SEPTEMBER 1978

# Iowa conservationist



Klepinger

Iowa State Fair Time.

# Iowa conservationist
MAGAZINE

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**COVER** "Wood Ducks"–1978 Iowa duck stamp design; sepia painting by Nick Klepinger of Reasnor.



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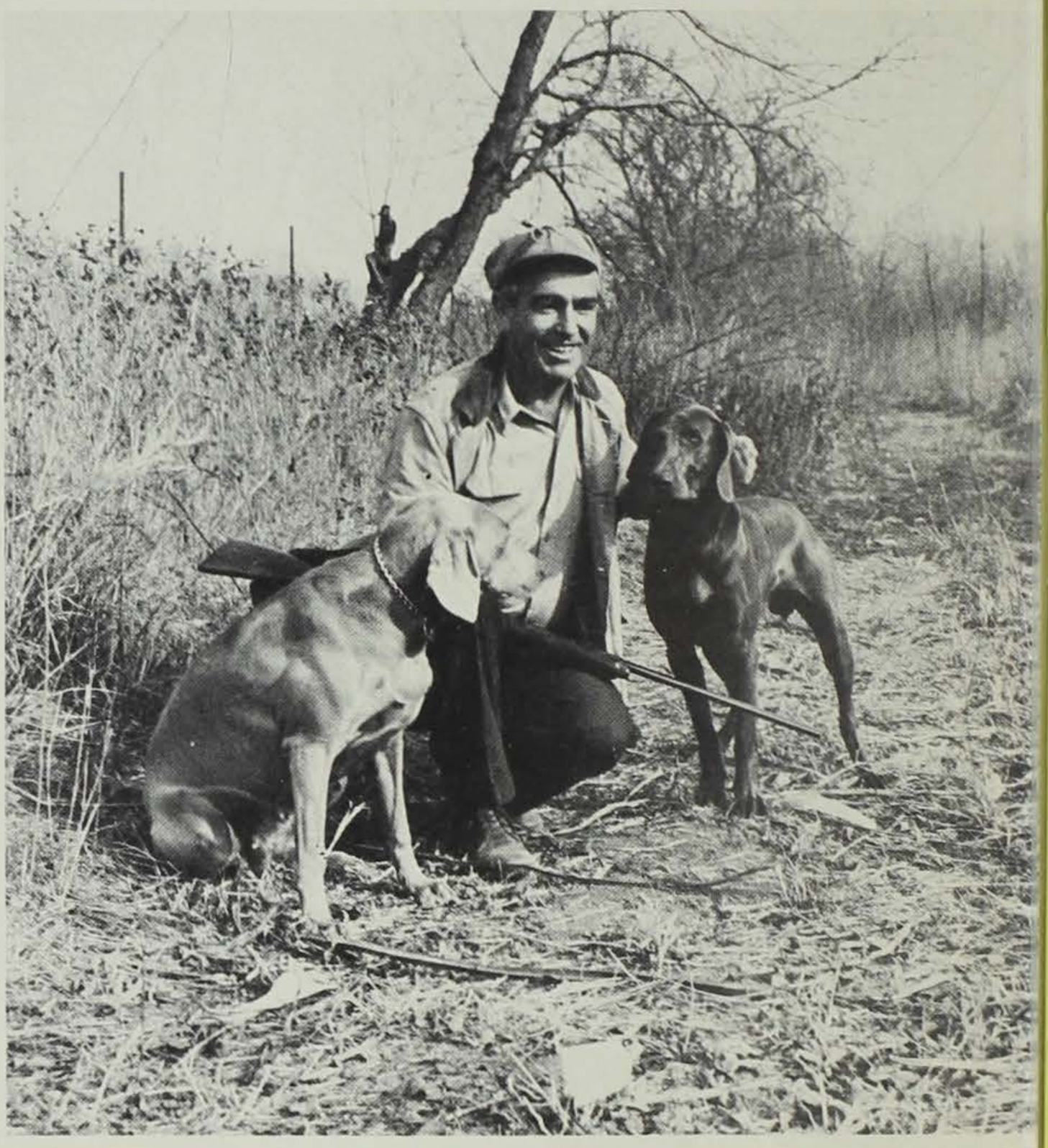


# JAURON RETIRES BUT DOESN'T QUIT

BY ROGER SPARKS

*"I'M A river rat! I was born and raised in a log cabin on the island at Salix. We fished, we hunted, and we trapped. We burned driftwood for heat. If I never get to heaven, I've already been there."*

So proclaims Jerry Jauron, retiring Missouri River Coordinator for the Iowa Conservation Commission and one of Iowa's more colorful citizens.

Outspoken, cantankerous, and controversial, Jauron's bare-fisted approach to attacking problems on the Missouri occasionally caused Conservation Commission administrators to shudder. But no one could question his loyalty or knowledge of the river.

For some 25 years, Jauron worked as a game warden in Shelby and Harrison Counties and then became Missouri River Coordinator for the Commission's Waters Section concentrating on water enforcement, safety and improving recreation opportunities. Now at 65 he is retiring — sort of. He will be called upon for part-time consulting work as his lifetime fight to protect what is left of the Missouri River continues. In addition to his work, which has earned commendations from two Iowa Governors, Jauron was instrumental in gaining support for Desoto National Wildlife Refuge and in organizing the once famous world goose calling championships in Missouri Valley.

Jauron's gruff personality is more conspicuous than his keen mind. Not that he tries to hide his intelligence. "My son was on the Dean's list — he takes after his mother's husband." The Jauron family includes Pearle, a remarkable woman whose accomplishments are also considerable. Not only does she provide help and a steadying influence to her husband, but she has also raised eight children, all pursuing successful professions.

Some of Jerry Jauron's finest hours have been spent in court rooms where his astonishing knowledge of state and federal laws combined with backwoods shrewdness have embarrassed more than one downtown lawyer. After investigating a pollution-caused fish kill on the river years ago, Jauron was called as witness for the state. The attorney defending the suspected source of the pollution suggested the kill had involved "just a few six-inch fish." When asked how large many of the dead fish were, Jauron agreed with the surprised defense lawyer, admitting that most measured only about six inches; then added, "between the eyes." The state won the case.

Most of Jauron's efforts are devoted to the Missouri. Just what has happened to the river? The U.S. Army Corps of Engineers channelized the river in the name of flood control and navigation. He has watched, not quietly, the river, its resources and recreation decline.

*"Before 1927 it was a braided stream with clean sandbars, islands, and beautiful quiet water areas. Even though there were fewer waterfowl hunters in the state then, the river held about two blinds per mile. Now there are no more than four or five along the entire Iowa border. As late as 1940 there were more than 100 commercial fishermen working the Missouri. Now only a handful use it. In 1960 boaters indicated by survey they liked and needed slack water, oxbows, and clean sandbars. Now they have none of these."*

*"Benefits of harnessing the Missouri have been few to the people of Iowa. The river has become a giant drainage ditch, constantly cutting a narrower and deeper channel. This lowering of the water table is draining all the oxbows and cutoffs. Now the river is even too shallow for commercial navigation and nearly all the barge traffic above Council Bluffs consists of Corps' channel maintenance vessels."*

Jauron's peerless understanding of what is right and what is wrong concerning the Missouri River comes painfully into focus now. He has spent a lifetime fighting compromising government agencies and individuals who attempt to make black and white issues gray. He has won some battles on the Missouri, but for the most part he and the people of the midwest have lost the war and the great river is gone. As one lifetime acquaintance describes Jauron's role, "Jerry has the tact and diplomacy of a water buffalo; but beneath that aggressive manner and foghorn voice, his heart is in the right place and he was dead right about the river. Had people in influential places listened to him years ago, we wouldn't have the problems on the Missouri we have today. He is a true conservationist."

The diverse system of waterways and natural areas that once characterized the meandering Missouri are gone. Outspoken, but knowledgeable Jerry Jauron may still be hired occasionally to help the state seek retribution for those losses. As one official puts it, *"No one knows the Missouri, past and present, better than Jauron. He alone has remained unchanged."* As Jauron puts it, *"the good die young — I'm still here."*

His calling card reads:

JERRY JAURON
Missouri River Rat
Consultant — *NOT* an Attorney
(but probably better)
*I work for the people of Iowa*

# Shooting Tips for Beginners

So you want to learn to shoot? Well, that's just fine. Most young people are interested in shooting at some time or other. it's a challenging, enjoyable sport. And just about anybody can learn to be good at it. You don't have to be big or strong or fast. As we go along here at The Shooting Shack, I'll tell you everything you need to know to become a good shot, but first, we've got some important questions to answer.

Starting with, "Are you old enough?" This is something you'll have to talk over with your folks. But I'll tell you one thing: Age isn't the most important thing. Some people are ready to start shooting at 10, others at 14. What counts is your own responsibility and maturity.

The next question is about safety. Is shooting safe? You bet it is. According to the National Safety Council, accidents in many other categories have increased in recent years, but public firearms accidents have gone down by about 10 percent. In fact, an insurance company did a study that showed that hunting is less dangerous than playing football or basketball. It's even safer than going to movies and concerts.

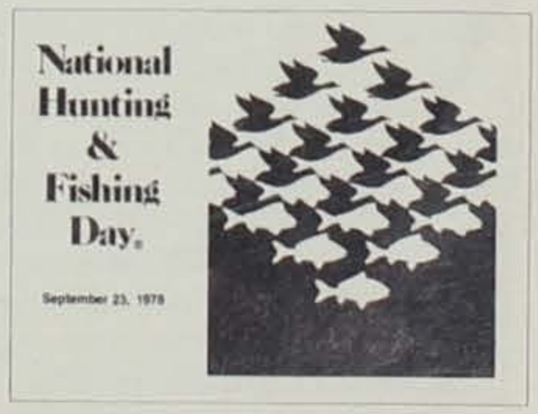
Sure, there are things you have to keep in mind about safety, but you can learn them. Here are some basic rules:

- Treat every gun with respect and always point the muzzle in a safe direction.
- Always keep the safety on until you are ready to fire, and never fire until you are absolutely sure of your target.
- Never shoot at a hard, flat surface or at water; that can cause ricochets.
- Load your gun only in the field or when you are ready on the range
- Never climb or jump over anything with a loaded gun.
- Unload the gun when you are not using it, and keep the action open.
- Store guns and ammunition separately.
- Keep your gun in top shape, and always make sure you are using the right ammunition for your gun.

That just about covers it. If you memorize those rules and stick by them, there is absolutely no way you can be anything but a safe shooter.

What about the cost of getting started? Not as much as you might think. Lots of people begin with a BB gun or a pellet rifle. They come in many different models and may cost only between $15 and $30. And the BB's or pellets are very inexpensive, too. Normally, the next step is a single shot .22 rifle. The price usually runs between $30 and $50. So, you can see that shooting equipment is no more costly than tennis or bowling equipment, and it's a whole lot cheaper than golf clubs or skis.

If you don't have any shooters in your family, you should get in touch with someone in the local gun club. Most shooters are friendly and willing to help teach you. Or you might check with a conservation club, your scoutmaster, a 4-H leader, or the Jaycees in your community. And don't forget the sporting goods dealer. He can help you get started with the right equipment and fill you in on shooting opportunities in the area.



SOUTHERN CHANNEL CATFISH
*Ictalurus lacustris punctatus*
(Rafinesque)

BLACK BULLHEAD
*Ameiurus melas melas*
(Rafinesque)

# Look Alikes Look Different

By Kay R. Hill
FISHERIES RESEARCH BIOLOGIST

*Paintings by Maynard Reece*

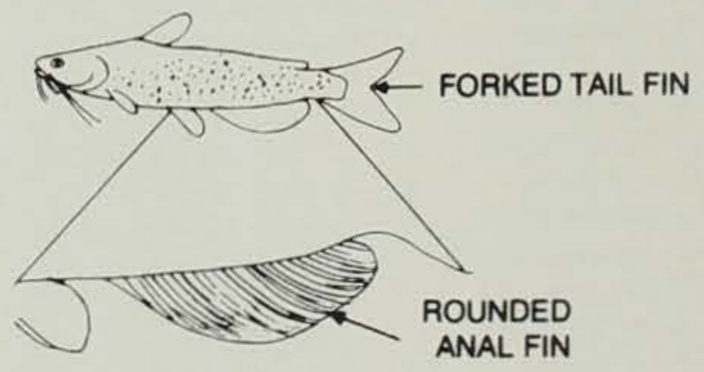
I WAS NOTIFIED by an ecstatic fisherman last summer who claimed he had caught a new state record bullhead. Upon questioning him, I learned he had caught it in a farm pond and the fish weighed nearly 7 pounds. The weight excited me and I asked if I could see the fish. He was more than happy to bring it to the district office because he needed the catch verified. I hated to break his bubble when I saw the fish, because instead of catching a bullhead he had caught a 6 pound 10 ounce channel catfish. When I told him the fish was a channel catfish, he argued the fish did not have spots on its side, so it couldn't be a channel catfish. But, after a lengthy discussion and explanation he learned the differences between the two species. I think many of our fishermen would appreciate some tips on recognizing different fish species because of this episode.

## Catfish Family

Catfishes are unique among other fishes in Iowa and are easily recognized by their smooth scaleless bodies, the eight fleshy "whiskers" on the head and strong sharp spines in each pectoral fin located just behind the head. All Iowa catfishes have flattened heads, elongated bodies and a small fleshy adipose fin on their back immediately in front of the caudal or tail fin. Most are dark brown, grey, blue, or black in color. The most commonly confused catfishes caught by Iowa anglers are the channel catfish, blue catfish, black bullhead, and flathead catfish.

## Channel Catfish Description

The description of channel catfish commonly called spotted cat, fiddler, river cat, and catfish is: color is silvery-gray, commonly marked with many dark spots on the sides, but spots usually less distinct on large adults. Young individuals under 2 or 3 inches frequently lack the spots but they are most prominent on fish from 4 to 18 inches long.

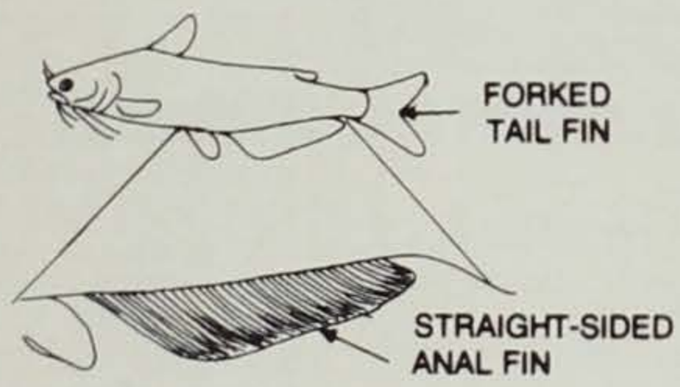



The tail fin is deeply forked and is one key characteristic that separates the channel catfish and blue catfish from other members of the catfish family. The anal fin (the fin directly behind the anal vent) is usually rounded and contains 24 to 29 rays. The eyes are larger, but the head is small and slender except in large males which have a wider more bullish head. These fish attain a maximum weight of about 30 pounds, and the state record is 30 pounds, 4 ounces. The large channel catfish frequently acquire a bluish cast

FLATHEAD CATFISH
*Pilodictis olivaris*
(Rafinesque)

Maynard Reece

and are commonly mistaken for the very uncommon blue catfish.

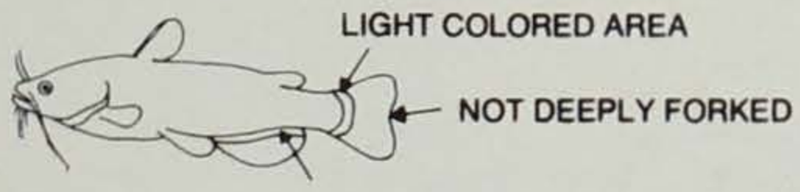



### Blue Catfish Description

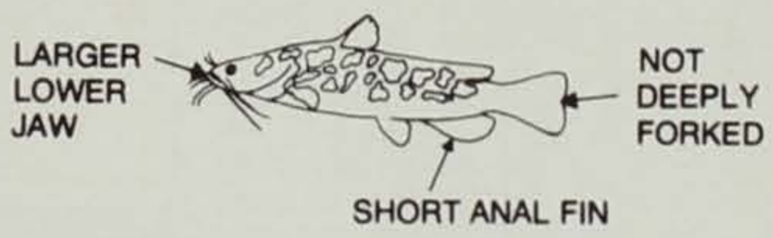
Blue catfish have a deeply forked tail fin, and have the same body shape as the channel cat. Blue catfish lack the profusely spotted sides, and the key characteristic used to separate the blue and channel catfish is the anal fin. The anal fin of the blue catfish has 30 or more rays and has a relatively straight bottom line. Blue catfish attain weights of 50+ pounds and are uncommon in Iowa. Chances are if a catfish caught in Iowa has a deeply forked tail, it is a channel catfish even if it has a bluish color. Blue catfish commonly called chucklehead cat, forktail cat and great blue cat have never been taken in the inland streams in Iowa and have only been caught in the lower reaches of the two border rivers, the Mississippi and the Missouri.

### Black Bullhead Description

The black bullhead also goes by bullhead, common bullhead, yellow-belly bullhead, horned pout, brown catfish, stinger and river snapper and has the following charac-




teristics. Color is usually dark-olive to black although in some waters it is light brown. Usually the belly is white or yellow, but the color is variable and in certain lakes and larger rivers, the belly is bright yellow particularly in the spring and during the breeding season. The tail fin is slightly forked and the outer two-thirds of the fleshy membrane of the anal fin is uniformly black. This fish can be distinguished from other bullheads in Iowa by the light color band at the base of the tail fin and the 17 to 20 rays in the anal fin. Black bullheads are rarely mottled. Most bullheads caught in Iowa range in length up to 14 inches and approach weights of nearly 2 pounds, although the state record is 4 pounds, 8 ounces.




### Flathead Catfish Description

The other commonly caught catfish with a slightly notched tail is the flathead catfish. It is also called shovelhead cat, mud cat, yellow cat, and Mississippi cat. The flathead is a big water species found usually in the Mississippi and Missouri Rivers and in major inland rivers, such as the Iowa and Des Moines Rivers. The color of the flathead is olive-brown with dark brownish mottlings on the sides especially in younger fish. When taken over light bottoms, the adults are often light tan to yellowish in color. The body is somewhat flattened and the head is broad and flat. The anal fin is very short with only 15 to 17 rays. Jaws are heavy and the lower one is longer than the upper. Flatheads range up to 50 pounds and 20 to 30 pound individuals are common. The Iowa state record flathead weighed 62 pounds and was caught in the Iowa River.

The next time you're fishing and catch "Mr. Whiskers" and want to identify him, the first clue to check is the tail. If it is deeply forked, the fish is either a channel catfish or blue catfish. Then look at the bottom edge of the anal fin; if it is rounded, the fish is a channel catfish; if the anal fin is long and has a straight bottom edge, the fish is a blue catfish. Very few blue catfish are caught in Iowa. If the tail fin is only slightly notched, the fish is either a bullhead or flathead. The bullhead is smaller, seldom mottled, usually has a light belly and has a light band at the base of the tail fin. The flathead is usually mottled, has a very short anal fin and has a broad and flat head with a protruding lower jaw.

*"Mr. Whiskers" beware . . . your identity is known.*

# Preparation Canyon

BY LARRY LOCK
PARK RANGER

*Photo by Ron Johnson*

PREPARATION CANYON STATE PARK contains the remains of what was once a town and one of the most unique stories of Iowa's past.

In 1853, Charles B. Thompson, claiming that he had received messages from the "Spirit," broke away from the Mormon train to Utah and led his followers to Kanesville, now known as Council Bluffs. Mr. Thompson and a few select men searched the new frontier for just the right place to begin their "School of Preparation for the Life Beyond". The Mormon leaders finally agreed on the area called Monona, named by the Indians and meaning *peaceful valley*. This area today is just southwest of the town of Moorhead and lies in the Springvalley township of Monona County.

Sixty Mormon families arrived in this valley and sat up the town of Preparation. They built their houses, their schools, and the first newspaper office in Monona County. This paper was owned and operated by Mr. Charles Thompson.

Most of the Mormons were farmers and found that their leader had discovered one of the richest valleys in the new territory. Mr. Thompson knew the wealth that lay in his valley and printed in his newspaper the following message to his people from the "Baneemy's Spirits": *"I appoint Charles B. Thompson chief steward of my house to receive, hold, and manage, and direct all the treasures of my house to him."* The Mormon people believing in their leader turned over their deeds and worldly possessions. They labored in the fields, tended the stock, and Mr. Thompson grew wealthy. In 1856, the people having realized their mistake, asked Mr. Thompson to return their property but he refused. The people, then determined to have what was rightfully theirs, decided to lynch Mr. Thompson. A young woman, faithful to her religion, warned Mr. Thompson and he escaped the mob. He hid in the attic of a friend in Onawa until he could safely leave the state. Mr. Thompson, unable to secure the deeds before his departure, left nothing but confusion behind. Many of the Mormons, disillusioned by it all, left the valley to continue the trip to Utah. The remaining Mormons were finally given back their land in 1866, when the Iowa State Supreme Court decided to divide the property evenly between the remaining families.

The town grew and eventually had sixty-seven houses, a post office, a skating rink, and a blacksmith shop. The town slowly faded until 1900 when the town finally died. It then became a stockyard operation that survived until 1946.

In 1934, Martha and Walter Perrin, descendants of one of the original Mormon families, sold 82 acres of land to the State of Iowa to start the park. In 1969, Martha sold another 157 acres, and later sold the homestead of the Perrin family to the state. These added acres provided the Park with the site of Preparation and the valley the Mormons had settled years ago.

The canyon is a lovely remote area, almost untouched by humans and the park itself is surrounded by ridges to the north, south and west safely guarding the nature within its walls. It provides a beautiful background for picnickers, family gatherings, and hikers. There is no camping in the park in order to protect the truly secluded valley. Who knows, some evidence of the valley's past may still remain and the cries of cheated landowners may still echo in the canyon. □

# LAKE PAHOJA

## A True Pioneer

By JIM CHRISTIANSON
FISHERIES BIOLOGIST

*Photo by the Author*

WATER! An exclamation heard around Lyon County has conjured visions of fishing, camping, hiking, picnicking and just plain enjoying the out-of-doors. These visions have reality for this northwest Iowa area.

Lake Pahoja Recreation Area, dedicated and opened May 22, 1977, is a 230-acre park 3 miles southwest of Larchwood which includes a 70-acre watershed impoundment. This impoundment being the first water based recreational facility of the area is ironically located on the Pioneer Creek watershed which flows westerly into Klondike Creek and eventually the Big Sioux River just 10 miles below the northern boundary of Iowa.

In 1963 this watershed project was conceived with a main objective of reducing soil erosion and flood damage to crops of the watershed. Also the need for water based recreation was recognized and plans were incorporated to satisfy this need. Dam construction was completed in 1974, but not until 1978 winter runoff had the impoundment reached conservation pool. Construction of recreational facilities was completed in November, 1976.

Recreational facilties include 36 camping pads (20 with electricity), tent camping area, two large picnic areas, and modern sanitation facilities. For the nature buff, the area offers a 3 mile hiking trail on the southern upland portion of the park. Here one may encounter various wildlife and plant species native to the area. Also in this area one may regress into the past and observe native prairie plant species that once thrived in this prairie country.

The recreational facilities are administered by the Lyon County Conservation Board under the direct supervision of Lance Nelson, executive director of the Conservation board and resident manager. In addition to land based recreational facilities, Lake Pahoja Recreational Area offers an excellent opportunity for the angler to tangle with old Mr. Bucketmouth bass, or the powerful channel catfish; even scrap it out with the pesky bluegill or get into some fast and furious action with the black crappie.

To establish the fishery resource Lake Pahoja was first stocked by the State Conservation Commission in the spring, 1975. Because of water impoundment circumstances, 200 adult bluegill were stocked to provide reproductive potential in establishment of the bluegill population. Also at this time, 7,000 fingerling largemouth bass were introduced to form the major predator base of the impoundment. As a bonus fish, 7,000 fingerling channel catfish were stocked in May, 1975.

In 1976, an additional 7,000 fingerling bass were stocked. This introduction added stability to the bass population structure by providing a year class that would have been missed due to the lack of reproduction by the yearling bass. By these initial introductions of bass and bluegill, the intent of the stocking strategy was to produce self-sustaining populations of predator (largemouth bass) and prey (bluegill). Also in 1976 as an added feature to the fishery, 194 adult black crappie were introduced to perpetuate that species in the impoundment.

Because of park construction, no park or impoundment use was allowed until after the May, 1977 dedication. Pre-dedication fisheries surveys indicated very good numbers of bass, bluegill and channel catfish. All species demonstrated good growth which is typical of new waters.

Lake Pahoja's fishing debut produced many happy anglers harvesting channel cats, bluegill, and a few largemouth bass. In addition to this harvest there was an added dimension to the angling story; a catch and release of sub-legal sized largemouth bass. This dimension was created by the establishment of a 14-inch length limit. Basically this length limit regulation was imposed to prevent overharvest of bass; thereby, providing a biological control of bluegill numbers to avoid a slow growing panfish population.

From creel survey information collected after opening, 80 percent of the bass caught were sub-legal size. At the initial rate of catch and with an unregulated harvest, severe depletion of the bass stock would have occurred.

Near future fish management activities include a cooperative channel catfish cage rearing program between the State Conservation Commission and the Lyon County Conservation Board. This program will provide the quality and quantity channel cats necessary to supplement the existing population. In this type of fishery structure, catfish populations have to be supplemental because of the lack of reproductive success.

Another fish management activity started in 1975 to benefit the anglers was fish attractor construction. This activity will be expanded and since the lake was filled, these attractors will be buoy marked for ease of location.

For a chance to share a pioneer experience, enjoy some varied outdoor pleasures, and some story tellin' about the one that got away, Lake Pahoja Recreation Area should be on your schedule. □

## by Dean Dalziel

WILDLIFE MANAGEMENT SUPERVISOR

*Photos by the Author*

THE AREA around Lansing, Iowa, is rather unique in the sense that it has been associated with some of the earliest conservation efforts in the state. This involvement dates back to at least 1876, when a fish rescue station was established there and rescue efforts were conducted on the Mississippi River backwaters and sloughs to provide fish for stocking inland lakes and streams. To accomplish this task, a railroad car equipped with aquarium tanks was purchased and used to transport the fish from Lansing to various counties throughout the state. It was called "The Hawkeye".

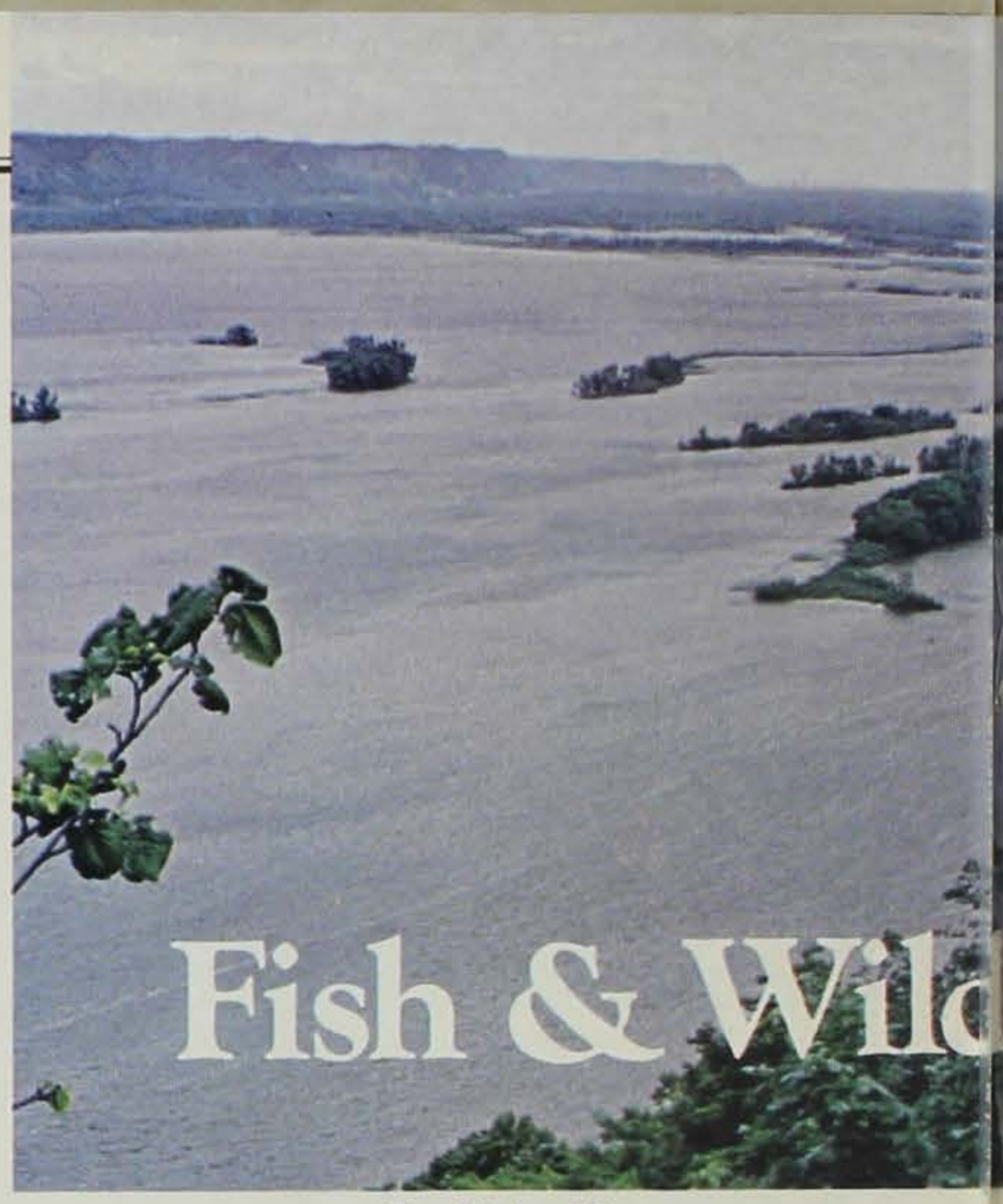
The fish rescue work later evolved into a hatchery operation, and in 1917 new fish rearing facilities were put into use under the directions of W. E. Albert, who later assumed the position of State Fish and Game Warden. The hatchery, located on the bank of the Mississippi River, was equipped with the most modern facilities of the day. Its close proximity to a rail line proved especially convenient for fish transportation purposes prior to the development of hard surfaced roads. However, an improved highway system eventually led to more economical transportation by truck and the rail car was abandoned.

Another early conservation development associated with Lansing was the construction of game-rearing facilities at the edge of the city. A brooder house and pens were erected for gamebird propagation and the progeny were shipped to various parts of the state for release in the field. This program was terminated in the late 1920's as management efforts were channelled in other directions.

The mighty Mississippi River, sometimes referred to as the "Father of Waters", flows within a "stone's throw" of downtown Lansing, with the floodplain at that point spanning approximately 2½ miles in width. The timbered "bottoms" stretch from 4 miles below Lansing to Genoa, Wisconsin, a distance of 20 river miles. Prior to construction of the lock and dam system the Mississippi River was characterized by a main channel formed by a series of wing dams and closing structures, with overflow waterways and backwater lakes interspersed throughout the remainder of the floodplain. The off- channel bayous and lakes were separated by numerous islands and peninsulas, heavily vegetated with bottomland tree and shrub species. Floodwaters would inundate the "bottoms" annually, replenishing lakes and sloughs dried up the previous year.

Area residents would often construct cabins out in the floodplain to serve as hunting and fishing camps. One such structure on the south end of Lansing Big Lake, attained some degree of notoriety due to its frequent use by dignitaries of that era. Construction of Lock and Dam 9 in 1938, however, resulted in the removal of such structures from the floodplain to allow for impoundment of water behind the dam. The "Statehouse", as it was referred to, now stands abandoned on a sideslope overlooking the river between Lansing and New Albin.

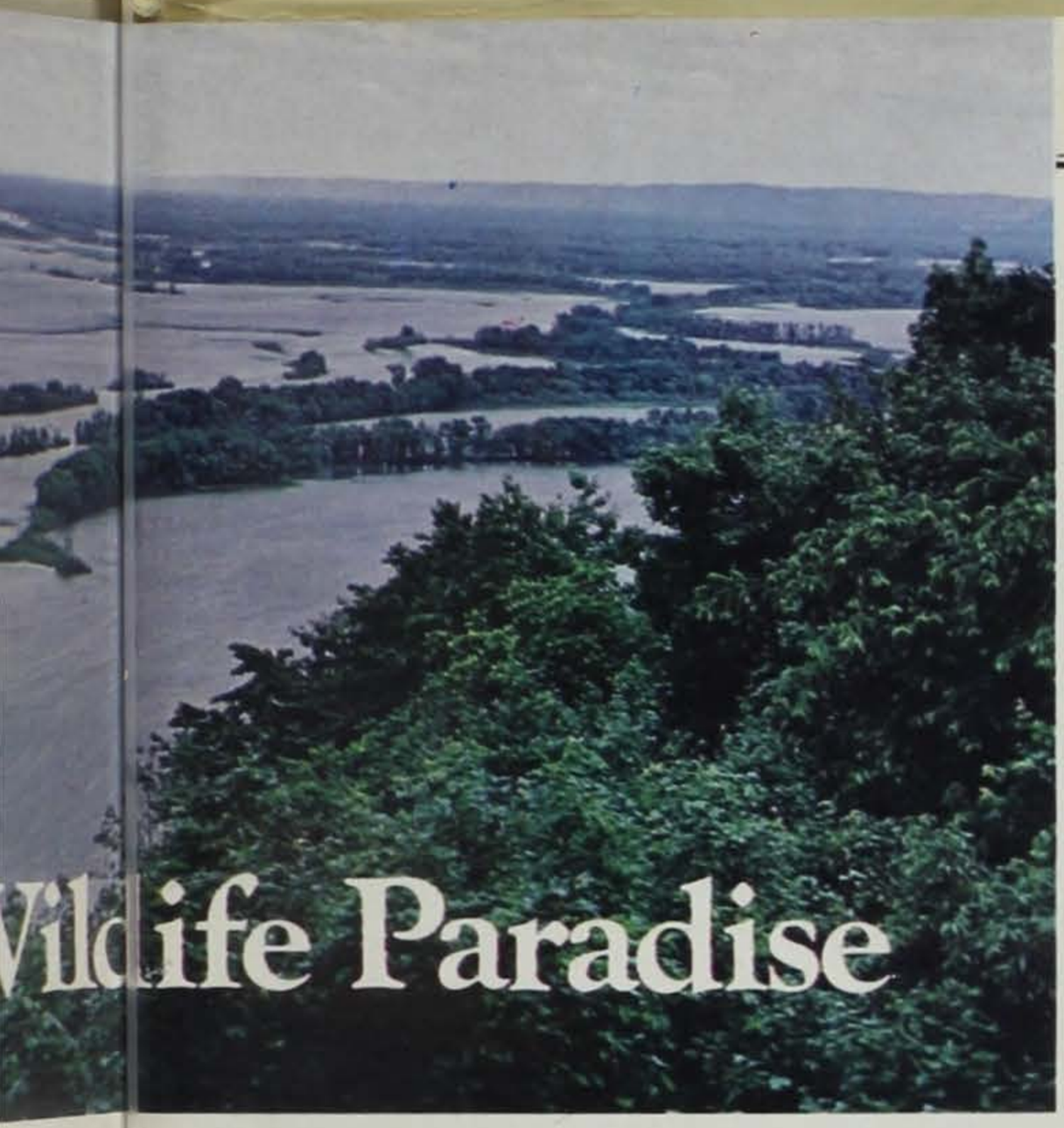
Local residents also recall a rubble dam that was constructed at the south end of Lansing Big Lake to provide additional water depth in the area. The facility was complete with a roller system that allowed boats to be transported in and out of the lake with relative ease. Remnants of the dam, and a few footings from the "Statehouse" are the only visible indicators of these earlier activities.




**The Mighty Miss.**

Several of the backwater lakes on the floodplain were determined to be sovereign bodies of water, and were retained in state ownership after impoundment of water by the U.S. Army Corps of Engineers. Lansing Big Lake (679 acres), Kains Lake (200 acres) and New Albin Big Lake (300 acres) are examples of such in-holdings in Pool 9 that are claimed by the State of Iowa, but are being managed in conjunction with lands in the Upper Mississippi River Fish and Wildlife Refuge System.

**New Albin Big Lake.**



# Wildlife Paradise

Hunting, fishing, trapping, and clamming form an integral part of the local heritage associated with the Mississippi. Many of the area residents or their relatives, have been making a "living" from the river and its resources throughout much of their lives. This particular reach of river has been famed for its abundant fish and wildlife populations since the early days of settlement when hunting and fishing for the market was a way of life for many enterprising individuals. It was a way to put "groceries on the table and a roof overhead".

**Lansing Big Lake**

Nearly all of the old time "market hunters" have now passed on, and all that remains of that era are recollections of descendants, or accounts recorded in old newspapers or historical journals relating their exploits.

Some of the finest fish and wildlife habitat in the Midwest is present on the wooded islands and in the backwater sloughs and marshes associated with the area. The U.S. Fish and Wildlife Service realized the tremendous potential of the resource at an early date, and incorporated extensive portions of the area into the Upper Mississippi River Fish and Wildlife Refuge in 1924. Refuge managers have since recorded 270 species of birds, 50 species of mammals, 45 species of reptiles and amphibians, and 113 species of fish within its boundary. Large concentrations of waterfowl congregate on the lakes and marshes during the spring, summer, and fall months with every species native to the Mississippi Flyway represented. Shorebirds, too, are present in large numbers on the sandbars, mudflats, and perimeters of the marshes. Visitors to the area can watch great blue herons and American egrets fishing in the backwaters. They can observe bald eagles and osprey, two raptor species that are currently on the national rare and endangered list. They can see whistling swans, pelicans, cormorants, loons, and all manner of other waterbirds during the spring and fall migrations. Songbirds nest extensively throughout the woodlands affording birdwatchers excellent opportunity to view the many species that frequent the area. Aquatic furbearer habitat and populations are also very good in this vicinity and trappers harvest large numbers of muskrat, mink, and beaver annually. River otter find the secluded backwaters to their liking and provide a distinct thrill to visitors fortunate enough to observe their secretive activities.

Hunters, fishermen, and trappers from Iowa, Wisconsin, and Minnesota travel considerable distances to participate in their particular form of recreation on the river. Fishermen take large numbers of bluegill, crappie, bass, walleye, sauger, catfish, and northern pike throughout the spring, summer, and fall. The backwater lakes and sloughs also provide excellent ice fishing activity during the winter months. Waterfowl hunters travel by boat to such places as Lansing Big Lake, Big Slough, Thompson Ponds, Botsford Lake, New Albin Big Lake, and The Zoll to seek out the "hot spots" for ducks and geese. Others leave their cars along the highway and walk through the extensive woodlands to a favorite pothole where they can "always get their limit of big, northern mallards".

Other forms of recreational interest too have been increasing rapidly in the area in recent years. For example, primitive camping and houseboating activity has become very heavy on the dredge spoil sites that line the main channel of the river. Power boating, canoeing, water skiing, and tubing are engaged in by large numbers of people throughout the summer months, while snowmobiling and cross-country skiing are favored activities during the winter.

Whether or not the influx of human activity will have an adverse effect on fish and wildlife populations in the vicinity remains to be seen. The tolerance level of the less adaptable species may very well be exceeded and they will be forced to seek suitable habitat elsewhere. Other more adaptable forms of life will perhaps be able to make the necessary adjustments and continue to fill their ecological niche. Despite the increased degree of disturbance around the more accessible points, there are still vast areas of wildlife habitat in the "bottoms" that remain largely undisturbed throughout the year. It is in these secluded places the natural world will continue to thrive and maintain their numbers for all of us to enjoy. □

# OUR UNDER-UTILIZED FISH
## Carp, Drum, Buffalo

HAS IT EVER occurred to you that our under-utilized fish occupy more space in our waters than nearly all other species combined? This probably is not true in all of Iowa's waters but in our border waters, reservoirs, and many natural lakes, this no doubt is a fact. These under-utilized fishes have been called "rough fish" — a term incorrectly used, and unfortunately, a misnomer for some delicious eating.

The species we refer to in this article are the carp, buffalo and sheepshead (or drum). Through the years 1938 to 1965, much effort was spent in control methods such as traps, seines, gill nets, and finally chemicals. Success was variable, dependent upon conditions and time allowed. Commercial fishing is presently allowed in some inland waters. These waters are Red Rock Reservoir, Lake Odessa, Sabula Lake and Roberts Creek Lake. Reports for the year 1977 indicate that nearly one-million pounds of these so-called rough fish were removed with buffalo contributing 87% of the catch or 382,000 pounds with a value of $105,164. Carp, drum and carpsucker contributed 58,550 pounds or 13% with a value of $3,186. It is here that we see these so-called rough fish have values and are much in demand in larger cities. Perhaps they are advanced in the preparation of these fish for the table.

To familiarize everyone to the species we are writing about, let us dwell on them individually. The carp is Iowa's largest fish in the minnow family. It is common to abundant in all major rivers, reservoirs and some inland lakes. Originally a native to Asian waters, it was later brought to Europe (particularly Germany) where it was much valued as a food fish and is still the object of important pond culture for the market.

References show that the carp was brought to the United States prior to 1880 and was one of the main species for production at the fish hatchery on the Wapsipinicon River near Anamosa in Jones County. Here, considerable effort was spent culturing carp. Later, the hatchery was moved to Spirit Lake (Orleans) and culture work with carp was continued. With the stocking of carp continuing and their ability to reproduce in the wild, problems were soon to be observed and by 1909 some waters showed a likely need for some kind of control.

Carp are so abundant in the midwest that nearly everyone is able to recognize one without difficulty. Their color is olive to bronze with the lower part of the body a brighter yellow. They have a heavy serrated spine in the dorsal and in the anal fin which serves to distinguish them from the other members of the minnow family. There are sensory organs (or barbels) on each side of the upper jaw. The teeth are broad with molar surfaces and are located in the throat.

Carp prefer moderate to warm water and attain weights up to 50 pounds. Static waters provide the area where carp attain their greatest weight — or sizem They are bottom-type feeders, taking both vegetable and animal matter in their diets. They are particularly fond of tender roots and shoots of young aquatic plants. They also consume a considerable amount of insects and larvae, crustaceans and small mollusks. Young fish comprise only a small part of their diet but fish eggs are often found in the stomach analysis. It is generally believed that fish eggs are taken incidentally in the bottom feeding. When carp are feeding off the bottom they root up an area, then feed on the organisms while they are suspended in the water. This explains the turbid condition of the water in carp-feeding areas.

Streams and smaller lakes tend to provide the best areas to fish for carp. Best baits include doughballs, worms, large kernel sweet corn and moistened bread rolled into small balls. It has been said that there might be better baits than doughballs but carp don't know it.

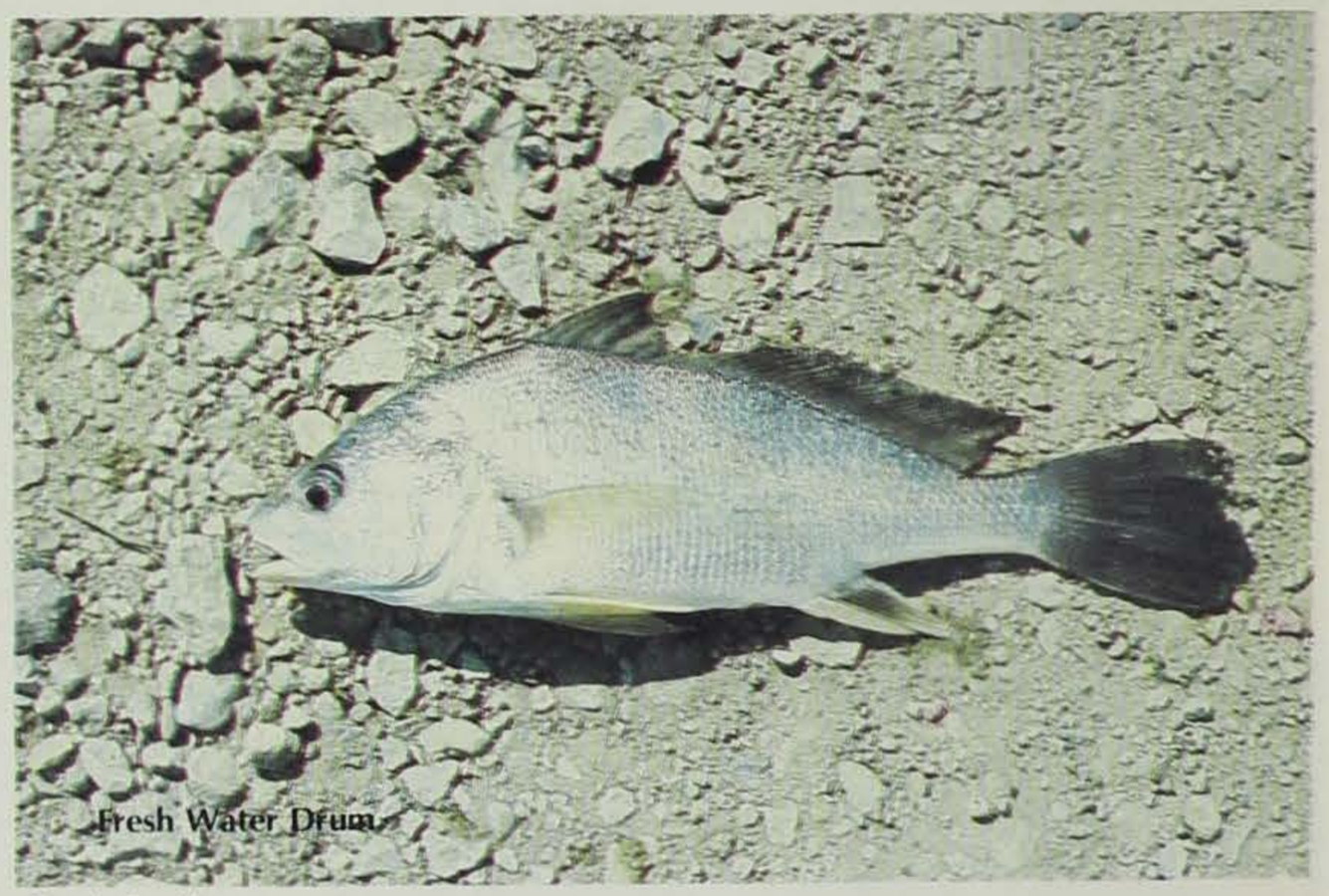

Fresh Water Drum

Photo by Don Kline

The old expression "buffalo spawn when the plum trees are in blossom" is very close to reality since their spawning activity occurs during the latter part of April or early May. They are random spawners, depositing their eggs on submerged vegetation or mud bottoms. Their eggs are left unattended until hatched. This species is capable of reproducing during its third season of growth with a 10-pound fish providing up to 400,000 eggs. The buffalo is a relatively fast grower and can reach the six to eight pound catagory in 3 to 4 seasons.

BY FLOYD THOMPSON
FISHERIES BIOLOGIST

Buffalo are native to our waters and are largely responsible for the clean waters that were observed years ago. This is because they are generally mid-water swimmers, feeding almost exclusively on tiny water animals (called zoo-plankton) by using specially adopted comb-like straining devices called gill rakers. This species has the

Carp

Buffalo

Photos by Ron Johnson

distinction of having the most value in today's market. During most of the season, their flesh is quite oily, white and quite firm. They are seldom caught on hook and line because of their feeding habits.

The sheepshead, not nearly as common as other members of the rough fish family, probably provides the best species for the table. It fillets nicely and does not have the "y" bones common to other rough fish. Principal areas common to sheepshead in Iowa are the border rivers and the Iowa Great Lakes (Okobojis and Big Spirit). Most fish of this species are caught by fishermen angling for walleye, perch, northern pike or smallmouth bass. They bite readily on minnows, night crawlers and crayfish, and will take a variety of artificial baits such as leadheads, jigs and some deep running lures (sonics and crippled minnows). The problem with this and other rough fish species is not so much how to catch them but how to convince ourselves as to the best way to utilize them for the table.

Control of rough fish populations has been of concern for many years dating back to 1914-15 when Silver Lake in Dickinson County was first seined by commercial fishermen. Large numbers were removed and this reduction showed a decided improvement in all species of sport fishes. Vegetation conditions also improved to the point where use ot motors was difficult. Today, our small lakes (without the sloughs and marshlands that acted as filters) are so enriched by erosion and fertilizers that algal blooms are frequent, reducing sunlight to aquatic plants and, in turn, eliminating the plant life itself.

The use of chemicals to correct rough fish population densities and imbalances is rapidly gaining momentum. Chemical control has largely replaced the conventional seines, traps, and nets in rehabilitation programs of lakes, and to a limited extent, streams. Rotenone and antimycin have been used successfully in many areas. The use of rotenone is restricted to water temperatures above 55° to be most effective while antimycin can be used in cooler temperatures. When used properly, antimycin can be used as a selective eradicator to certain sizes of scale fishes. Unless used in extremely heavy dosages, the antimycin will not affect non-scale fish such as catfish and bullheads. The use of chemicals in many waters is restricted due to municipalities taking water for human consumption.

Some of the reasons why the aforementioned species have been included in the rough fish category have been mentioned, but here are reasons why they are disliked: (1) They compete for the same food items as young game fish; (2) some will not bite the angler's hook; (3) some create turbidity and destroy aquatic vegetation and sport fish spawning areas; and (4) some are exotics not native to our waters. But — are these valid reasons to waste thousands of pounds of an excellent food resource? We don't think that, so we offer you a few recipes to try. Just think — if every licensed angler in Iowa would catch and use 10 pounds of rough fish annually, the value to the economy and the void created for more respected sport fishes would be great indeed.

**BAKED FISH WITH STUFFING (BUFFALO FISH OR CARP)**

A 3-5 lb. fish (whole), scaled and drawn
1/4 c. lemon juice
1 clove minced garlic
Salt
1 box commercial seasoned bread croutons
1 small onion, chopped fine
Several sprigs parsley, chopped
3 slices bacon, diced and fried crisp

*Marinate fish inside and out with mixture of lemon juice and minced garlic. Salt fish inside and out.*

*Moisten croutons with hot water (not too wet); add 1 tbsp. bacon drippings, bacon, onions and chopped parsley. Mix thoroughly. Stuff fish and wrap in foil to keep juices in. Bake at 325°F, 20 minutes per pound.*

*(Continued Page 13)*

# State Record?

This monsterous flathead catfish is alive and well somewhere in the lake at Nine Eagles State Park. Fisheries personnel Johannus Pitlo (foreground), and Mike McGhee rolled the big cat earlier this summer with electro-fishing survey equipment. After the photo, the fish was released unharmed.

The crew didn't have scales large enough to weigh it, but measurements indicated the 44-inch flathead probably tops 60 lbs. The current state record flathead catfish is 62 pounds.

# Waterfowl hunters of Iowa, we need your help!

The Iowa Development Commission (IDC), with the cooperation of the Iowa Conservation Commission (ICC), is conducting a survey this fall to determine the economic impact of waterfowl hunting in southwest Iowa. We feel that duck and goose hunters are a major contributing force in the economies of Fremont, Montgomery, Page and Mills counties, especially near Forney Lake and the Riverton area. This survey will help us more accurately measure the extent of the impact.

But we need your help.

If you are planning to hunt waterfowl in any of the four counties mentioned above, and would like to help, just fill out the coupon and mail it to the address shown. A short questionnaire will be sent to you this fall to be completed and returned. That's all we need.

With the information you provide us, we'll be able to document the economic contributions hunters make to this area of Iowa. The information gathered may influence future decisions concerning waterfowl and game management in the state.

Yes, I will participate in the Waterfowl Hunters' Economic Impact survey.

NAME _____

ADDRESS _____

_____

Mail to: **Resource & Support Division**
Iowa Development Commission
250 Jewett Building
Des Moines, Iowa 50309

FROM THE

# Warden's diary

BY REX EMERSON
LAW ENFORCEMENT SUPERVISOR

On the way to check squirrel hunters I stopped by to see the old man who lives down by the river. While we were having a cup of coffee he told me about his plan to invest all of his money in taxes as that was one thing that was always going up! When I grumbled about income taxes he told me it was just a good thing I didn't have to pay income tax on what I thought I was worth. He sure knows how to hurt a guy!

On down the road I found a car parked near some good squirrel timber. No one was around, but judging from the empty gun case folded over the back of the front seat, it obviously belonged to a squirrel hunter.

Now, it is usually almost impossible to find a squirrel hunter out in the woods as he or she is trying to be as quiet and inconspicuous as possible. The hunter often just sits down someplace near a den tree and then quietly waits for a squirrel to show itself. If the hunter happens to see the game warden walking through the woods, he or she thinks it is really funny to just sit there and not be found.

I could have driven on and returned later, hoping to catch the person coming back to the car, but that probably wouldn't have worked. The squirrel season is open, and I thought I should check the hunter's license if I didn't have to take all day doing it. But then again, there *are* other hunters and licenses to be checked.

However, as someone's old grandpappy once said, "There's always more than one way to skin a cat."

So I grabbed my hunting coat and put it on as I walked out into the timber. In the pocket I just happened to have a squirrel call. When I came to a fallen tree I sat down and, taking the squirrel call, attempted to make it sound like the chatter of a squirrel.

I must have been doing it about right, as it wasn't very long until I saw the hunter come "pussyfooting" towards the tree where I was sitting.

Just naturally being friendly, as soon as he got close enough I stepped out and said, *"Howdy!"*

The hunter was a little angry and replied, "*You scared off my squirrel.*"

There really wasn't any reason to tell him the squirrel sound he had heard was in my coat pocket, because when I opened my coat so he could see my badge he forgot about the squirrel anyway. It just so happened he had also forgotten to get his hunting license!

The next time you hear a squirrel chatter, please follow the sound. It might be the game warden wanting to check your license!

PHOTO COURTESY OF U.S. FISH AND WILDLIFE SERVICE

## Profile of an Endangered Species

# THE INDIANA BAT

BY DEAN M. ROOSA
STATE ECOLOGIST

There are ten species of bats that have been reported in Iowa. All are little-known and some are rare, but none are as little-known, rare or mysterious as the Indiana Bat (Myotis sodalis). Bats, flying mammals of the order Chiroptera, feed principally on insects which they locate with ultrasonic squeaks and scoop up with their membranous wings.

The Indiana Bat has been reported only a few times in Iowa, usually as a hibernator in eastern Iowa caves. During autumn, the bats migrate to these caves, but only after they build up a supply of body fat for the long winter. Actually, the major bulk of the world's population winters in caves in Missouri, Kentucky and Indiana where they hang from the ceilings. These caves are very specific caves, with air movement to cool rocks to about 40° F. and any curtailment of the cooling influence makes the caves unsuitable for bats. This is why it is difficult to put any kind of gate across the entrance of caves to prevent disturbance by humans. The wintering bats can withstand only minimal disturbance; if disturbed too often, the increased activity will cause them to burn fat and they will starve before spring.

When spring arrives, the females leave the caves and start north, in search of suitable riparian habitat with the proper ecological requirements for raising young. However, this phase of their life history is nearly a mystery as only two maternity colonies, both in Indiana, have been located in the history of the study of the species. It was an exciting event when a female and juvenile were captured recently in southern Iowa because it indicated that a maternity colony was close. The ecological parameters where this bat can spend the summer is probably as well defined as the conditions of the cave where it hibernates. It prefers a riparian woodland with trees forming a canopy over a stream or body of water. The water cools slower than the land which causes warm air to rise from the water and become trapped by the overhanging trees, forming a warm corridor for increased insect activity. These conditions are met in a large number of habitats in southern Iowa; perhaps our state will prove to be an important rearing ground for this species.

Because the numbers of this bat have decreased over 50% in the past ten years and because its prime wintering habitat is threatened by a major dam, it has been placed on the federal endangered species list and in 1977 was placed on the Iowa endangered species list. Because the federal act prohibits expenditure of federal money on projects which will disturb a federally-listed species or its habitat, we need to accurately determine its status in Iowa, so its habitat can be avoided if new projects are planned. Iowa is in the process of trying to affect an agreement with nearby states and the federal government to study this rare mammal. The time has come to commit time and money in protection of rare species. Many people feel it is morally wrong to let a species vanish from the state; perhaps in the future we will realize the importance of the genetic reservoir of rare species. The Indiana Bat, though unpopular in the view of some people, is a mysterious, interesting and potentially important part of our native fauna. □

*Continued from Page 11*

**CANNED CARP (TASTES LIKE SALMON)**

Fillet carp, chunk, soak in salt water overnight. Wash in fresh water; then pack in pint jars.

To each jar add:
1-1/2 tsp. canning salt
1 tbsp. white vinegar
1 tbsp. tomato sauce
1 tbsp. cooking oil

*Pressure cook for 90 minutes at 10 pounds pressure (or 65 minutes at 15 pounds pressure). Good with crackers and beer as an appetizer.*

**CARP PATTIES**

White soda
Chopped onion
Chopped celery or celery salt
Sage to taste
Pancake flour

*Fillet and skin carp. Run fillets through meat grinder two times. Pour white soda over ground fish and let soak for 20 minutes. Drain meat, add chopped onion, celery salt or chopped celery and sage. Form into patties. Dip in pancake flour and fry. Overeat!*

**PICKLED FISH — SUCKERS, CARP, OR FRESHWATER DRUM (Sheepshead)**

5/8 c. pickling salt for each qt. of fish

**Pickling mixture**

1 pt. white vinegar
1 pt. white port wine
3/4 c. sugar
1/8 oz. pickling spice
Onions, sliced

*Cut fish in chunks, Dissolve salt in enough vinegar to cover fish. Let stand 4-6 days. Keep at about 40°F. Take out of salt solution and rinse thoroughly with cold water.*

*Place alternate layers of fish and onions in sterilized jars. Place hot mixture of vinegar, wine, sugar and pickling spice over fish. Refrigerate and let stand one week before using. This solution covers 4 qts. of fish.*

**BAKED STUFFED CARP**

1-6 lb. dressed carp with head, tail, fins, skin and scales removed. Score the fish to break down "Y" bones if you wish.

STUFFING

1 qt. bread crumbs or cubes
3 tbsp. minced onion
2 tsp. ground sage
3/4 tsp. salt
3/4 tsp. pepper
3/4 c. finely chopped celery
6 tbsp. hot melted butter

*Mix all ingredients well until bread is moistened. Stuff the fish on aluminum foil in a baking dish in oven preheated to 500°F. Let brown for 10 minutes, remove and cover carp with bacon slices. Lower heat to 425°F and bake 35 minutes. Add 5 minutes per pound for carp larger than 6 pounds.* □

# LOOKIN' BACK


*Thirty years ago* the Iowa Conservationist featured a guest editorial by the director of the Izaak Walton League of America. The article centered on the problem of pollution and called upon Congress to enact a simple national water standards law. This was not to happen for some time.

It was also mentioned in this issue that tree sparrows in Iowa eat 875 tons of weed seeds annually. We want to know who weighed all those seeds.

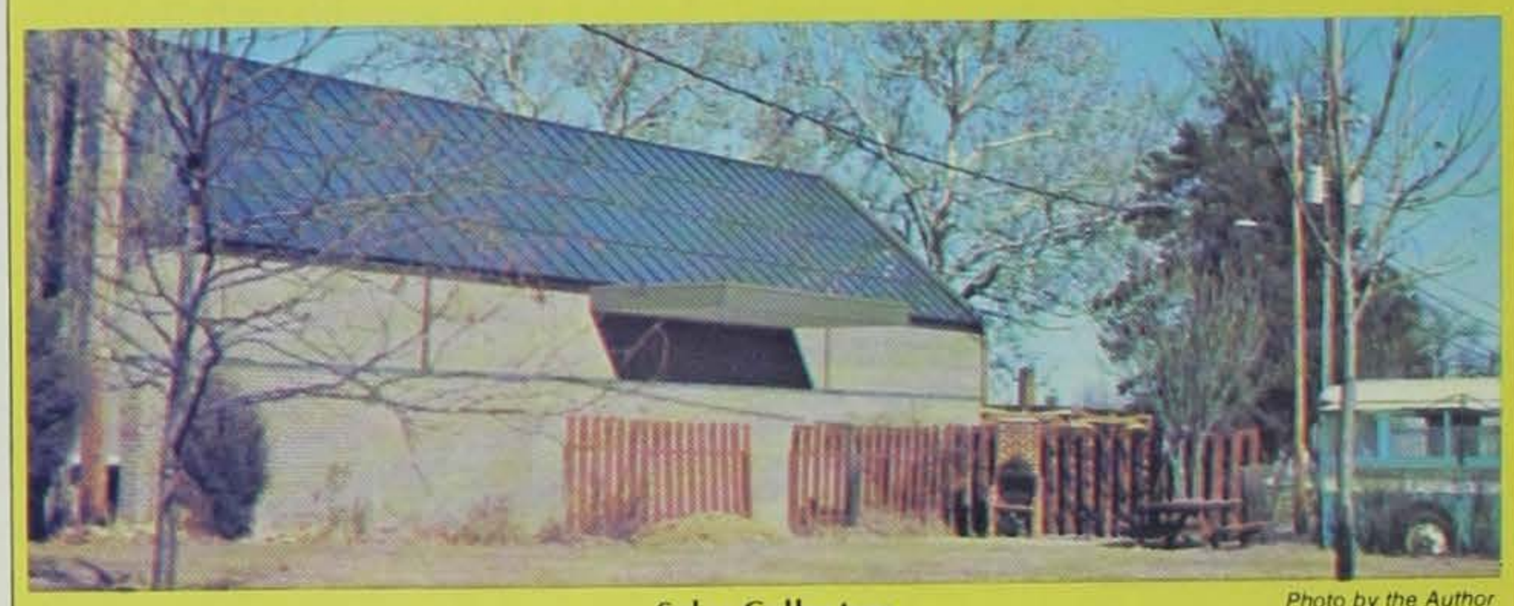

*Twenty years ago* waterfowl grabbed the headlines of the magazine. The new duck season was announced and a story on weather and its effects on migration appeared.

Assistant Director Lester F. Faber wrote a guest editorial urging hunters to be considerate to farmers and landowners during the coming seasons.

*Ten years ago* the Conservationist featured a story on Pine Lake Watershed, an erosion control project in Grundy County. This was truly a community project involving the SCS, the County Conservation District, the ASCS, local farmers and even the Boy Scouts. The project successfully decreased the topsoil being washed into Upper Pine Lake.

# Classroom Corner

BY ROBERT RYE
ADMINISTRATOR, CONSERVATION
EDUCATION CENTER



**Solar Collectors** *Photo by the Author*

SUN DAY was held this year as a national celebration of solar energy. This was much the same as Earth Day, which first occured in 1970. Earth Day alerted people around the world of the need to protect our environment. Since then, many groups have become involved by studying wilderness areas, streams, parks, and even road sides. Cleaning up areas and preventing environmental abuses continue to make headlines around the country.

Sun Day focused on the sun as an inexhaustible, predictable, non-polluting, safe, and free energy source. This includes use of solar rays with collectors for heating homes, hot water systems, and photovoltaic cells. Also windpower, wood, hydroelectric power systems, and ocean thermal power conversion systems rely on the sun.

Solar energy and its use requires a great deal of education before they can be understood and utilized. This research also requires the study of various solar methods used by people in different areas. What may work well in Iowa may not in Missouri, for instance.

At the Education Center, many different areas and levels of solar use are covered, depending on the age and type of group using our facilities. Almost every group has the opportunity to go past the Education Center sewer lagoons. Here we discuss the ideas of solar energy, pure water, and the water cycle. The Center's lagoons are a total retention system, which means waste and water remain in the lagoon ponds.

The sun does the majority of work in a lagoon system by removing the water through evaporation. This should be recognized as part of the elementary water cycle; water goes into the air to return as rain. Our sewage flow input equals the evaporation out of the lagoon.

The sun has another major role in the operation of the lagoon system. It provides light energy for the algae living there. The algae, in turn, provide oxygen for the bacteria which devour the wastes.

On cloudy days, the sun provides oxygen by causing winds. This results from temperature and pressure differences which force the air to move from one area to another forming what we call wind. The wind creates currents in the lagoon water mixing oxygen with it and allowing the bacteria to function.

More specific solar questions include: what colors attract and absorb more heat; how to prevent drafts which remove heat in the winter; position of buildings and collectors; and how to construct collectors which will directly aid in heating space or water. These questions are studied by groups utilizing our facilities.

The Education Center has the use of the sun year round. A good time for a group to visit the Center is during the fall. Many programs work best because of what nature provides at that time of year. Another plus is that a fall trip provides a base for winter studies or a year-long school program. Activities are scheduled in advance by most groups so contact the *Conservation Education Center, RR 1, Box 53, Guthrie Center, IA 50115, (515) 747-8383* for a date now.

## *Iowan Named Top Outdoor Broadcaster*

KEITH KIRKPATRICK, farm director of radio station WHO in Des Moines was recently named the nation's top outdoor broadcaster of the year at the 51st annual conference of the Outdoor Writers Association of America held at Virginia Beach, Virginia.

He was recognized for a program in which he stressed the advantages to cattle farmers of planting certain varieties of native grasses. The grasses not only provide excellent cattle grazing, Kirkpatrick explained, but also provide excellent nesting habitat for gamebirds such as pheasant and quail as well as a variety of songbirds.

The sportsmen of Iowa and the Iowa Conservation Commission applaud Keith for his efforts in this field, especially at this time when suitable habitat is so critical for Iowa's wildlife.

*Farmers who are interested in planting suitable native grasses can obtain further information by contacting their local Commission wildlife management biologist or by writing to the Iowa Conservation Commission, Wildlife Section, Wallace Building, Des Moines, Iowa 50319.*

Besides the number of farm programs he broadcasts, Kirkpatrick does a weekly five minute conservation feature each Sunday at 6:30 p.m. entitled "Speaking of People." In the program, he interviews Conservation Commission personnel who explain various Commission programs and offer up-to-date information of interest to outdoor recreationists.

*Now you see him . . .*

*Now you don't!*

# SAFETY IS BEING SEEN

BY BOB MULLEN
STATE CONSERVATION OFFICER

*Photos by Ken Pardock*

For many years, hunters thought they must wear drab colored or camouflage clothing while hunting, or wildlife would spot them easily. Such ideas have cost some hunters their lives. Hunters have been mistaken for a deer and shot because of their clothing's color. Hunters wearing camouflage or drab colored clothing have also been shot accidentally by their hunting partners who did not know their whereabouts. Unfortunately, this happens too frequently.

Except for birds, all other wildlife are color blind. Wildlife can only see black, gray, white or varying shades of these three. Knowing this does away with the need for camouflage or drab colored clothing. The only exception would be for waterfowl or turkey hunters. In this type of hunting, waterfowl and turkey come to the hunter. Being inconspicuous is of absolute importance because these birds have fantastic eyesight, and are able to distinguish color. There is less chance of being shot accidentally while duck hunting because hunters are in specific areas and are aware of other hunters present in a marsh.

One of the hottest arguments among deer hunters concerns wearing fluorescent orange. Many deer hunters feel fluorescent orange spooks the deer. Deer are color blind, so it's not color that frightens them. An animal detects trouble by movement, sound and smell — not color. A deer hunter could be dressed from head to toe in fluorescent orange and go undetected by a deer, if the hunter remained perfectly still, made no sound and was downwind.

In Iowa, it is required by law that deer hunters wear fluorescent orange clothing (either a coat, vest or hat) while hunting. This law is for the hunters safety. Fluorescent orange stands out vividly in the timber or in the waning light of dusk. Fluorescent orange allows the hunters to see one another, but the color does not spook game.

It's not required, but common sense, that a hunter should wear fluorescent when hunting upland birds or small game. As long as you can see your partner's fluorescent orange apparel, you will not have to worry about accidentally shooting him. Many hunters feel that red is a safe color, but this is not so. In dim light, or at a distance red will appear brown rather than red. Remember, safety is being seen. For your safety wear fluorescent orange when hunting. □

Photos by Ken Formanek

*Fort Atkinson Rendezvoux will be held September 23-24 at Fort Atkinson in Winneshiek County south of Decorah.*