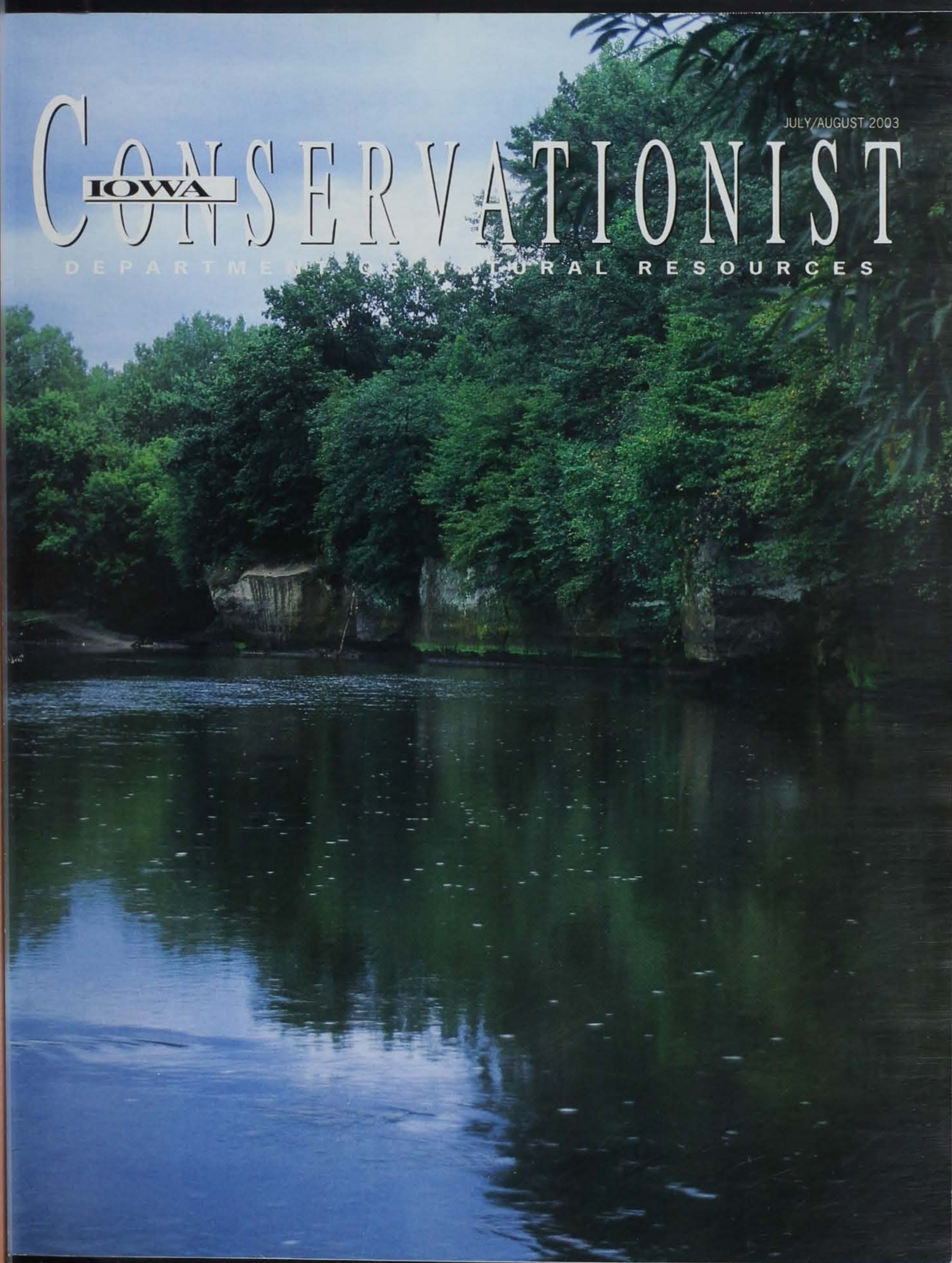


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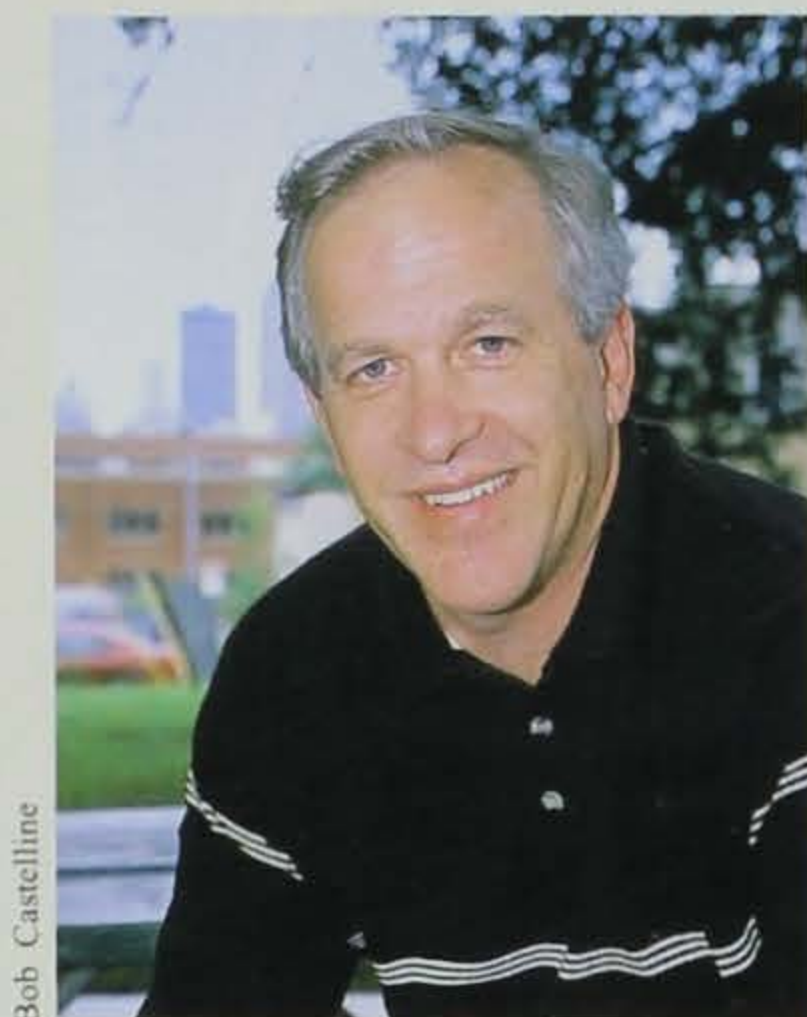
CONSERVATIONIST

IOWA

DEPARTMENT OF NATURAL RESOURCES



FROM THE DIRECTOR



Bob Casteline

Remembering—And Learning—From The Flood of 1993

If catfish had been our top crop, 1993 would have been a bumper year. At times it seemed like virtually every square inch of our landscape, including our rich, fertile farmland, was covered in water.

At the time of the 1993 flood, I was serving as state conservationist for what is now the Natural Resource Conservation Service in Iowa. Like others, I could only watch in awe and horror as the powerful forces of nature wreaked damages to our state far beyond what most of us could even comprehend. Few of us had ever witnessed a disaster of this magnitude, and few will likely see its equal again in our lifetimes.

Those of us who lived through the flood will never forget it. By the time the waters receded enough for people to begin putting their lives back together, damages

across nine states were estimated at \$12 billion. More than 21,000 homes were destroyed or significantly damaged. Some 16,000 square miles of cropland in the Midwest—the equivalent of about one-third of Iowa—was under water. The loss of crops in Iowa alone was approximately \$1 billion.

There are images from this catastrophic event that will forever remain etched in our minds. The pictures of Iowans coming together to sandbag rapidly rising rivers. People being rescued from their homes. The cruel irony of too much water robbing central Iowa of that same very essential element of life, drinking water, for almost two weeks.

These are the images we will always remember and it will be easy. Much tougher to remember, but more important, are the lessons learned from the great flood of 1993. A great deal of media attention has been given to the 10-year anniversary of the flood, and in this issue of the *Conservationist*, we take a closer look at some of the changes we see on Iowa's landscape and in public policy following that disaster.

When the aftermath of the flood is examined from a natural resources perspective, one very key point is evident: Where watershed protection work had taken place prior to the flood, damage to the natural resources was noticeably reduced.

The flood of 1993 helped confirm the concept that the effort to improve water quality needs to take place as far up in a watershed as possible. We saw that time and

time again following the flood—areas that had watershed projects prior to 1993 suffered far less damage than those watersheds that had never had such attention.

One study conducted by the U.S. Fish and Wildlife Service shows that the three states sustaining the most wetland destruction prior to the flood—Iowa, Illinois and Missouri—sustained the most damage from the flood. These three states, which had destroyed an average of 87 percent of their natural wetlands by 1985, sustained about 75 percent of the total damage. The other six states that experienced heavy flooding all had more than 50 percent of their original wetlands and sustained only 25 percent of the overall estimated damages.

For some in Iowa, the flood of 1993 was a slap in the face. It was a culmination of years of struggle to farm areas that were not necessarily in harmony with the environment. As a result, we saw some fundamental and permanent changes to the landscape. A perfect example is the Iowa River Corridor Project, encompassing 50,000 acres of land along 45 miles of the Iowa River between Tama and the Amana Colonies. Faced with the reality that some areas were no longer feasible for growing crops, landowners were offered different financial options to convert the land away from row cropping. Today, we have nearly 12,000 acres along the Iowa River

Director's Message

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FRONT COVER: IOWA RIVER BY CLAY SMITH
BACK COVER: WOOD DUCK BY LOWELL WASHBURN



Lowell Washburn

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IOWA CONSERVATIONIST

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by Lowell Washburn, Al Foster and Kevin Baskins

Ten years ago, the lives of many Iowans were turned upside down as flood waters destroyed homes, temporarily shut down businesses and cut off drinking water supplies to hundreds of thousands of Iowans. A decade later we take a look back at the flood and the changes that followed.

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Bragging rights for favorite state parks may be shifting to western Iowa where major improvement projects were recently completed at Viking Lake and Lewis and Clark state parks.

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Prairie streams make up the vast majority of Iowa's 19,000 miles of streams and rivers. Protecting them has become a critical issue.

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Designing fishing lures is a lot like managing a fishery. Ultimately, the goal is simply making fishing more enjoyable.

44 A PEEK AT PRESERVES

by Neil Bernstein

Iowa's State Preserves System has helped protect more than 9,000 acres since its inception in 1965. Take a deeper look inside two of Iowa's premiere state prairie preserves.

LETTERS

Poor Choice For Photo

Enjoyed reading the story on kids fishing in the May/June issue of the *Iowa Conservationist* and it was accompanied by some nice pictures of kids fishing and their catch. Unfortunately, a picture on page 41 shows a child holding up what appears to be about an 18 inch muskie on a stringer. Since the length limit on muskies is 40 inches, it seems like bad judgment to print the picture in a DNR publication.

Jon Ericson
Waterloo, Iowa

A Job Well Done

Glacier Chuck, I thought I was going to pee my pants reading this article. Way too funny! Although I rarely fish, you

could probably have written the same article about some of my bird-hunting brethren. However, the real reason for my letter, is to thank you and ALL of your DNR colleagues for the job you do in protecting our wild resource, and the professional way you do it. Memorial Day I was on Okiboji (sic), driving a friends ski boat, and I was stopped by Bill Maas. My pal had neglected to affix his '03 tag, and the registration wasn't in the glove box. Bill was so friendly and courteous (this while my new Hungarian Pointer [Vizsla] puppy was jumping all over his boat, hoping Bill would take her to shoot a duck!!) You guys are first class.

Scott H. Peters,
Council Bluffs

Corrections

In the May/June 2003 issue of the *Iowa Conservationist*, the photo of burning junk on page 55 should have been credited to Matt Rhodes.

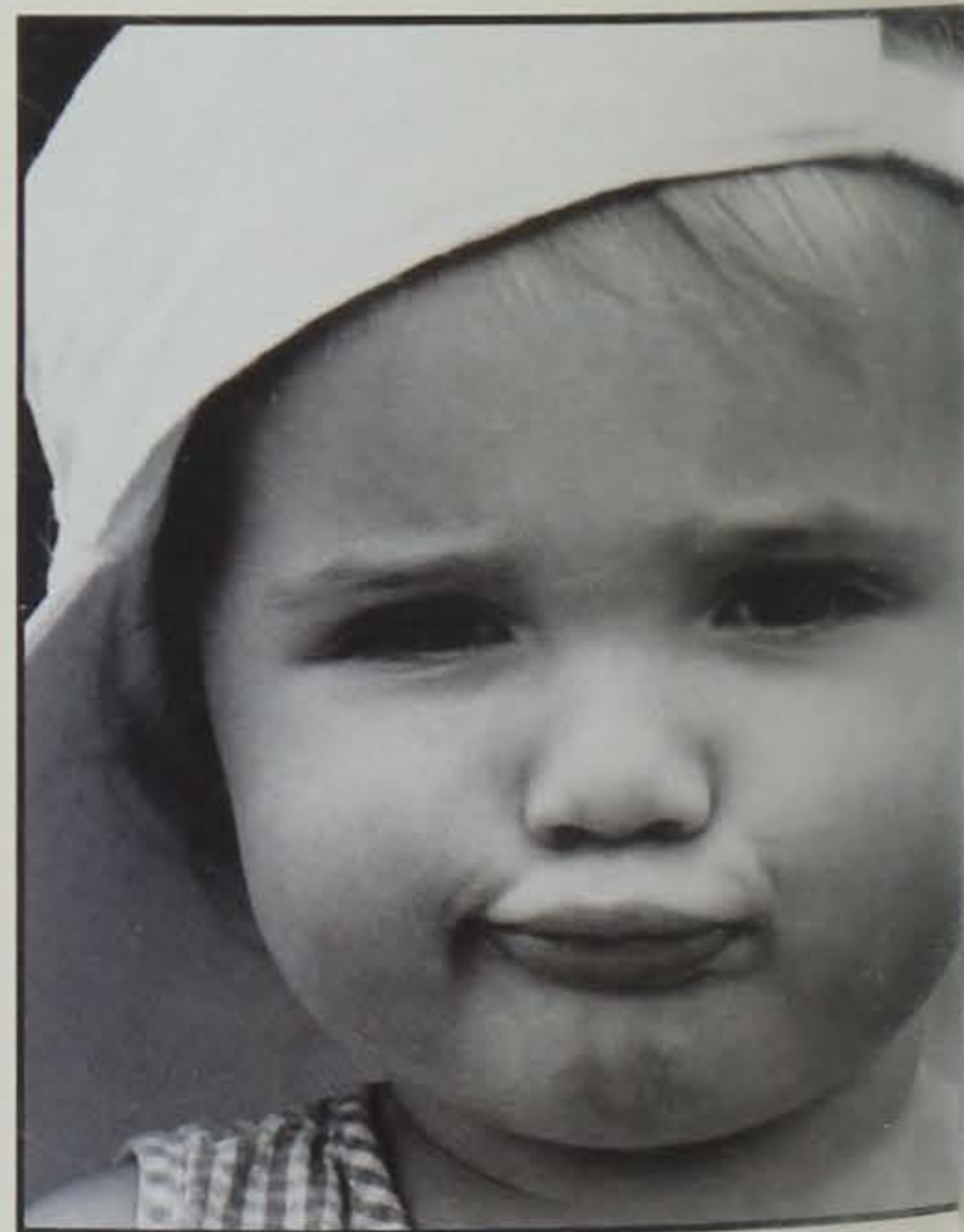
In the same "Conservation 101" article, another inaccuracy slipped by the editor's eye on page 54. Most backyard birdwatchers realize cardinals are winter residents in Iowa, not migrants as the opening paragraph would suggest. Only one watchful reader called the error to our attention, but we felt it was definitely worth correcting.

Letters Feature To Be Discontinued

Due to the lack of responses to the "Letters" section, this feature will no longer be offered in the magazine.

We do value readers' input, and we still welcome comments and questions from the public. To that end, from time to time we will be asking Iowans to participate in various features and aspects of the magazine. The first "assignment" for readers is to tell us their favorite scenic spot in Iowa and why. Responses will be part of feature detailing favorite scenic locations of "famous Iowans." Responses may be published in the magazine or on the magazine's website at www.iowadnr.com.

Comments can be mailed to the Wallace State Office Building, 502 E. 9th St., Des Moines, Iowa 50319-0034; or emailed to alan.foster@dnr.state.ia.us. Please include "scenic spots" in the email subject line or on the envelope. Comments should be limited to 150 words.



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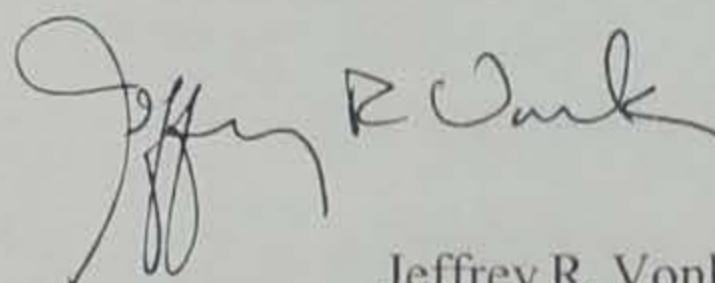
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Director's Message

cont. from page 2

that have been converted to wetlands on private lands and another 47 landowners have signed options to sell approximately 10,000 acres to the U.S. Fish and Wildlife Service.

A decade ago, water was the key issue for citizens in Iowa. It is still an important issue today as we focus more on water quality rather than quantity. Those of us who lived through it will never forget the flood of 1993. Let's hope that we also remember the lessons in our renewed quest to improve water quality.



Jeffrey R. Vonk

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Iowa Department of Natural Resources **DNR**

July/August 2003

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As Widespread As It Was Devastating,

THE GREAT FLOOD OF 1993

by Lowell Washburn

Stands As Iowa's Greatest Natural Disaster

The rains began in early summer. For many Iowans, it was the beginning of a nightmare that didn't end until late August.

As widespread as it was devastating, the "Great Flood of 1993" stands as the greatest natural disaster to ever occur in the history of our state. With video camera, still film and printed word, our losses have been recorded for history. Ten years later, the accounts remain as incomprehensible as when the rains fell.

By mid-June, the relentless rainfall was bringing northwest Iowa's Big Spirit and Okoboji lakes to record levels. Roads were closed, and the first of what would become an endless series of sandbagging efforts had begun. Lakefront homes were damaged or threatened. The region's normally thriving tourism industry was crushed.

Raging flood waters careened through a dozen river towns along the upper Mississippi. And as if that weren't enough, unprecedented flash flooding further threatened the same communities as water poured down gullies from the west. Tributary streams, such as the Maquoketa, Upper Iowa and Wapsipinicon rivers, were out of control as well — flooding additional inland communities and putting thousands of acres of cropland underwater.

By mid-July, rising flood waters had reached the Des Moines metro area, damaging infrastructure, contaminating the city's water treatment plant and leaving hundreds of thousands of residents without drinking water. Police joined forces with DNR conservation officers to patrol Des Moines streets in flat bottomed johnboats instead of squad cars. Television network news anchors rushed to set up headquarters on the high ground and, for what seemed like endless days, Iowa's flood disaster became the nation's biggest news story.



Courtesy of the Quad City Times



Iowa City Press-Citizen

Clockwise from above: Mike Simpson charts a course down Normandy St. on his way to work in Iowa City. July 2, Lt. Terry Glandon of the Scott County Sheriff's Department and Vicky Howland of the Department of Natural Resources patrol near Pleasant Valley. Mitch Hagge, 5, shows off a carp he caught from the back loading dock of Peterson-Hagge Furniture in Davenport. Harold and Ruby McCulloch pump water from their flooded home in Buffalo near the Mississippi.



Greg Boll, Courtesy of the Quad City Times



Randy Baunier, Courtesy of the Des Moines Register

Who can forget the images? The close up shot of a mother's tears as a family is forced to leave the only home they have ever known. The farmer, weather beaten and sleep deprived, relating how this will be the first total loss of crops since the family farm was established three generations ago. Or the volunteer who came from a neighboring community and sacrificed a full week's paycheck to help fill and haul sandbags in order to prevent the businesses of strangers from going underwater. His dirty, bandaged hands bore testimony to his commitment. And for all of us, the words "neighbors helping neighbors" came into focus as never before. The young man should have been heading home. But, providing his back and hands could hold out, he was planning to stay the weekend.

All told, the rampaging waters forced nearly 3,000 of our residents from their homes during that tragic summer. Crop loss estimates were set at nearly \$800 million, plus an additional

\$300 million or so in damage to property. Down on main street, Iowa businesses lost more than \$360 million worth of inventory, while suffering an

additional \$300 million in lost retail sales. Iowa workers lost an estimated \$30 million in wages that summer. Damage to roads and bridges totaled more than \$700 million.

The Army Corps of Engineers entered it into the log book as a 500-year event.

The estimates for further damage to personal . . . well, the lists go on with a dizzying parade of statistics. The numbers are simply too enormous and too painful to grasp.

For thousands of Iowans living in scores of communities and dozens of counties across our great state, the memories of the "Great Flood of '93" remain all too fresh. All who were there have a story to relate. And whether it is a tale of triumph or tragedy, most of those folks can still recall the events of that summer with amazing clarity and detail. For many Iowans, the Flood of '93 was nothing short of a life-changing event. The following pages are a sample of what Iowans endured, how they coped, and the lessons we've learned from their experience.

The Flood of '93 Brought
Record High Water and
Destruction to the

Iowa Great Lakes

by Lowell Washburn

If you're ever in the market for a used sump pump, I'd recommend a visit to Spirit Lake. Many of the beautiful lakeshore homes have at least two or three good pumps stashed in a corner of the garage or in the backyard tool shed.

However, it might take a bit of searching to find them. You see, most people don't use them anymore. In fact, a majority of the pumps have only been turned on one time. That occasion was the "Great Flood of 1993."

Fisheries manager Tom Gengerke is a prime example. He owns a beautiful, well-kept lakeshore home in the community of Orleans, located along Spirit Lake's south shore. Like many of his neighbors, Gengerke still has the same sump pumps he used during the summer of 1993. He even knows where his pumps are located. They're in the basement, and they're still in the exact spot where they were shut off a decade ago.



Tom Gengerke



Ken Formanek

If you have the nerve to ask, he might even give them to you — for nothing. The only catch is the pumps are buried beneath 85 tons of sand.

That sand was put there by friends and neighbors, in one day, as part of a shovel by shovel effort to keep the home's upper levels from collapsing. It wouldn't have been the first home to cave in that summer.

As is the case with many residents of the Iowa Great Lakes region, Gengerke's memories are cataloged between the covers of

photo album scrapbooks and on home videos that faithfully chronicle the events of that nightmare summer.

"This shot was taken from the front of the house, and there's a street and driveway under those canoers," says Gengerke.

"By the time the water was that high we thought we might lose everything. To this day, my wife still won't look at the videos."

"Of course, when it first started raining here, no one had a clue as to what the future held," said Gengerke.



Doug Wells, Courtesy of the Des Moines Register

Clockwise from opposite page bottom: DNR fisheries biologist Wally Jorgensen looks over a flooded North Grade. The Iowa National Guard arrives to help sandbag and install a larger outlet system. Mark Steele at his father's flooded home in Orleans.

economic devastation that accompanied the Flood of '93 was indeed "incomprehensible."

By summer's end, flood waters had caused an estimated \$4 million damage to area homes, and had eroded more than \$50 million from the normally thriving tourism industry. Roads and bridges were damaged, and the region lost an additional

river. But in Dickinson County? For many residents, it was literally the very first time they had ever touched one. But there was no lack of opportunity for on-the-job training. By the time the ordeal ended two months later, more than three-quarters of a million bags had been filled and placed. Ten years later, you can still walk the lakeshore and see an occasional remnant of the fiberglass sandbags that once saved a neighborhood.

As is the case during any ongoing disaster, rumors were rampant. One of the most widely circulated was of plans to "dynamite the Spirit Lake outlet" in order to allow flood waters to escape more rapidly. That rumor got the full attention of both the Iowa National Guard and the U.S. Corps of Engineers. The Corps of Engineers believed that, should such an event actually occur, the sheer volume and velocity of departing flood waters would effectively cut a channel so deep it would permanently lower the lake's crest elevation.

"The Guard set up check points, and we all had to go through these to get to our homes at night," said Gengerke.

"They went so far as to look through your bags of groceries. In addition to providing neighborhood security, they were also very concerned with protecting the Spirit Lake spillway."

With water levels still rising, the order was given in late July to begin evacuating residents from flooded homes.

"We were just coming out of a drought, and Spirit Lake had actually been 52 inches below crest the previous fall. But once the rain started it was just relentless. It really seemed as if the rain would never stop. The water just kept coming.

By July 18, the lake was 55.68 inches above crest. Can you imagine? That's an increase of 8 or 9 feet of water over thousands of acres. It was just incomprehensible."

Throughout Iowa's Great Lakes region, the personal hardship and

\$30 million worth of crops that summer. The incredible loss of topsoil was never calculated.

"The corn we were able to plant was knee high by the Fourth, and was gone by the fifth," one farmer reportedly quipped.

As early as mid-June, local property owners were beginning to engage in what would become a series of major sandbagging efforts. For people who live in places like the banks of the Mississippi River, sandbags are no big deal — just a reality of life on the

"By then we'd all been working 24/7 for almost two months, and nerves were getting pretty frayed," said Gengerke.

"I heard my neighbor telling a deputy sheriff that he didn't have the legal authority to remove anyone from their home, and that he wasn't budging. I didn't hear the whole conversation, but what I remember the most is an elderly couple who lived down the street. They were in their 70s and the

wife was battling cancer. Here they came down the street with their suitcases, heading for a makeshift bridge that we'd constructed to get to high ground which happened to be the elevated railbed of the Chicago Northwestern Railroad. Anyway, the couple walked right up to me and asked, "Tom, what are you going to do?"

I said that I was going to stay as long as I could. They looked at me

and then, without saying another word turned and slowly started walking back to their house. Like I said, it was a very emotional time. I was just one of hundreds of people that were going through the same thing."

By July 26 the Army Corps of Engineers had accomplished its mission. Spirit Lake's new emergency spillways were in place. By Sept. 7, the lake had returned to the ordinary high water mark.

Behind The Clouds Came A Silver Lining

No person with so much as an ounce of human compassion would ever say the positives that came out of the Flood of 1993 outweighed the negatives. But amongst all the pain and suffering, there were a few bright spots.

Iowa's fish and wildlife, for example, suffered little long-term impacts, and in some cases, may even have benefited. Undoubtedly, wildlife nests in low-lying areas were destroyed, but many species — pheasants, for example — are persistent nesters. Some young animals were caught in the floods and drowned, but the total area affected was small. And given the fact thousands of acres of flood-prone cropland were taken out of production, wildlife actually had it better off after the flood.

"By the next year there was no measurable effect on populations," said Terry Little, DNR wildlife research supervisor. "On the whole, I'd say wildlife benefited more in the long run than the short-term losses would suggest."

The story was much the same for Iowa's fisheries. In some rivers, most notably the Middle Raccoon, high waters filled in deeper holes and covered rocky spawning areas. Smallmouth bass fishing declined in that river after the flood, and is just now recovering with the help of habitat improvement and stocking.

However, some species experienced excellent reproduction and recruitment. Others showed exceptional growth during and following the flood. Walleyes were one of them.

"We did not notice accelerated growth on all walleyes during the Flood of 1993, but some individuals showed extreme growth," said Joe Larscheid, a DNR fisheries research biologist at Spirit Lake. "The accelerated growth was most evident for older (5 years old and older) walleyes."

Larscheid points to a 14-year-old

walleye caught in East Okoboji in April of 2000, which, based on average growth rates, should have grown about .8 inch in 1993 when it would have been 7 or 8 years old, and .5 inch the next year. Analyzing a dorsal fin spine section (see photo below), however, fisheries biologists were able to determine the fish grew a remarkable 1.7 inches during the 1993 flood season and 2.5 inches during the 1994 growing season.

"The reasons for this increased growth was most likely due to expansion of habitat and enhanced production of food in the lake due to the inundated shoreline," Larscheid said.

Anglers on Iowa's Great Lakes — East and West Okoboji and Spirit Lake — also experienced some of the best yellow perch fishing in history in 1995 and 1996, thanks to tremendous reproduction and recruitment from the 1993 year class, according to Marion Conover, chief of the DNR's fisheries bureau. Northern pike also enjoyed similar banner years.

"Big year for northern pike natural reproduction in our interior streams led to dynamite fishing for pike in 1994, 1995 and 1996 on the Des Moines, Iowa, Cedar and Wapsipinicon rivers," Conover said.

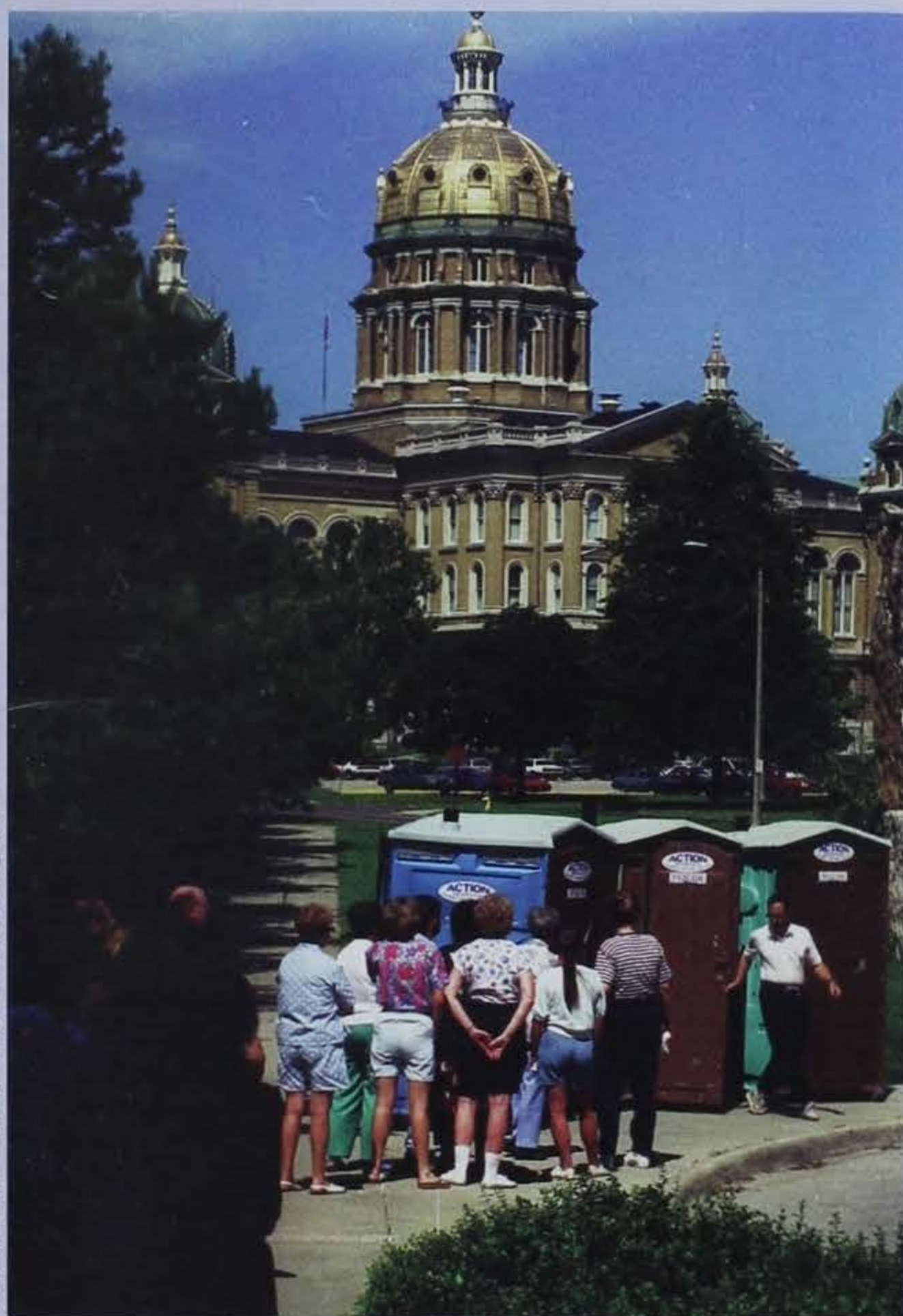
— AF



Flood Waters Pouring into the Water Treatment Plant July 10 Shut Down the

Des Moines Metro

by Al Foster



Paul Hiscocks, Courtesy of the Des Moines Register



Bob Nandell, Courtesy of the Des Moines Register

It's not often a city's downtown, normally a hustling epicenter of business and social activities, shuts down — for any reason. But that's what happened during the summer of 1993, when raging flood waters closed streets, shut down businesses and essentially brought downtown Des Moines to its knees.

"If you were there and lived through it, it was devastating," said then Des Moines Mayor John "Pat" Dorrian, who saw normal city business shift entirely toward flood efforts. "There was no other city activity going on."

Ironically, the lack of water caused as much of a shutdown in day-to-day business operations as did too much. With no potable water, no water for fire control and downtown travel brought to a halt, area restaurants, hotels and businesses were forced to shut their doors.

Potable water — better known as treated drinking water — is something L. D McMullen knows a little bit about. McMullen is the CEO and general manager of Des Moines Waterworks, and has been for 17 of his 25-year career with the plant. He was there the night flood waters first poured over the levee protecting the plant and shut down water supplies to roughly 300,000 customers for the better part of the next two weeks.



Ken Formanek

Above left: Lines form at the portable toilets on the State Capitol complex for employees working through the flood. Above: A look at the rising Des Moines River from the east side of the Grand Avenue bridge. Left: Flanked by two raging rivers, the Des Moines and Raccoon, Sec Taylor stadium floods July 11.

"That night of the 10th (July 1993), 10:30 at night, the river was coming up fast ... faster than anyone was predicting. I was sitting with staff, and we were saying, 'This doesn't feel right - this doesn't even sound right,'" McMullen recalled.

Within three hours, the first gallons of floodwater were pouring over the levee. At 3:02 a.m. the plant's water production director, standing in ankle-deep water, requested - and was granted - authority to shut down the plant. It would be 12 days before water flowed again, albeit only for nonconsumptive uses, and another week before it was declared drinkable. It would be a month almost to the day - on Aug. 9 - before all water restrictions were lifted and customers could once again use water as needed.

"I remember the [*Des Moines Register*] headline, 'And On Day 12, We Flushed,'" McMullen quipped.



Doug Wells, Courtesy of the *Des Moines Register*



Chichaqua Grows Behind Flood Waters

The Flood of 1993 was no doubt devastating for many Iowans. Some people lost their homes, others lost their jobs at least temporarily and countless more lost personal belongings and keepsakes that were difficult, if not impossible, to replace.

Although nothing can offset the human suffering and sacrifices of the flood, in at least one area of Iowa, some good things did come of it.

The Chichaqua Bottoms Greenbelt, spanning parts of



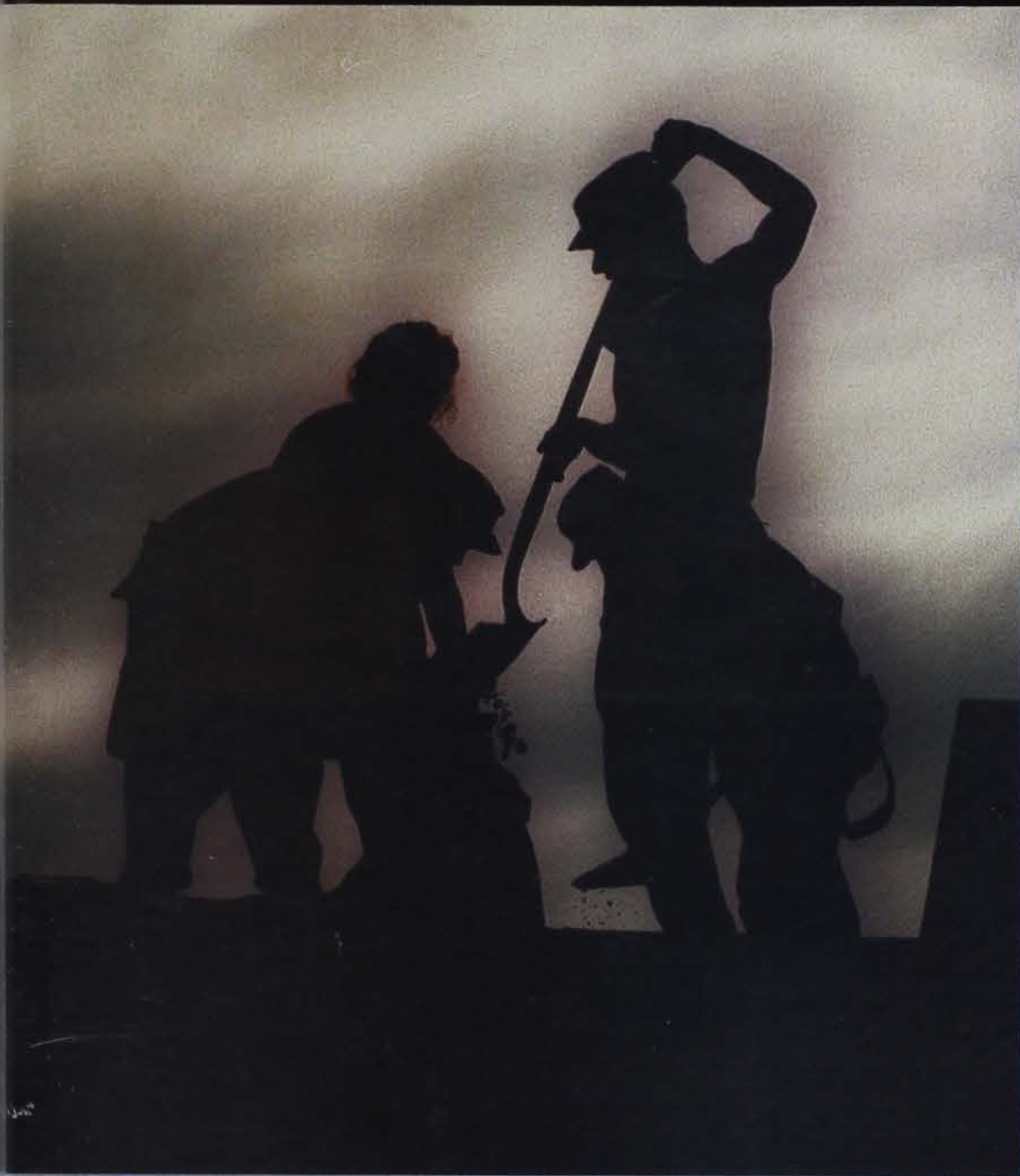
Clay Smith

eastern Polk and western Jasper counties, covered roughly 1,450 when the rains started in 1993. A decade later, the complex had swelled to more than 6,800 acres, the bulk of which came as a result of the intense

losses and damage caused by the floodwaters.

"The water was 3 to 6 feet deep throughout the Chichaqua Valley in 1993. There was so much damage," recalled Loren

Lown, a natural resource specialist with the Polk County Conservation Board. "Ninety percent of the new acquisitions (to the Chichaqua Greenbelt complex) came between 1993 and 2003. (The acquisitions)



Gary Fandell, Courtesy of the Des Moines Register

For two weeks in July 1993, hundreds of thousands of Iowans lived without running water in their homes. Looking back, they may be better off for it. Since the Flood of 1993, several changes have taken place at Des Moines Waterworks to reduce the likelihood the city would lose all water service due to a major flood again. Levees surrounding the treatment plant are now 6 feet higher, and flood gates were installed at the Fleur Drive plant for when flooding is imminent. By far the biggest change, however, was the building of a second treatment plant located at Maffitt Reservoir. The 25-million-gallon-per-day plant incorporates the lessons learned during the flood.

have been a direct result from a combination of funding from a wide variety of sources."

The "multiple millions of dollars in aid," as Lown described it, came from a wide variety of local, state and federal programs, such as the federal Wetland Reserve Program and the Iowa Habitat Stamp Grant program, and numerous private conservation groups, like Pheasants Forever and Ducks Unlimited to name a few.

"It was a remarkable combination of funding and groups, and we're real pleased with the partnerships we have formed out there," Lown said.

— AF

Bob Nandell, Courtesy of the Des Moines Register



Opposite page: Canoeists along 5th St. in the Valley Junction area of West Des Moines. Top: National Guard troops and volunteers make a valiant effort July 10 to stop the water along Railroad Ave. in West Des Moines. Above: An aerial view of the Des Moines Waterworks, the Raccoon River and downtown July 11 — the first of 12 days without water.

by Kevin Baskins

Iowa River Corridor

In the wake of mass destruction emerged a gem between Tama and the Amana Colonies. Today, the Iowa River Corridor Project stands as testimony that Iowa and its people can weather a storm and make something better than it was before.

The roaring sound was enough to frighten Nancy Beyer out of her sleep around 2 a.m. on that summer morning of 1993. The roar sounded like a thunderstorm or heavy wind. When she went to her west window to look, she was treated to a scene much different than what she expected.

No storm clouds. No bright flashes of lightning. No trees bending against a blustery wind. Only moonlight casting eerie nighttime reflections in places where reflections shouldn't be at this hour on the family farm near Marengo.

"The sound I heard was the water going over the road. And the whir was the water mixing with the gravel," she remembers.

Frightened by the sight at first, Nancy soon realized what she was witnessing. The Iowa River had come calling in the night. Not that it had been a stranger in recent years. Flooding had become almost an annual way of life for them. Her husband, Larry,

estimated that floods had been taking a toll on their crops about three out of every five years.

But this time was different. In the summer of 1993, the Iowa River made a mockery of man's feeble attempts to contain it with devices such as levees and flood control reservoirs.

To a farm wife used to the harsh realities of farming a river bottom, Nancy Beyer did the only reasonable thing a hardened veteran of weathering the natural elements could do.



Clay Smith

Larry and Nancy Beyer

My first reaction [to the Iowa River Corridor Project], I guess was, this is a way to get out from underneath this thing that has been hanging around our necks. Farming this ground, it was getting to the point that we knew we couldn't keep up with it. And, you know, I feel very fortunate in the fact that we made a decision and got out. I had farmed enough upland of my uncle's up north of Belle Plaine, I thought why battle this anymore? Let's get out from underneath it.

Larry Beyer
landowner, Iowa River
bottom near Marengo



Iowa City Press-Citizen



Scott's and Bigbee's daughters play on the flooded road leading to their farm.

"Once I figured out what it was, I went back to bed and went back to sleep. There was nothing that could be done about it," she said.

Little did she realize the sound awakening her would ultimately be a victory song of the Iowa River. In the end, the river would wrestle a significant portion of its bottom land back from the Beyers and others who had worked so hard to farm it.

• • •

Farm life hadn't always been so tenuous along the stretch of the Iowa River between Tama and the Amana Colonies. For many years, agriculture and the river had peacefully co-existed.

But by 1993, the peaceful harmony between the river and its



Clay Smith

Ann Bigbee and Charlie Scott

Well, there is and there isn't [a sense of not wanting to give up control of the land]. But when it's under water, you loose control of it then. And some year's you wouldn't get [any] income off of it. So I mean, you kind of draw the line on whether you want to keep fighting it or turn it back to Mother Nature. And we've bought some other land when we put this in the wetlands to kind of, you know, to offset losing production of all this. And so it isn't like we don't have some other land to fall back to. What it is, I mean, it's tough because you know, you just never can go back to production with it . . .

Charlie Scott
landowner, Iowa River bottom near
Marengo

In the 30 years prior to the 1993 flood, the Iowa River flooded 28 of those years.

neighbors was already on shaky ground.

Dale Fisher remembers the days before the Iowa River became an almost annual adversary to agriculture. He grew up along the Iowa River corridor near Belle Plaine.

"When I was growing up, we had 26 farms right here along the Iowa River. Today, there's two farmsteads. That's all that's left," said Fisher, of Belle Plaine.

The river had changed, making farming along its banks even more of an agricultural crashout each year.

Fisher has an explanation why.

"I think what changed was the landscape. The small streams that feed into the Iowa River were straightened so now, instead of taking three or four days for the creeks to get down to the river, it's more like just a day. And the river just can't handle it 'cause the river has not been straightened and we don't want the river straightened," said Fisher.

By 1993, Fisher had already discovered that the area of the Iowa River corridor that had become too wild for agriculture was far better suited for wildlife. Instead of farming, he owns a hunting lodge that brings in about 200 people a year. Other large portions of the corridor have been converted to wetlands with thousands of acres becoming public lands for hunting, fishing, hiking and other recreational pursuits.

Once again, the river and mankind are in harmony — only this time, it's on the river's terms.

• • •

As daylight broke, it brought with it even more unusual sights for Nancy Beyer and her family as the

Photo courtesy of USDA Natural Resources Conservation Service



Clay Smith

"I enjoy working with people. I enjoy working with the wildlife. It isn't just about [hunting], it's enjoying watching the wildlife and working with them and seeing what you can do to help . . ."

Dale Fisher
owner, Iowa Pheasants Hunting Preserve



Ann Bigbee

Photo courtesy of USDA Natural Resources Conservation Service

The Iowa River Corridor Project has certainly taken away a problem . . . worrying every year whether the river was going to flood and what kind of an impact it would have on the people that were located on the bottom or involved in agriculture production on the bottom. Certainly that isn't a factor any more. . . . of course when you take this many public acres, we're seeing a lot of interest in recreation on the area. The river itself of course attracts canoeists and boaters and fishermen. There's more access to the river now than there was because of the public land. There are a lot of people that hunt on the river bottom and then in the fall of the year it's not unusual to step out on Main Street at noon and see three or four pickups with out-of-state licenses, and people across the street in the hardware store buying shotgun shells, and people at the restaurant that have been out pheasant hunting or turkey hunting . . . certainly it's brought people to town, brought commerce to town.

Hank Wehrman
Senior VP Midwest One Bank, Belle Plaine



Clay Smith

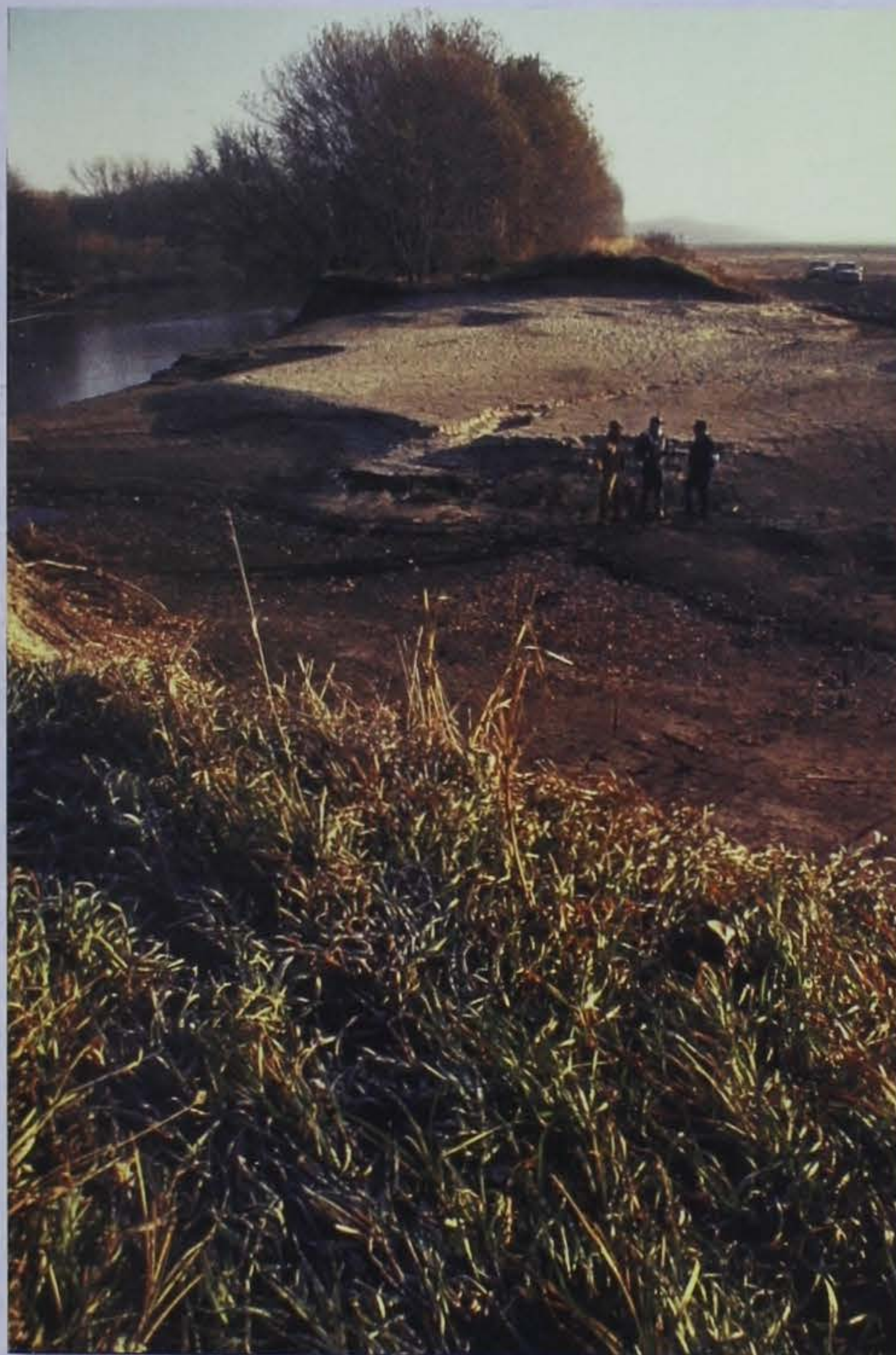


Photo courtesy of USDA Natural Resources Conservation Service

Hundreds of acres along the Iowa River bottoms had 2 to 3 feet of sand deposited on them after the '93 floodwaters receded.



Clay Smith

From a conservation aspect, [the Iowa River Corridor Project] demonstrated to policy makers and taxpayers that contributing tax dollars to a disaster area such as the Iowa River Corridor was not only the humanitarian thing to do, but has enhanced flood protection; provided funding for economic development; improved soil conservation; improved and provided additional wildlife habitat and wildlife populations; has created opportunities for new small businesses; eliminated annual disaster payments on land acquired; and provided numerous outdoor recreation activities.

Jerry Gibson
acquisition agent for the DNR

waters of the Iowa River approached their home from its normal banks nearly a quarter of a mile away.

"Larry went out and saw a beaver swimming by across the road, right next to our house. We took pictures of carp swimming over the road," she said.

The unusual sights soon made way for much more troubling scenes.

"We had a lot of sand and silt that was washed that we had to move to farm it again the following year. It was a struggle to get farm equipment through the silt and picking up all the trash that had been washed on to our land," Larry Beyer said.

The flood of 1993 left more than damaged buildings, soaked homes, ruined crops and damaged land on the people of the Iowa River corridor. It brought with it the realization that maybe farming the river bottom wasn't the best long-term plan.

Maybe, some realized when government programs came in to return land ravaged by floods to a natural state, it was finally time to get out.



Clay Smith

To most biologists, this is a dream area for them because most of us don't have the opportunity to have 10,000 acres dumped in your lap that is brand new and say, 'Here you go, design what you think you would like to

with it. Try to recreate what was there in the past.'

We're seeing lots of wild turkey that were never here before, we're seeing river otters that weren't here before. We're seeing sandhill cranes. We have eagles nesting on the area that have never nested here before. Water quality has improved. We've learned, I think, from this project that parts of this river bottom should have never been farmed or turned into agriculture to start with. This river floods. In a 30-year period, it's flooded 28 years.

Rick Trine
DNR management biologist for the Iowa River Corridor

Like others along the corridor, the Beyers decided to take advantage of government programs. They opted for selling some of their land as part of the Iowa River Corridor Project.

Years of struggle to maintain a farming operation along the unpredictable banks of the Iowa River made Larry Beyer a willing listener when first approached about the program to convert a large segment of flood-prone farmland in the corridor to wetlands and wildlife areas.

"My first reaction I guess," said Larry about learning of the corridor project, "was that this is a way to get out from underneath this thing that's been hanging around our neck. Farming this ground, I was getting to the point that we knew we couldn't keep up with it."

He also said the flood of 1993 delivered a very succinct message to him.

"It made me realize that I could not compete with Mother Nature, outguess or control the Iowa River and its impact on crop production in the flood plain."

Devonian Fossil Gorge

by Joe Wilkinson

A decade ago, a wall of water carved it out of an emergency spillway. Today, a modern geological miracle remains, a rough-hewn peek into the ancient past. As tourists visit and scholars study, we learn more about Iowa in the Devonian Age, stretching back 375 million years, when it was the floor of a shallow, prehistoric sea.

The word spread nationwide, faster than raging floodwaters could rip down large cottonwood trees and scour away 15 feet of glacial-age sediment as the "Great Flood of '93" rolled down the Iowa River corridor. Receding floodwaters left broad horizontal surfaces of limestone at the Coralville Lake emergency spillway. We can now observe — and walk upon — an



Brian Witzke

The Flood of 1993 scoured the emergency spillway at Coralville Reservoir (top right) exposing a rich bed of Devonian-Age fossils (right), including brachiopods, crinoids (above) and trilobites.

Downstream from the Amana Colonies, on the other end of the reservoir, Highway 6 in Coralville floods. On July 6, 1993 businesses and homes along the highway lost gas and power.



Iowa City Press-Citizen

ancient sea floor and see a clearly visible picture of an era of brachiopods, crinoids, trilobites bryozoans and stromatoporoids.

Fossil shells and skeletons of sea-



U.S. Army Corps of Engineers

dwelling creatures are abundant. These fossilized remains at one time inhabited a warm tropical seaway, covering Iowa and much of the Midwest. Excavations in quarries and roadbeds often provide a vertical view of the ancient world below. The new spillway, though, provides a rare horizontal spectacle.

In a decade, more than 250,000 visitors came; most in the first couple years. Today, school groups, families and others still scramble over the rocky beds. "To me, that's what is impressive; that people still flock to this site," observes DNR geologist Brian Witzke. "Their enthusiasm hasn't dimmed." Several of the best crinoids and the headplate from an armored fish are at the Corps of Engineers Visitors Center, a half-mile away. Hand-

out materials are available. A walkway and interpretive area also help visitors understand the formations.

The flood's awesome power is emphasized as you view large slabs of limestone, plucked from the bedrock and shoved downstream. Looking back north to the spillway, you observe inclines in the limestone strata; perhaps the result of irregular settling of the sediment or broad-scale warping hundreds of millions of years ago. Still, the star attractions are the countless fossils now exposed.

As decades pass, visitors will be able to look back into dim, prehistoric recesses; perhaps recognizing what a fleeting 'snapshot' in time those decades really are.

Joe Wilkinson is an information specialist for the department in Iowa City.



Kay Anderson

buoyed by necessity and determination, New Policies and Partnerships changed the way Iowa handles floods



Harry Baumer, Courtesy of the Des Moines Register

Agriculture Secretary Mike Espy, Gov. Terry Branstad and Sen. Tom Harkin tour one of many flood-damaged farms in 1993.



Clay Smith

“Since European settlement, much of the Iowa River floodplain has risen by over 3 feet from sediment that has been deposited by the river. Sediment has also been deposited in the river channel, which then increases the flooding potential. We have had a great deal of flood damage in the state of Iowa, in fact, Iowa had the unique position of having the highest average annual flood damages from 1985 to 2000, for 15 years.”

In 1993, there was a great deal of coordination at the federal level, because of the magnitude of the flood and because it covered so many states. Some land could never be restored to cropland because the damage was so severe. So, it began to emerge that we needed an option that did not exist at that time.

Lyle Asell
agriculture and environmental advisor to the DNR director

Of all the amazing, unforgettable sights associated with the Great Flood of 1993, it was perhaps the remarkable changing view taking place in Washington, D.C. that fascinated Lyle Asell the most.

Asell had spent his entire career trying to meld the ever-changing federal policies with those people making their livelihood off of Iowa's rich soils. Never had he seen such a crying need of the people — and the environment — be met so quickly, so decisively and so perfectly by the federal government than along the flood-ravaged corridor of the Iowa River between Tama and the Amana Colonies following the “Great Flood of 1993.”

“What changed in Washington was policy that allowed cropland significantly damaged by natural events to be restored to some uses other than cropland,” and Asell, who was the assistant state conservationist for what was then the U.S. Soil Conservation Service.

Today, nearly 12,000 acres formerly used for crop production have been converted to a more native state through the efforts of the Iowa River Corridor Project.

If nothing else, the flood of 1993 came like a slap in the face to many of the farmers diligently trying to scratch out a living each year along the mighty river's corridor.

“I think by 1993, many of the people had already figured out that they could fight the river, but they were going to lose. I think the most important thing they learned — and what I hope we've begun to learn as a society — is that there are some places where it's much better to let Mother Nature rule than to continue

to fight Mother Nature," Asell said.

From the very beginning, the project was designed to provide real alternatives for farmers to convert flood-prone cropland to a better use using three options:

- Restore wetlands in exchange for a one-time easement payment.
- Sell flood-prone land to the federal government for use as recreational and wildlife areas.
- Experiment with flood-prone land using options such as water tolerant forages, forestry, fee hunting, etc.

"The one thing [former Secretary of Agriculture Mike] Espy told us is that this was not to be a fire sale where we took advantage of farmers in a tough spot. We were to negotiate fair market values for the easements and the purchases," said Asell who is currently an agriculture and environment advisor to the director of the DNR.

Once the decision had been made in Washington to pursue a strategy of converting the flood-damaged croplands to better use, the real work took

place at kitchen tables, machine sheds and small cafes across the area.

Asell said the process hadn't gone very far before a very distinct pattern emerged.

"We soon realized there was something very unique about this area because so many landowners were signing up. We went back to the landowners and asked what was going on. Their fundamental story was that they used to be able to make a living farming this land and they couldn't anymore," Asell said.

The end result was a project that benefitted landowners making almost annual risks cropping the land and the public that gained access to thousands of acres along the corridor for recreation.

"This program helped many farmers maintain the economic vitality of their entire operation by taking the highest risk land out of production and giving them capital to invest in better cropland," Asell said.

Taking the land out of production is a victory for taxpayers over the long haul as well.

"We evaluated disaster payments going to farmers in the corridor in 1994 and found that we had individual farms averaging \$94 an acre each year in federal assistance when commodity support payments, disaster payments and crop insurance were all figured. In the end, it is less expensive for the taxpayers to own it than to maintain it as cropland and the public enjoys a bigger benefit from it," Asell said.

The change in landscape from the project has also prompted a change in perspective for area residents. The river, once viewed as a persistent economic threat, must now be eyed as a potential economic boon.

"When we were talking to people during the project, many viewed the river as an enemy, but it's really important to look at it as an asset. It's something you can use and incorporate into the economics of your community," said Asell. "In the end, you can either fight it or you can live with it. Ultimately, the people in this area chose to live with it."

—KB



Clay Smith



Park Users Celebrate Investments

Article by Ross Harrison • Photos by Clay Smith

Bragging rights for the best state parks may be shifting. Major improvements just completed, and more on the way at Viking Lake State Park near Red Oak and Lewis and Clark State Park on the Missouri River near Onawa, are drawing attention to these western Iowa parks.

Nearly 1,000 park enthusiasts recently participated in ceremonies at these two parks to celebrate the large financial investments in their "places of quite beauty."



Above: An 1804 American flag flies from the tower overlooking the new docking facilities for the Lewis and Clark keel boat and pirogues.

Left: Smokey Bear greeted Viking Lake visitors at the event.

Bottom Left: Stanton's Upper Elementary School choir sang camp songs at the Viking Lake ceremony.

Right Page Top: 'Coon-skin capped passenger on the keel boat.

Middle Left: The *Discovery* keel boat on a passenger cruise in Blue Lake.

Middle Right: The keel boat undergoes a pre-float inspection before taking visitors on a trip around the oxbow lake.

Bottom: The Stanton High School Band helped blow in the new park improvements at Viking Lake.



Lewis and Clark

A new docking facility for the historic watercraft – authentic keel boat and the smaller pirogues – has been installed on the park's Blue Lake, along with a viewing tower and interpretive courtyard. Funding assistance for this \$163,000 investment came from the DNR, National Park Service and Friends of Discovery, the local park support group that has been recognized as Iowa's leading volunteer organization. That friends group is spearheading a campaign to raise several million dollars for a new keel boat visitor center. In cooperation with the Monona County Board of Supervisors, they are planning for construction to be complete in time for the national bicentennial celebration of the Lewis and Clark voyage in August 2004. An additional \$600,000 in recent investments resulted in a renovated lodge and a new campground shower building, as well as continuing improvements in roadways and expansion of the campground.



Viking Lake

About \$2.3 million was pumped into new roads; a lakeside restaurant/boat concession beach facility; two new campground toilet and shower buildings, check-in station; and parking area. The campground was dramatically improved by leveling camp pads, adding more electrical camp sites, some with full-service hook-ups and shade tree plantings. Funding came from gaming revenues going to the legislature's Restore the Outdoors Program, with a partial match from the federal Land and Water Conservation Fund (LAWCON). Because the legislature and governor approved next year's funding for the Resource Enhancement and Protection (REAP) program, more facilities will be added in the coming year, including a new rental picnic shelter with a kitchenette, camping cabins, family cabins and completion of a trail around the lake.



Article by Matthew J. Edwards
Photos by Clay Smith



Urban Forestry

On the Rise

Urban Forestry. No, its not an oxymoron, in fact it is one of the fastest growing areas of forestry in the United States, and many Iowans are at the forefront of the movement.

Urban forestry is the management of forest resources in nontraditional areas — cities and towns, suburban areas and even county and

municipal parks. Those resources include the trees, shrubs and plant materials that typically dot most urban landscapes. Urban and community forestry incorporates the work of community advocates and professional foresters to maintain a healthy environment for forest resources while benefiting communities and residents.

Urban and community forestry has

the potential to impact virtually everyone. In Iowa, more than 61 percent of the population now lives in urban areas, and that number has been steadily increasing for well over 100 years. As people move in from the countryside, valuable forest resources are destroyed to create housing and work opportunities. Urban and community forestry initiatives seek to mitigate some of this





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damage by encouraging the proper care and maintenance of remaining resources and by introducing new trees and plants.

Most people agree trees are a nice visual addition to any landscape, however they are much more than just decoration or ornamentation. Urban trees have value and functions that make them indispensable to a

quality standard of living. To homeowners, the presence of mature trees represents a substantial financial investment. Trees can increase property values by as much as 25 percent, and can reduce heating and cooling costs by as much as 20 percent. Environmentally, trees produce oxygen and help clean the air we breath. They can also block noise

from traffic and other activities associated with urban living. They help reduce soil runoff and erosion due to heavy rains. Socially, they help create attractive places to meet and recreate.

Iowans are among the nation's leaders in urban forestry. Each year, the National Arbor Day Foundation certifies communities as Tree City USAs, recognizing them for having

Volunteers from the City of Johnston plant trees as part of their Arbor Day celebration.

Mary Jane Paez



dedicated forestry programs. Iowa's participation in Tree City USA has grown substantial in recent years. In 2002, Iowa ranked seventh overall, and second in nation in growth. For more information on Tree City USA see sidebar at right.

Those looking to become more involved in urban and community forestry in Iowa have a number of options available. The Iowa State University Extension forestry office presents the Community Tree Steward Program each spring in different communities around Iowa. In March the Shade Tree Short Course in Ames offers continuing education opportunities to tree care and landscape professionals as well as the citizen forester. Likewise, there are many formal and informal groups in the towns and communities around Iowa dedicated to tree planting, care and maintenance. For more information on community forestry contact Randy Cook, DNR urban forester, at Randy.Cook@dnr.state.ia.us or 515-281-5600.

Matthew J. Edwards is a former volunteer program assistant for the department in Des Moines.



Tree City USA

Tree City USA is the flagship program of the National Arbor Day Foundation. Now in its 26th year, Tree City USA has garnered participation from more than 2,900 communities nationwide, and 135 in Iowa alone.

The Tree City USA program encompasses three categories of participation: The Tree City USA Award, the Growth Award, and the Sterling Award. The base award is presented to those communities that have demonstrated they are building a quality community forestry

program. The Growth Award is presented to those communities that demonstrate environmental improvement. Once a community earns the Growth Award for ten years, it receives the Sterling Award.

Learn more about eligibility for these awards at www.arborday.org. Applications for the Tree City USA program are available online or by calling Randy Cook, DNR Urban forester at 515-281-5600. The deadline for submitting applications is Dec. 31.

Choosing an Arborist

An arborist is a tree care professional who can help maintain the long-term vitality of community trees through pruning, insect and disease treatment and targeted removal of some trees. Choosing an arborist may seem like a daunting task, but here are a few tips to make it easier.

Credentials: Make sure the arborist you choose is certified by a professional association like the Iowa Arborist Association or the International Society for Arboriculture. This is indicative of a level of knowledge, professionalism and training that small "fly-by-night" operations may not have.

Insurance: Tree work can be dangerous. Ask for certificates of insurance including liability for personal and property damage as well as workman's compensation, then verify the policy with the company.

References: Don't be afraid to ask for references. Go by and see their work.

Estimates: Get multiple estimates, and make sure they include comparable services. Some arborist charge for initial consultation, so be sure to ask.

Contracts: You should receive a written contract that details exactly what will be done, including clean-up removal and stump grinding, when it will be completed and a final price for the job.

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Iowa's Wandering Wood Ducks

Article by Guy Zenner
Photos by Lowell Washburn

The humid background hum of mosquitoes was broken only by the staccato notes of a nearby pied-billed grebe as the wildlife technician gently parted the canary grass to check the trap site. Small chatter hinted at the presence of ducks. Ever so slowly, the technician rose up until he could just see the shoreline and the edge of the trap. A few bold wood ducks had already cast caution aside and were greedily gobbling the corn in the trap. The majority, however, waited nervously outside for some secret "all clear" sign.

The sun had yet to settle on the western horizon. There was still time. Carefully the technician

lowered himself behind the curtain of grass and crawled back from the crest of the hill and walked to the waiting vehicles nearby. "We'll give 'em a few more minutes," he said to his companions. "There's a bunch of 'em waiting outside. They seem pretty nervous. Maybe a deer spooked them earlier. Let's just wait a bit."

Quietly the crew waited, watching the last rays of the August sun and listening to the evening symphony of the marsh. These were times they all relished. Overhead, dark silhouettes of blue-winged teal sped past as they made their way to the depths of the marsh. Flocks of roosting black

birds twisted and turned in unison before settling into the cattails. Late-arriving wood ducks squealed and careened wildly from the darkening sky to join their fellows at the crowded diner.

As daylight disappeared, the crew jumped into their vehicles and sped toward the trap. Speed was important. The trap's doors were mere wire funnels. Contented feeding wood ducks usually didn't spend much time looking for ways to escape a free lunch. Scared wood ducks were another story. If one discovered an escape route, many would follow. The crew needed every duck they could catch; even in the best years, they might not reach their quota. The trucks crested the ridge and jolted to a halt at the edge of the marsh as wood ducks scattered in all directions. Crew members jumped out to block the funnel entrances. Even with the well-orchestrated effort, a few ducks managed to find freedom before the last escape route was sealed off.

Under the cover of darkness, with the aid of lanterns and headlights, the crew went to work. It was a good catch, more than 80 birds. They set up shop on the pickup tailgate and started aging and sexing the ducks. A band was fitted on one leg and the species, age, sex and band number carefully recorded before the bird was gently tossed into the night air. Most were wood ducks, but a few mallards and blue-winged teal had been lured into the trap as well.

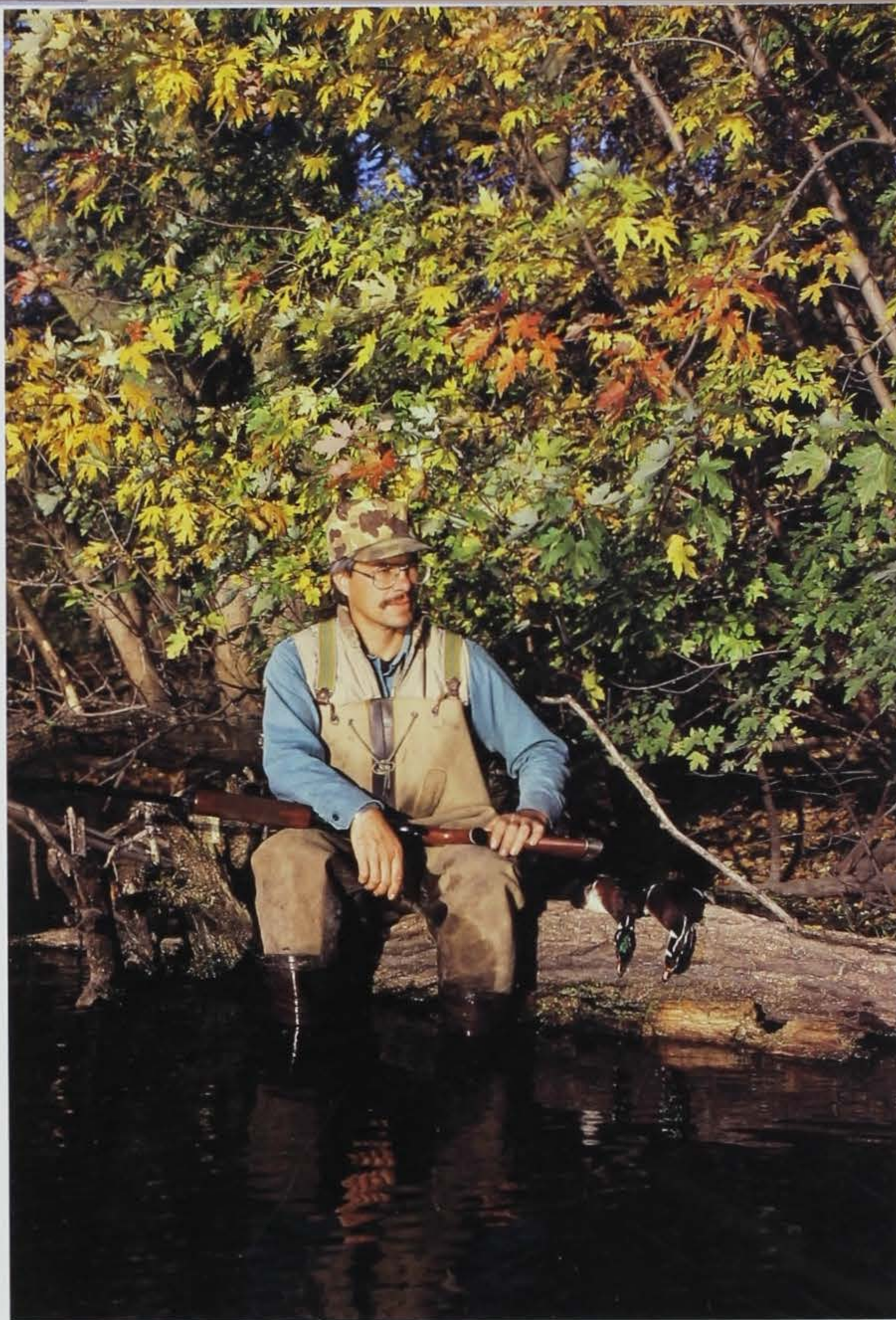
The scene has been replayed hundreds of times across Iowa over the past 30 years. Each August and September, DNR wildlife personnel band wood ducks at more than 30



A unique waterfowl species, wood ducks are a cavity-nesting bird, using artificial (top) or natural (middle) structures to nest. Because of their unique habits, recovery of banding information is essential to management of the species.

different sites across Iowa, a long-term program that is unmatched by any other state in the U.S. During 1991 to 2001, for example, more than 46,500 wood ducks were banded in Iowa. Iowa DNR wildlife staff banded 91 percent of these birds; the remainder were banded by U.S. Fish and Wildlife Service personnel at the five national wildlife refuges in the state. This puts the Iowa DNR first in the nation (or on the continent, for that matter) when it comes to banding wood ducks. In fact, DNR Wildlife staff have banded more than 10 percent of all the wood ducks banded in North America in the last 10 years; only the U.S. Fish and Wildlife Service can boast a higher percentage.

Banding is an essential and critical aspect of managing the wood duck population in North America.



Unlike many other ducks, which are counted directly on their breeding grounds during spring, wood ducks cannot be censused in this manner. The habitats they use and their secretive behavior make them extremely difficult to count using standard aerial survey methods. Most ducks take to the air when approached by low-flying planes or helicopters. Not wood ducks. Even with a helicopter hovering above them, they are more apt to crawl up

onto shore or into the brush than they are to fly. They are just plain hard to count.

Banding data enables flyway biologists to keep an eye on the wood duck population without actually counting the birds. In addition to telling biologists where wood ducks go during the fall and winter, the bands recovered and reported by hunters can be used to estimate survival rates for these birds. The survival rate obtained from banding

data is an important clue to the status of the population. For wood ducks, it is the primary means of monitoring the population. Because wood ducks are the second most-taken bird by duck hunters in the Mississippi and Atlantic flyways (behind only the mallard), consistent and continuous wood duck banding programs are critical to their management.

This is particularly important in Iowa because it is also the only state in the nation that is permitted to use five of its regular duck-season days in September, two weeks before other states can open their regular duck seasons. This unique duck season option is part of the reason the wood duck banding program in Iowa is so important. To retain the September duck season option, the DNR has been required to show, at various times, that wood duck recovery and survival rates were not changing substantially as a result of the September season.

It should come as no surprise that the majority of the banded wood ducks from Iowa are recovered by hunters right here in Iowa; 45 percent of the 6,159 wood ducks recovered during 1991 to 2001 were shot by Iowa hunters. That also means that 55 percent were recovered in other states. Wood ducks raised in Iowa are an important renewable waterfowl resource to hunters in the Mississippi, Atlantic and Central flyways. During the past 11 years, wood ducks banded in Iowa were recovered in 41 different states and Canadian provinces (see figure at right).

As you can see, only a fraction of the 46,500 wood ducks banded in Iowa during the last 11 years were shot and reported by hunters. Stud-

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Iowa's wood duck banding program is part of an ongoing international effort to better understand the population dynamics of this uniquely North American duck. With wood duck habitats continuing to shrink and pressures for more hunting opportunities increasing, wood duck banding is more important now than at any other time in the recent past.

Guy Zenner is a waterfowl research biologist for the department at Clear Lake.

Guy Zenner is a waterfowl research biologist for the department at Clear Lake.



Recoveries of banded wood ducks from Iowa during 1991 to 2001.

Explore

There is still time to take advantage of the second annual "Explore Iowa Parks" program. Spend a few nights enjoying Iowa's state parks and be eligible for several great prizes.

The program is open to residents and nonresidents alike.

Camp at a minimum of five state parks and receive a free one-year subscription to the *Iowa Conservationist* magazine. Receive a free t-shirt along with the free magazine subscription by camping at seven state parks. Camp at 10 or more parks and be entered into a drawing for one of three grand prizes listed at right.

Visit www.exploreiowaparks.com for program rules and to find a list of state parks nearest you.

Explore Iowa Parks is a great way to spend time with family and friends, and win prizes while doing it.

Right: Lewis and Clark State Park in Monona County



Clay Smith

Explore Iowa Parks

Entry Form

Grand Prizes

1st One year of FREE camping in Iowa State Parks, Recreation Areas and Forests.



2nd Trek Mountain Bike (retail value \$240) donated by

BIKE WORLD

3rd \$100 Gift Certificate donated by

Cabela's

Receipts will be validated with the individual parks. Drawing held after Oct. 31, 2003.

Name _____

Address _____

City _____ State _____ Zip _____

Phone number _____

Email address _____

Total Number of Campgrounds Visited: _____

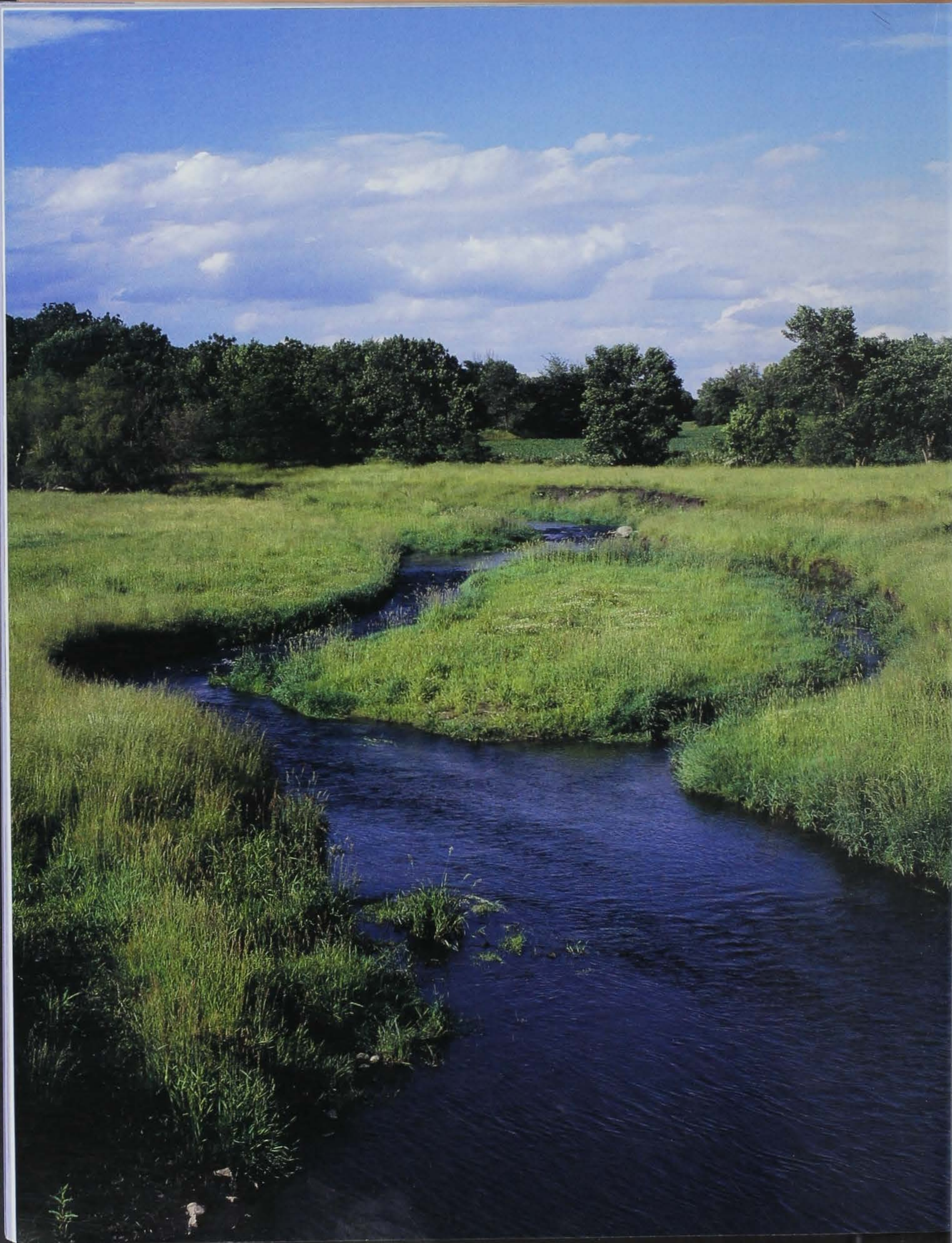
Please read the rules at www.exploreiowaparks.com. Mail your camping registration forms (originals only) and this entry form together in one envelope to the address below by Oct. 31, 2003.

Explore Iowa Parks
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, IA 50319-0034

Please check the parks you camped.

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| <input type="checkbox"/> Bellevue | <input type="checkbox"/> Pikes Peak |
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| <input type="checkbox"/> Brushy Creek | <input type="checkbox"/> Pine Lake |
| <input type="checkbox"/> Clear Lake | <input type="checkbox"/> Pleasant Creek |
| <input type="checkbox"/> Dolliver Memorial | <input type="checkbox"/> Prairie Rose |
| <input type="checkbox"/> Elinor Bedell | <input type="checkbox"/> Preparation Canyon |
| <input type="checkbox"/> Elk Rock | <input type="checkbox"/> Red Haw |
| <input type="checkbox"/> Fairport | <input type="checkbox"/> Rock Creek |
| <input type="checkbox"/> Ft. Defiance | <input type="checkbox"/> Shimek Forest |
| <input type="checkbox"/> Geode | <input type="checkbox"/> Springbrook |
| <input type="checkbox"/> George Wyth | <input type="checkbox"/> Stephens Forest |
| <input type="checkbox"/> Green Valley | <input type="checkbox"/> Stone |
| <input type="checkbox"/> Gull Pt. complex* | <input type="checkbox"/> Union Grove |
| <input type="checkbox"/> Honey Creek | <input type="checkbox"/> Viking Lake |
| <input type="checkbox"/> Lacey Keosauqua | <input type="checkbox"/> Volga River |
| <input type="checkbox"/> Lake Ahquabi | <input type="checkbox"/> Walnut Woods |
| <input type="checkbox"/> Lake Anita | <input type="checkbox"/> Wapsipinicon |
| <input type="checkbox"/> Lake Darling | <input type="checkbox"/> Waubonsie |
| <input type="checkbox"/> Lake Keomah | <input type="checkbox"/> Wildcat Den |
| <input type="checkbox"/> Lake Macbride | <input type="checkbox"/> Wilson Island |
| <input type="checkbox"/> Lake Manawa | <input type="checkbox"/> Yellow River |
| <input type="checkbox"/> Lake of 3 Fires | |
| <input type="checkbox"/> Lake Wapello | |
| <input type="checkbox"/> Ledges | |
| <input type="checkbox"/> Lewis & Clark | |
| <input type="checkbox"/> McIntosh Woods | |

*Gull Pt. complex consists of Gull Point, Emerson Bay and/or Marble Beach campgrounds and only counts once.



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Prairie Streams

Although prairie streams make up the vast majority of Iowa's 19,000 miles of streams and rivers, they are often overlooked resources. In many communities, they provide drinking water as well as recreational opportunities.

A stream corridor, or stream valley, is a complex system that includes the land, plants, animals — both aquatic and terrestrial — and are vital parts of the land and watershed. This inter-related system performs a number of functions: storing water during floods, acting as a filter to remove harmful material, and providing habitat for aquatic and terrestrial plants and animals.

Under natural conditions, relationships between the land and stream ebb and flow within a relatively narrow range, often referred to as a dynamic equilibrium. When this dynamic balance is disturbed by natural events or human activities, changes occur.

In Iowa, land adjacent to streams and rivers has historically been cleared and replaced by row crops, or converted to pastures or urban areas. Streams have been straightened for a variety of reasons, and land tiled directly to stream channels.

In some cases, such disturbances may not, at first, result in visible changes. Other times, a highly

noticeable change may happen in a short period. In those cases, streams will try to reestablish their normal flow patterns, and it is then that most changes become apparent. For example, a stream may undergo incision — a deepening of the streambed — followed by a collapse of the streambank, or significant erosion on adjacent lands. This causes an increase in sedimentation and nutrients and a loss of aquatic plants, surrounding bank vegetation and in-stream habitat.

Increased understanding of the relationship between the land and stream has brought with it an understanding of what has been lost on many streams and their watersheds. Streams can repair and sustain themselves if the disturbances are removed. That doesn't mean they will return to their original conditions, but they will balance themselves with the surrounding land in the stream valley.

It's important to recognize no two streams are identical and no single repair or restoration method will fit all streams. In some instances a single conservation practice may help solve a

problem. But in most instances, several conservation practices are needed to ensure successful results.

Using a variety of practices on the land and in the stream corridor will restore a stream to a more natural state in a shorter period of time. For example, grass waterways can usually slow erosion and the amount of sedimentation and nutrients reaching a stream. However, using grass waterways in conjunction with



Jerry Hudson

An eroding bank is one of the most visible results of stream degradation. Causes, such as unrestricted livestock access, can be easily remedied with controlled fencing and reseeded.

by Dick McWilliams



Lynn Betts, USDA Natural Resources Conservation Service



Lynn Betts, USDA Natural Resources Conservation Service

Top: Bear Creek, in Story County in 1991 just after trees and grasses were planted as part of a riparian buffer strip.

Bottom: Riparian buffer along Bear Creek. The buffer was established for about four years at the time of photo. Bear Creek has been recognized as a national buffer demonstration area. The ISU AgroEcology team provided assistance.

land contouring or ground cover, such as adding mulch or leaving crop residue, significantly reduces the amount of soil loss and material entering the streams.

Eroding streambanks are among the most visible result of stream degradation and are common in many areas. Planting too close to edges of small streams, or clearing material along the stream for construction purposes without replacing it with desirable vegetation, will destabilize streambanks. Heavily grazed pastures where livestock trample along streambanks destroy vegetation and hasten streambank destruction. In such cases, restoration may as simple as fencing to control livestock access and seeding to help reestablish vegetation. Where livestock production is involved, off-stream watering can be developed, or a fenced water access ramp can be provided to allow livestock access to the water.

Arguably, filter strips and streambank buffer strips are among the most cost-effective methods of restoring streams and stream corridors. Filter strips are typically grasses or other vegetation planted along streams and rivers. Streambank (or riparian) buffer strips incorporate trees and/or shrubs with the grasses.

Filter strips trap sediments, pesticides and other organic matter. Buffer strips also provide shelter and shade for wildlife and aquatic life, and provide a natural debris that contributes to food and shelter. Iowa is one of the leaders in using filter strips and buffer strips in land use practices, and landowners should be justifiably proud of the work they have accomplished. However, many of Iowa's smaller streams are not yet protected.

Where a stream has cut into adjacent land, reshaping and reseed-

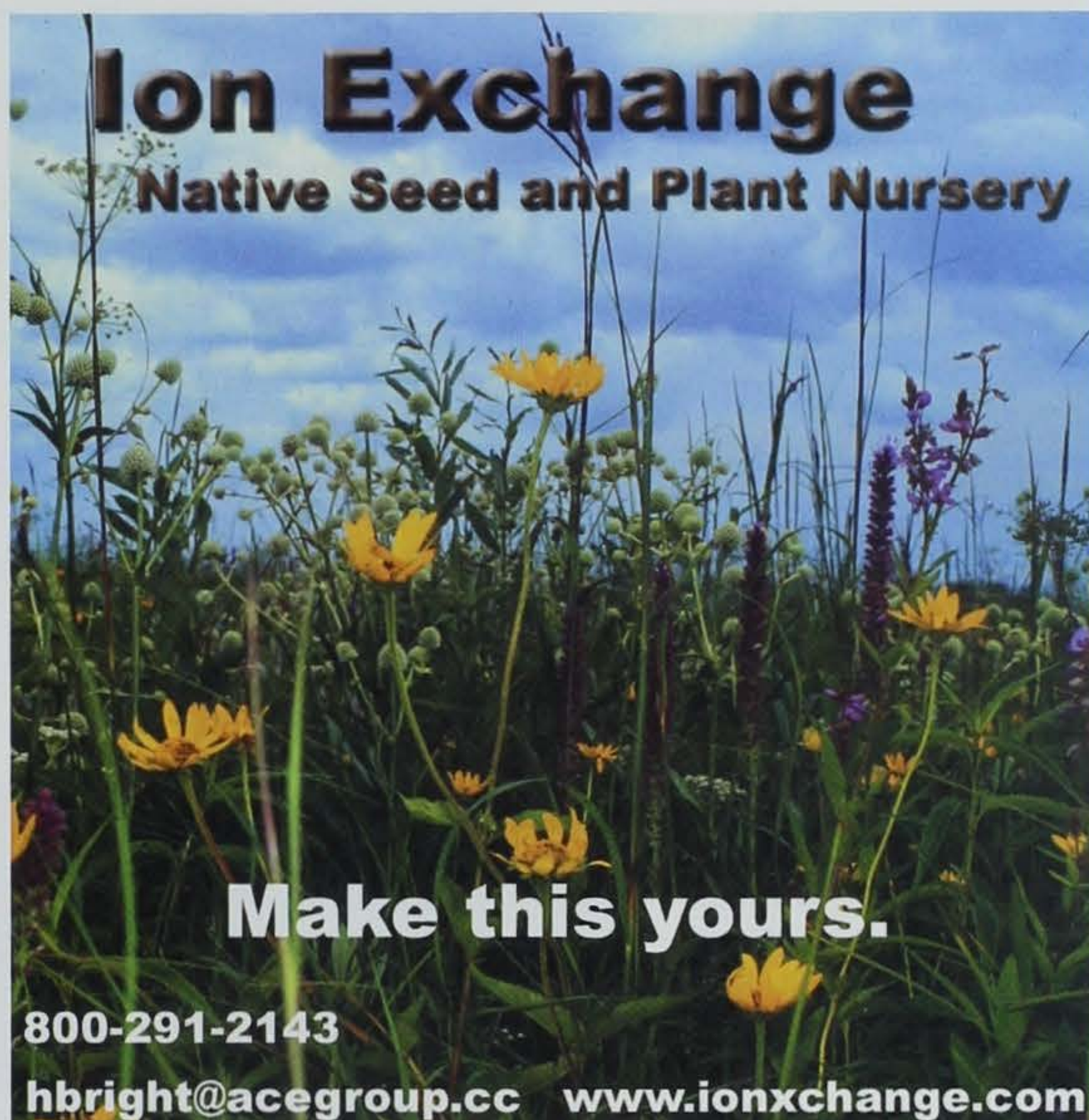
ing may stabilize an eroding streambank. Where there are more severe problems, rock riprap can be used to stabilize the lowest part of the bank. Other techniques, such as anchoring trees or planting live willows, have been effective in stabilizing streambanks.

There are a number of advantages to using living material. Live material provides permanent protection to the streambanks, requires little maintenance, increases habitat diversity, provides shade for the stream and cover for fish and other small game, and can be installed by the landowner without specialized equipment.

Channelization has often been viewed as an option to eroding streambanks. However, channelization speeds the flow of water and increases the amount of sediments and other materials carried by water, and can actually result in more erosion in other stream sections. Straightening a stream also causes a loss of habitat due to the shortened length and resulting destruction of woody vegetation and overhead cover. This loss impacts all aspects of aquatic life, from the small plants and animals to the fish that depend upon them.

In contrast, a stable stream typically meanders, thus slowing water flow and creating a diverse habitat. More importantly, the slower water cannot carry the sediments or heavy materials downstream.

Where pools and riffles have been lost, reconstruction is important for the health of a stream. Riffles aerate water, increase in-stream habitat for insects and other food organisms and maintain pool depth for other aquatic life. Riffles also act as grade control structures and help



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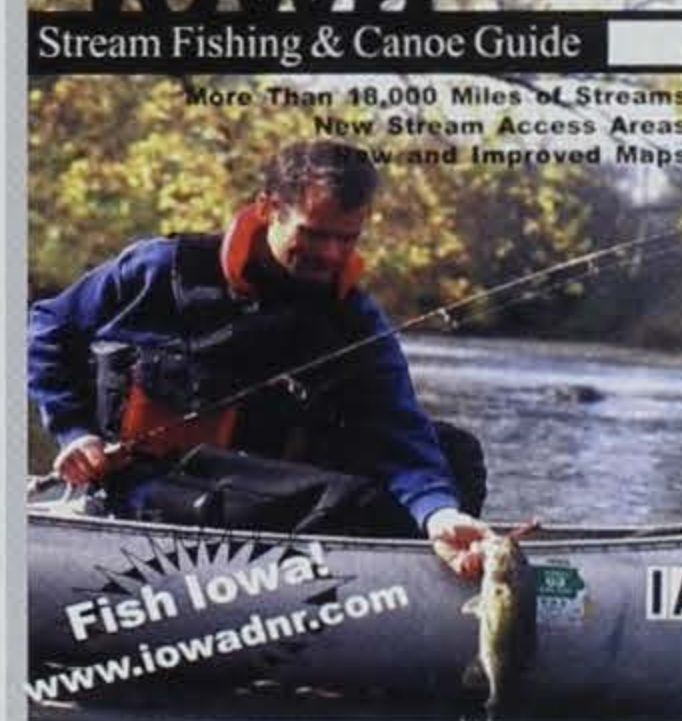
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prevent streambed degradation. Rock weirs, often referred to as Newbury weirs, have been used to create riffles in a number of streams. The weirs have a short slope upstream, and a gradual slope downstream, and create smaller pools of water. This allows fish to pass as they would if a natural riffle were present. The number and placement of weirs or riffles is determined by the extent of the problem, and by the stream size and gradient.

Stream and/or watershed restoration programs are being conducted in many areas of the state. One well-known project is along Bear Creek in Story County. The objective was to stop eroding soil and chemicals from adjacent crop fields, slow flooding, stabilize streambanks, improve

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by calling 515-281-5918
or visiting online at
www.iowadnr.com.

Adjacent cover helps to stabilize streambanks. Riffles aerate the water, creating a more acceptable environment for aquatic life.



DNR photo

wildlife cover and provide an alternative marketable product from the area. Restoration began in 1990 with streambank buffer strip plantings along a slightly more than half-mile section of the stream. A small wetland was also constructed to intercept water from an agricultural drainage tile. Results have been impressive. Sediments in surface runoff decreased by as much as 90 percent, nutrients in runoff were cut by 80 percent. Streambank erosion was also cut by as much as 80 percent from the previously row-cropped or heavily grazed land. Streambanks and stream channel have stabilized and wildlife use has increased dramatically. Other landowners along Bear Creek have added an additional five miles into stream bank buffer strips.

Federal, state and local agencies have programs to assist landowners design and implement conservation practices. See available programs at right.

Dick McWilliams is a fisheries biologist for the department at Boone.

Assistance With Conservation Practices

Conservation Reserve Program (CRP). Probably the best known and largest private lands environmental improvement program, designed to reduce erosion, increase wildlife habitat and improve water quality. Under this program there is a continuous sign-up for high priority practices. Landowners receive cost-share assistance and payments to implement practices to improve soil and water quality and wildlife habitat. Such practices include: filter strips, stream bank buffer strips, grass water ways, construction of shallow water areas, shelterbelts and contour buffer strips.

Environmental Quality Incentives Program (EQIP). Provides technical and financial assistance to develop and implement conservation practices to address specific natural resource concerns, such as soil erosion control, water quality improvements and livestock operations.

Wildlife Habitat Incentives Program (WHIP). Initiated in 1998, most efforts have centered around upland habitat. However, there is increasing emphasis on improving streambank and aquatic areas.

Resource Enhancement and Protection (REAP). Provides cost-share or incentives to address local water quality protection needs. Examples include tree

plantings, erosion control practices and land use conversion practices.

Watershed Protection Fund (IDALS/DSC). REAP provides funding for water quality improvement practices in watersheds above priority lakes and streams, and to protect groundwater. Available funds can be used for land treatment such as terraces, waterways, grade stabilization and streambank stabilization.

Iowa Buffer Initiative. Designed to accelerate the implementation of conservation buffers to protect water quality and fragile lands. This includes all the practices available throughout the continuous CRP, including buffer strips, shallow water areas, waterway protection and streambank buffers.

The Natural Resource Conservation Service (NRCS), Iowa Department of Agriculture and Land Stewardship (IDALS), as well as DNR fisheries and wildlife biologists, are available to assist landowners. In addition, private organizations may help monitor and/or restore streams, stream bank habitats and wetlands. To find out if they are available in your area contact the local NRCS.

The Lure of the Lab

Designing fishing lures is a lot like managing a fishery.
Ultimately, the goal is the same.

Picture this. You spent the entire day on a 40-foot boat about six miles offshore in the Gulf of Mexico, just south of a small town called Carrabelle on the coast of Florida. You have been field-testing the new artificial baits your company is considering putting on the market (Ok, you've been fishing).

The trip back to shore was like something out of a movie; a pod of dolphins played in the boat's wake, silhouetted against the setting sun. You're sunburned, kind of tired, but feeling pretty good. You sit down with your co-workers for a "shrimp boil," a meal consisting of shrimp the size of your middle finger, potatoes, corn on the cob and spices boiled together and served with some Tiger Sauce on the side. You're relaxing in your "motel room," which is more like an apartment with a full kitchen and a balcony overlooking the bay.

It was all in a day's work, and just one of many adventures in my career as a research biologist for the

by Donna Hanen Muhm

world's largest fishing tackle manufacturer.

You know it by the more familiar names; Berkley, Abu-Garcia, Mitchell and Fenwick, now under the umbrella of Pure Fishing, with corporate headquarters in Spirit Lake. Founded by former congressman Berkley Bedell, the company evolved from modest beginnings into a highly successful and very progressive corporation with worldwide distribution. The resources dedicated to the research and development of unique and effective products is unrivaled in the industry.

One of the constants of the corporate world is that absolutely nothing is constant. While not every day was as perfect as the one described, things do change in a nearly endless fashion. In the corporate world, the overriding rule

is adapt or sink. If one product design doesn't work, alternative designs must be immediately available. Products must meet consumers' demands, and marketing professionals must consider them important. If a design is not



Lowell Washburn

The concept of letting the fish be the product designers, through their behavior, led to a new and highly successful way of creating fishing tackle at Pure Fishing.

TOP: Using basic wind-tunnel science, the "water tunnel" allows researchers to analyze the motion of suspended lures.

MIDDLE: The concept of the visual testing pool may seem simple. Test lures are dragged around the track, and an underwater camera records the ensuing response of fish. But the testing system is far from simple, and the data collected is invaluable in designing lures.

BOTTOM: The casting pool was built in response to difficulties in finding suitable areas to compare how different lures perform when cast and retrieved. A unique feature of the pool is an underwater observation window. Even human casting variances are eliminated thanks to a robotic arm that casts and retrieves each lure at a set, constant speed.

Photos by Donna Hanen Muhm.
Used with permission from Pure Fishing.



quite right, it goes back to the table for more refinement, or another idea takes its place. There is a difference between product development and pure research, but both must be ongoing. Today's focus may be coming up with new colors for plastic baits; tomorrow's may be building a better spinner bait, and you had better be up to speed on both.

So, what exactly does a job with a fishing tackle manufacturer entail for a biologist? When Pure Fishing first began developing soft plastic baits, there was no fancy laboratory or special accommodations. There were just a couple of guys with a couple of aquariums trying to figure out what things fish liked to eat. The company hired a rising star in the field of fish chemoreception (the combined senses of taste and smell), and a chemist who had experience working with many different materials. Their combined knowledge of chemoreception in fish and thorough understanding of chemistry told them what to present fish in order to obtain their opinions. And the fish cooperated, providing the answers needed to manufacture "designer" baits. A new and highly successful concept in fishing tackle was created.

When I entered the picture, it was as a fish culturist/fisheries biologist whose tasks included keeping resident fish happy, healthy and in constant supply. My arrival coincided with the completion of a new fish-holding and testing facility. It contained several tanks designed specifically for housing fish, along with several racks of aquaria for conducting tests with individual fish.

The entire room was lit to simulate natural conditions. Light intensity gradually increased from complete dark to sunrise, then full sun, sunset, and finally, complete dark again, in a 24-hour sequence.

A unique, 60,000-gallon pool was constructed for testing the visual systems of fish in order to design hard baits, much the same way as chemoreception is tested to develop soft plastic baits. The pool contains several "cages" where fish are held and fed, and a "track" which encircles the pool. A cart runs along the track pulling a lure and an underwater camera for recording fish response.

During testing, fish are released from a cage into the track and exposed to the running cart for several hours to become acclimated to these conditions. Fish species on board include rainbow trout, largemouth bass, bluegill, channel catfish, walleye, perch, carp, hybrid striped bass, and several others such as crappie and bullhead.

Three main recirculation systems provide life support for the fish, including a coldwater system specifically for trout. Two systems for holding greater numbers of largemouth bass were later added. This "wet lab," as it came to be known, is not only a testing facility for bait design, but also a showcase for visiting dignitaries and the professional anglers sponsored by Pure Fishing.

Many great minds collaborated on the design of the testing pool and its components. The first several months of operation were spent determining the best conditions to conduct tests. Every detail was examined, from the elapsed time after fish were released into the "track" area of the pool before testing began and the number of fish used per test, to the duration of each test and the

In the DNR's fisheries bureau, the primary focus is to enhance and improve fishing for the citizens of this state and our guests. That sounds a lot like what the objective of a fishing tackle manufacturer might be.

best method to quantify the results. These may seem like insignificant pieces of information, but each was necessary to determine how many tests could be conducted during a normal workday.

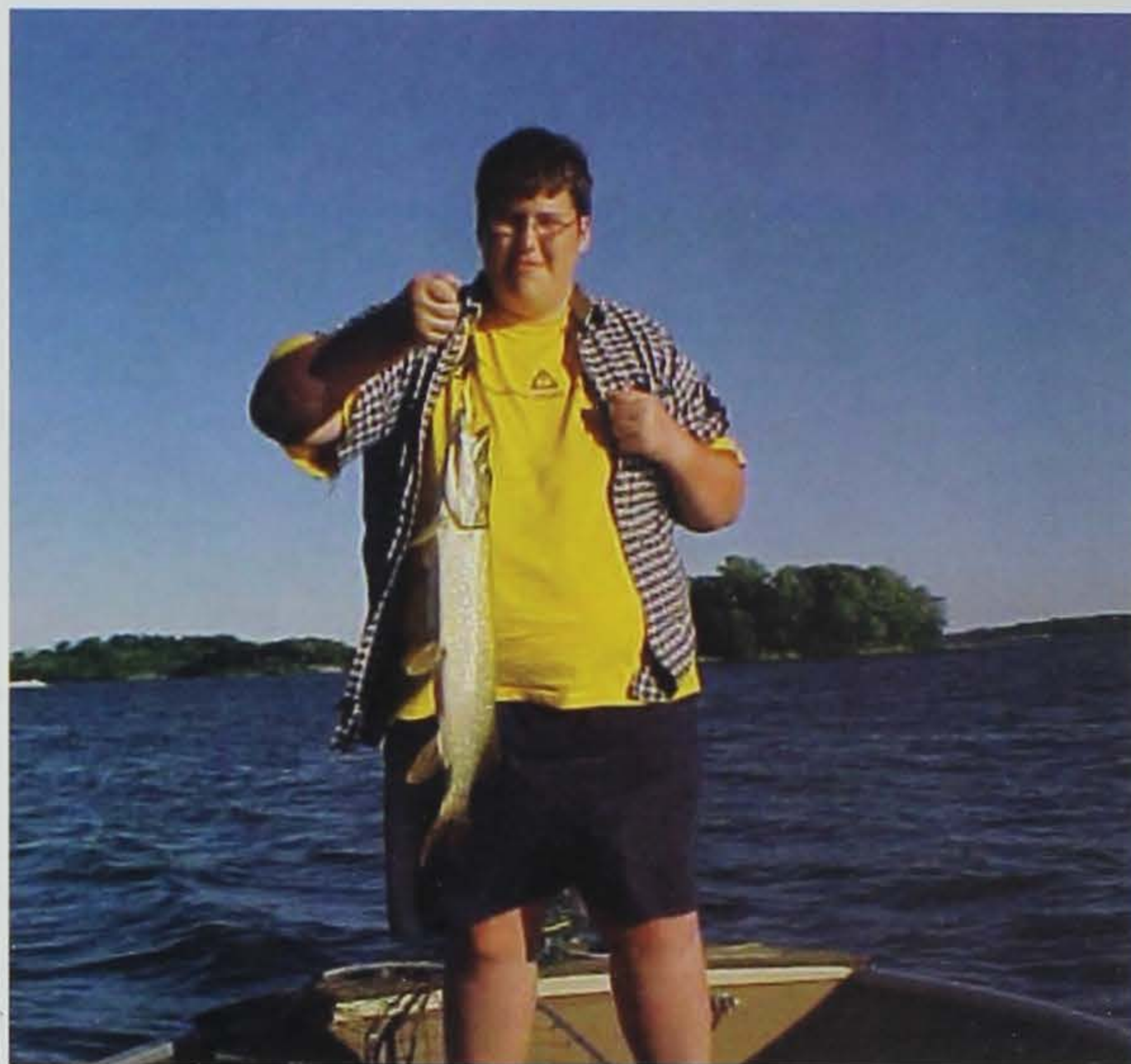
It was soon discovered that even though fish were "rested" for up to three months after initial testing, they would still "remember" the bait and respond only half the time to previous identical tests. Therefore, each group is required to endure as many different "kinds" of tests as possible before being released from duty.

The larger holding units were designed to keep enough "fresh" fish available so gaps in testing could be avoided, and so fish that were being retired could accumulate in a large area for recovery.

Hard bait development progressed at a much slower pace than soft bait development for many reasons. Where several fish would be required for a single hard bait test, only one would be needed for each chemoreception testing. Fish for soft bait development are assessed in the familiar environment of their home aquarium and do not need further acclimation. Acclimation time gobbles up several hours that taste testing can continue through. This results in many more repetitions of a single factor in a shorter period of time. More repetitions provide greater statistical significance, which while also attained at a test pool, do not come as quickly. Laboratory data is augmented with that collected in the field, using the new designs in normal fishing conditions.

Testing visual systems of fish provided great information, but it pointed to a need for more analysis of the physics of bait movement. A complete understanding of the motion of any particular hard bait was still somewhat elusive. What is it about a lure that makes fish see it as supper? What makes one lure more attractive than another? These were questions that would take years of development if left to fish opinion alone.

Casting and retrieving lures designed to work at different depths was a difficult thing to compare, especially in northwest Iowa in the dead of winter. An area swimming pool with a 12-foot depth could sometimes be used, but availability was severely limited. In an effort to address both of these issues, another laboratory was constructed adjoining



Maury Muhm



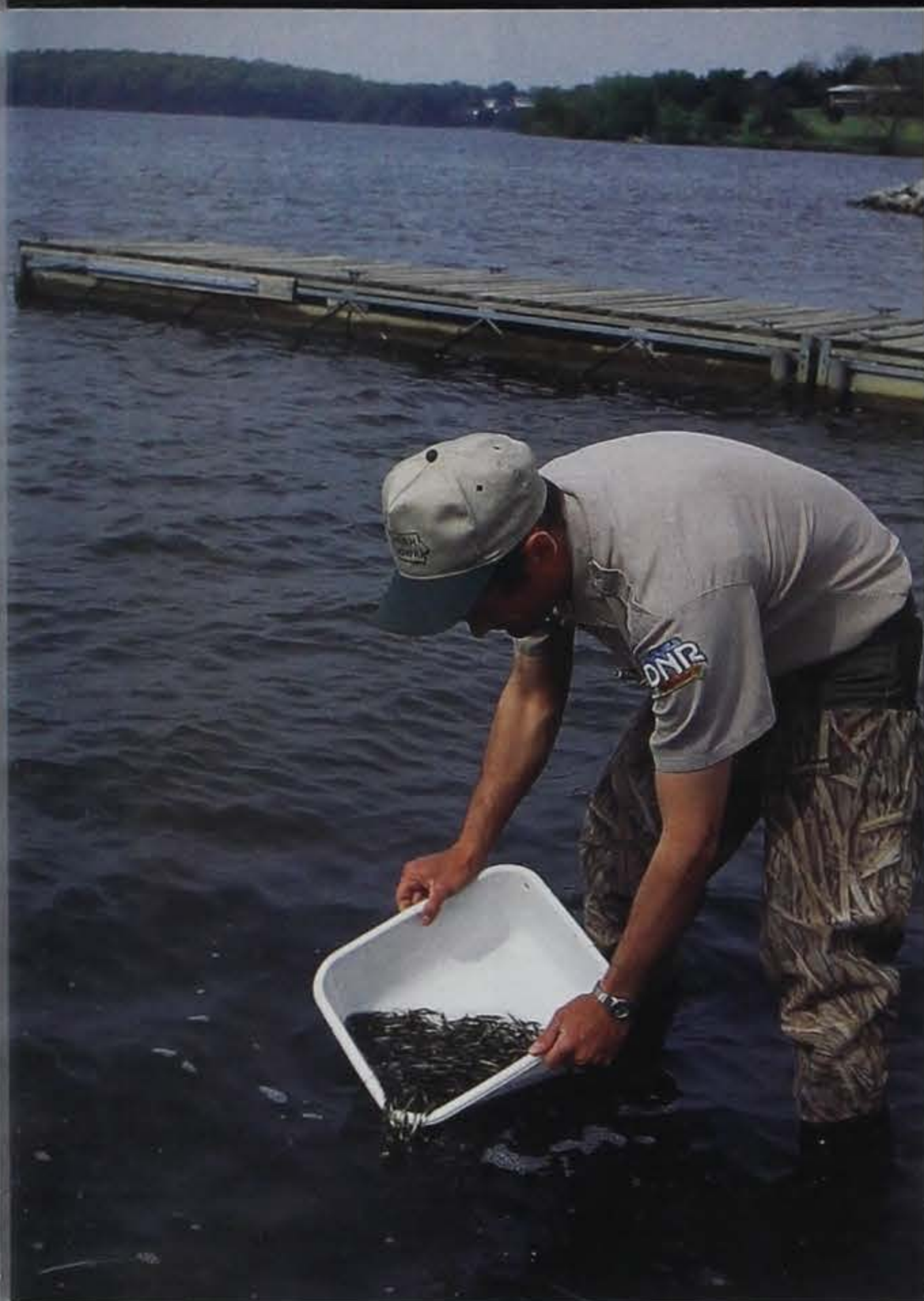
the first. This section houses a very special piece of equipment designed exclusively for Pure Fishing by the aircraft design industry. Taking basic wind-tunnel science, it provides a "water tunnel" in which lures can be suspended and the physics of their motion recorded and analyzed. Yet another industry developed the software to conduct these analyses.

A casting pool with adequate depth to test deep-diving lures was



also constructed. A unique feature of this pool is an underground observation window. Even human casting variability was eliminated by the use of a robotic arm, which casts and retrieves the lure repetitively at a set speed.

Sounds like pretty space age technology, doesn't it? Actually, the



Clay Smith

Opposite page: The author's son, Corey, is just one of many anglers benefiting from research by both the state agencies such as Iowa's DNR and private industries such as Pure Fishing.

The challenge in both public and private industry is to satisfy customers and at the same time improve efficiency. In a fish hatchery, that means finding ways to produce more fish with fewer resources. Left: DNR fisheries technician stocks northern fingerlings.

Success is discovery. Sometimes it may be discovery of what does not work, but the information is still extremely valuable.

How does the job of a

resource professional differ from my work in the private industry? In the DNR's fisheries bureau, the primary focus is to enhance and improve fishing for the citizens of this state and our guests. That sounds a lot like what the objective of a fishing tackle manufacturer might be. Though there may be different methods employed by each entity, the ultimate goal is the same. Both are working together to provide anglers with enjoyable and satisfying fishing experiences that lead to an appreciation of the abundant natural resources Iowa has to offer.

In order to satisfy your customers you must strive to continuously improve your services. The challenge is a constant effort to become more efficient. In a fish hatchery, that means finding ways to produce

more fish with fewer resources, to find better methods of feeding them, and to identify alternate rearing schemes for faster and better growth. Statewide, it means doing a better job of listening to what the customers want, and helping them see the added value research gives to these services. To continuously improve, change must be embraced and the circle must be complete.

Whether in corporate America or state government, those who adapt to change and use it to improve their services are the ones who enjoy the greatest success. We can all benefit from adopting the philosophy of continuous improvement in our professional and private lives. Passing the knowledge we gain about fish and fishing to anglers allows them greater enjoyment of the sport and of Iowa's natural resources.

Visit your local bait and tackle shop to find out what's new, then grab a pole and hit the water. You don't have to fish for a living to have fun fishing.

Donna Hanen Muhm is a natural resources biologist with the department at the Spirit Lake Fish Hatchery.

magic really begins with the continuation of the design phase using computer-assisted drawing and manufacturing. Draftsmen can input specifications, make design changes, print drawings, cut molds for injection and create a three-dimensional bait or lure in record time. Prototypes can then be assembled and further evaluated. A successful initial trial results in more detailed analysis, where materials, enhancements and other options can be chosen. More testing ensues, followed by product introduction, more tweaking or even abandonment.

The circle is complete, but the process never ends. Change is constant, with the goal of continuous improvement ever in the foreground. The process is both challenging and frustrating, but ultimately successful.

Ty Smedes



Purple prairie clover

A Peek At Preserves

by Neil Bernstein

Future generations will be able to enjoy Iowa's natural, prehistoric and historic heritage for centuries to come thanks to the State Preserves System. Since 1965 when the preserves system was established in Iowa, more than 9,000 acres of land have been dedicated.

These areas have qualified for preserve status in one or more of five categories: **biological**, possessing outstanding features such as prairies, forests or rare plants and animals; **geological**, having distinctive and rare deposits or features; **archaeological**, with examples of Iowa's Native Americans who roamed Iowa from about 12,000 B.C. into the 1800s; **historical**, having significant structures or objects associated with early Euro-American settlers or **scenic**, with exceptional natural beauty. The following preserves, Cayler Prairie and Freda Haffner Kettlehole, were established both as geological and biological preserves.

Most of Iowa's preserves are open to light recreating, hiking and photography. Some are part of wildlife management areas, purchased with hunting license fees, and are open to hunting, fishing and trapping. A few preserves are closed to the public because they are in private ownership or have sensitive plant or animal communities. To learn more about Iowa's preserve system, click on "State Preserves" at www.iowadnr.com.

Cayler Prairie State Preserve

One of Iowa's largest and most diverse prairie preserves is in Dickinson County just a few miles west of West Lake Okoboji. Cayler Prairie State Preserve offers diverse habitats for plants and animals, as well as great views of how glaciers impacted this part of Iowa.

Cayler Prairie State Preserve lies in the landform region of Iowa known as the Des Moines Lobe, and, as is typical of the region, there are eskers, shallow kettle wetlands and a rolling landscape that alternates from dry, exposed slopes to moist lowlands. Unlike most of the Des

Moines Lobe, however, Cayler Prairie State Preserve has never been plowed or drained, so these features and the plant communities represent the county as it looked before settlement.

Along with the prairie grasses and wildflowers that vary throughout the year, by June you can find nesting upland sandpipers, dickcissels and bobolinks as well as other prairie birds. Also, yellow-headed blackbirds and soras often nest in the wetlands during high-water years. Recently, ospreys nested on top of a microwave tower located on adjacent DNR land.

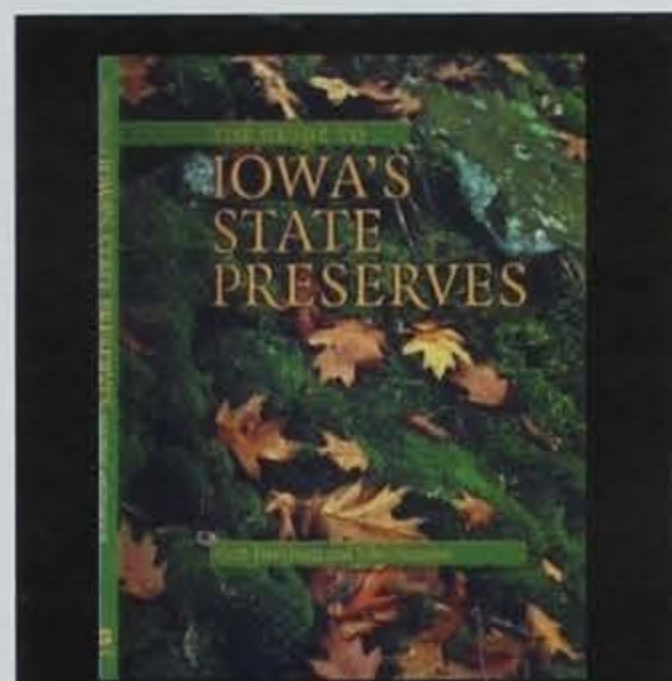
For all these reasons, Cayler Prairie State Preserve, owned and managed by the Iowa DNR, is also a national landmark. Whatever you are interested in, Cayler Prairie offers much to share.

Freda Haffner State Preserve

One of the most interesting geological features in Iowa lies a few miles southwest of West Lake Okoboji. The Freda Haffner State Preserve is the site of an extremely large kettlehole, a feature formed from an isolated block of ice which broke off during the last glacial retreat from Iowa about 14,000 years ago. Whereas smaller, shallow kettleholes can be found throughout Dickinson County, the main kettlehole at the Freda Haffner Preserve is unusually large with a length larger than a football field and a depth of 30 feet to the wetland at the bottom.

Much of the native vegetation was replaced by introduced agricultural species, but native prairie plants can be found on the preserve, especially along the west rim of the kettlehole. Nesting prairie birds are also present much of the year as are several prairie wetland species. Most summers, there is a large population of wood ticks in the preserve, and visitors should use appropriate measures to discourage ticks and check for them after leaving.

The Freda Haffner State Preserve is owned and managed by The Nature Conservancy, which is trying to re-establish native prairie plants in areas previously disturbed.



The *Guide to Iowa's State Preserves* is available for \$14.95 in local bookstores or through the University of Iowa Press online at www.uiowa.edu/uiowapress/herguito.htm.

Maps and directions to Freda Haffner Kettlehole, Cayler Prairie and other Iowa state preserves can be found by clicking on "State Preserves" at www.iowadnr.com, or you can purchase the *Guide to Iowa's State Preserves*.

The Iowa State Preserves Advisory Board is interested in volunteers for the Friends of the Iowa State Preserves to help monitor and manage preserves in their area. If you are interested in becoming a Friend, please contact Daryl Howell, 515-281-8524 or John Pearson, 515-281-3891 of the DNR.



Neil Bernstein

Neil Bernstein is a professor of biology at Mt. Mercy College in Cedar Rapids and chairman of the State Preserves Advisory Board.

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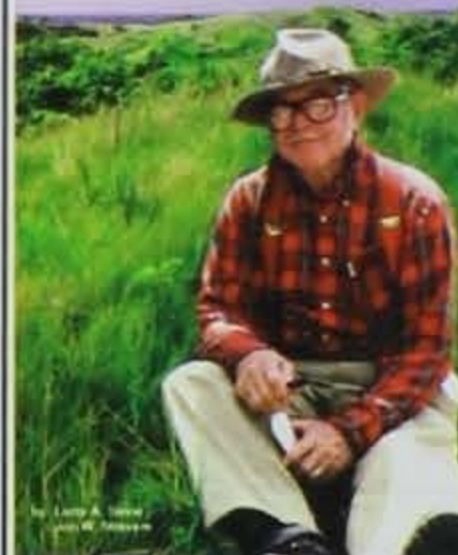
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PARKS PROFILE

Palisades~Kepler State Park

Generations of Beauty

Article by Jim Hansen
Photos by Clay Smith

It's no wonder Native Americans and early pioneers were drawn to the land that is now known as Palisades-Kepler State Park. Nearly 1,000 acres of rolling hills and deep ravines define the area where mature hardwoods have stood for centuries. The Cedar River winds its way through the park, flanked by towering limestone river bluffs where remnant prairies and red cedar trees have persisted since the early 1500s. The river likely attracted the earliest inhabitants of the area for its life-giving natural resources, such as water and the abundant wildlife that roamed the forests nearby.

By the mid-1800s these same natural resources were drawing early settlers into the region. One of the more notable was Civil War

veteran James Sherman Minott, who acquired 160 acres of timberland along the Cedar River in the early 1860s. Minott initially lived in a small rock cave near the river, existing on the abundant hunting,

a state park system. One of the primary tasks of the new agency was to identify those natural resources in Iowa that merited acquisition as state parks, and Palisades was a primary candidate.

With the initial purchase of 140 acres in 1922, Palisades-Kepler State Park was established. Additional acquisitions would follow over the next four decades, including cabins and even college fraternity houses, swelling the park to its present size of 840 acres by the 1960s.

It wasn't until the 1930s and the Great Depression, however, that

formal outdoor facilities were built. The new Roosevelt Administration swiftly established a number of programs, most notably the Civilian Conservation Corps (CCC), that provided employment to thousands of people across the country struggling through the depression. Through the CCC, Company 781 (later joined by Company 2722) was established at Palisades-Kepler in April 1933.

Their first order of business was developing a camp the 187 young men would call home for the next several years. Three barracks were



fishing and trapping opportunities the area provided.

But Minott's modest lifestyle and accommodations wouldn't last. He eventually built a hotel, restaurant and general store, established a boat rental along the river and sold lots for summer cottages. The community soon grew to more than 200 people, and for years the area flourished as a private recreational site.

With interest in an Iowa state park system growing, in 1917 the Iowa Legislature created the Board of Conservation to establish

ABOVE: The lodge is popular for weddings and family reunions. RIGHT: Tree-lined bluffs provide a picturesque view of the Cedar River.



PARKS PROFILE

constructed, along with a mess hall and a headquarters. Between 1933 and 1939, the men painstakingly yet efficiently constructed cabins, bridges, trails and roads, many of which remain a legacy for generations to come. The rustic limestone lodge, for example, was constructed at a cost of \$7,000 and the majestic entrance portals were built for several hundred dollars.

It was all hard, painstaking and sometimes frustrating work, but none as much as a 300-foot dam spanning the Cedar River designed to enhance water recreation in the area. Workers spent years diligently erecting the dam, only to have portions of it washed out several times during high water periods in 1936. Eventually the project was completed, and the dam created a reservoir upstream for boaters and anglers. Unfortunately, the dam suffered a severe washout in the 1950s, and a feasibility study indicated the dam could not sustain itself during high water periods.

The lure of Palisades, however, runs deeper than the human history of the area. Visitors are drawn to the park for its natural attractions, including the flora, fauna and geology. The dense forest provides an ideal environment

for many species of wildlife. White-tailed deer and wild turkey are abundant in the park, as are raccoon and other common forest dwellers. Turkey vultures are also a common sight as they glide along the bluffs of the Cedar River.

Fishing is a popular activity for all types of species common to Iowa rivers. The unique shovel-nose sturgeon and paddlefish, which travel up the river from the Mississippi in search of spawning grounds, are occasionally pulled from the waters below the dam.

The mature hardwood forest harbors many species of trees and woodland wildflowers. Black maple, basswood, red and white oak, shagbark hickory and green ash are the predominant species within the park. Some of the hardwoods are more than 200 years old, creating an ideal environment for unique plants on the forest floor, including numerous species of lush ferns and several orchids that are all native to the area.

Those who visit Palisades today will observe a series of renovation projects underway. In the late 1990s the campground was restored with new roads, utilities, fire grills and leveled campsites. The lodge has also been restored and has become even more popular for weddings and receptions, family reunions and other celebrations. The four family cabins are slated for major renovation work this year.



Another project on-line for this year is the renovation of the trail system. Several miles of rugged trails were developed in the 1930s, and although they have withstood the elements well, they are now in need of major repair. This will likely be an ongoing project that may take several years to complete.

TOP: The dense forest is home to a variety of animals such as deer and wild turkey. The trail system will undergo renovation over the next several years.

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AmeriCorps staff will move into the park, replacing old limestone steps and rebuilding the eroded landscape back to its original conditions. The program will train and educate young workers and hopefully recondition the trails for another 70 years of use.

The park has two primary trails and several trails that connect to various areas of the park. Cool Hollow Trail passes through one of the deep ravines in the forest. On a hot summer day, there is a noticeable

difference in the temperature at the low point of the trail, hence its name. Cedar Cliff Trail is a rugged trail running along the entire northwest side of the park leading hikers high above the Cedar River. It will receive most of the attention from the AmeriCorps workers in the years to come.

When you come to Palisades to hike the trails or watch the turkey vultures glide along the river, remember all those who have done the same before you. Native Americans looked over

these bluffs in search of food, and early settlers lived in rock caves hunting and trapping as a means of survival. Later, residential and commercial development helped turn the area into a blossoming recreational site. Eventually, CCC workers developed a legacy of facilities for future generations to enjoy. And don't forget the rich flora and fauna that has been there for centuries slowly maturing as the generations pass by.

Jim Hansen is the Park Ranger at Palisades-Kepler State Park.

PALISADES-KEPLER AT A GLANCE

LOCATION: Located at 700 Kepler Drive, four miles west of Mount Vernon and 12 miles east of Cedar Rapids and Marion.

FISHING: The 840-acre park, established in 1922, sits along the Cedar River, providing fishing opportunities for a variety of species such as channel catfish, bass and bluegills.

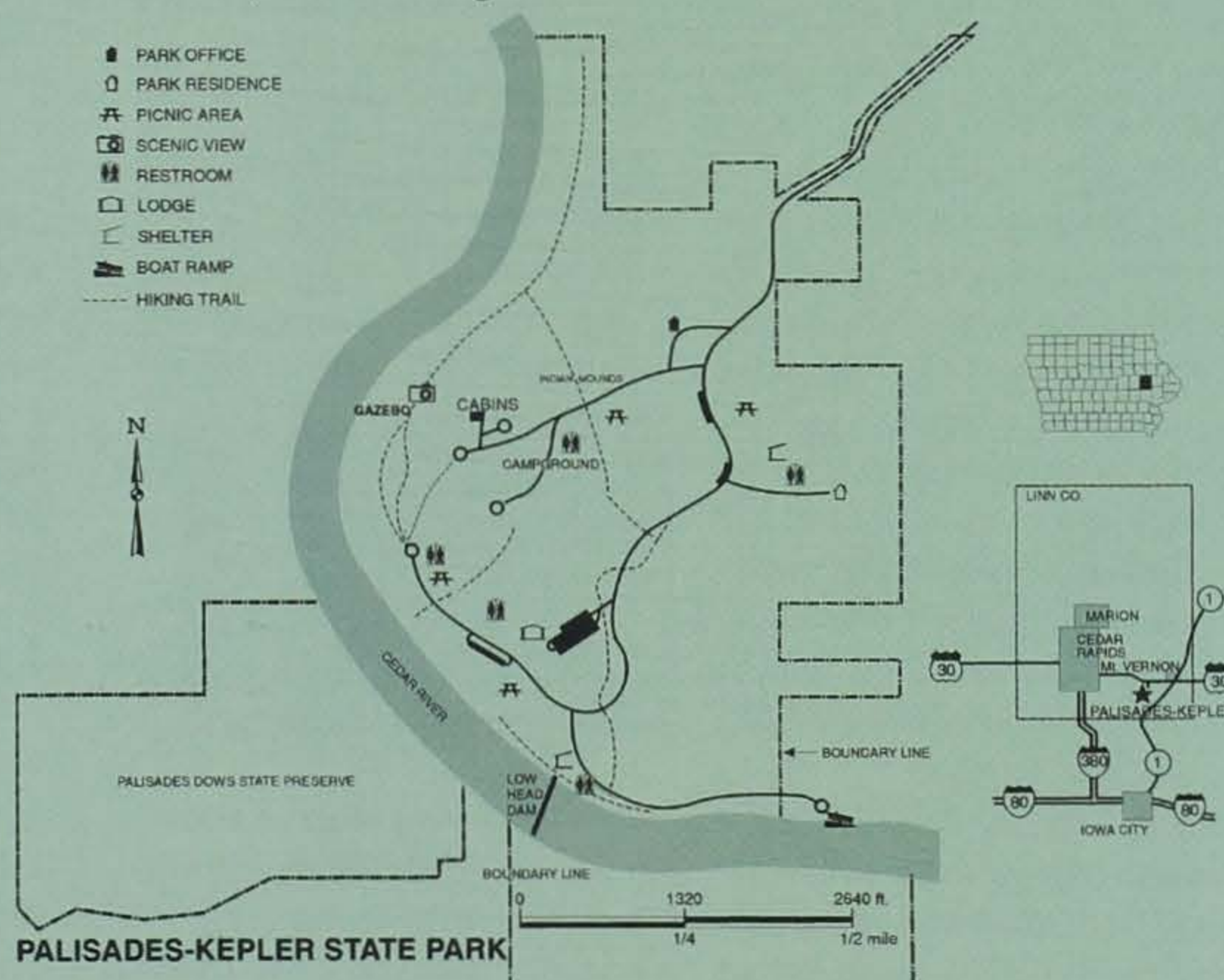
CAMPING: The 76 campsites include 45 with electrical hookups and modern shower and rest room facilities. Four cabins are available for weekly rentals. Cabins accommodate up to four people.

TRAILS: Six miles of trails provide ample opportunities to view a wide variety of wildlife and plant species.

PICNICKING: With its scenic views of the Cedar River and the tree-lined bluffs along it, Palisades-Kepler is a popular place to picnic. An open picnic shelter may be reserved for a fee through the park ranger.

BOATING: A modern boat-launching ramp provides convenient river access.

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CONSERVATION 101

Are You Ready for Winter?

by Jennifer Moehlmann

Although keeping warm this winter is probably the least of Iowans' concerns now, a few simple steps taken this summer could increase comfort and save a lot of dollars this winter.

A colder-than-normal winter and rebounding economy, along with high crude oil prices, have combined to drive natural gas prices to record-high levels. While last winter is just a memory, natural gas storage levels are still 15 percent lower than the five-year average and prices are currently 83 percent higher than last year. Storage levels are building quickly, but there is still a long way to go before they reach comfortable levels for heating this coming winter. It's a safe bet Iowa residential customers will pay more to heat their homes this year than last — just how much depends on the level of natural gas in storage at the beginning of the heating season and what demand is.

Iowans are not completely powerless, however. Following are just a few simple steps to increase a home's energy efficiency and significantly reduce a homeowners' energy bill. Additional savings are often available in the form of rebates offered by many utility companies for certain energy-saving improvements.

Insulation

*With the help of an incense stick, checking for air tightness is simple. Hold the incense close to windows and other fixtures. If the smoke travels horizontally, that area could use some sealing.

*Adequate attic insulation is the easiest and most cost-effective way to insulate your home. If there is less than 7 inches of fiberglass or rock wool or 6 inches of cellulose when you measure the insulation, you could probably benefit by adding more.

*Use higher density insulation, such as rigid foam boards, in cathedral ceilings and on exterior walls.

*Many utilities offer free energy check-ups and rebates for adding insulation in attics or walls.

Heating

*Always look for the ENERGY STAR® and Energy Guide labels when buying new products. While certain products may cost more initially, they will save you money in the long run and your utility may offer a cash rebate on the appliance. ENERGY STAR® is a program of the U.S. Department of Energy (DOE) and the Environmental Protection Agency (EPA) designed to help consumers identify energy efficient appliances and products.

*Installing a programmable thermostat will allow you to cut back on heating during certain hours of the day like when you are not home or sleeping. This can save you up to 10 percent on heating costs.

*Clean or replace filters on furnaces once a month or as needed.

*Use ventilating fans, such as those in kitchens and bathrooms, wisely; they can pull out a houseful of warmed or cooled air.

*Close an unoccupied room that is isolated from the rest of the house.

*Keep the fireplace damper closed unless a fire is going. Allowing it to stay open is like keeping a 48-inch window wide open during the winter.

Water Heaters

*Insulate your gas or oil hot-water storage tank and pipes, but don't cover the thermostat.

*Set the thermostat on your water heater at 115 degrees F. When coming from the factory, most water heaters are set at a level higher than necessary.

*Take a shower rather than a bath. In the average household, bathing consumes the most hot water. While taking a bath uses about 15 to 25 gallons of hot water, hopping in the shower for five minutes will use less than 10 gallons. Those gallons easily add up.

Landscaping

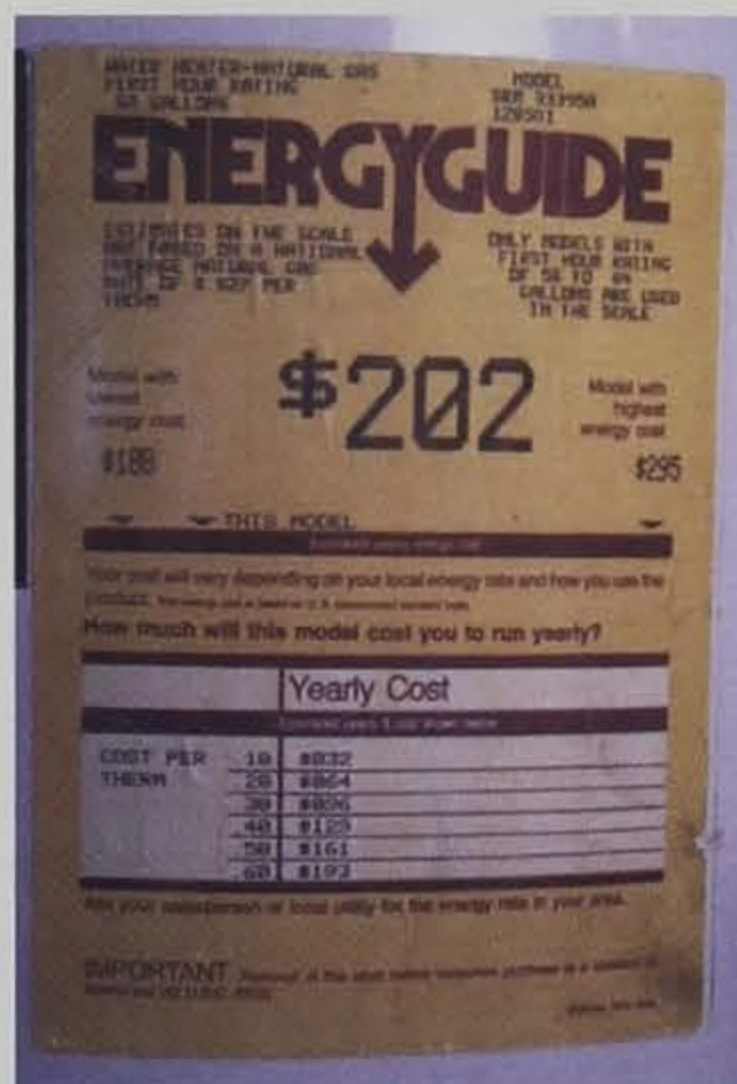
*Trees can help reduce energy costs in both summer and winter. Trees that lose their leaves in the fall are the most effective at reducing cooling costs. When selectively placed around a house, they provide excellent protection from the summer sun, but permit winter sunlight to reach and warm



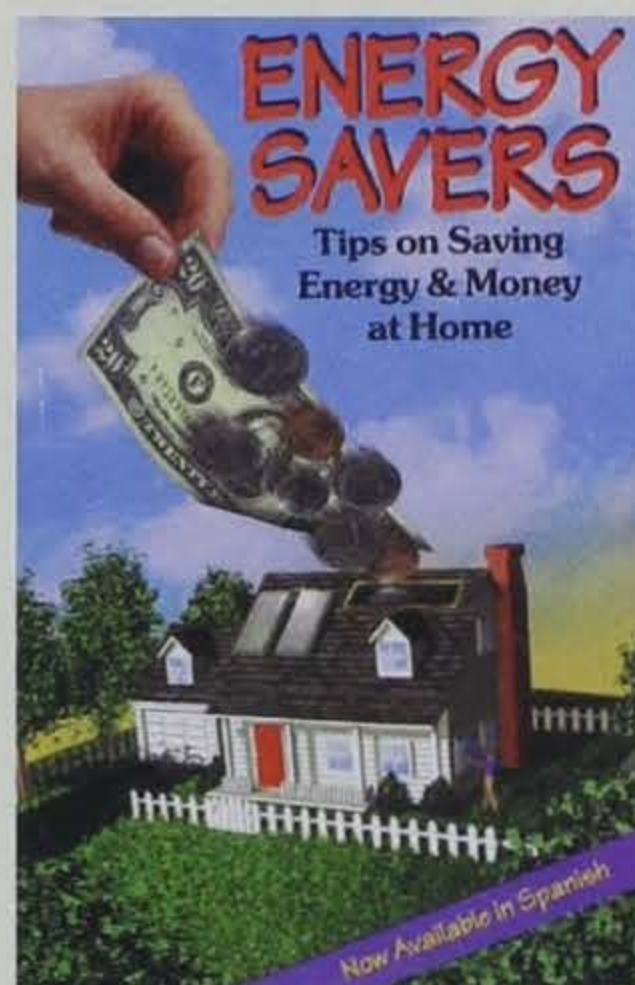
TOP: Correctly insulating your house can cut almost 10 percent off your electric bill each year.
RIGHT: Always check the specifications on appliance Energy Guides. Certain models may be more expensive initially, but will save money in the long run.

the house. The height, growth rate, branch spread and shape are all factors to consider in choosing a tree.

*Deflect winter winds by planting evergreen trees and shrubs on the north and west sides of the house.



Jennifer Moehlmann is an energy data analyst for the department's Energy and Waste Management Bureau in Des Moines.



Information found here was provided by *Energy Savers: Tips for Saving Energy & Money at Home*. This booklet is a product of the U.S. Department of Energy (DOE) and provides more than 100 energy saving project ideas for homeowners to save money. An electronic version is available through DOE's website at www.eere.energy.gov/consumerinfo/energy_savers/ or request a hardcopy by writing the Iowa DNR, Wallace State Office Building, 502 E. 9th St., Des Moines, Iowa 50319, or call 515-281-4262.

KIDS' CORNER

Hiking into Iowa's Wild Areas

by Trish Yauk



Ron Johnson

Going for a hike is one of the best ways to enjoy the outdoors. It is a great way to look at the wonders of nature and get some exercise at the same time.

Hiking is something you can do on your own, with a friend or with your family.

You can look for plants, bugs, mammals, birds, rocks or trees to make the hike

more interesting. Don't forget to bring identification books; learning about the things you discover is often the best part.

There are many trails to hike in Iowa. Visit your local state or county park, recreation area, preserve or wildlife area to begin the adventure. From the prairie of the Loess Hills to the forests of Pikes Peak State Park, Iowa has wonderful trails to explore.

Quick Fact:

Did you know the backpack trail at Yellow River State Forest was rated the best hike in Iowa by the April 1996 edition of "Outside" magazine?

Safety Corner

Follow these tips to have a safe hike.

1. Always have an adult hike with you.
2. Bring a first aid kit.
3. Watch the weather before hiking. Make sure bad weather is not coming.
4. Stick to the trails, don't wander off.
5. Let equestrian (horse) riders, bikers and faster hikers pass you.

Trisha Yauk is an AmeriCorps regional educator for northern Iowa.

Discovering your Senses

How many of the items below can you see, feel or hear?

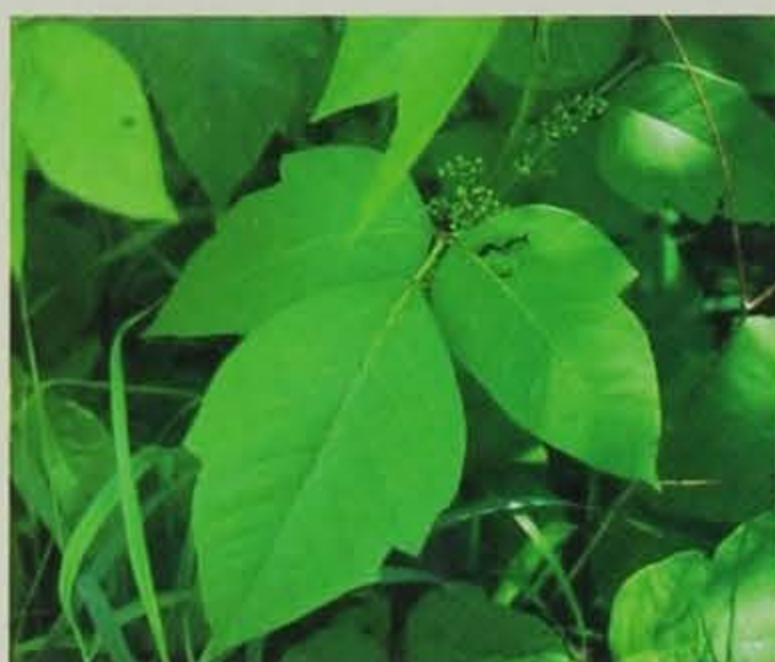
Check them off as you go.

- | | |
|--|---|
| <input type="checkbox"/> An animal with fur | <input type="checkbox"/> A tree with rough bark |
| <input type="checkbox"/> An animal that flies | <input type="checkbox"/> A yellow flower |
| <input type="checkbox"/> A place where animals may sleep | <input type="checkbox"/> One plant you've never seen before |
| <input type="checkbox"/> Two different bird songs | <input type="checkbox"/> A smooth rock |
| <input type="checkbox"/> Fruit from a tree | <input type="checkbox"/> Three bugs under a rock |
| <input type="checkbox"/> A very tall tree | <input type="checkbox"/> A green beetle |

POISON IVY

A Hand You Don't Want to Shake

Poison ivy is a common plant found in forests and prairies. The oil from this plant can cause dermatitis (a rash on your skin). In Iowa, poison ivy can be a vine climbing up trees or a plant growing on the ground. Learn how to identify poison ivy before hiking.



Clay Smith

1. Look for a plant that has three leaves. Leaves of three let it be.
 2. The leaves are usually shiny.
- A poison ivy vine will be "hairy." Look for other clues to make sure it is poison ivy.

Birds Of A Feather?

Have you seen any of these birds? Keep a journal of what the bird was doing when you saw it.

Redwinged Blackbird

Clay Smith



DNR photo

Cardinal

Goldfinch

DNR photo



Clay Smith

American Robin

Searching for a Hike

Look for the following items you can take on a hike. Items are across, down and diagonal.

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water

map
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binoculars
first aid kit

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CONSERVATION UPDATE

Changes In Store For Iowa Deer Regulations; Hunters Encouraged To Harvest More Does

Iowa hunters will find unprecedented opportunities to hunt deer this fall when licenses go on sale across the state Aug. 15.

New regulations in place this year will allow hunters to harvest more deer, expand the license buying options and make it more convenient to purchase licenses. For example, the Dec. 14 deadlines for purchasing most deer licenses have been lifted, and hunters will now be able to purchase licenses until quotas are reached (if there are any) or the last day of the respective season, whichever comes first.

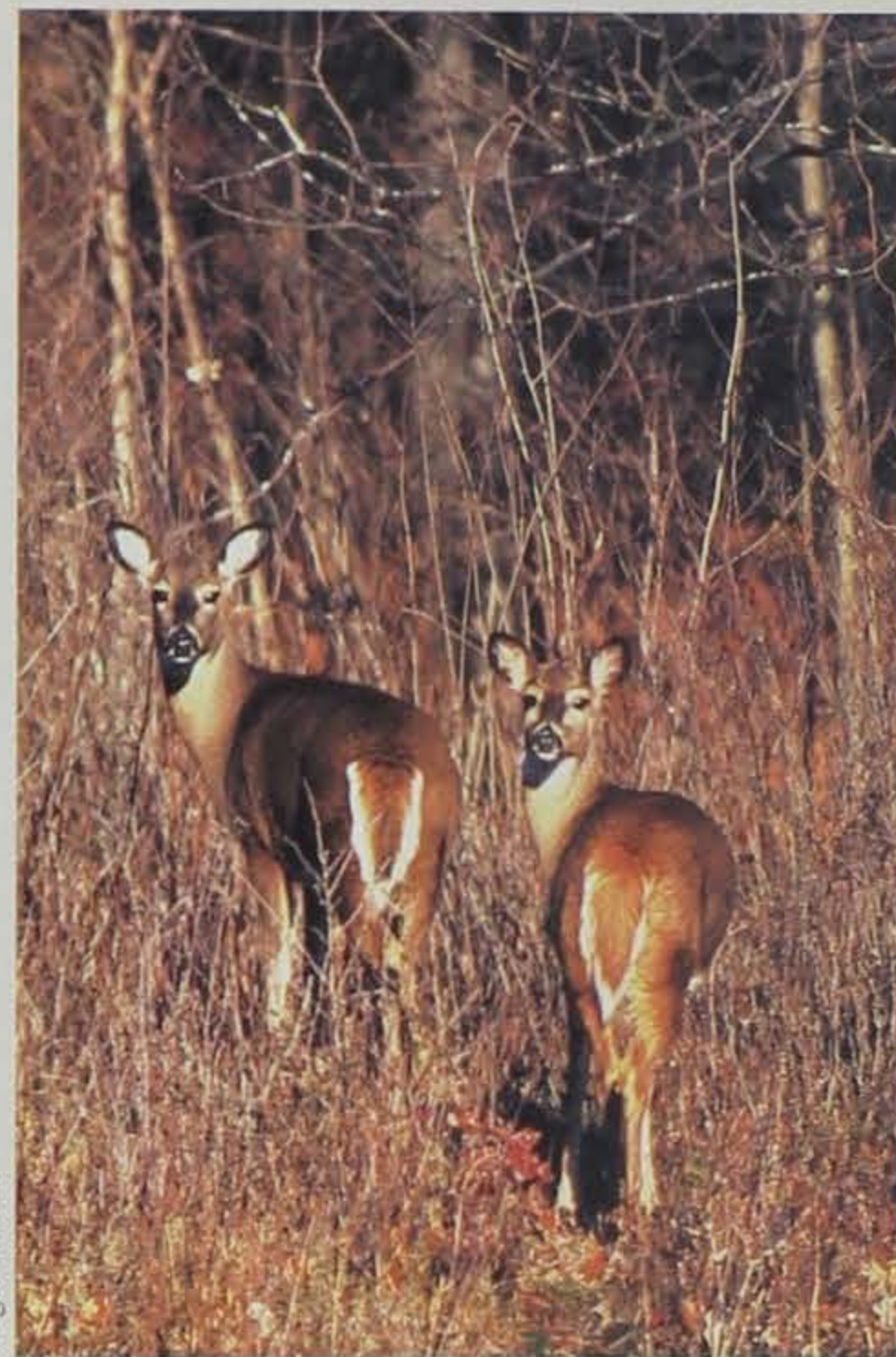
Antlerless license quotas have also been increased in all counties, and the special late season will now be open statewide. Antlerless licenses will also be available for all seasons except the youth season. In many cases, resident hunters will be allowed to purchase as many as eight licenses — two any-deer and six antlerless-only licenses. All changes are explained in the *2003 Deer and Fall Turkey Hunting Regulations and License Instructions* due out in stores by early August. The book also contains a detailed list of possible paid deer license combinations.

Although the changes were designed to provide more opportunities to hunt, they were also adopted to help reduce the deer

population in Iowa.

Surveys have shown deer numbers have grown across most of Iowa, and many Iowans have said they feel there are too many deer. The Iowa Legislature has indicated that, if there is not a significant reduction in deer numbers this year, it may impose new regulations to accomplish that goal.

Fall turkey licenses also go on sale Aug. 15.



Roger A. Hill

Fishing Regulations Relaxed At Lake Anita

Fishing regulations at Lake Anita have been relaxed to give anglers the opportunity to harvest as many fish as they want before the lake is renovated in September.

Anglers are allowed to use an unlimited number of lines and hooks to catch fish. Size and possession limits have also been lifted on largemouth bass and channel catfish. All other general fishing regulations will remain in place. Anglers will still be required to have a valid fishing license and follow all other park rules. Liberalized fishing regulations for Lake Anita will be in effect through Sept. 1.

The renovation is needed to eliminate a growing yellow bass

population that has taken over the fishery and is squeezing out other fish populations. Largemouth bass, bluegill and crappie numbers are down drastically since yellow bass were introduced to the lake in 1995.

Following the renovation, largemouth bass, bluegill, redear sunfish and channel catfish will be restocked in early October. Crappies will be stocked in 2005 after the bass population is established. It is important for anglers not to transport any yellow bass they catch to other lakes or streams.

For more information, contact the Southwest Iowa District Fisheries Office at (712) 769-2587.

Iowa's Pheasants Respond To Mild Weather; Nesting Success Looks Good

Iowa pheasant hunters are in for a quality year if spring nesting statistics are any indication.

Iowa's pheasant population doubled in 2002 following a very mild winter and average spring weather. Mild weather again last winter and this spring have DNR biologists optimistic about the spring hatch.

"Our pheasant population typically shows increases following mild winters (Dec.-March) with springs (April-May) that are dryer and warmer than normal," said Todd Bogenschutz, DNR upland game biologist. "This past winter was mild by Iowa standards with cumulative mean snowfall 34 percent below the 1961-90 normal. Statewide April-May precipitation averaged 7.9 inches or about three quarters of an inch above normal, while the mean temperature was 54 degrees or 1 degree below normal."

Adding to the optimism is the fact, due to the mild winter, more birds made it into the breeding season this spring. Bogenschutz cautioned, however, that even though this spring was fairly mild, "...it was cooler and wetter than we like to see for nesting," which may have impacted chick survival.

Bogenschutz predicts, based on the data, the statewide pheasant count should increase this fall, but he doubts counts will double like they did in 2002.

Due to slightly above-normal rainfall in central, west-central and

southwest Iowa this spring, Bogenschutz expects those areas to show smaller increases than other regions.

Based on 2002 August roadside survey counts—the most reliable population indicator—Iowa's pheasant population increased from the all-time low of 14 birds/survey route in 2001 to last fall's statewide estimate of 32 birds/survey route.

Bogenschutz expects this year's statewide index could reach 40 or more birds per route barring any major changes in the weather pattern. "Iowa pheasant hunters generally have very good success anytime the DNR's roadside index surpass 40 birds/route."

August roadside numbers will be posted Sept. 15. on the DNR's webpage at www.iowadnr.com/wildlife/

Tenth Annual Becoming An Outdoors-Woman Workshop Set For Sept. 5-7 At Springbrook

There is still time to sign up for the Tenth Annual Becoming an Outdoors-Woman (BOW) workshop set for Sept. 5-7 at the Springbrook Conservation Education Center near Guthrie Center.

The workshop is aimed primarily at women, but is an opportunity for anyone 18 years old or older to learn outdoor skills usually associated with hunting and fishing, but which are useful for many other outdoor pursuits.

Workshop topics include: basic fishing, muzzleloading, fly fishing, birdwatching, archery, nature photography, beginning shotgun shooting, basic motor boat skills, orienteering and map reading, canoeing, camping, Dutch oven cooking, backpacking and much more. New this year are sessions on turkey hunting, waterfowling and using



Clay Smith

Global Positioning System (GPS) technology. The cost is \$135 and covers food, lodging and materials for the weekend workshop. Registration is limited to the first 100 people.

Brochures and registration forms are available to be downloaded at www.iowadnr.com or by contacting Julie Sparks at 515-281-6159.

CONSERVATION UPDATE

Homeowners Cautioned Of Potential Dangers With Vermiculite Attic Insulation

State and federal officials are cautioning homeowners to avoid disturbing vermiculite attic insulation due to new concerns that the materials may be contaminated with low levels of asbestos.

Marion Burnside, the state asbestos inspector with the Department of Natural Resources, said the advice comes from a joint U.S. EPA and Agency for Toxic Substances and Disease Registry campaign to raise awareness and educate homeowners on how to avoid exposure.

"It's a cause for concern, but not for panic," Burnside said. "People should take simple, common sense precautions to avoid inhaling asbestos fibers." He noted that common dust masks do not provide protection against asbestos fibers.

Much of the vermiculite used to make attic insulation originated from a mine in Libby, Mont., where natural veins of asbestos in the earth contaminated the vermiculite supply. That mine closed in 1990. Currently, vermiculite is mined at three U.S. facilities and in other countries which have lower levels of asbestos contamination in the finished material.

Due to scientific uncertainties associated with existing testing techniques, there is no easy or dependable testing method to differentiate between vermiculite insulation that might have some

asbestos fibers and vermiculite insulation that does not. Because home testing of vermiculite is not practical, it is best to assume that the material may contain asbestos and take appropriate precautions.

Federal and state officials further advised children shouldn't be allowed to play in an attic with open areas of vermiculite insulation and boxes or other items should not be stored in attics if retrieving them will disturb the insulation. If homeowners must go into attic

space with vermiculite insulation, they should make every effort to limit the number, duration and activity level of those trips. If insulation removal is necessary, hire professionals trained and certified to safely remove the material.

To view a brochure on how to identify and manage vermiculite insulation, visit the EPA website at www.epa.gov/asbestos. To order the brochure or speak to specialists, call the EPA hotline at (800) 471-7127.

Smoking Tailpipe Program Gaining Steam

The calls and emails keep coming — more than 1,300 so far, from citizens reporting vehicles with excessive exhaust to Iowa's Smoking Tailpipe program. Billboards and radio ads are promoting the effort in select areas this summer (see page 4).

"We knew people would respond favorably and they have. Give Iowans the tools to help take care of their communities and they do. We are all proud of our clean air and want to protect it while helping others make smart choices about vehicle care," said Brian Button, DNR air information specialist.

Once reported, the vehicle owner receives educational materials that explain probable causes and repair benefits — longer engine life, higher

resale value, fuel savings and avoidance of more serious engine damage. The DNR also sends repair coupons from sponsoring auto dealers and repair businesses. "It is an incentive that no other state offers," he said. The decision on making repairs is up to the vehicle owner. For more details, visit www.iowacleanair.com.



Don't Let Aquatic Hitchhikers Take You For A Ride

Summer is here and it's time to get out and enjoy Iowa's lakes, rivers and streams. Just make sure to leave the unwanted guests behind.

Eurasian watermilfoil, zebra mussels and other harmful aquatic species threaten Iowa waters. These aquatic nuisance species can hitch a ride on boats, fishing gear, bait buckets and other items used in the water. When transported to another lake or stream, the aquatic nuisance species can be released. These species can then become established and create serious problems.

Aquatic nuisance species can reduce game fish populations, render lakes and rivers unusable to boaters and swimmers, ruin boat engines, jam steering equipment, reduce native plant species, clog power plant and public water intakes and pipes, reduce property values and affect local economies.

Eurasian watermilfoil and zebra mussels are two nuisance species that have hitchhiked their way into Iowa. Currently, they are found in relatively few Iowa lakes and rivers, but they can spread easily — and new species can enter from other states — if steps are not taken to prevent their spread. In fact, it is illegal to transport Eurasian watermilfoil on public roads in Iowa.

To prevent the spread these



Lowell Washburn

Eurasian water milfoil species, follow these procedures every time you come in contact with any body of water.

- ◆ Remove any visible plants, fish, animals or mud from your boat, trailer and other equipment.

- ◆ Drain water from all equipment (motor, live well, bilge, transom well).

- ◆ Clean and dry anything that comes in contact with water (equipment, boots, clothing, dogs).

- ◆ Before transporting to another water body either, 1) rinse your boat and equipment with hot (104°F) water; 2) spray your boat and trailer with high-pressure water at a car wash; or 3) dry your boat and equipment for at least five days.

- ◆ Never release fish, animals or plants (bait, aquarium species, water garden plants) into a water body unless they came out of that water body. Empty unwanted bait in the trash.

Learn to identify Eurasian watermilfoil and zebra mussels. Report any suspected infestations to the nearest DNR fisheries station.

Upcoming NRC and EPC Meetings

The dates and locations have been set for the following meetings of the Natural Resource Commission and Environmental Protection Commission of the Iowa Department of Natural Resources.

Agendas are set approximately 10 days prior to the scheduled meeting date. For additional information, contact the Iowa Department of Natural Resources, Wallace State Office Building, 502 E. 9th St., Des Moines, Iowa 50319-0034.

Natural Resource Commission:

- August 14
Chariton
- September 11
Viking Lake
- October 9
Northeast Iowa,
Waterloo Creek
- November 13
Des Moines

Environmental Protection Commission:

- August 18
Des Moines
- September 15
Des Moines
- October 20
Des Moines
- November 17
Des Moines

WARDEN'S DIARY



My Trip to the State Fair

— by Chuck Humeston —

I guess I always viewed it as a place I liked to visit, but never thought I would work there.

Every officer, sooner or later, experiences the annual August Rite of Passage. At some point in their career, nearly every officer will be assigned to work the law enforcement booth in the DNR Building at the Iowa State Fair.

I grew up about an hour from the fairgrounds, so it was easy for my friends and I to check out the fair. Sometimes we ran up every day. Rides were a little cheaper then, so with a minimum of cash, we could ride until we barfed. Then it was on to another corn dog.

Later it was the concerts. I still remember the grandstand concert the last day of the 1972 fair featuring The Guess Who. Who? The Guess Who, that's who! I guess I'm showing my age. Greatest rock concert I've ever seen, and that includes Grand Funk Railroad at Vets. Who? Forget it. I got home from the concert at about 2:30 a.m., loaded up my 1970 Ford Torino — aqua green in four

doors — and headed for Iowa City to be at the university the next day.

Typically, new officers in their first year of work are assigned to the fair, answering the multitude of questions from the public. I've never quite figured that out, but it's kind of fun to watch rookies in the booth with people three deep in front firing questions, and watching them thumb through an Iowa Code Book to find the answers, and scratching their head at the same time.

For me, the Rite of Passage took about five years to come, mostly because I did my best to avoid it. When my supervisor, Ben Davis, asked for volunteers, I would get small. No, actually I would hide. My "volunteer" arm would remain frozen to my side. It wasn't until later, when he asked again, "Whose turn is it to work at the Fair?" at a staff meeting, that all eyes turned to me, and a chorus of caring voices yelled with fingers pointing, "HUMESTON!"

Quite honestly, I think I've worked it almost every year since. It's different duty, and the questions keep you on your toes. I swear I think some people must stay up at night forming obscure questions.

One day, a man said, "I really like it that you guys are having a handgun season for deer this year."

"Really?" I answered.

"Yeah" he said, "I have a .44 magnum, and I can shoot a 2-inch group at 50 yards."

"That's amazing," I answered. "I have to qualify with my handgun six times a year, and at 50 yards the broad side of the barn isn't big enough.

"Oh yeah," he said proudly. "With my laser sight I can...."

"Whoa, wait a minute," I interrupted. "Do you know what a laser is?"

He looked at me quizzically. "No."

"It's artificial light. Do you know what the rules say about hunting with artificial light?"

"Thank you," he said, and turned to leave with the spring noticeably out of his step. I hated to burst his balloon for him.

We also have an annual exhibit of different furs at the booth. One time a little girl, somewhere around 10 years old, was looking at a coyote pelt. She said, "Is that a wolf?"

"No, it's a coyote."

She stared at it. "Do you know if you kill a wolf you take its spirit too?"

"No, I haven't talked to one

lately." I could tell where this was going.

She turned her gaze to me. "You're evil!" she hissed and walked away.

The rest of the day I had to listen to my partner in the booth, Burt Walters, hissing "Yooouuu'rrreee eeevvviiilllll."

But Burt got his time in the barrel. A man struck up a conversation with him, during the course of which he asked, "So, is the DNR stocking cougars in Iowa?"

"No, we aren't," Burt answered.

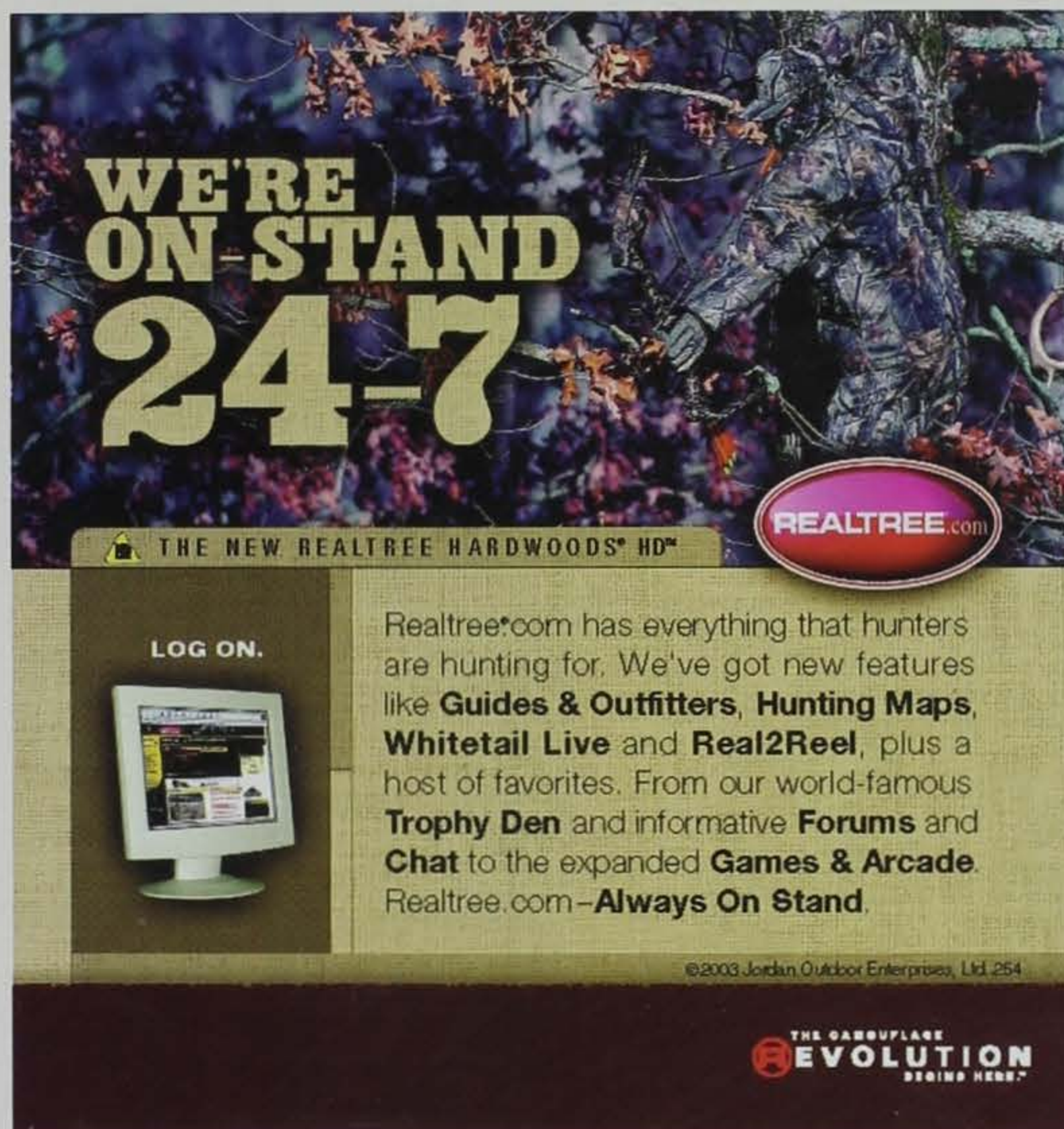
"YOU'RE LYING!" the man shouted.

The rest of the day Burt had to listen to me saying, "Liar, Liar Liar" to him.

A day at the fair can get long and hot. Sometimes we will do anything for a distraction. One year we had a map of the state. Above it were pictures of a mountain lion, a bobcat and a black bear. Below the map was a box of pins with different colors corresponding to each animal. Those who believed they had sighted one of the three animals were asked to put a pin for that particular animal on the map in the location where it was sighted. I looked at the schedule of who was working at the Fair, and one of the officer's names popped out at me. I couldn't resist. Walking to the map, beginning to believe that maybe I was evil, I put about

25 of the mountain lion pins on the county where that officer works. I could only imagine the questions he would get the next day, and I can only imagine the payback I will experience after he reads this.

If you get a chance, stop by the DNR Building this year. We'll be in the willow easy chairs on the front porch of the exhibit. Unless we're out for a turkey leg or a giant tenderloin, we'll see you there!



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See pages 32-33 for details

