maximum heart rate is about 220 minus your age. The figures are averages, so use them as general guidelines.

AGE	Target Heart Rate Zone 50-85% of Maximum	Average Max Heart Rate
20	**100-170** beats per minute	**200** beats per minute
30	**95-162** beats per minute	**190** beats per minute
35	**93-157** beats per minute	**185** beats per minute
40	**90-153** beats per minute	**180** beats per minute
45	**88-149** beats per minute	**175** beats per minute
50	**85-145** beats per minute	**170** beats per minute
55	**83-140** beats per minute	**165** beats per minute
60	**80-136** beats per minute	**160** beats per minute
65	**78-132** beats per minute	**155** beats per minute
70	**75-128** beats per minute	**150** beats per minute

Together HALF DAY ON $50

BY *LISA WALTERS* PHOTOS BY *BEN CURTIS*

ACTIVITIES, TIPS AND EVENTS FOR THE WHOLE FAMILY



Winter Crafts

Make festive wreaths and ornaments while upcycling shotgun shells and Iowa Outdoors Magazine photos with ideas from artisan Lisa Walters of the DNR

Spend time together crafting these simple, yet elegant projects in an afternoon. Each has a refined look, yet are surprisingly simple—perfect for beginner to expert crafters. Use these idea starters, then add your own style.

Shell and Rifle Casing Wreath

SUPPLIES NEEDED:

- One 8-inch diameter vine wreath form
- Floral wire
- Mixture of washed, spent shotgun shells and brass shell casings
- Decorative wired ribbon
- 20-count strand of lights (either battery operated or plug-in depending upon your intended location.

With glue gun, attach shotgun shells to wreath, mimicking shell angles in the photo. Ensure 20 shell openings face the wreath interior. Glue an additional, single layer of shells around the wreath perimeter to help cover wreath. Glue varying sizes of brass shells to hide wreath form and add visual depth and appeal.

Turn wreath over to add lights. Apply hot glue to light base and insert inside a shell. Press and hold until glue has cooled. Continue until all inward-facing shells are bulbed. Secure light cord to wreath using floral wire. Wrap wire around wreath top to hang. Wire a bow to top. Cut brass section away from one shotgun shell. Glue to front center of bow for added shot of bling.

Together

Red And White Wreath

SUPPLIES NEEDED:

- **20 SPENT SHOTGUN SHELLS**—color of your choice or alternate colors (wash and dry before using to remove any residue)
- **20-COUNT STRAND OF LIGHTS** (either battery operated or plug-in depending upon your intended location)
- **2 SPOOLS OF WIRED RIBBON** (colors of your choice)—For the top decorative bow and for wrapping around wreath form
- **FLORAL WIRE**
- **WIRE CUTTERS**
- **HOT GLUE GUN AND GLUE STICKS** ($5-$10 at craft stores)
- **STURDY, THICK WREATH FORM.** Form will be wrapped and unseen. As shown, a 10-12-inch diameter willow wreath

FIRST:

Using hot glue and strand of lights, apply glue to base of each light and insert inside shotgun shell. Press and hold until glue cools. Continue until all shells have a light.

SECOND:

Wrap strand of shell lights around wreath form, considering where wreath will hang and location to power source. In this case, the plug was needed at the wreath base.

THIRD:

Wrap wired ribbon around the wreath to cover as much of the form and light wire as possible, yet leaving shells visible. One full standard sized spool should cover the form unless you are using a larger sized wreath.

FOURTH:

- Using wired ribbon, create a bow. Secure bow to wreath with a 10-12-inch piece of floral wire.
- Using the same or separate piece of floral wire, make a loop to hang wreath.
- Add your own creative touches to make it even more decorative or keep it simple. Hang and enjoy!

Burlap Covered Shotgun Shell Flowers

SUPPLIES NEEDED:

- One 10-12-inch diameter foam floral wreath
- Spool of burlap from craft store or upcycled burlap bag—cut into 6-inch wide strips
- 5 spent and washed shotgun shells
- Heavy duty scissors
- Embellishments such as beads, buttons, gems, sequins, etc.
- Ribbon for a bow
- Floral wire to make hanger
- Hot glue gun and glue sticks ($5-$10 at craft stores)
- Needlenose pliers

Wrap the wreath form in burlap ribbon or strips. Hot glue ends of burlap to form as needed. With scissors, cut shells to form petals. Create different flower designs by varying the cuts and rounding or pointing the petal ends. With pliers, pull back each petal to the brass casing. Use pliers to curl the ends of a few petals to create variety. Apply hot glue to back of petals and attach to wreath with shell cap facing up. Create a bow and wire it to wreath. Using same wire or new piece, create a loop to hang.

Iowa Outdoors Magazine Ornaments

Upcycle the 2013 calendar and craft these simple, rustic ornaments using your favorite images.

SUPPLIES NEEDED:

- Iowa Outdoors Magazine calendar or back issues
- Thin cardboard from cereal or cracker boxes
- Scissors
- Ball-point pen
- One drinking glass
- Thick craft glue (such as Aleene's Original Tacky Glue)
- Thumb tack
- Medium grit sandpaper
- Christmas ornament hangers, fishing line, thin ribbon or wire

Open up and flatten the box. Each ornament requires two box circles and images. Place rim of glass on box and trace two circles. Cut out. Spread a thin, even glue layer and press two circles together with blank sides facing out. Find a favorite photo and trace around it with glass and cut out. Glue images to front and back of box circles. Let dry. Lightly sand edges to create worn look. Lightly scuff image to create rustic effect. Thumb tack a hole at top. Add your choice of hanger using fishing line, wire or ribbon.

Together BY *JUSTIN ALLISS* PHOTO BY *BEN CURTIS*

How to **TIGER STRIPE** a Maple Gunstock or Knife Handle

In a workshop full of ancient hand tools, Justin Alliss of the DNR spends his leisure time working on antique furniture and gunstocks. Whether restoring a piece, or crafting from scratch, he employs methods used by original artisans for an end result honest in appearance and tradition—important for this avid student of history.

ABOVE: A left hand flintlock made in the style of a Lancaster Pennsylvania long rifle circa 1810-1820. Generally referred to as a contemporary build versus a reproduction largely because it is hand built and an original work. **TOP RIGHT:** A Green River butter knife circa 1840. Justin Alliss restocked the broken handle with leftover maple from the gun build and reshaped the blade to represent a 19th century patch knife.

In an age so easy to buy hundreds of stains, the reward and challenge lies in making your own. Store-bought urethane finishes labeled "Colonial" resemble nothing close to Colonial.

In five steps, bring out the nearly invisible stripes in unfinished curly maple using techniques true to American Colonialism.

STEP 1:

Make sure the stock is well sanded. Start with 120 grit and progressively cut back to 600 grit. Once smooth, raise the micro fibers by "whiskering" the grain. Wet the entire stock with hot water or rubbing alcohol. Since alcohol quickly evaporates, by the time the sanding is done you can move to step two. A 600 grit wet sand will knock down those fibers and fill open pores with the "mud" created during the process. There is no rule on how many times to whisker the wood. Two to three times is often adequate, but it may take more.

STEP 2:

Next, wet the stock with aqua fortis—essentially a watered down nitric acid. I obtain mine from a Minnesota company, Track of the Wolf. It is relatively cheap and one bottle is enough to do two or more gun stocks. It doesn't keep well, so best to buy in small quantities and reorder. With all acids, use rubber gloves and eye protection. Apply aqua fortis with a cotton rag, wiping the stock until wet. Avoid using it near the barrel channel or lock mortis where the acid could rust the barrel or lock. Once applied, the wood changes to a dull, grey-green color and the tiger stripe will begin to take on depth.

STEP 3:

Blushing: Traditionally, gunsmiths held a red hot steel bar a few inches from the stock. Since finding a forge isn't easy, use a heat gun instead. Hold it 6 inches from the wood and slowly apply heat over the stock to produce a color change. Depending on grain, it will normally turn green areas brown and create reddish colors in the stripes. Avoid scorching the wood to prevent starting over at the sanding stage. Deep red is the right color and the time to stop applying heat, but personal choices vary. To arrest the darkening process over time, rub the stock with a thin paste of baking soda and water to neutralize the acid, then rinse with water and air dry. Some contemporary gunsmiths skip this step to allow the stock to continue to darken with age.

While all maple trees can have striping, it is rare to find. Inspect each board to find it.

STEP 4:

Aqua fortis alone produces great color, but it can be too contrasting. To color, make a solution of loose leaf or plug tobacco and whiskey. Fill a small jar about 2/3 full of tobacco and fill the rest with whiskey. Let it steep a week. Rub as many coats of the dark, coffee brown stain to reach your desired color. The color I look for is a mellow honey color. The whiskey tobacco mixture blends nicely and adds age to the finish. Another finish option, asphaltum, is a mixture of turpentine and asphalt. It provides an almost black finish, but covers up a lot of grain.

STEP 5:

Lastly, hand rub boiled linseed oil into the stock. Shoot for at least five very thin coats on the stock with adequate drying time between coats. Thin is the operative term with linseed. Linseed builds in layers so be careful around checkering or any fine detail areas. If it gets too thick, a little whiskey-tobacco stain on a rag can blend it back in and help it dry. Once desired color is reached, buff the entire piece with a soft cloth and then install the metal components. The end result is a colorful, durable finish unlike anything from a store.

PHOTOS, THIS PAGE, BY BRIAN BUTTON; GUN PHOTOGRAPHED AT LIVING HISTORY FARMS, URBANDALE

Together

Got a question?
Send to: *AskTheExperts@dnr.iowa.gov*

Ask The Expert

BY *BRANDON HALLMARK*

—Marcus in Dubuque County asks

I've heard deepwater winter sauger can be harmed if brought up too quickly. Is this true?

BAROTRAUMA is when the gas bladder, an organ fish use to maintain buoyancy, pops through the gills or mouth. This occurs in many species, but in winter, sauger tend to be in deep holes, so anglers may come across this phenomena. Fish cannot expel air rapidly enough to compensate for the drop in pressure as they are brought to the surface. This can force the air bladder into the mouth or through the gills.

Barotrauma is sometimes less visible, like when bubbles form in the bloodstream, similar to decompression sickness divers get when ascending too rapidly.

"Rapid pressure changes aren't good for most creatures," says DNR fisheries Biologist Kirk Hansen. Barotrauma affects fish pulled up from depths 30 feet and greater. Usually, the gas bladder readjusts and returns to its proper location. Fish with a gas bladder pushed through the gills are likely to die.

"Concerns from some anglers and biologists about the potential of catch and release mortality is that it could negatively impact sauger populations," says Hansen.

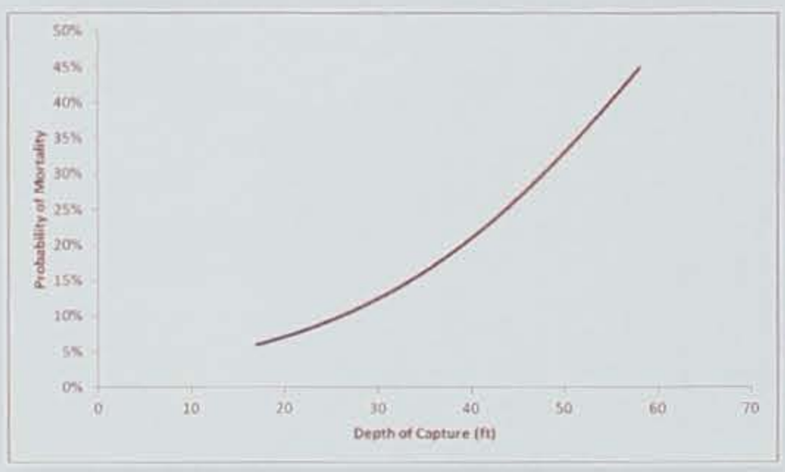
To find out mortality rates, DNR researchers caught 427 sauger. Each was identified based on method and depth of capture, bleeding and not bleeding and barotrauma severity. The fish were placed in a large net for 72 hours and mortality rates observed. The average mortality rate was 16 percent.

And fish reeled in from the deep?

"Mortality increases as depth increases," says Royce Bowman, a fisheries technician. But the rate wasn't as bad as thought, adds fisheries technician Dennis Weiss.

"If you're worried about catch and release mortality on the fish, fish in shallower water," says Bowman.

The team also learned larger fish tend to inhabit shallower water, while smaller fish go deep. Larger fish tended to be pulled up from 20 to 30-foot depths.



This chart shows that the deeper the fish is, the more likely it is to die. Ex. At 20 feet, 1 in 20 fish will die. At 40 feet it jumps to 1 in 4. At 60 feet, almost half the fish are likely to die.

But Why?

Helping adults answer children's nature questions

BY *A. JAY WINTER*

A. Jay Winter educates up to 20,000 Iowa children each year as the DNR's training specialist at the Springbrook Conservation Education Center.

SARA, AGE 10, IN LEE COUNTY ASKS:

How do plants come back each year if they die in the winter?

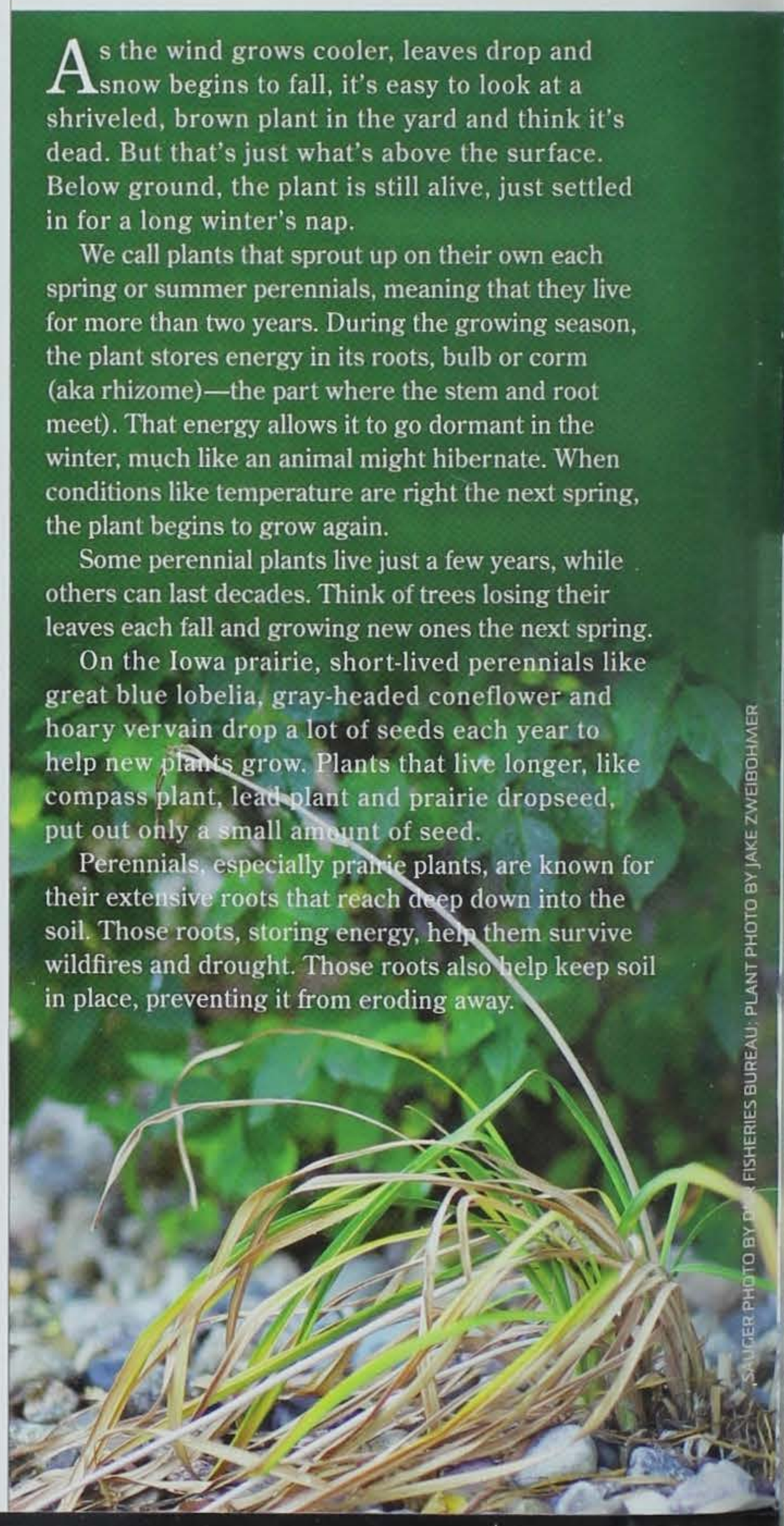
As the wind grows cooler, leaves drop and snow begins to fall, it's easy to look at a shriveled, brown plant in the yard and think it's dead. But that's just what's above the surface. Below ground, the plant is still alive, just settled in for a long winter's nap.

We call plants that sprout up on their own each spring or summer perennials, meaning that they live for more than two years. During the growing season, the plant stores energy in its roots, bulb or corm (aka rhizome)—the part where the stem and root meet). That energy allows it to go dormant in the winter, much like an animal might hibernate. When conditions like temperature are right the next spring, the plant begins to grow again.

Some perennial plants live just a few years, while others can last decades. Think of trees losing their leaves each fall and growing new ones the next spring.

On the Iowa prairie, short-lived perennials like great blue lobelia, gray-headed coneflower and hoary vervain drop a lot of seeds each year to help new plants grow. Plants that live longer, like compass plant, lead plant and prairie dropseed, put out only a small amount of seed.

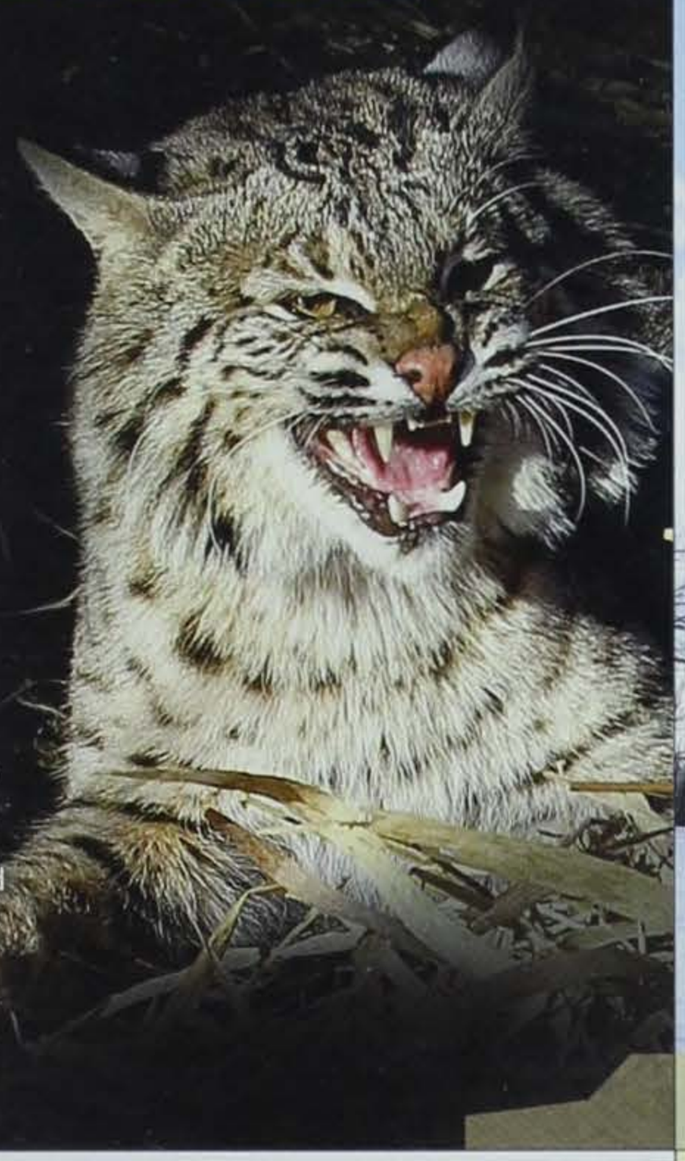
Perennials, especially prairie plants, are known for their extensive roots that reach deep down into the soil. Those roots, storing energy, help them survive wildfires and drought. Those roots also help keep soil in place, preventing it from eroding away.



SAUCER PHOTO BY DNR FISHERIES BUREAU; PLANT PHOTO BY JAKE ZWEIBOHMER

TIPS, TRICKS AND **MUST-KNOWS** TO ENHANCE YOUR OUTDOOR FUN

Calling All Bobcats



With the bobcat quota lifted, hunters can use their calling expertise longer into the winter when pelts are worth more. Calling cats is more difficult than calling other game. Finesse, says DNR furbearer biologist Vince Evelsizer, is key. Cats approach slower and more cautiously than canines, so sometimes "less is more," Evelsizer says. They use their noses and heavy cover to their advantage, making stand selection critical. Cats stalk the call, so using an electronic caller located away from your setup may be beneficial. Bobcat season runs Nov. 2 through Jan. 31, 2014. The limit is one.

Use Stealth and Silence When Ice fishing Northern Pike

According to fisheries technicians Royce Bowman and Dennis Weiss, for better results while ice fishing northern pike, set your tip ups 20 to 50 yards away from other anglers.

"You never see northerns in a bunch. They're always on the perimeter of fishermen," says Weiss.

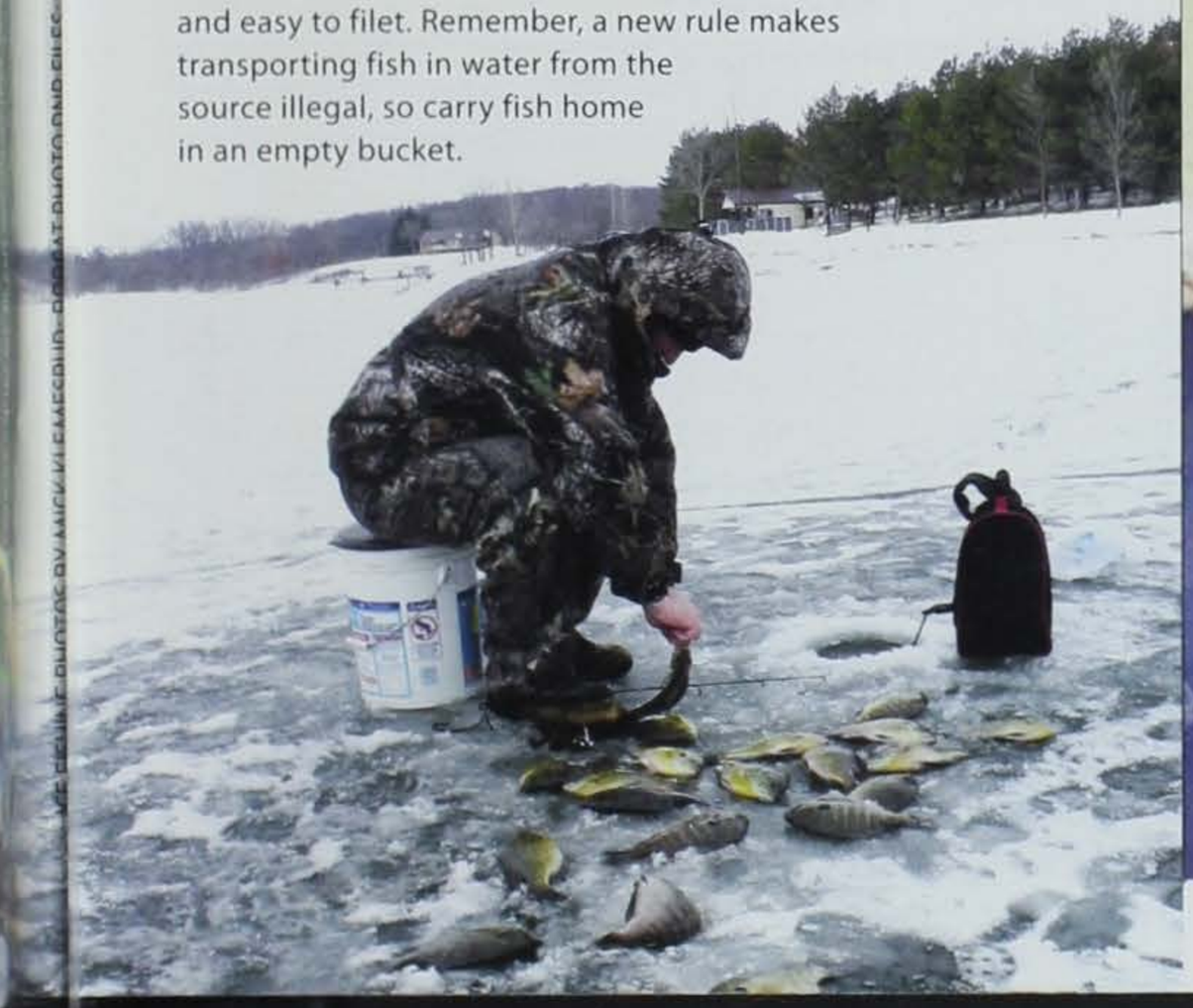
"You try to walk out and the fish continuously moves in front of you," says Kirk Hansen, a fisheries biologist in Bellevue. "When we're trying to pinpoint a fish, you have to get in your mind's eye where you think it is as you approach, because it's on the move as it hears your footsteps."

"I've walked super quiet and get on top of them, but once you shuffle your feet, even on 6 inches of ice, poof, they're gone," says Bowman.

—**BRANDON HALLMARK**

Freeze It!

In winter, flash-freezing fish on the ice is humane and produces a better tasting product. But fileting frozen fish can be challenging. To solve, place fish in a bucket or sink of cold water at home while you unpack your gear. Within 15 to 20 minutes, the fish will be thawed, but still firm and easy to filet. Remember, a new rule makes transporting fish in water from the source illegal, so carry fish home in an empty bucket.



Stick To The PLAN

Whether hunting, ice fishing, or any other outdoor activity, it's imperative to leave a game plan with friends or family. Detail where you will be, your route, what you will be doing and approximately when you will be home—then don't deviate from the plan without a phone call. That way, if you get injured or lost, your friends or family will know something has gone wrong, and where to start looking.

From the Archives

PHOTOS FROM *DNR ARCHIVES*

A **RETROSPECTIVE** ON **STORIES** FROM **DECADES PAST**

Fifty-five Years Ago, Iowa Conservationist Magazine, January 1954

DEER WINS BATTLE WITH LONE HUNTER

Milo Tjoland of Spirit Lake was limping around his home Tuesday contemplating a busted up shotgun and a deer that showed nothing but contempt for a couple of shots.

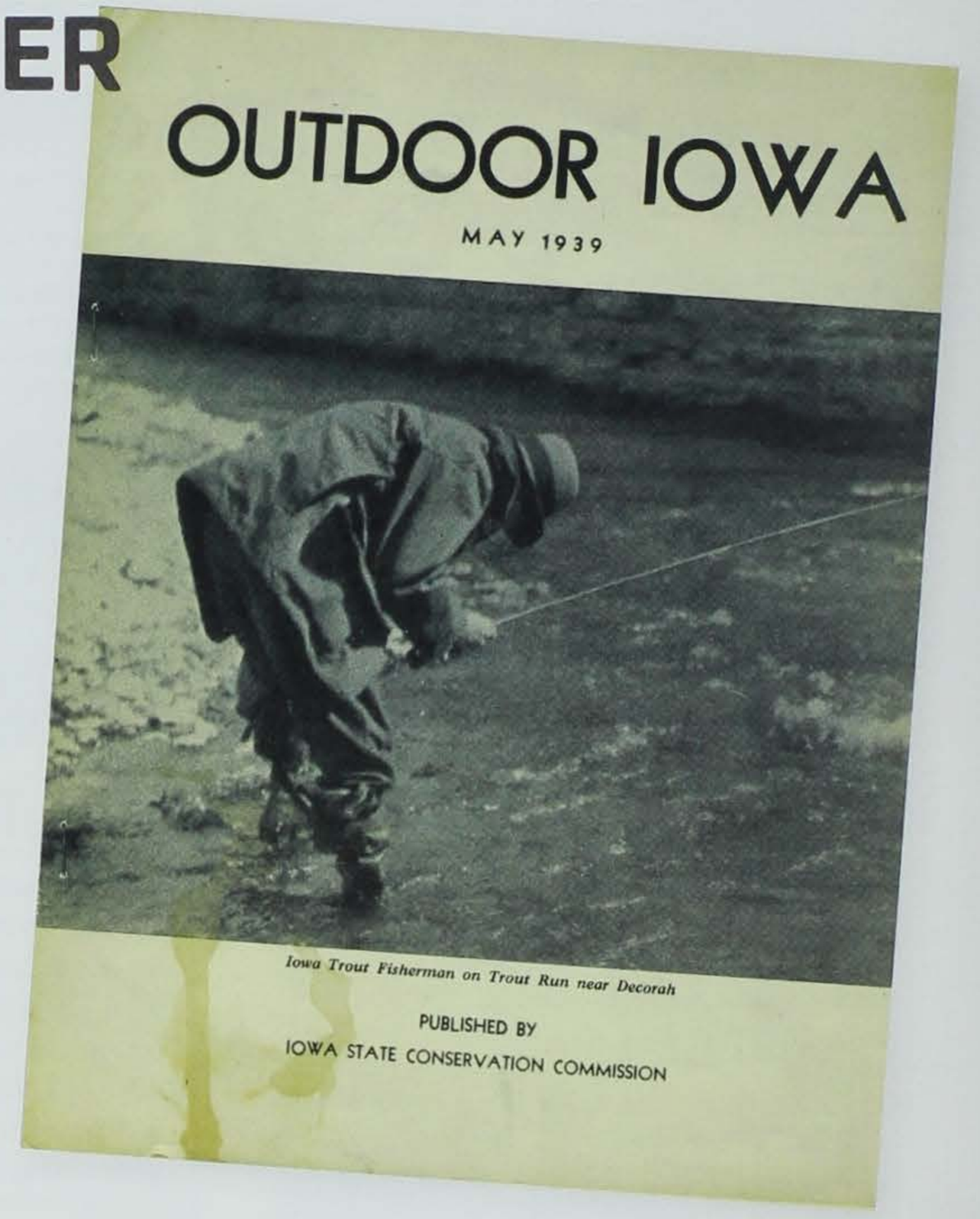
Hunting in the Spooky Hollow area west of Spirit Lake Monday, Tjoland saw a six point buck coming toward him. At 20 yards Tjoland fired and thought he hit the animal in the leg. The angered deer charged and Tjoland let him have another blast at 15 feet.

This didn't phase the brute so Tjoland, who had been kneeling by a tree stump, ducked behind the stump. The deer charged into him, locked antlers with the shotgun and stomped on the hunter's legs.

Then the animal took off, jumping over a fence and leaving behind a bruised and lame Tjoland with a bent shotgun and a broken stock.

Another hunter shot the beast, which game warden Joe Schomer said weighed 250 pounds—193 dressed—and was one of the largest shot in the area.

–THE SPENCER REPORTER *(reprinted in the Iowa Conservationist February 1954)*



MAY 1939 OUTDOOR IOWA:

Hatching in Progress

Hatching of wall-eyed pike and yellow perch eggs is in progress in the hatcheries at Spirit Lake and Clear Lake, with more than 800 quarts of wall-eye eggs and about 100 quarts of perch eggs in the hatching jars at the present time.

Every available hatchery jar is full at the Spirit Lake Hatchery where 500 quarts (about 80 million eggs) of wall-eye eggs and 80 to 85 quarts of yellow perch eggs are hatching. This is considerably in excess of the supply on hand at this time last year. It is impossible, at this time, to ascertain the percent of fry which will hatch since the eggs are not far enough matured for accurate determination. In normal hatching years, though, yield from the eggs ranges from 45 percent to 70 percent.....At the Clear Lake hatchery about 60 million eggs have been put up in 148 hatching jars. This is the largest amount of eggs put up at the station for many years.

—OUTDOOR IOWA MAY 1939 IOWA STATE CONSERVATION COMMISSION

(Editor's note: Today's full capacity production at Spirit Lake is 840 quarts, or 252 million egg.)

CONSCIENCE-STRICKEN VIOLATOR

A conscience-stricken violator of Iowa's game regulations recently forwarded to the Conservation Commission a letter in which was enclosed $3 as atonement for a past violation. The letter, unsigned but bearing a Bonneville, Ore. postmark, contained a confession of shooting pheasants out of season without benefit of a license.

Ironically, a non-resident hunting license fee is $15 instead of the $3 enclosed. The penalty for shooting pheasants out of season ranges from a minimum of $10 per bird to a maximum of $100 per bird, or jail terms of from three to 30 days.

The $3 in question, fruit of this cut-rate attempt at cleansing of sins, has been credited to Miscellaneous Fish and Game Fund.

—OUTDOOR IOWA MAY 1939 *(Editor's note: Those 1939 monetary values in today's dollars: $15 is equal to $252, $10 is equal to $168, $100 equals $1,682 and $3 equals $50. Source: U.S. Dept. of Labor inflation calculator)*

BELOW: *A $1 hunting-fishing license ($17.45 in today's dollars.) Of course, goose, deer and turkey hunting wasn't available in 1934—the populations were wiped out decades earlier!*

Iowa's First Modern Era Deer Hunt—1953

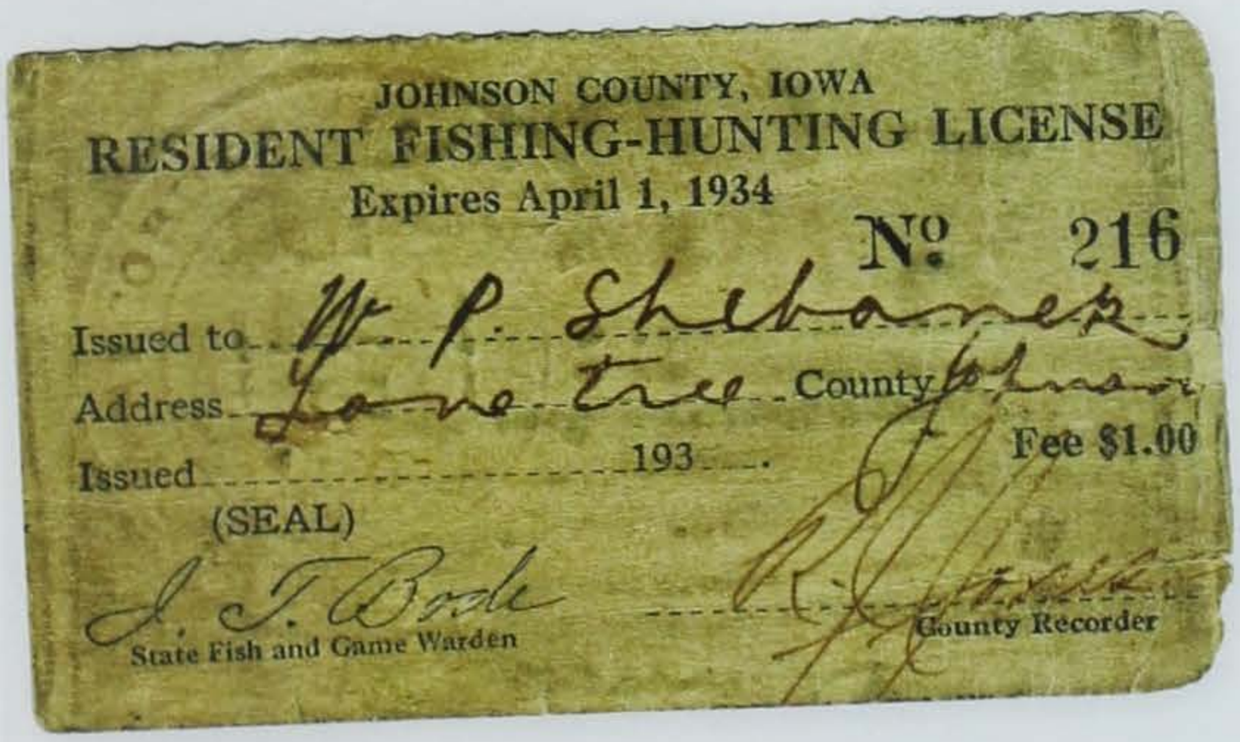
For five days in December 1953 Iowans watched with mixed emotions as the state's first modern deer season played out. This was the first hunt since at least 1898, when deer were virtually non-existent in Iowa after years of exploitation by settlers.

Those opposing the hunt feared the state's newly returned population would be again wiped out and slaughtered. The herd was estimated at 13,000 and growing rapidly. Those supporting the hunt relished the chance to hunt big game in Iowa.

A month after that season closed, shots were still being heard as the Iowa Conservation Commission, (the predecessor to the DNR), was target of criticism, mostly for the multiple harvests allowed to single hunters and the $15 price tag for a deer license ($131.39 in today's dollars). Despite some mistakes that first season, the commission stood by the decision and lauded the 3,057 deer harvest, noting none of the 45 counties open to hunting sustained more than a 50 percent harvest rate—the recommended reduction. *(Editor's note: 115,608 deer were reported harvested in 2012.)*

The commission deemed the season a success, noting high hunter success rates (71 percent), minimal farmer-sportsman friction and lack of any accidents. Check stations reported deer harvested were large and in "superb physical condition," prompting a run on licenses and slugs (the only legal method except for bows).

"As more and more deer came into the check stations, demand for licenses increased and a shortage of slugs developed," the *Emmetsburg Democrat* reported.


JOHNSON COUNTY, IOWA
RESIDENT FISHING-HUNTING LICENSE
Expires April 1, 1934
No. 216
Issued to W. P. Shebanek
Address Lone Tree County Johnson
Issued 193 Fee $1.00
(SEAL)
L. T. Bode
State Fish and Game Warden
County Recorder

1939 OUTDOOR IOWA:

Giant White Oak

A giant white oak tree cut in the vicinity of Pikes Peak near McGregor was found to have 327 growth rings. This tree, the eventual victim of disease, gave visible evidence of the many drouth years during its lifetime, in its growth ring record.

The trunk of this giant of the woods which grew at a point 600 feet above the Mississippi River is being preserved.

Lost In Iowa

BY *JENNIFER WILSON* **PHOTOS BY** *CLAY SMITH*

From an overlook at Bellevue State Park, visitors can see for miles upstream along the Mississippi River. Open water created by lock and dam 12 is a magnet for soaring bald eagles looking for an easy winter meal of shad stunned from passing through the dam.

Between the Bluffs

Think there's nothing to do in Iowa in deep winter? Bellevue's abundant bald eagles, active main street and quirky lodging may change your mind.

ABOUT 25 MILES SOUTH OF DUBUQUE, THERE IS A PLACE.

It's lovely year-round, but it's very special when most of the state is in deep hibernation.

No matter how cold it gets, you can still travel to Bellevue, a pretty little village sandwiched between two bluffs on Lock and Dam No. 12 on the Upper Mississippi River, a picturesque haven that's teeming with bald eagles.

We are talking tons of bald eagles.

We cannot overstate the number of bald eagles in Bellevue.

Bellevue is a perfect storm of favorable conditions for the national bird. They're here because of the easy fishing on the dam. They're here because those two bookending bluffs protect the riverfront shops and eateries (and eagles) from harsh winds.

They're here because the Upper Mississippi River National Wildlife and Fish Refuge, plus the in-town state park on the south bluff, give them safe places to hang around.

And across the river is a densely wooded island that no sensible human would ever walk upon, so the eagles love it. Even a drive-by traveler can spot tens of them roosting peacefully in its trees.

In the cold and often relentless Iowa winter, Bellevue is the rare abundant pleasure.

The town, the lock, and the eagles

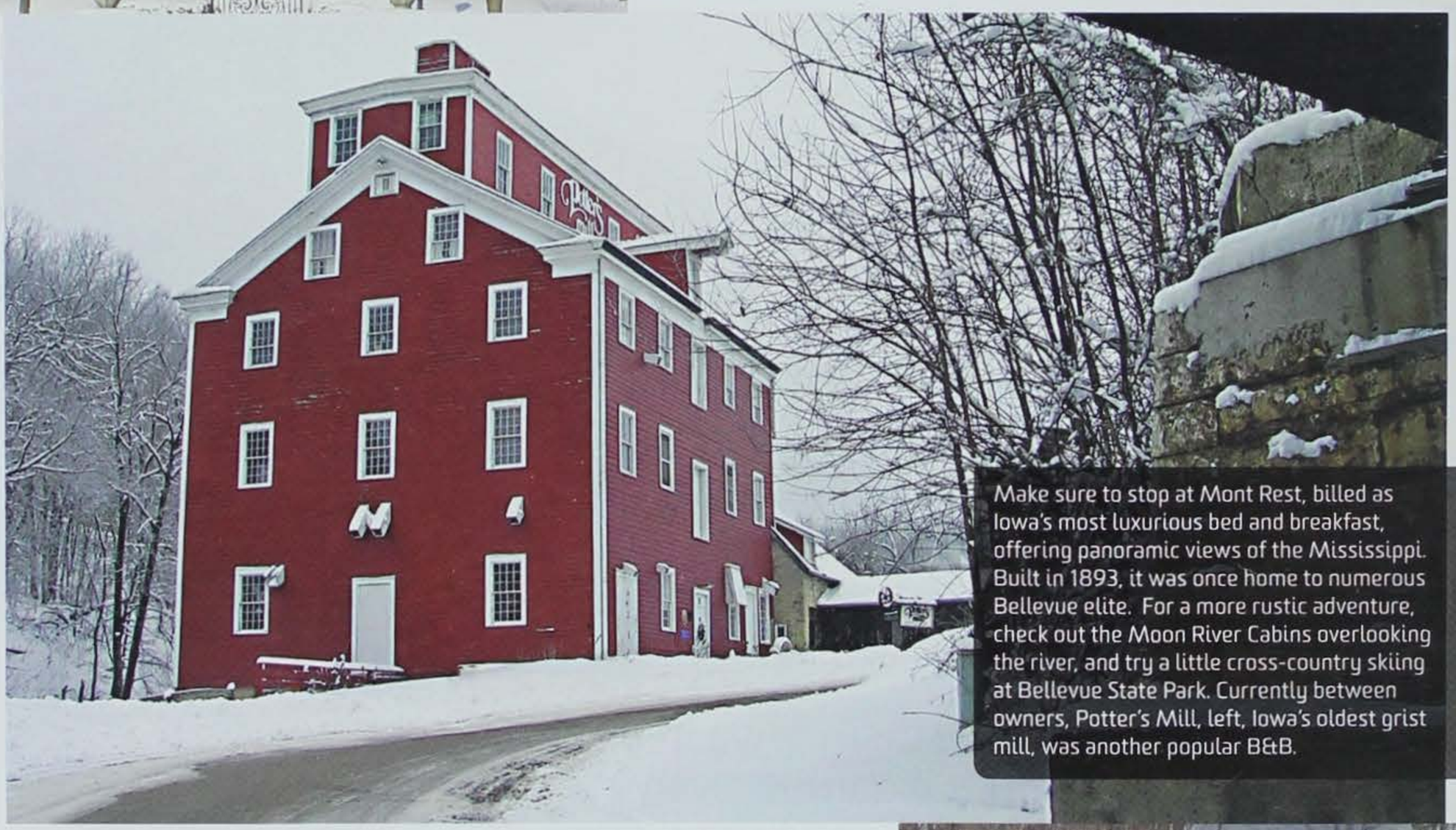
On a gray February morning, water cascades in a smooth

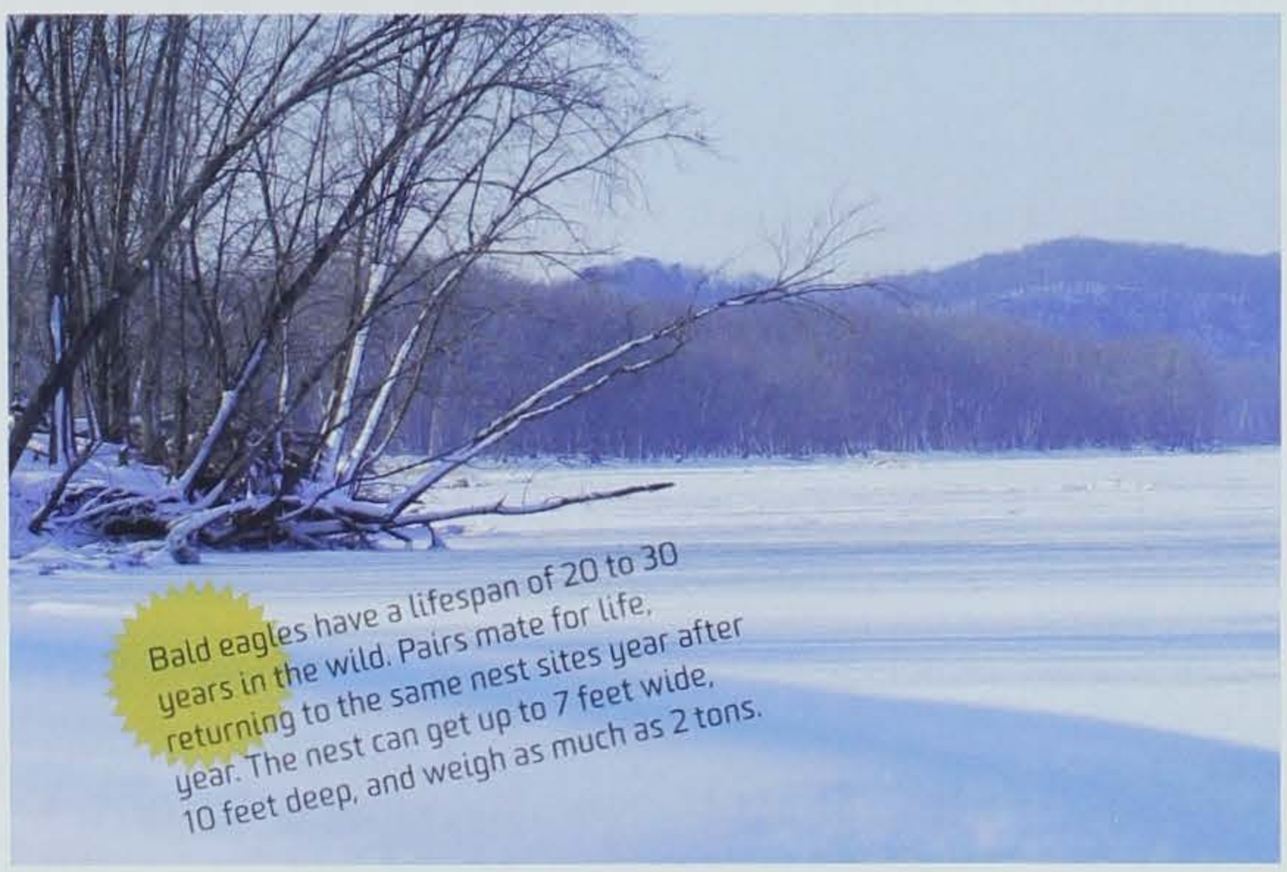
PHOTO OPPOSITE PAGE © RON MONNER

Lost In Iowa


Mont Rest


Moon River Cabins


Make sure to stop at Mont Rest, billed as Iowa's most luxurious bed and breakfast, offering panoramic views of the Mississippi. Built in 1893, it was once home to numerous Bellevue elite. For a more rustic adventure, check out the Moon River Cabins overlooking the river, and try a little cross-country skiing at Bellevue State Park. Currently between owners, Potter's Mill, left, Iowa's oldest grist mill, was another popular B&B.


Bald eagles have a lifespan of 20 to 30 years in the wild. Pairs mate for life, returning to the same nest sites year after year. The nest can get up to 7 feet wide, 10 feet deep, and weigh as much as 2 tons.

curtain over a roller gate of Lock and Dam No. 12, the easterly heart of the riverfront village of Bellevue, 556.7 miles above the confluence of the Mississippi and Ohio rivers.

Bubblers keep the water moving around the lock otherwise surrounded by a patchy plain of ice.

It is a quiet morning.

Because of the silence, your eyes scan for something of interest. It doesn't take long to find it: The number of giant birds in the trees, in the sky, on the river, is astonishing.

A fast count finds about 60 bald eagles milling around Lock and Dam No. 12, which is, in itself, a beautiful old thing.

The antique behemoth is one of many fixed concrete barriers along the Mississippi River that manage the water's depth. Each dam has a lock chamber that raises and lowers boats to allow them passage (see sidebar).

According to the U.S. Army Corps of Engineers that operates it, the lock foundation is set in sand, gravel and silt, with dimensions of 110 feet wide by 600 feet long. The dam system consists of a concrete structure with 10 movable gates and a non-overflow earthen dike with a concrete ogee overflow spillway.

It takes eight hours for water to travel from Lock and Dam No. 11, in Dubuque, to Lock and Dam No. 12 in Bellevue.

"The locks and dams on the Mississippi River are like a staircase," says lockmaster Bill Hainstock. "St. Paul is the upper step and then it drops down as the river moves downstream. Before the dams, the Mississippi was a constantly flowing stream."

The unfrozen opening in the ice created by the lock and dam is prime hunting ground for bald eagles. Fish that pass through its gates are stunned and easy targets.

Men from the Works Progress Administration constructed Lock and Dam No. 12 between 1934 and 1938—an incredible build with an all-timber framework. "No plywood back then," says Hainstock.

The structure was built with a 50-year life expectancy, but that old-school construction, plus careful maintenance, keeps it in good working order. As a result, when you examine No. 12 from the public park walkway on shore, you'll see a largely original structure that's on the National Register of Historic Places. *(See construction photos at www.mvr.usace.army.mil/Library.aspx)*

The dam doesn't lock through boats in winter, but the drama continues with all the eagles hanging around. Every now and then, the morning's avian roustabouts take off from nearby trees to swoop down for fish. It's common to see them on riverfront branches with a kill in their talons, and it's amazing to see such a wild thing up close. Shoppers on the active main street—with a bookstore, a decent coffee place and a variety of shops—often admire them from swings on the riverfront park.

The Savanna Army Depot lies across the river on the Illinois side, a 13,000-acre island opened in 1917 as a U.S. Army weapons proving and testing facility (in short, they blew things up there). Declared a Superfund site in 1984, the land is still fairly untouched by humans—warning signs for unexploded ordnance are posted all over—but casual observance would indicate that the eagles like it quite a bit, especially now that it's a part of the Upper Mississippi River National Wildlife and Fish Refuge.

Bald eagles stand around on the ice, too, pecking at chubs, and somehow the backdrop of frozen white gives you a better idea of their massive size.

Standing, a bald eagle can be up to 3 feet tall.

Prairie and a past

The south bluff overlooking town is topped by Bellevue State Park, 788-acres known in summer for its butterfly garden, but the high-up location makes it a scenic stop year-round. (The park is split into two units, the Nelson Unit, mentioned in this section, and the Dyas Unit, three miles south of town, mentioned in Trip Notes.)

In winter, you can snowshoe, cross country ski or go birding. A unique peregrine falcon nest box on the face of the bluff facing Highway 52 looks like a school desk sticking out of the rock. A peregrine was spotted defending the nest box for a couple weeks in late May 2013, and will hopefully return with a mate in spring 2014.

Park manager Shannon Petersen walks the property, pointing out a recent prairie restoration in the hunting area, helped along by local wildlife staff and advocates. There's a sunflower food plot for dove hunters. In some places, it's almost solid wild indigo.

"I would love to see more families here. Families with kids stay too cooped up in winter," she says. "Even when it's cold and snowy, there's so much to do."

Five miles of short paths include Quarry Trail, which passes an old lime kiln once used at the Potter's Mill—the "quarry" is a half-mile hollowed-out area of bluff.

"This is young prairie right here," Petersen says, indicating a patch of land along Meadow Trail that used to be a nine-hole sand green. The nature center floor is pocked from long-ago golf spikes, along with specimens such as a surprisingly fierce river otter and a blonde raccoon pelt.

There's a lot of history in this concentrated area, even in the road and stone structures built in 1928 by a black prison crew from Anamosa. Woodland Indian mounds overlook the river, ancient burial sites Petersen says were constructed one basket load of dirt at a time. She points out what may be a Native American directional oak.

Even though the park is uniquely situated so close to town, many wild creatures call it home, with wild turkey, fox, deer and pheasant among the inhabitants. Red fox tracks stitch the trail near the mounds.

"When I'm cutting grass in the summer, wild turkey are running in front of the mower," she says. "It's a great place to look at animal tracks or cross-country ski the trails. Or just build snowmen."

Lost In Iowa

High atop the bluffs, Bellevue State Park offers a majestic view of the namesake town below. Lock and Dam 12 controls and maintains river navigation in pool 12 from Bellevue upstream to Dubuque and is on the National Register of Historic Places.

THE ANATOMY OF LOCK AND DAM NO 12

"We're in charge of locking boats and pool control of the Mississippi River," says lockmaster Bill Hainstock. "That's what we're here for: We maintain a 9-foot channel for navigation on the Mississippi River as authorized by Congress in the 1930s."

The U.S. Army Corps of Engineers (USACE) built a series of dams to maintain this depth. The movable dam measures 8,369 feet long, with four concrete pier houses connected by a metal grate walkway. It consists of seven submersible Tainter gates (20 feet high by 64 feet long) and three submersible roller gates (20 feet high by 100 feet long).

If any of these 10 gates need repair—they're more than 70 years old—the roof is detachable.

To allow river traffic to pass through, the dam has a lock, a device for raising and lowering boats in a chamber 110 feet wide and 600 feet long. It locates on the Iowa side of the dam near Riverside Park.

According to the USACE, the maximum watercraft lift is nine feet, with an average of six. It takes approximately 10 minutes to fill or empty the lock chamber.

Hainstock says that at the beginning of each day, he gets an e-mail report from USACE hydrologists in the Clock Tower Building in Rock Island that tells he and his staff how to adjust the dam gates to keep the channel at 9 feet—this is manual adjustment, not computerized.

In warmer months, the staff also operates the lock. Two lock operators handle this task—one on the upper end of the lock, one on the lower. Here's how:

• A boat cell phones or radios in, asking to be allowed through the lock. While the boat waits outside the lock, an operator opens or closes the water valves inside to the water level of the craft. Nothing is pumped—the water is gravity-fed.

• When the water gets to the watercraft's level, an operator pulls a lever in the control stand and the gates will swing open.

• The operator toots the horn and signals a green light for the vessel to enter the chamber. The operator greets the boat in the chamber and allows the boat to tie off. The operator closes the gates and either raises or lowers the water.

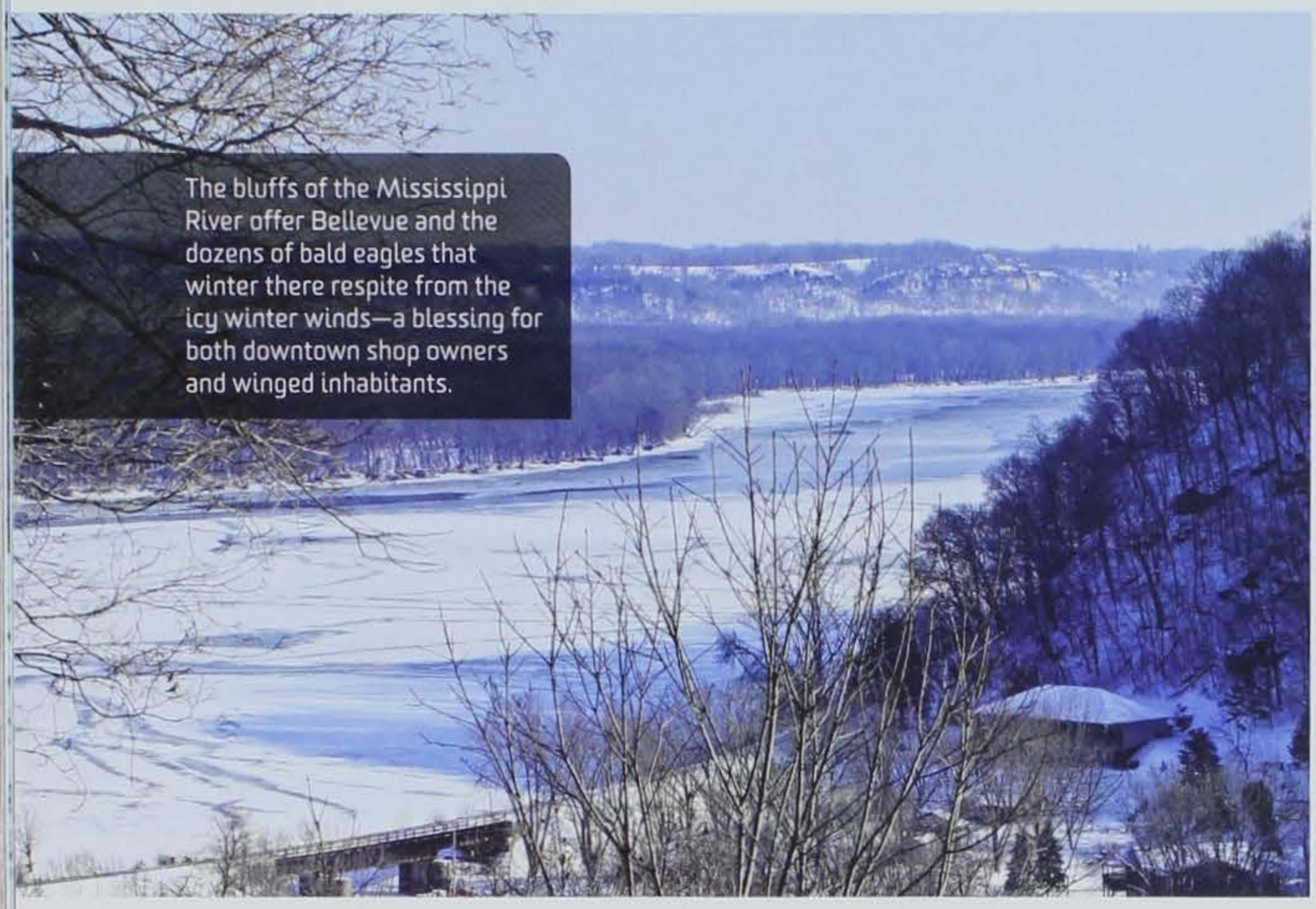
• The opposite lock operator now opens the other gate and allows the vessel to depart. "That's what we do, back and forth," says Hainstock.

"Towboat, pleasure craft, canoe, paddle board, jet ski, a handmade boat from barrels and water bottles—we've locked about everything," says Hainstock. "As long as they have their registration, they can lock through."

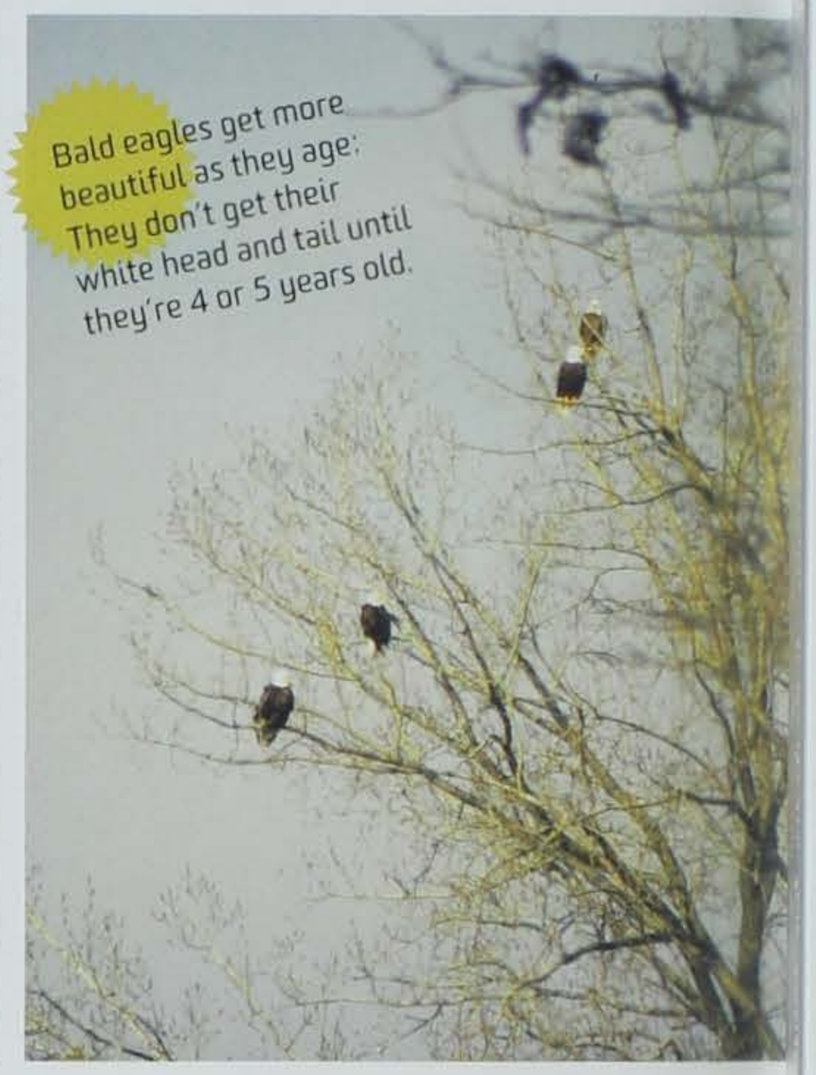
DNR staff no longer have the resources to monitor many of Iowa's eagle nests, nor to adequately watch for new nests. As a result, the DNR depends on volunteers to report nest activity, especially during nesting season (January-July). If you locate a nest, please remain at least a quarter-mile away and report your findings to the Iowa DNR Wildlife Diversity Program (515-432-2823).

PHOTO © RON MONNIER

Lost In Iowa



The bluffs of the Mississippi River offer Bellevue and the dozens of bald eagles that winter there respite from the icy winter winds—a blessing for both downtown shop owners and winged inhabitants.



Bald eagles get more beautiful as they age: They don't get their white head and tail until they're 4 or 5 years old.

More wild places

There isn't much local ice fishing in winter, due to silt build-up largely from farm run-off. If the water is low at Mill Creek, under the bridge on the south side of town, there's a big rock shoal that comes off the mouth where you might catch some bluegill or crappie in areas of no-flow. You'll pass a stocked kids' trout fishing pond on the river next to Mill Creek. Other local ice fishing areas include Brown's Lake near Green Island (see below) and Middle and South Sabula lakes.

But the dam's tailwaters are the most popular, perfect for boat fishing if the ice has broken up, especially for saugers and walleye. Anglers snag paddlefish in season (March 1-April 15).

Back at the dam, lockmaster Hainstock points to the fishing boats on the downstream side of the dam.

"There's an 80-foot hole out where that eagle is hunting," he says. "Flathead catfish like to hang out there. Biggest one I've ever seen was 45 pounds. But there might be bigger than that. This is a very good place to fish."

You never know quite what you'll see at this unique confluence of man and river. Maybe a coyote slinking over the ice, or the occasional swan flying overhead. Late winter, birding starts to pick up even more as migrating waterfowl merge onto the gigantic Mississippi River flyway. A few years ago, Hainstock saw a black-necked stilt and a glossy ibis.

Standing on the dam's iron-grate walkway, Hainstock once observed a huge and silent wave of monarch butterfly migration. "Most awe-inspiring thing I've ever seen," he says. "Those monarchs were just riding the updraft, thousands of them, heading south."

You've got to stay right on the river to catch such moments, and you can do that in downtown Bellevue.

Not even a quarter mile from No. 12 is a cluster of nicely renovated former WPA shacks called Moon River Cabins, on high ground above the water. In winter, it's the closest and coolest view of all those big birds. One may even land on the tree outside your window, close enough to study the pattern of its feathers. In summer, there's also a grill joint.

Perched on the north bluff of the village is the Mont Rest Inn, "out in the middle of nowhere, and darn proud of it," according to co-owner Christine Baker. Baker owned a Tipton B&B when she read a 1986 story in the Des Moines Register about a haunted mansion brooding over Bellevue.

"I stood out on the front porch looking at this view, and I didn't even have to look inside. I knew this was it. There's nothing quite like Bellevue."

Wildlife photographers like to hike the five miles of mowed dikes at the Green Island Wildlife Management Area, 3,500 acres of marsh and timberland just below the mouth of the Maquoketa River, eight miles southeast of Bellevue. Each end of the levy connects with the Upper Mississippi National Wildlife Refuge, winding past a series of lakes, floodplain forest and oxbow sloughs. There's a chance to snap many Iowa fur-bearing species: raccoon, beaver, deer, muskrat, you name it.

Wildlife staff say you could spot a pileated woodpecker almost any day of the spring or summer. Staff flood this marshland temporarily in the fall to maintain epic duck hunting conditions that are wildly popular in season.

Due to flooding and siltation, the shallow backwaters can't maintain decent oxygen levels for overwintering fish. If winter conditions are mild, summer fishing is decent. Seven interconnected lakes total 350 acres that support largemouth bass, bluegill, crappie, perch, bullhead, rough fish and northern pike.

GAZEBO PHOTO © RON MONNER

As Hainstock says, there's never a dull moment in Bellevue, even when the snow flies.

"It's a very good place to be, right up here where the eagles soar."

Travel Notes

Where to Eat

Grandpa's Parlour. Big ole breakfasts, smoked pork sandwiches and great hard-serve ice cream, on the riverfront. Open mid-April to Christmas Day, closed Mon-Tues. *563-872-4240*

Carousel Corner. Homemade soups and sandwiches. Try the bread pudding with caramel sauce for dessert, downtown. *563-872-5606*

The Happy Bean. Solid menu throughout the day right on Riverview Street, plus a small market, gallery, decent coffee and pastries. *563-872-3164.*

Second Street Station. Pizza and burgers in a nice, family-friendly pool-table bar-restaurant downtown. *563-872-5410*

Where to Stay

Moon River Cabins. Cabins are small, but they've got all you need in a fresh little space overlooking the river. Cabins for 2 from $150, cabins for 4-6 from $200. *877-872-4220; moonrivercabins.com*

Mont Rest Inn. Eagles roost in the trees on this hill overlooking Bellevue and the river, and you can hear them chattering in some of the 13 rooms of this giant 1890s home (all with in-room working fireplaces). Packages and themed weekends available. Doubles from $149. *877-872-4220; Montrest.com.*

Baymont Inn & Suites. Newly opened June 28, 2013. *Baymontinns.com*

What to Do

Bellevue State Park. The Nelson Unit features a butterfly garden, picnic areas, panoramic river views. Call manager Shannon Petersen at *563-872-4019* to show you the nature center in winter. **Dyas Unit** three miles south of town has an eagle's nest along the south road, hiking, picnic areas, an interpretive nature trail and a stream. 30 electric, 14 non-electric camp sites, modern restrooms and showers, dump station, playground. 200 acres of public hunting. Call the park office for more information. *Iowadnr.gov; 563-872-4019.*

Green Island Wildlife Management Area. Park in the headquarters lot and stop in to get the low-down on this tract of land. Hike the trail behind the building and get a very wild and amazing view of the village and river. *563-357-2035.*

Lock and Dam No. 12. *www.mvr.usace.army.mil/Portals/48/docs/CC/FactSheets/Miss/LockandDam12.pdf*

Riverview main street shops. Highlights include **The Bookworm,** independent bookshop with new and used books, antiques, stained glass, rocks and fossils, barn board picture frames *563-872-4802; bellevuebookworm.com* and **Jo Quilter Fabrics,** well known for fabrics and quilts *563-542-6605.*

Gazebo along Bellevue's riverfront park.

Lock and dam 12 in Bellevue

Lost In Iowa

Bald eagles fish with their talons, but also get many meals scavenging carrion or stealing kills from other animals. They live near water and favor coasts and lakes where fish are plentiful, though they will also snare and eat small mammals.

During winter, bald eagles are under pressure to consume enough food and expend as little energy as possible to maintain body heat. Don't get any closer than 400 feet, or they'll waste valuable energy flying away.

An eagle can carry items up to half its body weight. With an upper-end size of 15 pounds, a large eagle could carry nearly a gallon of water. Its strength comes from leg muscles, tendons and bones. A unique relationship between the tendons and tendon sheaths creates a ratcheting effect within the feet, allowing the eagle to maintain its grip for long periods without muscle fatigue (HawkQuest). Some research indicates eagles can exert 1,000 pounds of pressure in each foot (American Eagle Foundation), or about 10 times that of humans (HawkQuest).

THE Saw Whet Owl

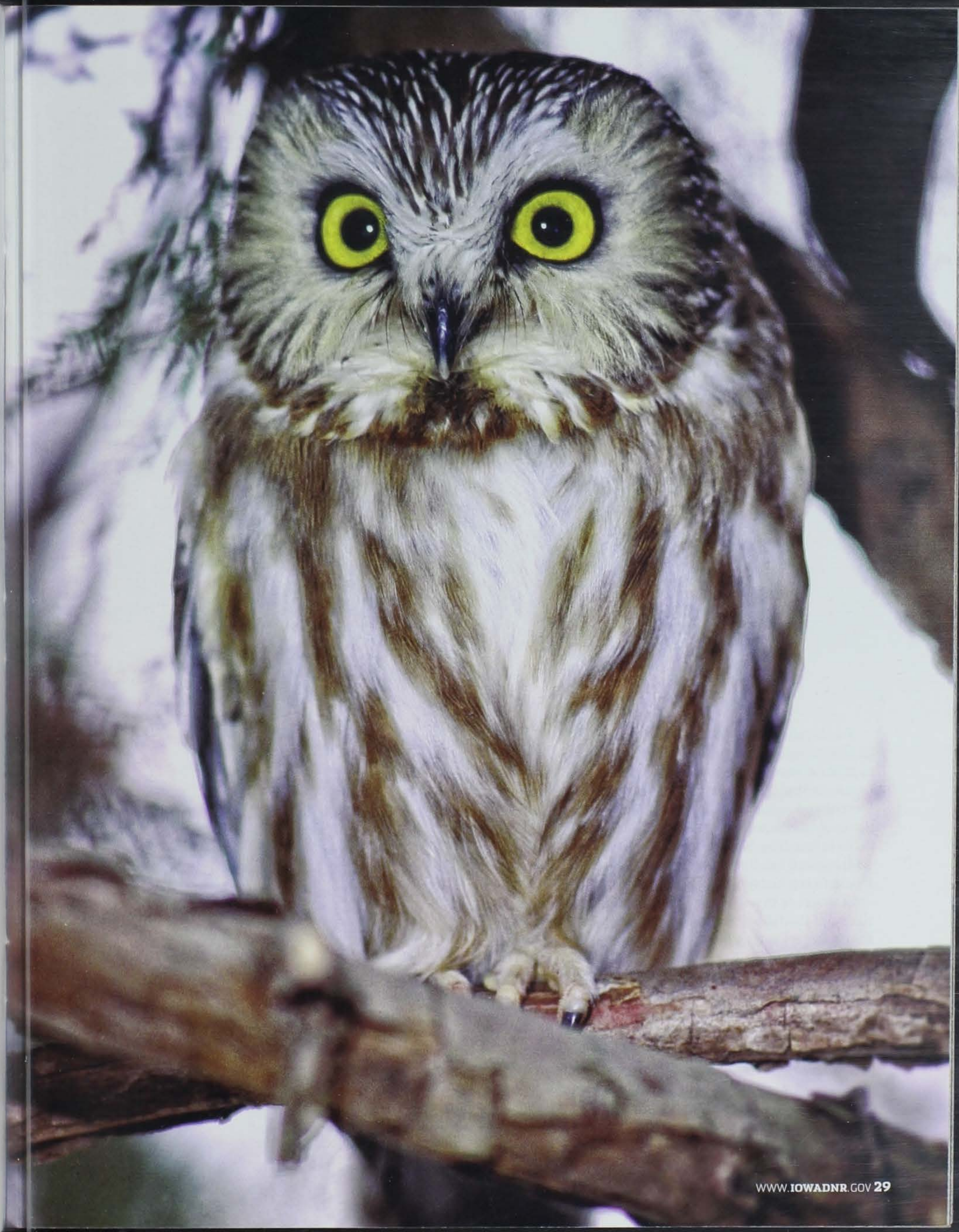
Mysterious Winter Visitor

As a symbol of wisdom and mystery, many ancient cultures considered the owl ruler of the night and seeker of souls—guardian of the underworlds and protector of the dead. Regarded with great curiosity and fascination within our own culture, the mystique continues today.

STORY AND PHOTOS BY *TY SMEDES*

Where do they come from? What migration routes do they follow? Why do individuals often choose new wintering sites from year to year—and often hundreds of miles apart? The secrets of northern saw whet owl migration are coming to light, and an Iowa research effort is contributing greatly to understanding this mysterious winter visitor.

It's early November and I'm accompanying the trapping team, making our way along a ridge-top deer trail in the darkness. Headlamps illuminate the narrow pathway as we wind our way to where mist nets are strung between poles along the crest of a hill. We check the first side of the "L" shaped net configuration and—nothing. The second side of the net is a bit lengthier, and when it appears we will reach the end in disappointment, a tiny ball of brown and white feathers dangles within a fold of the nearly invisible netting. We've caught our first saw whet owl of the evening—a tiny migrant from the far north—weighing no more than about 4 to 5 ounces.



One place owls store fat is in the wing pit, and since their skin is translucent, fat deposits are visible beneath the skin. Researchers look for ample fat supplies because once fat is depleted, birds will begin to break down muscle tissue for fuel. Master raptor trapper Jerry Toll and assistant, Sandy Reinken, a veterinary technician, work carefully to remove a saw whet from a mist net. The fine monofilament nets are stretched within a foot of the ground to capture low-flying birds. Although it may take a few minutes to extract the birds, they are unharmed.

The location is Hitchcock Nature Center, nestled among the Loess Hills of southwest Iowa's Pottawattamie County. Our team leader is Jerry Toll, master raptor trapper and research biologist. His assistant is Sandy Reinken, a vet tech. Both possess expert skills in handling birds of prey. It's their fourth year trapping and banding saw whet owls, and Toll's goal is to add to the body of knowledge from multiple trapping efforts across the country. He wants to determine the timing of the fall migration, and if a migration corridor exists along western Iowa's forested Loess Hills.

According to the Cornell Lab of Ornithology, little data exist on population trends, and as Iowa's first ongoing saw whet banding effort, all information recorded is pioneering science within our state. A cavity nester, this tiny owl likes to use old woodpecker holes, and favors forested areas where it hunts mice and some small birds. Heavy snow cover and extreme winter weather force northern saw whets to migrate southward from their primary habitat in Canada and northern tier states to a more favorable winter climate with increased availability of prey. Consequently, great numbers find Iowa's milder winters with abundant prey to their liking.

Our larger great-horned and barred owls are more conspicuous, but it takes a keen-eyed birder to find a tiny saw whet on its daytime roost, most often tucked close to the trunk of a cedar tree. As the smallest owl in eastern North America, it can be difficult to locate among the shadowy boughs of a conifer.

The Capture Method

Toll begins trapping in mid-October, when migration is in full swing, and continues at the rate of four to five nights per week until mid-November. Nets are raised just after dark. Researchers often don't quit until late evening. An audio device lures birds to the net, and although a springtime mating call is used, it draws curious birds in. The MP3 player is hung near the halfway point of the line of nets, and a recording is played at about 110 decibels, loud enough to be heard throughout the hilly area. The mist nets are constructed of very fine monofilament, which an owl can't see in the darkness, and are stretched to within a foot of the ground to ensure even low-flying birds are caught. Although it can often take a few minutes to free an entangled bird, they are unhurt by the experience.

Processing the Captures

Toll and Reinken quickly free the tiny predator from the net, and transfer it to a cloth bag. They make their way back up the winding trail, to the park maintenance building, which serves

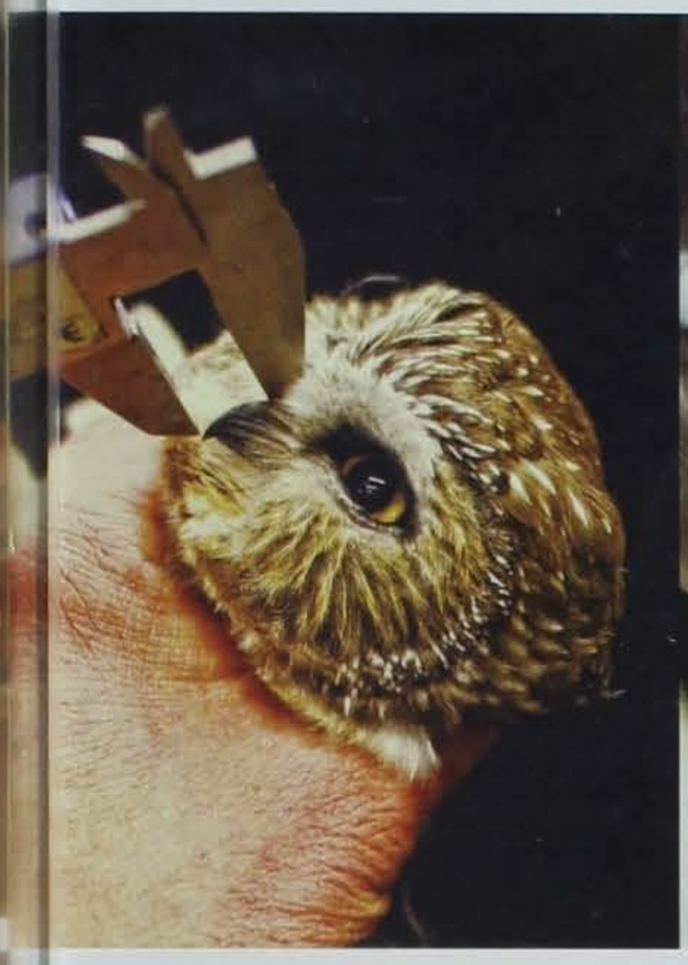
as owl trapping headquarters each evening. Lining the workbench are a saw whet trapper's tools. A caliper is used to take measurements of the beak and talons, and the wing cord and tail are carefully measured with a small ruler. A pair of specially designed banding pliers lay next to a wire loop containing scores of numbered leg-bands.

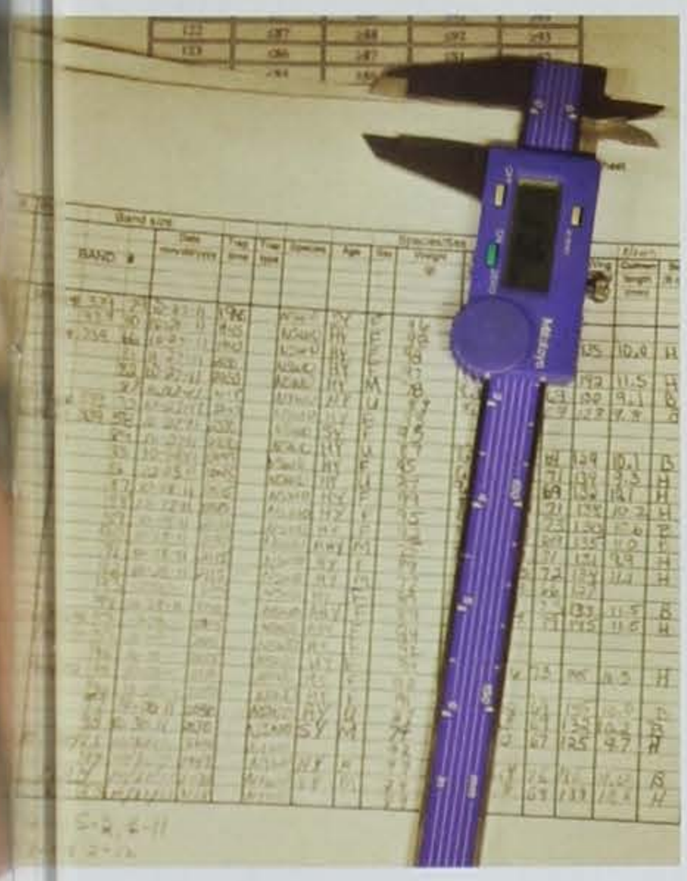
Toll carefully inserts the owl into a small can (head first) for weighing. The snug confines of the can are a perfect size and ensure the bird's wings stay secured along the body, preventing a struggle and chance of injury. The dark confines also quiet the bird. The can and bird are placed on a scale, and the pre-determined weight of the can is subtracted from the total weight to arrive at the bird's weight. Weight is used as a factor in determining the sex. Females are substantially heavier than males. This bird's weight (92 grams), along with a lengthy wing cord, indicate it is a female.

A distinction between hatch-year and adult birds is figured using ultraviolet light to age the wing feathers. Feathers of a hatch-year bird will fluoresce differently than those of an adult, since the age of replacement feathers is different. The room lights are turned out, and Toll holds the bird's wing away from its body. The UV light indicates the tell-tale feather pattern of an adult. He then uses the banding pliers to carefully attach a numbered, aluminum band to the bird's leg. Lastly, the bird's wing-pit is carefully examined.

"Birds, including raptors, store fat, which they use for energy during migration and lean times. One place they store fat is in the wing pit. Since their skin is translucent one can see a fat deposits under the skin," Toll explains. "Once fat deposits are used up, they begin to break down muscle tissue. We use a scale of zero to three to evaluate their present condition in conjunction with a measure of the amount of muscle mass on either side of the breastbone using a scale of zero to two. We use these measurements just to get a feel for a bird's general health."

At season's end, all data will be passed to the U.S. Geological Survey's Bird Banding Laboratory where it is processed along with information from other saw whet banding stations





Several measurements are taken of each owl, including beak, tail, wing cord and talon length. These measurements are logged, along with the weight, sex and overall condition. Small cans confine the birds during weighing, which protects it from injury and calms and quiets the bird. Finally, each bird is banded so if recaptured, researchers can track its history. At season's end, all data is passed to the U.S. Geological Survey's Bird Banding Laboratory along with data from other banding stations throughout the U.S. and Canada.

throughout the U.S. and Canada. Such data is used to determine population and migration trends, as well as adult to juvenile ratios and more.

When processing is completed, the diminutive owl is placed back into the cloth bag and taken outside. Left in total darkness for 10 minutes, her eyes will adjust back to the nighttime environment. Then the bag is opened, and the owl silently disappears into the night, none the worse for wear.

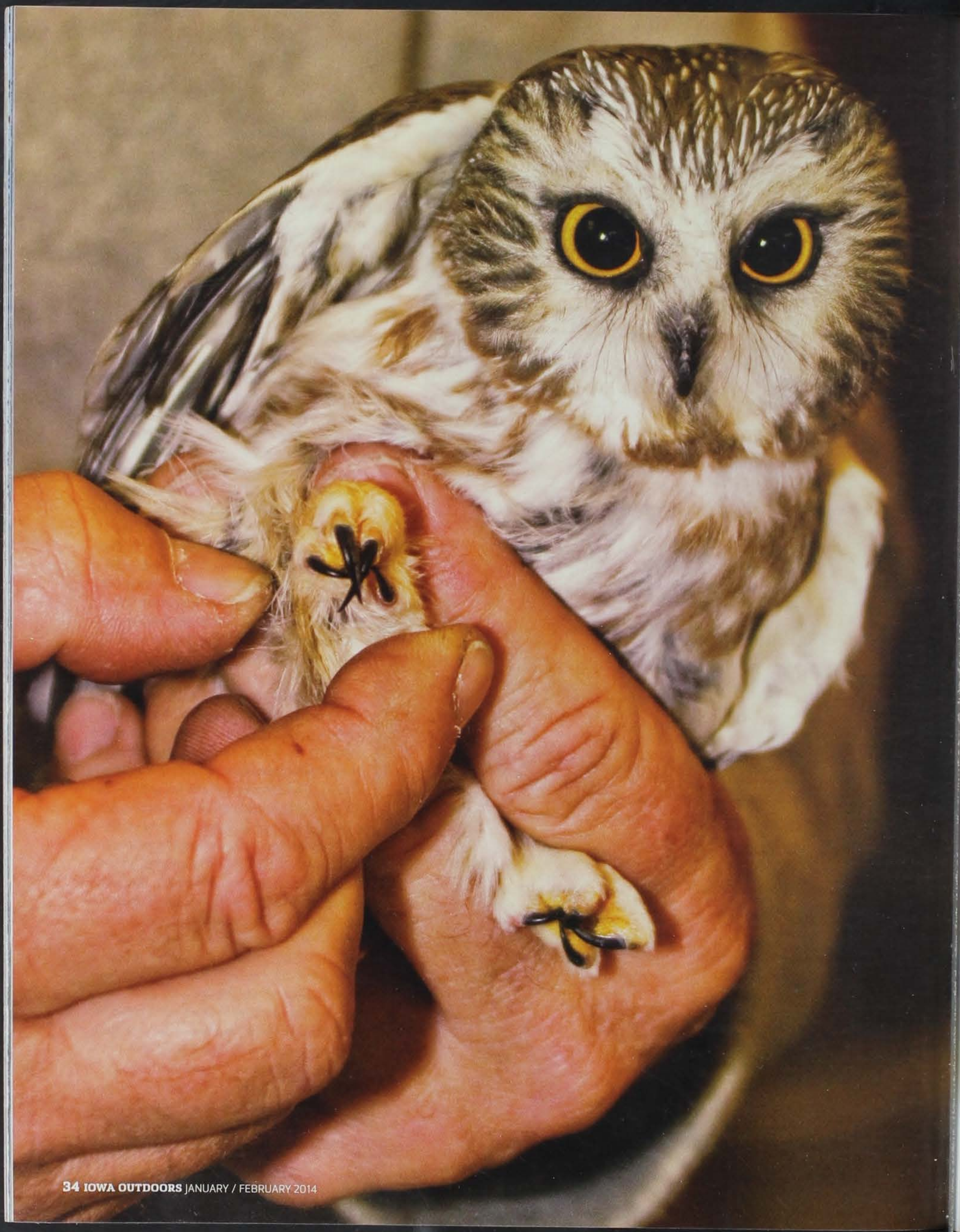
From Duluth to SW Iowa

During the fall 2012 trapping season, 69 saw whets were captured at Hitchcock and 13 more were banded at two other locations in the Loess Hills—Waubonsie State Park and the Loess Hills State Forest, placing the total for the southern Loess Hills corridor at 82 birds captured and banded during fall 2012. Three saw whets banded near Tofte, Minn. were recaptured at Hitchcock (nearly 600 miles to the southwest), along with two that were banded near Duluth. But the recapture that left everyone scratching their heads was the owl banded near Milwaukee, Wis. and recaptured at Hitchcock the next fall—spanning 500 miles across two states.

Looking To the Future

"Owl banding is a voluntary effort, although a small grant does pay for some equipment. Continuation of the project is dependent upon future funding and our findings," explains Toll. "During the fall of 2011, a volunteer tried an evening of saw whet trapping in Ringgold County, with Reinken's assistance. They caught four owls at the Mount Ayr Wildlife Management Area the first night of trapping. Following that successful effort, another trapping operation began during the fall of 2012.

"I would also like to initiate Stable Isotope Analysis of individual birds. Stable Isotope Analysis allows the researcher to examine a feather to determine the latitude of the bird's natal area (where it fledged), based on what the bird ate as a hatch-year bird. When I ponder what we are doing, it becomes a humbling experience. We cannot help the individual raptor in their journey but perhaps what we are learning about them will help mitigate some of the conflicts of raptor-human interaction," says Toll.



Hitchcock Nature Center

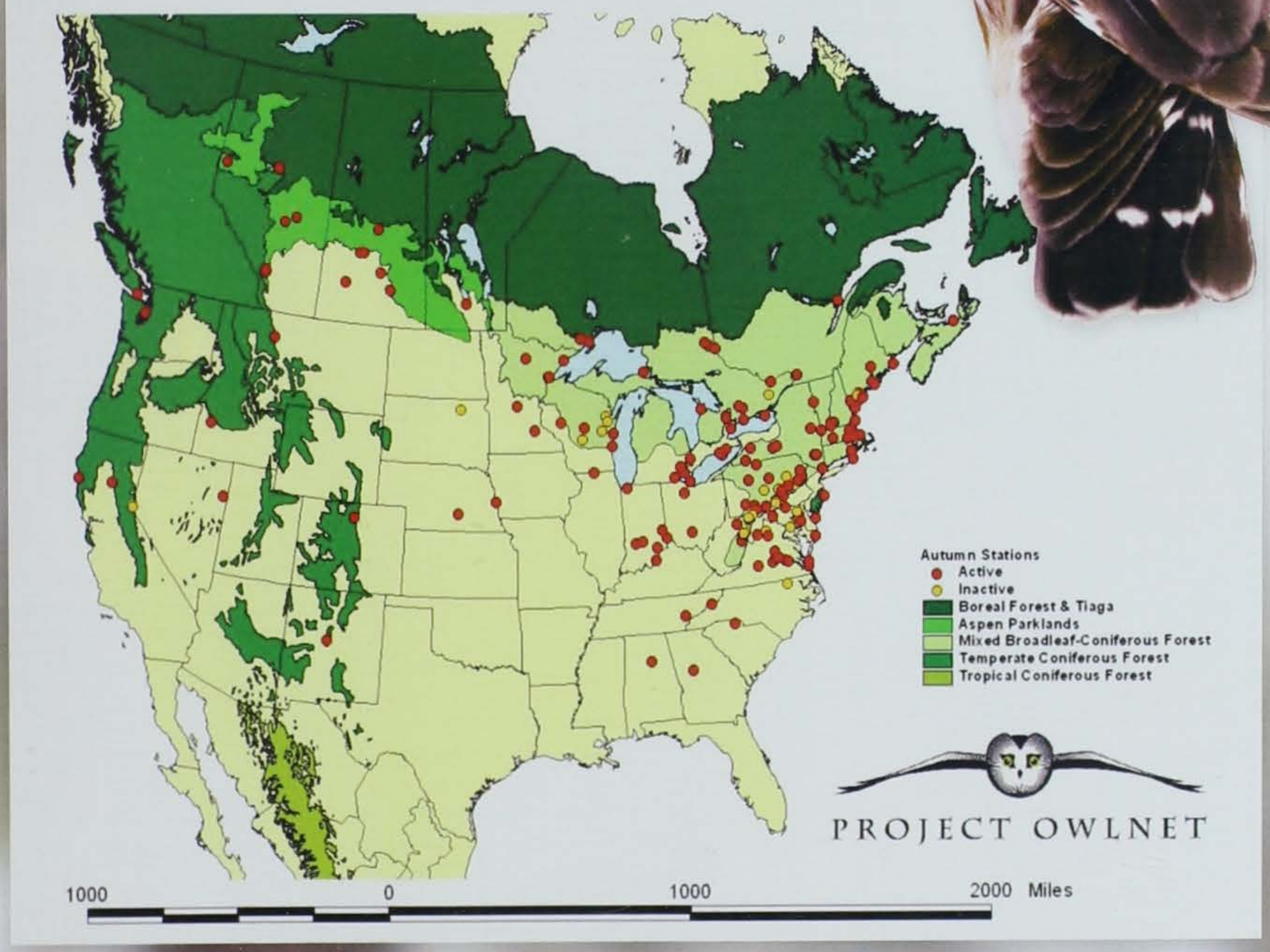
Acquired by Pottawattamie County in 1991, Hitchcock Nature Center consists of 1,268 acres in the heart of the globally significant Loess Hills. The Loess Hills harbor some of the largest remaining prairie remnants in Iowa and provide refuge for plants and animals found nowhere else in the state. Hitchcock is open daily for hiking, camping, picnicking, bird watching, snow sledding, star gazing or simply enjoying nature.

Hawk Watch volunteers count migrating raptors from early September through late December at the Hitchcock Nature Center. The Loess Hills lodge at Hitchcock features a 45-foot observation tower, where visitors can view migrating raptors and the surrounding Loess Hills land formation.

LOCATION:
27792 Ski Hill Loop
Honey Creek, IA 51542
Phone: (712) 545-3283
Directions: From I-29 take the Crescent exit and travel east to The Old Lincoln Highway. Hitchcock Nature Center is 5 miles north of Crescent off The Old Lincoln Highway. Just follow the signs.

Park Hours: 6 a.m. to 10 p.m.
Park Admission: $2 per vehicle per day or $10 annual permit

*Learn more about bird population and migratory bird research at the Patuxent Wildlife Research Center— **www.mbr-pwrc.usgs.gov** or visit **www.projectowlnet.org** for additional information.*



The Best Way To Spend A Winter Day

BY *MICK KLEMESRUD* PHOTOS BY *BEN CURTIS, MICK KLEMESRUD* AND *JOE WILKINSON*

There are few better ways to spend a winter day than sitting on a bucket and pulling fish through a hole in the ice.

Iowa is blessed to have four seasons, and rather than hole-up for the winter waiting for cabin fever to kick in, get a group of friends together and start ice fishing.

Ice fishing is a social activity enjoyed as a group. It doesn't require any special physical skills or fancy equipment and chances are, there is someone from work or the neighborhood with equipment just waiting to take you out.

Hard water levels the playing field—everyone has the same access to all parts of the lake. The biggest hurdle for first timers is overcoming the perception that it's too cold to have fun. Most anglers have portable fishing shelters to get out of the elements, even heaters to make it pleasant inside.

A second hurdle is the misbelief the ice won't support everyone. It only takes 4 inches of ice to support ice fishing. The key is that ice thickness is not uniform on any body of water or any given time of the season. Things like docks, trees, rocks or current can create weak spots and should be avoided. Snow on top of the ice will act as a blanket and slow ice growth.

The advantage of ice fishing versus open water fishing is anglers can set up directly over habitat and place their

ICE FISHING PHOTO BY JOE WILKINSON

Tip

When fishing early ice and late ice, shallow water can produce fish. During the mid-winter slow-down, fish deeper water, as these anglers at Clear Lake are doing.

bait and lure in front of the fish. Although fewer anglers fish during the winter, more fish are caught through the ice per angler in the short season than during the spring, summer and fall.

BECOMING AN ICE ANGLER

1) Go with someone with experience and equipment to use

An 18- to 24-inch long rod, 4 pound strength test line, an ice skimmer, a 5-gallon bucket and winter clothes is all that is needed to start.

2) Target panfish, specifically bluegills

Find the bottom of the lake and raise the bait up one foot. An inexpensive clip-on weight will help with this. Use a number 8 size hook or a tear drop jig and tip the hook with a wax worm.

3) Fishing is best during the early and later winter

Midwinter fishing can be more challenging. The best action is usually early morning or late evening and can be fast and furious, but short lived.

4) Safety first

Know the ice conditions before going out and carry about 50 feet of rope, a throwable flotation seat cushion and your cell phone. Check the ice thickness when walking out. Ice creepers are designed to slip over shoes or boots to provide traction and help prevent falls.

Lake Maps

The more information anglers have, the better the chance for fishing success. Many newly updated lake maps showing structure and lake bottom contours are available free at *iowadnr.gov/Fishing/WheretoFish/LakesPondsReservoirs.aspx*

Use the maps to find edges of creek channels, fish mounds, brush piles and rock piles—places likely to hold fish. The maps are printable and many include GPS coordinates for structures.

BELOW: Matt Flattery of Urbandale fishes a Dallas County farm pond and catches a mess of 10.75-inch bluegills.

TIP

If fish are finicky, cut a series of holes over different water depths and structure, and fish each hole for about 15 minutes until active fish are located.

Tip

If fishing a lake for the first time, a general guide is to fish three quarters of the maximum lake depth and make adjustments from there to find fish.

TIP

Go small—use small hooks, small bait and light fishing line.

Taking Kids

Taking kids ice fishing is simple compared to open water fishing—there's no casting and no bugs.

Make kids the focus of the trip and give them your attention. Bring snacks, something to drink and if fishing slows, let them play.

Plan short outings close to home, and when the kids have had enough, go home. Make it fun—not a chore—so they want to go again.

Tip-ups—perfect for the third pole license option

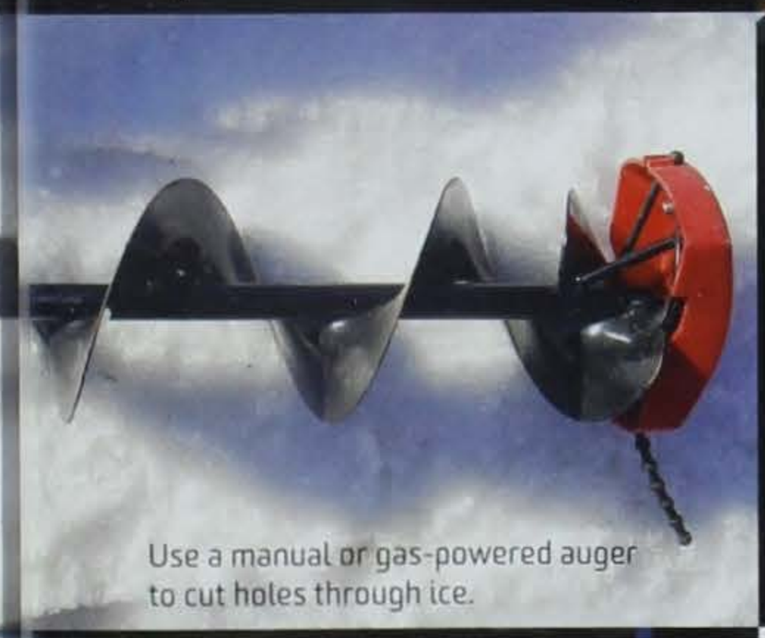
Tip-ups are popular along the upper Mississippi River and on the Iowa Great Lakes as a method to fish for northern pike and larger walleye. The tip-up spans the ice hole and has a spool of line underwater. The spool is connected to a flagging device and when a fish takes the bait, the flag tips up to alert the angler.

Three types of ice angling poles—all effective.

Will Schlickbernd's first ice fishing trip to Beaver Lake in Dallas County.

Ice shacks range from carpeted, heated outfits with TV and depth finders to tents or a 5-gallon bucket for a seat (right.)

Jason Schlickbernd attempts to bring in a channel cat, which he lost.



Use a manual or gas-powered auger to cut holes through ice.

Catching master-angler sized bluegills at a private farm pond.

BAIT

Wax worms, which are moth larvae, are the most popular ice fishing bait, followed by minnows. Other larvae-type baits like spikes and red wigglers are available in certain locations, like around the Iowa Great Lakes.

Use a skimmer, below, to remove slush and keep the fishing hole open.

Dirty Secrets

Land and Drainage Changes Made A century ago and hundreds of miles away are still affecting waterways, and for **Lake Red Rock,** *sediments are quickly filling the lake*

BY *KAREN GRIMES* **PHOTOS BY** *RON HUELSE*

Lake Red Rock, which lies between Pella and Knoxville, is Iowa's largest lake. It also has the largest watershed, with nearly a fifth of the state adding silt and nutrients to its waters. At Whitebreast Creek Bay, mud lies thick under the water, filling in the lake.

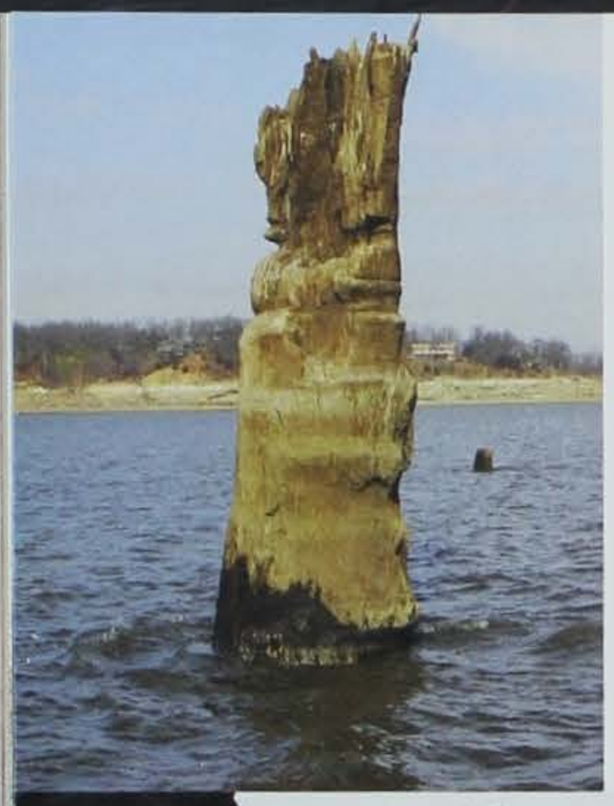
Like dirty secrets locked in a closet, the sediment filling Red Rock Reservoir seldom sees the light of day. The muddy banks and mucky mud flats in Iowa's largest waterbody were exposed during the winter of 2010 to 2011 when the U.S. Army Corps of Engineers drew the lake down 10 feet to repair the dam. It uncovered displaced soil and nutrients, a story common to impoundments. Three years later, only a thin veil of water masks acres of sediment on the west end.

"It's a travesty," says Will Prather, a former high school principal, no-till farmer and Red Rock Lake Association member. As a Knoxville area farmer, he thinks the soil and nutrient buildup is a colossal waste—nutrients could fertilize crops and soils should stay on the land. As a homeowner and lake association member, he hates thinking the lake could be gone in a few years, along with the value of his home.

Iowa's largest lake also has the largest watershed, or area of land that drains to the lake. As the Des Moines River winds its way from Minnesota to Pella, it travels 418 miles. Along with its tributaries—the Raccoon, North, Middle and South rivers, and Whitebreast Creek—the Des Moines collects water from 12,323 square miles. That's 20 percent of the state's land area. That water moves a lot of dirt.

Built to protect lives and property, the flood control reservoir balloons from 23 to 102 square miles at full capacity. The lake was authorized in 1944 following devastating floods in 1903 and 1944 in Ottumwa. It took 25 years to buy land and build the dam, completing it in 1969, amidst opposition from birders and environmentalists who decried the death of the free-moving river.

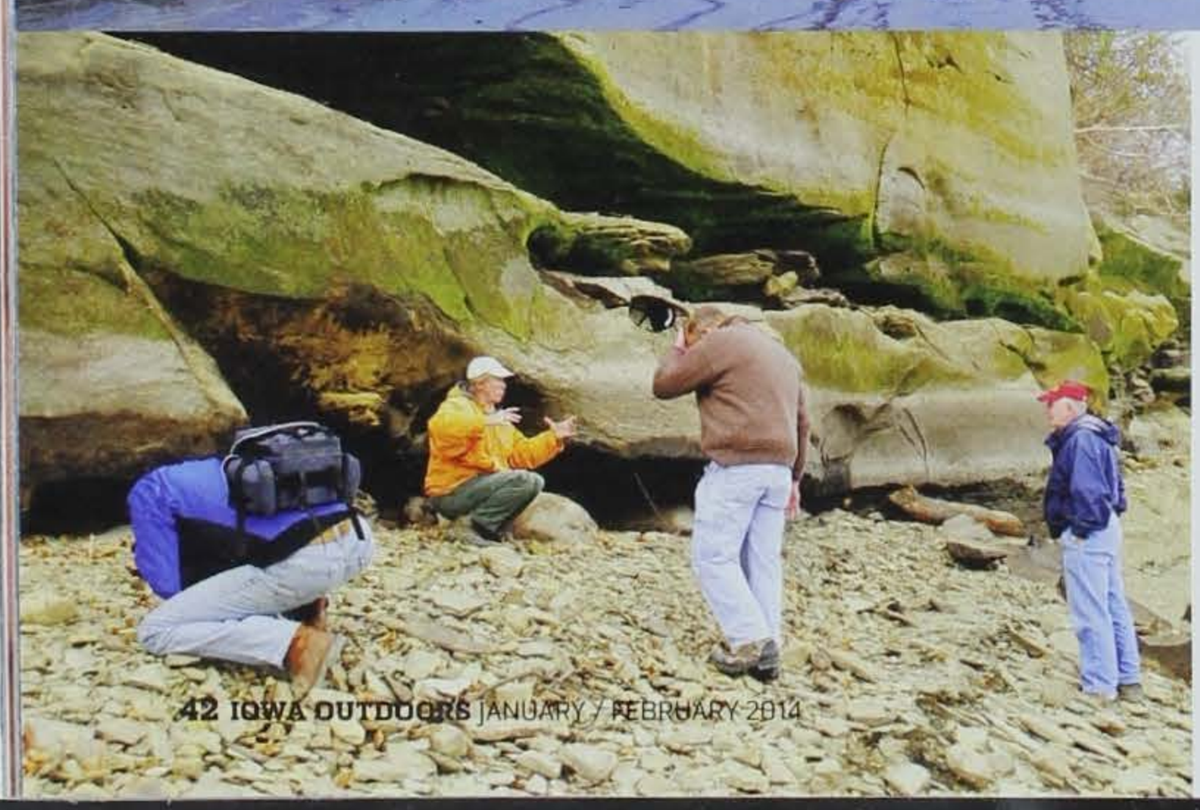
One critic was Gladys Black, a Pleasantville nurse. Known for her birding column in the Des Moines Register, she campaigned against potential habitat loss. "I don't think God will ever forgive us for ruining that river," she said, later recanting as the reservoir became home for bald eagles, osprey, great blue herons and shorebirds. Now it's an autumn stopover for more than 50,000 waterfowl, plus terns, gulls and white pelicans.



In 2010, Larry Sims' airboat is the only vessel able to ply the inches-deep water and mud bays—a perfect craft for bowfishing.

Red Rock Lake Association member Will Prather examines the lakeshore geology.

TOP LEFT: Dubbed the Peace Tree, in 1842 Native Americans and settlers signed a treaty beneath the tree that limited settlers to lands to the east—a broken promise. **BELOW:** Snail and worm trails dot a brown sea of mud west of the mile long bridge. **BOTTOM:** On the south side of the lake, visitors examine the geology.



Remnants of the old Highway 14 bridge still hover above the mudflats, well below the new bridge that crosses Brush Creek Bay.

Sediment Skimming at High Speed

With mud flats exposed, in November 2010 we geared up for a high-speed trek to explore the sediment expanse on the lake's upper end. We climbed into an airboat, more the vessel for hunting alligators in the Everglades than plying Iowa's waters. The flat-bottomed, polished hull craft is owned by Larry Anthony Sims of Knoxville. He explains we will hug the shore where mud is most prevalent. "It actually travels better where there's less water," he says.

We're dressed for wind chill—pulling on winter waders, insulated pants, coveralls, ski pants and waterproof boots. Tugging down a ski hat, Jones cap or balaclava. Pulling up neck gaiters, ski masks and covering it all with GORE-TEX, Thinsulate, fleece, canvas or neoprene. We are prepared.

Sims hands out earplugs, "I won't start up until everyone has them in." The motor revs and the fan spins with a rumble, then screams as we pull from the boat ramp. Starting slow, we wince as Sims misses emergent tree limbs and rocks. As speed increases, the motor and fan roar despite earplugs. Conversation, even when shouting, is impossible. Soon we are hydroplaning—skimming over mud flats at upwards of 50 miles per hour. It's exhilarating.

And it's cold. Counting wind chill, 40 degrees feels like 23 or less. Our eyes stream. Cheeks redden. Exposed skin burns.

We head west along the south shore from Whitebreast Recreation Area. Powering down in Whitebreast Creek Bay, bird songs pepper the air. We scrutinize snail and worm trails in the mud. This is how fossils came to be, trapped in sediments as Iowa's inland sea slowly receded.

The bay's steep slopes tell us this was once a valley. Yet the earth beneath us is flat. It's poured out into a brown sea of mud. Lakebeds should have topography, just as the hills that surround them. That's how anglers find fish, looking to the hills for dropoffs and changes that continue into underwater landscapes.

Wearing high-tech camouflage, Sims says, "I bought the airboat to take anglers on bowhunting trips." His eyes shine as he talks about the excitement of pursuing large invasive silver carp—sometimes called flying carp for their jumping. "I enjoy introducing young people to the sport."

We tuck our hands under our arms to warm up. No one wants to discuss why we're here—the overwhelming volume of mud that's filling and killing the lake.

Dressed in a canvas jacket and hooded sweatshirt, Prather brings it up first. "Lake Red Rock has a sediment problem," he says. "For every acre of water, there's 550 acres of land that drains into it. Compare that to Lake Rathbun, where 32 acres of land drain in for every acre of lake.

"This, of course, is Whitebreast Creek," he adds. "It's a major contributor of silt in Red Rock Lake. Percentage wise, it contributes more silt than any other lake tributary." That's ironic as Whitebreast Creek is the smallest tributary.

Upriver, another federal flood control reservoir, Saylorville Lake, is the great silt catcher for the Des Moines River. Three branches of the Raccoon River are next in volume. Starting near the Loess Hills and draining western Iowa, the Raccoon River system joins the Des Moines River near downtown of the capital city. Its watershed is half as big as the Des Moines River's.

The watersheds get smaller, but steeper near Red Rock. The North, Middle and South rivers flow into the Des Moines River above Knoxville. But here, in Whitebreast Creek watershed, much sediment originates.

Ben Gleason was coordinator for the Upper Whitebreast Creek water quality project. Starting near Osceola, he worked with farmers to stop erosion. "We've been doing terracing, grade stabilization structures or ponds where you take a gully and build a dam. It's pretty popular here."

Farmers here have treated 15,000 acres with 15 different conservation practices including grass waterways, wetland restoration, buffer strips and terraces. "We've reduced sediment by a little over 10,000 tons" the last three years, Gleason says. "More farmers and more practices are waiting, with cost-share approved but practices not yet built."

Much is to be done. While 40 percent of the small watershed is eroding at tolerable levels—when erosion and soil formation rates are equal—one-fourth is eroding at twice tolerable levels. "Riparian zones, those areas near streams, keep banks in place and filter sediment," he says. Some of these are in bad shape due to overgrazing or poor woodland management.

A 1992 report concluded that Whitebreast Creek, and the South and Middle rivers constitute one-fourth of the Red Rock watershed, but deliver 55 percent of the lake sediment. "We don't really know if it comes from the stream beds and banks or from farm fields," Gleason says.

A Muddy Death

An underlying sadness prevails as we leave the bay—the wide, flat sediment trail behind us heralds a dying lake.

Sims fires up the motor and we skim along the mud, west to Elk Rock State Park and the mile-long Highway 14 bridge, passing two boat ramps that end abruptly—high above the water.

North of the bridge, we slow to look at the Peace Tree. With a girth of almost 23 feet, the trunk of this giant sycamore persists 45 years after the reservoir filled and the tree died. Beneath this tree in 1842, Native Americans and settlers signed a treaty limiting the settlers to lands east of the tree. A broken promise.

Pelicans rest on a sandbar in the low lying winter sun. Near the north shore we skim over inches of water, underlain by 6 to 8 feet of sediment. This thick deposit covers the submerged town of Red Rock, named for the rust-red color of the iron-stained sandstones. Known for its trading post, saloons, hard drinking and hard living, Red Rock vanished when the dam closed its gates in 1969.

As we stop, Sims recalls pulling duck hunters out of the muck. With the lake down, his airboat is the only transportation in these shallows. "Even the Coast Guard calls me to the rescue."

For those who fish, swim, boat and duck hunt at the lake, the death knell is tolling. Designed and built for a 100-year lifespan, there aren't many years left. The Corps estimates the normal lake pool has lost 44 percent of its capacity to silt since 1969—think of a bathtub filling with mud.

To Prather the mud is a waste of valuable soil. As an entrepreneur, he bemoans silt replacing water. "The economic impact of this lake is greater than most people realize." Prather adds that he and others have built 1,400 homes around the lake. "Their assessed valuation is well over $100 million. Recreational income varies from $17 to $30 million depending upon who you talk to," he adds. He can make an argument that recreational and residential values outstrip flood control values.

But the Corps is bound to fulfill its promise to downstream residents. The main mission is flood prevention, followed by recreation and conservation. The Corps estimates the dam prevented more than $550 million in flood damages from 1969 to 2009, an average of $13.8 million per year. During the flood of 1993, the Red Rock dam prevented $76 million in damages.

Prather says there are two major alternatives for future lake management:

• One, open the gates and use the dam strictly for flood control after deluges. That's good flood control, but leaves recreational users and lake home owners high and dry.

• The other is to raise the lake pool another 10 feet. That takes an Act of Congress. It's been done three times, the last in 1992 to cover the mud. Raising the pool will satisfy recreational and housing interests, but reduce flood storage. That could impact towns downstream.

With the equivalent of 465,000 dump truck loads of soil flowing into the lake yearly, dredging is impossibly expensive. So is riprapping along 18 miles of shoreline to slow bank erosion.

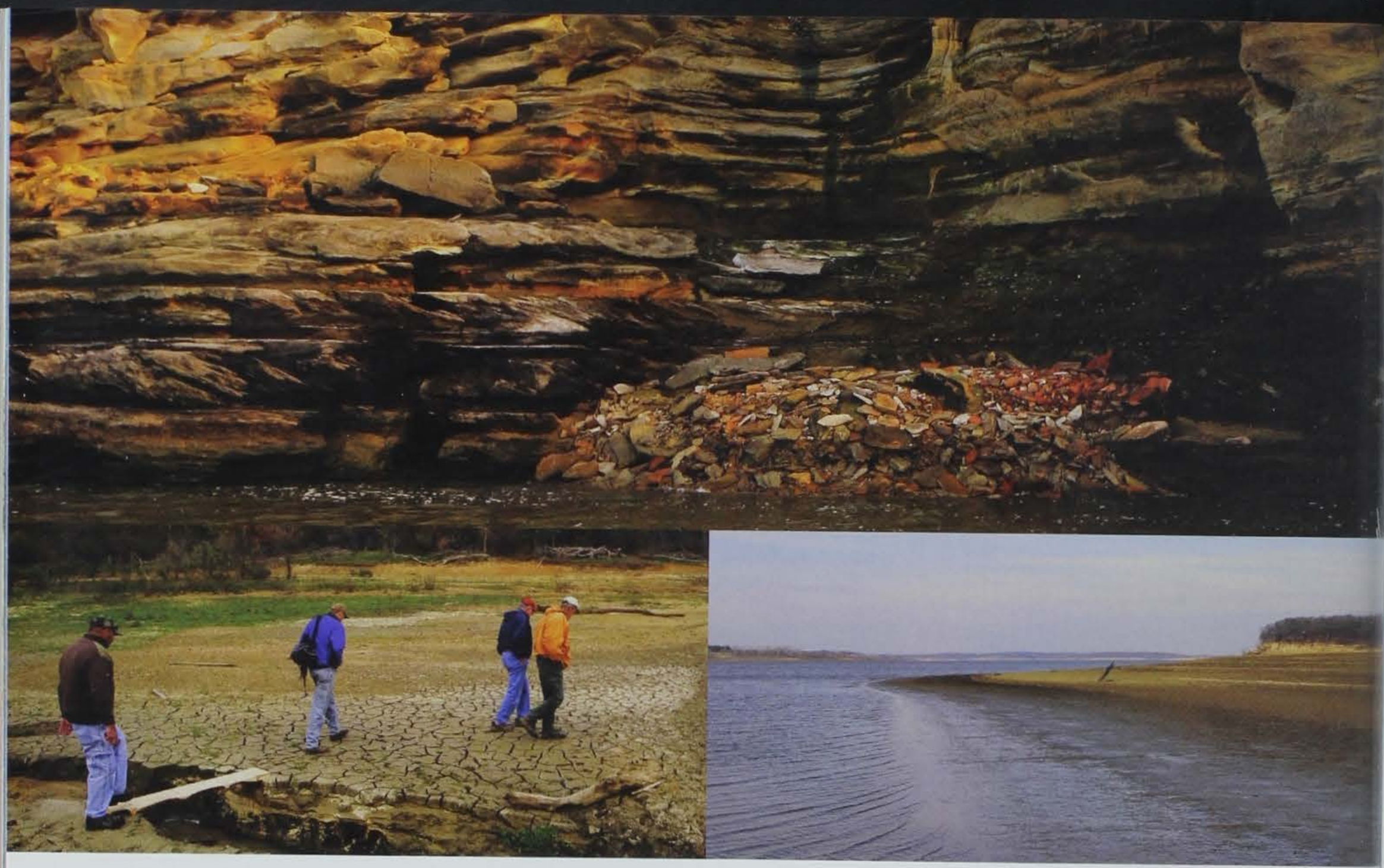
Jamie Gyolai, formerly with the Corps, says there are different opinions within the Corps—accept the inevitable filling of the lake, raise the normal pool again or slow erosion to stretch the lake's longevity. Some say streambank erosion is a culprit, and putting in structures upstream could slow the water. Others, like Dave DeGeus, no-till farmer and employee of The Nature Conservancy and former Corps employee, think it's important to continue to educate farmers about erosion. New technology could pinpoint erosion sources—a major need—says Perry Thostenson with the Corps.

"If we can forestall or put off filling the lake, the tough decision about the lake's final end won't have to be made," says Prather. He argues that it's time to make conservation for farmers mandatory and he thinks mandatory no-till would be a start. "If they are to receive that (federal) payment, they must protect us, protect the lake. The simplest way is with no-till farming."

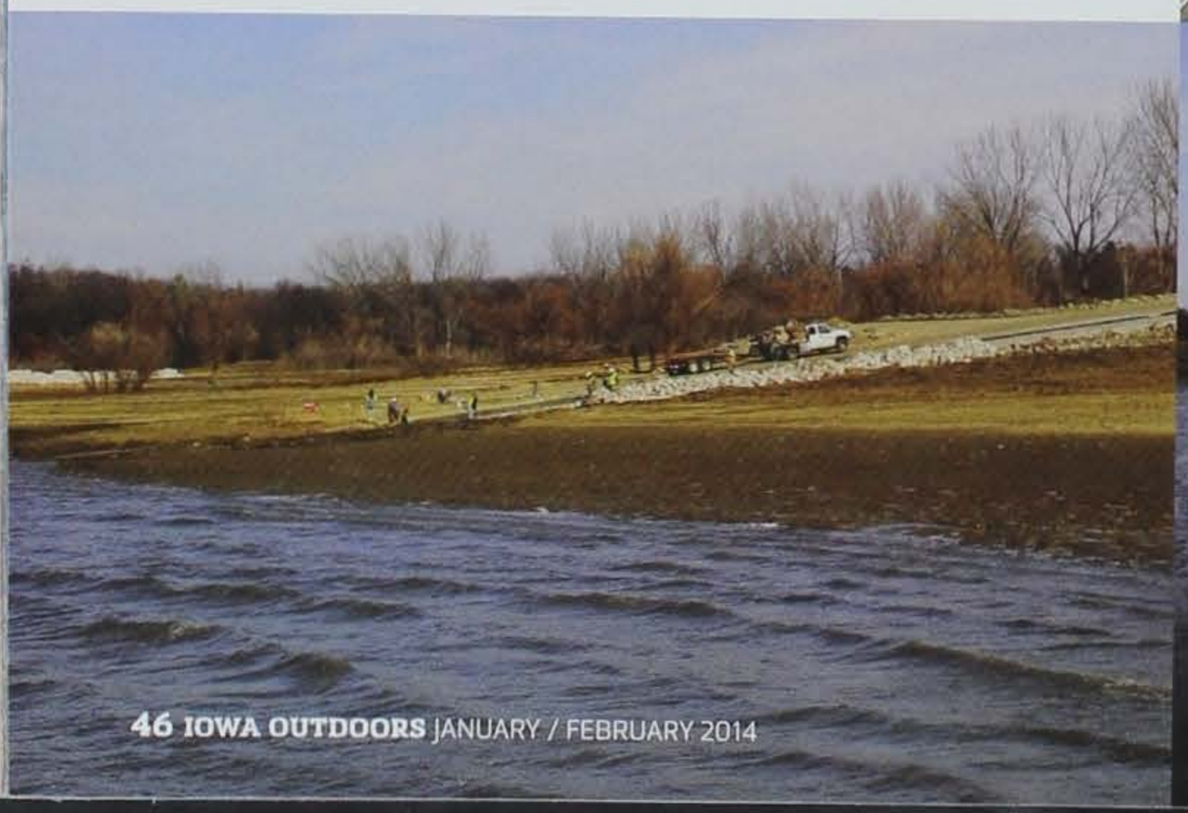
Sims fires up the engine. The boat slowly rotates, trying to break loose from the suction. It wiggles free and we leave our own long trail behind us in the mud. We see deer tracks in the sediment, sinking deeper with each step. Looking at the tracks, you can almost see the panicked animal jerking its hooves out of muck and leaping for shore.

We, too, turn for home. The mile-long bridge looks different from underneath. Water shines in the sunlight

From the south side of Red Rock, the drawdown exposed layer upon layer of rock. Peeking over the horizon, Cordova Park Tower is barely visible past the mile-long bridge to the northeast. Try climbing the tower for an aerobic workout and the best panoramic view of the lake.



TOP: When the sun shines just right, it's easy to see how the town of Red Rock, and later the lake, got its name. **ABOVE:** Cracked layers of sediment show years of accumulated mud lying beneath the lake's surface. The drawdown reveals what's normally hidden—built up deposits of silt. **RIGHT:** The bridge over Teter Creek lies on the southern side of the mile-long Highway 14 bridge west of Elk Rock State Park. Riprapping strategically near bridge abutments and the boat ramp at Whitebreast Park will help control bank erosion in the reservoir. But it won't stop field and bank erosion swept downstream by the many creeks and rivers that feed the lake. **BELOW RIGHT:** Photographers and videographers capture the scene as the airboat speeds and skims across a mix of mud and inch-deep water.



deceptively. According to maps, the water west of the bridge is up to 5 feet deep. But during the drawdown, it's just a few inches.

We leave the lake, cold, full of contradictory feelings—uplifted from being outdoors, yet partly depressed. We've traveled nearly 10 miles, skimming over inches of water and runny mud. Can the lake be saved? Probably not. It's unlikely that farmers, homeowners and homebuilders in one-fifth of the state will adhere to soil-saving measures. It's unlikely that mandatory conservation will be enacted. When agriculture was purposely excluded from the federal Clean Water Act 40 years ago, it's unlikely the exclusions would be lifted today.

Congress also made cuts in the Farm Bill. A consequence is little monetary incentive for farmers to stay in conservation programs on highly erodible ground. And there is resistance to tying conservation to federally-backed crop insurance. Many conservationists say doing so is fair exchange and would require farmers to provide clean water, recreational opportunities and wildlife habitat.

Even if conservation incentives are tied to benefits, it takes time to show results. The Soil and Water Conservation District on Whitebreast Creek has monitored water for a couple of years, but Gleason says it's too early to see the impact of recent conservation practices. Sediment is a complicated pollutant to measure.

DNR geologist Keith Schilling agrees. "There are a lot of opportunities for sediment to be stored on the landscape." He's been working at the Neal Smith National Wildlife Refuge north of Red Rock. "Research there shows one-half to two-thirds of sediment may come from bank erosion. It varies with rainfall and stream velocity.

Our streams are still trying to reach equilibrium from the 1920s when most everything was farmed without conservation and streams were channelized, he says. Schilling says as naturally meandering streams were straightened the volume and velocity of water increases, accelerating erosion. "Streams are still trying to downcut or widen, trying to recover and reach equilibrium" from landscape changes made 90 years ago, he says.

Today the headwaters of the North Raccoon River flow where, in places, there likely wasn't a river before European settlement. The glaciers that swept north central Iowa 10,000 to 14,000 years ago shaved off hills and filled in valleys and left behind a broad, flat, poorly drained land. Early reports of Buena Vista County said the land is without natural drainage but wide, great marshes and low sand hills. And little soil erosion.

Landscapes changed as settlers arrived. To them, it was a quagmire of marshes too wet to farm. Today, a rain drop might flow into the ground, into an underground tile line that drains those former prairie potholes, kettles and marshes. From the tile, it's spat out into a drainage ditch. Drainage makes these fertile soils productive for farming. Those former marshes and prairies held water, letting it sink deep into the ground. They buffered the impact of downpours into rivers. But we've lost these areas, opting to speed the transfer of water.

By the 1920s, drainage districts formed, with the largest concentration in north-central Iowa—the prairie pothole region. It was plumbed with extensive underground tile lines that flowed to ditches. Small streams were straightened to carry water faster.

Schilling's work with Chris Jones of the Iowa Soybean Association's Clean Water Alliance on the Raccoon River provides hope. They researched daily records for turbidity (an indicator of sediment concentration) taken in the Raccoon River since 1916. It shows sediment loads were much greater in the early 20th century despite lower rainfalls. Sediment loads increased as the Raccoon carried more water, peaking in the 1970s. But since the 1980s, loads have declined or remained steady. Schilling gives credit to farmers today who have adopted conservation. "We are doing good things. We're doing better on the land, delivering water with less sediment to streams," he says.

Decreasing hill erosion reduces sediment reaching a stream. But it's an unstable system. If little sediment enters the stream, the stream will carry sediment from its own bed and banks.

Streams naturally turn like a snake, winding their way wider. As water moves downstream, it hits the outside banks, cutting silt and clay particles loose and carrying them off, widening the stream. As water slows on inside bends, silts and sands drop out to build sandbars. The process takes a straight stretch and creates an S-shape, given enough time.

Clearing land, tiling, draining wetlands, channelizing streams, covering the breathing, absorptive soil with city roofs, roads and parking lots, draining city runoff into storm sewers—we've become experts at removing water quickly. The result is more runoff, causing more sediment loss and lower water tables. In streams, water flows higher and faster after a storm, causing more flooding and more channel cutting. And stream flows are unnaturally lower during droughts. Those wetlands and marshes removed so long ago slowed the process down, kept streams running in a steadier flow with fewer extremes.

The solution is to encourage water to infiltrate deep into the land while increasing the water holding capacity of soils. In fields that means no-till, cover crops, stream buffers, terraces and wetlands—all tools that decrease runoff.

"Sediment is a natural occurrence," Schilling says. "How else do mountains erode down into plains?" Unfortunately, Red Rock Lake is man-built with a planned obsolescence of 100 years. It has a big watershed to surface water ratio, bringing lots of sediment-carrying water to the lake. While the process can be slowed, there is one eventual outcome.

Our best hope to prolong the life of Lake Red Rock is to encourage conservation to slow the water and erosion and to continue research.

Put More Urban Trout In Your Creel

STORY AND PHOTOS BY *DAVID MERICAL*

I don't like spending precious fishing time driving to far-off destinations, so I tend to fish close to home. There are very nice streams in northeast Iowa to trout fish. Unfortunately, many of those streams are a three hour drive from central Iowa.

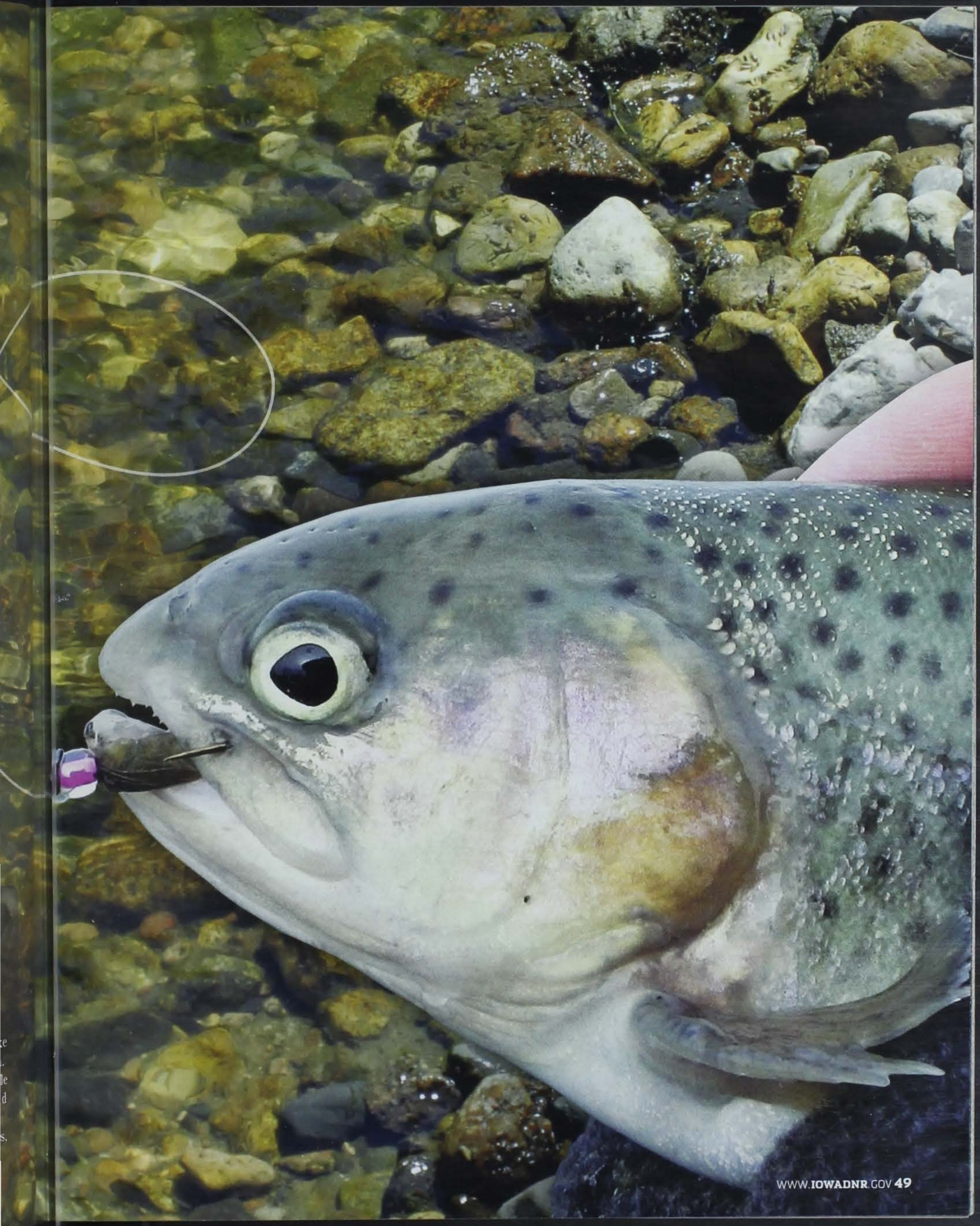
But the DNR keeps expanding its urban trout program, which brings trout fishing closer to anglers across Iowa. The increased sale of trout stamps funds this program. Not only does the program introduce anglers to catching trout, it also sparks tourism by getting anglers interested in travelling to experience northeast Iowa's wonderful trout streams. Since the urban trout program is designed as a seasonal fishery, anglers are encouraged to keep their limit of up to five trout for a tasty meal.

It's practically a year-round opportunity. In certain deep lakes, at least some trout survive even the hottest summers. With fall and winter stockings, anglers are able to ice fish for trout, providing there is safe ice.

I fished three different urban trout lakes recently: Banner Lakes at Summerset State Park, Lake Petocka and Ada Hayden Lake.

I made it out one late January to ice fish a nearby lake for trout. It wasn't a stocking day and fishing was tough. Very few anglers were catching fish, so it wasn't possible to observe what successful anglers were doing. But I did land a couple of trout.

In past years, I have ice fished trout on stocking days, often doing extremely well. In one freakish instance in



February 2008, I landed 115 rainbows in 5.5 hours of ice fishing. That day was so crazy—for a while two friends and I stood fishing out of one 8-inch diameter hole at the same time all catching fish. We fished holes just a few feet away without luck. We laughed at ourselves while this ridiculous scenario played out, enjoying every minute. It was a similar experience one January, when I landed 88 rainbows through the ice in five hours. On each of those days, I shook a small Reef Runner Cicada 18 inches below the ice. Trout would hammer the lure—coming back repeatedly if they didn't get hooked.

When open water arrives, I flyfish for trout at a central Iowa lake during my lunch hour. With the driving time to get to the lake and back, I have 20 minutes to fish. Using sinking fly patterns, I can catch and release five rainbows every time.

April 21 was my last brief flyfishing trip to a trout lake before the spring heat arrived, and I did catch a trout that evening.

Banner Lakes was the first area lake to get a fall stocking, brought to the lake in October. Using a couple of fly patterns, I caught 21 rainbows.

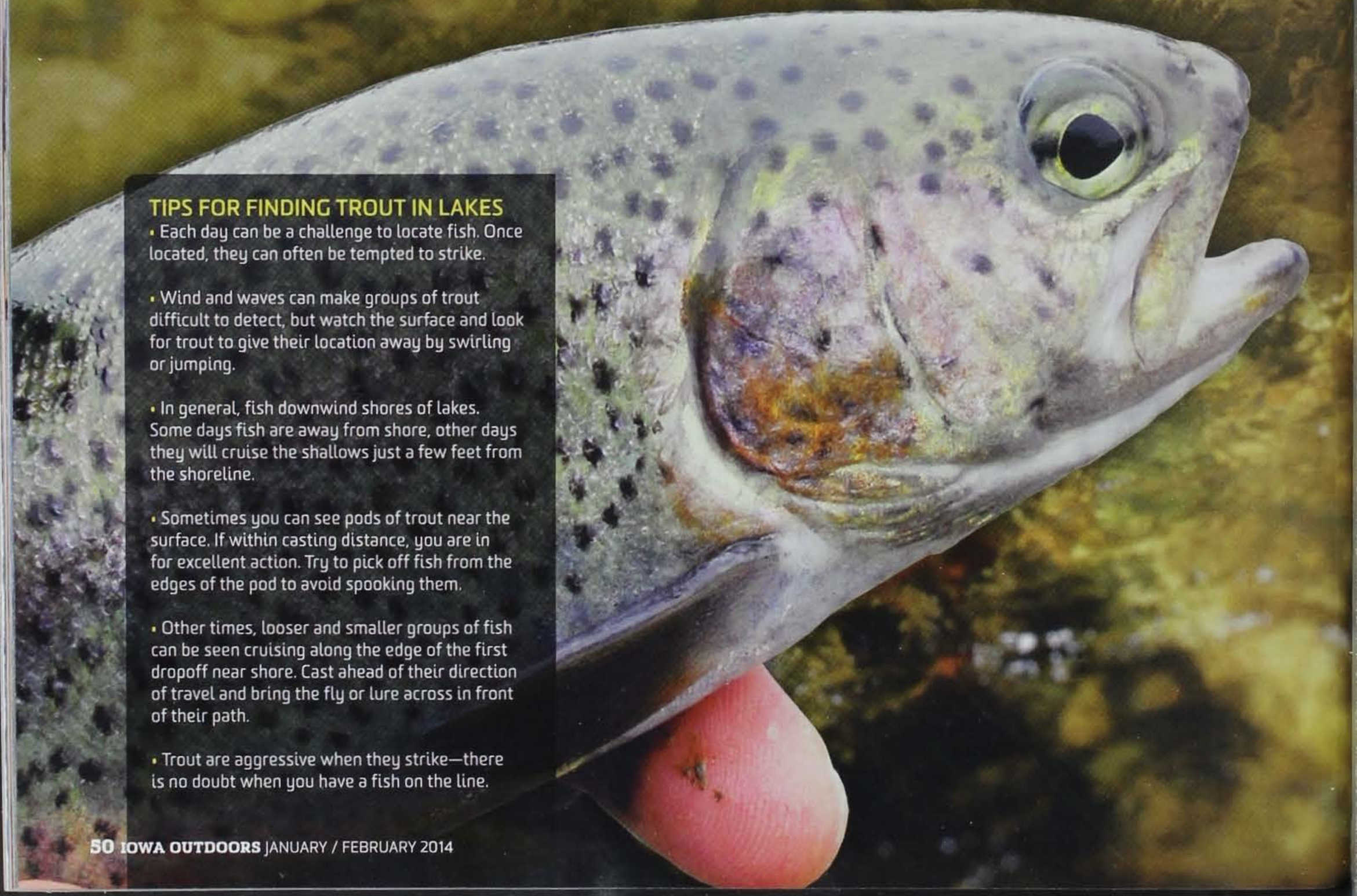
My next trip to Banner was nine days later. I caught a bass, crappie and bluegill, but no trout. After talking with several people, only one had caught a single trout that day. One guy had located hundreds of trout in one area, and threw everything he could think of at them, but couldn't get them to strike. It happens.

The next lake to receive trout this fall was Lake Petocka, on Nov. 1. I flyfished it on stocking day for a couple of hours. I released five trout and a bass, but fishing was extremely slow for everyone.

I continued to flyfish at Lake Petocka occasionally through Dec. 1. I had some excellent days, catching 64 rainbows in six hours and 78 rainbows in four hours a few days later. I had a few other days with few fish and shorter trips. In that first week following the stocking, I caught 10 percent of the 1,500 trout that had been stocked. And within one month following the stocking, I caught 200 rainbows, or 13 percent of the stocked fish.

Ada Hayden Lake was stocked on Nov. 20 and one DNR employee counted 95 anglers at the time of stocking. It was crowded. I caught five trout, but the crowd got under my skin and I called it a day—plus I had caught 22 trout at Lake Petocka earlier that day, and I was worn out.

A buddy and I flyfished Ada Hayden again a day after stocking. It was extremely windy. We thought trout would be along the north shoreline where the wind was blowing in. Casting into that wind was tough, and we didn't see anyone catching trout. We walked nearly all the way



TIPS FOR FINDING TROUT IN LAKES

- Each day can be a challenge to locate fish. Once located, they can often be tempted to strike.
- Wind and waves can make groups of trout difficult to detect, but watch the surface and look for trout to give their location away by swirling or jumping.
- In general, fish downwind shores of lakes. Some days fish are away from shore, other days they will cruise the shallows just a few feet from the shoreline.
- Sometimes you can see pods of trout near the surface. If within casting distance, you are in for excellent action. Try to pick off fish from the edges of the pod to avoid spooking them.
- Other times, looser and smaller groups of fish can be seen cruising along the edge of the first dropoff near shore. Cast ahead of their direction of travel and bring the fly or lure across in front of their path.
- Trout are aggressive when they strike—there is no doubt when you have a fish on the line.

Urban Trout Stocking Locations

1) Ada Hayden Heritage Park, Ames	Story County
2) Bacon Creek, Sioux City	Woodbury County
3) Banner Lake (South), Indianola at Summerset State Park	Warren County
4) Big Lake, Council Bluffs	Pottawattamie County
5) Blue Pit, Mason City	Cerro Gordo County
6) Discovery Park, Muscatine	Muscatine County
7) Heritage Pond, Dubuque	Dubuque County
8) Lake of the Hills, Davenport	Scott County
9) Moorland Pond, Fort Dodge	Webster County
10) North Prairie Lake, Cedar Falls	Black Hawk County
11) Ottumwa Park Pond	Wapello County
12) Lake Petocka, Bondurant	Polk County
13) Prairie Creek Fishery (Cedar Bend), Cedar Rapids	Linn County
14) Sand Lake, Iowa City	Johnson County
15) Sand Lake, Marshalltown	Marshall County
16) Scharnberg Pond, Spencer	Clay County
17) Wilson Lake, Fort Madison	Lee County

around the lake before finding trout. It was the mother lode. The next couple of hours, we caught and released 112 'bows between the two of us.

Tips For Urban Winter Fisheries

Use live or prepared baits such as live minnows, night crawlers, canned corn, marshmallows, salmon eggs or artificial or scented baits such as Berkley products for trout. Bottom fishing can work, but suspending bait under a bobber keeps it visible for these primarily sight-feeding predators. If casting lures, try retrieving small jigs tipped with plastics, small in-line spinners such as Mepps or Panther Martins or small Kastmaster spoons.

Flyfishing with artificial subsurface fly patterns usually out-catches the other fishing methods by a substantial margin. I've personally switched to flyfishing for trout, and my success rate has soared during open-water season.

Different days see some fly patterns working better than others. The most consistent pattern is a size 8 or 10 Woolly Bugger. Those with a beadhead for weight are more versatile, but if fish are in the shallows, use unweighted. Total fly lengths of about 1.5-inches seems effective. Feel free to experiment. This fly pattern can be bought or tied in a variety of colors. Darker colors often work best, but some days the fish want white. Another color scheme that works well in fall is "Chili Pepper"—made with lots of flashy copper-colored materials.

Keep in mind these "stocker trout" are hatchery raised on pellet food. So, some may strike a fly similar to the color or size of a trout food pellet. Some days I have done well on them, either retrieved or suspended under an indicator (an indicator is a flyfishing version of a bobber).

MANAGING Fahrenheit

BY *BILL KLEIN*

Late season duck hunting, when I was a pre-driving teenager, was a matter of degrees. The go or no-go decision point was 25 degrees F. This temperature was arbitrarily set by my father. At age 50, he was suddenly averse to kicking open enough water on a frozen slough to set our dozen Herters mallard decoys. Yet many of his favorite, good-old-days duck hunting tales were of red-legged northern green heads shot over kitchen-sized pockets of water that had been opened by foot.

"We had the only open water in the county," he would say. "The trick is to slide the ice in sheets under the rest of the ice. So it looks natural."

The size and number of northerns taken over these natural looking holes in the ice would vary with the audience and with the number of Scotch's preceding the telling of the tales.

But when the rule of our house became 25 degrees or higher at wake-up, I wondered if I'd ever get to test the validity of this late-season, kick it open hunting technique. And at age 14, my own independent hunts seemed a lifetime away.

"Could the outdoor thermometer be managed in reverse, I wondered. Could a 20 degrees November morning be nudged upward 6 or 8 degrees for the moment of decision reading?"

The thermometer that stoically made the critical 5 a.m. call stared back through the lower right pane of our kitchen window, a window long since painted shut permanently. It is probably still hanging there on Polk Boulevard in Des Moines. Like many things made in the '40s, it was built to last. It was centered in a sunburst of oxidized copper filigree. The glass stem was fed from a bulbous reservoir of silver, not red, mercury.

My idea sprang from a fever and the household thermometer—the one we used to read human temperatures. After my mother would somberly read the results of a three-minute, under-the-tongue test, she would always shake the mercury back down below 98.6, and plunge the germ-ridden thermometer into a dark blue bottle of ST-37—a snake-oil-like disinfectant of endless personal health uses.

I learned I could manage a fever downward by pulling the thermometer out of my mouth, shaking it down a bit and re-inserting it just before my mother returned to read the results. With proper timing, I could be back on our backyard basketball court, fever or not.

Could the outdoor thermometer be managed in reverse? Could a 20-degree November morning be nudged upward six or eight degrees for the moment of decision?

Thus began a series of secret tests using the 98.6 degree pinch of my thumb and index finger and my treasured Elgin stopwatch. The watch was a prize won in Boy Scout Troop 41's soapbox derby competition. I knew the timing would have to be perfect. But I had my father's predictable morning movements going for me.

I timed the span between his opening of the creaky upstairs bathroom door and his entry into the kitchen. Checking of the temperature was always his first order of downstairs business. I determined my pinch could

PHOTO BY TY SMEDES

raise the temperature on the thermometer a degree every two seconds. And that it retreated back at two degrees a minute. I practiced positioning myself at the back door, racing under the kitchen window, pinching the bulb, stopwatch in hand, and then timing the mercury's descent.

Everything is possible when you are a 14-year-old duck hunter, but I knew my plan was going to take a lot of split-second luck.

My chance came as my father and I listened to the Friday night news on radio station WHO. The predicted low was 20 degrees. "Maybe it won't get that cold," I said as we ascended the stairs to bed.

Being up a half-hour before my dad wasn't unusual. But still I willed the swoosh-swoosh sound my canvas hunting pants made with each step to be quiet. I assembled my hunting gear in the kitchen with an ear to the upstairs bathroom door. With the opening-door signal I raced outside to the thermometer, nearly falling on a skiff of snow. It was 19 degrees.

I needed 11 degrees. And that would take 22 seconds. But I couldn't read my stopwatch. I hadn't reckoned on the pre-dawn blackness. All my practice sessions had been in daylight. I pinched the glass bulb and counted off the seconds.

Back in the kitchen I mustered all the nonchalance I could and asked "how cold is it?" My dad answered, "Oh, I think we'll go out and take a look."

Yes!

As our Chevrolet Bel Air neared Grimes and the duck slough, the eastern sky was now revealing other sloughs. Frozen solid. I steered my eyes away from the white ice. My father said nothing.

After closing the third cattle gate behind us I knew the moment of truth was only a hill away. My heart was

racing as Dad nosed the car into full view of our slough.

"Geese," I blurted. A solid black knot of waterfowl was hugging a tiny pocket of open water in the middle of the slough. "Hand me the binoculars," my dad said.

"Red legs," he solemnly announced. I couldn't believe it. These ducks were twice as big as any I had ever seen. My pulse was registering on the lenses of the binoculars when it was my turn to have a look.

Because the mallards were now aware we were there, we backed beneath the ridge of the hill to hide and make a plan. "They're out of range for any sneak," my dad judged. "So I'll drop you off behind the north hill. You'll have to belly down to the edge of the reeds. I'll come back here and walk in on them. Maybe you'll get a shot when they go out."

I snaked down the hill, cradling my empty Browning

"I pulled ahead of the lead bird and shot. The last two ducks in a rising flock of 30 dropped to the ice."

patent Remington in my arms. I could hear the mallards chuckling a feed call. It sounded nothing like the one I could make on my call. Finally behind the protection of the cattails lining the shore, I fumbled three shells into my gun. My knees were trembling so badly I wasn't sure I could stand at the moment of truth. The feed calling abruptly stopped. Peering through the reeds I could see my dad's profile on the opposite hill, walking straight up toward the ducks.

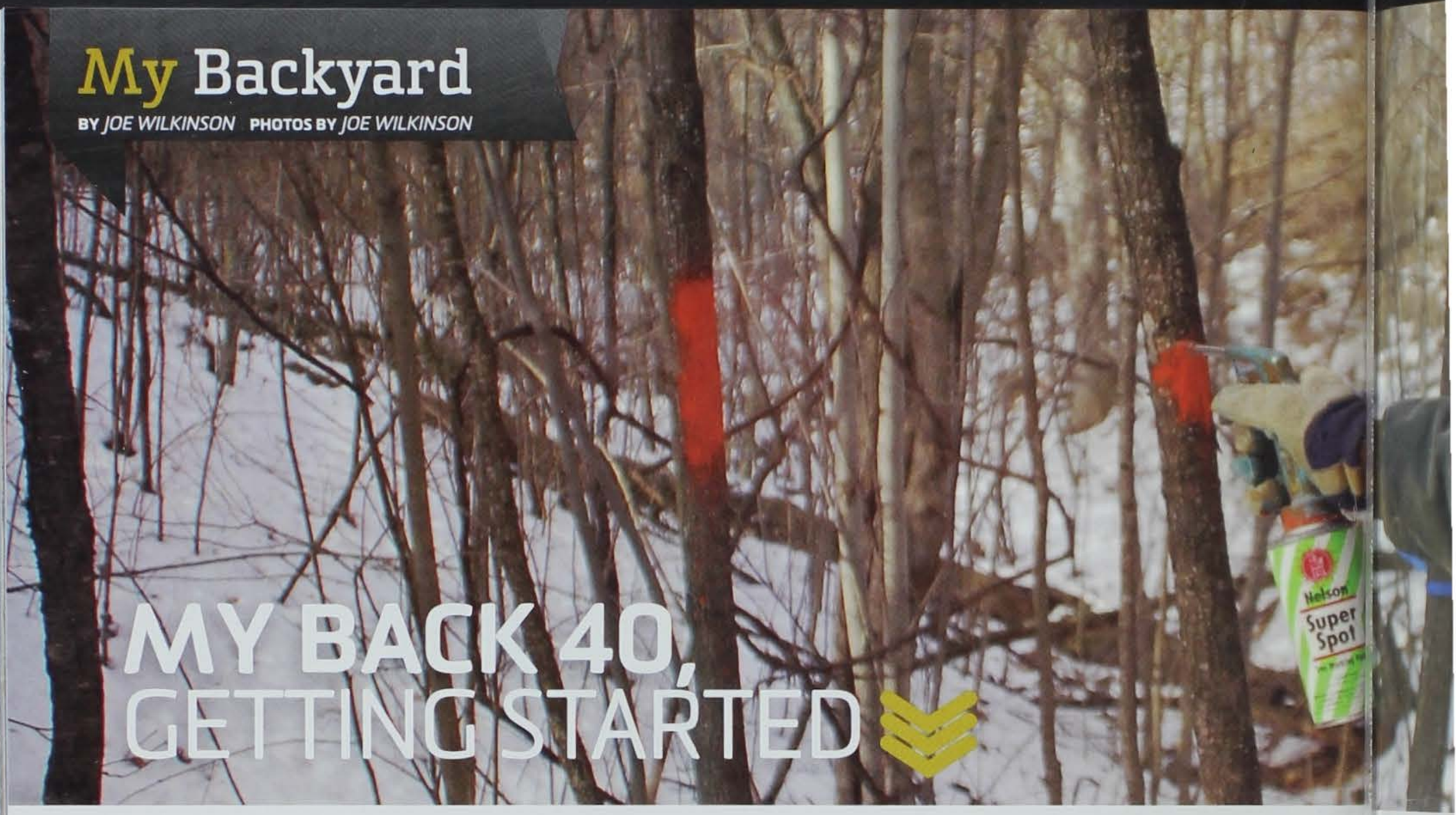
Suddenly the whole flock was a marionette, jerked skyward on a single string by an unseen puppeteer. And they were reeling my way. I pulled ahead of the lead bird and shot. The last two ducks in a rising flock of 30 dropped to the ice. I stood stunned and shaking. How could this be? And how was I ever going to retrieve the ducks? I was certain my dad wouldn't let me crawl out on the ice.

I looked at the south hill where Dad was standing. He was waving wildly for me to get down. Why? The ducks were long gone. But from my crouch I saw why I was hiding. The two crippled greenheads were up and walking across the ice toward shore! I ran behind the cattail screen and grabbed them when they walked into the weeds. They were huge and had double curly tails.

The ride home was filled with fatherly lessons on the effect of wind on shot patterns. And wonderment about why the sloughs were frozen. As we pulled into our home driveway my dad stopped the car opposite the kitchen window. He opened the car door and studied the tracks in the skiff of snow leading to the thermometer.

My Backyard

BY *JOE WILKINSON* PHOTOS BY *JOE WILKINSON*



MY BACK 40, GETTING STARTED

When my wife and I bought the North Forty, I figured it would take a couple years to carve out a hunter's paradise. After a year of hiking, hunting and wondering, I tossed out my timeline. I needed a blueprint. DNR district forester Bruce Blair was my first call.

We spent a morning roaming the property. His first question? "What are your plans?" A place to hunt and quality wildlife habitat. A family retreat with a coldwater stream, awesome bluffs and barrels of walnuts to scoop up. Firewood—and in a few years lumber to create cash flow. DNR foresters help woodland owners meet their dreams with free, onsite plans to help manage timber.

Blair's forest management plan identified eight stands on the property, ranging from 1 to 14 acres. "It is nice to see abundant oak saplings and seedlings in the understory. I encourage you to manage for oaks," notes Blair. "Oak is becoming more uncommon across northeast Iowa because of heavy shading, herbaceous plant competition and deer herbivory."

The big problem? Too many trees. The wrong kind, anyway. "Fell or girdle all undesirable woody plants greater than 5 feet tall: the prickly ash, ironwood, bitternut hickory, elm, boxelder, ash, hackberry, cottonwood and musclewood," urges Blair for that stand with its overstory of (6-20 inch diameter) red oak, chinkapin oak, hard maple, other hardwoods and red cedar. "Treat fresh cut stumps and girdle wounds with an herbicide to prevent stump sprouting."

The overstory there—tall trees getting near-full sunlight—is in good shape. However, the understory shades out the regeneration layer, those trees desired 50 or 100 years from now. By dropping or girdling 10- to 30-foot maples, ash, ironwoods and boxelders, it releases sunlight, water and nutrients to boost growth in the regeneration layer of small oaks, hickories and other wildlife-friendly species.

An adjacent 14-acre stand was logged 18 years ago. Now, it is a race to daylight for the oak, walnut, black cherry and hickory trees. If nothing is done, thousands of shade-tolerant ironwoods, maples and basswoods will outgrow them. "Select and release from canopy competition up to 50 crop trees per acre," says Blair. "After release, the crop trees should have plenty of sun and be free to grow on all four sides.

On slopes leading up from the creek, the oak-hickory overstory could remain. It gets good sunlight to provide occasional saw logs. And the next generation of those desirable species will benefit from controlled burns to knock back encroachment of ironwood, ash, maple, hackberry and other shade-tolerant species in the understory and regeneration layer.

Last winter, Blair spent a few more hours with me teaching and showing how to determine which trees stay or go. To my surprise, an acre of non-loggable, century-plus white cedars got his thumbs up. "In bitter cold weather, this is a deer haven. The overhead (evergreen) canopy holds heat. It stays a couple degrees warmer," explains Blair.

Even dead trees surprise me. "The grapevine climbing that trunk provides food for a lot of wildlife," says Blair. "Hollow crags and trunks benefit everything from woodpeckers to flying squirrels. Brush piles on the ground provide nest sites for turkeys. Chipmunks and rabbits need them, too."

Think long term for financial investment and harvest income from forest products. I learned my walnut and oak trees are still 10 or 15 years from possible harvest, in Blair's eyes.

So, when I can, my brushcutter and I do battle with a couple hundred 2-inch maple, ironwood, ash and other shade tolerant trees. I stack most for brush piles. Only 50,000 to go.

Forest Value in Iowa

When Europeans moved into Iowa territory, there were 7 million acres of

woodlands, or 8 percent of the land. By the 1970s, it had dropped to 1.5 million acres. Since 1974, wooded acres have doubled to 3 million acres. But that slipped slightly last year.

With 97 percent of Iowa in private hands, it is vital for owners to value woodlands, be it for wildlife, water quality, soil protection or the $20 million paid yearly for lumber. "It is important for private woodland owners to care for the woods to keep them healthy," stresses Paul Tauke, DNR state forester.

Even when you see trees, it is no guarantee of a healthy system. "Over the last two decades, Iowa woods have been assaulted by waves of invasive pests—garlic mustard, buckthorn, bush honeysuckle, autumn olive, tree-of-heaven and Japanese hops," lists Tauke. "Plus emerald ash borer, gypsy moth and bur oak blight. And native or naturalized pests remain active too."

Healthy trees and forests are the best defense against exotic and native pests. It may seem counter intuitive to burn, thin and harvest trees. Yet it helps mimic the natural disturbances that create healthy, sustainable forests. "Iowa's highly altered landscape has gone from islands of trees in a sea of prairie, to islands of trees in a sea of corn and soybeans," says Tauke.

Over time, the "wrong" trees become unhealthy for an area. "When a woods is overstocked, individual trees are too crowded. The size of their crown shrinks," he says. "Trees derive energy from food created in their leaves. Smaller crowns mean a leaner diet. That's less energy available to grow or fight off pathogens. Also, overstocking can result in less light reaching the forest floor, resulting in significant decreases in forest plant, wildlife and insect diversity."

What You Can Do:

• **CONTACT YOUR DNR DISTRICT FORESTER TO ESTABLISH A FOREST MANAGEMENT PLAN,** a general overview of your woods and how to proceed. Each forester can keep you up to date with frequently changing eligibility requirements for cost-share agreements. 515-281-5918

• **CONTACT YOUR DNR PRIVATE LANDS BIOLOGIST.** Reviews your land, with an eye on what wildlife species—from deer to warblers—would benefit from the current woodland or any improvements you could make. 515-281-5918

• **REAP (RESOURCE ENHANCEMENT AND PROTECTION)** provides state funding to restore or enhance woodlands, or other conservation practices. County soil and water conservation districts receive a chunk of the multi-million dollar allotment.

• **FARM BILL.** CRP and EQIP fund for specific improvements on your wooded acres. The upcoming federal farm bill's conservation titles help landowners set aside productive land or hold on to forested acres, rather than row crop them. Like REAP, a cost-share match helps keep the cost down.

• **JOIN A WOODLANDS GROUP.** Learn from landowners and get to spring and fall field days to see what works best. The Iowa Woodland Owners Association is a good first move. County conservation departments or your district DNR forester also hold educational sessions, or field days/forest tours to show what has worked and what may be applied to your woodland.

• **STATE FOREST NURSERY.** Native seedlings for timber production, wildlife habitat and erosion control are produced at the Ames and Montrose locations. It also offers advice for planting and weed control.
800-865-2477 or iowadnr.gov

GET INVOLVED

To find your local district forester or private lands biologist, call the DNR at ***515-281-5918.*** For a list of field days, go to extension.iastate.edu/forestry and click on educational opportunities. For additional information, contact local FSA or NRCS office at your county's USDA Service Center.

Admiration & Legacy

BY *JESSIE ROLPH BROWN*

Find a volunteer project or post your own event at *www.iowadnr.gov/volunteer* or call *515-242-5074*.

HEAD OF THE CLASS

MIKE TODD, AMES

Teacher immerses students in community

Just as he teaches about connections in ecosystems, Ames High School teacher Mike Todd ensures students connect with their community. Todd's approaches to environmental science and efforts to teach kids outside of classroom walls has led to him being named one of 11 teachers nationwide to receive the 2013 Presidential Innovation Award for Environmental Educators from the White House Council on Environmental Quality and the U.S. EPA. "The real focus is applying what we're learning to make a difference in the community," Todd says. He also serves as advisor on eco clubs at Ames High, including a group headed to Washington, D.C. to talk to legislators and install artwork about farm sustainability. His students reconstructed the school prairie, managed two organic food plots, compost cafeteria waste and redesigned the school courtyard and an outdated pond with sustainability in mind. They meet local professionals and work on a pond study at a park, to educate nearby residents about water quality. "It's a neat thing how it all comes together and how the community feels a part of it," Todd says. "Every single person impacts the environment and these are things everyone needs to understand." Todd also served a summer externship with the DNR, learning about water sampling, watersheds and water quality in urban fisheries. "You can tell he really cares about his students and provides them with big-picture issues—how their lifestyle can impact our water quality, which is vital for life," says DNR fisheries biologist Ben Dodd. "He's working with kids on projects that benefit their education and their community."

SAVANNA RESCUE

CEDAR BEND SAVANNA ADVISORY COMMITTEE, CEDAR FALLS

Group comes together to restore and protect rare plant community

As darkness closes in on 55 acres north of Cedar Falls, native prairie plants hide under the soil and old-growth oaks drop limbs, hinting they once made up a sand oak savanna, now one of the rarest plant communities on earth. Volunteers chipped away at restoration projects for years. But now, an organized and long-term plan has a bright future for the Cedar Bend Savanna. In the 1930s, bur oak and black oak canopy covered 38 percent of the site, allowing prairie to bloom in the openings. Grazing wildlife like elk, then cattle, kept invasive trees out. Before European settlement, wildfires helped too. But when the Black Hawk County Conservation Board acquired the land in the 1980s, grazing stopped. Without resources to control invasives, the canopy closed to 95 percent, choking out most of the prairie. But since 2008, the Cedar Bend Savanna Advisory Committee—made up of the CCB, the University of Northern Iowa and the Audubon Society—has led a focused restoration effort with help from UNI and Hawkeye Community College students and the Conservation Corps. "Hopefully we can put a full-court press on this and get it to a maintenance phase," says Vern Fish, Black Hawk CCB director. "We're getting community support moving in the same direction. People are willing to take a hard look at what it takes to protect it." Students identify plants, monitor returning natives and remove invasives—covering a third of the site so far. "We're seeing native plants pop up from where there was bare soil before," says Dave Williams with UNI's Tallgrass Prairie Center. "It's like restoring an antique; it just blossoms, it just glows when it's done."

ROAD TRIP RECYCLING

IOWA RECYCLES ON THE ROAD—DOT helps travelers recycle

Recycling shouldn't be something you can only do at home, and the Iowa Department of Transportation wants to help the 16 million visitors to Iowa highway rest areas every year recycle while traveling. The DOT launched a pilot program called Iowa Recycles on the Road in 2011 at rest areas near Ankeny, Story City, Mitchellville and Waukee, allowing travelers to recycle aluminum and plastic and glass bottles. Rest area staff and vendors also recycle cardboard, paper and plastic jugs. "It's something we've always kicked around," says Steven McMenamin, DOT rest area administrator. Concerns of having to sort garbage out of recycling bins halted the project until vendors Waste Management and International Paper Company stepped in to sort. In its first year, Iowa Recycles on the Road diverted 47,300 pounds of trash from the landfill—21 percent of all rest area trash by weight, saving almost $900 in landfill fees. The DOT hopes to expand the program when funding is available. "It's a popular program—we get a lot of comments on sites where we don't have it. Recycling is something we'll be pushing toward," McMenamin says. The DOT will likely expand to areas with recycling facilities nearby. "When you see people stop to separate trash at a rest stop, that's a good thing," McMenamin says. "It shows we're being proactive in trying to protect the environment."

MIKE TODD PHOTO BY BEN CURTIS; DOT RECYCLING PHOTO BY JESSIE BROWN; SAVANNA PHOTO COURTESY JIM WEIMER AT BLACK HAWK CCB

Wild Cuisine CAMPSIDE

BY BRIAN BUTTON PHOTOS BY BEN CURTIS

On left, manager and chef Naomi Kueter and proprietor and chef Christine Zraick-Baker.

Wild Foraged Watercress Salad

Is it possible to harvest fresh greens amidst winter's deep freeze? Yes! Find watercress in the clear, clean trout waters of rugged northeast Iowa.

Months with the letter "r" such as January, February, March and April are best for harvesting watercress, says Christine Zraick-Baker, chef and owner of Mont Rest Bed and Breakfast in Bellevue.

As one of the oldest known leaf vegetables consumed by humans, its peppery taste adds flair as well as significant amounts of vitamins A and C, calcium and iron. To find, search spring-fed trout streams which can have open water even in winter's coldest spells. Select healthy looking plants just barely above water. Pick the newest growth which is most tender.

At home, submerge plants in water and soak, then rinse well. Lay watercress on a cloth to dry, then briefly chill in refrigerator.

Watercress can have a peppery taste, and mixes well with milder store-bought lettuce, says Zraick-Baker, who was recently invited by the Iowa Restaurant Association to cook in a competition as one of Iowa's top 10 chefs.

WATERCRESS SALAD

1 cucumber, peeled and sliced
1 bunch watercress, trimmed
1.5 cups mixed greens
4 multi-color cherry or grape tomatoes, halved
2 tablespoons parsley
Shaved Romano cheese to taste
2 tablespoons toasted almonds
1 gala apple, grated
1 small beet boiled or oven roasted, chilled, and sliced
1 avocado, sliced

DRESSING

1/4 cup extra virgin olive oil
2 tablespoons honey
2 tablespoons white wine vinegar
1 tablespoon cold water
Salt and pepper to taste

On a large platter arrange mixed greens. Top with watercress, beet, cucumbers, tomatoes, apple, cheese, avocado, parsley and almonds.

In a small bowl, combine honey, vinegar, water, and salt and pepper. Whisk in olive oil. Drizzle dressing over vegetables and serve with your favorite crusty bread.

BY ALAN FOSTER PHOTOS BY JAKE ZWEIBOHMER

Cobble Hill Restaurant Dishes Up Duck Two Different Ways

Open not even a year, Cobble Hill restaurant is bringing flair to downtown Cedar Rapids. Local native Andy Schumacher, a University of Iowa biology grad turned chef, is bringing elegant dining at affordable pricing to his city. Here Schumacher and chef de cuisine Matt Malone serve duck liver paté; woodsy, yet with a smooth and subtle taste that leaves you wanting more. The aged duck breast is more of a challenge, but well worth the effort.

COUNTRY DUCK LIVER PATÉ

3 1/4 pounds pork shoulder
1 pound duck liver, soaked overnight in milk and rinsed with water
1.5 ounces French brandy
1.5 teaspoons sugar
1 ounce kosher salt
1/2 teaspoon pink salt
1 clove garlic, minced
3 eggs
4 1/2 ounces shallots, sliced, and sweated in oil until soft
1 tablespoon pepper
1/4 teaspoon each nutmeg, powdered ginger, ground clove

Toss pork and livers with brandy, sugar and salts and let marinate overnight. Grind mixture through small die. Make sure mixture is very cold. Purée eggs, shallots and garlic in blender. Mix eggs, spices with meat by hand for five minutes, until tacky. Pack mixture in loaf pan and place in baking dish full of hot water so water comes three-fourths of the way up the pan. Bake at 325° until center reads 150°. Remove from oven and allow to sit on counter in water for 30 minutes. Chill loaf pan in fridge with a light weight to compress paté.

AGED DUCK BREAST WITH HOUSE A-1

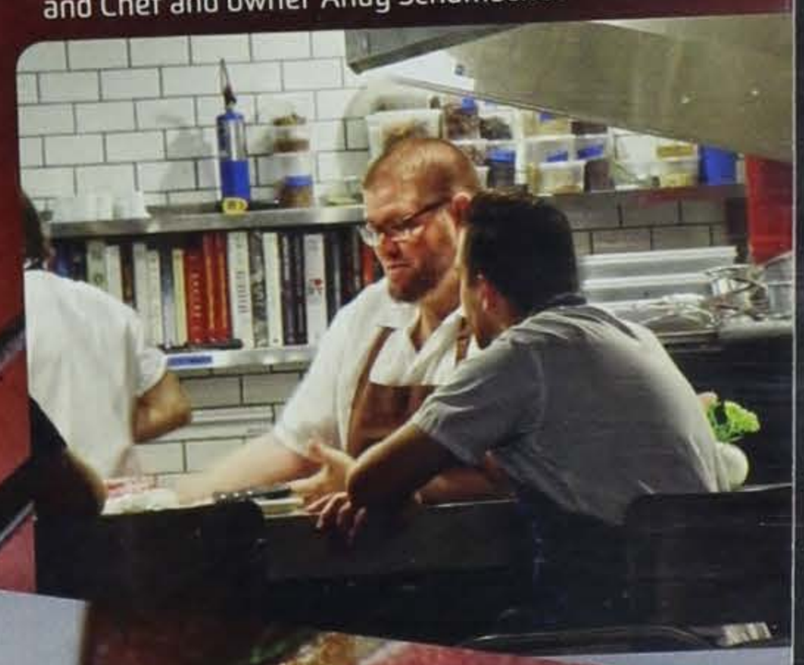
4 ounces orange juice
4 ounces raisins
2 ounces white vinegar
2 1/2 tablespoons Dijon mustard
2 1/2 tablespoons ketchup
1/2 tablespoon black pepper
1 1/2 oranges, zested
3 tablespoons canola oil

Combine ingredients except oil in pan and simmer to reduce approximately 75 percent. Pureé in blender with oil until smooth. For the duck, remove legs and leave breast attached to carcass and hang in fridge with good air flow (hook up battery operated fan in fridge) for one to two weeks. Skin should be leathery and duck should have delicate "funk." Remove breast and discard carcass. Place a cast iron pan over medium high heat and place duck skin side down. Salt flesh side and allow duck skin to slowly render and caramelize. Periodically pour off renderings. When the flesh just above the fat begins to cook and skin is golden brown, add the oil. Baste with hot oil 25 to 30 times. The flesh should contract, tighten up and turn opaque and grey. Place two tablespoons butter in pan and remove from heat. Let duck rest five to seven minutes. Remove duck from butter and allow to rest another five minutes. Slice and serve with sauce.

Like so many other Iowa restaurants Cobble Hill relies greatly on many local farmers. Chefs Andy Schumacher and Matt Malone draw from many inspirations, describing their offerings as small, focused, refined, seasonal and progressive. One look at the menu proves they are serving up familiar foods in unfamiliar ways. Beef, pork, seafood, fowl—there is something for everyone. But don't expect anything from the bar that is mass produced. There are no major soda products, mass beers or liquors. Only Sprecher sodas, small batch liquors and craft beers.

Country Duck Liver Paté

Chef de cuisine Matt Malone (facing) and Chef and owner Andy Schumacher.



Aged Duck Breast With House A-1

Warden's Diary

BY *ERIKA BILLERBECK* **PHOTO BY** *JAKE ZWEIBOHMER*

The Poacher

Sometimes the word "poacher" seems insufficient. The definition of "poach," taken from my Oxford American dictionary, is: *1. take game or fish illegally from private or protected areas. 2. take or obtain in an unfair or underhanded way.* And a "poacher" is: *a person who poaches game or fish.*

When I arrived at the scene on a frigid Saturday morning early in March, "poacher" is not the word that I grumbled to myself when I looked at the carnage spewed along the gravel road in front of me. Surrounded by debris from a broken billiards table, 1960s era cookbook pages and empty beer cans was a doe with her neck slit, her belly cut open, her backstrap meat absent and her 7-inch long fetus removed and tossed onto the road near the doe's body.

The complainant and I inspected the scene and found several clues. Tire tracks traced through the field of the state game management area adjacent to the road. In the field was an area tinged red with blood, along with several boot tracks. One track was small enough to be either an older child or a woman. Several empty beer cans dotted the route the trucks had apparently taken through the field. These clues, along with the lack of visible bullet holes in the deer, led me to believe someone had run the deer down and killed it, then tossed it into the back of the pickup. As the pickup entered back onto the gravel road, the deer and the rest of the contents of the truck spilled onto the road. I told the complainant I didn't want to jump to conclusions, but I had a good idea who might have done such a thing. The complainant looked at me and said, "Me too. It's 'Paul Wilson' isn't it?" If this would have been a movie, it would have been a good time to cue the banjo music.

Paul Wilson (not his real name) had been terrorizing one part of my territory since I transferred here in 2005. I first met Paul when he was 11 years old and had just finished shooting a deer from the window of a truck with the encouragement of his father, who was the driver. Ever since, Paul had been busy poaching, stealing and wreaking havoc all over his corner of the county.

I knew Paul's habits well enough that I was certain I would find him that night stomping his cowboy boots to the beat of a line dance on the floor of a nearby country bar. I immediately made plans for a stakeout at the bar in the hopes I would find a pickup owned by his friend Lacey (not her real name). If Paul was involved in killing the deer, it was likely that evidence of poaching by truck bumper would be found on the front of Lacey's new blue Ford F150, which had been purchased for her by Lacey's trusting grandparents. Lacey and I had made acquaintance the previous fall when she had been caught spotlighting raccoons with Paul. At that time I charged them both with hunting by artificial light. Lacey liked to act like an innocent bystander, but she was not convincing.

While I was home later that afternoon preparing for the stakeout, the complainant called and said he had seen a white pickup parked at Paul's residence. The tailgate wasn't white though—it was speckled blood red. I checked the license plate and discovered Paul must have made a new friend—it came back to a convicted felon from Cedar Rapids. A state trooper and I immediately paid a visit to the felon. He, with the advice

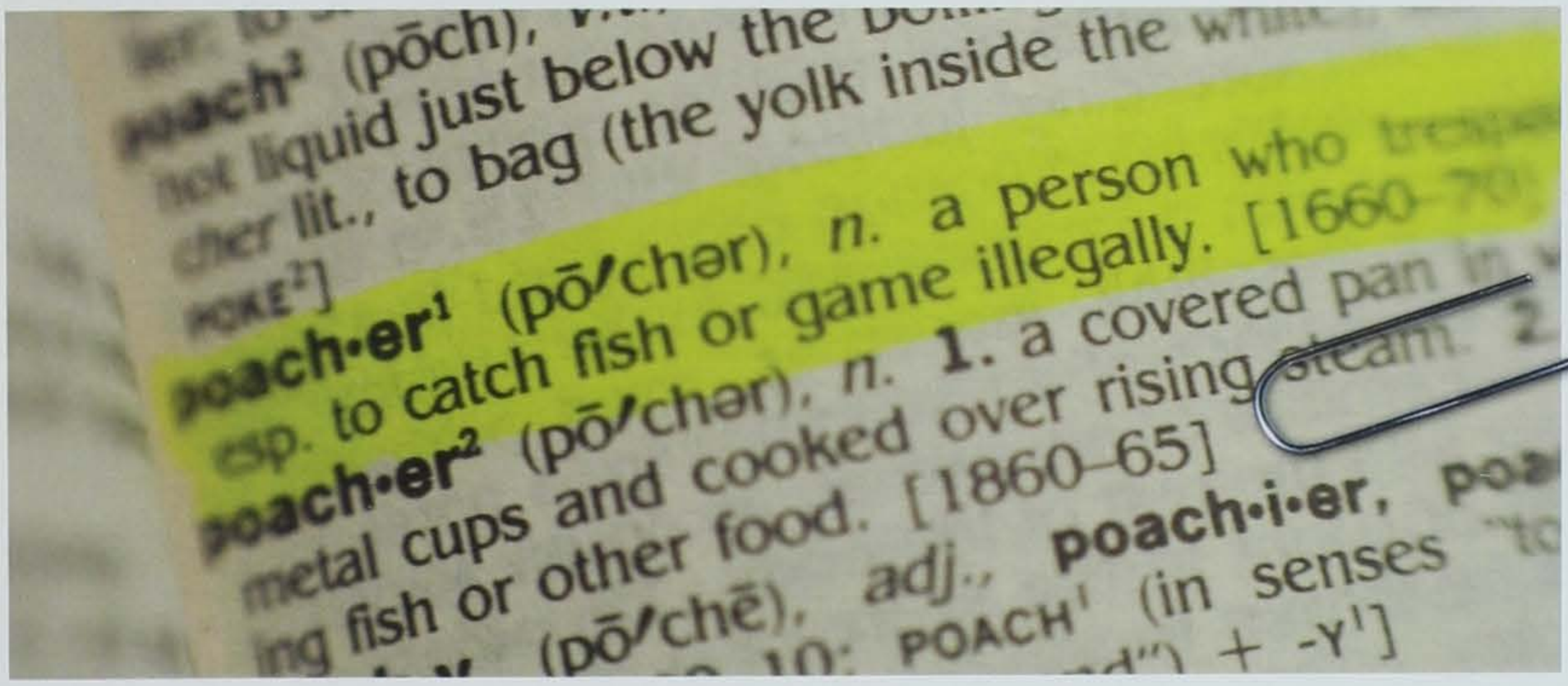
of his parole officer, agreed to a search of his truck where we found: a plastic grocery bag containing deer backstraps, beer cans with lot numbers matching those in the field, and 1960s era cookbooks.

After initially spouting off an insulting number of blatant lies, he eventually fessed up that he had spent the evening with his new friend Paul, Lacey and several of their friends. He also said the deer I found was not the only one killed, and the meat from his truck was not from the deer on the road. The felon, in an effort to avoid returning to jail, told me the best place to look for Paul that night was the bar. He said they would be driving Lacey's pickup with evidence of bumper poaching in the front passenger side corner and blood in the truckbed. The felon insisted Paul had been driving the previous night because Lacey was too drunk to line dance, and therefore too drunk to drive.

garbage dumping site. And who had stolen the camera? Paul, of course.

The following investigation included all the drama of a hillbilly teenage soap opera: countless lies, angry grandparent rants (to their lovely granddaughter who was cavorting around with a bloodthirsty 18-year-old boy whom they thought had left the state three months ago), several dead deer, teenage love triangle revelations and break-ups, loaded handguns and rifles, Jell-o shots, blood-covered knives, cell phone photos that most people would not want to see, no-contact orders, sickening confessions and plenty of opportunities for banjo background music.

The confessions revealed what I had suspected for some time. All the tire tracks through fields and a relatively high number of dead deer lacking bullet holes I had seen the past couple of years suddenly made sense.



Later that night I found Lacey's truck parked at the bar. The truck not only contained a murderous amount of blood and deer hair, but a bloody double-edged axe. The front bumper had dents, cracks and a spider-web maze of fractures filled with deer hair.

I managed a small grin. There is little more satisfying than realizing you have evidence to obtain not just one search warrant, but three. I called one of my favorite assistant Johnson County attorneys, who agreed to come in the next morning on his day off to help get search warrants. While searching Paul's residence, we discovered and seized an item that belonged to the DNR and had been stolen. It solved another mystery. That item, a surveillance camera, was the one I installed on state land to catch people using the area as an illegal

Paul was getting his kicks from chasing deer down with trucks and killing them.

Paul had been going out as often as three nights a week, sometimes alone and sometimes with his flunkies to bumper-ram deer. When I asked whether they enjoyed this unseemly activity, young Lacey answered, "Yeah, I guess." Paul feigned regret. I'm sure his only genuine regret was his capture. His lack of remorse was evident when one witness told me that Paul not only ran the deer over going forward, he also routinely backed over them to be certain the deer were good and dead. Sometimes meat was taken, but more often than not, the deer were left whole for coyotes and turkey vultures. Regret? I think not.

And "poacher?" I'm pretty sure I can come up with a better word to describe him.

Flora & Fauna

BY *MINDY KRALICEK* PHOTO BY *RON HUELSE*

Northern Flicker, *Colaptes auratus*

This large, brown woodpecker (about 12.5 inches long) feeds more often on the ground than on a tree. Northern flickers like open habitats near trees to probe the ground with their slightly curved bills for ants and ant larvae. As one of the few strongly migratory woodpeckers, they can head as far as Central America for winter.

RAISING YOUNG

Both parents incubate five to eight white glossy eggs for about 11 days. Then they brood newly hatched young for four more days. Parents feed young by regurgitation. At 17 days, the young start to cling to the cavity wall rather than lie on the nest floor. They fledge about 25 to 28 days after hatching. Parents continue to feed them until they are able to follow the adults to foraging sites to self-feed.

DRUMBEAT MEMO

Northern flickers, like most woodpeckers, drum on objects to communicate and defend territory. They try to make as loud a noise as possible, even using metal objects. One flicker could be heard drumming on an abandoned tractor from a half-mile away.

LONG OF TONGUE

Although ants make up 45 percent of their diet, flickers are adept at catching flies, butterflies, moths and beetles. Their tongues can dart out 2 inches beyond the end of their bills.

BERRY GOOD

Berries and seeds also make up the flickers' diet. Their palate includes poison oak and ivy, dogwood, sumac, wild cherry and grape, bayberries, hackberries and elderberries, as well as sunflower and thistle seeds. They're happy to come to bird feeders.

ROLLERCOASTER FLIGHT

Like other woodpeckers, northern flickers flap their wings as they fly up and fold their wings on the way down to make a smooth cycle of flaps and pauses while rising and falling in flight.

PREENS WITH ANT ACID

Flickers have a behavior called "anting:" they use acids from ants to assist in preening to repel parasites. That's a good thing, because they also break into cow patties to eat insects.

DUELING RIVALS

Rivals for territory, males may face off on a branch where two will pause, pointing bills upward for a few seconds and then bob their heads in time while drawing a loop or figure-eight pattern in the air and calling wic ki ki ki ki. One eventually flees, chased by the winner. Courtship also includes head weaving and body-bobbing.

TREE TUNNEL NESTS

To find nesting places, look for fresh wood chips on the ground below an old, large tree with some dead or rotting wood. They tunnel down 6 to 18 inches in a nest tree to make a wide-bottomed egg chamber, blanketed with wood chips. They'll also use birdhouses.

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