

MAY / JUNE 2017

IOWA OUTDOORS

THE DN... AND RECREATION



IN THIS ISSUE:

Master Angler

OSPREYS: THE FIERCEST FISHING MACHINE THAT FLIES

Experience
Carroll!



LOOKING FOR FUN? CARROLL HAS FISHING, CAMPING, HUNTING, SNOWMOBILING, SWIMMING, BALL GAMES, AND TENNIS COURTS... JUST TO NAME A FEW!

BIKE OR HIKE THE SAUK RAIL TRAIL, A 33 MILE PAVED TRAIL THAT WINDS THROUGH SCENIC SWAN LAKE STATE PARK.



Carroll Chamber of Commerce

712-792-4383

WWW.CARROLIOWA.COM

IOWA OUTDOORS

QUESTIONS?

about your Iowa Outdoors subscription, gift subscription or have a change of address?

Here's who to contact.

CALL **1-800-361-8072**

OR EMAIL

IACCustServ@CDSfulfillment.com

OR MAIL ADDRESS CHANGES TO:

**IOWA OUTDOORS
P.O. BOX 37828
BOONE, IA 50037**



America's Authentic River Experience

ABOARD THE RIVERBOAT
TWILIGHT
Cruising May through October

1 & 2-Day Mississippi River Cruises

The Twilight is the most richly appointed Riverboat to be launched in a hundred years. Reminiscent of the Riverboats Mark Twain called "Floating Palaces", the Victorian steamboat architecture inside and out pleases the eye. Let our Captain be your guide to discovering the Upper Mississippi River; home to Eagles, Pelicans, towering bluffs, and historic river towns. Come aboard and step back into time when the riverboat was the most elegant and relaxing way to travel.

Call **1-800-331-1467**
www.RiverboatTwilight.com



2-DAY CRUISE

Departs Quad Cities, Overnight in Dubuque, IA & Return

1-DAY CRUISE

Departs Dubuque North to Guttenberg, IA & Return

STAT
NAT
Mar
Dr. Sa
R. M
Assu
BILL E
DN
Iowa Outdoors
\$26 FOR T
for renew
Federal and s
discrimination
you have been
502 E. N
To conserve an
with individuals
in Iowa an
We strive to o
of Iowa's natu
and experie
citizens to und
DNR volunteer
waters and
Charitable givin
enhances Iowa
Support wildlife
and vehicle regist
pheasant, eagle, s
Iowa
COUNTY

IOWA OUTDOORS

MAY / JUNE 2017 • VOLUME 76 • ISSUE 3

STAFF

Brian Button - **EDITOR-IN-CHIEF**
Alan Foster - **MANAGING EDITOR**
Jake Zweibohmer - **ART DIRECTOR**
Jessie Brown - **COPY EDITOR** Julie Tack - **MARKETING AND PUBLICITY**
Mariah Griffith - **WRITING INTERN**

STATE PRESERVES ADVISORY BOARD

Wayne Phipps, **Jefferson**
Barbara Schroeder, **Decorah**
Bruce Trautman, **Des Moines**
Dr. Kirk Larsen, **Decorah**
Leesa McNeil, **Sioux City**
2 vacant seats

NATURAL RESOURCE COMMISSION

Margo Underwood, **CHAIR, Clear Lake**
Dr. Sally Prickett, **VICE CHAIR, Glenwood**
R. Kim Francisco, **SECRETARY, Lucas**
Dennis Schemmel, **Grimes**
Conrad Clement, **Cresco**
Marcus Branstad, **Des Moines**
Phyllis Reimer, **Crescent**

ENVIRONMENTAL PROTECTION COMMISSION

Mary Boote, **Des Moines**
Nancy Couser, **Nevada**
Joe Riding, **Altoona**
Ralph Lents, **Menlo**
Cindy Greiman, **Garner**
Robert Sinclair, **Sigourney**
Eugene Ver Steeg, **Inwood**
Chad Ingels, **Randalia**
LaQuanda Hoskins, **LeClaire**

SUBSCRIBER SERVICES 800.361.8072

ADVERTISING OFFICE

Associations Inc, Tonya Vitzthum at **515.669.3010** or **TVITZTHUM@ASSOCIATIONSINC.US**

DNR EXECUTIVE STAFF

Chuck Gipp - **DIRECTOR**
Bruce Trautman - **DEPUTY DIRECTOR**

DIVISION ADMINISTRATORS

Bill Ehm - **ENVIRONMENTAL SERVICES** • Dale Garner - **CONSERVATION AND RECREATION**

DNR Central Office, **515.725.8200** • TTY users contact Relay Iowa, **800.735.2942**

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, \$26 FOR TWO YEARS AND \$32 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.

Federal and state regulations prohibit discrimination on the basis of race, color, national origin, sex or disability. State law also prohibits discrimination on the basis of creed, sexual orientation, gender identity, religion, pregnancy or public accommodation. If you believe that you have been discriminated against in any program, activity, or facility as described above, or for more information, write: Director, DNR, 502 E. Ninth St., Des Moines, IA 50319-0034 or the Equal Employment Opportunity Commission, Washington, D. C. 20240.

DNR MISSION

To conserve and enhance our natural resources in cooperation with individuals and organizations to improve the quality of life in Iowa 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. **515-725-8261** or iowadnr.gov/volunteer

HOW TO DONATE

Charitable giving of land, funds, goods and services greatly enhances Iowa's outdoors. Call Kim Rasler at **515-725-8440**.

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 **515-725-8200**.

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 • instagram.com/iowadnr
linkedin.com/company/iowa-department-of-natural-resources



Contributors



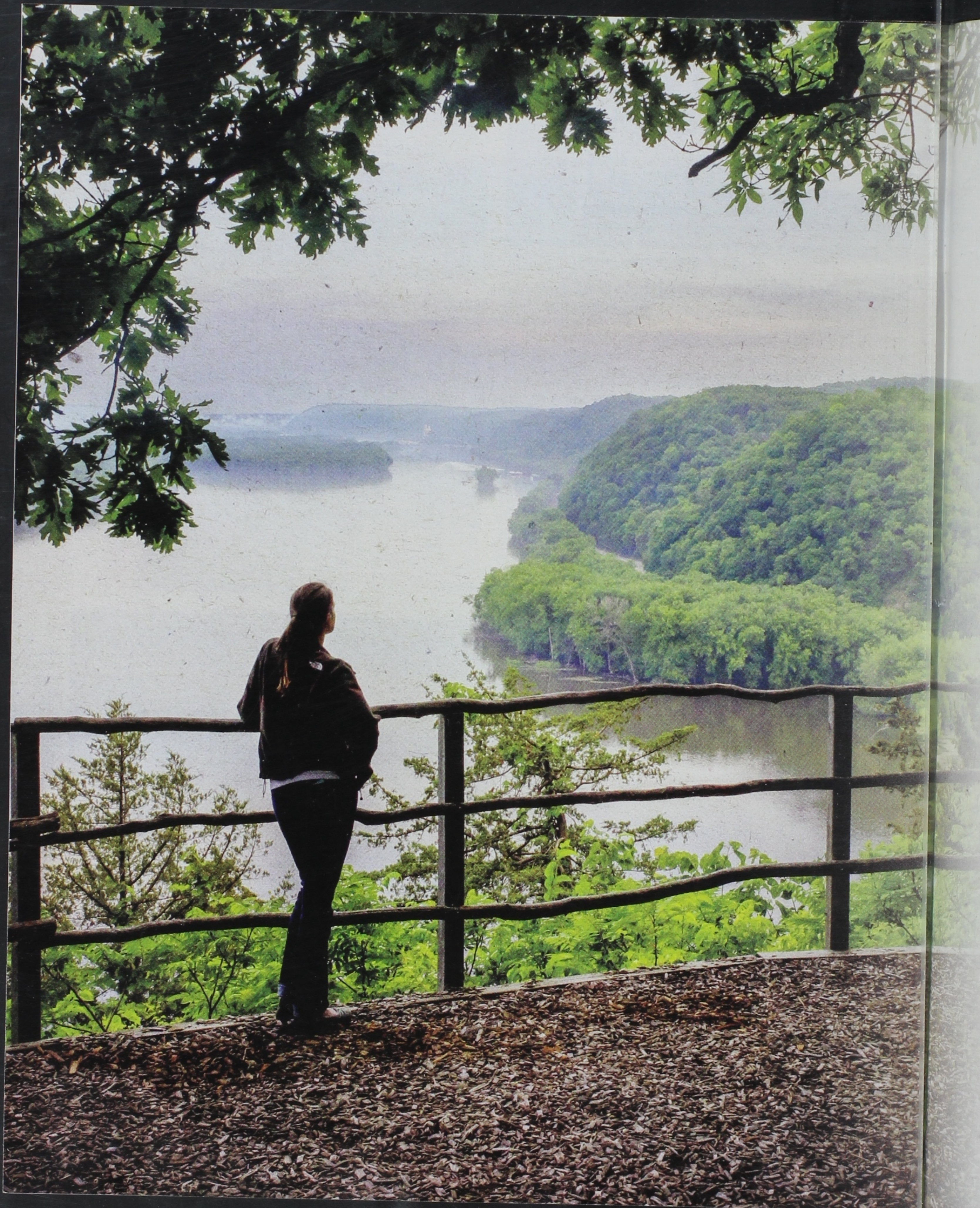
GREG PUNELLI lives in Saylorville Township in Polk County and is an avid photographer who loves photographing wildlife, nature and landscapes. "I want to explore everything the state of Iowa has to offer. For me, it's all about being outdoors and sharing my love of photography." He took the image of the Cooper's hawk in the last issue.



CANDACE ORD MANROE is a freelance writer specializing in travel, design and the outdoors. She is the author of 19 books and numerous articles for national and state magazines and major metropolitan newspapers. Among those are *Texas Highways*, *Better Homes & Gardens*, *Architectural Digest*, *The Dallas Morning News*, *Fort Worth Star-Telegram* and *The Des Moines Register*. A former editor for *Traditional Home* and *Country Home* magazines, she enjoys birding, camping and hiking.



DAN MAGNESON grew up in the southwest Iowa towns of Red Oak, Shenandoah and Clarinda, and today works as a fisheries biologist for the U.S. Fish and Wildlife Service on Washington state's Olympic Peninsula. He believes the 1950s and 1960s were the absolute golden era of being a kid, and that nowhere on earth was this more true than in Iowa.



THIS IS WHERE EVERY SEASON IS SPECTACULAR.

travel
IOWA
TRAVELIOWA.COM

#THISIOWA



BOULDERS INN & SUITES

Whether it's a weekend golf outing, romantic getaway, family retreat or business meeting, Boulders Inn & Suites offers a level of elevated comfort that will have you at your very best. With 12 locations across Iowa, we're sure you'll find a place to relax in style.

bouldersinnandsuites.com | 712.263.6434



CHARLES CITY

Experience the thrills of Iowa's first whitewater park, view breathtaking works of art, play on a grass tennis court, or take a trip back in time at an historic site. Exciting events, intriguing specialty shops and first-class recreational facilities make Charles City a must-see on your travel list.

charlescitychamber.com | 641.228.4234



CLEAR LAKE

After a relaxing day on the lake and exploring Clear Lake's beaches, experience music history unlike any other at the Surf Ballroom. Visit our events calendars for even more family fun all year long!

clearlakeiowa.com | 800.285.5338



CRESTON & UNION COUNTY

Have fun and enjoy Three Mile and Twelve Mile lakes, Green Valley State Park, our trails and shooting range, along with festivities like our 4th of July Celebration and annual Hot Air Balloon Days (3rd weekend in September). Creston and Union County: Your Southwest Iowa destination for outdoor fun.

unioncountyiowatourism.com | 641.782.7022



DECORAH / WINNESHIEK COUNTY

The bluff country of Northeast Iowa is remarkable in many ways. Heralded for undeniable scenic beauty, Winneshiek County and Decorah offer a plethora of things to do, see and experience. Whatever the season, whatever the reason, your stay is sure to be unforgettable.

visitdecorah.com | 563.382.2023



FORT DODGE

Find your adventure in the ARTS! Discover the Blanden Art Museum, Fort Museum, the symphony, along with theatre productions and musical performances from big band to blues. Relax at Shiny Top Brewing, Soldier Creek Winery or visit our unique boutiques.

fortdodgecvb.com | 888.573.4282



GREATER BURLINGTON

Escape to the outdoors for an adventure in the Des Moines County Parks! Bring the camper full of friends for a weekend of fun on the trails and the lake. Stop your bike to watch the wildlife and end the evening stargazing.

visitburlingtoniowa.com | dmconservation.com



IOWA'S COUNTY PARK SYSTEM

Iowa's 1,850 county parks are ready for your next outdoor adventure! Explore more than 1,600 miles of trails. Discover one of 70 nature centers. And rest up at one of the thousands of campsites and cabins along the way.

mycountyparks.com | 515.963.9582



JONES COUNTY

What do Grant Wood and motorcycles have in common? You can experience both in Jones County because we're the birthplace of artist Grant Wood and home to the National Motorcycle Museum. We also have the Penitentiary Museum and Starlighters II Theatre where you can watch a show. Come for the sights – stay for the stories.

traveljonescounty.com | 800.383.0831



LECLAIRE

Experience historic charm on the Mighty Mississippi! LeClaire is home of the *American Pickers*, birthplace of Buffalo Bill and great events. Enjoy a brewery, distillery and winery (all with river views), and cruise on an old-fashioned paddleboat, too. It's all there in LeClaire!

visitleclaire.com | 563.289.4242 ext. 61135



LOESS HILLS

Explore the Loess Hills like never before. Whether you come to drive our National Scenic Byway, explore and hike in the hills or visit the charming communities, you will find something that you can all enjoy.

visitloesshills.org | 888.623.4232



MARSHALLTOWN

"Meet in the Middle" – Fish, hunt, camp, hike, bike or relax at one of our nature areas in Marshall County. We have recreational trails, a skate park, disc golf, kayaking, canoeing, prairies, bird watching, buffalo, camping and many outdoor activities.

marshalltown.org/visit | 800.697.3155



MATCHSTICK MARVELS

2017 marks the 40th year that Patrick Acton has been turning ordinary wooden matchsticks into incredible works of art. Over five million matchsticks have been used to build models, both small and large, such as the U.S. Capitol and the USS *Iowa*. Visit Matchstick Marvels and see for yourself!

matchstickmarvels.com | 641.473.2410



MISSISSIPPI RIVER DISTILLING COMPANY

Mississippi River Distilling Company in LeClaire is home to a full suite of spirits, all handmade from local grain. Get an up-close look at how we make vodka, gin, whisky and more. Free tours daily on the hour.

mrdistilling.com | 563.484.4342

PLAN YOUR TRIP AT TRAVELIOWA.COM



OKOBOJI

Find your escape in Okoboji with abundant water recreation activities like boating, fishing and parasailing, our vast trails system, Arnold's Park Amusement Park, golf courses, museums, shopping, unique dining and more! It's no wonder we're called Iowa's #1 Vacation Destination!

vacationokoboji.com | 800.270.2574



PELLA

Enjoy a trip to Europe without leaving Iowa! You're "welkom" to visit Pella where you will be surrounded with all things Dutch: twirling windmill blades, delightful pastries, the sound of wooden "klompen" in the streets and thousands of blooming tulips!

visitpella.com | 888.746.3882



POTTAWATTAMIE COUNTY WATTA WAY

Watta Way to get away! Experience hiking trails in the Loess Hills, culinary delights, fine artisans and wine. Thrill to a zip line, water adventure and photo-worthy sunsets. Explore the treasures of Pottawattamie County.

wattawayiowa.com | 844.271.6909



RED ROCK AREA, KNOXVILLE & PELLA

Find out where the locals go... to connect with nature at Iowa's largest lake, rev up their heart rate at the sprint car capital of the world and escape to Europe with old-world shopping, unique foods and Dutch windmills.

redrockarea.com | 641.828.2257



VISIT JOHN DEERE

Trace the evolution of farming from people power to tractors and engines at the John Deere Tractor & Engine Museum in Waterloo. In the heart of the Midwest. Discover John Deere; stay for the experience. Free admission.

visitjohndeere.com | 319.292.6126



WATERLOO

You'll be wowed by Waterloo. Enjoy our vibrant downtown, tour John Deere Operations, and explore our trails via bicycle or kayak. And did we mention we're home to Lost Island Waterpark? It's Iowa's largest. Dig deeper in Waterloo!

travelwaterloo.com | 800.728.8431





ABOUT THE COVER

The power and unique fishing skills of the osprey have returned to Iowa. By the mid- to late-1800s the species was eradicated by Iowa's earliest settlers. Then, decades later, DDT pesticides took a toll on populations elsewhere across the nation. But over the last two decades, osprey releases at 12 Iowa sites have begun to show results. Today, there are 23 active nest sites, including a few migrant ospreys that chose homes outside the release areas.

PHOTO BY LOWELL WASHBURN.

ABO
A ro
coun
Fort
with
park
as y
the g
camp
on th
rese
PHOT



ABOUT THIS PHOTO

A row of 10 cabins sits semi-circle around an open courtyard at Dolliver Memorial State Park south of Fort Dodge in Webster County. The cabins, along with a dining hall, make up the group camp at the park. The camp is popular among families as well as youth, church and scout groups. To learn about the group camp and how to reserve, click the "group camp" tab at lowadnr.gov/camping. The camp is not on the state park reservation system, and can only be reserved by calling the park office at **515-359-2539**.

PHOTO BY JAKE ZWEIBOHMER

Contents

MAY / JUNE 2017

FEATURES

30 **Glamping Girls**

Travel along with a spunky set of ladies making waves across Midwest campgrounds, pulling up in souped-up retro campers with matching vintage outerwear and accessories to boot.

STORY AND PHOTOS BY *MARIAH GRIFFITH*

38 **Dracula of the Deep**

Among the largest fish swimming Iowa waters, the massive flathead catfish doesn't like having other flatheads around. And smaller prey fish lurking near their haunts are sure to become a live meal.

BY *DAN MAGNESON*

44 **Rock the Rapids**

Deadly drowning machines common across much of Iowa are getting facelifts to make them safer. Some of these former lowhead dams are now magnets for thrill-seekers and spectators.

BY *MARIAH GRIFFITH*

52 **Return of the Master Angler**

There is likely no better or cunning angler than the osprey. Brilliant aerial acrobats, tremendous eyesight and immense power spells doom for unsuspecting fish and sheer delight for anyone lucky enough to witness the catch.

STORY BY *PAT SCHLARBAUM*
PHOTOS BY *LOWELL WASHBURN*



Contents

MAY / JUNE 2017

DEPARTMENTS

11 Outdoor Skills

Get hooked-up with better catch-and-release skills; put the boot to camp disorganization; get your paws on some dog walk etiquette.

13 Together

Head west for a fun, informative day learning everything about monarchs; celebrate the success of Iowa osprey reintroductions; have some fun with feathered friends in Lucas County; get the cure for stress by heading to one of Iowa's beautiful state parks; climb aboard with Project AWARE.

20 Lost in Iowa

A proposed state park in northwest Iowa is bringing two bordering states even closer together.

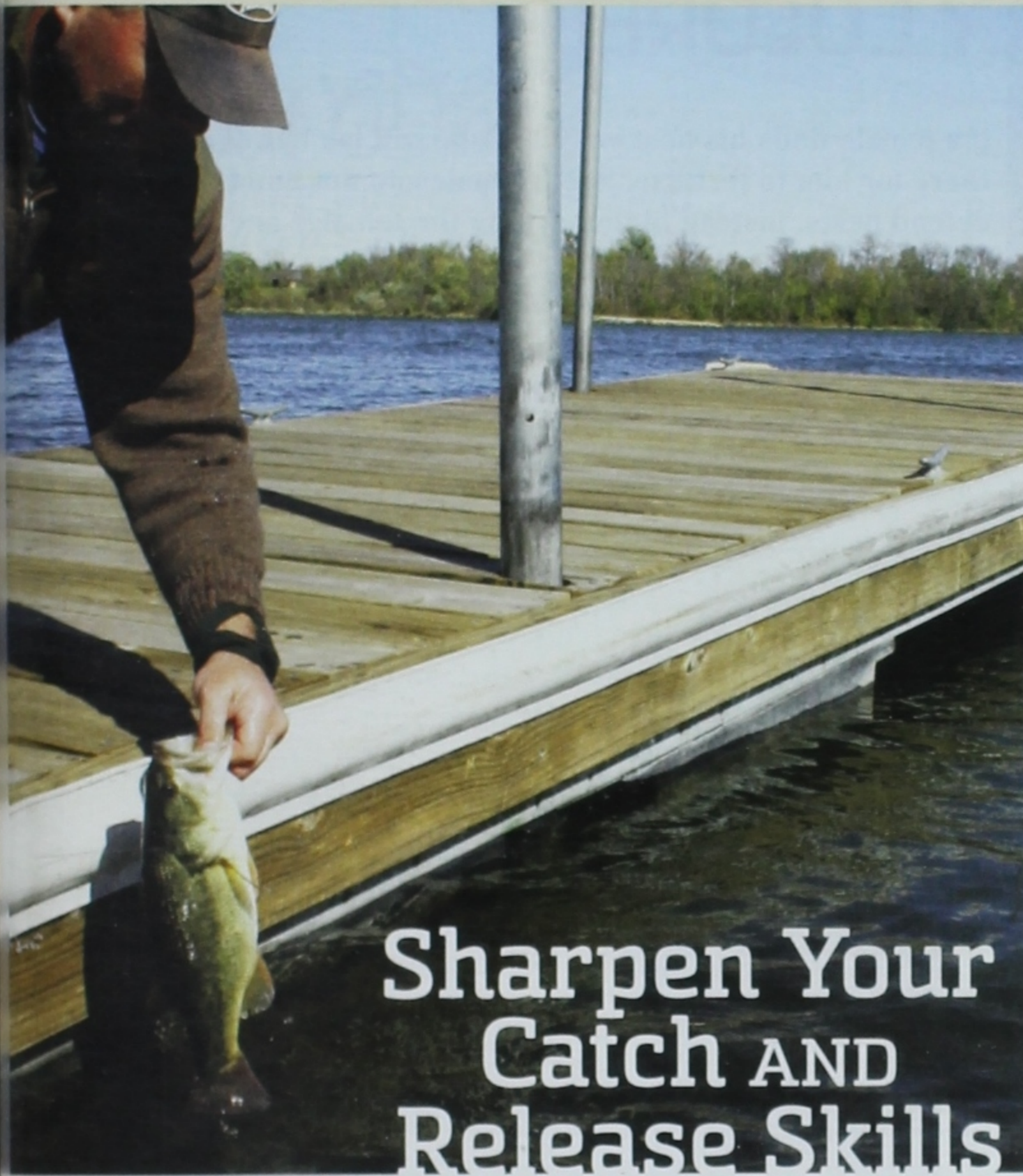
60 My Backyard

Protect your pollinators with these tips on proper plant selection.

ABOUT THIS PHOTO

The annual River Runner Regatta and Cardboard Boat Race attracts as many as 20 boats and 500 fans, depending on weather, to Manchester Whitewater Park each fall. Along with timed and open races, there are food vendors, an after-hours party and live music. Awards and prizes are handed out, both on the competition level as well as best looking boat, top crew costumes and "Most Spectacular Sinking." Visit franklinstreetbrewing.com for details, rules and event news. **PHOTO BY DOUG HAWKER.**

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



Sharpen Your Catch AND Release Skills

Nothing beats a meal of fresh caught fish, but if you primarily practice catch-and-release, or you want or need to release a fish, these tips will help ensure higher fish survival.

- Have dehooker, measuring device and camera ready to minimize time out of the water.
- Strike quickly when a fish bites to reduce the chance of it swallowing the hook. Play fish rapidly to minimize stress.
- Do not use knotted nets, and if lifting the fish by the jaw, don't bend the lower jaw down. If you need to hold the fish horizontally, grasp it firmly by the lower jaw and gently under the stomach with a wet hand. Minimize disturbing the slime coat, which protects fish from infection.
- Use barbless hooks or mash the barb down. Circle hooks can be especially beneficial. Do not use stainless steel hooks.
- Use de-hooking tools and, if necessary, heavy cutters, to cut and remove hooks. Today's hooks do not rust out. If need be, cut line, gently pull shank to reverse hook and remove with pliers.
- When releasing the fish, place it gently in the water head first. If necessary, move the fish in a gentle figure eight to pass water over the gills (do not pull it backwards).
- Don't keep a fish out of water any longer than you can hold your breath under water. The less time fish are out of water the higher likelihood of survival.

FISH PHOTO BY CLAY SMITH; ORGANIZER PHOTO BY KATI BAINTEK

Put The Boot To Camp Disorganization

Constantly looking for cooking utensils and supplies means more time spent at the campsite and less time at the lake. Keep cooking utensils, seasonings, washcloths and cleaning supplies all in one place with an inexpensive shoe organizer. Store toiletries for quick access. Pet snacks, leashes and other supplies are handy for a quick walk along the trail. Keep kids' toys in one place and off the ground. Tie to a tree, picnic table or camper with rope or bungee cords. Fold for easy, compact storage.

Bring Rover Along

Dogs can make great hiking companions—ready and willing to go on a moment's notice—providing much-needed exercise for both and a bonding opportunity between owner and pet. The American Hiking Society reminds hikers to make sure dogs are allowed on the property they visit and keep the pet on a leash if the area requires it or you anticipate encountering other humans or pets. Pack essentials to keep the dog comfortable on the hike, like food, water, first aid kit and other essentials. Leave no trace. Pack out unsightly and bacteria-laden waste products. Don't assume everyone will like your pet. Keep your pet under control to minimize potential conflicts between your pet and other people or dogs.



IOWADNR.COM

MALE BLUEGILLS ARE ALWAYS BRIGHTLY COLORED

In Iowa, bluegills are the most widespread member of the sunfish family, which also includes crappie and bass. While individual bluegill coloration varies, they're primarily olive-banded with bluish cheeks and gills, a black ear flap and yellowish bellies. It's fairly easy to tell males and females apart as males generally have larger ear flaps, dark spots on the back end of their scales and a more reddish belly. This coloration can become more vibrant during spring breeding, but the pattern on any fish should not change significantly over time.

So why are there some males with short ear tabs and yellow bellies—like females? These fish, sometimes referred to as “sneaky males,” attempt to appear immature and non-threatening, but are actually masquerading as females to avoid competing for mates. Typical males dig and defend a nest in late spring, and



if a female finds his nest enticing, she will lay her eggs there for him to fertilize. Sneaky males do not build or defend nests, instead hiding among the females and waiting for one to lay her eggs. When she does, the sneaky male darts out and fertilizes the eggs before the other male has a chance, and then swims away.

Evolutionarily speaking, this strategy is advantageous because the sneaky male doesn't have to expend the energy to prepare a nest, fight off competitors or woo a female in order to pass on his genes. Thus, he can use the energy he's saved for his own personal growth and metabolic needs, often leading to a healthier immune system. As a sneaky male grows, he may become too obvious for cuckoldry, and begin simply disrupting courtship between other fish at opportune moments.

Identify sneaky males by looking for dark scale spots absent on females, but even then it may be hard to tell.

Ask THE Expert *What happens to my fishing and hunting license money?*

Lifelong memories are made on Iowa's lakes and rivers and in our fields, parks and forests. Much of that is thanks to the quality of our fish and wildlife resources, habitat, waters and facilities—benefits in most cases directly attributed to the Fish and Game Protection Fund (trust fund).

Established in 1937 and amended in 1996, the constitutionally-protected fund—made up primarily of hunting and fishing license dollars—mandates that money can only be used for fish and wildlife research, education and management, and to promote hunting, fishing and trapping in Iowa. The results are noticeable. Annually, the DNR stocks roughly 150 million fish. Fishing for elusive trout is now easily accessible statewide thanks to stocking during cold weather months. The trust fund supports ongoing research to allow staff

to more effectively manage fish, construct fish habitat, improve water quality, restore lakes and improve angler access.

Wildlife benefits through improving critical habitat, continued research and expanded hunting opportunities. You can't discuss world-class whitetail deer without mentioning Iowa. Wild turkeys, once extirpated from the state, are thriving again. Pheasant numbers, on the decline in recent years due to loss of habitat and inhospitable spring and winter weather, are slowly growing. Quail are enjoying their largest population growth in decades. Rabbits can be found in nearly every brush pile.

With premier hunting and fishing opportunities, someone needs to protect those valuable resources. The trust fund makes sure conservation officers are up to

date on training, technology and equipment.

Excellent natural resources go much further than a good day on the lake or a heavy game bag at the end of a day. Businesses and people looking for a place to work and live also want a quality place to play. Nearly one-third of Iowans hunt and fish, spending nearly \$800 million in annual retail sales, generating \$83 million in state and local taxes, supporting roughly 12,000 jobs annually.

Continued support of the trust fund is greatly needed to maintain resources Iowans enjoy. Even if you don't hunt or fish, buying a license, habitat fee or a trout privilege helps not only support the intended resources, but also improve water quality and create and protect habitat for nongame species and educate the public about Iowa's valuable natural resources.

ACTIVITIES, TIPS AND EVENTS FOR THE WHOLE FAMILY

But Why?

Helping adults answer children's nature questions

JIMMY, 12, IN KEOSAUQUA, ASKS:

How do fish breathe?



Humans and fish both require oxygen to survive. The difference is, we get our oxygen through air while fish get it through water. With humans, the lungs extract oxygen from the air we breathe and transfer it into the bloodstream, at the same time releasing carbon dioxide from the system. With most—but not all—fish, the gills do the same thing. Fish take water into their mouth, passing the gills just behind its head on each side. Dissolved oxygen is absorbed from—and carbon dioxide released to—the water, which is then dispelled. The gills are fairly large, with thousands of small blood vessels, which maximizes the amount of oxygen extracted. “Breathing” is much harder for fish, though, because the amount of oxygen in the air versus the amount in water is substantially higher.



TURN OUT THE LIGHTS

This article will be a real snooze. Wait, I can phrase that better... today I address sleep, or the lack thereof. Two primary factors led to this choice. The first emanates from the Rand Corporation, where a group of economists, psychologists and others determined current sleep patterns cost America \$411 billion a year. The other factor was several studies outlining the positive impact camping has on sleep.

The Center for Disease Control and Prevention estimates one-third of Americans get appropriate sleep. The Rand Report says one-third were not getting appropriate amounts. On top of the obvious connection to accidents, they report “insufficient sleep is linked with heart disease, diabetes, high blood pressure and other health problems.”

This relationship between productivity and sleep holds true for all ages. Later school start times or earlier bedtimes result in better classroom performance. With children, learning continues while they nap...or perhaps more correctly, they organize and file the input they received during the day. Other health problems impacted by lack of sleep is Alzheimer's. Chronic lack of sleep serves as an early indicator of the disease. The research isn't clear if that is an effect or cause, but either way, researchers at the Oregon Health and Science University assert sleep allows the brain to “sweep” beta amyloid plaque from the brain that, if left there, would clog up the works.

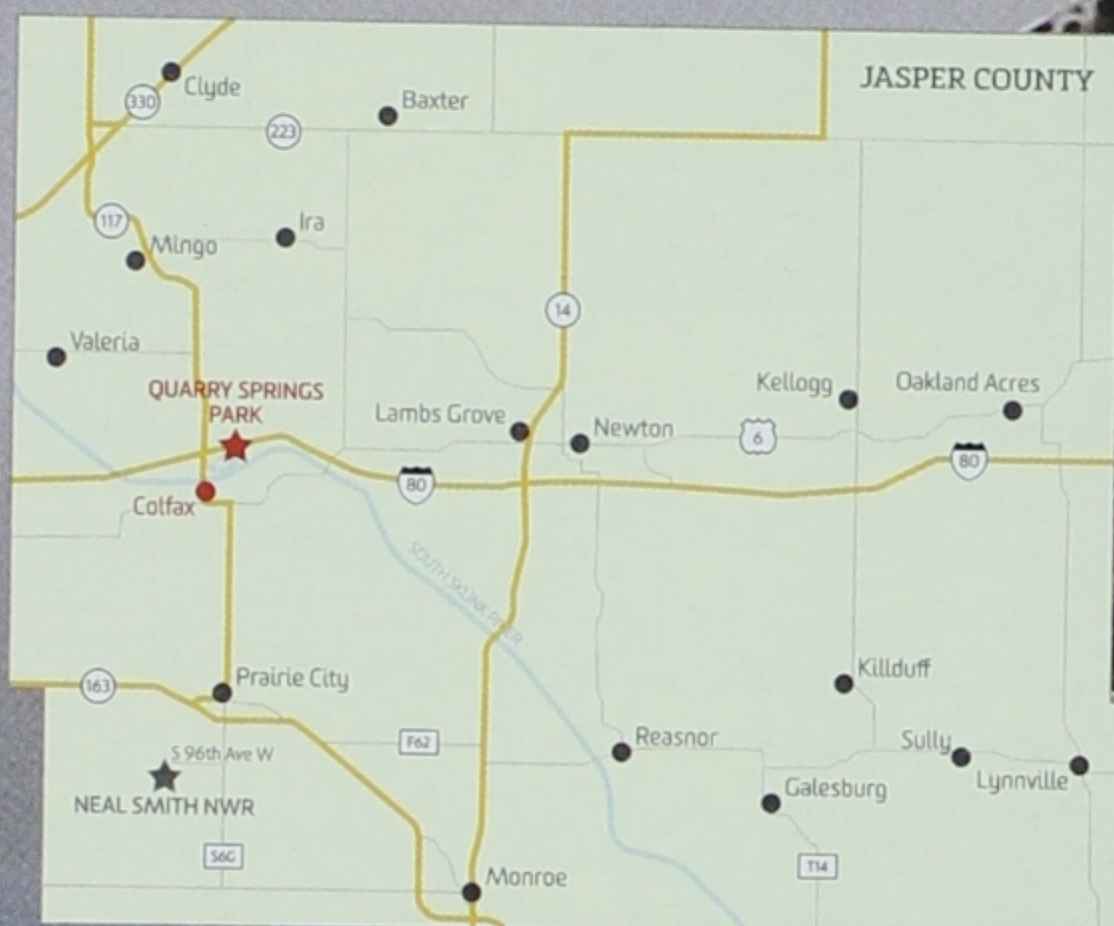
Which brings me to good news. Other studies indicate spending time outdoors improves sleep. Most “camping” studies are small in nature (pun intended). The 2013 report in *Current Biology* studied just five campers. But according to researcher Kenneth Wright, it provides strong evidence that artificial light and our modern environments “influence our circadian rhythms.”

Most folks know darkness is essential for sleeping. The absence of light sends signals to the body that it is time to turn in. But thanks to Thomas Edison and legions of other inventors, darkness is now an endangered state...except in North Korea. Our biological mechanism needs a cave that encourages the development of melatonin, a hormone produced in the brain's pineal gland—the “sleep hormone”—part of a chemical process that triggers the body's physiological sleep preparations. When combined with soothing sounds of a babbling brook—white noise—a better sleep environment exists.

Of course I always recommend more camping. In the meantime create a natural environment in your bedroom—no light, set the temperature below 70 degrees, keep a regular schedule, exercise to help tire yourself in preparation, perhaps add white noise and avoid evening caffeine.

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

HELP CELEBRATE THE RETURN OF IOWA'S OSPREY



Celebrate the magnificent success of Iowa's osprey reintroduction at a family-friendly learning and "thank you" celebration to honor the countless groups and volunteers that worked for years to get ospreys to today's status.

At the event, hear from speakers from all 12 osprey release sites statewide. See Native American drumming and singing. See project posters and learn about reintroduction and nesting success from friends' groups, 11 county conservation boards, volunteers and DNR staff. Hear testimonials, get tips on placing nesting platforms and get inspired to get involved.

"It is with some guarded optimism, but it is time to celebrate the work that has gotten us to a pretty promising opportunity for a second chance with this species," says DNR wildlife technician Pat Schlarbaum.

It's a remarkable comeback story. Iowa's earliest European settlers quickly destroyed ospreys as they viewed them as competitors for fish. By the mid- to late-1800s, the species was largely gone from Iowa. So little was understood about past osprey populations, aside from perhaps one spotty historical record, it wasn't fully known if the species even originally nested here.

"We decided to ask tribal elders from the Omaha and Yankton nations to see if ospreys were mentioned in their oral stories," says Schlarbaum. Through these many generations-old stories, it was learned that ospreys once nested in Iowa.

Today, ospreys have touched peoples' hearts, says Schlarbaum. The first modern pair in Iowa to nest happened in 2003. By 2010, those hatched-in-the-wild osprey had matured and were having their own offspring.

"Now we document more and more nests every year. Not to be premature, but this is definitely the start of something great in Iowa." There are currently 25 nesting pairs statewide.

The free public event, held Saturday May 20 from 11 a.m. to 3 p.m., takes place at Quarry Springs Park, a city-run park just south of I-80 (exit 155) in Colfax. As a former sand and gravel operation, the land was donated by Martin Marietta to the Colfax Park & Auxiliary Board, plus a \$200,000 donation to get this city park started. The quarry is also home to two osprey nesting pairs. If raining, the event will be held inside onsite.

If you would like a \$10 picnic lunch, contact Pat.Schlarbaum@dnr.iowa.gov or 515-432-2823 ext. 104.

FUN WITH FEATHERED FRIENDS IN LUCAS COUNTY FESTIVAL WILL ADD TO YOUR BIRDING LIST

PHOTO BY TY SMEDES

Observe an amazing array of beautiful birds across Lucas County's diverse habitats where forests, grasslands and wetlands attract not only nesting birds, but serve as an important stopover for many species migrating to nesting areas in Minnesota and Canada. Colorful varieties include eastern bluebirds, yellow-throated vireos, American redstarts, Baltimore orioles, Blackburnian warblers, scarlet tanagers and indigo buntings.

Friday Festivities

Festival opens 6 p.m. Friday, May 5, in Chariton. Event registration and social gathering runs 6 p.m. to 8 p.m. at Carpenter's Hall two blocks west of the business district. Enjoy snacks and beverages while seeing displays and exhibitors. At 8 p.m., the main street movie theater offers free showing of the 2011 hit *The Big Year*. Based on a true story, actors Steve Martin, Jack Black and Owen Wilson star as bird enthusiasts on a year-long challenge to see who can tally the largest list of birds.

Birding Field Trips

Field trips to seek diverse bird varieties begin at 7 a.m. Saturday, May 6, after a 6 a.m. breakfast at Carpenter's Hall. The festival coincides with the annual spring meeting of the Iowa Ornithologists' Union, a group of bird identification specialists. The group's experts serve as field trip leaders to assist participants in learning to identify secretive and lesser-known birds. A late evening field trip at DNR's nearby Stephens State Forest will help birders find night species such as owls and whip-poor-wills.

More Bird-related Fun Saturday

Saturday afternoon, hear programs about birds and birdwatching, bird conservation, plus attend workshops about binoculars and other gear, how to build birdhouses and more. See displays from commercial exhibitors, birding and nature organizations. Enjoy a home-cooked supper at Carpenter's Hall, followed by featured speaker and noted birdwatcher, author and photographer Laura Erikson of Duluth, Minn.

Sunday Morning Wrap-up Activities

Field trips begin 7 a.m. Sunday, May 7 to enable visitors to view different areas of Lucas County, its variety of bird life and scenic habitats. Lastly, a master bird list is compiled to document all bird species found during the festival.

Easily identify Warblers with this NEW guide!

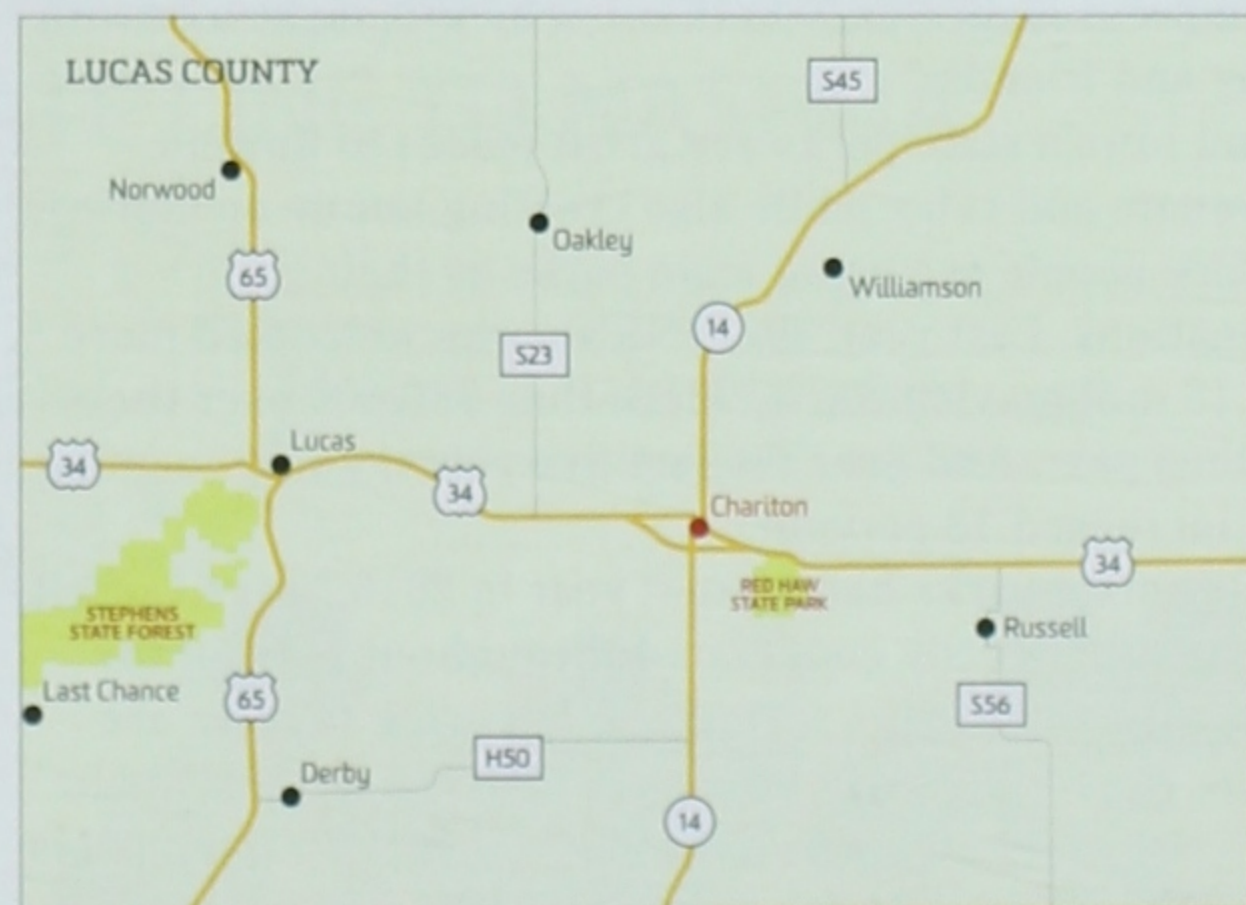
16"x20" poster is just \$10 (\$5 if picked up) and includes shipping and handling. Free to educators and tax preparers (donation appreciated).

To order, call the DNR at 515-725-8200 or pick up at the Wallace Building, 502 E. 9th, Des Moines. **Hurry, supplies limited!**



More Information

To find details and register in advance, visit lucascountytourism.org or call 641-774-4059.



Together

IOWA'S STATE PARKS: A CURE FOR STRESSED OUT WORKERS



According to a recent study, 42 percent of Iowa workers say “it’s good for their boss to see them as a work ‘martyr,’” willing to sacrifice their vacation time for work. This is 3 percent higher than the national average—ugh.

“We really want people to use their vacations, and see all that our state parks offer,” says Todd Coffelt, DNR parks bureau chief. “Workers need to take time off to decompress and relax, whether it’s by themselves or with family and friends.”

And Iowa’s state parks are great places to unwind, rejuvenate and relax while also creating family memories.

More people are using state parks as their go-to destinations. Last year, the DNR’s parks welcomed more than 15 million visitors, up more than 750,000 over the previous year. And over the last five years, guest camping days increased 18 percent.

“Our state parks had a great year in 2016,” says Coffelt. “The weather really cooperated throughout most of the state, with a gorgeous spring and lingering fall. We are hoping for a repeat this year so people can get out to our parks early and often. We have more than 4,700 campsites statewide just waiting for campers.”

State parks added more than 300 existing campsites to their reservation system this year, making reserving that

perfect spot even easier.

For those planning a stay during one of the major summer holidays, camping reservation windows opened in February for Memorial Day, April 4 for Fourth of July and June 1 for Labor Day.

State park campsites appeal to a broad range of campers, from more primitive hike-in sites to those with all the popular amenities, including the deluxe accommodations and cabins at Honey Creek Resort State Park nestled ashore Rathbun Lake in southern Iowa.

Three parks made significant campground upgrades last year—Red Haw in Lucas County, Lake Wapello in Davis County and Fairport along the Mississippi in Muscatine County—and now offer 50-amp electrical service.

In August last year, southeast Iowa’s Lake Darling State Park in Washington County added six modern two-bedroom cabins. Available year-round, each sleep six and include full kitchens and bath and beautiful covered decks. All are handicapped-accessible and five are pet-friendly.

Day users and party planners should check out the new Lakeview shelter at Brushy Creek State Recreation Area in Webster County. The shelter holds 140 people and rents for a bargain \$75 per day, plus tax. The shelter is similar to three large shelters at Big Creek State Park in Polk County that each hold 180 and rent for the same price.

Both Brushy Creek and Big Creek also sport new beach cabanas for smaller group gatherings—just \$15 per day and have a maximum capacity of 10.

“We hope Iowans plan to take time off and visit a state park,” says Coffelt. “The cure for a stressful day is literally a walk in the park.”

Make reservations at iowadnr.gov or **1-877-427-2757** (phone hours are 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. to 4 p.m. Saturdays.)

Get Fit, Have Fun Rediscover the Joys of Bicycling

May is tailor-made to reconnect with the fun of riding a bicycle. Find special events, organized rides and activities, even bike commute challenges—friendly workplace competitions to see which employers can tally the most miles. It's all part of National Bike to Work Week, May 15-19. Bike to Work Day is May 19 and the entire month is Bike to Work Month. Check with your local bicycle store for events and activities in your area or region or visit bikeiowa.com.

Come Experience Why Southeast Iowa's Outdoor Youth Jamboree is so Popular

The annual Outdoor Youth Jamboree continues to grow, attracting nearly 500 kids last year from numerous surrounding counties and as far away as metro Des Moines. It's an all-in-one experience to engage kids in the outdoors. The free event, held near Burlington at Big Hollow Recreation Area, features fishing, shooting sports with one-on-one instruction, boat rides, canoeing and outdoor education activities. All gear and equipment is provided. Experts even instruct kids on how to clean fish and game.

The one day event is set for May 13 from 9 a.m. to 2 p.m. Children under age 18 and adults are welcome—its an event for the whole family. Attendees receive a free lunch, and free park busing takes kids to different activities. More than a hundred volunteers

Did You Know?

A total of 92 cabins are available to rent in 19 state parks, and 10 parks have cabins available year-round. They start at \$25 per night for simple camping cabins to \$200 per night for the multi-family house cabin at Springbrook State Park.

from numerous sporting groups, the county conservation board and the DNR make it happen. Pre-registration appreciated to help ensure enough meals are prepared. Find details, maps and register online at the Aldo Leopold Pheasants Forever website leopoldpf.org or call 319-217-3204.

Share Your Fishing Mission With Us.

As we relayed in the last magazine issue, the DNR released a record 156 million fish last year, renovated a gob of lakes, increased fish habitat, added angler access and improved water quality.

Now it's your turn to help. We are recruiting you on a mission to take someone fishing. A kid perhaps. Or another adult that hasn't cast a line for eons. Then share your story with us. Take your pick—write us a letter, an email, post your mission to DNR's Facebook, Twitter or Instagram with the tag #MissionFishin, or send your story and photos to *Iowa Outdoors* magazine at brian.button@dnr.iowa.gov or mail to Iowa Outdoors magazine, Iowa DNR, 502 E. 9th St., Des Moines, IA 50319-0034.

Succeed in your mission and you help introduce a new group of anglers, and those extra license sales add desperately-needed revenue to the DNR for natural resources. License revenue is reinvested to improve fishing, access, habitat, stocking and more.

Anyway you slice it, this mission is about getting out, having fun and bringing many new anglers along for the journey. Share your adventure with us.

PADDLING FOR A PURPOSE

15TH ANNUAL PROJECT AWARE TO CLEAN UPPER CEDAR RIVER FROM MINNESOTA STATE LINE TO NASHUA

Volunteer for a day or more or enjoy all five days and four nights of river cleaning, fun, learning and camaraderie with positive-attitude, can-do people. Much like RAGBRAI, your gear is moved for you to the next overnight stay. Paddle up to 17 miles daily, loading your canoe with trash as you go. Limited number of canoes available on a first come basis. Tent camping areas are provided nightly.

Registration required. For canoe, shuttle and meal options, details, agendas, what to bring or to register, visit iowadnr.gov/AWARE or call Lynette Seigley at 515-725-3433 or email lynette.seigley@dnr.iowa.gov.



Register by June 16 for Project AWARE held July 10-14, 2017

Cedar River in Mitchell and Floyd counties (Iowa-Minnesota state line to Nashua—60 river miles)



Lost In Iowa

BY CANDACE ORD MANROE

Blood Run: Crossing State Lines

Early Stages of a Proposed Bi-State Park
between South Dakota and Iowa



In the farthest corner of northwest Iowa, the Big Sioux River separates Iowa and South Dakota. Gentle hills, pastures, trees and a broad river valley grace the land which also holds a nationally significant, rich cultural history. It was here, for more than 200 years (circa 1500 to 1714) that the largest known and most complex site of the Oneota tradition thrived. Up to 10,000 people once lived here, supported by an area rich in bison herds and mid- to tallgrass prairie. It was a place to gather in peace, trade and adopt each other in ceremony for numerous tribes.



Lost In Iowa

In the quiet northwestern corner of the state, where a stone skipped across South Dakota's Big Sioux River might end its journey on Iowa soil, there's an earthly treasure so valuable it's bringing the two states even closer. I was on a mission to learn more about it. What was so special about this land that Iowa and South Dakota were planning a bi-state park to preserve it? A park that crossed state lines and was jointly operated would be a first for the two states historically more comfortable competing than cooperating for tourists.

I headed out on a sunny morning in mid-July for the blacktop and gravel back roads of Lyon County. Here the landscape architects from Wisconsin-based Quinn Evans, who'd been contracted a year and a half earlier by the Iowa DNR, would unveil their master plan for how Iowa might develop and manage its side of the proposed park. What I would soon learn is that the land at the tangent of the two states is a major site in terms of history, culture, geography and archaeology. Known as Blood Run, it had been a bustling commerce center and sprawling city from roughly 1500 to 1700, when the Omaha, Ponca, Ioway and Otoe people gathered in a spirit of cooperation.

And it had been peaceful. Its violent-sounding name didn't emanate from bloodshed. It came from the rusty color the iron-rich runoff gave the creek feeding the Big Sioux River. White settlers named the stream Blood Run Creek, but to the tribes, this unique patch of the Great Plains—where dozens of burial mounds still rise from the natural hills—has always been called Xe, meaning "where they are buried."

It's the largest known site of the Oneota tradition and was designated a National Historic Landmark in 1970. In the decades since, representatives from the Native American tribes, Lyon County and the State of Iowa—notably the DNR, State Historical Society and the Office of the State Archaeologist—have worked to honor the land's legacy in a way that balances conservation and education. And finally, after years of start-and-stop-progress, their master plan was to be presented in the comfort of an air-conditioned conference room.

A Feel For The Land

But before the unveiling, the landscape architects wisely arranged a show-and-tell site visit. They loaded up a hay wagon of interested parties for a morning ride across a small swath of the land to be addressed in the plan. The hayride would provide an invaluable visual orientation, hitting a few highlights of the 3,880 Iowa acres studied for the proposed park. Project head Brenda Williams, a specialist in the conservation of cultural areas like Blood Run, would point out some of the burial mounds, the land's protected bowl shape that allowed the community to thrive and curious pitted boulders whose significance to the early tribes remains unclear. These and other geographical features would be impossible to convey in

the sterility of a conference room.

Guess who was late for the ride? Siri, that know-it-all, had let me down. But thanks to the kindness of a truck-driving stranger and frantic calls to DNR parks bureau chief Todd Coffelt, I finally found my way. Gravel bit my tires and kicked up a fuss of dust to the consternation of those already assembled—silently, almost reverently (why, I wondered?)—in the hay wagon. Given that mine was the only other vehicle on the road, and hard on the wheels of the hay wagon, I'd have been wise to assume all were aware of my presence and would include me when possible. But I had driven long and hard. I tooted the horn a few times for good measure.

Nothing could have been more inappropriate. When the driver of the tractor pulled over to unlock the gate at the landmark sign, I lumbered onto the wagon and soon learned why the ruckus I'd stirred was so out of line.

"What we want to teach visitors is how to approach this sacred site," said Williams. "Our plan is to change the colors of the paths underfoot to alert visitors as they move from one area to another that's more sensitive—from a trading or living area, to a ceremonial site, to the sacred burial mounds."

Uh oh.

In my defense, many of the other people on the tour already were familiar with the project. They'd been working closely with Williams' team, providing feedback at frequent meetings. Many had been aware of Blood Run's heritage even before the DNR initiated the study. In fact, the group was a Who's Who of Iowa state officials long involved in Blood Run. "Terry would've been here," I was told, "but he's tied up hosting the national governors conference."

Even so, Iowa's DNR, State Historical Society and State Archaeologist were well represented as today's plan was exclusively Iowa's. South Dakota had already completed a master plan for its side of the park.

Among those assembled and eager to hear the results was retired State Historical Society curator Jerome Thompson. He was involved with the purchase of 183 Iowa acres since designated for the proposed park. That land, near the center of the study area, was acquired for \$150,000 through special appropriation from the Iowa Legislature in 1986 and 1987. It was where our hayride took place. Iowa state archaeologist John Doershuk, whose title explains his interest in the area, also was on board. Other officials along for the ride included Lyon County Economic Development director Steve Simons, whose county's local conservation board provides maintenance, law enforcement, guided tours and educational programs at the 183-acre site owned by the state.

Powerful Connections

Gov. Branstad may not have been present, but I could feel power—the organic kind that predates state lines and governments. Its source was the Native American



ABOVE: Rocks of mystery. Large boulders of Sioux quartzite dot the landscape. At 1.6 to 1.7 billion years old, these precambrian-aged rocks are the oldest in Iowa. Hundreds of human-made pock marks cover several boulders—their purpose remains unknown. **ABOVE RIGHT:** Last summer's unveiling of the Blood Run long-range plan. **RIGHT:** Maps show the study area. Currently, the State of Iowa owns 183 acres of land (managed by Lyon County) within the study zone. Any future expansion of public lands will require willing sellers of private lands. If funds are available, public lands could be added as properties come up for sale. As a long-range plan, it may take decades for any public lands to be added. South Dakota currently owns more acres on its side of the river. **BELOW:** View of the Big Sioux River, which is the boundary between Iowa and South Dakota. This image is taken from a Blood Run terrace. Most likely, gardens were kept on these bottomlands to take advantage of water and rich soils. Villages were established on bluffs or terraces to provide an outlook and to maximize land for crops. Higher locations also gave protection against floods. To escape winter winds, villagers may have moved to the floodplain during colder months.




Lost In Iowa

Last summer, haywagon tours were arranged to give interested parties a visual orientation to the landscape and areas of cultural and historical significance.



PHOTO BY LANDALEE JAMES

at
wh
"W
par
pre
trib
the
As
obs
Lan
per
this
Fos
infl
prot
whe
I
W
Run
mou



"If Cahokia was the New York City of Native America, Xe was its Chicago. It was where different native nations that often warred could instead gather to trade, make peace and adopt each other through ceremonies. There are lessons to be learned here at ancient Xe to help heal our troubled world today." —Lance Foster

PHOTO BY CANDACE MAINRDE

attendees. They included three tribal representatives who'd been engaged in the project since its inception. "Without our ancestors, there would be no proposed park, no master plan, no cultural heritage worthy of preserving," says Marisa Cummings, who was chief of tribal operations for the Omaha Tribe of Nebraska at the time, as she explained to me in a later conversation. As our hay wagon rumbled along, comments and observations from Cummings and Iowa tribal member Lance Foster were invaluable.

"Your connection to your place is more than your personal imprint," Cummings told us. "We still consider this our home. Our imprint has never left." Added Foster, "The people who are sleeping are still providing influence." Back to Cummings: "My intention is to protect this site from any future development. It hurts when it's disturbed."

I was beginning to get it.

Williams informed us that the Iowa side of Xe/Blood Run was especially important. Ninety percent of the burial mounds are in Iowa. South Dakota has its own treasure in

the form of petroglyphs painted on the rock face. "Those rock messages are for us," Cummings told me. "That's why they were left." Then she qualified her statements. "Our teaching is that we can only speak for ourselves. What I find significant is not necessarily the same interpretation as someone else's."

She's been active in efforts to protect Xe since 2010, and she's passing on the tradition of connection to the land to her children. "There are natural springs here, which are all sacred sites. The sacredness of the place is so powerful. There is an imprint—I know that people were praying here hundreds of years ago. I go to specific sites to pray and to collect medicine. My children have been here. They will have the same connection with space and place, with land and water, that I have."

One of the master plan's recommendations that particularly pleases her is its call for one of the artesian springs that has been covered with concrete to be reopened. "It will be returned to its natural state. It will be able to breathe again."

She's also happy the Quinn Evans staff consulted tribal



ABOVE: Barn remnants of the Martin Johnson farmstead (late 1880s to early 1900s) are within the Iowa-owned portion of land managed by Lyon County. INSET: Marisa Cummings. LEFT: Clockwise from left: Eagle McClellan, Randy Teboe, Galen Springer, Lance Foster, Kimberly Bear and Cummings gathered on the South Dakota side of the Blood Run National Historic Landmark.



PHOTO BY PEOPLE COURTESY IOWA OUTDOORS

members for input at the beginning of the study. "It's affirming that Iowa chose to value what we have to say. Brenda Williams was committed to bringing our tribal concerns to the forefront. It's the first time tribal input has been truly implemented," Cummings noted.

Balancing Act

For the Quinn Evans team, getting it right involved walking the proverbial fine line. "It was unrealistic for the master plan to propose a huge preserve that nobody touches," state archaeologist Doershuk told me. "On the other hand, I'm glad there's no Ferris wheel. I think the plan is a very nice balance of preservation, interpretation, respect and access."

Randy Teboe begs to differ. As director of cultural affairs for the Ponca Tribe of Nebraska, Teboe is of the opinion less is more. "Everybody I know who wants to use the area wants only a trail for appreciating nature. A visitors center (proposed in South Dakota) is not needed. The idea is to get people outside, not to take them from inside one place to bring them inside another," said Teboe.

"My thought is that the plan for a park is a double-edged sword," Teboe expounded. "It's one of many opportunities to educate folks about our culture, heritage, traditions, connectedness to the land and our resourcefulness. On the other side of the sword, I believe that it invites a disturbance to those who are resting there."

Looters and collectors of Native American artifacts are the biggest threat. "The materials should stay there," Teboe told me. "Think of it as a cemetery, if you will. Do you go to a cemetery and take things?" Still, he values the DNR's effort to purchase and preserve the land as a future park, which he hopes will have 24-hour security with a manager living on-site.

Lance Foster, tribal historic preservation officer for the Iowa Tribe of Kansas and Nebraska, agrees with his Ponca colleague's less-is-more vision—and willingness to compromise. "While we would prefer it be preserved without all the modifications, we are glad it is going to be preserved as a park in the face of all the development pressures in the area," he explained.

Appreciating Treasure

To folks like Doershuk, who inherited the Blood Run project the moment he became the state's archaeologist, the importance of the land is indisputable; the need to protect it is urgent. "Well before I took this job, I was keenly aware of Blood Run as the only Oneota habitation in this part of the Midwest."

Foster puts the land's significance for his people in modern perspective comparing the site to Cahokia, a well-known settlement near modern-day St. Louis. "If Cahokia was the New York City of Native America, Xe was its Chicago. It was where different native nations that often warred could instead gather to trade, make peace and adopt each other

through ceremonies. There are lessons to be learned here at ancient Xe to help heal our troubled world today."

Taking Direction

As someone familiar with the plodding processes inherent in any state's government, Doershuk is optimistic about the park's progress. "For me, the significance of the master plan isn't any particular feature, but the fact that this study was even accomplished. It gives a lot of guidance for what needs to come next, which is an advisory board. That's the critical next step. This master plan points to some clear direction."

There's still a long way to go. And there's land to be bought. In addition to the 183 acres purchased by the State Historical Society, the only other property for the proposed park currently owned by the state is the 91-acre Gitche Manitou State Preserve. The remainder of the studied area is private property. This means it's too early to establish a time frame with a projected date for the park's opening.

Exploring Gitche Manitou

Gitche Manitou was too far away to be included on our morning hayride, but I wanted to visit it before the afternoon's presentation. The preserve is significant as natural prairie and as the site of more Oneota burial mounds. Cars aren't allowed, so I strolled from the entry down the long riverbank path to the DNR shelter. Sadly, it gained notoriety as a horrific crime scene in 1973. Since then, local youth have continually defaced the open-air structure, scarring its walls with lurid graffiti.

What a shame. The shelter is built from the site's native Sioux Quartzite, a magnificent red Pre-Cambrian stone about 1.6 billion years old. Outcroppings are everywhere, begging to be photographed. As the only visitor (initially), a peaceful silence allowed me to focus. And feel humbled. My understanding of the sanctity of the land and its meaning for the Oneota tradition continued to expand. The river's quiet flow enhanced my sense of well-being. Birdsong, wildflowers and even a shed snakeskin competed for my attention. I wanted to linger, but the master plan would soon be presented. I headed for my car and a casino conference room.

To a full house, Williams and others presented a sensitive, detailed plan for how Iowa can best utilize this sacred land as a bi-state park. The plan calls for a visitors center, an education/curatorial building next to an outdoor education space, a bridge connecting the two states, a low-impact camping area and eventually a bison corral. Educational concerns clearly trump entertainment. "Our goal," explained DNR parks bureau chief Todd Coffelt, "is to protect, promote and interpret the land for the public, so they can enjoy an experiential visit." (With no horn tooting or kicking up dust, please.) 🚗

View the entire master plan at goodearthbloodrun.com.

Lost In Iowa



Head to the farthest northwest tip of Iowa and you'll be in the 91-acre Gitchie Manitou State Preserve. It would anchor the northern end of a planned Blood Run bi-state park. The oldest bedrock found in Iowa—1.6 billion-year-old Sioux quartzite—is so old the wind and elements have put a polished sheen on its surface. Shown above is a former quarry area, now filled with water, called Jasper Pool.



GLAMPING GIRLS

Decoration AND Recreation Gone Wild

Glamping is a marriage between the words “glamor” and “camping.” Original glampers coveted the escapism of camping with the amenities and comforts of home. It has since become a popular term among women who turn vintage campers into personalized, stylized retreats.

STORY AND PHOTOS BY MARIAH GRIFFITH



Some people think of camping trips as a time to rough it—getting by on nature, maybe “building some character” with mildly unpleasant experiences like setting up a tent with pieces missing, eating overly-blackened hotdogs or sleeping on rocky ground.

Not these ladies. Now more than 260 strong, the Midwest Glampers (glamour-campers) are a regional group of women who get together to camp in vintage-style campers. While some are newer models with classic decorations, others are authentic overhauled antiques.

The glampers meet about once a month somewhere in the Midwest, and this weekend they’ve invited me to experience glamping with them at Iowa’s Ledges State Park near Boone.

“Glamping is really about embracing the vintage genre, whatever that means to you, and making connections with this tribe of like-minded ladies,” says Kim Kemna. Her trailer “Goldie” is named after her grandmother, and exudes all the fun of a tiny 1960s house with bright plush throw pillows, geometric-print curtains and an angular little chandelier. Kemna herself is decked



Kim Null

out in a yellow-gold playsuit and daisy earrings.

"From what I've seen, people get into glamping almost by accident," she says. "Lots of times they stumble across a Facebook page or run into a group of us antiquing together—and it's like they're discovering this love they never knew they had."

That's how Kemna herself got started, and Goldie wasn't always so spiffy. Like many glampers' trailers, she started out as a cast-off from a neighbor in Kemna's hometown—the outside painted completely black and the inside needing repairs because of mold. Kemna's daughter told her the trailer was "one hot mess."

"And she was right," Kemna laughs. In her redecorating, Kemna stayed true to the 1960s because Goldie is a 1967 Forester (made in Forest City), and she was inspired by the model's signature exterior gold stripe.

"It's been a lot of work, but you start loving the things you get right and embracing the imperfections, because otherwise you just have a new trailer and that's less fun,"

Kemna says. "I think that's good for independent, slightly older ladies like us to think about."

The next trailer I walk through belongs to the group's founder, Susan Sneddeker. A native of Nebraska, she started Midwest Glampers as a Facebook page after being disappointed by the requirements for glamping with other groups in her area.

"Some groups are women only—no kids, no husbands—and I wanted to be able to include my family because they put a lot of effort into this trailer too," she says.

Other glampers agreed, and as online interest in the group grew, the burgeoning Midwest Glampers decided to meet in person. But since all their campers were still in progress, they decided to meet at a hotel in Kansas City and spend the weekend finding new decorations at local flea markets.

"Despite being 17 complete strangers, we had the time of our lives—and after that first meeting the page blew up. There were oodles of ladies who wanted to get involved





Kathy Titus



The term "glamping" is relatively new to the outdoor world, but it has roots to the 16th century, when the Scottish Duke of Atholl set up lavish tents and filled them with all the palace amenities for visiting King James V. Glamping resurged in the early 1900s when African safaris became the rage among wealthy British and Americans. These adventurers weren't willing to give up their luxuries. Today's glamping is often different—decked out yurts, vintage trailers, treehouses and even tents with luxury amenities.



after hearing how much fun we had," says Sneddeker.

As the group grew, Sneddeker says they've kept their online group tight for both manageability and safety.

"We try to include everyone who genuinely wants to join, but the internet can be a big and scary place so we do ask how people heard about us and delete inactive members once a year," she says.

Sneddeker's trailer, also named after her grandmother, looks like a scene straight out of *Better Homes and Gardens*. "Lillian Lucille" is decked out in red and white everything—ruffled curtains, an immaculately folded bedspread bedecked with frilly pillows, wicker baskets, a shelf bordered with a tiny picket fence, a tea set and even a cowbell.

Sneddeker says cowbells became special for the group during that first meeting—the ladies decided to go antiquing together at a large flea market in an old cattle yard, and when one woman became lost she picked up a cowbell from a nearby stand and rang it until her companions found her.

"Now it's a cute tradition, and anytime someone joins the group we have a little ceremony, get our cowbells and ring them in," she says.

All the trailers I walk through are gorgeous, and each one has quirks that show the owner's style. There are old-style bicycles and patio furniture outside most, turning the campsites into porches.

Lorie and Randy Moorman (the only honorary "manper" on this outing) decorated a 1993 trailer they named "Retro Ruby," and made a miniature version for their dogs. The little doghouse is an exact match, complete with wheel chucks and a working awning, but Lorie says the dogs still prefer the larger trailer because it has air conditioning.

Carrie Uhing spent two and a half years rebuilding her trailer, which used to have extensive exterior damage and interior mold damage. She and her father had to take it down to the studs before they could even start repairs. Now it looks homey, with diner-esque teal and yellow







furniture and a beaded outdoor lamp that the other ladies crowd around excitedly.

Kim Null poses in a classic red dress before showing me through her trailer named "Jimmy"—which she jokes is named for her boyfriend, Jim Beam. An avid angler, she grins and says the pin-up girls, flowers and Scottish terriers on the inside will look kind of funny next to her muddy waders later.

Linda Greeve shows me a U.S. map on the inside of her trailer with the 26 states it has been to filled in. She wants to get some of the far-away ones, like Alaska, visited soon while she can still comfortably travel long-distance. The inside of her trailer is decorated floor to ceiling in butterfly patterns because Greeve named her trailer after her mom's old CB handle, Madame Butterfly. Greeve adds that she enjoys the freedom of traveling in a trailer that can accommodate just her, or her plus a gaggle of grandkids.

Karen Nortman, a mystery writer, says her style is woodsy and she got into glamping when she decided to write a book with a vintage trailer in it. Her expansive trailer looks like a cabin and includes a few extra luxuries, like arm chairs and a full kitchen, because she travels in it for several months each year. She says her husband has joked that she'll redecorate

her own coffin after she's dead.

Kathy Titus has a pink, teal and white 1983 Burro trailer, which she bought because she didn't want to have to change cars to pull it. On the inside, little signs poke out between pillows and beads to spout encouragement in pastel colors, saying things like "This is my Happy Place" and "Adventure before Dementia." Before we move on, Titus poses in the doorway and throws up a peace sign.

Kara Kruse, Kemna's cousin, also has a redone Forester, but hers is decorated in white and teal. She named it "Alice" after the grandmother she and Kemna share, and decorated the inside with some of grandma Alice's things—there's a blue and white floral pattern hanky hanging between the curtains, some cookie jars on the shelf and Scrabble tiles spelling "Alice" on the counter.

"I like to think of myself as a stable, simple person, and that's what I like about glamping—it's a return to simple living," Kruse says. When she bought the trailer, Kruse says it was painted in a camouflage pattern because the previous owner used it as a hunting shack. "My son helped me get it home and said, 'Mom, I don't know what you're doing but hey, whatever makes you happy.'"

Lydia Robertson's trailer is decked out in red and white polka dots, down to her dishes and record player. Robertson says she learned most of her renovation tactics from YouTube videos and says the only disappointment of the trip was that a raccoon got into a bag of peanuts she forgot outside last night.

"They got to you too?" asks Kemna. "Last night I watched one unstack my heavy coolers, pop the lid open with one hand and rummage around with the other while looking right at me on the other side of the door!" Luckily for Kemna, her coolers were empty.

The last trailer on this trip belongs to Carol Hedberg, who spent much of her career working in higher education. She picked up her trailer on a whim from a friend who was upsizing, and says she really enjoys decorating and living in it because it's her personal space.

"I think there's something that happens to women of my generation at about this age," Hedberg says. "Growing up, we were told that we were the first generation of women who could have it all—work, marriage, family, home—and in trying to chase all those things lots of us lost what we actually wanted and liked

about ourselves. Then we got to be empty nesters, many facing changes or challenges in our careers, and we have to decide what our own dreams are again and how to take back our lives." She says she cried the first time she tore out the inside of a trailer because she was so proud of having done the manual labor by herself.

Even so, not every gl camper has a trailer, Sneddeker tells me. For instance, her daughters glamp in a ruffled tent Sneddeker sewed to match the curtains in Lillian Lucille. Other glampers who just want to try the experience also use tents, as well as those ladies whose trailers are still in progress. Still others use more involved vehicles than trailers, including a woman who glamps in a bus and more who deck out full campers.

"No matter what, we want glamping to be both pretty and comfortable," says Sneddeker. "We all share this fun hobby, and because of it we get to enjoy being outdoors, doing classic things we remember from childhood camping trips like roasting marshmallows, fishing, hiking, biking and learning about nature."

"Plus we get to be our crazy selves!" laughs Hedberg. 🐾



Lorie Moorman



Glamping is the popular term among women who buy vintage campers, fix them up and deck them with retro personal touches, like linens, lace, curtains, fine China, knick knacks and antique treasures. The Midwest Glampers, a 274-plus-member group of such women, is a perfect example. They meet monthly at a park across the Midwest, some in newer campers, some in over-hauled antiques, some even in tents. Many name their campers, which are often decorated in themes. Some bring family or pets, but they all enjoy friendship, camaraderie and food. These tight knit, like-minded ladies strive to include all newcomers genuinely interested in glamping. To stay true to their roots, their closed group Facebook page requires approval to join.



DRACULA OF THE DEEP

BY DAN MAGNESON

They are the aquatic version of Count Dracula, quietly resting in the same dark, hidden location by day, and prowling for living prey by night. And like a vampire, they are legendary for both their great physical strength and ability to achieve a ripe old age. These “freshwater freight trains” require fishing tackle usually seen in saltwater situations, and can live at least 20 to 25 years.

The flathead catfish, *Pylodictis olivaris*, is known by other nicknames, most notably yellow catfish or mud catfish. And owing to a broad, flattened head (that seemingly comprises half their slender bodies), shovelhead catfish is yet another common nickname. They are fascinating in a way that is inversely-proportional to their looks.

According to Dakota Sioux legend, a pod of catfish plotted to ambush and eat a moose as he waded into a lake. The attack ultimately failed, and the moose was so angered that he retaliated and trampled all the catfish’s heads flat. To this day, the







Tracy Bills
Farm pond



Timothy Riley
Mississippi River

While channel catfish may be the most targeted, flatheads are popular among Iowans for their massive size and Herculean strength. Flatheads are predictably unpredictable. Individuals typically maintain the same movement patterns year after year. But no two flatheads react the same. Some may travel 80 miles in a year, others less than a mile, according to a DNR study. When targeting flatheads, use the freshest, liveliest bait available. Flatheads won't mess with sluggish or dead bait. Green sunfish and bullheads are local favorites. Carp are tough and stay alive longer. Bluegills, chubs and suckers are also good bets.



Joseph Zruck
Coralville Reservoir



Albert Brumwell
Iowa River

catfish have flat heads as a result of the war the moose waged upon their grandfathers.

Formally described to science by Rafinesque in 1818, *Pylodictis* is Greek for "mud fish," and *olivaris* is Latin for "olive-colored." Flatheads are the only species in their genus, and appear unchanged from the middle Miocene epoch 15 million years ago. They have a protruding lower jaw, and in all but the very largest specimens, there is a pale whitish or cream-colored tip on the upper lobe of their tails.

The flathead is native to the Gulf of Mexico drainages, from the Mobile River basin over to the vast Mississippi River basin, on to the Rio Grande and from there well south into eastern Mexico.

As an apex predator, they are the schoolyard bullies

within waters they inhabit. Live fish are their favorite prey, with smaller catfish and sunfish turning up in their bellies at especially frequent rates. And unlike other catfish species which readily scavenge, the predatory flathead prefers to consume its meal while it's still kicking and screaming.

Depending on the latitude, spawning begins in late spring or early summer as the water begins warming into the mid-70s. A cavity is chosen in a hollow log, a hole in a riverbank, within riprap or sometimes even inside submerged cars and metal drums. After depositing her eggs, the female is driven away and the male aggressively guards the nest, fanning the egg mass with his fins to keep them aerated and sediment free. Upon hatching, the male continues his watch over the dense school of fry as



Christopher Mart
Raccoon River



Bradley Sinclair
Grand River



John Abild
Turkey Creek



Tyler Timmons
Des Moines River



Alexander Bybel
Des Moines River

they absorb their yolk sacs over the next few days, after which they begin dispersing to lead independent lives.

Young flatheads up to 4 inches are found among sandy, cobble-strewn riffle areas, consuming aquatic insect larvae. From about 4 to 12 inches, they are more generally dispersed throughout the stream environment, with crayfish and fish becoming an increasingly-important part of the diet. From about 12 to 16 inches, the fish are associated with cover at intermediate depths.

By the time they surpass 16 inches in length, flatheads are almost entirely piscivorous—fish eating—and very strongly associated with extensive cover such as logjams, downed trees, rootwads and jumbles of boulders found in deep pools with a slow to moderate current over a firm substrate.

The flathead is also something of a lone wolf: a single

clump of cover will often yield only one, or at best just a few large individuals. The only exception is during the frigid water temperatures of winter, when dozens of these large individuals may congregate and overwinter among sheltered bottoms of deep pools.

And the word “large” really does apply. They rank among our biggest freshwater fish of any species, and are hot on the heels of the blue catfish as being our largest species of catfish, with a current national rod-and-reel flathead record of just over 123 pounds and an 81 pound, 52-inch monster caught in Iowa’s Lake Ellis in 1958. The minimum length to qualify for a DNR Master Angler Award is at least 35 inches. But unlike the somewhat-larger blue catfish, a decidedly “big water” fish of major rivers and huge reservoirs, the flathead can also be found



Clinton Crawford
Des Moines River



in
me
do
pr
a g
str
the
fla
ru
in
a w
bit
fan
wh
by
suc
the
poi
fou
van
fres
com
and

in smaller streams, and for many anglers represent a more readily-available trophy fish that is closer to their doorsteps than the less-accessible blue catfish.

Flatheads are a challenging quarry due not only to their sheer size and strength, but also because as a top predator, there are generally not many of them inhabiting a given location. Add to that their proclivity for live prey, strong homing instincts and chiefly nocturnal activity, and those elite anglers who can consistently land trophy-sized flatheads belong to a very select and skilled fraternity.

Some folks feel that flatheads have a regular “milk run” of favored feeding routes and strategize their fishing in a manner much like a hunter plotting an ambush upon a wily trophy whitetail buck. The long intervals between bites can stretch from hours to nights, but to a flathead fanatic, patience finally pays off when setting the hook on what first seems to be a log, only to be quickly followed by an adrenaline rush and pounding heart when the “log” suddenly comes to life, turns and bulldozes away through the depths, rod bent to within a whisper of the breaking point and line tearing off the reel.

With a giant flathead, a successful battle is often fought to nearly a draw, with both fish and angler vanquished when the fish is finally beached. Few freshwater fish can rival a gigantic flathead when it comes to leaving the muscles in both arms, both legs and back strained and aching as you grunt and sweat to

finally land them, and to a dedicated flathead angler this experience is simply euphoric.

The “Achilles heel” for this species is the vulnerability of the male while guarding the nest. In a technique known as “noodling,” the male is wrestled by hand onto the adjacent shore, which in turn dooms the eggs he had been guarding. Set lines are yet another method that can have an outsized impact on trophy flatheads. (Noodling for catfish is not allowed under Iowa fishing regulations).

Using circle-style hooks and encouraging catch-and-release can help conserve populations of trophy flatheads. As a further incentive not to kill and consume large flatheads, this long-lived and fish-eating species can accumulate contaminants in its flesh at greater levels than shorter-lived fish that feed lower in the food chain.

Sitting around a midnight campfire and gazing at the lazy swirls of murky current while pondering these mysterious creatures lurking somewhere below, and imagining instead oneself as the aquatic quarry of their nocturnal hunts, then the specter of a marauding predator cloaked by darkness represents a true living nightmare.

It’s an ancient anxiety conjured up from somewhere deep within—both primitive and palpable, of an apparition suddenly looming out of the blackness and devouring oneself—that makes the firelight and the flickering faces of family and friends all the more comforting in the wee hours of the night. 🐟



Steve Zamzow
Saylorville

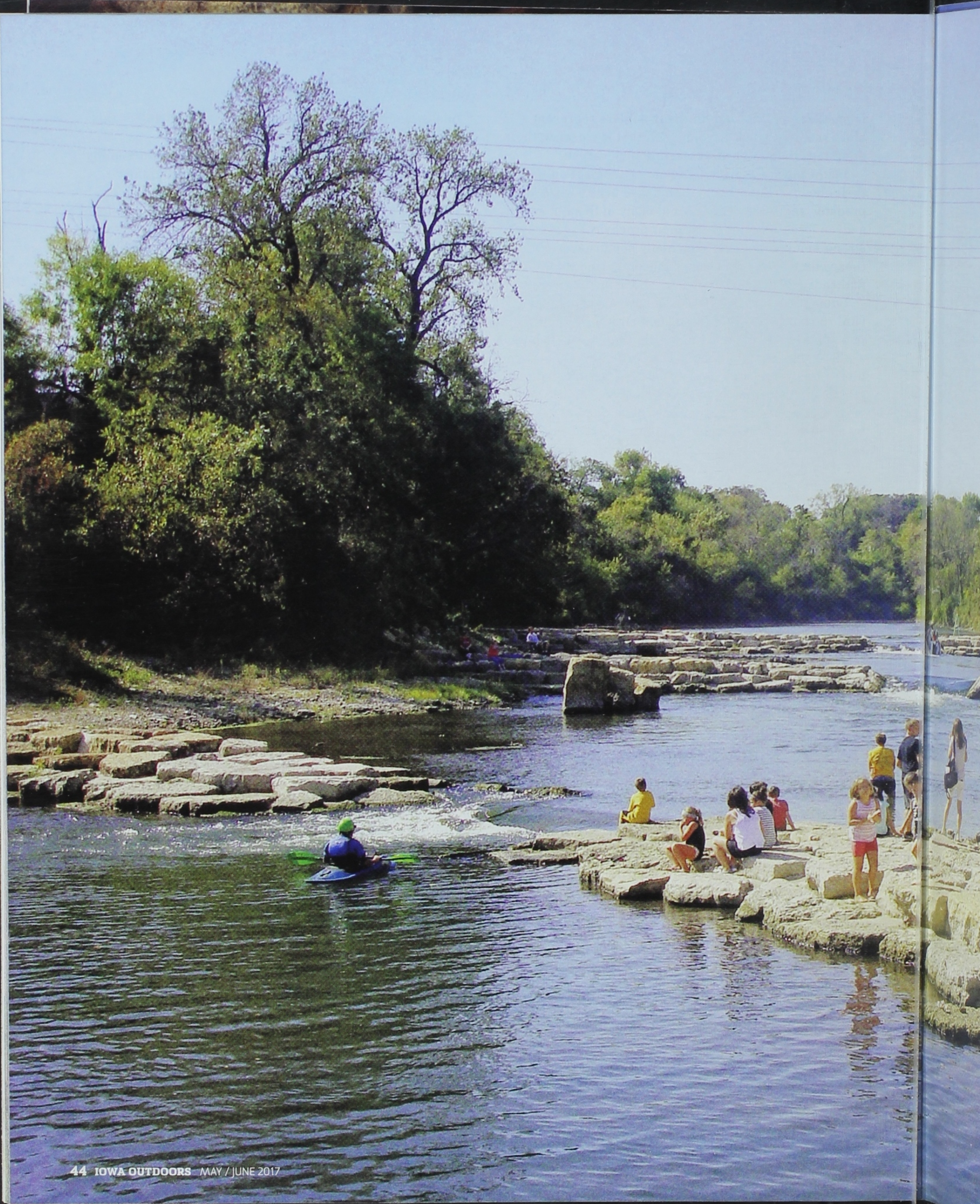


Hook a Monster Fish?

All of the fishing photos shown in this story were submitted by the angler to the DNR’s Master Angler Award program. The program recognizes memorable-sized catches for more than 40 fish species. Anglers who apply and qualify receive an official certificate and car/boat decal. Visit the DNR webpage to see hundreds more photos like these for each fish species. Learn more at iowadnr.gov



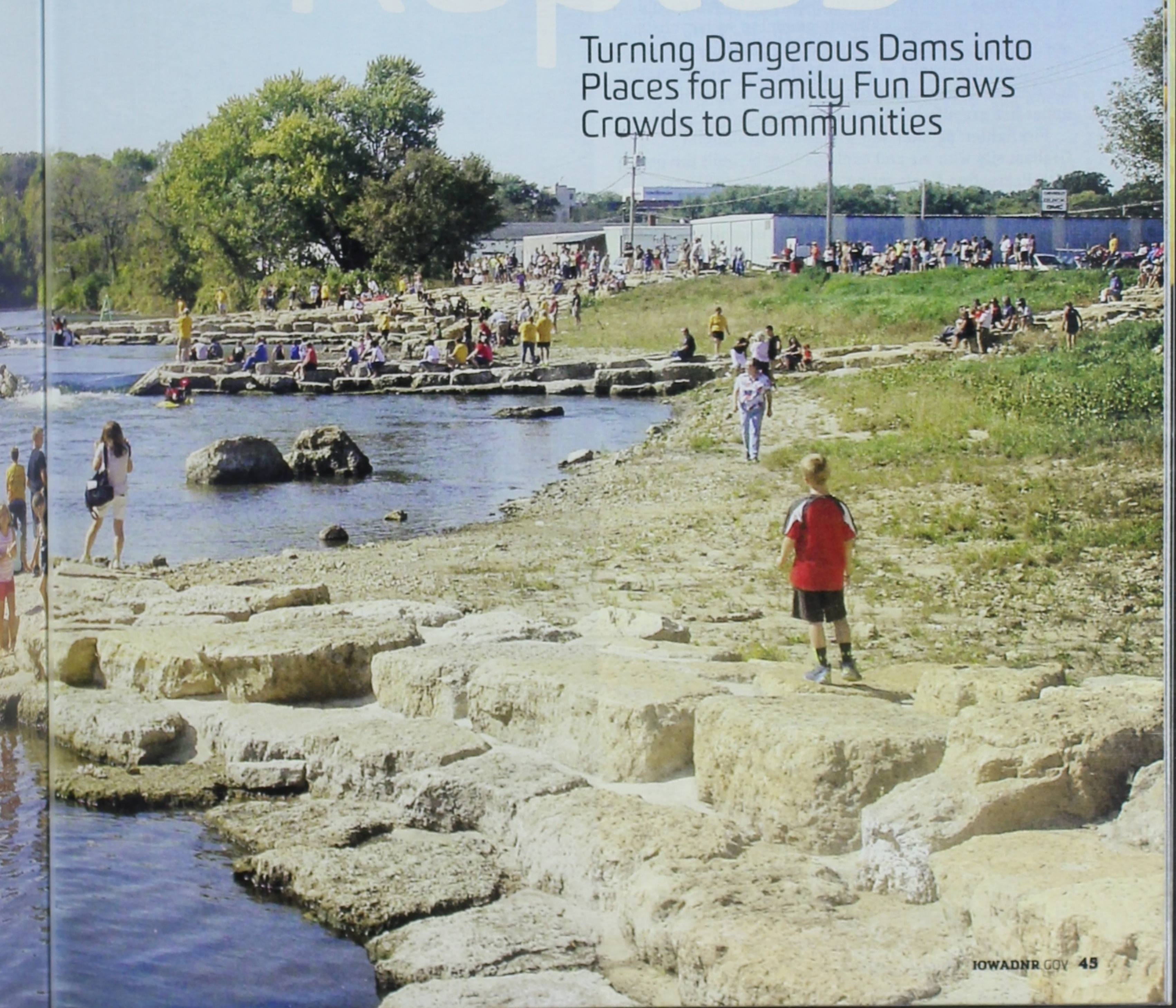
Dray Walter
Missouri River



Rock the Rapids

BY MARIAH GRIFFITH

Turning Dangerous Dams into Places for Family Fun Draws Crowds to Communities



The mist burns off of a cozy Sunday morning as I sit, watching a flock of geese trade honks with a train. They're preening in the calm water above the first drop of the Manchester Whitewater Park, and occasionally a brave one floats down the chute before flapping back up to its friends. Tucked between industrial buildings and Main Street, the park is already humming with cyclists, dog walkers and photographers doing portrait shoots. The structured banks of ochre boulders look amazingly inviting, and upstream, a toddler scampers over the rocks under her grandfather's watchful eye.

Firefighter, paddler and whitewater designer Ty Graham sits with me and explains how he built the park with Recreation Engineering and Planning (REP), a Colorado-based company specializing in dam modification and whitewater creation.

"I grew up in Cedar Falls, and the day after my high school graduation I moved to Colorado," says Graham. He's not a large man, but his piercing blue eyes and tendency to talk with his hands give him a titanic intensity. "Out there, you wake up in the morning and all the nature, all the fun you can imagine is right outside your window saying, 'what do you want to do today?'"

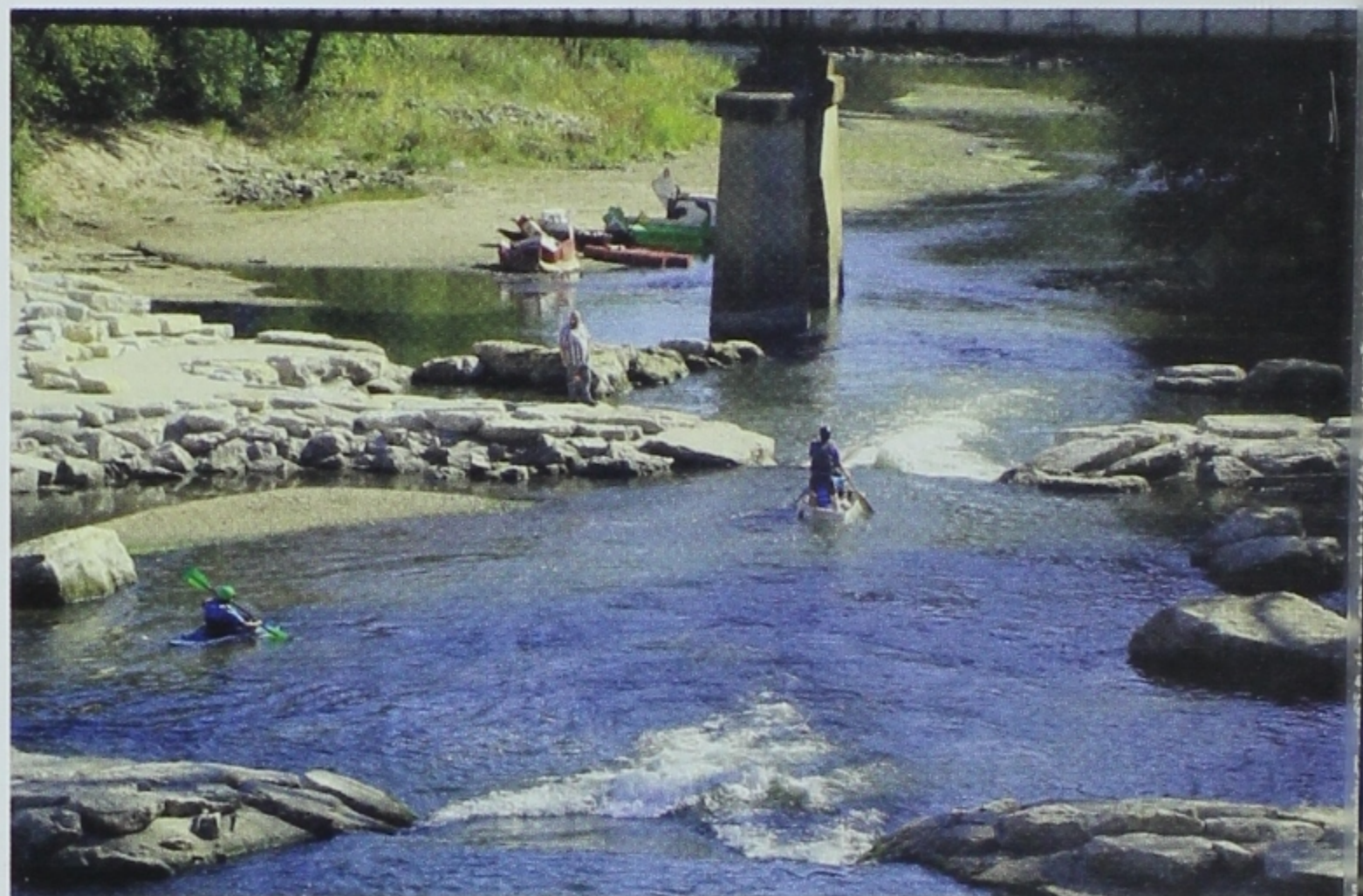
Graham's answer was often kayaking. He started off in a long boat so he could pack camping gear, but eventually moved toward smaller, more nimble vessels capable of doing tricks as whitewater playboating gained popularity in the 90s. He made friends with other whitewater enthusiasts, including Gary Lacy, founder and lead engineer at REP.

A few years later, he moved back to Iowa to be closer to family and found local options for whitewater devastatingly slim.

"My buddies and I were driving for hours and hours to get anywhere you could spend a day on, and we all started thinking this is ridiculous. Iowa has plenty of rivers and outdated dams that could be great for this," he says. "All you need is good flow, some drop in elevation and gravity."

Why Dams, AND When?

Iowa's first documented dam was built in 1829 to power a mill, and by 1870 the state had more than 1,000 mills with dams. However, these dams were relatively fragile, and many were damaged by flooding. In the early 1900s, dam construction boomed again for hydroelectric power, and the first lowhead dams





Iowa is not the first place that comes to mind for whitewater paddling, but three Iowa communities are proving the state is worth a mention in the whitewater world. Charles City, Elkader and Manchester have turned inhospitable lowhead dams into major recreational hotspots. Paddlers and floaters flock there for exhilarating passes through rapids. Anglers find the modified dams open up new fishing hotspots along shore. Fish and mussels once barred from migrating upstream to preferred spawning grounds also find a whole new river to reproduce in.

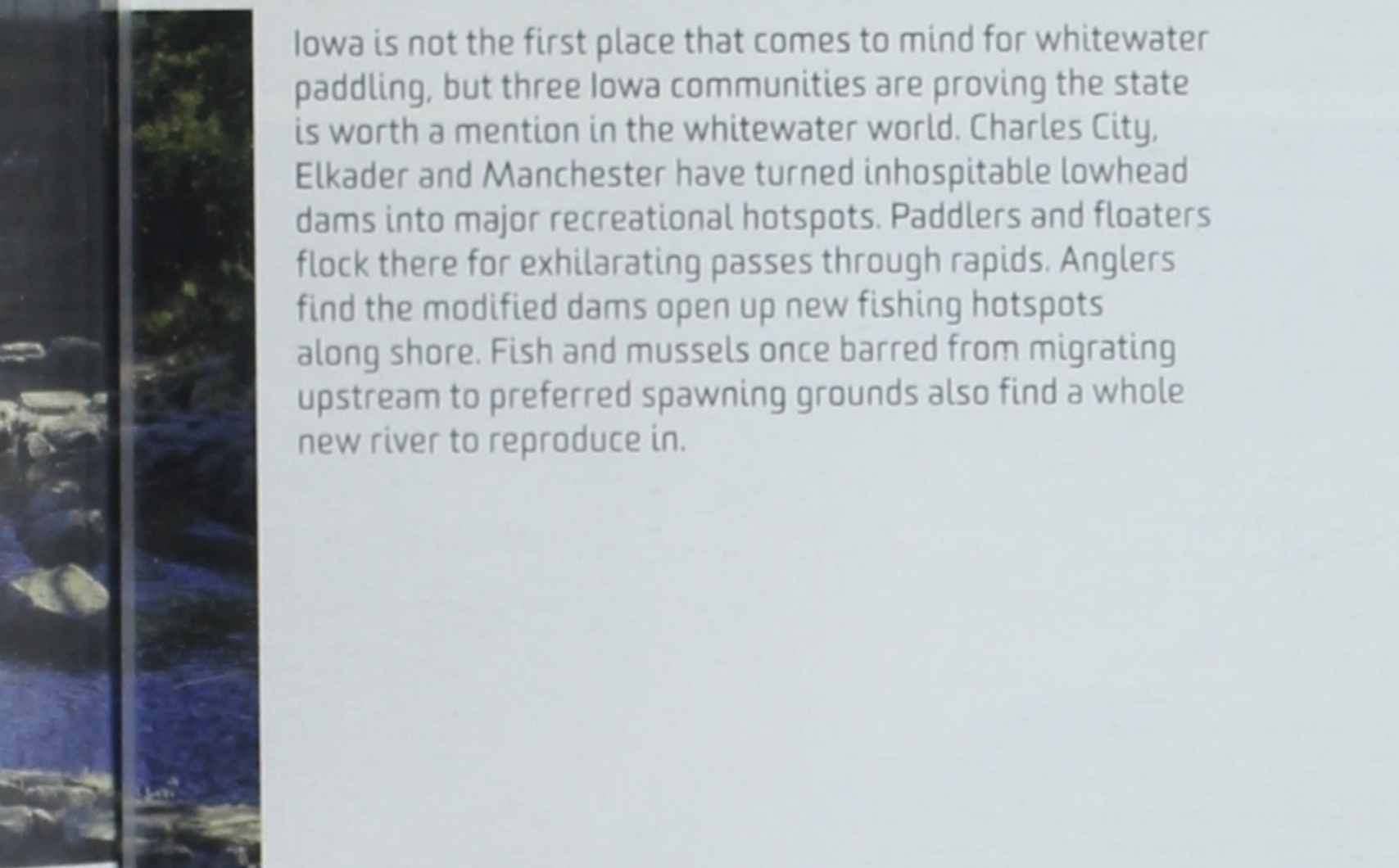
were created by slathering older, more fragile dams with concrete. Another lowhead building boom popped up in the 1930s, as post-depression labor set about constructing dams for aesthetic and conservation purposes. Unfortunately, many of these lowhead “beauty dams” have since outlived their intended lifespan and harmed river ecosystems by preventing fish and other wildlife from accessing the whole waterway. Dam construction continued for recreational and reservoir-creating purposes through the 1990s, including large impoundments at Saylorville, Red Rock, Coralville and Rathbun.

Turning THE Tide

In the 2000s, public attitudes towards lowhead dams were heading south. Dangerously strong hydraulics, or circular currents, can trap people, boats and debris just below a lowhead. The dams continued to earn their sickening accurate nickname “drowning machines”—claiming an average of two lives a year between 1990 and 2010. Lowheads also contribute to upstream flooding after heavy rains, as they block a substantial amount of flow across the entire river. Many dam owners were similarly unhappy, torn between preserving the historical significance of older dams and the cost of liability and maintaining such outdated structures. Conservationists and anglers worried as fish and other aquatic wildlife across the state continued to be cut off from the full range of their original habitats. And on top of it all, a slew of expensive structural failures showed the age and danger of undermined dams across the state.

In 2008, the DNR was instructed to develop extensive plans for recreational water trails, public safety campaigns and dam mitigation templates to address these concerns. Working with engineers, volunteers, communities and developers, the census of current dams and modification plans were nearly finished when disaster struck. In July of 2010, the Lake Delhi dam in eastern Iowa failed, draining a 9-mile reservoir in minutes. The failure released 200,000 cubic yards of sediment into the Maquoketa River, requiring dam repairs estimated at \$16 million.

While this failure was certainly costly, damaging and jarring, no one was killed and the experience was incorporated into Iowa’s official 2010 Plan for Dam Mitigation for handling such disasters in the future. It also spurred immediate work on modifications to dams on the Maquoketa River, including the removal of the Quaker Mill Dam, modification of the Manchester Dam



into the Manchester Whitewater Park and two more modification projects currently underway.

The 2010 dam inventory counted 177 lowheads in 57 counties. By spring 2016, approximately 20 percent of those dams were modified, with 14 projects on 11 rivers completed, and another 18 underway. Another 20 sites have been identified as having high potential for future projects.

Flush Out THE Fun

Since the 2010 plan, all dam modification projects are designed to accomplish four goals—improve wildlife habitat by minimizing sediment accumulation behind dams, reconnect rivers to reduce flooding and increase fish passage, increase recreational opportunities and safety, and spark economic development in the surrounding communities. However, as each river, dam and surrounding community are unique, modifications vary widely. In some cases the dam is removed, in others it's reduced or augmented with rock arch rapids or ramps, and in a select few it becomes a whitewater park. Iowa currently has whitewater attractions in three towns—Manchester, Elkader and Charles City, all in the river-rich northeast part of the state.

The first Iowa whitewater park was built in Charles City, and its three drops are favorite spots for lots of local paddlers including Graham, Hannah Childs and husband Marty Colbert.

“Even as the weather gets colder, it’s hard to find a day when there isn’t at least a handful of people on the water. Last year we kept paddling every weekend into mid-January, and about six weeks later we were up and running again in March,” says Childs.

The whitewater features and surrounding park received a National Smart Growth Award from the EPA in 2013.

In Elkader, a single wave called “The Gobbler” is the main attraction. Graham says it’s a fun but technically-tricky wave to master, again surrounded by an EPA-awarded park.

“I love the feature, but the best part is for every one person on the river, there’s four on the shore,” says paddler Tom Gifford. “This used to be a steel retaining wall and the town had its back to the river. The park totally changed that.”

“It’s a really unique thing for a smaller town to have,” agrees City Administrator Jennifer Cowser. “It’s much more attractive than the lowhead was, and if we can do it here anybody can do it.”



Lowhead dams once served a purpose, powering grain mills and producing electricity. Long past their original function, these aging dams are now known as “drowning machines,” as those who mistakenly go over them get caught in circular currents, unable to escape. But some recent modifications reduce or eliminate dangers and create extremely popular tourist destinations, drawing thousands of paddlers, tubers and anglers, saving repair costs and pumping tourism dollars into town. Vacant riverfronts are now frequented daily and venues for community celebrations and gathering places for spectators.





Even small lowhead dams can cause drowning



The Manchester Whitewater Park has six drops that attract everyone from first-time tubers to world-class whitewater buffs.

“In my opinion, all of these parks are spectacular—but Manchester is the best for getting started on,” says Graham. “It’s really friendly. I’ve never seen a community wrap its arms around a project like in Manchester.”

More projects are tentatively planned in Cedar Falls, Waterloo and potentially even Des Moines in coming years.

“It’s certainly a huge undertaking, but there’s a lot of talk about the dams in downtown Des Moines—the Center and Scott Street dams in particular,” says Graham. “Those dams alone have already killed 15 people. Imagine if that damage had been caused by an alligator in the river instead of a dam—do you think we’d still let it be there?”

In Waterloo, plans for a whitewater park are already underway. Mayor Quentin Hart says the change will beautify the river and contribute to a renaissance of the entire downtown area.

“It’s something both my predecessor and I have been really excited about, and it’s an investment in not only the city but the enjoyment of people who see that river every day,” Hart says.

Seeing THE Difference

Back in Manchester, Graham scrambles over the limestone gracefully, pointing out cool crystal formations, fossils and colors as a family skips rocks nearby.

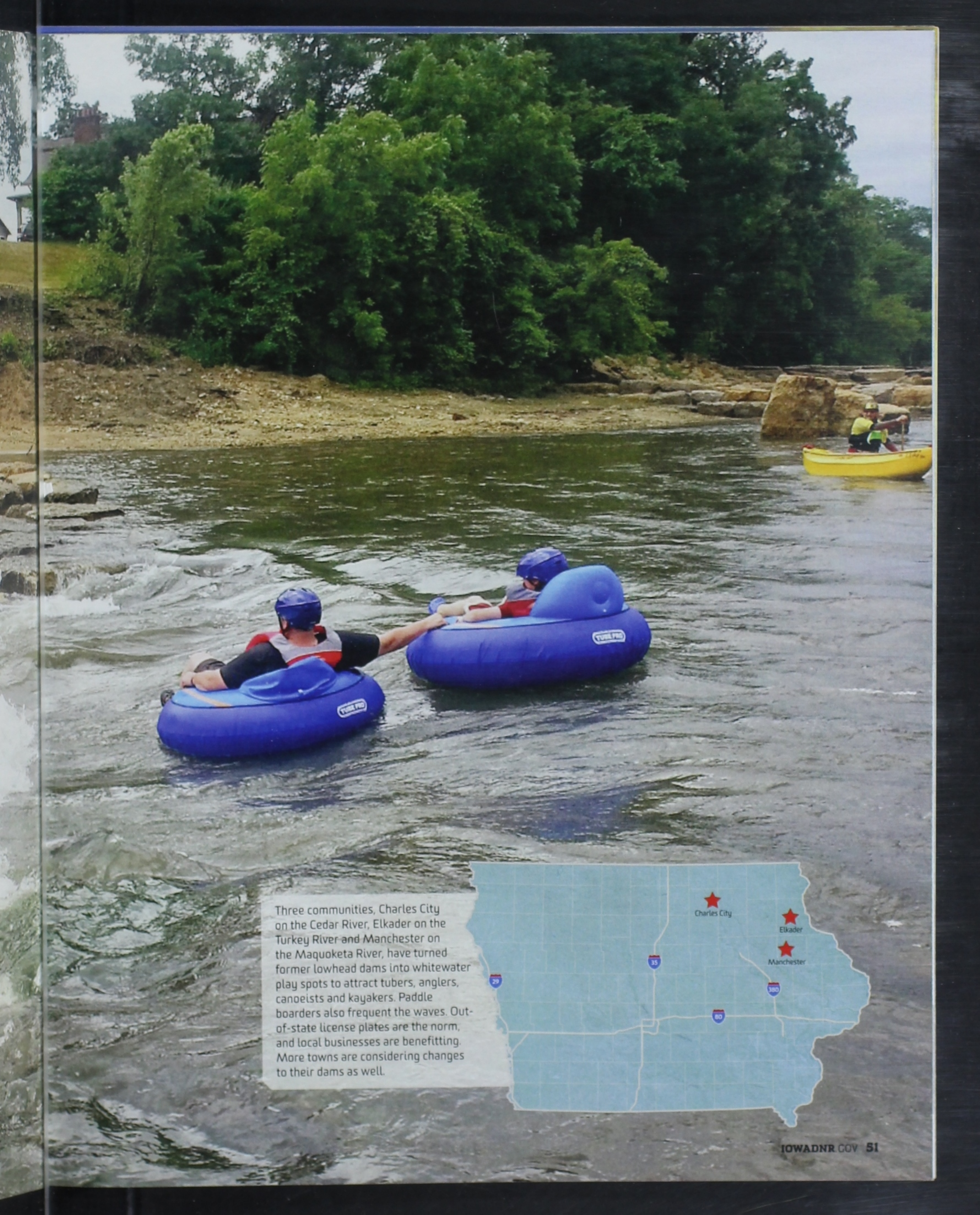
“These sorts of opportunities draw the community together because it’s the spot to be,” says Graham. “Families of all generations can be here together, kids can play in the little pools and on the rocks, and this past summer I noticed high school girls like sitting here to tan. Then you get more people, because what likes high school girls better than high school boys? And they bring all their friends and suddenly you’ve got droves of people, all with access to a river that used to be pooled up and stagnant.”

Standing at the lowest drop, Graham points across the river at a cut silhouette of concrete sticking out from under the bridge.

“That’s the end of the dam we removed, and it’s so much higher than the gradual drops we have now,” Graham says. The drop from the top of the silhouette to the water below is easily six feet.

“We wanted to leave that visible, as a little reminder of how this used to be and the difference these projects can make.”





Three communities, Charles City on the Cedar River, Elkader on the Turkey River and Manchester on the Maquoketa River, have turned former lowhead dams into whitewater play spots to attract tubers, anglers, canoeists and kayakers. Paddle boarders also frequent the waves. Out-of-state license plates are the norm, and local businesses are benefitting. More towns are considering changes to their dams as well.



RETURN OF IOWA'S ORIGINAL Master Angler



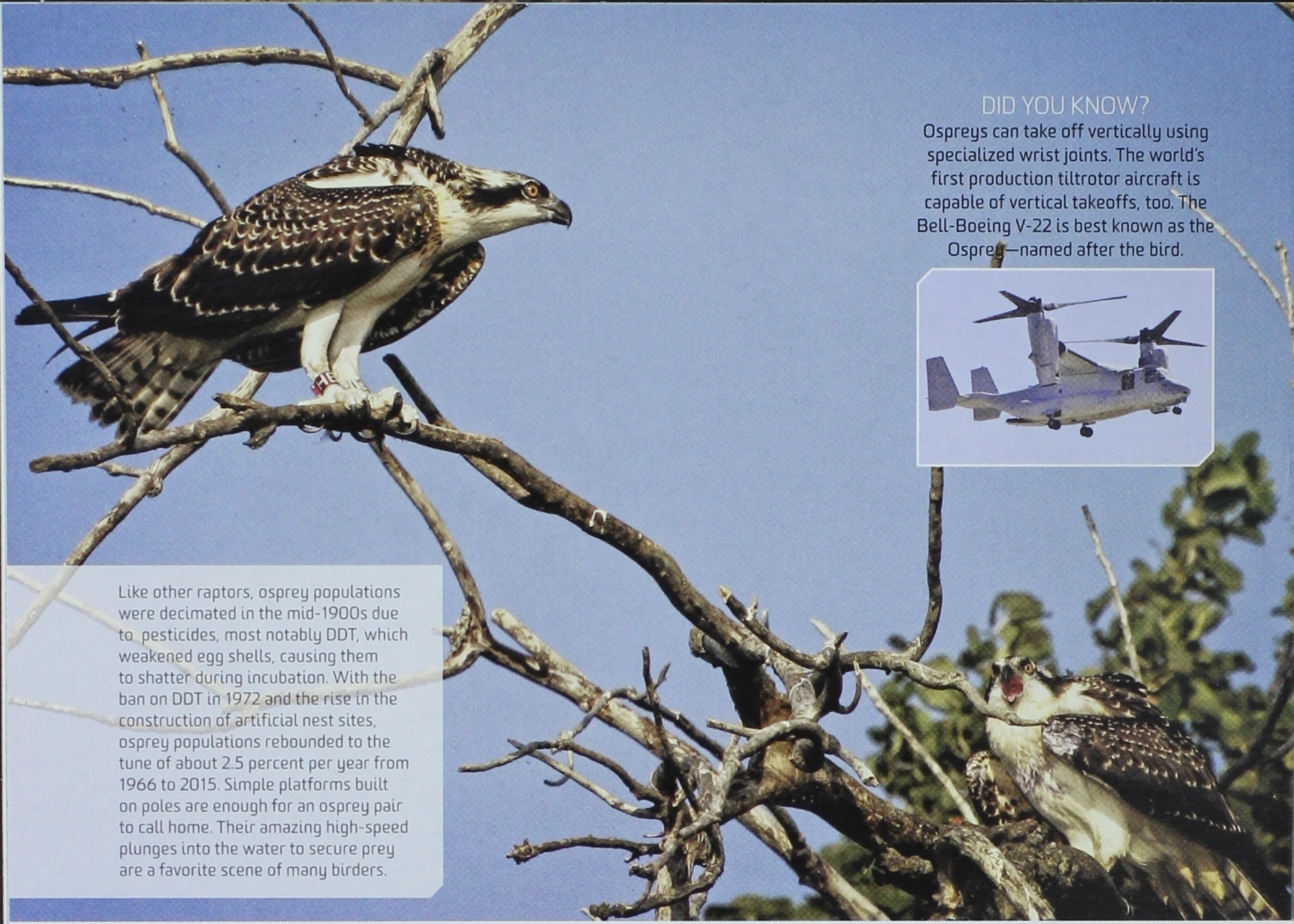
FISHING PERFECTION IN FEATHERS
BY PAT SCHLARBAUM PHOTOS BY LOWELL WASHBURN

From a hundred feet in the air, a hovering angler folds its wings, silently slipping downward like lightning from the sky, careening until a four-foot portion of the lake thunders into plumes of diamondized water droplets. Completely immersed, the feathered predator floats to the surface, emerging with a fish in its talons. The bird pushes against the water with its wings, then hops through water's cohesive forces. A third, then fourth, labored wing-beat increases its height from the lake's surface.

In a remarkable finale, the fishing raptor shakes off excess water like a wriggling dog while again gliding ever so closely to the lake's shimmering surface. Positioning the fish



Pack binoculars and a camera and head to northwest Iowa's Spirit Lake, which features three osprey nests, or a little further south to Brown's Lake south of Sioux City in Woodbury County. To the east, Lake MacBride near Solon is the go-to spot. Closer to Des Moines, try Walnut Woods State Park or Wells Fargo Headquarters, both in West Des Moines, or Quarry Springs Park in Colfax. Check out the osprey cam highlighting the Wells Fargo birds. Search "osprey cams" at iowadnr.gov.



DID YOU KNOW?

Ospreys can take off vertically using specialized wrist joints. The world's first production tiltrotor aircraft is capable of vertical takeoffs, too. The Bell-Boeing V-22 is best known as the Osprey—named after the bird.



Like other raptors, osprey populations were decimated in the mid-1900s due to pesticides, most notably DDT, which weakened egg shells, causing them to shatter during incubation. With the ban on DDT in 1972 and the rise in the construction of artificial nest sites, osprey populations rebounded to the tune of about 2.5 percent per year from 1966 to 2015. Simple platforms built on poles are enough for an osprey pair to call home. Their amazing high-speed plunges into the water to secure prey are a favorite scene of many birders.

straight ahead, torpedo-style in its talons, the osprey begins stroking upward, its slippery prey secured. Watching this incredible display of feathered fishing perfection reminds you how ineffectual human anglers are versus an osprey.

Ospreys are well equipped for obtaining a fish meal. They can see five times more clearly than people to easily spot prey. As archers realize when bow-fishing, underwater targets are not where they appear, an optical illusion created as light refracts or bends after entering water. Ospreys know to compensate and strike their fish where it actually is beneath the surface versus where it appears. In flight, ospreys close the nictitating membrane, a thin layer of clear tissue like an inner eyelid, over their eyes to keep the eye moist. During a dive the membrane protects the eyes when ospreys wallop the water.

They are the only raptor with nose flaps that close, so they can grab fish up to three feet under the surface. The ospreys' pale-bluish toes are tipped with nature's finest fishhooks—talons, sharp as needles. Toes have roughened protuberances or "spicules" to hold slippery fish, and outside toes are capable of swiveling backward to join the rear toe or "hallux" (two toes clamping with

two toes versus the standard three toes and hallux). This allows grasping fish torpedo-style, which reduces wind resistance in flight. Ospreys can also vertically lift off from water, unlike most birds that use the surface more like a runway. To do so, osprey use specialized wrist joints or carpals. These anatomical tools make ospreys unique among raptors. No other birds of prey combine all of these capabilities into one species.

Return of Iowa's Ospreys

Prior to recent reintroduction, there was no documented evidence of osprey nesting in Iowa since settlement as Iowa's earliest Europeans viewed ospreys as competition for fish and the species was quickly eradicated. A report in 1892 indicated a nest might have occurred along the Cedar River, but the addled egg was not recognized by the Iowa Ornithologists' Union of that time as positive proof. But according to tribal elders of the Omaha and Yankton nations, accounts of ospreys nesting along Iowa waterways are included in their traditional stories. These indigenous people have lived throughout northwestern Iowa for thousands of years.

Male ospreys show strong fidelity to ancestral breeding areas, preferring to nest colonially where adults originated. Females may disperse hundreds of miles

from
about
low di
prime
help s
lack n
surviv
With
county
U.S. A
exists
numer
these
where
the las
has inc
grown
range
DNR o
not rea
experie
pairs in
are in j
success



from their origin. However, males generally return within about 100 miles of their origin in Iowa. Due to these very low dispersal tendencies by males, young ospreys are prime candidates for relocation. Conservation efforts help spread young to geographically diverse areas that lack nesting osprey. This strategy will improve nestling survival and complete distribution across the nation.

With construction of lakes and reservoirs by the DNR, county conservation boards, private industry, and the U.S. Army Corps of Engineers, potential osprey habitat exists today that was previously unavailable. There are numerous summertime sightings of osprey in Iowa, but these young, non-breeding birds evidently return to where they were reared for mating and nesting. During the last 20 years, the number of migrants through Iowa has increased as breeding populations to the north have grown. Despite this, little expansion of their breeding range is taking place naturally. Minnesota and Wisconsin DNR officials suggest that ospreys, in our lifetime, do not readily pioneer new breeding ranges. Instead, they experience suppressed reproduction as density of nesting pairs increase. Scientists know that raptor populations are in jeopardy of crashing when the average fledging success of young per nest approaches 0.8 chicks per

nest. To avoid this, young osprey from Wisconsin and Minnesota are being relocated to areas with suitable habitat in southern Minnesota, Iowa, South Dakota, Kansas, Missouri and Ohio.

In early July, young ospreys in Minnesota and Wisconsin are evaluated for potential relocation. Nests with more than one young are located and staff from The Raptor Center in St. Paul examine ospreys for relocation suitability. When approved, birds are driven to release sites and placed in carefully constructed release towers called hack sites. Hack sites are predator-proof 8-foot cubes with bars on the front that provide visibility of surroundings. By quietly viewing ospreys through one-way mirrored glass or from monitors, detailed observations of each bird's temperament and condition are logged daily. Trained volunteers feed the young in a manner so the birds do not imprint on people.

When ospreys are approximately 53 days of age, they are full-grown with rapidly developing feathers and are ready for release. The birds are heavier than adults, due to built-in fat reserves until self-sufficiency is achieved. The bars or gate are opened to release the osprey. Great care is exercised to ensure young are not startled into their first flight—at this stage of development, the less

Nesting AND Annual Migration

Nests are built at varying heights upon any structure, natural or man-made, that provides a platform. Ospreys occasionally nest on or near the ground or upon buoys over water. Nests are usually one foot deep, four to five feet wide, made of sticks and lined with grass. Visibility is important in nest-site selection to provide commanding views of the surroundings. They are usually located on prominent landforms, peninsulas or islands with few, or preferably no, tree branches higher than the nest.

Osprey clutches consist of three or four creamy white and heavily spotted brown eggs laid at two-to-three-day intervals in late May. After the first egg is laid, incubation lasts 38 days, dominated by the female. Both parents have "brood patches" or featherless areas on the abdomen to incubate eggs next to warm skin. The male provides food for the female and brood after hatching. The female remains in constant attendance the first 30 days, providing protection from the elements and predators such as raccoons, gulls, crows and owls. When predators are near, camouflaged nestlings lie outstretched and motionless as a defense.

At 42 days, young can tear apart fish that are provided by their parents and around 53 days, first flight occurs. Young quickly acquire fishing skills and gradually expand their range until dispersal in late August. Immature ospreys spend up to 18 months at their over-wintering areas in Central and South America. Some ospreys migrate 4,000 miles. Adults attain sexual maturity at three to four years of age. First-year bird mortality is 51 to 57 percent with adult mortality at 16 to 20 percent annually. Average life expectancy can be 15 years. An osprey may migrate over 62,000 miles in a lifetime—about 2.5 times around the world!

Ospreys were heavily affected in the 1950s, by DDT pesticides which caused abnormally thin eggshells. Egg breakage led to severely lowered populations. Osprey populations have shown a gradual increase since DDT and similar substances were banned in the United States in 1972. By 1981, 8,000 osprey pairs existed in the lower 48 states, and by 1994 the number bumped to 14,109 pairs.

GET INVOLVED

Become a citizen scientist and help wildlife diversity staff monitor osprey populations. Report osprey nest discoveries at VWMP@dnr.iowa.gov, or call Stephanie Shepherd at [515-432-2823](tel:515-432-2823).





Revered by Ancients

The osprey's scientific name, *Pandion haliaetus*, comes from the mythical king of Athens, Pandion, whose daughters were turned into birds, and by the Greek words halos, referring to the sea, and aetos, or eagle. Ospreys, commonly called fish hawks or fish eagles, are neither a true hawk nor eagle. The species is of ancient lineage and is presently classified near the hawk-like kite family. The common name osprey is from ossifragus, a Latin word meaning "bone breaker," referring to the strong grip of its talons.

Osprey fossils, bones and other clues show ospreys have been on earth for 13 million years.

People have long admired the osprey's fishing skills and strength, incorporating them into their cultures. Ancient Greeks thought ospreys could predict lightning. Asian emperors had osprey pictures woven into palace tapestries. In South America, people used osprey feathers and bones in ceremonies to guarantee fishing success. In Canada, a Northwest Coast tribal legend tells of a marriage between an osprey and a whale that created the orca whale. The black and white orca is the largest member of the dolphin family. It jumps out of the water like a bird in flight and has a cry that sounds like an osprey.



Ospreys primarily winter in South America, and while they breed across North America, the greatest density of breeding pairs is in the extreme northwest and northeast United States into Canada and the Yukon and Northwest territories. While a yearly resident of some southern states, the osprey is considered a long-distance migrator. In fact, an osprey may log as many as 160,000 migration miles in its 15- to 20-year life. One radio-transmitted bird was tracked leaving Martha's Vineyard in September 2008, arriving in French Guyana 13 days later—a journey of 2,700 miles.



disturbance or drama, the better. Once ospreys have flown, volunteer spotters monitor the birds' movements, either from shore or in boats for the first few days. Young ospreys can fly well the first time out, but the return landing is difficult. As with other raptors, returning to a perch near the hack box can be fatal for young flyers. After ospreys fledge, volunteers supplement the birds' diets with fish at the hack site, until birds begin fishing on their own and self-sufficiency is achieved.

The DNR assists conservation partners with technical assistance, encouragement and fish to successfully release ospreys in Iowa. Jodeane Cancilla, now with Raptor Advocacy Rehabilitation and Education, spearheaded the work when she was with the Macbride Raptor Project located near Coralville Reservoir. Beginning in 1997, four or five young ospreys have been released annually at their facility. Since that time, Vern Fish of the Hartman Reserve Nature Center in Cedar Falls initiated a local release in 1998. Heather Freidhof of Boone County Conservation Board and Joe Boyles of the Polk County Conservation Board coordinated a release at Saylorville Reservoir in 2000. Conservation boards and volunteer groups have placed ospreys at Clear Lake and numerous counties—Linn, Marion, Dickinson, Dubuque, Warren and Carroll. The White Rock Conservancy placed

osprey in Guthrie County. The U.S. Army Corps of Engineers provides distinguished service for releases at Coralville and Saylorville reservoirs. Assisted by hundreds of volunteers, these conservation organizations have devoted their efforts to bring ospreys to Iowa as a nesting species.

Today, there are 23 active osprey nest territories in the state. Much of the success of Iowa's osprey project stems from Minnesota Power Company. Bill Fraundorf, an environmental scientist with the utility, has coordinated the transfer of Minnesota ospreys to Iowa. Iowans owe a tremendous "thank you" for their hard work and generosity.

Nesting platforms have been placed near all release sites in anticipation of returning osprey use. Bill Fraundorf, Mark Martell of Minnesota Audubon, Pat Manthey and Lowell Tesky of Wisconsin DNR, assisted by The Raptor Center of St. Paul, provide ospreys for Iowa releases.

In 2000, an osprey nesting attempt occurred in northwestern Iowa. It was believed the pair was the result of ospreys released by Minnesota's DNR in the mid-1990s at Heron Lake in southwestern Minnesota, approximately 25 miles north of the nest. No eggs were laid, but years later, they successfully nested at Spirit Lake Middle School in 2003. 🐾

CAM
Dark p
wing o
the da
gulls d
one lar
An
the un
on top
below-
look li
The br
striped
the win
in fligh
camouf
large ov
particul
To cam
dark sp
through
sunglas
reduce
used un
eyes are
beak, gr
talons d
no glare
human f
of kerati
grows ba



Osprey

These fishing raptors weigh between 2.5 and 4.5 pounds. Its six-foot wingspan is so large it is sometimes mistaken for an eagle, but an osprey's wing is narrower and curves backward at the wrist, like the wing of a gull. An osprey's forehead is smooth as they don't fly through trees or tall grass to catch prey, they don't need protective bony ridges above their eyes that other raptors have.

CAMOUFLAGED FLIGHT

Dark patches on the underside of each wing confuse prey. From a distance the dark spots look like two small gulls dipping and soaring rather than one large bird about to strike.

An osprey wears light colors on the underside of its body and dark on top. To its prey—fish swimming below—white feathers on its chest look like the light colors of the sky. The brown and white barred, or evenly striped, feathers on the underside of the wings and tail help hide its shape in flight. Dark colors atop its back camouflage them from predators, like large owls that attack from above, particularly when they're on the nest. To camouflage its head, osprey sport dark spots on top, and a dark stripe through its eye area, like wraparound sunglasses. This eye stripe may reduce sun glare, like the blacking used under the eyes of athletes. Adult eyes are yellow. Its brown hooked beak, gray legs and feet, and black talons don't reflect sunlight, so there's no glare to give away its position. Like human fingernails, its talons are made of keratin. If part of a talon breaks it grows back.

AERIAL ANGLER EXTRAORDINAIRE

While hunting, ospreys can spot a fish two hundred feet away. When diving for prey, osprey enter the water at about 40 mph. They do not pursue fish underwater like loons or cormorants. A family with two young needs 4 to 5 fish per day—generally in the range of 5 - 12 inches in length. With their attention focused on the bottom, scavenging fish such as bullheads and carp make easy pickings for an osprey attack from above. A fish is usually successfully snagged in one out of three tries. Ospreys are known to carry fish up to five miles to remote nests.

7 Tips and Tricks For Starting a Care-free Pollinator Garden



Not all creatures are oversized. Small animals, including insects and hummingbirds, are responsible for helping bring us everything from cotton for clothes to strawberries in the supermarket. According to the American Honeybee Federation, honeybees are responsible for up to 90 percent of the pollination of certain crops, and contribute over \$14 billion to the U.S. agricultural industry. With recent declines in honeybee and monarch butterfly populations, you can help local pollinators by creating backyard habitat. Whether just a few plants in a pot or a whole backyard prairie, there are plenty of options.

1. Feed the Needs

Like any animal, a bee or butterfly has basic needs to survive. If you provide these needs in close proximity, you're much more likely to attract and retain pollinators. The four basic needs are food, shelter, water and air. Plant some flowering plants to provide nectar for food, and grasses and shrubs to provide shelter and protection from predators. Install a small water feature like a birdbath, and leave some open space for pollinators to move around in. If you want an artificial feeding spot to fill in between flowering seasons, place a shallow dish of room-temperature sugar water near plants for pollinators to drink. Make sure the solution is fairly dilute—think 1:10 sugar to water ratio. Diluted sports drinks and overripe fruit can also be excellent attractants.

2. Think Local

If you want local fauna, you need local flora. Native flowering plants like bergamot, butterfly milkweed and coneflower can bring in birds and bees without sacrificing color. Especially if you don't like pulling weeds, native

plants are a great choice. Perennials require little maintenance year to year, and their varied growth will either shade out or hide weeds. For a listing of native plants by growth type, search "native plants" at iowadot.gov. The list also shows each plant's preferred environment, flower color and much more. Asters, goldenrods, golden Alexander and milkweeds are great for attracting butterflies, and closed flowering plants like bottle gentian attract bumblebees, which literally bumble their way into the flower. This can be highly entertaining to watch as the bees may stumble or fall off of the flower while trying to get inside.

3. Fit Your Family

As much as you may want butterflies, bees and hummingbirds to visit your yard, you want to be able to use it yourself too. Consider characteristics you want out of your plantings like smell, color, height, shape or resilience to being stepped on, and do some research to find what best fits your needs. If you have pets or young children, look for non-toxic plants like phlox, coneflowers, roses and catnip.

4. Change It Up

No matter what you want to plant, variation is good. Choose plants that flower at different times for visual variation in your garden and yield food for pollinators all season. Plant native grasses and flowery shrubs next to each other for maximum effect, and avoid pesticides and other chemicals.

5. Spread the Love

Some plants, like milkweed, grow seed pods that easily facilitate seed-sharing with neighbors. Other perennials can be split and transplanted. Inspire others to garden by giving potted

Yellow coneflower



flow
gras
6.
Unfe
mon
dras
thos
tagg
Wate
num
mon
Butte
and a
They
grow
it eve
as a b
Park
encou
and in
more
7.
While
as wel
defeat
remen
defens
reason
is they
with p
more v
insects
or wate
like tre
keep w
your ya



Purple coneflower

flowering plants, seeds, transplants or grasses as a gift.

6. More for Monarchs

Unfortunately, the well-known, beloved monarch butterfly is experiencing drastic population declines. Help track those that come through your yard by tagging them with tags from Monarch Watch (monarchwatch.org). Tag numbers can be tracked to see if your monarchs make the entire migration. Butterfly-rearing kits are also available and a great hands-on project for kids. They can watch monarch caterpillars grow, feed it milkweed leaves and see it eventually emerge from its chrysalis as a butterfly. Central Iowa's Blank Park Zoo hosts "Plant. Grow. Fly." to encourage more people to learn about and invest in pollinator gardens. Learn more at blankparkzoo.com.

7. Birds and Bees

While you might think attracting insects as well as birds in the same yard is self-defeating (many birds dine on insects) remember many pollinators have defenses against predation. Another reason to create a bird-friendly habitat is they eat harmful insects that compete with pollinators. Birds generally need more water and more cover than insects, so consider installing a birdbath or water feature and planting shelter like trees and shrubs. Remember to keep water fresh, and attract birds into your yard with a feeder or two.

DNR's Top Picks For Native Perennials

Native plants are resilient and care-free, perfect for busy homeowners with limited time. Approximately 250 native prairie plants (think sun-loving) provide choices galore to pick what's right for you—color, fragrance, height, early or late bloomers or ones that flower all season. Consider what pollinators you would like to attract and the benefits to wildlife. Most native plants help rains percolate deep into the ground to reduce runoff and protect water quality.

Here are seven DNR top picks for a better landscape that bursts with curb appeal.

1. Golden Alexander is an early bloomer with yellow blooms that resemble Queen Anne's lace. Blooms April to June.
2. Don't be fooled by the name, spiderworts are attractive near the front of the garden. Blooms April through July. Grows 1 to 2 feet tall.
3. Milkweeds are critical hosts to monarchs—serving as essential food for caterpillars. The DNR suggests yellow-orange butterfly milkweed for most areas, or rose-colored swamp milkweed for wet, poorly-drained soils. Butterfly milkweed grows 1 to 2 feet taller than swamp milkweed.
4. Celebrate Fourth of July with wild bergamot. Its blooms resemble a cascade of fireworks. Also called horsemint, it has a pleasing fragrance and blooms July through August.
5. Yellow coneflower and black-eyed Susans provide splashes of brilliant summer and fall color and a licorice smell. Both are easy to establish and care for. Coneflowers grow 2 to 3 feet tall and bloom June through September. Black-eyed Susans are a smidge shorter and bloom August to October.

6. Bottle gentian and great blue lobelia are perfect companions to yellow coneflower and black-eyed Susans. Blooming together, the brilliant deep purple of bottle gentian and great blue lobelia mixed with the bright yellows of black-eyed Susans and yellow cone-flowers make stunning garden displays.

7. For long-lasting light pastel purple and yellow colors, plant New England aster and stiff goldenrod, respectively. Stiff goldenrod blooms August to October. Asters have a shorter season, flowering September to October.

OTHER TOP PICKS

Reiman Gardens in Ames recommends these native and non-native plants for pollinators.

Perennials: milkweeds, cone-flowers, Joe-pye weed, ironweed, blazing star, clovers, purple prairie clover, violets. Goldenrods, bee balm, butterfly bush, salvia, asters, black-eyed Susan, dame's rocket, fleabane, phlox, globe thistle, hyssop, leadplant, penstemons, mints, stonecrop sedum.

Annuals: cosmos, lantana, salvia, heliotrope, marigold, zinnias

Nectar trees: basswood, sugar and silver maple, Kentucky coffeetree, little leaf linden, cherry.

Nectar shrubs: American elder, arrowwood, nannyberry, highbush cranberry, buttonbush, false indigo, fragrant sumac, American hazelnut, ninebark, serviceberry, silky, grey and redosier dogwoods, wild pasture rose, rugosa rose.

Want to learn more? Visit the Iowa Native Plant Society at iowanativeplants.org.

Warden's Diary

BY ERIKA BILLERBECK



RADIOACTIVE

Wait a second...I have to do what? This seems like it might be one of those tasks not specifically spelled out in the job description. I'm guessing it is filed under the all-encompassing "various other duties as assigned" section. Or maybe I overlooked some fine print in the job offer, or possibly fell asleep during an important meeting where they told us about this.

Either way, when I envision a "nuclear disaster" occurring at the plant located within 20 miles of my home, I simultaneously see myself on a beach in Hawaii, or on a quiet lake in the Boundary Waters, or maybe on a flight to Alaska. In any case, I am certainly nowhere near "the plume" wearing gloves, checking my personal radiation exposure levels and double bagging dead animals. Except that I am. I guess.

Following an email invitation from my supervisor, I arrived at the Linn County Emergency Management building one morning for nuclear disaster training along with a few other DNR employees. My supervisor sounded very casual in his email...the time of the training... just wanted us to be aware of what to do...just in case ... there will be lunch served...no big deal. Okay, he didn't actually say "no big deal," because those aren't words my supervisor uses, but I definitely got the vibe this wasn't something to worry about.

Soon after sitting down at the training, however, I had a bad feeling. The room seemed to be full of important-looking people—perhaps even more important than me? I think so...because before even having a chance to choose a donut from the box, the DNR employees were labeled the "sampling team" and shuffled off to another

room to learn about staying "clean" in a radioactively "contaminated" area.

Here is a list of what I learned about staying clean in a contaminated area: You cannot stay clean in a contaminated area.


We were told that in the event of a radiation release, the sampling team's goal is to verify the computer simulation models are correct. Our job will be to go into areas the computer deemed "clean" and take water and animal samples to test whether they are, in fact, clean. We would also take samples in "contaminated" areas to make sure they are actually contaminated.

The trainers taught us how to "don and doff" our protective equipment (I pretty much wrote this Warden's Diary because I enjoy saying "don and doff.") Donning and doffing dirty gloves involves turning them inside out without ever touching the bad side. If you touch the dirty side, you are re-contaminated.

Here is what I learned about proper donning and doffing: Try to remain the "clean" person whose job it is (or so I firmly believe) to "observe" the other unlucky person taking dirty samples.

We were issued personal dosimeters which, during a real disaster, would be read by the wearer every 30 minutes. Upon reaching a certain exposure limit, the wearer is required to return to the decontamination station to be cleaned and sent home.

Personal dosimeters look like mini kaleidoscopes, except that when you hold it up to the light and peer into one end, you don't see happy, colorful patterns. Instead, you see a sad numerical scale, telling you your radiation exposure.

A photograph of a forest path. In the foreground, a large, textured tree trunk is visible on the right side, partially obscuring the path. The path leads into a dense forest with green foliage. The sky is bright and slightly hazy.

We sat in the room and practiced reading dosimeters. Since this was only a drill, the scales should have read a big, fat, zero...but several people pointed out their dosimeters were already up to 8 on the scale. This fact was slightly—actually very—disturbing, but we were told that holding the dosimeter incorrectly causes readings to be much higher than it actually was.

Here is what I learned about dosimeters: Try to be the person serving lunch in the clean area of the decontamination station, and not one of the sampling team needing to be cleaned at the decontamination station.

Then it was time to practice our skills. First we gathered our sampling supplies. I expected to be issued some type of high-tech equipment for such an important task, but was sadly disappointed to learn our gear consisted of cleaned out milk jugs, garbage bags, rope and Sharpies. We headed to a nearby pond where we tossed a milk jug into the water and reeled it back in for a sample.

As we stood by the pond, the trainers pointed out the myriad ways in which we could become contaminated...walking through tall grass, setting equipment on the ground and picking it back up, shaking out a plastic bag, touching a dirty item then touching a clean item, falling into the water, etc. etc.

Next we were supposed to pretend to take an animal sample. Harvesting an animal was potentially the more exciting of the two samples, but I found it hard to concentrate on the trainer's instructions. My imagination was getting the best of me as I was continually distracted by the brisk wind whipping over the potentially contaminated ground and potentially sending gazillions of particles of potentially radioactive dust into my now potentially contaminated eyes and mouth. I decided to not open my mouth anymore. If this deal was anything like catching a cold from my snot-infested kids, I would be doomed no matter how safely I donned and doffed.

Soon after walking into the field, we spotted our target animal. It was a strange species—some kind of a hybrid of a kitty cat with rabbit ears. Had they planted a truly radioactive beast? Don't be silly...it was only a stuffed animal, belonging to the daughter of one of the trainers. And if I were him, I would constantly be yelling at my kid to "Keep that thing away from your face," from that day forward, as once it was properly double-bagged and labeled from a "known contaminated area" by a fully uniformed conservation officer, it no longer looked like a fun toy.

Here is what I learned about sample taking: Be sure to hold my dosimeter incorrectly to ensure a false high reading to guarantee an early ride to the decontamination station.

Of course, this whole Warden's Diary is written in jest... Because of course I am super-dedicated. I will respond to anything at any time if my supervisor requests my help. I would never dream of going to Hawaii—even if the plume is right over the top of my house. But sometimes. You know. Sometimes unfortunate things happen. Your squad truck runs out of gas. You have to deliver a baby on the roadside. You come down with explosive vomiting. You need to use up comp time. You break an arm.

And those things can't be helped. 🐼

Barn Owls are one of Iowa's endangered species.



Join Us! Lucas County Birding Festival May 5-7, 2017 • Chariton

Bird Walks • Field Trips
Children's Activities • Educational Speakers
Iowa Ornithologist's Union Spring Meeting
Banquet & Keynote Speaker

Visit lucascountytourism.org
for more information.

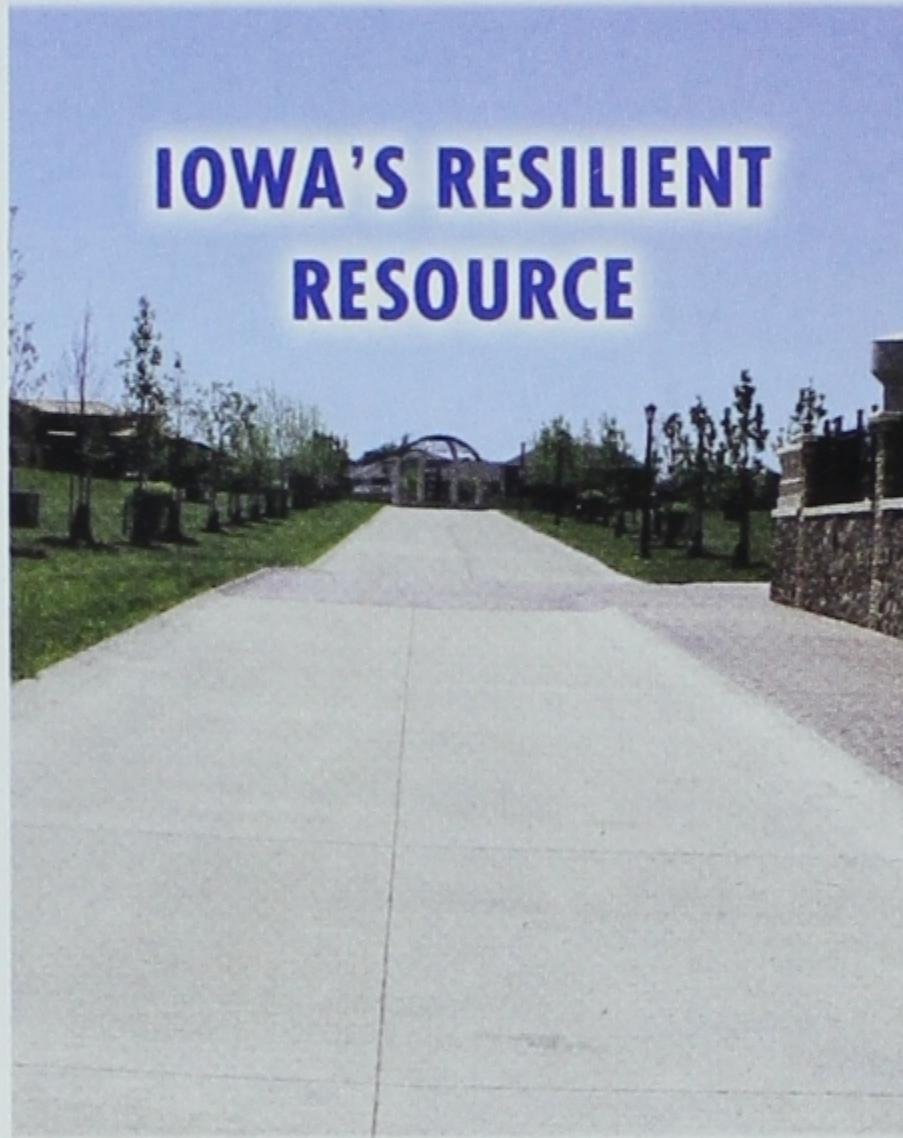
This project sponsored in part by:



104 N. Grand, Chariton, IA, 50049
641.774.4059 | lucascountytourism.org



IOWA'S RESILIENT RESOURCE



IOWA FALLS



Cruise on the Empress Riverboat, kayak or canoe down the beautiful Iowa River. Then explore the Calkins Nature Center, ride the recreational trails, and shop in our historic district. And recharge your batteries at our local B&B's or motels.

iowafallschamber.com • 877.648.5549



Reserve your campsite or cabin today!

iowadnr.gov/stateparks

SU
Nor
four
talu
Wh
cool
win
out
air
pere
from
flow
Seed
plant

DON
North
signi
devel
tech
nutri
wildf
deep
fens,
plant
fragil
were
habita
monk
less th
Wisco

NO P
This n
on bot
weren
levels,
be a ba
of the
anima
due to
used fo
creatur
one of
Aconite
of rabie
The Colu
of mon
and her
general
impairm
and par
to death
through

DNR FILE PHOTO

Northern Wild Monkshood (*Aconitum noveboracense*)

SUNSHINE IS OVERRATED

Northern monkshood is a threatened plant found on rocky, shady, cold streambanks and talus slopes like those in northeastern Iowa. Why talus? The porous rock collects ice and cools air in little crevices throughout the winter. Later, this cool, humid air is pushed out by a pressure differential as surrounding air temperatures rise in the summer. The perennial monkshood pushes up each year from both fallen seeds and small tubers, and flowers from late June through late September. Seed dispersal is sometimes aided by the plant's proximity to moving water.

DON'T TREAD ON ME

Northern wild monkshood has lost a significant part of its range due to urban development, past wetland management techniques, pesticides and herbicides and nutrient leaching from agricultural sites. The wildflower grows best in acidic areas lacking deep soil, like loose sandstone or peat from fens, and is competitively ousted by other plants as nutrient levels rise. In the past, fragile wetlands like fens or prairie potholes were filled in for agriculture, pushing out habitat-picky plants like northern wild monkshood. Today the species is found in less than 100 locations in Ohio, New York, Wisconsin and Iowa, primarily the latter two.

NO PICKING

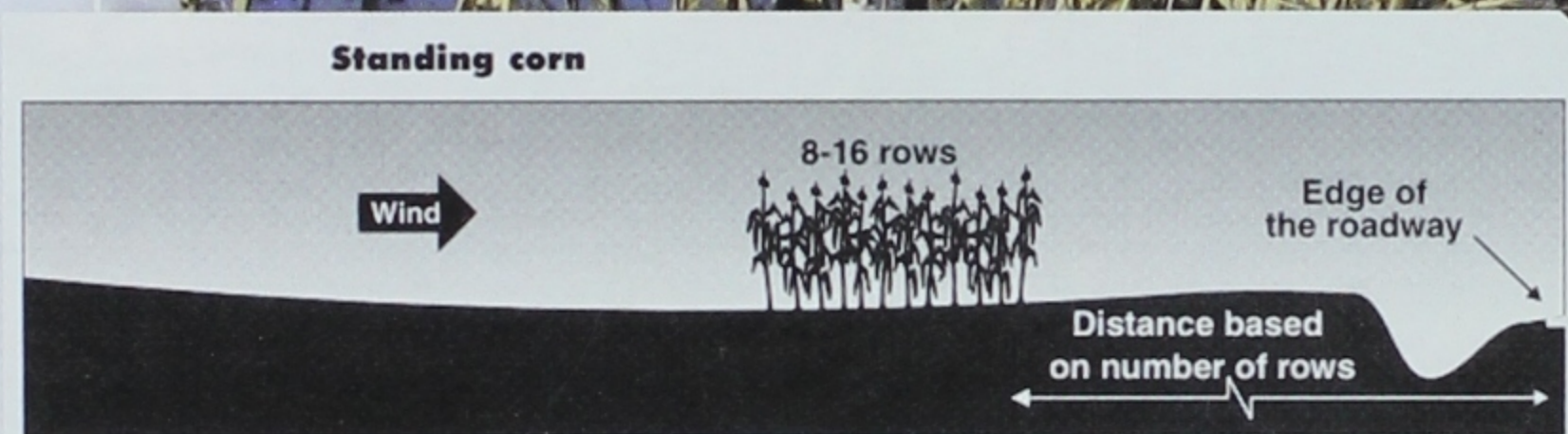
This native wildflower is rare and threatened on both federal and state levels. Even if they weren't reaching disturbingly low population levels, plucking these flowers would still be a bad idea. Although pretty, all parts of the plant are poisonous to humans and animals, especially the roots and leaves, due to aconite, a compound historically used for making poison arrows for hunting creatures like wolves. This earned the plant one of its common names: wolf's bane. Aconite poisoning is similar to the symptoms of rabies. According to a 2010 story in *The Columbus Dispatch*, "Eat a handful of monkshood and its aconitine alkaloids, and here's your fate: diarrhea, vomiting, general weakness and anxiety, numbness, impairment of sight and speech, convulsions and paralysis." Eat enough, and it could lead to death. The toxin can also be absorbed through the skin.

BUFF BUMBLES

The plant's distinctive blue flowers turn down and appear to be covered, or "hooded," and each is approximately an inch long. These flowers are primarily pollinated by bumblebees, because the hood-like sepals covering each flower make it difficult for weaker insects like flies and butterflies to reach the flowers' nectar and pollen. Multiple flowers grow on a single stem, and each stem can grow up to 4 feet tall. Like most flowering plants, northern wild monkshood is occasionally found as a white flower morph.



How to GROW Improved Highway Safety



Spring is around the corner and thoughts of planting are in the minds of farmers. The Iowa Department of Transportation is asking farmers to think even further down the road and consider planting corn that can be left in the fields next winter to serve as snowfence.

The decades-old “Standing Corn” program pays farmers to leave corn in a field where stalks might reduce the amount of blowing and drifting snow on the adjacent road. The updated program pays farmers \$5 per bushel of corn for leaving eight to 16 rows standing. Ideal locations are plots of land along U.S. or state highways where the terrain is open and flat.

Local Iowa DOT workers know the lay of the land in their area and can easily identify road segments that might benefit from standing corn. The work is connecting with landowners to encourage participation.

When working with the farmers, the Iowa DOT discusses the possibility of planting different hybrids in the snowfence rows to produce sturdier stalks. Past experience has shown higher yield hybrids sometimes don’t have stalks that stand up well in the winter, so the Iowa DOT representative will work with the farmer to agree on a hybrid that will work best for the program.

Benefits to farmers include:

- *Payment for corn left in the field.*
- *Increased soil moisture in end rows.*
- *Soil erosion control.*

Once the corn has served its wintertime purpose, farmers can clean out the snowfence. It’s a little extra work in the spring, but farmers who participate see a clearer, safer roadway all winter as a bigger benefit than the inconvenience of cleaning up end rows in the spring.

For the Iowa DOT, leaving corn in the field in strategic locations greatly decreases the cleanup time for that area after a storm. Doug Lickteig, highway maintenance supervisor in Urbana, has several farmers in his area participating in the program. He said, “Some of the areas are just really tough to stay ahead of in a storm. In the areas where we have standing corn, we have to use less effort and material to get the road cleaned off.”

If you live in an area that you think might benefit from the standing corn program next year, please email craig.bargfrede@iowadot.us or call 515-239-1355.

Discover Wildness



NEAL SMITH NATIONAL WILDLIFE REFUGE
Hwy 163 - Exit 18 - Prairie City
www.fws.gov/refuge/neal_smith ♦ 515-994-3400

KEOKUK the ROCKS ARTS

An All Arts Festival • Keokuk, Iowa

June 9-11
2017

featuring **JOHN WAITE**
SINGING HIS 1984 #1 HIT "MISSING YOU"

PLUS • Denny Diamond • Wine Over Water & Brews on the Bridge
• Hell's Bells – AC/DC Cover Band • Drag Show
• Art Exhibits • Historic Walking Tours
• Chalk Art • and More!

TICKETS: \$50
for all ticketed events
a \$100 value

for more information, call 319-524-5599
or go to: www.keokukiowatourism.org



HONEY CREEK RESORT
STATE PARK
ON RATHBUN LAKE



Lodging at Honey Creek

Luxury Cottages
Spacious Guest Rooms
RV Park with Full Hook-ups

Outdoor Activities


Free Bike Rentals
Watercraft Rentals
On-Site Programs & Activities

18-Hole Golf Course

Championship Golf Course
GPS-equipped Club Carts
Full-service Clubhouse

12633 Resort Drive | Moravia, Iowa 52571

Reservations: 866-826-0151 | Group Sales: 641-724-9600 | www.HoneyCreekResort.com



FISHING • FUN • FITNESS

Whether it's for fishing, for fun or for fitness, kayaks are a great way to enjoy the spectacular outdoors.

We offer a variety of models from the brands you trust, plus all of the accessories you need to get out on the water. Without a paddle? Not on our watch.

Get outfitted.

YEP, KAYAKS

RIOT
kayaks

 **Pelican**


Sommerfeld
OUTFITTERS
A PASSION FOR THE OUTDOORS

330 N. Main St. | Lidderdale, IA | 712-822-5780 | shopsommerfeld.com



IN THE
Sum
EXPLO