

March / April 2007

IOWA OUTDOORS

THE DNR'S MAGAZINE OF CONSERVATION AND RECREATION

IN THIS ISSUE:
TALLGRASS TREASURE;
NEAL SMITH NATIONAL WILDLIFE REFUGE

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EDITOR'S NOTE

Our last issue garnered widespread excitement. We're thrilled readers are delighted with our look, content and photography.

Many said that former non-readers in the house were now absorbed by the magazine. People bought it to send to friends and relatives from West Virginia to Washington State—they wanted to show off Iowa.

This issue, we show more beauty from the majestic elk and bison herds and towering tall grasses of the Neal Smith National Wildlife Refuge to a superbly written story about a man's love for the Loess Hills. Explore the gigantic Dancehall Cave, 50-ton Balanced Rock and six-miles

of rugged trails in Maquoketa Caves State Park and bulwark bluffs near Bellevue—all in Jackson County. Anglers will value insights from our fisheries biologists in the spring fishing forecast. In *Death on the Dunes*, page 47, discover a little known turtle—the sleepest in North America—struggling to survive in eastern Iowa. Take a behind-the-scenes peek as biologists work to save the species. Our writer spent hours laying in cold spring rains to capture some of the images taken in a place where cactus thrive and lizards roam.

Readers raved about our last cover—so for collectors and lovers of Iowa, we offer a first-time, limited edition, numbered print suitable for matting and framing. It's on archival paper and is autographed too, by veteran DNR field-photographer Lowell Washburn. If you'd like one for the office, den, RV, cabin or home, we have just 200 available on a first-come basis for just \$20. It's a glossy 8x10. To order, call **1-515-281-5918**.

Drop us a letter to the editor at courier@dnr.state.ia.us. Get outside!



COMING UP NEXT MONTH!

Hidden Okoboji

SUMMER FISHING FORECAST

Wildlife Rehabilitators

FOSSIL PARK

Beautiful Rain Gardens

BRIAN BUTTON, Editor-in-Chief

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ABOUT THE COVER

On his second of three days in the field shooting the Neal Smith National Wildlife Refuge near Prairie City, staff photographer Clay Smith captured this bull image complete with flies around the eyes and a drop of drool at the end of the blade of grass. "The sun was just starting to set and the light was perfect," he says.

ABOUT THIS PHOTO

"They are thoughtful looking beasts," says staff photographer Clay Smith of bison. His tips for bison photos: turn off the car to prevent engine vibrations from affecting image crispness. "Brace gently against the car door or window frame, but don't push against it. Straining can cause muscles to shake," he says. Smith also exhales slowly while gently squeezing the shutter release. The cover and photo on this page are two different bulls, the elder on the cover.



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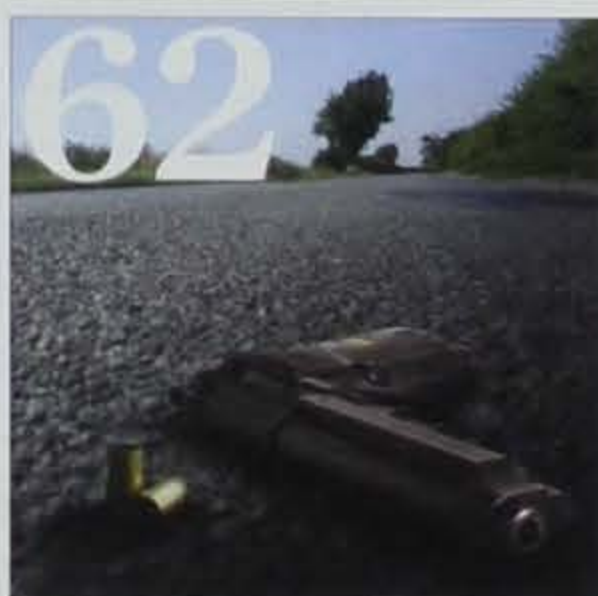
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Sam is a freelance writer living in Vermont. He studied writing at The University of Iowa. His articles have appeared in *Smithsonian*,

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MIKE KREBILL

Mike has spent 40 years foraging the outdoors for wild edibles. A 7th grade science teacher from Keokuk, he's trained more than 300 teachers in

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Clint photographs nature's beauty in Iowa and across the nation. His photos have been used in *National Geographic* books, *Midwest*

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DNR MISSION

To conserve and enhance our natural resources in cooperation with individuals and organizations to improve the quality of life for Iowans and ensure a legacy for future generations.

EDITORIAL MISSION

We strive to open the door to the beauty and uniqueness of Iowa's natural resources, inspire people to get outside and experience Iowa and to motivate outdoor-minded citizens to understand and care for our natural resources.

MAKE A DIFFERENCE

The Keepers of the Land program matches volunteers with natural resource service needs statewide. Give back to Iowa's lands, waters and skies. Call 515-281-0878 to match your interests with needs or visit www.keepersoftheland.org.

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Charitable giving of land, funds, and goods and services greatly enhances Iowa's outdoor living. Contact: Diane Ford-Shivvers at 515-281-6341.

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The DNR Nature Store offers apparel and gifts with profits for state parks. Online at www.iowanaturestore.com or call 866-410-0222 for a catalog.

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LEARN MORE

Our webpage, www.iadnr.gov, is a wealth of information for all ages and interests. Buy a DNR map or learn more about our programs.



DIRECTOR'S MESSAGE

About six years ago Jeff Vonk, then the new DNR director, called me into his office. I listened first in confusion and then in quiet amusement as he discussed, in great detail, why a decision made prior to him being named director wasn't the best choice. I recall his amazing grasp of the "big picture," a vision for how Iowa's natural resources were critical to the long term future of the state.

The only problem with this one-sided discussion is that I had no part, and thus, no insight to the issue. But I remember thinking that once Jeff Vonk got up to full speed, it was going to be a very interesting time for those of us in the DNR and Iowans who work closely with conservation issues. I concluded he would be a very strong, visible leader.

Well, of course, Jeff Vonk did get up to full speed in a remarkably short period of time and was a very strong, visible leader in his six years as DNR director. As this is written at the beginning of 2007, we know we will soon say goodbye to Vonk and welcome a new director, Rich Leopold.

Under Vonk's and Deputy Director Liz Christiansen's capable leadership, new courses were charted both inside and outside the department. More than anything, understanding and appreciating the value of our natural resources amenities has been greatly increased during their tenure.

Vonk and Christiansen challenged this department and the citizens of Iowa to focus on that "big picture"—envisioning what the state and its natural resources could and should be. Vonk established the concept that the environment and economy of the state are not mutually exclusive, but very much dependant on one another for each to thrive.

So while we will miss Vonk and his leadership, we look forward to the new ideas and new vision of Rich Leopold. Our new director does not come to us as a stranger. He worked for the DNR as an early leader of the volunteer water monitoring program and championed many of the same issues, such as improving water quality and finding sustainable funding for natural resources, in his role as executive director of the Iowa Environmental Council.

Since the creation of the DNR in 1986, we have had five directors—Larry Wilson, Paul Johnson, Lyle Asell, Vonk and now Leopold. We have been fortunate that every director has had "the pedigree"—extensive past education and experience in the conservation and natural resources arena. All have brought considerable talent and vision to the position and Leopold will too.

His predecessors are handing Leopold the keys to a department that has had many successes and looks forward to many more under his leadership.



KEVIN BASKINS
Bureau Chief - Communications
Iowa DNR

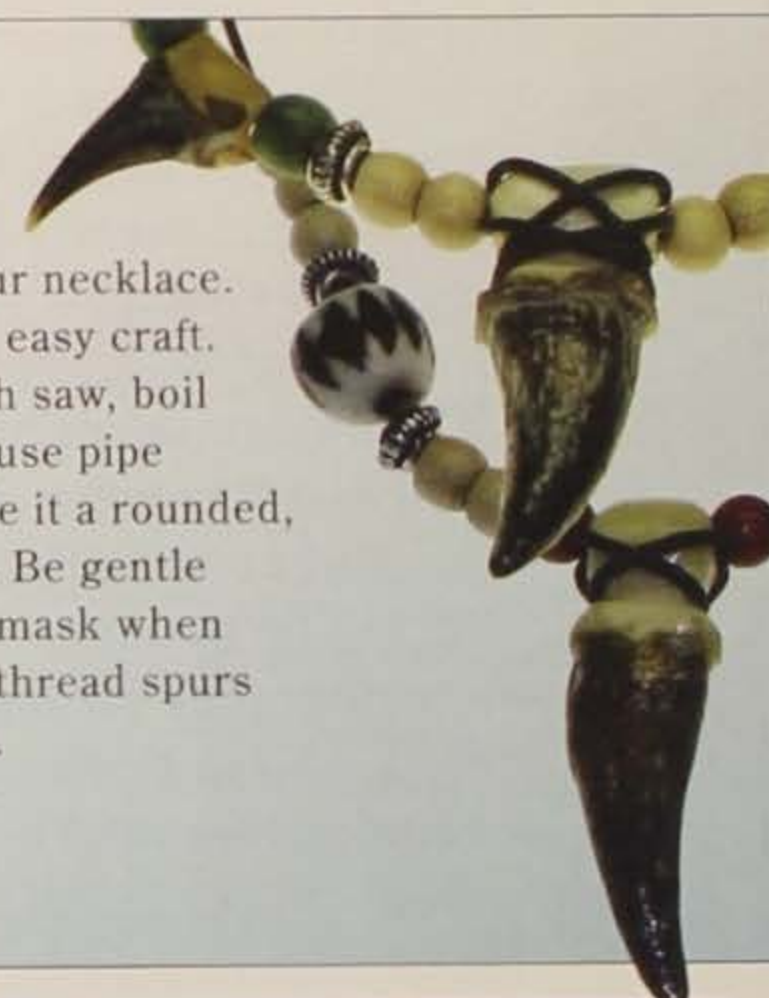
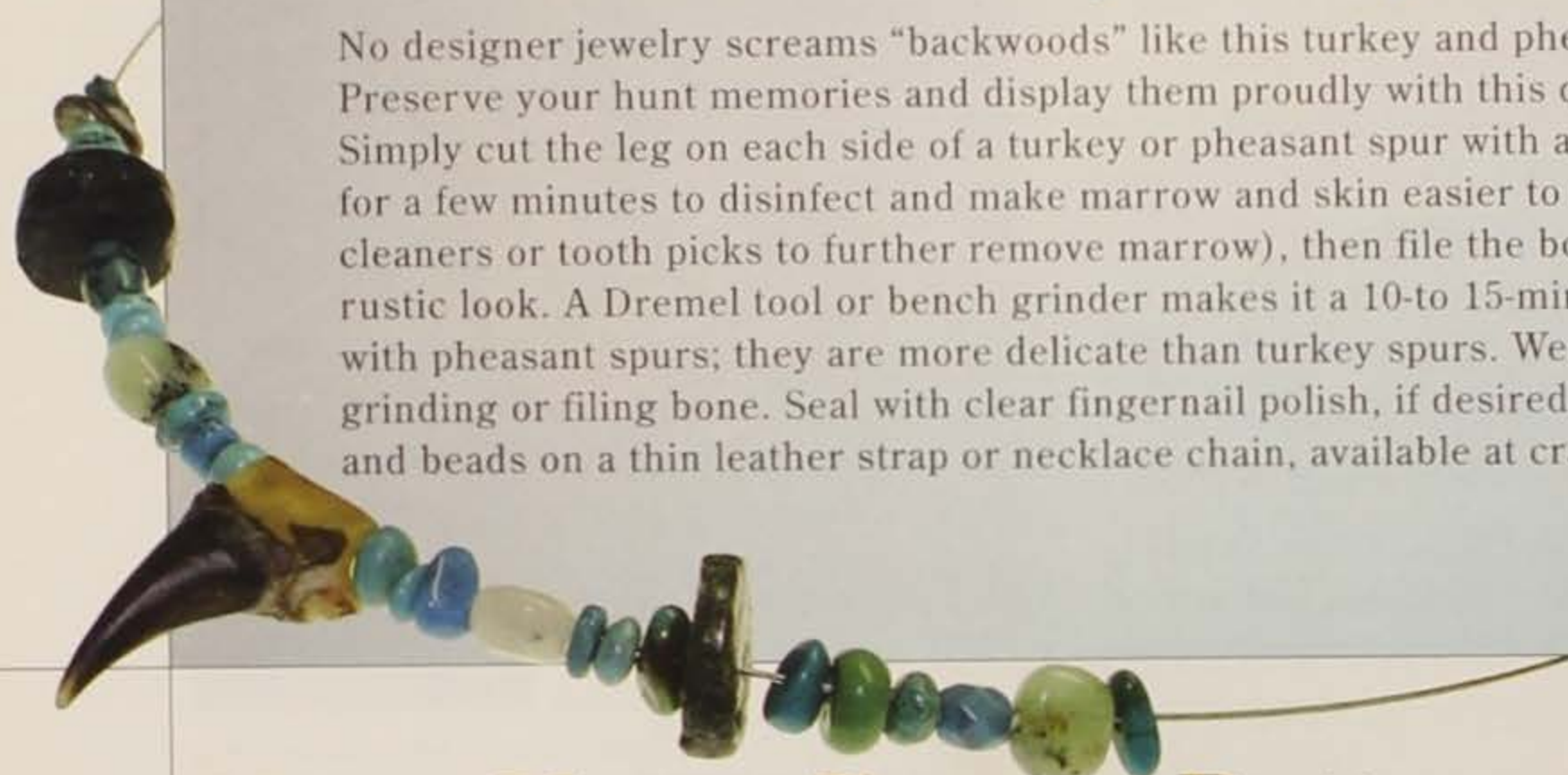


TOGETHER

ACTIVITIES, TIPS AND EVENTS FOR THE WHOLE FAMILY

Wild Jewelry

No designer jewelry screams "backwoods" like this turkey and pheasant spur necklace. Preserve your hunt memories and display them proudly with this quick and easy craft. Simply cut the leg on each side of a turkey or pheasant spur with a fine-tooth saw, boil for a few minutes to disinfect and make marrow and skin easier to remove (use pipe cleaners or tooth picks to further remove marrow), then file the bone to give it a rounded, rustic look. A Dremel tool or bench grinder makes it a 10-to 15-minute task. Be gentle with pheasant spurs; they are more delicate than turkey spurs. Wear a dust mask when grinding or filing bone. Seal with clear fingernail polish, if desired. Finally, thread spurs and beads on a thin leather strap or necklace chain, available at craft stores.



Hung Up on Peanut Butter Make this simple feeder to attract a variety of birds

Attract chickadees, nuthatches, tufted titmice, house finches and woodpeckers with this simple, inexpensive and effective bird magnet. Don Eslinger of Waukon offered us this idea, his second, more refined version that better wards off squirrels.

Hang the feeder using 16 to 18 inches of stout wire. "Squirrels will try to hang by their back legs from the branch, so the long wire makes it harder. It doesn't guarantee anything, they can figure anything out," he offers.

COST: Just a few dollars.

TIME: 30 minutes to construct. "It's not a big project," he says.

SUPPLIES:

- Use enough stout, metal rat-wire mesh or hardware cloth to make two sections, each 6.5 x 7 inches
- 1-foot piece of 1x4 pine, rip cut lengthwise into three equal width pieces
- 2 1.5-inch wood screws
- Large head nails or wood staples
- About 3 feet of stiff, heavy, gauge bailing wire

OPTIONAL: 4 1/8-inch wood strips 3/4 inches wide by 7-inches long.

TO ASSEMBLE:

With snips, cut mesh into two sections, each 6.5 x 7 inches. Cut the pine to make two 9-inch long pieces for the uprights and one 6.75-inch piece for the base. Next, drill the base about a half-inch in from each end and use wood screws to attach base to uprights. Nail or staple wire mesh to both sides of the uprights. For a more finished look, use 1/8-inch wood strips to cover over the wire mesh edges on the uprights, although it isn't necessary.

Drill holes through top of each upright and tie a short loop of thick-gauge wire to hang the unit. Hang from tree branch with remaining long wire. Fill with several scoops of peanut butter.

As an additional squirrel deterrent and to help keep the peanut butter dry, hang a circular plastic plant pot tray base over the feeder. Simply drill a small hole through it and string through hanging wire.



Black-capped chickadee

Downy woodpecker

Tufted titmouse

CHASE THE *Red Buffalo* IN MAHASKA COUNTY

Native Americans called night fires the "red buffalo" for the way it painted the sky and scorched prairies with thunderous, roaring speed. "It looks twice as big as a daytime fire with the orange glow," bursts naturalist Pete Eyheralde. "When the head fire comes racing after you it is pretty dramatic. It is intense."

As many as 150 open-mouthed visitors watch the conflagration and learn about fire management at the Russell Wildlife Area in Mahaska County. Spectators journey from as far away as Des Moines and Iowa City to view the crackling, pyrotechnic scene from the safety of a hill, but close enough for skin-warming heat and kiss of fire-generated winds. "It's like a fireworks display on the 4th of July. There are a lot of 'oohs' and 'ahhs.' Afterwards, people want to learn to burn their own prairies and CRP lands," says Eyheralde. That's part of the mission: ecstatic learning.

Before the scorch, naturalists relive the history of prairie fires, espouse ecology and highlight the negatives of fire suppression. A 12-person fire crew demonstrates tools of the trade: drip torches, Nomex fire suits, flappers, fire brooms and spray backpacks and reveal fire plans as visitors handle the gear. "It's not just about dropping a match. There's a lot of planning involved with burns," he says.

Onlookers see aerial photos, burn plans, firebreaks and data on humidity, wind and temperatures. Fire rages for 10 to 20 blazing minutes, but allow an hour or more to soak up fire ecology, hear historical prairie fire diary entries from local settlers and attend the post-fire debriefing inside the center where kids and the young at heart also examine bison hides and bones, learn how animals escape fire and pepper naturalists with questions.

Make it a day: Before sundown, explore the wildlife area's old limestone quarries known for their Mississippian Age fossils. Collectors from across the country trek here to search the remains from Iowa's ancient ocean. The center's maps to the fossil beds and identification sheets make for easy pickings in limestone so loose fossils wash out from rains. No tools required, and yes, you can keep your finds.

Wet or windy conditions can postpone burns, so check with the center at 641-673-9327. Burn location: Meet at 8 p.m., April 20 at the Mahaska County Conservation Board Nature Center located at the Russell Wildlife Area five miles north of Oskaloosa on 200th Street, a gravel road, off Highway 63.

**NATURE CENTER HOURS: 8 A.M. - 4:30 P.M. M-F.
THE CENTER IS OPEN AFTER HOURS ON BURN DAY.**

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DIG INTO THE LOESS HILLS

Visit Sioux City's Dorothy Pecaut Nature Center

STORY AND PHOTOS BY MIKE WHYE

Although Iowa's Loess Hills ramble along almost the state's entire western frontier, only a few places adequately portray this unique landform. One is the Dorothy Pecaut Nature Center inside Stone State Park on Sioux City's northwest side.

Nestled in a heavily wooded valley stuffed with bur oak, basswood and walnut, the center is run by the Woodbury County Conservation Board. "We have about two miles

of trails here that connect to the trails in the state park," says Dawn Chapman, center director. Yucca and the rarer skeleton and buffalo berry plants dot the landscape.

Hilary Longo of Sioux Falls, S.D., remembers those trails well from hiking during family outings while growing up in Sioux City. "Dad made up names for those trails before they had names. That was 20-something years ago," says Longo, showing her daughters,



Elizabeth, 4, and Amy, 2, around the center.

Families absorb displays on the hills' earlier residents—the Paleo-Archaic Indians of 13,000 years ago, while learning how prescribed burns rejuvenate prairies and strolling through an underground badger den. Explore exhibits that highlight the food chain, learn about plant and animal resistance to drought, and discover relationships between plants and insects.

"Lions in Iowa!" a temporary exhibit, examines the re-emergence of mountain lions in the Hawkeye State. It is on display from mid-February to mid-May.

Chapman says the center's many programs include summer day camps for children from 3 to 15 years old. "We have 19 camp sessions," says Chapman, from three hours a day for young children to all day for teenagers. Adult education offerings include the master conservationist program. Numerous programs and activities are under \$50.

CENTER HOURS: 9 a.m. -5 p.m. Tuesday to Saturday and 1-5 p.m. Sunday. ADMISSION IS FREE. FOR MORE INFORMATION, contact the center at 712-258-0858 or www.woodburyparks.com.

WHO'S DOROTHY PECAUT?

From Sioux City and serving on several boards including public schools and St. Luke's Regional Medical Center, the Rev. Dorothy Pecaut's (pronounced peekoe) strong passion for the outdoors helped encourage children to learn about nature. The Loess Ridge Nature Center was renamed for her in 1997.



There's More than Morels to Find

Get the Family Outside For Foraging Fun. Here's How to Stalk Wild Asparagus...

BY MIKE KREBILL



When I was young, I did not like asparagus. Perhaps because what I ate was old, overcooked, and out of season. But on a spring camping trip with a scout troop in Ames, I found a few spears of wild asparagus, and skeptically threw them into a pot of boiling water. Their bright green, unwrinkled appearance, low odor, and sweet, juicy, fresh taste were so appealing I changed my mind on the spot. The simple dish drew rave reviews from my companions. Now, you can't keep wild asparagus away from me.

Stalking wild asparagus is a great family outdoor challenge. Together, learn to identify the wild plant, make contests of spotting, collecting and discovering favorite ways to cook and eat it. Here's how to get started.

GET ON THE HUNT

Asparagus is hardest to find

during the collecting season, from late April through the first week of June, but there are some clues. Old bushes from last fall have lost their golden color and many of their fine branches. Straw-colored and resembling slender, miniature Christmas trees minus the needles, they may be standing or may have fallen over. Searching within three to four feet of their base, you might discover fresh spears. In May, look for one or two spears beginning to form a green bush that stands above the grasses around it.

FORAGER CHALLENGE

Spotting wild asparagus is a game of patience as its abundance varies greatly. I once drove 34 miles in southeastern Iowa before finding any. Male plants have no berries; the female plants have hard round red berries, usually smaller than a pea in

Culinary Tips

Young asparagus tips can be eaten raw if you're in survival mode or if you want a crunch in your salad. Most prefer tips cooked. However, make it brief, as overcooking destroys its bright green color and texture, impairs flavor and lowers nutritional value. (See the recipe, page 55.)

Harvest just before cooking, as asparagus loses its sweetness, juiciness and flavor within 24 hours. My favorite preparation is to steam for about five minutes, spray lightly with margarine or spread with butter, then sprinkle with a little lemon or orange zest (grated peel). If camping, simply drop asparagus into boiling water for three minutes, drain, and add a little salt. Some prefer it with cheese sauce or in soup. It's so incredibly delicious when fresh, many families insist on planting asparagus beds—but foraging is such fun, they may turn into confirmed foragers and want to try other wild food adventures, too.

diameter, which birds eat. Typically found along roadside fences not far from farm gardens, where birds may have perched and dropped fertilized seeds, or on adjacent road banks, the delicate golden bush is easy to spot, even from a speeding car.

A spot I located last October was along a fence. From a distance, the golden cluster appeared to be three or four bushes. Up close, I marveled, counting 30 bushes, each formed from a separate asparagus spear that came up last year. My eyes opened wide and my mouth watered with the thought! The spot is worth revisiting, so I noted the location, and expect to visit it several times this spring.

Be aware that only the young spears, with no branches, are edible. The plant becomes toxic as the season progresses.

MARK YOUR OCTOBER CALENDAR

Strangely, even though collected in the spring, it is easiest to locate in the fall when the plant turns into a one-stemmed golden bush with thin, lacy, needle-like branches. Search fence lines and road banks as you hike or drive, stopping to check possible sightings. Inspect

Flex to Harvest

Cooks and gardeners know the farther from the tip of the stalk, the more fibrous the asparagus becomes. Use the flex test before breaking or cutting stems. The harvestable part snaps off when bent between thumb and forefinger. The top four to six inches always seems fine, though I once had a 12-inch non-fibrous stalk. A friend picked wild asparagus nearly two feet tall and an inch thick at the base, still tender for most of its length.

Some collect by snapping them off; others prefer to use a knife—a better choice if you harvest close to the ground, where snapping could inadvertently damage the plant base.

the base of the plants for their hallmark resemblance to asparagus stalks. Make a family map of locations of the golden bushes and encourage kids to think how they can find that spot again.

Follow up next spring and collect, prepare and eat wild asparagus together for another memorable family activity. Take pictures for the family scrapbook, or e-mail them to relatives. But be careful: savvy morel mushroom hunters don't divulge their favorite collecting places; neither should wild asparagus stalkers. Once you locate a great spot, silence is golden. Otherwise, friends and relatives will beat you there next spring.

Happy foraging!

CLASSIC FAMILY READ

While hundreds of books exist on wild foods, the granddaddy that inspired most is Euell Gibbon's 1962 classic: Stalking the Wild Asparagus. It is a delightful read—both entertaining and informative.



The RIDGES of madison county

BY TIM LANE

"I'd do anything to look like him, except exercise and eat right."

—STEVE MARTIN

Let me tell you about a love story between a man and a county. The man is Curt, a contractor from Tampa, Fla. who travels to Iowa annually to hunt deer in Madison County. When he speaks of Iowa, it is apparent this trip is more than a getaway, it is the highlight of his year...a love affair. Curt wears "camo" when traveling just so others notice him to initiate hunting conversations.

Recently, when I took Curt to the airport, he confessed he might not return in 2007. In this bittersweet tale of lingering memories, Curt reflected on the difficulty of a 50-year-old-plus male trekking the local ridges. I haven't seen a more poignant parting since Robert Kincaid left Iowa, Madison County and Francesca in August 1965.

Curt's sliding power-to-weight ratio had neared a tipping point. Hunting was too much work. He admitted he could lose weight by eliminating beer from his diet or by exercising routinely. But the most powerful force in nature was holding him back—the force of habit.

Whether you're a hunter, hiker, paddler or birder, getting fit helps. As springtime beckons outdoor lovers, promise yourself to consult your doctor, know your blood pressure, medical conditions, weight, and cholesterol and approach fitness with small, achievable steps. Don't overdo it. Turn over a new leaf, not the whole tree.

Add three things. **FIRST**, get a pedometer and walk. Everyone is close to a walking course, be it a trail, park or mall. Walking is available to all and adjustable to meet your needs. Over time, add small distances and up the pace to increase the cardiovascular value.

SECOND, add weights. Weight training strengthens bones and muscles, improves balance and impacts your overall fitness. The need increases with age, yet participation declines. On the same week I talked with Curt, another friend who is 77, was curling more than 125 pounds at the gym. You do not have to curl even 10 pounds to start gaining the benefits. Even repetitions with one-pound devices, soup cans, large books or grandchildren can help.

THIRD, adopt the buddy system. Last year, a psychology study found that posting a drawing of a pair of eyes above a coffee pot run on the honor system increased payments nearly 250 percent. I don't think placing eyes over your hiking boots will have the same impact, but being active with others helps us stick to our word. One of the best aspects of *Lighten Up Iowa*, a wellness program, is the team approach. When working on a goal with others, we are likely to stick to our commitment. (Join up at www.lightenupiowa.org.)

Tim Lane is the fitness consultant with the Iowa Department of Public Health. He is also a marathoner, former director of the National Ski Patrol, climber, volleyball coach, and cyclist. He has cycled across America once and Iowa 25 times. He's a regular participant in RAGBRAI and developed the Ride Right safety program. Tim also helped design and promotes Lighten Up Iowa.

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.

Why do workers cut down nature?

—MADISON, AGE 7

Iowa has a long history of altering the landscape. We are arguably the most altered state in the nation since settlement. Originally covered in tall grass prairies, wetlands, and forests, these lands were converted to crops.

Children grasp that destruction of nature is harmful to water and air quality, wildlife habitat and quality of life, but have difficulty understanding some of nature's tougher lessons.

Take, for example, cutting down a tree. The impacts vary greatly. A timber stand improvement—cutting certain trees to benefit others, such as to reduce competition for sunlight—results in a healthier timber. On the other hand, a mature cottonwood tree in northeast Iowa held the bank of the Turkey River in place for years. When removed, the river changed course within a short time, taking along soil and a grass habitat.

Prairie fires, lake dredging, tree pruning, removal of invasive plants and other work sometimes may look harmful through a child's eyes, but are beneficial.

Try to explain the difference. The long-term benefits and immediate results are sometimes very different.



Paper or Plastic? NO, MESH!

Seasoned morel mushroom hunters often advise novices to skip plastic and pack mesh bags when collecting Iowa's spring delectable gift. They claim mesh bags allow morel spores to float to the timber floor to produce more of the golden treasures. The truth is spores are dropped regardless of whether it's a mesh, plastic or paper bag, says Lois Tiffany, botany professor at Iowa State University. She, along with the late ISU botany professor George Knaphus and professor Don Huffman of Central College in Pella, conducted a 10-year study on the distribution and ecology of morels. A better reason for using mesh bags, says Tiffany, is due to the heat and moisture plastic generates, which can taint the delicate fungi. "You wouldn't take a pound of hamburger and put it in a plastic bag and place it in the back window of your car a couple hours," she compares. "Morels are equally vulnerable to other bacteria contaminating the mushroom and becoming a problem." Mesh bags allow air to circulate, and create more opportunity for dirt and bugs to shake loose from the mushroom folds.

Tiffany debunks the long-held theory that mushroom hunters should leave some specimens for seed. "I can't imagine any collecting group being thorough enough to collect every mushroom."

Truth is, if you don't pick them, someone else will.



ASK THE EXPERT *-Tim in Cedar Rapids wonders...*

Will nightcrawlers regenerate when cut in two?



Yes, but not "any way you slice it." For the most part, severed earthworms can only regenerate their tail ends, said Iowa State University Extension Wildlife Specialist Jim Pease. The term "tail" is more accurate than you might think. Though, from the outside, a worm may look like an undifferentiated tube, inside, there's a worm's worth of difference between the front and back halves. The front portion houses most of the worm's vital organs, while the back half mostly just helps with the wriggling. In this way, it resembles a lizard's tail, which can also detach and regenerate. (A worm tail does,

however, contain part of the digestive tract, which is less vital than other organs). To identify an earthworm's front half, locate the swollen, saddle-shaped band called a "clitellum." A nightcrawler cut behind its clitellum can grow a new tail. The original tail will die, incapable of sprouting a new head. A slice made through the top half of an earthworm will rupture vital organs, killing both halves, said Burt Fwalla, lab technician at the National Soil Tilth Laboratory in Ames. One slight wriggle: To a very limited extent, some earthworms can grow new "heads." Removal of the first five segments may not prove fatal, since the brain, sitting roughly 8 segments behind the front tip, will be spared. Worms can reverse such a minimal decapitation, as long as they don't starve to death before regenerating new mouths, Fwalla said.

— GOT A QUESTION? Send to: ASKTHEEXPERTS@DNR.STATE.IA.US —

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

STAY JUICED! ≡

To keep batteries fresh, cover a tip with electrical tape for flashlights, air mattress pumps and lanterns before packing. If the switch is bumped on while stuffed in bags and boxes during your travels, the batteries are spared. Upon arrival, simply remove tape and save on sides of the batteries for reuse on the way home.



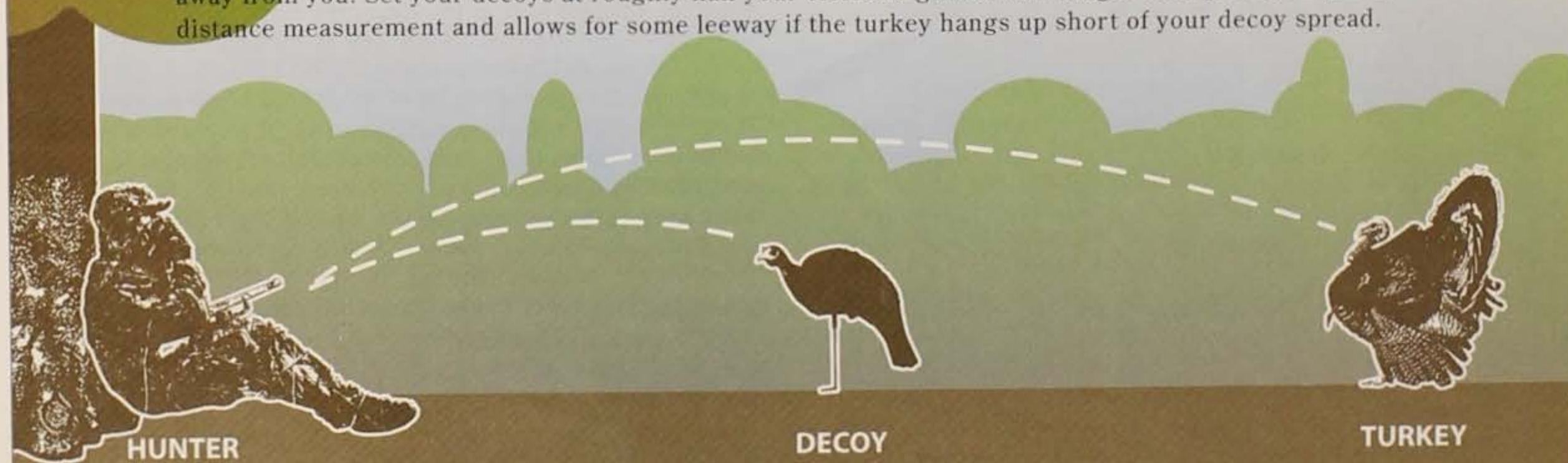
DON'T GET CAUGHT

Keep hooks from getting caught on car upholstery, clothing and vegetation by covering barbs with snippets of wire insulation. Use wire strippers to cut off a supply of small, hollow sections of insulation to keep in your tackle box to quickly cover barbs when needed. Cork works great for this too.



≡ TURKEY TIP

Turkey decoys can be effective tools during the spring season—in more ways than one. Decoys, obviously, can gain the attention of a love struck gobbler, but they also draw attention away from you. Set your decoys at roughly half your effective gun or bow range. That gives you quick, accurate distance measurement and allows for some leeway if the turkey hangs up short of your decoy spread.



BAG IT!

Simulating the sound of a turkey flying off the morning roost can entice wary spring gobblers into gun range. If you don't have a real or store-bought turkey wing to simulate the sound, carry an old, crumpled small paper bag in your pocket. Put one hand in the bag, and pinch the opening against your wrist with the other hand. Flap your hand in the bag as you guide it to the ground with your other. Immediately begin calling the birds. Imitating this normal morning routine will often lure a gobbler your way.

250 mL (8.4 FL OZ)

MINTY FRESH CALLS

To keep your turkey mouth calls clean and in good shape, soak them in mouthwash to help kill germs and then rinse with water. Place a flat toothpick between the reeds to separate. Let dry and store in a cool, dark place, preferably a refrigerator.

FOUL WEATHER HUNTING


Don't let foul weather spoil your spring turkey hunt—use it to your advantage. When windy, hunt lee sides of ridges where you can better hear birds and where birds can better hear your calling. Turkeys often migrate to these protected areas on windy days. If it's raining or snowing, look for open fields and open woodlots where turkeys flock to dry off, and can better hear approaching danger.

— GOT A SKILL TO SHARE? —

If we use it we will give you a gift from the Iowa Nature Store. Send to: OUTDOORSKILLS@DNR.STATE.IA.US

THE WATER WAY

OUTDOOR FUNSPOTS ALONG JACKSON COUNTY'S GRANT WOOD SCENIC BYWAY IS A TRIP THROUGH IOWA'S LIFELOOD



South entrance to quarter-mile long Dancehall Cave, one of 13 caves at Maquoketa Caves State Park. Dancehall features paved walkways and lighting, but some—Dug Out, Widemouth, Match and more—require crawling. Pack old clothes, flashlights and helmets. Drop by the interpretive center to soak up cave geology and history.

There's a full moon over eastern Iowa. Cold, clear streams glisten like silver threads through fields and farmland. Moonbeams caress the southward pull of the Mississippi River. In this tiny swath of paradise between Maquoketa and Bellevue, man and nature have found a balance that sparkles on a chilly spring night.

A road winds through this bastion of traditional farmscape. The Grant Wood Scenic Byway leads travelers past local limestone structures, dairy farms and undulating hills that Interstate drivers will never know.

Water sets this place a notch above the rest. Anglers hook into brown and rainbow trout from stocked, spring-fed streams. Paddlers embrace the manageable Maquoketa River. The Mississippi snugs right up to Bellevue, a rare river town without railroad tracks obscuring the views. Water carved Maquoketa Caves State Park, and panoramic river views are the ultimate payoff for hikes in Bellevue State Park.

In Jackson County, along the Grand Wood Scenic Byway, if you come for the scenery, you'll stay for the water.

SMALL WONDERS

Rowdy owls romp through mature pine trees. Coyotes yap. Lest one forget that this is Iowa, a cow joins the chorus. In a tent, nighttime at Maquoketa Caves State Park is an aural hoe-down.

This petite park on 323 acres, seven miles northwest of Maquoketa is a state favorite. All 13 caves, formed by rainwater erosion in the limestone, are fair game for exploration. Six hearty miles of trails pass limestone formations, rugged bluffs and photo-ready features like a natural stone bridge 50 feet above the Raccoon Creek and a 17-ton "Balanced Rock."

Judging by the arrowheads and pottery found long ago in the caves, the location has been popular for millennia. An on-site interpretive center fills in historic details.

Jill and Kyle Gauley of Pella make their way through gigantic Dancehall Cave with sons Connor, 3, and Thomas, 6. The boys boulder over the chilly rocks, flashlights glinting into the dim depths.

"I see bats!" frets Connor.

"Bats won't hurt you," assures Jill. "Besides, there are no bats right here."

The boys cram their small bodies through a mud-brown wall crevice.

"Wow!" sounds Thomas' voice from within.

"Bats!" answers Connor.

The caves could easily swallow two days of rapt exploration. So it's a good thing that Bluff Lake Catfish Farm, a few miles west, serves all-you-can-eat dinners through the weekend. The hour-long wait is doable between the bar, the ducks and geese, and a catfish pond where the Friday night special lurks.



Hikers can explore Natural Arch Bridge from above and below.

ELUSIVE FISH

The Grant Wood Scenic Byway stretches 60 miles between Anamosa and Bellevue. Steep hills, valleys, deep creek bottoms, high church spires and limestone buildings were inspiration for Iowa artist Grant Wood in the 1930s, who wrote: "A true art expression must grow up from the soil itself." The regionalist began Stone City Art Colony near Anamosa to honor, with art, the subtle beauties of the Midwest.

The area inspired classic paintings as "Stone City" and "Fall Plowing," but the drive is far from the county's highlight. Leaving from Maquoketa Caves, following the byway toward Bellevue, stocked trout streams such as Big and Little Mill creeks and Brush Creek are about the best way to see some of Iowa's best scenery.

"One thing about trout, they don't live in ugly places," says Bryan Hayes, the DNR fisheries biologist who keeps track of the streams. "This is spring-fed water, clear and cold, with rocky outcroppings, pretty trees alongside... It's nice country."

Surprisingly, you don't need a lot of equipment for trout fishing. Farm-style angling is not "*A River Runs Through It*" fancy (though it certainly can be). Trout fishing can be as easy as split-shot, Power Bait, rubber boots, and the ability to be very sneaky.

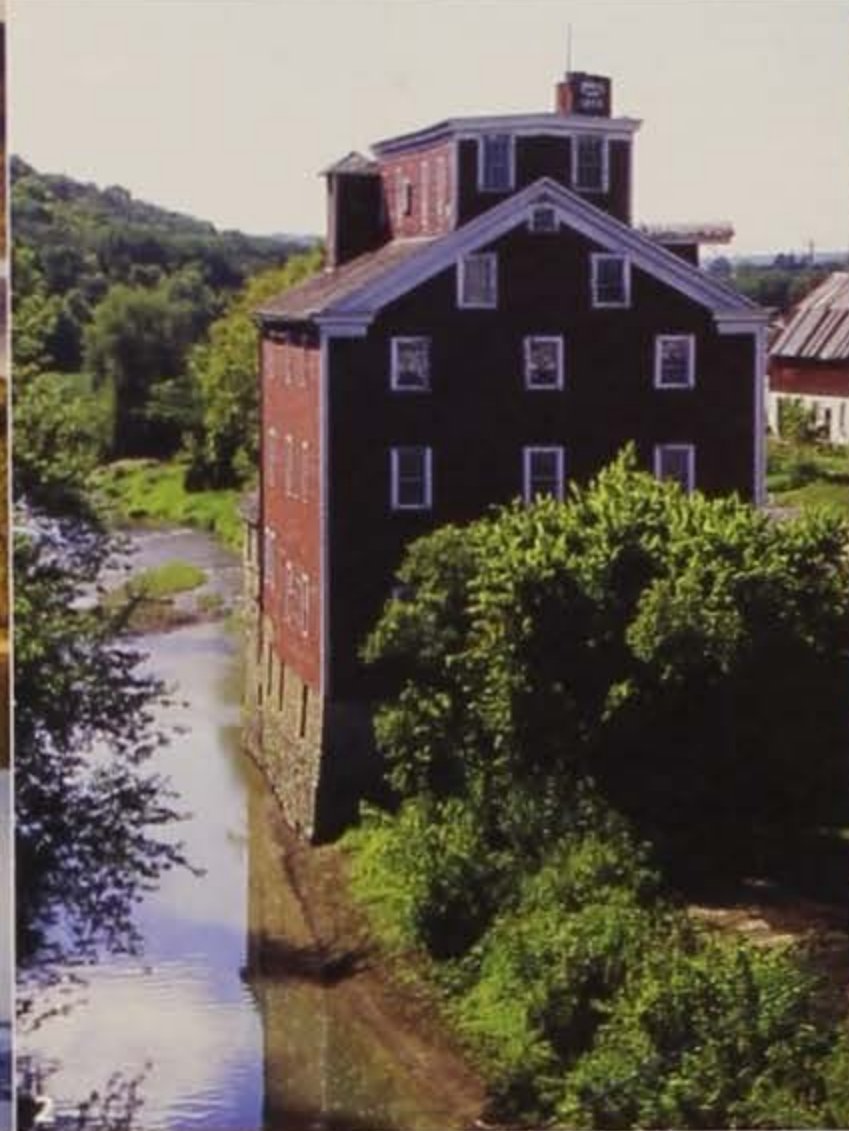
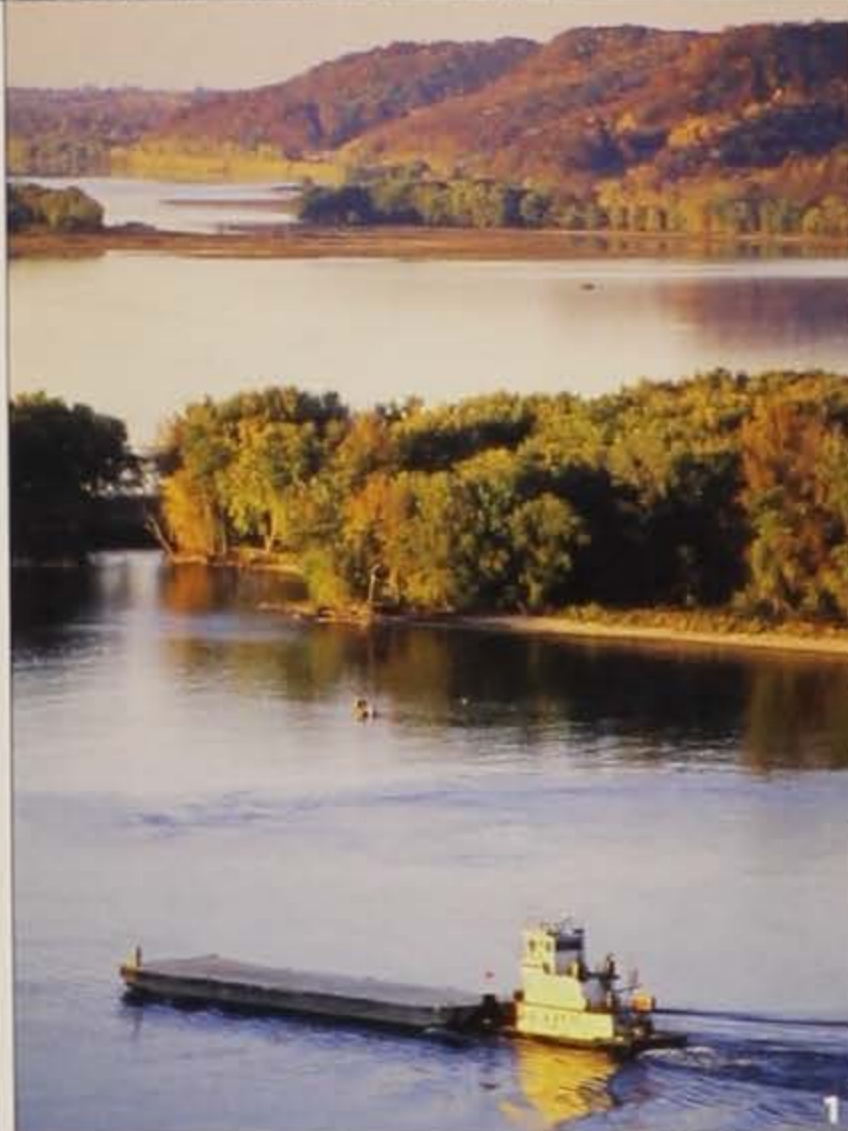
Fisheries biologist Scott Gritters ties a spinner to his two-pound light line along a section of Little Mill Creek. He points to a quiet pool just beyond a burbling riffle.

"I guarantee you there are 200 or 300 trout out there," he says.

As Gritters walks the bank, he keeps his distance from the water until he's ready to fish. If trout see you, they won't bite.

Trout swim facing upstream, and Gritters is essentially sneaking up on his catch. He casts—a feisty, quick swat—and allows his bait to flow back downstream toward him. He casts twice more, then moves on.

LOST IN IOWA



1) Mississippi River view atop 300-foot limestone bluffs on Overlook Trail at Bellevue State Park. 2) Potter's Mill, Iowa's oldest, built in 1843, just outside Bellevue S.P., offers its famed 10-ounce Iowa chop and bed and breakfast rooms with nature views adjacent Big Mill Creek. 3) New England-like view of Bellevue in autumn splendor. 4) Vertical levels of trails and rugged topography make Maquoketa Caves seem far larger than its size. Caves like Up-N-Down, Shinbone, Ice Cave with its chills, Hernando's Hideaway and others have long beckoned lovers of lush hills and meandering trails. Centuries ago, American Indians left tools and projectile points in the caves. More recently, early cavers stole milk-white stalactites and stalagmites, although other formations remain. Growing an inch per century, new formations slowly return. 5) Big Brown bats cluster to share heat in Dancehall Cave, where up to 750 bats overwinter. Cave is unlit and off limits to hikers during cold weather to protect slumbering bats, usually reopening around April 1, depending upon weather.

If they aren't biting, he says, they won't be changing their minds soon.

Gritters wends his way upstream, though some anglers work one site all day, fishing a little, letting the water rest for a half-hour, then fishing it again.

Area farmers are generally open to sharing their stream access—just ask. The properties with permanent permission have DNR signs posted and wooden ladders across the fences. Consult a DNR trout map, which lists county plat numbers for public access points.

However you find your sweet spot, remember: It's good karma to leave sites cleaner than you found them and farm gates closed behind you.

SMALL TOWN CHARMS

Bellevue is a wee town with a fascinating lock and dam, a municipal park hugging the Mississippi, and tasty ice

cream at Grandpa's Parlor on Main Street.

Bellevue's character is cemented by an idyllic red structure—Iowa's oldest gristmill—seated on the bank of Big Mill Creek. Retired Marshalltown doctor Daryll Eggers saved Potter's Mill when he purchased it, in decrepit condition, in 1980. The foundation and 11-foot-thick dam that powered the mill were built with limestone from bluffs across the creek. Local timber (hand-hewn walnut and oak beams) framed it out.

In 1985, Eggers and his wife, Carolyn, opened Potter's Mill as a restaurant. Roast pork loin with Carolyn's horseradish jelly is a local favorite. So is the tirelessly upbeat staff. Potter's Mill now offers four bed-and-breakfast rooms upstairs.

"Townpeople still thank us for saving this place," he says. "I have no doubt this building would not have been saved."

To appreciate Bellevue's status as an iconic Iowa town,

Cavernous 20-foot ceilings at Dancehall Cave's middle entrance.



TRAVEL NOTES:

- **THE GRANT WOOD SCENIC BYWAY** travels Highway 62 from Maquoketa, to E17 in Andrew, then Z15 to Highway 52 into Bellevue.
- **CANOE ACCESS** information at www.jacksoncccb.com/Sfork.html, or in Nate Hoogeveen's book, *Paddling Iowa* (ISBN 1931599335; \$19.95); at bookshops or buy online at www.paddlingiowa.com.
- **MAQUOKETA CAVES STATE PARK** 10970 98th St., Maquoketa. Savvy campers reserve spots well in advance, or arrive on Thursday for first-come, first-serve offerings. Camping fees through Apr. 30 \$6-\$11; 563-652-5833; Reserve a site at www.reserveiaparks.com
- **BLUFF LAKE CATFISH FARM**: Don't be alarmed if Mapquest directions take you on a Level B Maintenance Road. You're on the right path—but find an alternate route if it's muddy. Open weekends for dinner, Sunday for all meals. 9343 95th Avenue, Maquoketa. 563-652-3272.
- **THE DECKER HOTEL RESTAURANT AND LOUNGE**. Casual dining, plus a Sunday breakfast buffet, in a beautifully restored 1875 inn. Lodging from \$60. 128 N. Main St., Maquoketa. 563-652-6654.
- **THE MAIN STREET CAFÉ**. Standard, inexpensive small-town breakfast, lunch and dinner joint. Smoking allowed. 136 S. Main St., Maquoketa. 563-652-6679.
- **BELLEVUE STATE PARK**, 24668 Hwy. 52, Bellevue. 220 acres of public hunting ground, with 45 campsites and one organized youth group site. Camping fees through Apr. 30 \$6-\$11. 563-872-4019; www.iowadnr.gov.
- **GRANDPA'S PARLOR**, 306 S. Riverview Rd., Bellevue. Ice cream delicacies named after river facts—or vote with your mouth on the Hawkeye or Cyclone breakfast specials. 563-872-4240.
- **MOON RIVER CABINS**. Rustic lodging with a fine location, right on the Mississippi River in Bellevue, with direct river docking. Prices range between \$99-\$175 per night. 905 S. Riverview Dr. 563-872-5443. www.moonrivercabins.com.
- **POTTER'S MILL RESTAURANT BED & BREAKFAST**. Beautifully restored historic mill, with a restaurant below four rooms ranging from \$145 to \$175 per night. 300 Potter Dr., Bellevue. 563-872-3838; www.pottersmill.com.
- **WHISPERING MEADOWS RESORT**. Three cabins on 200 country acres, plus a fishing pond and free hayrack rides upon request. The best of the bunch is the Patriot, at \$200 per night (\$175 for the others). 34580 100th St., Spragueville. 563-590-1123; www.whisperingmeadowsresort.com.

LOST IN IOWA



« **THE DNR'S SECRET HANDSHAKE FISHING HOLE** (a good starting point for trout anglers): From the Grant Wood Scenic Highway 62, take a left on County Road D-61 before Bellevue. Then another left on the first gravel road. Next, you'll take a—you guessed it—an immediate left into a DNR parking lot. Cast away on Little Mill Creek.



see it from high above, in Bellevue State Park. The 720-acre beauty is known for panoramic views, Iowa's largest butterfly garden (see sidebar), and nomadic Woodland Indian mounds.

Oak and maple trees shimmer in the breeze, as park ranger Ron Jones explains that the park once served as a golf course. "We still find golf balls up here," he chuckles. Eight miles of trail wind through.

"This is probably my favorite park," Jones says, looking out from Pulpit Rock near the main overlook, where groups pose for what'll likely end up in the family Christmas card. "You can just sit up here, and use your imagination as to what it was like in the days of the Native Americans."

Jones walks the chain-link fence protecting the Indian mounds along a bluff. The local Native Americans honored the sun, moon and river, he says, and burying

their dead here was a logical choice.

"They built these mounds one basket of dirt at a time," he says. "Places like this got them as close as they could to their lifeblood."

And just like that, Jones sums up the mystique of Jackson County. For Iowans who wander its fields and farms, watered and buoyed by its river and streams, the attraction is Iowa's beauty—and the lifeblood that keeps it around. 🐾

1) Backpackers escape to walk-in sites at Maquoketa Caves or trek 6 miles of trails past restored prairies and oak savannah. 2) A young great horned owl nestles among the campground's mature pines. 3) Atop 300 foot bluffs, the Overlook Trail at Bellevue S.P. leads to river views. **OPPOSITE**) Monarchs roost evenings during their fall migration. The Butterfly Garden at Bellevue S.P. attracts 60 species. Built to attract butterflies and caterpillars with nectar and host plants, the garden is divided into 148 plots, each cared for by a volunteer who plant, water and weed for all to enjoy.



IOWA TROUT FISHING GUIDE



DNR Department of
Natural Resources
Des Moines, Iowa

TROUT FISHING TIPS

- Get your hands on an *Iowa Trout Fishing Guide*, published by the Iowa DNR. A bargain at \$2, essential and where the rest of these tips are taken from. (www.iowanaturestore.com).
- Use the DNR guide to locate a good fishing spot. Always ask permission for fishing areas not specifically marked as public areas. Be a considerate visitor.
- Bring light-action spinning or fly rods, line no heavier than 6-pound test (try 4 or 2). For fly-fishing, use a tapered leader with 1 to 4-pound test tippet.
- Wear rubber boots to cross or wade streams. Waders aren't necessary, but they certainly look cool.
- Approach the stream cautiously and don't cast a shadow over the water you'll fish. When the water is clear, lower your profile by kneeling or crawling. Yes, trout are that easily spooky.
- Cast delicately and accurately. Polarized glasses will help you see the fish better.
- Trout face upstream and stay put by swimming against the current. Cast upstream so your bait floats by a potential fish hide-out.
- Though trout are exceedingly timid about biting in general, they aren't necessarily picky about food. Trout can be caught using cheese, sweet corn, synthetic baits, marshmallows, salmon eggs, night crawlers, worms and minnows. And crawdads. And water bugs like caddis flies or midges. And what the heck, try grasshoppers, crickets or ants, too.

HELP OUR WINGED FRIENDS

Monarchs are the only butterfly that makes a true migration—every generation born in late summer will over-winter in Mexico, where they become sexually mature.

"How they know how to get there, and back again, we don't really know," says park ranger Ron Jones of Bellevue State Park.

That migrating generation lives seven months—compared to the month-long lifespan of most Monarchs. That's about 500 years old in human years.

In short, they could use a little rest. Monarch resources are declining with ever-increasing land development and the widespread use of herbicides. Ninety percent of the monarch's milkweed habitat (its preferred food and place to lay eggs) is found on the agricultural landscape, and that's disappearing rapidly.

Here's how to supply food and shelter for egg-laying, according to Jones and the website www.monarchwatch.org:

- Plant butterfly-friendly plants. Using anything from a window box to a wild, untended acreage, plant any variety of milkweed, as well as nectar plants like purple coneflower, zinnia and prairie blazing star. Purchase individually, or order a seed packet from the Monarch Watch website for \$16 (800-780-9986). monarchwatch.org
- Encourage your local schools, Department of Transportation, and municipalities to do the same. Volunteer to coordinate the effort, if need be.
- Do not use any insecticides or pesticides in your garden. Quite simply, they kill butterflies.
- Offer protection from wind. "Butterflies don't like windy days," says Jones. "Tall trees, tall grass, or prairie area gives them shelter."
- Create places for puddles so butterflies can drink—try sinking a container of sand into the ground. Add rocks or sticks for perches.
- Don't overgroom. Your butterfly plot needn't be tidy. In fact, if it's a little messy and weedy, it provides the winged ones more shelter.
- Volunteer. If you visit Bellevue State Park, call in advance and offer to spend an hour in the butterfly garden. The park is low on staff to maintain the site, which has been in operation since 1985. Call or stop by at South Bluff Nature Center in the Nelson Unit when you arrive. (563-872-4019).



LOST IN IOWA ~ ROAD TRIP

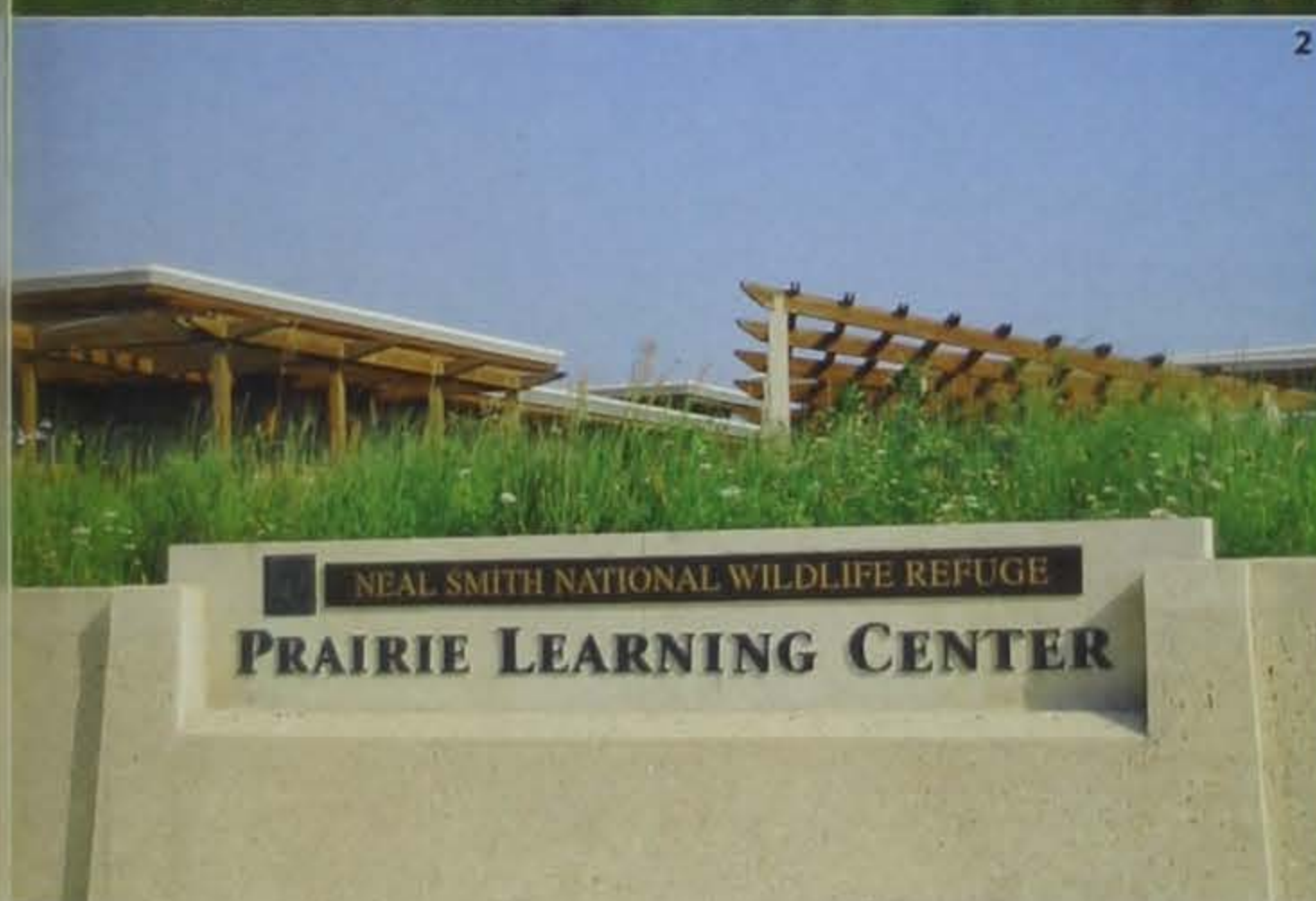
Tallgrass Treasure

The open tallgrass prairie of Neal Smith National Wildlife Refuge will envelop you in Iowa's ecological history.

BY JENNIFER WILSON PHOTOS BY CLAY SMITH



LEFT: A young male, one of nearly 40 bison, grazes. Bison help restored prairies by taking tops off plants, allowing more water to reach seedlings and increasing plant diversity. The refuge is home to more than just large mammals and plants. Butterflies, insects and rare moths are found, including a recently discovered new moth species. 1) The center's prairie style architecture blends into the area, offering spacious views. 2) Eye-level prairie views greet visitors. The lattice pergola yields dappled light reminiscent of savannah; open to the sky, elements and wind. 3) Often seen with his grandchildren in tow, former congressman Neal Smith holds rigid goldenrod. 4) Where invasive canary reed grass once grew, cardinal flower and great blue lobelia flourish in the highly diverse sedge meadow near the savannah trail.



Open prairie yawns to the sky just beyond a modest brown welcome sign 25 miles east of Des Moines. It's as if the land, too, is awakening from a sleepy drive past bean and cornfields along Highway 163 to the Neal Smith National Wildlife Refuge and Prairie Learning Center.

And in a sense, it is. Naturalists and biologists are re-creating—almost from scratch—the landscape that was here more than a century ago. Think of it as an ecological do-over.

Here, among these gentle gradations of green and splashy purple prairie clover, black-eyed Susans, and grey-headed coneflowers, a habitat is reborn, nurtured by the loving hands of naturalists and volunteers, shaped by grazing elk and bison.

PRAIRIE FROM SCRATCH

In 1990, United States Representative Neal Smith pushed legislation through Congress to establish a refuge up to 8,600 acres in size.

"We're essentially rebuilding an entire ecosystem," says Pauline Drobney, a biologist at the refuge from those first days. "Nothing of this scale and scope has been tried ever before."

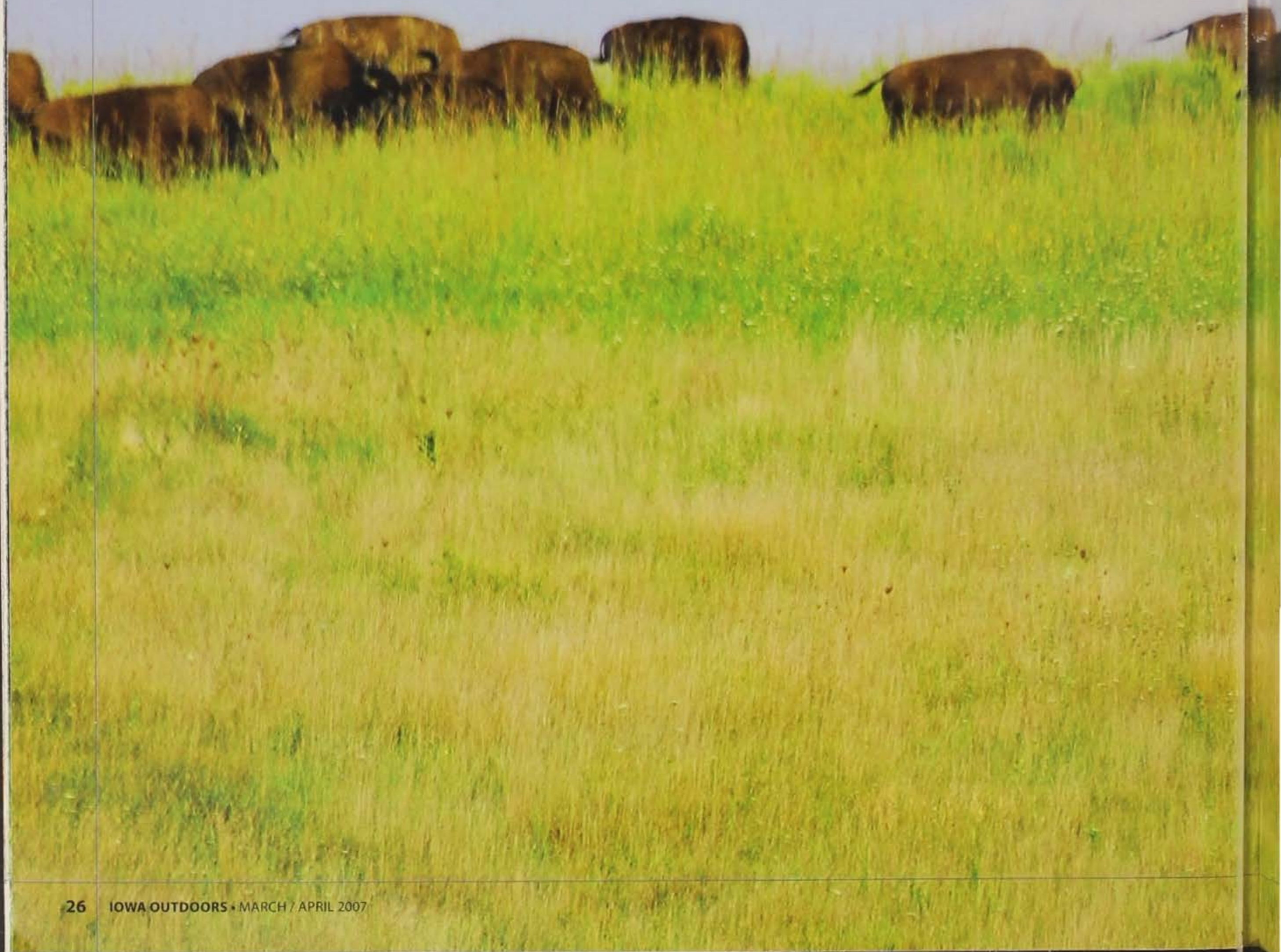
To understand the magnitude of the project, walk the blacktopped stretch of the Tallgrass Trail that begins just outside the prairie-style visitor center with hands-on exhibits. Two decades ago, the trail was nothing but farm field. Now, you'll be treated to subtle prairie pleasures. A nesting owl peers from a cottonwood tree. A regal fritillary butterfly—a prairie-dependent species recently re-introduced here—drunkenly bobs past wild indigo, wild quinine, obedient plant. Skunk tracks dot a creek side. A brown-headed cowbird stalks grazing buffalo.

These rare moments of beauty are as close as we may ever get to the settlers of the 1840s. To recreate the scene as it was then, refuge planners used its earliest documentation—writings of 19th-century government surveyors.

"It's a mosaic of natural communities," says Drobney. "Prairie, oak savanna, sedge meadow. We wanted the highest degree of ecological integrity we could get. What should've been here is what we had to put back."

Volunteers and refuge workers gathered seeds from local prairie remnants in the 38-county area—Iowa's southern lobe. They tracked down some 2,000 sites using word of mouth, aerial photos, topographical

LOST IN IOWA





A soft focus gives an almost dream-like quality to this image, taken before this herd was removed from the refuge after blood tests showed traces of domestic cattle genes. The bison created a new herd with the Meskwaki tribe in Tama and the Spirit Lake tribe in North Dakota. Two bison went to Jester Park, operated by the Polk County Conservation Board. In mid-December, a 39-head replacement herd of genetically pure bison were trucked in from Montana's National Bison Range, says Neal Smith National Wildlife Refuge manager Nancy Gilbertson.

Once, 40 million bison roamed the nation. Large railroad companies paid commercial hide hunters who ruthlessly slaughtered bison to near extinction by the mid-1880s. A few hundred survived, some saved by far-sighted ranchers. Over time, bison were cross-bred with cattle. Today, bison free of cattle genes are spread across federal refuges. "We want to make sure those genes aren't lost at some point if something would happen to other herds," says Gilbertson.

Moving the animals is no easy feat. It's a grumpy 36-hour truck ride from northwest Montana to Prairie City, IA. At 8:30 p.m., in the dark, the bison were freed, except one stubborn female, who stayed overnight in the trailer. Still refusing to leave by morning, rope was placed over her horns to gently pull her out with a truck. However, the rope remained, and after two days, she was darted to safely remove it. "She's had quite an experience, but she is fine. They've made themselves at home," says Gilbertson.

LOST IN IOWA



maps—anything that would yield a few clues.

"Some [remnants] were the size of this desk, some were acres," says Drobney.

Once the volunteers located the sites, they improvised collection using vintage equipment such as a Kentucky bluegrass stripper and an old Allis Chalmers 1954 combine specially designed to harvest seed. (The refuge now uses a modern combine with a rice head.)

Those specimens became the initial plantings. On a blustery day in May 1992, refuge employees and volunteers mixed seed with sand and hand-tossed it on a four-acre area—a far cry from the Vicon spreader they use now.

"We had a band playing for that first primal planting," says Drobney. "We danced that seed right into the ground."

A BIG JOB

The cool, shady path of the Savanna Trail is dappled with sun. Oak trees throw out their limbs horizontal to the earth, and bumblebees hum from flower to flower.

As this oak savanna is under restoration, native shade plants seem almost shy in their return. Jack-in-the-pulpit. Green dragons. Pale Indian plantain. The little clematis vine of leather flower. A charming bluebell, pleasantly fragrant, beckoning for admiration.

They are among the 200 species of plants and flowers taking hold once again on this land. Through their stories, the refuge aims to emulate early ecology, produce research about ecological restoration, and encourage education and outreach.

That last part is the biggie.

"The fate of prairies rests on the shoulders of decision-makers, locals and taxpayers," says Drobney. "But how can you value something that you've never touched or experienced? Something that's never even been part of your culture?"

Drobney remembers when the refuge was under great scrutiny, as Iowans questioned another Neal Smith project after the flooding of Red Rock and Saylorville. Others worried about removing so much land from the tax base.

Still, it seems reviving the land changes those who walk these trails.

"I think there's an innate need for us to relate with natural lands," she says. "People get fired-up when they see these places. It ignites in most of our visitors a passion for protecting the place they live."

And here in Iowa, perhaps that's the most important mission of all. 🐾

MAKE IT A DAYTRIP OF A LIFETIME

- Bring a hat, sunscreen and water. Budget at least an hour for the learning center and two for hiking.
- There is currently no local dining. Bring a picnic and drive to Thomas Mitchell Park a few miles west on Highway 163. Massive oaks shade the picnic tables. A fine fishing pond is perfect for beginners.
- When you get home, log on to www.tallgrass.org. Friends of the refuge post volunteer opportunities and adult-education classes such as prairie-plant propagation and butterfly identification. Every second Saturday, show up at the refuge at 9 a.m. to volunteer.

INTERVIEW WITH U.S. CONGRESSMAN NEAL SMITH

In the wake of the 1970s energy crisis, Iowa Power and Light Company (now MidAmerican Energy), purchased farmland around Prairie City to build a nuclear power plant. When plans were scrapped, Congress appropriated funds to establish the refuge.

We asked former U.S. Rep. Smith about his namesake project, and Iowa's environmental future.

Q. How is the refuge doing, in terms of your original vision?

A. I think it's doing great. I won't live long enough to see it fully established. It'll take 100 years or more for that to happen. The species don't come back fast. I want them to get prairie chickens and jackrabbits out there. It's time to do that now.

Q. You were a true leader in Iowa conservation efforts. Do you see anyone in government following in your footsteps?

A. Not only do I not see that, but it would be almost impossible to do. Environmental laws won't permit it. It takes longer than anyone serves in Congress to get things done now. In one night, I wrote the language to go into a bill to establish that refuge. In three days time, it was passed in the House and the Senate. There's no way that could happen now. You have to go through environmental studies and committees and subcommittees ...

Q. So what can Iowans do to protect the land?

A. Groups of individuals need to continue talking (about conservation efforts) to their representatives and senators—keep it in front of them. ... It's not like politicians don't want to get these things done. It's just not as high on their priority list as it was with me.

Q. What sort of projects would you like to see happen in Iowa next?

A. We need to take the boundaries of the Des Moines River Greenbelt, and within that area, develop it to get as many of the species back that were originally here. And establish the trails so people can see it. I established the Neal Smith Trail (in the metro area along the Des Moines River), and there's 11 miles of trail at Red Rock. Someday, a long time from now, those need to be connected. Some of that will have to be a DOT project, because some of the trail will have to be alongside the road like they have in Europe. But it needs to be done. You just work on those kinds of things to make the Des Moines River Greenbelt a great asset for people to live here and be here.



1) Savannah edge, dominated by fire-resistant burr oak. 2 & 7) Family bison herd encircle calves in time of danger. Young bulls stay herded, but elders leave periodically. 3) Trails afford hikes for all ages. The two mile tallgrass trail is paved. 4 & 5) "Sit, be patient and watch. Slow down, get out of the car and you'll start seeing and understanding things," says Drobney. Coyote feed on rabbits, rodents and keep prairie bird predators in check by preying on raccoons. 6) Grant Wood-like view into 800-acre bison and elk area. 8 & 11) For every foot of vegetation, 10 feet are underground. 9) Close view of what's outside; 17 refuge elk. 10) Drobney in sedge meadow with cardinal flowers.

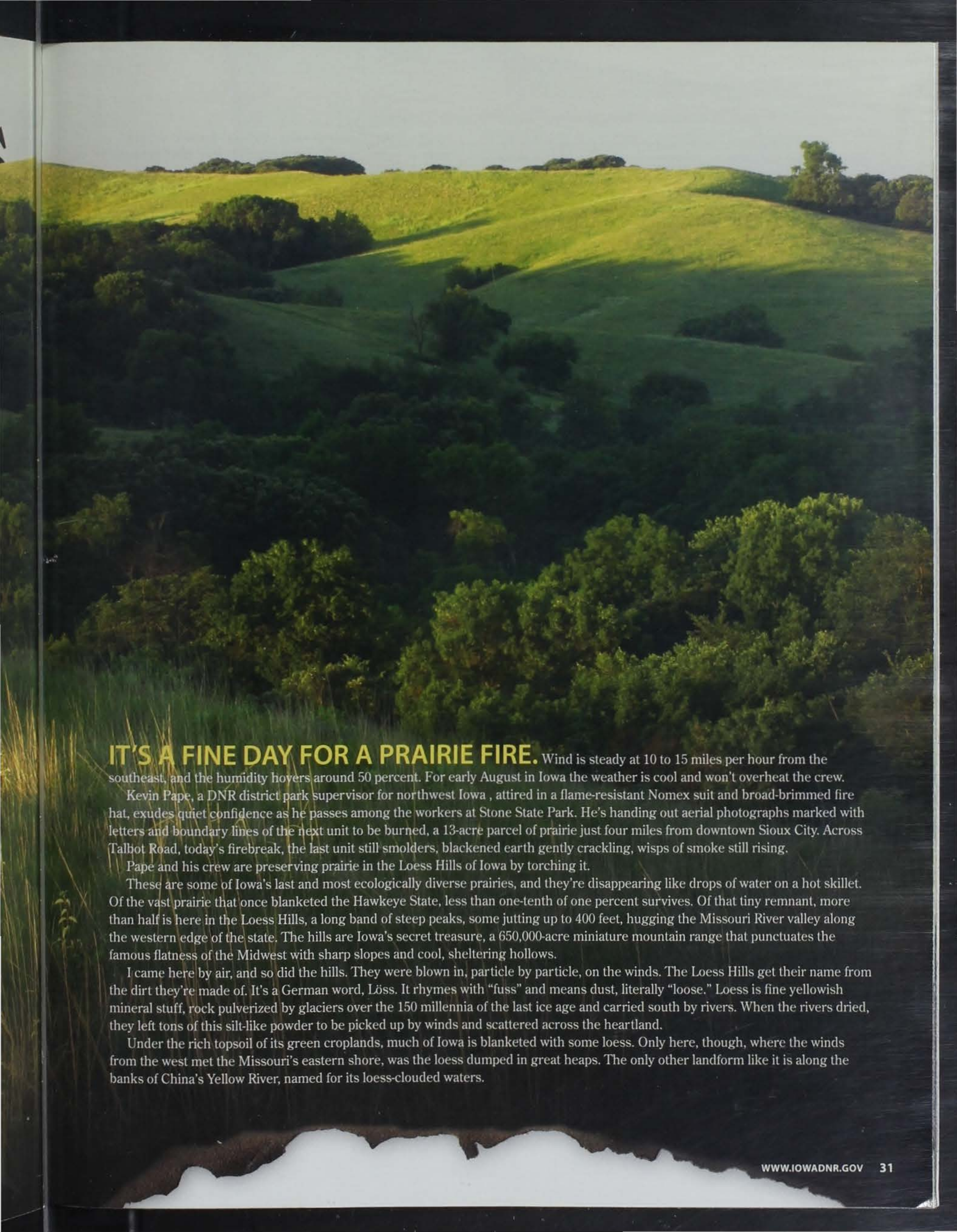
Prairie Islands

A photograph of a prairie landscape. In the foreground, there is a field of tall, golden-brown grasses. Behind the grass, there are rolling green hills covered in dense trees and shrubs. The sky is a pale, hazy blue.

BY SAM HOOPER SAMUELS PHOTOS BY CLINT FARLINGER

Story reprinted with permission from the March/April 2005 issue of Sierra magazine.

By the Banks of the Missouri River,
Pleistocene winds sculpted a landscape
unmatched in America



IT'S A FINE DAY FOR A PRAIRIE FIRE. Wind is steady at 10 to 15 miles per hour from the southeast, and the humidity hovers around 50 percent. For early August in Iowa the weather is cool and won't overheat the crew.

Kevin Pape, a DNR district park supervisor for northwest Iowa, attired in a flame-resistant Nomex suit and broad-brimmed fire hat, exudes quiet confidence as he passes among the workers at Stone State Park. He's handing out aerial photographs marked with letters and boundary lines of the next unit to be burned, a 13-acre parcel of prairie just four miles from downtown Sioux City. Across Talbot Road, today's firebreak, the last unit still smolders, blackened earth gently crackling, wisps of smoke still rising.

Pape and his crew are preserving prairie in the Loess Hills of Iowa by torching it.

These are some of Iowa's last and most ecologically diverse prairies, and they're disappearing like drops of water on a hot skillet. Of the vast prairie that once blanketed the Hawkeye State, less than one-tenth of one percent survives. Of that tiny remnant, more than half is here in the Loess Hills, a long band of steep peaks, some jutting up to 400 feet, hugging the Missouri River valley along the western edge of the state. The hills are Iowa's secret treasure, a 650,000-acre miniature mountain range that punctuates the famous flatness of the Midwest with sharp slopes and cool, sheltering hollows.

I came here by air, and so did the hills. They were blown in, particle by particle, on the winds. The Loess Hills get their name from the dirt they're made of. It's a German word, Löss. It rhymes with "fuss" and means dust, literally "loose." Loess is fine yellowish mineral stuff, rock pulverized by glaciers over the 150 millennia of the last ice age and carried south by rivers. When the rivers dried, they left tons of this silt-like powder to be picked up by winds and scattered across the heartland.

Under the rich topsoil of its green croplands, much of Iowa is blanketed with some loess. Only here, though, where the winds from the west met the Missouri's eastern shore, was the loess dumped in great heaps. The only other landform like it is along the banks of China's Yellow River, named for its loess-clouded waters.

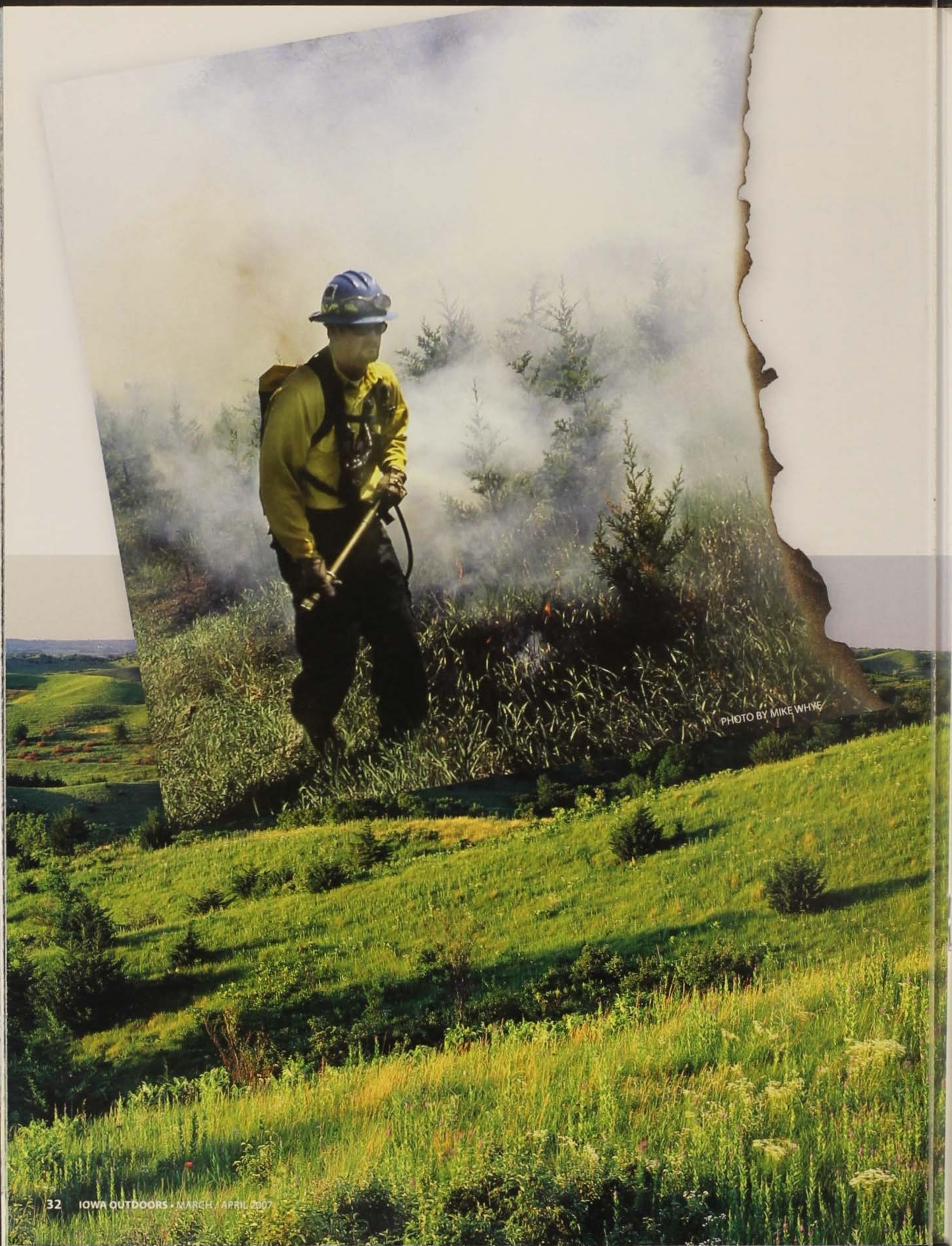


PHOTO BY MIKE WHYE

Fragile Giants is what scientific historian Cornelia Mutel titled her 1989 book, the best natural history yet of the hills. Fragile indeed. Where the loess is exposed, you can break it off in chunks and crumble it to a powder that disappears almost before it hits the ground. Occasionally a farmer carves "fragile giants" into a field of corn, a message to airplane passengers that this is not just flyover country but has a name, an identity.

From the ground, the topography calls to mind the intricate, pleated patterns of sand dunes. Long, meandering ridges are like spines with rows of smaller ridges projecting out like ribs, and even smaller spur ridges projecting from these. Natural terraces follow the hills' contours because of the mineral soil's peculiar inclination to compact into straight vertical walls. These—"cat steps"—unmistakable signatures of loess terrain—create a complex network of ridges, a hiker's dream of hilltop mazes with nonstop prairie vistas.

Most of Iowa's prairie long ago fell victim to the plow or the pavement. But because the Loess Hills are often too steep for row crops, pockets of high-quality virgin prairie remain. Big bluestem, little bluestem, sideoats grama, prairie clovers, lead plant and dozens of other grasses, sedges and flowering plants mottle the hills. Once fodder for long-vanished herds of bison, elk and pronghorn, they still offer a rich harvest to wild turkeys, pheasant and bobwhites, and refuge for foxes, mink and badgers.

Heron and ducks shelter in the creeks and ponds. By day, birds of prey wheel overhead, vultures and many breeds of hawks. By night, great horned and barred owls take over. The hills are also home to some animals more common in the far West. In places, the parching winds from the western plains and the intense heat of the afternoon sun create a desert-like environment for plains pocket mice, ornate box turtles, Great Plains skinks and prairie rattlesnakes.

Cattle have overgrazed some areas. Developers mine for fill dirt. Road construction leaves exposed cuts prone to erosion. Affluent homeowners fleeing the sprawl of Omaha, Council Bluffs and Sioux City set up 10-acre ranchettes, "landscaping" their rural getaways with invasive trees and fragmenting habitat with new roads. All this settlement brings perhaps the most powerful threat to the survival of the prairie: fire suppression. Without the occasional blaze, prairie quickly becomes overgrown with trees, which can't hold the fragile loess soil the way prairie vegetation does.

When Lewis and Clark passed within a few miles of this spot 200 years ago, it was largely a treeless landscape. Back then, fire would scorch any given patch of prairie every four to seven years. In autumn, the dry plants could fuel towering flames and intense heat. In 1832, the painter George Catlin described one as a "Hell of fires." These conflagrations could advance faster than a man on horseback could flee, but they were as vital to the survival of a prairie as water itself. Prairie plants evolved root systems up to 15 feet deep to survive the flames.

To bring fire back, Pape and his crew are part of a network of prescribed-burn fire-setters called the Stewardship Committee of the Loess Hills Alliance. Of the hills' 650,000 acres, only about 18,000—a patchwork of state, county and privately owned parklands—are under any sort of conservation management. The committee does its best to burn those areas as regularly

as nature once did. It's a sort of latter-day ecological posse, a band of professionals trained in fire management that convenes whenever and wherever conditions are right to incinerate bad guys like overgrown sumac, dogwood, eastern red cedar and the invasive Siberian elm.

Pape's ignition crew pushes chest-deep into the grass, which is dense and stiff and pushes right back. Drip torches upended, they sprinkle liquid fire onto the vegetation as they walk. The wind picks up, and soon a solid line of flame sweeps down the hill and up the next. To control it, some of the crew become walking fire hydrants, strapping bladder bags of water on their backs or wielding long poles with large rubber flappers on the ends to smother stray fires.

It takes less than an hour to transform the patch of lush prairie into a smoking black blanket. All around, the scorched skeletons of hundreds of young sumac trees stand, still vertical but ready to disintegrate into ashes. In a few weeks, this area will be green again.

THE PERIPATETIC PYROTECHNICIANS aren't the only ones dedicated to greening the prairie. Love of the hills has also grown in natives like David Zahrt, who has changed over his lifetime from third-generation cattleman to ardent defender of the prairie. "People ask me where I'm from," he says, "I say I'm from the West Coast. Of Iowa."

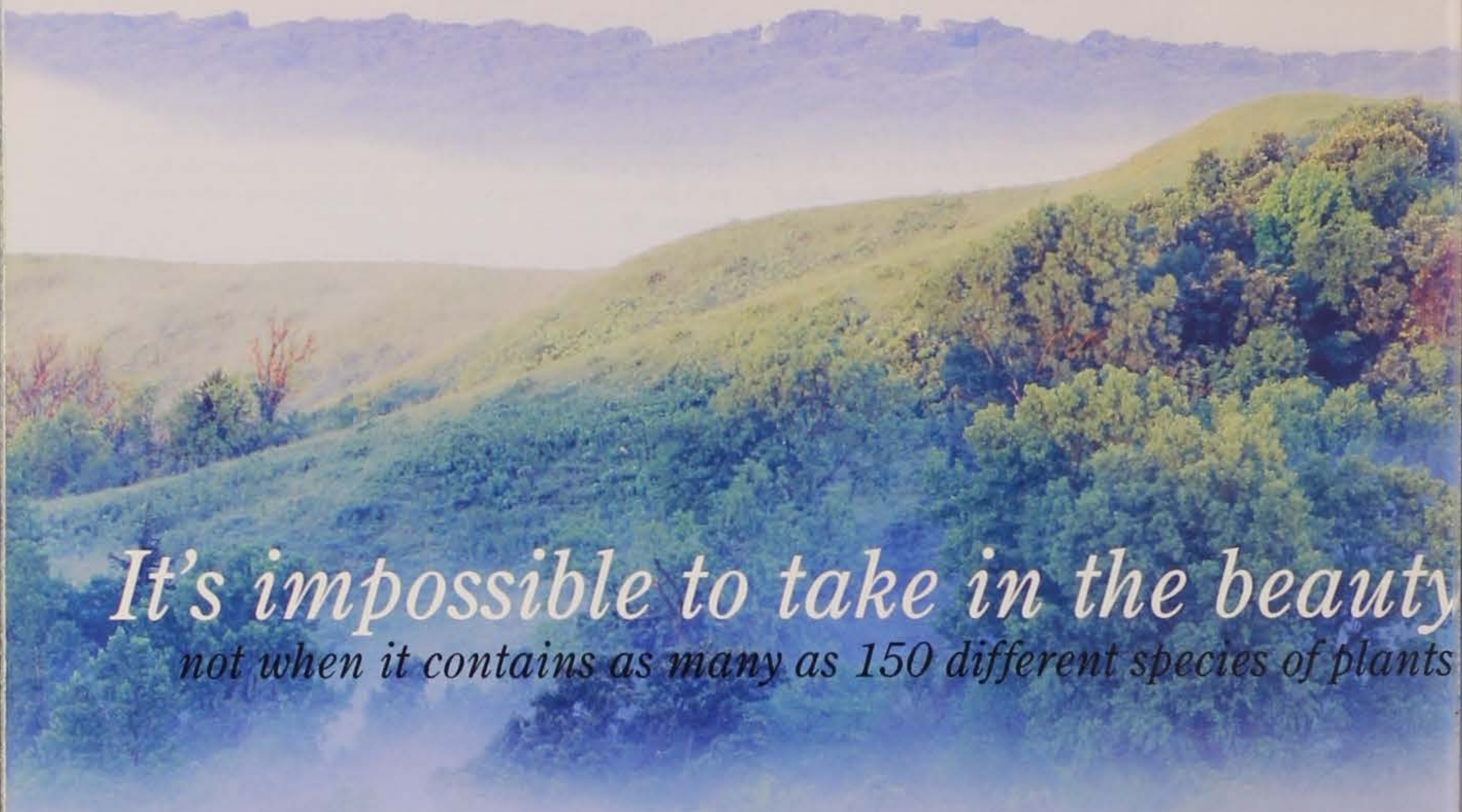
Having spent much of his 67 years outdoors, Zahrt stops for a smear of sunblock before stepping off the back porch and heading up into the hills about 45 miles south of Sioux City. His family acreage in the Loess Hills is now a bed and breakfast, where the price of an overnight stay often includes a guided prairie hike. Every ridge, every plant prompts a story.

"This is lead plant," Zahrt says, pulling at the seeds of a plant with tiny rows of dull blue leaves. "It appears as if it's already flowered." From here on, Zahrt grasps at lead plants left and right, raking the seeds off between his thumb and fingers and

Blown off Missouri floodplains and other rivers some 14,000 to 25,000 years ago, this fine-grained loess soil has the texture of flour. The soil is primarily silt, a mineral particle ranging 50 to 0.2 microns in diameter. (Human hair widths are 60 to 100 microns.) While most Iowa soils have a definite topsoil, loess has a uniform texture from the top 6 inches to its deepest depth. Its silt composition provides optimum pore space, giving loess one of the highest water holding capacities among Iowa soils. While a thin layer of loess blankets much of southern and central Iowa, the Loess Hills reach 150 to 200 feet depths.



Fine, powder-like soil of the Loess Hills



It's impossible to take in the beauty not when it contains as many as 150 different species of plants

dumping them in a plastic jug hanging from his belt.

It's impossible to take in the beauty of a healthy prairie on a single day, not when it contains as many as 150 different species of plants, each with its own moment of glory in the passage of the year. "The procession starts way back in April," Zahrt says. "You get the pasqueflower, then the ground plum. Then you get the hoary puccoon, then the prairie ragwort and the prairie violet, and it's just one procession after another."

Some of these plants fill a hillside with color, some hide down among the grasses. Like a good pointillist painting, a healthy prairie needs to be appreciated both up close and from afar. When the flowers fade in autumn, the grasses take over, exhibiting rich russet tones. Even early winter has its display, as seed heads dry into intricate and pleasing shapes.

At the top of a particularly steep ridge, Zahrt spots an ecological oddity of the Loess Hills. It's yucca, a desert plant usually found a time zone or two west of here.

"Are you familiar with the yucca seed?" Zahrt asks, and scurries down a nearly vertical bluff better suited to a goat than to a potential AARP member. A few minutes later, he bounces up with his reward, a well-formed yucca seedpod. "This is what it looks like when it's all through, see." He splits the pod to reveal a tight stack of flat black seeds.

"There's a moth that has symbiosis with this plant," Zahrt says. "It depends on the yucca or it's not going to live. And the yucca depends on the moth for pollination." Unlike insects that pollinate a variety of flowers, the *Pronuba* moth seems designed to no end other than yucca propagation.

It gathers pollen from one yucca's stamen, stows it in a special appendage, and deposits it on another yucca's pistil. Then the female buries her eggs in a seedpod, where her larvae will

feast on yucca seeds. Not too many seeds, though: The moth leaves enough pods egg-free to keep the plants coming. Sustainable agriculture, arthropod style. The next pod Zahrt splits open reveals no seeds, but a sodden mass of brown mush. "The moth takes his price, see?"

Later, back at the house, Zahrt shows off his prized player piano. From a red cardboard box, he extracts a paper roll, Cole Porter's "Don't Fence Me In."

"I claim that Cole Porter wrote this about the hills," Zahrt says. "In the chorus, it says, 'I want to ride to the ridge where the West commences.' You find the yucca naturally along this ridge. You find the yucca in New Mexico. So there's botanical evidence that this is the ridge where the West commences." We sing.

And sing. Cole Porter gives way to the music of Sylvan Runkel, Iowa's late, revered state naturalist, a champion of prairies, and a friend of David Zahrt's. The piano is mute as Zahrt's smooth back-porch baritone rises into a rendition of Runkel's "Ode to the Loess Hills."

*Away, away then I must go.
Up into these hills where the prairies grow.
And nature speaks to let us know
the wisdom in a flower.*

Partway through, the leathery Iowa guy pauses to hold back the tears.

PROTECTING THE LOESS HILLS, and Iowa generally, presents special challenges. By many standards, Iowa is already the most altered state in the union, with more road surface per square mile than any other state. Most of the hills are in private hands, a dense mosaic of residential and agricultural ownership.

Few outside of Iowa have even heard of the Loess Hills. Even



*ty of a healthy prairie on a single day,
ts each with its own moment of glory in the passage of the year.*

many Iowans don't know about them. Until recently, there were farmers who lived their whole lives in the Loess Hills and never heard the name.

The best hope for the Loess Hills is to work with the people who live there, to encourage a heightened appreciation of prairie, and to help them conserve their own land. A herd of cows managed the conventional way can suck the nutrients out of a prairie pasture and leave behind bare earth torn up by hooves. Some innovative cattlemen are experimenting with smaller herds, rotating them to fresh pastures frequently to imitate a roving herd of bison.

In 2001, the National Park Service sponsored a study of the Loess Hills. It was a ray of hope, a shot at a national park or at least some kind of federal protected status. The study called the hills a resource of national significance that would make "a suitable addition to the National Park System." But it concluded that the problem of multiple owners made a park impractical.

Instead, the agency recommended the formation of a broad-based local organization. This group, which came to be known as the Loess Hills Alliance, was to create a comprehensive land-management plan that would allow people to make a living on the land without destroying prairie. Eventually, an act of Congress could create a national reserve, offering some of the protections of a national park, but on private land.

The state chipped in some money for a salaried director, and for a while the Loess Hills Alliance looked to become a power. Then Iowa, like many states, hit hard times and cut off the alliance's funding. The organization now plods along with a volunteer director and limited influence and support.

Ironically, at a time when finding sustainable funding has been a struggle to preserve thousands of acres of rare, native

areas within the Loess Hills, the increased public interest in environmental destinations is being touted as a potential economical boon elsewhere in the state. Bolstered by a \$50 million federal appropriation, plans are currently underway to build a 4.5 acre indoor tropical rainforest near Red Rock Reservoir.

LOVERS OF PRAIRIE look with envy to the north Loess Hills, where woody invaders have made the least progress. At the northern terminus of the landform is Broken Kettle Grassland, a 7,000-acre expanse nearly unbroken by trees. It's owned by the Nature Conservancy, which recently named the Loess Hills one of its "Last Great Places." Scott Moats is the naturalist in charge.

The musical *Oklahoma!* has a song that begins, "The farmer and the cowman should be friends." In Iowa, add the conservationist. Moats has been all three, which well qualifies him to manage prairie and to teach others to do the same. Big and solidly built, Moats is part farm boy, part environmental policy wonk, as comfortable fixing fences or mowing firebreaks as he is discussing the finer points of invasive nitrophiles or making a passionate case for the economic and ecological benefits of herd rotation.

His father can remember farming with draft horses and the day electricity came to their farm. Moats lives right on Broken Kettle, just a few steps from a well-documented prairie rattlesnake hibernaculum, a fact that gives me pause when I watch his daughter toddling around the swings and toy horsies outside the house.

"When I first moved out here, everybody thought the Nature Conservancy was a fern-feeling, tree-hugging, granola-flake organization," Moats says. "I think we're a lot closer now, with the environmentalists and the agriculturists meeting in the middle. Our objectives may not be the same, but the end result will be." Fire here, like the blazes down at Stone State Park, is crucial.

As we ride through Broken Kettle in his pickup, Moats examines every hillside, evaluating the success of his last fire.

"Here's a response from a spring fire," Moats says, pointing out an expanse of big bluestem about as tall as he is. Before the fire, the area had become overgrown with non-natives like sweet clover and buckthorn, a European tree that's particularly hard to eradicate.

As the prairie plants thrive again at Broken Kettle, neighbors take notice and catch on to conservation. Elsewhere, prescribed prairie fires often meet with public resistance because of smoke and the perceived danger. Around Broken Kettle, the neighbors accept and even welcome fires.

"That house that sits up on top of Butcher Road, we use their lawn as a firebreak," Moats says. "They usually sit out on lawn chairs, drink beer, and watch the fire go by."

Moats has converted some neighboring farmers from skeptics to conservationists. They've seen excellent forage grow after a fire, seen calves get fat on native vegetation and take prizes at auction. Some now come to Moats for advice on managing their prairies. Even at 7,000 acres, Broken Kettle is a fragment. Moats is acutely aware that outside this privileged zone, preserving the Loess Hills is a race against time. "It'd be kind of interesting to see how much time we have left — if somebody would model out exactly how many years we have left," Moats says. "I'd guess it'd be 15."

On the other hand, a lot can happen in the next 15 years. The past 15 have witnessed a blossoming awareness of the beauty and ecological importance of the hills. The Loess Hills Hospitality Association has brought in thousands of tourists. A designated national scenic byway runs the entire length of the hills.

The Loess Hills Prairie Seminar attracts 250 to 300 participants each June for a weekend of hiking and learning. Despite its funding woes, the Loess Hills Alliance continues to meet, with representation from seven counties in the landform. The Sierra Club's Jim Redmond is lobbying to reinvigorate the alliance to enable it to prepare the management plan necessary for the creation of a Loess Hills National Reserve.

Prairie has a way of surprising us with its resilience. When Moats was a boy, his father handed him a package of prairie seeds, which he accidentally dropped in a pile on the ground. Native prairie seeds are expensive; some retailers sell the rarer varieties for as much as \$1,200 per pound. It was a tense moment for father and son, Moats recalls. "His reaction was, 'What'd you just do? You know how precious those seeds are?'" All that money, all those good intentions wasted. "Then suddenly, 13 years later, boom," Moats says. "Whatever condition they needed, it happened and they grew." 🐾

VISIT THE LOESS HILLS

To plan a trip to the hills, see www.loesshillstours.com.
For more about the Loess Hills Prairie Seminar, a weekend of outdoor education and hiking in June, see www.nwaea.k12.ia.us/programs/loesshillsseminar/



LOESS HILLS

SOME COMMON PRAIRIE FLOWERS TO LOOK FOR, FROM LEFT:

Button Blazing Star (*Liatris aspera*), Ground Plum (*Astragalus crassicaupus*), Stiff Sunflower (*Helianthus rigidus*), Ragwort



SPECIMEN PHOTOS BY CLAY SMITH;
DIRECTIONAL MAP: MAPQUEST.COM



ABOVE: Wild Yucca plant on Loess hillside.
RIGHT: A grouping of Loess Hills native wild
flowers including Big Bluestem, Little Bluestem,
Indian Grass, Lead Plant, Stiff Goldenrod
and Narrow-leaved Purple Coneflower.

GET INVOLVED

Attend the annual Prairie Rescue to save endangered habitat across Iowa. Clear invading brush and trees, plant seeds and help with prairie burns at events April until early May. Call the Iowa Natural Heritage Foundation at 515-288-1846 or visit www.inhf.org. Visit www.iowaprairienetwork.org to learn more about prairies.



Rising Water

Get Ready for Spring's Splashy Fun

STORY AND PHOTO BY NATE HOOGEVEEN

April showers...they aren't just for spring flowers anymore. As the ice breaks up and our rainy season begins, canoeists and kayakers begin salivating at the opportunity to rediscover Iowa's rushing waters.

It's a joyful time of year to view the changing landscape scrolling by from the seat of a canoe. In southern Iowa streams, purple hues prevail when redbuds bloom along with sweet Williams, just as bright green foliage begins to unfurl. In central Iowa, whitewater kayakers cavort their way down small streams that tumble into larger valleys cut by glacial meltwaters. The season arrives more slowly in the rivers of northern Iowa, but plentiful water is still attractive to paddlers seeking views of bare bluffs and stark outlines of hardwoods, cedars and pines.

GET IN SHAPE

Paddling doesn't have to be strenuous. But working on flexibility before your first trip is a good idea.

EARLY-SEASON TIPS

Be there no doubt: splashy fun is certainly the draw for spring kayak and canoe outings. But paddling safely is extra important while the water is cold.

Wear your life jacket: Most paddlers prefer U.S. Coast Guard Type III models with spacious arm holes for a free range of motion. Investing in such a jacket (\$50-100)—or a self-inflating life jacket (\$80-\$200)—makes it much more likely you'll actually use it. Life jackets that get in your way tend to stay in storage.

Dress right: Whenever the weather's cool, layering is important. Next to skin use a moisture-wicking layer, cover with an insulating layer, and seal with a wind/water blocking layer. Standard cottons (like blue jeans, t-shirts, and sweatshirts) are the enemy—they don't hold heat when wet. Wool, synthetic materials like nylon or polypropylene, and microfleece are helpful if you sweat or unintentionally get wet. If you suspect the air and water

Water

GET INVOLVED

Play in the ripples of the Raccoon River and help Iowa's water on Project AWARE (A Watershed Awareness and River Expedition), the DNR's annual volunteer clean-up and water monitoring event this June 16-23. For details, www.iowaprojectaware.com.

Doug Seyb of Donnellson, explores Van Buren County's Big Cedar Creek.

temperature do not add up to more than 100 degrees or so, added protection like a wet suit or dry suit is in order. The most common paddling injuries are to the feet—keep your dogs protected with old tennis shoes, boots or thick-soled neoprene paddling boots.

Plan for the worst: Capsizing isn't all that common, but the cold season is not the time to mess around. Paddle with experienced friends, and have a plan for assisting each other if something goes wrong. If a river is nearing bank-full or there is debris in the water, it's not a good idea to put-in. Either pick a different river or go hike instead.

SEEKING PADDLING BUDDIES:

One of the best ways to locate like-minded paddlers is by joining a club on an outing. Different clubs cater to different interests and regions of Iowa, whether it's a tranquil birdwatching float or Class III whitewater. A good

tool for finding clubs is at www.paddlingiowa.com/clubs/. Alternatively, simply find other paddlers near you by posting a message at www.paddlingiowa.com/forums/.

GEARING UP

A number of retailers carry gear to help you enjoy a safe and pleasant trip on the water. Some local shops include Canoesport Outfitters in Indianola, River Basin Canoe & Kayak near Burlington, Corn Cob Kayak and Canoe in Estherville, Craw Daddy Outdoors in Waverly, Seatasea Watersports and Great Outdoor Traditions in Cedar Rapids and Fin & Feather in Iowa City. National retailers such as Scheel's All-Sports, Dunhams, Bass Pro Shops, Sportsman's Warehouse and others also have paddling departments. 🐾

Nate Hoogeveen is the Iowa DNR Water Trails Coordinator and author of the guidebook Paddling Iowa.



Get the minnows ready, Fishin's gonna be goood!

BY MICK KLEMESRUD PHOTOS BY CLAY SMITH
ILLUSTRATIONS BY MAYNARD REECE

It's that itch that happens about the same time each year. You know the one. It usually starts with those sunny, March days when you find yourself in the garage staring at your empty fish basket hanging in the corner. You wish for May and some easy fishing.

Hey, while you're standing there, your friends are enjoying the weather, the water and the fishing you're only dreaming about. Yes, you read



MARCH

right. Fish will bite in March. Some of the easiest—and best—fishing all year is for channel catfish after ice melt.

"If I could ever guarantee a time people can catch fish, that would be the time," says Lannie Miller, a fisheries biologist with the DNR.

CATFISH gorge on fish that died during the winter. As the ice goes out, dead fish blow in to shore, with hungry catfish in tow. Catfish hammer dead shad or cut bait, like chunks of bait fish or small panfish, near the shoreline facing into the wind in less than 5 feet of water. This technique is used across Iowa.

The Coralville Reservoir around the I-380 bridge offers stringers of mostly 2- to 4-pound catfish, with some up to 10 pounds. At Lake Rathbun, all sizes of catfish are available. "Rathbun is an exceptional catfish fishery," says fisheries biologist Mark Flammang.

Fish the upper end of Lake Icaria and Little River, the shallow areas at Green Valley and Binder Reservoir for 2- to 3-pound catfish. Storm Lake rolls and boils from the catfish frenzy, too. The same phenomenon plays out every spring in the Mississippi River backwaters and in the upper pools, where **NORTHERN PIKE** and even **BLUEGILLS** will also join the buffet.

As northern Iowa lakes open up, **WALLEYES** at Clear Lake move to rocky shorelines preparing to spawn. "We are riding a really good walleye population right now," says Jim Wahl, fisheries biologist. Wade-in fishing is the preferred method. Cast a jig and a minnow along the east shoreline near the outlet, the Island and Dodges Point/Methodist camp. "Now is the opportunity for the person without the big boat," Wahl says.

Silver Lake, at Lake Park, is another wade-in walleye fishery. Fish a jig and minnow on the north side of the



NORTHERN PIKE

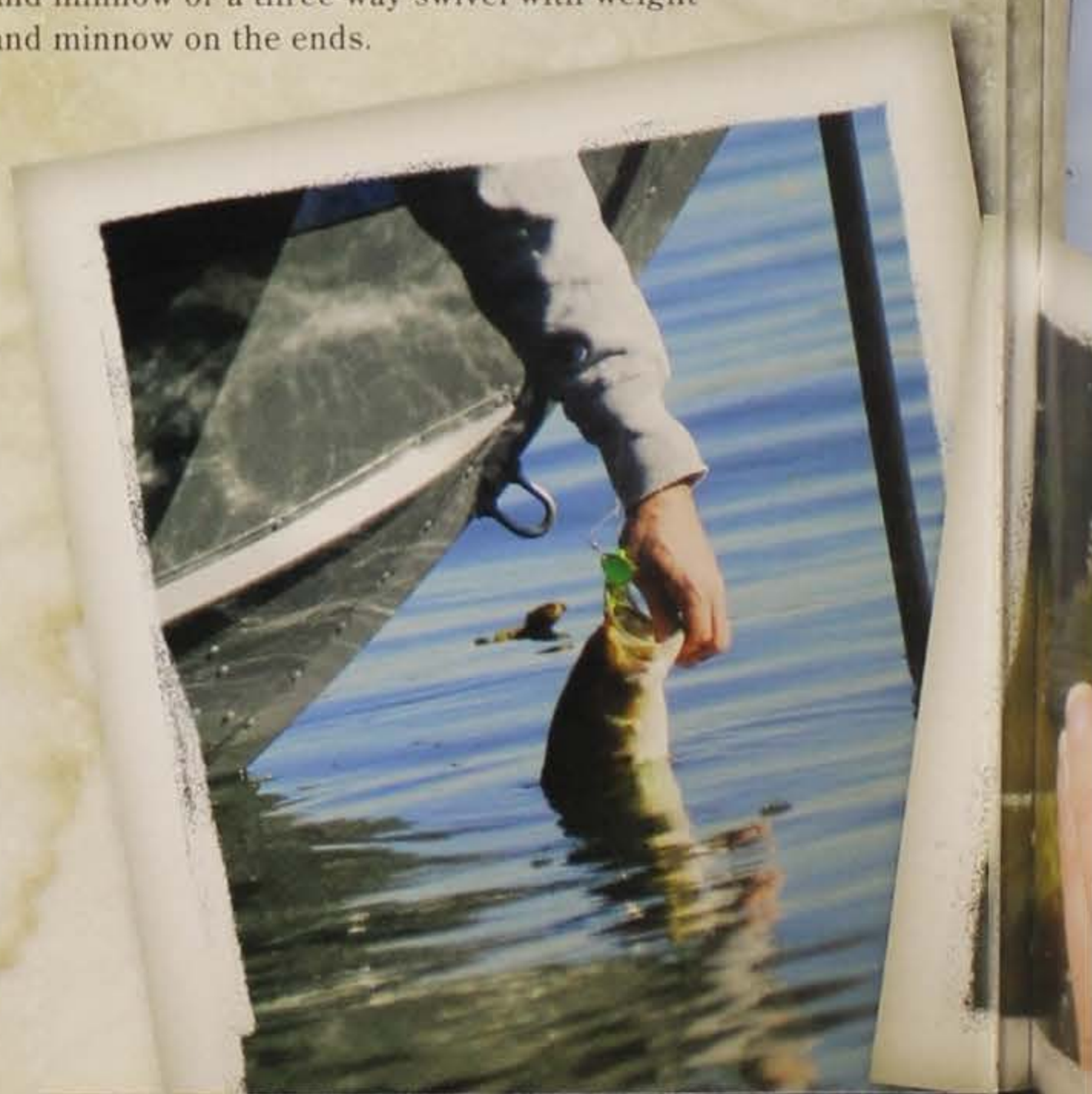


CHANNEL CATFISH

lake or on the south side around the island. At Lake Sugema, try the face of the dam and the points in the lower half at dusk with a crankbait or minnow under a bobber. Sugema has a lot of 14- to 19-inch fish, plus trophy size walleyes, and spring is when they are caught.

Ice-out walleye fishing is excellent in the East Fork of the Des Moines River at Algona and the Iowa River between Alden and Iowa Falls. In the Mississippi River tailwaters of pools 15 and 17, walleyes hit jigs and minnows in areas with current.

SAUGERS run below Mississippi River dams in mid-March. Target water 20 to 35 feet deep with a jig and minnow or a three-way swivel with weight and minnow on the ends.



BLUEGILL



WALLEYE



BULLHEAD

SAUGER



Keep the bait just off the bottom and fish areas with sand, and jig up and down. Mastering the drift is the key to success. Saugers of all sizes up to 19 inches are available.

Fishing is closed in the tail-waters below *Dubuque*, *Bellevue* and *Clinton* until March 16. When it opens, anglers use a jig and minnow or a three-way with either a spinner, floating jig or plain hook tipped with a minnow. There is decent below-dam shore access below Dubuque.

BULLHEAD fishing at *Rice Lake* is excellent for 3/4-pound fish. Rice Lake is shallow and warms quickly. The technique is simple: bait a hook and sinker with a night crawler and fish the bottom along windy shorelines on warm days.

Not to be outdone, **LARGEMOUTH BASS**—yes, largemouth bass—fishing at *Prairie Rose* is excellent using rubber worms and a slow retrieve. Largemouth bass also are on the move at *Lake Miami*. Toss a jig and pig (a leaded jig with a pork trailer) just under the surface in the standing timber for bass up to 8 pounds. The best fishing is during consistent weather that is trending warmer.

APRIL

Through mid-April, **CHANNEL CATFISH** at *Lake Darling* continue biting on cut bait. The best fishing is on sunny days in the shallow bays. Channel catfish are also active in the *Missouri River*. Fish the scour holes on the downstream sides of wing dikes with stink bait, cut bait, liver, or shad guts. There are channel catfish of all sizes in



APRIL

(CONTINUED)

the Missouri River and this technique works as long as there is open water.

TROUT hatcheries begin stocking streams weekly on April 1. Streams with easy access are *Baileys Ford*, *Richmond Springs* and the *Turkey River at Big Spring*. Trout streams in the Decorah area experience a mayfly and caddisfly hatch, making this a great time to fly-fish trout. *French Creek* and *North Bear* have consistent hatches as well as naturally reproducing **WILD BROWN TROUT**.

Walleye fishing picks up as "ol' marble-eyes" prepare to spawn. **RIVER WALLEYES** move upstream and gather below low-head dams. In the *Wapsipinicon River*, use a jig and minnow below the dams in *Anamosa*, *Central City* and *Troy Mills*. At *Clear Lake* and *Storm Lake*, wade-in anglers will be looking for traditional spawning areas and hammering the male walleyes in the evening. At *Storm Lake*, fish the east shore, north of the boat ramp. On the north side, fish the rocky west side of *Chautauqua jetty*. Use a 1/8-ounce white or chartreuse twister (with gold or silver flecks) tipped with a minnow and fish in water less than two feet deep.

Walleyes also are stacked at the dam on *Three Mile Lake* and *Little River*. *Lake Icaria* has a good number of 2-pound walleyes and lots of younger fish coming on after a lake renovation project three years ago. At *Lake Manawa*, fish the south shore with a chartreuse jig tipped with a minnow. Manawa has good numbers of bucket-busting walleyes exceeding 20 inches.

MUSKIE fishing at *Three Mile Lake* takes off in mid-April. Fish the outside edge of the weed lines or fallen timber bordering shallow water using larger bass-type crankbaits and spinner baits and fish aggressively. There is a nice population of 35- to 45-inch muskies.



MUSKIE



SMALLMOUTH BASS

Warm April days mean **SMALLMOUTH BASS** get active around the rock piles at *Spirit Lake*. The best bait is a jig and a minnow. "You can spook them, so you want to know your areas and cast in to them," says biologist Jim Christianson. Those areas are *Stoney Point*, *Reeds Run*, *Red Nose* and *Little Stoney Point*, all on the east side of the lake. At *East Okoboji Lake*, **CHANNEL CATFISH** fishing is excellent north of the narrows on cut bait for a huge population of fish from 2 ½ to 5 pounds. At nearby *Lost Island Lake*, **CRAPPIES** bite before the spawn. Fish in less than 2 feet of water with a jig and minnow for dandies 10 to 12 inches long.

Fishing is really good for 10- to 12-inch **BULLHEADS** at *North Twin Lake*. Use a 1/8-ounce lead-head or a slip sinker and hook tipped with a night crawler and fish in *Muddy Bay* where the creek enters the lake or at *Featherstone Park*.

In late April, **CRAPPIES** become active. These prespawn crappies will not be right on shore, but out in 10 to 12 feet of water. Use jigs tipped with minnows floated under a bobber. This tactic works on a number of lakes including *Lake Delhi*, *Martens Lake [Sweet Marsh]*, and *Meyers Lake*, near *Evansdale*. Lakes in *Adair County* are full of 9- to 12-inch crappies. Use red and white, chartreuse or yellow tube jigs along rocks or woody structure near shore. *DeSoto Bend* has an excellent population of large crappies and the best fishing is on the southeast corner of the lake, near woody debris. Don't overlook the lagoon area at *Lake Manawa*.

At the same time, **WALLEYES** are active at *Lake Macbride*. The key is to still fish the rock reefs with a jig and minnow or a night crawler on a harness. Walleyes range from 14 to 18 inches. 🐟



LARGEMOUTH BASS



BROWN TROUT

WHITE CRAPPIE



Big Creek
State Park



LEARN MORE

New to fishing? Don't understand something in this article? Check your local bait shop for assistance. Nearly 400 are listed at www.iowadnr.gov under bait dealers on our fishing pages.



TAKING OUT THE TRASH

Name any lake or river in Iowa, and chances are unsightly bait containers, sacks, pop and beer cans, old fishing line, candy bar wrappers and broken equipment dot the shores and float the waters.

"We are our own worst enemy when it comes to littering," says Marion Conover, chief of the DNR's fisheries bureau. "We anglers need to do a better job of being good stewards of the resource and to pick up after ourselves."

Anglers looking to pass along the fishing tradition should include a lesson in fishing etiquette:

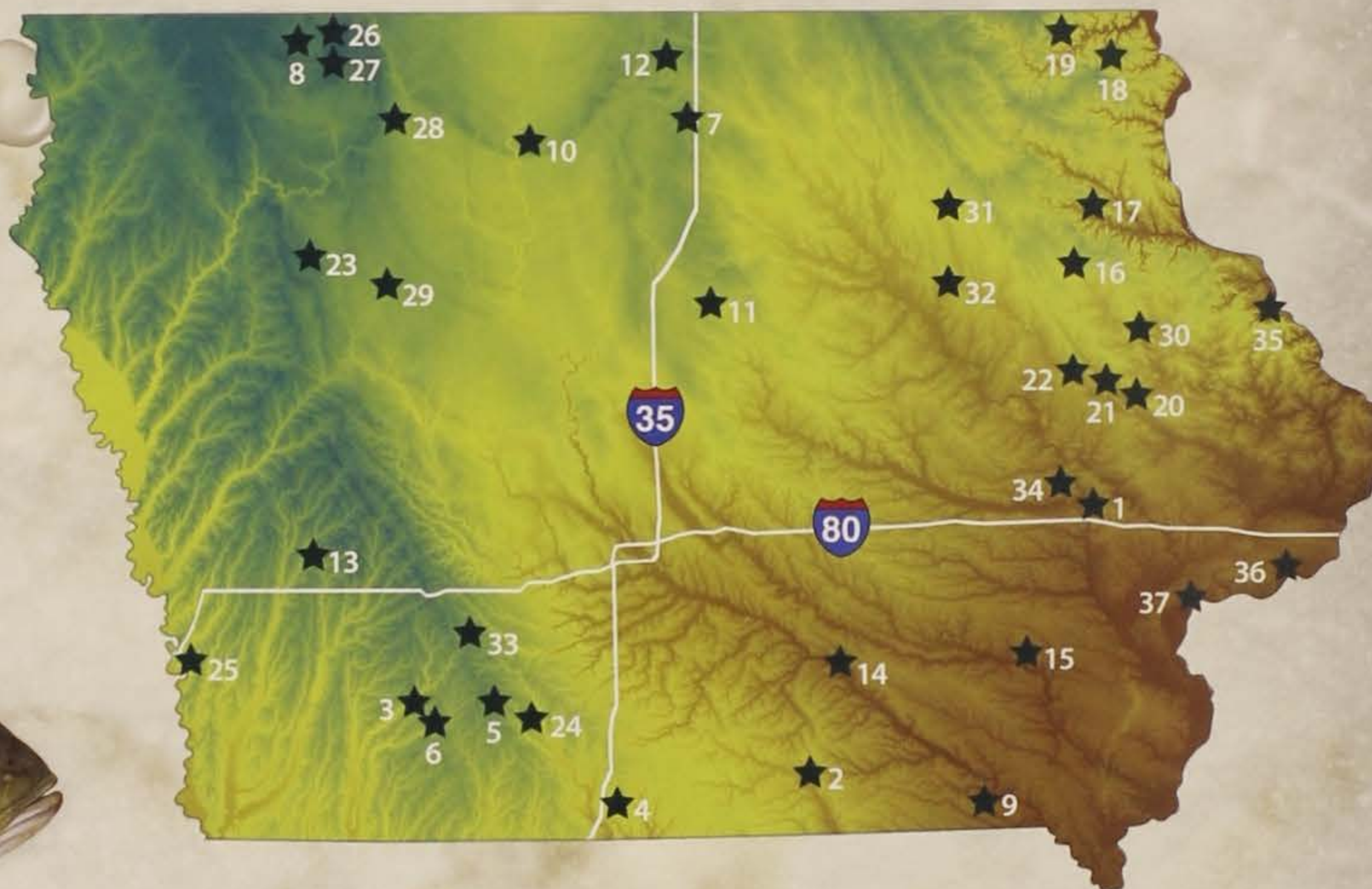
- **Treat fellow anglers with respect.**
- **Leave no trash behind. Pick up trash you find, even if it isn't yours.**
- **Obey all fishing laws.**
- **Be respectful of the resource and only keep fish you plan to eat.**
- **If you don't keep the fish, promptly land it and return it to the water.**
- **Don't crowd other anglers. If fishing from a boat, give room to shoreline anglers.**
- **Boat anglers should consider others on the water and not boat too close, or pass anglers at a high rate of speed.**
- **Sound travels well over water. Keep radio, phone and other conversations at a low level.**

Anglers are judged by the actions of a few. Be a good steward of the resource, and demand others to practice good fishing etiquette as well.

STAY TUNED FOR THE NEXT ISSUE OF IOWA OUTDOORS FOR AN IN-DEPTH LOOK AT SUMMER FISHING TIPS, TRICKS AND TECHNIQUES.

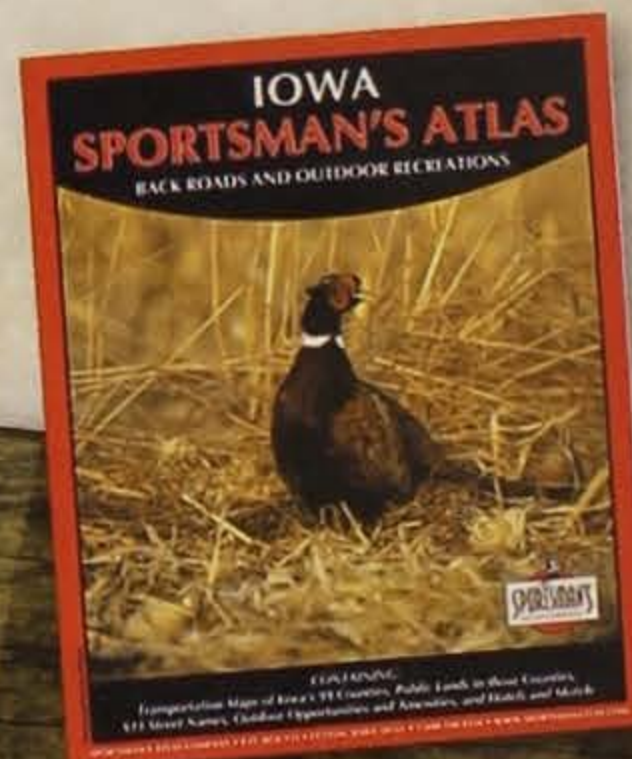
FISHING HOLE FINDER

BUY LICENSES ONLINE AT WWW.IOWADNR.GOV



- | | | |
|--|------------------------------------|------------------------------------|
| 1) CORALVILLE RESERVOIR | 13) PRAIRIE ROSE | 28) LOST ISLAND LAKE |
| 2) LAKE RATHBUN | 14) LAKE MIAMI | 29) NORTH TWIN LAKE |
| 3) LAKE ICARIA | 15) LAKE DARLING | 30) LAKE DELHI |
| 4) LITTLE RIVER | 16) RICHMOND SPRINGS | 31) MARTENS LAKE |
| 5) GREEN VALLEY | 17) TURKEY RIVER,
at Big Spring | 32) MEYERS LAKE,
near Evansdale |
| 6) BINDER RESERVOIR | 18) FRENCH CREEK | 33) ADAIR COUNTY |
| 7) CLEAR LAKE | 19) NORTH BEAR | 34) LAKE MACBRIDE |
| 8) SILVER LAKE,
at Lake Park | 20) ANAMOSA | 35) DUBUQUE |
| 9) LAKE SUGEMA | 21) CENTRAL CITY | 36) DAVENPORT, Pool 15 |
| 10) EAST FORK OF THE
DES MOINES RIVER,
at Algona | 22) TROY MILLS | 37) MUSCATINE, Pool 17 |
| 11) IOWA RIVER, between
Alden and Iowa Falls | 23) STORM LAKE | |
| 12) RICE LAKE | 24) THREE MILE LAKE | |
| | 25) LAKE MANAWA | |
| | 26) SPIRIT LAKE | |
| | 27) EAST OKOBOJI LAKE | |

Find your next favorite fishing hole with the new *Iowa Sportsman's Atlas*. Complete county maps pinpoint all public lands, hardsurface, gravel and dirt roads, plus rivers, creeks and lakes. The most accurate guide to all outdoor recreation in Iowa. Large format 13 1/2 x 11 1/2 inches and spiral bound for easy use. \$21.95, 108 pages. Available at 1-866-410-0230 or iowanaturestore.com.




Death on the Dunes

Biologists Fight to Save North America's Sleepiest Turtle

STORY AND PHOTOS BY LOWELL WASHBURN

It's tough being a tiny turtle. Given constant predator threats, drought and changing habitat, the odds of a mud turtle surviving seven years to breeding age are slim. Buried beneath the sands and inactive nine months a year, the turtle and its dime-size hatchlings in southeast Iowa's Mississippi river sand prairies face a population crash so severe maybe a year remains to save the species.

At the Big Sand Mound Nature Preserve, snug against Mississippi River backwaters along the Louisa and Muscatine county line, a diverse 510-acre refuge owned and protected by MidAmerican Energy and Monsanto forms the last bulwark for the endangered mud turtle.



Dime-sized yellow mud turtle hatchling.
Photo by Ron Johnson



Adult mud turtle

Unfortunately, 99 percent of Iowa's sand prairies were long ago destroyed to grow corn, beans and Muscatine melons, which thrive on its hot sands. At least for the little remaining habitat, the two corporations and others work to protect and restore the preserve and the turtles, too, Iowa's second smallest species. The black-skinned hatchlings are less than an inch long, with yellow dotting the edges of their oblong shells. The companies have won praise from the national Wildlife Habitat Council for their work.

Geologists call the sand mound prairies one of Iowa's most unique ecosystems. Unusual dunes shift in the winds, prickly pear cactus beds flourish, reptiles sunbathe and the area mimics the arid American Southwest more than the nation's breadbasket. The preserve is home to more threatened and endangered life than anyplace in Iowa. It's where termite-eating lizards like the six-lined racerunner then nourish endangered western hognose snakes. Cricket frogs and chorus frogs call. Voles scurry.

Fowler's toads, their calls likened to cries of a newborn child, spend much of the year buried in its sands, emerging evenings to feed. Southern bog lemmings scamper in its grasslands, wet meadows and wetlands. Endangered plains pocket mice populate the dunes. Iowa's rarest mammal, the least shrew, is found only in undisturbed sand prairie.

Here, scientists and staff from Mount Mercy College, MidAmerican Energy, Monsanto, and a retired Drake University biologist now at the University of Texas labor to study mud turtle decline and aggressively work to protect them. Since the 1970s, biologists have journeyed into the dune- and cactus-dotted preserve to trap and mark turtles, search for nests, and monitor numbers of hatchlings that, dehydrated, weak and tiny, desperately search for drink and food. By mid-April they reach the waters of Beatty's Pond, Monsanto Pool and Large South Pond to feed on dead fish, crayfish, insects and snails





OPPOSITE: An adult mud turtle. LEFT: Green algae on the shell of this adult mud turtle tells biologists the turtle is returning from the pond. Turtles leaving the dunes lack the green covering. This specimen is at least 11 years old. The rim around the shell of marked turtles are notched with a hacksaw which doesn't harm the turtle, but leaves unique, permanent marks for researchers to track. BELOW: Panoramic shot of the Big Sand Mound Preserve shows open sand "blowouts" critical to habitat. Shifting sands keep them open, but as trees encroach they hold the sands in place. Burns and mechanical removal of large trees help to restore the ecology, reduce predators and aid the turtles and other rare species.



before returning to the dunes mid-July to nest. It's the shortest mealtime of any North American turtle.

Most common across the deserts of Texas, eastern New Mexico and Mexico, Iowa's mud turtles are extremely isolated. They, along with other desert plants and animals invaded Iowa during a period of hot and dry climate beginning about 8,000 years ago.

Once a mud turtle haven, slow changes to the sand prairie landscape are causing populations to crash. Since settlement, sand prairies were eliminated. Humans suppressed fire—nature's prairie lifeguard—in remaining areas, slowly allowing trees to infiltrate the dunes and shading buried eggs that require high heat to develop. Trees create habitat for raccoons, which lie in wait from above, scanning for bite-sized turtles and eggs. Buried mud turtle eggs hatch in fall, but hatchlings wait until spring to emerge, finding skyscraper-like tangles of downed limbs, trunks and branches—huge obstacles


for tired turtles. "Raccoons patrolling the area get high percentages of the turtles," says Dr. James Christiansen, the former Drake biologist, who after two decades of research knows more about the turtles than anyone. The dunes just aren't the same place they were a century ago.

"If the trend is not reversed...there will be no yellow mud turtles left to capture by the spring of 2008 or 2009," laments biologist Dr. Neil Bernstein of Mt. Mercy College in Cedar Rapids.

Whether they're adults, eggs or hatchlings—raccoons love to eat turtles. Unlike ornate box turtles, adult mud turtles can't pull their hind legs into the shell. Raccoons chew off the legs of palm-sized adults then eat the shell's contents. A hatchling's shell is merely a walnut shell to a raccoon and offers no defense. In the desert Southwest, devoid of raccoons, mud turtles never evolved to fend them off, says Christiansen. And now, here, they suffer.

When the study began in 1988, researchers captured





“We could lose a very
that’s been living here
only shave so many,
is no stick left,”



"This preserve is recognized as being extremely unique, and I don't think there's another place exactly like it," says Joe Bannon, MidAmerican Energy environmental manager. But there are challenges. Preventing the sand prairies from being over-run and destroyed by invasive, woody plants requires carefully prescribed burns, girdling of tree bark and labor-intensive mechanical removal for large trees. "What we hope to accomplish is to combine several small fragments into one large sand prairie. As we continue to remove woody vegetation we hope to create something more hospitable for the unique animals that live here," he says.

Monsanto and MidAmerican are using trappers to remove raccoons that feast on the turtles. "I'm really anxious to see how the trapping helps," says Connie Veatch, Monsanto's environmental coordinator. If the trapping works, turtles could rebound in a year or two, says Bannon.

unique and interesting species
for a very long time. You can
pieces off the stick until there
says Dr. Bernstein.

A FAMOUS HERPETOLOGIST'S RARE DISCOVERY

While monitoring mud turtle populations at the Big Sand Mound Prairie Preserve, Dr. James Christiansen, a natural history author, reptile researcher, and retired biology professor at Drake University, heard the distinct call of a bullfrog in distress. Knowing such calls often lead to interesting observations, he hiked to the edge of a large pond to find the frog being swallowed head-first by a large water snake.

Evasive, the snake escaped into underwater vegetation. After an unsuccessful, intensive search, the distress calls resumed, but muffled. Christiansen found the calls coming from inside the bulging snake. Upon capture, Christiansen realized his rare find—a federally endangered copper-bellied water snake, unseen on the preserve since 1975. Alone, he snapped a one-handed documentary digital photo—the other hand clutching the snake.

Upon release, the agitated water snake regurgitated its meal. The indestructible bullfrog, now liberated, quickly hopped and disappeared into the pond in spite of being in the snake belly at least half an hour.





COULD TURTLE SECRETS ADD A CENTURY TO HUMAN LONGEVITY?

In nature, each species has its place in a fully functioning ecosystem. But rare and endangered plants and animals have practical uses too.

Researcher James Christiansen studies turtle "super cells" that fight bacteria at near-freezing temperatures to protect turtles during hibernation. NASA funds his research, interested in future attempts to cool astronauts to similar temperatures to slow the aging process in order to reach distant solar systems.

Another study relates to human longevity. Unlike humans, aging turtles not only continue to grow new tissue, they don't physically deteriorate during aging, instead dying due to cars, raccoons or infectious disease, but not old age. While human cells divide about 50 times before telomeres in DNA begin to create genetic mistakes, turtles may get a burst of telomeres early in life. If the turtle's secret is found, it could help maintain human telomeres to extend human lifespans and help repair tissue.

Three adult yellow mud turtles
captured in a pitfall trap.



519 adult mud turtles and 168 hatchlings at Beatty's Pond. During last year's monitoring, 37 adults and one hatchling were counted. The region's population is crashing too. A few survive near Ft. Madison. The largest Illinois population is fewer than 25 turtles. Missouri is down to three. Iowa is the turtles' best bet in the upper Midwest.

DEATH NESTS

The food-laden backwaters of the Mississippi River are a raccoon Valhalla. Over a third of nested mud turtles never escape their raccoon raiders, likely an underestimate. Underground and undetected by biologists, to a lesser extent, snakes also feed on eggs and hatchlings. "When a really good predator, like the raccoon, learns what a nest smells like it becomes very efficient at locating and destroying additional nests. Once a raccoon begins to actively search the dunes for turtle eggs, it becomes more and more effective," says Bernstein.

"The majority of the mud turtles we're capturing these days are unmarked. The original adults that should still be here have vanished and we're no longer finding hatchlings. We're also not seeing young mud turtles live to breeding age," says Bernstein. Adults may live 35 years.

"Although we've observed the destroyed nests of other species, we did not see any evidence of mud turtle eggs during last season's monitoring session. Some people wonder if mud turtles are still breeding here at all," he says.

FIGHTING TO SAVE THE SPECIES

But efforts are underway to try to save the turtles by aggressively removing invading trees and brush: red cedar, black cherry, buckthorn and woody plants that threaten dune ecology. Controlled burns now restore the balance. Invasive trees are girdled or cut and chipped on-site. The Boy Scouts are involved too; Troop 560 from Cedar Rapids lends a hand each year. MidAmerican leveraged a DNR landowner incentive grant to conduct habitat improvements with other partners like The Nature Conservancy. And both companies paid to deepen portions of ponds to sustain water through the summer.

"Unless checked, woody succession could take out rare plant and animal life," says Bernstein. "Unfortunately, succession favors predators, like the raccoon. If successful, removal of woody vegetation could help preserve the unique features (flora and fauna) of the dunes while, at the same time, make the area much less

On a rainy, cold spring day, biologists James Christiansen and Neil Bernstein (with backpack) are aided by Mt. Mercy student researcher Jennifer Schubert as they shore-up and inspect over 3,200 feet of drift fence used to collect turtles. Turtles that fall into 31 bucket pitfall traps along the line are counted, inspected and marked before release. The entire fence-bottom is buried under four inches of sand and staked to make it "turtle tight." **BELOW:** The red eyes and legs of this ornate box turtle are typical of males.

GET INVOLVED

Help ornate box turtle research by contributing to the Fish and Wildlife Fund on line 59 of Iowa's tax form.

attractive to predators." If the habitat work fails to show immediate results, the mud turtle is in deep trouble.

In addition to restoring the prairie balance, biologists are pinning hopes on emergency predator control: raccoon trapping. Local trappers worked last winter, contracted to live-trap and euthanize the masked bandits. Again this spring when mud turtles get active, trapping resumes. To help the turtles, the DNR allows out-of-season trapping on-site during the hatch. During this time, MidAmerican and Monsanto pay the trapper, since pelts cannot be sold out-of-season.

The mud turtles may face other threats too. "Since mud turtles are inactive for so much of the year, spring is about the only time they eat or hydrate," says Bernstein. "It's a time when they have a very critical need for wetlands. One of the things we don't yet know is how to factor in the loss of wetlands or pumping of water by cities or industry. It's possible that this could be an important component to the species' survival."

For now, trapping could be the turtle's last chance. "It's startling, but true. We could lose a very unique and interesting species that's been living here for a very long time. You can only shave so many pieces off the stick until there is no stick left," says Bernstein. 🐢

ORNATE BOX TURTLES FLOURISH AMID MUD TURTLE DEATH

The ornate box turtle is one the most beautiful and interesting wildlife found in Iowa. Unlike most turtles, ornate box turtles are non-aquatic, their entire life cycle tied directly to the sand prairies where they feed, breed, live and die. Maturing at 6 to 9 years of age, females lay clutches of four to six eggs. This small clutch size is offset by the reptile's amazing longevity: a century, perhaps longer.

The state's largest ornate box turtle population resides at the Big Sand Mound Nature Preserve, where researchers study the species along with its critically endangered cousin, the yellow mud turtle.

Most ornate box turtles captured and examined last spring were "recaps" or specimens previously captured and marked. Scientists found stable or slightly increased numbers of hatched box turtles and young box turtles survive to breeding age.

While mud turtles disappear from the sand prairies, ornate box turtles are at their highest monitored levels. With better armored shells where they can entirely and safely retreat, box turtles are more resistant to mammals than mud turtles. Box turtles also tend to lay eggs at greater distances from water, where raccoons are unlikely to find them.

Two problems facing mud turtles, raccoon predation and a lack of water at critical times, aren't as crucial for ornate box turtles. "First of all, box turtles don't need wetlands. And although raccoons may destroy the nests of both species, they cannot destroy adult box turtles. When a raccoon attacks an adult mud turtle, the turtle usually gets eaten," says Bernstein.



Earth Day

On April 22, 1970, some 20 million Americans staged an environmental protest to, according to Earth Day founder Gaylord Nelson, "shake up the political establishment and force this issue onto the national agenda." At issue was society's overt indifference and disregard for the environment as pollution filled waters, woods and air. That first Earth Day led to the creation of the Environmental Protection Agency, and ever since, the day is marked with tree plantings, prairie rescues and similar acts. Make Earth Day part of your family plans. Better yet, make every day Earth Day. **HERE'S HOW:**

*** Reduce, reuse and recycle.** Check with your waste management provider to make sure you are recycling everything you can.

*** Build a bat house for insecticide-free bug control**
(www.batcon.org)

*** Help clean-up Iowa rivers. REGISTER FOR PROJECT AWARE—A Watershed Awareness River Expedition**
(www.iowaprojectaware.com)

*** Buy a REAP LICENSE PLATE.**
Proceeds help fund parks, playgrounds and other outdoor activities.

*** Save up to 25 GALLONS PER MONTH** by turning off water while brushing teeth. Shorten daily showers by just a minute or two and save a whopping 150 GALLONS PER MONTH!
www.wateruseitwisely.com

*** Start a compost pile** for yard and kitchen waste to make a great soil additive rich in nutrients.

*** Plant a tree** for habitat, shade and to remove carbon dioxide from the air
(WWW.IOWADNR.GOV/FORESTRY/PLANT.HTML).

GET INVOLVED LOCALLY. ORGANIZE A NEIGHBORHOOD CLEAN-UP DAY AND GET RID OF UNSIGHTLY LITTER. OR GO TO WWW.KEEPERSOFTHELAND.COM FOR VOLUNTEER OPPORTUNITIES IN YOUR AREA.

Fresh Foraged, Pan-Seared Wild Asparagus

SAVORING THE FRESHNESS OF THE SEASON HAS NEVER BEEN SIMPLER OR THIS HEALTHY.

Even if you don't like cooking, this simple preparation offers a rich, smoky sweetness. The perfect picnic side dish or reward for spring campers who forage Iowa's rolling lands for this treat, wild asparagus is a simple joy.

For those unwilling to forage the countryside, farmers market or store-bought seasonal asparagus is equally sweet. The browning caramelizes and enhances the flavor, imparting an

almost meaty quality to this green nutritional wonder.

To get the most from this spring treat, use only the tender portion of the stems. Use the flex test to bend each stalk, cutting and discarding the fibrous stem portions that do not bend. Wash and cut asparagus into 1-inch pieces. Add 1 tablespoon canola oil to camp stove skillet, heat and add asparagus. Saute and stir occasionally until browned on

all sides, about 5-10 minutes. Lightly salt and pepper to taste. Simple. Delicious. Wonderful.

PEP IT UP

Big outdoor fun deserves bold flavors. Top with freshly grated parmesan cheese, or add that other sought-after spring delicacy, morel mushrooms, to the mix.

Get outside. Hike, forage, munch.

NUTRITIONAL POWERHOUSE: Asparagus has beneficial health properties for the kidneys, liver and digestive system. It contains the antioxidant glutathione and is fat and cholesterol free, rich in vitamins and contains folate and dietary fiber.

Nutrition Facts

Serving Size: About 5 spears

Amount Per Serving

Calories 20 Calories from Fat 0

% Daily Value*

Protein 3g

Total Carbohydrate 3g

Dietary Fiber 3g

Vitamin A 8%

Vitamin C 20%

Thiamin 15%

Riboflavin 6%

Niacin 6%

Folate 60%

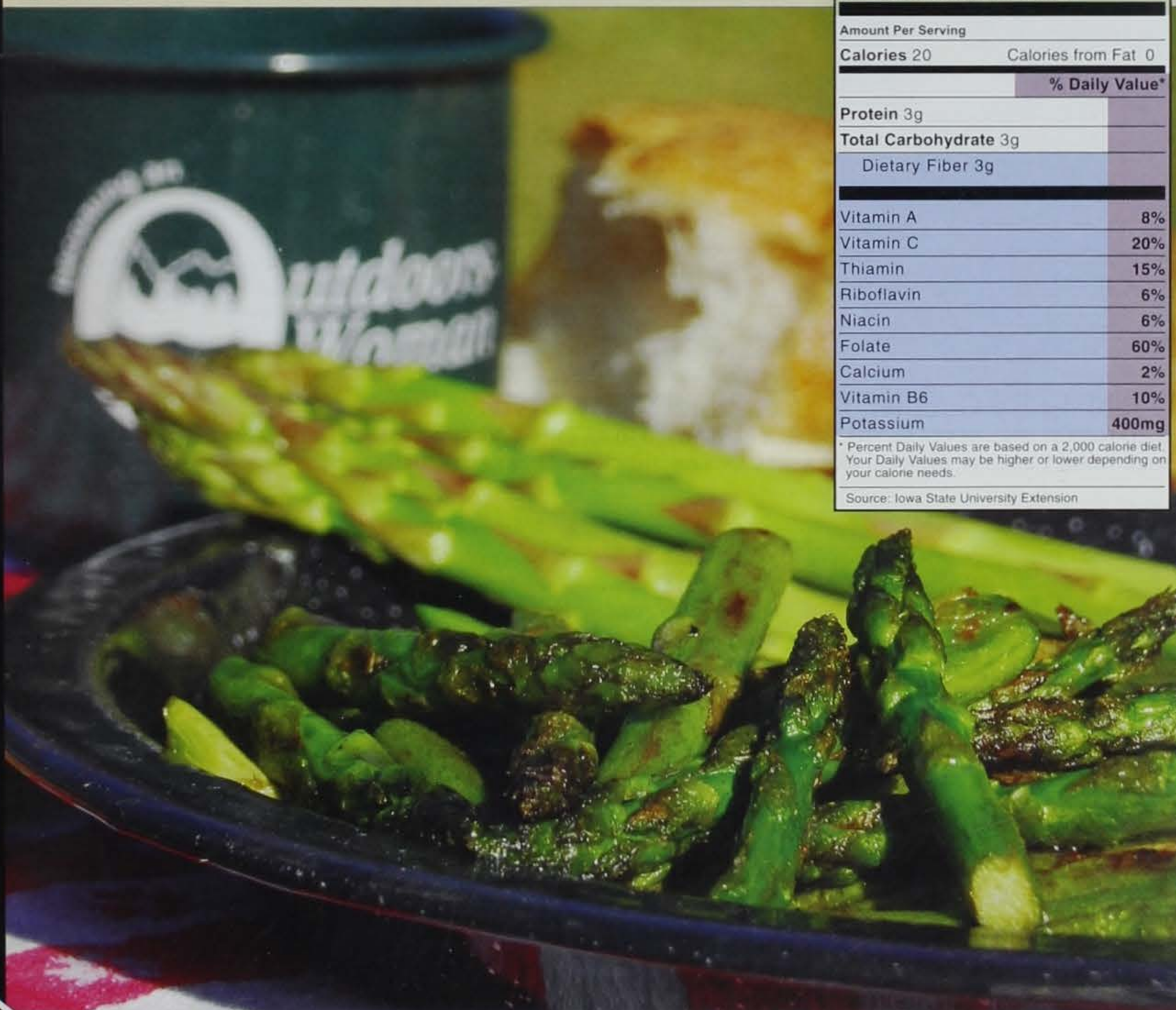
Calcium 2%

Vitamin B6 10%

Potassium 400mg

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

Source: Iowa State University Extension





Hazelnut Stuffed Wild Turkey Breast with Fig Molasses and Ancho Chile Sweet Potato



Chef/Owner Matt Steigerwald

Pretty Mount Vernon, city on a hill, home to the Lincoln Cafe and this North Carolina transplant who offers fabulous fare. If Oprah gave him three pages in her magazine, then he's our kind of guy. One of Iowa's celebrated chefs, Matt Steigerwald wows eastern Iowans with his zeal for new tastes. "I am driven by flavors, strong flavors. I am constantly thinking about food, every morning and every night." He has to: his menu changes every six days. From duck to Iowa-grown elk, quail to trout, his moniker, "honest food...exceptional hands in the kitchen" is now in your hands. Don't be intimidated by the chiles; they add a subtle warmth, not poker-in-the-mouth burn and offer a magic companionship to sweet, tart fresh figs. Need a bird? Turkey season is open until May 20.

Gobbling Up Gobbler With A Punchy New Twist

WILD TURKEY WILL NEVER BE THE SAME. A RENOWNED IOWA CHEF GIVES YOU DELIGHTFUL HAZELNUT STUFFED WILD TURKEY BREAST WITH FIG MOLASSES AND ANCHO CHILE SWEET POTATOES.

Serve with hearty Iowa spring lettuce and a light vinaigrette or mighty Maytag bleu cheese. "You could add the same nuts to the salad to echo the flavor," says Matt.

WILD TURKEY STUFFING

- 1 boneless wild turkey breast (about 2 pounds)
- 1 cup hazelnuts or walnuts, chopped coarsely
- ½ cup chopped yellow onion
- 2 tablespoons chopped garlic
- 1 cup bread crumbs
- 1 egg
- ¼ cup chopped parsley
- 1 tablespoon honey
- Salt and pepper to taste

FIGS

- 2 cups fresh figs, split into fourths lengthwise. Or substitute dried figs or other fresh or dried fruit such as apricots or prunes.
- 4 cups red wine
- ½ cup molasses
- 2 tablespoons honey
- Pinch of salt
- ¼ teaspoon pepper

STUFFING

- 1) Soften onions and garlic in 2 tablespoons olive oil or butter until translucent over medium heat.
- 2) Stir in chopped nuts. Lay out to cool.
- 3) When cool, mix in a bowl with all remaining ingredients. Use a splash

of water if too dry to stick together.

ANCHO CHILE PEPPER MASHED SWEET POTATO

- 3 cups sweet potatoes, peeled and cubed
- 2 cups white potatoes, peeled and cubed
- 4 ancho chiles, available at larger grocery stores or Mexican groceries. *Rehydrate dried peppers by soaking in water.*
- ½ teaspoon cinnamon
- 2 tablespoons honey
- ¼ to ½ cup heavy cream
- Salt and pepper to taste

POTATOES

- 1) Boil cubed sweet and white potatoes until soft and drain.
- 2) Place in a food processor and add



With walls full of changing local art, warm-toned plank floors, retro-red diner chairs, blue booths and five stools at the lunch counter, lines form each night to savor creative cuisine. "We use as much local produce as we can when feasible," says Matt of his strong ties to nearly 10 local farmers. In summer, nearly all veggies come from a fresh, five-mile radius. Two weeks a month quail is served stuffed or grilled. "We sell a lot of quail, even more quail than chicken."



— — — — — **HAVE A GOOD RECIPE OF WILD FOODS TO SHARE?** Send to: WILDCUISINE@DNR.STATE.IA.US — — — — —

ancho chilies, honey and cinnamon. Spin. While spinning, pour in cream until consistency of mashed potatoes.
3) Adjust seasoning with salt and pepper and more honey if desired. Set aside.

TURKEY

1) Lay turkey breast skin side down on cutting board. With sharp knife parallel to cutting board, slice open the thickest part of the breast to butterfly cut. Unfold to make the entire breast approximately the same thickness.
2) Cover the breast with film wrap and with the back of a small pan or your hand, press down all over to even the entire thickness. The breast should be about ½-inch thick.

3) Salt and pepper what will now be the inside of the breast and place one cup of stuffing across the center.
4) Roll and tie with kitchen string in 3-4 places. Salt and pepper the outside.
5) Roast at 425° for about 25 minutes until internal temperature is 145°. Pull from the oven and let rest for 10 minutes. Slice and serve with potato puree and figs.

FIGS

1) Reduce red wine and molasses over medium heat until 1 cup remains.
2) Stir in honey and seasonings. Cool. Gently toss figs with chilled reduction. Refrigerate.

LINCOLN CAFÉ
117 First Street West
Mount Vernon, Iowa

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Accepted for parties of eight or more.

HOURS: 11 a.m.-2 p.m. Tuesdays-Saturdays; 5-9 p.m. Tuesdays-Thursdays and 5-9:30 p.m. Fridays and Saturdays; 10 a.m.-2 p.m. Sundays. Closed Mondays.

LIQUOR: Lacks a license, but patrons can bring their own. One-time cork fee \$4. Wine shop a few doors down.

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WHAT'S HAPPENING IN IOWA

Funding Drops for Protecting Non-Game Species, but Readers can Help

It's helped the endangered red-shoulder hawk, spade-foot toads, threatened ornate box turtles in Johnson County and surveys of marsh hawks and short eared owl nesting sites, yet chickadee check-off donations have plummeted 20 percent over the last five years, forcing cuts that help ospreys, peregrine falcons, trumpeter swans and others.

Fortunately, readers can make a dramatic difference with tax-deductible donations that fund these programs simply by using the Fish and Wildlife Fund contribution check-off on their state income tax forms by April 15th. Donations are tax-deductible on the next year's taxes.

"There was nearly a 12 percent drop in giving last year," says the DNR's Stephanie Shepherd, who notes the program is often called the "Chickadee Check-off." "We aren't sure exactly why, but donations to Hurricane Katrina relief may have played a role." She hopes giving will increase this year.

The fund provides grants to Iowa colleges and universities and other vital work.

If readers increase their giving, prairie restoration work could expand and a state inventory and monitoring of all wildlife species could be achieved. "It takes a lot of wildlife technicians to gather that information, but it's crucial for proper management of public and private lands," says Shepherd. The funds also support eco-tourism events such as Bald Eagle Days in Keokuk, Burlington and other communities and the Prairie Chicken Festival and HawkWatch Weekend.

Every cent of each donation goes to support the program, with no portion used for administrative purposes. The check-off is on line 59 of Iowa's state income tax form. The minimum contribution is \$1 with no upper limit.



Osprey Release

DATES TO SAVE THIS SPRING

APRIL 2: Regular trout stocking resumes on Iowa streams.

April 5: The chief scientist for The Nature Conservancy, Dr. John Wiens, will speak at 7:30 p.m. at Iowa State University's annual Paul Errington Memorial Lecture. The speech, "From Wilderness to Wal-Mart, the Evolution of Conservation Philosophy and Practice," is free and held in the Molecular Biology building on campus in Ames.

APRIL 30: Boat registration due. Fee based on boat length. Register at local County Recorder's office. New this year: Registrations valid for three years.

MAY 4-6: Free Camping Weekend. Camping fees waived for Iowa residents. No reservations accepted, however anyone who is registered for a site on May 3 will be allowed to stay there through Free Camping Weekend.

MAY 5: Walleye season opens at midnight on West Okoboji, East Okoboji and Spirit lakes (Dickinson County)

JUNE 1-3: Free Fishing Days. License requirement waived for Iowa residents only. Trout Fee required to trout fish. All other regulations, including length and possession limits, apply.

WARMER CLIMATE REVISES PLANT HARDINESS ZONES

The National Arbor Day Foundation released a revised plant hardiness zone map that reflects a major warming trend across the nation with almost all of Iowa now able to grow plants previously limited to warmer areas. The map guides what trees and shrubs to plant based upon the coldest expected winter temperatures.

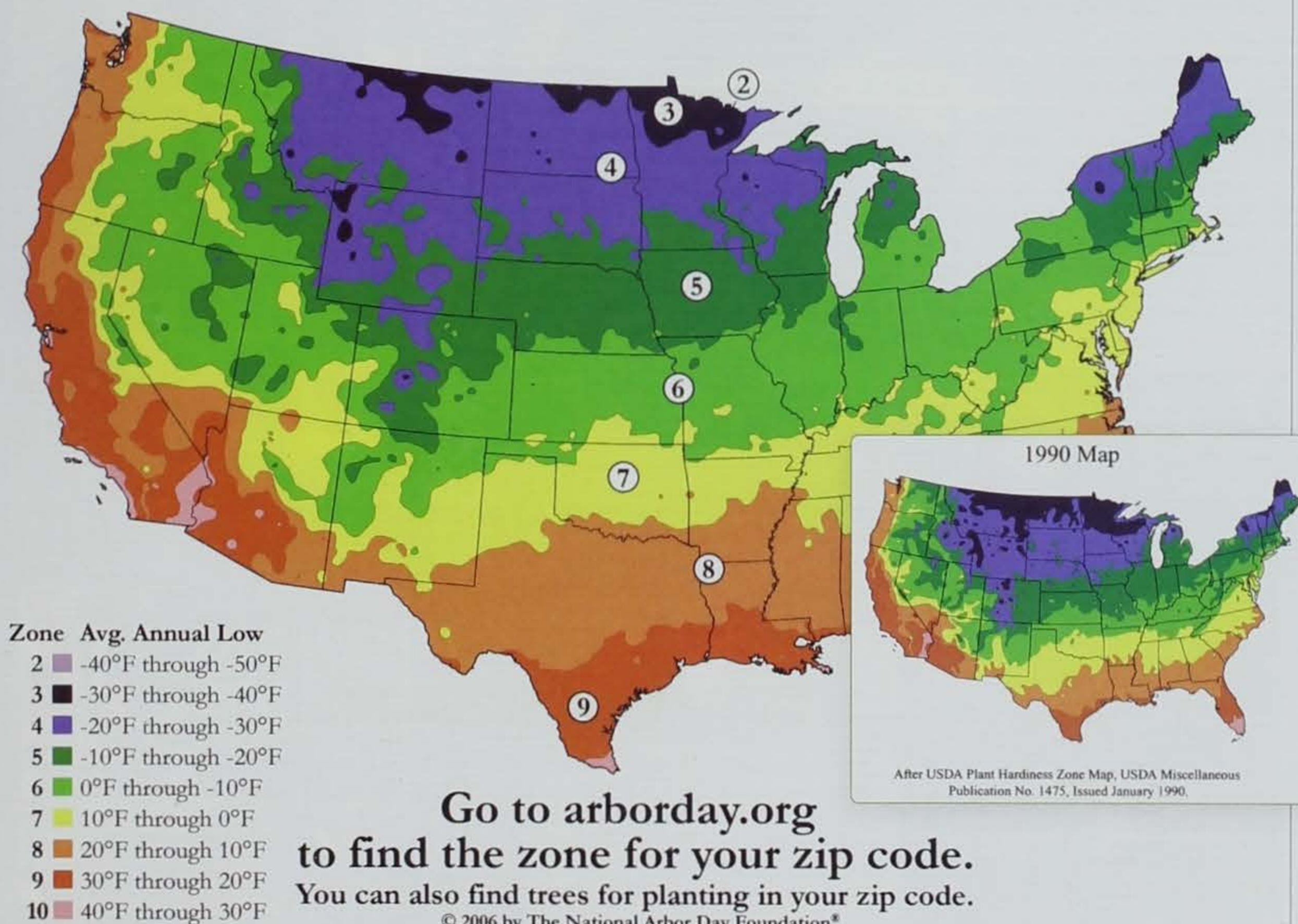
Extreme cold normally limits plant ranges. For example, native redbud trees common in southern Iowa communities like Ottumwa and even Des Moines historically had difficulty surviving northern Iowa winters, but no longer—the revised zone 5 extends into southern Minnesota. For many years, Iowa had two plant hardiness zones roughly delineated by US Highway 30, zone 4 occurred predominantly in northern Iowa, while zone 5 occurred in the southern half. The new map shows only extreme northeast Iowa in zone 4. For the first time, parts of southeast Iowa are now zone 6.

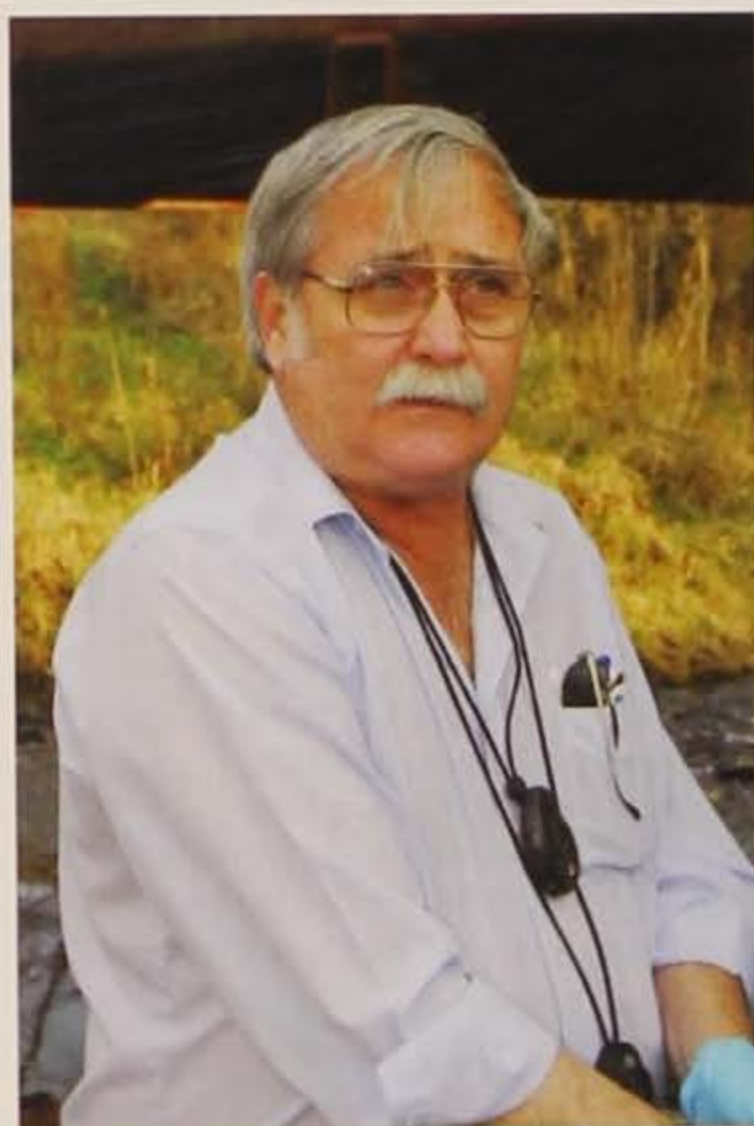
The warming has positive and negatives for Iowa. Tree and shrub planters can choose from a more diverse selection of plants. Now, bald cypress trees can survive as far north as Waterloo, and sweetgum trees, more common in Missouri, can be successful as far north as Des Moines.

But a warmer climate means undesirable insects, plant diseases and invasive plants such as kudzu—a common invasive weed in southeastern states—could become problematic for Iowa trees and forests. Also, more significant weather extremes from increased severe storms, drought and early or late fall and spring frosts could damage both native and introduced trees and shrubs.

State foresters advise tree planters to use the new plant hardiness zone with care and use native trees and shrubs where possible. View a list of Iowa native trees and shrubs at www.iowadnr.gov/forestry/. Learn more about the maps at www.arborday.org.

2006 arborday.org Hardiness Zones Map





TOUCHING THE WATER

DAVE RATLIFF, IOWA CITY

Volunteer leads push to revitalize creeks and introduce citizens to their waterways.

"I'm a big believer in touching the water," says Dave Ratliff, an IOWATER citizen water quality monitor. "People won't understand a river unless they can actually touch it." That philosophy underlies Ratliff's impressive achievements as a water quality teacher, advocate and volunteer. Since 2003, he's organized 12 ambitious "snapshot" water quality tests at local creeks, recruiting 175 volunteers. Thanks to those efforts, officials identified a major source of Clear Creek's long-standing pollution problem: an unsewered community releasing raw waste upstream. That town, Conrad, has now secured \$1.14 million in grants to correct the problem, largely due to Ratliff's tireless advocacy. In the process, Ratliff highlighted an often-overlooked problem—Iowa's estimated 800 unsewered communities, says IOWATER coordinator Brian Soenen. Ratliff is also a "born teacher" and a tremendously effective spokesperson, says IOWATER Research Geologist Lynette Seigley. He leads several "River Walks" every year, taking school kids, scout groups, landowners, public officials and others on first-hand, educational journeys along Iowa's waterways—to touch, and understand, their rivers.

EAGLE EYES

THE HITCHCOCK NATURE CENTER HAWK WATCH, COUNCIL BLUFFS

Western Iowa volunteers staff one of the top hawk watches in the country.

In western Iowa, a bustling highway runs along the Missouri River—several hundred feet above the ground. The area serves as an ideal flight path for migratory birds (thanks to updrafts provided by the river and the nearby Loess Hills). Taking advantage of that fact, volunteers at the Hitchcock Nature Center in Pottawattamie County set up one of the nation's premier raptor (birds of prey) watches. *Wildbird Magazine* recently named it a top 25 birding sites in North America. "Hitchcock is one of the few hawk watches in the Great Plains and the best one," says volunteer Mark Orsag. Volunteers donate more than 1,000 hours every September through December staffing the center's hawk-watch tower and counting and recording species types, monitoring "everything from turkey vultures to bald eagles," says DNR Wildlife Diversity Technician Pat Schlarbaum. Such data help officials plan wildlife management policies, including endangered species protections, he says.

A HITCHCOCK NATURE CENTER VOLUNTEER ON THE WATCH



COUNTING THE OAKS

C.J. STEPHENS, DES MOINES

Impressed by the beauty of her oak-filled neighborhood, C.J. Stephens recruited a host of volunteers to help count, and preserve, the trees.

Go back a hundred years, and you could play a round of golf through Des Moines' Waterbury neighborhood. The area's history as a turn-of-the-century golf course blessed it with a unique natural treasure: scores of gorgeous, 100-year-old oak trees (the greenery of choice on older courses). Unfortunately, most of those oaks have entered old age and many have contracted a fungus known as "oak wilt." To ensure proper care for the aged oaks, wise planting procedures to replace them, and the addition of sufficient species diversity, Waterbury resident C.J. Stephens set up an ambitious volunteer tree survey. She also organized a series of tree care workshops for Waterbury residents. For the survey, Stephens and nearly 40 other volunteers record the species, age, size and condition of an estimated 22,000 trees. "One person couldn't possibly do this," Stephens says. "So, the credit really goes to everyone involved." Survey data will help determine proper sites and species for new plantings, she says.

PUTTY-ROOT ORCHID (*Aplectrum hyemale*)

This low-growing wildflower is superbly adapted to living in deep, shady woods. Rather than struggling to obtain solar energy in a deeply shaded summer environment, putty-root orchid instead uses its single leaf to carry on photosynthesis in winter when sunlight is plentiful through the leafless canopy of deciduous forests.

CLUSTERS

Spring photo below shows growth of three seasons. New spring stalks amid the old, seed pods from the previous summer, and leaves from the preceding fall and winter. Rhizomes—under-ground stems—branch off to form new shoots, each with a stem and leaf to create a cluster of genetically related plants.

DISTRIBUTION

The plant is infrequent to rare in central and eastern Iowa and not reported in western Iowa. The stem is typically knee-height.



FLOWERS

- Yellowish-brown to purplish flowers are borne on an erect, slender stem emerging from the forest floor in early summer after the leaf has withered. Flowers mid-May to early June.
- The genus name *Aplectrum* means "without spurs," referring to the flower shape. A spur is the nectar-containing tube. (Many other orchids have flowers with spurs).

LEAVES

- A single, wrinkled leaf lying close on the ground appears in autumn when deciduous trees lose their foliage. The leaf persists through winter, then disappears in spring when deciduous trees redevelop foliage and cast deep shade.
- The epithet *hyemale* means "winter," referring to the overwintering nature of the leaf.
- The flat, ground-hugging leaf enables it to remain warm enough to conduct photosynthesis in winter on mild days without deep snow cover.

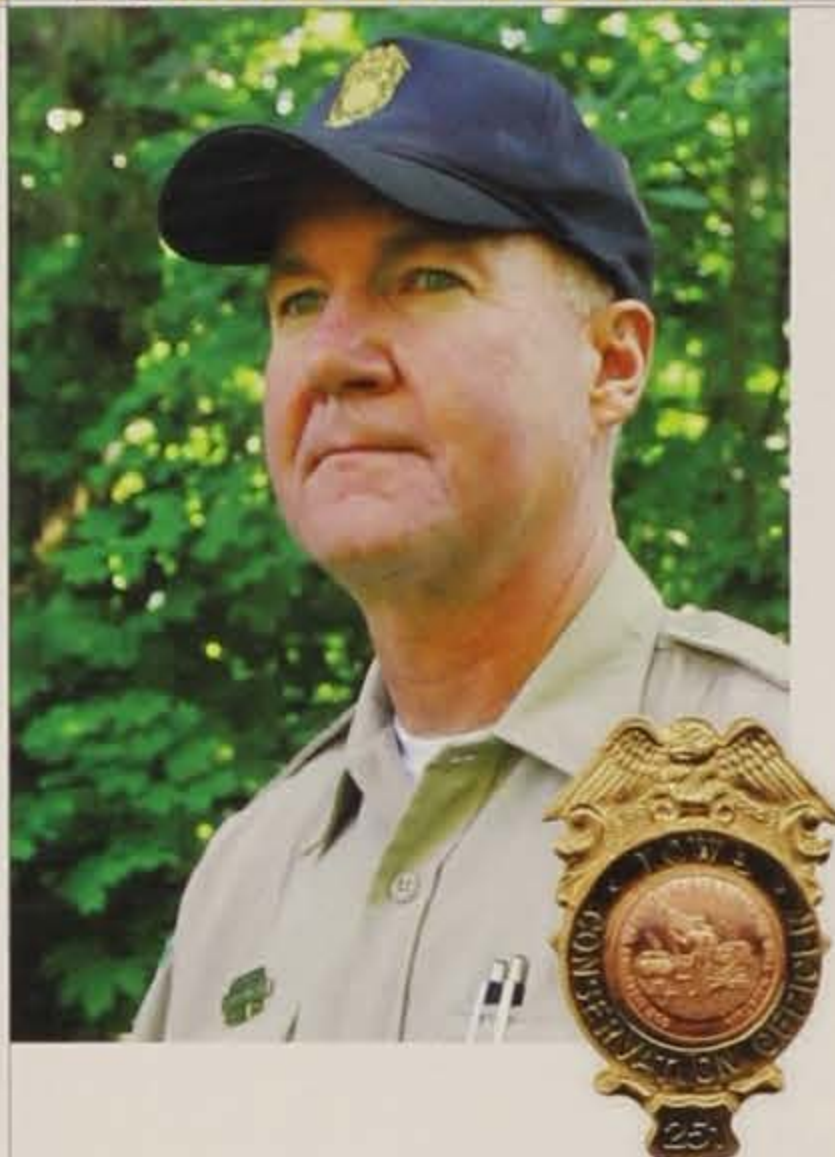
ROOTS

- The fleshy corms—short, vertical organs for food storage—are filled with thick starch, providing the common name "putty-root."
- The corms develop in pairs, giving rise to an alternate common name, "Adam-and-Eve."

NATURAL ANTI-FREEZE

Leaves may contain a natural anti-freeze glycol (a fatty alcohol) that allows the plant to continue photosynthesis down to about 22 degrees F. In some cases it may enable leaves to survive the winter and resume photosynthesis in the spring, until the tree canopy leafs out, blocking light and forcing the plant to stop photosynthesis until next autumn and winter.

Adapted from *Orchids in Your Pocket*, a field guide by Bill Witt recently published by the University of Iowa Press. Order at 1-800-621-2736.



MY WORST NIGHTMARE

This is a story I hoped I would never have to write because I hoped it would never happen. But, maybe if I do the bad dreams will little by little finally go away.

It was the next to the last Friday in June, and, man, it was hot. One of those days in the 90s, with equal humidity. I was getting ready to drive over to Ft. Dodge for a CPR refresher, and I thought, "As soon as it's over I'm leaving with my wife for a week's vacation."

I signed on with state radio, and as I drove to the edge of town I began to pick up radio traffic which sounded urgent. An officer was yelling, "I have a subject down with gunshot wounds." My heart started beating rapidly, and I had a sick feeling in my stomach. I called the police dispatcher on the cell phone asking what was going on. She told me someone had been shot in the city, and the suspect had left the scene.

Suddenly, there was a dispatch that the suspect was spotted one mile across the section from me in a minivan. I turned around, and told her I was close and headed that way. She told me, "Be careful, Chuck, he has shot someone and is armed."

I sped to the area and met a minivan. I turned around to catch up with it then heard a deputy a mile from me calling in he was behind the suspect. Realizing I had the wrong person, I turned around and soon saw their dust on the gravel road.

The driver fled to a county park by the river. The deputy motioned to me pointing at a small grove of trees with both his finger and his handgun. I could see the minivan behind the trees. I stopped, and as I got out of my pickup reaching for my own handgun, I could hear the deputy yelling, "Put it down!"

I never even had time to get out of the pickup. The next thing I knew the minivan sped out of the grove toward my direction. I jumped back into the pickup, reaching behind my seat for my shotgun. Getting it out from behind my seat wasn't working. As the suspect tried to escape, I tried to cut him off and pin him against the steep riverbank. I was too late, and as his rear fender passed by me I heard them. "Pop, pop," and saw a flash by the driver. "My God he's shooting at us!" I realized. "Shots fired!" both the deputy and I yelled into our radios.

I slammed on the brakes and dove for the floorboard. "I haven't been hit," I thought. Things seemed to go into slow motion. I looked up and saw the minivan heading toward the entrance which was suddenly blocked by two police cars which had arrived. "I can't get a shot off with them in the background," I thought.

The minivan turned to escape the officers, but rolled onto its side as the driver attempted to scale the steep ditch. He emerged from the door, and the officers yelled for him to stop. He would not comply. The officers opened fire. They missed, and he ran into the woods by the river. I guess when you're in a situation like that, your senses go into overdrive. I've put hundreds of rounds through weapons at ranges. I've never noticed the smell of gunpowder. But that day it just seemed to hang in the air. I can smell it now as I write this.



I pulled up to the officers, and one of them approached the minivan. He opened the door. What I saw haunts me to this day. He came out of the minivan with an infant in his arms. We didn't know the suspect had taken her from her home. She was unhurt.

As we began to deploy to search the woods, a deputy suddenly spotted the suspect on the gravel road. He had somehow escaped behind us. The deputy I had backed up didn't have a shotgun so I handed him mine, and I pulled out my rifle. We approached the suspect, and then, an officer's nightmare. He turned around, looked at us, kneeled, and put his gun to his temple. We took cover yelling, "Don't do it!"

For the rest of the afternoon we laid in the scorching heat without water while one of the officers negotiated with him to put down his gun and give up. Tactical teams arrived. Sniper teams took up positions. "How did I ever get into this?" I wondered, keeping my rifle trained on him knowing I may have to fire it if he tried to escape

into the woods toward the homes on the hill above.

After several hours he surrendered. I put away my rifle, and sat on my tailgate pulling deeply on a bottle of water. My cell phone rang. It was my wife. "Have you heard about what's going on?" she asked thinking I was at my CPR training.

"Yeah, I heard about it. Can you meet me in the parking lot with something cold?" I drove to her office. She walked out with a can of pop. Not saying a word I gathered her in my arms and broke down. When something like that happens you don't have time to think. You don't even have time to be scared. You just react and do your job like all officers do. It's when you have time to think it hits you. I called each of my kids. Just to hear their voices. I went home, wrote a report, tore off my uniform, jumped on my Harley, and went for a long ride

I can still see that day. I can still hear it. I can still smell it. I'll never forget it. 🐾



**"HOW DID I EVER
GET INTO THIS?"**

Early Spring Kayaking at Red Haw State Park in Lucas County.

State Library Of Iowa
State Documents Center
Miller Building
Des Moines, Iowa