

JANUARY / FEBRUARY 2013

# IOWA OUTDOORS

THE DNR'S MAGAZINE OF CONSERVATION AND RECREATION

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## BOBCAT BONANZA

*Once endangered, growing populations challenge hunters*





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# IOWA OUTDOORS

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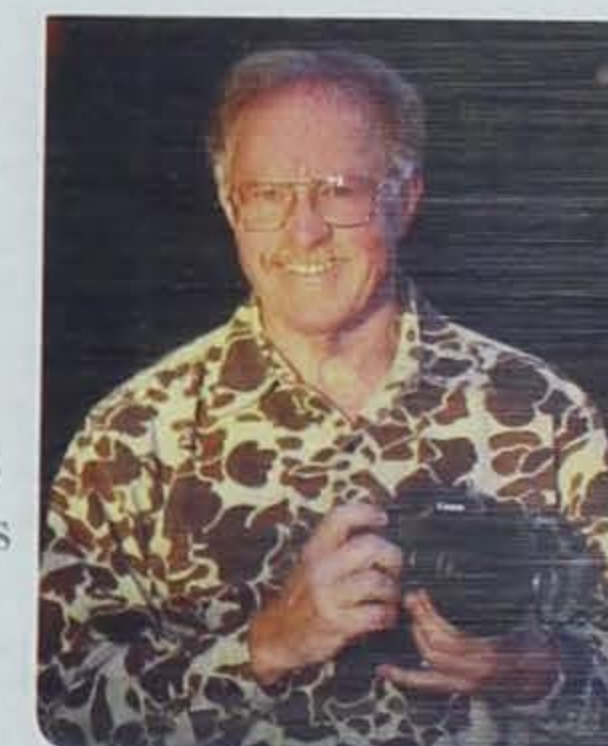
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of Knoxville has spent more than 10 years photographing wildlife, insects and birds near Lake Red Rock when not cycling, hiking or volunteering. An avid paddler, he also helps find sponsors to introduce osprey locally and raises awareness of siltation at the reservoir.



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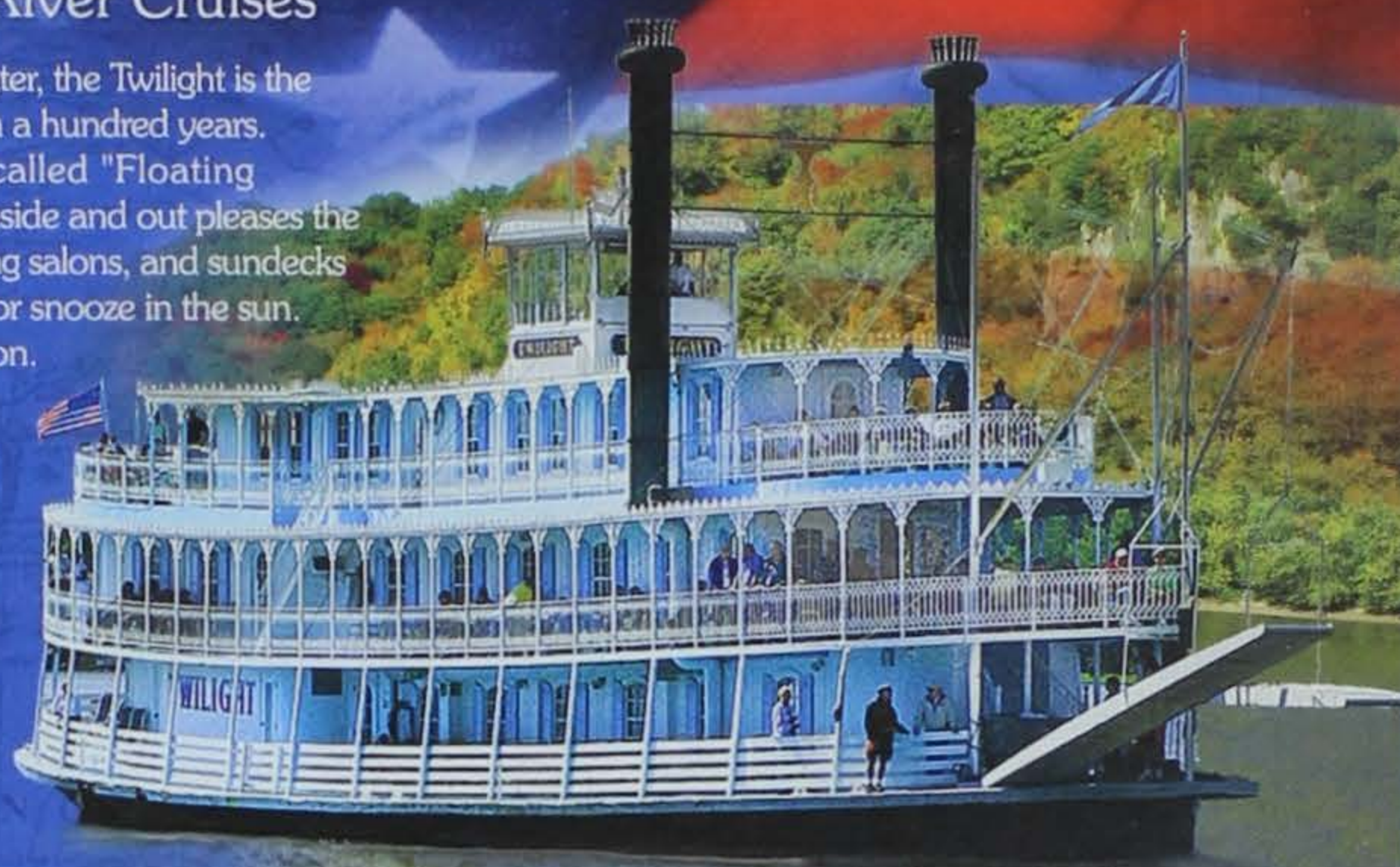
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A comprehensive, all-out inventory of Iowa's wildlife is leading biologists down the road of better land management.

BY MINDY KRALICEK PHOTOS BY CLAY SMITH

#### ABOUT THIS PHOTO

Photographer and wildlife researcher Ryan Rasmussen captures a flag-tailed spinylegs dragonfly dining on a clouded sulphur butterfly. Although this was not one of them, researchers have discovered six dragonflies never before seen in Iowa as part of an exhaustive effort to catalogue all wildlife in Iowa. More than half of the nearly 300 animal, amphibian and insect species on Iowa's list of greatest conservation need have been found. Learn more on page 52.

#### ABOUT THE COVER

Mostly vanished from Iowa just a few decades ago, bobcats are now dispersed across the state and common in southern counties. Bobcat research by Iowa State University and the DNR initiated in 2003 to study distribution, habitat relationships and population ecology has given biologists a much clearer understanding of the elusive animal. The cover photo is one of the early study specimens—Bobcat 163—captured Jan. 1, 2006, in Monroe County.







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## ABOUT THIS PHOTO

Iowa Outdoors photographer Clay Smith gets close and personal with a snapping turtle captured as part of an intensive, eight-year search for all of Iowa's wildlife species. The exhaustive effort to inventory species will help conservation planners keep common species common and help species of greatest conservation need.

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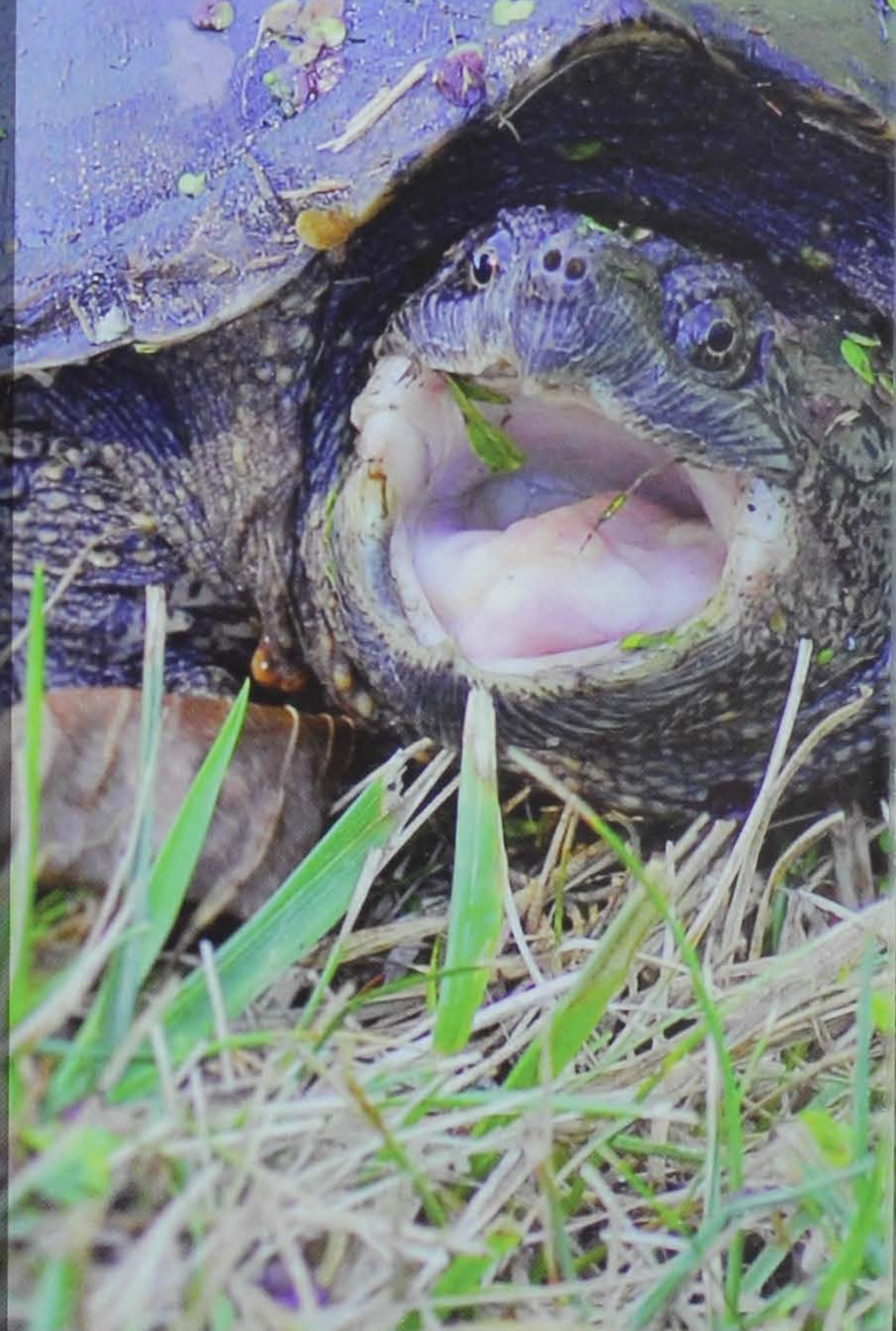
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LEAVES PHOTO BY CHERIE COLLINS, CITY OF LEAVES



# Admiration & Legacy

BY JESSIE ROLPH BROWN



## RECYCLING REWARDS

### CITY OF LE MARS

Town embraces recycling

Le Mars may be the self-proclaimed Ice Cream Capital of the World, but it's time to add recycling to that title. The town of 9,826 went from recycling 175,000 pounds in 2005 to more than 1.5 million pounds in 2011—saving residents and the town money and keeping space open in the county landfill. Before,

the landfill was filling too quickly and the city faced a \$100,000 solid waste fund deficit. The city rolled out recycling totes and the effort quickly grew. "The more they used the totes, the easier they found it was. People were finding out how much they could recycle," says assistant city administrator Bill Cole. The result was the city cut trash pickups to twice a month because there simply wasn't enough trash. Residents' garbage fees dropped, plus recycling remains free and is making the city money. While it costs \$43 to landfill a ton of trash, the city earns \$25 for every ton it recycles, leading to a \$300,000 balance in the once-lacking fund. That's allowed the city to beef up yard waste efforts, expand recycling to businesses and offer collections for electronics, tires, household hazardous materials and appliances. Other Iowa cities, states and even Washington D.C. sanitation staff have called Le Mars, asking how they did it. "Le Mars has been very good about sharing the keys to their recycling successes with others looking to start or expand recycling," says the DNR's Jim Bodensteiner. Residents had some concerns along the way, but Cole says the community was very supportive. "It's been a banner success," he says. "We expect it to grow even more."

## BRINGING IT ALL TOGETHER

### LAUREN SULLIVAN, AMES

ISU grad student wins fellowship to help restore prairie, involve community

The prairie rising at the corner of Ontario and Scholl in Ames may be an experiment, but it's not reserved just for scientists. Lauren Sullivan works to make it a community project, and that's possible thanks to a \$10,000 fellowship from the National Audubon Society and Toyota. One of 40 students nationwide named a TogetherGreen fellow, Sullivan—along with other Iowa State ecology, evolution and organismal biology students—is restoring a former four-acre cornfield to prairie. The plot, part of an ISU research farm, houses experiments on wind dispersal of seeds, small mammals and soil quality. But it's also a full restoration that's inspiring other students and neighbors. "We're trying to bring this to as many people as possible, including those outside the sciences," Sullivan says. The fellowship allowed her to hold events to educate and involve neighbors and the community. And the prairie got its start from ISU English students, who helped hand-seed the field and use the area for inspiration. Graduate student John Linstrom, who uses a theme of environment and home in his freshman composition class, wanted his students to see the prairie's significance. "I saw this as a great opportunity to explore Iowa's natural history and get an understanding of how altered the landscape is, the layers of history in the soil," he says. Sullivan shows students what prairie means to Iowa. "Lauren's a natural leader and has a clear passion for what she's studying," Linstrom adds. Sullivan, set to earn her doctorate next year, has worked with ISU to keep the prairie as long as there's interest. "The coolest data will come in five or 10 years. We're recruiting new grad students to keep it going as long as possible," she says.



## PRAIRIE KEEPERS

### LARRY AND GINI VAN ERSVELDE, GRINNELL

Couple protects native prairie from development

Outside of Brooklyn sits 30 acres of native prairie—its soil disturbed just once—that will remain that way thanks to Larry and Gini Van Ersvelde. The couple donated a conservation easement on their 80-acre farm, allowing them to keep ownership while restricting future land use, no matter who owns it. "We just want to maintain it as wild as we can. We're finding out how good the prairie actually is," says Larry. "We just have a little jewel back there. We wanted to conserve and keep that forever if we could." The easement prevents development, mining and subdivision. The 25 acres currently in row crop must keep existing conservation buffers, and another 11 acres in the Conservation Reserve Program can't be farmed again. The Van Ersveldes also created a marsh, where they see ducks, turtles and geese. "Larry came to us with very pure intentions, to protect the property. Conservation's really in his heart," says the Iowa Natural Heritage Foundation's

Brian Fankhauser, who helped with the easement. The Poweshiek County Conservation Board (CCB) inspects the land annually to ensure easement provisions are being followed. While not public land, the easement allows the CCB to protect a native area without having to purchase property, says CCB Director Mark Vavroch. "Larry's love for the outdoors is very obvious and his vision for protecting our natural resources now will enable future generations to enjoy these wild areas as well." Larry, a 20-year veteran of the county conservation board, also serves as the local Pheasants Forever chapter president. "It's his passion and I support it too," says Gini, adding they're grateful to have their land.



## Tree Frogs Die Off During Droughts



Droughts are tough times for moist-skinned amphibians, but the adaptability of tree frogs are truly, ahem, ribbeting. During dry times, these croaking climbers minimize their activities, take refuge in leaf litter and seek shelter in moist areas. “Even limited rains and morning dew provide adequate moisture for them,” says Paul Frese, a wildlife diversity technician with the DNR.

While tree frogs are able to survive and adapt during droughts, breeding during dry periods is a challenge. Tree frogs, like other amphibians, breed in the spring, but during extreme drought many breeding sites dry up before young can fully metamorphose, or change, from tadpole to frog. But, “Most of our Iowa species have adapted to periodic droughts in the last 5,000 years by employing a boom and bust reproductive cycle,” says Frese. This allows a species to ride out tough times. During dry years, tree frogs may produce no offspring, while during wet years they produce thousands of young. This reproductive pattern allows tree frog species to continue without experiencing significant population declines.

Readers can help make drought periods less stressful for our frog friends. Frese suggests installing water features, making leaf litter available and creating microhabitats out of PVC pipe. For the latter, bury or drive a 3- to 4-foot piece of PVC pipe, large enough for frogs to enter, into the ground with at least 2.5 feet of pipe exposed. Do so within a foot of a tree. Or attach a 2- to 3-foot PVC pipe section to a tree trunk with cord or rope, sealing or capping the bottom and drilling a hole in the pipe an inch from the bottom to allow moisture to build up for the frogs but prevent a large water accumulation to discourage mosquitoes.

## Ask The Expert

Deb in Sac County asks:

Can ashes from fireplaces be added to compost piles?

According to Cornell University, wood ash—such as ash from fireplaces, wood stoves or brush burning—has high levels of beneficial potassium, but because wood ash has a high alkaline content, it is not recommended as a compost feedstock.

Finished compost is a soil amendment that helps balance the pH of existing soils. If ash is added to compost piles, it may become too alkaline, which leads to a loss of nitrogen within the pile. In order for material within the pile to break down, both carbon (brown stuff) and nitrogen (green stuff) are needed. If

nitrogen levels are depleted it will take much longer for the pile to break down and the end product will be of lower quality due to high alkalinity.

Further, ashes from pressure-treated lumber, painted wood or trash burning can contain toxins and should never be added to soils, plants or compost piles. Fireplace ashes may be thinly spread on lawns, gardens and flower beds, but due to the high pH, not added near acid-loving plants such as blueberries, azaleas or rhododendrons.

For more about what should and should not be added to compost piles, visit Cornell University's website at [compost.css.cornell.edu/](http://compost.css.cornell.edu/).



ACTIVITIES, TIPS AND EVENTS FOR THE WHOLE FAMILY

# New Year's Day Hike

## Get 2013 Going with an Energizing Guided Hike

**H**ear the calls of birds, breathe fresh air and feel the warmth of the sun while immersed in winter's quiet beauty and benefitting from the companionship of a knowledgeable, friendly park ranger.

America's State Parks First Day Hikes offer guided holiday treks on New Year's Day to launch the year with an invigorating walk. "It's a good opportunity for Iowans to start the year by reconnecting with their state parks during a time when most visitors stay inside," says DNR park bureau chief Kevin Szcodronski. "Parks offer a completely different experience in the winter, from hiking to skiing on our trails, to ice fishing and winter camping."

The program began last year, with 15,000 participants in 50 states. This year, Iowa parks are adding extra hiking opportunities, with four participating, many conveniently located near urban areas.

Most strolls are one to two miles or longer depending upon the park and suited for all ages. Bring children to spark a connection with nature while promoting physical and mental well-being and stewardship of the natural world. (But frankly, it is just plain fun.)

### GET INVOLVED

Four Iowa parks are participating in the 2013 First Day Hikes program. Meet at assigned times. Bring water and snacks. Friendly dogs permitted if leashed (bring bags to clean up pet waste.) Dress for the conditions. All hikes are free.

**Mines of Spain**, Dubuque County. Take a 1-mile hike, winding your way through forests past the 1850s Pine Chapel and hear owls and songbirds. Cocoa, coffee and cookies afterwards indoors. Meet at 1 p.m. at the E. B. Lyons Interpretive Center at the Mines of Spain Recreation Area, 8991 Bellevue Heights, Dubuque. The area is south of Dubuque off Highway 52. Dogs not allowed in building.

**Walnut Woods**, Polk County. Half-mile, 1 mile and 2.8 mile hikes on flat terrain. Views of the Raccoon River, majestic walnut and other bottomland trees, bald eagles and wildlife. Refreshments and fire at lodge after hike. Meet at lodge at 9 a.m. Skis welcome if conditions allow. From 63rd St, go west on Browns Woods Drive and turn west onto Walnut Woods Drive. From highway 5 bypass, take exit 102 and follow signs to park. From I-35, take exit 68 to highway 5, turn off at exit 102 and follow signs.

**Brushy Creek**, Webster County. Take a 1.25-mile hike along a meandering creek and woodland bluffs. Meet at 1 p.m. at the south campground visitor parking lot. From Highway 20, take P73 south and head east on D46. No warming house available.

**Big Creek**, Polk County. Meet at 10 a.m. at the disc golf course parking lot, then hike mature prairie and the Neal Smith Trail—about 1.5 miles total. Skis and snow shoes optional based on conditions. No warming house available. Just northwest of Polk City off NW Madrid Drive/Highway 415.



# Together

# Tips for Better Bird Feeding

BY JOE WILKINSON

Winter cold and snow can drive you indoors or open a colorful cold-weather window with hours of bird-watching entertainment. Iowans spend more than \$300 million annually watching wildlife, according to the U.S. Fish & Wildlife Service. Much of that comes from feeding birds, especially through our cold weather months. Use these tips to attract the most birds.

## Maintain Feeding Routes

The best way to attract winter birds is to get on their regular feeding routes before cold and snow eliminate many of their natural choices. A steady food source keeps birds coming. That might be a year-round effort on your part, but it becomes more important in the fall, as migrating birds start showing up in backyards.

"Maintain your feed and water regimes and songbirds will be plentiful all winter and into spring," insists Pat Schlarbaum, from the DNR's wildlife diversity program. "A lot of banding studies—amazingly—indicate that once a bird survives its first winter, they will be around for a long time. They bring the great outdoors right into your backyard."

## Top Foods

But what to feed them? "Sunflower seeds are good. Maybe a good quality mix—sunflowers, striped and black, nuts, and peanuts," suggests Dan Waltz from Wildlife Habitat, a Cedar Rapids outdoor store. He puts emphasis on good quality seeds and foods. "Any good mix has to have sunflower seeds. When you get into the millet, milo and the grains, you

lose quality."

Sunflower seeds attract a wide variety of birdwatching favorites—cardinals, nuthatches, chickadees and white-throated sparrows. Even blue jays and hairy woodpeckers are drawn to versatile foods. Black-oil sunflower seeds have a higher oil content and their thinner shells are easier to crack versus striped sunflower seeds.

But, you can't escape reality. High commodity prices have more producers opting for corn and soybean plantings. With less land available, sunflower seed prices have climbed skyward. Even the high cost of soy oil, used for cooking in the restaurant industry, pushes up demand for sunflowers as a cooking oil substitute.

That makes a good argument for reducing waste, such as ensuring feeders are protected from squirrels and sheltered from the elements so wet snow doesn't cause spoilage. Choose feeder designs that reduce bird droppings from accumulating near the food supply.

## Compare Nutritional Labels

Reading nutritional labels allows you to select the best product available. "Fat content is important. The higher the fat content, the more birds benefit," stresses Waltz. "I've seen chickadees sort through feeders. Cheap seed ends up on the ground. You end up spending more in the long run." Waltz says some seeds have a 38 percent fat content versus cheaper products with 19 percent. Hemp seeds are oil rich, but also pricey. Waltz recommends them more for indoor birds.







### Feeder Tips

Schlarbaum recommends single-seed feeders and suet feeders to increase bird species variety. "Nyjer thistle for the finches and peanuts for the tufted titmice are also good," he says. A trip to a full service birding supply store can fill those needs or offer ideas for increasing the colorful show on white-out winter days.

Place feeders at least 10 feet from branches that could be a springboard for squirrels.

Maintain the same distance from cover, which creates hiding places for cats.

Whether you have a single tube feeder or a multi-station feathered

playground, you reap the benefits.

"It's the connection people get with something so beautiful. It's a great way to appreciate nature," says Schlarbaum.

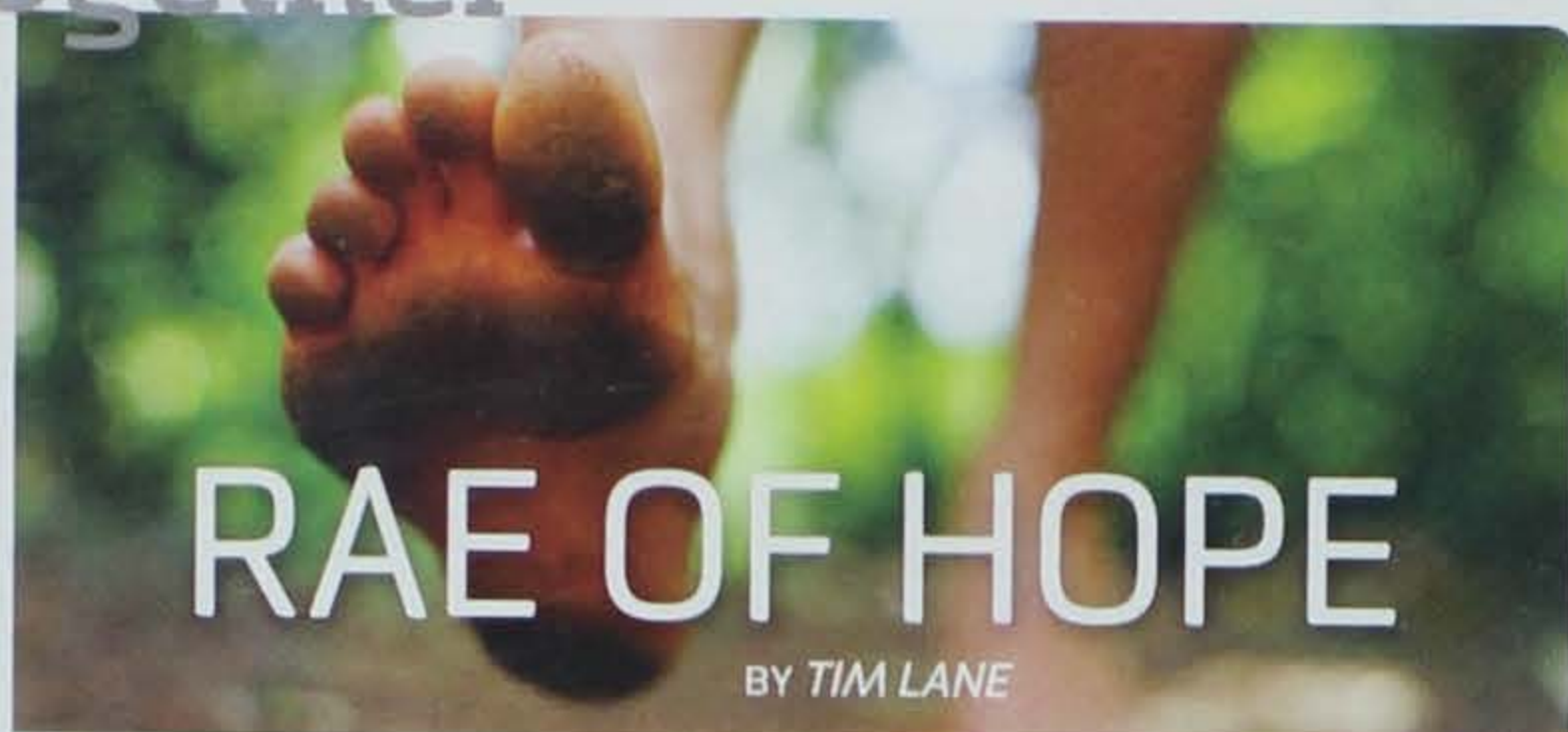
"You have a full palette of desirable songbirds in your own backyard."

### Just Add Water

Open water is a draw. Just clip a low-cost weatherproof heater for outdoor use to your birdbath and keep it filled with clean water. Many birdbath heaters use thermostats to save electricity. Placing a network of sticks across the top of the birdbath creates a perch for birds to drink while avoid getting into the water during the cold months. Never add automotive antifreeze to birdbaths as ethylene glycol is toxic. Glycerin is also toxic, causing lethal spikes in blood sugar levels and saturated, matted feathers.



# Together



Last month, young Iowan Rae Heim checked off a major life goal. It was both ambitious and achieved quickly, given that she is just 18. Last April, Rae started running across America in Boston and completed her run in Manhattan Beach, Calif., in November. She also did it for the most part without shoes—and for shoes. She ran to attract donations to Soles for Souls, an organization that seeks quality used shoes or funds to provide shoes to needy children.

Last year Rae broke a toe and found shoes more cumbersome than protective in her training runs around Swan Lake Park in Carroll.

I am not endorsing barefoot running or cross-country jaunts (although 30 to 90 minutes of daily walking, biking or running would do all Iowans a world of good), but celebrating what Dan Buettner calls “purpose.” In his book *The Blue Zone: Lessons for Living Longer From the People Who’ve Lived the Longest*, he details how a strong sense of purpose may act as a buffer against stress and help reduce your chances of suffering from Alzheimer’s, arthritis and strokes.

In 2007, a survey of more than 4,500 American adults by United Health Care found that 68 percent of respondents reported that volunteering made them feel physically healthier. The survey offered compelling evidence that volunteering enhances physical and mental health.

Here are the major findings:

*More than **68 percent** of volunteers report that doing so made them feel physically healthier.*

***29 percent** of volunteers who suffer from a chronic condition say volunteering helped them manage their chronic illness.*

***89 percent** of volunteers agree that volunteering improved their sense of well-being.*

***73 percent** feel that volunteering lowered stress levels.*

***92 percent** say that volunteering enriches their sense of purpose in life.*

Skeptics could assert that healthy people tend to volunteer more. So conduct your own test. Call up your local park and volunteer to help, then chronicle your feelings. I like this for two reasons. It can involve physical activity outdoors and encourages support for parks.

In reading about Rae’s running trip, I learned a 4-year-old girl named Ruby heard Rae talking to her parents about her cross-country run to shod the needy. At that point, Ruby took off her beautiful new sandals and gave them to Rae, who was by then sobbing with gratitude.

Today I find myself inspired by an 18-year-old and a 4-year-old. If you have any old shoes, let me know. I want to see if I can contribute 2,640 pairs to Rae’s effort. By my calculation that would cover 5,280 feet...a line of shoes a mile long. [Soles4souls.org](http://Soles4souls.org) or **866-521-SHOE**

**TIM LANE** is a nationally recognized authority on public health and physical activity. In 2010, he and his buddies rode bicycles across Iowa, river to river, in 21 straight hours. He resides in Des Moines.

## 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.*

EMILY, AGE 7, IN SAC COUNTY ASKS:

**Why does water expand when it freezes?**

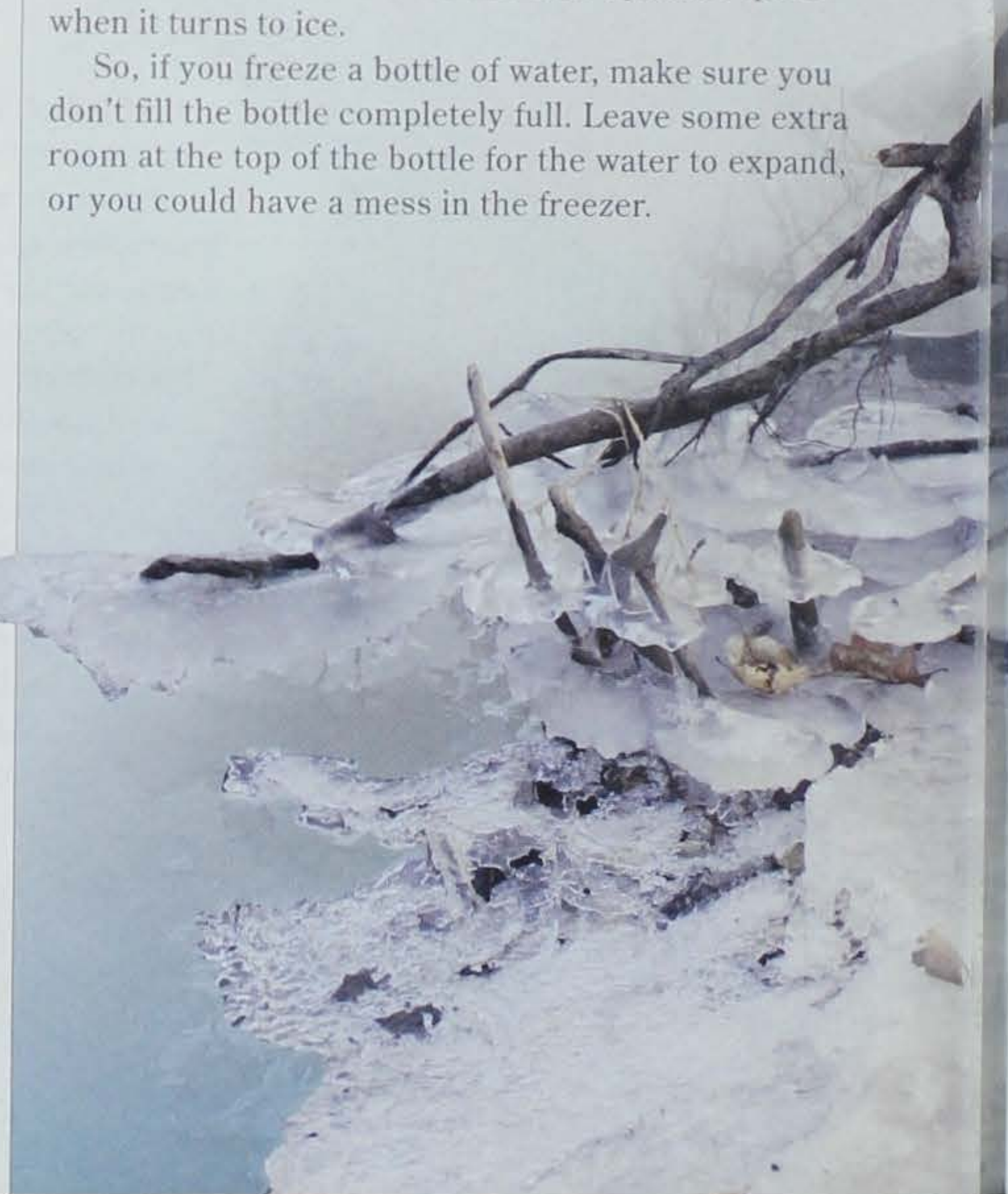
As simple as it seems, water actually acts pretty strange. It all comes down to what holds it together.

Water, like all other substances, expands when you heat it. When warmed, the atoms that make up a water molecule move faster, creating more space between atoms. That means the water molecule expands.

So, when you cool the molecule, it should get smaller, right? Most things work that way, but the shape of the water molecule changes as it freezes. First, explain to a child that a water molecule has one big oxygen atom and two smaller hydrogen atoms, resembling two mouse ears against a head.

As water turns into ice, it begins to attach to other water molecules in a hexagon-like shape that has a lot of space between molecules. Those extra spaces means that the water molecules take up more space when it turns to ice.

So, if you freeze a bottle of water, make sure you don’t fill the bottle completely full. Leave some extra room at the top of the bottle for the water to expand, or you could have a mess in the freezer.





# Together



## Backyard Ben & Jerry's

County fairs have sno-cones, convenience stores have slushies and the Hawaiian Islands have shave-ice. Bring those flavors home and add to a child's excitement of a snowfall with this tasty treat. (Consider it a payoff after the kids help shovel.) Simple and delicious, kids can modify and experiment with the basic recipe to suit their tastes.

### BASIC SNOW ICE CREAM RECIPE

2 cups of base liquid; either milk, half and half, heavy whipping cream or sweetened condensed milk

1 1/2 cups sugar

3 tablespoons vanilla extract

Large bowl of clean, fresh snow

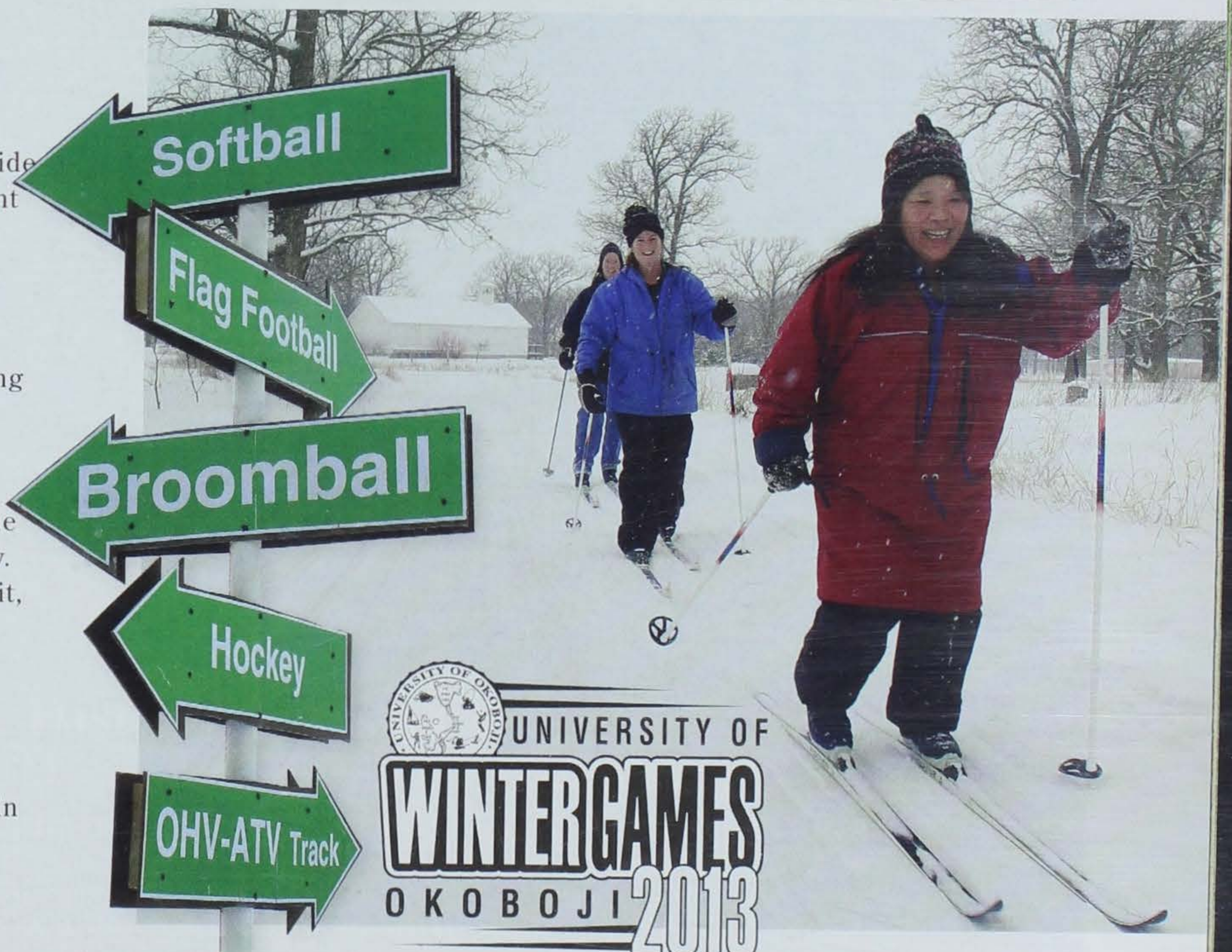
*Mix the cream or milk, sugar and vanilla together in a small bowl. In a medium-sized bowl combine the mixture with scoops of snow, adding more snow until the ice cream reaches the desired consistency. Serve in a dish or scoop into an ice cream cone.*

*Try variations using chocolate milk, fruit jellies, juices or flavored syrups.*

When temperatures drop below freezing, snow accumulates on the ground and lake ice is at its thickest, what do you do? Head outside and take in the magic and amusement of the 33rd annual University of Okoboji Winter Games Jan. 25-27.

What began in 1981 as a simple winter broomball tournament has grown into a weekend festival drawing thousands from throughout the Midwest. In addition to the flagship broomball tournament, there's ice boating, ice fishing, a snowy bike ride and snowmobile races, to name a few. For the uber-hearty, don the swimsuit, flippers and snorkels and join the hundreds taking the Polar Plunge. If the winter chill isn't your thing, there are plenty of indoor activities, including the popular chili cookoff.

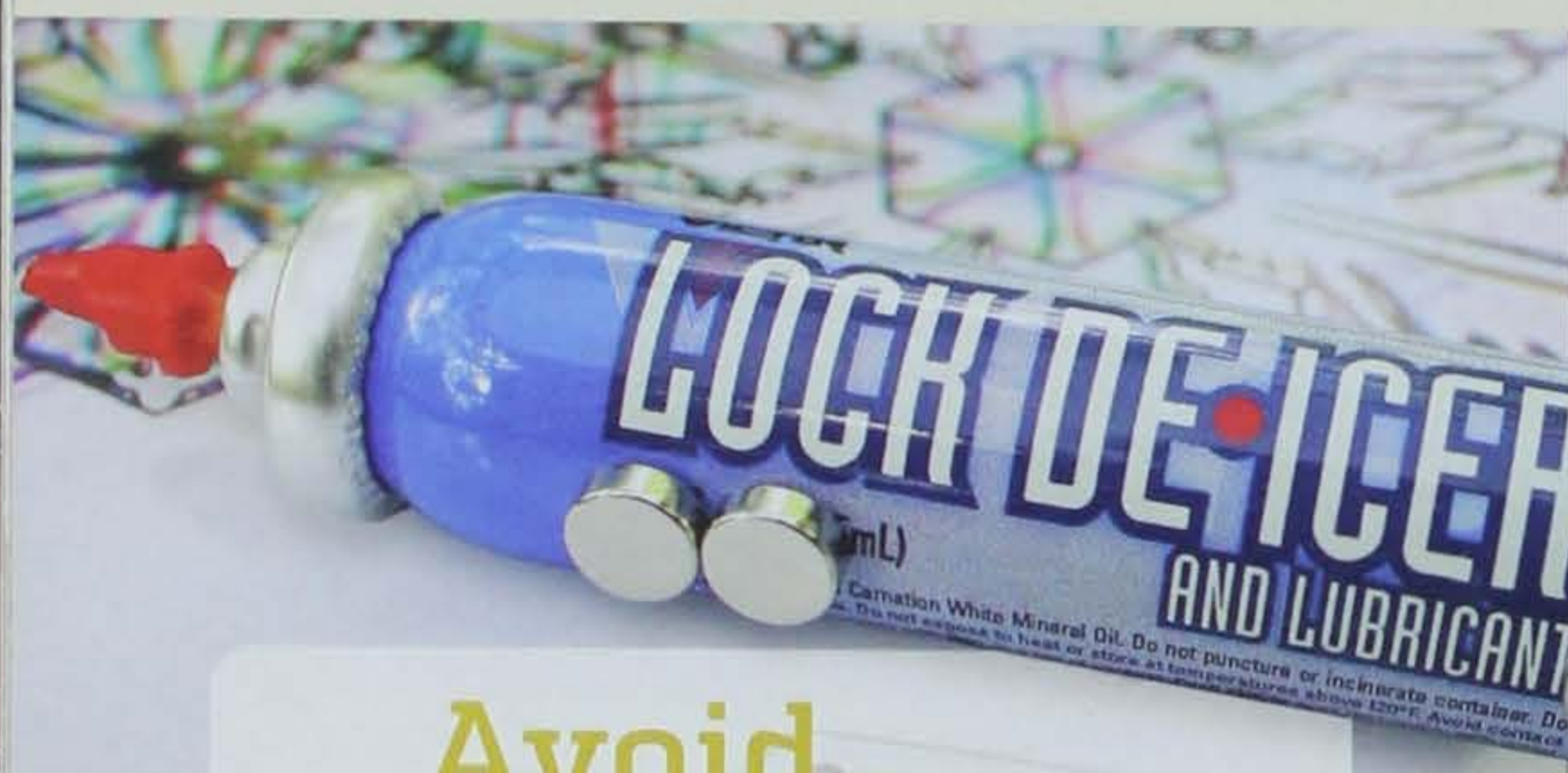
Registration is required for certain events. For more information, go to [uofowintergames.com](http://uofowintergames.com).





# Outdoor Skills

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



## Avoid Freeze Out

Don't get stranded by a frozen lock. Using super glue, attach powerful neodymium magnets (available at hardware stores) to a can of lock deicer. Attach under vehicle for when Mother Nature locks you out. Use plenty of magnets so the deicer can hold even on bumpy roads.

## Finding Pheasants

Pheasants typically begin feeding around 8 a.m. By mid-morning, they'll hunker into the thickest cover before loafing their way back to feeding grounds in late afternoon. Focus your hunting efforts on food plots and field edges in morning and late afternoon, and grassy fields, brush patches and wetlands during midday.



## Picking the Right Jig

When fish are finicky, the style of the ice jig can be just as important as its color. While tear-dropped jigs that hang vertically in the water are the most popular, switch to a jig that hangs horizontally if fish stop biting. Some panfish, like crappies and perch, generally bite better on horizontal jigs.



## Tips for Brighter Snow Photos

Photos taken on overcast days can make snow appear gray instead of snow white. That happens when the camera meter cannot recognize if the snow is a white object in dim light or a gray object in brighter light. If your camera has a snow preset, usually an icon with a snowflake or snowman, choose that setting. Otherwise, add extra exposure. Use the exposure compensation adjustment and add a "stop" or "+1" to up the exposure. The snow will appear bright like snow should.





## AN ODE TO DAVIS COUNTY

Totally by accident, due to a twist of fate, I stumbled on Davis County, the best kept secret in the state.

They say the modern world is really where it's at, but after visiting Davis County, I'm not quite sold on that.

It has scenic hills and woodlands, and the ponds and lakes are nice. They're all chock full of fish and game—a hunter's paradise.

The Amish work in the fields using several Belgian teams. I pass by their community and I'm lost in nostalgic dreams.

Their buggies along the highway with the horse's

gleeful stride. The cars that pass show a diversity that cannot be denied.

But the real treasure of the area is the people that I found. The warm and friendly atmosphere that lingers all around.

I always felt like something was missing, an empty void or such. It's that friendly feeling of belonging that makes me smile so much.

I finally gave in and moved down here, and I'm happy that I did...as I watch that bobber on my pond, fishing with my little grandkid.



## Davis County

# Has it All!

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

Davis County Welcome Center

641-664-1104

[dctour26@netins.net](mailto:dctour26@netins.net)

### Outdoor Recreation/Scenery

- **Hunting Opportunities:**

Hunters from all over come to hunt deer, quail, wild turkey

- **McGowen Recreation Area:**

Cabins, Campground, Fishing, Hiking

- **Lake Wapello State Park:**

Renovated lodge and cabins, camping, fishing, boating

- **Lake Fisher:**

State's record large mouth bass caught in this lake, disc golf

- **Historic Hills Scenic ByWay**

### Historical Assets

- **National register Bloomfield Square and Davis County Courthouse**

- **Davis County Historical Museum**

- **U-Barn**

- **Amish Community with around 80 Amish Businesses**





# Lost In Iowa

BY JENNIFER WILSON PHOTOS BY CLAY SMITH







# *SNOWSHOE IOWA*

It's great exercise,  
it's inexpensive  
and anyone can do it.

Why wouldn't you **try snowshoeing** this winter?

## **I**f you can walk, you can snowshoe.

It's that easy.

This inexpensive winter sport has been around for millennia, when ancient people studied winter animal tracks to design tools that helped them travel during the deep and powdery months.

Today, we snowshoe to access remote areas in winter, strapping on the wide, lightweight shoes that distribute body weight so we don't sink into the snow. It also helps that snowshoeing burns around 600 calories per hour.

The sport takes no finesse and there is no learning curve. You can snowshoe anywhere there's accumulation: city trails, golf courses, bike paths, through your neighborhood street on a snow day.

The rules are few. Foremost seems to be that cross-country skiers dislike snowshoers tromping on their narrow groomed track, so just follow next to their trail in

your snowshoes. That's pretty much it.

Tammy Domonoske, park manager for McIntosh Woods State Park, is a member and competitor in the U.S. Snowshoe Association. As a serious runner, she uses snowshoeing as a winter training tool.

"It's a low-impact exercise, so injuries are usually not an issue," she says. "Spills are gentle. Every step and stride is different, so muscles and joints are not susceptible to repetitive motion problems."

Gear is a fraction of the cost of alpine ski equipment. Quality snowshoes for adults run \$115 to \$300, and for kids \$40 to \$80. Rentals in Iowa run around \$5-\$20 per pair. As in all winter sports, dress in layers to stay warm.

"Snowshoeing helps a person avoid the winter blues," says Domonoske. "For me, it's a stress release and extremely peaceful."

To get started, here are some Iowa parks popular with



# Lost In Iowa



Snowshoe manufacturer Tubbs offers beginners kits with trail walking snowshoes, poles and either a tote bag or gaiters in the \$170 to \$180 range; [tubbsnowshoes.com](http://tubbsnowshoes.com)

the snowshoe set. But remember: You can do it anywhere humans are allowed. When the white stuff is deep, even a neighborhood sidewalk is a snowshoe adventure.

## **McIntosh Woods State Park, Ventura**

A one-mile nature trail takes visitors into the heart of the woods in this 60-acre park on the northwest shore of 3,684-acre Clear Lake (which is popular for ice fishing). Skim along the lakeshore to the natural areas on the south side. Make a weekend of it by exploring Lime Creek Nature Center 30 miles northeast, too, with a groomed two-mile loop.

**PARK INFO:** 1200 East Lake St., Ventura. 641-829-3847

**WHERE TO RENT:** Wayne's Ski & Cycle, Mason City. 4700 4th St. SW, 641-423-2851; [waynesskiandcycle.net](http://waynesskiandcycle.net)

## **Pilot Knob State Park, Forest City**

This 525-acre north Iowa park is just an all-around winter wonderland for daytrippers. Pilot Knob turns its two-mile paved road into a groomed trail for snowmobiles, snowshoeing and cross-country skiing each winter—beginners should start here. For a challenge, try the narrow, forested multi-use trails (call the helpful park office for advice). Locals use the 15-acre manmade

lake for ice skating, with a warming house available by reservation only. Just west of Pilot Knob, you can visit Mt. Valley Vineyard (641-581-3850; [mtvalleyvineyard.com](http://mtvalleyvineyard.com)) for a different kind of warm.

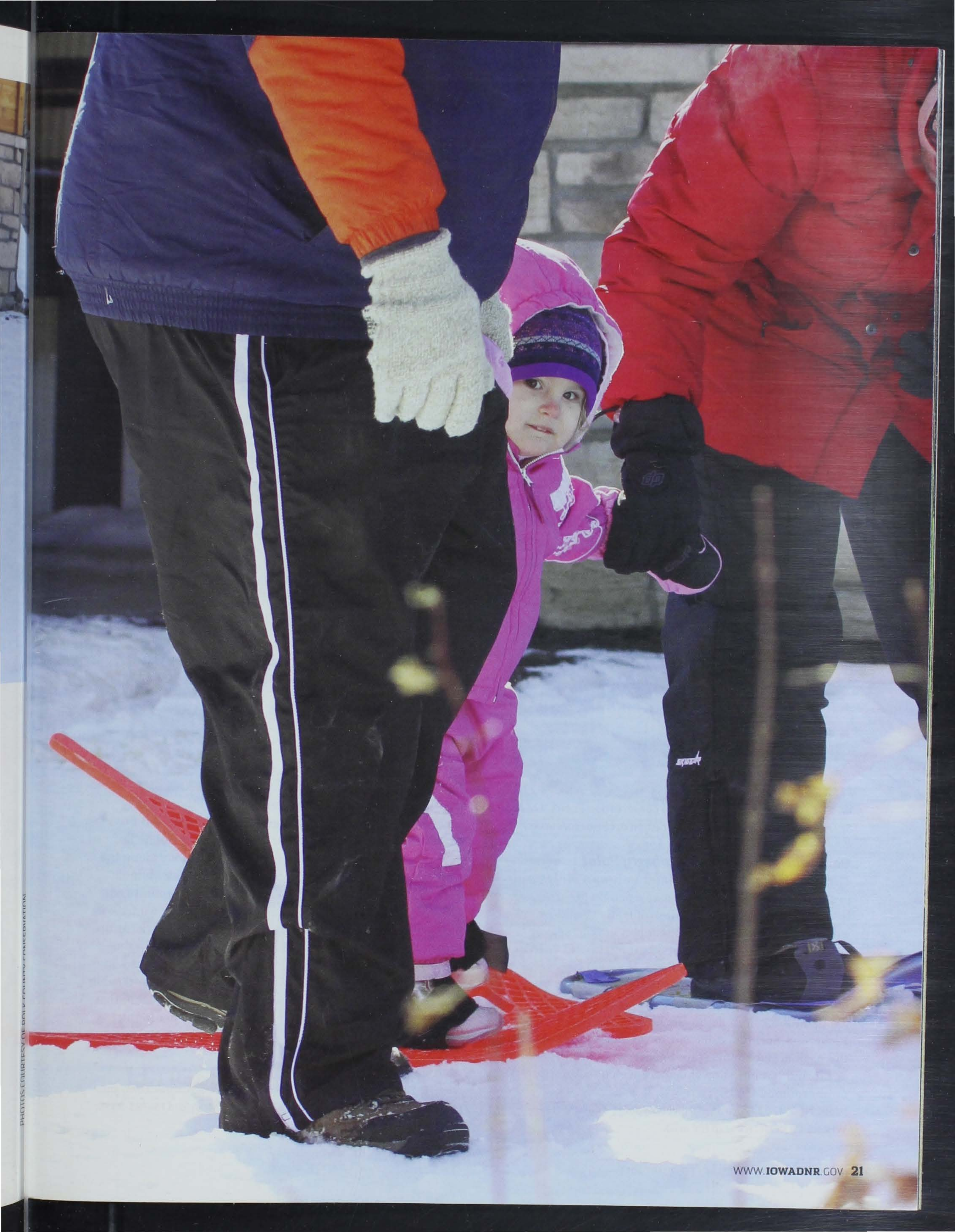
**PARK INFO:** 2148 340th St., Forest City; 641-581-4835

**WHERE TO RENT:** Wayne's Ski & Cycle, Mason City. Six pairs for \$10 a day per pair.

## **Yellow River State Forest, Harpers Ferry**

One would be tempted to just strap on snowshoes and walk all through the wily and wonderful Allamakee County in the northeast corner of Iowa. But that's a pretty far ways to go. So Yellow River State Forest is where it's at, all 8,503 acres of it, as wild as it gets in Iowa. The Paint Creek Unit (spilling into the Luster Heights Unit) hosts an expansive cross-country ski trail system you can follow alongside, or explore the many service roads. Beginners should start at forest headquarters or the Luster Heights Camp. Nearby Decorah has wooded trails, too, for when you're feeling like re-entering civilization. Assuming you will. Also in the area for snowshoeing: Fish Farm Mounds, Effigy Mounds, Mount Hosmer City Park in Lansing and the Mississippi River bottoms.







# Lost In Iowa



**PARK INFO:** 729 State Forest Road, Harpers Ferry, 563-873-2341  
**WHERE TO RENT:** Allamakee County Conservation Board, 427 N. First St., Harpers Ferry, 563-586-2996 or email [accb@acegroup.cc](mailto:accb@acegroup.cc).

## **Backbone State Park, Strawberry Point**

There's a lot to love about winter in Iowa's oldest and first state park. Namely, not many people are around. In addition, you've got 21 miles of trails to choose from, with eight two-bedroom cabins open in cold season (one-bedrooms are under renovation, but will reopen next winter). Without the tree foliage, the wildlife watching is spectacular here along the Maquoketa River—deer, bald eagles, wild turkey, otter, plenty of birds. Do a little ice fishing for crappie on Backbone Lake or trout at Richmond Springs. Adjacent to the northeast corner of the park is Backbone State Forest, where snowmobiles are forbidden but snowshoes are welcome on five miles of ungroomed trails.

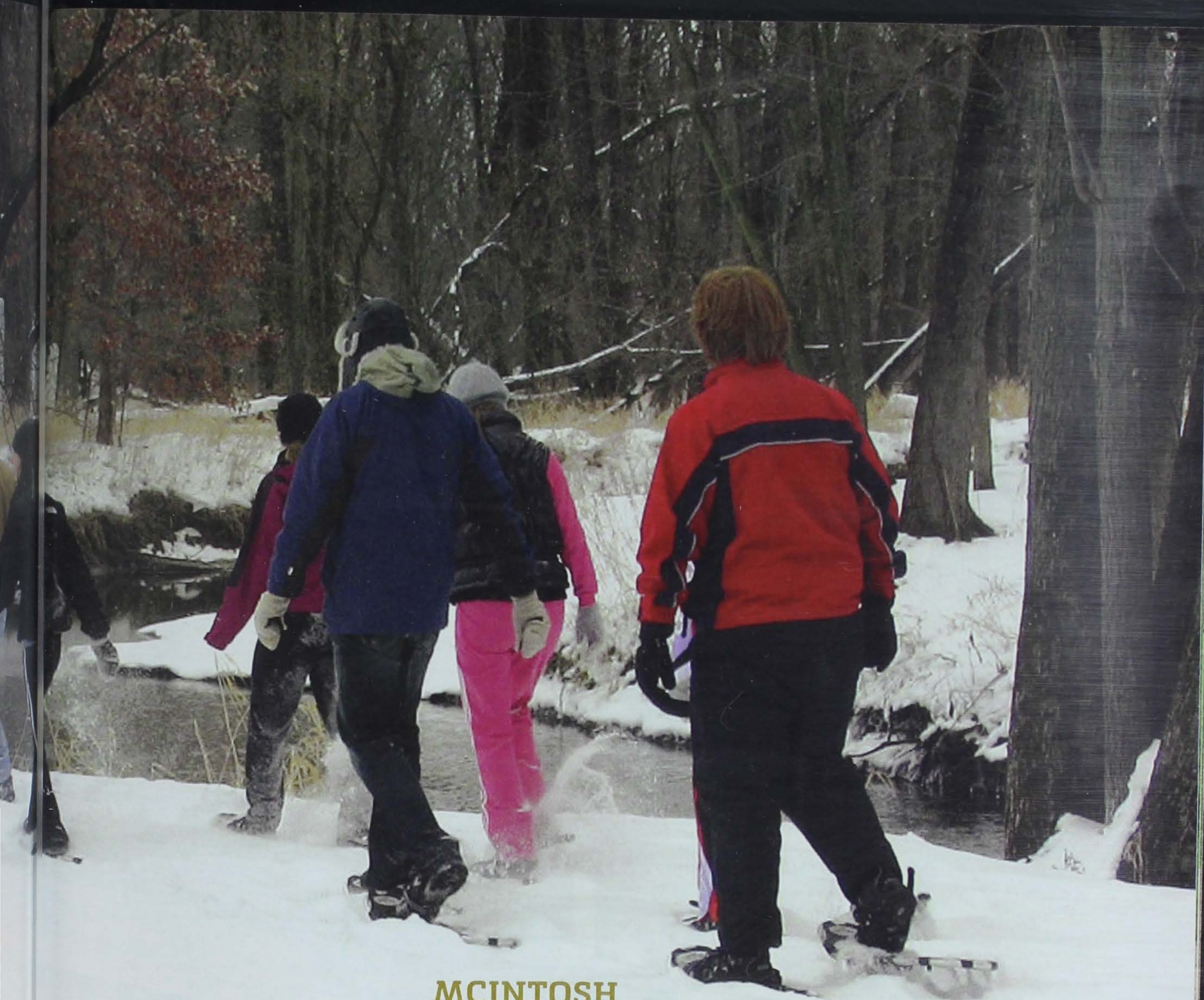
**PARK INFO:** 1282 120th St., Strawberry point, 563-924-2000  
**WHERE TO RENT:** None in the area.

## **Ledges State Park, Madrid**

Named for the dramatic canyons and bluffs that once served as home to the Sioux and Meskwaki (Sac and Fox) tribes, this early Iowa park four miles south of Boone is one of Iowa's most popular. Its secluded locations along the trail system offer extraordinary views of the Des Moines River Valley. Best for snowshoes is a loop trail around Lost Lake—it's relatively flat and particularly pretty in winter—as well as the prairie trails on the upper part of the park. At the nearby Iowa 4-H Center in Madrid, you can rent snowshoes and you're welcome to stick around the 10 miles of trail on the 4-H Center's 800 acres. (Snowshoes come free with cabin rental at the 4-H camp—\$75 per night for a family cabin that sleeps six, lodges for groups run \$225 to \$475 per night; all are self-contained with kitchens, bedrooms, bathrooms, living and dining rooms.)

**PARK INFO:** 1515 P Ave., Madrid, 515-432-1852  
**WHERE TO RENT:** Jax Mercantile Co., Ames, [jaxmercantile.com](http://jaxmercantile.com). Iowa 4-H Center, \$5 for off-site, 1991 Peach Ave., Madrid, 515-795-3338; [4hcentermail@iastate.edu](mailto:4hcentermail@iastate.edu).





**MCINTOSH  
WOODS**

**YELLOW  
RIVER**

**BACKBONE**

**PILOT  
KNOB**

**LEDGES**





# Lost In Iowa







## Tip For Buying Snowshoes

(Source: [rei.com](http://rei.com) and [snowshoes.com](http://snowshoes.com), refer to them for more detail)

Old-school snowshoes were made with ash timber frames and untanned cowhide webbing. Today's styles use lightweight materials, such as aluminum frames, neoprene lacing and nylon decks. Optional equipment includes gaiters to prevent snow from entering your boots and poles for balance.

- Shoes are sold according to gender and weight when fully geared up.
- Know your usage. Most people will be buying for light recreation on easy walking terrain. This is best for families, and includes most entry-level models with easy-to-adjust bindings and less aggressive traction systems.
- Consider your snow conditions. On powder, you'll need bigger snowshoes to stay afloat than you would on compact, wet snow. Choose the smallest size that will support your weight for the snow conditions and terrain in your area—they're easier to handle.

## Snowshoe Races And Activities In Iowa

- **Snowshoe guided hikes through the Loess Hills** at the Hitchcock Nature Center in Pottawattamie County. Pre-registration required. 27792 Ski Hill Loop, Honey Creek. **712-545-3283; [pottcoconservation.com](http://pottcoconservation.com)**
- **The Winneshiek County Conservation Board** recently updated its snowshoes with a local grant. Check their website for

winter snowshoe clinics. **[Winneshiekwild.com](http://Winneshiekwild.com)**

- **Neal Smith National Wildlife Refuge in Prairie City** hosts **ranger-guided snowshoe hikes** once a month. Check out snowshoes at the refuge anytime for non-guided outings at no cost. **515-994-3400; [tallgrass.org](http://tallgrass.org)**
- A little more than two miles of winding forest trail in the rugged and wooded **Ambrose A. Call State Park in Algona** is groomed for cross-country skiing in winter—follow at the side of the trail. **641-581-4835.**
- At **the spillway of Beed's Lake State Park in Hampton**, snowshoe to the base of the dam where water rolls down the limestone rock face. 1422 165th St., Hampton. **641-456-2047.**
- Check with the park manager about **Mines of Spain State Recreation Area's winter recreation routes**, from the interpretive center to the south end of the recreation area. Six miles of trails are groomed for cross-country skiing, but the park also holds **snowshoe interpretive programs**. 8991 Bellevue Heights, Dubuque. **563-556-0620.**
- Ten miles of cross-country ski trails at **Pleasant Creek State Recreation Area** are open for snowshoeing as well, 15 miles northwest of Cedar Rapids. 4530 McClintock Road, Palo. **319-436-7716.**
- **Stone State Park's** eight miles of cross-country skiing trails span the rugged, scenic vistas, wooded valleys, prairie and the Big Sioux River, 5001 Talbot Road, Sioux City. **712-255-4698.** 🐾





# THE Boone River Watershed Alliance

A partnership of farmers, conservationists, recreationists, and government agencies improving the health of Iowa's lands and waters

STORY AND PHOTOS BY TY SMEDES


**V**iews of towering wooded bluffs trimmed with wildflowers. Otters sliding down steep riverbanks. Indignant beavers slapping tails in disapproval of your appearance. More Iowans are enjoying these encounters with nature along the Boone River, and they're working hard to protect them, too.

The Boone River begins in northcentral Iowa, snaking its way southward for nearly 100 miles until it meets the Des Moines River. Along the way, it drains more than 500,000 acres, including many towns and the fertile Iowa agricultural landscape.

An alliance of conservation groups, recreationalists, commodity groups and government agencies are working with landowners and farmers to safeguard the water of the Boone from what washes off of those 500,000 acres, protecting what Robin Fortney calls "the best paddling experience in central Iowa." The founder and past president of Central Iowa Paddlers, Fortney's paddled or floated its waters almost yearly since she began canoeing about 20 years ago.

Iowans take more than 135,000 trips to the Boone yearly, adding about \$3.6 million to local economies, according to a 2009 survey on river use by Iowa State University. With towns like Webster City promoting river



A photograph of a man with light brown hair, wearing an orange jacket and a green life vest, sitting in a white canoe on a river. He is looking up and to the right. The river is surrounded by lush green trees and a fallen log is visible in the water. Two wooden oars are in the foreground.

As Webster City's environmental and safety coordinator, Brian Stroner has a strong interest in the Boone River's health. He often canoes it, enjoying the beauty. As an important economic draw, this year the city is looking at rebuilding a few river accesses and designated fishing areas.





Water quality technician Tony Seeman of the Iowa Soybean Association makes weekly visits to field stations to collect water samples and data. The information helps determine how quickly water and nitrogen infiltrates fields to enter drainage tiles below ground.



The Boone River begins in northcentral Iowa and winds through six counties before emptying into the Des Moines River. The watershed is 85 percent row-cropped, hosts many livestock facilities and contains numerous municipalities.



recreation, which helps local businesses prosper, the Boone is essential to people like Brian Stroner.

As Webster City's environmental and safety coordinator, he has more than a passing interest. Stroner spends much of his free time canoeing the Boone—enjoying its scenic beauty and wildlife—and the challenge of dodging the many boulders deposited here by glaciers that passed some 12,000 years ago. He never seems to feel he's spent enough time on the water, he says.

For others like him, the effort to protect the Boone watershed will keep the river as a jewel for outdoor recreation fans, protect drinking water for those downstream and help aquatic life as far away as the Gulf of Mexico.

### Agriculture and the Boone River

When it rains, some rainwater falling on the watershed evaporates and some soaks deep into the rich soils, nurturing aquifers. But much of the moisture runs over the land and into the Boone, then to the Des Moines River, onward to the Mississippi River and ultimately the Gulf of Mexico. There, nitrogen and other Midwestern pollutants picked up in the runoff feed a persistent algae bloom that depletes the water of oxygen. This condition—known as hypoxia or the “dead zone”—kills marine life and destroys fisheries and the livelihood of many coastal residents.

Arlo Van Diest farms 2,250 acres, mostly corn and soybeans, near the Boone. He canoes the river and understands runoff washes in fertilizers and nutrients harmful to the river. As a good steward of the land, Van Diest is part of the collaborative effort to initiate farming practices that improve local and downstream water quality while maintaining yields and profits. He aims to leave the land as good as he found it.

### A Watershed Alliance is Born

Van Diest and other farmers are partnering with a decade-old alliance of organizations to make changes on the land. In 2003, The Nature Conservancy, a worldwide conservation organization, completed a scientific assessment of the upper Mississippi River. They collaborated with the Iowa Soybean Association, the USDA Natural Resources Conservation Service (NRCS), Prairie Rivers RC&D, the Iowa State University Center for Agricultural and Rural Development, Practical Farmers of Iowa and others to launch the Boone River watershed effort.

Strange bedfellows though they may seem, these partners began working with producers to initiate new farming practices within the watershed.

The maturing alliance gained momentum in 2009, when Tom Vilsack, secretary of agriculture and former Iowa governor, rolled out the Mississippi River Basin Initiative (MRBI). The program builds on agricultural producers' past efforts in 13 Midwestern states by using traditional and cutting-edge conservation practices to reduce nutrient runoff in the Mississippi River basin, which contributes to both local water quality problems and the Gulf hypoxic zone.

In the initiative, USDA-NRCS works with producers to manage fertilizer use to minimize runoff and reduce downstream nutrient levels. A palette of Farm Bill

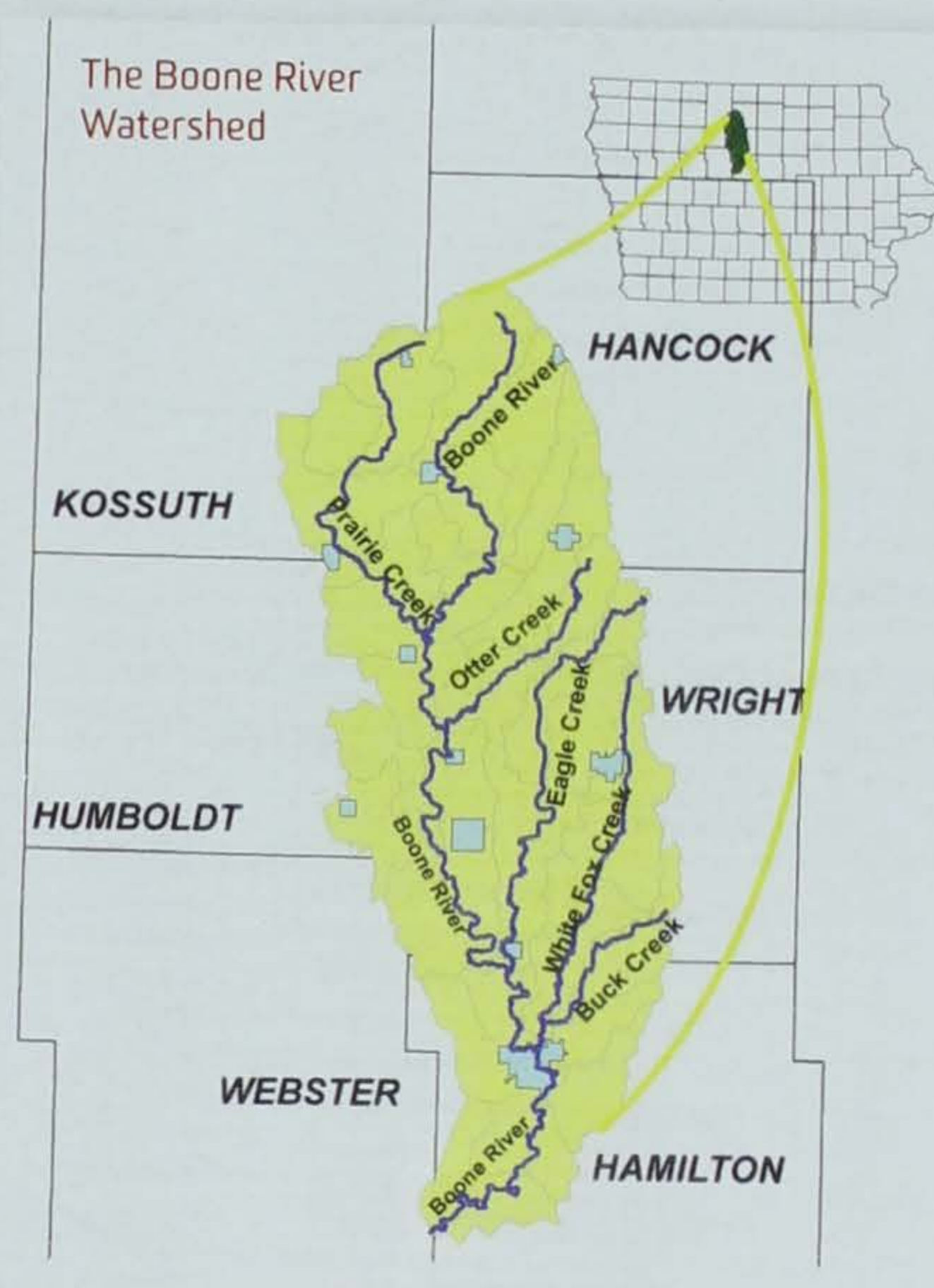
conservation programs offers a choice of practices which promote water quality, restoration of wetland and wildlife habitat, and agricultural productivity.

“When the Boone River partners learned of the MRBI rollout, they quickly enrolled,” says Bruce Voigts, the local coordinator for the Boone River Watershed Initiative, one of nearly 20 Iowa MRBI projects. Voigts works with farmers to encourage conservation practices that reduce nutrients in the water—especially nitrogen runoff. He works closely with The Nature Conservancy's Eileen Bader, who collects and analyzes data for new conservation practices that have hit the ground.

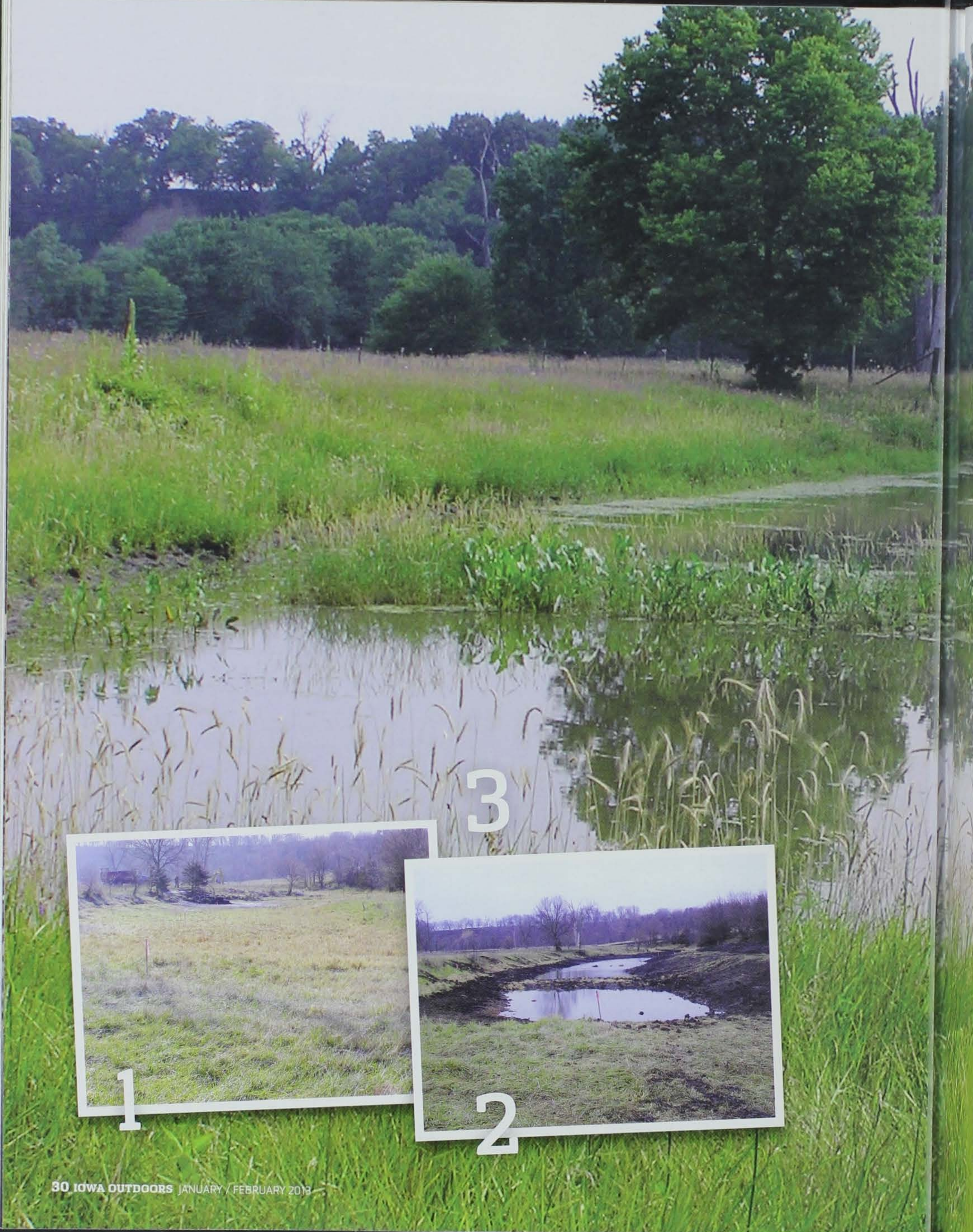
“Farmer acceptance started slowly, with five producers enrolled the first year, and 30 now,” she says. The first year of MRBI contracts has the potential to reduce nitrate loading in the Boone by approximately 25,305 pounds, and over the three-year duration of 2010 and 2011 MRBI contracts, nitrate loading was reduced by about 75,915 pounds, Bader adds.

### Cutting-Edge Conservation Practices That Work

While there's a good history of conservation on fields in the Boone watershed, the alliance offered farmers assistance adopting new practices. Strip tillage reduces erosion, reduces nutrients reaching the river and saves farmers money. Denitrifying bioreactors at the ends of tile lines soak up nutrients. Cover crops protect the soil and hold nutrients in the ground, reducing fertilizer and herbicide needs. Field testing helps producers know the right amount of fertilizer needed for their fields.







3



1



2



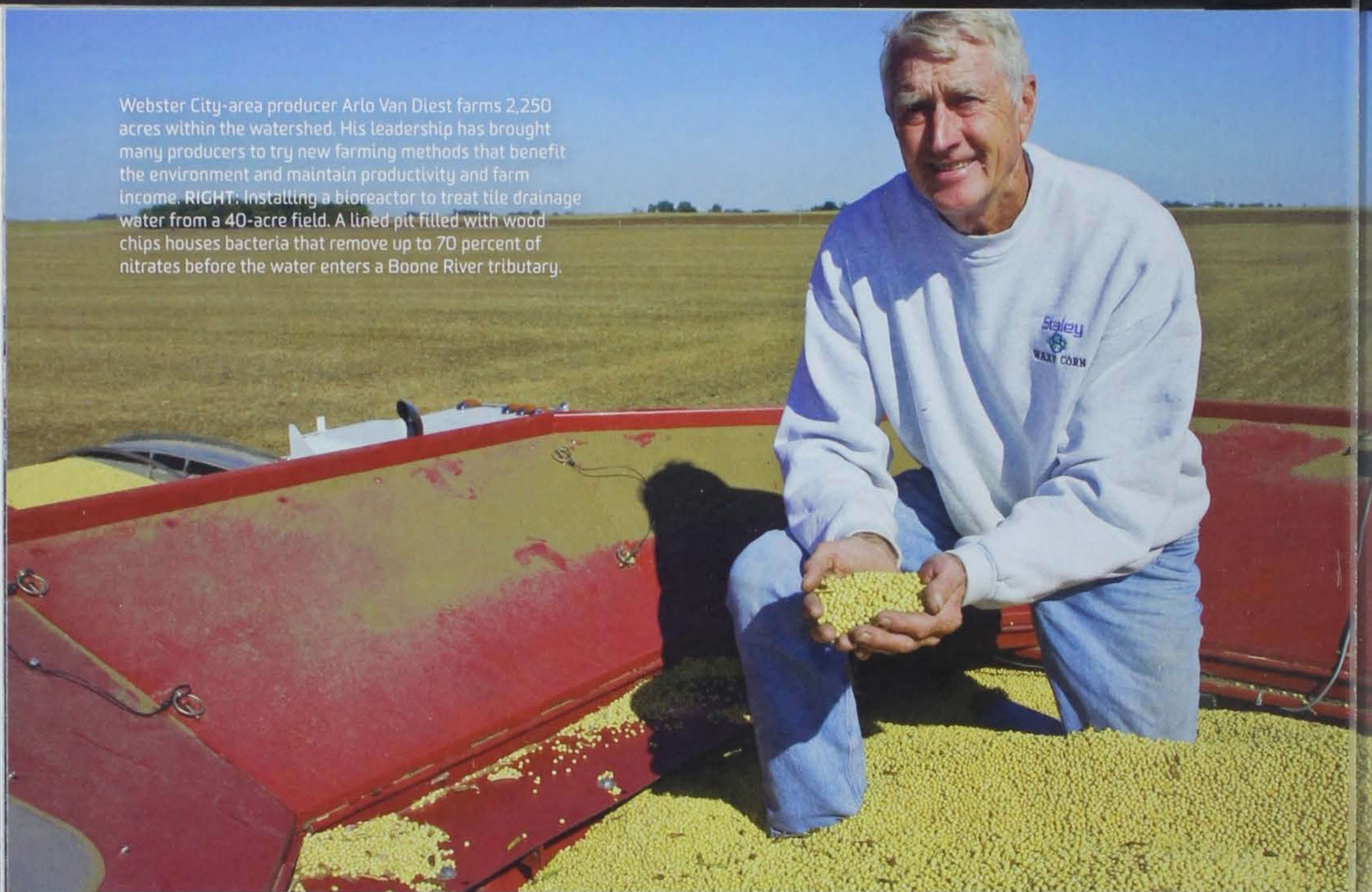


1) A sediment-filled oxbow loses the ability to filter pollutants and provide habitat for the endangered Topeka shiner (at right) and other aquatic life. 2) By removing several feet of sediment, water now flows in from an adjoining field tile. 3) The reconstructed oxbow recovers quickly and holds aquatic plants to filter nitrates from the field tile that feeds it. The area is ideal habitat for the Topeka shiner and many other species that thrive in shallow waters.





Webster City-area producer Arlo Van Diest farms 2,250 acres within the watershed. His leadership has brought many producers to try new farming methods that benefit the environment and maintain productivity and farm income. **RIGHT:** Installing a bioreactor to treat tile drainage water from a 40-acre field. A lined pit filled with wood chips houses bacteria that remove up to 70 percent of nitrates before the water enters a Boone River tributary.



One new approach unearths long-gone oxbows, or cutoff stream meanders, an important habitat for the federally endangered Topeka shiner fish. Over the years, these oxbows filled with silt and couldn't support aquatic life. Working with landowners, staff from the Iowa Soybean Association, The Nature Conservancy, DNR and the U.S. Fish and Wildlife Service locate potential oxbows and remove silt until water again bubbles through the creek bed. They then connect field drainage tiles to the oxbow, which significantly filters out a high percentage of nutrients—with recent measurements showing a 20 to 89 percent nitrate reduction in two such oxbows.

"The Fish and Wildlife Service has completed multiple oxbow restorations in Iowa's Raccoon River watershed and found populations of Topeka shiners flourishing just one year after restoration," says Bader. Basically, build that habitat and they will come. "As many as 100 oxbows may have the potential for restoration within the greater Boone River watershed and its tributaries, and plans for 2012 included implementing three to six additional oxbow restorations," she says. And recently, the DNR's watershed improvement program funded help at Lyons Creek, which has some of the highest nitrate levels within the Boone watershed. Funds will help the partners create wetlands, restore oxbows, plant cover crops, install more bioreactors and other practices.

### A Partnership that Works

"Part of the success story is because the partners have done things in the right way. We're continually working to get all partners on the same page and are slowly gaining speed," says Todd Sutphin of the Iowa Soybean Association.

While the effort is grounded in local and state partnerships, the Boone project has gained the attention of global companies like Coca-Cola and Walmart, which work with the Boone project to reduce nitrogen fertilizer and associated emissions from their supply chains to reduce their corporate carbon footprint. Coca-Cola provides funding to the Boone River project to promote nitrogen application practices by establishing nutrient management plan contracts with farmers, aiming to reduce nitrogen application by 20 pounds per acre.

"We're having good success in getting farmers signed up for conservation practices," Sutphin says. "Farmers want to be good stewards of the land. With boots on the ground, we've established baseline data, brought producers to the table, selected the best conservation practices and began measuring performance."

### Looking to the Future

The Boone River Watershed Initiative's diverse partnership hasn't been afraid to reach beyond traditional

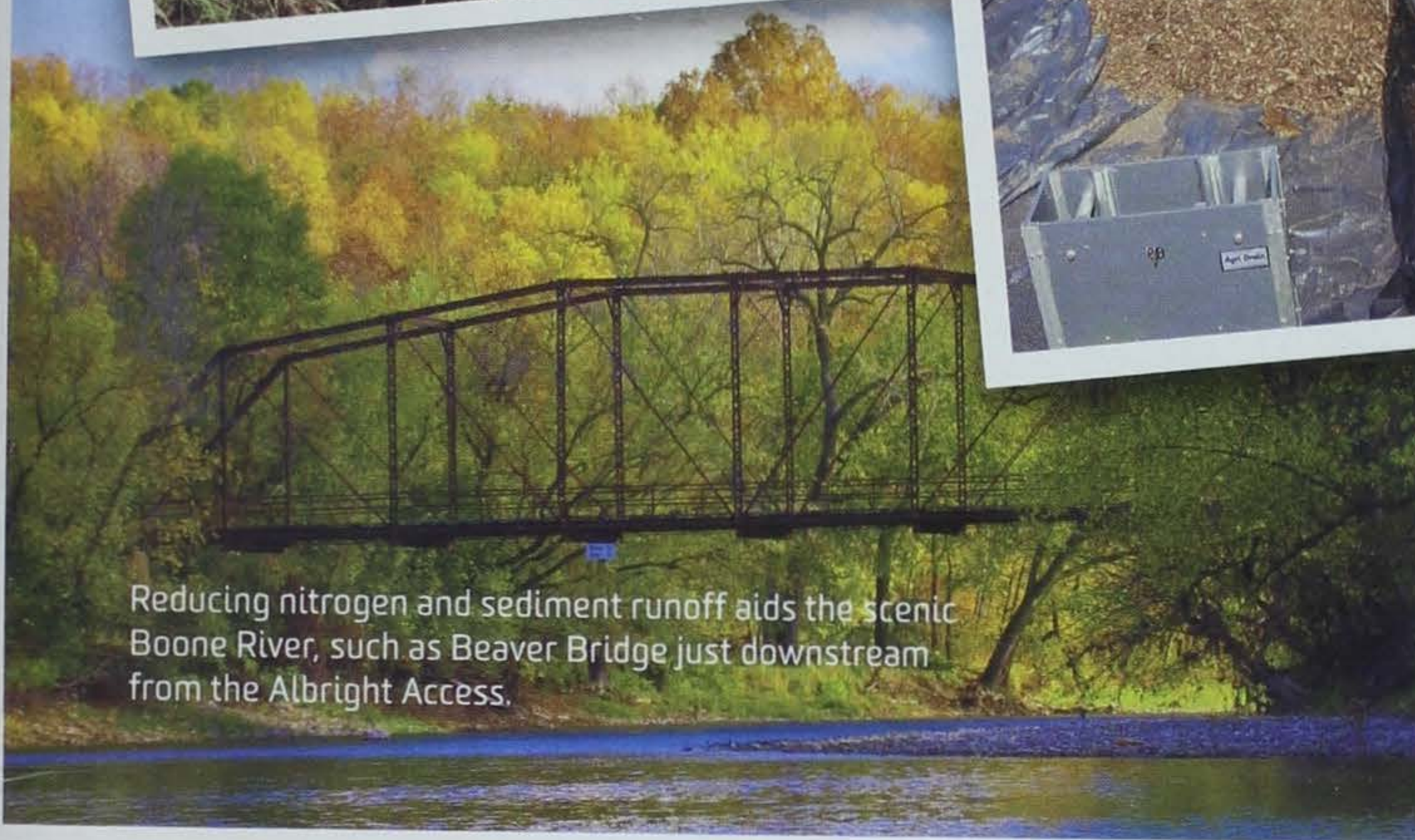




Adding wood chips to the bioreactor.



An impermeable membrane covers the bio-reactor.



Reducing nitrogen and sediment runoff aids the scenic Boone River, such as Beaver Bridge just downstream from the Albright Access.

approaches, and its use of new agricultural methods bodes well for the future of the Boone River watershed—reducing river contaminants, lessening farmers' costs, and preserving the land and natural resources for future generations of Iowans.

"We won't see changes overnight, but the pieces are slowly coming together and the process is coming along," says Sutphin. "Our goal is to improve water quality, conservation and nutrient management, and allow farmers to make a living."

Farmers recognize that focus on the future as well. "Farming with a true conservation ethic means more than just doing things that are easy. We want to show how farmers can succeed economically while preparing a farming operation for transition to a new ownership and management," Van Diest says. "It's in that way that we feel we are fulfilling our own personal conservation legacy." 🐾

## Get Involved

Iowa MRBI projects: <http://www.ia.nrcs.usda.gov/programs/MRBI.html>

DNR Watershed Resources for Local Groups: <http://watershed.iowadnr.gov>

Find out which watershed you live in:

<http://cfpub.epa.gov/surf/locate/index.cfm>

**DENITRIFYING BIOREACTOR**—In 2009, Van Diest installed a denitrifying bioreactor near the end of a field tile. These underground structures, filled with wood chips, filter tile water. "Nitrate-hungry bacteria residing in the wood chips have improved water quality by reducing nitrates by as much as 75 percent in water leaving the bioreactor and entering tributary streams. Nearly a dozen bioreactors have been installed within the watershed, and because the cost is shared by NRCS and the Iowa Soybean Association, there is no cost to the farmer," says Voigts.

**COVER CROPS**—Farmers are beginning to use cover crops to protect soil and prevent nutrient loss after harvest and until spring planting. Cover crops help reduce soil erosion, reduce fertilizer needs, lower herbicide costs, improve soil health and enhance water quality. For instance, winter rye cover crops grown after corn and soybeans are harvested can significantly reduce nitrate concentrations in drainage water throughout the Corn Belt. Averaged over four years, one study showed a rye cover crop reduced nitrate concentrations by 59 percent. Cover crops may include winter rye, hairy vetch, radish and turnip. "Farmers enrolling in the program are reimbursed for their costs, and I expect cover crops will be the norm in about six years," says Voigts.



A hatchery worker stocks trout in a northeast Iowa stream. The trout that will be chasing anglers' flies and spinners next year are little more than incubating eggs and tiny hatchlings today. Roughly a half-million trout—the ever-popular rainbows, brooks and browns—are raised and released each year.







# WINTER RAINBOWS

Rainbow Trout For 2014 Spawn This January

STORY AND PHOTOS BY JOE WILKINSON

**T**he trout you pursue throughout 2013 on any of 50 northeast Iowa streams got their start a year ago. As you look ahead to a new season on Iowa's trout streams, it helps to cast a glance back.

Sliding the last tray into the shelves along a wall, Tom Rohde looks down at a morning's work—100,000 future trout beginning incubation inside the DNR's Manchester hatchery.

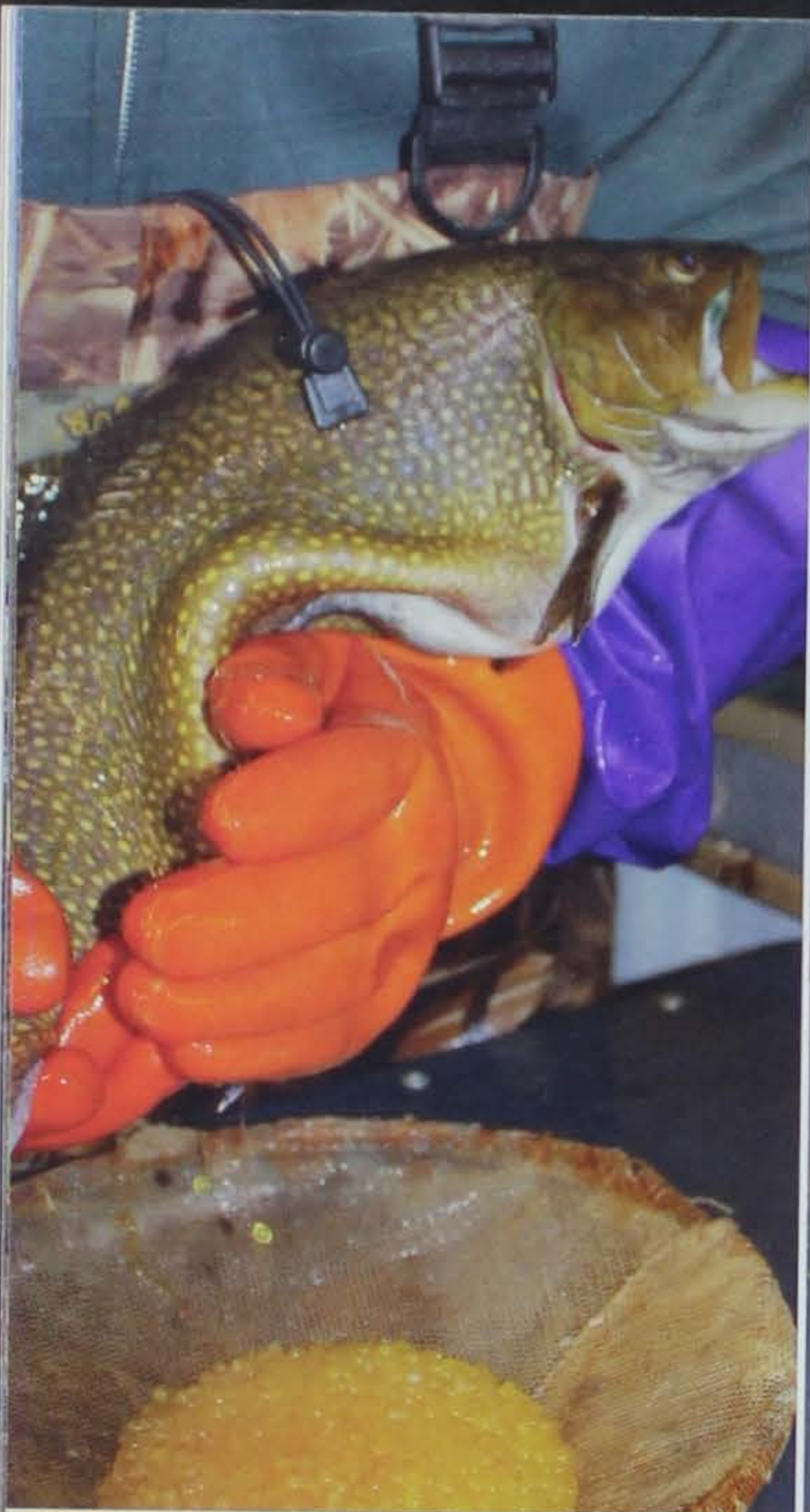
This winter morning starts with fisheries technicians Rohde and Randy Mack at an outdoor raceway. One is waist deep in chest waders, rain gear and elbow high

gloves. He stays dry as big brood fish are "herded" with a mesh gate to the end of the concrete raceway. Ripe females—those ready to spawn—are netted and handed up to the other for a short trip inside.

"Female brood fish average 6 to 8 pounds each. Each will produce about 6,000 eggs," explains Rohde. "It takes 30 days or so for these eggs to hatch, so the eggs we take today are actually for next year's stocking program."

They move from tank to tabletop to trays. Water diverted from Spring Branch Creek into this one-story brick building constantly splashes across hatching





Raising the roughly half-million trout for stocking in Iowa isn't an overly difficult task, but it is time consuming. Above, eggs stripped from one female is mixed with milt milked from two male fish.



A saline solution is added to aid fertilization. The concoction is gently stirred 30 to 40 seconds with a soft turkey feather so as not to bruise the fragile payload.



Fertilized eggs are poured into plastic trays and placed under a steady stream of 50 to 52 degree stream water and monitored until they hatch.

trays, holding tanks and an array of raceways for tiny trout. It was built in 1890, 120 years ago, because of the quality—and quantity—of cold spring water gurgling out of the limestone bluffs.

A quick sedative bath quiets the big trout, then each is held firmly over a plastic bowl. One worker firmly strokes the trout's belly to force out a stream of orange-golden eggs. Mixed in quickly is sperm from two males. A saline solution added aids fertilization. The last step? Stir the concoctions for 30 to 40 seconds, using a turkey feather—firm but soft enough to avoid bruising the fragile payload.

Fertilized, the eggs are poured into the rigid plastic trays and slid into place below that constant stream of 50 to 52 degree water. An "RB" for rainbow and the day's date are written on the outside. From there, it's a matter of monitoring them until hatch.

You don't see them until the next year. That's how far ahead the hatchery works. That extra attention, labor and hatchery space is why anglers hand over an extra \$12.50 for trout fishing privileges each year. About 80 percent of the 300,000 half-pound or so catchable size fish

stocked each year are rainbow trout. They're easier to grow and popular with the trout fishing crowd. The other 20 percent are native strain brook trout. About 200,000 brown trout fingerlings are also stocked to grow up in the streams, rendering them wilder and more of a challenge to bring to net.

The brookies are spawned in October, the browns in November. Rainbows—the backbone of Iowa's trout program—take up December and January. This time of year, those future fish range from full-sized and splashing in the outside raceways to the tiny, shiny orbs along the hatching tray wall.

At 2 to 3 inches, many head out from Manchester—the state's trout hatchery—to rearing stations near Decorah and Elkader. They stock area streams from April through October. More than 12,000 extra fish, by the way, were stocked this past fall, held over due to low water levels and warm stream conditions from the 2012 drought.

Through the winter, trout are spread around, to stir up some urban interest. That urban fishery program now serves 18 communities in areas far from northeast Iowa



**Urban Trout Fisheries** Urban trout stocking typically occurs between October and early April. The urban lakes trout program helps introduce trout fishing to more Iowans. These cool weather stockings provide easy-access trout fishing in areas that cannot support trout during the summer. Anglers must have a trout license. The expansion of the urban trout fisheries into new locations was the driving force behind record trout stamp sales in 2011 when trout privilege sales topped 40,000 for the first time ever.

According to angler responses, 31 percent purchased their trout privilege specifically for the urban trout fishery, up from 26 percent in 2006, and more than 12 percent of all trout angler trips were to urban trout fisheries, up from 8.6 percent. The most popular urban trout fishery was South Banner Lake, near Indianola, with 7,150 trout fishing trips. Find stocking times at [iowadnr.gov](http://iowadnr.gov).



## Urban Trout Stocking Areas (2012-2013)

- |   |                      |
|---|----------------------|
| 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 Petoka, 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           |

**NOTE:** DMACC Pond in Ankeny will not be stocked in 2012-2013 due to the dredging project at that location.



streams. Most are stocked twice a season.

Once in a while, a culled brood fish or two gets mixed into the day's stocking. It never hurts to see the look on an angler's face as one of those hogs plops into the water with all those half-pounders. The biggest one from last winter's spawn? It weighed 14 and a half pounds.

You never know. It might be out there right now. Meanwhile, as you read this, work is underway on the class of 2014, ready to take that fly, redworm or chunk of prepared bait when you hit the stream.

## A Kid's First License

Young anglers can feel like a grown-up with their first fishing license. Iowa residents and nonresidents under 16 years old can possess or fish for trout without having paid the trout fee while fishing with a licensed adult who has paid the trout fee, but together they must limit their catch to the one person daily limit of five. If children under age 16 have their own trout privilege, they are able to fish without a properly licensed adult and keep their own daily limit of five trout.

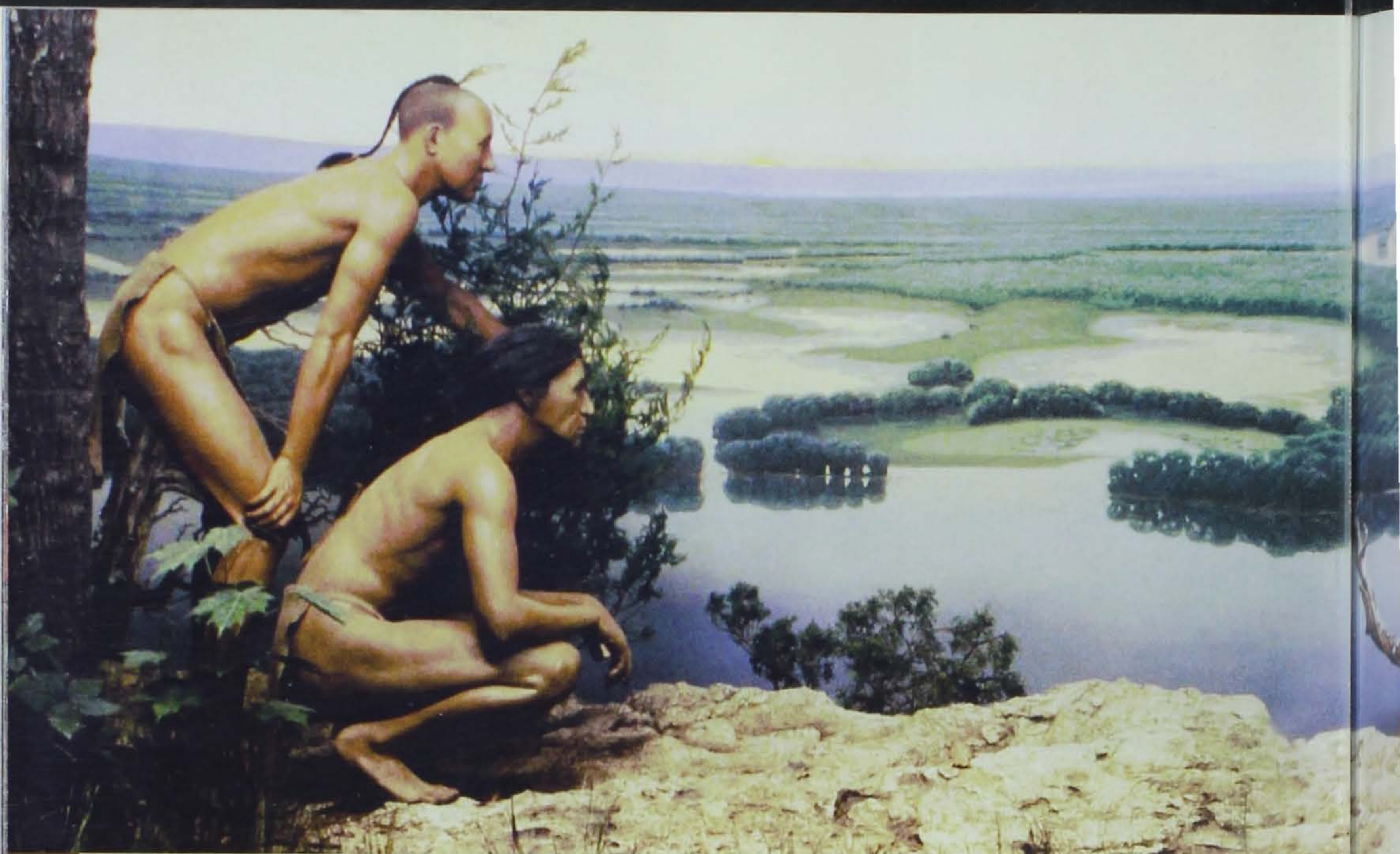
## Trout Treasure Map

A new version of the popular Iowa Trout Fishing Guide is available. Consider it your map to exploring the myriad nooks and crannies of bluff country and gurgling clear, cold waters. The new map contains updated rural road names, trout fishing tips, even QR codes for use with smartphones. Request a copy by emailing [webmaster@dnr.iowa.gov](mailto:webmaster@dnr.iowa.gov) or calling 515-281-5918.

## Drive Home Your Love of Trout

Showcase your passion for trout angling with a natural resource license plate that features the native brook trout. The plate funds the DNR's Wildlife Diversity Program and supports the Resource Enhancement and Protection program; \$10 of the purchase price and \$15 of the renewal price go directly to the Wildlife Diversity Program. To buy, take existing plates and vehicle registration to your county treasurer's office. After you pay the \$45 fee, you will be issued new plates, and when your plate renewal anniversary arrives, the \$25 renewal fee is included in your annual registration bill. 🐟





# THE PARK THAT WASN'T

BY JENNIFER WILSON PHOTOS BY KEN BLOCK

In the early 1900s, a corridor of land along the Mississippi River in far northeast Iowa just missed being designated a national park. We have instead Effigy Mounds National Monument. Some still dream of the Mississippi River Valley National Park— either as an opportunity lost, or a beacon of what still could be.





This panoramic view shows the historic entry of Marquette and Joliet in two distant canoes into the Upper Mississippi River Valley via the Wisconsin River on June 17, 1673. Visitors to Pike's Peak State Park in Clayton County can see the same view today. This diorama is the centerpiece of Iowa Hall at the University of Iowa Museum of Natural History.

**T**wo Ioway men squat atop a limestone bluff, gazing past a red cedar tree that twists from the side of the cliff. They are scouting

two canoes as they plow toward the continent's largest river from its Wisconsin River tributary. The view is sprawling and wide and astounding. The river water flows in and around and through tufted green islands: a shining vein.

These native men are descendants of ancient mound builders who sometimes buried their dead in conical and animal-shaped earthen hills along the river corridor. To them, this is sacred ground.

And the intruders in those canoes? On this day—June 17, 1673—explorers Father Jacques Marquette and Louis Joliet are entering the Mississippi River for the first time, on a mission from the French government to find a route to the Pacific Ocean.

Their hearts well “with a joy I cannot express,” Marquette wrote later. And so, in a way, this place is sacred to them, too.

It was, according to the DNR's Geological and Water Survey, the Native Americans' first contact with Marquette and Joliet in what would become Iowa, marking the first mingling of European and native civilizations and massive changes in tribal culture. The moment is captured in a diorama displayed at the

University of Iowa Museum of Natural History.

It is the good fortune of the Iowa traveler that this same bluff-top lookout, located in present-day Pike's Peak State Park, is similar to what it was on that day 400 years ago, in this corner of northeast Iowa that seems a bit more wild than anywhere else in the state. Similar, except for a few things. Today, the view is marred by an open-pit rock quarry just north of Prairie du Chien, developed during the 2000s.

Now, consider this: if a group of men and women during the turn-of-last-century had their way, the whole sprawling expanse could have been ensconced within Iowa's first and only national park. Their decades-long effort ended in compromise—instead of a national park, we have Effigy Mounds National Monument, preserving prehistoric Native American mounds shaped like animals and built more than 2,000 years ago. The effort also helped create a federal refuge, state forest and state park.

It's hard not to wonder how a true national park might have changed our state. As development encroaches upon far northeast Iowa—the most natural remaining piece of what the Mississippi River once was—how might a national park have protected our heritage for future generations?

We may never know exactly. But it's safe to say that the Mississippi River Valley National Park would have changed the face of Iowa, and possibly transformed the soul of the entire state.



Archeologist Ellison Orr of Waukon, shown below, as seen superimposed against the beauty of the Upper Mississippi River Valley. The area's splendor propelled he and others to push for a national park designation. Ultimately, the Upper Mississippi River National Wildlife and Fish Refuge was created in 1924 and Effigy Mounds National Monument was created in 1949, with Orr donating his writings and American Indian artifact collection to the monument. Pikes Peak State Park and Yellow River State Forest were added in 1935.



Ellison Orr  
of Waukon



## The first try

Ken Block came to Effigy Mounds National Monument from Grand Canyon National Park in May of 2000.

A career National Park Service employee since 1981, Block spent part of each day in his old job overlooking the south rim of the Grand Canyon. (He's since moved on to the Fish & Wildlife Service in western Iowa.)

When Block took in his first views in northeast Iowa—Pikes Peak, Fire Point and Hanging Rock at the monument, Mount Hosmer in Lansing—he couldn't help but wonder: "Looking north or south from Hanging Rock, you can see along the Mississippi for 13 miles with virtually no intrusion to sky, clouds, river, trees and bluffs. Why isn't this whole valley a national park?"

Many people have wondered the same thing, beginning with a handful of conservation-minded sons and daughters of Iowa's first European pioneers. They'd seen in their lifetime the absolute transformation of the prairie and forest, and some formed a group that came to be known as the Wildlife School, including botanist Thomas Macbride and amateur archeologist Ellison Orr, who'd been mapping with great precision the area's mounds. They launched a mild-mannered fight to preserve a wide swath of the Mississippi River valley in upper Iowa, beginning with an impassioned speech on the floor of the Iowa House on April 6, 1909.

State representative George Schulte from Elkader suggested the national park be established in Clayton and Allamakee counties:

*"If established as a national park it will become the favorite retreat during vacation and rest for the people along the river from New Orleans to Minneapolis. We hope to see the time when the tourist will be attracted by beautiful parks and cities along the 'Father of Waters' and that he will take a trip up the Mississippi instead of touring on the Hudson or crossing the Atlantic for a trip up the Rhine."*

Bob Palmer, park ranger at Effigy Mounds in Harper's Ferry, recalls the early Wildlife School adherents with admiration.

"These people were the children of pioneers. In their lifetimes, they observed the total transformation of the Iowa landscape and the elimination and loss of 95 percent of what was once wild," he notes, finger in the air to emphasize his point. Palmer is an archeologist whose family farmed in this area for generations. The preservation of ancient mounds at the 2,536-acre monument is right up his alley.

Palmer's office is in the chilly cave of the national monument's library, downstairs from the visitor's center, where he's blissfully hemmed in by books, files, old

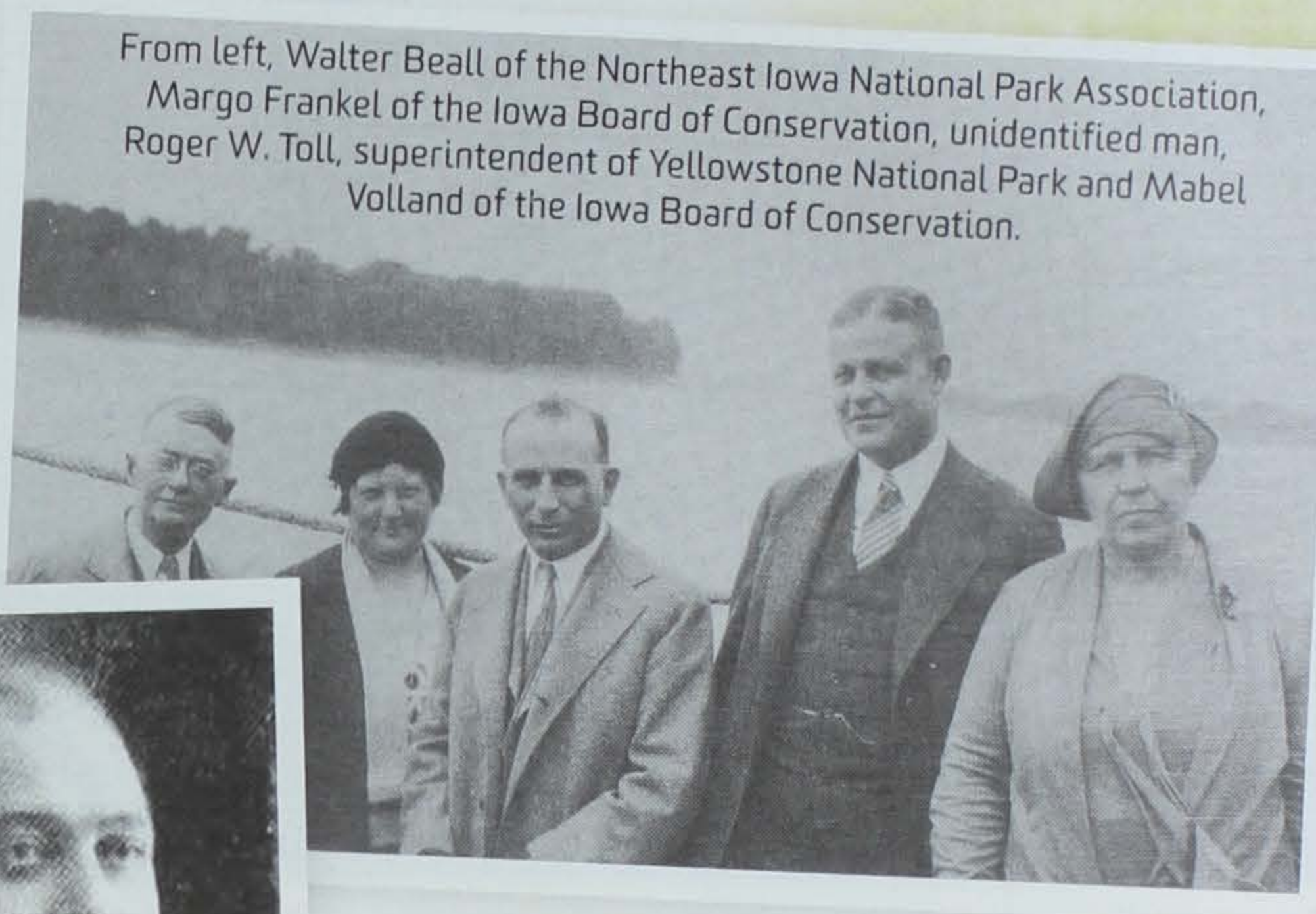
maps and documents detailing Iowa's failed national park history. Somewhere stored among the file cabinets are handwritten manuscripts from Ellison Orr himself.

He says that over the course of six years, in 1915, the Wildlife School pushed U.S. Senator William S. Kenyon of Fort Dodge to introduce a bill and U.S. Representative Gilbert Haugen to submit a similar bill to the House. Just as progress toward a national park was being made, the bill fell silent as World War I began.

President Woodrow Wilson established the National Park Service (NPS) in 1916 with the mission to "conserve the scenery and the natural and history objects and the wildlife therein and to provide for the enjoyment of future generations."

That sounded about right to Mississippi River Valley National Park advocates in Iowa. But throughout the next

From left, Walter Beall of the Northeast Iowa National Park Association, Margo Frankel of the Iowa Board of Conservation, unidentified man, Roger W. Toll, superintendent of Yellowstone National Park and Mabel Volland of the Iowa Board of Conservation.



George Schulte of Elkader

several decades, all similar bills would fail to make it through Congress. Though other places received national park designations, Iowa never did. Yellowstone made it as early as 1872. Mackinac Island in 1875 (though it was eventually given back to the state of Michigan in 1895). Sequoia, Yosemite, Mount Rainier ...

Block just can't make sense of it, he says. "Best stretch of the river is pools 9 and 10 (in northeast Iowa), the geographic heart of the

Upper Mississippi National Wildlife and Fish Refuge—what could have been Mississippi River Valley National Park."

In a 1917 speech to the Iowa Forestry and Conservation Association, Orr acknowledged Iowa's uphill battle: "... we fear that many of these things, which if taken now might be saved as a heritage for our children and our children's children, will be lost forever ere we again reach normal conditions and can turn to them again."

## Finding refuge

Orr's voice was joined by other influential Iowans. Mrs. C.H. MacNider of Mason City wrote a letter of support to the cause—this wasn't just about Iowa anymore. It was



In the early 1900s, a corridor of land along the Mississippi River in far northeast Iowa just missed being designated a national park. We have instead Effigy Mounds National Monument and the Upper Mississippi River National Wildlife and Fish Refuge. Some still dream of the Mississippi River Valley National Park—either as an opportunity lost, or a beacon of what still could be.



about preserving a national treasure:

*"Neither Iowa nor Iowans and Wisconsin together should presume to claim our greatest river at its most scenic point. This is something the whole nation should have a share in."*

In 1924, the Upper Mississippi River National Wildlife and Fish Refuge Act gathered more than 200,000 acres of upper Mississippi wildlife habitat and put it under refuge protection. It renewed hope in the national park idea. And in 1930, President Herbert Hoover (an Iowan himself) signed a bill that called for an area survey that might convince federal officials, too.

At the same time, the river's natural state was already being altered. The Army Corps of Engineers installed a series of 29 locks and dams in the 1930s, primarily to maintain the nine-foot channel depth needed to maintain barge traffic. The damming formed lakes for recreational boating and fishing. As the river corridor developed, the idea of a highly protected national park upon it seemed counterintuitive—at least in a commercial sense.

This may very well have been the thinking of Roger Toll, superintendent of Yellowstone National Park, who was charged with touring the area both by car and by boat, covering the Mississippi River from Bellevue, Iowa,

to Winona, Minn.

His assessment was disappointing. According to his report to Congress, a park wasn't feasible with the number of towns and cities within the proposed boundaries. These places would have to be excluded from the proposal, he wrote, causing the park to be made up of isolated tracts.

But, notes Bob Palmer, both Shenandoah National Park and the Great Smoky Mountains were authorized in the 1920s, and officially established in the mid 1930s during the Roosevelt administration. Both contain towns and cities within park boundaries. Perhaps the timing was off, because northeast Iowa's land is equally stunning.

"Having worked and lived in a number of parks around the country, including one of those in the Blue Ridge Mountains, I challenge anyone to drive north from Dubuque up on the Balltown Ridge and tell me that this part of Iowa is not special and significant," says Palmer.

"I challenge anyone to wade in or fish the coldwater streams of Allamakee County and tell me that the area is not worthy of preservation and protection.

"Standing on any number of bluffs overlooking the Mississippi, between Dubuque and Winona, Minn., I





An aerial view and early map of a portion of the conical, bird and bear effigies in today's national monument.

challenge anyone not be humbled when reflecting on the geomorphology that resulted in this unique and beautiful landscape; and while standing there, find me someone who will not be left in a state of awe when contemplating the 10,000 years of human history—good, bad, inspirational and incredibly cruel and inhuman—that is associated with this part of the state and this part of the river.”

### The compromise

A shred of hope remained for Iowa's national park advocates. A smaller vision, but not a vision lost.

In his report, Toll mentioned those mounds Orr so carefully mapped. More than 200 in total, and the most significant and well-preserved group of these ceremonial and sacred sites anywhere. (Palmer says there were originally in excess of 10,000 mounds in northeast Iowa, with almost 1,000 located in what became Harper's Ferry, before most were destroyed by farming and urban development. Roughly 1,000 remain.)

“The effigy mounds of the Upper Mississippi River Valley are unique, occur only in a limited area, and are stated to be the most interesting in the United States,” Toll wrote.

Which, according to the federal Antiquities Act, was

enough to get a national monument designation.

Orr and the others probably could have continued pushing for our park. But, says Palmer, it was likely that after decades of struggle, no one wanted to look a gift horse in the mouth. Northeast Iowa was already being subsumed by farms; maybe it was an impossible fight in an agricultural state.

And so they began assembling the land necessary for a national monument. Orr and another wildlife schooler named I.E. Beeman approached a New Albin farmer about selling four acres that were rippled with mounds. The farmer demanded \$100—\$25 per acre.

“In the depth of the Great Depression, these two men walked door-to-door in Lansing and Waukon, taking donations from businesspeople and residents, to raise the money for a national park site,” says Palmer.

At the same time, the state had acquired land due to Depression foreclosures. The NPS wanted at least 1,000 acres before they'd declare Effigy Mounds National Monument a reality.

In 1936—almost 30 years after Schulte's speech introducing the idea—there was a plan in place for Effigy Mounds National Monument that included the Yellow River Mound Group, plus



a few more tracts of local ground.

In April 1941, the General Assembly of Iowa authorized the gift of up to 1,000 acres to the United States government for national monument purposes.

But again the dream stalled. On Dec. 7, 1941, with Pearl Harbor, the U.S. became enmeshed in World War II.

So it wasn't until Oct. 25, 1949, that Effigy Mounds National Monument came to full fruition. President Harry Truman, using the powers of the 1906 Antiquities Act, signed the proclamation creating the park. It's located in Harper's Ferry, but the effigy mound builder culture ranged throughout this area. Palmer illustrates by drawing a line from Minneapolis to Green Bay, along the lake to Chicago, then Chicago to Dubuque, then back to Minneapolis again.

"People from Wisconsin ask why this thing is in Iowa. But the people of Iowa made this happen. Without them, people still would be wondering if maybe this might be a national park someday."



### But is it a national park?

A visit to northeast Iowa today is a beautiful, if rather disjointed, adventure. There are trout streams, limestone cliffs, the sprawling backpacking area within Yellow River State Forest, that big swollen beaut of a river. And there are farms and river towns, too.

It's stunning landscape. But it's not particularly tourist friendly or neatly packaged, as a national park might be. What the area gained in agriculture and towns may have been the nation's loss in pristine riverside wilderness.

Tim Mason, a northeast Iowa environmental advocate who worked for the NPS for nearly two decades, began his career at Effigy Mounds National Monument, where he pored over Orr's handwritten notes in the same basement where Palmer toils.

"Can you imagine today if this area was a long wide national park that had been preserved for well over a half century?" Mason says. "A lot of the highly eroded lands would be covered in a canopy of hardwood forests rather than sloping corn fields. The bottomland wetlands would be teeming with life."

Twenty years ago, on special assignments for the NPS, Mason was temporarily assigned to the Ozark National Scenic Riverways in southeast Missouri. In 1964, the federal government created a large park to preserve the natural and cultural resources of the rivers and land, encompassing some 80,000 acres over 134 miles.

"This NPS site is a good example of what we would have today on the Upper Miss," says Mason.

Without the protected designation of a national park unit, the area is becoming more developed. The refuge protects the wildlife habitat, the water and islands, but not the bluffs. Some say this alone eats away at the hard work of Iowa's early conservationists.

Says Block: "In my 10 years at Effigy Mounds, driving weekly from Prairie du Chien to La Crosse, Wisc., I saw a nighttime drive of darkness turn to homes and lights along the edge of the bluffs during that 65-mile stretch. It deeply saddened me."

Those iconic bluff-top lookouts may not be the same breathtaking views for the grandkids.

"What I saw preserved in the much more populous northeast, midwesterners have let slip away," says Block. "I am sure I witnessed the beginning of the end over those 10 years. It's a shame, because modern national park units such as Upper Delaware combine private ownership with government regulated zoning that preserves the scenic qualities of a region."

Ask Bob Palmer if Effigy Mounds National Monument is a success or failure, and he waxes philosophical. The national monument isn't the grand scale of a park, no. It's good recreation, and it creates a bit of a buzz in tourism and the economy. But those things aren't the point.

The national monument offers a lens into a different culture. It keeps a moment in time 1,200 years before the first Europeans arrived, and preserves it for the next generations.

At its nadir, the national park idea would have overtaken the farms that the people of northeast Iowa grew up on, drastically changing the cultural landscape. But what cropland was sacrificed would have been returned in preserved wilderness. National parks trends have been moving toward partnering parks with refuges, and some think this is still a possibility in Iowa, if a new Wildlife School were to take up the mantle.

But, says Palmer, "When we think of parks, we think of the Yellowstone, the Yosemite. What we have now is a national park area charged with a preservationist mission. And you have the Upper Mississippi Refuge charged with habitat management for migratory birds and river ecosystem, recreation and commerce. Now we have this mix. We have this compromise. Which is how this country can be what it is. It's forever a compromise."

The history of the country is littered with failed national park ideas, he says. Becoming a national park is not an easy thing, nor should it be.

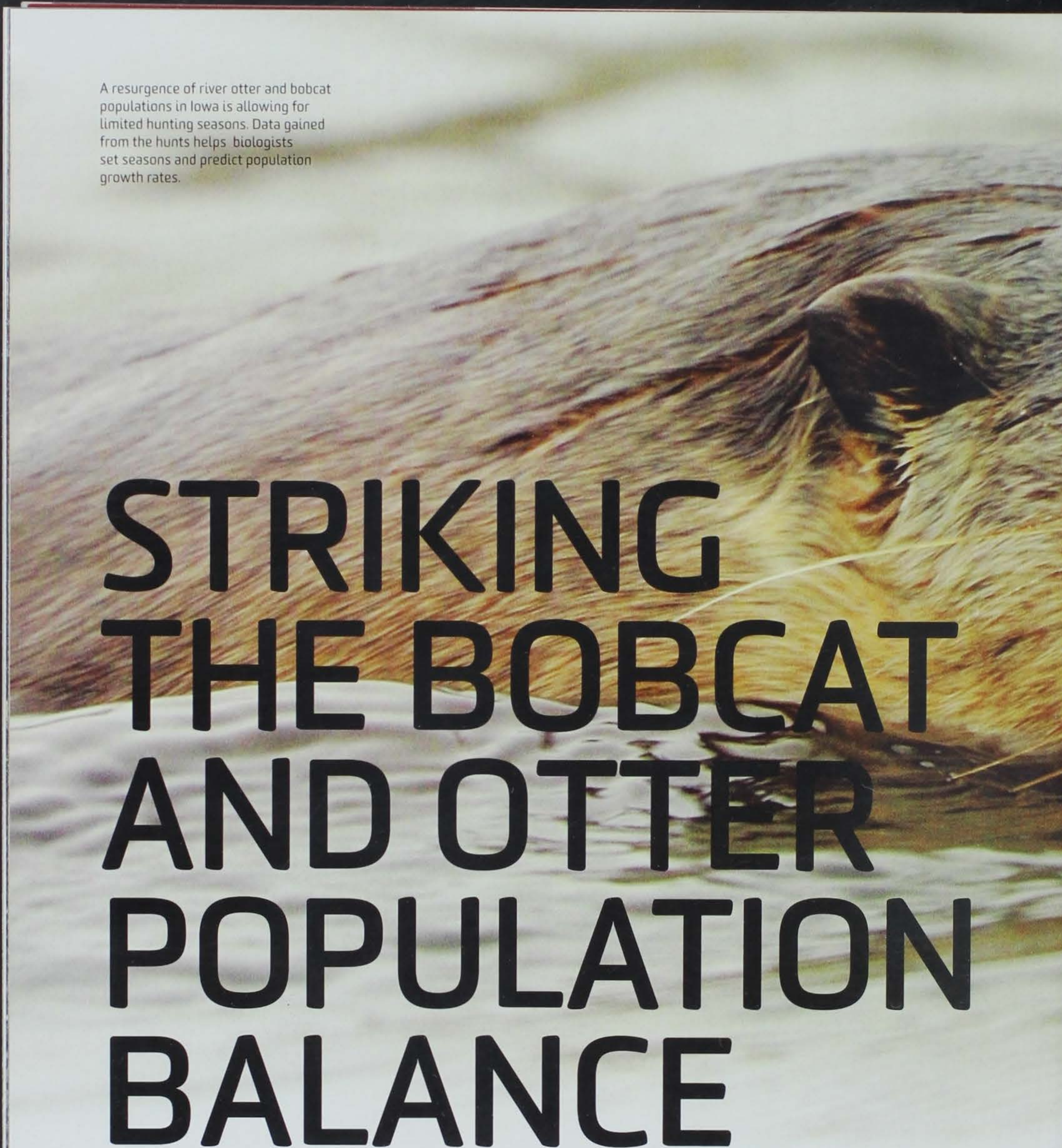
"I don't see it as a failure as much as a focusing down on what one of the most significant facets of the area is: our cultural history." 🐾





View from the Fire Point Trail in Effigy Mounds National Monument, a portion of nearly 14 miles of trails. Just downriver, Pikes Peak State Park offers 7 miles of trail and 77 campsites with some of the most scenic views in the Midwest. This entire region was once proposed to become the first national park in middle America.





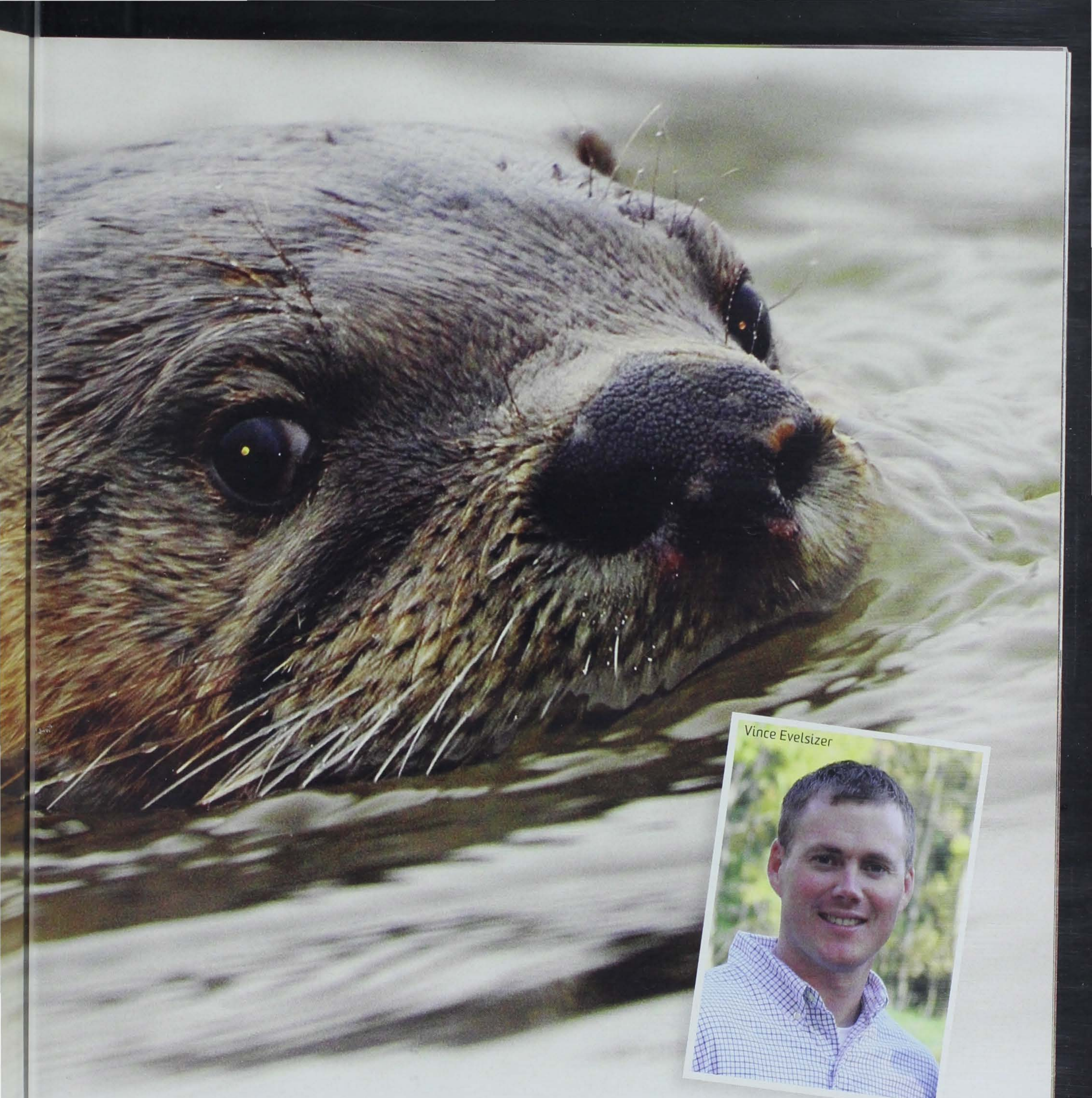
A resurgence of river otter and bobcat populations in Iowa is allowing for limited hunting seasons. Data gained from the hunts helps biologists set seasons and predict population growth rates.

# STRIKING THE BOBCAT AND OTTER POPULATION BALANCE

How Furharvest Limits are Set:  
**An Interview With DNR Biologist Vince Evelsizer**

BY MINDY KRALICEK PHOTOS BY RON HUELSE





Vince Eversizer



**B**obcat and river otter population gains are a positive wildlife story

as both species largely vanished from the Iowa landscape around the late 1800s to early 1900s. DNR efforts to reintroduce river otters began in 1985, and now their numbers thrive. Bobcat populations are also growing. Today, limited hunting and trapping seasons exist. We sat down with DNR biologist Vince Eversizer, a specialist in fur-bearers, to learn more.

**Q:** How did otters and bobcats rebound?

**A:** Although both species were abundant in Iowa during European settlement, otters were nearly eliminated by uncontrolled trapping, water pollution and habitat loss. Only a remnant otter population remained in northeast Iowa through much of the 1900s.

Otters began their comeback when 345 were



reintroduced from 1985 to 2001 by the DNR and partners. The reintroduction was successful. Otters now live in every part of the state. However, there are higher numbers in some areas than others.

Bobcats were listed as endangered in Iowa in 1977 due to uncontrolled hunting and loss of habitat that began in the 1800s. With this protection, they made a strong comeback in southern Iowa. A study done by the DNR and Iowa State University found this likely occurred from natural movement of bobcats from Missouri, Kansas and Nebraska into Iowa. The goal is to let bobcats expand their range north into more regions of Iowa, and this appears to be occurring naturally in parts of eastern and western Iowa, and along river corridors in central Iowa. (Note to readers: bobcats are not the same animal as mountain lions.)

Otter and bobcat populations are strong enough to allow appropriate harvest seasons to help manage population levels in areas of higher densities. The first otter trapping season opened in 2006 with a harvest limit of 400, two per fur harvester. The first bobcat season (trapping and hunting) opened in 2007 with a harvest limit of 150, one per fur harvester. We've completed at least five harvest seasons of both species, with the harvest limit established year-to-year based on current population trends.

**Q:** What is the objective for the otter and bobcat harvest?

**A:** Our management objective for otters is to stabilize the population. Modeling data indicates the otter population is increasing at least 4 percent annually. However, this varies throughout different areas of Iowa. In some areas, that rate is likely much higher.

The bobcat objective is to allow some harvest in southern Iowa, but also allow expansion into more areas where suitable habitat exists. According to research by the DNR and Iowa State University from 2003 to 2009, we estimate the bobcat population is growing at around 8.5 percent per year.

**Q:** How are harvest limits set?

**A:** It is important to note that both species' populations are in flux. They appear to be growing, but the rate varies by region. We don't want to over-harvest

or under-harvest, but we also try to keep regulations across Iowa as simple as possible. Harvest seasons are an extremely useful management tool and they offer another outdoor opportunity for trappers and hunters.

**Q:** What do biologists learn from the harvest?

**A:** When trappers harvest otters or bobcats, they are required to report captures to the DNR so we know when harvest quotas are met. We ask trappers and hunters to voluntarily turn in carcasses to DNR biologists after they

have removed the fur so biologists can obtain age and reproductive rate information.

The lower incisors of both bobcats and otters are removed from submitted carcasses and sent to a lab in Montana where the cementum annuli on the tooth roots are stained and annual growth rings are counted to determine the age of each animal.

From females, the uterus is removed and sent to a lab at Iowa State University where small placental scars are counted on the uterine wall to determine how many young were produced the previous year.

This information lets us know both animal age and reproductive rates. That information is compared with a growth model to suggest how high and fast each population could grow. We have enough data to make updated growth models for both species.


Generally the harvest of each species is 49 percent female, 51 percent male, or visa-versa. The proportions of male and female harvests haven't varied in the five years of the program, which is a good sign that neither sex is being inadvertently over-harvested. If it starts to skew more toward one sex over the other, that information would be taken into account to set limits.

**Q:** What else is known about harvest rates?

**A:** The DNR also collects data from fur buyers who must report how many pelts they buy from trappers each year. These reports provide useful information in tracking harvest trends, not only for these two species, but all





A photograph of two otters, likely American river otters, perched on a large, weathered log. The otter in the foreground is looking directly at the camera, while the one behind it is slightly higher and looking off to the side. Both animals have dark, sleek fur with lighter, almost white, chests and bellies. Their faces are covered in long, white whiskers. The background is a soft-focus view of green grass and foliage. The lighting is natural, suggesting daylight. The overall composition is a close-up shot, focusing on the animals' heads and upper bodies.

**THIS PAGE:** A pair of otters pose for a photo, evidence of the success of a concerted restoration program that began in 1985. By the early 1900s, the species was virtually wiped out across Iowa, except for a small number along the Mississippi River. Today, populations are above 7,000 statewide.

**LEFT:** DNR wildlife technician Jim Coffey removes incisors from otter carcasses donated by hunters. The teeth are sent to a laboratory in Montana where the cementum annuli on the tooth roots are stained and annual growth rings counted to determine age. Lower jaws are placed in a warm water bath (crockpot) for several hours to aid extraction without breaking the teeth.





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**AT RIGHT**, the now-famous "Ahquabi cat," the very first bobcat captured and collared in 2003 for the DNR's bobcat research project. It was caught at Lake Ahquabi State Park, near the Annette Nature Center.

**LEFT:** This bobcat was trapped in northern Iowa, outside the hunting and trapping zone where populations are much smaller. It was released unharmed.



furbearing species harvested and sold in Iowa annually.

We also consider how fast each species is harvested, the population density in counties, the Iowa Bowhunters Observation Survey (for an index of whether the population seems to be growing or shrinking), feedback from law enforcement and wildlife staff and what the public tells us.

We watch to see if any of this data seems out of whack and consider the social implications of harvest numbers. It is important to have good, healthy populations of both species, but we don't want them to get high enough that they cause negative problems with people such as perceived fish depredation complaints from otters or too many bobcats in areas of southern Iowa. That is not an easy thing to do when both populations vary by region.

**Q: What misconceptions have you been able to dispel?**

**A:** The main complaint the DNR receives about otters is from farm pond owners—that otters have moved in and are eating too many fish. If pond owners call us, there are ways to discourage otters from making a farm pond their home. Relocating otters is not always the best option. Even if we had time to catch and relocate them, other otters may move in. Often there are preventative measures, such as temporarily turning off aerators or other non-lethal controls.

We are concerned when high otter numbers overwinter below low-head dams where water is open. Flathead catfish and smallmouth bass also overwinter there and become easy prey. Otters also like trout in Iowa's

coldwater streams, so there are some issues there as well.

But, otters also eat carp and suckers, which is a good thing for game fish populations. And, otters eat other prey than fish, especially during fair weather. Crayfish are a favored food, as well as mussels, frogs, turtles, muskrats, aquatic insects and, to a small degree, birds and eggs.

We often get calls from paddlers who tell us they enjoy seeing otters swimming and playing on Iowa's rivers and streams. This is very positive, and enhances people's experience outdoors.

For bobcats, we get complaints from pheasant and turkey hunters that bobcats are affecting game birds. But the ISU and DNR bobcat study examined stomach contents of over 150 bobcat carcasses. Cottontail rabbits were in 60 percent of the stomachs, mice and voles 20 percent and fox squirrels 15 percent. In 12 stomachs were small amounts of deer, suggesting deer are consumed as carrion. About 2 percent of the stomachs had turkey, pheasant, hawk, crow and flicker. A few stomachs contained muskrat, beaver and shrew. That research, and others, doesn't support that bobcats are reducing pheasant and turkey populations to any notable degree. Those are some of the reasons that harvest seasons for both species is an important management tool that will likely adapt and change over the next three years, at least to strike a proper balance both ecologically and socially. It definitely keeps our job interesting.

The fact that otters and bobcats are currently doing well in Iowa is a positive wildlife story. They are both native to our state, deserve our respect and can be enjoyed by Iowans. Both represent something truly wild in our state and that's a good thing. 🐾



# COUNTING THE WILD THINGS

BY MINDY KRALICEK PHOTOS BY CLAY SMITH

A first of its kind, exhaustive survey of all wildlife and their habitats helps to better manage things small to large.



**LEFT:** Technician Shane Patterson, net in hand, searches for butterflies at the McGowen Wildlife Area in Davis County. Researchers have spent nearly eight years covering the state to complete Iowa's first inventory of all wildlife. Rare finds include the orangethroat darter fish, slender glass lizard, Graham's crayfish snake, central newt and byssus skipper butterfly. An ermine was found near Clear Lake. But the spotted skunk, woodland voles, Franklin's ground squirrel and northern grasshopper mouse have failed to appear. **BELOW:** A crew prepares to electroshock fish in its quest to tally the diversity and dominance of species.



## Jeremy Brauckman holds a large glass jar with a mysterious frog in it as he stands in the shade of an old farmhouse in the McGowen Recreation and Wildlife Area in Davis County. Standing with him are Ryan Rasmussen, Ryann Cressey and Casey Bergthold, survey crew members assigned to a southeast area of Iowa to identify and gather data for all of the wildlife species they can find.

The frog couldn't be identified the day before at Sedan Bottoms in Appanoose County. Usually, species are released where caught, but this frog appears to be a cross between a plains leopard frog and a southern leopard frog and needs further examination to ensure this is a hybrid. Supervisor Paul Frese is pulling in the driveway to take the frog to an amphibian expert for identification.

"It's possible for some species to interbreed. If that appears to be the case, we note the presence of a hybrid in our data," says Karen Kinkead of the DNR's Wildlife Diversity Program, who headed up the Iowa wildlife inventory and monitoring efforts in 2011. She also authored Iowa's technical manual on conducting the multiple species inventory.

The DNR hires about 20 temporary wildlife field technicians seasonally to take on the colossal survey.

They know their stuff: technicians have degrees in animal ecology, environmental biology, fisheries, wildlife biology, zoology or related fields. A few undergraduates are hired.

"It's an entry level, temporary position, but some technicians are between research projects or plan to go on to graduate school," says Frese. "We've hired a variety of people from all walks of life, including people that have gone on to be professionals in other fields. Staff have ranged in age from 19 to 53 years of age. Some technicians have returned to work on the survey three and four years."

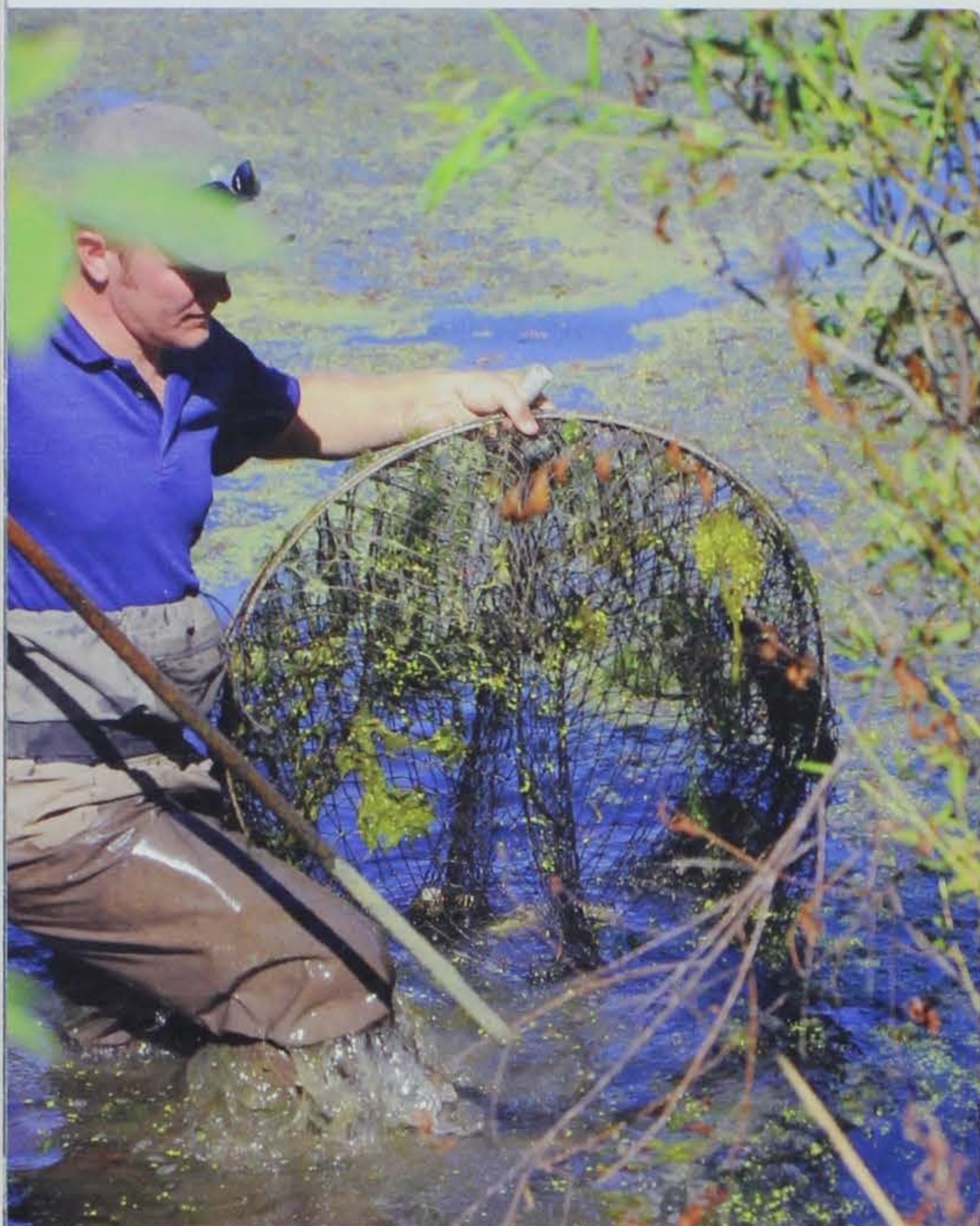
All techs receive classroom and field training to learn survey protocols, data collection techniques, use of equipment and tools and record keeping.

The crew in southeast Iowa is one of four or five crews, each assigned 15 or so public properties to sample between April 1 and Oct. 31. The surveyors work off a list of 1,013 wildlife species—birds, mammals, fish, mussels, amphibians, reptiles, land snails, dragonflies and butterflies—all at one time found in Iowa according to historic and scientific literature.

Besides land managed by counties or state or federal agencies, some private land enrolled in conservation programs are sampled too, as are properties owned by the Iowa Natural Heritage Foundation and Whiterock Conservancy.

As the temperature climbs to 90 degrees under a partly cloudy sky, the survey crew walks to a tree-lined pond to survey amphibians and reptiles. Turtle traps and minnow





traps, used to capture tadpoles, were set the evening before.

### Amphibians and Reptiles

Rasmussen and Bergthold, wearing hip waders, retrieve turtle traps from the quiet pond and hustle to shore, where Cressey measures and tells Brauckman the information to record.

Fish caught in the turtle traps are quickly identified—a flopping largemouth bass, a slippery bluegill and five black crappies—and measured in centimeters and grams and then returned to the water.

External abnormalities such as tumors, eroding fins or lesions are also noted on survey sheets.

Attention turns to the waiting snapping turtle and two painted turtles. The turtles are measured snout to vent and weighed, with the snapper held by its hind legs to keep fingers intact. The snapper is male, sexually mature and about five years of age, determined by counting rings, like a tree, on the edge of a scute—one of several bony plates on a turtle shell. The painted turtles are females. Using a file, a scute is marked on each turtle to denote the year captured and a dot of paint applied to indicate the month.

Cressey walks around the pond to pull up minnow traps to identify, measure and release trapped tadpoles and minnows. One of three tadpoles is a first-year bullfrog, which take two years to develop into a frog.

Most of the minnows are bluegills; one is a juvenile largemouth bass.

### Know Thy Plants

Heading to a nearby prairie with a mowed path, the crew follows the trail downhill with mature prairie plants tugging at shirts and pants as insects buzz incessantly. They enter a cool woodland along a creek to watch how Kevin Haupt and Matt Stephenson collect information on habitat and vegetation to help build predictive models to explain species distribution—why animals occur on certain properties, but not others.

Under the shadowy tree canopy, Stephenson provides a steady stream of measurements to Haupt. “K class 4, vegetation 40, litter, 60, 13 meters, 15 cm to 11.”

Tree species, diameter of trunk at breast height and tree heights are recorded from subplots. Snags, or decayed trees on the ground, have the same measurements taken, as well as state of decay.

The crew measures ground cover—such as plant litter, vegetation, rock, soil and sand or water—in percentages. They record litter depth, plant species and heights. Plant presses store unknown plants for later identification. All plants—living or dead within the year—are tallied. Canopy tree density is estimated. A red and white stick called a Robel pole measures vegetation density.

Botany backgrounds are of particular help in this assignment.

“Red elm at 25 centimeters in circumference. Floor cover: Virginia creeper, gooseberry, anise, hog peanut 15 percent, honeysuckle 10 percent...” Stephenson’s voice grows faint as the crew returns to the sunlight and hikes the mowed area through the prairie to the parking lot.

### Netting Dragonflies and Damselflies

The next stop is a small pond on Unicorn Road in the Eldon Wildlife Area in Davis County. It was here, earlier in the summer, the crew found more than 30 species of dragonflies and damselflies. This day the pond is quiet, although a turtle head or two on the water’s surface disappear to the depths as the group thrashes through vegetation around water’s edge.

As the sun beats down, technicians look for shade to record information, while the dragonflies are not inhibited in the least. Several, hovering and darting like miniature helicopters around water’s edge, are caught in nets, including a blue dasher, Halloween pennant and a widow skimmer.

Survey protocol for dragonflies and damselflies asks not only for species identity, but abundance. Crew gather cast-off exuviae (remains of exoskeletons) and larvae for lab work. They photograph each adult species with a macro lens to prevent misidentifications.

### Wading Streams and Rivers

The last stop of the day is Soap Creek, where backpack shocking stuns fish for capture and identification.



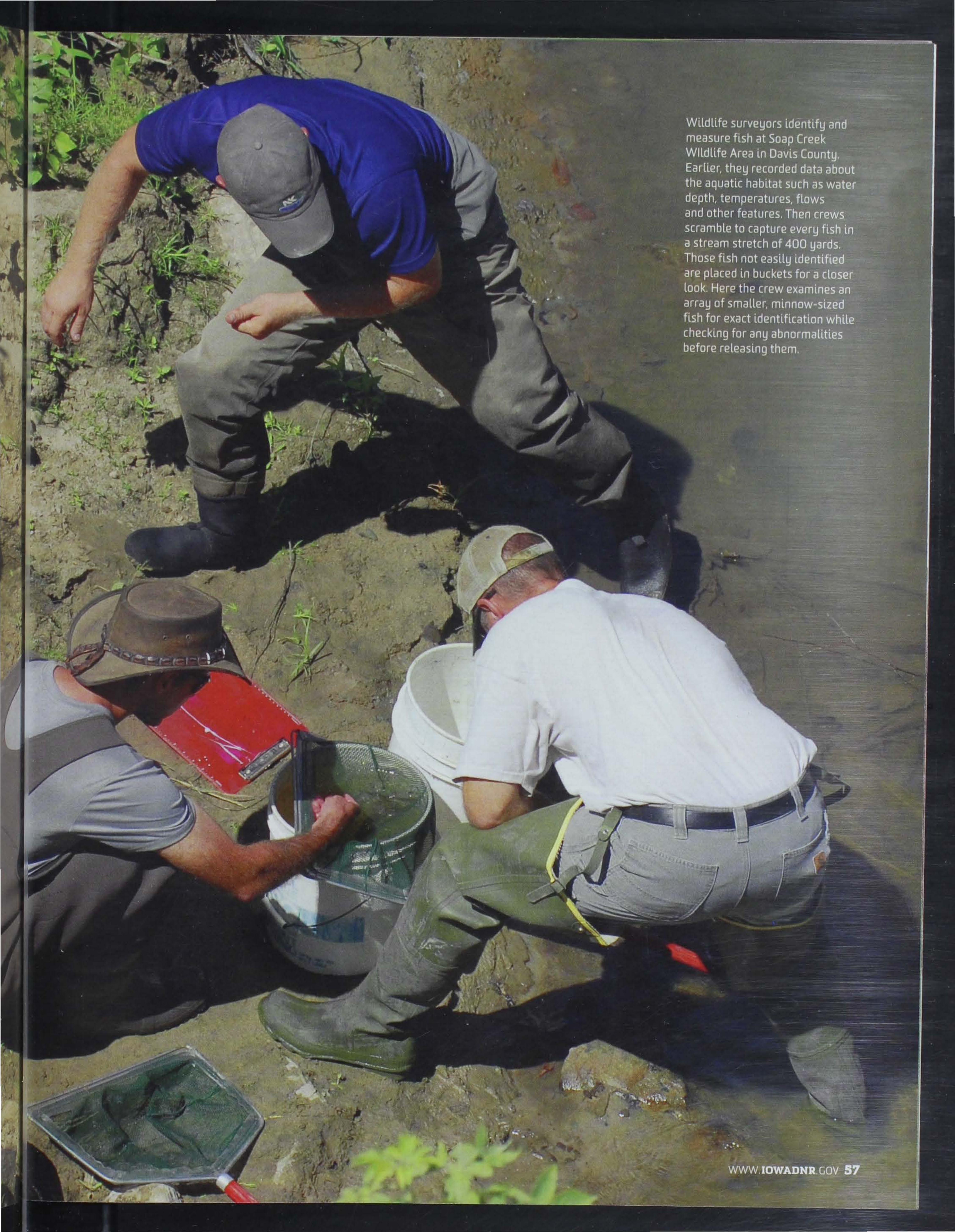
**LEFT:** Technician Casey Bergthold pulls a turtle trap at a pond at the McGowen Recreation and Wildlife Area in Davis County. **BELOW:** Two frogs, held in a jar, await identification from a herpetologist. Both are suspected hybrids, in this case likely crosses of plains leopard and southern leopard frogs.









A photograph showing three people in a stream. One person in a blue shirt and grey pants is crouching on the bank. Another person in a white shirt and grey pants is kneeling in the water, wearing green waders. A third person in a grey shirt and a wide-brimmed hat is kneeling on the bank, holding a red clipboard and a net. They are examining small fish in a bucket. A metal tray with fish is on the ground in the foreground.

Wildlife surveyors identify and measure fish at Soap Creek Wildlife Area in Davis County. Earlier, they recorded data about the aquatic habitat such as water depth, temperatures, flows and other features. Then crews scramble to capture every fish in a stream stretch of 400 yards. Those fish not easily identified are placed in buckets for a closer look. Here the crew examines an array of smaller, minnow-sized fish for exact identification while checking for any abnormalities before releasing them.



Information is collected about roads, trails and other nearby disturbances. Creek location is noted on a map with water and air temperatures, flow level and water depth.

Rip-rap makes it a steep, rocky climb down to the stream. Hot waders are slipped on and Bergthold and Brauckman help Rasmussen into an electro-shocking backpack. The shocking unit is tested and found most effective here at 218 volts.

Starting downstream, a single 400-yard pass working upstream captures all fish in water levels that vary from several inches to 3 feet deep. Bergthold and Brauckman, on either side of Rasmussen, identify and size the fish in their dip nets. Cressey, following along on shore, writes the information down.

Good natured heckling and laughter carries down river as do names of fish and their measurements. Gizzard shad, freshwater drum, small flathead catfish, sand shiners and a 2-year-old flathead catfish are netted.

The climb back up the rip-rap is quiet. The heat of the day peaks as technicians reluctantly leave cool water to climb into a hot vehicle to return to input collected data into computerized survey databases.

On the way back the survey crew share some of their experiences and goals.

"A good day depends on the temperature, biting insects, habitat and what you catch," says Rasmussen, who plans a career in environmental consulting to help people accomplish projects with minimal disturbance to nature. "Finding a rare creature that you've never seen before—that makes a day special."

"Exactly," says Cressey. "But I remember a special day with a species that was too abundant. I came out of a property with at least a thousand tiny ticks on my pants. There were too many and they were too small to pick off, so I used duct tape to get them off." Cressey, who has an animal ecology degree from ISU, plans to work to conserve and protect wildlife and land.

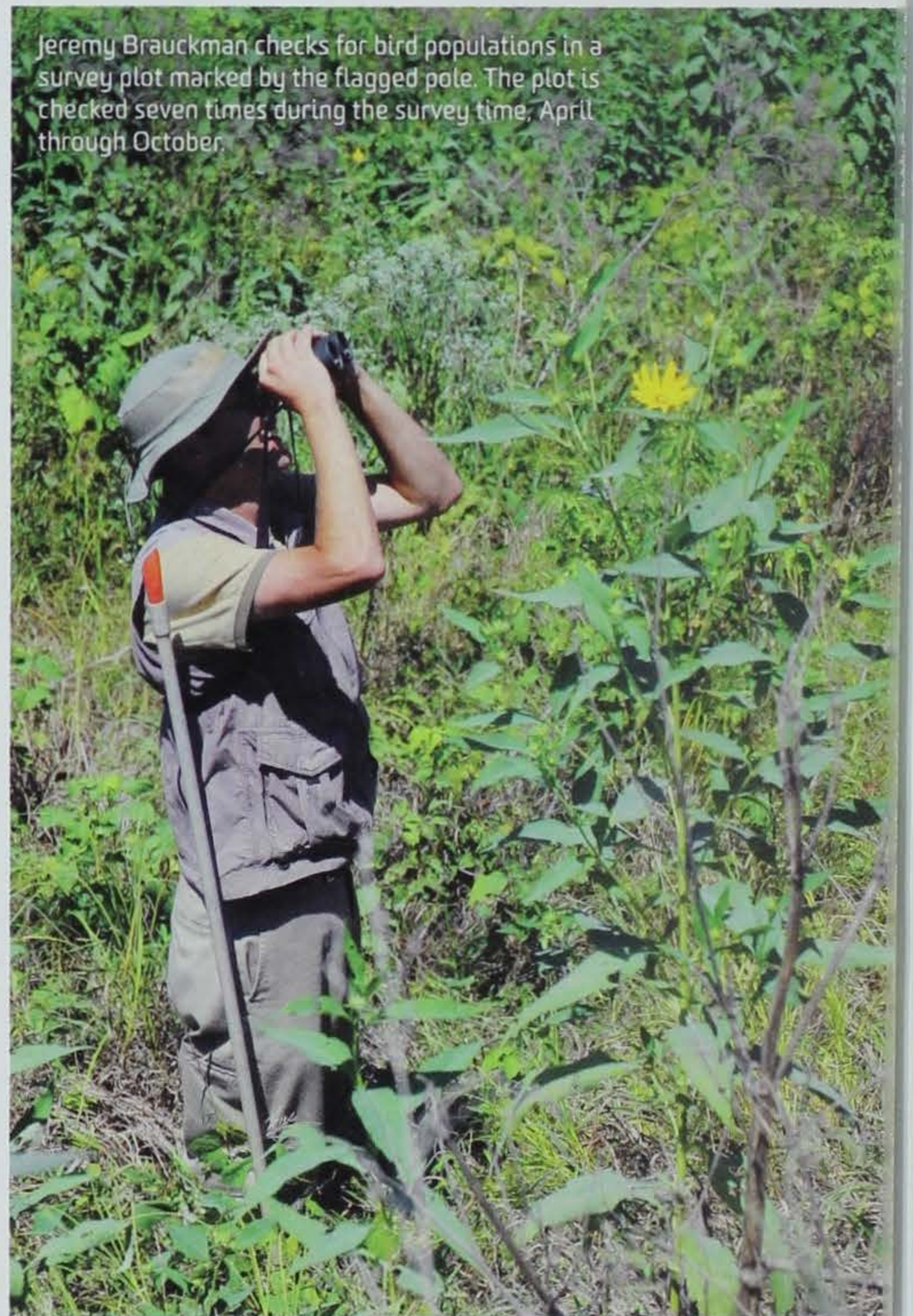
Bergthold has a master's degree in biology from Tennessee Tech. He's worked on several fisheries projects. "But I don't want to do just research. I want to work on the management side too," he makes clear.

Brauckman, who just graduated from the University of Iowa in 2010, is still learning where he fits into the scheme of things. He likes habitat management, but not just the grunt work. "It depends on what's available." His major was environmental science with emphasis in biology.

Kinthead adds to their comments, "What I hear most



Ryann Cressey pulls a minnow trap to check for tadpoles and fish—all recorded in the inventory.



Jeremy Brauckman checks for bird populations in a survey plot marked by the flagged pole. The plot is checked seven times during the survey time, April through October.



from technicians after their survey experience is that this drives home the reality that animals require different habitats. Habitat affects what lives there, and if it is changed, that animal moves on or disappears.”

When this massive, detailed survey is compiled and interpreted, and as monitoring continues, the DNR and partner organizations will have more information about what is needed to sustain Iowa’s wildlife populations. They’ll know their locations, the characteristics of the habitats they are found in and the status of habitats.

Kinkead passed the wildlife survey reins to Tyler Harms. He was hired in 2012 as the multiple species inventory and monitoring biologist for the duration of the survey work. At the same time, Iowa State University joined with the DNR as a full monitoring partner.

Harms’ next step will be analysis of survey data and preparing publications for peer-reviewed literature after overseeing the final year of sampling in 2013.

### Field Sweat for Better Decision-making

Although the DNR won’t know the actual number of individuals in each species when the wildlife survey is complete, wildlife staff will know community composition.

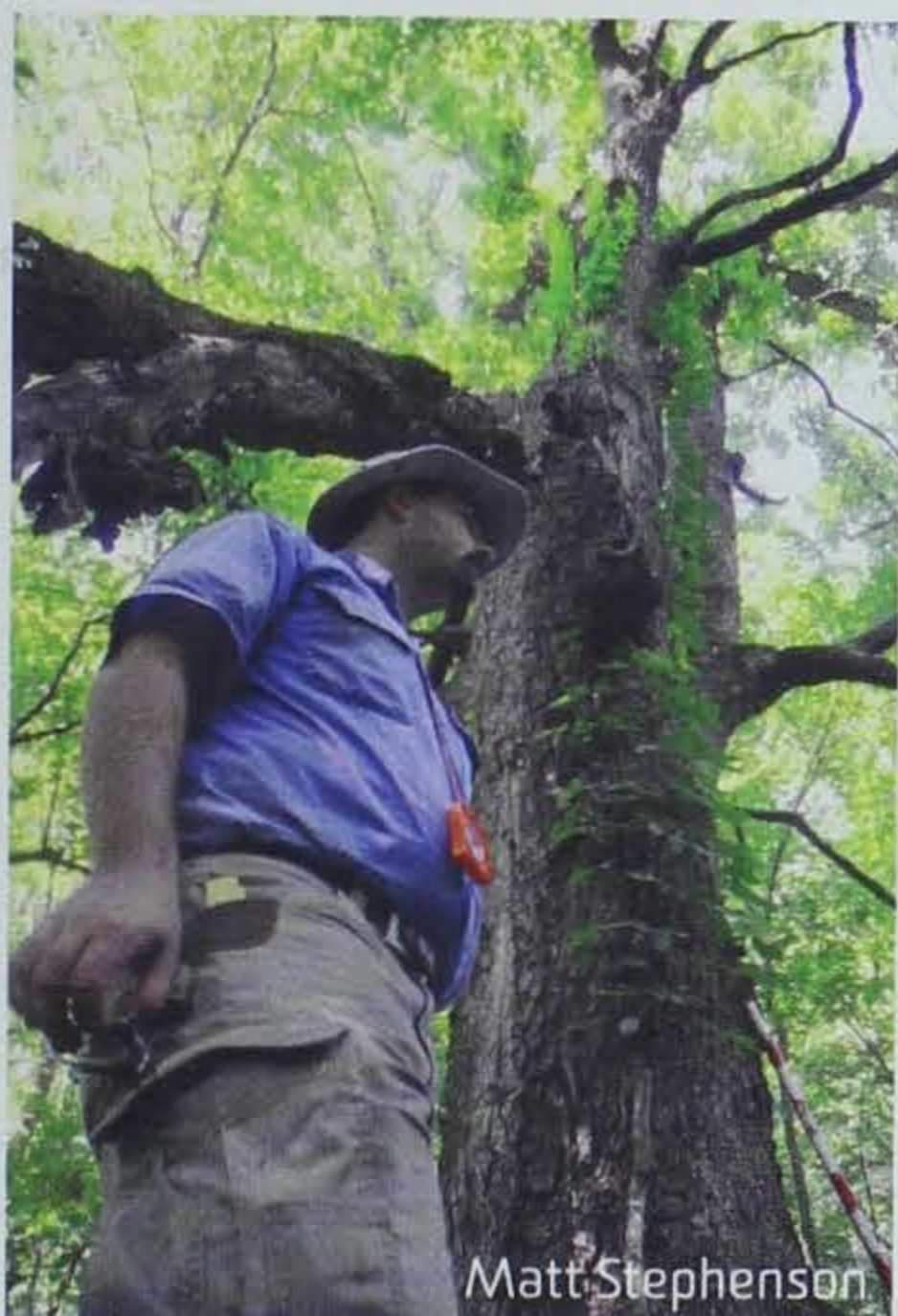
They’ll also be able to look at habitat and check whether there is a relationship between species and habitat.

“Monitoring wildlife populations in conjunction with habitat characteristics allows us to evaluate how certain species respond to changes in habitat, and this can guide future habitat management decisions,” says Harms.

By visiting sites multiple times over several years, DNR scientists can estimate colonization and extinction probabilities, in addition to the proportion of area occupied by species.

Knowing which species occur together, or species that never occur together, even if the habitat seems appropriate for both, will help the DNR recommend the best land use decisions for the preservation of vulnerable wildlife.

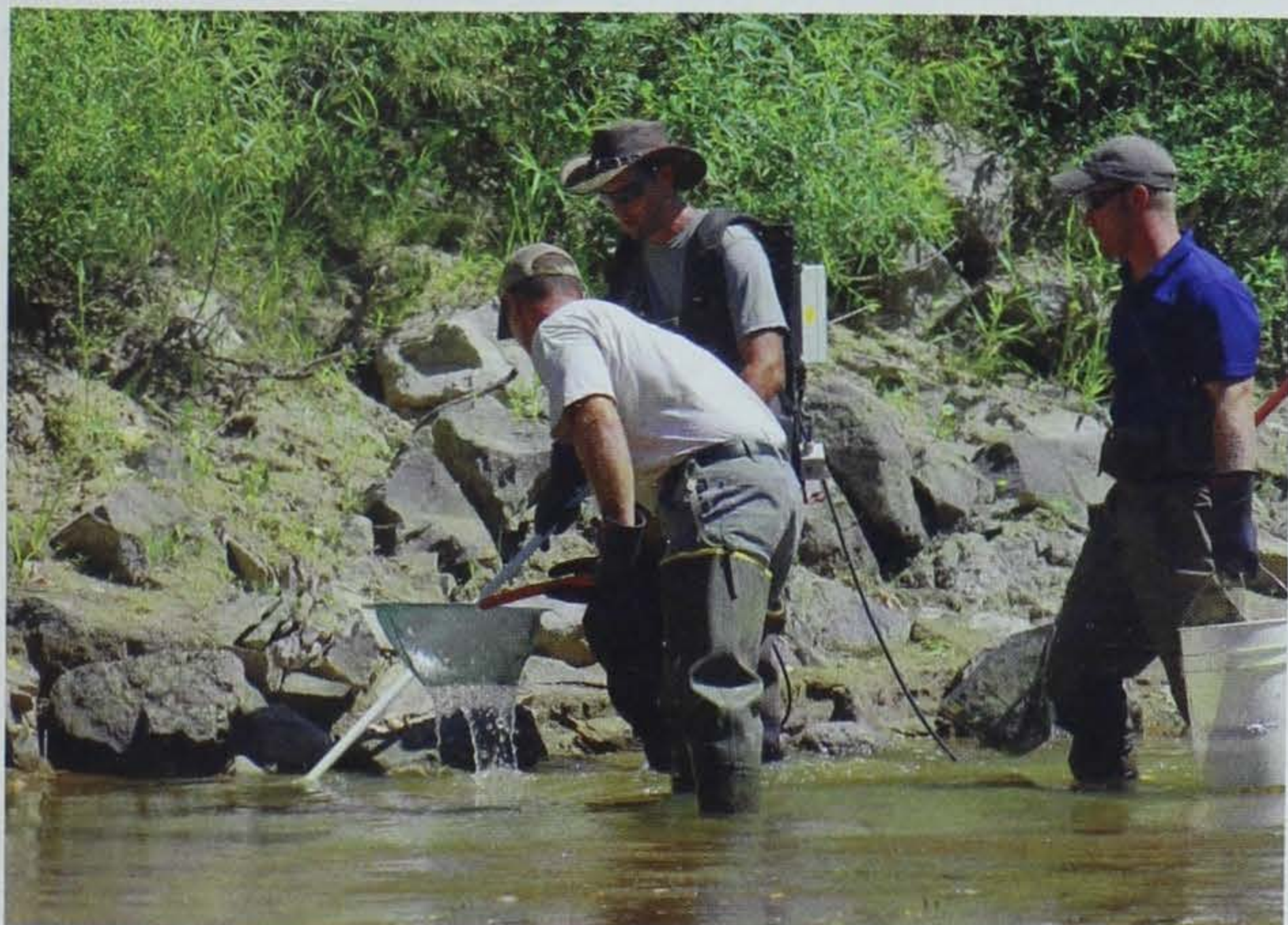
“A lot of people want to do the right thing for wildlife, but sometimes best guesses and using another state’s guidance is not enough to keep the wildlife diversity we still have in Iowa,” says Chuck Corell, DNR division administrator for conservation and recreation. “We’ve learned that best intentions don’t always translate into best decisions. With the hard work and dedication these technicians put into this wildlife survey, we’ll have a great deal more information to improve decision-making for the wildlife entrusted in our care.” 🐞



Matt Stephenson



Shane Patterson



So far, six dragonflies, never before seen in our state, have been discovered. The new-to-Iowa species include the blue corporal, banded pennant, Westfall’s snaketail, painted skimmer, springtime darter and stream cruiser. Shown below is the blue dasher, a common species.





## PREPARE FOR THE WORST »

Make a Winter Safety Kit to be Secure in Winter Driving Emergencies

Winter outdoor lovers should take extra travel precautions as rural and natural areas can put you alone against the elements during emergencies. A skid into a ditch, mechanical problems, black ice, drifting snow or sudden storms can lead to unplanned, dangerous situations in areas where passersby are rare.

Use this enhanced winter safety list to stay safe. Pack adequate supplies for all passengers—especially children and seniors—as they are most susceptible to weather extremes. Keep items in a bag or container to switch between vehicles as needed.



### Smoke canisters and signal flares

Blizzards can strand cars for hours, even days, buried in snow and drifts. When you sense help is near, fire a smoke canister or signal flare. This is most useful when ditched in hard-to-spot ravines or culverts.

### Backpacker shovel

A collapsible, lightweight backpacker shovel stows easily. View models at rei.com, 1-800-426-4840. Costs \$45 and up.

### Water source

Breathing dry winter air can quickly lead to dehydration, which inhibits the body's ability to generate heat. Keep long-burning candles and matches in a metal container to melt snow. When using, crack windows open to avoid carbon monoxide poisoning.

### High-energy foods

Stash high-energy bars, nuts, granola or trail mix in the vehicle. Or go full out and add backpacker meals and a small propane burner. Cook units should only be used outside the vehicle. During storms, use a windscreen—either purchased or made with a 2- to 3-foot rolled up section of metal flashing. To use, encircle the burner

to block wind and reflect heat to save fuel and reduce melting times. An 8- to 10-inch square of 1/4-inch plywood as a base keeps the burner from melting into deep snow.

### Jumper cables

Cold temperatures can sap battery cranking power. Keep a set in your vehicle and know how to safely use them.

### Tow straps

Inexpensive and compact, these allow another vehicle to pull a stranded car from the snow.

### Warm mummy bag

Blankets are good, but a cold-rated, winter sleeping bag increases protection and comfort. When compressed in a stuff sack, they take little space. Add warmth by having an emergency space blanket made of heat-reflective Mylar foil. These are the size of a couple decks of playing cards.

### Extra clothes

Keep extra clothes in the car. Synthetic or wool stocking caps, mittens, wind-proof layers, boots, warm socks and insulating layers such as wool sweaters, fleece and long underwear mean comfort over misery. Snow pants, snowmobile suits or ski bibs keep legs and torsos toasty.

### First aid kit

Injuries from a slide off the road or collision can require immediate attention. First aid kits are invaluable year round.

### Cell phone, charger and GPS

Don't forgo a winter safety kit to rely solely on a phone as coverage varies in the boonies. Even with a phone, hours may pass before help arrives. Keep a charger adapter on board. If you have a GPS, use it to give coordinates to rescuers when in rural areas or when whiteouts cause landmarks or mile markers to vanish.





# PONDER THE ANTIQUATED BEAMS OF STARLIGHT

Long winter nights and crisp, clean air offer excellent viewing of the heavens.



Stars, those shimmering jewels of light, offer much to ponder. First, the illumination we see is aged light, some quite old. Consider the speed of light—186,282 miles per second or 671 million miles per hour. While hard to comprehend, these numbers offer perspective. For example, light could travel around the Earth's equator in 134 milliseconds, which seems abstract unless compared to the blink of a human eye which ranges from 300 to 400 milliseconds. In the vastness of our solar system,

the sun is a relatively close neighbor at 93 million miles. On its journey, sunlight requires about 8 minutes to reach Earth. If you aim a laser pointer at the moon, count to two—it takes roughly two seconds to reach the lunar surface.

Outside of our solar system, light can help backyard star gazers appreciate distances. The nearest star visible to the unaided eye is Alpha Centauri, visible in the southern United States. At four light years away, its light seen on Earth left the

star in 2009. Vega, the fifth brightest star in the sky, is 25 light years away. Find it and the light you see is a quarter-century old, emitted in 1988—the same year *Magnum P.I.* ended, the USSR began a withdrawal from Afghanistan and CDs outsold vinyl for the first time. Light from Deneb, the 19th brightest star, is 1,550 light years away. Its light departed at the beginning of the Dark Ages, after the fall of Rome, just to reach Earth this year.

## 14 Bright Stars and Their Distance

| Name<br>(Constellation) | Distance in Light Years<br>(Year Light Emitted from star) |
|-------------------------|---|
| Aldebaran (Taurus)      | 65 (1948)   |
| Altair (Aquila)         | 17 (1996)   |
| Antares (Scorpius)      | 550 (1463)  |
| Arcturus (Bootes)       | 37 (1976)   |
| Betelgeuse (Orion)      | 640 (1373)  |
| Canopus (Carina)        | 310 (1703)  |
| Capella (Auriga)        | 42 (1971)   |
| Deneb (Cygnus)          | 1,550 (463)   |
| Mizar (Ursa Major)      | 83 (1930)   |
| Polaris (Ursa Minor)    | 434 (1579)  |
| Regulus (Leo)           | 77 (1936)   |
| Rigel (Orion)           | 860 (1153)  |
| Sirius (Canis Major)    | 8 (2005)  |
| Spica (Virgo)           | 260 (1753)  |
| Vega (Lyra)             | 25 (1988)   |

## News Headlines

Truman ends segregation in the U.S. military. Babe Ruth dies.  
 Summer Olympic Games held in Atlanta; O.J. Simpson trial begins.  
 Ten years after fall of Constantinople to the Ottoman Turks.  
 The movie *Rocky* released.  
 The Plague or "Black Death" occurred this century.  
 Connecticut and Rhode Island agree on a boundary line.  
*All in the Family* debuts on CBS.  
 Ten years after death of Attila the Hun.  
 Herbert Hoover, an Iowan, is president. Pluto discovered.  
 Sir Francis Drake lands in present day California.  
 FDR, dust bowl, first successful helicopter, Boulder Dam built.  
 Just shortly after the end of the Second Crusade in 1149.  
 Hurricane Katrina hits, Johnny Carson dies  
 North American population estimated at 2 million  
*Magnum P.I.* ends, 36 percent of Yellowstone burns in forest fire



# Wild Cuisine CAMPSIDE

BY ALAN FOSTER PHOTO BY BRIAN BUTTON



## Wrapping Up The Hunt

Simplicity is the key to mouthwatering grilled dove

A sizzling, smoky grill filled with freshly harvested, bacon-wrapped dove breasts at the end of an evening hunt is tantamount to the walleye shore lunch following a good morning of fishing. It just doesn't get any better. Or easier. This simple recipe for grilled doves will leave you pining for your next foray into the sunflower fields.

### GRILLED DOVE BREASTS

3 to 5 dove breasts per person

Bacon (one-half to one slice per breast)

Seasoning salt

Garlic powder

Pepper

Pickled jalapeño peppers

*Rinse dove breasts in cold water, then season with favorite grill seasonings and pepper. Wrap bacon around breast, securing with toothpicks that have been soaked in water for at least 30 minutes. Grill over low to medium heat until bacon is brown, about 20 minutes. Do not overcook. Doves are best served medium and yield a rich, beefy flavor. For an added kick, layer a couple jalapeño peppers under the bacon before grilling. Dove breasts can also be marinated overnight. Italian dressing works well.*



## Local Foraging Chef Keeps it Fresh and Simple

Wild rabbit is the star in this hearty comfort dish

Avid hunter, angler and chef Eric Bill knows a little bit about cooking wild game. His succulent grilled venison backstrap, cornmeal-breaded frog legs and foraged greens highlighted the September/October 2012 Wild Cuisine feature. This time, he lends his culinary expertise to rabbit, dishing up a creamy, silky dish to please even the most conservative palates. Bill served as sous chef at Mojos on 86th in Johnston until it closed this fall.

### SMOTHERED RABBIT

1 medium to large rabbit deboned and cut into bite-size chunks.

1/2 cup oil

2 cups diced wild carrots

1 cup diced red onion

1 cup diced celery

24 ounces tomato juice

Rabbit stock as needed

2 bay leaves

Salt and pepper to taste

*Dredge rabbit chunks in flour. Heat oil in medium stock pot and brown rabbit pieces in oil. Fry in batches so as not to overcrowd the pot. When rabbit is browned, return to pot with remaining ingredients. Simmer about two hours to develop the flavor profile, adding rabbit stock as needed. Reduce until it's thick and creamy. Serve over your favorite rice.*

### RABBIT STOCK

Bones from rabbit

4 ribs celery cut into 1/2-inch pieces

2 carrots cut into 1/2-inch pieces

1 medium white onion rough chopped

10 whole black peppercorns

6 whole garlic cloves

*Brown bones in medium stock pot. Add remaining ingredients and cover with water. Bring to a boil, then reduce heat to a simmer and let simmer for 2 hours. Strain stock and chill.*





# Warden's Diary

BY ERIKA BILLERBECK PHOTOS BY CLAY SMITH



## Human Nature

Fellow officer Aric Sloterdijk and I watched from a hillside as "Bob," a short, balding man in his late 60s, pulled his small, green pickup down the driveway from his house and rounded the corner bordering the cornfield. Bob drove at a snail's pace along the road, his head craning from side to side as he scanned his field. He drove south, took a left at the stop sign and continued to circle the section. We lost sight of him for about two minutes, and then watched as he turned the corner and came creeping back. When he reached his driveway, he turned down it and drove back to his little house. He had definitely been looking for deer, but it was still light enough outside that he hadn't needed the spotlight.

"It's just a matter of time,"

Aric reassured me. Bob had been reported by his neighbors numerous times for spotlighting. After hearing about Aric's previous encounter with Bob, which had happened about five years previous, I was anxious to catch him in the act.

The story began as all of Aric's stories begin:

"Are you ready for this one?" Aric asked as we were eating



our Subway sandwiches, discussing plans to sit on the hill and watch for Bob to spotlight. He always begins his stories like this, and whether or not I am "ready," he tells me. I often poke fun at him about what must happen to people as they cross the county line between my territory and his. "Maybe the problem is in the drinking water up there," I say, knowing full well that by the time I have been on the job 27 years, the tales I tell will probably be equally as twisted.

Aric began, "Bob's wife turned him in for killing a deer over bait."

"Are they still married?" I asked. Ex-wives often make excellent witnesses, but a current wife would be a bit of an anomaly.

"Nope," Aric said, "his wife died three weeks after she turned him in."

I think I gasped out loud.

Here is the story that followed:

Bob's wife, "Linda," called Aric and invited him over so she could tell him all about her husband's poaching activity.

When he arrived at the house, Linda was waiting by



the front door. Aric thought she looked tired and gaunt. She also looked mad. Linda took Aric to the upstairs attic where she had hidden Bob's loaded shotgun. "I have no idea how to unload that thing," she explained to him as she handed the gun over.

Next she took Aric outside and showed him the doe. The doe was hanging from a tree in the front yard. Aric inspected it and found it to have been killed with a slug. There was no tag on the deer.

Linda led Aric to the backyard. Aric immediately recognized the scraped bare patch of ground in the middle of the yard as a baited site. She pointed to a bucket next to the back door and said, "I feed the deer a bucket of corn every day."

Linda loved watching all of the deer, but the doe that was currently hanging from the tree in the front yard had been her favorite. She was the only one of the bunch that Linda had named—"Sweetie."

Aric listened to her as, tears welling in her eyes, she described in detail how she watched in horror as Bob took aim on Sweetie from the back porch while the doe peacefully munched on corn. Because the deer were accustomed to seeing Linda, Sweetie wasn't spooked by Bob's presence. In fact, he was only about 10 yards from the deer when he took the shot that caused Sweetie to crumple to the ground.

Linda went on to explain that since she had been diagnosed with terminal cancer, feeding the deer was the one (and only) thing she looked forward to each day. When Linda was diagnosed, the doctors told her she only had a couple months to live.

Turned out the doctors were right. Bob's wife died from cancer three weeks after she turned her husband in for killing Sweetie over a pile of corn in her backyard.

After listening to Aric, I was no longer hungry for my sandwich. I could only wonder what would possess someone to do something so hurtful to their dying spouse.

There are many things that happen in nature that humans find hard to watch or understand. For example, we may not like to see one eagle chick on the eagle cam as it pecks away at its sibling, but we can explain it: natural selection, survival of the fittest or just plain animal behavior.

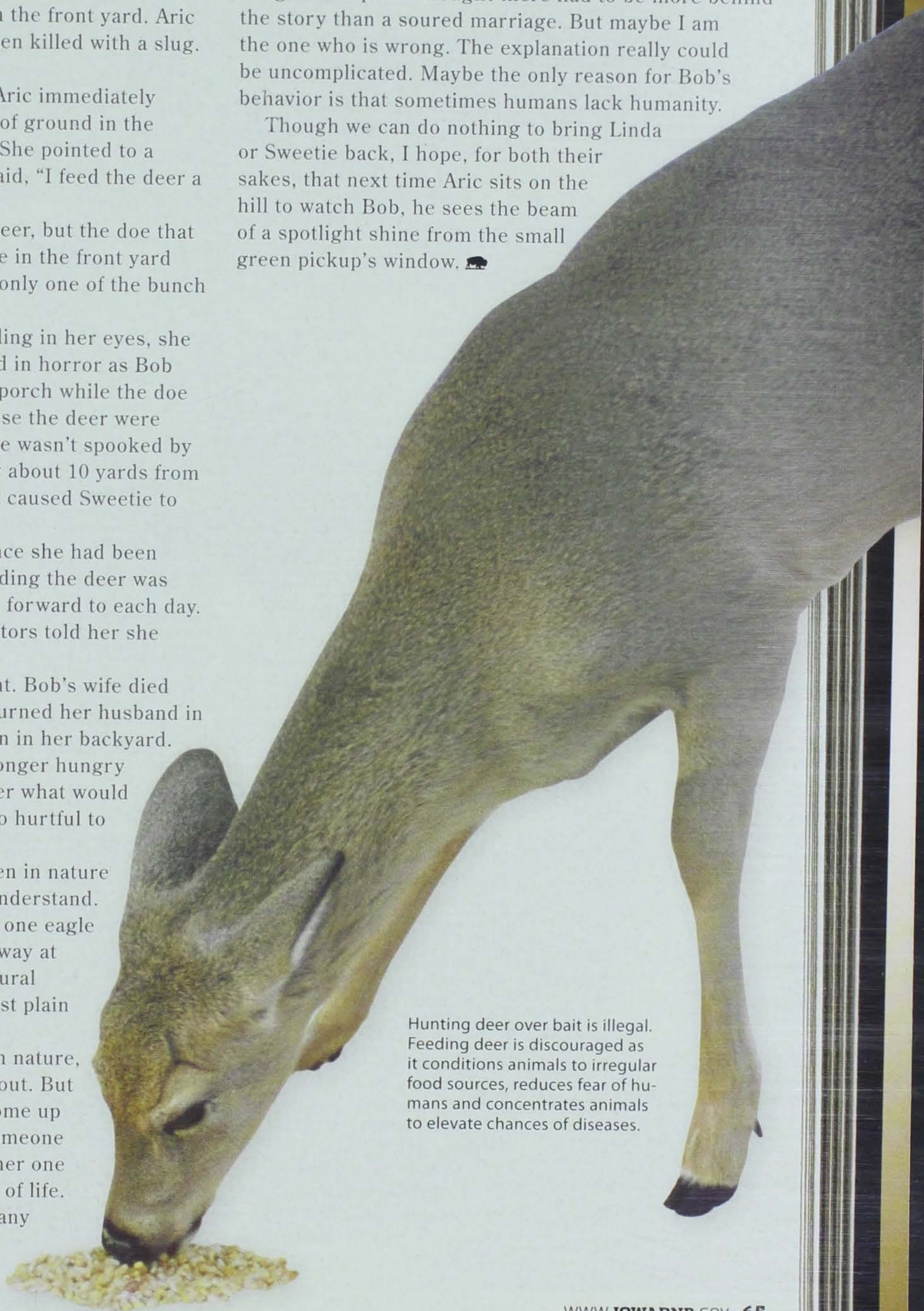
However, when it comes to human nature, we like to think we've got it figured out. But we don't. Otherwise I'd be able to come up with a logical explanation for how someone could kill their spouse's "pet deer," her one source of happiness, in her last days of life.

It wouldn't be "O.K.," or legal, in any circumstance to poach a baited deer,

but it might be more explainable perhaps if Sweetie had been a huge buck that had been taunting Bob with its presence the whole hunting season. But she wasn't.

Initially I thought my husband's simple explanation, "He must not have liked her very much," lacked insightful depth. I thought there had to be more behind the story than a soured marriage. But maybe I am the one who is wrong. The explanation really could be uncomplicated. Maybe the only reason for Bob's behavior is that sometimes humans lack humanity.

Though we can do nothing to bring Linda or Sweetie back, I hope, for both their sakes, that next time Aric sits on the hill to watch Bob, he sees the beam of a spotlight shine from the small green pickup's window. 🐾



Hunting deer over bait is illegal. Feeding deer is discouraged as it conditions animals to irregular food sources, reduces fear of humans and concentrates animals to elevate chances of diseases.



## IOWA'S REMARKABLE SKUNK CABBAGE

The Eastern skunk cabbage, *Symplocarpus foetidus*, has heat-producing flowers that provide a warm haven for insects that pollinate it. One of Iowa's earliest blooming plants, it often flowers while snow still covers the ground. Those odd heat-producing flowers often melt away snow and ice. *Symplocarpus* is Greek, and means "connected fruits." *Foetidus* is Latin, meaning foul-smelling, referring to the plant's odor.

### ROOTS WITH PULL

Its roots grow into the soil, then contract to pull stems deeper into the soil to essentially grow downward to make older plants nearly impossible to dig up. Pea-sized seeds drop into the soil, carried away by critters or carried by floodwater. Colonies often develop at favorable sites.

### WARM, STINKY BENEFITS

The plant emits a dead animal-like odor to attract flies and other pollinators. Carrion-feeding insects attracted by the scent may be doubly encouraged to enter the spathe, or cover around the flower cluster, because of the warmth. Upon entering and exiting, they help disperse pollen. Spiders hide within to feed on insects attracted to the odor and warmth. You'd think this hot cabbage roll would attract grazers, but crystals of calcium oxalate in the leaves make the foliage inedible to most herbivores.

### SMELLY MEDICINE

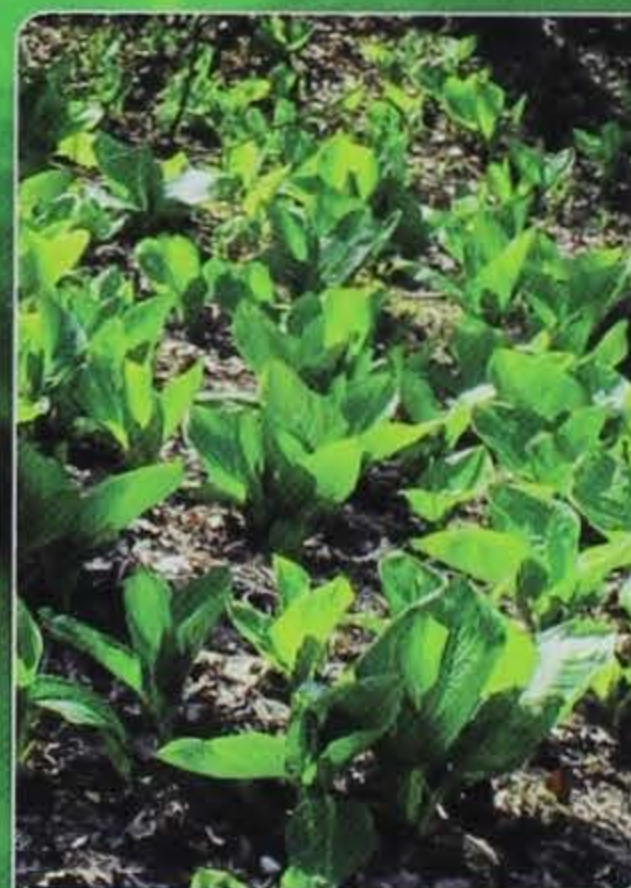
In the 1800s, eastern skunk cabbage was used to treat respiratory disease, nervous disorder, rheumatism and dropsy.

### HOT FLOWER

Skunk cabbages are among the few thermogenic plants in the world—those able to raise their temperature above their surroundings. One of Iowa's earliest blooming plants, it can flower in standing snow in February and March. The fleshy head of flowers, or spadix, holds an internal temperature 59 to 95 degrees above air temperatures even when the outside air is as low as 7 degrees. For more than two weeks it consumes oxygen at a rate comparable to same-sized warm-blooded animals. Still a scientific mystery, it regulates temperatures by varying its respiratory rate.

### FIND IT

Look along humus-rich soil in wet woodlands and seeps in the eastern third of Iowa. It prefers partial sun to light shade and consistently wet soil. Without snowcover, the flowers may go unnoticed amid brown leaf litter. Its leaves remain until September then quickly decay.





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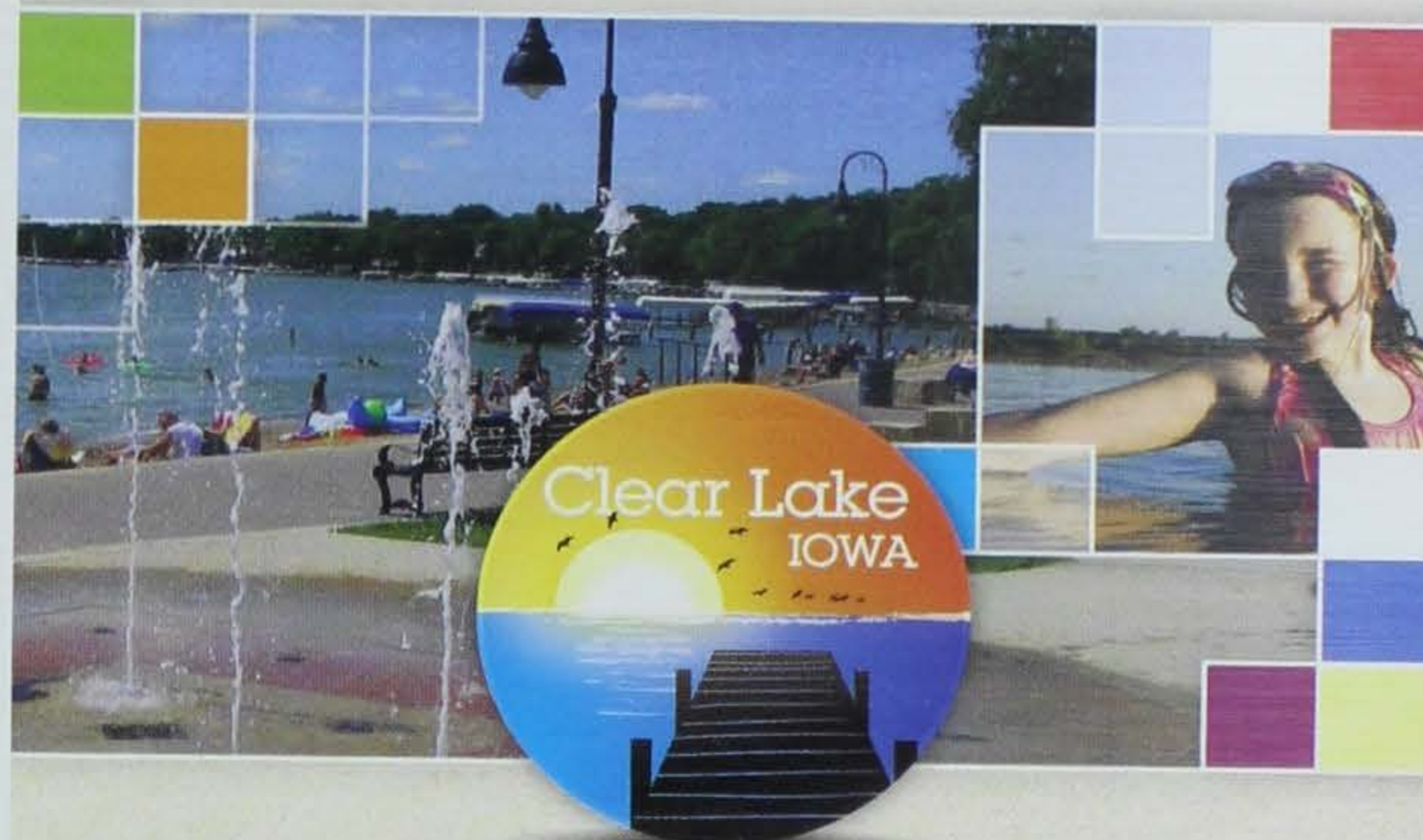
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