ice,
so you
name
ur store
or.

able for
pplies

IOWA OUTDOORS

MARCH / APRIL 2014

THE DNR'S MAGAZINE OF CONSERVATION AND RE

IN THIS ISSUE:

HEPATICA: HARBINGER OF SPRING

HIKE THE SNOWS OF MARCH FOR DEEPWOODS FLOWERS

IOWA'S PREMIER ZIPLINE CANOPY TOUR

SEE IOWA IN A WHOLE NEW FLIGHT

Fly over dense treetops and through tree-lined ridges on nine different ziplines ranging from 300–1,000 feet. Step off a 45-foot tower into thin air, soaring over valley and creek. Scream across the valley floor on The Duel: a side-by-side, take-your-breath-away monster.

Sky Tours. Flights scheduled daily. Book yours today.

563.484.4248
RESERVATIONS REQUIRED

11764 JOHN F. KENNEDY ROAD | DUBUQUE, IOWA

SkyToursZipline.com

SKY TOURS
AT YMCA
UNION PARK CAMP
DUBUQUE, IOWA

WE JUST HAD THE MOST splishy AND splashy IOWA GETAWAY.

WHEN IT COMES TO GETAWAYS, IOWA FILLS IN THE BLANKS.

traveliowa.com | travel IOWA

splishy AND splashy OR wild AND wacky.

Whatever you want from your getaway, Iowa has an escape for you. Visit traveliowa.com to discover trip ideas that fit your family perfectly.

travel IOWA.

CEDAR FALLS / WATERLOO

Trails upon trails wait for you in Cedar Falls and Waterloo, including single track, paddle and more than 100 miles of hard-surfaced trails. Our two vibrant historic downtown districts offer museums, locally owned restaurants and unique shopping for your entertainment pleasure. And did we mention we're home to Lost Island Water Park? It's Iowa's largest!

visitthecedarvalley.com | 800.845.1955

CHARLES CITY WHITEWATER

River enthusiasts including kayakers, paddleboarders, tubers and canoeists will love Charles City Whitewater. Located at Riverfront Park on the Cedar River, this one-quarter mile rodeo course is rated at class II/III levels with three distinct features. There's no charge to use the course and it's accessible year-round. Join us May 30 through June 1 for the Charles City Challenge: White Water Weekend.

ccwhitewater.com | 641.228.4234

CLAY COUNTY

Fishing, swimming and camping aficionados know Clay County's best-kept outdoor secret – Scharnberg Park, whose beautiful cabins book months in advance. While you're visiting, take in our historical sites and first-class entertainment. And of course, don't forget the "World's Greatest County Fair" held each September. Whether it's for a lifetime or just a day, we hope you Explore, Stay, Do Clay!

exploreclaycounty.org | 712.580.TOUR (8687)

CLEAR LAKE

After you dry off from a delightful day of swimming, waterskiing, sailing and more, put on your exploring shoes and visit the Clear Lake Arts Center, Fort Custer Maze and the and Central Gardens of North Iowa. Music buffs won't want to miss the historic Surf Ballroom to experience music history unlike any you'll find anywhere else.

clearlakeiowa.com | 800.285.5338

CRESTON / UNION COUNTY

If you're a fan of H_2O, you'll have a splash at our Three Mile and Twelve Mile Lakes and Green Valley State Park. And you won't want to miss the many festivities we host throughout the year, like our Annual Hot Air Balloon Days (September 19-21, 2014), 4th of July and No Place Like Creston for the Holidays.

unioncountyiowatourism.com | 641.782.7022

DES MOINES

Catch one of the top farmers' markets in the nation, a stroll along the river and the rhinos at the zoo. Catch the Sculpture Garden, local brews and a blockbuster musical at the Civic Center. Catch fine dining, a baseball game and history that comes to life. Catch a love for Des Moines.

catchdesmoines.com | 800.451.2625

FOREST CITY

Witness the beauty of Pilot Knob State Park and our bike trails. Then tee off for a round of golf, kayak the Winnebago River, see how motorhomes are made at Winnebago Industries and experience days gone by at Heritage Park. After a long day, get in a good night's sleep at one of our campgrounds. During the summer, check out Puckerbrush Days, Adventure Race and Bash on the Farm.

forestcityia.com | 877.585.2092

IOWA CITY / CORALVILLE AREA

Experience the natural beauty of Iowa City, the only city to be designated by UNESCO as the City of Literature in the United States. With our vibrant and diverse communities of Iowa City, Coralville and North Liberty offering cultural opportunities, festivals and events all year round, there's truly something for everyone to enjoy.

iowacitycoralville.org | 800-283-6592

IOWA'S COUNTY CONSERVATION SYSTEM

Iowa's 99-county park system awaits you with 1,833 parks for your next outdoor adventure. Traverse more than 1,560 miles of trails or visit one of 70 nature centers, and then rest up at one of 10,500 campsites or 175 cabins along the way. You'll find amazing scenic vistas and an expansive array of outdoor activities that get you up close and personal with Iowa's great outdoors.

mycountyparks.com | 515.963.9582

OKOBOJI

With our abundant water recreation activities, vast trails system, Arnolds Park Amusement Park, golf courses, museums, shopping, unique dining and more, it's no wonder we're called Iowa's #1 Vacation Destination! Summer isn't summer without a getaway to Okoboji.

vacationokoboji.com | 800.270.2574

RIVERBOAT TWILIGHT

If you want a unique view of the Mighty Mississippi, then look no further than the Riverboat Twilight. When you hop aboard the decks of this old-fashioned riverboat, you'll feel like you've stepped back in time. Enjoy an affordable cruise on the Upper Mississippi River between Le Claire and Dubuque.

riverboattwilight.com | 800.331.1467

QUAD CITIES

Discover our many marvels on the Mississippi River! Bike beautiful riverfront trails or challenging mountain bike trails in park settings. Hike, fish or camp along the river and at our parks and forest preserves. When you're ready to head inside, discover our museums, micro-breweries, and other marvelous attractions too!

visitquadcities.com | 800.747.7800

Contents

MARCH / APRIL 2014

FEATURES

ABOUT THIS PHOTO

Members of a prescribed burn team gather on a hilltop in the Sylvan Runkel State Preserve in the Loess Hills east of Onawa, preparing for the day's prescribed burn. Hours of preparation and planning take place before any controlled burn to ensure safety and success. The crew was part of The Nature Conservancy's fire exchange program, teaching private landowners and land managers how to integrate fire into their management plans.

PHOTO BY MIKE WHYE.

ABOUT THE COVER

Hepatica, one of spring's first woodland flowers, tolerates alkaline limestone soils, hence the reason they flourish at Starr's Cave Park and Preserve near Burlington (see page 24). Hepatica is named for its leaves, which like the human liver, has three lobes. According to renowned naturalist Sylvan Runkel's book, *Wildflowers of Iowa Woodlands*, it was widely believed during the Middle Ages that plants resembling human organs could treat disorders of that organ. It has been used to treat cough, lung ailments, indigestion, liver ailments and hemorrhoids. The book also notes, according to a Meskwaki medicine man, "When the mouth gets twisted and the eyes get crossed, this root is brewed into a tea and the face is washed until it returns to normal." **PHOTO BY RON HUELSE.**

DEPARTMENTS

Contributors

GAIL GEORGE worked as a naturalist for the Des Moines County Conservation Board before spending 28 years with the Iowa Department of Natural Resources in central Iowa. Now, when not writing or researching her family genealogy, you might find her out hiking or bird-watching.

CHARLES MONSON'S love of the outdoors led him to a career in geology. He's done field work as far away as Texas and Nova Scotia, but some of his favorite geological experiences have been in Iowa, where he has excavated giant sloth bones on the Nishnabotna River and unearthed ancient sea scorpion fossils near Decorah. Monson is a Johnson County native who is currently living in Illinois.

MIKE WHYE is a Council Bluffs-based freelance writer-photographer who's created Iowa images and stories for years. His two guidebooks, *Great Iowa Weekend Adventures* and *The Great Iowa Touring Book* are at *www.amazon.com*.

SANDY FLAHIVE is a Des Moines writer who likes getting in her Jeep and meandering around Iowa, discovering the hidden gems that lay in its many nooks and crannies. She also enjoys spending time at her remote cabin near Stephens State Forest in southern Iowa.

IOWA OUTDOORS

MARCH / APRIL 2014 • VOLUME 73 • ISSUE 2

Iowa Outdoors (ISSN 0021-0471) is published bimonthly by the Department of Natural Resources, 502 E. 9th St., Des Moines, IA 50319. Periodicals postage paid Des Moines, IA. **SUBSCRIPTION RATES: $15 FOR ONE YEAR, $24 FOR TWO YEARS AND $30 FOR THREE YEARS. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.** Include mailing label for renewals and address changes. **POSTMASTER:** Send changes to *Iowa Outdoors*, P.O. Box 37831, Boone, IA 50037-0831.

DNR MISSION

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

EDITORIAL MISSION

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

MAKE A DIFFERENCE

DNR volunteer programs help Iowans give back to lands, waters and skies. *515-242-5074* or *iowadnr.gov/volunteer*

HOW TO DONATE

Charitable giving of land, funds, goods and services greatly enhances Iowa's outdoors. Call Kim Rasler at *515-281-7122*.

SHOW YOUR SUPPORT

Support wildlife diversity and REAP. Take your license plates and vehicle registration to your county treasurer's office to buy a pheasant, eagle, goldfinch, deer or trout natural resources plate.

SUBSCRIBER SERVICES

To subscribe, or for any subscription issues or questions, call **1.800.361.8072** Monday through Friday from 7 a.m. to 11 p.m. or weekends 8 a.m. to 6 p.m. For ease in processing, please have an issue with a mailing label available at time of call. To purchase a single copy for $5, call *515-281-5918*.

LEARN MORE

Buy licenses, reserve campsites or learn about our environment at *iowadnr.gov*. See our magazine television show at *iptv.org*.

facebook.com/iowadnr
twitter.com/iowadnr
pinterest.com/iowadnr

DNR

PRINTED WITH SOY INK

WOODPECKER PHOTO BY LOWELL WASHBURN; BOBCAT PHOTO BY ALLIE ROTH

GOT A QUESTION?
SEND TO: *AskTheExperts@dnr.iowa.gov*

Myth Busters

BOBCATS eat all the game birds

It's always easy to lay blame when something goes wrong. Some accuse bobcats feeding on game birds for why hunters aren't bagging as many birds. However, research shows this is inaccurate. It is humans and weather behind declines in game bird populations.

According to Iowa State University research, game birds make up very little of a bobcat's diet. The primary bobcat diet is rabbits, mice, voles and squirrels. An additional 5 percent of food is from roadkill.

"A lot of diet studies in other states show the same results," says DNR furbearer biologist Vince Evelsizer.

There are an estimated 2,500 to 3,000 bobcats in Iowa. Most are in southern Iowa. Bobcats, once common, were pushed out because of habitat destruction and over-harvesting.

"Bobcats are native to Iowa and deserve, ecologically, a place in our state," says Evelsizer.

So what is behind plummeting pheasant populations?

"The number one thing people should be concerned and upset about is the loss of adequate habitat for game bird populations," says Evelsizer.

"The loss of CRP, small grains and hay fields—all critical habitat to pheasants—over the last 10 years equals 1,263 miles—or roughly a four-mile wide swath from the Mississippi River to the Missouri River," says DNR upland game biologist Todd Bogenschutz. "Weather is also a critical factor."

Bogenschutz notes since 2007, only one year—2012—had a normal spring and winter. The rest have been hit with above-normal spring rainfall and above-average snowfall.

—BY BRANDON HALLMARK

BOBCAT PHOTO BY ALLIE RATH

Ask The Expert

—Trisha in Madison County asks

Do woodpeckers feed off of downed wood laying on the forest floor?

WOODPECKER PHOTO BY LOWELL WASHBURN

Woodpeckers are well known for drilling trees for one of their primary food sources—the unsuspecting insect. But do these tenacious tappers also drill downed wood or just peck standing trunks when on a cuisine quest. According to Pat Schlarbaum with the DNR Wildlife Diversity Program, woodpeckers are equal opportunity food foragers and while they do not exhibit a preference with regard to live or dead wood, they are morphologically designed to hammer on standing trees.

Once the tree is downed, it is difficult for woodpeckers to maneuver, similar to when we try to hammer a nail in a confined space. There is not enough leverage to elicit the force needed to do the job effectively. "Burrowing insect larvae in trees' cambium are the target for woodpecker foraging. Often the larvae do kill the tree and it remains standing. The main priority of the woodpecker is survival. To survive they must leverage their body structure, including their hammer-like bill, to do so," says Schlarbaum.

In addition to finding food, woodpeckers use their distinctive drilling and determined drumming to hollow out nest cavities in trees and to attract potential mates. While we might suspect that this perpetual pecking would undoubtedly result in a multitude of migraines, Schlarbaum assures that there isn't a splinter of truth surrounding the myth that woodpeckers experience headaches from their repeated rapping. Their chisel-like bills are adapted to distribute the shock of the constant contact throughout their thickened skulls. In addition, the nostrils of their beaks are covered with feathers that act as a buffer for wood chips and dust.

—BY SHELENE CODNER

For more about woodpeckers, contact Pat Schlarbaum at Pat.Schlarbaum@dnr.iowa.gov or visit iowadnr.gov.

Together

BY *LISA WALTERS* PHOTOS BY *BEN CURTIS*

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

DIY Photo Bracelet

Upcycle Iowa Outdoors magazine pages and plastic bottles to create a trendy bangle bracelet.

SUPPLIES NEEDED:

- One 20-ounce pop bottle
- Masking tape (optional)
- Heavy-duty scissors
- Americana Decou-Page glue by DecoArt (gloss finish used here) or other glue medium
- *Iowa Outdoors* magazine photo from back issue or calendar (tiger swallowtail photo used here)
- Small paintbrush
- Craft beads or gems
- DecoArt Glamour Dust (Ice Crystal) glitter paint
- Aleene's Original Tacky Glue

INSTRUCTIONS

STEP 1

Wrap masking tape around bottle as a cutting guide for a straight cut. Make the bracelet width based on your personal preference. With scissors, make the cuts as straight as possible.

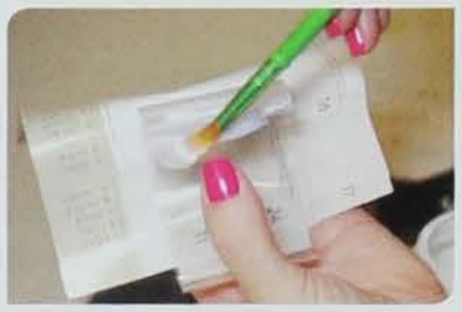
STEP 2

Cut a section of photo wider than the width of the bracelet and ensure there's enough photo to overhang past the edges of the bracelet. (This overlap will be folded into the bracelet to help hide the underlying plastic.)

STEP 3

Working in small sections, paint a generous amount of decoupage glue to the exterior of the bracelet. Lay the image face up while smoothing out the photo onto the exterior and working your way around the bracelet—gluing and smoothing in sections.

When dry, cut sections of the overhanging image every ¾-inches around the bracelet on both sides up to the edge of the plastic to create tabs. The goal is to cover the bracelet interior with the image to hide the plastic. Trim tabs if they overlap too much. Glue these tabs and fold and press each to the inside rim of the bracelet.



STEP 4

When all tabs are glued, coat and seal the bracelet interior and exterior with decoupage. This also creates a glossy finish and seal. Add additional coats to build a thicker finish if desired.

STEP 5

Once decoupage is dry, embellish with gems using Aleene's Tacky Glue in random applications or patterns.

STEP 6

With gems attached, paint a layer of glitter paint on the image surface for extra shimmer. Don't coat the gems.

BEETLE PHOTO BY JAMES BARNHART

Discover Your **Home-Away-from-Home** in a Honey Creek Resort Cottage

Turn your next outdoor spring adventure into a comfortable getaway at Honey Creek Resort State Park. Whether birdwatching, golfing, fishing, hiking nature trails or hunting, Honey Creek Resort can provide comfortable accommodations. The resort's 28 cottages are beautifully situated near Lake Rathbun in south-central Iowa, about 95 miles from Des Moines. The cottages feature Craftsman furniture, full kitchens and bathrooms, flat-screen televisions, free wireless Internet access, wraparound porches and more. Choose from one-, two- or four-bedroom options.

Best of all, Honey Creek Resort is offering affordable cottage packages from Feb. 28 through May 1. Packages for a two-night stay in a one-bedroom cottage (with loft) start at $378.00 plus tax. Prices vary depending on cottage size, length of stay and season.

And don't forget about Honey Creek Resort's beautiful lodge with indoor waterpark, championship golf course, restaurant and naturalist programming. It can be a wonderful getaway for your entire family.

TO LEARN MORE, visit *honeycreekresort.com*, or call *877-677-3344*. Advance reservations are required.

Get Your Bug On!

Annual Day of Insects in Ames has Something for All Interests

The sixth Annual Day of Insects at Reiman Gardens in Ames is filled with enthusiastic presentations covering a wide range of insect related topics—from sphinx moths to tiger beetles, backyard bugs, a new beekeeper's experiences to insect photography—young beginners and seasoned insect-lovers alike will find something to whet their insect interests.

Families, professionals and middle school-age children with inquiring insect minds swarm to Ames—from as far away as neighboring states—to learn from 15 presentations by professionals, academicians, advocates and enthusiasts. Peruse some show-and-tell tables, look through microscopes and learn about a newly devised butterfly survey app for Android phones. The registration fee also allows guests to visit the gardens and facilities.

Events are open to anyone and include informal time for food and socialization the night before the Day of Insects, and snacks and lunch during the day.

DAY OF INSECTS
Saturday, March 29, 9 a.m. to 4 p.m.
Full day registration: $22. Includes all presentations, boxed lunch and snacks. Full day (no lunch) registration: $16; half day Registration: $14 to attend from either 9 a.m. to noon or 1 p.m. to 4 p.m.

Join fellow attendees for an informal dinner March 28, the evening before the Day of Insects. Cost: $12. Participants do not have to sign up for Day of Insects to attend the reception. *Reiman Gardens, 1407 University Blvd., Ames, IA 50011.*

See the full agenda at *reimangardens.com*. For more details, contact Nathan Brockman at *mantisnb@iastate.edu*.

Six-spotted tiger beetle

BEETLE PHOTO BY JAMES BARNHART

Together

BOYS IN THE BOAT

BY *TIM LANE*

My favorite book review of all time was attributed to Dorothy Parker—and others—who wrote, "This is not a novel to be tossed aside lightly. It should be thrown with great force."

I was pondering that quote after finishing Daniel James Brown's *The Boys in the Boat: Nine Americans and Their Epic Quest for Gold at the 1936 Berlin Olympics*. It deserves a place on the other end of the scale from Parker's scathing analysis. Along the lines of... "I do not recommend you read this book, I order you to." More on that later.

Several years ago I met an individual on a doctoral theses review committee on the building of the transcontinental railroad. It focused on medical reports—the astounding fact was not all the injuries reported, but the lack of lower back pain. Apparently, long before we shunned healthy weight levels, we ignored core strength and healthy backs.

The result, according to the National Institute of Health, is "nearly everyone at some point has back pain that interferes with work, routine daily activities or recreation." It is the second most common neurological condition behind headaches and results in a $50 billion addition to our health care deficit. Yes, I know age impacts bone strength, muscle elasticity and the ability of discs to cushion vertebrae. But the most alarming aspect of this trend is we take this condition lying down...literally.

Yet we are awash in an activity to address this condition. Iowa's borders are America's greatest rivers. We don't just have good lakes, but great ones. And we are designing more and more river trails and kayak courses. Rowing or paddling can be key to building core and back strength. It can treat and prevent various muscle-skeletal conditions including arthritis and lower back pain. Given the mental health boost, it is another win-win activity.

Canoeing and kayaking help increase muscle strength and flexibility. As with any new effort, it is always a good idea to ask your physician or orthopedist for input and perhaps appropriate exercises to prepare you for voyages. Federal health officials suggest:

- *Always stretch before exercise or strenuous physical activity.*
- *Don't slouch when standing or sitting. When standing, keep weight balanced on your feet. Your back supports weight most easily when curvature is reduced.*
- *Make sure any work surface is at a comfortable height for you.*
- *Sleep on your side to reduce curve in your spine. Sleep on a firm surface.*
- *Seek help when transferring an ill or injured family member from a reclining to a sitting position or when moving the patient from a chair to a bed.*
- *Don't lift objects too heavy for you. Lift with your knees, pull in your stomach muscles, and keep your head down and in line with your straight back. Keep the object close to your body. Do not twist when lifting.*
- *Maintain proper nutrition and diet to reduce and prevent excessive weight. Weight around the waistline taxes lower back muscles. A diet with sufficient calcium, phosphorus and vitamin D helps promote new bone growth.*
- *If you smoke, quit. Smoking reduces blood flow to the lower spine and causes the spinal discs to degenerate.*

Now back to the book. If motivation or inspiration is the issue, *Boys in the Boat* is not just a good read—it is a great read.

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

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.

RYAN IN CHARLES CITY ASKS:

What is Iowa's largest fish?

While Iowa anglers have reeled in a 93-pound bighead carp and a 101-pound blue catfish, neither of those can dethrone Iowa's largest official state record fish. Robert Pranschke of Onawa holds that title with a 107-pound paddlefish pulled from the Missouri River in 1981. The fish stretched almost 6 feet long. Still, that's nothing compared to local legend in the Iowa Great Lakes area of a paddlefish speared in 1916 that weighed just under 200 pounds.

You most often find paddlefish in the Missouri and Mississippi rivers, but they occasionally show up in the lower portions of the Des Moines, Cedar, Iowa and Skunk rivers. Paddlefish grow quickly, reaching 2 feet in their third year of life. A 17-year-old paddlefish averages 5 feet and weighs about 37 pounds. These fish are long-lived, prowling the waters for 20 years, and some past 30. These prehistoric fish appeared in our waters about 50 million years before the first dinosaurs.

These giant fish subsist on a diet of very small organisms called plankton floating in the water. They stand out from other Iowa fish with their long, paddle-like snouts, a shark-like body and no scales. But unlike a shark, mature paddlefish have no teeth. They swim with their mouths open to filter food out of the water. At one time, paddlefish were easy to find in the Mississippi Valley, but overfishing and changes in the environment have reduced numbers, even wiping them out in the Iowa Great Lakes.

WILDFLOWER PHOTO BY RON HUELSE

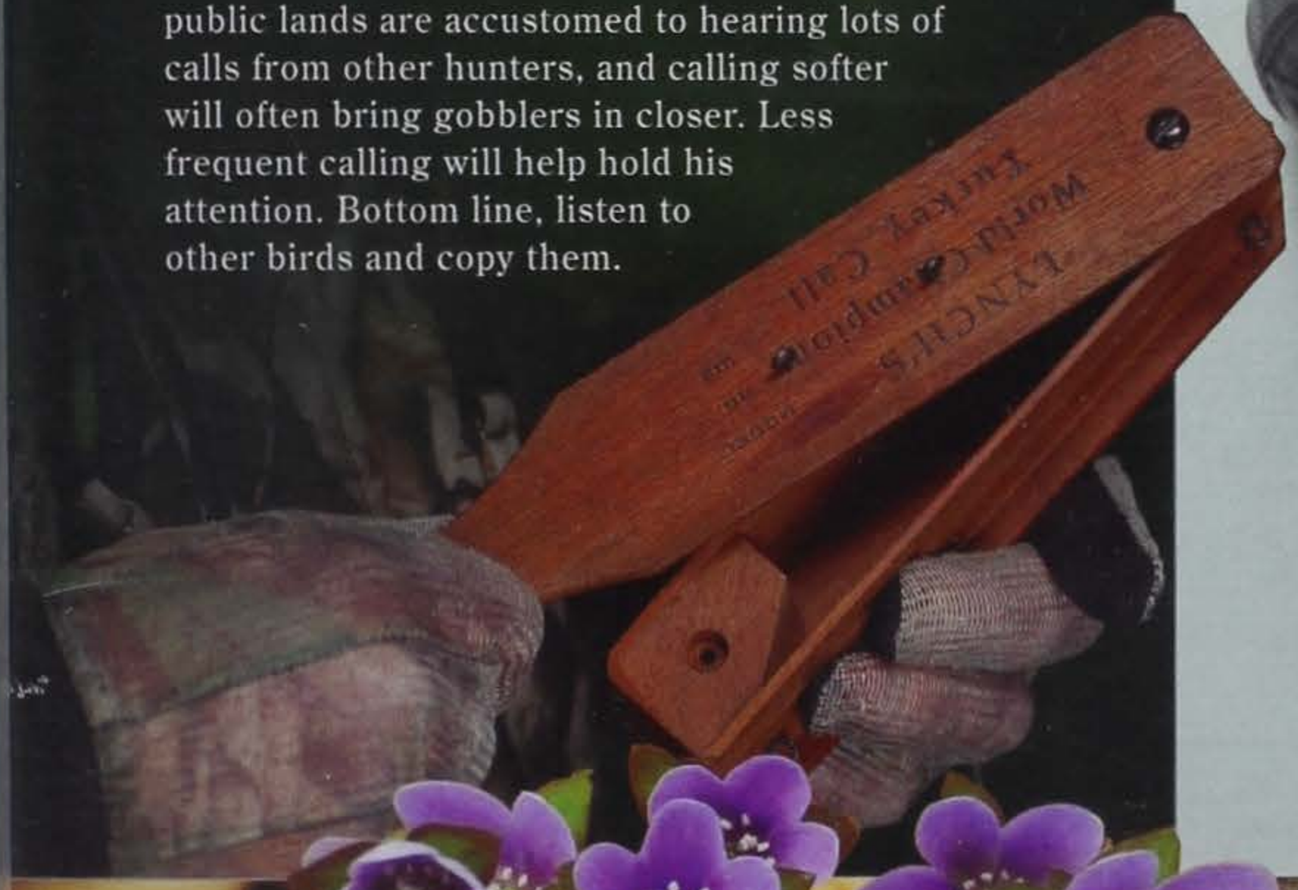
Outdoor Skills

PHOTOS BY *BEN CURTIS*

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

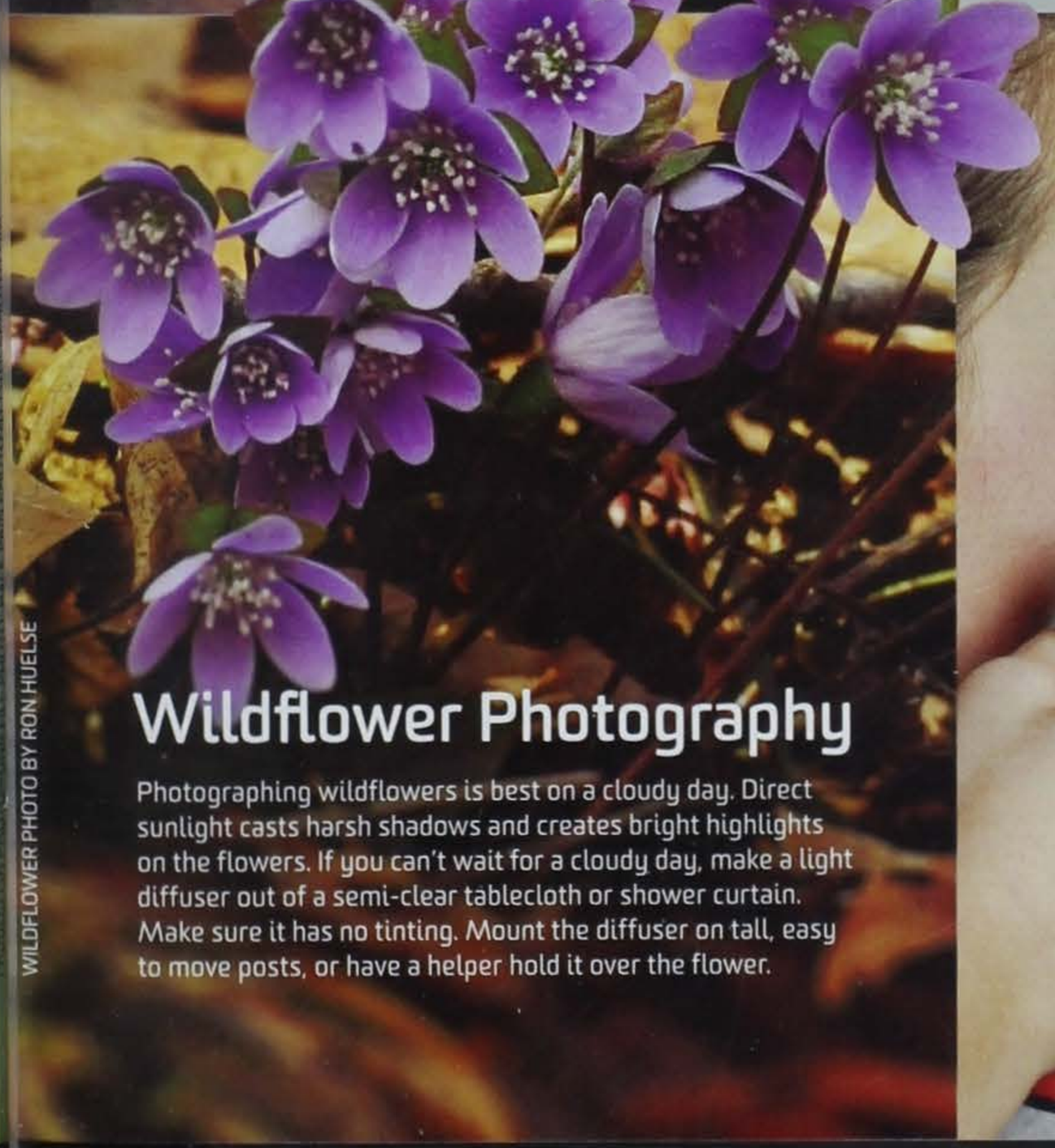
Spring Turkey Tip

Hunting turkeys on public land can be rewarding, yet more challenging than hunting private land birds. When hunting public land, calling softer and less frequent might help you bag a bird, especially after opening day. Toms on public lands are accustomed to hearing lots of calls from other hunters, and calling softer will often bring gobblers in closer. Less frequent calling will help hold his attention. Bottom line, listen to other birds and copy them.



Wader Hanger

Storing waders without wrinkles or folds will add years to their life. Make your own hanger with a 4-foot piece of medium size rope and a couple of small zip ties. Loop each end of the rope large enough to fit around the boot tip and secure the loose end with a zip tie, forming a noose. Slip around boot and hang.



Wildflower Photography

Photographing wildflowers is best on a cloudy day. Direct sunlight casts harsh shadows and creates bright highlights on the flowers. If you can't wait for a cloudy day, make a light diffuser out of a semi-clear tablecloth or shower curtain. Make sure it has no tinting. Mount the diffuser on tall, easy to move posts, or have a helper hold it over the flower.

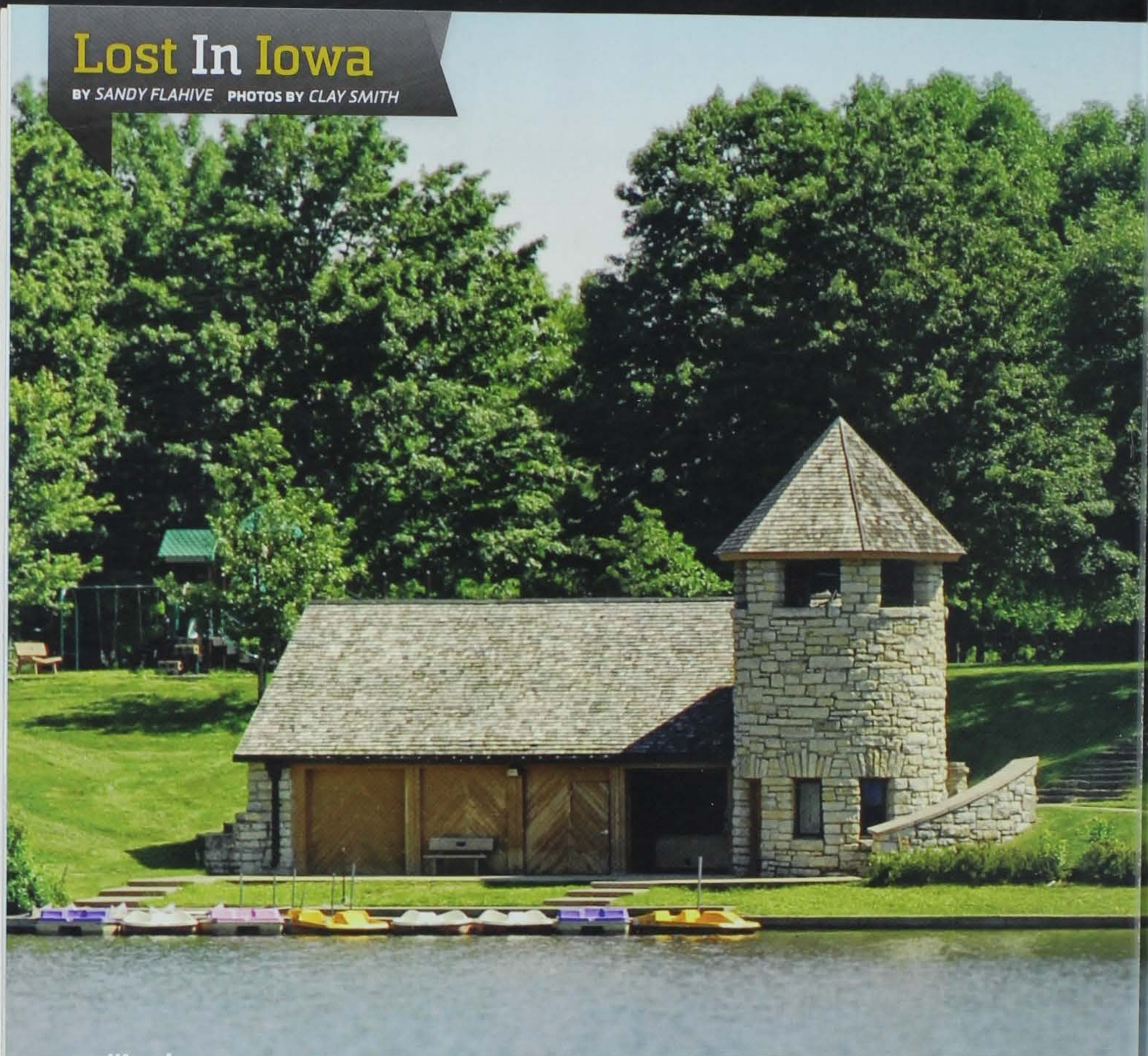
WILDFLOWER PHOTO BY RON HUELSE

Keep Your Archery Muscles Toned in the Off-Season

Keep your archery muscles toned in the off-season with the help of resistance bands. Grab the band a short distance from the handle and pull back to your anchor point, holding for 10 seconds. Do three sets of 10. For back muscles, stand on the band, and while holding a handle, lift up and overhead. Increase tensions and hold times as muscles strengthen.

Lost In Iowa

BY *SANDY FLAHIVE* PHOTOS BY *CLAY SMITH*



"Luke, skedaddle on up here, son. No need to be afraid. Just mind your step and you'll be fine," urges a father over his shoulder to his dawdling son, who looks to be about 10 years old.

Luke, however, appears to be anything but afraid. Peering curiously over the lip of an 80-foot cliff, inches from the main trail, he throws back his head and shouts excitedly into the breeze-cooled air, "WOW-EEE!" Then, nimble and sure-footed as a mountain goat, he turns back to the task at hand and fearlessly scampers along the rocky ledge to catch up with his dad.

For nine decades, thousands of youngsters, oldsters and inbetweeners have climbed, skittered, crawled and tiptoed along the undulating top of the "Devil's Backbone." This narrow, steep ridge of bedrock, carved by a loop of the Maquoketa River, is the defining feature of one of the oldest and most significant destinations in Iowa: Backbone State Park in Delaware County.

What a jolly enterprise it would be to pluck some of the mad-dashing, sunglass-wearing, tunnel-visioned, non-Iowan travelers (maybe even many Iowans?) from interstates I-80 and I-35 and plunk them in the middle of Backbone, just to show them that in addition to lush, fruitful fields of grain, the Hawkeye State has boundless natural beauty and provides endless opportunities for enjoyment.

If ever a place can show 'em, Backbone can!

Considering the possibilities...

"It's all here," confidently proclaims John Maehl, the

A Devil of A Good Time

youthful, energetic, former Iowa parks northeast district supervisor. "I have a great job and Backbone is one of the reasons," he admits. "This park is as good as it gets."

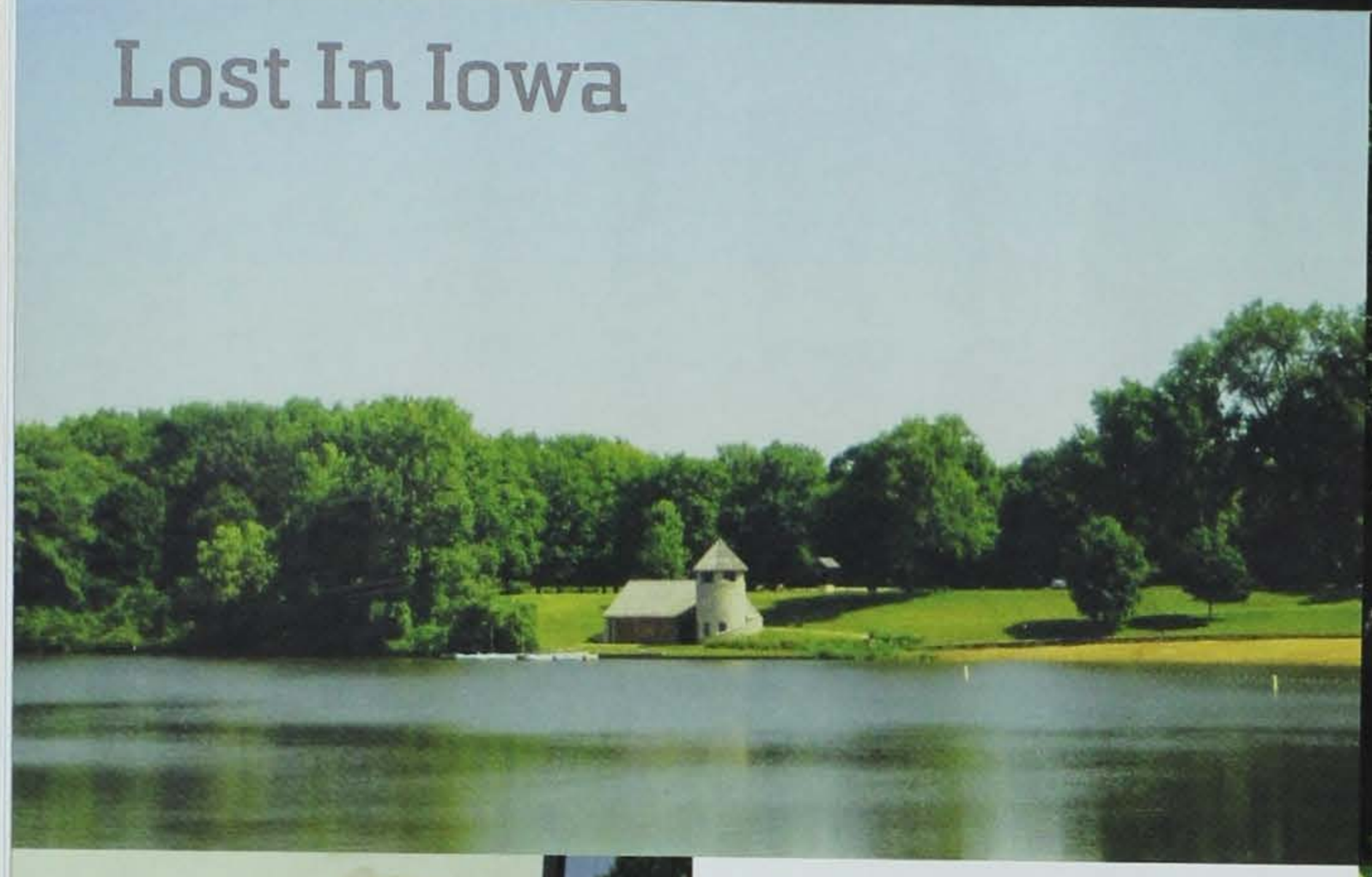
Consider the natural beauty. Dedicated in 1920 as Iowa's first state park, Backbone consists of 2,000 acres jam-packed with trees—cedar, oak, maple and more. There's a river, the mighty Maquoketa, a lake, fittingly named Backbone and a trout stream, Richmond Springs. Then there's 25 miles of leafy, twisty trails; and, of course, the sheer cliffs and bluffs of limestone contributing to its name.

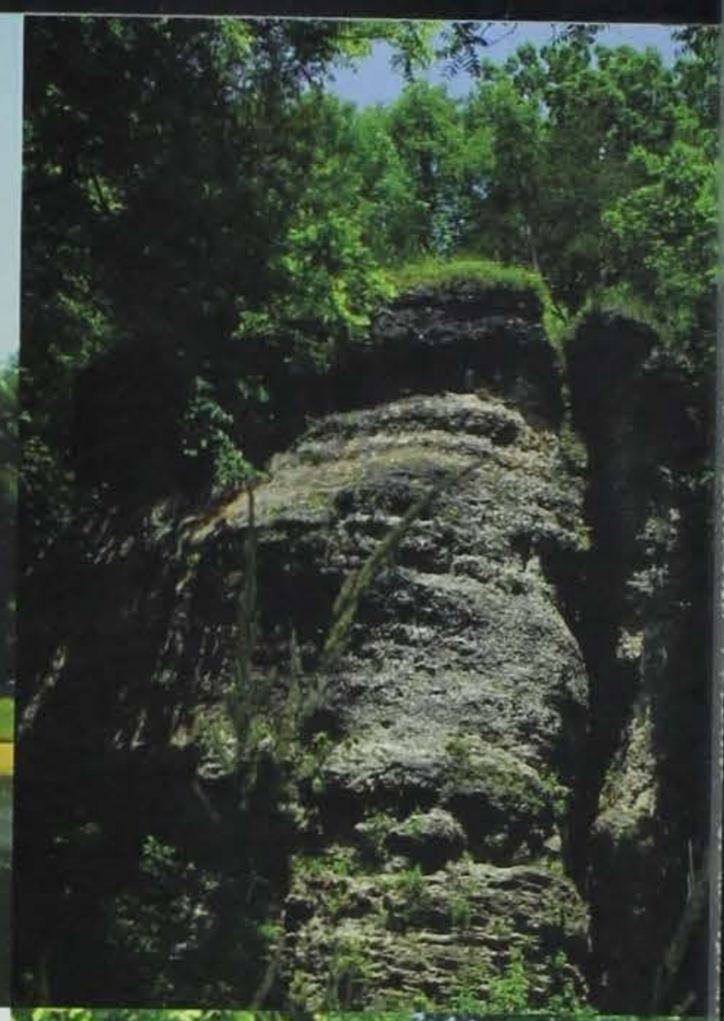
Scurrying happily, if haphazardly, among all this glory (along with Luke, of course), is wildlife galore, everything from fidgety deer and turkey to crafty fox and raccoon. Keeping an eye on it all from above are keen-eyed eagles and crooning songbirds.

When it comes to finding recreational pleasure, Maehl declares Backbone the cream of the crop. "Sure, most parks can hold people's attention for a day or two, but Backbone can keep you busy for a month and longer," he says enthusiastically. "There is such a diversity of activities here. That's why we're packed year-round with newcomers who've heard good things about us, plus all those individuals and families who've been coming here for decades."

While he confesses one of his personal favorites in the line-up of myriad park activities is the annual two-day December deer hunt, it's the summer activities that are hopping on a soothingly warm July day and prove Maehl's contention that this is the place where there are things to do, places to go and sights to see.

Lost In Iowa

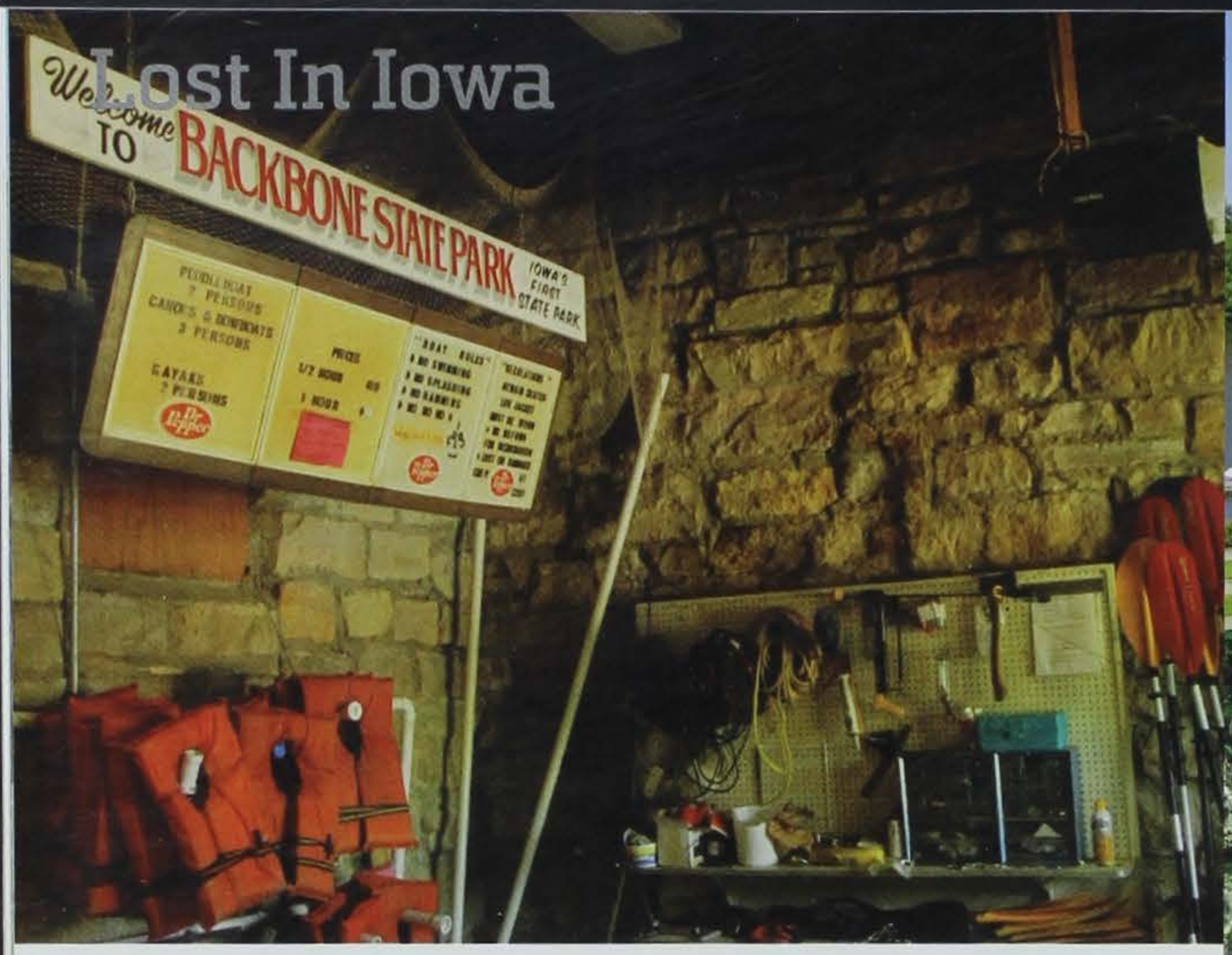


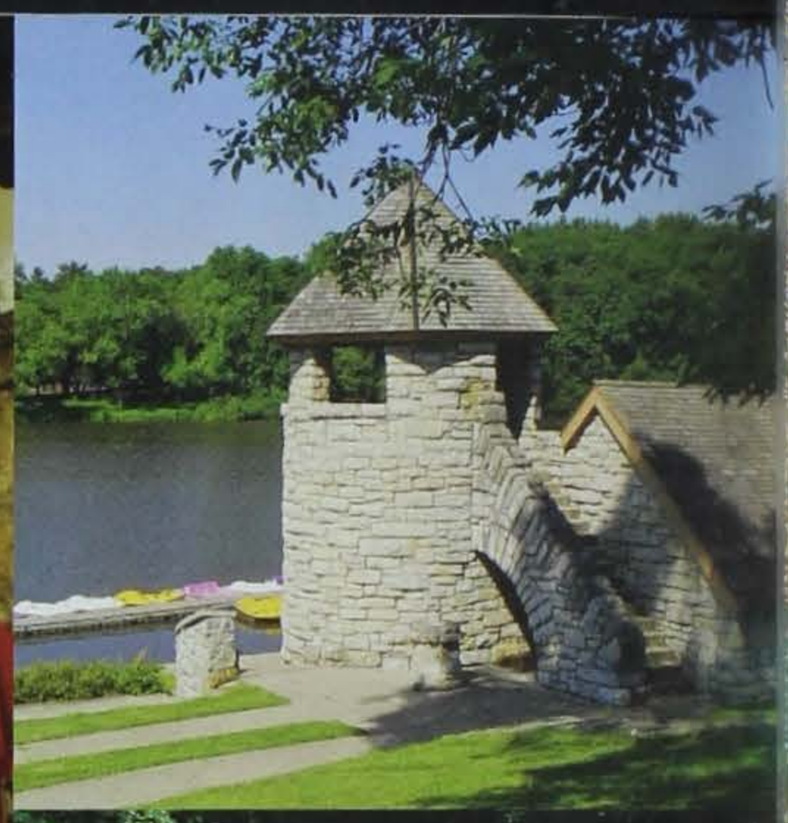


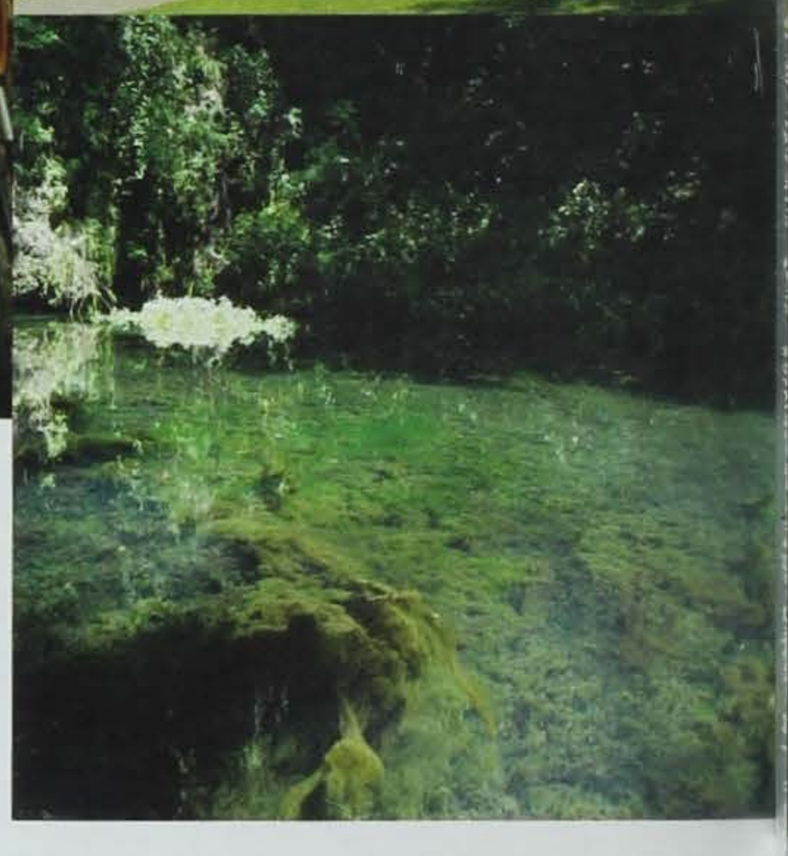
In 1920, when Backbone was dedicated Iowa's first state park, State Geologist Samuel Calvin said this:

"Its sides are in places precipitous, the rocky cliffs rising sheer for more than 80 feet. Erosion and secular decay have carved the rocks into picturesque columns, towers, castles, battlements and flying buttresses." One hundred years later, the park's main feature—the steep ridge of dolomite and limestone christened the Devil's Backbone—offers thrilling, and often chilling, adventures for hikers, climbers, rappelers and all others gutsy enough to traverse its challenging narrow and rocky surface. Considered by many the state's best park, its other attractions include picturesque Backbone Lake, trout-friendly Richmond Springs, plentiful campsites and a variety of cabin styles. DNR staff welcome visitors year-round.

PHOTOS OPPOSITE PAGE TOP LEFT AND BOTTOM RIGHT BY BEN CURTIS







An impoundment of the Maquoketa River, Backbone Lake offers a variety of water-related recreational opportunities, including boating, swimming and fishing. A boat ramp (electric motors only allowed on the lake) is located near the southwest end of the lake. On the southeast end, an impressive limestone structure provides boat rental. Close by is a sand swimming beach and concession stand. Anglers can expect to catch a variety of fish: bluegill, bass, catfish and trout. Backbone also has more than 20 miles of multi-use trails that cater to hikers, bicyclists, cross-country skiers and snowmobilers. The park is the perfect place for picnickers as well. Several open shelters and an auditorium may be reserved for a fee.

Spend a couple of hours exploring the park with him and you're raring to become one of the repeat visitors.

Hanging your hat

Rounding a bend of the tree-lined road, waving at a couple of moseying strollers and giving a thumbs-up to a teen-aged bicyclist, Maehl heads for the area where protective oaks and maples hover over the park cabins.

With a proud, inviting look, four year-round, two-level deluxe cabins accommodate a maximum of 11 people. Nearby, four comfortable-looking, year-round family-style log cabins comfortably sleep six. These air conditioned accommodations with electric furnaces have excellent kitchen facilities, but if you're into grilling out, fire rings and picnic tables are liberally sprinkled about the premises.

"And this little cluster of eight renovated CCC cabins have been updated as year-round cabins with air and heat," explains Maehl appreciatively, pointing to eight humble one-bedroom units, products of the Civilian Conservation Corps established by President Franklin Roosevelt to provide work for unemployed Americans during the Great Depression. "So much of what makes up Backbone, other than its natural resources, is the result of the CCC. They built the dams on the Maquoketa, the boat house, restrooms, bridges, even the trails."

Happily engrossed with her grandchildren, Gavin and Lucas, outside their deluxe cabin, Rosemary Drees of Manchester, the Delaware County seat, cheerfully pauses to explain her lifelong love of Backbone. "When I was a kid this was our day park," she reminisces. "Now we stay longer with our kids and grandkids—fishing, hiking and swimming.

"Once upon a time we were big tent campers, but these beauties have spoiled us," she goes on. "An upstairs, a downstairs, air conditioning, nice kitchen, two bathrooms? Hey, I like this! I'm not going back to tent camping ever."

Lapping it up

Much of the recreation in the park occurs in, on and around scenic Backbone Lake, created by the CCC as an impoundment of the Maquoketa River. The lake and its environs sing with life.

Whooping and hollering coming from the sandy beach on the southeast end of the lake reveals six pre-teeners leaping like tadpoles in and out of the shimmery, sun-drenched water. "IT'S G-R-R-REAT!" bellows one, sounding exactly like Tony the Tiger of Frosted Flakes fame.

In close range of the beach are shelters, picnic areas, the boat house and the lodge. The latter two limestone

PHOTOS, TOP LEFT AND OPPOSITE PAGE, CAMP FIRE AND SIGNS BY BEN CURTIS

structures have been handsomely restored since their CCC days. The boat house, with its turret-type lookout, serves as a canoe and paddleboat rental station.

At the lodge, a.k.a beach house, Nicole Peterman, a third-generation member of the family which has served as Backbone's concessionaires for decades, serves up a dandy cheeseburger to a swimsuit-attired boy. Commenting on the facility's other undertakings, the adept young woman easily recites its uses as a rental facility. "You wouldn't believe how many reunions, graduation parties, wedding receptions, business retreats and organizational meetings we have here," she exclaims.

She's wrong. One would believe it. The lodge is big, sun-filled and functional.

"That's what's great about this place and all our district parks," beams Maehl. "Family gatherings and user-group occasions combine harmoniously to create a really positive dynamic."

Scoot around the southern tip of the lake, pass the boat ramp, and become a happy camper at one of 100 sites at South Lake Campground. Electric and non-electric stations, two shower and restroom buildings and a playground entice campers.

Backbone also hosts guests at the primitive 27-site, non-electric Six Pines Campground at the west end of the park. It is definitely remote up there—perfect for those who want to withdraw from civilization.

Packing it all in...

Under a shady, leafy canopy on the west shore of Backbone Lake, four intent but contented looking folks are fishing, the reds and blues of their gear sprucing up the bank. Throwing out the ages-old line, "Havin' any luck?" Maehl approaches the anglers.

"Well, maybe just a little," comes the friendly reply.

Lo and behold, the foursome is part of the Drees family in the cabin across the lake—Dan, Rosemary's husband; Jerry Keppler, her father; and two more grandkids, Brooke and Bradley.

"Let's put it this way," chuckles Dan. "It's not exactly what we had in mind but we've caught a couple of carp. We'll get the big ones yet, though."

Leaving the family behind to fulfill that promise, Maehl says, "They're here at the perfect time. Weekends the park is full but come out mid-week like this and you own the park."

That declaration pans out at another popular location called The Flats where six merrymakers clearly are enjoying the balmy day engaged in Frisbee throwing,

Lost In Iowa

DELAWARE COUNTY TRAVEL NOTES

Manchester, the county seat, population 5,000, a picturesque courthouse and a lively business district that includes The Fish Shack pet shop—Iowa's largest supplier of colorful fish and birds; Widner's Drug Store and Gift Shop, known as the "Wall Drug of Iowa" and a plethora of restaurants and parks.

Backbone State Forest lies just outside the northeastern boundary of Backbone State Park. Unlike the park, its 186 acres of pine and hardwood forest are open to hunting and horseback riding. Hiking and cross-country skiing also are popular activities.

Delaware Crossing Scenic Byway begins in Hopkinton and continues for 44 miles through a landscape that rolls and slopes in uneven steps to the Maquoketa River valley in the southern half of the county, passing fields of corn, forested riverbanks, limestone outcroppings and glacial boulders. *iowabyways.org*

Manchester State Trout Hatchery is four miles southeast of town. Learn about trout cultivation and view giant trout up close. Open and free of charge year-round, sunrise to sunset, with guided tours by appointment, 8 a.m. to 4 p.m., Monday through Friday. 22693 205th Ave. 563-927-3276; *iowadnr.gov*

Delaware County Historical Museum, on the National Register of Historic Places, is in Hopkinton and resides on the campus of what once was Lenox College. The complex of buildings includes a library, dormitory, chapel, Old Main, gym, depot, farm machinery museum and one-room schoolhouse. Open by appointment or June-Sept. 1 p.m. to 4 p.m. *delcoiowahistory.org* 563-926-2639 or 563-926-2416.

If you are up for a challenge, spend a day or two exploring the **Northeast Iowa State Park Bike Route**, a 130-mile jaunt connecting Pikes Peak, Backbone and Wapsipinicon state parks. Referred to as the "Little Switzerland" of Iowa because of its diverse landscapes, the route winds through breathtaking bluffs, roller coaster roads and meandering rivers and streams. Lodging and food available along the way. Overnight parking allowed in state parks. Make arrangements in advance through park ranger. Get a free pdf at iowadnr.gov by searching on northeast Iowa state park bike route.

Seasoned rock climbers and rappelers know one of the favorite places to satisfy their thrill-seeking needs is at Backbone State Park. Feel the intense, physical rush of scaling 50, 60, 70 feet in the air, and the exhilaration of knowing when you reach the summit, you are hanging from just a couple knots. Climbing and rappeling is not allowed at all state parks, and sites may be closed if environmental damage or safety issues arise, or if a threatened or endangered species is present, so call ahead before planning a trip. Climbers and rappelers must register at the park office. There is no charge. Call the park at 563-924-2527 for more details.

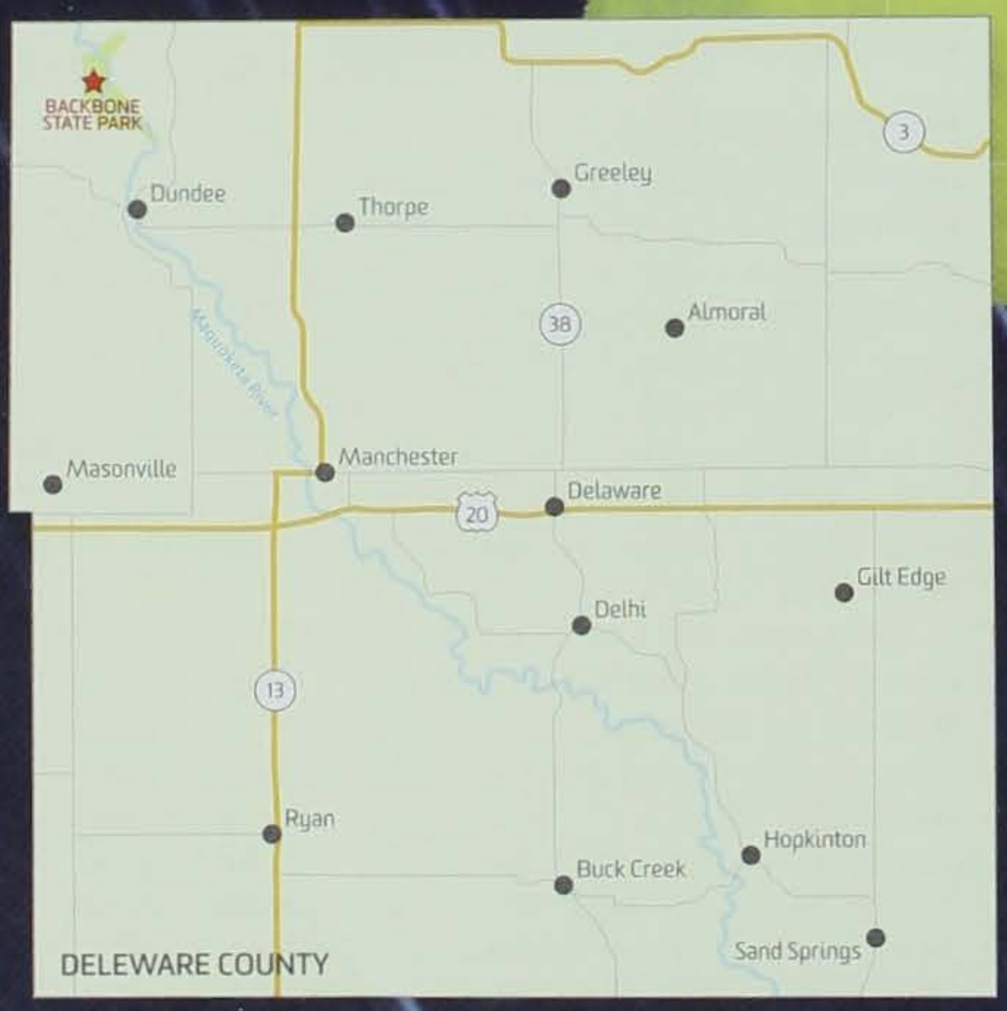


PHOTO BY BEN CURTIS

For those wanting to pretend they're living in days of yore, the limestone boat house turret is the place to be. The open-air lookout is the perfect place to hang out and spy on lake goings-on and suspicious-appearing critters and creatures.

Lost In Iowa

BACKBONE STATE PARK

Location

1347 129th St.
Dundee, Iowa 52038
563-924-2527
Backbone@dnr.iowa.gov

The park is in northwestern Delaware County, three miles south of Strawberry Point and five miles east of Lamont.

Reservations

Cabins, shelters and half the campsites can be reserved by visiting *www.reserveiaparks.com* or by calling toll-free *1-877-427-2757*. The balance of the campsites are on a first-come, first-serve basis.

Cabins are equipped with heating, air conditioning and kitchenette. Renters must provide their own bedding and dinnerware.

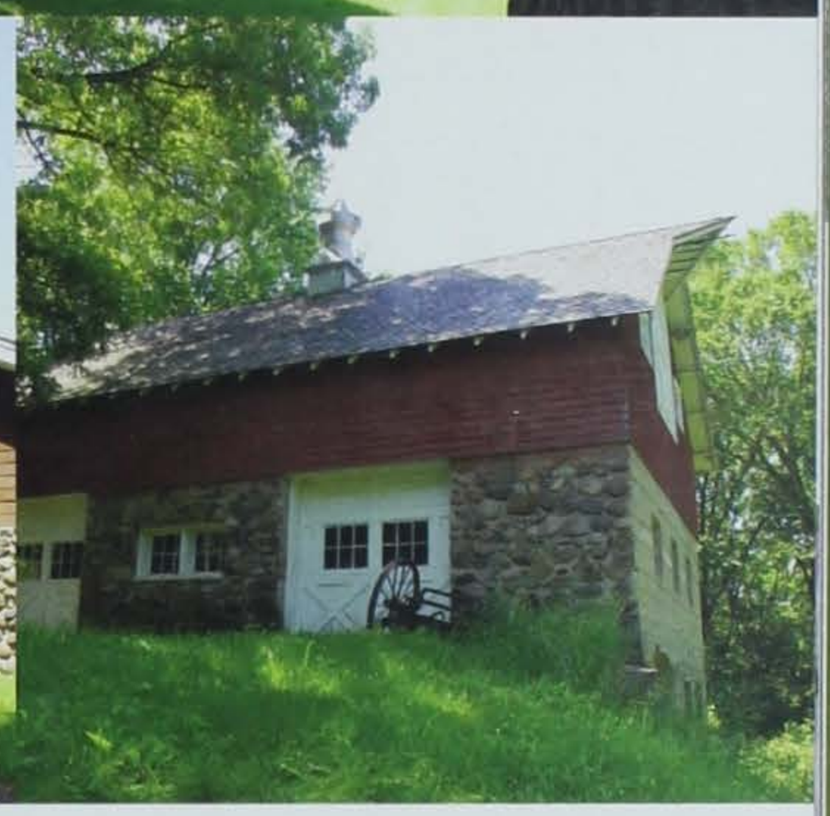
The lodge can be reserved by calling *563-933-2273*.

Climbers and rappelers must register at the park office.

CCC Museum

The museum is open on Saturdays, Memorial Day through Labor Day, and by special arrangement through the park office.

The beach house, like the boat house and many other projects and structures at Backbone, has been restored since first constructed by the Civilian Conservation Corps in the 1930s. In honor of the Corps, the CCC Museum was opened in 1990 and provides visitors with an interesting and informative look at the work of this industrious group.



sunbathing and picnicking along one of the park's many streams. From their grill, hickory-scented wafts of smoke signal hamburgers and hot dogs are ready.

Every visitor to Backbone should put Richmond Springs on its "must-see" list, although trout anglers are sure to know of it. Located at the north end of the park, the springs flow from towering bluffs at the rate of 2,000 gallons of water per minute and create clear, quick flowing streams that are stocked throughout the summer with catchable-size rainbow and brook trout.

One thing is certain at Backbone. There's no need for a fitness center. Muscles and limbs are stretched, exercised and challenged via the multitude of activities. Proof positive are the two rock climbers intent on shinnying up the side of an imposing column of limestone. "Grab onto that little tree trunk," commands one to his companion who appears to be in dangling mode. A cowardly observer has to look away from the nervy, limber duo.

Whether you're gutsy enough to perform that arduous task or, instead, are climbing the rough, rocky staircase to the Devil's Backbone, hiking speedily along West Lake Trail, biking the loopy Bluebird Trail, testing the miles of other windy, twisty trails that wend through glades of thick ferns and stands of hardwood trees, or briskly walking the calmer paths, your cardiovascular system will salute your vigor and vitality.

Leaving nothing undone...

At The Barn, once the district office and now the park office, Brenda Noel, one of two seasonal campground hosts, tells guests how much she's enjoying her Iowa stay. "I hail from Washington D.C. and Florida and move from park to park across the country doing this job, but I like it here. Most state and federal parks don't have the room that Backbone has."

It's true. Backbone is spread out, and for that reason lots of visitors never get to the Auditorium. But that doesn't mean it sits empty. "It's used extensively for weddings, church groups and family reunions," reflects Mary Shea, park manager, of the attractive granite stone amphitheatre that has electricity, a stage and a charming, sylvan setting.

It's only fitting that on the grounds of Backbone State Park the Civilian Conservation Corps Museum tells the story of the thousands of men whose time, sweat and labor was the guiding force in creation of the parks system. "The archives here contain more information about the CCC in Iowa than you'll find anywhere," says Maehl, "and we're always eager to accept more, especially photos."

If he hasn't already, hopefully one day young Luke will find his way to the Museum and realize that it was the legacy of those many hard-working men that made it possible for him to clamor here and there around an awesome Iowa park and climb the Devil's Backbone one fine, carefree summer's day when he was just a lad.

Spring Light

BY *GAIL GEORGE*

Hepatica flowers luxuriate in the light. Open wide, a cluster of white stamens burst like fireworks from each center, as if making love with the sun. How hepatica long all winter for this day. Like me, longing for spring.

Each flower showcases six or more lavender petals, nodding on a downy stem, with a bud of leaves not yet unfurled at the base. They pushed through brittle oak leaves, now nestled around them, insulating from the cold.

When it is not quite spring, I feel an ancient stirring in my hibernating spirit, and I know I need to get out to the woods into the crisp air and search for the first wildflower bloom of the year. There is a yearning to find light in the darkness, to find a tinge of color in the drab grays and browns of late winter.

So I go to the places that will be dark in summer, but now have a view of the sky. In the competition for life-giving light, delicate plants of the forest floor do not stand a chance against the leafy canopy of towering trees. So woodland wildflowers take the light when they can get it, before the trees leaf out. They put that energy into flowers that develop into seeds. In spring, productivity and beauty meet in a synergism that ensures life goes on.

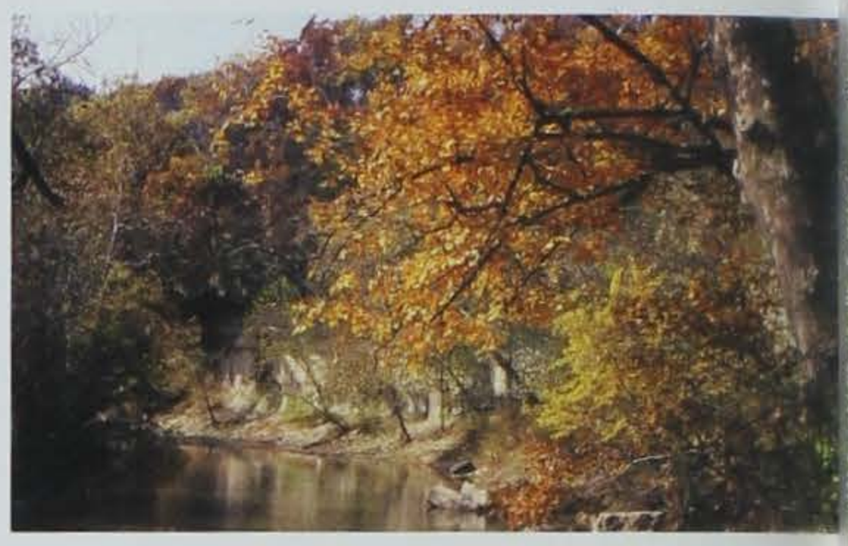
Light is most precious in the darkest part of the woods; on steep, north-facing slopes. This is where the earliest wildflowers bloom, like hepatica and trillium. I approach with care since clumsy lumbering can easily erode steep slopes. Liver brown hepatica leaves grow after the flowers fade and stay all winter. I look for those burgundy beacons with three lobes that evoke the earthy spirit of spring.

When hepatica first begin to appear, the shoots carry a single drooping flower, like the bent head of a shy young girl. As they rise and open, their shadings are subtle, palest lavender or pink, often white, sometimes a watercolor wash of periwinkle. I once knelt in the snow to capture a picture of a single closed pink hepatica, bent beneath a melting arch of white crystals. It was as if its blush warmed the pocket of snow around it to reveal a space for its bouquet.

After the sprays of hepatica flowers turn to seed,

PHOTO BY RON HUELSE

Preeminent naturalist Sylvan Runkel coauthored five books on Midwestern wildflowers and led walks at Starr's Cave for more than 20 years.



In the middle ages, hepatica was believed to cure liver ailments because the leaves were somewhat shaped like the organ. Flint Creek flows through Starr's Cave park, with a steep bluff on one side and the nature center (below) on the other. Starr's Cave is currently closed to the public to help prevent the spread of White Nose Syndrome, a fungal disease affecting bats.

PHOTO, TOP LEFT, BY GAIL GEORGE; OOLITE PHOTO BY ROBERT MCKAY, DNR

sturdy leaves sprout and spread wide, as if to say, "We are here to stay. We will be here still in the summer, the fall and even winter. We will not show our flowers to the fair-weather strollers of May, but we will be here, year after year after year."

Hepatica grows in special places, and my favorite is where I found it first—at Starr's Cave Park and Preserve near Burlington in southeast Iowa. Flint Creek winds through the lush woods of the preserve, with 100-foot limestone bluffs rising up on either side and goat prairies dotting the ridge tops.

I still remember when I hiked into Starr's Cave woods looking for bloodroot and rue anemone. My face was aimed at the ground like a hound, and I discovered a bloodroot, with its fat white bud and a huge leaf folded around the stem like a cloak. After inspecting it, I stood up and looked across the bluff side, and realized the entire slope was strewn with patches of hepatica and snow trillium, petals sparkling like snow crystals in the dappled sunlight.

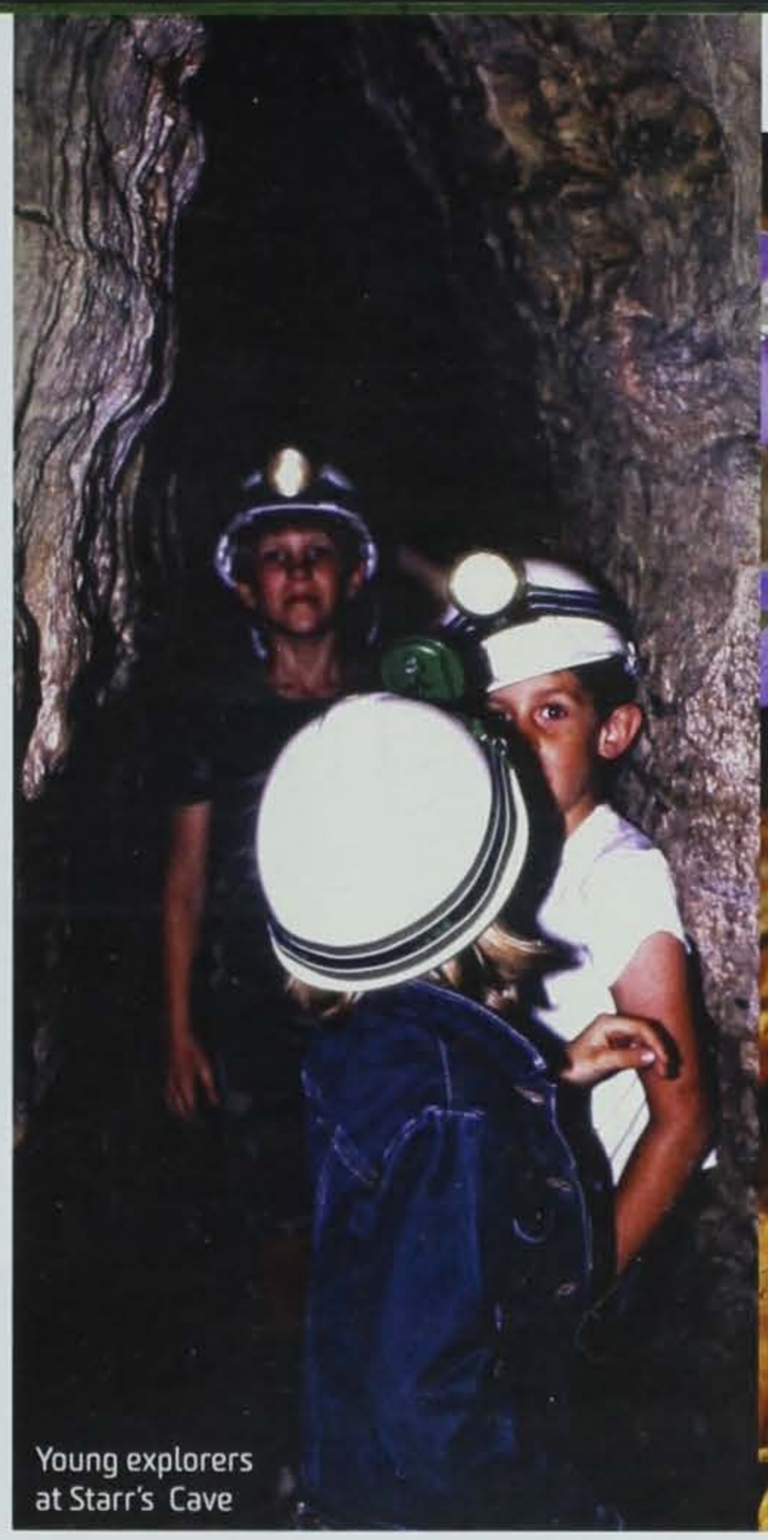
People have been making discoveries at Starr's Cave for a long time. A 1908 picture from the *Burlington Hawkeye* shows men in suits and women in long black dresses picnicking there. Another article describes mysterious wooden crates found in the cave from 1854. And long before Europeans settled in the Flint Hills around Burlington, the Sac and Fox were knapping the chert into arrowheads and spear points. Some Native Americans used hepatica as a tea for healing, such as to clear out the digestive system. Like the hepatica infusion, spring air itself can wash away the accumulated detritus and numbness of winter.

Ancient red cedars cling to the cliff edge, a discovery made by Iowa State University botany professor Roger Landers. Initial borings revealed the cedars were at least 200 years old. On similar bluffs in northeast Iowa, researchers found cedars more than 500 years old—growing there before the Sac and Fox. It is possible a woman from the late prehistoric Oneota culture walked by those same individual cedars and inhaled their fragrance. This ancient, timeless feeling seemed to permeate the preserve.

Perhaps the rock outcrops helped foster this. Beneath the overhang 40 feet overhead with the layers of ochre and pale gray spread in a giant arc to either side, it was like standing in my own private Roman amphitheater. I could look out past the creek to the sycamores and up the far hillside to the oak-hickory woodland.

Along with harboring the first flowers of spring, Starr's Cave also held a geologic first. Geologists first described one of those limestone layers in the preserve, and so it is known the world over as the Starr's Cave Formation. This 3-foot band has a lot of oolites, small white grains that look like clusters of fish eggs, or

Oolites at 25x magnification. Actual width is 7mm wide.



Young explorers at Starr's Cave

HEPATICA PHOTO, TOP RIGHT, BY RON HUELSE; ALL OTHERS COURTESY OF DES MOINES COUNTY CONSERVATION

perhaps like hundreds of the beady white stamens from hepatica, just the intimate centers all cemented together, birthing the dreams buried in primordial seas.

How are wildflowers, rock outcrops, soil and people connected? That was a cinch for legendary naturalist and raconteur Sylvan Runkel. All were citizens of the natural world—each with responsibilities and dependent on each other. He led a nature walk at Starr's Cave in June 1979. He had been leading these for Teacher Conservation Camps for more than 20 years, long after his retirement, and this was one of the last. He wore his signature flannel shirt and suspenders. His ranger's hat with the wide, crumpled brim shaded his gray whiskers and dancing eyes. I tagged along on that hike, in the second month of my first job as a naturalist, wearing brown corduroys, a khaki shirt and a shiny name tag.

I lingered at the back of the group to observe. Runkel would stump up the hills, swinging his always-straight leg right along. Despite his awkward gait, there was a gentle rhythm to his nature walks. People would lean in close to hear, then lean back to reflect and explore. Listen, then reflect. Listen, then reflect.

His eyes crinkled with delight at each new plant discovered along the trail, and he had a story for each. Runkel literally wrote the book, *Wildflowers of Iowa Woodlands*, and hepatica was number three in it—the third flower to bloom in the spring. By June, he was telling stories about different plant friends.

But he wasn't just an expert on plants. In his work for the Soil Conservation Service, he was the first to map some of the soils in Iowa. Taking soil borings repeatedly along a transect, he recorded key characteristics of the layers, such as texture and color, to determine the soil type. He discovered certain trees and flowers were typical in certain soil types. After a while, he could have written the soil types down based on the plants and their position on the landscape.

Runkel generally got around to weaving something in about light on these nature walks. In the book by Stone and Stravers about Runkel, Michael Carey described how the naturalist "waxed rhapsodic about light, and leaves and chlorophyll. How the trees are huge photosynthetic machines and how we more indirectly are as well... how we are all light, in a sense, incarnate."

One must look for hepatica before there is any other sign of spring. So each year when March finally straggles into sight, I often go looking again. I try to go on a sunny day when the light will open those first wildflowers of spring. If I get down low and look close, I can see the fragile white down on their stems. When the sun hits them just so, it is like light just fills the body of the plant till it glows. Then I remember Runkel and his stories and rhythms, and I can see that, like hepatica, I too can be light incarnate.

2014 Fishing Forecast

Get your tackle ready and update your licenses to hook into some serious fishing with this list of top angling sites from DNR fisheries biologists.

BY *CHRIS LARSON, RANDY SCHULTZ, MICHAEL STEUCK* AND *JIM WAHL*

NORTHEAST IOWA

WALLEYE

CEDAR RIVER (Mitchell, Floyd, Black Hawk and Bremer) Size 12 to 30". Fish deep water pockets and congregating areas during spring and fall. In summer, target wood or rock habitat near current. Jigs and minnows are preferred spring and fall, while nightcrawlers and crankbaits are summer favorites.

SHELL ROCK RIVER (Black Hawk, Bremer and Butler) Size 12 to 28". Quality-sized fish and great opportunities for boat and float anglers. Focus on areas with rock or wood habitat.

MISSISSIPPI RIVER POOLS 9 TO 14 (Allamakee to Scott) Target any lock and dam tailwaters in early spring shortly after ice-out. Vertical jig on the bottom with minnows, jigging spoons or bladed lures. After spawn, try wingdams throughout the summer and fall. Stay upstream of wingdams and let lures or bait float to the front of the wingdam. Active, aggressive walleyes will strike crankbaits or three-way rigs trolled over dropoffs and upstream of wingdams. In late fall, saugers seek refuge in the depths of tailwaters. Jig and minnow or a three-way rig with a sinker and a minnow produce the best results.

Other mentions: TURKEY RIVER (Howard, Winneshiek, Fayette and Clayton), UPPER IOWA RIVER (Howard, Winneshiek, Allamakee) and WAPSIPINICON RIVER (Black Hawk and Buchanan).

BROOK AND RAINBOW TROUT

SOUTH BEAR/NORTH BEAR CREEKS (Winneshiek) Announced stockings twice weekly April through October. There are more than 10 miles of water open to fishing in these two streams. Excellent for fly fishing, live bait and artificial lure angling.

RICHMOND SPRINGS (Delaware) Public access available at Backbone State Park. Use dry flies, jigs, nightcrawlers, nymphs, plastics, prepared baits and spinners.

PHOTO BY JAKE ZWEIBOHMER

BAILEY'S FORD (Delaware) Public access available at Bailey's Ford County Park. A variety of tackle will work, including dry flies, jigs, nightcrawlers, nymphs, plastics, prepared baits and spinners.

Also try: TROUT RUN (Winneshiek), TURTLE CREEK (Mitchell), LITTLE PAINT/ BIG PAINT CREEKS (Allamakee), BIGALK CREEK (Howard), WATERLOO CREEK (Allamakee), SNY MAGILL CREEK (Clayton), GLOVERS/OTTER CREEKS (Fayette) and BANKSTON CREEK (Dubuque).

BROWN TROUT

NORTH BEAR CREEK (Winneshiek) Size 6 to 19". Use multiple access points to see some of the most scenic ledges and natural water features in northeast Iowa. Some of the best insect hatches occur here to challenge many fly fishers.

FRENCH CREEK (Allamakee) Size 6 to 20". The entire stream is catch-and-release, artificial lures only for brown trout. The fish spook easily—perfect for delicate fly rod presentations.

SPRING BRANCH CREEK (Delaware) Size 8 to 20". Public access available through Manchester Fish Hatchery, Bailey's Ford County Park and signed public fishing easement downstream of the hatchery. This is an artificial-only and 14-inch minimum length stream. Spring Branch is known for good insect hatches and flyfishing opportunities.

Other mentions: ENSIGN HOLLOW (Clayton), FOUNTAIN SPRINGS/ELK CREEK (Delaware), MAQUOKETA RIVER (Clayton/ Delaware), SWISS VALLEY (Dubuque), COLDWATER CREEK (Winneshiek), CLEAR CREEK (Allamakee), SNY MAGILL CREEK (Clayton), BLOODY RUN (Clayton), GRANNIS CREEK (Fayette) and TURTLE CREEK (Mitchell).

SMALLMOUTH BASS

CEDAR RIVER (Mitchell, Floyd, Black Hawk and Bremer)Size 8 to 18". The Cedar is overlooked for smallmouth, but provides a great opportunity for size and quantity. Fish jigs or live bait near rock and wood. Crankbaits or spinners can be effective to cover water and find fish.

SHELL ROCK RIVER (Black Hawk, Bremer and Butler) Size 10 to 18". The Shell Rock is known for quality-sized fish and great opportunities for boat and float fishers. Focus on rock or wood habitat. Jigs are most consistent, but crankbaits or spinners can be best at times.

WAPSIPINICON RIVER (Black Hawk and Buchanan) Size 10 to 20". The Wapsi is among the best for trophy fish. Focus over rock or wood habitat. Fish near swift current during summer when water is slow.

MISSISSIPPI RIVER POOLS 9 TO 15 (Allamakee to Scott) Fish range 10 to 20" with many in the 16 to 18" range and over 4 pounds. Fish spring and early summer at the mouths of small streams and openings of backwaters. Use crankbaits, crawfish and inline spinners in the summer and fall on riprapped islands, closing dams and main channel wingdams targeting areas with current breaks. The tailwaters and upper ends of Pools 12 to 15 have an abundance of rock that hold nice smallmouth.

Other rivers to target smallmouth bass include VOLGA RIVER (Fayette), UPPER IOWA RIVER (Howard, Winneshiek, Allamakee), TURKEY RIVER (Howard, Winneshiek, Fayette and Clayton) and the MAQUOKETA RIVER (Delaware and Jones).

CHANNEL CATFISH

MISSISSIPPI RIVER POOLS 9 TO 15 (Allamakee to Scott) Expect good summer fishing with many fish in the 6- to 10-pound range. After ice-out, use cut shad in the backwaters. Late spring and early summer, try cutbait and nightcrawlers along shorelines and below wingdams on the channel. Use a bobber and repeatedly float worms or leeches along rocky shorelines. As water temperatures rise into the 70s, stinkbait is effective in deeper holes, rock mounds and brush piles. Stay well above brush piles and allow bait scent to diffuse into the pile.

CEDAR RIVER (Mitchell, Floyd, Black Hawk, Bremer) Size 10 to 24". The Cedar is a fantastic catfish river, with plenty of boat and shoreline access. Use cut baits or prepared fish baits early, transitioning to stinkbaits, nightcrawlers or blood baits for summer. Areas near deep holes with current breaks are preferred early and areas near wood and current are best during summer.

SHELL ROCK RIVER (Bremer and Butler) Size 10 to 28". The Shell Rock has a strong channel catfish population and consistently produces big cats. Areas near deep holes with current breaks are preferred early and areas near wood and current are best in summer.

LAKE MEYER (Winneshiek) Size 19 to 24". The face of the dam and steeply dropping shorelines hold nice sized fish. Use chicken liver or stink baits.

Other mentions: CASEY LAKE (Tama), LAKE HENDRICKS (Howard), VOLGA LAKE (Fayette) and MAQUOKETA RIVER (Jones and Jackson).

DESTINATIONS

TURKEY FOOT REGION (Black Hawk, Bremer and Butler) THE CEDAR RIVER, SHELL ROCK RIVER AND WEST FORK CEDAR RIVER come together in northwest Black Hawk County and form one of the best river fisheries in the state. There are excellent opportunities for quality channel catfish, smallmouth bass and walleye. A variety of access points are available for shore, boat or canoe/kayak fishing. For a complete outdoor weekend, there are several county/city campgrounds and George Wyth Memorial State Park nearby.

NORTHWEST IOWA

CRAPPIE

BROWNS LAKE (Woodbury) 10 to 14". Target shallow water near cattails with small white twisters or minnows. Fish deeper water near structure on outside bends in summer.

CLEAR LAKE (Cerro Gordo) Average size is around 9" with some up to 14". In spring, target north shore canals. In early to mid-summer, cast tube jigs or bobber and minnow along rush edges.

INGHAM LAKE (Emmet)
Fish submerged, shallow water timber during April and May for excellent catches of black and white crappie approaching 11". Focus on warm, sunny days in shallow water.

Also fish: BRUSHY CREEK (Webster), SWAN LAKE (Carroll), FIVE ISLAND LAKE (Palo Alto).

BLUEGILL

CRYSTAL LAKE (Hancock) 8 to 9". Bluegill will stack close to shore in May. In late summer and fall, look to deeper water in dredged areas.

OKOBOJI CHAIN OF LAKES (East and West Okoboji, Upper and Lower Gar and Miniwashta lakes) 7 to 10". Action starts after ice-out in Lower and Upper Gar and the north end of East Okoboji Lake. Fish calm, sunny days near wood docks in shallow water. West Okoboji Lake canals are also an early spot. Later, fish rock piles or weeds on Miniwashta, East and West Okoboji lakes.

CRAWFORD CREEK (Ida) Target the upper end for 8- to 9.5" fish during spring and along cattails east of the beach. During summer, drift small jigs and experiment with depths.

Also try: BRUSHY CREEK LAKE (Webster), NELSON PARK LAKE (Crawford), FIVE ISLAND (Palo Alto), MILL CREEK LAKE (O'Brien).

LARGEMOUTH BASS

EAST OKOBOJI AND WEST OKOBOJI LAKES (Dickinson) 12 to 20"-plus. Fish canals in the spring; move to docks as water warms and try weed lines in summer and fall.

BRUSHY CREEK LAKE (Webster) 12 to 20". As water warms, target structure near shore and weed lines. Search deeper structure in summer.

SMITH LAKE (Kossuth) 16 to 22". Fish weed edges with jigs and spinners. In summer, look for fish a little deeper. Sunken structures hold fish late summer/fall. Remember: electric motor only and 18-inch minimum length limit.

Also try: SPIRIT LAKE (Dickinson), BEEDS LAKE (Franklin), YELLOW SMOKE LAKE (Crawford), SWAN LAKE (Carroll).

SMALLMOUTH BASS

SPIRIT LAKE (Dickinson) 12 to 20". Action begins after ice-out around shallow rock piles on sunny, calm days using jigs and minnows. As water warms, fish deeper rock piles and emerging weeds with live bait and artificials.

WEST OKOBOJI LAKE (Dickinson) 12 to 20". Rocks are the key early, with rocks, weeds and weed lines productive in summer. Use live bait in the spring and crankbaits as water hits mid-60 degrees F. Use leeches in vegetation.

Also fish: NORTH RACCOON RIVER (Sac, Calhoun and Carroll), WINNEBAGO RIVER (Cerro Gordo), IOWA RIVER (Hardin).

CHANNEL CATFISH

STORM LAKE (Buena Vista) 15 to 25". During spring, fish windward shorelines using cut bait or shad guts. Target deeper water and rock piles in the summer.

CLEAR LAKE (Cerro Gordo) Catfish average 22 to 24", with many between 25 to 30". During spring, fish windward shorelines using cutbait, worms or stinkbait. In the summer, fish after dark for best results.

LOST ISLAND LAKE (Palo Alto) Good numbers of catfish 20 to 24" available. Fish at night with chubs or crawlers to add walleye to the creel.

Don't overlook: EAST FORK DES MOINES RIVER (Kossuth), LAKE CORNELIA (Wright), FIVE ISLAND LAKE (Palo Alto), BROWNS LAKE (Woodbury), SCHARNBERG POND (Clay).

MUSKIE

CLEAR LAKE (Cerro Gordo) Holds a healthy population of 30 to 40" fish with a good number up to 50". Cast large spinners near shoreline rushes or docks in September and October.

WEST OKOBOJI LAKE (Dickinson) 30 to 50". West Okoboji always produces the area's most muskie.

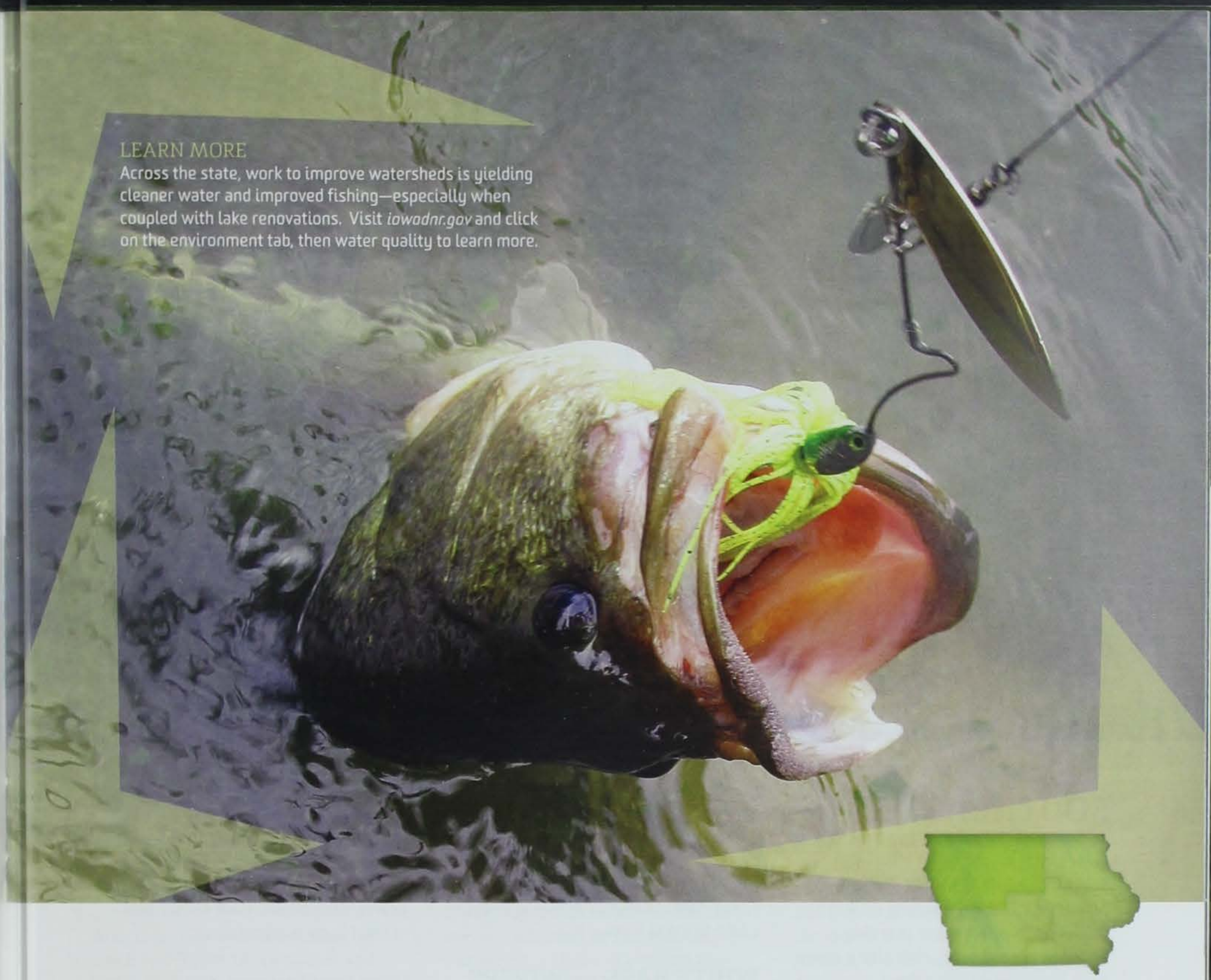
BRUSHY CREEK (Webster) 20–50". During spring, fish shallow water and creek arms near flowing water. In summer and fall, focus on structure, especially where several types meet.

WALLEYE

SILVER LAKE (Dickinson) 13 to 30". During April and May, wade along points and rocky shoreline areas at night casting twisters or minnow lures. Later, troll crankbaits, with the traditional hot bite occurring into July. In fall, wade after dark for trophy fish.

CLEAR LAKE (Cerro Gordo) Most walleyes caught are 14 to 17". Wader fishing starts as soon as ice-out, but prime fishing is May to mid-June. For larger walleyes, fish after dark, casting plastics from shore, anchored with bait or trolling.

STORM LAKE (Buena Vista) 14 to 25" (17 to 22" protected slot). In April and May, shore cast white or chartreuse twisters or live minnows. In summer troll shad colored crankbaits.



LEARN MORE

Across the state, work to improve watersheds is yielding cleaner water and improved fishing—especially when coupled with lake renovations. Visit *iowadnr.gov* and click on the environment tab, then water quality to learn more.

Also try: LITTLE SIOUX RIVER (Buena Vista, Cherokee, Ida and Woodbury), SPIRIT LAKE (Dickinson), FIVE ISLAND LAKE (Palo Alto), BRUSHY CREEK LAKE (Webster).

NORTHERN PIKE

SPIRIT LAKE (Dickinson) Every year Spirit Lake produces 25"-plus fish, with trophies early spring and late fall. Bottom fish cut bait in spring and "plugs" as weeds emerge.

CRYSTAL LAKE (Hancock) 20 to 34". Ice-out to early spring is the best time to target pike on Crystal. Pike love shallow, flowing water after ice-out, so target these locations with live baitfish, cutbait or a slow artificial presentation.

More excellent pike areas: WEST OKOBOJI (Dickinson), WINNEBAGO RIVER (Hancock, Worth and Cerro Gordo).

YELLOW PERCH

WEST OKOBOJI LAKE (Dickinson) A large year class will be 8" by fall.

YELLOW BASS

CLEAR LAKE (Cerro Gordo) The majority of fish ranged 7 to 8". In early to mid-May, fish near the island and Dodges Point using small jigs. In summer and fall, drift reefs to locate fish, then anchor and jig.

WHITE BASS

STORM LAKE (Buena Vista) 12 to 14". White bass aren't huge, but plentiful. Peak fishing is June. Look for fish breaking the surface on calm evenings, then cast top water lures or shallow running crankbaits.

BULLHEAD

SILVER LAKE (Palo Alto) Bullies pushing 10" await anglers. Use public access along the northwest, east and southeast areas.

SILVER LAKE (Dickinson) Fish approaching 10". Try windward shorelines with nightcrawlers on the bottom.

DESTINATIONS

BRUSHY CREEK LAKE (Webster), CRYSTAL LAKE (Hancock), MILL CREEK LAKE (O'Brien).

DESTINATIONS

CORALVILLE RESERVOIR

(Johnson) Known for spring and fall crappies averaging 9 to 12" and up to 16". Channel catfishing is good after ice-out and all summer with fish averaging 4 to 8 pounds and much larger available. White bass fishing is good in the fall with lots of fish up to 17". Flatheads, walleyes and largemouth are available, though not targeted as much. This large waterbody offers many fishing areas. As a flood control reservoir, water levels and clarity can dramatically affect success.

For every species listed below (except redear sunfish) the Mississippi River from Lock and Dam 15 through 19 also offers excellent angling opportunities.

SOUTHEAST IOWA

CRAPPIE

CORALVILLE RESERVOIR (Johnson) Size 9 to 16". Fish shallow rock banks or flooded wood if spring water is high. In fall, fish along steep rock banks or brush piles.

RATHBUN LAKE (Appanoose) Many are under 10", although excellent numbers of 10- to 13" crappies are available. Recent floods produced more crappie than seen in decades. This year's fishing will rival any in the last 20 years.

LAKE ODESSA (Louisa) Lake Odessa produces "slab" fish in the 11- to 19" range. Fish around beaver lodges and tree falls. Use marabou jigs, gumball jigs (1/32 oz.) with 1-inch plastic bodies or minnows under a bobber.

Other mentions: HANNEN LAKE (Benton), UNION GROVE LAKE (Tama), DIAMOND LAKE (Poweshiek), CHATFIELD LAKE (Lee), LAKE BELVA DEER (Keokuk), LAKE GEODE (Henry), POLLMILLER LAKE (Lee), WILLIAMSON POND (Lucas), LAKE SUGEMA (Van Buren).

WHITE BASS AND WIPERS

LAKE MACBRIDE (Johnson) Size 12 to 28". In spring, fish shorelines near schooling shad. Jigs, swimbaits or crankbaits work best. In summer, focus on reefs. Use crankbaits and swimbaits for deeper fish; topwater lures morning and evening. During fall, look for windblown banks holding shad and try jigs, swimbaits or crankbaits.

PLEASANT CREEK LAKE (Linn) Size 10 to 18". In early summer fish are shallow and spawning. Try jigs, spinner or crankbaits on shallow windblown banks/points. Later in the summer, fishing is good early and late in the day.

CORALVILLE RESERVOIR (Johnson) Size 10 to 17". Fall is when white bass are more predictable and concentrated. Target windswept tapering rock/gravel/sand banks. Look for schools of shad in the back of coves.

Other mentions: RATHBUN LAKE (Appanoose).

CHANNEL CATFISH

CORALVILLE RESERVOIR (Johnson) Size 15 to 35". Use cut shad or shad guts just outside the main channel current after ice-out. Warm, shallow, windblown flats can be productive. The upper end of the reservoir is best. In early summer, look for spawning catfish around shallow rock. Try live bait under bobbers. Later in the summer, drift or slow troll cut bait in the channel.

RATHBUN LAKE (Appanoose) Ice-out is extremely productive, but fish can be caught all year long. Target riprap during June spawning season.

PHOTO BY JAKE ZWEIBOHMER

CRAWFORD POND (Washington) Sizes: Fish 12 to 14" common; with abundant fish in the 15 to 24" range. Try a nightcrawler under a bobber.

Also try: CEDAR RIVER (Linn), LAKE WAPELLO (Davis), LAKE KEOMAH (Mahaska), LAKE OF THE HILLS (Scott), LAKE GEODE (Henry), LAKE BELVA DEER (Keokuk), POLLMILLER LAKE (Lee), IOWA RIVER (Johnson).

FLATHEAD CATFISH

CORALVILLE RESERVOIR (Johnson) Size 15 to 45". Fish crankbaits, big jigs or live bait around shallow rock during the spawn. Later in the summer, look for deeper rock or wood and try larger live baits.

SKUNK RIVER (Keokuk, Jefferson, Henry and Des Moines) and IOWA RIVER (Louisa): All sizes available. Fish 30 pounds-plus are possible. Fish live bait like green sunfish.

DES MOINES RIVER (Wapello) Quality angling below Ottumwa hydropower dam. Trophy fish available, most taken in the late winter and early spring.

Also try: CEDAR RIVER (Linn), LAKE RATHBUN (Appanoose) and IOWA RIVER (Johnson).

WALLEYES

LAKE MACBRIDE (Johnson) Size 14 to 28". Look for fish on shallow rock/gravel/sand banks during spawn. Try live bait, jigs or crankbaits. In the summer, troll live bait or crankbaits on rock reefs or mud flats. In fall, fish windblown rocky banks that hold shad. Use crankbaits, swimbaits and jigs.

LAKE RATHBUN (Appanoose) One of Iowa's best fisheries. Large numbers of 15- to 21" fish and larger. Best fishing is June through August. Key on humps and points.

WAPSIPINICON RIVER (Linn, Jones) Size 15 to 30". In spring, fish below dams with jigs or live bait. In fall, fish below dams or deeper pools. Other mentions: LAKE SUGEMA (Van Buren), IOWA RIVER (Johnson), CEDAR RIVER (Linn), DES MOINES RIVER (Wapello).

MUSKIE

PLEASANT CREEK LAKE (Linn) Size 30 to 50". Look for spawning fish around shallow rock or warmer pockets. Jerkbaits are popular. In summer, fish deeper over road beds, points, along the dam or suspended in open water. Crankbaits, bucktails or topwaters in the mornings/evenings are best. In fall, fish shallows around rock, wood or bays.

LAKE MACBRIDE (Johnson) Size 25 to 45". Most are on the smaller end, but larger ones available. In spring, try shallow areas of rock, gravel or sand. Jerkbaits are best.

BLUEGILL

LAKE SUGEMA (Van Buren) Tremendous numbers of 7- to 9" fish.

LAKE BELVA DEER (Keokuk) Fish 6 to 8" are common, with some 9 to 10. Excellent angling in June during spawn. Fish small jigs tipped with waxworms, a chunk of nightcrawler or 1-inch paddletail bodies.

ALBIA RESERVOIRS (Monroe) Both have excellent bluegills. Fish 7 to 8" are abundant, but 9"-plus are taken in large numbers.

Other mentions: KENT PARK LAKE (Johnson), CENTRAL PARK LAKE (Jones), OTTER CREEK LAKE (Tama), PLEASANT CREEK LAKE (Linn), LAKE GEODE (Henry), SHIMEK FOREST PONDS (Lee), POLLMILLER LAKE (Lee), LAKE OF THE HILLS (Scott), LAKE HAWTHORN (Mahaska).

REDEAR SUNFISH

DIAMOND LAKE (Poweshiek) Size 8 to 11". In late spring, fish shallow pockets and flats. During summer and winter, fish deep brush.

LAKE BELVA DEER (Keokuk) Most are 7 to 10", but fish 11" and 1.5 pounds were found in surveys. Fish with small jigs tipped with waxworms or 1" plastics.

KENT PARK LAKE (Johnson) Size 7 to 10". During the spawn, shallow pockets and flats hold fish. During the summer and winter, fish deeper brush.

Also fish: LAKE IOWA (Iowa), LAKE GEODE (Henry), SHIMEK FOREST PONDS (Lee) and CRAWFORD POND (Washington).

LARGEMOUTH BASS

DIAMOND LAKE (Poweshiek) Size 15 to 21". Look for bass around shallow rock and wood during spawn. Use spinnerbaits, jigs and soft plastics. In summer, fish shallow wood or rock with spinnerbaits, buzzbaits, jigs, plastics or crankbaits.

HUMESTON RESERVOIR (Wayne) Excellent numbers of largemouth, most 15- to 20"-plus fish.

PLEASANT CREEK LAKE (Linn) Size 14 to 20". There is an 18-inch minimum here. Fish shallow pockets and flats near rock and wood during the spawn. Try spinnerbaits, jigs or plastics. During summer, bass move to deeper rock or weeds—try plastics or crankbaits. Fish shallower in evenings with buzzbaits, topwaters or plastics.

Also try: LAKE MACBRIDE (Johnson), LAKE BELVA DEER (Keokuk), LAKE GEODE (Henry), LAKE OF THE HILLS (Scott), POLLMILLER LAKE (Lee), CHATFIELD LAKE (Lee), LAKE WAPELLO (Davis), LAKE HAWTHORN (Mahaska).

SMALLMOUTH BASS

WAPSIPINICON RIVER (Linn, Jones) Size 10 to 20". Below dams, use jigs or crankbaits in spring and fall. In summer, try rocky banks or riffles with topwaters. In Scott County, fish are 12"-plus. Drift in-line spinners or bobbers with nightcrawlers.

SOUTHWEST IOWA

CRAPPIE

TWELVE MILE LAKE (Union) 8 to 10". Fish flooded trees and the old roadway before the spawn. During late April and May, fish mounds, jetties and the shoreline on the west side just below the timber. Try open water trees during summer.

RED ROCK RESERVOIR (Marion) 9 to 14". Fish the backs of shallow bays in the Whitebreast arm during the May spawn. In fall, fish dredged areas of the marina bay.

VIKING LAKE (Montgomery) 8 to 10". Last summer, anglers caught a lot of crappies fishing the numerous brush piles. All indications point towards a high density population that should produce limits of fish in 2014.

Other hotspots: GREEN VALLEY LAKE (Union), LAKE OF THREE FIRES (Taylor), WEST OSCEOLA LAKE (Clarke), LAKE ICARIA (Adams), BADGER CREEK LAKE (Madison), LAKE ANITA (Cass), GREENFIELD CITY RESERVOIR (Adair), ROBERTS CREEK LAKE (Marion), ROCK CREEK LAKE (Jasper).

WHITE BASS AND WIPERS

LAKE MANAWA (Pottawattamie): 17 to 24" common. Wipers are stocked annually. Cast spinners, crankbaits and jigs or fish cut bait on the bottom.

RED ROCK RESERVOIR (Marion) White bass average 12 to 14" with some up to 18". Troll shad crankbaits and spoons along windswept points and shorelines. Wipers are 15 to 30". Use the same methods as white bass with slightly larger lures and troll them deeper.

SAYLORVILLE RESERVOIR (Polk) White bass are 9 to 13". Troll shad crankbaits and spoons near the Sandpiper and Oak Grove recreation areas. Find schools of young shad busting the surface to locate feeding white bass. Wipers are 13 to 30". Use the same methods as white bass with slightly larger lures and troll them deeper.

Other hotspots: RACCOON RIVER PARK/BLUE HERON LAKE (Polk), THREE MILE LAKE (Union).

CHANNEL CATFISH

LAKE ICARIA (Adams): 12 to 25". Shorelines of warm bays are good spots early. Use shad in spring then crawlers later. In summer, use stinkbait, liver or crayfish.

GREENFIELD CITY RESERVOIR (Adair) Cage-reared catfish have resulted in high densities of 19- to 24-inch fish. Shoreline access is excellent with a trail around the lake and fishing jetties. Cut shad is an excellent early spring bait.

SAYLORVILLE RESERVOIR (Polk) Average catfish catch is more than 20" with many 25 to 30". Drift dead shad or cut creek chubs early morning and late evening on the upper portion of the reservoir.

Other hotspots: VIKING LAKE (Montgomery), TWELVE MILE LAKE (Union), EAST NISHNABOTNA RIVER (Cass, Montgomery, Page and Fremont), ROBERTS CREEK LAKE (Marion), DES MOINES RIVER (Boone, Polk), MISSOURI RIVER (Woodbury, Monona, Harrison, Pottawattamie, Mills, Fremont).

WALLEYES

TWELVE MILE LAKE (Union) Size 12 to 25". Jig twister tails with or without minnows or cast crankbaits near the old roadways, mounds or across the dam. During June, bounce crawlers on steep rocky areas or over rock fields.

DES MOINES RIVER (Boone, Polk) Size 12 to 30". Beginning mid-March, target below riffles and dams to catch walleyes running upstream from Red Rock and Saylorville reservoirs. Slowly retrieve jigs with twisters or minnows.

Other hotspots: GREEN VALLEY LAKE (Union), LAKE ICARIA (Adams), LITTLE RIVER LAKE (Decatur), MISSOURI RIVER (Woodbury, Monona, Harrison)

MUSKIE

THREE MILE LAKE (Union): The muskie population is low, but they can be quite large, between 20 and 50". Cast big spinners along open shoreline areas with nearby flooded cover.

BIG CREEK LAKE (Polk) The adult muskie population is low, but rebuilding after installation of a fish escapement barrier. A couple fish exceeding 45" were caught in 2013.

BLUEGILL

GREEN VALLEY LAKE (Union) Size 7 to 9". During spawn, fish gravel areas on the mounds, sides of jetties or quiet shorelines. After spawn, try rip rap on the mound sides, over rock fields or in cedar trees. Small jigs or crawler pieces suspended just off the bottom work well.

BIG CREEK LAKE (Polk) Size 7 to 9". During spawn in May into June, hit shallow shorelines on the north half of the lake, especially the west arm. Cast small hooks or jigs tipped with a crawler under a bobber.

Other hotspots: TWELVE MILE LAKE (Union), LAKE OF THREE FIRES (Taylor), BADGER CREEK LAKE (Madison), LITTLE RIVER LAKE (Decatur), LAKE ANITA (Cass), HICKORY GROVE LAKE (Story).

LARGEMOUTH BASS

TWELVE MILE LAKE (Union) Size 8 to 20". Fish the shoreline, mounds, rock areas or flooded trees with crankbaits, spinners and rubber worms.

GREEN VALLEY LAKE (Union): 10 to 17". Hit the fish mounds, rock fields, cedar trees, stake beds or vegetation

edges later in the year. Spinners and crankbaits are a proven favorite. LAKE ANITA (Cass): Size 17 to 20". May and June are best. Excellent water clarity the last few years is producing good fishing and aquatic vegetation growth. Anglers that adapt to fishing over and around vegetation catch good numbers.

Other hotspots: LAKE ICARIA (Adams), WEST LAKE OSCEOLA (Clarke), LITTLE RIVER LAKE (Decatur), VIKING LAKE (Montgomery), GREENFIELD CITY RESERVOIR (Adair), EASTER LAKE (Polk), BIG CREEK LAKE (Polk), ROCK CREEK LAKE (Jasper).

DESTINATIONS

(Union) (GREEN VALLEY/TWELVE MILE/THREE MILE LAKES): All seasons. Recent renovations of Green Valley and Twelve Mile bring mature populations of bluegills, crappies, largemouth bass, channel catfish and walleye. Additionally, Three Mile offers large walleyes and wipers. The campgrounds at Green Valley and Three Mile are only a few minutes away and offer cabins and primitive or modern campsites, making it easy for anglers to fish one lake early in the day then another later. Excellent water clarities. Each also offers excellent fall and winter fishing.

RED ROCK (Marion): Large numbers of white bass and a growing wiper population produce non-stop action during the hottest part of summer. In addition to abundance, white bass are large, with many exceeding 12" and some topping 18". Trolling shad spoons and crankbaits is most effective to locate feeding schools of white bass and wipers. Look for schools of young shad breaking the surface. Target windswept points, including the marina point, Whitebreast Park point and Teter Creek point just southeast of the mile-long bridge.

To sign up for weekly statewide email fishing reports, go to iowadnr.gov/fishing.

Fire to Set

STORY AND PHOTOS BY *MIKE WHYE*

As Emily Pettit walked along a mown path cutting through a grassy field north of Sioux City one afternoon last summer, dollops of flame dribbled from a can she was carrying at her side, each blob of a gasoline-diesel mix starting a small pool of fire in the tall grass. The flames took a while to dry the succulent grasses bearing the moisture of summer rains and dew and then the dried blades of grass would erupt in fire. Dead grasses that had dried and accumulated over the years flared immediately. Soon, the flames were waist high, moving steadily through the grasses and taking down purple, white and yellow wildflowers. Smoke was smudging the once-blue sky.

On a gravel road fronting another side of the field, Isaac Jensen was also setting fire to the field, choosing patches of dry grasses as his ignition points.

Neither made an attempt to put out the fires they were setting, but then that's what they wanted. And it's what their instructors wanted as they watched Pettit, Jensen and others who were part of a class administered by The Nature Conservancy about conducting prescribed burns—fires deliberately set to remove old and dead plants, grasses and trees and renew the growth of other plants and grasses.

While Pettit, a University of Iowa senior, and Jensen, a Luther College freshman, were spreading fire, other students were controlling the fire, making sure it went

only where they wanted and not beyond the field—part of TNC's Broken Kettle Grasslands—targeted by the instructors.

Dan Wolf, Sydnie Tarter and Amy Maxey carried rakes, hoes and other tools to push dry grasses into the flames to fuel the fire in its march across the target field. Meg Schmitt patrolled the mowed path—a firebreak between the field on fire and an area not to be burned. Whenever she saw sparks flaring outside of the target field, she was on them, smothering them with a fire swatter—a super-sized version of a fly swatter but with a large flap of fireproof neoprene.

Kyle Lapham, TNC's Loess Hills Fire Coordinator, was the exercise's burn boss—commander of it all. He was assisted by two others from TNC, Emily Hohman, western Iowa land steward, and Scott Moats, Broken Kettle's manager. Nick Beeck and Nick McKee, both from the Plymouth County Conservation Board, were also helping.

Hohman approached Pettit at one time to recommend she set a particular thick growth of fresh grass on fire. Pettit held the flaming nozzle of the drip can to the green grass for several moments before they finally blazed. "I was surprised at how long it took to get the grass going (on fire), even with the gas," says Pettit.

The smoke from the moisture-laden grasses and plants of summer was thick, acrid, irritating to noses and eyes. This burn was unlike those in the fall and spring when plants and grasses are usually dry and burn fast, says Lapham, noting that those are the best seasons for prescribed burns.

The Nature Conservancy's Mary Cox

Using his radio, Lapham broadcast a weather report, a task done every 15 minutes to inform everyone of one of the three crucial elements of a prescribed burn—the weather. Terrain and fuel—or what's to be burned—are the other two.

"The wind is from the southeast at two knots with gusts up to five," Lapham reports, calling out the time. "Temperature is 88, up 3 degrees from last time. Relative humidity is 58, a drop of 4 points since last time. Dew point is 70.7 and cloud cover is 30 percent."

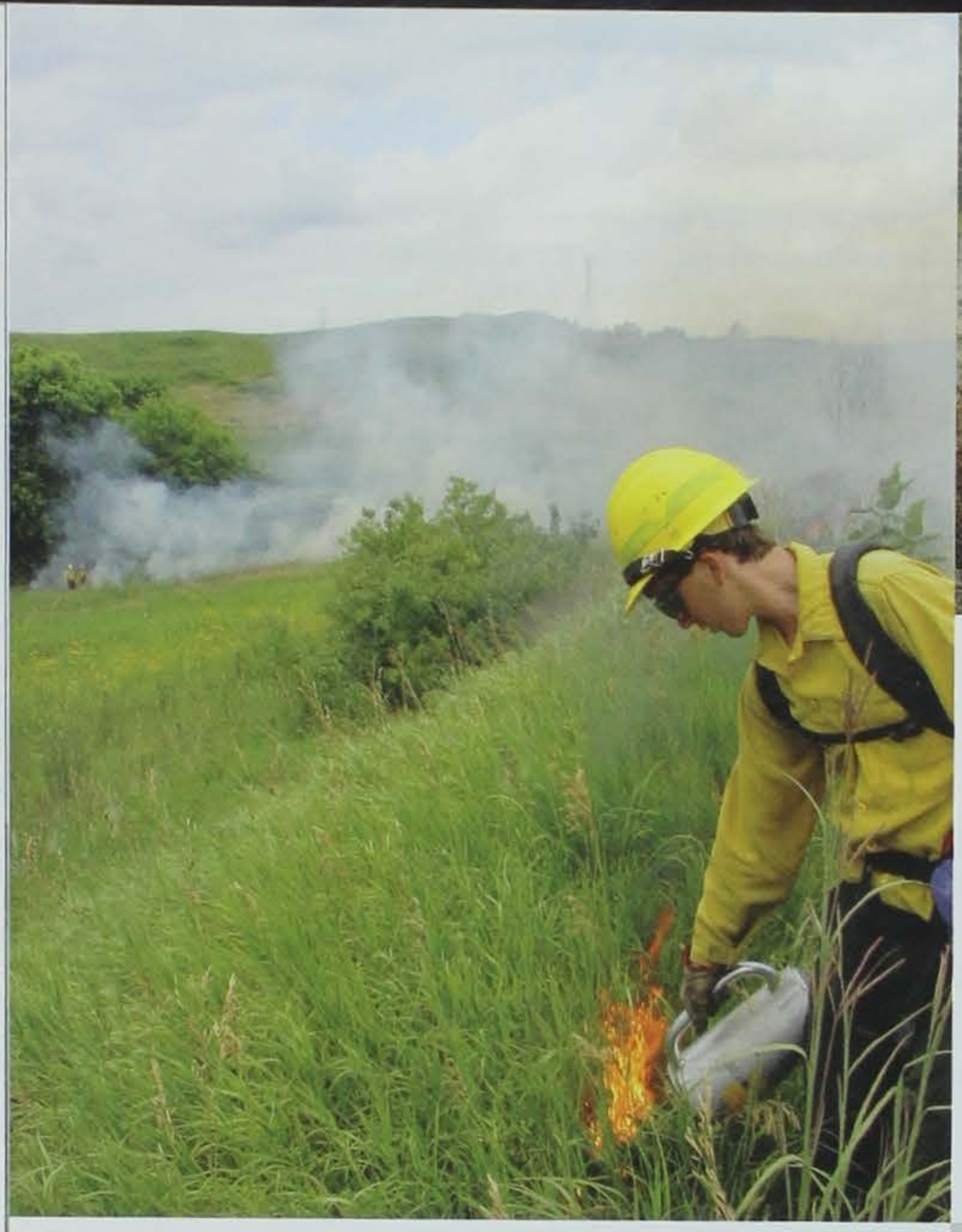
Things were looking good for continuing the burn, thought Lapham as he noted the weather in his log.

School of Fire

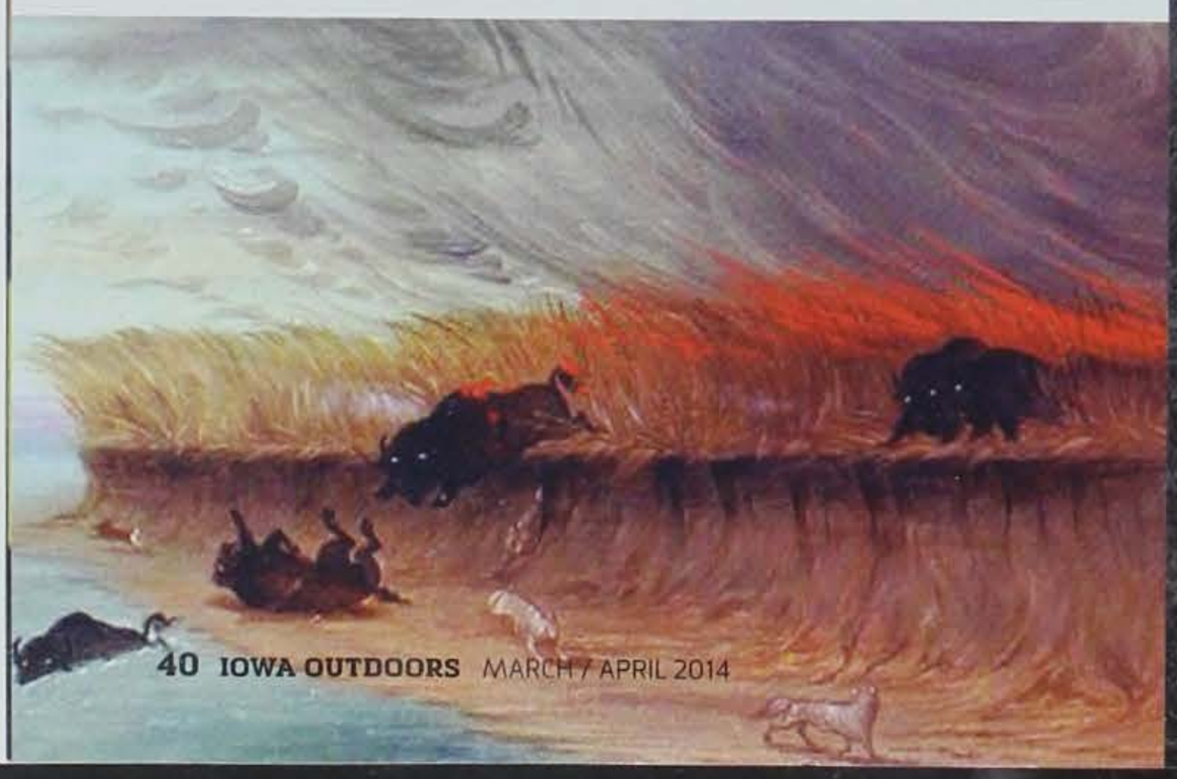
Eight of the attendees were college students participating in the Anna Beal Internship, a TNC program. Two others were TNC employees. Before they learned to set fires, they learned to prevent them. Their first step involved online firefighting courses. Once past those, the students attended the prescribed burn classes at Broken Kettle. Moats showed them how to measure relative humidity and dew point and described various ways to ignite fires beyond using drip cans. He said a flare pistol could start fires in hard-to-reach places. "Remember," he cautions. "The flare can drop fire as it flies, not just at its contact spot."

Lapham erected small multi-colored flags on a patch of grass to show differences between head, backing and flanking fires. Hohman led the demonstration of an engine—a heavy truck bearing tools, hoses, nozzles, water and more to control fires.

Learning how to conduct a prescribed burn is a detailed process. First you have to learn how to fight a fire before you learn to set one. Everyone has a specific job, whether it's starting the main fire, supervising the back burn or snuffing out flames that sneak outside the fire zone. Each is mission critical. Safety is also stressed, from learning how to deploy a personal fire shelter in seconds, planning escape routes and checking weather conditions every 15 minutes.



Prescribed burns, also called hazard reduction burning or swailing, play a key role in prairie and woodland management. They are designed to reduce fuel (dead plant and wood material), expose soil so grasses and forbs can regenerate, control insects and competing vegetation and improve the natural ecosystem and wildlife habitat.



Then came personal safety, a topic on everyone's mind since 19 firefighters had perished in Arizona earlier that month. Lapham talked about LCES—Look at what's going on around you; Communicate with others; Escape routes planned; and Safety zones known. "Always go into the black," Lapham said, meaning the best place to escape a fire is where it has been—blackened ground—since nothing there can burn anymore.

He talked about what to do if threatened with fire: drop all ignition devices, such as flares, since they ignite at 300 degrees but can generate 3,000-degree heat; don't soak clothing with water because hot moist air can damage one's lungs; going into a low spot between hills is a bad idea because fires use that type of terrain like a chimney; don't hide under vehicles; seek out wide roads, rock slides and wide streams; and always keep one's fire-fighting tools, radio, helmet and gloves.

Hohman demonstrated how to deploy a personal fire shelter, a last resort hideaway in case one cannot escape a fire. "These will deflect 95 percent of the radiant heat," says Hohman of the shelter which resembles a large mummy-style sleeping bag made of thin layers of reflective foils, silica and fiberglass.

"If you lay face down, you have air to breathe," she says, pulling a shelter out of a protective container carried by each member of a fire crew. "They don't guarantee you'll live but they're your best hope."

Each student then took a practice fire shelter onto a small grassy area. "You have to get in your shelter in 25 seconds or less," Hohman tells them. Then she told them to go.

In a flash, Mary Cox, an assistant land steward in TNC's Iowa City office, yanked her shelter out of a hard plastic box and then a plastic wrapper. A moment later she was fluffing the tightly-folded package open to reveal what looked like a large orange pea pod with a slit. Holding the shelter vertically, she stepped into the slit, wrapped the shelter around her and dropped face first to the ground, gripping the sides of the open slit below her.

"Protect your airways, stay face down," Hohman yells at the students huddling in their orange and green cocoons. "No matter what you think, don't leave the shelter until told to or you hear on the radio you can. Fire can come in several fronts."

Almost everyone sheltered within 25 seconds but a few went just beyond the limit, not good enough for Hohman. "All right," she says. "We're doing it again."

Another physical activity for students was passing an endurance test—hiking three miles in less than 45 minutes while carrying a 45-pound pack, the typical weight of gear one carries into a fire zone.

Fire—Old Tool of the Prairie

Some people may believe that most prairie fires that occurred before settlers came to the Great Plains were created by lightning but not so, says Julie Courtwright, professor of history of the American West and the environment at Iowa State University. "Actually, very few were caused by lightning," says Courtwright, who wrote her doctoral thesis at the University of Arkansas on how Native Americans used fire to help them live on the plains. "The vast majority of fires in any era had human origins."

Native Americans, who called prairie fire the Red Buffalo—for the roaring and stampede-like red flames—used fire in many ways, explains Courtwright. They moved herds of bison by threatening them with fire. They also enticed bison to certain areas—by burning off old grass so new, tender, tasty shoots would soon appear. "That made hunting predictable," she says.

Fire was used to celebrate victories, remove old, dry growth, promote new growth of plants and grasses, serve as signal fires and, in war, smoke out the enemy from hiding places and screen movements of warriors.

European-Americans, however, saw fire as an enemy, says Courtwright, and sought to prevent it. A few, including one who noted Native Americans "know how to fire the prairie with great skill," emulated the Native Americans, but the majority of the European-Americans won out and fires were halted. Soon, invasive plants and woods began taking over the prairie. The son of one settler wrote that, without fire, his father's prairie turned to brush in less than 10 years, nothing good for grazing cattle anymore.

Kindling the Skills

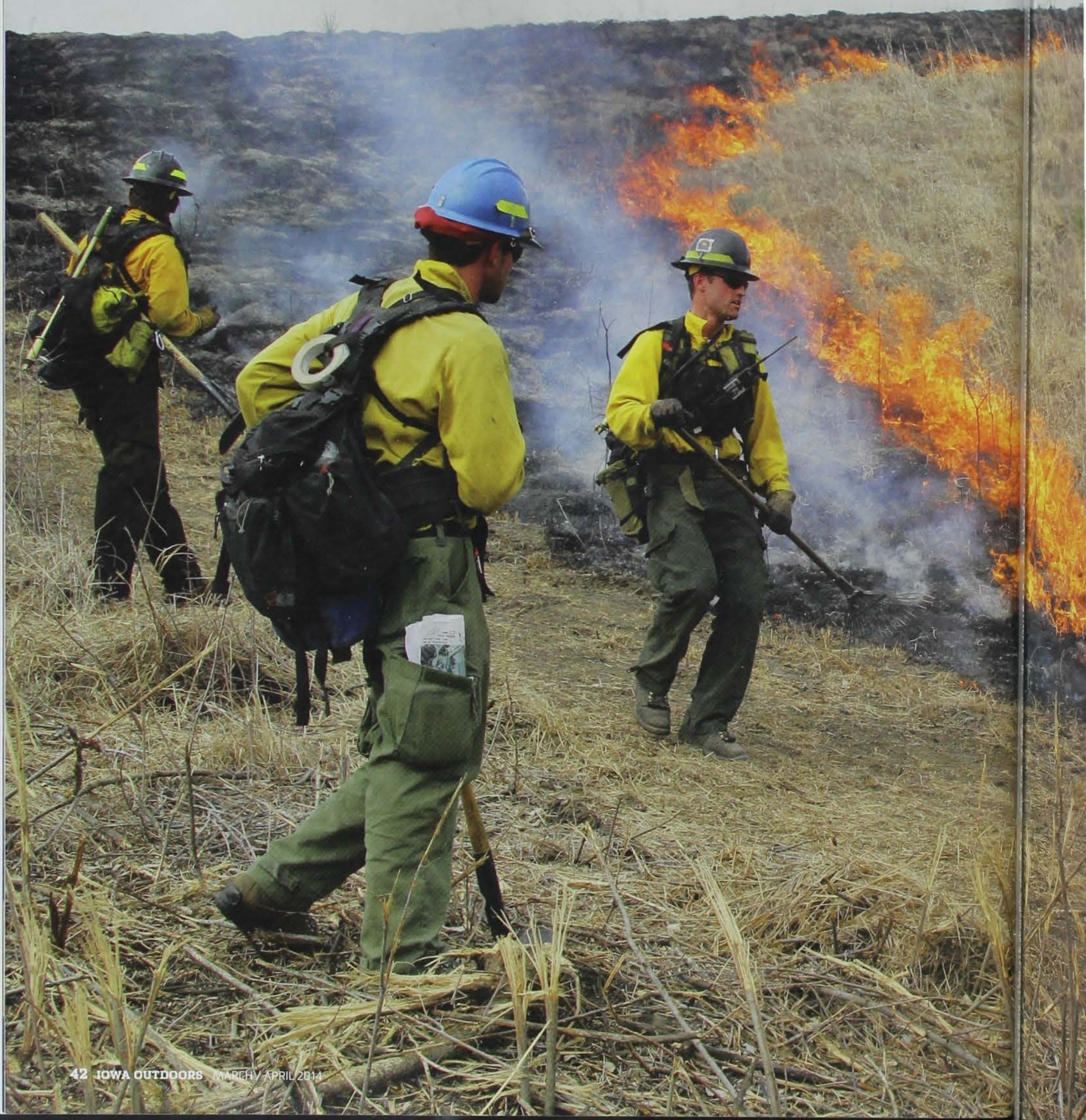
Beside introducing people to prescribed burns, classes exist for those who have been managing fires for years. Last spring, several Iowans took part in a Fire Exchange Program organized by TNC in a rugged portion of the Loess Hills north of Turin. With the Iowans were veterans of various government agencies in Wyoming, Kansas, Minnesota, Ohio and Utah. A few individuals, such as Dan Wolf of Council Bluffs, came on their own to learn how to work with prescribed fire. During the exchange Bob Buhr, who lives in Buffalo, Wyo., said learning about prescribed burns is rather new to him although he's been fighting fires since 2000.

"Our focus is fire suppression," said Buhr of what he does with the Bureau of Land Management in Wyoming where he fought about 120 fires in 2012. "We're not accustomed to doing prescribed burns."

Jeremy Bailey was at the exchange as TNC's fire training and networks coordinator. He helps arrange about 150 fire exchange programs in the nation annually. Bailey, who attended Cornell College in Mount Vernon, says, "Fire exchanges involve the cooperation of federal, state and local governments plus private landowners. It's the only way we have to accomplish what we need to do for the land."

"You're at something like this to learn from others," says Lapham, who was there to also work on attaining the second of three levels of a burn boss. "You don't really stop learning."

Fire was once a key element to a healthy prairie or woodland ecosystem before European-Americans deemed fire dangerous and destructive. Native Americans used fire to herd buffalo, clear land for horticulture and change the plant community composition to attract game species. Early settlers set fire to prepare soil for agriculture and eliminate plant stubble after harvest.



GET INVOLVED

Landowners interested in prescribed burning can get assistance writing plans and coordinating burns by contacting their nearest DNR private lands biologist. For listings, go to *iowadnr.gov* and search "private lands biologists." For burn training opportunities, contact Gail Kantak, DNR forestry fire coordinator, at *515-689-0083*, or *Gail.Kantak@dnr.iowa.gov*, or visit the DNR's website and search "fire training." Landowners in the Loess Hills can get assistance by contacting Amy Crouch, The Nature Conservancy, at *712-229-5082* or *acrouch@tnc.org*. Help is also offered through the Pottawattamie County Conservation Board. Contact Chad Graeve at *712-328-5832*, or *chad.graeve@pottcounty.com*.

DOOMSDAY BEETLE

Emerald Ash Borer in Iowa

Native ash trees are vulnerable to emerald ash borers—placing 63 million Iowa trees in jeopardy.

BY *MINDY KRALICEK* PHOTOS BY *CLAY SMITH* AND *TIVON FEELEY*

An elderly couple sits on their front deck watching a small group of people linger on the sidewalk down the street. One person stands back, looking up at the canopy of a tree growing in the right of way. Another slowly steps around the tree trunk, examining its bark very closely. A third searches its branches with binoculars. They speak to a fellow holding a yellow gadget who nods and enters information. A young woman writes on a clipboard. Another refers to a map.

When they stop at two green ash trees in the public easement in front of the couple's yard, the elderly man speaks up. "What's going on?"

"We're checking the public ash trees in Burlington, looking for symptoms of emerald ash borer," says DNR Forester Jessica Flatt. "We're helping the city with its tree inventory, checking for ash trees that should be removed now, those that can wait and trees that are candidates for treatment."

"Do these trees have it? Will they be removed?" the man asks.

Flatt explains the trees aren't showing symptoms. And that removal decisions would be made by the city forester to the city council. "We're gathering information," she says.

The elderly man rises slowly, motions his hand toward the trees and leans against the deck railing.

PHOTOS, THIS SPREAD, BY BUGWOOD.ORG

"When we moved into this house there were two elm trees where those ash trees stand. They got Dutch elm disease, so we removed them and planted small ash trees. We said we'd never live to see them mature. Look at the trees now. They're beautiful and shade most of the house. We can sit out here even on hot days and enjoy the outdoors."

Dead Ash by the Millions?

Considered the most destructive forest pest ever seen in North America, native ash have little or no EAB resistance. While stressed and dying ash trees are most attractive to female borers seeking a place to lay eggs, even healthy ash are targeted. The borer does not feed on other trees.

The DNR Forestry Bureau estimates the Iowa community treescape is about 17 percent ash, though this number varies greatly and can be much higher. In bottomland and upland forest, there are more than 60 million ash trees—green, white and black. There are another estimated 3.1 million urban ash trees.

These numbers present significant problems: a changing forest canopy, tree removal and treatment expenses and quarantines to restrict movement of hardwood firewood, ash logs and wood chips out of affected counties.

Prepupae to adult stages

If you have ash trees, consider planting replacement trees this spring. That will give the new trees a few years to grow before ash trees succumb to the effects of these non-native insects.

The emerald ash borer larvae—the destructive life-cycle phase.

Larvae are the killer

"It's not EAB adults that weaken and kill ash trees, it is the larvae," says DNR Forestry Bureau Chief Paul Tauke.

One female borer lays 60 to 90 eggs in ash tree bark cracks and crevasses. Those hatch in seven to 10 days. The beetle larvae burrow through the bark and begin feeding on the tree's cambial tissue. Making S-shaped galleries, larva damage the tree's circulatory system as they feed on tissue. Undetected from the surface, their life cycle may last one year in warmer climates to two years in colder climates. Larvae go through four developmental stages and reach a size of 1 to 1¼ inches long at maturity.

Larvae overwinter in a chamber in ash sapwood about one-half inch from the outer bark. Pupation occurs in spring. When adults emerge, they bore exit holes through the bark in late May or June. Exit holes are distinctive from most other wood boring beetles—creating an 1/8 inch wide, D-shaped burrow. Within two weeks of emerging, females lay eggs and the cycle renews.

Adult beetles feed on ash leaves throughout their three to six week adult life, but cause no damage to the tree.

Adults are capable of flying a half-mile and may travel two to five miles on their own.

Spotty Detection

"As you can tell from the Iowa locations where they've been found, they're not moving like locust across the prairie," says Tauke. "EAB is showing up a hundred miles from the last location seen. They may have caught rides on firewood, traveled on logging trucks and been infesting areas where they haven't been detected yet. That's why quarantines only slow their progress. The best strategy for saving Iowa's woodlands and urban trees is to plant diverse tree species now, so those have time to grow a few years before the ash canopy is gone.

"A federal program currently funds the DNR to help cities of under 5,000 citizens with tree inventories on public land," says Tauke. "We encourage cities to inventory their public ash trees before EAB is discovered in their area. Knowing what they have, city leaders can plan tree replacements, how they will handle disposal of infested trees and how to plan future budgets."

When to treat trees

Valuable, healthy ash trees within 15 miles of a known EAB-infested area may be considered practical for insecticide treatment, says Mark Shour, Iowa State University Extension and Outreach entomologist. Treatment may also kill EAB in trees with less than 30 percent dieback, but with more damage it is unlikely to recover.

Spring is the best time to treat ash. Several options are available—the advantages or disadvantages of each are discussed in ISU Extension publication PM 2084.

The EAB problem will remain for ash trees that survive the first years of infestation either on their own or with treatment. Even as insects move to new areas,

some remain behind to infest other ash trees. Repeatedly treating mature ash trees against EAB will weaken their health in the long term.

Tivon Feeley, DNR EAB program coordinator, says other signs of infested trees are:

- Canopies thinning above infested portions of the trunk and major branches.
- Sprouts pushing out from the trunk after upper portions of ash trees die.
- D-shaped holes in the trunk.
- Bark flecking signals woodpeckers have sought the larvae under the bark.
- Cracking in the bark along a branch can indicate EAB infestation, and the ash tree is trying to heal the damage.

"These symptoms are shared with other ash tree diseases and insects, so the presence of EAB larva or adult beetles is the only sure confirmation," warns Feeley. "Adding to the difficulty of determining EAB infestation is that bark sometimes calluses over the symptoms. A tree could look healthy for two to five years before infestation is obvious."

Suspect trees

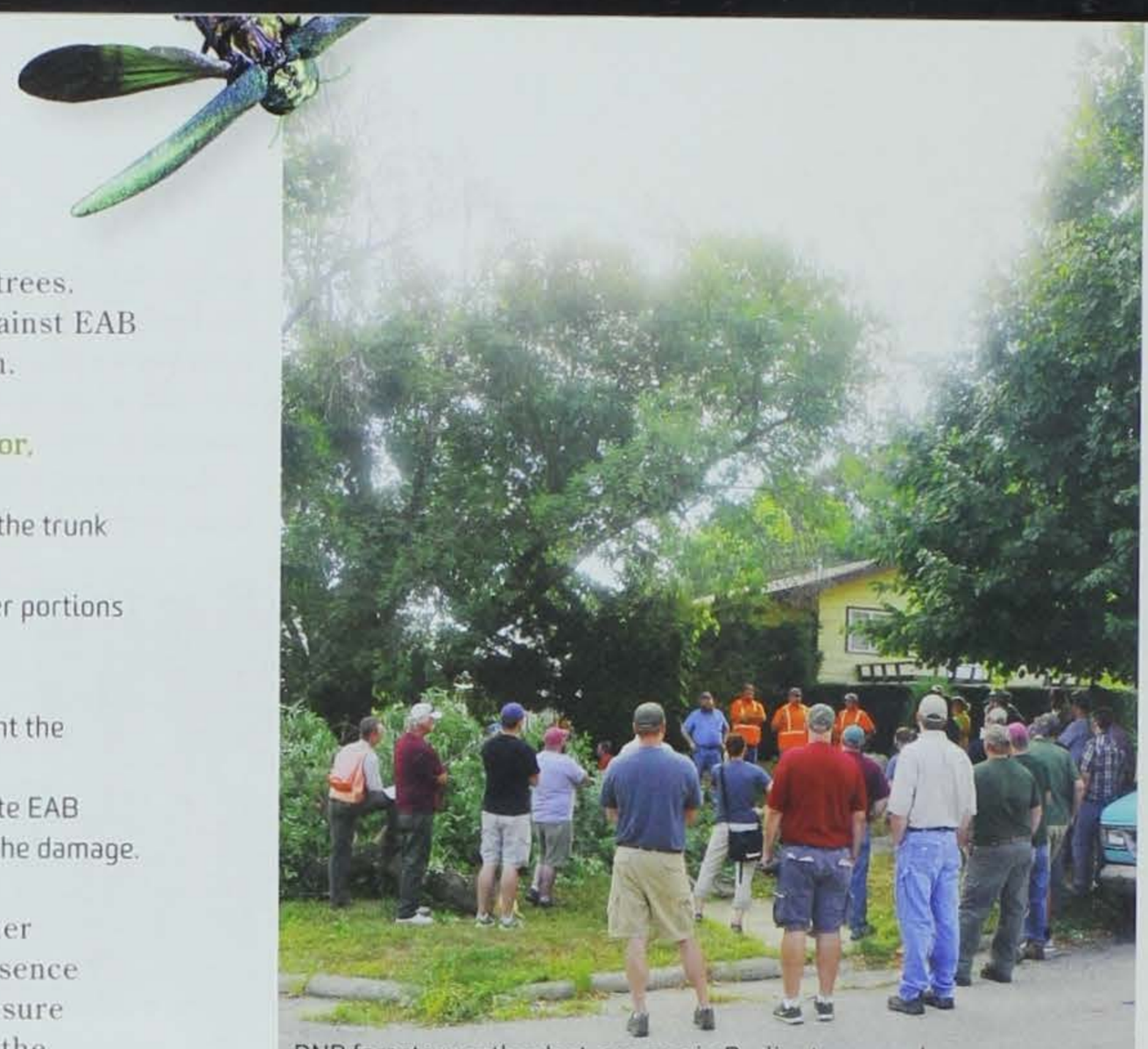
If you suspect you have an EAB-infested tree, email digital photos of insects or trees to the ISU Plant and Insect Diagnostic Clinic at *pidc@iastate.edu*. If digital images cannot be sent, take specimens in a glass vial containing alcohol-gel hand sanitizer to your local ISU Extension office. The clinic's phone number is *515-294-0581*.

To find larva on a suspected EAB-infested tree, remove a 4 to 6-inch diameter limb. Shave the bark off a section with a draw knife and look for the S-shaped galleries and cream-colored larva. Do not mail or move damaged wood. Call the USDA Emerald Ash Borer toll-free hotline at *1-886-322-4512* for a free inspection or other resource on next page.

Beetlemania Arrives

Before June 2002, emerald ash borer insects (*Agrilus planipennis*) were not found in North America. It is believed they arrived here in ash wood used for stabilizing shipping cargo. The emerald ash borer's (EAB) natural range is eastern Russia, northern China, Japan and Korea.

First reported in Michigan, EAB has permeated 22 states, including Iowa, plus Ontario and Quebec. Research shows EAB was living and establishing its population in southeastern Michigan for 10 to 12 years before its discovery in 2002.



DNR foresters gather last summer in Burlington—one Iowa area where emerald ash borers are established. The insect is spreading in Iowa. Likely a war with a losing outcome, foresters hope a prolonged battle can recruit citizens to plant a diverse mix of replacement trees. In a few years, these new trees will help fill voids when ash trees succumb.

Woodpeckers have "flecked" off portions of bark, pulling it away to find emerald ash borer larvae. One D-shaped exit hole and several woodpecker holes are sure signs that S-shaped, tunneled out galleries of larvae lay just below the surface.

A forester uses a draw knife to shave off bark in a suspect limb sample to find the S-shaped galleries or tunnels of EAB larvae.

The larvae creates an S-shaped gallery as it tunnels through wood.

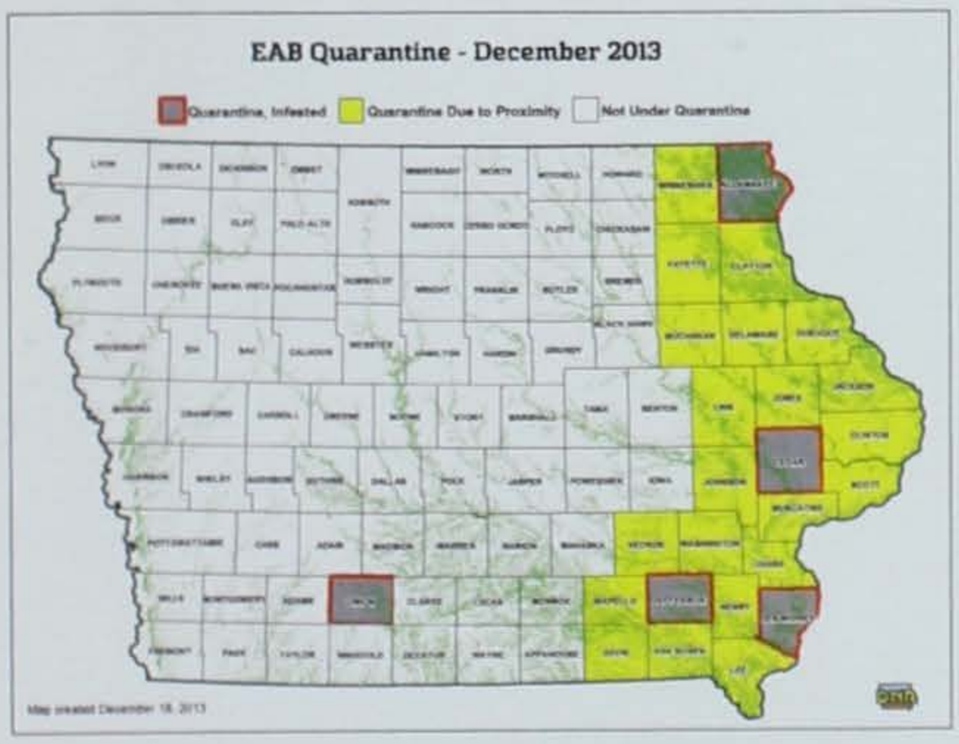
An adult emerald ash borer emerges to leave a D-shaped exit hole.

Removing and collecting a damaging larvae. Inset photo: an enlarged view of an adult and actual size photo on the penny.

ADULT EAB AND PENNY PHOTOS BY BUGWOOD.ORG; REMAINING PHOTOS-MINDY KRALICEK

EAB has been identified in

Mechanicsville, Cedar County; Fairfield, Jefferson County; Burlington, Des Moines County; a few areas in Allamakee County and most recently in Creston, Union County.



The best strategy for saving trees in residential and forested areas is immediate spring and fall plantings of diverse tree species to allow those young trees time to grow a few years before the ash canopy is lost.

EAB Resources

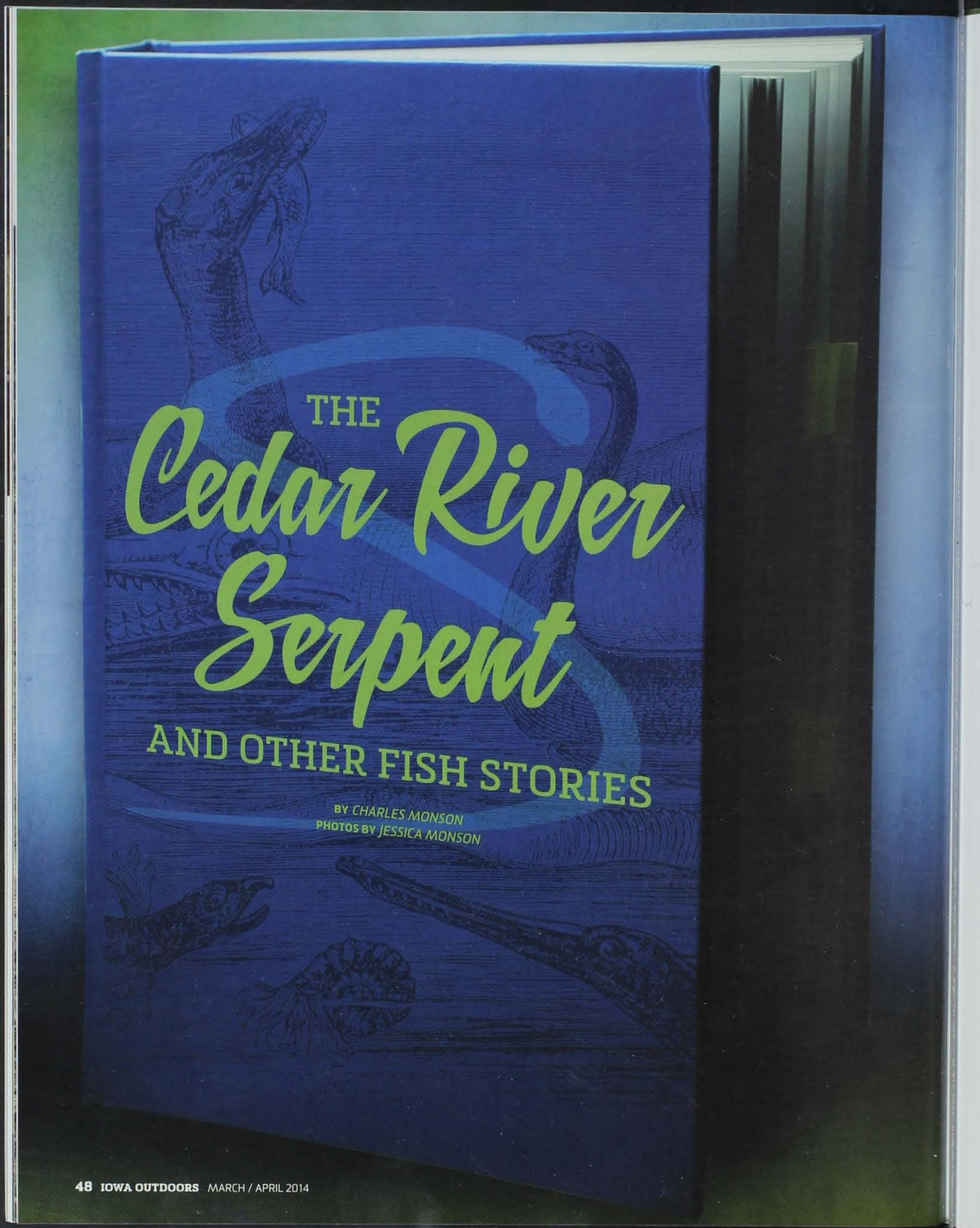
- State Entomologist Office *515-725-1470, Robin.Pruisner@iowaagriculture.gov*
- Iowa DNR—Forestry Bureau, *515-281-4915, Tivon.Feeley@dnr.iowa.gov*
- Iowa State University Extension and Outreach, Plant and Insect Diagnostic Clinic *515-294-0581*
- USDA Animal and Plant Health Inspection Service Plant Protection and Quarantine *515-251-4083*

Learn More

www.extension.iastate.edu and search for EAB

To learn about potential side effects of treating ash trees against EAB, go to *www.iowadnr.gov* and search for EAB.

Recommended list of ash-replacement trees *www.iowaarboristsassociation.org* and look under the resources tab.


THE
Cedar River
Serpent
AND OTHER FISH STORIES
BY CHARLES MONSON
PHOTOS BY JESSICA MONSON

I was 10 years old when I first heard about the monster of Lake Macbride.

It was a hot summer day in Johnson County, and I was out on a canoe in the middle of the lake. Sunlight sparkled on the water's surface as I peered into the murky depths, watching the little vortex of bubbles swirl around my paddle with each stroke and wondering just how far it was to the bottom. Perhaps the camp counselor could tell that I was contemplating what would happen if the canoe turned over. "You don't want to fall in, you know," he told me. "Some divers had to go down there looking for a missing swimmer. When they came back out, their hair had turned gray from fright. At the bottom of the lake, they saw something huge lying in the muck, watching them. It was a catfish big enough to swallow them whole. They were so scared they swore they'd never go diving again."

I wasn't able to muster a verbal response to this amazing story. I just pulled my life jacket straps tighter, sank down in the canoe a little lower and paddled a lot faster. Naïve as I was, it never occurred to me that the counselor might be stretching the truth just a wee bit. However, I did become suspicious when a counselor at a different camp told me the exact same story about Coralville Lake the following summer. By now, I've heard similar tales about every place from Burlington to Butler County, and from Lake Okoboji to Lake Delhi. It makes you wonder why the National Guard hasn't closed all the beaches, since apparently every puddle of water more than 6 inches deep is full of giant, man-eating flatheads.

I eventually learned not to take tall tales too seriously, but I still enjoy hearing them, and over the years I have discovered that Iowa folklore is full of unlikely critters like the monster of Lake Macbride. The state has never been a hotspot for monster legends like Loch Ness or Vermont's Lake Champlain, but we still have our share of outrageous "fish stories," from the giant turtle that prowls a flooded quarry in Mason City to the merman of Clear Lake. These stories are a fun way to pass the time, but they also have something to teach us, because many of them are influenced by real wildlife encounters and historical events.

Sea Serpents of the Prairies

In pioneer days, life often revolved around bodies of water. The streams, rivers and lakes of Iowa brought (and still bring) economic vitality to Iowa towns. They powered mills, they provided recreation and shipping routes, they yielded fish to eat and mussel shells to make buttons, and they offered places to cool off on a hot day in the years before air conditioning and chlorinated municipal swimming pools. So it's no surprise that Iowa's waterways also provided the settings for some of the state's most colorful folklore.

Take the Cedar River Serpent, a beast which laid siege to Waverly for one terrifying week in the summer of 1866. As the story goes, two boys who worked for the local newspaper (the *Waverly Phoenix*) were relaxing near the water when they saw a serpentine form pass over the dam and plunge into the river. The animal they witnessed was enormous—15 or 20 feet long and a full 2 feet in diameter. The boys reported their sighting to the *Phoenix* editor, who ignored them at first. He changed his tune the next day when the creature was spotted a few miles downstream by two adults. The pair heard a splashing noise in the water and looked up to see "a huge monster" swimming against the current, casting waves like a boat wake. They escaped without being attacked, but a Mr. McGetrick, who lived on a Cedar River bayou, was not so lucky. The monster put in an appearance in McGetrick's potato patch, and the farmer found himself in a "severe battle" with it, armed only with a crude club that had virtually no effect on the huge snake. McGetrick finally got away and went for a more suitable weapon to kill the creature, but by the time he returned, the monster had vacated the area and was not seen again.

The story above is a bona fide newspaper report, published in the *Iowa State Press* (Iowa City) on Sept. 5, 1866. If it was in the paper, it must be true, right? Well, not necessarily. Nineteenth-century newspapers were known to print blatantly ficticious tall tales alongside real news

ALLIGATOR PHOTO BY KYLE CONSTON

items. Many of these stories were even more lurid than Mr. McGetrick's potato-patch battle with the snake. A *New York Times* article from 1893 described a whistling, livestock-devouring, 40-foot-long sea serpent that had "come up from the Gulf" to the Scranton area and was now living in a riverbank where it had spawned a nursery full of 8-foot babies. Most readers probably knew that they were not supposed to take these yarns seriously; in fact, the storytellers often made no effort to hide the tongue-in-cheek nature of their tales. As one newspaper writer put it in 1905, "Perhaps the only joke that has enjoyed a longer term of popularity than the allusions to the sea serpent...is the so-called mother-in-law joke, and that only because the mother-in-law has been longer a recognized force in the world."

The monsters of yore didn't just haunt the countryside and smaller towns. In July 1873, one of them supposedly invaded Des Moines. The *Daily Iowa State Register*

reported bathers in the Des Moines River at East Seventh Street were startled by the appearance of a creature which was described as snakelike and 10 feet long, with a humped back and its head held 2 feet out of the water. A search party was organized, but when they tracked down the creature they discovered that it was not a snake at all, but an alligator. "The 'varmint' must have come up the river during the high water," the writer speculated, "and now finds some difficulty in getting back again over the sand bars. It was seen a second time yesterday near the pork houses." The alligator allegedly loitered in Des Moines for a few more days before heading downstream, where it was sighted by "a party of urchins... bathing at a ferry between Pella and Knoxville (who) were frightened bald-headed by some unknown monster." The *State Press* upped the ante a few days later, claiming an alligator had been shot at Des Moines and that others had been sighted at the fork of the Iowa and Cedar rivers.

Finally, if giant snakes and Midwestern alligators aren't strange enough for you, there's always fish-people. The writer Jerome Clark, who recounts many 19th century newspaper tall tales in his book *Unexplained!*, dug up a story from a Waterloo newspaper about a scaly, fast-swimming man who was sighted at Clear Lake during the summer of 1914. This merman was allegedly seen by a number of startled visitors who were amazed by his ability to stay underwater for long periods of time.

There are a variety of reasons people tell these sorts of stories. One beast was invented as a civic booster: the Muscatine River Monster, a multi-tentacled art exhibit that has been seen in many spots around the state, was created by Andrew Anderson as a way to remind people of Muscatine's history and make them think about the city's future. However, most people tell tall tales for simpler reasons: to impress others (like the childhood friend who told me he had a whale shark in his backyard pool), to entertain themselves or sometimes to take the stuffing out of people who are perceived as know-it-alls. And sometimes, of course, people are describing things that they've actually seen, or at least think they've seen. Which raises an interesting question: is there any truth lurking under the surface of these tall tales?

Real Monsters of Iowa's Waters

Ninety-five million years ago, there truly were leviathans in Iowa's waters. Back then, part of the state was inundated by the Cretaceous Interior Seaway, an arm of the ocean which ran up the middle of the continent. These prehistoric waters were plied by genuine sea monsters like long-necked plesiosaurs (the inspiration for most modern imagery of the Loch Ness Monster) and mosasaurs (which looked something like an oversized crocodile with flippers). These creatures reached gargantuan sizes; worldwide, the largest plesiosaurs reached lengths of 60 feet or more.

Not many marine rocks are left from this time period in Iowa, and they are mainly confined to the northwest quarter of the state. Where found, though, these deposits do sometimes yield fossils of giant reptiles. In 1873, Sioux City was lit up with news of a "monster" that had been dug out of a riverbank a little farther west, near Ponca, Neb. Citizens streamed across the Missouri River to view the bones, which turned out to be from a plesiosaur estimated to be 50 feet long. Iowa has not yet yielded any plesiosaur remains as impressive or complete as the Ponca creature, but bones from these animals have occasionally been found in Cretaceous rocks of western Iowa, including Plymouth County.

The last of the plesiosaurs and mosasaurs vanished with the dinosaurs some 66 million years ago, but you don't have to go that far back to come up with some big aquatic animals in the state. In fact, the first well-documented

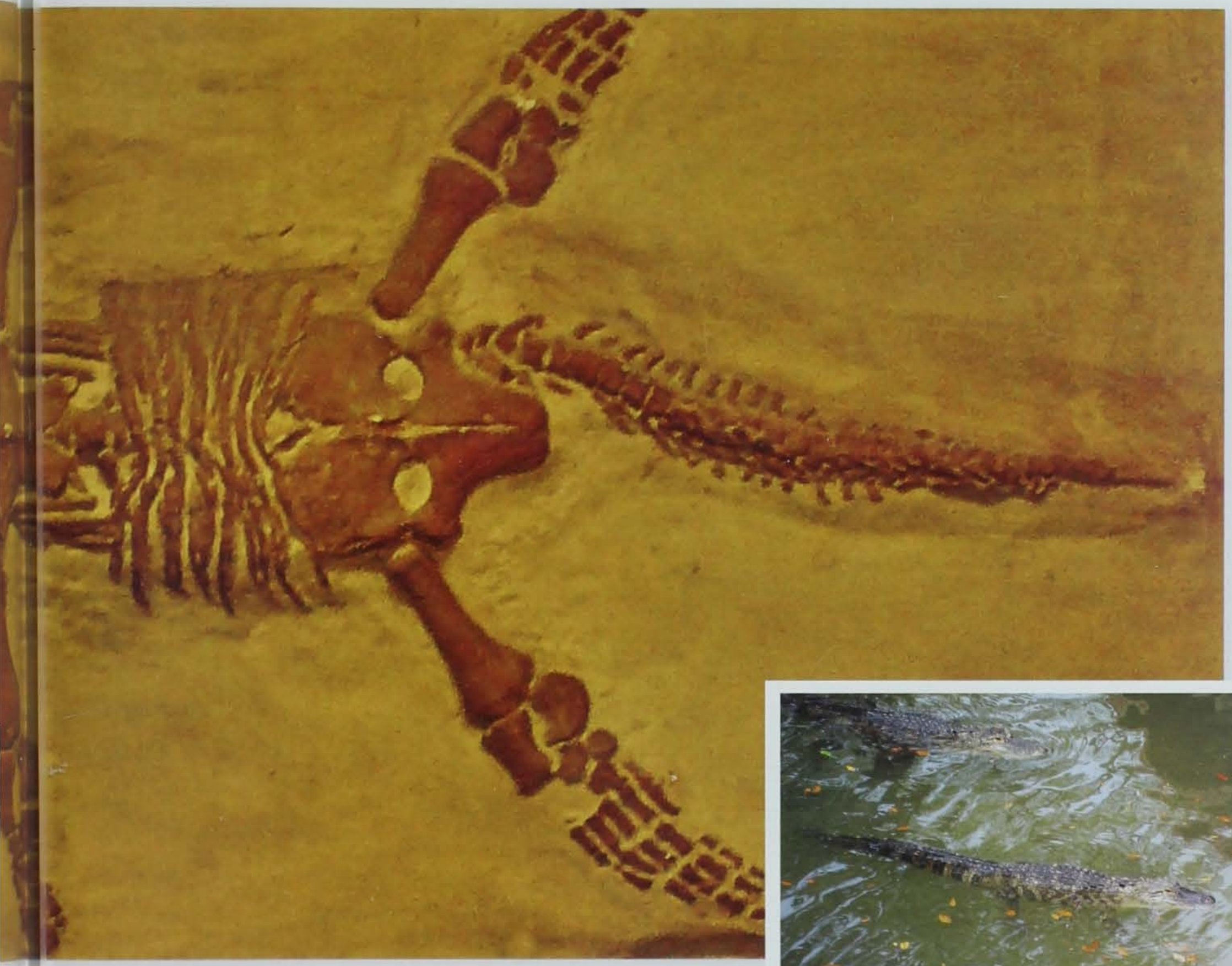
Long-necked plesiosaurs and other large marine reptiles inhabited Iowa late in the Mesozoic Era when dinosaurs roamed. Iowa's Cretaceous rocks have not yet yielded any plesiosaur fossils as complete as the skeletons shown here. However, marine reptile fossils are sometimes found in the state, including one skeleton discovered during the excavation of a cistern near Sioux City. Many people think of a plesiosaur-shaped animal when they think of sea serpents, but Iowa water monster stories often feature giant snakes (like the anaconda above) or alligators.

sightings of water monsters in Iowa occurred almost immediately upon "discovery" of the area by white men. When Father Jacques Marquette and Louis Joliet came out of the mouth of the Wisconsin River and entered the Mississippi in June 1673, they had been warned to be careful, according to Mark Wagner, education director at the National Mississippi River Museum and Aquarium in Dubuque. "Some of the Miami Indians told them to watch out on the Mississippi River, because there were sea monsters," Wagner told me. And sure enough, the explorers encountered some frightening creatures they'd never seen before, as described by Marquette in a journal entry detailing his experiences near the 42N latitude line (which runs through central Iowa):

"From time to time we meet monstrous fish, one of which struck so violently against our canoe that I took it for a large tree about to knock us to pieces. Another time, we perceived on the water a monster with the head of a tiger, a pointed snout like a wildcat's, a beard and ears erect, a grayish head and neck all black. We saw no more of them. On casting our nets, we have taken sturgeon and a very extraordinary kind of fish. It resembles a trout, with this difference, that it has a larger mouth but smaller eyes and snout. Near the latter is a large bone, like a woman's busk, three fingers wide and a cubit long; the end is circular and wide as one's hand." (Translation taken from a 1903 book by J.G. Shea.)

The third mystery creature that Marquette describes is the easiest to identify: it's a paddlefish. These animals are still found in the Mississippi today, and at one time you could even find them in Lake Okoboji, according to Mary Kennedy, curator of the Iowa Great Lakes Maritime Museum at Arnolds Park. "Back before the dam was built at the outlet of the Lower Gar, around 1900, paddlefish were found in the Okoboji lakes," she told me. "They swam into the lakes from the river. After the dam was constructed, they could no longer get into the lakes, and the ones that were already here died out. The last one was taken in 1919." The museum has a replica of the biggest paddlefish ever caught in the area, a 210-lb,

PLESIOSAUR SKELETONS AND ANACONDA PHOTOS BY JESSICA MONSON
ALLIGATORS PHOTO BY ERIC WILBERG



ALLIGATORS PHOTO BY ERIC WILBERG

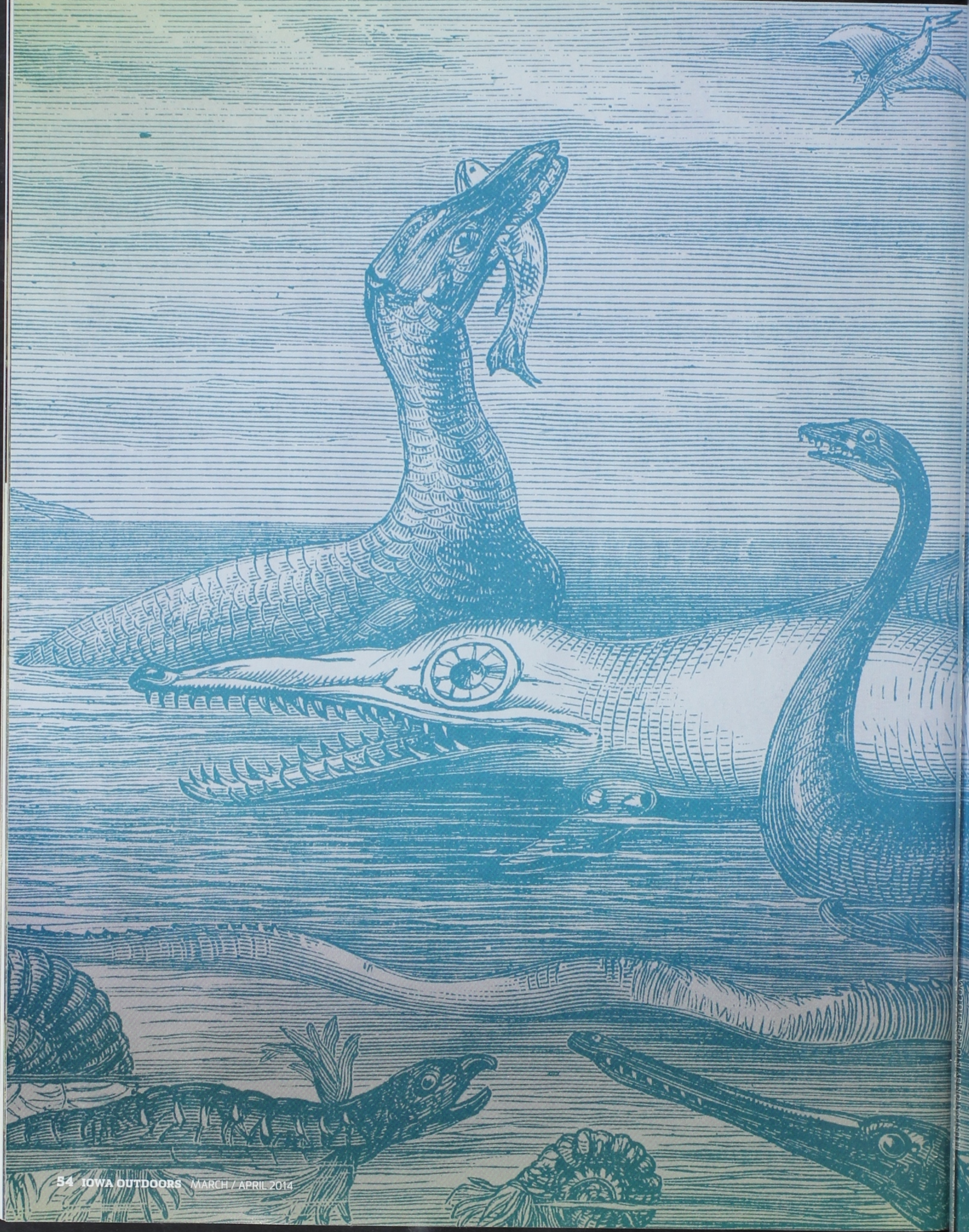
6.5-foot behemoth.

Paddlefish look odd but are completely harmless. Wagner informs me that they eat plankton. However, the mystery creature that collided with Marquette and Joliet's canoe may very well have been something more dangerous. The massive, sharp-toothed alligator gar, which reaches 10 feet in length, is one suspect. It's largely limited to southern waters today but probably ventured as far north as Iowa in years past. In fact, some truly unexpected animals undoubtedly found their way upriver in the days before lock and dam construction made the river impassable to large wildlife. Just ask the fishermen who pulled a bull shark out of the Mississippi at Alton, Ill., in 1937. (Unlike most sharks, bulls can survive in brackish or fresh water, allowing them to venture hundreds of miles inland from the ocean.)

If sharks and gigantic gar aren't out of the question, is it possible that restless alligators (like the one reported in Des Moines) made a habit of visiting Iowa in years past? Daniel Snyder, a professor at Middle Georgia State College who has published research on gators, is skeptical of these reports, but would not write them off completely.

"Could an alligator have wandered up the Mississippi River and decided to pay a visit? It's possible!" he says. "A single female alligator has a home range of 36 acres... and alligators are known to wander widely through their territory. It could be that a young alligator was hit by wanderlust and headed off to explore the world. When the weather got cold, either it turned south, or its vitals did." This last part is the key: any place with an average temperature of 40 degrees F or less in the coldest winter months would undergo regular freezing that would kill off alligators after a day or two. Historically, gators ranged about as far up the Mississippi as the mouth of the Arkansas River, but farther north they would not have been able to survive the winter.

Snyder also noted there was a simple explanation for modern alligator sightings outside of the animals' natural range: pets such as spectacled caimans that were abandoned by their owners. This undoubtedly explains



A vintage 1871 engraving of "Life in the Mesozoic Period." The 19th century discovery of fossil marine reptiles like plesiosaurs and ichthyosaurs sparked the public's imagination. Some authorities speculated that prehistoric creatures might still be alive somewhere in the world's oceans, and sea serpents briefly gained respectability as famous scientists debated whether these Mesozoic monsters could have escaped extinction. **REPTILES FROM LEFT TO RIGHT,** plesiosaur and osteopygis, ichthyosaur, teliosaur, plesiosaur elasmosaur, mosasaur. **CEPHALOPODS FROM LEFT TO RIGHT,** ammonite, crioceras, belemnites, baculites and ammonites.

the 2-foot gator that showed up in floodwaters at Webster City in 2008.

What about all those giant snakes which supposedly slithered across Iowa in years past? Serpents of various types, including poisonous ones like rattlers, were more common in the early days of European settlement and were an object of fear for many pioneers. As the *Burlington Hawk-Eye* put it in 1886, "There are several points...within a few miles of Burlington where the early settlers used to work out in their stumpy clearings and traverse the adjacent forest with fear and trembling and a jug of whiskey near at hand" due to the prevalence of rattlesnakes. The 10-footers mentioned in some of the tamer stories aren't even that far outside the bounds of believability; Wagner told me that the largest snakes you'd be likely to encounter in Iowa today, creatures such as bull snakes or rattlers, might get up to 6 or 8 feet long.

Another intimidating reptile of Iowa folklore—the giant turtle reported from the Big Blue pond in Mason City—definitely has a real-life counterpart. The alligator snapping turtle can reach a shell length of 2.5 feet and a weight of 250 pounds, and it has a reputation for powerful jaws and a nasty temper. This animal's status in Iowa is hard to pin down. Some sources say its range extends into southeast Iowa along the Mississippi, but DNR fisheries employee Denny Weiss (who was a turtle trapper for 25 years) is skeptical of such claims. Certainly, individual 'gators have been encountered in Iowa: "It was probably in about the mid 1970s that a commercial fisherman south of Burlington caught an alligator in one of his trammel nets—gator was still alive," Denny told me. However, he suspected that the creature had been brought up from southern waters and released. "I agree with the sources that say alligator snappers are probably not to be found much past St. Louis—they are not adapted to our cold winters."

Big Surprises

The real monsters of Iowa's waterways are as interesting, and almost as big, as any legend. The state-record fish recognized by the DNR include paddlefish longer and heavier than some adult human beings, carp in the neighborhood of 100 pounds and muskies big enough to make any swimmer nervous. But if that's not enough for you, and you're a little disappointed at the thought that many of the beasts mentioned here are only fables, don't worry: there is still room for mystery. For instance, there's that second unknown creature Marquette described. It had the face of a tiger, but Marquette's account seems to indicate that it swam like a fish. I asked Wagner whether he had any guesses what it was. "Not really," he replied. "Marquette and Joliet would have known about otters. The whisker thing brings catfish to mind, but the ears don't fit that."

And while there's probably no truth behind the monster of Lake Macbride, it may be too soon to write off his Mississippi River cousins. I had long since given up hope that there was even a shred of truth to the monster catfish yarns, but to my surprise, Wagner told me he's met someone who lived the story. "I personally remember, as a youth, talking to a diver that worked on one of the dams on the Mississippi. He had a large fish, probably a flathead catfish, that came right up to his face mask." The diver pulled on his safety rope to be hauled to the surface, where he announced, "I'm not working down there where there are animals bigger than I am." I asked Wagner whether the diver could have been pulling his leg. "No, he was pretty serious," he told me.

Of course, while Wagner assured me that there are definitely huge catfish in the river, we can't be certain that this diver was actually in danger of becoming fish food. Surprise and fear may have made a big fish look even bigger. "I don't know if there are any (catfish) down there bigger than a person," Wagner says, "but when they get up close to your face mask in murky water they might look like it." Even so, it made me smile to realize nature does keep some cards close to her chest. There are still some surprises waiting in the darkest parts of the forest and the deepest parts of the river.

BY *BRIAN BUTTON* PHOTO BY *CLAY SMITH*

CHANGING WINDS OF POWER GENERATION

TWO COAL-FIRED UTILITIES RETIRING

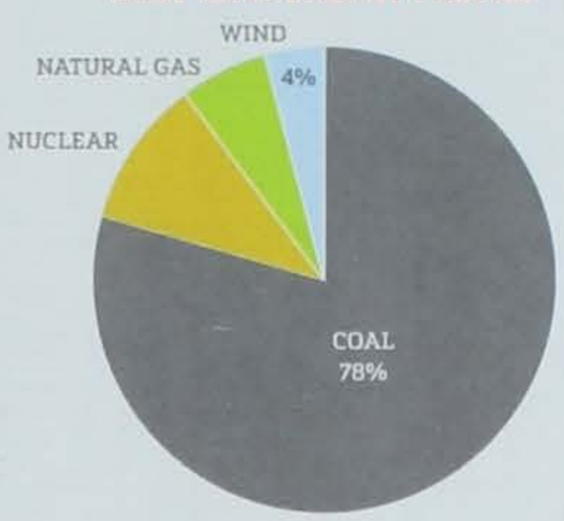
Aging, inefficient power plants, natural gas price declines, increased wind energy production and tougher emission standards are behind the closing and demolition of two coal-fired utilities.

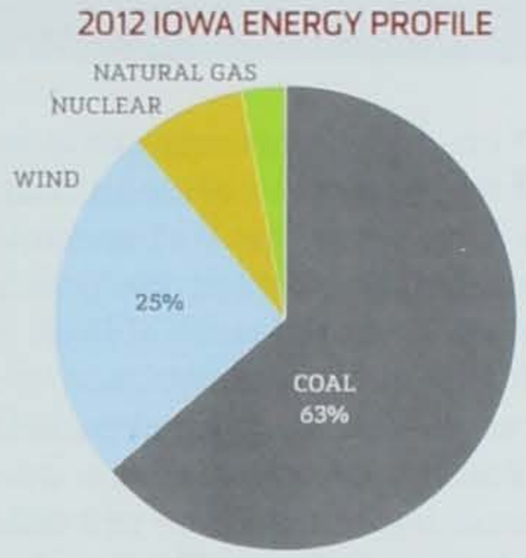
The Central Iowa Power Cooperative (CIPCO) utility at Fair Station in Muscatine County and the Pella Municipal Utility are both closing.

The 66-megawatt CIPCO facility, built in 1960, burned its final coal last November. The facility had not been operating at full capacity in recent years.

"The reality is the plant is no longer efficient to operate given today's energy markets and federal environmental regulations," says Dennis Murdock, CIPCO Executive Vice President and CEO, who adds they have "one of the most balanced and diverse electric generation mixes in the Midwest with 60 percent coming from carbon-free and emissions-free resources."

The Pella facility, nearing 40 years old, would need significant improvements to continue long-term operations and faced economic competitive challenges, too.





Carbon Dioxide Equivalent Emissions—*source: EPA*

Pella Power Plant
2012—34,466 metric tons CO2e
2011—82,028 metric tons CO2e
2010—90,943 metric tons CO2e

CIPCO Fair Station
2012—144,858 metric tons CO2e
2011—183,260 metric tons CO2e
2010—258,432 metric tons CO2e

GREEN COMPUTING

SEARCH ENGINE POWERS REFORESTATION

For every web search thru Ecosia, a tree is planted to help restore threatened forests. Ecosia donates 80 percent of its online advertising revenue to The Nature Conservancy's One Billion Trees Program and has donated more than 200,000 trees since August alone.

A personal tree counter displays how many trees you have planted. Users can simply visit the site *(http://ecosia.org)* to conduct a web search or add Ecosia to your web browser for free.

According to The Nature Conservancy, Brazil's Atlantic rainforest is on the brink. Only 12 percent of the original area—the size of the U.S. eastern seaboard from Maine to South Carolina—remains. Only 7 percent is well conserved. The Conservancy's efforts are restoring 1 million acres. One billion trees will remove millions of tons of CO2 annually. The plantings are via seedlings and natural regeneration.

As one of the world's most endangered tropical rainforests, these lungs of the Earth inhale vast quantities of carbon dioxide and exhale oxygen to help stabilize global climate.

Ecosia is also a carbon-neutral search engine, offsetting all emissions associated from using their website including power consumption from their offices, servers, partnering search engines, IT infrastructure and power consumption from users' devices such as computers, laptops and mobile devices.

GET INVOLVED

Support The Nature Conservancy's One Billion Tree Program. Learn more at ***plantabillion.org***

Visit ***http://ecosia.org*** to use their search engine. Each search plants a tree with a corporate donation to The Nature Conservancy's Billion Tree Program.

BY *KAREN GRIMES* PHOTO BY *CARL KURTZ*

STEP-BY-STEP PRAIRIE RECONSTRUCTION

Gone is the Midwest's sea of grass that produced rich soils. Only a few acres—less than 0.01 percent—remain of the complex ecosystems that once covered much of Iowa. Left behind are remnants, scattered across the land in isolated pockets.

Prairies are deep-rooted, disease-tolerant, wildlife- and soil-producing machines. They can be reconstructed—from small-scale yard plots to thousands of acres—like the Neal Smith National Wildlife Refuge near Prairie City. Here's how:

Start small, says nature photographer Carl Kurtz, who shares his 35 years of experience in prairie restoration. He and his wife, Linda, restored 167 acres of the family farm near St. Anthony to perennial prairie.

HAVE A VISION: Explore nearby virgin native prairies. Tallgrass prairie is diverse, with more than 30 grass and 250 forb (wildflower) species. Talk with a naturalist to learn about prairie plants and develop a vision for your property. The Iowa Prairie Network, Iowa Natural Heritage Foundation and county conservation boards offer walks and field days. Search for preserves—many are prairies—at ***iowadnr.gov***.

PLANNING AND SITE SELECTION: Select your site. Creating a prairie from scratch is daunting, but there is plenty of help. Check out restoration resources from Iowa Prairie Network, DNR private lands biologists or the University of Northern Iowa's Tallgrass Prairie Center. (See resources.)

Walk the site before planting, ideally through an entire growing season. A wildflower garden takes a different design than restoring many acres to pre-settlement conditions. An area in woodland or savanna takes more preparation than a yard, pasture or crop field.

Homeowners can design a small plot not unlike a flower bed. Acreage owners can look for existing prairie species along field borders, pastures, road ditches and sunny woodland openings. Prairie remnants are unique and valuable originals. Ask knowledgeable people to help identify and record species. Remnants don't need reconstruction, just restoration and protection.

KNOW YOUR SOILS:

- **XERIC**—dry and excessively drained, often sandy or contain rock or gravel
- **MESIC**—moderately well-drained, neither dry or wet
- **HYDRIC**—wet, poorly drained, often saturated.

If unsure, learn more from the USDA Natural Resources Conservation Service (NRCS) or ***websoilsurvey.nrcs.usda.gov.***

Choose plants according to soil type along with aspect (sunny, north-facing, steep, etc.) to determine which plants will flourish, not just exist.

"Do no harm!" writes Daryl Smith, advocate and former director of the Tallgrass Prairie Center in Cedar Falls. Prairie plants are perennials, so a mistake in planting will be around for a long time. Local ecotype seeds are genetically adapted to specific growing conditions in Iowa. For example, big bluestem grass from southeast Iowa is better adapted to warmer winters and wetter conditions than big bluestem from northwest Iowa. Local ecotype plants are more disease and insect resistant than cultivars or plants from far away.

SEED SELECTION: Talk to your seed dealer to ensure their supply meets your goals. The Iowa Seed Directory lists certified dealers (***iowacrop.org***). Seed mix from hardware or garden centers may come from other states and may include showy flowers, but not much staying power.

SITE PREPARATION: Planting a cropped field takes little preparation. Avoid tillage after fall harvest, just plant in the crop residue or broadcast on top of snow during winter.

If planting pasture or hayland, disk the soil repeatedly or treat grasses with herbicide. This reduces competition for newly planted prairie plants. Smooth brome, reed canary and quack grass are especially challenging to kill.

SEEDING: Broadcast or drill and plant during the spring, fall or winter. Most importantly, plant a

Nature photographer Carl Kurtz and wife Linda, restored 167 acres of prairie at their family farm near St. Anthony.

wide variety of grasses and forbs for long-term success. Use 4 to 5 pounds of pure live seed per acre. Plant as many forbs as you can afford—up to three times forbs versus grasses. Loren Lown of the Polk County Conservation Board recommends at least six grass species and 20 forbs in *Going Native: A Prairie Planting Guide*. High quality remnants may have more than 200 species.

If planting on a steep hill, consider a cover crop of 0.5 to 1 bushel of oats per acre to prevent erosion. Use certified oats to ensure germination and prevent adding weeds.

Avoid fertilizing prairie plants—they don't need it, but weeds will flourish.

BE PATIENT: Don't expect great growth the first year. Some seeds can take a year or more to germinate. It may take several years of weeds before prairie plants flourish. Prairie seeds have adapted to severe drought, fire and other harsh conditions. They will prevail.

MAINTENANCE: Mow weeds frequently the first year. Kurtz recommends mowing to a height of 2 to 4 inches the first time, maybe in April. Depending on rainfall, mow every three weeks, gradually increasing mowing height to 8 inches after seed germinates in June. Weed control is the most important step.

Wait until May to mow the second year. Mowing cuts weed competition, enhancing grass and forb establishment. By the third year, prairie plants will thrive.

Fire is a great maintenance tool for prairies. If you can't burn, mowing is a good alternative. Hand weeding can work for small plots. Controlled burns in the spring suppress weeds and trees, free nutrients and warm soil. Always do a back burn. Check local and state authorities on burn permits. Seek expert help in setting a burn plan and schedule. The USDA-NRCS, DNR, county conservation boards, Iowa Native Plant Society or Iowa Prairie Network may offer help or information.

RESOURCES:

Iowadnr.gov search for "controlled burns," "native grasses."

Iowa Prairie Network, *iowaprairienetwork.org*

A Practical Guide to Prairie Reconstruction: **second edition**, University of Iowa Press, by Carl Kurtz, *carlkurtz.com*

Prairies, Forests, and Wetlands: The Restoration of Natural Landscape Communities in Iowa, by Janette R. Thompson, University of Iowa Press.

Restoring Tallgrass Prairie: An Illustrated Manual for Iowa and the Upper Midwest, by Shirley Shirley, University of Iowa Press.

Tallgrass Prairie Center, *Guide to Prairie Restoration in the Upper Midwest,* UNI, Cedar Falls, *tallgrassprairiecenter.org, 319-273-3836*

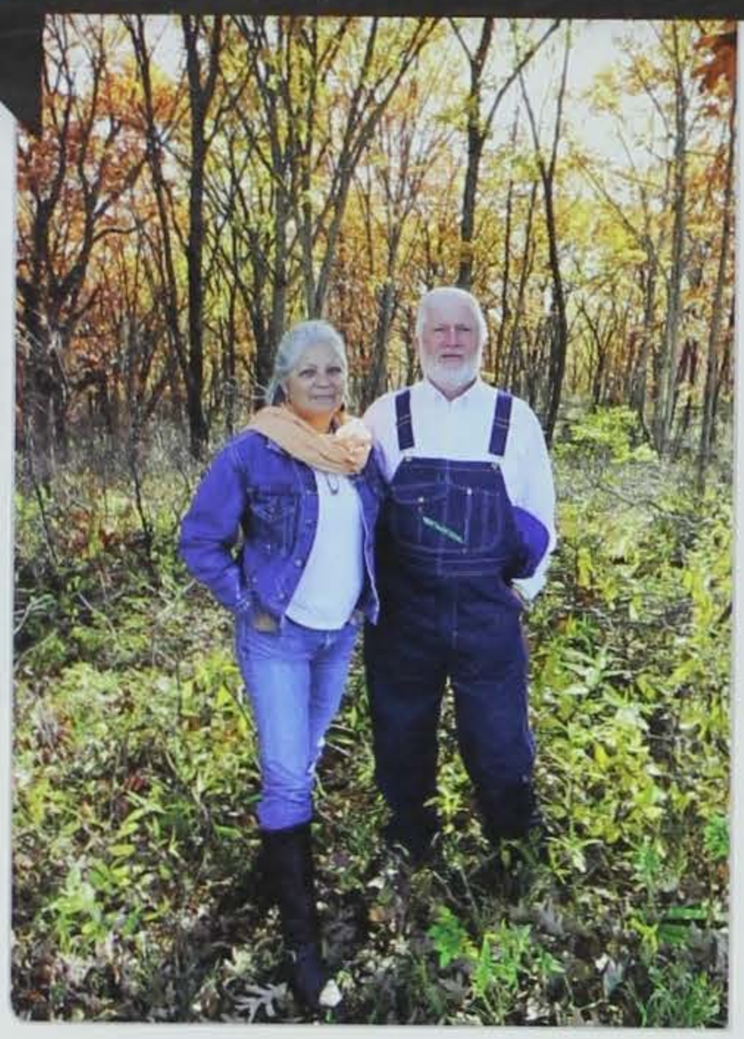
Carl Kurtz's Top-30 Species

SCIENTIFIC NAME	COMMON NAME
Andropogon gerardii	Big bluestem
Gentiana andrewsii	Bottle gentian
Elymus canadensis	Canada wild rye
Silphium laciniatum	Compass plant
Veronicastrum virginicum	Culver's root
Baptisia lactea	False white indigo
Helianthus giganteus	Giant sunflower
Zizia aurea	Golden alexanders
Ratibida pinnata	Gray-headed coneflower
Aster ericoides	Heath aster
Sorghastrum nutans	Indian grass
Schizachyrium scoparium	Little bluestem
Thalictrum dioicum	Meadow rue
Pycnanthemum virginianum	Mountain mint
Heliopsis helianthoides	False sunflower
Echinacea pallida	Pale purple coneflower
Sporobolus heterolepis	Prairie dropseed
Dalea purpurea	Purple prairie clover
Eryngium yuccifolium	Rattlesnake master
Solidago rigida	Rigid goldenrod
Silphium integrifolium	Rosinweed
Liatris aspera	Rough blazing star
Lespedeza capitata	Round-headed bush clover
Desmodium canadense	Showy tick trefoil
Aster laevis	Smooth aster
Helenium autumnale	Sneezeweed
Panicum virgatum	Switchgrass
Liatris pycnostachya	Tall blazing star
Potentilla arguta	Tall cinquefoil
Verbena stricta	Hoary vervain

Admiration & Legacy

BY *JESSIE ROLPH BROWN*

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



FINDING THE FOREST

TOM AND JULITA POLLARD, OSCEOLA

Couple revives family woodland

"This land has always been in timber," says Tom Pollard of the acreage that has been in his family for more than 70 years. "My dad tried many years ago to pasture it off, but without success." Pollard and his wife, Julita, saw how the woodland, adjacent to Stephens State Forest, had become overcrowded. So they undertook a 90-acre tree thinning project to help a hardwood stand of hickory, oak and walnut trees neglected for decades. Working with the DNR and USDA Natural Resources Conservation Service, the Pollards created a forest stewardship plan that aimed to sustain timber production, facilitate regeneration and improve the understory for aesthetics and wildlife habitat—all with minimal disturbance. The Pollards also purchased a 10-acre unmanaged oak savanna from a neighbor, where they planned to open the canopy and allow sunlight back to the woodland floor, letting native herbaceous vegetation grow again. "Trees were fighting themselves. When you clear smaller trees out, it allows the better trees to grow," Tom Pollard says. Originally, the Pollards planned to thin out one or two areas per year. "It looked so good with such immediate improvement, we decided to finish the entire project in 2012," he says. DNR District Forester Randy Goerndt says projects like the Pollards' can result in tree diameter growth rates doubling, and acorn production can improve sevenfold in one cycle. "The thinning practice takes an overstocked forest and makes it a properly stocked forest, which improves the health and vigor of all remaining trees in the forest."

NATURE IN YOUR BACKYARD

NORTH CEDAR NATURAL RESOURCE PROJECT, CEDAR FALLS

Neighborhood creates wildlife sanctuary from flooded home sites

In 2008, 16 acres behind Cedar Falls' North Cedar Elementary sat flooded. Homes there became flood buyout lots, and the neighborhood association wanted the area to benefit the neighborhood and school. "Rather than let it sit there and do nothing, let's build a sanctuary and let wildlife enjoy it," says Jim Newcomb, chairman of a multi-partner project to turn the lots into public green space. The Black Hawk County Conservation Board suggested ways to manage the area for plant and wildlife diversity. Now, the area is developing into a public space that will feature trails, wildlife viewing decks and an outdoor classroom in an ancient riverbed. "They have this in mind to be a preserve and to let people walk and wander. It won't be your normal park," says Tom Schilke, president of the Prairie Rapids Audubon Society chapter, who's helped with planning. The site will feature a savanna, prairie, forest and wetland. "It was really diverse for 16 acres—there's already an established wetland there," says Jim Weimer with the county conservation board. "It's a neat collaborative project, a really neat example of how to do habitat restoration where there used to be houses and is now open green space." Much work has been done already—95 percent of it by volunteers and students, says Newcomb. They've worked to clear the area of invasive species, and with the help of Trees for Kids grants, all 300 students have helped plant native trees, like bur oaks. "We are constantly coming up with plans and ideas for what we can do with the space," says Jen Hartman, North Cedar principal. "A lot of our kids learn well outside. We like the service aspect of it. We're a small school and it's important to be a part of our community."

RIVER WRANGLER

DON WALL, AMES

Volunteer digs deep to help Iowa's rivers

Jim Colbert describes his river buddy Don Wall as "tough as an old boot and always ready to help," a fitting portrait of someone who has spent almost 10 years pulling boots, car parts, refrigerators and more out of Iowa's rivers. Wall signed up for Project AWARE, the DNR's annual week-long volunteer river cleanup, in the effort's early days and has helped out every year since. "I thought it would be a good project to do some hands-on work for the DNR," Wall says. AWARE volunteers float Iowa's rivers in canoes, pulling out river junk as they go. "I've been fooling around with canoes for 50-something years. It's rewarding to work with other people to clean up the rivers—there's only so much junk you can pick up by yourself," he says. He's also drawn water samples from Ames' Squaw Creek twice a year for snapshot water monitoring events hosted by IOWATER, the DNR's program for volunteer water monitoring. For Wall, IOWATER is a way to get a good grip on the state of water quality in Iowa. "People get out on rivers and see they're clogged with soil," Wall says. "You spend a lot of time in the water on AWARE and get concerned about what water quality might be like." Wall stays active in the paddling community as a member of Skunk River Paddlers, Central Iowa Paddlers and Iowa Rivers Revival. "A friend suggested that Don retired but never stopped moving. Or maybe retired but never tired," says friend Rick Dietz. "Don is always there to help, that's for sure. Whether it be improvements to river accesses on the South Skunk, digging out tires and appliances on Project AWARE and many other river cleanups, and showing up at various events to help new and first-time paddlers have the best experience possible—he'll be right there."

FINDING THE FOREST TEXT AND PHOTO BY JASON JOHNSON, NRCS; NORTH CEDAR PHOTOS BY NORTH CEDAR ELEMENTARY SCHOOL; DON WALL PHOTO BY DIANE LOWRY

BY ALAN FOSTER PHOTOS BY BEN CURTIS

Woodsy, Rich Morel Herbed Butter

No doubt fried in butter—breaded or not—is the most popular way to enjoy the bounty Iowa's woodlands reluctantly give us in the spring. But if you find yourself with a surplus of morel mushrooms, or not enough for a meal, make the most of them with this tasty morel mushroom butter.

Top a grilled venison steak or fish fillet with a pat, jazz up spring wild asparagus or fold into pasta. Add some to the frying pan for the best scrambled eggs and fried potatoes, or simply spread on some good, crusty bread.

MOREL HERBED BUTTER

2 to 3 ounces morel mushrooms or more if desired, finely minced
1 sprig thyme
1 garlic clove, minced
1 stick unsalted butter
Tiny pinch cayenne pepper
Salt and black pepper to taste

Melt butter over medium heat with garlic. Add mushrooms, salt and both peppers and cook until mushrooms are tender, about three to five minutes. Remove from heat, pour mixture into a bowl and refrigerate until it stiffens a little. Spoon onto parchment paper and press into a roll. Wrap in plastic wrap and foil and freeze or refrigerate until needed.

BY ALAN FOSTER PHOTOS BY JAKE ZWEIBOHMER

Big Flavor Trout
In Small Town Kalona

Map the drive to Tuscan Moon Grill on Fifth and you would think you were headed to the Big City, because your GPS says to take a right on the "turnpike."

But this is the Orval Yoder Turnpike, and it takes you to quaint little Kalona, population 2,500 or so, tucked just off Interstate 80 in eastern Iowa. You will need the GPS, though, because you will take more curves and make more turns than a NASCAR driver in the 20-miles from the main Iowa artery.

But the drive is worth it, if not for the final leg scenery alone, for the food, where owners Warren and Paula Miller make every effort to provide an upscale dining experience in an old town atmosphere. Serving 120 to 130 people almost every Friday and Saturday night—many from as far as 60 miles away—the Millers have been approached by realtors wanting them to branch out, like Cedar Rapids, whose residents routinely make the 73-mile round trip.

Eat at Tuscan Moon and it's clear you are dining in an iconic 110-year-old-plus converted hotel. Feel the undulations in the rustic hardwood floor. Walk the wood stairs, feel the original brick wall, touch the detailed window frames—all showing their own level of wear. Look hard enough to glimpse basement lights shining through tiny cracks in the floor's seams.

Dine downstairs seated with up to 55 other diners, or upstairs where another 30 get a birds-eye view of downtown Kalona. Or ask for the private room for special occasions. Check out the extensive wine list, currently at more than 160 options, from classic whites and reds to ports and dessert wines. (Ironically, the Millers' marriage—and the restaurant itself—were born from a bottle of wine. Make sure to ask for the story when you stop in).

Billed as an Italian steakhouse, the warm atmosphere inside the rustic Tuscan Moon Grill on Fifth is reminiscent of a romantic dinner in Italy. Warm lighting inside the converted hotel and Kalona mainstreet lights peeking through the windows provide mood lighting. Check out weekly rib and burger specials, and stop in on Fridays where chef Andrew Kirchner features a seafood special. Grab a steak—the house favorite—and sit on the streetside patio as Amish and Mennonite buggies and their "engines" plod by. Lunch hours are 11 a.m. to 2 p.m. Wednesday through Saturday. Dinner hours are 5 p.m. to 9 p.m. Wednesday and Thursday, 5 p.m. to 10 p.m. Friday and Saturday. Live music every weekend. Call *319-656-3315* for reservations.

GRILLED TROUT WITH BUTTERNUT SQUASH AND BACON

1 trout fillet with skins
1 butternut squash
2 strips cooked bacon, chopped
1 head cauliflower
1 handful spinach
1/2 cup sour cream

Peel squash and dice flesh. Cut cauliflower into florets. Roast the cauliflower and half the squash with a little vegetable oil and salt at 400° for about 10 minutes or until edges start to brown. Boil the other half of the squash until tender. Pour out water until squash is half-covered, add sour cream and puree. Lightly oil and salt fish and grill skin-side down for about eight minutes until the meat is still a little rare. In a pan, reheat roasted vegetables. Add bacon, remove from heat and add spinach.

BY ERIKA BILLERBECK PHOTOS BY CLAY SMITH

The Guessing Game

In general, I believe the more you practice something, the better you get at it. For a game warden, the more time at the shooting range, the less chance you have of screwing up on qualification day. The more time spent interviewing suspects, the better you get at obtaining truth. The more time you spend looking for drunk boaters, the better you get at identifying intoxication. But one skill does not adhere to this formula. In the last 13 years, my ability to guess a person's age has become dreadfully worse.

Age guessing is not a vital skill for a warden. No matter how bad you are at guessing age, it's unlikely to appear on a performance evaluation. Of course, for certain laws, age plays a role. For example, once a person turns 16, a hunting license is required, which means passing the hunter education course, which is open to enrollment as early as age 11. People 65 or older can purchase a lifetime fishing license. Between the ages of 12 and 17 a person needs to carry proof of completing a boating education course to operate a vessel. Luckily, for my sake, I'm not required to merely guess a person's age. Usually we are able to check our guess against some form of identification.

However, after 13 years of looking at birth dates on licenses for drivers, anglers and hunters, it seems I should be able to determine unaided whether the bikini-clad girl standing in the pontoon boat clutching a can of Miller Lite should instead be holding a Mountain Dew. Unfortunately, I guess wrong way too often. Instead, I rely heavily on the judgments of the college-aged seasonal patrol officers I often work with on the water. These guys can spot a boatload of underage drinkers 200 yards away.

In any case, seasonal officers have been great help in deciphering which people with beer breath are not old enough to have beer breath. While they glance at the IDs and quickly calculate how old the person is, I stare dumbfounded at the listed date of birth—stunned that someone born in 1993 is of legal drinking age. My internal dialogue goes something like: "Ok...I graduated high school in 1993...which wasn't *that* long ago."

Aside from changing clothing styles, the main reason my age-guessing ability is so poor is, like most people,

BILLERBECK WITH DOG PHOTO BY JULIE STAUB

I judge others based on my own perspective, which is ever-changing. My perspective is viewed through the lens of my own advancing age. But the problem is, though my biological age is increasing, the age I feel remains static. I rarely feel older than about 24 (coincidentally, about the same age of the seasonal patrol officers). Sure, when I look in the mirror I see a few wrinkles forming, my joints are a little achier, I'm more conscious of my own mortality and I recently learned these seasonal officers (lovingly, I hope) refer to me as "Mom" when I'm not around... but other than that, I'm a regular spring chicken.

As far as I'm concerned, I just recently graduated college, so when I check a fishing license and notice I share the same birth year with the angler, I immediately wonder whether I look as old as they do. But I don't have to wonder too long—I know I likely do look just as old and that if that person checked *my ID*, they would ask themselves the same thing.

Luckily, not every encounter is depressing. Not long ago, I was patrolling a wildlife area when I noticed a hunter emerging from the woods. As he was walking to the truck, I took note of his appearance. He was ruggedly handsome, possibly in his late 60s. I chatted with him and found he had been fall turkey hunting without much luck. I told him hunting without much luck was still better than working, when he said, "Well, I turned 87 years old this year, so I'm happy to be anywhere. Especially here."

"Wow!" slipped out of my mouth. This man didn't look to be 75 years old, let alone 87. I told him I hoped if I made it to 87 that I would be capable of tromping through the woods. He told me that several years ago, he thought he was too old to hunt, so he gave his nicest guns to his grandchildren. But then he smiled. All he was left with was an old shotgun which wasn't the prettiest, but would do the job.

After giving his nice guns away, the hunter changed his mind. He decided he shouldn't let age decide what he should spend his time doing. Instead, *he* should decide how to spend his time. And spending time outdoors was what he loved.

He looked toward the sky and said, "If it isn't too windy tomorrow, I think I'll take the canoe out on the water and try to shoot a duck." I hoped the weather would cooperate for him. We enjoyed talking a while longer. The hunter had a great sense of humor, was polite and reminded me of a nice mixture of Harrison Ford and Paul Bunyan.

This hunter left me with the uplifting knowledge that even when one makes it to 87, it is still possible to feel like the same person you have always been. And you shouldn't let that pesky biological age get in the way of anything if you are still young at heart. It isn't always a person's looks that make age deceiving, but attitude and outlook too. So what difference does it make if I can't guess a person's age on the spur of the moment? A person is only as old as they feel.

Just make sure you not only feel 21 but actually are 21 if I catch you holding a beer.

Flora & Fauna

BY *BRANDON HALLMARK* **PHOTO BY** *TONY MOLINE*

Striped Skunks, *Mephitis mephitis*

The skunk's most distinguishing feature is its smell. Even taxonomists agree, naming the skunk Mephitis—Latin for stench.

GET INVOLVED

Spotted skunks are on Iowa's endangered species list, so seeing one is a rare treat. The last confirmed sighting came from Franklin County in 2010. If you see a civet cat, send reports to *Daryl.Howell@dnr.iowa.gov or 515-281-8524*

"LITTLE BEARS"

Skunks are called "little bears" because, like bears, they'll eat almost anything—from plants and fruits to insects and other animals. They target bee hives, not for the honey, but for the bees and larvae. Skunks, especially in winter, will raid mice nests or dig up and eat hibernating amphibians. They are the second greatest threat, behind raccoons, to the eggs of ground-nesting birds.

ONE SICK CAT

Although skunks are highly susceptible to rabies, parasites and disease, the rate is dependent on the population density of not only skunks, but other animals. The higher the density, the more likely skunks will contract these maladies.

PREDATORS

Despite their distasteful defense mechanism, skunks do have enemies—like the great horned owl. Large enough to handle a skunk, the owl can't smell, so they have no reason to turn their beak up at a stinky meal. Skunks are also often killed by cars and habitat destruction, the leading causes of skunk mortality.

SPOTTED SKUNK PHOTO, INSET, BY BOB GRESS - WWW.BIRDSINFOCUS.COM

STRIPED vs. SPOTTED

Spotted skunks, also known as civet cats, are a different species with different markings. Once more common than striped skunks, substantial population declines led to the closing of the civet cat trapping season in the mid-1970s. Believed extirpated in Iowa, civet cat sightings are rare. Habitat destruction and over-harvesting are to blame.

KITS

Skunks mate between February and April, with kits born in April or May. Delayed implantation keeps the embryo dormant rather than attaching to the uterine wall. Birth comes when conditions are more favorable for survival.

DON'T STAND TOO CLOSE

Skunks' odor comes from a liquid produced in two anal glands—each holding 1 to 2 tablespoons, enough for about six sprays. It takes eight to 10 days to reload. When threatened, the skunk turns around and fires the oily liquid up to 10 feet, but the stench can be smelled up to 1.5 miles away, further if carried by the wind. Curiously, companies once used the pheromones that make the scent stick in perfumes. Before spraying, a skunk will warn by hissing, clicking its teeth, stamping, raising its tail and arching its back. Skunks also stand on their hind legs to appear larger and more intimidating. From this position, they are unable to spray.

The Wilderness, Only Yards Away.

Whether it's a week in the woods, or a day in the field, Mills Fleet Farm offers a vast variety of products so you can make your experience memorable. With the name brands you've come to trust, all at low prices, our store selection is ready with whatever you're looking for.

To make things easier, hunting licenses are available for purchase right at our store, along with all the supplies you need to reach the wilderness sooner.

MILLS FLEET FARM®

fleetfarm.com

Visit one of our Iowa Locations or shop online 24/7 at fleetfarm.com:

Mason City
3200 4th St. SW

Ankeny
3875 SE Delaware Ave.