INSIDE
Special Prairie Heritage Poster

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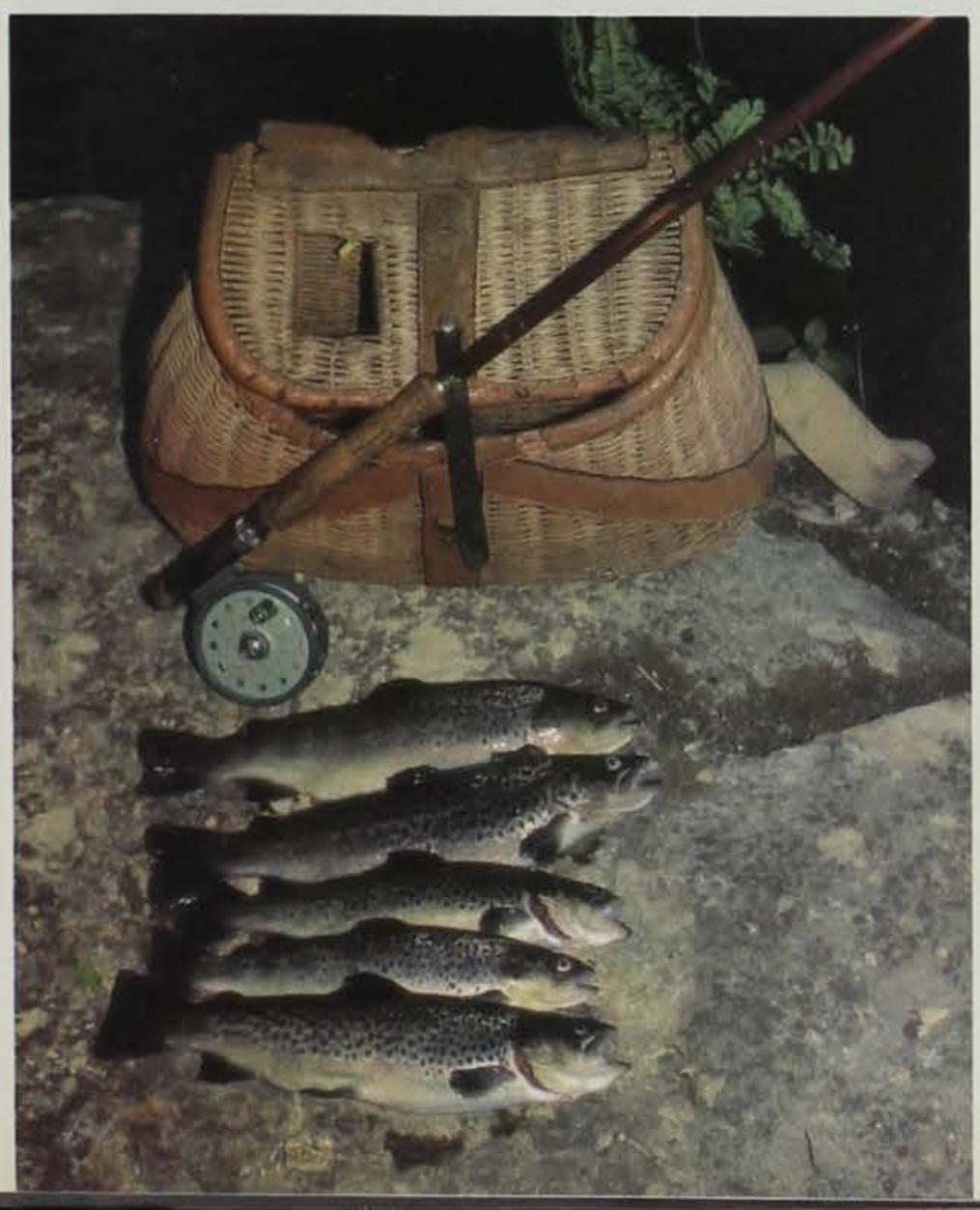
FRONT COVER: Trout fisherman. Photo by Lowell Washburn.

LURE OF THE BROWN

Story and photos by Lowell Washburn



For those brown trout enthusiasts who are willing to go the distance, Iowa's walk-in streams provide fishing the way it was meant to be.

For centuries, the magnificent brown trout has been the subject of legend and mystery. It is a creature that has inspired both poet and composer; and wherever it occurs, this superb speckled fish commands no less than the angler's full attention. From a worldwide perspective, no fish can claim a larger human following.

Wary, beautiful, crafty, elusive — all are adjectives that aptly describe

Salmo trutta. Although this sleek stream predator consumes a wide variety of prey, including other fish, it is probably best known for its affinity to the mayfly. At times the mayfly makes up the bulk of the brown's diet. It is indeed the intricate relationship between this insect, the art of casting the dry fly and the science of "matching the hatch" that, more than anything, has been responsible for elevating the fish to its current position of distinction and is the very essence of the brown trout mystique.

For the most part, the secretive brown remains aloof and uniquely frustrating. But when the hatch is on and adult mayflies are emerging through the surface by the hundreds, this normally shy fish moves center stream to feed with uninhibited gusto. It is these more reckless moments that dreams and the very best campfire stories are made of. Most browns, however, fall prey to less romantic techniques such as small spinners or drifted nightcrawlers.

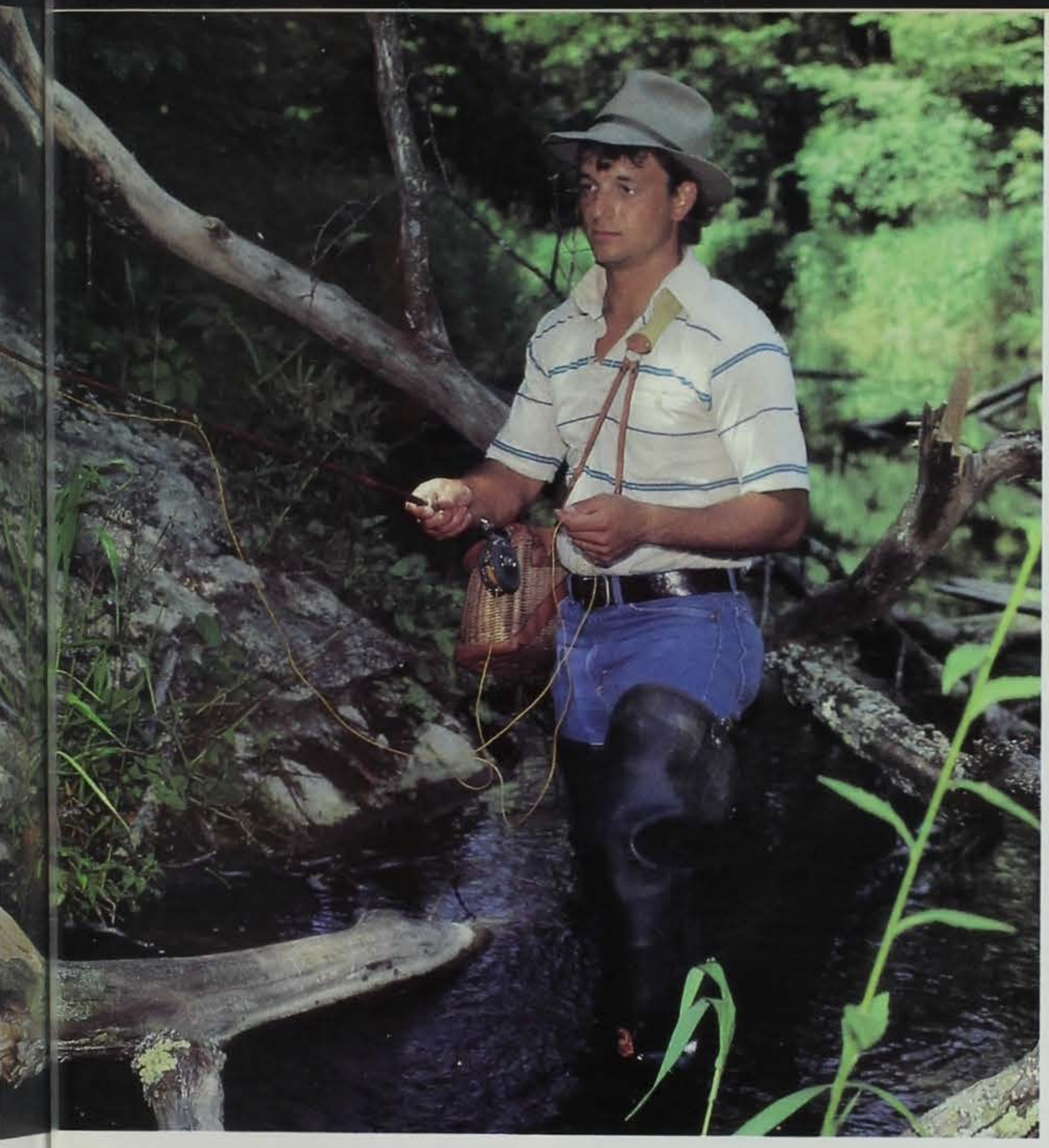
Currently, the Department of Natural Resources' trout program includes weekly stocking of some 49 of northeast Iowa's coldwater streams. These streams are stocked with catchable-size trout on a weekly or even twice weekly, put-and-take basis. Although most of these fish are rainbows, the majority of streams also receive a limited number of browns.

However, for those who desire to escape crowds and wish to savor brown trout fishing the way it was meant to be, there is another, largely undiscovered side of this angling coin — a phenomenon known as the walk-in stream. Walk-in streams are managed as trophy fisheries and are designed to provide the trout enthusiast with a new and quality outdoor experience. We admit that such streams are not for everyone. But for those who are willing to go the distance, they are guaranteed to offer a never-to-be-forgotten day afield.

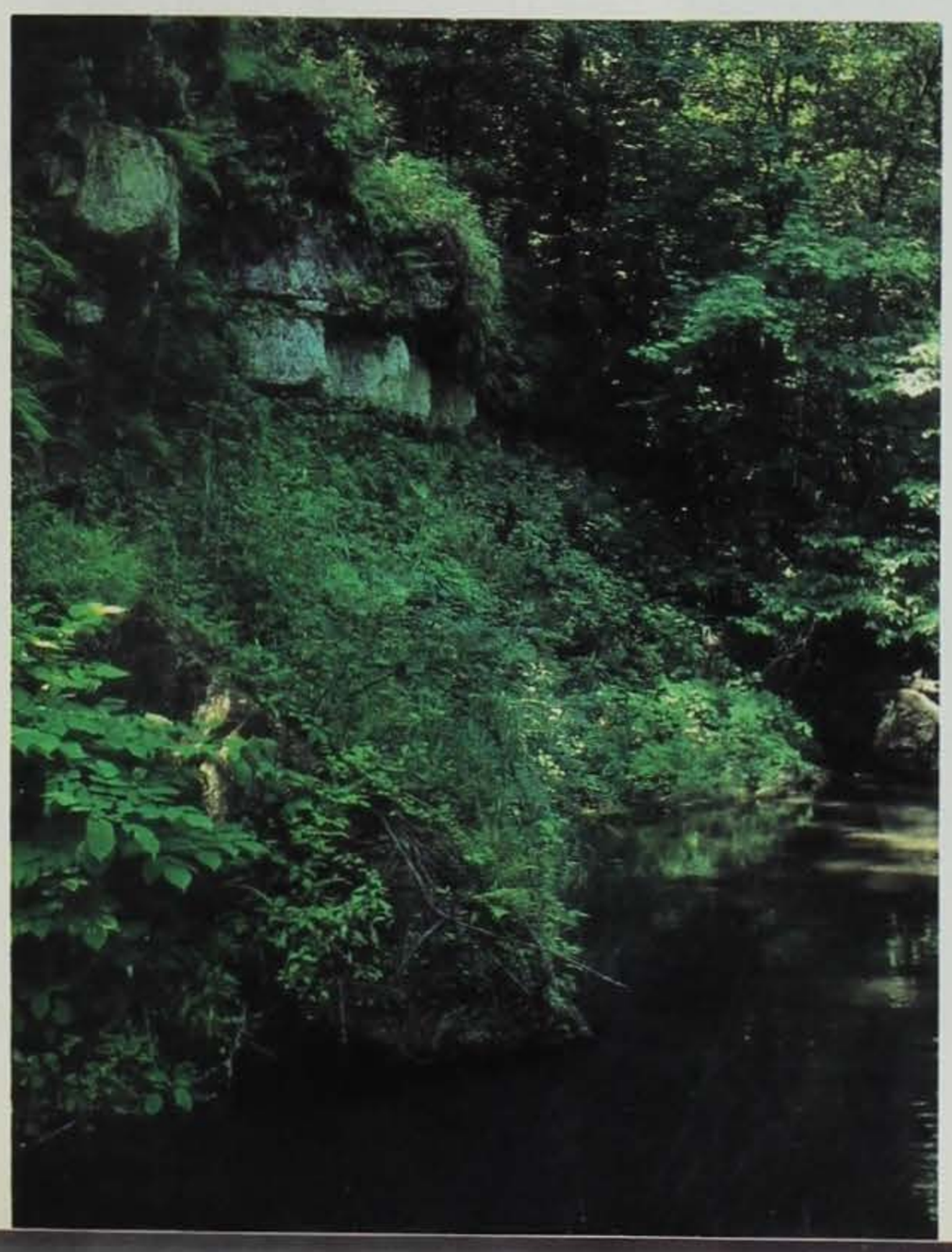
For the most part, these fisheries are remote, unspoiled and, as their name implies, accessible only by foot. Here you will find no discarded trout entrails, empty sweet corn cans or other litter frequently encountered along more popular waters. In fact, on a walk-in area it is often quite possible to fish an entire day without seeing even the tracks of another angler.

Each walk-in area possesses a personality all its own and varies in size from what a lot of folks would describe as a small river, to streams so narrow that a good broad jumper could easily clear them.

Stocking schedules for walk-in streams vary greatly. Some, such as Upper French Creek or the center portion of Bloody Run, are stocked just once each year, with put-and-grow fingerlings. Most receive monthly summer stockings of catchable fish that routinely range from seven inches to seven pounds. Without exception, these waters are rich in food and provide excellent habitat in the form of shelf rock, cut banks and deadfalls. Best of all, these primitive areas are never fished out, and harbor plump and scrappy brown trout 12 months of the year.



Walk-in streams are managed as trophy fisheries and are designed to provide the trout enthusiast with a new and quality outdoor experience.



Where To Go!

If given a choice, the brown trout claims only the most pristine of habitat — places where fast water gurgles and bubbles, through clean riffles, before plunging into the cool darkness of a snag-studded pool. Even the aroma, which hangs above a good stretch of brown trout water will further attest its quality and is a curious blend of spring water, moss and wet limestone.

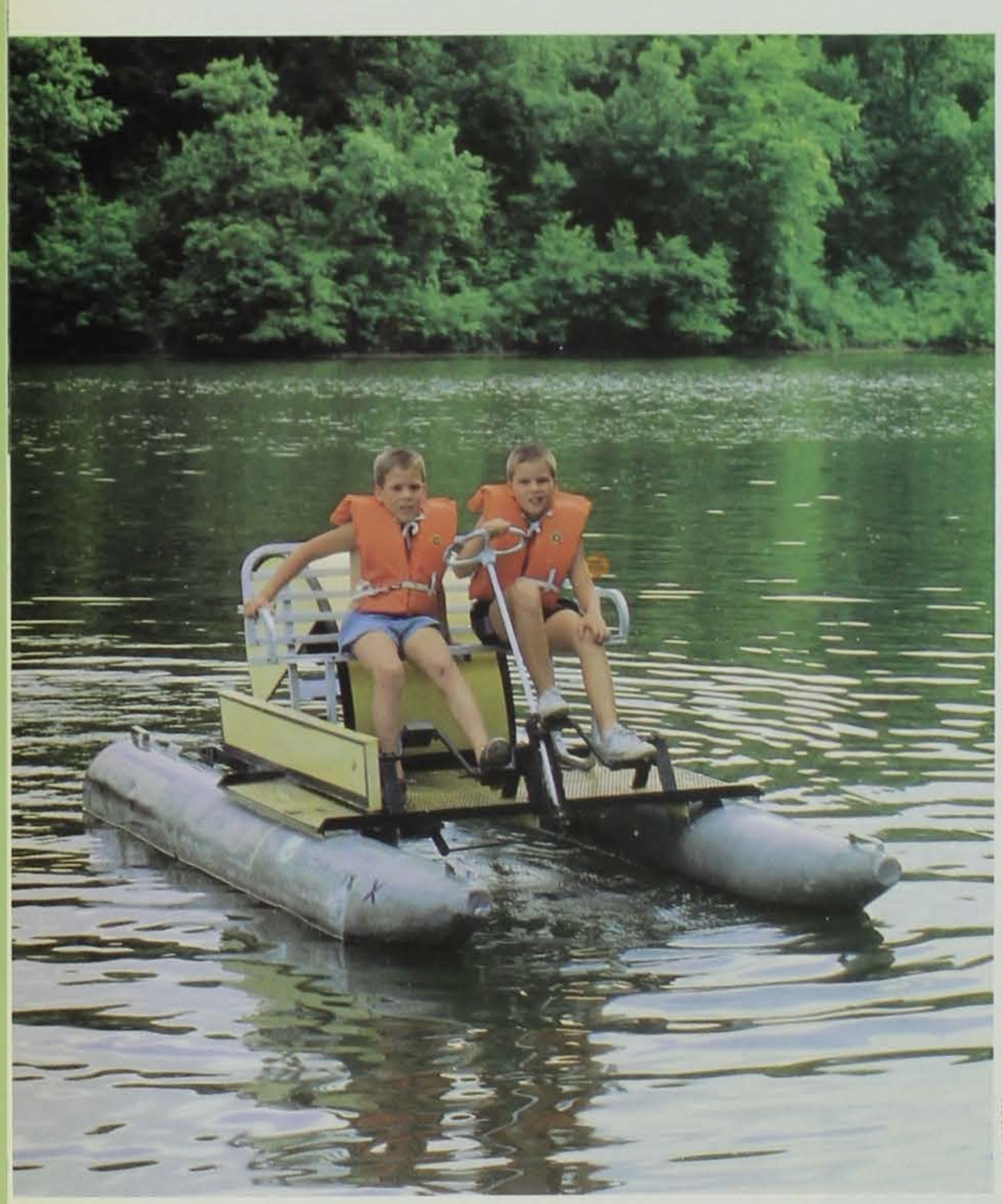
The following is a list of such streams. All are managed as walk-in trophy trout fisheries.

French Creek	Allamakee
Pine Creek	Allamakee
North Cedar	Clayton
Little Turkey River	Delaware
Upper Swiss Valley	Dubuque
Bear Creek	Fayette
Big Mill	Jackson
Coon Creek	Winnebago

Prevent the Unexpected

A Life Jacket Won't Save Your Life Unless You're Wearing It

by Craig Jackson



RON JOHNSON

Every year in Iowa more than one million people take part in some form of water activity. Also every year somewhere between 30 and 50 drownings and 50 to 60 boating accidents occur. Drowning is the second leading cause of accidental death in the United States for persons 15 to 44 years of age. These facts may or may not alarm you, but consider that 70 percent of more than 8,000 drownings in the United States last year could have been prevented if people would have done just one thing — worn a life jacket.

Unfortunately, most people envision a life jacket as a nuisance. Iowa law requires vessels to have life jackets readily accessible or within arm's reach. Ninety percent of all boating fatalities are a result of drowning. Therefore, it is essential to have a life jacket readily accessible if not worn, especially for non-swimmers.

Do not be fooled into thinking just because you know how to swim you cannot drown. Last year in Iowa, more than half of the drowning victims were average to excellent swimmers. In fact, most people that drown do not plan to enter the water at all. Statistics show people fall into the water unexpectedly while fishing, wading, hunting, snowmobiling, skating or just plain falling overboard from a boat.

When people think of a drowning victim, they picture a person screaming for help. Normally that is not the case. Most drownings are silent, occur within 10 feet of safety and usually within 30 to 60 seconds of

Last year in Iowa more than half the drowning victims were average to excellent swimmers.

entering the water. The drowning victim is frantically trying to push themself out of the water, gasping for air when their head emerges from the surface. They cannot yell for help because they are desperately trying to inhale more air to breathe. The reaction time of someone nearby is critical to saving a life. Thinking fast may very well mean the difference between life and death. Most adults need less than 12 pounds of buoyancy to keep them afloat. Items such as coolers, gas cans and even spare tires can be used to help someone stay afloat. An inflated spare tire can hold up as many as five people.

Rivers seem to be the most dangerous, with currents that can trap even expert swimmers. There are more than 200 low head dams on several rivers throughout Iowa. During high water times, these small dams can actually become drowning machines. As water goes over the dam, it churns back on itself. Whatever passes over the dam, or is sucked from downstream below the dam, can be held indefinitely by this dangerous backrolling action. The force of water in such violent motion is tremendous. It will capsize boats and drag victims to the bottom. Watch for the standard warning signs that indicate dam sites. Do not attempt to navigate waters between signs where a dam is located; instead, portage around to safe water.

Alcohol also plays a big part in water activities. Nationwide, alcohol figures into 65 percent of all drownings and boating fatalities. Alcohol is especially deadly when combined with water activities because it does more than just impair vision, judgement, balance and reflexes; it combines with exposure to wind, glare, boat noise and vibration, and the sun's heat to double the chances of injury or drowning.

If you are in the water, even small amounts of alcohol can be lethal. Alcohol causes the body to loose heat at an even faster rate, quickening the onset of deadly hypothermia. As the body cools, both the cold and the alcohol cause disorientation and confusion, sometimes causing the victim to swim to the bottom rather than to the surface. At the same time, the alcohol and the cold drain energy from the muscles, making it very difficult for even a good swimmer to support their body in the water.

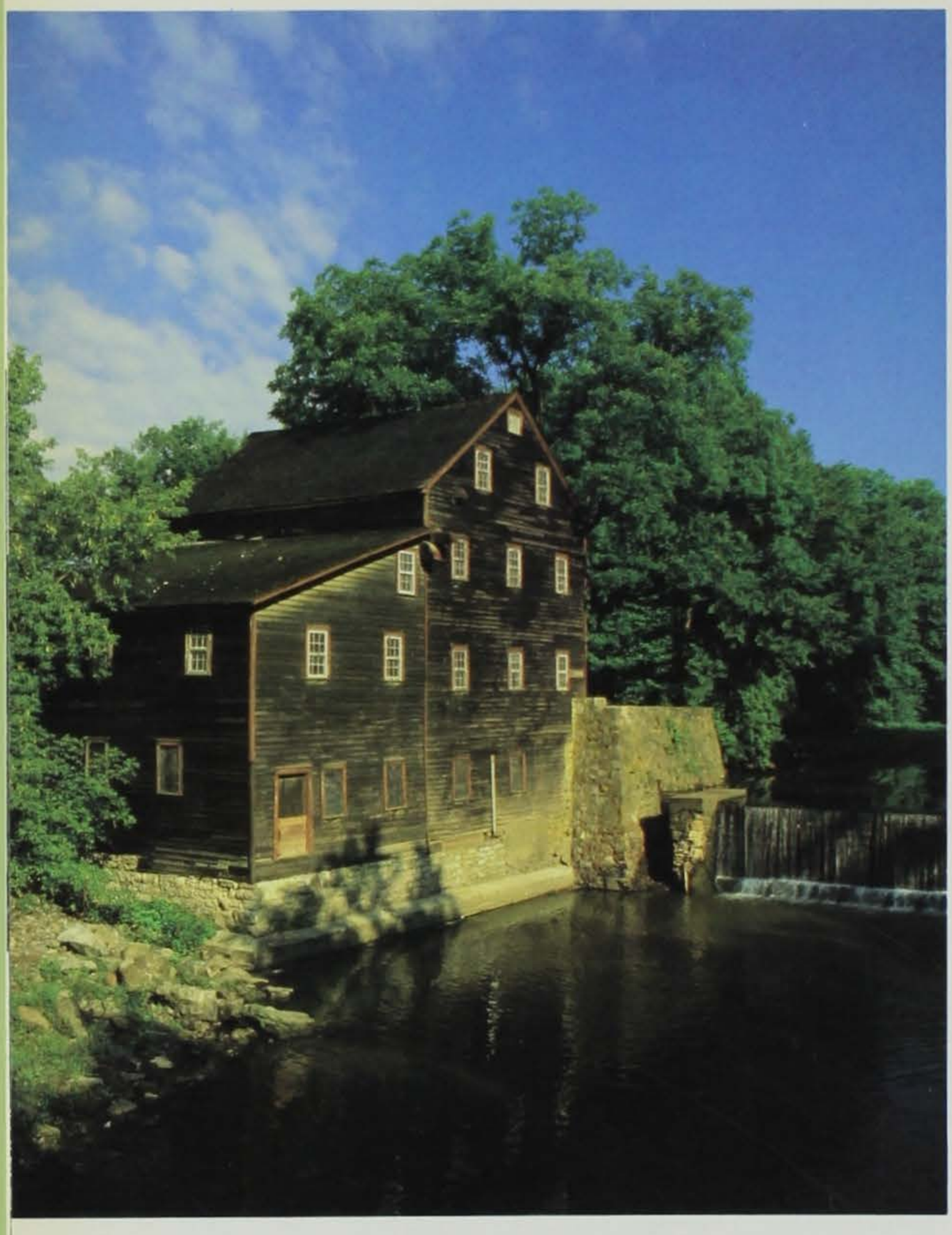
Life jackets are the best insurance you can have if you are on or around the water. Be sure you have the proper size and type of life jacket. Remember, a life jacket is a life-saving device, but only if you wear it.

If you are a new or long-time boat owner and would like to become more knowledgeable of boating and water safety, please write to the Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034 and request a free, home-study boating booklet. Enjoy the waters of Iowa, but do it safely and do not become a statistic.

Craig Jackson is a recreational safety officer located in Tipton.

Wildcat Den's Window to the Past

Story by Ken Hyman
Photos by Ron Johnson



Iowa's state parks have much to offer visitors: fishing, camping, boating, hiking, swimming and much more. But how many people think of Iowa's history when they visit a state park?

One significant historical state park structure is the Pine Creek Mill in Wildcat Den State Park, about 15 miles southwest of Davenport in Muscatine County. The mill was built in 1847-48 and was operated until the 1920s. The well-preserved structure is a very good example of construction techniques used in the first half of the 19th century. Preserved within the mill is the machinery used for milling various grains — state of the art technology in the 19th century.

The history of the mill is intimately tied to early Iowa. On September 21, 1832, the Black Hawk War ended with the signing of a treaty, which became known as the Black Hawk Purchase. According to the terms of the treaty, the Indians were to give up possession on June 1, 1833, thereby opening up lands west of the Mississippi River for settlement. The Black Hawk Purchase was the first of many steps which eventually lead to the almost complete takeover of Iowa lands by white settlers.

In the spring of 1834, Benjamin Nye, the first settler and builder of the Pine Creek Mill, came to what is now Muscatine County. Nye and his cousin Stephen took claims and built

Interior tours of the mill are given upon special request. The mill is open to the general public each year for one day during State Park Week in June.

cabins on the two sides of Pine River — Ben on the east and Stephen on the west. At first, Benjamin's main business was trading coffee, sugar, molasses, salt, pork and whiskey to the Indians in exchange for furs. Later, he built a small sawmill about a half mile above the Mississippi River on Pine Creek. It was built too near the Mississippi River, however, and high back-up water at the bottom side of the mill dam would not allow sufficient fall to turn the wheel. Nye evidently relocated his first mill upstream. In 1837, he built a grist mill across the creek from his sawmill. This was the first grist mill built in the county, and it must have been successful because it was soon outgrown.

In 1848, Nye built the present mill just below his earlier mills. It was built of native lumber sawed at Nye's sawmill at a cost of $10,000. The framing for the mill was hand-hewn timbers up to 14 inches square, which were the largest in any building in the territory at that time. The flooring was native oak, and the original weather boards were of walnut. To prevent dust from the mill from collecting in the rough lumber, all lumber was planed. The mill was solidly built, with stone foundations up to five feet thick. The dam was a crib structure with native rock abutments. Power was first supplied by a large wooden overshot wheel located in the basement of the mill. In later years, other owners installed power turbines and removed the overshot wheel.

At a later date, during a serious drought, a steam boiler and steam engine were installed as an auxiliary power unit. The engine was obtained from an old abandoned riverboat in a "graveyard" in Muscatine. Wood was usually used to fire the boiler and, in an extremely dry season, a lot of wood was needed. The last time the steam engine was used was sometime in 1918 when a flue in the boiler ruptured sending hot water into the basement of the mill.

The structural system of the mill consists of square oak columns supporting a beam framework, also made of oak. In most cases, the beams are cut from single trees and run continuously. The longest exceeds 34 feet in length. Where the columns and beams form a joint, they are fastened together with a mortise and tenon joint, secured with four oak dowels or trunnels through it. To drive the dowels through the thick beams and make tight joints, the dowel holes were bored one-eighth inch off-center. As the pin was hammered in, the tenon was drawn tightly into the mortise. Few, if any, nails were used in the original mill structure. One wonders how the mill was built back in the 1880s. How did Nye raise those huge beams into place?

Many examples of the 19th century craftsmanship and ingenuity are apparent throughout the mill. The wooden ductwork, conveyor equipment and framing are splendid examples of skilled woodworking. Despite floods, fires and the ravages of nature, the mill stands today as testimony to men who knew well how to build.

The milling machinery represents the technology of several eras. When originally built, wheat was ground with stone "burrs." Over the years, some of these were taken out until only one set of stone burrs was left. This final set was used to grind rye and buckwheat. In later years, wheat was ground in a set of three roller mills. Much of the flour milling machinery represents the technology of 1890. In the last quarter of the 19th century, American flour manufacturing was completely transformed from stone grinding to the use of roller mills. In addition, the process of handling the grain and its products was "automated." The Pine Creek Mill stands in the middle of this technological revolution. While it was a very small-scale operation compared to the giant establishments of Minneapolis, Minnesota, or St. Louis, Missouri, the Pine Creek Mill was, in its day, a modern industrial plant.

Benjamin Nye was a well-respected man in the pioneer community, was appointed as a Justice of the Peace and was elected to serve as a member of the County Board of Commissioners. He was described as: "a type of the rougher sort of pioneers, and a worthy man ....was fearless as a lion and implacable as an Indian."

Benjamin Nye was stabbed to death in 1852 by his son-in-law, George McCoy. McCoy had worked for Nye as a farm hand and eloped with his daughter. They lived in Cedar County. However, in 1849, McCoy got gold fever and went to California, leaving his wife and children in the care of a good friend. Returning in two years, he found that his wife had a new baby, which did not please him. At this time, his wife and her children were with her father, Benjamin Nye. McCoy went to Nye's place, loaded the children that he claimed as his in a wagon and headed down the road. Shortly thereafter, Nye returned home, found several of his grandchildren gone and took off after McCoy. Several miles down the road, Nye caught up with McCoy and stopped him. The confrontation that followed resulted in Nye's death.

Benjamin Nye is buried in a small cemetery less than a quarter of a mile from the mill that he built. He may have met an untimely death, but his mill has withstood the years.

Considering its age, the Pine Creek Grist Mill is extremely well preserved. The soundness of its construction has enabled it to withstand the ravages of time remarkably well. Yet, the building must continue to receive care or it will not survive to be enjoyed by future generations. With this thought in mind, the Department of Natural Resources protects and maintains the building.

In recent years, much work has been done to the mill. Its foundation has been stabilized and the roof replaced. The dam facing has been completely renovated. Long-term plans call for the restoration of the mill's interior so that it can be a "window to the past" for Wildcat Den State Park visitors. In the meantime, the mill is open for group tours by prior arrangement and during park special events.

The historical significance of this Pine Creek Grist Mill is such that it has been placed on the National Register of Historic Places. When you are in the Davenport and Muscatine area, stop by and visit the mill. You won't be disappointed.

Ken Hyman is the park ranger at Wildcat Den State Park.

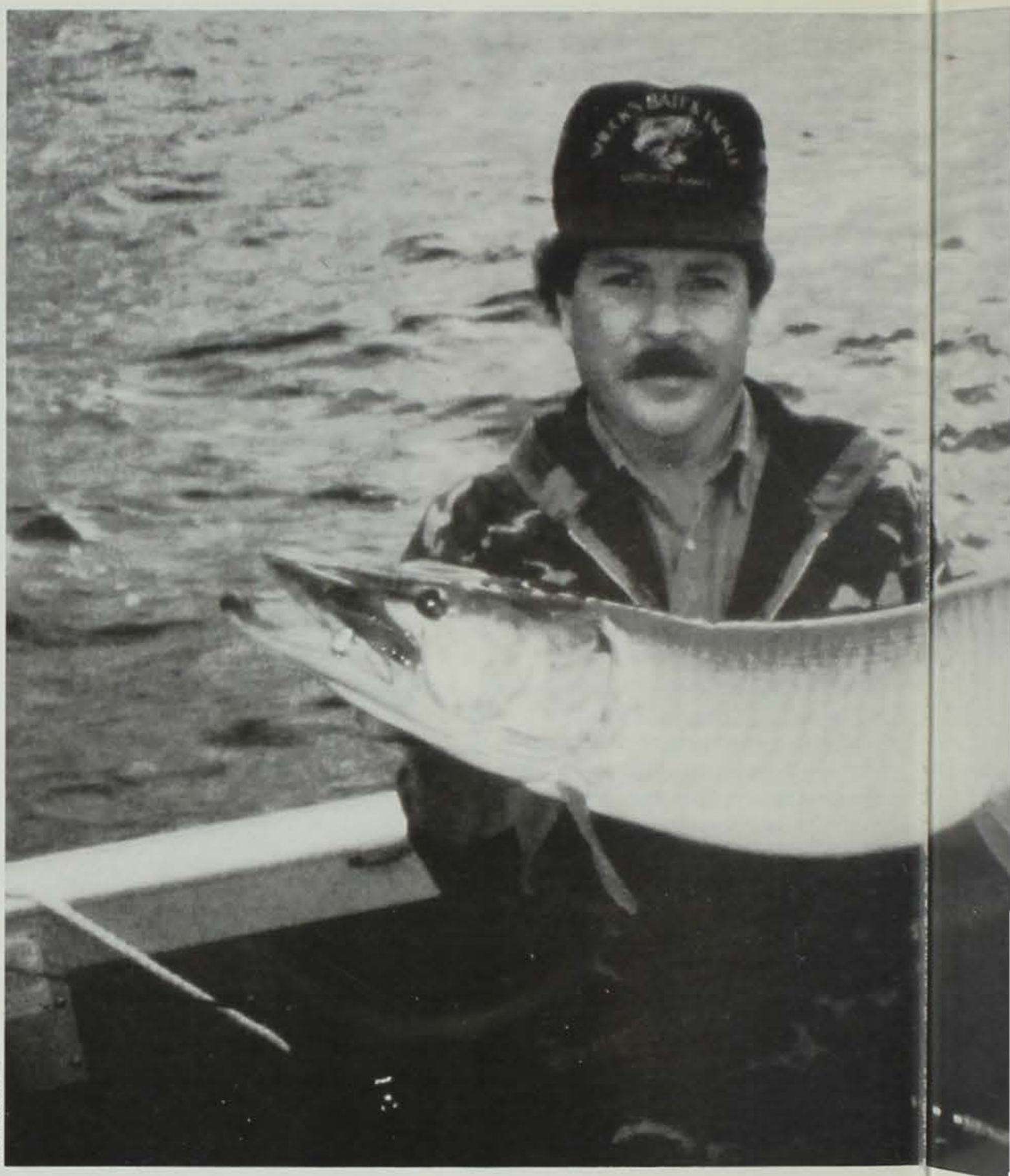


PHOTO BY AKIN

"If you're not catching fish, it doesn't always mean fish aren't there. It may mean fish are doing something different and so *you* have to do something different..."

Profile of a Musky Fisherman

by Jim Christianson

Al Akin of Spirit Lake was at the top of the 1986 list for catch-and-release points! The list referred to is Musky Incorporated's (the international fraternity of musky enthusiasts) annual record list for members who catch and release musky. Points are awarded based on the size of fish released: one 30-inch fish (which is the minimum length) is worth four points with each additional inch worth one point. Al scored 48 fish for 618 points, out-fishing his closest competitor by 97 points to capture the open class competition

Not only Al but other members of the family are involved in fishing.

His sons, Stacy and Shane, both fish, and Shane has captured the junior release division of Musky Incorporated the last two years. Talking with Sue, Al's wife, one senses not only pride associated with her husband's accomplishments, but also her ability and interest in musky fishing.

Al's fishing enthusiasm and early fishing experiences started with he and his dad fishing hometown hotspots. Later, this enthusiasm was manifested in his nightly round-trip fishing adventures to northwest Iowa lakes that netted him fish and a couple of hundred miles of wear-and-tear on his vehicle. The fishing bug finally bit Al so hard that he quit his job one Friday and moved to the lakes area the following Monday, eventually opening an auto body repair shop in Spirit Lake. His wife said, "At the time it was real scary to pick up and move but for fishing and a high reduction in mileage — we did it. Looking back, which is always easier than looking ahead, it has sure been worth it," Sue added.

Al didn't fish muskies when he first began fishing the Iowa Great Lakes but put in his time fishing other species that were available, particularly walleye. He has taken some impressive walleyes and has some wall hangers adorning his living room to prove it. In 1986, he landed an 11-pound, 8-ounce, marble-eyed beauty that was entered in Iowa's big fish award program. Al said his walleye fishing, which also developed into a catch-and-release philosophy, led him into musky fishing. In his opinion, catch-and-release is the only way to handle top predator species. He thinks there is a lot of personal satisfaction in doing battle with a good fish and then releasing that fish and watching it swim away. "This is one of the luxuries we have with the sport of recreational fishing. To practice catch-and-release of large fish, most anglers usually have had some degree of past fishing success."

Asking Al about what it takes to be a successful angler generated a variety of interrelated ideas with one prevailing theme, pay attention to details. To an angler, details demand attentiveness and either mental or recorded notes for future reference. Al uses both techniques with the obvious, more overt details retained mentally and the more specific details recorded. An evolved process of detail recording takes place over time with some recorded details becoming mentally retained and then becoming sort of matter-of-fact. A good example of a more overt detail would be Al's experience with both big walleye and musky catch success just after a weather front, when the winds are still strong from the north. Recorded details eventually lead to seasonal and more specific daily fish-catching patterns for Al.

Other areas Al mentioned to be a successful angler, involved having self-confidence in one's ability and equipment, and not to be afraid of change. "If you're not catching fish, it doesn't always mean fish aren't there. It may mean fish are doing something different and so *you* have to do something different. Combining these ideas with time on the water has the potential to increase anyone's angling skills."

Al knows about time on the water. His 1986 musky diary revealed 143 trips taken during 127 days totaling 573.5 hours. Many details were recorded and you can bet many more were mentally filed to increase Al's skill and knowledge as a musky fisherman.

Al's use of seasonal patterns and lure selections for musky are dictated by water temperature, which affects a number of interrelated environ-

JIM CHRISTIANSON

Al spent almost 600 hours on the water to capture Musky, Inc.'s open class competition in 1986.

mental changes and fish behavioral responses. These are some of Al's generalizations on musky patterns. In spring, he usually fishes red or light-colored crank baits (three to four inches), in evenings until June because of water clarity and lack of vegetative cover. In summer, he uses a variety of lures (Bagleys, Suicks, etc.), fairly large (six to nine inches), fished until the end of September. In the fall, he uses a jig and a minnow fished slowly, which eventually leads to Al's rig. Al described this as a quick-strike, live-bait rig which he casts more than he trolls. Al prefers casting throughout the season because he thinks it's more fun and exciting. He thinks trolling takes some of the fight out of fish. But he admits trolling can be a successful way to catch muskies and with some anglers becomes a necessity.

Al's casting techniques started back in 1976 after he had returned from the international musky tournament held at Leech Lake, Minnesota. Al said, "They did a lot of casting in that tourney and so we decided to try it on West Okoboji." After listening to a recap of those first few casting experiences on West Lake, Al's wife was the angler, and he was just the pilot of the boat ... but things did change.

When asked, what is your most memorable musky? Al responded, "The one that got away." This may sound like an old fisherman's cliche but there is apparent truth in the saying. While fishing with his father-in-law, Pete, one day on Leech Lake, Al relates this account.

It was a dead, calm day and the musky were not cooperating. About 4:30 p.m. the wind came up. Al and Pete were casting bucktails slow along a weedline when Pete shouted, "There's one near the surface." By this time the fish had the bucktail and was about to begin to battle. Waving its head in an attempt to throw Al's line, the musky started toward the boat and then ran under it. In the ensuing seconds, Pete, being a bit awe-struck and filled with enthusiasm, grabbed the dipnet which somehow ended up in two pieces and worthless. The fish came to the boat again only to tantalize and then stripped more line from the reel. A third approach to within 15 feet of the boat was made with the fish lying on the surface. In Al's attempt to prepare to boat the fish, he took his hand off of the reel giving the fish slack line. With just enough fight left, the fish threw the lure and was gone. Al's estimate of the fish was a 50-pound-plus trophy. After the encounter nothing much was said the rest of the day and into the evening until a couple of toddies spilled the account of "The one that got away" to the rest of the resort anglers.

Asked what is next in the way of fishing accomplishments, Al said, "To win the master's division of Musky Incorporated's release division and eclipse the old record set by Doc Cotton of 72 fish and 1,154 points." Asked about long-range goals Al replied, "Just to become a better fisherman."

Jim Christianson is a fisheries management biologist stationed at Spirit Lake.

A Tribute to Iowa's Vanishing Landscape


LOWELL WASHBURN

Pre-settlement Prairie

Prairie dominated the early landscape of Iowa. Nearly 30 million acres of grassland occupied the land between the Mississippi and Missouri Rivers. Forests were limited to the major stream valleys and the northeast corner of the state.

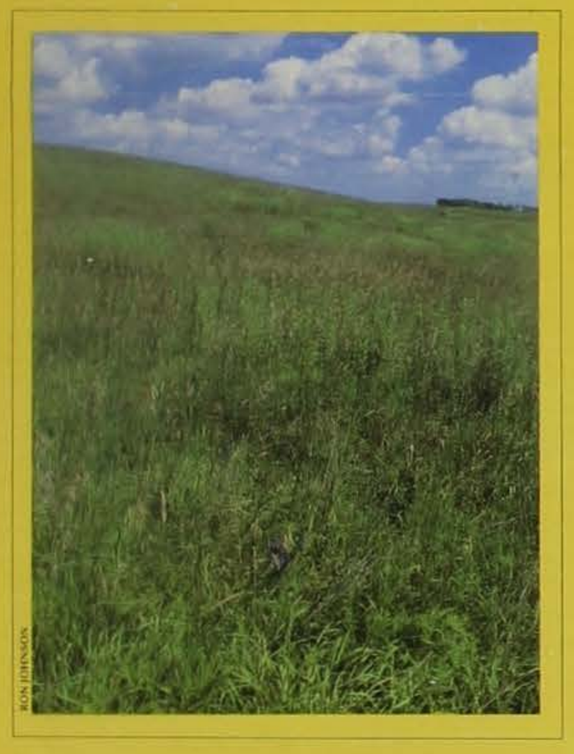
In the autumn of 1830, prior to settlement, 85 percent of the state was covered with mile upon mile of wine-colored big bluestem, interlaced with golden Indiangrass, and only an occasional grove of trees.

Grasses dominated the visual aspect of the prairie. Big bluestem and Indian grass, with patches of switch grass, reigned supreme on the more mesic areas, but little bluestem and sideoats grama were abundant on the higher and drier areas. The wet areas were occupied by cordgrass and blue-joint with scattered patches of tall reedgrass.

Not only did the grasses dominate the vegetation but also the soil below. The roots grew profusely and branched frequently, producing a dense network of fine roots. These roots penetrated deeply into the soil, often six feet or more below the surface. The roots accumulated for close to 10,000 years and created a prairie soil rich in organic matter. In addition to the grasses, more than 200 prairie forbs combined to create a flowering panorama of color, opening with the pasque flowers and marsh marigolds in April and closing with the purple gentians of late September. In the intervening months the prairie landscape exhibited a constant change of color as shooting-star, wild strawberries, birdfoot violets, blue flag iris, golden alexander, Indian paintbrush, wild indigo, Turk's-cap lily, purple coneflower, white fringed prairie orchid, compass-plant, prairie-clovers, rattlesnake-master, butterfly milkweed, horsemint, black-eyed Susan, prairie gayfeather, sunflowers, boneset, goldenrod blazing-star and blue lobelia flowered and occupied center stage for a time.

The animals of the prairie were certainly awesome by modern day standards. The bison were not as abundant as farther west on the short grass plains, but they were residents of Iowa along with elk, badgers, prairie wolves, marsh hawks, short-eared owls, curlews and whooping cranes. Soaring on the updrafts of prairie thermals, numerous hawks searched the vegetation for prairie voles, bullsnakes and Franklin ground squirrels. Vast flocks of waterfowl, prairie chickens, passenger pigeons and golden plovers darkened the skies during seasonal migration.

Fire was an essential component in maintaining the grasslands. The prairie vegetation was fire-adapted and flourished under the effects of prairie fires that swept the state in early spring and fall.


RON JOHNSON

Breaking the Iowa Prairie

When early settlers first reached the prairie, they hesitated in their occupation of the land. The journals of early travelers reflected a feeling of being afloat on a grassland sea. Phrases such as "a sea of waving grass" or "earth ocean" were common. Settlers in south-central Iowa talked of riding on horseback from Oskaloosa to Des Moines without seeing a single tree. The prairie seemed endless to the early settlers. There was a feeling of vastness about the prairie that was almost overwhelming, an expanse so great it would never be subdued. But the prairie was settled. Cautiously at first, using the earlier pattern of settling along rivers and streams, at forest edges, in outlying groves and along prairie margins, the occupation of the tallgrass prairie began. No bands or flags waved to mark the occasion. The conquest began out of necessity — the need for farmland.

The plow is symbolic of the demise of the tallgrass prairie. The tough prairie sod was almost insurmountable to the early prairie settler. Much of the initial "prairie breaking" required a considerable investment. "Custom crews" had to be hired using massive unwieldy breaking plows pulled by several yokes of oxen. Technological developments by John Deere, the steel plow, and James Oliver, less expensive chilled iron moldboard, changed the formidable obstacle of the prairie soil to a minor inconvenience that could be handled by the individual settler.


LOWELL WASHBURN

The Last Frontier: Iowa's Prairie Potholes

The wet prairies of northwest Iowa were the last portion of this once vast ecosystem to be put to the plow. Settlement of this part of the state was delayed until sufficient tiling technologies, capital funds and collective action were available for draining the land. Drainage on a large scale started about 1890, and each subsequent year thereafter found a larger acreage of wet prairie being brought under cultivation. It is generally accepted that the agricultural settlement of Iowa was completed between 1890 and 1900. By the turn of the century Iowa prairie was occupied and well on its way to being eliminated. By 1920 practically all of the wet prairies had been drained for cultivation, and even the untilled prairie deteriorated due to the curtailment of fire by settlement patterns. Without periodic fires, woody vegetation gained a foothold and expanded to crowd out the prairie.

Apparently the 19th century settlers were unaware that an entire ecosystem was being obliterated. Perhaps there was just too much. Abundance tends to create an impression of limitlessness. As is so often the case, a heritage is lost before its value is appreciated or its passing noted. The very characteristics of the people that prompted them to leave a sheltered society to settle a new land contributed to the demise of the tallgrass prairie. Faced with a daily struggle against an awesome prairie wilderness that overwhelmed much of civilization's gains, motivated by a need for personal achievement and ultimately justified by a utilitarian mission to feed the world, the prairie settlers plowed and planted the tallgrass prairie ecosystem into virtual extinction.


RON JOHNSON

The Good Life–Thanks to the Prairie

With the back-breaking turning of the tough prairie sod came the exposure of the rich black organic soils, previously unseen and undreamed of, almost unimaginable. The settlers soon realized this fibrous mat, left to rot for a year or so, grew crops far better than the soils of their ancestral homes. No thought was given to saving any prairie — they thought it would last forever.

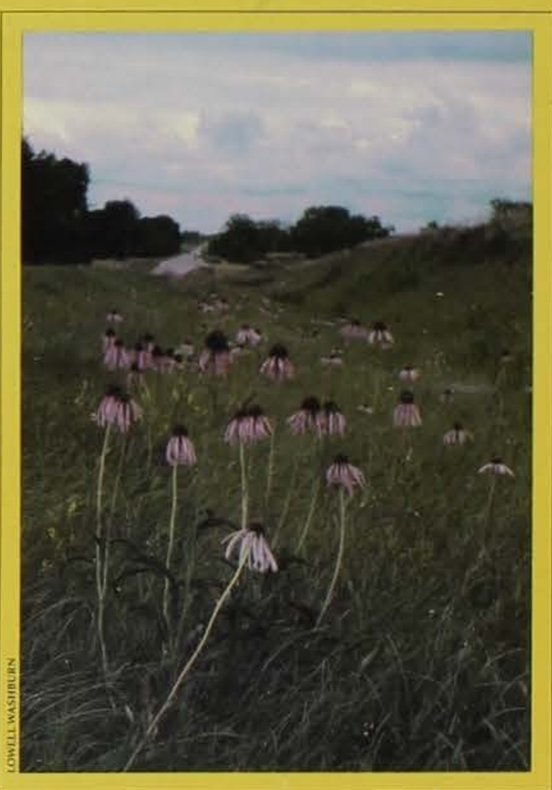
The crops flourished and were exchanged for money. A house was built and towns grew. Beautiful schools were established and tidy homesteads dotted the plains. Eventually a grain elevator was erected and soon a railroad came to town. A new grass dominated the land and Iowa became known around the world as the "Tall Corn State." The stately bison was replaced by the less spectacular domestic cattle which were confined to graze the prairie down to the earth.

In the blink of a technological eye, the landscape changed and the new people prospered — thanks to a millenia of prairie history. Iowa's quality of life was unparalleled, for here we had the finest schools, beautiful churches, new cars, monstrous farm machines and even bigger elevators. Few people were aware of the integral nature of the prairie ecosystem and even fewer raised their voices to protect its destruction.


RON JOHNSON

A Hint of Prairie Concern

Awareness of the loss of our prairie ecosystem was slow in developing. One of the first to note the passing of the prairie was Bohumil Shimek, a prairie naturalist who traveled over much of Iowa in the late 19th and early 20th centuries. The 25-year plan in 1935 was the first Iowa public document to recommend prairie preservation, long after woodland preservation had been initiated. The idea of saving something that had been so hard to conquer was foreign to frontier thinking. Shimek stimulated preservation efforts in the 1930s by proposing a 5,000-acre prairie park in northwest Iowa. Ada Hayden picked up the torch in the 1940s when she chaired a committee which documented many of the remaining prairies and recommended the preservation of significant remnants. The 200-acre Lime Springs Prairie (later renamed Hayden Prairie) was dedicated in 1947 as our first state prairie.


LOWELL WASHBURN

The Resurgence of Prairie Interest

In the late 1960s and into the early 1970s, a flurry of prairie activities began — prairie conferences, prairie walks, prairie weeks and prairie foundations — with a sense of urgency. Students began to study prairies, and people even began to plant prairies. The state of Iowa bought three large tracts of prairies and dedicated them as state preserves. Today more than 5,000 acres of prairie have been preserved, a real accomplishment but somewhat dimmed when compared to the 30 million acres which originally covered Iowa.

Prairie management is becoming a science unto itself. Annually, managers recreate the effects of a prairie fire by conducting prescribed burns on portions of prairies. This technique is necessary to supress the invasion of trees, to recycle nutrients faster and to stimulate the growth and flowering of the grasses and forbs. It is not only necessary for the health of a prairie to conduct burns, it is also exciting. The interest in prairies that has fanned the flames of prairie preservation in Iowa is evidenced across the Midwest. In a few counties in Iowa roadside prairies have been established and managed to control problem weeds. Even Congress is considering the establishment of a tallgrass prairie national park.

As a people, we emerged from the shaded east coast and blinked in the full sun of the hot, unforgiving grass sea, bid goodbye to a magnificent ecosystem and said hello to managed cropland with the attendant high quality of life. After a long period of enjoyment, we began to realize what we had lost and started to treasure those tiny remnants that remained and even returned some cropland to its original vegetation. The circle, though a feeble facsimile, is becoming complete.

by Daryl D. Smith, Chairman, Biology Department, University of Northern Iowa

PHOTO BY BILL WITT

Iowa Prairie Heritage Week

SEPTEMBER 11-17, 1988

DEPARTMENT OF NATURAL RESOURCES • IOWA ACADEMY OF SCIENCE • STATE PRESERVES ADVISORY BOARD

Would Bobo's Windtower Fail Today?

by Sharon Tahtinen

At the turn of the century, Rubin Bobo, an inventor, had a vision of harnessing cheap power from a giant windstack. He had hoped that this towering giant would produce energy to power machinery by building a fire in the sunken firepot at the base of the stack.

Based on the success of his model which produced between six and seven horsepower, investors leapt to the aid of the inventor and financed a 354-foot high stack. The cost to build the stack in 1919 was $20,000. All believed that increasing the size of the stack could increase the potential horsepower many times over, making them virtual millionaires.

The windstack, located in the 2900 block of Rockingham Road in Davenport, was built with 900 tons of concrete and measured 14 feet across the bottom and six feet across the top. Most of the stockholders were available to witness the "rising power" concept of test day. The fire started and smoke began to curl from the top of the stack. The big question still remained: Will the draft be sufficient to turn the large, windmill-like wheel which in turn will generate the power? The answer was yes; however, at its peak the wheel was clocked at only 80 revolutions per minute which translates to about 80 horsepower — hardly enough to be labeled a success.

After some thought and tinkering, Bobo installed a set of tubes to direct streams of air against the fan blades but was never able to achieve even the 12 horsepower of the test run again. The investors had already seen their money go up in smoke and were unwilling to make additional commitments to improve upon the design of the windstack. Bobo was committed to the concept and contended that a faulty wheel was the cause of the failure. Many others faulted Bobo's design, citing the smallness of the stack top as the culprit. They suggested that the small stack top prevented air from escaping rapidly enough to produce adequate suction.

Why the windtower, labeled as "Bobo's Folly," failed is subject to speculation, and no one may ever know the real reason. The concept, however, was merely 69 years too early.

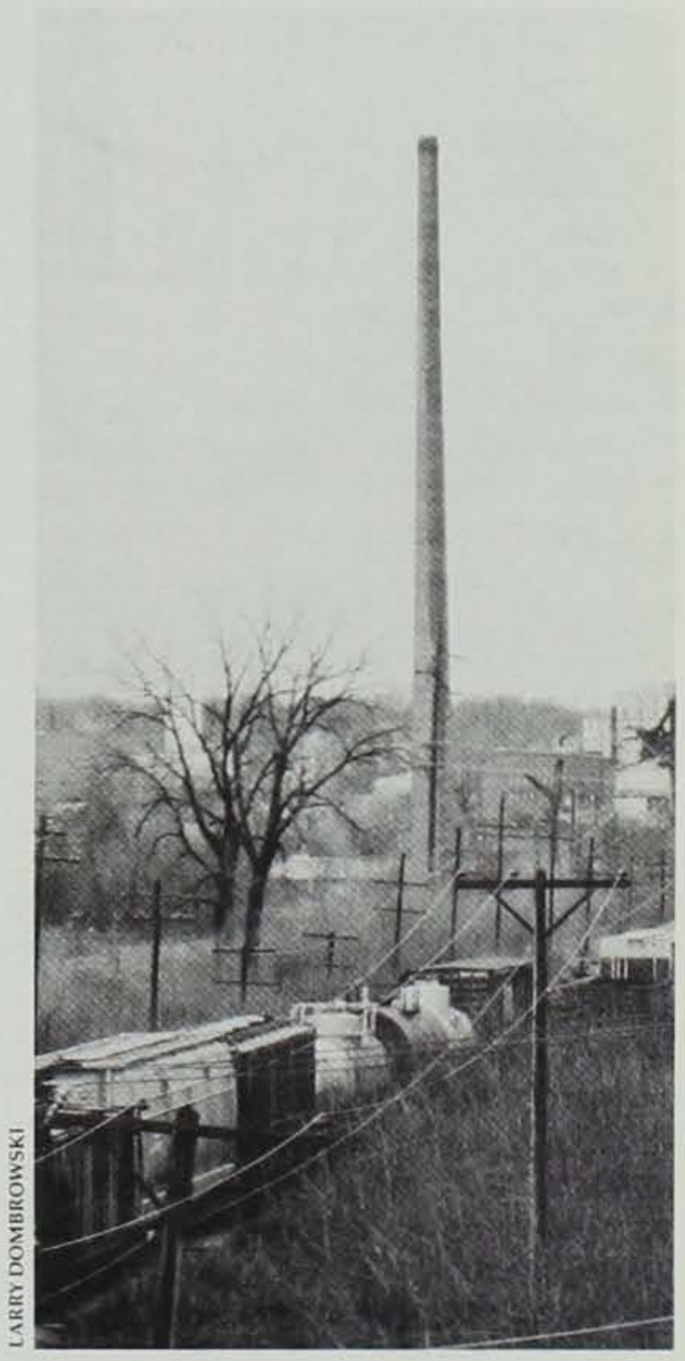
In 1983, *Discover* magazine reported the Germans had built a "solar chimney" which dwarfs Bobo's invention by some 400 feet and sits on the La Mancha plain in Spain. Today the chimney operates on the same principle as home chimneys — hot air rises, creating a lifting force proportional to its volume. Bobo referred to this force as "rising power." While Bobo used a small fire in a firepot at the base of the windstack, the Germans are utilizing sunlight to create hot air. The principles and resulting objectives are relatively similar. The German's chimney is generating enough electricity for a 20-family apartment building.

Although the windstack did not bring Rubin Bobo fame or fortune and did not evolve into the cheap energy source of the early 1900s, the monument to his vision still rises high in the sky in Davenport. The stack continues to be a source of curiosity to residents, but the Germans have shown that the concept has a chance for revival. Regardless of whether or not the stack met its original intent, Rubin Bobo made a statement about energy production and the need for a cheap energy source. In light of these contributions, perhaps "Bobo's Folly" needs to be given the credit it deserves for energy technology.

Editor's Note: Bobo's windtower was torn down May 20, 1988. The tower was removed to make way for a proposed transportation terminal that would connect truck, river and rail traffic in the Quad Cities.

Reprint from the ***Iowa Energy Bulletin***
Vol. 13, No. 7

Sharon Tahtinen is a program planner for the DNR's energy bureau in Des Moines.



LARRY DOMBROWSKI

Bobo's lifelong dream was to harness cheap power by using this windtower.

CONSERVATION UPDATE

SMOKEY THE BEAR
A SYMBOL OF FIRE PREVENTION IN IOWA

by Roy G. Hatcher, protection forester

Since 1945, Smokey the Bear has been the symbol of forest fire prevention. His image has not changed over the past 43 years but his impact on fire prevention has. He was originally introduced as a symbol of forest fire prevention. However, over the years he has become recognized as a symbol for fire prevention concerning all types of fires. Today, Smokey is considered one of the most recognizable symbols in the world.

Smokey the Bear often visits with elementary school children to explain his fire prevention program.

In Iowa the Forests and Forestry Division of the Department of Natural Resources has been using Smokey the Bear for their wildfire prevention campaigns. The division uses Smokey the Bear costumes and handout materials throughout the entire year. At the present time the division has 19 costumes that are used for a variety of fire prevention activities. These activities include school programs on fire prevention, parades, fire station open houses, county fairs, Iowa State Fair, Boy Scout and Girl Scout camps, state and county park events, and conservation activities.

Annually, the Forestry Division purchases a variety of fire prevention materials from the U.S. Forest Service. These materials are used by the Iowa Fire Service and Iowa public school systems. The majority of the material available is oriented towards the elementary grade level. However, some items are available for use in educating older children and adults.

Kits for teachers are available that provide instructional material to be used in classroom activities such as playlets, conservation work projects, song sheets and conservation games. Colored posters on wildflowers, animals, insects, trees, birds, snakes, animal tracks, fish, butterflies, bird nests and leaves are available to school teachers to use in teaching conservation subjects. Posters, coloring sheets, bookmarks, balloons, stickers and stamps with conservation messages on fire prevention are also available. Leaflets on the safe use of fire in the outdoors are geared toward the older child and adults.

The message given out on this material is "Conserve our natural resources through the careful use of fire." Since the Smokey the Bear program was created, there has been a tremendous reduction in forest fires and wildfires throughout the United States. The program in Iowa has helped to alert the people of Iowa in wiser and safer uses of fire in the outdoors.

In addition to the handout materials made available through the schools and fire departments, the division has a film library of fire prevention films. The subject matter ranges from the story of how Smokey the Bear originated to the use of fire in the outdoors. In addition, a series of training films for the use of fire departments is available on how to suppress wildfires.

The DNR's Forests and Forestry Division also participates in the "Junior Forest Ranger" program. This is a national program sponsored by the U.S. Forest Service and is oriented towards the elementary grade level student. The program offers children an opportunity to join Smokey the Bear in a club that promotes the prevention of forest fires and wildfires. Each child writes a letter to Smokey and in turn receives a membership packet that includes a badge, membership card, picture of Smokey plus some additional fire prevention information. In Iowa, letters to Smokey the Bear should be sent to the Forests and Forestry Division, Wallace State Office Building, Des Moines, Iowa 50319-0034. Membership packets will be mailed to the child. More than 2,000 packets are distributed annually in Iowa.

The need for wildfire prevention in Iowa is crucial to the conservation of

Iowa's natural resources. The spring of 1988 showed a great need for better fire prevention. During the period from January through April more than 1,000 wildfires had been recorded, all of which were caused by people. Debris burning is still the number one cause of wildfires in Iowa. Although the DNR continues to urge people to be careful with outdoor fires, the message has not reached everyone. Smokey the Bear brings the massage that "Only You Can Prevent Wildfires." The education of our young people helps to bring the fire prevention message to the adult population.

Smokey has been carrying his fire prevention message for 43 years, and today it continues to work.

1988 TREE FARMER OF THE YEAR AWARD

Floyd and Mary Lou Sollien of Decorah have been selected as this year's winners of the Tree Farmer of the Year Award.

The Sollien's farm consists of a total of 139 acres of woodland with 120 acres certified as a tree farm. The Solliens have been working under the direction of a forester since 1964, and the farm was certified in 1982.

The Solliens manage their timber for multiple uses — erosion control, scenic improvement, wildlife habitat, firewood and high quality hardwood timber production.

Reforestation efforts on the farm began in 1964. Through 1985, 45 acres had been planted consisting of 19 acres of conifers and 26 acres of hardwoods. In 1987, 21 acres were planted to hardwoods under the Conservation Reserve Program (CRP), and in 1988, 22 additional acres were planted to a mixture of hardwoods and conifers under CRP. The 1988 planting will complete the planting on the farm as all cropland will be planted to trees.

In 1977, 96 acres were fenced off to protect against grazing. Since that time, cattle have been removed from the farm, and the entire 139 acres are protected.

TRUMPETER SWANS HATCH THREE YOUNG

Four trumpeter swans that visited Iowa from Minnesota during the past winter returned to Minnesota where one pair hatched three young cygnets. This year marks the first time that reintroduced trumpeter swans have migrated out of Minnesota and then returned to nest.

The cob, male, is four years old and the pen, or female, is just three. Both birds were released as part of the Minnesota Nongame Program's reintroduction project. The four migrant swans were first seen in Iowa in late January along the Des Moines River near Des Moines.

"We were really lucky the birds wintered in Iowa so we could share in such an historic event," said Doug Reeves, nongame biologist for the Iowa Department of Natural Resources. "With Minnesota's reintroduction program, the trumpeter swan may become a rare but regular migrant species in Iowa over the next several years."

Minnesota has been obtaining 50 eggs each year from a naturally occurring population in Alaska in hopes of establishing a breeding population. The Minnesota DNR released an additional 41 trumpeter swans this year, bringing the total number released to 70 birds.

The trumpeter swan is the largest swan in North America, with a wing span of approximately seven feet. The male is the larger of the two sexes and can weigh up to 38 pounds.

Out with the old...

...in with the new.

NEW SIGNS POINT TO STATE PARKS

Newly designed signs pointing the way to Iowa's state parks and recreation areas have begun appearing along state highways.

The signs are a joint effort of the Iowa Departments of Transportation and Natural Resources. Iowa DOT Director Darrel Rensink and DNR Director Larry Wilson said, "Iowa's parks are one of Iowa's great resources, and we feel the new signs more accurately reflect their quality and the importance of our park system."

An oak, the official state tree, replaces the pine used on the old signs. The lettering is now above and below the tree, rather than cutting through it, to make it more readable. The lettering is white on a brown background, and the brown oak tree is highlighted with a circular white background. They are five feet high and three feet wide. The signs will provide direction to Iowa's 68 state parks and three recreation areas.

"The eye-catching appeal of the new signs will be a great help to the public in locating our parks," Rensink and Wilson said.

1987-88 SMALL GAME HARVEST INCREASED

Iowa small game hunters had considerably better luck in 1987 than in the recent past according to Terry Little, wildlife research supervisor for the Department of Natural Resources.

The estimated Iowa pheasant harvest for 1987 was 1.41 million roosters, up 65 percent from the 1986 figure of 855,000. The number of resident hunters increased from 185,000 to 212,000, and the average number of pheasants taken per trip increased from 0.78 last year to 0.98. Ninety-five percent of nonresident hunters pursued pheasants.

As in past years, about one-third of the pheasant harvest was taken the opening two weekends and intervening week. Late season (after Dec. 1) hunting accounted for about 32 percent of the trips but only 28 percent of the harvest.

The quail harvest increased 17 percent from 339,000 in 1986 to 400,000 in 1987. Quail hunter numbers increased from 64,000 to 84,000. An average of 1.37 quail were killed each trip out. Just under one-third of resident hunters and nearly 40 percent of the nonresident hunters pursued quail.

The gray (Hungarian) partridge kill increased 83 percent to 110,000 from an estimated 60,000 killed the previous hunting season. More than 40,000 hunters hunted gray partridge last year. The average number of gray partridge killed per trip increased from 0.54 in 1986 to 0.72 in 1987. Only 16 percent of the residents and 12 percent of the nonresidents hunted gray partridge.

The 1987 squirrel harvest was about the same as 1986 at half a million, considerably lower than the long-term average of one million. This is due to a lack of squirrel hunters pursuing squirrels. Hunter numbers continued to decrease, and the 1987 number of 78,000 is well below the 130,000 to 150,000 range typical prior to 1977. Only about one-third of Iowa resident hunters hunt squirrels.

Rabbit hunter numbers increased 11 percent from 93,000 hunters in 1986 to 103,00 in 1987. Those hunters killed more than 690,000 cottontails.

The estimated harvest for several other less-commonly hunted species is as follows: 5,000 ruffed grouse; 5,000 rails; 10,000 snipe; 10,000 woodcock; and 9,000 jackrabbits were taken by hunters in Iowa during the 1987-88 season.

About 2.3 million trips were taken by small game hunters in Iowa last season, an increase of eight percent from the 1986-87 season.

"The mild winter and warm, dry nesting season Iowa experienced in 1987 provided excellent populations of all small game. These trends have continued into 1988, and the prospects appear even better for hunters this fall," said Little.

The summer population data will be available in August with good hunting expected in the fall.

More than 1.4 million pheasant were taken in 1987, up 65 percent from 1986. The mild winter and dry nesting season last fall provided excellent populations of all small game.

RECORD NUMBER OF ANY-SEX DEER LICENSES TO BE ISSUED

The application period for the 1988 gun hunting deer season is July 25 through Sept. 7, and an unlimited number of any-sex deer licenses will be issued in all zones and seasons except for the first season in zones one and two. It is important for hunters to submit applications on time so licenses can be issued by the hunting season dates.

"Any-sex license quotas have been increased to stabilize or decrease the deer herd in most hunting zones," says Richard Bishop, chief of the wildlife bureau of the Department of Natural Resources. "With the good deer population available to the hunter this fall, we expect to break last year's record harvest of 75,000."

For the first season, 2,000 any-sex licenses will be issued for zone one and 1,000 any-sex licenses will be issued for zone two. An unlimited number of any-sex licenses will be issued for zones 3 through 10 the first season and for all zones for the second season.

A drawing will be held for the first season of zones one and two to determine which applicants will receive any-sex licenses. Those applicants submitting their priority certificate issued with their 1987 bucks-only license will receive first priority in the drawing for any-sex deer licenses. All regular gun season appli-

cants unsuccessful in the drawing for zones one and two will receive a license valid only for antlered deer.

The first shotgun season will be held Dec. 3-7, and the second season from Dec. 10-18. Muzzleloader hunters will have two special seasons this year to choose from. The first will be held Oct. 15-23 and will be limited to 3,500 any-sex licenses. The second season is from Dec. 19, 1988, through Jan. 10, 1989, and will be for an unlimited number of any-sex licenses. Archery hunters will be able to hunt from Oct. 1 through Dec. 2 and Dec. 19, 1988, through Jan. 10, 1989. Archery hunters will not be restricted by zones or type of license issued.

All eligible landowner-tenants will be issued a free any-sex license. Eligible landowner-tenants must reside on their farm unit, may only hunt their own land and are entitled to only one license. Hunters who obtain an archery license and a shotgun license or an archery and a special muzzleloader license are entitled to harvest one deer on each license.

License fees will remain the same as last year at $20 each. Applications may be obtained from local county recorder offices, sporting goods stores, or by writing to the Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034.

Shooting hours for all seasons will remain the same as the previous year, sunrise to sunset for shotgun seasons, and one-half hour before sunrise to one-half hour after sunset for archery and muzzleloader seasons.

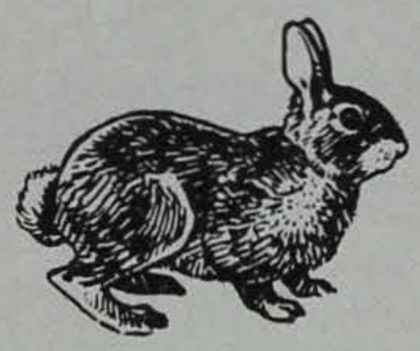
PRAIRIE NEWSLETTER AVAILABLE

Iowa Prairie Blazingstar, a newsletter focusing on Iowa prairies, has recently been published by the University of Northern Iowa and may be of interest to readers of the *Iowa CONSERVATIONIST.*

The biology department of UNI has recently printed and distributed copies of the new periodical. The newsletter has been named the *Iowa Prairie Blazingstar,* in honor of one of the most colorful plants on the Iowa prairie. According to editor Pauline Drobney, the newsletter is intended "...to be a networking device among those researching the problems of prairie management and reconstruction." The newsletter is the outgrowth of a brainstorming session held at the first "Iowa's Lost Landscape" conference at UNI.

At least one issue per year is planned. The first issue contained articles on prairie establishment, the rare prairie fringed orchid, the prairie skipper, a prairie bibliography and information on upcoming issues. A copy of the first issue may be obtained by writing to:

Iowa Prairie Blazingstar
Biology Department
University of Northern Iowa
Cedar Falls, IA 50614



CLASSROOM CORNER

by Robert P. Rye

The cottontail rabbit is probably our most popular small game animal and it is also the wild animal most often seen in towns and suburban areas. Because of its popularity and conspicuousness, the rabbit arouses interest both in those who hunt and those who simply enjoy nature observation.

An activity to try as you walk in town or out in the country is to see how close you can walk up on a rabbit (their first defense is to freeze in one place).

Check your knowledge of the cottontail with the following true or false questions.

1. The cottontail rabbit is a long-eared, small- to medium-sized mammal.
2. The cottontail rabbit hops when running because its hind legs are longer than its front legs.
3. Summer foods of the rabbit include leaves, herbs, legumes, fallen fruits, garden vegetables, broadleaf plants, clover and grass.
4. Rabbits rely on a burst of speed and a zig-zag pattern to evade predators, but they cannot swim if they are in water.
5. A mature female rabbit bears an average of four litters with two to nine young per year.
6. Young are born blind, naked and helpless but they develop rapidly. They are weaned, fully furred and on their own at the age of 16 days.
7. Few cottontails live to be more than a year old in the wild but have a potential life span of three to four years.
8. Predators, spring floods, heavy rains and farming operations are the major cause of nest mortality.
9. Habitat — also called environment, living conditions, or food and cover — has more impact on rabbit populations than any other factor.
10. The home range of a rabbit may be one-quarter to 20 acres depending upon the availability of food and cover.

Answers:

1. True 2. True 3. True 4. False (they can swim) 5. True 6. True 7. True 8. True 9. True 10. True

STEVE PITT

Conservation Easements
An Old Idea Preserving Natural Resources in Iowa

by Mark Peterson

Conservation easements are not a new idea since they date back to the time of the Roman Empire. But many people have probably never thought about conservation easements protecting natural and recreational resources in Iowa. Easements have not been used much in Iowa because many agencies would rather own the land and because easements can be complex to negotiate. But times are changing.

In simple terms, conservation easements restrict the use of land owned by another, protecting key resources on the land. The easement is generally permanent, unless expressly limited to a lesser term or released by the holder of the easement. The land under easement agreement remains on the tax rolls in private ownership.

Through the Food Security Act of 1985, the U.S. Fish and Wildlife Service entered into a formal agreement with the Farmers Home Administration (FmHA) setting up a conservation easement program. FmHA is currently using conservation easements to protect important natural resources on fragile lands they maintain. The easements place restrictions on highly-erodible lands and require new owners to follow soil and water conservation plans approved by the Soil Conservation Service.

The Iowa Natural Heritage Foundation (INHF) is involved in a statewide cooperative project with the FmHA, as well as the Iowa Department of Natural Resources, the U.S. Fish and Wildlife Service and the Soil Conservation Service, to screen FmHA inventory property for natural areas worthy of protection.

The INHF is looking at five general categories of land, including 1) wetlands; 2) prairies; 3) forested land, using conservation easements to protect woodlands from grazing, overharvesting and clearing; 4) land next to existing public land, using conservation easements to restrict development rights in order to protect the resource; and 5) land next to public waters, using conservation easements to prevent shoreline erosion, to protect woodlands along the shoreline, to restrict development and to negotiate public access.

The INHF has received financial support from the Ford Foundation to hire eight directors of county conservation boards from across the state to help implement a conservation easement land acquisition program on FmHA inventory property. Under the direction of Duane Sand, director of the foundation's Resourceful Farming Project, the eight directors are Steve Finegan, Black Hawk County; Brian Holt, Hamilton County; Tim Sproul, Harrison County; Jim Rudisill, Louisa County; Jim Liechty, Madison County; Rick Samples, Mahaska County; Milt Owen, Mitchell County; and Mark Peterson, Pocahontas County. Don Brazleton, Executive Director of the Iowa Association of County Conservation Boards, also works part-time on the project.

As a test of the new conservation easement program, the Palo Alto County Conservation Board and the

INHF cooperated recently in acquiring a conservation easement of 56 acres of land adjoining Lost Island Lake-Huston County Park north of Ruthven. The county board was concerned that unsightly development in the future would harm the scenic beauty of the area and requested the easement from the FmHA.

The easement, believed to be the first in the nation under this program, restricts residential, commercial and industrial development, feedlots, dumping, advertising, and mining excavations on portions of the property that would affect the scenic qualities of the park. A soil conservation plan will protect water quality on the 56 acres.

The FmHA recently granted conservation easements in Harrison County on a 398-acre farm located near the boundary of the proposed Pioneer State Forest. A forest management plan and soil conservation plan have been developed for the farm, which has approximately 80 acres of timber. In Jackson County, conservation easements on a 240-acre farm protect 100 acres of timber, as well as the farmland.

Another easement program resulting from the Food Security Act of 1985 offers debt-restructuring opportunities to some FmHA borrowers facing foreclosure. Final rules regarding this conservation easement program are pending, but the program promises to protect fragile land on natural areas by restricting certain land uses for at least 50 years and to promote conservation practices, wildlife habitat and recreation on those lands.

The Food Security Act of 1985 revives the idea that conservation easements can indeed be used to protect natural and recreational resources in Iowa. The agencies and organizations involved in protecting our resources through the use of conservation easements should be commended and encouraged to continue this endeavor on behalf of Iowa's natural resources. It is these unique resources that help make Iowa such a great place to live.

Mark Peterson is the director of the Pocahontas County Conservation Board.

CALENDAR

AUGUST 13

Whale Town Triathalon. Swim, run and bike at Lake Anita State Park. For more information, contact Lake Anita State Park, Rte. 1, Anita, Iowa 50020, (712)762-3564.

AUGUST 13 AND 14

Chichaqua Free Skinners Rendezvous. Crafts, nature hikes, canoe rental and displays at the Chichaqua Wildlife Area, five miles east of Elkhart. For more information, contact Mark Thompson at (515)967-2596 or Larry Totton, Polk County Conservation Board, Jester Park, Granger, Iowa 50109, (515)999-2557.

AUGUST 19, 20 AND 21

Iowa Game Fair and Outdoor Recreation Show. Black Hawk Park is the location for the third annual game fair. Activities include air-rifle, muzzleloader and shotgun shooting, archery, dog fun-trials, wildlife art, boats and duck shoot and pheasant flury. For more information, contact Steve Finnegan, Black Hawk County Conservation Board, 2410 W. Lone Tree Rd., Cedar Falls, Iowa 50613, (319)266-6813.

AUGUST 20 AND 21

Prairie Harvest Festival. Smith Lake Park in Algona is the location for this festival featuring square dancers, folk music, bluegrass band and slide/movie presentations. For more information, contact Brian Moore, Kossuth County Conservation Board, Rte. 2, Box 216A, Algona, Iowa 50511, (515)295-2138.

AUGUST 26, 27 AND 28

Country and Old Time Music Festival. Various bands and groups will play country and old time music from the Marion County Park campground, Knoxville. For more information, contact Steven B. Edwards, Marion County Conservation Board, Courthouse, Knoxville, Iowa 50138, (515)828-2213.

AUGUST 27

Big Creek Triathalon. Swim, run and bike at Big Creek State Park. For more information, contact Ed Wallace, Des Moines YMCA, 1000 Porter, Des Moines, Iowa 50315, (515)285-0444.

SEPTEMBER 10 AND 11

Chichaqua Wild Game Expo. Exhibits of sporting goods and hunting and fishing areas, outdoor shooting sport events, rendezvous encampment, demonstrations and displays. For more information, contact Mark Thompson, Polk County Conservation Board, Jester Park, Granger, Iowa 50109, (515)967-2596.

SEPTEMBER 11

Hopeville Rural Music Reunion. Hopeville Square County Park is the location for a music festival. For more information, contact John Klein, Clarke County Conservation Board, Clarke County Courthouse, Osceola, Iowa 50213, (515)342-3960.

SEPTEMBER 15-17

National Manufacturers Walleye Tournament. Fishing tournament on the Mississippi River, Dubuque County. For more information, contact KDTH, 8th and Bluff, Dubuque, Iowa 52001, (319)588-5700.

SEPTEMBER 24 AND 25

Fort Atkinson Rendezvous. Buckskinners, period costumes, food and crafts, military drills and theatrical productions within the historic fort walls. For more information, contact Scot Michelson, Volga River State Recreation Area, Rte. 1, Box 72, Fayette, Iowa 52142, (319)425-4161.

WARDEN'S DIARY by Jerry Hoilien

The other day, I heard a person say, "I wish there was fall, winter and spring!" Apparently, they were not very happy with the warm summer weather. Not that I blame them — with the hot sun beating down on my head and not much of a breeze to cool away the sweat. Reminds me of the time Bill Hiebing (now retired Wisconsin warden) and I were out removing stakes for duck blinds in closed areas. Naturally, we picked the hottest day of the summer, without a breath of breeze. We were standing waist deep in water and mud, wearing hot chest-waders. Each time we pulled a stake the water and mud would fly all over both of us. Bill would repeat an old advertisement which used to appear in the papers when Wisconsin was advertising for wardens. "Hunt! Fish! And have a cabin in the woods," Bill would say. Swish, another batch of mud would fly up as the stake came loose, smattering still another layer of drying mud on our faces and hair. He would grab another, pull for all he had and grunt, "Hunt! Fish! And ugh, have a cabin in the woods." Yah, Bill was quite a warden.

Let me tell you about the time he was checking fishermen out on the Mississippi River near Prairie du Chien. He was checking walleye fishermen in the channel when he noticed a well-known bass fisherman sitting in his boat next to the lily pads off to the side. Watching him out of the corner of his eye, Bill observed him pull his stringer of fish over the side, fool around in the bottom of the boat, lay what appeared to be a fish over the side, fool around again in the boat and lay another fish over the side. He then started his motor and proceeded down stream. Curious, Bill motored over to the spot and found two largemouth bass laying on their side. Running the fisherman down, Bill found a full limit of bass still in his boat and issued him a citation for taking over-limit of bass. A trial resulted in superior court and the testimony went like this.

The defense attorney was cross examining Bill after his testimony. "Mr. Hiebing, how far away can you identify a fish!"

Bill replied, "That depends!"

"What do you mean - that depends?"

"Well, it depends if it's daylight or dark!"

"Oh, we're talking daylight. Now, how far away can you identify a fish?"

"That depends ..."

"Now what?"

"Well, it depends if it's raining, snowing or what have you."

By now the attorney was getting frustrated and said, "Mr. Hiebing, we're talking about a nice, clear, sunshiny day. Just like the day you apprehended my client. Now! How far away can you identify a fish?"

"That depends."

"Now what?" the attorney said angrily.

Bill calmly replied, "Well, a lot depends upon the fish. It's one thing to identify a minnow and another to identify a whale."

With this the attorney lost his cool, hit the table and shouted, "Warden, can you tell me how far you can see?"

Bill, with just a little smile said, "Well, on a clear morning, I can see the sun come up and they tell me that's 93 million miles away."

The attorney threw up his hands and gave up. His client was found guilty.

JERRY LEONARD

M.A.R.S.H. Money for Wetlands

Story by James L. Hansen

Photos by Lowell Washburn

When a wildlife species is classified as "endangered," it receives a lot of attention from a lot of people. Some types of wildlife *habitat* have disappeared to such an extent they should also be considered endangered. Such is the case with Iowa's marshes — about 98 percent have been drained or otherwise destroyed.

Because of the recent declines in waterfowl populations, Iowa wetlands are getting more attention. Ducks Unlimited has recently joined forces with public and other private agencies in preserving or enhancing wetlands in the United States. Ducks Unlimited has raised $466 million for wetland protection since its inception in 1937, but has been concerned almost entirely with waterfowl habitat projects in Canada. However, the organization's steady growth allowed it to expand its habitat work into the United States, and in 1984 DU began projects in five duck production states: Minnesota, North and South Dakota, Montana and Alaska. In 1985, another new program was announced that included Iowa and other states. The program is referred to as "Matching Aid to Restore States' Habitats" or MARSH. In April 1985 DU and the Iowa Department of Natural Resources signed a cooperative agreement under which DU will spend 7.5 percent of its Iowa "grassroots" money on habitat projects within the state. This is money raised by waterfowlers at fund-raising events in Iowa. This MARSH money will be cost-shared on a three-to-one basis, with the Iowa DNR's 25 percent coming from state duck stamp receipts or other sources.

In the first four years, MARSH money receipts for Iowa totaled $378,299, all of which are available for waterfowl habitat improvements within the state. The DNR's objective is to spend the money as it becomes available.

Emphasis will be placed on spending MARSH money on waterfowl production areas because that is what DU has concentrated on from the beginning. This may mean that there will be more projects in northern Iowa where good numbers of mallards and blue-winged teal can be produced. However, this production will benefit people throughout Iowa. Eventually the DNR will spread the money statewide because wetlands in other parts of Iowa produce good numbers of wood ducks and Canada geese.

DNR PHOTO

In October 1985, DU Chairman Peter Coors dedicated "DU Marsh," the first MARSH project in Iowa and the Mississippi Flyway.

JERRY LEONARD

Iowa's share of MARSH money may be used to purchase some of the few remaining private wetlands in Iowa before they are drained, to construct dikes or water control structures to improve existing wetlands, to purchase uplands to provide nesting cover and to restore drained wetlands. Such areas will provide habitat for both nesting and migrating waterfowl, and they will benefit many other species as well. A cattail marsh is one of the best wintering areas for pheasants, and they will also benefit from additional nesting cover. Waterfowl habitat provided with MARSH money will be of use to deer, raccoons, muskrats, mink, wading birds and a host of other game and nongame species.

The first Iowa MARSH project, named "DU Marsh," was dedicated in October 1985. This was the first MARSH project in the Mississippi Flyway and the second in the country. DU Marsh is a 163-acre wetland area in northwest Iowa, two miles west of Ruthven, on the south side of Highway 18. Nesting cover will be established on the uplands, and a water control structure has been added. The control structure will allow the water to be raised about a foot to make a larger, more permanent marsh. Thanks to the MARSH program, this area will now continue to raise ducks and geese, and provide habitat for other wildlife, as well as provide a good spot for hunting.

A second MARSH project was planned at the Hogsback Area in Winnebago County. The proposed project, including land already owned by the state and the county, would have totaled 530 acres and would have been a major waterfowl area. The technicalities and negotiations involved in any land purchase by the DNR are complex and often sensitive. This project was no exception. Indications were that a key landowner would sell the tract needed to complete the project. Negotiations with that landowner dragged on for many months. Both DNR and DU people were occasionally discouraged by setbacks, but still hopeful that the project could be completed. It finally became apparent that the owner was not going to sell, however, and negotiations were discontinued. Unfortunately, potential projects in southeastern and northwestern Iowa also fell through when land was sold to other parties.

In recent months the MARSH program has been moving forward, and no money has reverted back to DU. Recently a major MARSH project was purchased in Floyd County that will provide a good wetland area in a part of the state where marshes are scarce. This 117-acre area is located a few miles north of Floyd. DNR personnel considered buying the area years ago, but it never ranked high enough for the funds that were available. The natural wetlands have been drained, but up to 11 restorable basins, totaling about 25 acres, have been identified. This

area, unlike many Iowa wetlands, will have a good ratio of upland nesting cover to water. The present crop agreement will run through the 1988 crop year, so work on restoring the wetlands cannot begin until late in 1988. Members of the Charles City DU Chapter were instrumental in the project, and without their help in working with the landowner, there may never have been a project at all.

Three wetland acquisitions were approved in May by the Iowa Natural Resource Commission and will be submitted to Ducks Unlimited for approval for MARSH funding. The three areas are a 155-acre tract near Black Hawk Lake in Sac County and two areas, 142 acres and 81 acres, in Dickinson County. If these areas are approved, MARSH money will pay about $116,000, 75 percent of the cost.

If the three areas are approved, it will bring the total of MARSH money spent or obligated in Iowa to about $276,000. Negotiations are in progress on other tracts at this time. Forty-eight MARSH projects were completed nationwide through 1987 and an additional 83 were authorized. Total MARSH money paid or obligated during that time came to $6.8 million.

Despite some temporary setbacks due to problems with land negotiations, the MARSH program is moving forward, and all of Iowa's share will be put to use. Ducks Unlimited members can take pride in the fact that they have given a very welcome boost to efforts to protect or restore waterfowl habitat in Iowa.

Jim Hansen is the waterfowl research biologist for the department and is located in Clear Lake.

Wetland areas will provide habitat for both nesting and migrating waterfowl, as well as wintering and nesting areas for pheasants and other wildlife species.

APPLY EARLY FOR AN ANY-SEX DEER LICENSE

RON JOHNSON

DEADLINE: SEPTEMBER 7, 1988

This year an unlimited number of any-sex deer licenses will be issued in all zones and seasons except for the first season in zones one and two.

To be sure you receive an any-sex deer license in time for the hunting season, mail your application by September 7, 1988.

(For complete information on this year's deer hunting season, see page 24.)