

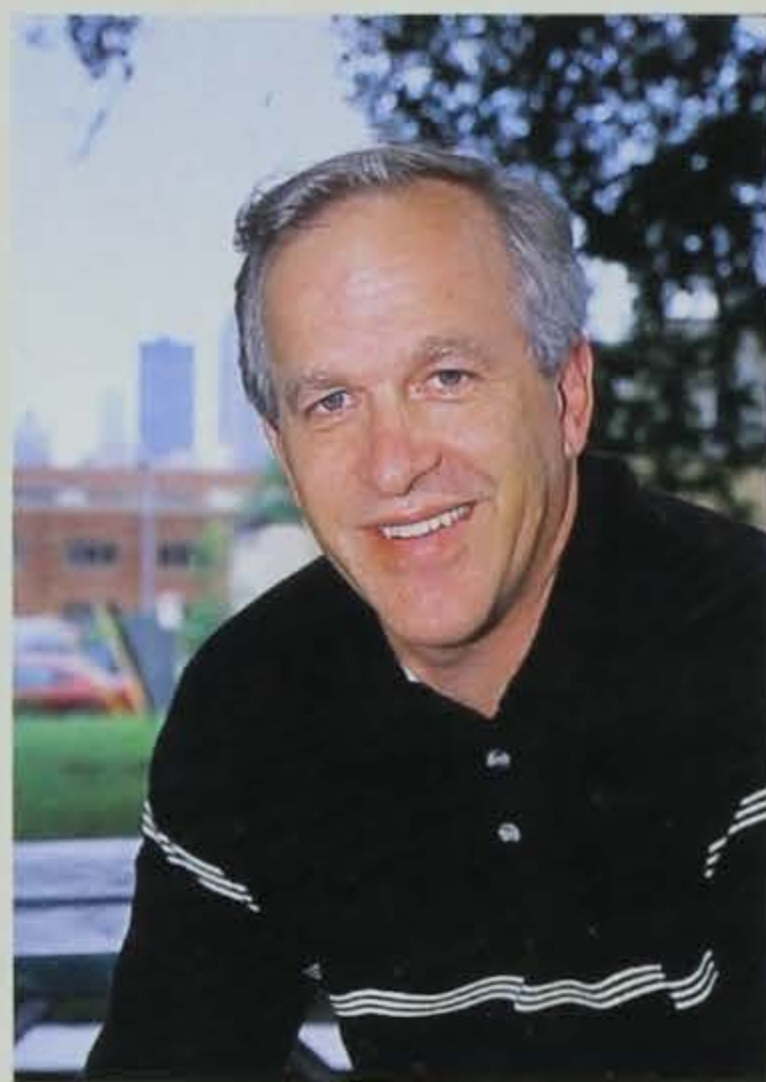
MAY/JUNE 2003

CONSERVATIONIST

DEPARTMENT OF NATURAL RESOURCES



FROM THE DIRECTOR



Bob Castelline

Quality Water is in Iowa's Future

In his most recent Condition of the State address, Gov. Tom Vilsack outlined the ambitious goal of cleaning up Iowa's impaired waters by 2010. In its most basic context, it means making the waters of Iowa fishable, swimmable and drinkable with adequate treatment. If we are going to have a vibrant future, why would we set our goals any lower?

When a goal like this is set, the inevitable question that follows is what will it take to get it done? When asking this question, people generally start thinking in terms of what technology is needed and how much it will cost. Both funding and technology will be challenges, but neither is probably the biggest hurdle we face.

I believe the biggest challenge we face in improving water quality lies more in the social aspect. Our citizens need to

value water quality and recognize it as a fundamental requirement to the long-term future of our state. In many cases, we can identify sources of water quality problems and there may be financial programs available to provide assistance, but it still takes willing participants to make the changes necessary to improve water quality.

Iowans must also come to accept that water quality is not just an agricultural problem or an urban problem or an industrial problem. Too much valuable time that could have been devoted to finding solutions to water quality problems has already been wasted playing the blame game. It is time for everyone in Iowa to understand we all have a stake in improving water quality and need to be part of the solutions.

Improving water quality in Iowa will take some fundamental changes in the way we think and do business. Some of the steps we need to take include:

- A more comprehensive management approach to the application of fertilizer on our farmland. We need to continue efforts to manage animal manure in conjunction with commercial fertilizer applications. We still have a lot of anhydrous ammonia applied to land in the fall to avoid the risk of wet weather making application difficult in the spring. Too much nitrogen is being lost with fall application. Concern about high nitrates in Iowa's drinking water and its effects are extending beyond our boundaries to the "dead zone" around the mouth of the Mississippi in the Gulf of Mexico, further driving

the water quality issue.

- Testing soil on every farm to ensure that only nutrients the crops need are being applied. Excess nutrients are what end up in our water, thereby causing problems.

- Constructing wetlands and using buffer strips to filter soil and nutrients coming from runoff.

- Working with cities and other entities to reduce nutrients coming from the effluent of wastewater treatment plants.

- Improving storm water management and erosion control on construction sites.

- Identifying and then improving inadequate private septic systems.

- Working proactively and comprehensively with urban and suburban residents to better manage lawn fertilizer and chemicals.

There is no doubt that economic development is a key issue for our state and its future. While protecting and improving Iowa's natural resources is obviously an environmental issue, I believe it is very much an economic development issue as well. We in the DNR continue to emphasize that economic development and protecting the environment do not have to be mutually exclusive. In fact, I believe the opposite could happen and that economic development will be hampered if we don't take steps to improve water quality.

Quality water is the future of Iowa.

Jeffrey R. Vonk

FRONT COVER: FISHING CLEAR LAKE
DOCKS BY LOWELL WASHBURN
BACK COVER: PINE LAKE STATE PARK BY
CLAY SMITH



Clay Smith

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LETTERS

DNR Conserves Iowa

Two years ago, my mother ordered the *Iowa Conservationist* for me as a gift. I didn't realize how much the DNR does for state conservation. After reading the great articles about all of the fishing and hunting programs available, I have become a DNR advocate and strong supporter of their dedication to the state's wildlife and parks. Also, thank you for the article about the Julian Dubuque Park. It was very interesting and informative. I learned so much about its history.

In response to a recent editorial I'd like to reiterate if running some ads in your magazine will help provide the funds to keep this great magazine around, I'm all for it! It's nice to see positive editorials about the articles you produce instead of complaints concerning ads.

Keep up the great work, I intend on renewing my subscription for many years to come.

John Corcoran
Cedar Rapids

Warden's Diary Hits Home

I have been wanting to write this letter for a long time now and the main reason I'm doing it now is to respond to last month's Warden's Diary entitled "Carrying the Tradition." Officer Humeston mentions the career and lifestyle of a conservation officer and I could not agree more. I will echo his thought about feeling the most

alive when outdoors. I finally want to take the time to thank Chuck Humeston for his Warden's Diary every month. I have not met the man, maybe someday I will, but he is partly responsible for who I am today. I can remember reading the *Iowa Conservationist* growing up on the farm in Jackson County, and the first thing I read is the Warden's Diary (and still do). I also think to myself as I watch the herds of elk and see the views of Mt. Rainier and Mt. St. Helens, "I can't believe they pay me for this." I have been a Washington State Fish and Wildlife Officer for almost two years now and Chuck Humeston's article really hit home. Thanks again Chuck.

Scott Schroeder
Chehalis, WA

There aren't very many people that have the talent and ability that Officer Chuck Humeston has.

The first thing I read in the *Iowa Conservationist* is his article entitled "Warden's Diary."

I hope he continues to entertain us for years to come.

John R. Graham
Jewell

Nonresident License Fees

I am 44 and was raised in Waverly, Iowa. My family moved to the Kansas City area in 1973. For years I have enjoyed returning to NE Iowa to visit my family in Lamont and to hunt wild

turkey. It's no longer something I do. It's too expensive to buy tags.

It is beyond me why your Legislature passed such ridiculous nonresident license fees!

Do they have any idea what I and others who used to hunt in Iowa spent while visiting? Here are just a few examples of purchases that this unwanted nonresident hunter used to make while visiting his birth state:

- Dinners, lunches and breakfasts in Lamont, Guttenberg, Independence and Oelwein.
- Gas at various stations across the state.
- Numerous stops at convenience stores.
- Use of cellular phones.
- Shopping in Cedar Rapids, Guttenberg and in the Amish community.
- Motel rooms in Waverly

I have given up on hunting in Iowa. How many others have done the same?

Also, I have written the Missouri Department of Conservation and asked that they "offer" Iowa hunters the *exact* same kindness the Iowa Legislature has extended to Missouri hunters. No just the current \$25 "Iowa Surcharge." After all, fair is fair.

Robert W. Foreman
Kansas City, MO

Mixed Reactions on ATVs

I am tired of readers complaining about ATV ads. I like them. We use the ATVs on my

fathers farm to feed livestock, check on fences, hunting and fishing. If we didn't use the ATVs we would use a tractor or 4X4 pickup. I feel the ATV is better for the environment since it uses less fuel and treads lighter.

Mark Danz
Davenport

I just read the "LETTERS" in the January/February 2003 issue of the *Conservationist* and I must support the comments made by Loren Lown. I too, have been upset and surprised that this publication would support the ATV industry in this way. Although I am not ready to cancel my subscription, I could not sit quietly while one brave person spoke up to voice what I am sure is the true thoughts of virtually all true environmentalists/conservationists. I would not want to control what people do on their own private property, but I am totally against opening any public property to ATV recreational use. Few will take the time to write but rest assured that many share Mr. Lown's opinion.

Dennis R. Rose
Sioux City

Benefits of New State Land

As I read the article in the Mar-Apr. issue about the recent addition

to Stephens State Forest and the management plan that was to be used for it, my initial reaction was very positive. However, after reading the whole article, I think it could have been titled "New State Land to Benefit Turkey Hunters." In and of itself, there is nothing wrong with getting support and money from groups with a particular cause. To be sure, a lot of habitat that is used by birders has come about because of funds from fishing and hunting. I just think it is deceiving for the author to make it sound like one of the main beneficiaries of this acquisition will be birders, when I don't think too many birders will be interested in being out when the turkey season (Apr. 14 - May 18) is going on. The first 2-3 weeks of May are usually very good for birding — especially warblers, one of the species the land is supposed to be managed for. It seems ironic that the article stressed the primary purpose for the land was for non-game species and yet for all practical purposes it won't be available at a "prime" time for birding.

William Edgar
Colfax

The *Iowa Conservationist* welcomes letters from readers. Printed letters reflect the opinions of the author. Letters may be edited for length and clarity. Letters can be emailed to alan.foster@dnr.state.ia.us.

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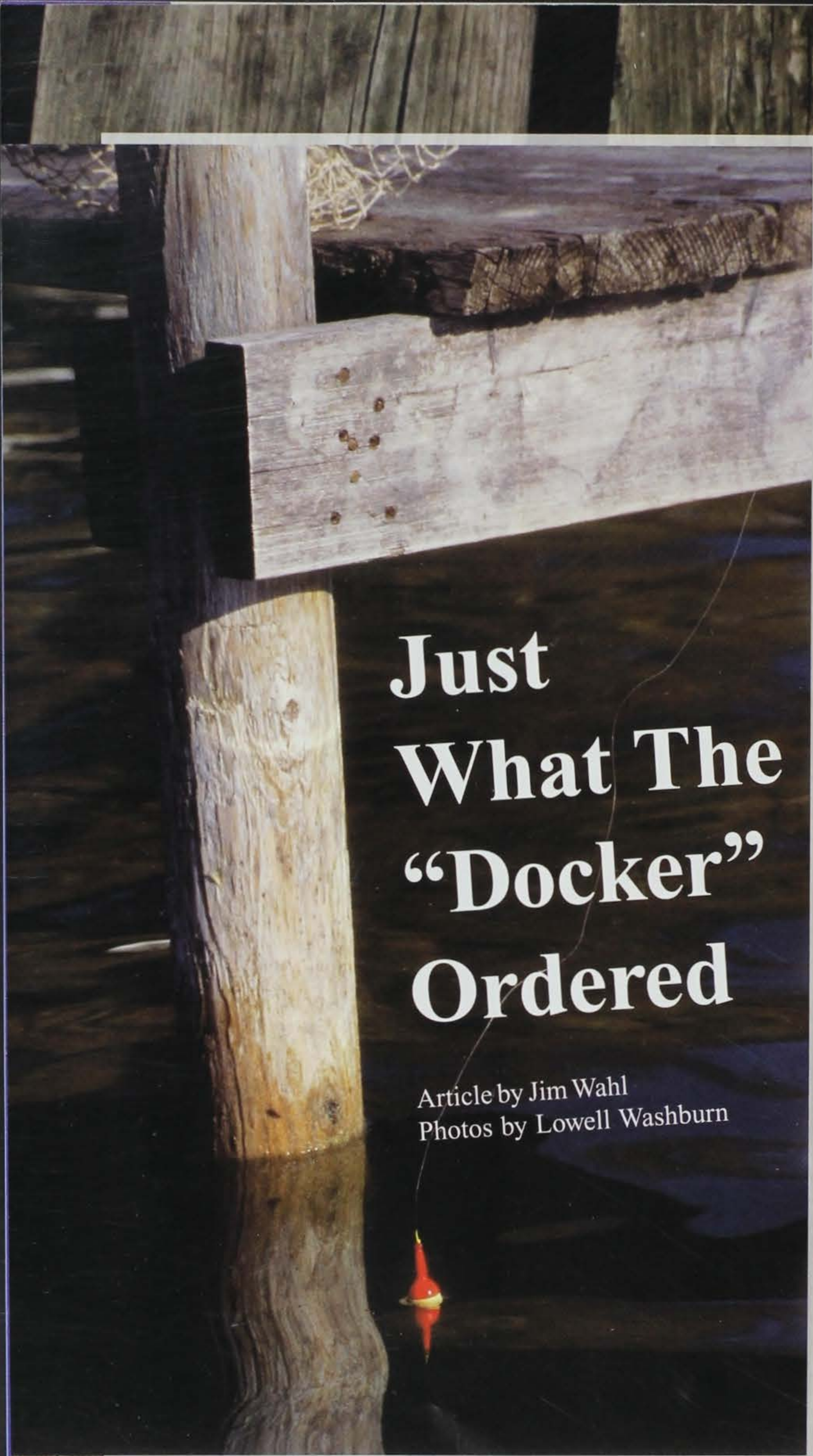
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Just What The “Docker” Ordered

Article by Jim Wahl
Photos by Lowell Washburn

Finding a way to fish a natural lake with a child that is easy, comfortable and productive is always a challenge. Because most kids can't operate a boat, offshore fishing is limited to evenings and weekends when an adult is around. Wading is out of the question because most kids are too small to fit into chest waders. Shoreline fishing is a possibility, but all too often unproductive due to inadequate depth. What other option does a kid have? Dock fishing.

I spent my formative years fishing from docks. Every summer my family spent a week on Lake Miltona near Alexandria, Minn. Each day the men went out in boats to fish for walleye and pike, while the kids stayed at the resort and fished for panfish from the dock. Despite the advantages of fishing from a boat, on a few occasions the kids actually out-fished the adults. The kids typically caught sunnies, crappies, perch and, once in a while, a bass. Oh how it hurt the men's ego when we ended the day with a basket full of panfish and all they could muster were a few hammer-handle northern pike.

As memorable as the Minnesota vacations were, most of my dock fishing occurred on Big Spirit Lake in Dickinson County. I spent many summers with my brother, plying the waters on the north shore from our dock. In my young mind, it seemed as if the dock reached half way across the lake. In all actuality, it was less than 100 feet. It did, however, offer access to water as deep as 6 feet . . . and a variety of fish.

I knew every square inch of that dock. I knew the side of the dock

near the weeds where the perch were. I knew the exact spot some 30 feet out, which was reachable with a perfect cast, where the pike would lay and ambush their prey. I knew the spot under our boat hoist where smallmouth bass would rest in the shade. I even knew where the gar liked to cruise, and oh what a thrill it was to tap them on the back with the butt end of the rod. I learned early on this was not a fish to catch in the mouth. With their long snout and all those teeth, we thought they were alligators.

At the time I thought docks were just for kids, but I realize now they're for young and old alike. What a great way to get out where the fish are, with minimal equipment, and in such a short time. No waiting at the ramp to launch the boat and no fighting the wind to stay in your spot. These are just a few of the virtues of dock fishing on natural lakes.

Here's some tips on how to effectively fish docks on natural lakes.

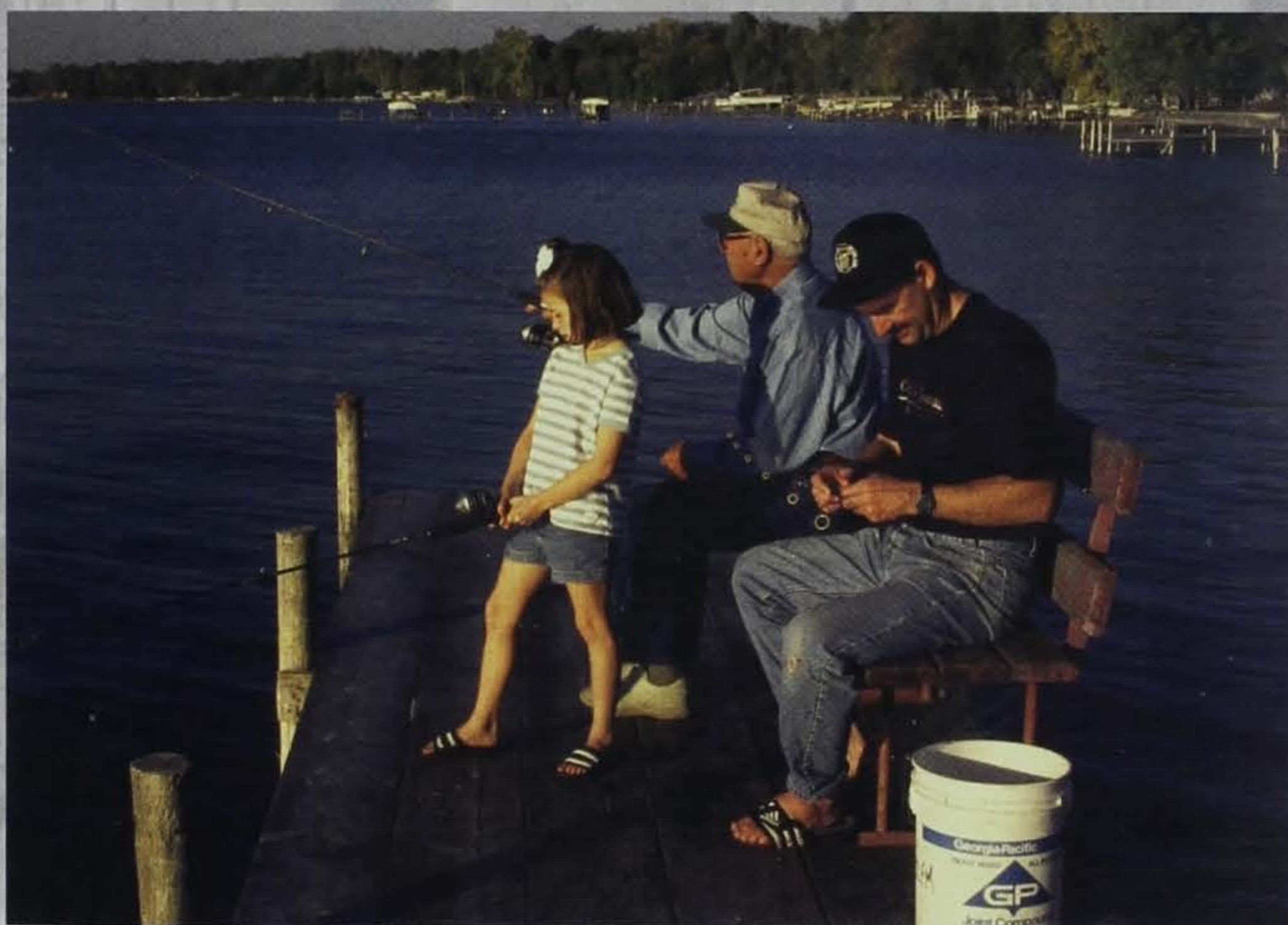
First, most docks are privately owned. To gain access and fish from these structures requires permission from the shoreline owner. Although most docks are private, some lakes do have an abundant

supply of public docks, such as Clear Lake.

How do you choose or select a productive dock? The first thing to look for is one on the windward side of the lake. In general, fishing is usually better when the wind is blowing into the dock. The wave

action will dislodge food items from the bottom, attracting baitfish, which in turn will attract predatory fish. Wave action will also decrease water clarity making fish less leery of venturing into shallow water.

The time of day is also a consideration. Although fish can be

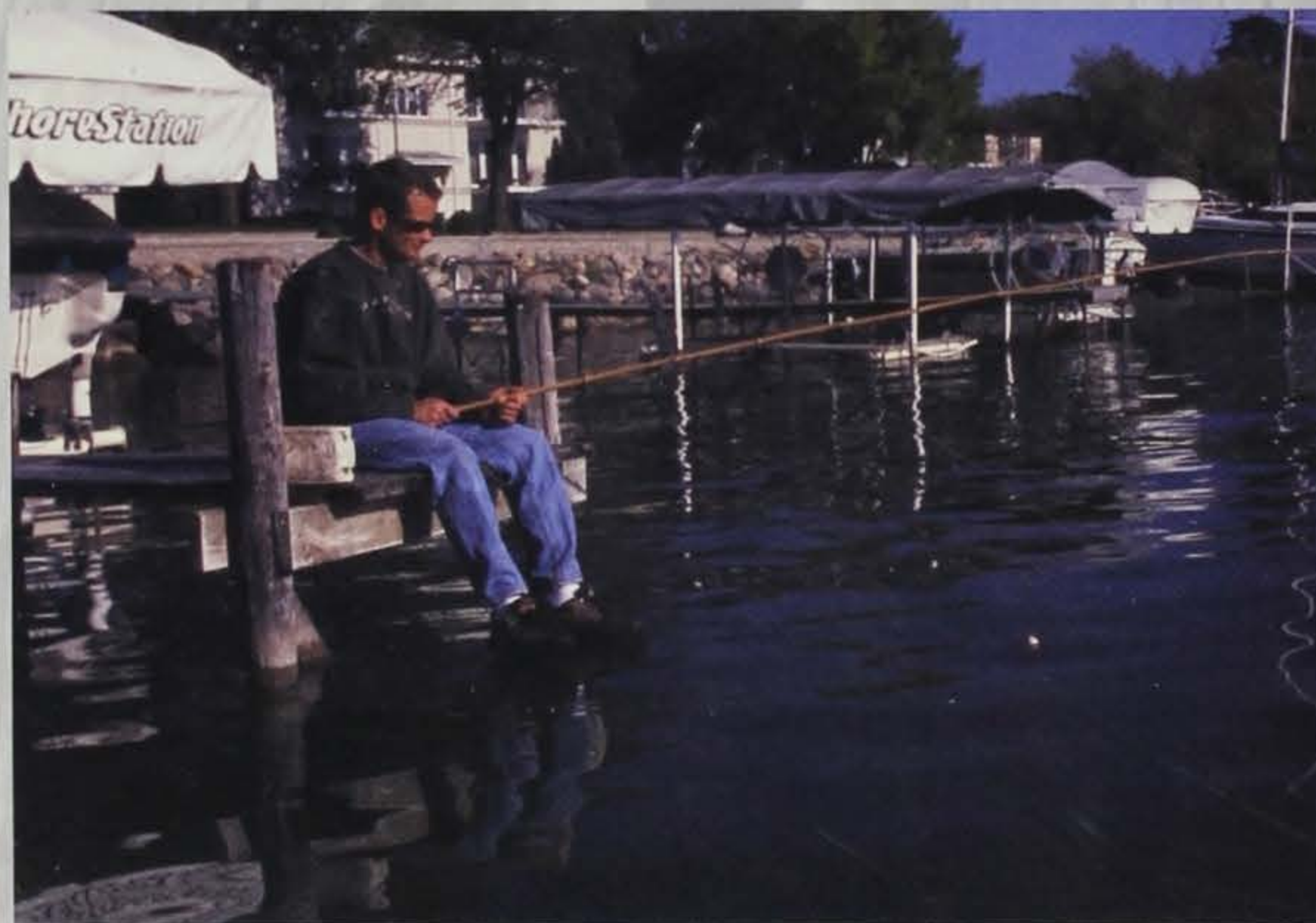


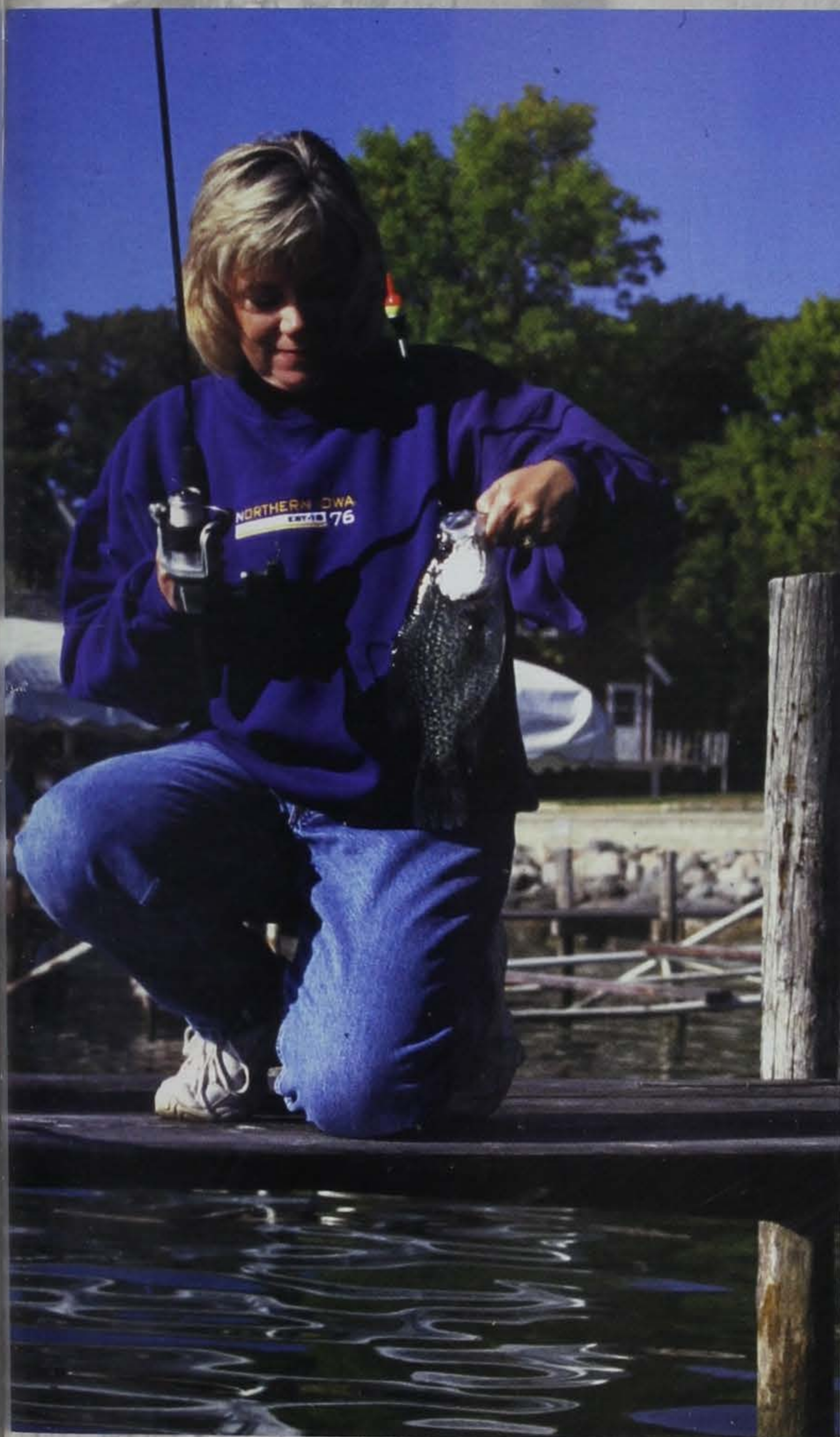


taken around docks throughout the day, peak periods are usually in the early morning and again in the evening. This is particularly true in lakes with good water clarity. Once again low light conditions make fish less apprehensive to come into shallow water. Consider also fishing after dark. This is an especially productive time for walleye and catfish.

Some of the best walleye fishing I ever had came from night fishing off our dock on Spirit Lake during the month of May. We rigged the end of our dock with a floodlight shining in the water. The light served two functions. It provided a light source to see equipment and help bait your hook or jig. It also attracted zooplankton, which in turn attracted spottail shiners, which in turn attracted our quarry — walleye. I didn't realize it at the time, but we created our own food chain right there at the end of the dock. This technique has worked for nearly 40 years, and my 85-year-old father still enjoys catching walleye off our dock at night.

The logical spot to fish a dock is at the end, in the deepest water. However, that isn't always the case. Keep in mind that fish like shade, particularly during the heat of the summer, so underneath the dock may be better than in front of it. Use natural habitat that exists within the vicinity of the dock, such as a weed bed, rock pile or woody cover. Some dock owners tie discarded Christmas trees under their dock to enhance the cover that exists there. The numerous branches provided by





pine trees are especially attractive to crappie.

The type of equipment needed varies on what species of fish you are after. Regardless, it can be very simple. If it's perch or sunfish, a cane pole may be all you need. When the fishing is slow I like to fish vertically off the end with one rod and cast with the other. The casting allows you to cover more water and the set rod may produce fish that follow the bait to the dock. If you're after larger, predatory fish a long-handled dip net will help land fish that are too heavy to hoist onto the dock.

Dock fishing allows an angler a lot of freedom to easily come and go, which makes it perfect for short trips when time is limited. Docks are also attractive to younger anglers that may not have the patience to remain in a launched boat for several hours at a time, or to the elderly that find launching a boat difficult. The next time you plan a trip to one of the glacial lakes in northwest Iowa, don't overlook dock fishing. With a little experimentation and by following some basic tips, you'll find docks can be, "just what the docker ordered."

Jim Wahl is a fisheries biologist for the department at Clear Lake.

Iowa's Landscape

Home Sweet Home to the Mallard?

Article by Guy Zenner
Photos by Lowell Washburn

The drake mallard vaulted into the air, leaving pink ripples on a navy blue mirror. For reasons unknown to even himself, he was compelled to chase the trespassing hen and her mate through the crisp morning air. Across gray clouds frosted with pink and orange, the trio performed an aerial ballet — one

that has evolved over thousands of years — before disappearing into a dark western sky.

Coaxing the truck to a halt in the predawn light, a bleary-eyed wildlife technician watched the performance with interest. Patiently he waited, listening to the morning announcements from two nearby rooster pheasants as they

competed for the attention of a bevy of hens.

Finally, a small speck emerged in the lightening western sky. Without fanfare, the drake dropped gracefully toward the temporary pond in the chisel-plowed cornfield and joined his waiting mate. Subtle signs of recognition were exchanged between the two. Then the hen



Eagle Lake study area

examining their surroundings like two fish out of water. Then the hen waddled cautiously toward the road, finally disappearing into the grass-covered ditch.

The drake stood in the field for several more minutes, craning his neck to locate the hen that had deserted him. Finally, he jumped into the air, made a couple of low passes over the ditch where his mate had disappeared and settled back onto the temporary pond to await her return.

A knowing smile crossed the technician's face as he watched the drake return to his pond. This was just what he was looking for. This pair was obviously in the heat of defending their breeding territory. The hen was either searching for a nest site or, more likely, already laying eggs. They would be easy to catch, he thought, as he noted the location of the pond on his field map. Sometime later in the morning, he would return and set the trap. Now, however, was the prime time for locating territorial

pairs, so he started the truck and began scanning the skies for other three-bird flights as he headed north.

Thus began a typical day for a wildlife technician working on a study to determine habitat use and nest success of mallards in north-central Iowa during 1998-2000. The Eagle Lake study area, located in northern Hancock and southern Winnebago counties, just west of Forest City, encompassed about 100 square miles. The purpose of the study was to determine how successful mallards were at reproducing on a landscape that was dominated by row-crops, but had a few recently restored wetland-grassland complexes.

The study was just a small part of a bigger project to evaluate the effectiveness of the habitat development and management strategies implemented in Iowa, Minnesota, North and South Dakota and Montana through the Prairie Pothole Joint Venture (PPJV), an outgrowth of the North American Waterfowl Manage-

anxiously turned to face the morning breeze and leapt from the pond. The drake followed close on her heels as she swept low over the grass along the gravel road. Satisfied that the site looked safe, the hen and drake landed in the nearby bean field just a few yards from the road ditch. For a few minutes they stood motionless,

Mallards were used as an indicator species in the study for many reasons, one being they are relatively easy to capture. Here wildlife researcher Angela Schleicher collects and bands a drake mallard from a swim in trap.



ment Plan. Various conservation agencies and groups, working jointly through the PPJV program, had restored tens of thousands of acres of wetlands and associated grasslands throughout the Prairie Pothole Region (PPR) since 1986 and were curious as to how effective these strategies were at improving waterfowl recruitment.

Mallards were selected as an indicator species for the study because they nest throughout the entire range of the PPR, they are highly adaptable, they are relatively easy to capture, and they have been the subject of many previous studies of duck recruitment in the PPR. Although mallard nesting habits have been studied in many places for many years, most studies involved locating hens on their nests and, in the process, introducing the unknown effects of researcher disturbance on the outcome of the nesting attempts.

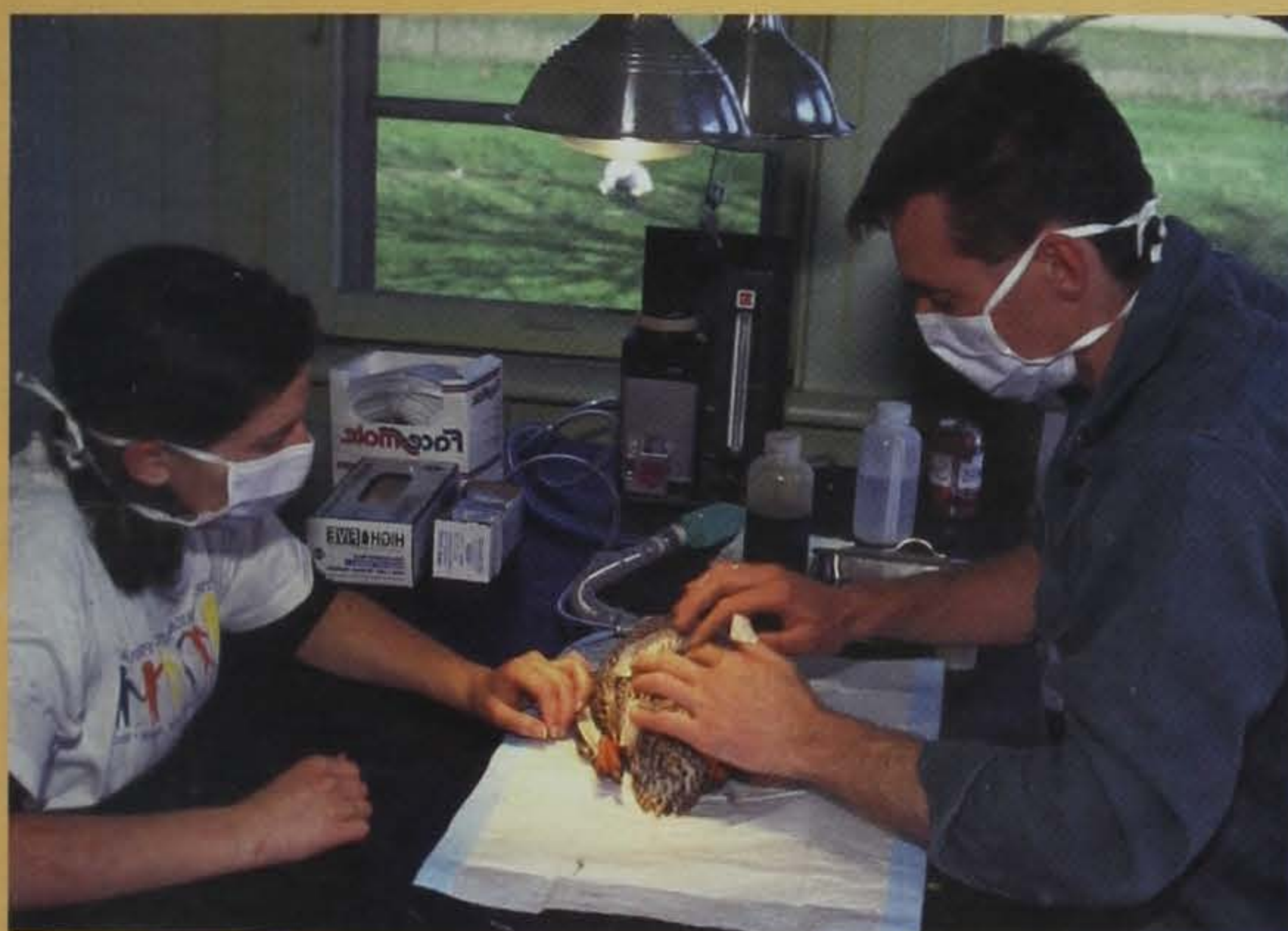
Ducks have many predators looking to eat their eggs. These predators constantly search the landscape and it was felt that researchers'



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Captured hen mallards were taken to a field station, anesthetized and implanted with radio transmitters, allowing researchers to later locate nests.



activities at nest sites could possibly increase the vulnerability of the nest to some predators. To rule out any effects of researcher encroachment on nest success in this study, we decided to take a little different approach.

Unlike most studies, we did not approach any of the nest sites until the hen had obviously abandoned the site.

So how did we find the nest sites? We captured hens and marked them with radio transmitters. Hens were caught with decoy traps, a standard method used to catch breeding duck pairs when they are territorial. A live

hen mallard obtained from game breeders serves as a decoy. When the trap was placed in a pond that a drake had been chasing off other pairs, it was a good bet that he would attempt to chase the decoy hen out as well.

Usually the drake's mate encouraged him to chase the intruding hen. In the process, the hen was frequently caught in the same trap. Once captured, the hen was taken to a field station where she was anesthetized and surgically implanted with a transmitter smaller than an egg. Located in her abdomen, the transmitter enabled us to locate the

hen from as far away as one mile on the ground and up to two miles from an airplane. Following the surgery, the pair was returned to the pond where they were captured.

Of course, not every pair of captured mallards was the territorial pair defending the pond. Sometimes other mallard pairs using the pond got caught. Despite the difficulties of catching just the right hens, 180 of the 239 mallard hens that were captured during the three-year study eventually attempted to nest on the study area.

To avoid disturbing the hens when they were laying or incubating eggs, the nest sites were remotely located by triangulating on the radio signal. Of course, we did not do this every time a hen walked into the grass. It was best to wait until the hen was located at a potential nest site for at least a couple of days before attempting to pin down the site.

Once the hen was no longer returning to the nest site, researchers went in to find the nest bowl and determine the fate of the nesting attempt. Hens left their sites for several reasons: the eggs had hatched, a predator had destroyed the nest, or the hen felt insecure at the site because she had been disturbed by a predator or vehicle. The 180 hens that nested on the study area initiated 339 nests, or almost two per hen. Of those 339 nests, only 54 hatched (16 percent); predators destroyed the majority. More importantly, however, is that 30 percent of the hens successfully hatched a clutch.

Intensively farmed landscapes, like the Eagle Lake study area, are generally thought to be very poor habitat for nesting ducks because predators frequently scour the remaining fragments of grassland in their search for



Wildlife technician Al Hancock (above) "tunes in" to incubating hen mallards in a recently restored wetland-grassland complex (top).

food. Nearly 80 percent of the Eagle Lake study area was cropland during 1998-2000, with 3 percent being wildlife management areas (WMA). Pasture, farmstead and Conservation Reserve Program (CRP) acres comprised about 2 percent each, while roads and right-of-ways made up 3 percent.

Excluding the WMA lands, only about 10 percent of the landscape was considered duck nesting habitat (CRP acres, road ditches, fencerows, waterways, terraces, hay fields, pastures, wood lots, odd areas, etc.).

Surprisingly, odd areas (rock piles, wet spots in fields, etc.), fencerows and waterways were the top three places hens tried to nest. Unfortunately for many hens, fencerows ranked last in terms of nest success. Odd areas, however,

had the second highest nest success ranking and waterways ranked 5th highest. A couple of hens successfully nested in the pastures on the study area, which resulted in pasture ranking number one for nest success. Not as many hens nested on the WMA lands as anticipated, despite the fact many hens were captured on these areas. Because WMAs provide habitat for all types of wildlife, including predators, the hens that did attempt to nest on these public lands only fared about average.

Combined, the odd areas, fencerows and waterways comprised only 1.5 percent of the potential nesting cover on the study area. So why did so many hens use these areas to establish nests when they had other nesting cover available to them? It is believed that nesting hens instinctively spread out across the landscape when selecting nest sites. This may be an evolutionary adaptation to improve the odds of hatching a nest. Most likely it developed over thousands of years in response to the habitat that ducks had available to them; a vast landscape dominated by wetlands and grasslands.

Even though the grasslands and wetlands have been removed from much of the prairie landscape, the ducks still behave instinctively. This could explain why fencerows and road ditches far from water had ducks nesting in them and grasslands immediately adjacent to the wetlands that were used by many mallard pairs were not used extensively for nesting. Or, there may be other reasons we have yet to discover.

One thing is for certain, though, mallards are attempting to adapt to a landscape that has been substantially altered by human activity during the last 150 years. Their persistent nesting

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Of the 180 hen mallards that nested on the study area, 30 percent hatched broods. The majority of the unsuccessful nests were due to predators. The egg below was not successfully hatched.



efforts have enabled their populations to survive dramatic changes to their habitats. The wetlands restored through the PPJV may not be the mallard's first choice for nesting sites, but they are invaluable to breeding pairs — providing feeding and resting habitat, as well as enabling pairs to space themselves out across the landscape so territorial battles are minimized. They are also critical brood habitat for those hens that are lucky



enough to avoid predators and hatch a nest. The information garnered in this study will enable conservation agencies throughout the PPR to develop and implement more effective habitat management strategies in the future.

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



Just Plane Deadly On Walleyes

Article by Scott Grummer
Photos by Lowell Washburn

Walleye anglers, equipped with lead head jigs, spinners and a bucket of minnows have attacked walleye waters for years. Casting a jig and minnow onto a rock reef or drifting a spinner and night crawler are still effective techniques. But trolling with planer boards is quickly becoming popular with today's walleye angler.

Gear

There are two types of side planers: in-line and mast and ski. The in-line planer board is attached by release mechanisms directly to the fishing line at a desired distance from a lure. The board becomes part of the tackle trolled by a single fishing rod. With the mast and ski setup, a 4- to 6-foot mast is placed in the front of the boat. Two skis, attached to cords, are let out from the mast on each side of the boat. The angler lets the bait out a desired distance and attaches the line to a release that is slid down the cord towards the ski.

Trolling with planer boards

requires long stout fishing rods; most are 8- to 10-foot heavy-action rods. The rod trolls the crankbait and the planer board. The rod length helps get the tip up in the air, keeping the fishing line from dragging through the water between the rod tip and the board.

Baitcasters are the preferred reel for planer-board trolling. Although a standard reel can be used, manufacturers have modified reels to suit this type of trolling. Line counters, built into the reel, make setting baits to a desired distance behind the boat an exact science. Line counters allow the angler to duplicate a set up that is catching fish or make changes to find the depth where fish are located.

Boats equipped with rod holders are a must for planer-board fishing. The drag on the rod created by the technique is more than most anglers can handle for any length of time. Holders also allow rods to be in a fixed position and adjusted to a proper angle.

Boats with large outboards often have a smaller motor attached to the transom, otherwise known as a "kicker." This smaller motor allows the boat to troll at lower speeds. An outboard larger than 75 horsepower has difficulty slowing under 3 m.p.h., and most crankbaits are trolled at 1 to 4 m.p.h..

Another must is a depth finder. They not only tell you the depth of water you are fishing, but many come equipped with speedometers, which



Planer boards are quickly becoming standard equipment in a well-equipped walleye boat. Anglers are discovering they can help put more fish in the boat.

allow you to maintain a consistent speed. Knowing the speed and distance allows you to duplicate a technique that is catching fish, or modify the presentation by speeding up or slowing down.

A large selection of crankbaits finishes the package for trolling planer boards. Crankbaits come in a variety of sizes, colors and running depths, which allows anglers to experiment with different presentations and depths. Once a successful pattern is established, all the rods in

the boat can be set to duplicate what is working.

Techniques

Pulling planer boards works best if you are able to make long passes. Turns must be long and gradual. If the fish are concentrated in a short segment of shoreline or on a small rock reef, it's more effective to drift, or anchor and cast to the fish.

If it's breezy, planer boards should be pulled with the wind. Pulling boards into the wind causes



An assortment of crankbaits, a heavy-action rod and a baitcast reel, preferably with a built-in line counter, are the tools-of-choice for trolling with planer boards.

the boards to smack into the waves. When that happens, the board surges forward as it crests each wave, making it difficult for fish to detect small bait. At the end of the pass, pull the boards in and motor back up wind to make another pass.

Another effective technique is trolling planer boards on the outside edge of docks using shallow-running lures when the water temperatures reach the 60s in the spring. On Iowa's natural lakes, the water depth at the end of the docks will vary between 3 to 6 feet. When boats motor through these shallow waters, the props tend to spook fish from the immediate area. Planer boards push the lures to the side of the boat and

into areas where the fish have scattered.

Trolling large flats in the main basin is another good technique for planer boards. Fish tend to be scattered in these areas from early summer into the fall. Boards plane the baits to the sides, covering more of the basin. Try different depths by using lures with different diving capabilities.

Bites are detected by a sudden drag on the in-line board or the line being freed from the release on the ski cord. In-line boards can also be modified with spring loaded flags, which drop back when a fish is hooked or the bait has picked up vegetation or debris. The flags take

some of the guesswork out of reading the board.

Planer-board trolling works best with at least two people. One person can operate the boat and the other

person can set the boards and watch for strikes.

When trolling boards, the boat needs to be in constant forward motion. Once a fish is hooked, idle down but keep the same course. If the boat is allowed to drift, remaining lines will cross and everything will need to be reeled in and reset. Change speed, depths and lures until you find a combination that puts fish in the boat.

Pleasure boaters have long made

water skis and knee boards a common part of their equipment for years. Now, well-equipped walleye anglers are doing the same, at least in concept, and putting more fish in the boat.



Planer boards position lures off to the side of boats where walleyes often scatter to when spooked by the commotion of motor props. They also allow anglers to cover large areas of open water in a short amount of time.

Scott Grummer is a fisheries technician for the department at Clear Lake.

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There is no mistaking the majestic sight and sound of a trumpeter swan. Their sheer size and namesake call once made them a conspicuous part of the Iowa wildlife family. But wetland drainage and unregulated hunting robbed Iowa — and much of the country — of those regal sights and sounds. The last historical trumpeter swans nested in Iowa in 1883 on the Twin Lakes Wildlife Area six miles northeast of Belmond.

More than a century later, the

trumpeter swan is returning to Iowa. In 1995 the Iowa Department of Natural Resources embarked on a restoration project to return this formerly native nesting species to the Iowa skies and landscape. Iowa initially joined four other Midwest states — South Dakota, Minnesota, Wisconsin and Michigan — to bring this species back from the edge of extinction to the Interior U.S. Ohio joined the collaborative Interior Trumpeter Swan restoration effort in 1997. Iowa's goal is to have 15 free-flying nesting pairs in the state by the

end of this year.

All of the cooperating Midwest states, with the exception of Ohio, believe they are currently sustaining a viable trumpeter swan nesting population. In addition to restoring nesting swans, trumpeter swan restoration activities will also be used to promote wetland restoration and the many values wetland ecosystems provide Iowa.

Trumpeter swans are North America's largest waterfowl. These magnificent white birds weigh up to

Restoring the Trumpeter

a passionate,
powerful
partnership

Article by Ron Andrews
Photos by Ty Smedes

35 pounds and have a wingspan of up to 8 feet. People who study physics say, for their size, trumpeters nearly defy the laws of aerodynamics. The trumpeter swan's call is deep and resonant, and sounds like a trumpet or French horn, which is how the bird got its name. Those captivating characteristics have spawned a tremendous following of people who jumped on the trumpeter swan bandwagon to help bring this charismatic mega-fauna back.

Once the DNR's trumpeter swan

restoration effort came into the limelight nearly everyone wanted to help out. The list of organizations supporting trumpeter swan restoration is long: Ducks Unlimited, Pheasants Forever, Iowa Wildlife Federation, Iowa Turkey Federation, Natural Heritage Foundation, U.S Fish and Wildlife Service, ISU Trumpeter Swan Committee, ISU Fur Harvesters, ISU Fisheries and Wildlife Biology Club, ISU Student Environmental Council, Buena Vista Trumpeter Swan Committee, Iowa Asso-

ciation of County Naturalists, the Cedar Rapids, Des Moines, and Northern Iowa Prairies Lakes Audubon chapters, Iowa Wildlife Rehabilitators Association, Iowa Furtakers of America Chapter, Iowa Izaak Walton League of America Chapters and Roland-Story Schools 4th Grade Class.

Numerous county conservation boards including Appanoose, Black Hawk, Boone, Buena Vista, Carroll, Cass, Cherokee Clarke, Clinton, Des Moines, Hamilton, Ida, Jackson,



Kossuth, Lucas, Marshall, Mitchell, Muscatine, Palo Alto, Pocahontas, Sac, Webster, Winnebago and Worth have developed partnerships with the DNR to help bring this glamorous species back. The department has also connected with more than a dozen zoos and has obtained swans from 25 other states.

Besides the boards and organizations mentioned, a whole cadre of corporations, businesses and individuals have partnered with the DNR to help restore trumpeters. Although the appeal of these birds is certainly a big factor in this overwhelming effort to help, the enthusiasm speaks well of the "fabric" of many Iowans who have a strong desire to make Iowa a better place to live by helping bring back trumpeter swans.

The family of David A. and



Robert Luglan Sampson, who contributed nearly \$170,000 in their memory, and the family of Cherie Davison, who contributed significantly for the same reason, spearheaded this enthusiasm. Their spirit lives on as

trumpeter swans wing their way back into Iowa.

Because of their passion to help out, many of the groups and individuals mentioned, have developed their ponds and wetlands to hold flightless



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nesting pairs of trumpeter swans, the young of which are allowed free flight. These partnerships have resulted in 58 potentially productive pairs nesting on several sites across the state.

Soft-match contributions from those cooperators has easily exceeded \$250,000. In this era of tight budgets these contributions have greatly enhanced the pace and effort of the restoration. In 2002, a record 144 cygnets were hatched at partnership pair sites.

The public has also been extremely helpful reporting trumpeter swan sightings, giving essential information in determining migration routes, patterns and mortality factors. Iowa's trumpeter swans are easily identified by green or red neck collars. Continued help in this effort is encouraged and appreciated.

When restoration efforts began, the goal was to have 15 free-flying nesting pairs in the state by 2003. The first came in 1998, when a pair nested on a small farm pond in Dubuque County. These first modern day nesting trumpeters have nested on that same pond every year since. In 2000, a second pair nested at Thorpe Park Marsh, a Winnebago County Conservation area seven miles west of Forest City. It appeared that Iowa's trumpeter swan restoration was off and running, albeit at a tortoise pace.

However, several Iowa trumpeter swan pairs were nesting and expanding their range southward in Minnesota and Wisconsin original release efforts. With great surprise, 2001

Coming Home

by Lowell Washburn

Iowa's best known pair of wild trumpeter swans has returned to its summer home. For the third consecutive season, the swans are preparing to nest on the west pool of Cerro Gordo County's Mallard Marsh.

The pair's female (band number 5F8) is one the state's most studied wild birds. She was originally released as a juvenile at Mallard Marsh

during the summer of 1997. As an adult, she returned to the wetland in March 2001. On June 10, she and her mate successfully hatched five young.

For area wildlife enthusiasts, the nesting was nothing short of a conservation milestone. It was, in fact, the first successful reproduction of wild swans since the species disappeared from northern Iowa more than a century ago.

Life has not always been easy for the Mallard Marsh trumpeters. Last year's nesting season began with tragedy when the pair's male, along with one of the 2001 offspring, was killed by a powerline collision during spring migration. The acci-



Lowell Washburn

The Mallard Marsh pair with cygnets

dent occurred north of Clear Lake, less than four miles from the pair's nest site.

Things took a crucial turn for the better when, just four days later, the female was joined by a second male. Considering the minuscule number of wild swans currently roaming the Iowa landscape, this development was in itself rather incredible. Even more astounding was the fact that the "new" pair was able to successfully hatch seven young during 2002. It remains the largest brood of young (cygnets) ever recorded in the history of the trumpeter swan recovery effort. Most waterfowl species, including swans, lose an

average of half of their young between hatching and first flight. The Mallard Marsh swans have hatched a total of 12 cygnets during the past two nesting seasons. In spite of frequent interactions with mink, snapping turtles and river otters, the pair has managed to get 11 of those youngsters to flight stage.

Events of the past several months have proved equally intriguing.

After departing its Mallard Marsh home in late November, the swan family was reported a few days later in southern Iowa. After that, the flock vanished for the remainder of the winter. During the winter of 2000, the female and her mate were known to winter on the flooded rice fields of Arkansas. It is not known, however, if the swans returned to the region this year.

It was another mild winter in Iowa. By mid-February, the weather was warming and north-bound geese were on the move. Area bird enthusiasts were anxiously scouring the countryside in hopes of documenting the swans' safe return.

The long awaited report came on Feb. 19 when Fern Midtgaard spotted the swan pair occupying an air hole at the Sandpiper Hills Waterfowl Production Area, located just west of the birds' Mallard Marsh nest site. The swan family had survived another round-

trip migration marathon. Or had they?

To native northern Iowans it came as no surprise when the near-record temps of mid-February proved to be a false alarm. By Feb. 20 a massive polar front was sweeping the area. Wind chills dipped to negative numbers, and precious areas of open water were rapidly refreezing. After a second day without water, the trumpeters called it quits. Just after sunset on Feb. 21 the swans climbed into the crisp evening air and reluctantly headed south.

On the morning of Feb. 22, the Mallard Marsh trumpeter swans were reported on a southern Iowa farm near Osceola.

Spring has returned for a second time to northern Iowa. The Mallard Marsh trumpeter swans have also returned, and have refurbished their former nest site. The marsh is ice-free now, and the swans are making it no secret that, this time, they intend to stay.

Shortly after sunrise each morning, the pair engages in a series of noisy, trumpeting displays that proclaims in no uncertain terms, that "This corner of the marsh is taken."

But in the case of the Mallard Marsh swans, the haunting courtship calls bear a message that runs even deeper. After an absence of more than 100 years, wild, free-flying trumpeters have returned to the northern Iowa landscape.

brought nine trumpeter swan nest attempts within Iowa, six of which were successful in producing 19 wild trumpeter cygnets. During 2002, there were eight trumpeter swans nest attempts within Iowa borders, and 2 additional pairs nested on the Wisconsin side of the Mississippi River just across from McGregor and Marquette in northeast Iowa. Of those 10 nest attempts, eight were successful and a record 42 wild cygnets hatched.

And so the trumpeter swan restoration journey continues. The road thus far has been slow and winding. We were warned swans are predictably unpredictable and to expect the unexpected, that there would be peaks and valleys along the way. Certainly that has been the case. We are, however, "clipping the peaks and ignoring the valleys." The common denominator that keeps us near the "peaks" has been the public's enthusiasm to help out. Although working with these magnificent swans has been great, it has been the diverse and dynamic public that has made this project so very interesting. As we stroll further into the 21st century, I am convinced we will be successful because the "public's powerful passion is propelling us forward" as we once again begin to see trumpeter's gracing the skies and wetlands of Iowa.

Ron Andrews, located at Clear Lake, is the trumpeter swan coordinator for the department.



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Photo by Roger Hill

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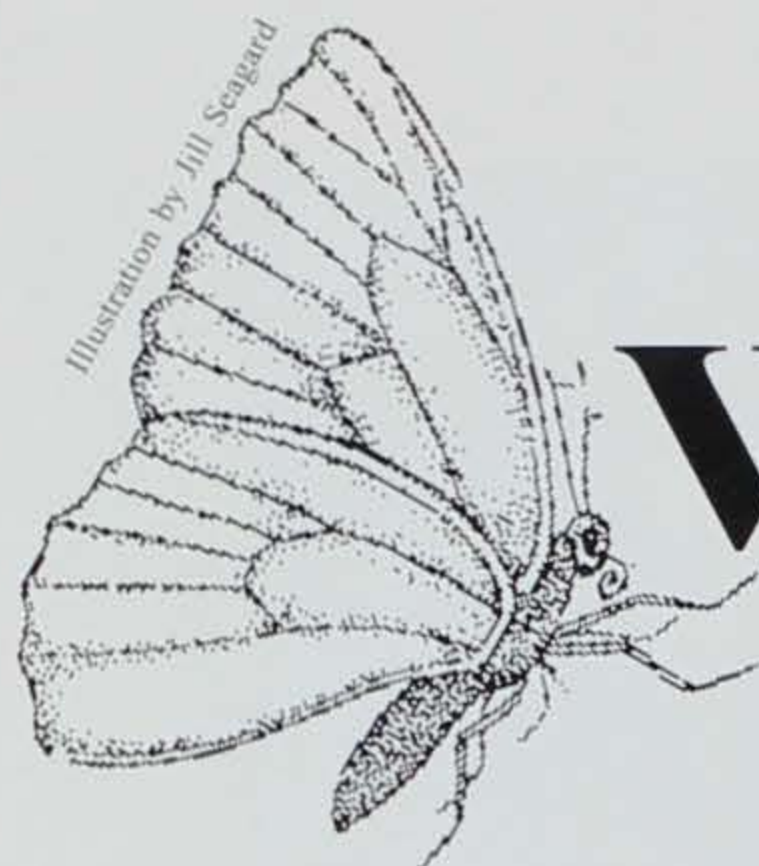
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Our Winged Jewels

Article by Amanda Hetrick
Photos by Harlin Ratcliff

Biologist E.O. Wilson has referred to insects as the “little things that run the world.” Their number, diversity and effect on entire ecosystems is unparalleled. Yet we often take no notice of them; or, if we do, it is usually with the intent to shoo, swat or kill. That’s unfortunate, because with a little tolerance and understanding we might come to realize just how incredible insects are, and butterflies are no exception.

What’s the difference?

Before we delve into the ecology of butterflies, we need to differentiate between butterflies and moths. They are both insects and both belong to the order Lepidoptera, but that’s about as far as their kinship goes. Many people believe the differences between moths and butterflies lie in their coloration and activity patterns. But in fact, moths can be just as vividly colored as butterflies and can be observed flying day or night, depending upon the species. So how can you tell the difference? Probably the easiest way to distinguish between these insects is by looking closely at their antennae. Butterflies have what are referred to as “clubbed antennae,” meaning the tips of the narrow antenna shafts widen to form small balls. Moth antennae are not

Corn pest moth (top). Meadow fritillary displaying basking behavior (right).



Ty Smedes

clubbed. Instead, their antennae are usually much wider and somewhat similar to feathers or ferns, with many branching structures sprouting from the main “stalk.”

How many are there?

Of the 112,000 species of Lepidoptera worldwide, approximately 20,000 of them are butterflies. On a more local level, of the 1,000 butterfly species that flutter around the United States, just under 100 can be observed in Iowa. This translates into lots of butterfly diversity and viewing opportunities for anyone interested in taking a stroll on a warm sunny day.



Painted lady on cup plant (left).
Black swallowtail chrysalis (below)
and monarch caterpillar (bottom).



Ty Smedes

From Egg to Butterfly

On its way to becoming an adult, every butterfly goes through a “complete metamorphosis,” or life cycle. That means each individual begins its life as an egg, often deposited on the underside of a leaf. A caterpillar then eats its way out of this egg and continues eating leaves (usually of the same *host plant* type upon which the egg was laid) and growing as much as possible. Most caterpillars munch their way through four or five growth phases, or *instars*, before settling down to spin a silk pad. Usually a branch or twig is chosen to spin this pad and hang. The resulting *chrysalis*

is left immobile and the caterpillar begins its transformation into the final phase of the life cycle — the adult butterfly.

Once transformation is complete, the adult butterfly emerges with crumpled, damp wings and two straight tube-like structures sprouting from its mouth region. As the butterfly pumps fluids into its expanding wings and waits for them to harden, it “zips” together its mouth parts into a nectar-sucking straw — the *proboscis* — and then curls it neatly under its head. Within a few hours after emerging from the chrysalis, the new adult is ready to

take flight, sip nectar from flowers and mate.

Because butterflies can spend the winter in any one of the above stages, the time it takes to complete an entire life cycle varies greatly. Mourning cloaks

(*Nymphalis antiopa*) overwinter as adults, so they pass through the complete metamorphosis quickly — in about a month. At the other end of the spectrum are swallowtails (*Papilio spp.*). Some of these species can overwinter for up to *two years* in their chrysalid forms, choosing to emerge only when environmental conditions are favorable.

Adult lifespans vary dramatically as well. Many dainty butterfly species may live only a few days, just long enough to mate and lay eggs. More commonly though, adults will live up to 20 or 30 days. Robust swallowtails may survive for a few months. And overwintering or migrating adults, such as the mourning cloak or monarch (*Danaus plexippus*), persist up to 8 months.

Flashy Physiques

The body of a butterfly is similar to the body of other members of the insect world. Each has a head, thorax, and an abdomen. Sprouting from the head are two clubbed antennae (which enable the butterfly to smell things), the proboscis, and two compound eyes. These eyes bulge outward and are composed of

thousands of separate lenses that help the butterfly see in all directions without turning its head. They have sharp, up-close vision and can see more colors and forms of light than we can, including ultraviolet and polarized light.

Attached to the thorax are the butterfly's front wings, hind wings and legs. The wings are covered with a multitude of multi-colored scales. These scales serve a variety of functions. They create the amazing patterns of wing color we see. Some of them convey *pheromones* (a chemical substance used to attract other individuals of the same species) and play an important role in courting. They help to insulate the butterfly from the cold, and may even aid their escape from spider web entanglements. Because these scales are like

a dusting of powder and wipe off easily, extreme care must be taken when handling butterflies.

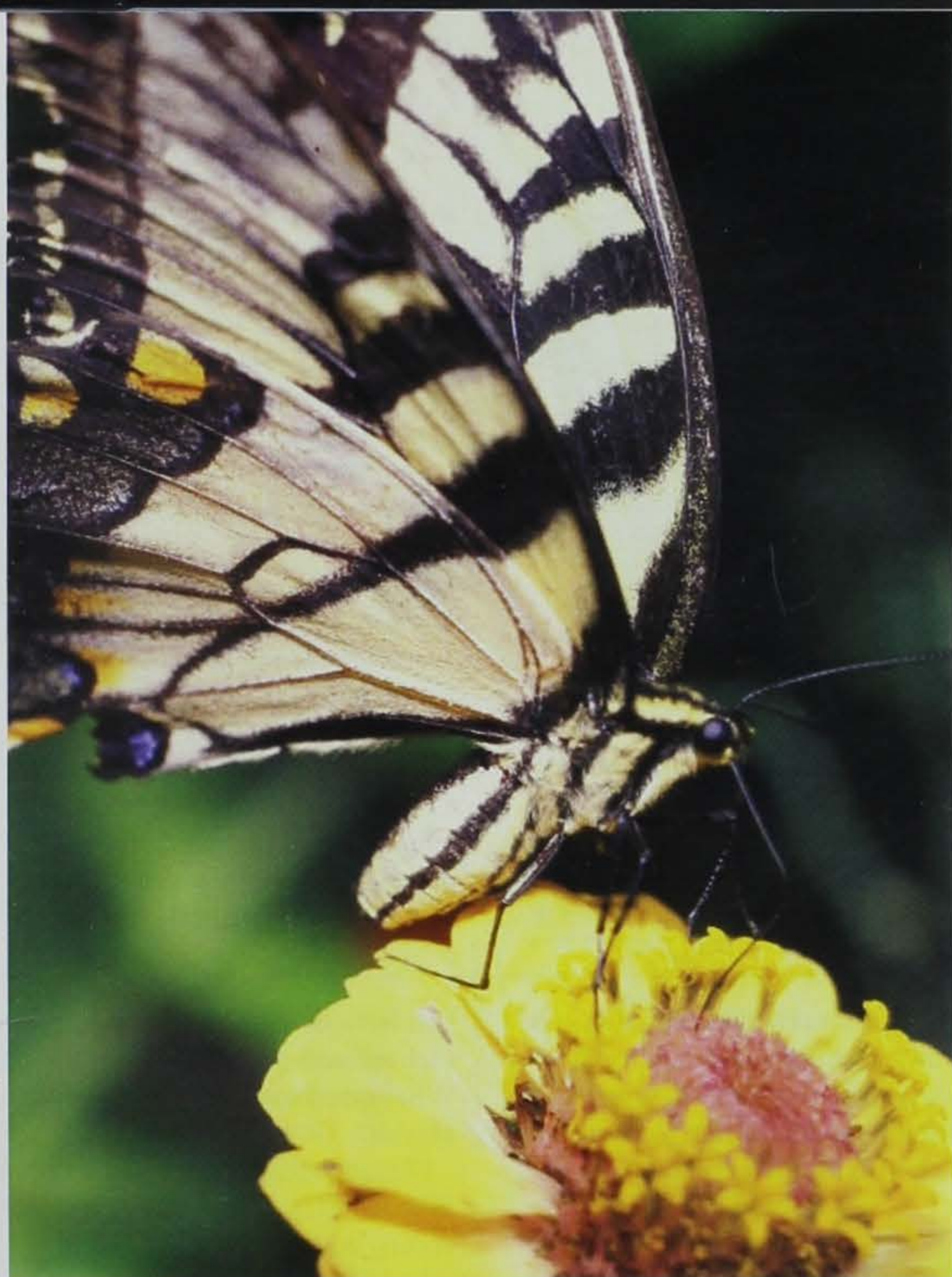
Below the scaled wings are three pairs of legs. In some butterfly species, the front legs are reduced to a very small size, but often all legs are of comparable length, covered with tiny claws and used to maneuver around petals and leaves. The hind legs are perhaps the most important of all, as they can be used to taste substances like nectar. Imagine having taste buds on your toes!

Beguiling Behaviors

Basking: Because butterflies are cold-blooded and unable to regulate their body temperature, they must "bask" in the sun for warmth. This activity helps them warm up their flight muscles and prepare for

Eastern tailed-blues (right) and sulphurs (below) puddling. Bronze copper (far right) nectaring.





Tiger swallowtail nectaring

take-off. So after a cool evening or a spell of inclement weather, you'll often see butterflies perched atop leaves, rocks, roads or other surfaces — soaking up the sun.

Nectaring: This refers to the common activity of extracting energy-rich nectar from flowers. Some butterflies exhibit strong preferences for certain flowers, while others sip contentedly from many different types.

Puddling: Sometimes large collections of various butterfly species can be observed gathering around shallow puddles, dirt trails,

feces or carrion. This provides an excellent opportunity to watch them up close as they suck up salts and other minerals necessary for survival.

Swirling: This aerial dance between two individuals is a special treat to watch. As they swirl around and around one another with dizzying speed and agility, they check each other for clues of mating compatibility. Are they of the same species? Are they of opposite sex? Are they ready to mate? Once these questions have been answered, they either prepare for courtship, or depart in search of another.

Involving Yourself With Butterflies

There are many ways to get involved with butterfly conservation. Depending upon your interests, you might choose to plant a butterfly garden, help conduct volunteer butterfly counts, rear and release butterflies, join butterfly clubs and organizations, or subscribe to journals. The important thing is to choose something that inspires you, that brings you pleasure and helps you to feel you're making a difference.

Butterfly Gardening

This has become a very popular means of brightening up backyards and providing additional host plant and nectar sources to local butterfly populations. There are many books and web sites that provide both general and technical information on this topic. Here are a few tips to remember:

- Choose a spot for planting that gets lots of sunlight and little wind.
- Plant *native* (naturally occurring in your area) butterfly-attracting flowers with strong scents and vivid colors. However, refrain from transplanting native plant species from the wild. Include an assortment of plants for season-long bloom. Also, plants with clusters of flowers are often better than plants with small, single flowers. And planting large masses will usually attract more butterflies, as there is more nectar available to them at a single stop.
- Include both host plants (for butterflies to adhere their eggs to and caterpillars to munch) and nectar plants (for adult feeding). This will require some research on local butterfly species and their preferences.
- If possible, also include water sources or damp, muddy areas for

butterflies to congregate and obtain the essential salts and nutrients not available in nectar.

- Don't use chemical pesticides! They kill butterflies and other useful insects. Instead, plant marigolds, petunias, mint and other herbs that may naturally repel pests.

Volunteer Butterfly Counts

Probably the most widely known and participated-in butterfly count is organized by the North American Butterfly Association (NABA). Every year in the weeks surrounding July 4 (it has become known as the "4th of July Count"), butterfly enthusiasts across the nation help census butterflies in their area. Each volunteer selects a 15-mile-radius area and

spends one full day recording all the butterflies seen within that range. Results are then pooled together and available to anyone interested in national butterfly population information.

Many other volunteer butterfly counts are staged across the country each year. If you are interested in participating in one or want to see the results, contact your regional Lepidopterist society.

Rearing/Releasing Butterflies

Rearing and releasing butterflies can be an educational and awe-inspiring activity. It's quite amazing to watch the life stages of a butterfly progress right before your eyes. However, if you decide to try this, it

is important to keep in mind several important ecological issues. The first is that only butterflies naturally occurring in your area should be considered. Releasing a butterfly into your backyard that is not accustomed to your climate or your plants could have detrimental effects on both the butterfly you release and the environment.

Second, it's tempting to think that releasing lots of butterflies will help support local populations. Unfortunately, this is not necessarily true. Good butterfly habitats in your area may already have as many butterflies as they can support, and introducing more may only jeopardize the health of the ones naturally present. Therefore, if you're planning to rear and

Butterfly Research through Iowa State University



Leslie Ries

Researching and restoring regal fritillary populations remain high priorities for biologists in Iowa.

Why research butterflies in Iowa?

As we continue to alter and develop the landscapes around us, it is vitally important to monitor the effects we incur on resident plant and animal species. Changes in the numbers of different species present (*species diversity*) and their population sizes (*abundance*) provide us with valuable information regarding these impacts. Because butterflies display a wide range of tolerances for habitat disturbance, are relatively well known and easy to sample, and because they often show strong preferences for specific plants, they are particularly good organisms for research. In addition, because Iowa has undergone severe landscape alterations in the past century and contains less than 1 percent of its original tallgrass

prairie, it provides an excellent site for such research.

What questions provoke the research?

Diane Debinski, an ecologist at Iowa State University, has been conducting studies on butterfly diversity, abundance, and behavior for several years. Following are a few of the many questions that have inspired some of the butterfly research under her direction:

Which species of butterflies appear to be sensitive to habitat disturbance and the resulting fragmented landscapes?

Some species are considered to be *specialists*. This means that they tend to display strong preferences for particular plant types, landscapes, etc. Other species are *generalists* and appear to thrive under a variety of conditions. As one might guess, the specialists usually display the strongest response (often with a decline in

release a lot of butterflies, it is good to check with local agriculture extension specialists before doing so.

Ready, Set, GO!

Now that you're equipped with some butterfly basics, you're ready to get outside and see what you can find. Remember, you'll have the most success observing butterflies on a warm, sunny, windless day — and what better way to spend such a day than out and about in search of these “winged jewels?”

Amanda Hetrick is a masters student at Iowa State University.



Butterflies in Your Pocket, by Steve Hendrix and Diane Debinski, is an easy-to-use and inexpensive pocket guide for 65 Upper Midwest species. The guide shows sexual differences, seasonal forms, and when critical to identification, upper and undersides of wings. *Butterflies in Your Pocket* is available for \$9.95 in bookstores or directly from the University of Iowa Press by calling 800-621-2736.

Other Books:

Butterfly Conservation by Timothy R. New. 1997.
Butterfly Gardening by the Xerces Society and the Smithsonian Institute. 1998.
Handbook for Butterfly Watchers by Robert Michael Pyle. 1992.
The Butterfly Book: A kid's guide to attracting, raising, and keeping butterflies by Kersten Hamilton. 1997.

Live Butterfly Exhibits:

Reiman Gardens, Ames, Iowa (515)294-8994
Blank Park Zoo, Discovery Center, Des Moines, Iowa (515) 285-4722

abundance) to habitat disturbances. Examples of such Iowa specialist species are: pearl crescent, great spangled fritillary, tiger swallowtail, regal fritillary, great gray copper and the gorgone checkerspot.

Can the presence and abundance of certain butterfly species act as indicators of prairie restoration success?

This is a tricky question to answer. It's often difficult to pinpoint a precise reason why we see (or don't see) certain butterfly species. However, the regal fritillary, a prairie specialist, is a good candidate. As our native tallgrass prairies have been lost to human development and agriculture over the past few decades, Iowa populations of this fritillary have declined dramatically. Current studies involve the effort to restore regal fritillary populations to areas that are undergoing prairie restoration (Neal

Smith National Wildlife Refuge, for example). Often this requires intense management of the plant communities.

Can grass filter strips (60- to 600-foot strips of land located between crop fields and water courses) planted to native grass and flowering plants enhance the value of agricultural lands for butterflies?

We are just beginning to research this question and anticipate these grass filter strips will enhance butterfly populations without the mortality problems associated with roadside plantings. The filter strips are typically planted with switchgrass (*Panicum virgatum*) or brome (*Bromus inermis*). We expect that replacing these plantings with a mixture of native prairie grasses and forbs may work just as well at slowing down erosion of topsoil and providing the

added benefits of nectar and host plants for the butterfly community.

Goals of Future Research

Research findings are very rarely straightforward and often generate more questions than they answer. Even with rigorous data collection and analysis, conclusions about how to most effectively manage our lands often elude us. Therefore, we rely on the cues from trends or patterns in our data to lead us in the pursuit of these answers. Efforts to research and restore regal fritillary populations will remain high on our list of priorities. In addition, we are interested in learning more about how we can productively manage roadsides, grass filter strips, and other habitat fragments in a manner that best serves the reproductive success and survival of many different butterfly species.

—AH

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Please check the parks you camped. See map below.

- ☐ AA Call (1)
- ☐ Backbone (2)
- ☐ Beed's Lake (3)
- ☐ Bellevue (4)
- ☐ Black Hawk (5)
- ☐ Brushy Creek (6)
- ☐ Clear Lake (7)
- ☐ Dolliver Memorial (8)
- ☐ Elinor Bedell (9)
- ☐ Elk Rock (10)
- ☐ Fairport (11)
- ☐ Ft. Defiance (12)
- ☐ Geode (13)
- ☐ George Wyth (14)
- ☐ Green Valley (15)
- ☐ Gull Pt. complex* (16)
- ☐ Honey Creek (17)
- ☐ Lacey Keosauqua (18)
- ☐ Lake Ahquabi (19)

- ☐ Lake Anita (20)
- ☐ Lake Darling (21)
- ☐ Lake Keomah (22)
- ☐ Lake Macbride (23)
- ☐ Lake Manawa (24)
- ☐ Lake of 3 Fires (25)
- ☐ Lake Wapello (26)
- ☐ Ledges (27)
- ☐ Lewis & Clark (28)
- ☐ McIntosh Woods (29)
- ☐ Maquoketa Caves (30)
- ☐ Nine Eagles (31)
- ☐ Palisades-Kepler (32)
- ☐ Pikes Peak (33)
- ☐ Pilot Knob (34)
- ☐ Pine Lake (35)
- ☐ Pleasant Creek (36)
- ☐ Prairie Rose (37)
- ☐ Preparation Canyon (38)

- ☐ Red Haw (39)
- ☐ Rock Creek (40)
- ☐ Shimek Forest (41)
- ☐ Springbrook (42)
- ☐ Stephens Forest (43)
- ☐ Stone (44)
- ☐ Union Grove (45)
- ☐ Viking Lake (46)
- ☐ Volga River (47)
- ☐ Walnut Woods (48)
- ☐ Wapsipinicon (49)
- ☐ Waubonsie (50)
- ☐ Wildcat Den (51)
- ☐ Wilson Island (52)
- ☐ Yellow River (53)

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



RULES

1. Save the original copy of your camping registration form (the slip you put in the campsite post) each time you camp at a different one of the participating parks.
2. To qualify for a free one-year subscription to the *Iowa Conservationist* magazine, you will need 5 original camping registration forms, all with the same name and address from 5 different participating parks.
3. To qualify for a free t-shirt and a one-year subscription to the *Iowa Conservationist* magazine, you will need 7 original camping registration forms, all with the same name and address from 7 different participating parks. Limit one t-shirt per entry form.
4. To qualify for the grand prize drawing, you will need 10 original camping registration forms, all with the same name and address from 10 different participating parks. Participants at this level also receive the one-year subscription and a t-shirt.
5. Fill out the entry form at the left and mail it with your original camping registration forms to:

Explore Iowa Parks - Iowa DNR
502 East 9th Street
Des Moines, IA 50319-0034

6. The name and address on the entry form must be the same as the name and address on each of the camping registration forms. You must be 18 years or older to enter. Photocopies of camping registration forms will not be accepted.
7. Do not mail your camping registration forms until you have finished participating. Make only **one** mailing with the correct number of camping registration forms and the entry form by **October 31, 2003**.
8. The DNR will validate camping registration

9. forms with the individual parks.
10. Limit one entry per household.
11. The DNR reserves the right to publicize and photograph for publication, in the *Iowa Conservationist*, the winners of the three grand prizes.
12. Prizes will be awarded in time for Christmas. Arrangements will be made for the winners of the grand prizes to pick them up. All other prizes will be mailed by the DNR to the person whose name and address appears on the entry form.

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Old World Chocolate, New World Energy Source

Des Moines Chocolate Store Adopts
Geothermal Technology

Article by Julie Tack • Photos by Clay Smith



As the door opens to a cozy little chocolate store on Ingersoll Avenue in Des Moines, one's senses are instantly buzzing with the charm and ambience of an old-world sweets shop.

At Chocolaterie Stam, glass counters brim with chocolate-covered nuts, gold-wrapped bars, pastel candies and every shape of truffle imaginable. The smell of coffee and cappuccino wafts, as do the sounds of customers placing orders for their sweets-of-choice.

Perhaps the last sensory experience to register is the feel of the cool, comfortable air temperature in the store. At this point the new world meets the old world.

Chocolaterie Stam is using a proven technology, geothermal heat pumps, for its heating and cooling needs. The energy source is both an economically and environmentally friendly solution for the small business.

European Expertise Finds a Home in Des Moines

Anthוניus "Ton" Stam is the owner of Chocolaterie Stam. Originally

from the Netherlands, Stam moved to the United States in 1988 as a financial planner. He came to Des Moines in 1992.

His family has a century-old history of making chocolates in Amsterdam, and Stam decided to bring his family trade to the Midwest. In 1998, he opened his first chocolate store at Valley West Mall in West Des Moines. He now has stores in Pella and on Ingersoll Avenue in Des Moines, with plans to open one more in Windsor Heights this summer.

The Ingersoll Avenue store is situated on a bustling stretch of street surrounded by restaurants, small offices, banks and shops. The building is decades-old, with several businesses occupying the space prior to Chocolaterie Stam opening in 2000.

Stam not only brought his knowledge of chocolate-making, but also his environmental awareness, from his homeland.

"I grew up in a culture that is very environmentally aware because we had so many people in a very small space," said Stam. "We tend to be

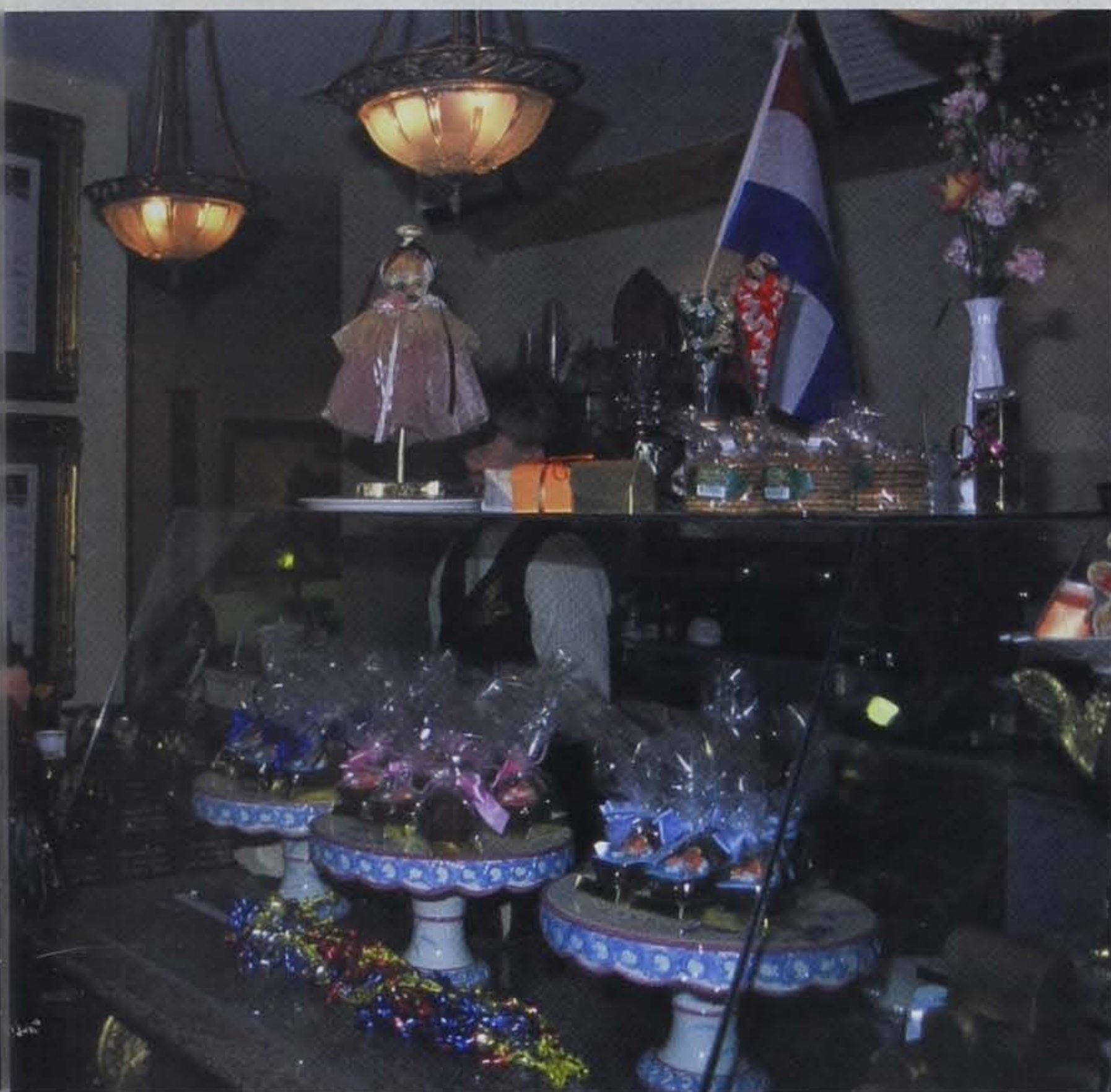
awfully insensitive to the environment here in the United States."

In 2002, Stam decided to establish a chocolate-making facility on the upstairs level of the Ingersoll store. The expansion would double his building's size to 7,300 square feet, creating a need for additional energy sources. The space especially required adequate cooling to help with the chocolate-making process in hot summer months.

A Proven Technology

Geothermal heat pump systems rely on the Earth's constant temperature as a heat source and sink. Using loops of pipe buried underground that transfer liquid, the pumps absorb heat from the liquid during the winter and dissipate heat from the building during the summer.





Chocolaterie Stam is using a geothermal heat pump system to provide its heating and cooling needs. According to owner Antonius Stam (below), he had the system installed primarily for its positive environmental impact, but hopes it will help the bottom line of his business as well.



Construction began by drilling a 14-well-hole field in the parking lot of the store. It took approximately three weeks to drill the 250-foot holes and install the heat pump equipment.



Stams continues to produce their delicious old world chocolates, only now in the comforts of geothermal heating and cooling.

The technology can lower heating and cooling bills by 20 to 60 percent while enhancing comfort through constant, even temperatures and improved air quality.

Stam, who lives in Des Moines' Sherman Hill area, had learned about geothermal systems from a neighbor who had installed it in his home. The technology seemed like a good solution for Stam's store, especially because of the potential energy savings.

"I wanted to find an alternative way to be smarter with resources," he said.

Stam contracted with Morrell Heating and Cooling in Waukee to install the geothermal system, with construction beginning in February 2003. Morrell drilled a well field in the store's small parking lot area, which consisted of 14 well holes, each 250 feet deep. David Duede, field operations manager for Morrell, said it took about three weeks to complete the project, including drilling and heat pump equipment installation.

The 16.5-ton system began supplying heating and cooling for the building around April 1. The total cost of the system was about \$82,000, and Morrell predicts up to a 70 percent decrease in heating and cooling costs compared to prior bills, not taking into consideration the space expansion.

Sweet Success

According to Stam, he and customers already sense a noticeable difference in the comfort level in the building. He hopes to see a decline in energy



costs during the next several months.

"I did this first and foremost because of the positive environmental impacts," said Stam, "but I hope it will eventually help the bottom line as well."

In addition, the chocolate maker was able to replace an old, crumbling cement parking lot with cobblestones that adds to the aesthetics and charm of the store.

A Solution for Iowa Homes and Businesses

Geothermal heat pump systems are becoming an increasingly popular option for small businesses in Iowa. Diane Hansen, trade account manager with Alliant Energy, estimates at least 120 businesses have adopted geothermal in their service territory.

"It's becoming popular because small businesses are looking for the

best efficiency," said Hansen. "It means more off their bottom line."

"There's so much technology available today that helps us conserve resources," said Stam. "I need to be concerned about the survivability of my business 40 years from now, not just in the short-term, and this type of technology helps ensure my long-term success."

Stam is also planning to install a geothermal heat pump system at his Sherman Hill home this summer.

This old world chocolate maker is demonstrating the smart business results that can be accomplished through new world energy choices.

Julie Tack is an energy information specialist for the department in Des Moines.



Learn More

For more information about geothermal heat pump systems, visit these web sites: Iowa Heat Pump Association at www.iaheatpump.org
Alliant Energy's Geothermal Office at www.alliantenergygeothermal.com
Iowa Department of Natural Resources at www.iowadnr.com/energy/

PROJECT A.W.A.R.E.

A Watershed Awareness and
River Expedition

Imagine if you will, canoeing through limestone bluffs on a beautiful spring day — sunny skies, calm water, breathtaking scenery and the sound of your paddle dipping gently into the cool water. The ambiance generates a renewed appreciation and admiration of Iowa's spectacular natural resources — resources that are often taken for granted and selfishly exploited.

Now imagine that what you just experienced occurred on the Maquoketa River during the first week of June 2003. Turn that dream into a reality by taking part in Project A.W.A.R.E! This first-of-its-kind journey will take place from Sunday,

June 1, to Sunday, June 8. Starting at Backbone State Park and finishing near its confluence with the Mississippi River, the trip will span nearly the entire length of the Maquoketa River, focusing on watersheds and how they affect water quality. Participants on the trip are encouraged to pick up streamside trash, attend nightly evening programs and have the time of their lives!

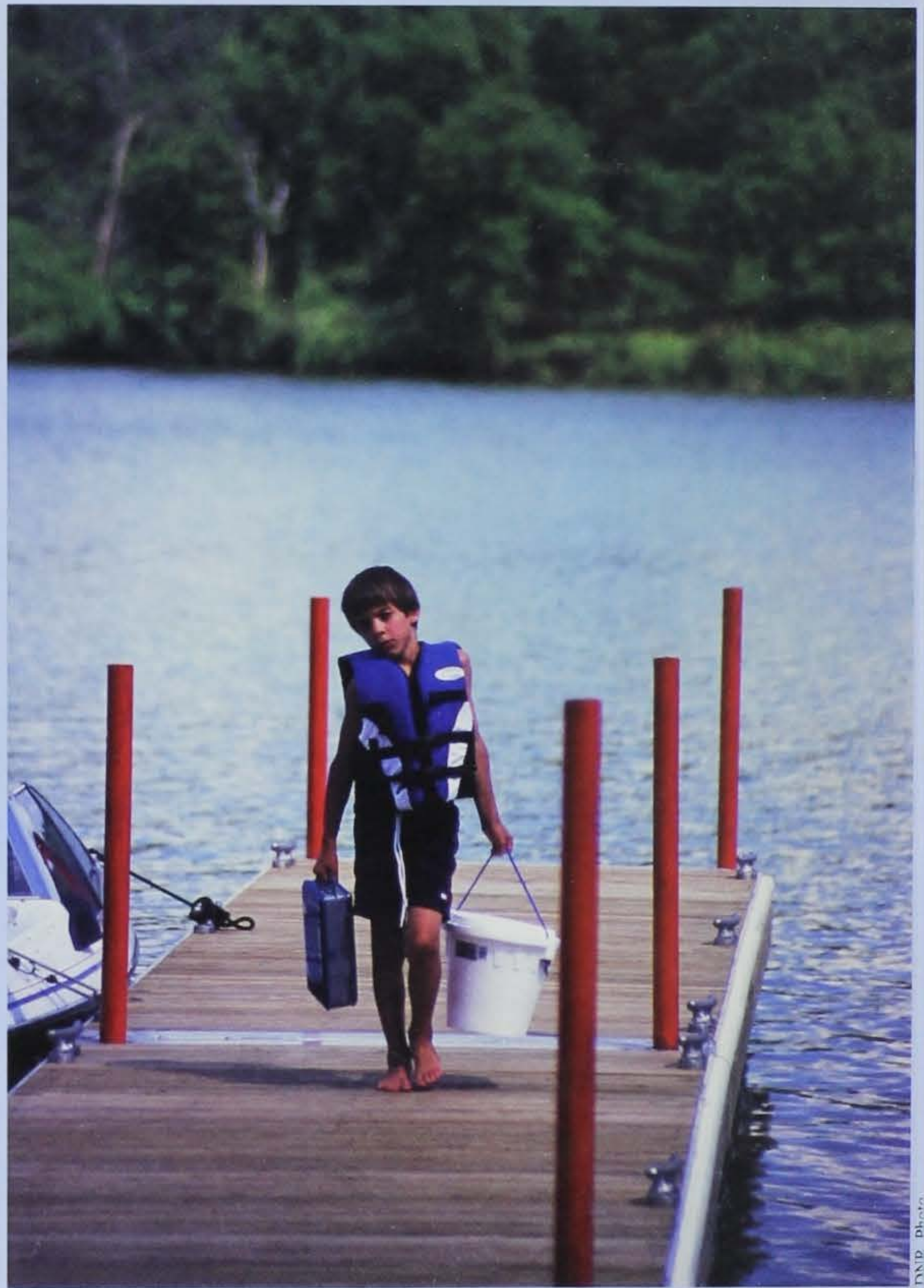
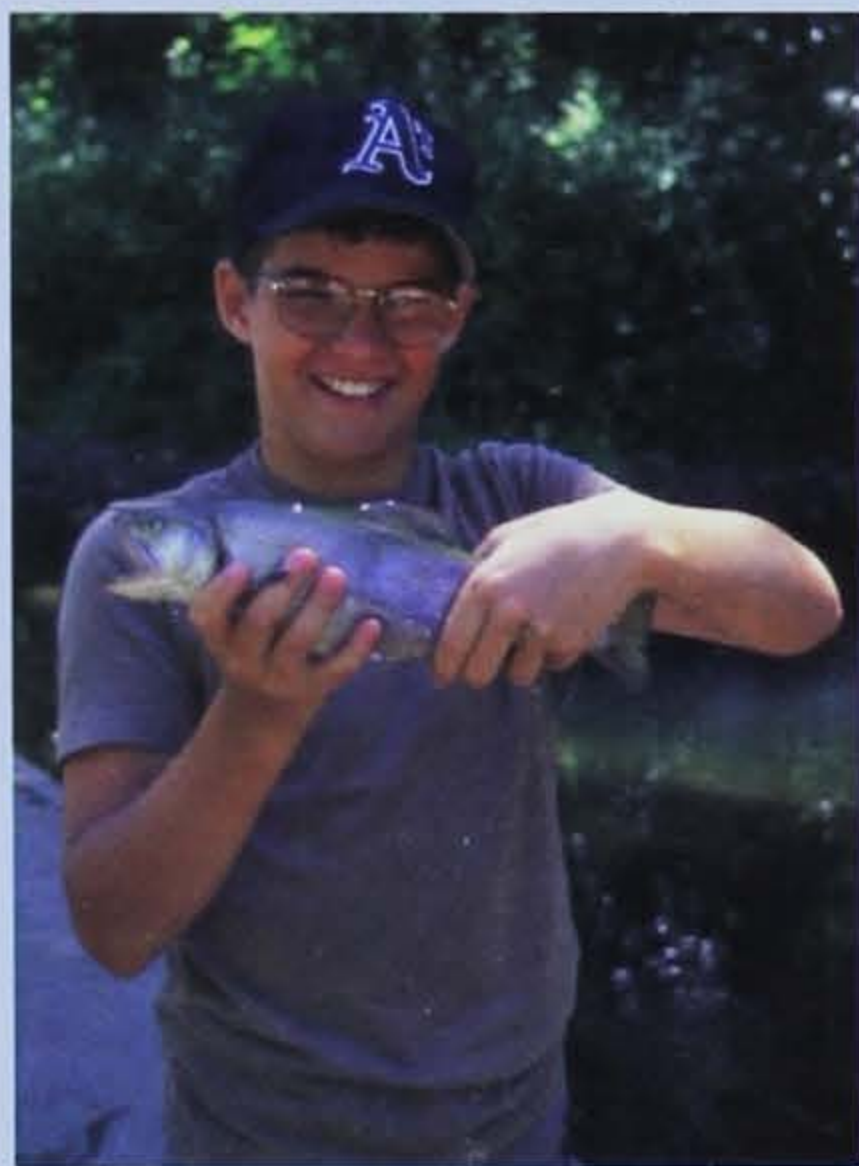
The trip is co-hosted by the IOWATER Citizen Water Quality Monitoring Program and the Department of Natural Resources' KEEPERS OF THE LAND Volunteer Program.

For registration forms, daily schedule and further information check out the DNR website at www.iowadnr.com or contact Tom O'Neill at (515)281-4539, (515)281-6794 (Fax); or by email at tom.oneill@dnr.state.ia.us



Have you Hooked Your Kids Today?

Article by Bernard Schonhoff
Photos by Clay Smith

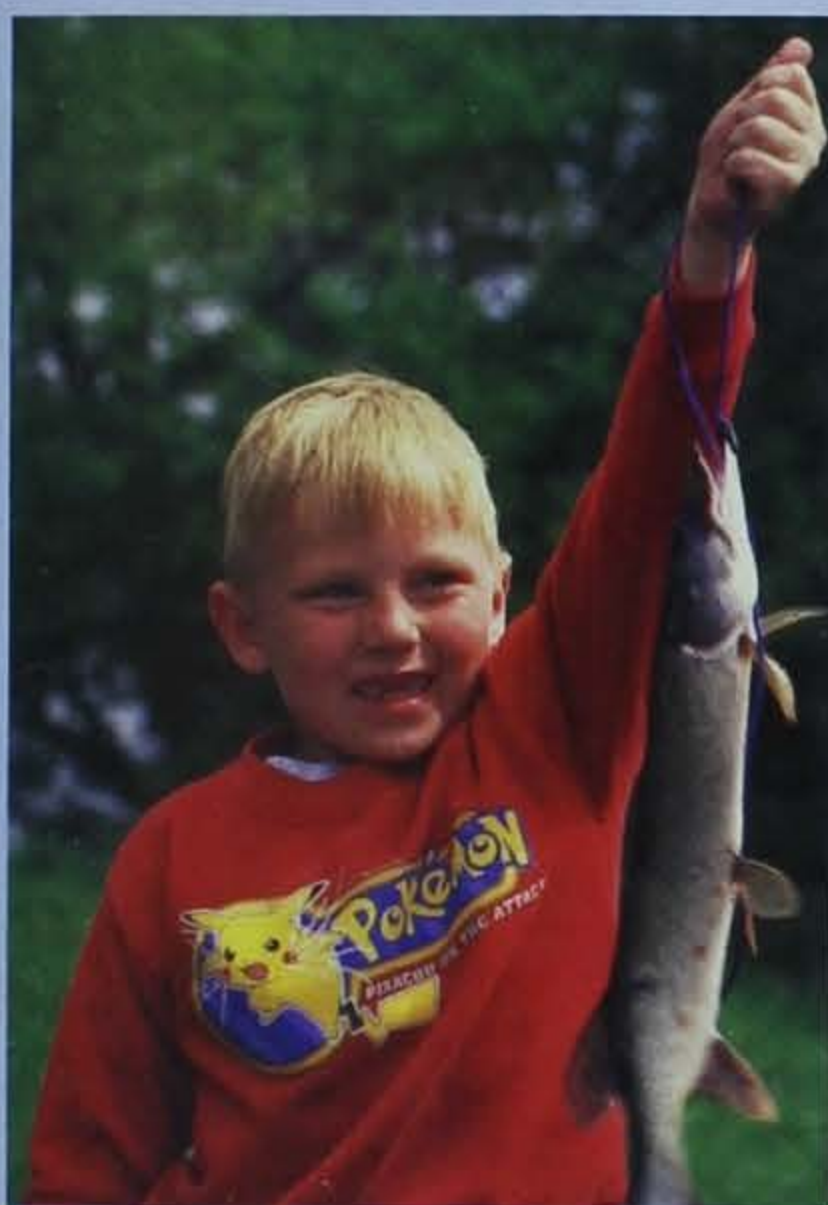


You enjoy fishing, it has been a favorite past time of yours for years, but have you taken the time to hook your kids on fishing?

Today's children are the future of fishing. If you want good fishing when you retire, you need to make sure your children love fishing as much as you do. They will be the ones buying licenses to support the resource and be willing to fight for fishing in the future.

That's the selfish way to look at why to hook your kids on fishing. The other, and arguably more important reason, is sharing the enjoyment that comes with fishing. Remember all the wonderful times you had at your favorite fishing hole?

Teaching a youngster to fish can be frustrating — and rewarding — at the same time. It takes time and patience, but so does anything involving kids.



Ken Formanek

Most anglers go through stages. The first is simply wanting to catch a fish. The second stage is wanting to catch a lot of fish, followed by the desire to catch trophy fish or use an unorthodox method to catch fish. The fourth, and final, stage is fishing for the pure pleasure of it.

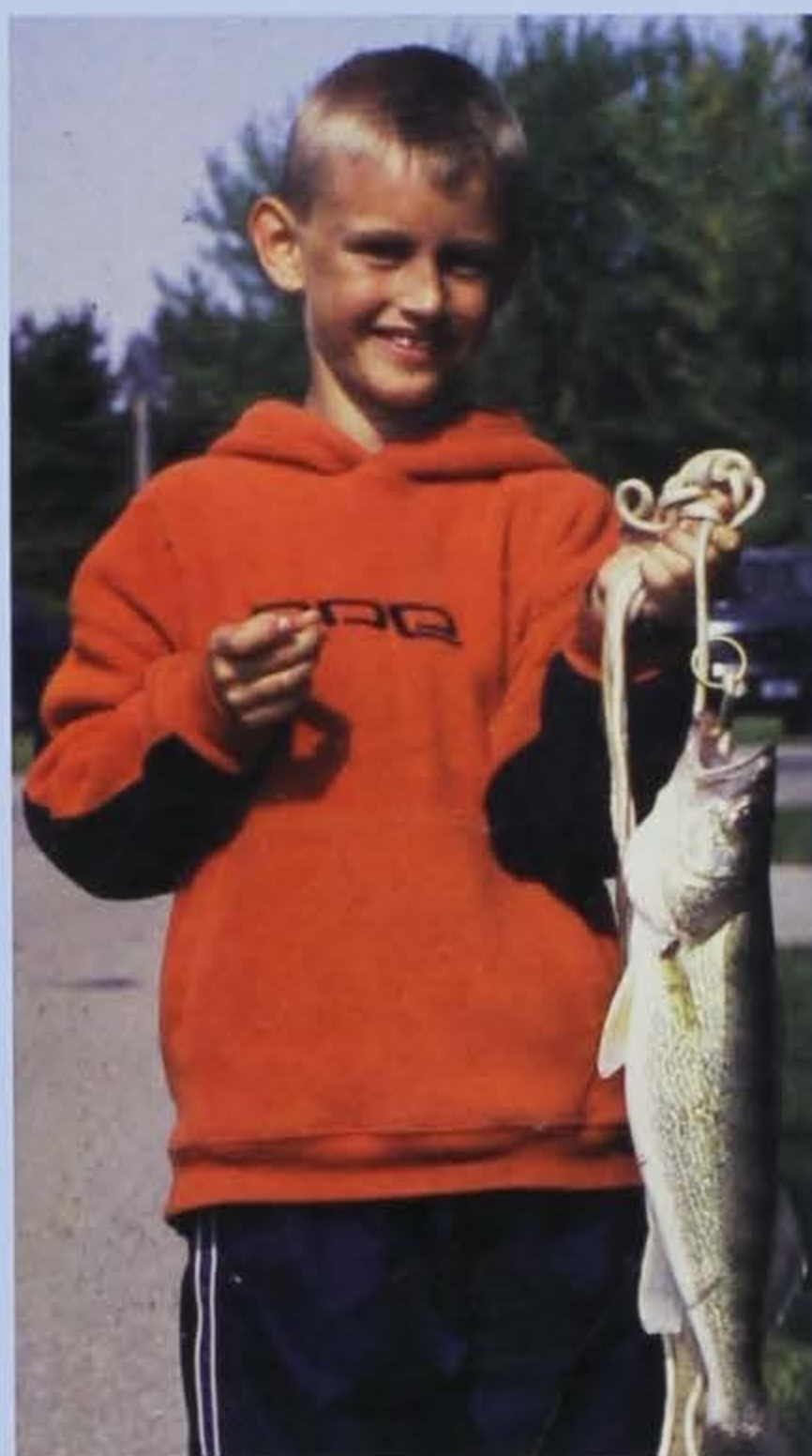
To be considered a "true" angler you have to make it to at least the second stage. Some anglers stay at

this stage, and some graduate to the final stage and stay there. Others move up and down the stages depending on the situation and mind set of the angler.

The key is getting your children

to the second stage. If you get there, they'll be part of the angler fraternity — most likely for life. The question is how do you get your children there.

If you start children out young enough, it really isn't that hard.



Lowell Washburn



Ron Johnson

Children are curious, and they imitate things they see adults doing. Start your kids fishing even before they can do their own casting. Take them when the action is fairly fast, otherwise they will lose interest quickly. It's better to take them when the bluegills are hitting rather than on a musky outing.

Some kids take to fishing easier than others. Don't make the mistake of forcing the kids to fish longer than they want to. Children often have short attention spans and move on to other things like playing with the bait, trying to paddle the boat or simply

wanting to quit. When that happens, it's time to move on to something else. Otherwise boredom will set in and the fun of the adventure may be lost.

Even though quitting when the fish are still biting can be frustrating for you, it's probably the best thing for the young angler. I remember a few years ago fishing for bluegill at Lake Geode with my kids. We had found a nice little cove with fish that were more than willing to cooperate. In fact, every time the kids cast, a bluegill would grab the wax worm and pull the bobber under just as the



Lowell Washburn



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float settled in the water. We were keeping some of the bluegills for our supper, and some were going back, but it was really fast and furious fishing. I couldn't even get a line out because I was too busy untangling lines, removing deeply hooked fish and re-baiting for the kids. After about an hour, my youngest son

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turned to me and said "Dad, I don't want to fish anymore. My arms hurt." What do you do when you have willing fish, but the kid is through? Naturally, I upped anchor and thanked God for such a memorable day.

Taking your kids fishing can lead to many such memorable occasions. One of my favorites is a fishing vacation with the family some time ago. I like to try and take each of the kids out fishing for some quality one-on-one time. The fishing had been fairly good, and the older boys and I had been out in the boat several times.

My daughter hadn't been too interested in going out in the boat, but was happy fishing for the bluegill and yellow perch around the docks. That evening I asked her if she would like to go fishing with me in the boat. She said "Yeah daddy" and ran off to get her rod, tackle box and life jacket.



As we were walking down to the boat, she broke away from me and ran over to the resort owners and said, "I'm going SERIOUS fishing with my dad." I hope that's the most serious fishing I ever have to do.

Teaching your kids to love fishing can be a very rewarding experience and lead to a lifetime of enjoyment. Remember to hug those kids but don't forget to hook them too.

Bernard Schonhoff is a fisheries biologist for the department at the Fairport Fish Hatchery.

Building A Better Tackle Box

by Al Foster


It didn't take much to convince me to go fishing when I was a kid. An invitation to breakfast at the local greasy spoon was all it took. Sometimes it didn't even take that much. A knock on the bedroom door and a simple "You better get dressed if you want to go fishing" from my dad was enough.


The target was usually bullheads — and if we were lucky — channel catfish. Despite what others may think, I still hold a fondness in my heart for the underappreciated bullhead. It's not so much the quality or quantity of fish, but the memories I have of spending a lazy day on the bank with my dad that I cherish most.


Computer games and cable television compete for the free time of today's youth. Given their fascination with electronic gadgetry, it takes more and more to keep a child occupied and interested. But if you take the time to introduce your kids to the simple pleasures of fishing, you can create some of the same memories I so vividly recall from my younger days. Here's some tips on how to do just that.

Tackle Box


Giving a child his or her own tackle box creates a tangible connection to the sport and gives kids a reason to go fishing. It's like







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Clay Smith

Free fishing clinics are scheduled around Iowa for 2003. Activities vary at each clinic and may include fish identification, how to operate a reel, different ways to cast, knot tying, how to handle fish, bait presentations and different fish cleaning methods. For a complete list of fishing clinics around the state visit our website at www.iadnr.com.

tape measure serves the same purpose. You'd be surprised how much time a child can spend measuring sticks, animal tracks and anything else. Sometimes I even bring along an old crow call, owl hooter or deer grunt tube. They may not do much for the peace and tranquility of the day, but it keeps the child focused on nature. And it's worth it to hear the laughter when they make a "funny" sound.

Snacks

No trip to the lake is complete without snacks — and plenty of them. There's just something special about having a picnic at the lake, even if it's just bologna sandwiches, chips and pop.

Limiting trips

Bernard Schonhoff, in his accompanying article, makes some great points regarding the whens and how-longs of those first fishing trips. An early spring walleye trip is not necessarily the best time to take a youngster fishing. The fishing can be slow, and the weather is always uncooperative. Spring is better, when panfish are in shallow spawning and are more willing to bite.

Short and sweet should be the philosophy for those initial trips. When interest wanes, take a few minutes to explore the nearby timber or fields, or simply pack up and go home.

I don't remember much about my video game playing days, but I do vividly recall the days on the lake with my dad. Memories like that last forever. Make some for yourself today.



Bob Casteline

giving a child a bike. At some point, he or she will want to ride it.

There is no need to fill the tackle box with expensive crankbaits and spoons, or specialized walleye rigs. Simplicity is the key with kids, and their own, private tackle box should reflect that. A handful of jigs, a few hooks, a couple bobbers, an assortment of weights and plenty of brightly colored plastic jigs and worms will help fill the tackle box without emptying your pocket. Give each

child a "special" lure, maybe from your earlier fishing days, that serves as their own "secret weapon." Throw in a cheap tape measure, a pair of pliers and a 25-cent nylon stringer so the child "owns" a tackle box just like mom and dad's. Don't forget let the child take an active role in buying and building his or her own tackle box.

There's nothing wrong with adding a few small toys for when the fishing is slow. But keep in mind, the plastic jig bodies, rubber worms and

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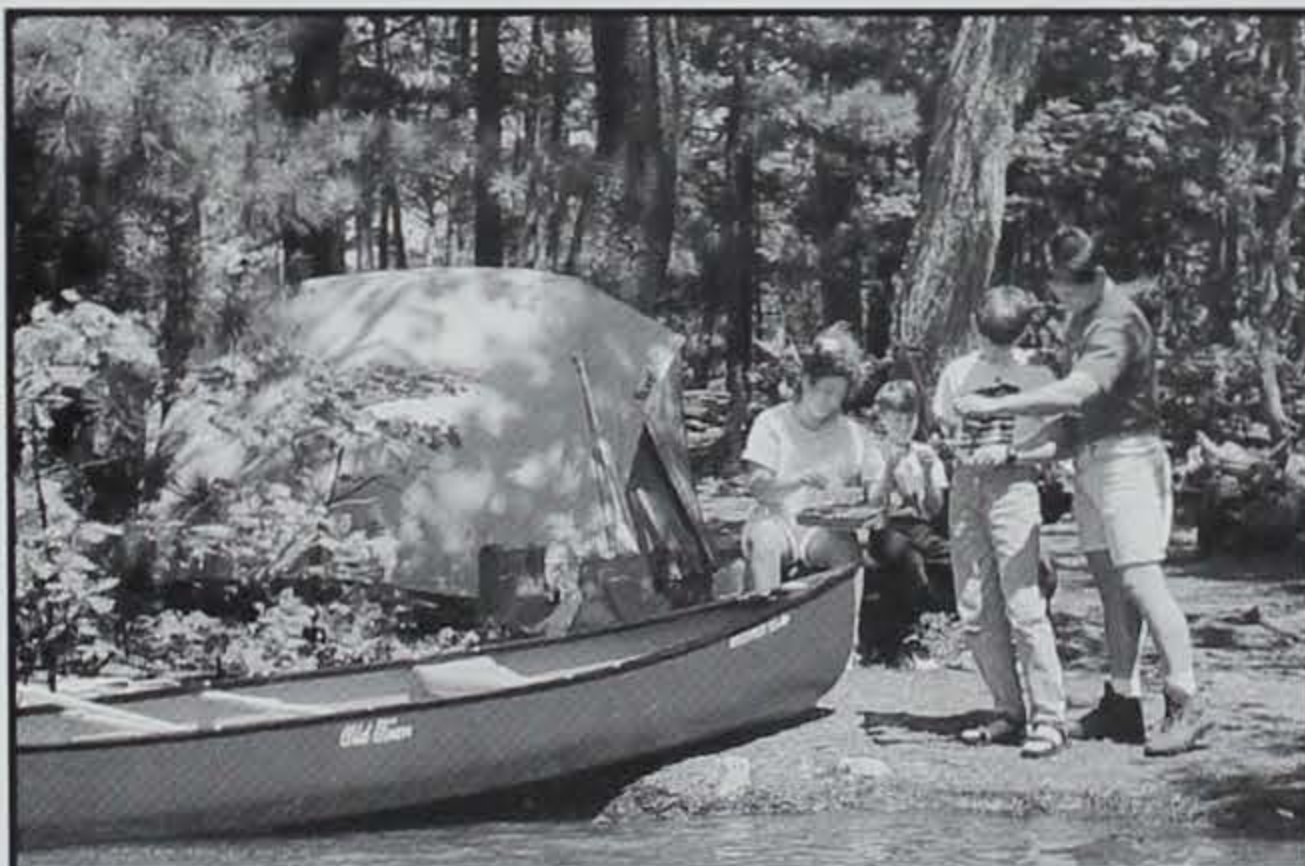
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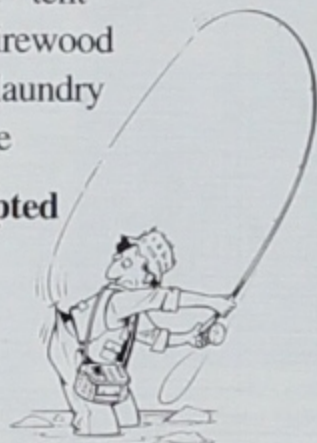
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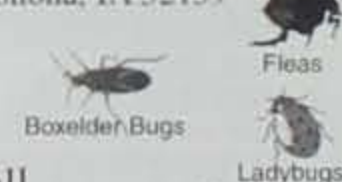
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PARKS PROFILE



Viking Lake State Park *Where Change Is Good*

Article by Todd Carrick
and Gary Poen
Photos by Clay Smith

As the old saying goes, "change is good." That is what the staff at Viking Lake State Park is counting on as they head into the 2003 recreation season.

Located four miles east of Stanton on Iowa Highway 115, Viking Lake is considered by locals as one of Iowa's best-kept secrets, although park visitation numbers say otherwise.

In 1951, the Iowa Conservation Commission, a predecessor of the current Iowa DNR, allocated money to purchase land to establish a state park. In 1957 Viking Lake State Park was officially dedicated.

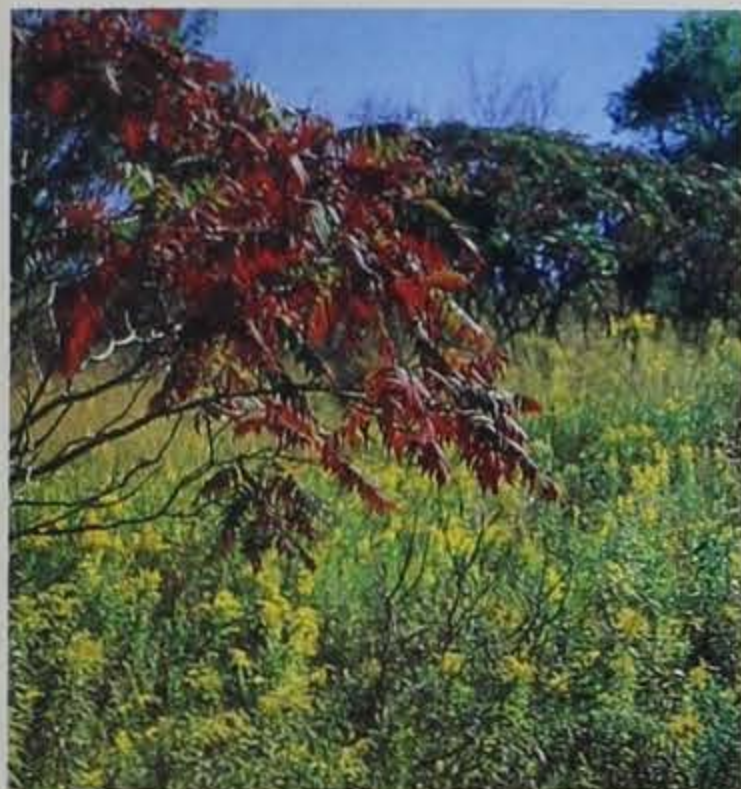
Today, more than 50 years since its conception, Viking Lake has undergone some much-needed improvements. Much of it came thanks to visitor comment cards identifying improvements and additional facilities or services the public wanted at the park. From public input, along with other formal discussions, a Viking Lake Renewal Plan was developed.

The first item on the plan called for the replacement of the existing concession building. With help from a \$247,000 Land and Water Conservation Fund awarded by the National Park Service, construction crews broke ground in spring 2001. In May 2002 the new combined concession and restaurant officially opened. The newly constructed

building provides an indoor restaurant with a family-style atmosphere that boasts a picturesque view of the lake and surrounding scenery.

Pontoons, canoes, fishing boats and hydro-bikes can be rented from the concessionaire. The concessionaire also sells snacks, camping supplies, and bait and tackle that will light up any angler's eyes. The new building also provides rest room facilities inside and outside the building. Beach goers will also find a rinse station, a handicapped-accessible sidewalk leading towards the beach and a covered shelter.

The campground also saw substantial changes. The original campground served the campers well in early years, but with today's larger recreational units,



it could no longer properly and safely accommodate the bigger rigs. The electrical system and rest room facilities had started to show their age and presented some type of maintenance problem almost weekly.

A number of campsites were originally situated on steep inclines, which posed unsafe conditions for campers. It was not uncommon on busy weekends to see the front ends of camping units parked on some of these less-popular campsites raised several feet off the ground. In fact, there would be times when

visitors would not have enough blocking material to raise their camper's front-end and would be forced to use all sorts of unsafe objects. One camper actually used rocks and split firewood for blocking material, which we corrected by offering him a safer alternative.

Because of this and a host of other dilemmas, the decision was made to renovate the entire campground, an extreme move that had never before been taken at an existing campground. It required removing all the buildings, roads, electrical, plumbing and camp pads.

In the fall of 2001, the three park staff members began tearing out the old. The work began before any construction projects were awarded, which saved both money and time. Much of the winter was spent tearing down buildings, removing electrical wire and fire grills and trying to salvage rock from the old camp pads. Contracts for the campground renovations were final-

ized in the spring 2002, and on June 12 the first of many pieces of heavy equipment was fired up to begin the major overhaul.

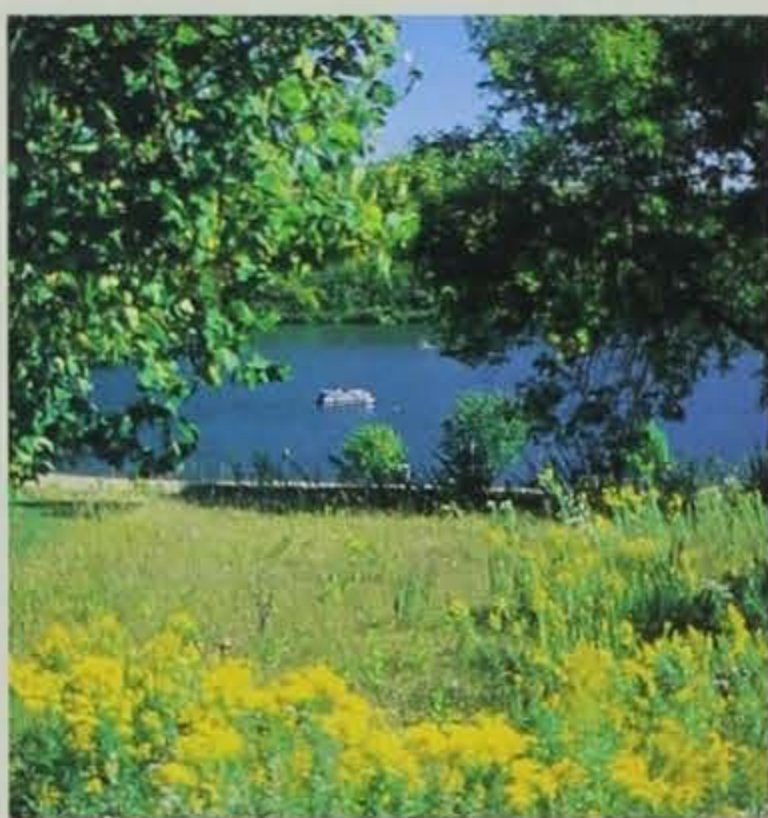
Campers and park visitors who come to Viking Lake this summer, especially those who have visited before, will be amazed at the changes. The road layout has changed significantly. The campground has been expanded west, offering a scenic overlook of the lake and main campground. There are now 22 full hook-up sites, along with nine "buddy sites," allowing two campers to park side-by-side with their doors facing each other and a fire pit to share.

Convenience also factored into the new campground design. Forty-one hydrants were strategically placed throughout the campground to make getting water quick and easy. There are also two sewer dump stations. Electric sites were designed to accommodate larger units with slide-outs, and still have adequate free space. In addition,

LEFT: Camping and fishing are two of the top activities at Viking Lake State Park. ABOVE: Walking through the newly renovated campground visitors will find beautiful scenes. RIGHT: Take a swim or rent a boat from the concessionaire.



PARKS PROFILE



all 94 electric sites are equipped with 50-amp breakers and have been leveled to make it quicker and easier to setup.

Campground users will also enjoy the luxury of two newly erected handicapped-accessible rest room and shower buildings. For those who like to "rough it," there are 26 non-electric sites in

close proximity to water and rest room facilities.

The new and improved campground was opened during a dedication ceremony held May 17.

Future projects planned at Viking Lake include the construction of a shelter house in the picnic area. The shelter will have an enclosed serving area and rest room facility and will be available to the public for rent. Proposed construction date for this project is the fall of 2003. Other future projects include six sleeper cabins that may be available year-round.

In addition to camping, fishing still remains one of the top reasons people visit Viking Lake. Bass, bluegill, crappie and channel catfish are the most sought-after species. In 1998,

the lake was lowered and cedar trees, stake beds and riprap were added to the lake to enhance the fisheries, which is proving successful.

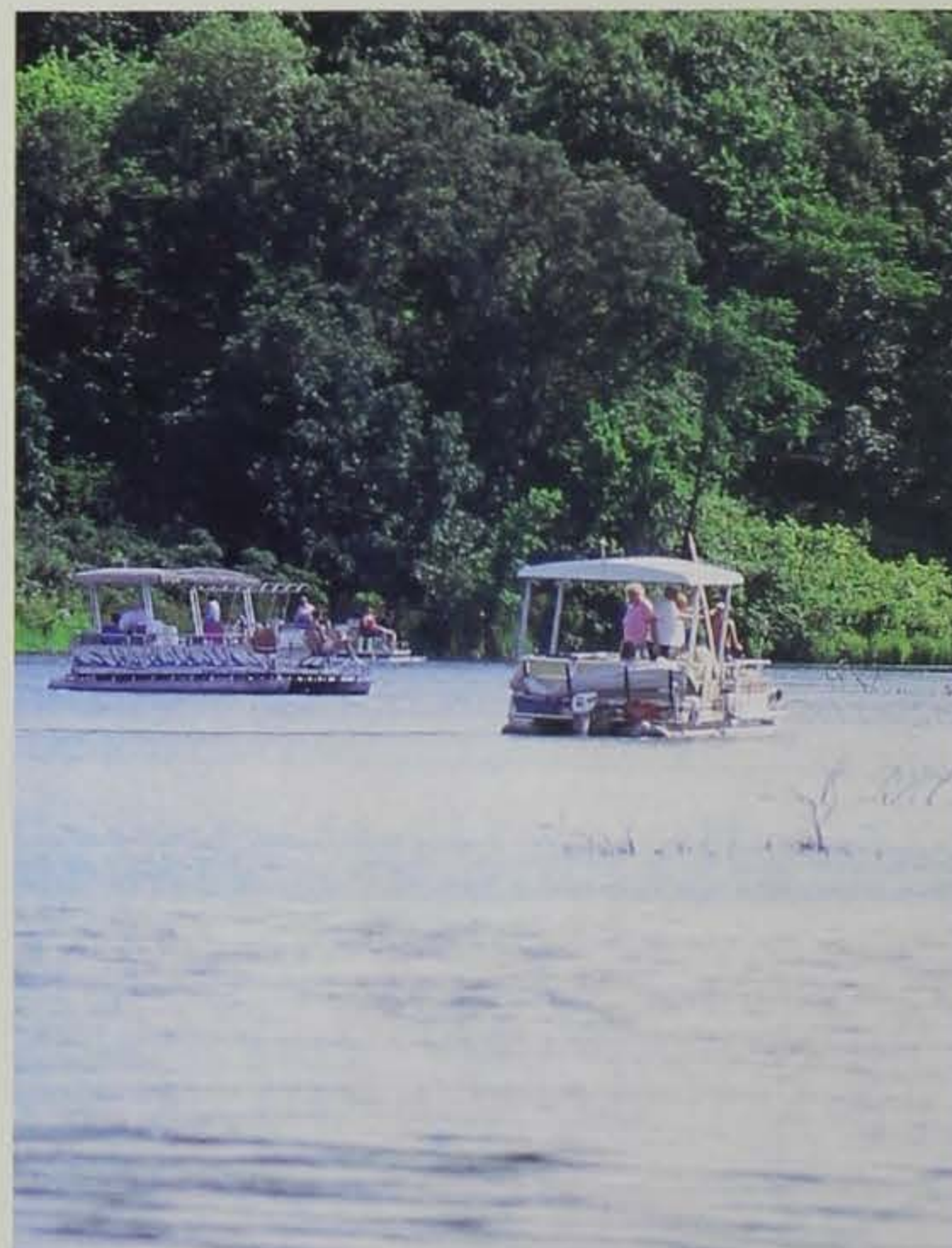
Last year also saw a change in fisheries management at Viking Lake. As part of a five- to six-year study, 1,800 walleye ranging from 8 to 10 inches were stocked in an effort to control the yellow bass population. Although yellow bass have their place in some waters, they are not welcome at Viking Lake. Biologists are hoping the walleye can help reduce the yellow bass population.

Viking Lake is also becoming a hot spot for ice anglers, evident by the record number of anglers last winter. Some of the attraction may be do in part to the successful fishing anglers experi-



RIGHT: Visitors can rent pontoon boats for the day.

ABOVE: From snacks to bait, visitors can find several items at the newly remodeled concession stand.



enced, and the good news traveled fast.

Camping and fishing aren't the only opportunities the park offers. There are several miles of scenic hiking opportunities, allowing visitors of all ages to experience the joys of wildlife viewing, as well as cross-country skiing and snowmobiling for the winter enthusiast. Visitors can also enjoy interpretive programs offered this year. Contact staff for specific times and dates.

Whether you're a first timer or frequent visitor, Viking Lake,

with all of its new and future renovations, will offer park visitors of all ages an enriching experience now and for years to come

Todd Carrick is the park manager and Gary Poen is the park ranger at Viking Lake State Park.



Swimmers can cool off on a hot day at the beach, where a nearby concession stand offers refreshments and boat rental.

VIKING LAKE AT A GLANCE

LOCATION: Located at 2780 Viking Lake Road, approximately four miles from Stanton.

FISHING: The 137-acre lake was built in 1957 and features numerous bays and points along four and one-half miles of shoreline. It is well-stocked with crappies, bluegill, bass, bullheads and catfish.

CAMPING: Newly renovated and reopened this year. The 94 electric campsites feature 50-amp breakers and new level pads to accommodate the larger units. Modern rest rooms and showers. Playground located in campground.

TRAILS: Six miles of hiking trails provide excellent views of the park's natural features. The one-mile long Bur Oak Nature Trail has an accompanying booklet that provides insight on the shrubs, plants and trees found at the park. Snowmobiles are allowed on designated trails.

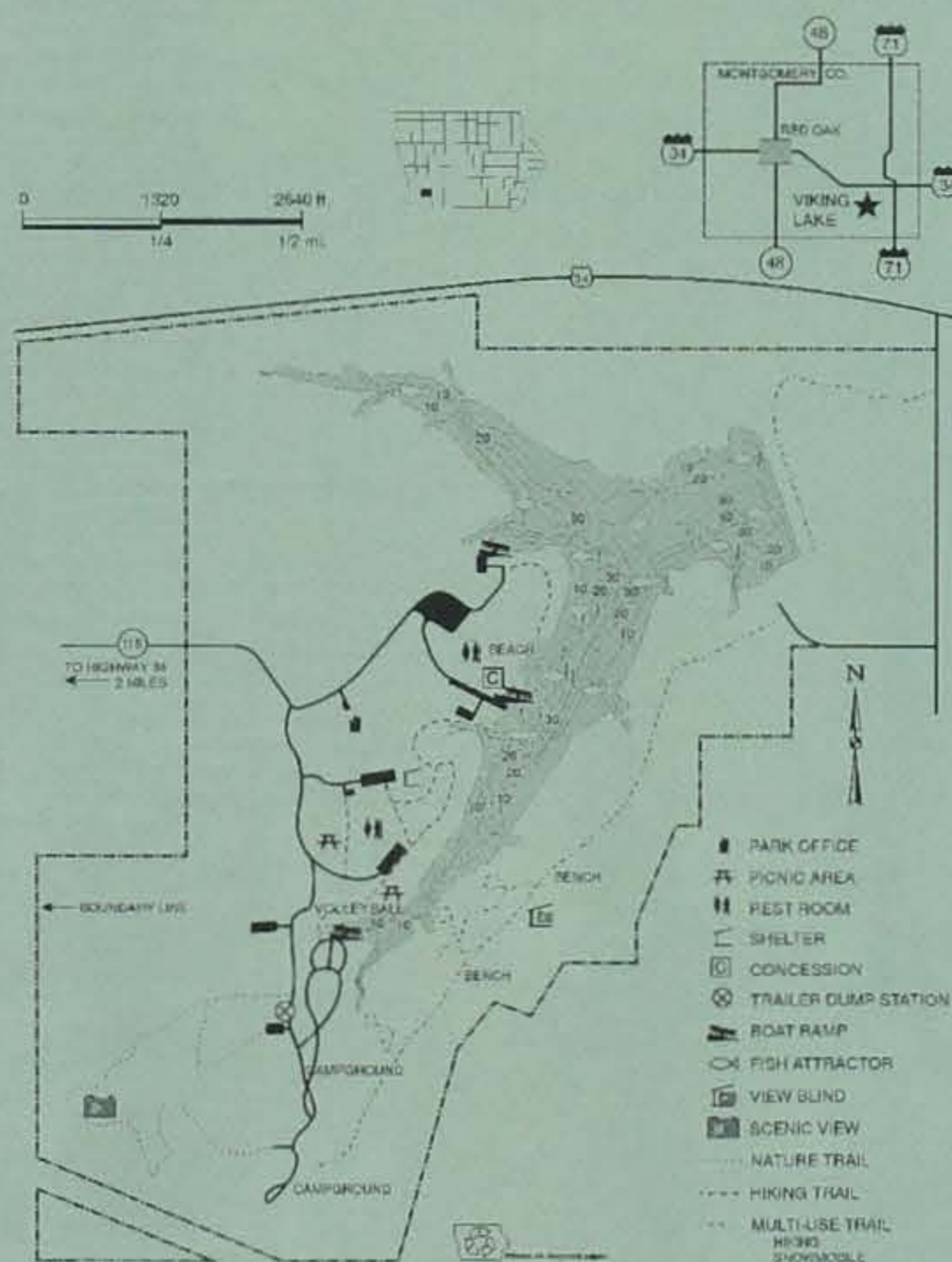
PICNICKING: Plenty of scenic picnic spots, with open picnic shelter overlooking the lake available for rent.

SWIMMING: Beach located on west shore offers unsupervised swimming.

BOATING: Any-size motor operated at no-wake speed.

CONCESSIONS: Concession stand near beach offers refreshments, boats rental, bait and tackle. There is also a lodge and restaurant, built in 2001, overlooking the lake.

CONTACT: 712-829-2235; or by email at Viking_Lake@dnr.state.ia.us.



CONSERVATION 101

Spring Cleaning Don't Make an Even Bigger Mess

by Bob Castelline and
Brian Button

Spring is a time of beauty in Iowa. Native oaks sprout infant leaves, and bluebirds, cardinals, and other birds return from their annual trips south. Blue violets, wild geraniums and early buttercups splash the countryside with color, providing pollen for bees and fragrant pleasure for everyone else.

As a time of renewal, spring is also a natural time for cleaning, and for many Iowans, that means discarding lots of junk. Spring fresh can become spring filth when Iowans foul the landscape with open dumping and burning trash. Simply put, a small minority make a mess out of spring cleaning, and with festering

results — hazards to children, despoiling of habitat and defilement of air and water.

And these dumps often attract more dumping. As Iowans notice rubbish at the bottom of ravines, drainage areas, in empty lots and pastures, and along roadsides, some believe, "There's a pile of junk there now, so it must be OK to dump my stuff, too." Nothing could be further from the truth.

Open dumping and burning are anything but OK. Discarded tires and junk, which can hold water, become breeding grounds for mosquitoes carrying diseases such as West Nile Virus. Aesthetically assaulting, dumps lower property values and pose safety concerns for children, who can become trapped in discarded appliances, cut on sharp items or contaminated by chemicals.

People often ignite these dumps, mistakenly believing that such action will rid the landscape of debris. Instead the junk pile

transforms into a heap of toxic ash, laden with partially burnt rubbish. Metals from the toxic ash leach into the water, and smoke from these fires contains poisons that eventually return to Earth, entering the food chain and remaining poisonous to the environment for decades.

All Iowans, including rural and small community inhabitants, have plenty of choices for proper disposal of their spring cleaning refuse. Reusing and recycling are the best ways to handle your waste, but you can use Iowa's sanitary landfills as well, which feature environmental controls that are far preferable to open dumping and burning.

WHAT YOU CAN DO?

1. Encourage your local officials to organize community, township and county cleanups.
2. Have a yard sale. The old saying "one man's junk is another man's treasure" has never been more true, especially in uncertain economic times. You'll make a few dollars and minimize your waste at the same time.
3. If you don't want to have a yard sale but you have usable items, donate them to your local Goodwill, DAV, church or other charitable organization.
4. Recycle everything you can't sell or give away. Paper, cardboard,



Bob Castelline

metal, tires, plastic, glass, even old electronics can all be recycled. Check with your local authorities to see how to recycle in large quantities. Many cities provide curb-side pickup services, even for large items.

5. For those items you can't sell, give away or recycle, take them to your local landfill. Most landfills have a nominal fee, and it's worth the money when you consider the harm that dumping and burning do to the environment. If you drive a truck with an open bed, remember to cover the bed so that trash doesn't fall out.

6. Finally, report open dumping and burning to local or state officials. Never attempt to question or apprehend a dumper yourself,



Bob Castelline

and don't trespass. Take down as much information about the incident as you can and contact your local authorities.

Brian Button is an air quality information specialist in Des Moines. Bob Castelline is a waste management information specialist in Des Moines.

DID YOU KNOW...

- Trash burning is the leading source of dioxin emissions, a known cancer-causing substance.
- Burning causes property damage, wildfires and personal injury every year in Iowa.
- Toxic ashes can poison gardens, soils and water.
- If the Pilgrims had used aluminum cans at the first



Ken Formanek

Thanksgiving feast, those cans would still be around today. Yet aluminum is one of our most easily recyclable materials, and recycling an aluminum can takes only 5 percent of the

energy required to make a new one.

- Recycled plastic can be used to make a lot of things you'd never imagine: trash cans, park benches, playground equipment, decks, kayaks, carpet and clothing.
- It takes 500,000 trees to make the newspapers read in the United States for a single Sunday edition — and that's only the newspapers we throw away.

KIDS' CORNER

Reduce, Reuse, RECYCLE!

The United States only makes up 4.73 percent of the world's population, but we produce 50 percent of the world's waste. Each Iowan contributes approximately 4.4 pounds of waste daily. Every minute Americans take 18 million tons of raw materials from the Earth.

But there are things we can all do to help. First we must

recognize that true recycling is a "loop." We must not only recycle the products we buy, we must also reduce the amount of trash we generate AND we must do what we can to close the recycling loop by buying recycled products.

Following are some recyclable materials and some of the products they can produce:

newspaper = insulation, animal bedding, egg cartons
glass bottles = fiberglass, new glass containers
plastic bottles = recycling bins, flower pots, luggage, drainage pipes, pillow fill
aluminum = new cans, rain gutters, window frames
steel cans = paper clips, desks, pipes, bicycles

Personal Landfill

When materials are placed in a landfill, some kinds of garbage will decompose under the soil rather quickly while others remain relatively unchanged even after 100 years! Why? To make your own personal landfill, fill the very bottom of a clear plastic cup with dirt. Place food items on the next level, near the plastic so you can see what is going on. Cover with a layer of dirt.

For the next level, arrange items such as plastics, aluminum and paper clips, and again cover with a layer of dirt. Repeat this process until the cup is almost filled. Leave a little room for air. Put a small amount of water into your landfill and remember to keep it moist over time. Cover with plastic wrap and secure with a rubber band. Observe your landfill daily to see what is happening to the different kinds of trash.

How many years to disappear?

How many years do you think these items last when thrown in a ditch.

	0-1 years	1-100 years	100-500 years	500-1,000 years	1,000+ years
Disposable Diaper					
Cotton Sock					
Styrofoam Cup					
Glass Bottle					
Leather Belt					
Wooden Block					
Banana Peel					
Paper Box					
Plastic Bottle					
Aluminum Can					

Courtesy of The NEED Project

Close the Loop!
Buy Recycled.



Answers: Diaper: 500-600 years, Cotton Sock: 5-6 Months, Styrofoam Cup: 1 million years or more, Glass Bottle: 1 million years or more, Leather Belt: 40-50 years, Wooden Block: 10-20 years, Banana Peel: 3-4 weeks, Paper Box: 1-2 months, Plastic Bottle: 1 million years or more, Aluminum Can 200-500 years.

More than half of all garbage in the U.S. is made of paper because we use more than 80 million tons of paper each year. Did you know that 850 million trees are cut down to make new paper? Approximately 17 trees are saved with every truckload of paper we recycle.

Did You Know?

Annually in the U.S., we throw away enough paper to build a 12 foot wall from New York to L.A.

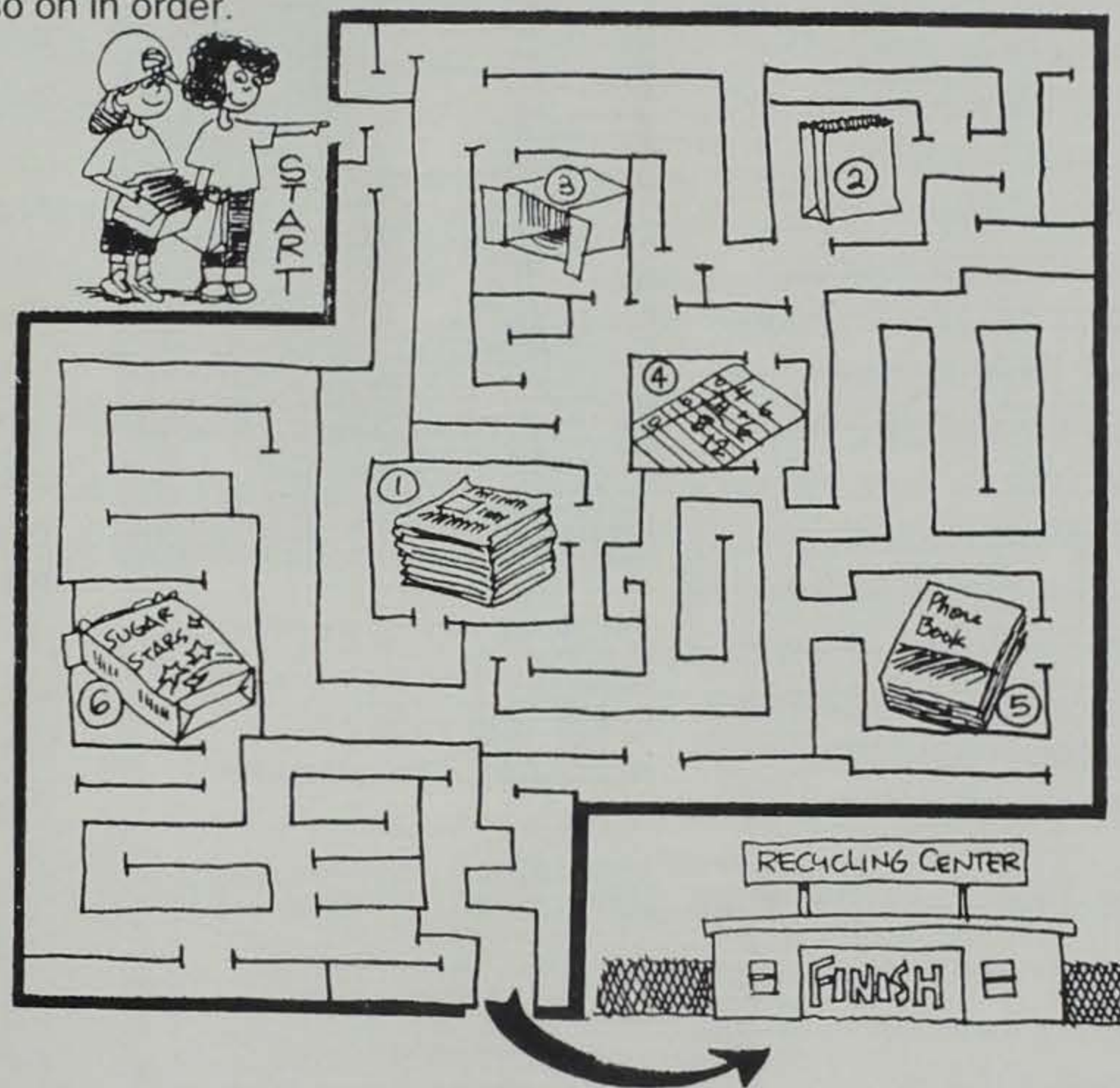
Americans discard enough aluminum to rebuild our entire commercial air fleet every three months.

We toss 2.5 million plastic bottles into the trash every hour.

Americans throw away enough glass to fill up the Des Moines Principal Building every two days.

Each day, we throw out 200,000 tons of edible food. The typical fast food resaurant generates 238 pounds of waste every day.

Help the kids below collect all the paper products and take them to the recycling center. First collect the newspapers labeled 1, the sack labeled 2 and so on in order.



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Make your own "recycled" paper!

STEP 1- Tear up used paper (any kind will do) into tiny bits.

STEP 2- Fill a blender 3/4 full with equal parts paper bits and hot water. Blend until the mixture becomes a mushy goo — you've made pulp!

STEP 3- Place a piece of screen into the bottom of a large, shallow pan, and pour the pulp into the pan. Slowly pick up the screen, shaking it gently to let excess water drain.

STEP 4- Lay the screen on a thin towel or piece of felt, and lay another towel on top. Press gently to squeeze out more water. Let this sit at least overnight. If the paper still isn't fully dry, you can try drying it with a hairdryer on a low setting.

STEP 5- Carefully peel the towels and screen away from your new paper! The new paper will be thicker and rougher than paper from the store. Next time, try decorating your paper by adding glitter or confetti to the pulp!

CONSERVATION UPDATE

Fewer Walleyes Caught During 2003 Brood Fish Collection

The strange weather in late March and early April may be to blame for the 40 percent decline in walleyes caught during the Department of Natural Resources' annual brood fish collection. Although fewer eggs were collected as a result, DNR fisheries staff say that won't greatly impact walleye stocking efforts this year.

"The fish are there, we just didn't catch the spawn at its peak," said Mike Mason, supervisor of the DNR's fish hatcheries. Fisheries workers use water temperature and the sun's



Mick Klemesrud

Fisheries biologists "strip" male and female walleyes of sperm and eggs before returning them to the lake.

photoperiod to try to calculate the best time to begin collecting fish. But this spring has been anything but ordinary.

"This was a strange year," Mason said. "We had a warm up, a cold front, then another warm up. That could have caused some fish to spawn during the first warm up."

Mason also said algae problems at Clear Lake and extreme wind conditions made it difficult to net fish.

"Our egg collection estimates show a decline of about 13 percent compared to an average year," Mason said. "We will have fish to stock, but not the extra that we had last year."

The DNR collects walleyes at the Iowa Great Lakes, Storm Lake, Clear Lake and Lake Rathbun each year to provide walleye fishing to Iowa anglers.

Mason said the eggs started hatching in late April and early May and fisheries crews will be stocking these newly hatched walleye fry in Iowa lakes. Fry are stocked by the millions in lakes because the survival rate is around 1 percent.

Other fry will remain at the Spirit Lake, Rathbun, Mt. Ayr and Fairport hatcheries and grown to different sizes before being stocked in lakes and streams. These larger walleyes have a much higher survival rate.

The DNR will stock roughly 105 million walleye fry and 1.25 million fingerlings this year.

Now Is The Time To Plan 2004 Wildlife Food Plots

Now is the time to begin planning food plots for next winter. Each winter food plots of corn, sorghum or other grains are used by all kinds of wildlife for winter survival.

According to Todd Bogenschutz, wildlife research biologist with the Department of Natural Resources, food shortages were not a problem last winter for most of Iowa's wildlife, including pheasants. The winter of 2002-03 was dry and mild, so most of Iowa's upland wildlife were in very good condition this spring, he said. However, next winter could be like the severe winter of 2000-01 when food plots played a very



Roger A. Hill

Food plots help wildlife, such as pheasants, survive Iowa's winters.

important role for upland wildlife. The time to plan for next winter is now. For more information, contact Bogenschutz at 515-432-2823.

Chemical Spills and Manure Releases Must be Reported to the DNR

Releases of manure and hazardous substances such as chemicals, fertilizers and pesticides must be reported to the DNR within six hours after the release occurs or is discovered.

"It's easy to forget to call the DNR when you're trying to clean up or stop a spill, but it's to your advantage to give us a call," said Bill Jinkinson, supervisor of the DNR Mason City field office.

While the law requires reporting, the DNR field office staff is experienced and can help with ideas to minimize damages

to the environment and figure out how best to clean-up the site, he added. Plus, we have an emergency response team that can be called upon for advice with spills of all types.

Often in the midst of a spill, the tendency is to panic which is another reason that the field office staff can help.

During regular business hours, spills and releases should be reported to the appropriate DNR field office listed below:

•Northeast Iowa, Manchester Field Office, 563-927-2640;

•North Central Iowa, Mason City Field Office, 641-424-4073;

•Northwest Iowa, Spencer Field Office, 712-262-4177;

•Southwest Iowa, Atlantic Field Office, 712-243-1934;

•South Central Iowa, Des Moines Field Office, 515-725-0268; or

•Southeast Iowa, Washington Field Office, 319-653-2135.

After hours, or on holidays or weekends, spills and releases should be called in to the 24-hour spill line at 515-281-8694.

Spills must also be called in to the local police department or county sheriff's office.

More information can be found on the DNR website at www.iowadnr.com.

Fishing Forecast

Check out the latest fishing forecast for your favorite fishing spot.

1. Go to www.iowadnr.com
2. Click "DNR News" at the top.
3. Go to "Iowa Fishing Report."
4. Choose an area by clicking on it or scroll down to browse through the available options.



Ron Johnson

Free Fishing Days • June 6-8

During the first weekend in June, all Iowa residents are invited to take part in Free Fishing Days. As part of National Fishing Week, Free Fishing Days is an effort to promote fishing. Iowans may

fish and possess fish without purchasing a license or paying the fish habitat fee. The payment of the trout fee has also been waived. All other fishing regulations, including size and possession limits, apply.

CONSERVATION UPDATE

Two New Glasphalt Facilities Dedicated in Ames, Wellman

The DNR celebrated Earth Day in style by helping dedicate two new glasphalt facilities in Ames and Wellman.

In Ames, Iowa State University dedicated Parking Lot 41 near the university's forestry greenhouse with a ceremony April 22. The City of Wellman opened a new glasphalt recreational trail April 23 in the city's community park.

The projects are two of several pilots in the state utilizing "glasphalt," an asphalt mix that uses ground glass as part of the aggregate. About 70 tons of recycled container, windowpane and fluorescent tube glass were used to complete the projects.

DOT engineer Mike Heitzman says that glasphalt-paved surfaces are just as smooth and safe for vehicle tires and pedestrians as those made from the more traditional asphalt mixes.

"By the time the glass is ground and screened, it's about the size of silica-sand particles," Heitzman said.

The events showcase one of Iowa's most innovative methods of environmental stewardship. Iowa's waste glass accounts for 3 percent of all solid waste generated annually, and finding reuse outlets for this recyclable material has been challenging.



DNR photo

Sixteen Iowa Communities Receive \$22 Million for Safe Drinking Water Projects

Sixteen communities will receive more than \$22 million in low-interest loans to improve their drinking water supply systems. The DNR and the Iowa Finance Authority began distributing the funding this spring.

The project will help ensure safe drinking water and protect the health of Iowa citizens.

The program, called the State Drinking Water Revolving Fund, is funded by the U.S. Environmental Protection Agency and provides loan

opportunities to communities to meet safe drinking water standards at their treatment facilities. The program provides 3 percent loans for improvement projects and finances up to 100 percent of total project costs.

The DNR and the Iowa Finance Authority jointly administer the fund, and prioritize projects based on engineering and environmental factors. Since 1997, the revolving fund has awarded more than \$120 million to Iowa communities. Funding is available on an annual basis.

Program Keeps Iowans Informed On Environment

A new program is available to help Iowans support conservation and environmental efforts in the state.

The Iowa Conservation Advocates' and Leaders' Link (I-Call) is designed, in part, to keep Iowans informed of issues ranging from air quality, energy and conservation volunteer

programs to hunting, fishing and preserving our natural resources. Participants choose what topics they are interested in, and how they want to receive information, either by email, telephone or mail.

For complete details, contact I-CALL at (515) 309-3152, by email at icall@iowacall.org, or at the website www.iowacall.org.

Volunteering Today For A Better Iowa Tomorrow

Just Can't Say No

Fred Scott may have officially retired years ago, but that doesn't get in his way of working non-stop. Scott, a resident of Des Moines, says "yes" to just about everyone who requests his volunteer time, including Big Creek State Park manager Kim Olofson.

"Fred is an outstanding volunteer who is always first in line to offer assistance," says Olofson. Scott, formerly a professional tree trimmer for the city of Des Moines, spends every other Thursday at Big Creek trimming the trees around the park and trails, helping with playground maintenance, working the fall bike ride, or wherever else he's needed. "I plan to work here as long as I'm needed," Scott has said.

His volunteer work doesn't stop at the boundaries of Big Creek State Park, though. Fred also volunteers regularly at the Des Moines Zoo (sometimes driving the train), helps build sets for the Des Moines Playhouse and assists at the Saydel School District High School Prairie and the Middle School Clothes Closet. He worked the Living History Farms Turkey Trot one morning last fall, and stopped long enough to attend a banquet and receive an award from the DNR Keepers of the Land volunteer program.

"The Iowa Department of Natural Resources' Keepers of the Land volunteer program and citizens of Iowa thank Fred Scott for all his work for Big Creek and other organizations in the area," said Diane Ford-Shivvers, coordinator of the Keepers of the Land program.

For more information about volunteering in state parks, call 1-800-367-1025, send an email to volunteer@dnr.state.ia.us or visit the website www.keepersoftheland.org.

Fred Scott, right, with
DNR Director Jeff
Vonk.



DNR photo

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:

- June 12
Black Hawk County
- July 10
Telephone
- August 14
Chariton

Environmental Protection Commission:

- June 16
Des Moines
- July 21
Des Moines
- August 18
Des Moines

WARDEN'S DIARY



As if I had not been sick enough of last winter already, the final straw came during another trip to Denver, Col. For two days, temperatures in the 70s and sun shining on the mountain tops; the next day, the Snowstorm of 2003. Four feet of snow. FOUR FEET! The Coloradans are fond of saying, "We have snow out here, but it's gone the next day." This was different. This was a dose of Iowa snow — big flakes, wet and heavy — the kind that sucks four-wheel drives into oblivion.

As I was shoveling snow from the front of my daughter's and son-in-law's house, to get to a car rental since United Airlines could not fly me out for another five days, I said to one of the natives, "You know, I've seen the Iowa Flood of '93 and the Colorado Snowstorm of '03. I've always appreciated history, but I can't say I enjoy being part of it."

Experiencing such an event made me thankful to see spring arrive, to see the ice break up, to see fishing start to heat up. And checking some of the first anglers

Signs You Might Not Have a License

by Chuck Humeston

of the year made me think about some of the things I've experienced in the past, some of the situations I've faced in my years of service.

I'm not giving away professional secrets here — since it really isn't rocket science — but there are a few things that tip off the game warden to the fact an angler may not have a fishing license. These are just a few and believe me, I wish I was making these up.

The If-I-Don't-See-You-Then-You-Aren't-Really-There Ploy. This is the cold shoulder treatment pure and simple. I'll approached someone fishing and ask if they've caught anything only to have them look away and not say a word. Some turn away, and others even turn again when I walk around in front of them. All the while they look at something in the sky that I can never seem to see. It usually ends with, "Oh, I'm sorry I didn't see you," after they figure out I'm not leaving.

The Slow Stroll. In this event, the angler usually sees me walking up the shoreline or sees my car approaching. They immediately pick up their rod and reel and simply walk away.

There have been times I've had to follow the escapee for some distance continually asking them to stop. I've even had to ask some people if they forgot something when they dropped their rod and reel and kept right on walking.

A variation is the **Mad Dash**, the difference being instead of slowly walking away, the person leaves everything and runs for their life. I don't care for this one anymore. I still run a lot, but I'm not as fast as I used to be.

The Nope-Those-Aren't-Mine. In this event, the angler is usually standing over a rod and reel. But when asked for a license, the angler claims, "I'm not fishing." What most don't realize, though, is that I had been watching them for the last 10 minutes through binoculars logging every cast and retrieve.

Still, the angler's position is often "that's my story and I'm sticking to it." When asked about the rod and reel the response is, "I don't know whom those belong to. They were there when I got here."

My standard response is to pick up the rod and reel and walk away. When asked what I'm doing, I reply, "I can't leave this

litter here." Usually that gets the contestant's wheels turning, weighing the cost of the fine versus the cost of the rod and reel.

The Give-It-To-The-Child Exchange. I have to admit, this is one for which I have some contempt. Again, the angler usually sees me approaching. And again, I've usually been watching for awhile. When I approach, the angler picks up the rod and reel and shoves it in front of a surprised child who has been doing nothing but running along the bank and throwing rocks for the last hour. When I ask for the license, the response is usually, "I'm not fishing, I'm just here while he/she is fishing." Sometimes a look of surprise is feigned while the adult looks at the child then looks at the rod and reel

exclaiming, "Where did that come from?"

The Zebco Javelin Toss.

This one is pretty self-explanatory. In this event, the angler sees me approaching, then with a mighty heave, tosses his entire tackle into the lake or river. Sometimes The Slow Stroll or the Mad Dash follows. I've seen some tosses where the distance was so impressive I wished I had a tape measure.

The Change-The-Subject Distraction. This one is usually reserved for the more imaginative. In this impressive diversionary tactic, the angler begins babbling furiously about anything — the weather, the stock market, NASCAR racing, or anything but fishing — before I can even say hello. This method is somewhat related to If-I-Don't-

See-You-Then-You-Aren't-Really-There in that there is some hope that after awhile, I'll go away. A deviation of this one uses loud, forceful language accompanied by names I don't like to be called and accusations of harassment in an attempt to play the intimidation card.

All of these take on variations when out on the water in a boat. Notable are the Slow Boat Race or the Jon Boat Hide-and-Seek. But, I'm running out of space to go into detail.

These are just a few all of us who are out there checking licenses have seen. There are many times I've been told, "I've bet you've seen and heard everything."

As long as people and imaginations are involved, no, not by a long shot.

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See pages 32-35 for details

