MARCH / APRIL 2009

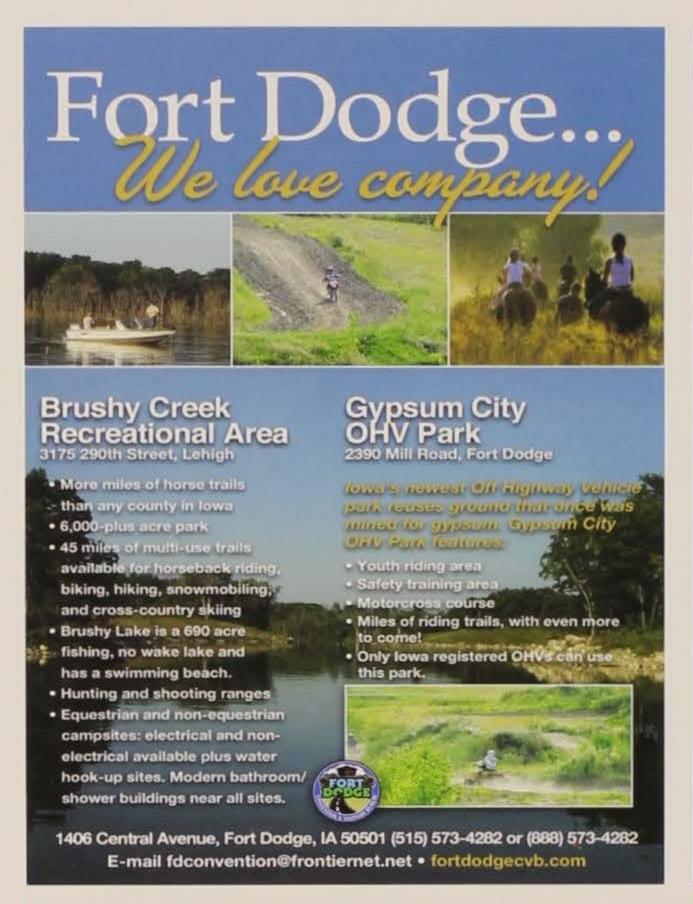
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THE DNR'S MAGAZINE OF CONSERVATION AND RECREATION

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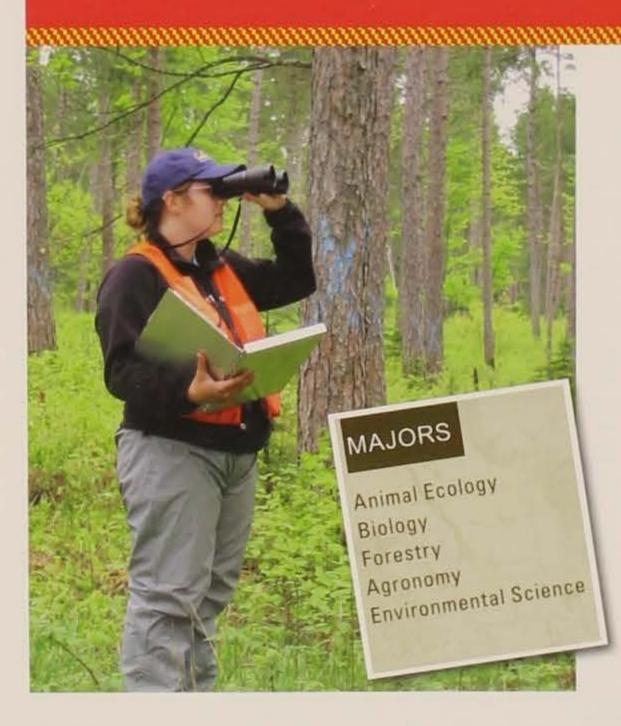
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PRAIRIE CHICKENS OFFER GLIMPSE INTO PAST





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Owners Howard and Donna Bright bought a chunk of land along the Yellow River more than 20 years ago. "For the Woodland people, this was holy land," Bright says simply, spreading his hands to indicate the forested ridgeline where most of his cabins sit, and the clear trout stream below, where a fishing line looks big as baling wire.

Standing on nearly 400 acres, the resort is horse-friendly, like most of this area, and includes the Brights' wildflower seed company, Ion Exchange. The cabins aren't the light version found in most resorts, either. Their thick timbers, wood-burning stoves and reclaimed lumber and barn pieces are as comfortable as they are beautiful, jutting from a lovely landscape in a way that begs for steaming coffee on the porch, or a rowdy round of cards at night.

If you stay at the Ion Inn, the original lodging next to the Brights' house, you can wake up, cross the gravel road and start fishing first thing in the morning.

"A lot of the time, when man comes in, he destroys the very thing he came to see," Howard Bright says. "That didn't happen around here."

A typical fall morning at the Natural Gait unfolds atop a high ridge, in a cabin overlooking farmland and streambeds. The sky will turn pink, and then purple, and so on, until a full electric blue illuminates the bright beauty of fall.

This is the kind of day that'll convince you how important it is to get grounded in the land before you have to entertain all those relatives at Thanksgiving, and then, seemingly minutes later, at Christmas.

So whether it is before the holidays or if you need a rest afterwards, get out there, if only to hunker down in a cabin, its chinks lined by thick rope so the drafts can't diminish the efforts of a thick, popping fire in the stove.

Have a good time with your friends or a quiet, relaxing, more intimate time with that special person in your life. Dip into the treasure chest of nature that Allamakee County offers.

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Tontributors



born and raised in Des Moines, graduated from Dowling High School and worked briefly for LOOK Magazine in Des Moines. A life-long hunter, his work has

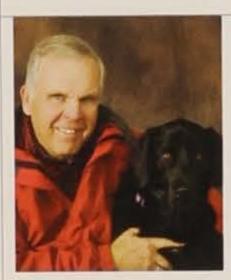
appeared in *Outdoor America* magazine and many hunting and conservation magazines. He lives in Stillwater, Minn.



a freelance writer and photographer living in Elkader. His book "Listen to the Land," is a collection of nature articles and photos from his 25-year career as outdoor

writer with the Des Moines Register. Stone and coauthor Jon Stravers wrote "Sylvan T. Runkel - Citizen of the Natural World" in 2003, and currently are working on a biography of Gladys Black, "Iowa's Bird Lady."

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RON HUELSE of
Knoxville has spent
six years photographing wildlife,
insects and birds
near Lake Red
Rock when not
cycling, hiking
or volunteering.
An avid paddler,

he also helps find sponsors to reintroduce osprey locally and raises awareness of siltation issues at the resevoir. He's a recent retiree with "more hobbies than I have time for."



is a travel and features writer based in Des Moines. Her works appear in National Geographic Traveler, Frommer's Budget Travel, Midwest Living

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IOWA OUTDOORS

MARCH / APRIL 2009 · VOLUME 68 · ISSUE 2

(formerly the Iowa Conservationist)

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lowa Outdoors (ISSN 0021-0471) is published bimonthly by the lowa Department of Natural Resources, Des Moines, Iowa 50319-0034.

Periodicals postage paid Des Moines, IA. SUBSCRIPTION RATES: \$12 FOR ONE YEAR.

\$18 FOR TWO YEARS AND \$24 FOR THREE YEARS. PRICES SUBJECT TO CHANGE WITHOUT NOTICE. Include mailing label for renewals and address changes. POSTMASTER: Send changes to the lower Outdoors. P.O. Box 8462 Red Oak, IA \$1591-1462

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

EDITORIAL MISSION

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

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Seems we have a trend developing that is taking us full Scircle on how we think of rivers and streams. Iowans are rediscovering their "river address." Prior to European settlement, before railroads, highways, and airports, Iowans identified their address in relationship to running waterways. "Go north on the Des Moines, take the South Skunk fork, and we're about half-a-mile up Squaw Creek."

People divided the land by waterways and geographic features. Water was the center of commerce and community life. Mills ground our grain and dams provided what limited power we needed beyond horses and oxen.

Then, the industrial revolution. Road builders divided the landscape for our vehicles, steam-driven backhoes tiled and drained our soils for production agriculture and the trend started toward urbanization. These changes, positive in terms of productivity and convenience, distanced people from their public waters and the natural landscape.

And now, some parts of our society seem to be returning to our natural heritage. Water quality is a phrase that most in Iowa understand, and generally are not satisfied with the quality of our rivers, streams and lakes. Real political will to improve our public waters is increasing. Financial resources, although still insufficient to deal with our problems, have increased in recent years, creating the potential for greatly increased opportunities in the near future.

Take for example the exploding interest and participation in the water trails program. Starting from a small group of enthusiasts, the paddle sports of canoeing and kayaking are enjoying a rapid expansion. In 2005, there were no miles of designated water trails in Iowa. Today, we have 166 miles of designated trails and 900 more miles under development.

And it is not just environmentalists advocating this movement. Workforce development experts recognize quality of life as one of the key drivers to attracting and maintaining a well-educated and diverse workforce. Economic and rural development advocates recognize the powerful economic engine behind these attractions, contributing to the health of our tourism industry (including bed and breakfasts, hotels, restaurants, etc.) and our local economies ranging from gas stations to grocery stores. For example, in 2004 there were 23 "liveries," or paddling outfitters, in Iowa. Currently, this number is 53 and continues to grow. Annually, they generate over \$1 million in rental fees alone.

My lifelong love of paddling sports, and my firm belief that a healthy economy is dependent on a healthy ecosystem, give me hope that Iowa is prepared to take seriously our commitment to water quality and reconnecting to our local water bodies. As this trend continues, I believe Iowa will compete nationally for some of the best river experiences in the country.



RICHARD LEOPOLD, Director of the Iowa DNR

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24 Hiawatha Point Walleye

Revisit a Lake Okoboji of simpler times and reliv a young boy's first walleye catch with dad trolli a hand-built wooden rowboat. BY BILL KLEIN

30 Boom Time!

Once numbering in the thousands, biologists closely watch a small group of prairie chickens in Ringgold County in hopes this last remaining bastion will survive. STORY AND PHOTOS BY LOWELL WASHBURN

With last year's floods a painful memory, anglers eye a fresh start on lowa's lakes and streams. BY MICK KLEMESRUD

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Follow the real-life harrowing saga of a Lyme Disease

victim and learn simple ways to avoid infection. STORY AND PHOTOS BY LOWELL WASHBURN

Exploring Dolliver
Take a step back in time as geologists explore the history and evolution of this Webster County wonder. BY MINDY KRALICEK

ABOUT THIS PHOTO

Two male prairie chickens compete for female attention as part of an elaborate spring courtship. Knoxville photographer Ron Huelse captured this image of two radio-tagged birds in northern Missouri. The birds were introduced from Kansas to freshen the local gene pool. lowa's isolated populations face similar difficulties, a far cry from centuries past when the abundant species ranged from the Dakotas to Texas. The lowa birds can be viewed this spring. See page 9 for travel details and page 30 for the feature.

ABOUT THE COVER

This bird was "one of the more aggresssive, dominate males, virtually in constant display from before daylight until about 10 a.m.," says staff photographer Lowell Washburn. "He was one of four males that controlled the center of the lek," or display ground. Arriving to set up his gear at 3:30 a.m., and "in a predawn trance due to fatigue, I jumped when the birds began their loud booming." Photographed at sunrise, the low angled, warm light make the colors snap. Later the bird would land on Washburn's nylon blind and dance on his head. "It was the coolest photo assignment yet."

DEPARTMENTS

9 Together

Load pillows and sleepy kids in the car and catch the early morning hijinks of southern Iowa's booming prairie chickens. See why central Iowa is an emerging destination for paved cycling and view plans for eye-popping trail additions.

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61 Wild Tuisine

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64 Warden's Diary

66 Flora & Fauna

See why Iowa's most recognized turtle can't swallow food on land.











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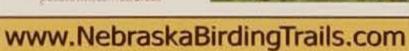
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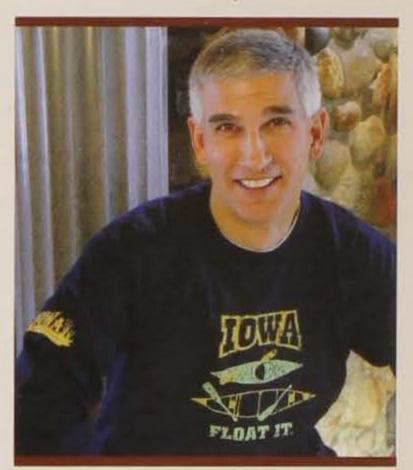
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ACTIVITIES, TIPS AND **EVENTS** FOR THE WHOLE FAMILY



Load the car with pillows and sleepy kids and head to an early morning ritual none will forget. The DNR-hosted sixth annual Greater Prairie Chicken Day is Saturday, April 11, at the Kellerton Grassland Bird Conservation Area near Mount Ayr.

"We have such a unique opportunity for public viewing here," says event coordinator and wildlife technician Micah Lee. "There isn't anything else like this anywhere in Iowa." Activities begin at daylight, about 6:30 a.m.

DNR Biologist Chad Paup says the show is for all ages. "Sitting out on the viewing platform, soon you hear cooting and hooting in the dark. As the sun rises you start to make out silhouettes of chickens on a high spot of ground. The males arrive first, puffed up to look big. They will spar with other males for dominance."

The public grassland virtually guarantees seeing and hearing wild prairie chickens on a booming ground, which refers to the mating ritual, called booming. "We're very fortunate to have this," adds Lee. The chickens are active late March, but peak the first three weeks of April.

Coffee, donuts, good conversation, and spotting scopes are provided and DNR wildlife staff offer interpretation. Viewing continues until birds leave the booming grounds—usually by 9:30 a.m. Stick around for good chances to view other grasslands birdlife.

WHAT TO BRING

While binoculars and spotting scopes are provided,

extras are appreciated. Be sure to dress for the weather.

"It can be a morning for long underwear, gloves, hat and a heavy jacket," says Paup. The event is rain or shine, so pack raingear.

WHERE TO STAY

The recently built Mount Ayr Inn offers some of the best lodging in southern Iowa and includes a continental breakfast. Located in Mount Ayr 20 minutes west of I-35 at the intersection of state highways 2 and 169 at 1304 East South St. 641-464-3500 or 866-464-2093 www.mountayrinn.com.

WHERE TO EAT

On the north side of the town square is the Iowa Roadhouse, a family sit-down place with sandwiches, prime rib, steaks and daily specials. Attached bar. 104 West Madison St. Mount Ayr. 641-464-2442.

TO FIND THE BOOMERS

Travel two miles west of Kellerton on Highway 2 and head south for one mile on 300th Avenue. Ample parking and wheelchair accessible viewing stand.

HEAR THE BIRDS

The racket the booming birds make sounds more like wildlife in a deep jungle or a Tarzan movie than Iowa grassland. Give a sample listen at www.prairiechicken.org.

GET ON THE TRAIL TO DISCOVER A NATIONAL BIKING HOTSPOT

With 460 miles of connected bike trails that span 11 counties and beckon bikers from faraway, families can spend days exploring greater Des Moines and central Iowa for a mix of urban and rural attractions.

"It's a goal to make central Iowa the bicycle trail capital of the world," says Forrest Ridgway, owner of Bike World, a Des Moines bike shop.

"The trails provide an environment that families feel safe and comfortable with—no road crossings, traffic—and it is an inexpensive, active and economical vacation," he says. "When I'm out riding early before work, I see a lot of out-of-county and out-of-state license plates at trailheads. These riders say they are here to spend a couple days riding trails. We are already experiencing biking tourism in the region."

That draw will grow as central Iowa will soon add the longest trail loops in the United States and build one of the largest trail bridges in the nation with a half-mile-long bridge rising 13 stories over the Des Moines River Valley to link Ankeny to Woodward by trail.

The world-class pedestrian bridge should create a

tourist draw to central Iowa, says Andrea Chase, trails coordinator for the Iowa Natural Heritage Foundation. "The bridge will symbolize the coal mining history of the area, artistically designed to feel like going down a coal mine shaft when you ride across it," When completed in 2010, the bridge will finish the 26-mile trail. That connection and a few others will create two 100-mile loop rides, the longest trail loops in the nation.

The often forested trail system allow riders a mix of urban, rural and small town attractions. All lead toward downtown Des Moines, where cyclists can meander at the massive farmers' market, catch an Iowa Cubs baseball game or visit downtown shops, pubs and eateries, before heading to the countryside to spend the night in a bed and breakfast or attend a town festival. Even metro buses are outfitted with bike carriers to accommodate cyclists.

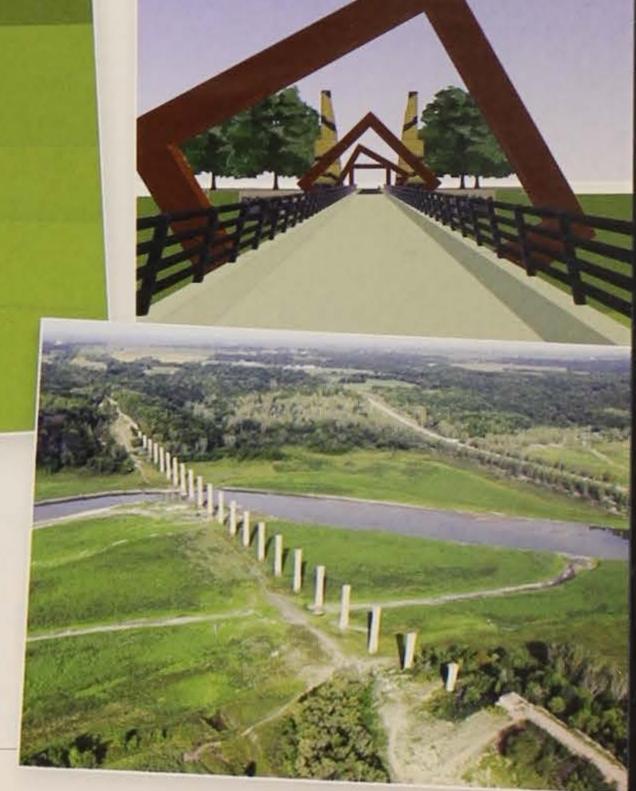
"Locally, we see this as a highway system for bike users.

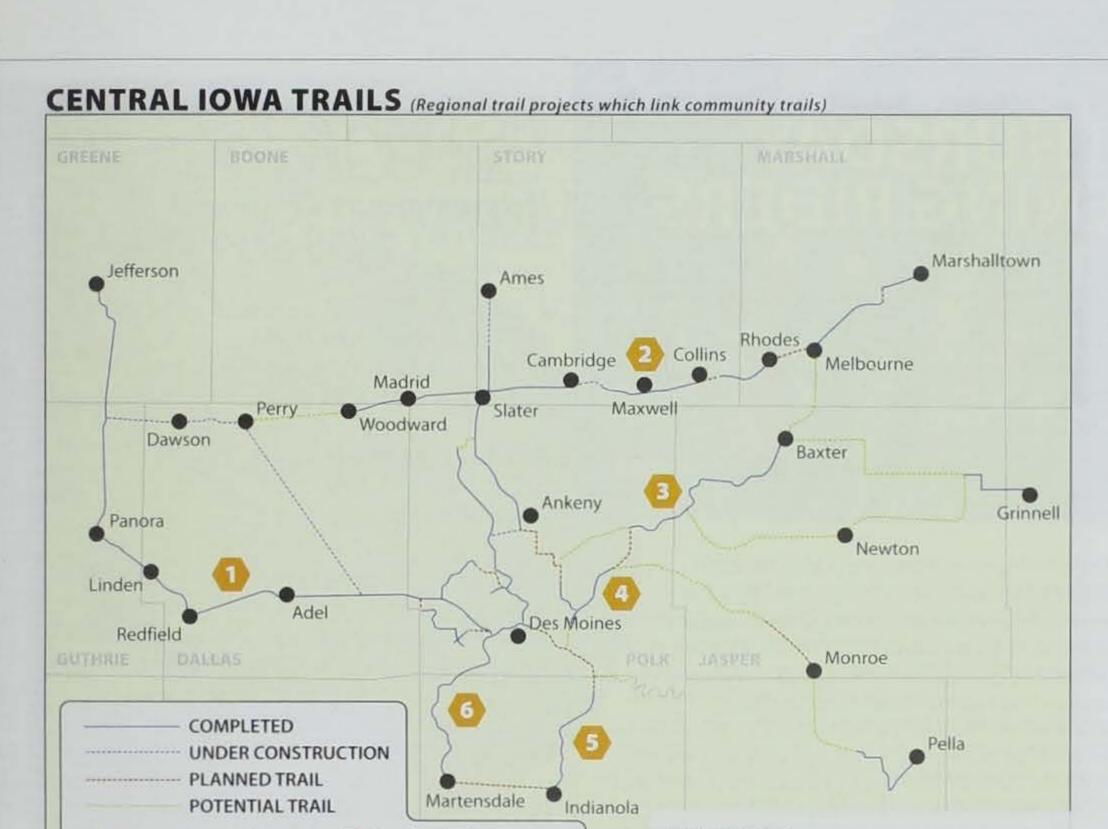
It is a hub-and-spoke network to get to any other community in central Iowa from wherever you are. It's a huge benefit for health, wellness, quality of life and alternative transportation," says Chase.



GET INVOLVED

Help create one of the longest pedestrian bridges in the nation. "We are still in the middle of a fundraising campaign," says Andrea Chase, trails coordinator for the Iowa Natural Heritage Foundation. Join more than 700 donors to help offset increased steel and concrete costs and add artistic elements and signage to the bridge project. Donate at 515-288-1846 or www.inhf.org.





KEY TRAILS

Jordan Creek Trail 12 miles, West Des Moines. Circles 230-acre lake in Raccoon River Park, then follows creek.

Raccoon River Valley Trail 56 miles, Polk, Dallas, Guthrie and Greene counties. Stretches from Jefferson to Panora and on to Adel and Waukee. With connector trails, riders can cruise to downtown Des Moines or north to Big Creek State Park.

Clive Greenbelt 8.5 miles. This vital connector trail links the Raccoon River, Jordan Creek and Bill Riley Trails. Trail follows Walnut Creek through heavily wooded greenbelt. Two adjacent playgrounds make nice stops for kids.

Neal Smith Trail 26 miles and John Pat Dorrian Trail link downtown Des Moines to Saylorville Lake and Big Creek. Trails offer city skyline and river views and access to the East Village shopping area, botanical center and large butterfly garden near Saylorville. With pedestrian bridges across the Raccoon and Des Moines rivers, riders can visit downtown and Court Avenue entertainment areas, baseball stadium and the Science Center of Iowa.

Chichaqua Valley Trail 20 miles, Polk and Jasper counties, part of a proposed 110-mile loop. Currently links Bondurant to Baxter. Follows forested Skunk River Valley.

Great Western Trail 16.5 miles, Polk and Warren counties.
Start south of the Des Moines Art Center and ride to
Cumming and Martinsdale. Connects to western suburbs,
downtown and Neal Smith Trail.



Cay Lea Trail

Summerset Trail

Great Western Trail

LEARN MORE

Raccoon River Valley Trail

Heart of Iowa Nature Trail

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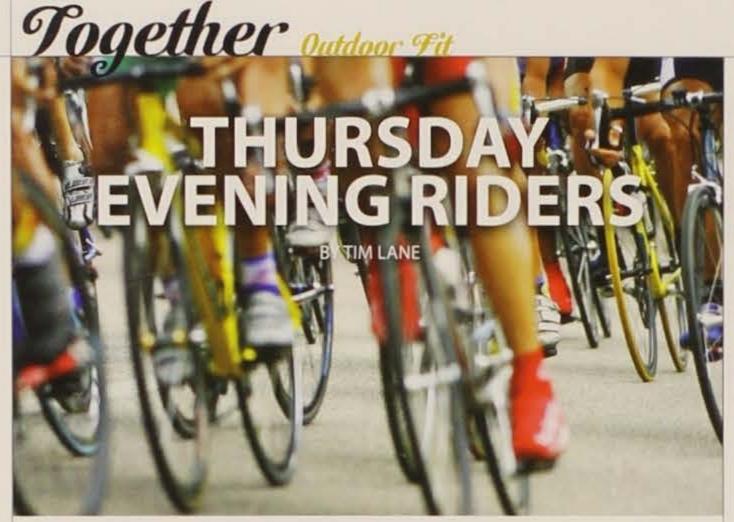
Chichaqua Valley Trail

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Find trail maps, accommodations, trail conditions and more at:

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When John Karras first contemplated riding across lowa, he didn't have a grand vision of creating RAGBRAI, the world's largest, and by some accounts most influential, bike tour. He did see a way of cycling for a week with his pal Don Kaul and not having to take vacation to do it. That his superiors bought into the ploy but insisted they invite readers was a decision with a world of unforeseen consequences. It spawned rides all over America.

What started as a lark turned into a movement. I think it is fair to say that Karras had a greater impact on cycling than Lance Armstrong. Following Karras' lead, this May during National Bike Month, I plan to create an event of monstrous proportions. Maybe my friends will join.

I wish to create a ride every week, say Thursdays. The first will be May 7 at 5 p.m. I plan to invite friends to join me at the pedestrian bridge south of Principal Park at the confluence of the Raccoon and Des Moines and ride... perhaps to Walnut Woods or Saylorville and back. Before I lose those readers in Larchwood, Waukon, Hamburg and Keokuk, let me tell you I want you to ride with us in spirit. I want you to invite your friends and ride at the same time in your area.

I want to do this every week, with the original group asking others to join the following week until there are thousands turning up for the weekly event. If you think this is far-fetched, I must confess I stole the idea from Council Bluffs and Omaha. They have institutionalized the weekly event in their area and I feel a bit jealous. Frankly, I want my town to be the hub of the cycling universe and this weekly event to someday have its own acronym and require crowd control. For now, I call the Des Moines version Carpe D.M.

Eventually folks will ride to work every Thursday because it will be just as easy as hauling a bike into work. Our participants will be in better health, cardiovascular disease will decrease, air will be cleaner, there will be less stress, and I am sure it will contribute to *our* economy...but not OPEC. I see jersey sales supporting the Friends of Central lowa Trails or perhaps the DNR. I foresee a website with news of other towns that host such events and eventually as many riders every Thursday as on RAGBRAI.

As Goethe said: "Dream no small dreams for they have no power to move the hearts of men." And moving your heart is what this column is all about. But I do need you to dream too. If you live or work near Des Moines please help me celebrate our cycling opportunities. If you live and work in Waterloo, Cedar Rapids, Decorah, Davenport, Fairfield, George or other areas, start biking after work with your friends on Thursdays. Think of this as a Guinness World Book effort. I can see the 2010 entry now. The state with the most Thursday evening riders is by far and away lowa.

Tim Lane is the fitness consultant with the Iowa Department of Public Health. A marathoner, former director of the National Ski Patrol, climber and volleyball coach, he has cycled across America once and Iowa 25 times. He's a regular on RAGBRAI. Tim also helped design and promotes Live Healthy 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.

What causes birds to return every spring?

- CINDI FROM COLFAX

Common sense tells us birds fly south in the winter to escape the harsh conditions of the north, and return "home" in the spring when the weather improves. While that theory doesn't fly in the face of truth, it isn't altogether factual, given most birds are well-equipped to handle extreme temperatures. What does trigger birds to bug out from their wintering grounds is bugs—or food availability to be more exact. Birds have an uncanny knack of knowing when it's time to get out of town or face possible starvation.

That instinct, according to DNR Wildlife Diversity
Coordinator Doug Harr, can be somewhat linked to
photo period, or length of day. As day-length grows, birds
realize it's time to seek out alternate, more abundant and
emerging food sources to the north.

Reproduction also plays into spring migration, as extended daylight hours and warmer temperatures means less stress and more food availability, meaning larger clutches and better hatchling survival. And since birds are creatures of habitat, they tend to return to procreate in the exact nesting spot they vacated in the fall.

DID YOU KNOW

The first recorded migrations were chronicled more than 3,000 years ago.



The fruit repels insects in our laboratory experiments, affirms Dr. Joel Coats, Department of Entomology researcher at Iowa State University. "We've cut up the fruit in chunks and tested its ability to repel roaches, flies, mosquitoes, grain beetles and spiders.

We've concluded there are chemicals in the fruit which are insect repellents."

As a result of the work of Coats and his cohorts, the Iowa State

Research Foundation has filed for several patents. They believe

commercial possibilities exist for Osage orange chemicals in the

insect repellent industry, which will also be environmentally friendly.

But don't expect to see products on the shelf with Osage orange on the ingredient list.

"The downside of utilizing natural chemicals to repel insects is that the commercial processing pipeline for getting these chemicals to the market isn't there," submits Coats. "We're still stuck on the best way to extract the chemicals. We've used steam distillation in the lab, but solvents may be a better method. We don't know yet how much of the chemicals are needed."

Coats reveals another product of the Osage orange. If you've ever cut the stem or fruit, a milky juice oozes out. The texture is latex-like and gooey. A myth persists that this substance irritates human skin, but Coats says no one in his lab has reacted to it—although it's possible someone, somewhere has.

The substance is patented as an adhesive and looks and behaves similar to Elmer's glue.

Coats also nixed the myth that livestock and wild mammals avoid eating the fruit.

"Rodents will dig out and eat the seeds in the fruit, so the seed nutrition must be pretty good.

The fruit itself is very hard and sticky, so the only danger to animals is that they might choke on it."

There you have it. Go ahead and use Osage orange or hedge balls to keep insects away. However, you might attract a rodent sniffing out a good treat.

Walt in Waterloo wonders: "If I catch a sturgeon, can I keep it?"

BY JEFF KOCH (Koch recently earned a Master's Degree from lowa State University focusing on sturgeon research.)

That depends, as three species of sturgeon are found in Iowa, but only one, the shovelnose, is legal to keep. The other two, pallid and lake sturgeon, are listed as endangered species in Iowa.

CONSERVATION COMMISSION

KRALICEK; STURGEON PHOTO COPYRIGHT 2004 BY THE MISSO

Pallid and shovelnose sturgeon are very similar in appearance, but differences in their belly scales and barbels, or whiskers, on the underside of their snout, differentiate the two.

Shovelnose barbels lie in a straight line, but pallid sturgeon barbels form a crescent shape as their inner barbels are slightly raised towards the snout. Pallid sturgeon have skin-like, scaleless bellies, while shovelnose have bony scales on their stomach. Pallid sturgeon are lighter in color, especially as adults, and grow to greater sizes than shovelnose (up to 3 feet and 15 pounds). Iowa's shovelnose rarely exceed five pounds.

The third species in Iowa, lake sturgeon, can grow to over 6 feet and more than 100 pounds.

Lake sturgeon have a short, conical snout, unfringed barbells and a lower lip with two lobes versus four found on pallid and shovelnose.

Pallids mainly inhabit the Missouri River, with reports of Mississippi River catches in far southeastern Iowa.

Lake and shovelnose sturgeon are found throughout the Missouri and Mississippi Rivers and their major tributaries.

If you are unsure of what species of sturgeon you have caught, return it to the water immediately, as it may be an endangered species.



GOT A QUESTION? Send to: ASKTHEEXPERTS@DNR.IOWA.GOV

Outdoor Skills

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



Digital watches are nice, but unless they house a compass, they can't find south like their analog cousins. Hold an analog watch flat, with the hour hand pointing to the sun. You'll find south is halfway between the hour hand and 12 o' clock.

DOUBLE DOWN ON THE ICE TO CATCH MORE FISH.

Use two rods baited at different depths to see what's biting. When ice fishing, bluegills and crappies are often caught together, but at different depths. Crappies are often suspended, with bluegills hovering inches from the bottom. Why is unclear; perhaps bluegills feed on invertebrates and crappies feed on prey fish in the water column in addition to invertebrates.

To find out which species is active, set one rod to fish off the bottom for bluegills, and the other to alternately jig and rest down the water column to trigger a crappie strike.

Shore Up Slack Shock Cords

Prepare for camping season by checking shock-corded tent poles.

Cords can stretch over time and become slack. Repair by removing cap at pole end. Then cut a few inches of cord to remove the slack, tie a new knot and replace cap.



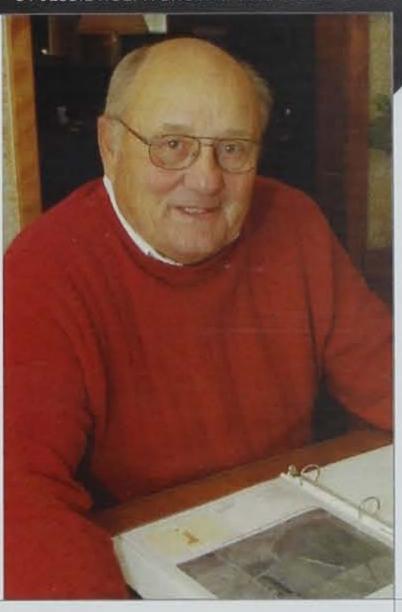
BY JESSIE ROLPH BROWN PHOTOS BY CLAY SMITH

CULTIVATING CLEANER WATER

DON SOUTTER, MITCHELLVILLE

Polk County farmer makes changes on the land and in the community for clean water

Imagine 52 dump trucks—that's a line a quarter-mile long—heaped with dirt, backed up to a creek, ready to dump valuable lowa topsoil into the water. If it weren't for Don Soutter and his efforts, that 778 tons of soil would be washing into Camp Creek in rural Polk County each year. When the stream landed on the state's impaired waters list, Soutter took action. He started using conservation practices like filter strips and no-till on his farm, joined the Camp Creek Watershed Project advisory board and became a Polk County Soil and Water Conservation District commissioner. "I'm a firm believer in being a part of the solution instead of fighting it at every turn," says Soutter. He's cultivated his family's 200 acres in eastern Polk County since 1966. When Soutter began putting in basins and grassed waterways to slow and filter runoff water, neighbors' eyebrows raised. One told Soutter that "your old man would roll over in his grave" if he saw the work. Then, a year later, that neighbor was back to see how he could use the same practices on his land. "Don's one of the most proactive landowners we have and spreads the word. He's very visible in the farming community," says Brandon Dittman, the project coordinator. "Don has trapped more sediment than any other farmer in the watershed." He's also helped Southeast Polk students with their annual stream cleanup. "You have to do something for the community," he says. "This is my way of giving back."





A NATURAL INTRODUCTION

STEPHANIE PENNISTON, BELLEVUE

Outdoors enthusiast opens doors for girls interested in natural resources

Stephanie Penniston grew up fishing, camping and canoeing, but didn't have the same chances as boys her age to learn outdoor skills. She was one of just a few women in her college forestry classes. So for the past 11 years, Penniston has made sure today's girls know about outdoor skills and careers. While doing seasonal parks and fisheries work, Penniston learned about the Outdoor Journey for Girls camp, or OJ, put on by the DNR, Iowa Women In Natural Resources and Pheasants Forever. She volunteered as a chaperone, and "it took on a life of its own from there," she says. When a full-time staffer left, Penniston offered her help and was soon serving as the camp's registration and on-site coordinator—all as a volunteer. "Her efforts have been priceless. Without her dedication, we would not have been able to expand the program so successfully," says Joli Vollers, a DNR conservation officer and OJ instructor. At the three-day camp that introduces outdoor skills to girls ages 12 to 15, Penniston organizes chaperones, works with parents, wrangles equipment, teaches programs and comforts ill and homesick campers, "This is a wonderful way to get girls out there. It opens their eyes to what options they have," she says. While she no longer handles registrations, there's promoting the camp and planning, which keeps the Bellevue stay-at-home mom busy all year. "It's a program that's very important to me, seeing the girls experience new things. I want to keep the camp going strong." Visit www.iowadnr.gov/oj/ for more.

A FLEDGLING IOWA ENTERPRISE

DIANE JACOBS, NODAWAY

Adams county woman maintains bluebird houses for more than 20 years

What started as a simple construction project for her son's Tiger Cub Scout den developed into a 20-year labor of love for Diane Jacobs of Nodaway. Using materials offered by the DNR, the boys built 10 boxes for bluebird nesting, giving most of them a home on Jacobs' farm. As Scouts moved on, Jacobs became like a den mother for the bluebirds—regularly checking the boxes for baby bluebirds and evicting harmful sparrows and starlings. "Most people would have put them up and that would be the end of it," says Karen Anderson, who set up her sister with the house materials. "It's amazing the amount of time spent by a single person doing this. Think of the impact she's had." Jacobs now maintains 22 boxes across two counties and estimates she's had more than 700 baby bluebirds fledge—or leave the nest—from her boxes. "I have friends who had never seen a bluebird before, and I never saw them as a kid," she says. "Now I see them a lot. That's really rewarding, seeing them get ready to fly." It also ties back to getting kids interested in the outdoors. "They're so enthusiastic when they're little," says Jacobs, recalling her son's reactions to the bluebirds 20 years ago as well as her grandson's today. "We have to get our kids out there, but the adults have to be interested first," she says.



Lost In Towa

BY JENNIFER WILSON PHOTOS BY CLAY SMITH

(Not Just) For the Birds

With an addition in the parks system, southwest Iowa's Fremont County, known for its birding and Loess Hills, just got a little more interesting.

opposite PAGE: Spring and fall migrations of snow geese and other waterfowl make Fremont County a birding magnet.
Red buds and wildflowers of bloodroot, spring beauty and Dutchman's breeches attract photographers and hikers.
SADDLE UP: Challenging trails along the Loess Hills make Waubonsie State Park a favorite for trail rides.



Redbuds bloom fuchsia against the dark tangle of rain-wet trees. On this spring day in southwest Iowa, Ross Silcock picks his way through the underbrush of Waubonsie State Park (42 miles south of Council Bluffs). A brisk chill nips the air. The long icy finger of winter is making one last brush over the land.

"They're trapped with us this weekend!" he announces in a thick New Zealand accent.

What he's talking about, this man in blue fleece and black ball cap, is birds. And what else he's talking about, a man whose face seems perpetually on the verge of laughter, is a cool snap in a warm spring that has temporarily halted seasonal migration.

"Birds want to hunker down at times like this until it warms up again," says Silcock, one of Iowa's premier birdwatchers. "It's a birder's preoccupation to figure out the best time to look. If a cold front coincides with a weekend, everyone's happy."

Silcock is a jovial import who fell for an American woman after college, married her, and made Iowa his home. He sells insurance in Sidney by day, and gleefully stalks the many, many birds of Fremont County whenever he can.

WINGS AND THINGS

It's a good place to do it. Ecosystems tend to collide in the corners of states like this one bordering Nebraska and Missouri, and vagrants cross over for surprise visits. Think lazuli buntings, glossy ibis, and neotropic cormorants. Wetlands, forest, bottomland and upland host a stunning variety of airborne friends.

Though Iowa's Loess Hills aren't terribly exciting taken alone—essentially big undulating snowdrifts of

finely crushed rock deposited long ago by the Missouri River—a drive along the Loess Hills Scenic Byway with binoculars in hand spices things up considerably, with all the birds along the way.

Other birding hotspots include nearby Forney Lake (nationally known for thousands of snow geese and good numbers of bald eagles early in spring) and Riverton Wildlife Management Area for shorebirds, right next to the fast-moving ditch of the Nishnabotna River. Riverton totals about 800 drivable acres—about three hours to cover the whole thing on foot.

With any luck, seekers might spot a Chuck-will'swidow, a nocturnal bird related to the whip-poor-will that sucks up insects with its unusually huge mouth. The only all-red bird in North America—the summer tanager—shows up to the party, too.

A NEW HOT SPOT

But the big buzz in Fremont County isn't necessarily of the winged variety. In the past, campers probably wouldn't find too many rabid recommendations to head to Waubonsie State Park. Named for a sub-war chief, its 1,346 acres were nice enough, nestled as they are in those Loess Hills. Waubonsie just seemed to be lacking a little Elvis, compared to bigger parks with bigger lakes and bigger neighboring towns.

Then the adjacent Camp Wa-Shawtee Girl Scout camp went under a few years back. With the help of the Iowa Natural Heritage Foundation, the DNR bought it. Suddenly Waubonsie State Park is poised to be everybody's new favorite weekend spot.

Lost In Towa







For starters, the 646 new acres of the Wa-Shawtee Addition makes Waubonsie 52 percent bigger. Now the park scenery that was once merely pretty is fairly vast as well. Windswept ridges give way to dramatic gorges and valleys. Forty campsites overlook wooded ravines.

Hikers and mountain bikers can see clear to four states on one popular overlook among the 16 miles of trails. Quiet travelers might catch a glimpse of a turkey or bobcat, too. The unusual loess ecosystem is almost desert-like, with yucca plants and funky lizards called Great Plains skinks. The seven-lined race runners look a little like geckos.

Park manager Kevin Thorne likes to gather pawpaws from Waubonsie's trees and walk through the campground, letting people sample flesh that tastes like a cross between a banana and a mango, with significantly more protein than most fruits. Thorne is careful not to offer the whole thing, though, or campers might be spending some quality time in the restroom.

"It's just amazing to let people in on all of this park's little secrets," says Thorne. "You'll see plants and animals here you won't see for hundreds of miles in any direction."

Just as exciting as the land acquisition is the addition of more beds and some water. Also in the Wa-Shawtee deal, Waubonsie added three newly renovated family cabins with full kitchens and baths.

The seven-acre lake is 32 feet deep, and stocked with catfish. A new boat ramp helps with access for the decent fishing, which is the best bet for dining, paired with some spring morels.

For dessert, travelers can stop just outside the park entrance, where the century-old Mincer's Orchard has beehives and pick-your-own fruit.

For an online bird guide to Fremont County, check out an article by Ross Silcock at www.iowabirds.org/places/fremont_co.asp



FLUFF UP THE BIRDS

To get birds to perk up or hop to a different branch for better viewing, repeat the birder's standard noninvasive noise "pish, pish, pish."

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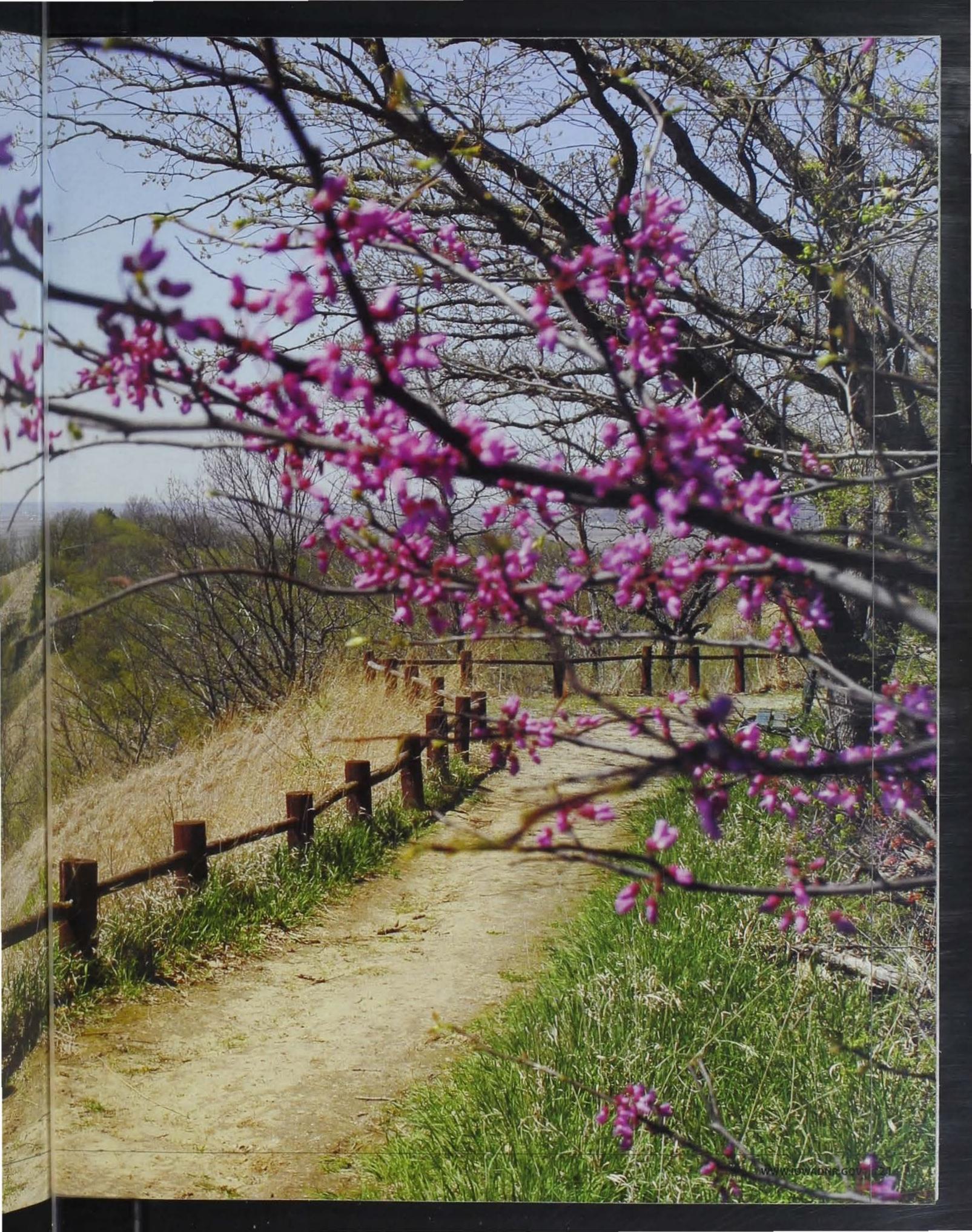
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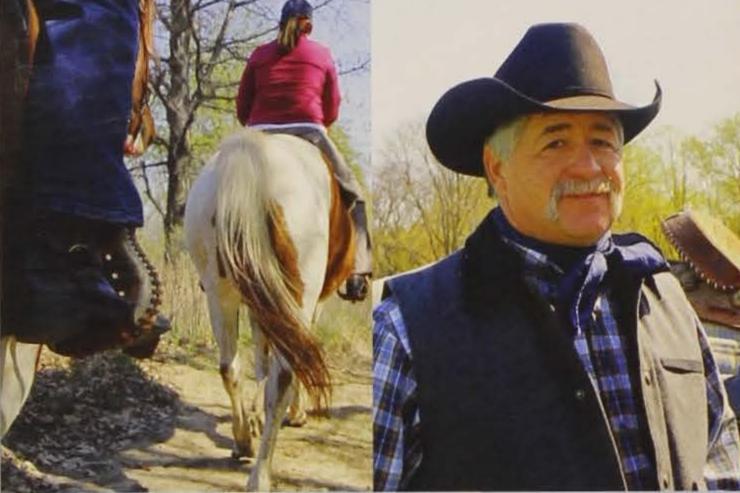
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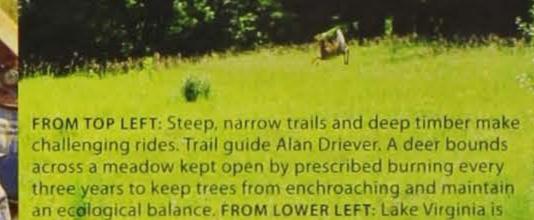
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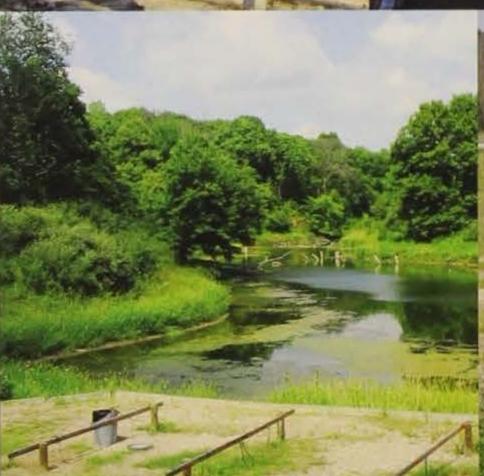
Lost In Towa





popular for fishing. Frank and Amy Faust, owners of Sugar

Clay Winery, a popular side trip for park visitors.







"People like to go to Mincer's for strawberries, then go back to the cabins and make home-made ice cream," says Thorne.

Thorne himself seems to be a draw for campers, too. He's a bear-hug kind of guy who visits with everyone he meets, and shouts of "Hi Kevin!" ring throughout the campground when he rolls in to check on his guests.

Roxie Barker of Nebraska City is one of those.

A regular who visits several times each year with her whole family, Roxie flags down Thorne on a spring drive through his domain. She has a morel report, and a few compliments for the park.

"I love the peace and quiet of this place," she says. "I love this location. I've camped here three times in four months. And we all love Kevin and Matt (Moles, park technician)."

THEN THERE BE HORSES

Waubonsie's equestrian trails court a lot of return visitors, too. A ride in Waubonsie is a challenge, a privilege—and convenient. Nineteen pens border the equestrian campground, a gateway to three trailheads and nine miles of trail over steep, lush canyonland. Jungle-like ravines with thick, generous canopies give the feel of

being lost in the woods just a mile or two from camp.

Families bring their own mounts, or hire Alan Driever, a slow-talking cowboy with a salt-and-pepper moustache to guide them on his horses.

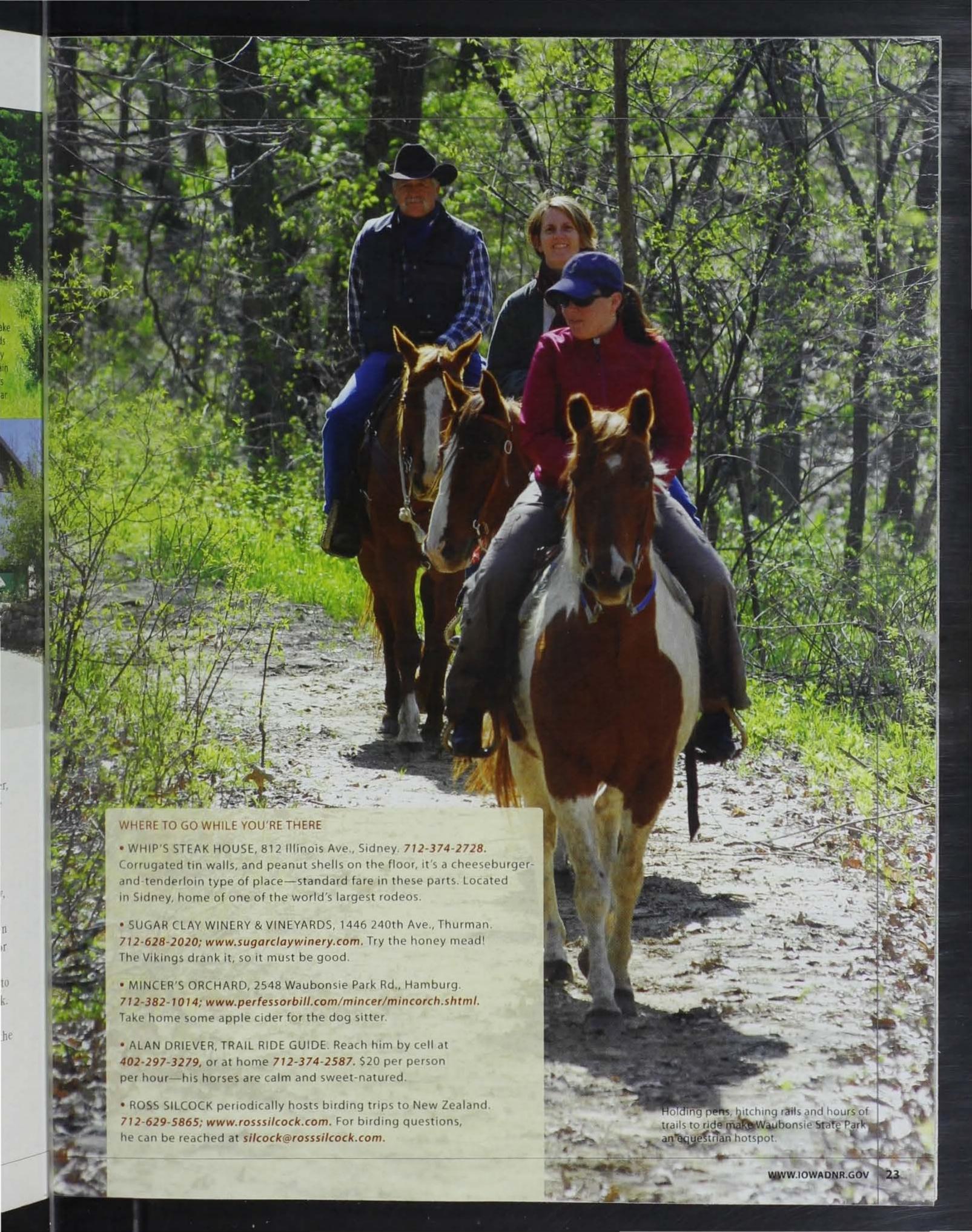
A new winery, Sugar Clay near Thurman, features a tasting room and a wooded deck that threads through a stand of trees to view a six-acre vineyard. It's one of many new additions to Iowa's burgeoning wine industry, and a must-visit side trip.

With the horses, the hiking, and the fishing-and-cabin combo, there's a lot shaking in southwest Iowa. Even for those who aren't here for the birds.

"Birds tend to like places that are pretty interesting to begin with, places that aren't tourist traps," says Silcock. "We're walking through spectacular scenery here."

He's on to something, as he continues watching for the birds that have enchanted him in this country. Looking around Fremont County these days, a person gets the feeling he won't be wandering alone for long.

Waubonsie State Park, 2585 Waubonsie Park Road, Hamburg. 712-382-2786; www.iowadnr.com.



BY BILL KLEIN PHOTOS BY HAROLD P. KLINE

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THE SILVER POINT OF AN EVENING STAR DROPPING TOWARD THE HAMMOCK OF **NEW MOON OVER** LAKE OKOBOJI, OVER PRAIRIE WATERS IN IOWA - IT WAS FRAMED THE UGHTS JUST A SHARMAN GEN

CARL SANDBURG

Without a depth finder. Thirty feet under the Okoboji waters of Millers Bay. A rock pile just off Hiawatha Point. That's where he was almost 60 years ago. It's seared into my memory forever. Because it was my first walleye.

The Okoboji of the 1950s was a mute twin of today's lake. No 300-horsepower engines blasting cigarette-shaped boats across the waves. No swarms of jet skis screeching over the wakes of the monster crafts. Far fewer people. The summer winds carried mostly silence. Especially at night.

It was in the super silence and inky darkness of a new-moon night that my dad and I plied the waters 200 yards off the dock of Hiawatha Point Resort. Me in the back seat facing the stern and he at the oars. Under us was a 14-foot cedar strip boat hand made by the owner of the resort where we stayed.

Andrew Vestergaard was a stout Dane. Never without a hat. And, like the lake in those days, quiet. Hours would pass without words as I watched him at the boat-making trade in his small shop just across the road from the resort. The sweet smells of shaved cedar and pipe tobacco intermingled within the stucco building. Snippets of conversation didn't begin to satisfy my curiosity.

"Where did you learn how to build boats?"

"My fadder," he would answer in his thick accent as he dipped another piece of cedar into a tank of water and clamped it into a gentle curve to help form the bow of the next boat. But most of my 9-year-old natterings were answered with but a patient smile. The grin began at the burl pipe in the middle of his mouth and curved gently



SAFEMERS WATERS OF MILLERS BAY. THE ONLY DANGER WAS THE 5 3 4 5 NEED A (GS)

WWW.IOWADNR.GOV

TAMAS IN THE SUPER SILENCE AND INKY
DARKINESS-OF
A MEW-MOON
MIGHT THAM MY
DAD AND I PLIED
THE WATERS

upward at the ends, like cedar strips in the water tank.

Oars were expertly shaved from cedar blanks. The blades attached with glue painted on from one of a dozen unlabeled jars and held in place by ancient wooden clamps featuring a spiral of hardwood threads.

It was with a set of these oars that my dad propelled us back and forth across the secret rock pile. Unseen by any digital contraption but sharply focused in my imagination. At the turns my dad would dip a cupped hand into the lake and dribble water into the oar locks to quiet them. Trolling was new to both of us. An intriguing tactic for normally anchor-bound fishermen. It was suggested by Mr. Vestergaard. Walleyes like their bait moving he taught. This was a fish known to us only in the pages of Field&Stream magazine.

Adding to the night's excitement, I was allowed to use my dad's best Pflueger rod and reel. This was truly the Big Leagues of fishing. And I was a player.

Normal fishing on West Okoboji in the 1950s was mostly a worm-and-cork-bobber affair.

When we were lucky enough to stumble into them, bullheads were plentiful. Well-muscled but slimy, they would bend a kid's rod to near breaking. They tasted good, but we tired of dodging their stingers while grunting slippery skins off with pliers.

The rare trophies were the pound-and-a-half perch.

The pursuit of these scaled beauties first required a trip to Spud's Resort just across the canal from Vestergaards.

There, in the office beyond the cooler of nightcrawlers, was a dark tank teeming with crawdaddies.

Baiting with these required nerves of steel and a deft hand. Gripping them just behind their beady eyes so they couldn't pinch you with their claws, you twisted their tails off and peeled them white. And then impaled this raw delicacy on a longer-than-normal perch hook.

But the mid-summer perch schools were hard to find. Emerson Bay was said to be teeming with them. It might as well have been a world away for a motorless boat. My dad was wary of outboard motors in those early years. Too loud for fishing, he cautioned, Scatter the fish to Kingdom come. Still, I always looked with envy at the Johnson Sea Horses resting at the Vestergaard dock, wallowing in rainbow-colored slicks of their own making.

Beside the long row, the path to Emerson Bay took you across a stretch of the open part of Okoboji where the wind's reach was several miles. White caps dashed my perch dreams most days.

But tonight we were safe in the lee waters of Millers Bay. The only danger was the nightly loop into the bay by the Queen—flagship of the Iowa navy. Huge, double-decked and sleek, the ship was akin to the HMS Titanic for us dry landers from southern Iowa.

When it made its tourist-laden voyages around Okoboji even teenagers would stop their mock fights on swimming platforms to admire its majesty.

Just after the Queen passed us and turned into an Arnolds Park heading my dad announced, last pass. But we've only just begun I thought. The now-familiar wobble of the Lazy Ike lure had been uninterrupted in its deep swim across the rock pile. When Zing...Whir...the lock on the Pfleuger reel was no match for whatever was suddenly stripping off its braided line. "Got the bottom?" my dad asked.

"No, it's a FISH!" I screamed, fighting to get control of a rod that had come alive.

"Keep the rod tip up," dad encouraged. I cranked furiously on the reel handle.

"Don't horse the fish! Let him run!" My dad was

screaming now.

But none of this fatherly direction made any sens

But none of this fatherly direction made any sense to me. All I knew was I had to get this fish of a lifetime into the boat. Fast!

Finally it was alongside the boat, frenetically thrashing the water. Dad made an errant stab at it with the net, then another. The clamor was now in the bottom of the boat. I dropped the rod and clicked on my L-shaped Boy Scout flashlight. Under the tangle of fish line, net and spilled tackle box, still leaping about, an unimaginably huge walleye!

I wondered why the return row to the yellow light at the end of the Vestergaard dock was in slow motion. This news, this fish, had to be announced to every kid and every adult in the resort! Sadly, since it was after 10:00 o'clock, all the cabins were dark. Not trusting my still-trembling hands, dad transferred my fish from boat to live box at mid-dock.

While racing to our log cabin I was scared to a halt by a voice out of the darkness.

Did you find them? It was Mr. Vestergaard, behind the glow of his pipe.

"Yes, yes we did," I said. "Do you want to see him?"

"It'll wait for daylight," Mr. Vestergaard said with that familiar smile.

In the morning, at the first hint of daylight, I was positioned near the live box on the dock like a guide at a museum waiting for the first admirers. Word spread fast, especially among the kids, and soon all had been granted a peek at my rare and beautiful fish. Later, dad restrung my now-famous catch for a photograph. It was then my job to free the fish again into the live box. But when I laid him down on the dock to pull the stringer from his lips he flexed his body mightily and flopped into the lake.

Devastated didn't begin to describe me as I trudged head down toward our cabin. Along the way Mr. Vestergaard, who had witnessed the tragic chain of events from his porch, put his arm around my shoulder and said, "Don't fret Billy, I know an even better walleye spot."

STORY AND PHOTOS BY LOWELL WASHBURN

KELLERTON GRASSLAND'S UNIQUE GLIMPSE INTO IOWA'S PAST





t's still pitch-black when the hilltop stirs to life. With nearly a full hour to go until sunrise one can hear, but not see, the first male greater prairie chickens sailing in from nearby roosting areas. The lack of visibility doesn't seem to matter. This is one outdoor performance that never waits for daylight. As soon as the first chickens touch the ground, Act One of "The Spring Ritual" begins.

Somewhere on the dark prairie, the morning's first male begins his dance. The bird bows and then, in a cadence too rapid to follow, begins to stomp both feet in blurring succession that quickens to an intense drum roll. The force causes the chicken to spin like a feathered wind-up toy.

But the best of the show is yet to come. With feet still pounding, the bird suddenly bows again and begins to pump air into its leathery, orange neck sacs. Once the chicken's neck is fully inflated, the prairie song begins. It is a sound like no other.

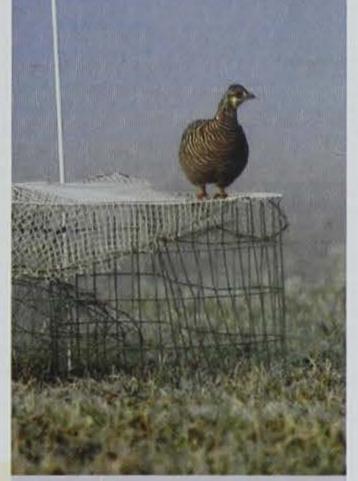
Eerie, weird, mournful, haunting. Although these adjectives may attempt to describe the prairie chicken's courtship call, the words fail miserably. In reality, the hollow, resonate sound is completely indescribable. Once heard, this unique bird song will be burned deep into your memory to be replayed time and again.

The chicken's initial booming does not go unnoticed by other early arrivals. In a fit of intense jealous rage, a nearby cock suddenly rushes the dancer. Beak-to-beak, toe-to-toe, the birds quickly square off. With hackles raised, the challenge begins. But neither bird is willing to back down. Within seconds, the cackling confrontation

(Continued on page 36)







OPPOSITE In displays for dominance and the right to mate, males compete for the affections of hens at booming grounds or leks—communal areas where males make vocalizations with showy courtship rituals. TOP: A victor removes a rival's feather. RIGHT CENTER: After failing to enter the funnels of a wire live trap—perhaps due to fog and frost—a hen uses the roof to survey its home base at the Kellerton Grasslands Bird Conservation Area. After days of trapping, DNR biologists successfully obtained blood samples and banded numerous birds from the leklowa's largest and most active prairie chicken breeding ground. Collected genetic information will help better manage populations. RIGHT: DNR Biologist Chad Paup checks a live trap. After following a wall of wire barriers to

the trap, birds enter through one-way funnels.



Biologists Fight to Prevent a Lonely Population From Self-Destruction

BY LOWELL WASHBURN

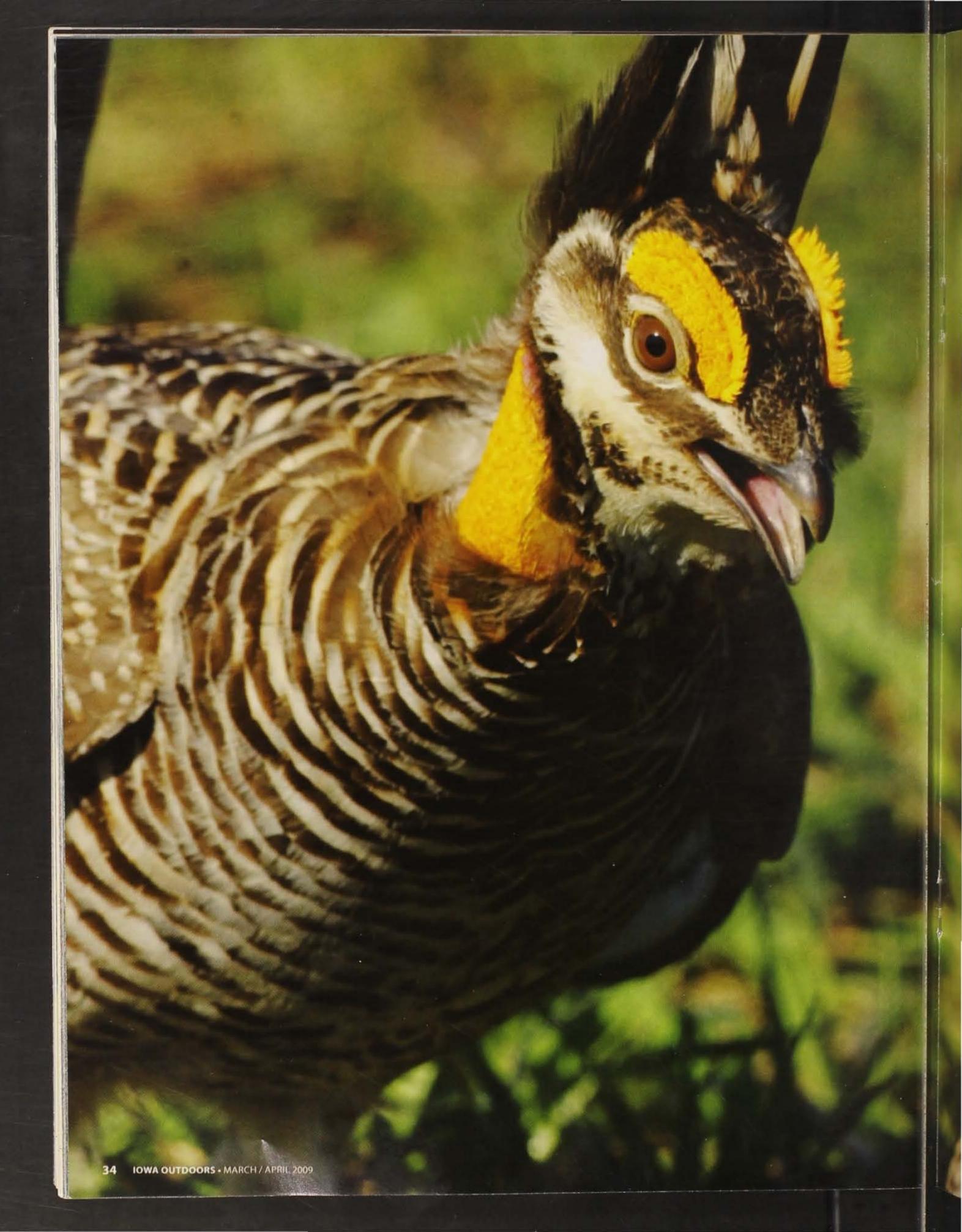
Tt's late April and there is no question that spring has arrived at Ringgold County's Kellerton Grasslands Bird Conservation Area. From the crest of a nearby hilltop, a flock of greater prairie chickens call, fight and dance. The males assemble here each spring, hoping their courtship calls will attract interested hens. It's a ritual as old as the Iowa prairie itself. When European settlers first arrived in southern Iowa during the late 1830s, they reported an active booming ground, or lek, where mating rituals were held on this very hill.

Historically, prairie chickens shared this once-endless prairie vista with such large and magnificent creatures as elk, wolf and bison. These charismatic species, along with nearly all of the state's native prairies, have long since vanished. Today, only a few chickens remain. And although current populations are but a mere glimmer of the glory days, their booming calls preserve a vital link to Iowa's grassland heritage.

But on this spring morning the chickens are not alone. From the isolation of a wooden viewing platform, DNR Wildlife Biologist Chad Paup watches and waits. Scanning the flock through the powerful lens of a spotting scope, he's hoping to observe some of the birds as they enter the funnels of small, wire-cage traps scattered across the area. The chickens are live-trapped so scientists can obtain blood samples, weights and other scientific information. Once data is obtained, each bird is banded and released.

"There are currently around 30 prairie chickens on the Kellerton Area, which easily makes it Iowa's largest lek," says Paup. "Although this flock seems to be hanging on and holding its own, we are very concerned with the isolation of this species. Since there is no interaction with birds from other flocks, we're concerned that a genetic bottleneck may be occurring. At this point,

(Continued on page 37)



VANISHING BREED- Once common across lowa, the prairie vanishing Breed- Once common across lowa, the prairie chicken fell to the gun and plow as the rich prairies were turned to crop fields and tens of thousands were killed in the 1870s and 1880s, mostly due to market hunting. In the past, flocks of 300 or more chickens would gather in the winter stubble fields. One flock viewed in 1884 near Charles City "...in flight was half a mile long, fifty yards wide, and three to four birds deep. If each bird occupied an area of two by two yards and the birds were three deep, the flock contained 33,000 birds..." according to "A Country So Full of Game," by James J. Dinsmore. WWW.IOWADNR.GOV 35







(Continued from page 32)

escalates to where each male is leaping straight into the air while assaulting its opponent with beak, wing and claw.

The battle continues. Finally, following several loud and violent clashes, the challenger concedes and retreats to the hilltop's perimeter. Reminded of his ranking, the exiled chicken soon resumes dancing—this time from a safe distance.

There's good reason for all this aggression. For the greater prairie chicken, spring booming grounds, more properly called leks, are the very essence of species survival. Although all adult males boom and dance, only the most dominate birds are allowed to occupy the lek's center stage where females will eventually come to be courted.

Although hard to determine their exact number, a steady trickle of males has been arriving on the booming ground for the past half hour. And as the eastern sky becomes tinged with the orange and reds of a new dawn, the boomers display with increasing vigor. Here, amidst the seeming chaos of booming, sparring and retreating,

the daily pecking order is re-established. It's an age-old scenario. Dominant males to the center; younger, inexperienced birds to the outside.

By now the lek is an amplified cauldron of sound as each bird does his best to out-compete rivals. On a crisp morning, the collective booming can be heard for a mile or more in all directions. One can only imagine the wall of sound that once greeted the spring sunrise as tens of thousands of greater prairie chickens boomed and danced across pre-settlement prairie landscapes.

Daylight is coming fast now, and one can begin to see the birds more clearly, 13 chickens in all.

Suddenly, without fanfare, a lone female mysteriously appears on the hilltop's horizon. Males acknowledge her presence and the booming escalates to near hysteria. The hen pauses to briefly survey her surroundings. Satisfied that she has become the absolute center of attention, the bird gracefully strides toward the center of the lek.

FIRE ON THE HILLS

Prescribed burning has become one of the DNR's most important tools in the continuing struggle to preserve beleaguered grasslands. Fire stimulates growth among native prairie plants and retards the invasion of shrubs and trees.

"Re-establishing prairie grasslands takes patience," says DNR Wildlife Technician Micah Lee as he conducted a controlled burn at the Kellerton Grasslands Area last April. "The section we're burning today was seeded to warm season, native prairie species three years ago. I can see that a lot of good stuff is starting to come up here. This year's burn will be a set back to undesirable, cool season grasses but will stimulate the growth of warm season natives. The end result will benefit nesting prairie chickens as well as other grassland bird species."





ASSIGNMENT PRAIRIE CHICKEN: GETTING THE PHOTOS

Successfully photographing spring prairie chickens means getting out of bed early for staff photographer Lowell Washburn, shown above middle. Today, that meant being in the blind and set up before 4 a.m.

"The lack of sleep was easily worth it. The sky was cloudless, the lightwhen it finally came—was perfect. Best of all, the chickens were cooperative."

He arrived on site the afternoon before and located the areas of greatest courtship activity. Prairie chickens are creatures of habit, and chances of return visits were all but guaranteed.

To increase chances for success, "I brought an old taxidermy specimen—a study skin of an lowa chicken collected around the turn of the last century. I hoped booming males would be duped by the fake and come closer to display. To protect the old study skin from possible aggression, I encircled her with wire cylinder." (Shown opposite top left.) The tactic worked. At one point, five males danced and fought before the century old decoy.

The high point of the day came when booming males leaped onto the roof of his lightweight portable hide. "Pressing against the blind's thin exterior, one chicken danced on my head. The sound of the booming bird was incredible, and the assignment remains one of my most thrilling photo shoots."

(Continued from page 33)

there is no mixing of the gene pool."

Historically, prairie chickens drifted between leks—sometimes traveling as far as 15 to 30 miles to visit other birds. The result of those wanderings, says Paup, was a vibrant genetic diversity that kept populations healthy and robust. Without some measure of genetic variation, scientists fear the Kellerton birds could eventually disappear as a result of inbreeding.

DNR biologists are looking to refresh this gene pool. Perhaps the most feasible solution, says Paup, would be relocating wild trapped prairie chickens from thriving flocks in Nebraska to southern Iowa.

"But before we do anything, we need to obtain a genetic baseline from the birds already existing here," says Paup. Blood samples taken from southern Iowa birds will be analyzed at a Wisconsin laboratory that specializes in prairie chickens and other birds. The lab even has limited historic genetic information from Iowa prairie chickens collected about the same time pioneers arrived, he says.

"Right now, we know of six locations where at least a small number of males are actively booming," says Paup. "Although the numbers are extremely small, those birds really do give us hope that existing populations have the potential to expand.

For now, DNR wildlife personnel continue to manage the Kellerton grasslands in a way that provides maximum benefit to native prairie plant and wildlife communities. Prescribed burning has become a major tool in the endless war to halt encroaching trees while preserving the integrity of prairie plant communities. Biologists are also working with landowners to improve the quality of nearby private grasslands.

"If we're eventually able to trap and bring in wild birds from Nebraska, I'm hoping that it will be on a scale that will really make a difference," says Paup. "There are a couple of ways to tackle the project. One option is that we could attempt a one time, big release of at least 200 birds. I think an even better approach would be to stock 75 to 100 chickens every other year.

"Prairie chickens represent a unique connection to Iowa's prairie heritage. Managing the Kellerton grasslands for their continued benefit is a top priority."

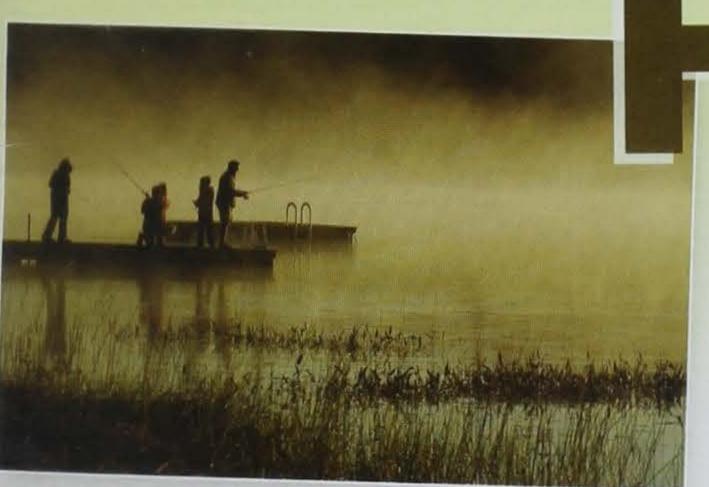
SPRING FISHING FORECAST

BY MICK KLEMESRUD

2009

READYS

Lake Improvements
And Flood-altered
Rivers Have Anglers
Ready To Go.



hile the old axiom that the best time to fish is whenever you can get out may be little more than a witty response from the hardened angler, the saying may contain more truth than fiction. Wait until the reports trickle in that the fish are biting, and you may just miss the boat on some of the best action of the year.

ICEOUT

Ice leaves lakes and streams in southern Iowa in late February and fishing for channel catfish and largemouth bass begins shortly thereafter around the first week of March. Catfish will follow a trail of winter-killed fish. Those dead fish float after ice out and get blown to shore and collect in shallow bays to serve as a buffet for hungry catfish. Use any dead fish—like shad or cut bait—that looks like what has died over the winter. Warm, windy days always provide the best fishing, and when the fishing is good, it is likely impossible to fish with two rods.

The Coralville and Rathbun reservoirs, along with

Mississippi River backwaters, provide excellent early season catfishing. Other interior streams are also good; fish where creeks enter the river and the water is warmer. Larger catfish can be found in Lake Manawa, Lake Anita, Saylorville Reservoir, Lake of Three Fires, Three Mile Lake and Badger Creek. The DNR's aggressive catfish stocking program has established a good catfish population in nearly every public lake in Iowa.

Largemouth always seem to be biting, but trophy fish are caught right after ice out. After a long winter, big females go on a feeding binge to support their developing eggs sacks and prepare for the spawn in early summer. To find these trophies, use rubber worms or spinners slowly around shoreline structure. Some top bass lakes are West Lake Osceola, Three Mile Lake, Lake Anita and Big Creek Lake.

EARLY SPRING

During the last two weeks of March and the first three weeks of April, walleyes move to shallow rocky areas, like gravel points or the face of a dam. Males come in first to wait for females to come in to spawn. A good technique to hook these aggressive fish is to use a 1/16 to 1/8 ounce jig tipped with a 2- to 3-inch white, yellow or chartreuse twister tail body or shallow running 4- to 5-inch crankbait and fish in less than 4 feet of water. The best bite is from the late afternoon, evening and morning hours. Target rocky shorelines where the wind is blowing in. Top walleye waters are Twelve Mile Lake, Three Mile Lake, Lake Icaria, Lake Manawa, Lake Sugema and the Des Moines, Raccoon and Middle Raccoon rivers. Trophy walleyes have



been caught from the El Dorado and Clermont areas along the Turkey River. In the rivers, use a lead head jig tipped with a minnow and a slow retrieve. Fish below the low head dams and other fish barriers, like gravel bars.

North Iowa will lose its ice from middle March to around the first week of April, beginning with the smaller, shallow lakes, followed by the larger deeper ones. Northern pike will go on the prowl right after ice out, cruising along shore looking to spawn and for an easy meal. Look for areas of inflow or current coming in from a marsh and use live bait or dead chubs on the bottom. The best pike action can be found at Little Swan Lake in Dickinson County, and in West Swan Lake in Emmet County. In the Mississippi, Maquoketa and Wapsipinicon rivers, pike gather in backwater areas with vegetation right after ice out. Fish just off the weeds for the best action. After the spawn, pike move out from the backwaters and will bite all day long. Fish the cuts connecting these weedy backwaters to the main rivers using live bait, like suckers or Daredevil spoons, bucktails or frog imitation lures. Wader fishing is as good as boat fishing for walleyes in north Iowa lakes with an open season. Use a jig and minnow or twister tail and fish slowly. The east and north shores of Storm Lake are good, as is Silver Lake in Dickinson County.

March-April is walleye and sauger time in Mississippi River tailwaters below any lock and dam where fish stage, preparing to spawn. The most effective technique is a twister tail or a hair jig tipped with a minnow. On both forks of the Des Moines River (Emmet, Palo Alto, Humboldt counties), the Little Sioux in Clay County and the Raccoon in Sac County, fish around barriers, like gravel bars or low-head dams. Fish will move upstream from over-wintering holes and gather below low-head dams or rock riffles. Target deep water below those barriers or back eddies where fish are not fighting current. "Use a slow retrieve in cold water because fish are moving slowly," says Jim Wahl, fisheries supervisor in northwest Iowa. As water warms, add night crawlers and crankbaits to the offering.

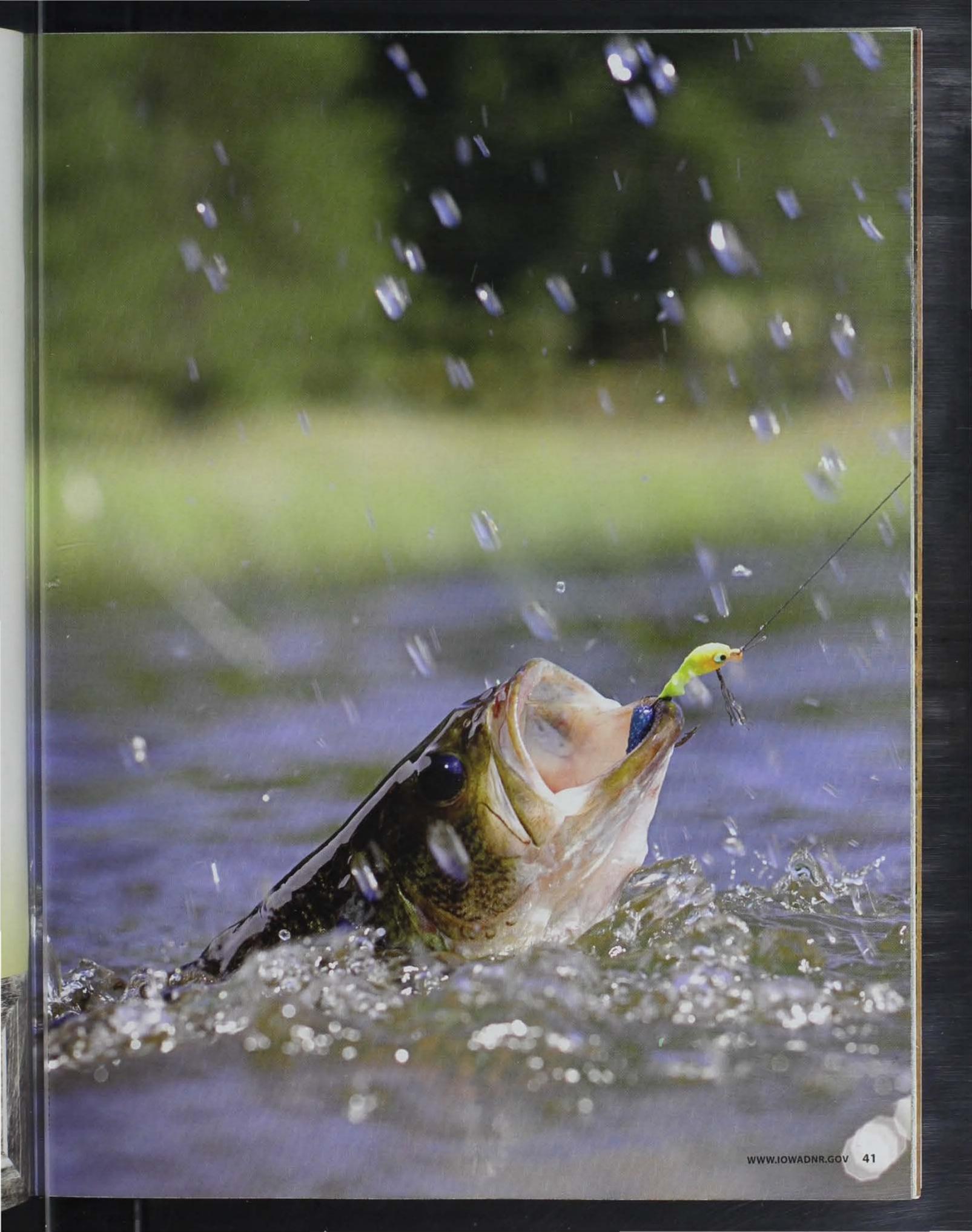
By April, crappies and bluegills in smaller lakes get active. Lake Macbride is a must, with excellent numbers of 8- to 10-inch crappies and clear water. Nearby, Coralville has 14-to 16-inch crappies, and the best fishing is mid-lake around rocky shores with brush, and the shallow upper end, which warms first. Pay attention to water levels if heading to Coralville as fishing can be difficult if run-off is high and the water is muddy.

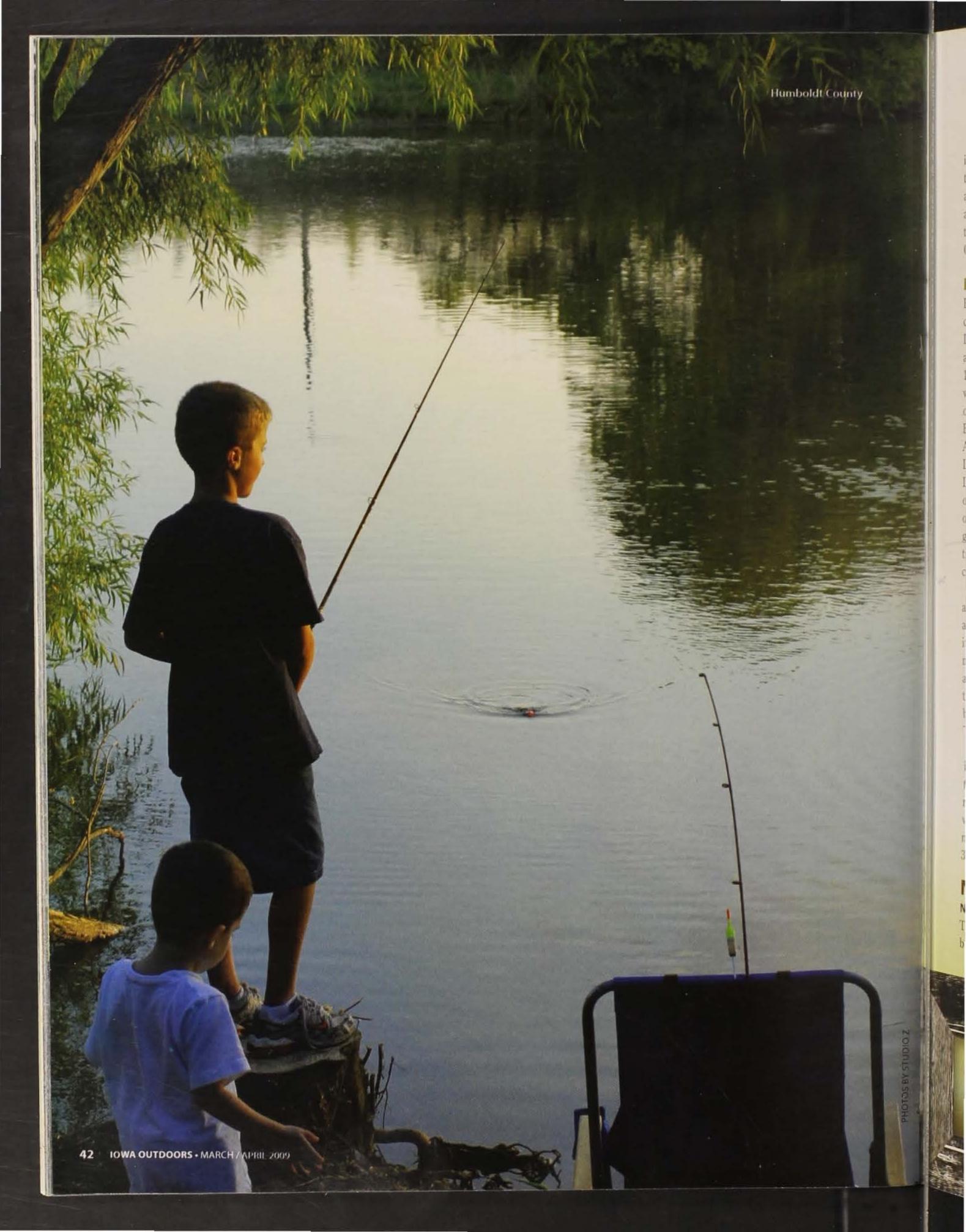
Bass anglers should switch to spinner baits, crankbaits and jig-n-pig, and when frogs begin showing up, use fake frogs near lily pads and vegetation. "When bass suck it in, wait a couple seconds to set the hook," offers Steve Waters, fisheries supervisor for southeast Iowa.

Trout stocking begins April 1 but many areas will be holding fish throughout the winter. The streams in Clayton County—Sny Magill and Bloody Run—have good trout populations and angler access. Bloody Run is in a county park and anglers headed upstream will enter a state area with a 14-inch minimum length limit and brownies raised in the wild. There are many fish above the 14-inch limit in this scenic area.

French Creek has good trout fishing all year with strong populations of wild browns and a good year class coming on. Turtle Creek, in Mitchell County, has benefited from several recent improvements. The county conservation board purchased additional land for access,







installed new habitat and worked with private landowners to protect water quality. The trout segment now stretches about 2.7 miles. "Turtle Creek has all the qualities of a good stream. It has a good watershed, good water temperature and has good numbers of fish," says Karen Osterkamp, fisheries supervisor for northeast Iowa.

LATE SPRING

Beginning in late April and running into early May, crappies begin moving shallow on some pre-spawn runs. Look up-lake to the upper arms with shallow water and flooded timber that warm quickly. Use a 1/32- to 1/64- ounce jig and tip it with a small minnow with or without a bobber. Good lakes for numbers and sizes of crappies are Lake of Three Fires, Three Mile Lake, Big Creek Lake, Coralville, Diamond Lake and Lake Anita. Crappie fishing will also be good at Briggs Woods Lake, the canals on East and West Okoboji, Upper and Lower Gar and Minnewashta. The best fishing will be on sunny days around vertical cover like wood docks or catwalks. Badger Lake in Webster County also offers good crappies. Use a tube jig under a small bobber, and tip with a minnow if the bite is slow. Crappies in the water column will rise to the bait.

Some of the best fishing all year will be for the superaggressive yellow bass during the spawn at Clear Lake and North Twin Lake. Use a small leadhead jig and tip it with cut bait or a piece of night crawler and fish on or near the bottom. Yellow bass prefer rocky bottoms, and at Clear Lake, that means the island, Dodges Point or the outlet. Shore fishing will be as good if not better than boat fishing. Yellows are running 7 to 9 inches at North Twin and 9 to 11 inches at Clear Lake.

Walleyes and smallmouth bass should still be biting in northeast Iowa rivers. This is also a good time to head to Lake Hendricks for largemouth bass with its 18-inch minimum and good numbers of big bass. Channel catfish will prowl at Volga Lake, where surveys found good numbers of cats larger than 16 inches and many 24- to 30-inchers. Use cut bait or night crawlers.

NEW FOR ANGLERS

NEW REGULATION

There is a new daily bag limit on crappies and bluegills, but no possession limit. Anglers may harvest 25 bluegills



and 25 crappies daily from public waters in Iowa.

LAKE RENOVATION UPDATE

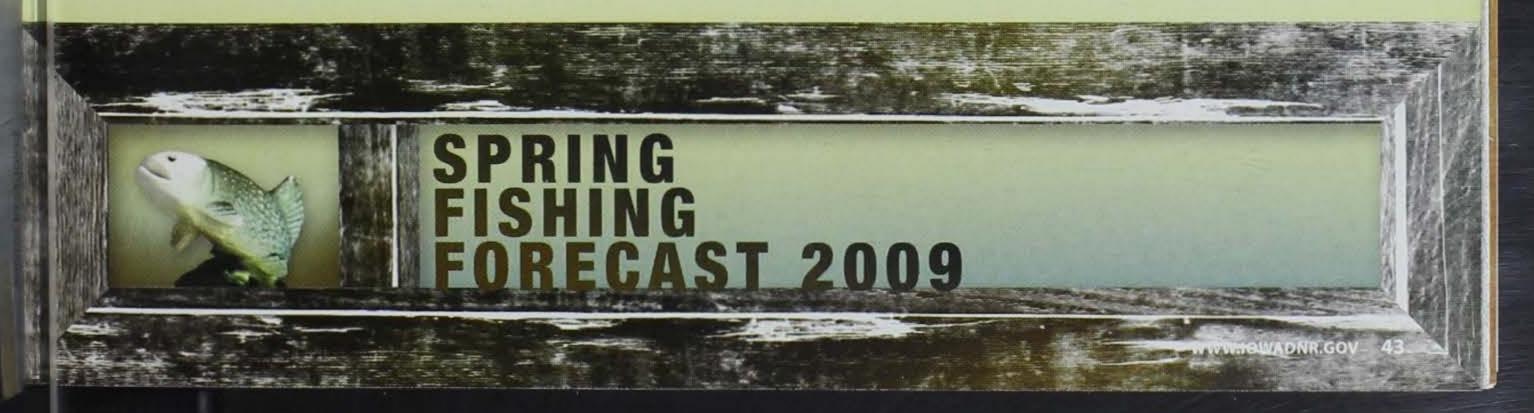
Meadow Lake (Adair County) has been drawn down for in-lake fish habitat work. The fish population has not been renovated.

Green Valley Lake (Union County) has been lowered and the fish population eliminated and restocked. The lake will be allowed to refill this spring.

Viking Lake (Montgomery County) is two years past its major renovation and the fish are growing well. Fishing should be outstanding at the end of this year and definitely for 2010.

Lake Wapello (Davis County) was drained in 2008 to fix a leak in the dam and remove a gizzard shad population that someone had introduced. "We were already seeing the failure of year classes of fish to develop and the overall population was beginning to collapse," Waters says. "The gizzard shad were simply out-competing the young bass, bluegills and crappies for food, so it was only a matter of time." While the lake was down, the shoreline was deepened, and fish habitat, rock reefs and riprap were installed. Waters says if the weather holds they hope to start impounding water this spring.

Lake Darling (Washington County) was drained in November to replace the failing spillway. The DNR took advantage of the drained lake to do extensive fish habitat and water quality improvement work. The project calls for silt removal, deepening shallow areas and riprapping the shoreline. For the last 8 to 10 years, the DNR worked



with landowners in the watershed and within the state park boundaries to install sediment basins to protect the lake. The timeline again depends on Mother Nature. Waters says they are hoping to finish the work by September but it may last into the spring of 2010. "This will be a totally new lake," he says.

Crystal Lake (Hancock County) fish population was renovated in the fall.

Ingham Lake had a winter kill in 2007-08 and its fish population is still recovering. The lake will be a year away from providing good fishing.

BEST FISHING IN SOUTHWEST IOWA

"All of the renovated lakes are coming back online and there is just so much good fishing here in southwest Iowa, it's hard to pick just one lake," says Chris Larson, fisheries supervisor for southwest Iowa. Twelve Mile Lake, Lake of Three Fires and Lake Anita get his vote.

All have outstanding overall fishing for bluegills, crappies and largemouth bass. Add walleyes at Twelve Mile and channel catfish at Lake Anita.

BEST FISHING IN SOUTHEAST IOWA

Lake Sugema is tops for bluegills, crappies, largemouth bass and walleyes. It also has some channel catfishing.

Lake Keomah has a quality population of bass, bluegills, crappies and channel cats of decent size worth taking home.

Lake Miami has good opportunities for bass, bluegills, crappies and channel catfish.

Diamond Lake has a good variety of fish. Lake Belva Deer has excellent bluegill and bass populations and a growing catfish and crappie population.

Lake Rathbun is a go-to spot for quality walleye, catfish and white bass angling.

FLOODING EFFECTS—NORTHEAST IOWA

The flood of 2008 changed the face of many rivers by filling in deep holes in one area while creating new holes in others. A lot of sediment was taken out and the rivers are looking good. "We have not seen any decreases in the fisheries, in fact, they are actually looking better than ever," says Osterkamp. But for anglers, "It will take some time to re-learn these rivers."

Spring Branch has good numbers of trout washed in to the stream from flooded raceways at the Manchester hatchery. The Turkey River at Big Spring also received

ADDITIONAL FISHING HOLES

ADAIR COUNTY LAKES

- 1) MEADOW LAKE
- 2) GREENFIELD LAKE
- 3) LAKE NODAWAY
- 4) LAKE ORIENT
- 5) MORMON TRAIL LAKE

OUT OF THE WAY LAKES

- TAYLOR COUNTY
 L1) WINDMILL LAKE
- L2) WILSON LAKE

MONTGOMERY COUNTY

- L3) ANDERSON AREA
- RINGGOLD COUNTY
- L4) NINE EAGLES LAKE
- LS) FOGLE LAKE
- L6) WALNUT CREEK MARSH

RENOVATED LAKES UPDATE

- X1) MEADOW LAKE
- X2) GREEN VALLEY LAKE
- X3) VIKING LAKE

X4) LAKE WAPELLO

- X5) LAKE DARLING
- X6) CRYSTAL LAKE
- X7) INGHAM LAKE

URBAN TROUT

(COLD WEATHER STOCKING ONLY)

- U1) NORTH PRAIRIE LAKE
 - -CEDAR FALLS
- U2) WEST LAKE AND
 - SANGANASH
 - -COUNCIL BLUFFS
- U3) LAKE OF THE HILLS
 - -DAVENPORT
- U4) BANNER SOUTH LAKE
- US) DMACE POND
- -NORTH OF DES MOINES
- U6) HERITAGE POND
 - -DUBUQUE
- U7) BLUE PIT-MASON CITY
- U8) BACON CREEK LAKE
 - -SIOUX CITY

a huge amount of trout when the hatchery flooded.

TIP FOR FLY-FISHING TROUT

Insects begin to hatch when the water temperature gets in the 50s. Bluewing olives hatch in March, followed by dark Hendrickson mayflies in March-April. Mayflies and caddisflies hatch throughout spring into fall.

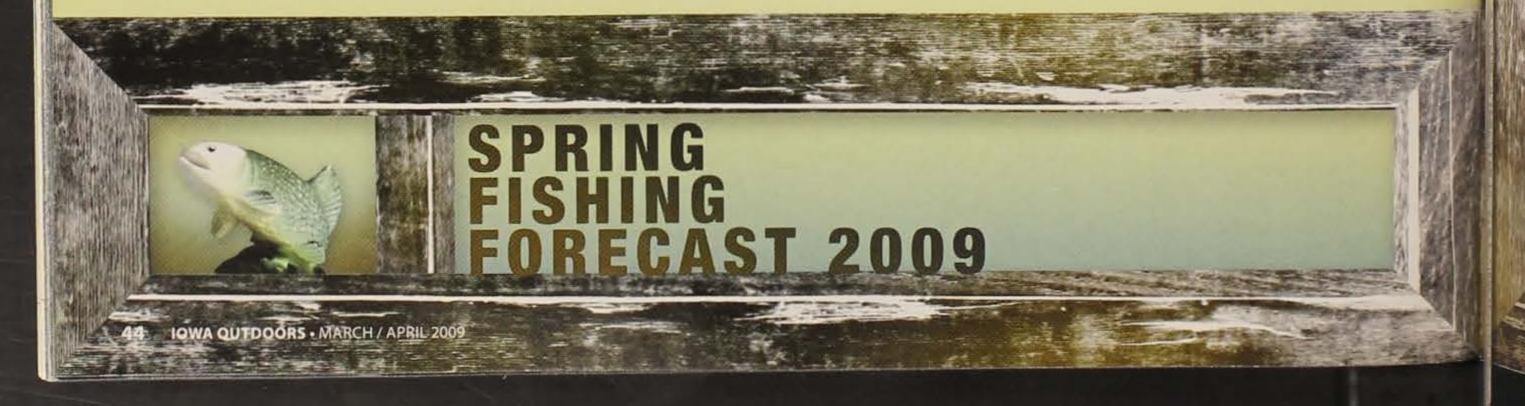
TIPS FOR SPIN-CASTING FOR TROUT

When the water is clear, fish faster and use a sinking jigging spoon. When the water is off-colored from a recent rain, use a smaller, darker colored spinner. Change the lure to match the conditions. Trout will be feeding on the bugs and worms washed into the stream.

Use small spinners in pool areas and cast upstream from where you want to fish. Fish the undercut banks and bank hides. Try not to spook the fish in the pools.

IMPROVED STREAM ACCESS

A new handicap accessible bike trail follows Trout Run from the hatchery into Decorah.





FISHING HOLE FINDER

1) BIG CREEK

LY)

- 2) ROBERTS CREEK
- 3) LAKE RED ROCK
- 4) LAKE ICARIA
- 5) LAKE OF THREE FIRES
- 6) LAKE RATHBUN
- 7) DIAMOND LAKE
- 8) LAKE MEYER
- 9) BLACK HAWK LAKE
- 10) LAKE AHQUABI
- 11) LAKE ANITA
- 12) GREEN VALLEY LAKE
- 13) THREE MILE LAKE
- 14) TWELVE MILE LAKE
- 15) LAKE SUGEMA
- 16) LAKE BELVA DEER
- 17) LAKE GEODE
- 18) BRIGGS WOODS
- 19) WEST OKOBOJI
- 20) SPIRIT LAKE
- 21) SAYLORVILLE
- 22) WEST LAKE OSCEOLA
- 23) BADGER CREEK
- 24) LAKE MIAMI
- 25) LAKE MACBRIDE
- 26) LAKE HENDRICKS
- 27) BRUSHY CREEK LAKE
- 28) BEEDS LAKE

- 29) LAKE MANAWA
- 30) STORM LAKE
- 31) CLEAR LAKE
- 32) SILVER LAKE
- 33) CORALVILLE
- 34) NORTH TWIN
- 35) RICE LAKE
- 36) SILVER LAKE
- 37) EAST OKOBOJI
- 38) LITTLE SWAN LAKE
- 39) PLEASANT CREEK
- 40) VOLGA LAKE
- 41) MILL CREEK LAKE
- 42) WEST SWAN LAKE
- 43) FIVE ISLAND LAKE
- 44) UPPER AND LOWER GAR, MINNEWASHTA
- 45) BADGER LAKE
- 46) LAKE IOWA
- 47) KENT PARK LAKE
- 48) LAKE CORNELIA

RIVERS

- A) MAQUOKETA— DELAWARE & JONES CO.
- B) TURKEY
- C) N. RACCOON—SAC CO.
- D) IOWA—HARDIN CO.

- E) DES MOINES
- F) MIDDLE RACCOON
- G) CEDAR—FLOYD
- H) SKUNK
- I) E & W FORK DES MOINES
- J) MISSOURI
- K) SOUTH RACCOON
- L) LITTLE SIOUX—CLAY CO.
- M) BOTH NISHNABOTNAS
- N) MIDDLE NODAWAY
- O) UPPER IOWA

TROUT WATERS

- T1) BLOODY RUN
- T2) FRENCH CREEK
- T3) TURTLE CREEK
- T4) RICHMOND SPRINGS
- T5) BIG SPRINGS HATCHERY
- T6) SNY MAGILL
- T7) GLOVERS CREEK

MISSISSIPPI RIVER LOCK & DAM 9 POOL 9

- MINNESOTA SLOUGH
- · FISH LAKE
- NEW ALBIN BIG LAKE

· LANSING BIG LAKE

- · BIG SLOUGH
- CORDWOOD LAKE
- · BEAR PAW LAKE

POOL 10

- HARPERS SLOUGH
- · METHODIST LAKE
- · NORWEGIAN LAKE
- BUSSEY LAKE
- · MUD HEN LAKE

POOL 11

- · MUD LAKE
- · SUNFISH LAKE

POOL 12

- FRENTRESS LAKE
- · TIPPY LAKE
- FISH TRAP LAKE

POOL 13

- · CROOKED SLOUGH
- LANESVILLE SLOUGH
- BROWNS LAKE
- · SPRING LAKE
- SOUTH SABULA LAKE

POOL 14

- ROCK CREEK
- SCHRICKER SLOUGH

Return From

STORY AND PHOTOS BY LOWELL WASHBURN

ADSS

The Pain Of Lyme Disease And Simple Steps To Avoid It.

46 IOWA OUTDOORS MARCH / APRIL 2009

Following a Clayton County turkey hunt last April, Iowa Outdoors photographer and writer, Lowell Washburn discovered a tick firmly attached to the back of his right leg. Nothing unusual for anyone who spends time in the spring woodlands in search of shed antlers, morel mushrooms or elusive wild turkeys. But this tick seemed different. Although fully gorged with blood, the parasite remained so small that it still might have avoided detection were it not surrounded by a glowing red bull's-eye—the distinctive, tell-tale signature of probable exposure to Lyme disease. A quick trip to the doctor confirmed that the blood-sucking hitchhiker was indeed a deer tick, a carrier of Lyme disease. His successful treatment involved long-term, heavy doses of antibiotics. Two weeks later, while hunting Merriam's turkeys near the Black Hills, hunting partner Robert Kirkman noticed Washburn downing his medications. Washburn recounted his northeast Iowa tick encounter and Kirkman noted that earlier that spring, the ticks had been "downright fierce" while hunting turkeys on both sides of the Iowa/Missouri border. At the time, no one suspected the nightmarish ordeal that lay ahead for Kirkman. Here is his story.



legendary turkey hunter, call maker, master falconer, experienced woodsman and consummate conservationist, Robert Kirkman is the Outdoorsman's Outdoorsman.

Life as a steel worker has kept Kirkman fit. At 48, he remains hard-muscled and athletic. The ultimate Type A, he's one of those first up, last to bed sort of guys. His energy seems limitless, and just watching him can wear

you out. Whether it's cutting wood for the base camp cook stove, ferreting out the last tight-sitting rooster from beneath a bed of snow-lodged cattails, or tromping "just one more swale," Kirkman rarely quits moving.

Kirkman and I have shared many exciting days afield during the past two decades. Among the most enjoyable are our hunts for Merriam's turkeys in the remote setting of the western Black Hills. Although it doesn't always pan out, we try to make the hunt an annual event.

On our last outing, Kirkman, Davenport firefighter Tom Deckert and I all bagged turkeys. On the last evening, as we relaxed around the warmth of a wood-fired cook stove, it would have been hard to imagine the ordeal that lay ahead-that within weeks Kirkman would lie in an Iowa City hospital bed fighting for his life.

"Right after turkey season, I began to feel extremely run down," says Kirkman. "At first, I thought that I was just worn out from a lack of sleep and from chasing turkeys across five states during the previous two months. But then things began to rapidly escalate. I developed a persistent ache in my neck. I had chills, relapsing fevers, night sweats. All my symptoms pointed to a very bad case of the flu."

Although Kirkman eventually sought medical treatment, doctors were unable to find the source of his problem.

"I came back home, but instead of getting better I got worse. I became so sick that I was completely bedridden for the next two weeks. By now the sweats were so bad that I would put two thick beach towels under me at night. The sweat would pour out of me so bad that those towels would become completely saturated and have to be wrung out. It was terrible."

Returning to the hospital, Kirkman was diagnosed with meningitis.

After going home for the second time, instead of getting better, he continued a rapid downhill slide. More unwelcome symptoms were added to the list of miseries. He became increasingly delirious, developed severe nerve twitches and lost bladder function.

"The nerve twitches became so bad that I would literally jump in bed," recalls Kirkman. "I felt nervous, achy, frail. I felt like all of a sudden I had become a very old man. Shortly after that, I began to experience hallucinations. At one point, I remember thinking that a wastebasket in the corner of the room was stalking me. I was afraid.

"I didn't know what was happening to me but I did know that I had to get back to the hospital," says Kirkman. "This time, they took one look at me and realized that I was very, very sick."

Kirkman was immediately admitted, and extensive tests-including Lyme disease, Rocky Mountain Spotted Fever, and other tick-borne illness-failed to yield a diagnosis. Tick-borne diseases are notorious for not testing positive, and every individual reacts differently. To further complicate the dilemma, current serology for known strains of tick-transmitted bacteria is significantly less than perfect. Physicians acknowledge there are almost certainly new and unknown tick-borne diseases.

Although they couldn't present a confirmed diagnosis,

DNR BIOLOGIST CONTRACTS RARE TICK DISEASE

Not all exposure to tick-borne diseases occurs during spring. Consequently, outdoor enthusiasts need to maintain their guard during autumn outings as well. Although most people have heard of the more famous diseases like Lyme disease or Rocky Mountain Spotted Fever, physicians say there are other, lesser known tick-borne maladies, too. Many are extremely rare and virtually impossible to diagnose. Some diseases have yet to be identified. Last October, DNR Waterfowl Biologist Guy Zenner contracted a rare strain of tick-borne infection—an event he will not forget.

"I had returned home from visiting my mom in Minnesota when I discovered a tick on my triceps," recalls Zenner. "I've had lots of ticks, and I just pulled this one off and didn't think much more about it. Later, I noticed a small red spot where the bite had been."

By week's end, the first symptoms emerged. Zenner developed a fever, with temperatures climbing to 103 degrees, severe headache and loss of appetite. All symptoms pointed to a bad flu and Zenner acted accordingly with rest and plenty of fluids.

In spite of his efforts, the "flu" didn't go away, but worsened. By day severe nausea was added to the list of discomforts.

"I finally gave in and went to the doctor," says Zenner. "They tested for Lyme disease, Tularemia, things like that. They couldn't find anything. All the tests came back negative. The doctors finally decided that I had a really bad virus."

After 16 days, Zenner experienced sudden and near total loss of memory. His wife, Joan, a registered nurse, thought he might be having a stroke and rushed her ailing husband to the hospital ER.

"This time the doctors knew that I was really, really sick. They started more tests and wouldn't let me leave the hospital," says Zenner. "They started a regime of antibiotics and put me in isolation for three days." After 48 hours his condition improved. "It was just like waking up from a bad dream. My fever was down, my body didn't ache anymore, my headache was gone. I remember thinking that it was just so nice to feel good."

Zenner returned home but stayed on antibiotics for three weeks. A week later, the diagnosis came. He was infected with a rare strain of human ehrlichiosis, a tick-borne disease identified in 1997.

"My recovery took a long time and I don't think I was back to 100 percent until sometime after Christmas," says Zenner, "I've never been that sick and wouldn't want to go through anything like that again. Once the symptoms started, it seemed like things just went downhill so fast. My weight dropped from 170 pounds to 157 pounds in just 2 1/2 weeks."

members of the Iowa City infectious disease staff were certain Kirkman had at least one, and perhaps more, tick-borne illnesses. While tests remained negative, doctors treated him for Lyme disease. The following 14 days became the darkest in Kirkman's agonizing journey.

"After I got back into the hospital, things really spiraled out of control," says Kirkman. "Nothing was getting better. Beyond all my other symptoms, I developed blood clots in my chest, and all I wanted was sleep. I felt so bad that I just literally wanted to die-just go to sleep and not wake up. It's really hard to explain the shape I was in.





"After that, my brain began to swell and I couldn't respond to questions. People would ask me things like, 'Who is the President of the United States?' and I would have to think and think about that. I couldn't answer the simplest questions. Most of the time I couldn't respond at all."

By now Kirkman's survival was in question. Members of his church prayed at his hospital bedside.

After 14 days of intensive treatment, Kirkman had a day that was not worse than the one before. After hitting rock bottom, he was showing improvement.

"Things got better to the point that the doctors thought I should try going home," says Kirkman. "I was still in pretty bad shape. A nurse looked in on me, and I had to do IV therapy morning and evening for the next three weeks. My mind hadn't fully recovered yet and I couldn't be trusted to be alone. Things continued to improve and, after a full month off my job, I started going back to work part-time. That was a good feeling.

"A lot of people thought that I wasn't going to make it," says Kirkman. "I feel like my condition is really coming back now, and I give all the credit to God and prayers.

"The Iowa City doctors have told me that, considering how sick I really was, my recovery is nothing short of miraculous. They tell me to be thankful. They say people who were not nearly as bad off as I was rarely recover to the extent that I already have."

A year later, Kirkman continues his remarkable recovery. Although he's back to work full time, he's still not "his old self."

"I'm always tired," says Kirkman. "My hands and feet still tingle, my vision is not completely back. Sometimes I feel as if something is crawling across my skin when nothing's there. If cool air blows across my skin, it feels like stinging nettles. I don't know how much more improvement to expect. I just know that I am very thankful for where I am today."

If things go according to plan, Rob Kirkman,
Tom Deckert and I will head back to the western
Black Hills later this spring in search of the elusive
Merriam's turkey. It will be a reunion none will take
for granted.

EASILY AVOID TICK-BORNE DISEASES WITH PRECAUTION AND PREVENTION

Lyme disease is a debilitating tick-borne illness. Transmitted by the blacklegged (deer) tick, Lyme disease is on the increase across lowa.

"Only three tick species—dog ticks, lone star ticks and blacklegged ticks—attack humans or pets," says Jon Oliver, a manager with lowa's Lyme Disease Surveillance Program at lowa State University. "Although all three can transmit diseases, only the blacklegged (deer) tick can transmit the bacteria that causes Lyme disease."

Deer ticks are expanding their range across lowa. There were eight diagnosed Lyme disease cases in 1993, and more than 100 cases annually in recent years.

"I absolutely do not tell people to stay out of the woods," says Oliver. "That would be ridiculous. What I do try to stress is precaution and prevention. I go out into the woods nearly every weekend, and I still enjoy myself," says Oliver. "I think just being aware of the risk tends to make people more prepared. It really comes down to three basic things," says Oliver. "Wear appropriate clothing. Use insect repellent. Perform routine tick inspections. It's that simple." Here's how.

- DRESS TO COVER Long-sleeved shirts and long pants tucked into socks help keep ticks at bay. Ticks are more easily detected against light-colored clothing.
- 2. SPRAY TO PREVENT "The best way to prevent disease is to prevent getting bit in the first place," notes Oliver. "Use plenty of DEET-containing insect repellent. DEET will repel anything and is relatively safe."

- 3. CHECK KIDS. Children should be double-checked by adults. Most youngsters aren't very good at self-checking.
- 4. POST FUN CHECK "When returning from the woods everyone should very carefully check for ticks. Lyme disease is not easily transmitted to humans and it takes at least 36 hours for an attached tick to transmit disease," says Oliver. Be thorough as deer ticks are extremely small.
- 5. HAVE EMBEDDED TICKS CHECKED. If precautions fail and you discover an embedded tick, Oliver cautions not to delay in getting the tick checked out. Although Lyme disease is dangerous and nothing to fool with, most cases can be cured with proper diagnosis and antibiotics. The earlier diagnosis and treatment occurs, the better the chances for a full recovery.

If you are exposed to a tick in lowa, and would like more information on that tick, place the specimen in a plastic sandwich bag along with a single blade of grass and send it to: Lyme Disease Surveillance Program, lowa State University, Science II - Room 436, Ames, lowa 50011 or learn more at www.ent.iastate.edu/medent/ticks_IA

Include your name and address, city or county where the tick was found, when it was found and whether or not the tick was attached.

LEARN MORE: Visit the Centers for Disease Control and Prevention at: www.cdc.gov/ncidod/dvbid/lyme/



Snapshots of Evolution

BY MINDY KRALICEK PHOTOS BY JACOB ZWEIBOHMER

Below the groomed corn fields of Webster County lies a shady river valley dedicated as Dolliver Memorial State Park. Constantly evolving and full of undecipher desecrets, its mesic habitat is home to warblers, birds of press otters and bats.

> This is a tale of two rivers," says Ray Anderson of the DNR Geological Survey. His arms sweep across Dolliver State Park's landscape, but his eyes envision an era only geologists fathom.

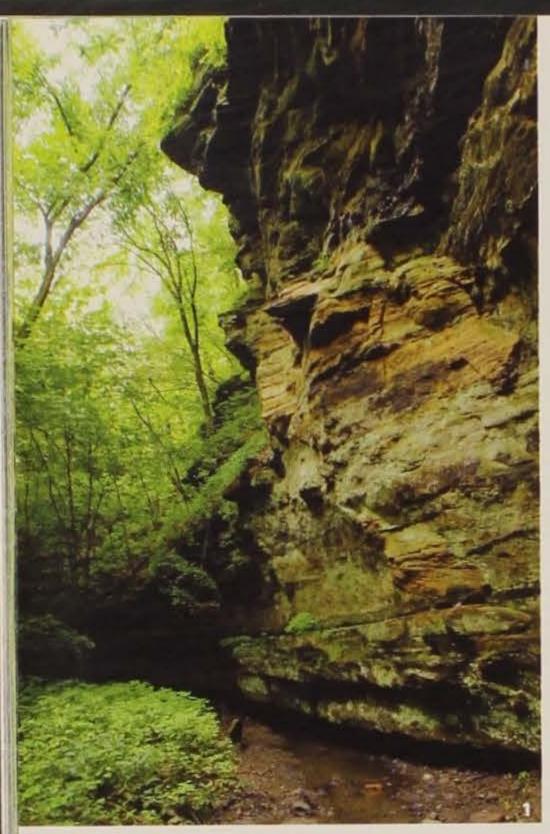
Anderson is encased by a motley group of 30 or so college students, rock collectors and geological sleuths who are on the Iowa Geological Society fall field trip. They are gathered inside the north entrance of Dolliver Park (about 10 miles south of Fort Dodge) for this day-long excursion through time, flora and fauna hosted by DNR experts and a state archaeologist.

"After the last glacial advance there was a period of stagnation and the Des Moines River formed as the major drain of the Des Moines Lobe," says Anderson, a barrel-chested, moppy-haired man with a broad face and twinkling eyes. He loves to talk shop and in Dolliver there is a lot to talk about.

"Then, about 12,500 to 11,000 years ago, two rivers-now the Des Moines River and Prairie Creek-carved a canyon through the loam, sand and gravel, and revealed the Pennsylvanian bedrock around us."

BONEYARD HOLLOW

With that orientation, the people on the geological tour scramble into their autos and roll down the















winding paved road into a shady retreat of red oaks, basswoods and black maples alongside the Des Moines River. They park near a small, almost box-shaped canyon marked "Boneyard Hollow." The air is moist and the ground is saturated from a morning rain shower, springs and a trickling shallow stream. The greens, browns and grays are vividly intense under an overcast sky.

"Boneyard Hollow got its name from stories about a large pile of bison, elk and deer bones that was found here by settlers. Actual evidence is scarce, as most of the bones have been carried off, but the story about the find was recorded," he explains.

Archaeologist Mark Anderson adds, "We speculate that herds of bison from the prairie above could possibly have been driven over these cliffs by prehistoric hunters, or the bison might have been cornered in the canyon to meet their demise."

The two men lead the silent group alongside the stream and up the canyon to sheer sandstone walls. Ironwood saplings brush arms and clothing, putting up weak resistance to the intrusion. Rocks and portions of the striated sandstone wall are covered with bright, blue-green moss.

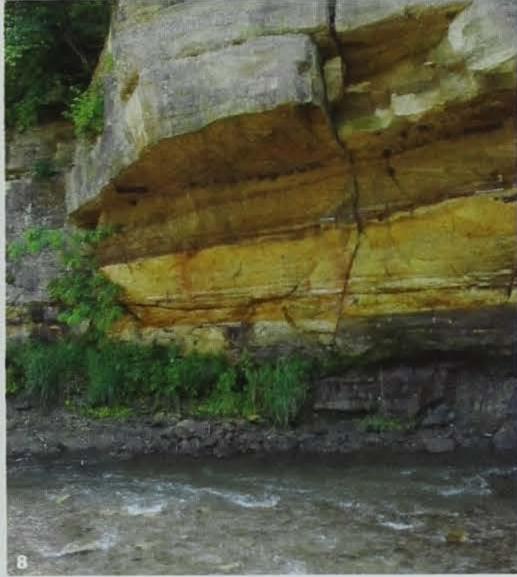
A tall, fit man steps away from the group and self-consciously clears his throat. He is John Pearson, DNR ecologist. "This moss is actually dust lichen," he projects. "Notice the water beads sitting on it. The plant can't absorb water. Instead it pulls vapor out of the air. We're in a mesic habitat" which signifies a moderately moist place.

Dodging puddles, Ray motions the group to gather as Mark nimbly leaps across the stream and stages himself in front of a recessed area of dramatically steep sandstone wall. Behind him is a myriad of modern carved graffiti, but he points to a simple image of a bison that is higher and off by itself. "We believe this etching was created by a Late Prehistoric, possibly an Oneota, artist. Notice the line that runs from the throat to the heart and onto its rear. This may represent the life force of the animal. We're making a hypothesis, but the Oneota were ancestors of the Ioway and the Ioway placed high spiritual importance on the bison, so we believe the prehistoric Oneota did also," says Mark.

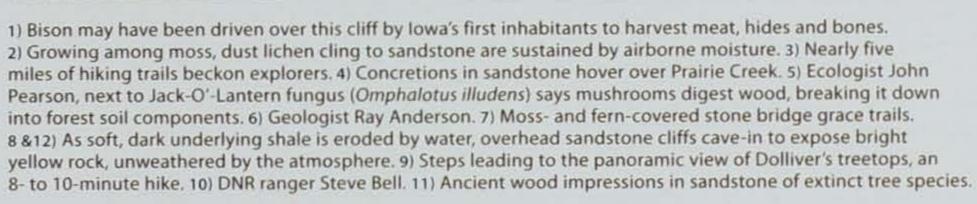
This find is unusual, as sandstone erodes easily. Little is known firsthand about the archaeology of the park. Only six sites in Dolliver show evidence of prehistoric occupation and none have been excavated. Three sites

















are mounds, but recent flooding-common in the park-blocks access this day.

Ray encourages the group to pick their way through the narrow canyon a little further where he draws attention to deformed cross-strata in the walls, probably caused by either gravitational slumping or an earthquake.

As the group retreats back to the valley, Mark points out another petroglyph near the top of the cliff. It is partially disguised by modern graffiti and difficult to make out, so Mark removes his overshirt and turns to show the birdman seal of the Office of the State Archaeologist printed on the back of his T-shirt. It helps reveal the etching on the sandstone.

"Oneota may have believed representing their leaders as raptors-birds of prey-gave them the authority symbolized in the raptor's power," he says. "That notion possibly dates the etching from 1300 to 1600 A.D."

COPPERAS MINERAL BEDS

The group traverses to the south end of Dolliver to view a cliff face studded with shining minerals. Prairie Creek, which flows next to a 100-foot bluff, eroded the iron- and carbon-rich sandstone to reveal minerals with blue-green hues. The result is a mix of shiny flecks and flowering incrustation permeating the cliff face.

A number of minerals rare in Iowa are also here. Ray invites the group to lick the wall, but no one takes him up on the invitation.

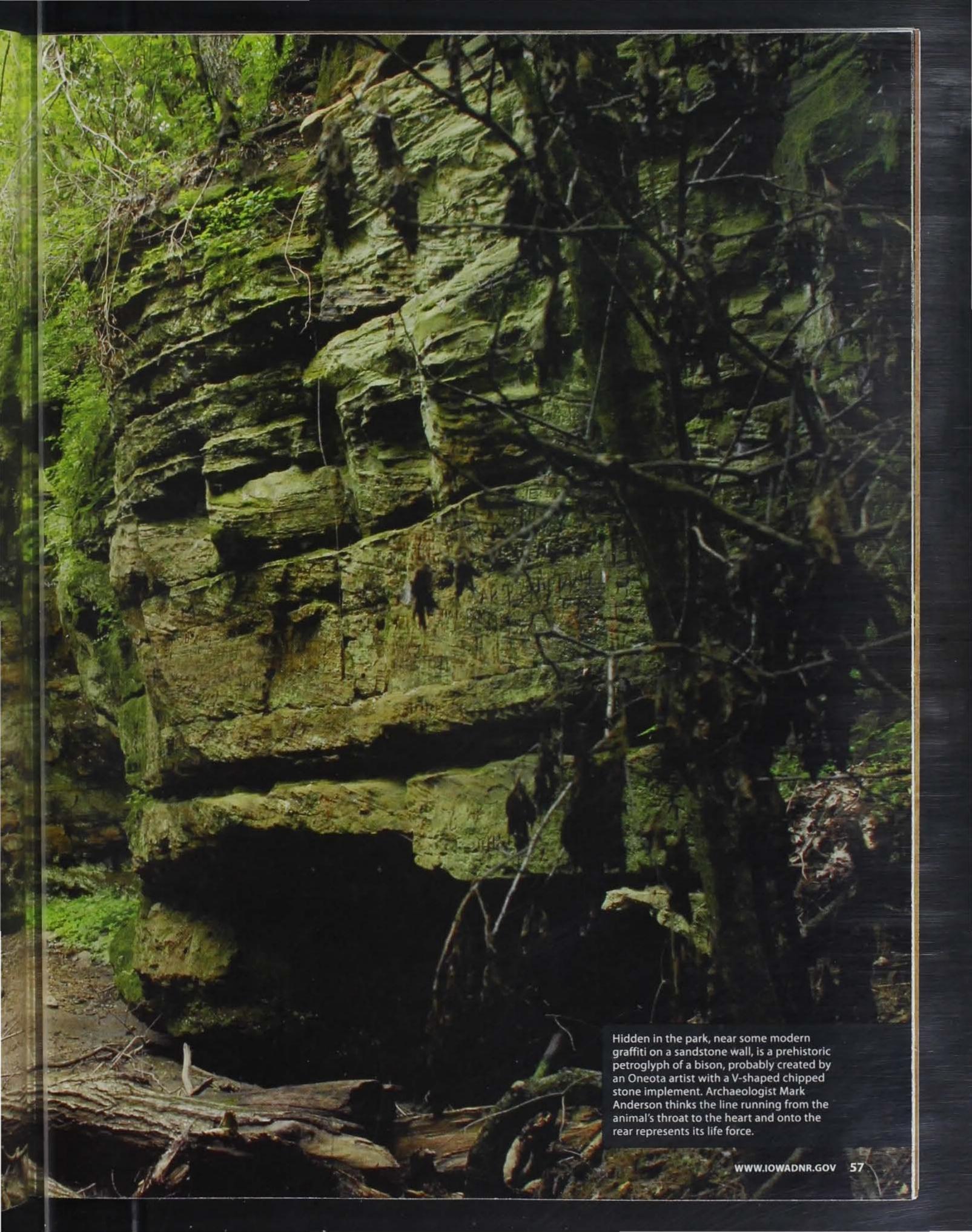
Major park flooding in 2007 washed away three foot bridges across Prairie Creek, so the group is cut off from parts of the hiking trail that should be open in the future.

In Prairie Creek, water rushes past sandstone rocks with casts, impressions and pieces of imbedded trees. A woman coaxes a toad to crawl onto her hand. Pearson points out scouring rush (horsetail) growing on the forest floor and says pioneers wrapped it around their hands and used the abrasive silica fibers to scrub cooking utensils. A stand of invasive leafy spurge prompts Pearson to tell how the DNR uses imported flea beetle larva, which eat the roots of the plants, to reduce its numbers—an effort achieving better results than pesticide use.

EXPLORING FRESH CUTS

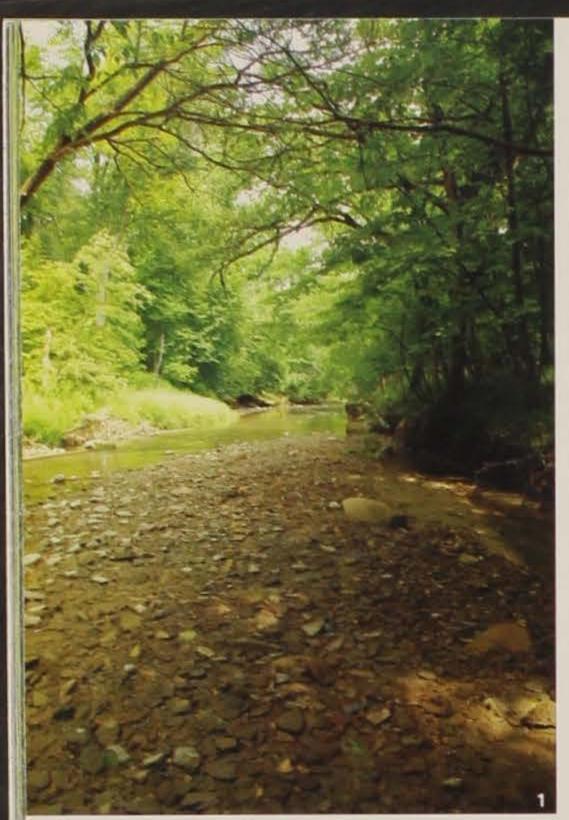
The group regroups for a trip back to the center of the





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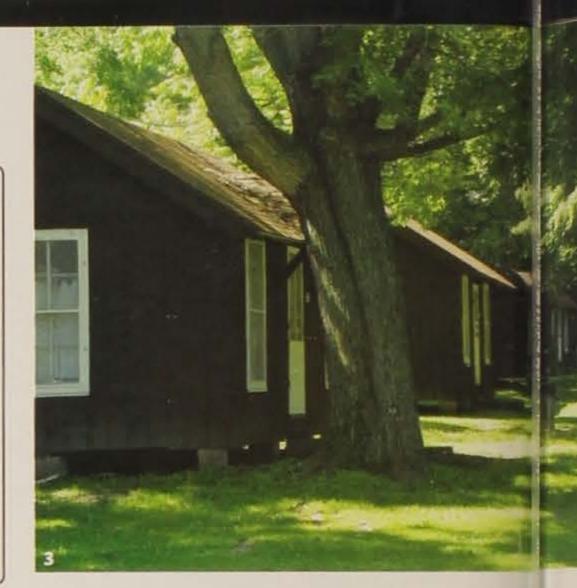
GET INVOLVED

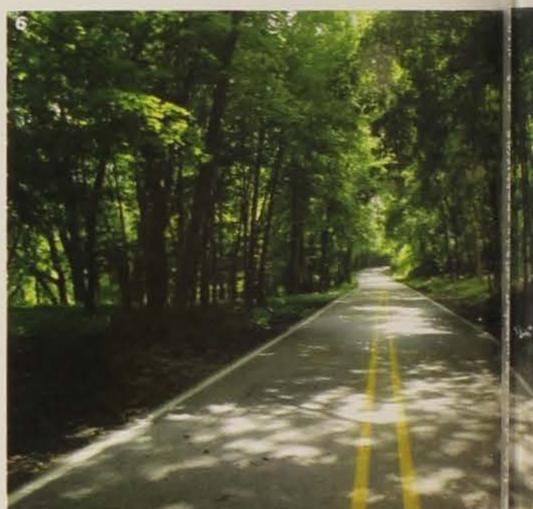
Want to explore lowa's geological past? The Geological Society of Iowa welcomes earth science novices as well as researchers to their spring and fall tours. Field trips are free, but you supply the transportation, sack lunch and drinks. Be prepared for the terrain and weather. Bring hiking boots, Guidebooks are available for a small price.

Go to www.iowageology.org for more information about scheduled trips and joining the informal group.









park at Prairie Creek Bridge. Nearby is the site of a new rock fall, providing a fresh cut into the sandstone. It's a chance to observe the striations or layers of rock typical to the area without the ravages of exposure to the elements.

Further downstream is a rock formation with rounded masses of minerals that looks like giant walnuts imbedded in the sandstone wall. They appear in several places in the park, in varying size, usually protruding from weathered cliffs.

Sack lunches at nearby picnic tables revive the group. It's amazing how scrumptious a cold ham and cheese sandwich, macaroni salad and a bottle of water taste when surrounded by beautiful woodland drenched in sunshine and new friends on an adventure together.

ANIMALS FROM CREEK BED MUSSELS TO HIGH FLYERS

After lunch, alongside Prairie Creek, park manager Kevin Henning tells of the demise of yellow and black sandshell and white heelsplitter mussels. "Mussels, in general, are dying in Iowa," he relates. "During their life cycle, mussels attach to fish as a parasite for a few months and the fish carry them upriver and into tributaries. Juvenile mussels can't survive in poor water quality and we haven't seen evidence of adults since shells were found in 1998. If water quality improves, we hope they reappear."

While some animal species decline, others rebound. "We have otters in the park," adds ranger Steve Bell. At least a decade ago otters were released in the Boone River near the confluence with the Des Moines River about 18 miles south. He grins broadly, "If I come back again, I want to be an otter. They just play all day and when a fish swims by, they eat."

Henning turns attention to the park's treetops.

He has seen scarlet tanagers in the park, a special sight due to their preference for the high forest canopy.

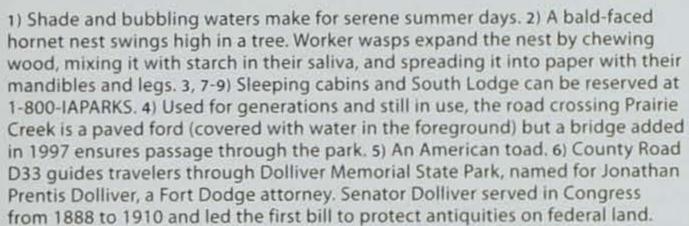
"A few years ago we netted bats for a study," he says. "We only captured big brown and long-eared bats, but there are two or three other species of bat around here—red, little brown, and possibly hoary bats."

Ecologist Daryl Howell recalls a bird survey conducted in the early 1990s. Eighty-four species of breeding birds were spotted: 24 with confirmed nests and the rest with indications they were breeding.















AMENITIES ABOUND AT DOLLIVER

Nestled in Webster County, Dolliver Park is a great place for a reunion, group camping and hikes. It is about three miles northwest of Lehigh and 10 miles south of Fort Dodge, located on County Road 33D. Amenities in the 460-acre park include a large playground, a ballpark for the young at heart, and a boat ramp on the Des Moines River for paddlers and anglers. Camping includes two family cabins; a group camp with dining hall; 10 sleeping cabins; and modern restrooms and showers; and 33 campsites. Two stone and wood lodges, built by the Civilian Conservation Corps in 1934, are available to rent for day use. Reserve facilities through the park reservation system at www.reserveiaparks.com or 1-877-427-2757.

"As a timber and river corridor, Dolliver's a great place to witness spring and fall migrations, particularly of warblers," adds Howell. "And, on clear days with less wind and before rain moves through, you'll see hawks and eagles."

TRAIL ABOVE THE VALLEY

The final hike of the day begins just across the road, where Pearson take the lead. The trail climbs steeply for a panoramic look down at the valley's treetops. The climb takes eight to 10 minutes up a mixture of wood steps, rocks and dry hillside not for the meek. A few hikers choose to stay at the bottom.

On the ascent, white oaks replace red oaks. Flecks of color dance in the prairie grass, as harebell, horse nettle, bluebells and chicory sway in the wind.

"On steep slopes in the canyon there are oak trees 200 to 300 years old," says Pearson, pausing for the group to gather. "There are no old trees up here. This was all prairie until the white man carefully stopped fires. Now it's a dry forest of mostly white oak."

He nods to the patches of prairie that still have a foothold and tells of prescribed fires that now preserve the historical prairie and savannah.

It is here that Howell tells the differences between the park's woodland and meadow vole populations. Woodland voles live longer than meadow voles, probably because they are protected from owls and hawks in their deep burrows where they survive on roots.

Although the path goes on, the tour is over. The group withdraws down the hill and disperses to their vehicles. There is a meeting of the Geological Society later that day in Fort Dodge. In single file, the vehicles make the winding climb back to the cornfields above.

A gliding hawk observes their exit, but turns its attention back more important business. A cottontail has left cover for a quick snack of sweet meadow grass.

A few pebbles slide noiselessly down a sandstone wall and click as they reach the base. Seep water trickles across sand and around pebbles in its path to Prairie Creek. Water gurgles around rocks in Prairie Creek as it swiftly makes its way to the Des Moines River.

For now, the creek and the river flow within their banks, a mere pause in the tale of two rivers and the evolution of Dolliver Memorial State Park.

Put Down Deep Iowa Roots to Create an Oasis For Birds and Butterflies

Turn a swath of mowed yard—a desert for wildlife—into an inviting oasis for butterflies and songbirds with hardy and colorful native perennials, all reared from remnants of lowa prairie. Not only can you create lush habitat to beautify your property, but you will help restore small plots of native prairie plants, too.

A wildflower bird and butterfly attractor station is "made of select native species to draw in and attract birds, butterflies and hummingbirds which feed off the plants," says Howard Bright, who along with wife Donna, have spent 20 years raising prairie plants. The couple own the lon Exchange, Inc., a native seed and plant nursery near Harpers Ferry.

"Bringing wildlife into your own yard is fun. It's unbelievable the amount of birds that will come in," says Howard. The plants attract goldfinches, nuthatches, hummingbirds, tufted titmice, chickadees, warblers, cardinals and grosbeaks, among other species, as well as butterflies.

The attractor package includes 84 live plants, carefully shipped as 1-inch plugs from 12 species. "These are all native to lowa," he says, noting each originates from seed originally collected from local prairie remnants, then nursery propagated. "Native genetics are able to tolerate the rigors of our climate—they have evolved here," he says. Species range from aster and cardinal plant to great blue lobelia and can be customized.

The plants thrive in full sun, but tolerate a small amount of shade, and grow well in all lowa soil types and cover 84 square feet, such as an 8-foot by 10-foot bed.

Plant from late April through October, Water regularly in drought periods for several weeks until deep roots establish.

TO ORDER: The package includes 84 live plants, mesh bird feeder and butterfly guide for \$97.95. Shipping and tax not included. Order at 1-800-291-2143 or online at www.ionxchange.com. Or visit their facility at 1878 Old Mission Drive, Harpers Ferry, IA 52146.

Wild Tuisine Campside

BY BRIAN BUTTON PHOTO BY CLAY SMITH

Venison Chili

Soul-warming chili is the perfect dish when emerging from a long winter. Simple and quick to prepare, this campfire grub makes for satisfying meals after a day on the river or hiking the timber in search of mushrooms.

One pot meals are also easy to clean up. In a large stew pot, brown the venison. Add remaining ingredients and simmer uncovered 30 minutes. Cover and simmer longer for thicker sauce. Stir as needed.

1-2 pounds venison, either ground or cubed

1 cup chopped green and red peppers

1 cup chopped onion

2 15-ounce cans of chili beans in sauce

28-ounce can chopped tomatoes in sauce or fresh

15-ounce can tomato sauce

1.5 cups water

2 tablespoons chili powder (For some spicy sizzle, add chili peppers to taste)

2 tablespoons Worcestershire sauce

1 tablespoon honey

1/2 teaspoon dried basil

1/2 teaspoon cinnamon

1/4 teaspoon allspice, ground

1 bay leaf

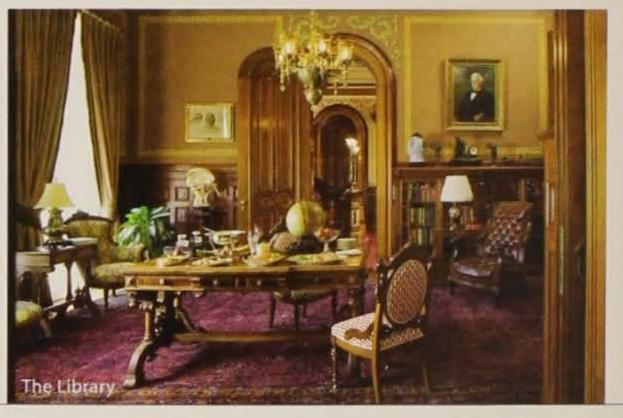
Wild Cuisine Kitchenside

BY BRIAN BUTTON PHOTOS BY WILLIAM HOPKINS





Built from 1866-69 by Iowa's first millionaire, B.F. Allen, Terrace Hill became the official governor's residence in 1976. One of the finest examples of Victorian Era architecture in the United States, the mansion is open for public tours and a popular Des Moines destination. The 90-foot tower provides a commanding city view.



New Cookbook, "Entertaining at Terrace Hill," Pleases the Palate history and elegance abound at Iowa's most famous home. Simple substitutions with venison and morels give a wild foods twist to rich fare from this magnificent mansion.

TWO CHEESE & MUSHROOM FONDUE

Serves 6 to 8

11/2 teaspoons olive oil

- 4 ounces morel or shiitake mushrooms, stemmed, caps diced
- 1 shallot, minced
- 1 teaspoon chopped, fresh thyme
- 11/2 tablespoons flour
- 12 ounces chilled 60 percent (double crème) Brie cheese (do not use triple crème)
- 2 ounces chilled Roquefort cheese
- 1 cup dry white wine, like Seyval Blanc from Indianola's Summerset Winery Black pepper
- 1 13-ounce loaf crusty white bread cut into 1½-inch cubes
- VEGETABLE DIPPERS: carrot sticks, blanched broccoli and cauliflower florets, and boiled small potatoes

In heavy medium skillet, heat oil over medium-high heat and add mushrooms, shallots and thyme. Sauté until mushrooms begin to soften, about 2 minutes. Set aside. Place flour in large bowl. Remove and discard rind from Brie. Cut Brie into cubes, toss in flour to coat. Remove and separate. Crumble Roquefort into same bowl and toss to coat. Place wine in a heavy, mediumsize saucepan, bring to simmer over medium heat. Add cheese by handfuls, stirring after each addition until melted. Stir until smooth. Stir mushroom mixture into cheese mixture. Season with pepper. Transfer to fondue pot. Serve with bread cubes and vegetables.

SPRING ASPARAGUS STRATA

Serves 10

8 eggs

3 cups milk

1 tablespoon Dijon mustard

2 tablespoons butter, melted

2 teaspoons dried basil

1 teaspoon salt

2 tablespoons flour

2 cups shredded cheddar cheese

1 pound cooked ham, cubed

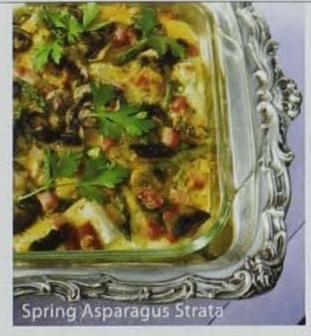
1 package frozen asparagus, thawed and cut into small pieces, or 10 ounces fresh asparagus

2 cups sliced mushrooms

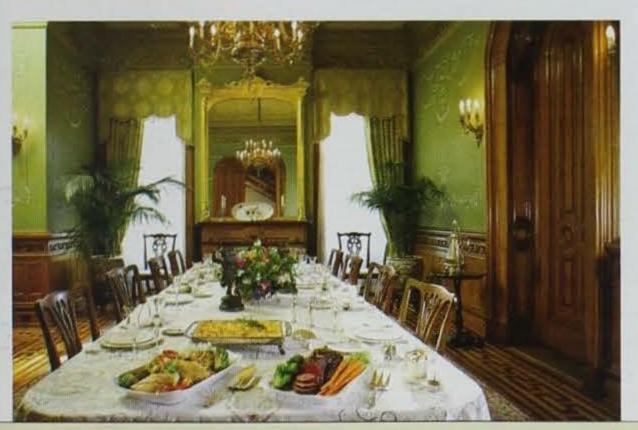
10 cups cubed bread, crust removed

A great dish for either wild foraged or purchased asparagus. Grease 13-by 9-by 2-inch baking dish. In large mixing bowl beat eggs, milk, mustard, butter, basil and salt. Stir in remaining ingredients





The backyard Victorian garden offers views of downtown skyline. Below: The 16-foot ceilings and massive doors of the dining room add grandeur. Built on the western edge of Des Moines when the local population was 7,000, it was known as "The Palace of the Prairie." Now Terrace Hill is in the heart of the city.





HAVE A GOOD RECIPE OF WILD FOODS TO SHARE? Send to: WILDCUISINE@DNR.IOWA.GOV

and pour in prepared baking dish. Cover and refrigerate 8 hours or overnight. Remove strata from refrigerator; let stand 30 minutes at room temperature. Preheat oven to 350°F. Bake strata for 1 hour or until knife inserted in center comes out clean. Let stand 5 minutes before cutting.

VENISON TENDERLOIN WITH BLACK PEPPER CRUST

Serves 6

2 pounds venison or beef tenderloin 1/2 cup black pepper, freshly cracked

3 tablespoons butter

3 tablespoons minced shallots

8 ounces sliced fresh mushrooms

1/4 cup cognac

1/2 cup beef stock

1/4 cup sliced sun-dried tomatoes

3/4 cup heavy cream

Venison backstrap and spring morels or chanterelles can easily be substituted in this recipe. Preheat oven to 475" F. Lightly sprinkle tenderloin with salt. Roll meat in pepper. In an oven-safe sauté pan, melt butter on stovetop over moderately high heat. Add tenderloin and brown on all sides. Roast tenderloin in oven for 20 to 30 minutes until medium rare. Remove, place on rack and cover with foil. For sauce, add additional butter to pan drippings to equal 2 tablespoons. Sauté shallots and mushrooms over medium heat for 3 to 4 minutes. Add cognac, stock and tomatoes. Reduce sauce by one-half. Add cream; continue to reduce by one-half. Slice tenderloin in 1/4-inch slices and serve sauce alongside.

TERRACE HILL

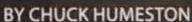
2300 Grand Avenue Des Moines www.terracehill.org

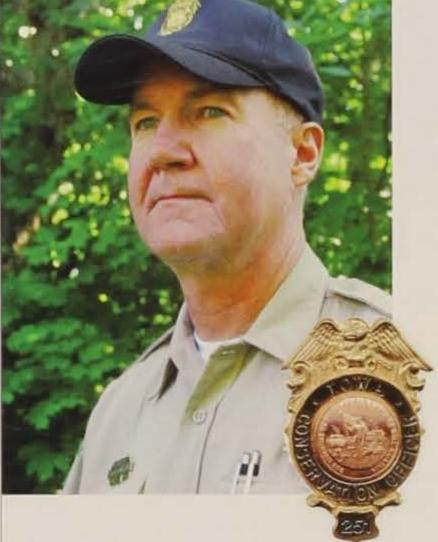
TOURS:

Tuesday-Saturday, 10-1:30
March through December
Tour information 515-281-3604
Admission: \$5 adult, \$2 ages 6-12

Order "Entertaining at
Terrace Hill: A Celebration
of Fine Food and Families,"
\$27.50, 272 pages, at
515-242-6317 or
http://shop.terracehill.org
Proceeds support the
Terrace Hill Society.







Cars I Have Known and Loved

The fact that state conservation officers drive a ▲ department-issued vehicle marked "DNR" on the side clearly gives us away. But that hasn't always been the case. Officers haven't always been issued a state vehicle to drive.

Up until the 1960s, officers had to purchase their own vehicles to satisfy their job requirements. In fact, Iowa's first state game warden didn't even have that. History mentions that often he would travel by train around the state to investigate violations.

I've been frustrated having to answer calls in as many as six counties at a time. I can't imagine covering the entire state. Plus, I have the advantage of a radio, cell phone and computer to communicate. Even the two-way car radio hasn't been around all that long. When I first came on the force, I remember Wendell Simonson telling me how he was one of the first officers to have a radio in his car. However, he could only receive radio traffic. The ability to transmit came later.

I had my first "patrol car" when I was a park ranger. It was a 1973 Chevy pickup. It was bare bones, no frills and powered with a six cylinder-not exactly your high-speed police interceptor. It had no air conditioner, which made

it wonderful for cruising the park at 15 miles per hour on a 95-degree day with equal humidity.

While others had automatic transmissions. I had a three speed on the column. Fortunately, I learned to drive on a standard tranny, but this one came complete with sticking linkage that had a nasty habit of jamming at downtown Iowa City

intersections. I actually carried a hammer so I could get out, open the hood and give the linkage a swat so I could shift back into first.

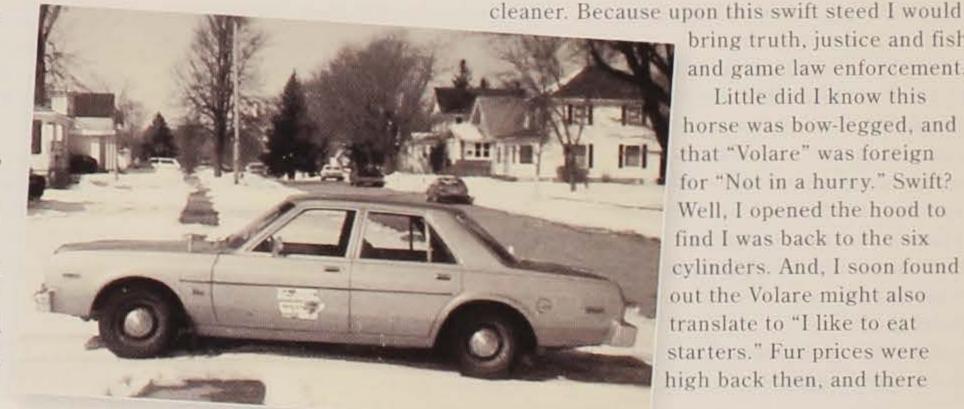
Radio? Yeah, I had a radio-with low-band frequency on 37.10 with a propensity to "skip." Many a night I picked up police radio traffic from as far away as Houston, Texas, and many nights I couldn't call in because the megawatt transmitter out of Sigourney would blow me off the air.

Later, the pickup was traded for a Jeep Cherokee with a high band radio. However, I soon discovered I had to carry duct tape to replace the almost nonexistent weather stripping, which produced an "interior fog" when I drove on a gravel road.

When I left the county and went to work for what was then the Iowa Conservation Commission, like any other officer, it was a big day when I picked up my first car. It was a 1980 Plymouth Volare. It had been stored in a machine shed at a wildlife unit after the previous driver transferred to another territory. To me, it seemed a small matter to vacuum the loose insulation the mice had chewed and empty the acorns they left behind in the air

> bring truth, justice and fish and game law enforcement.

Little did I know this horse was bow-legged, and that "Volare" was foreign for "Not in a hurry." Swift? Well, I opened the hood to find I was back to the six cylinders. And, I soon found out the Volare might also translate to "I like to eat starters." Fur prices were high back then, and there





was a lot of illegal spotlighting activity. Unfortunately, if they ran, I ended up looking at a lot of taillights.

You also had to be careful at boat ramps. Sometimes it didn't have enough power to get me back up the ramp once I loaded the boat.

And poachers had an early warning system from our decals and bright license plates, which back then were a different color from the plates everyone else had. Many of us carried a can of WD-40, with which we sprayed the sides of our cars and license plates then flew (or, in the case of the Volare, crawled) up and down gravel roads, which left it camouflaged in dust until spring.

Later, the Volare was retired and I picked up a Ford Crown Victoria. It had a V-8 engine and more room. I drove two Crown Vics. Exceptional cars. A quantum leap compared to the previous rides. Still, they had a major disadvantage. Most of the people we were dealing with were driving four-wheel-drive pickups, and most of the areas where we encountered them were in fields, hills and valleys far from roads. The cars were helpless. Plus, with the gear we wear and as low as we sat in the car, many retired officers today thank the cars for their stiff backs.

It wasn't until the late 80s we made the move to SUVs and pickups, a major step forward for us. Of course, it always seemed the more room you got, the more gear you stuffed into it. Most of us pile enough miles on to turn in a vehicle about every three years at around 100,000 miles. Every time

I take all that gear out I'm amazed I got it all in there, and I even find things I haven't seen in those three years!

My first SUV was a '92 Chevy Blazer. I named it "The Tank," because it would go anywhere. It was followed by a Ford Bronco.

My most interesting SUV, however, was a Dodge Durango. This one had a nasty habit of its own, one I first noticed going up a small hill on an Iowa Falls city street. I was pressing on the accelerator, and the tach showed the RPMs increasing. But, I was going backwards. "This doesn't seem right," I thought. Less than 600 miles in, and I was on my second transmission. I assumed that would solve the problem, but I soon found the "D" on the shifter stood for "Don't think so." In the first 2,000 miles, I went through several transmissions.

Some of the officers with pickups had a different problem. During pursuits, some of the trucks had this interesting quirk of popping out of gear at high speeds if they hit a bump. Thus I developed a habit of not stopping very closely behind them at intersections. My wife would ask what I was doing, and I told her, "I'm afraid his transmission will fall out in front of me."

From there I went to pickups. Yes, they have creature comforts, but they are welcome as we spend most our lives in them. And even though I still look at it as the "steed upon which I will ride," I find I look more to a tilt seat than a big engine. We've ridden a long way.

BY ALAN FOSTER PHOTO BY LARRY STONE

PAINTED TURTLE (Chrysemys picta)

With a range spanning the continent, from southern Canada to northern Mexico, painted turtles are arguably North America's most common turtle. Their yellowed-lined green heads and largely orange or orange-red underbellies undoubtedly make them one of Iowa's most recognized turtles.

WHAT'S FOR DINNER?

Painted turtles have fixed tongues attached to the floor of their mouth from the base and sides. With limited tongue mobility, it is widely believed (yet still debated in the scientific world) they cannot swallow food on land. As omnivores, they eat both plants and animals. They prefer fish, tadpoles, frogs, crayfish, larvae and aquatic insects, and are known to feed on carrion and aquatic vegetation. Younger turtles are carnivorous (meat eaters), adopting a taste for plant material later in life.

MAN VERSUS WOMAN

Painted turtles are not genetically male or female. Gender is determined during incubation; temperatures 84 degrees and above produce mostly females. Adults range 3.5 to 7 inches in size, although larger specimens are documented. Males fall in the smaller end of the range, while females are typically larger. Males have concave plastrons, or bottom shells, to aid in mounting females during copulation as well as longer front claws and longer, thicker talls.

FOUNTAIN OF YOUTH

Had Ponce de Leon spent his time studying painted turtles instead of exploring Florida, he might have found the fountain of youth. Painted turtles are known to live 40 years or more. Unlike humans, turtles don't physically deteriorate during the aging process, instead dying from disease, cars and raccoons, but not old age. It is believed turtles get better with age, producing larger clutches and enjoying higher survival rates than their younger pals.

THE SHELL GAME

Painted turtles have smooth, relatively flat upper shells (carapace) with red and yellow markings on a black or greenish-brown background. The bottom shell (plastron) is largely red or orange-red with a bold pattern of black and pale yellow. Some specimens may have solid, rust-colored plastrons caused by absorption of compounds or chemicals in the water, according to Jeff LeClere, an amphibian and reptile specialist. The hard protective shell is made of bone and is connected to the ribs. Thus, the turtle cannot expand its chest to breathe, but must force air in and out of its lungs by alternately contracting flank and shoulder muscles.

LOVE IS IN THE...WATER

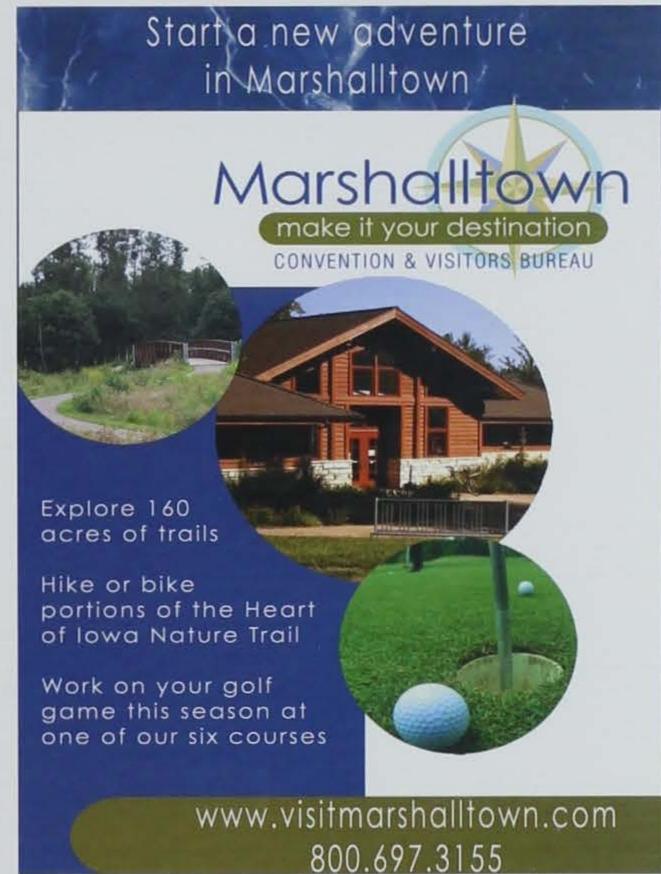
Painted turtle breeding begins in late April. The male swims past the female and positions himself in front, face-to-face, where he strokes her face with his forelimbs. The courtship continues until the female is ready to breed, which she may signal by stroking the male's forelimbs. In late May to early June, females dig a flask-shaped nest in loose sand or soil and deposit seven to eight eggs. Females may travel great distances over land to find suitable nesting sites, which is why they often fall victim to vehicles while crossing roads. Young turtles hatch in late August, but may overwinter in the nest before emerging the following spring.



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