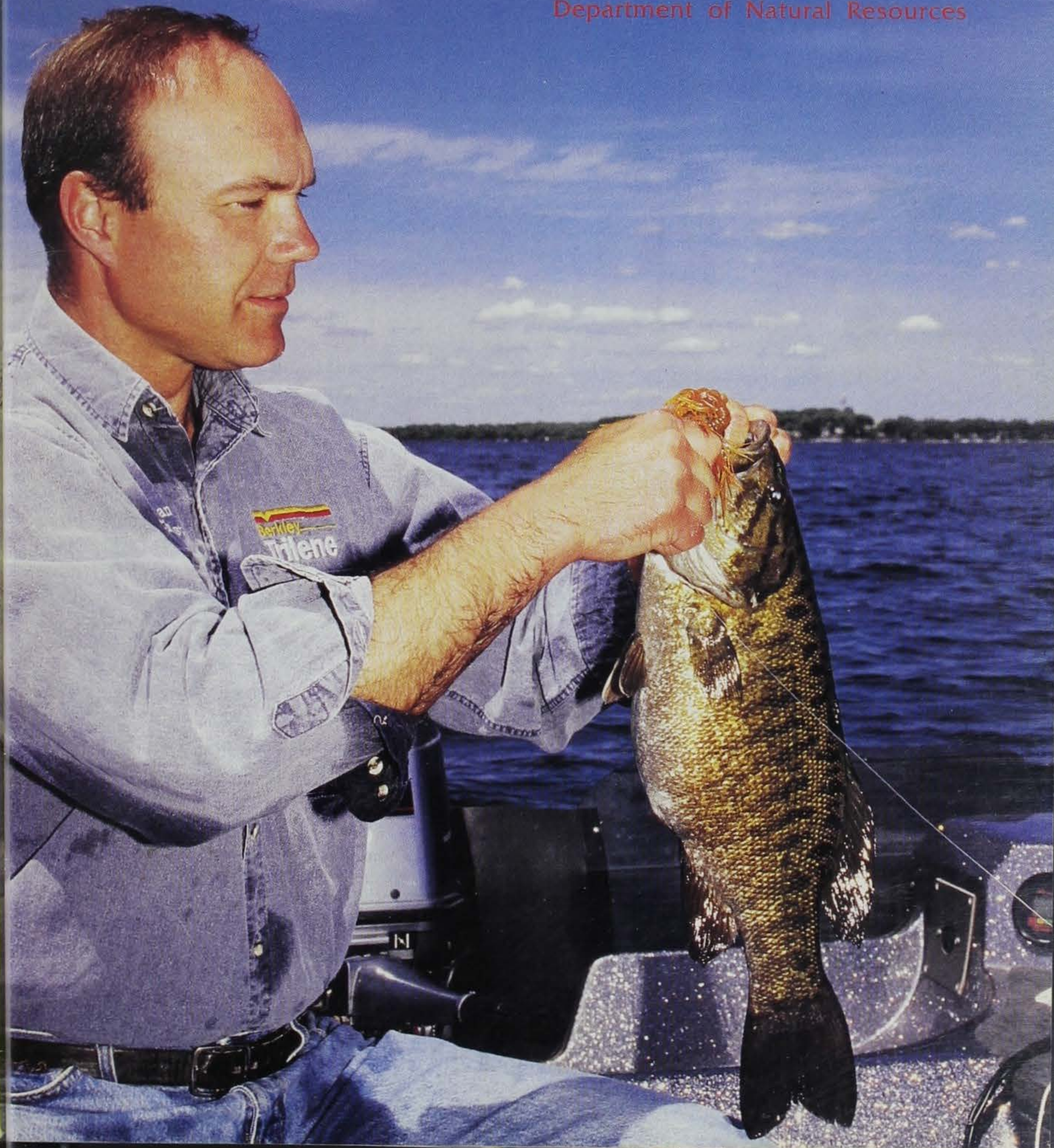


Iowa

September/October 1995

# CONSERVATIONIST

Department of Natural Resources





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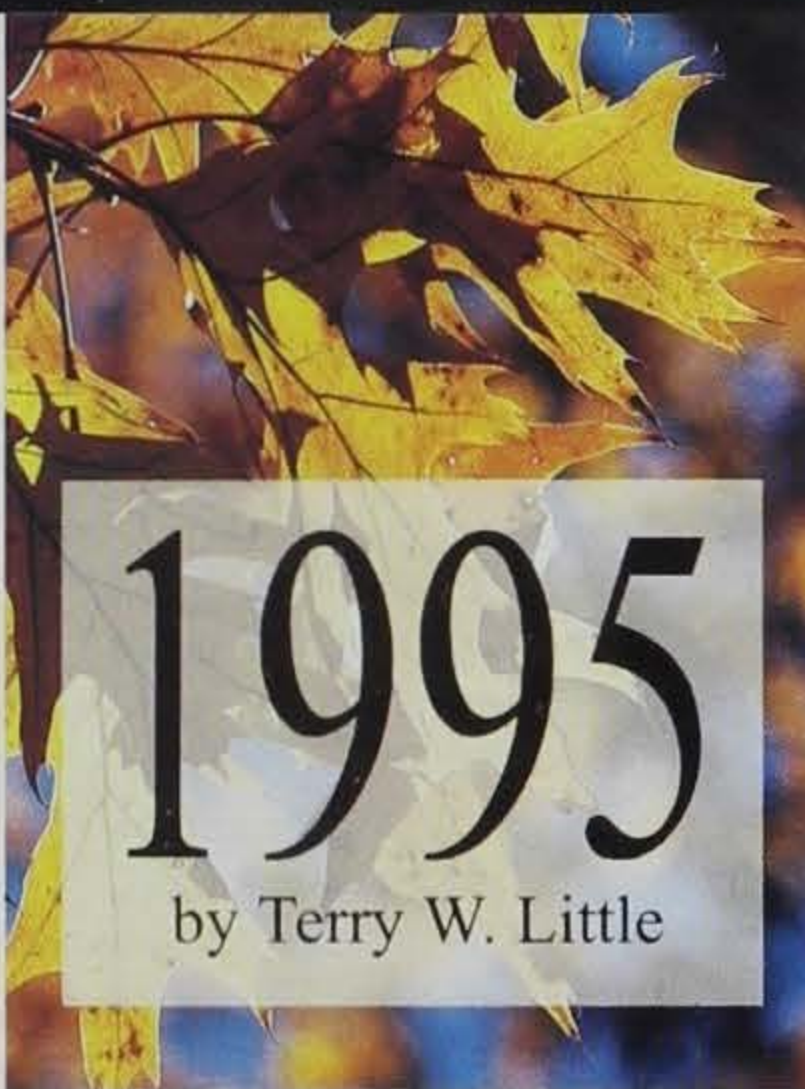




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Ken Formanek





# 1995

by Terry W. Little

# HUNTING FORECAST

Another good year for Iowa's nimrods? Seems like I've been saying that for nearly the last decade. And give or take a record flood year here, a cold wet spring there, or drought on the Canadian prairies, it has been mostly true. For the majority of Iowa hunters, the implementation of the Conservation Reserve Program in 1985 and burgeoning deer herds and wild turkey flocks reversed what had been 25 years of declining wildlife habitat and reduced hunting opportunities. For all but the duck hunter, the past decade has produced some of the best all-around hunting Iowans have seen in this century.

Can 1995 be the best yet? Quite possibly, although my conservative Norwegian heritage prompts me to use the ever-waffling "it depends." Rather than rely on my hunches, however, I've asked the real experts, the DNR's wildlife research specialists, to give you their opinions. These are the biologists that we rely on to keep track of state-wide wildlife population and habitat trends, monitor wildlife and agricultural programs on a national scale, and make the initial hunting season recommendations that eventually end up as DNR regulations. Their mostly optimistic predictions are attached to explain my brief summary of what this year should hold in store.

Upland wildlife -- the staple commodity most Iowa hunters use to judge the success or failure of their hunting season -- should be abundant. A warm, dry, late spring and early

summer finally replaced a wet April and May, just in time to secure what should be an excellent pheasant, quail and gray partridge hatch. Todd Bogenschutz, the DNR's upland wildlife specialist, explains just how good things could be (annual roadside counts won't provide the actual predictions until they are completed in early August, long after this article has gone to press). In a companion article, however, Todd explains how ending the CRP could mean long-term problems for all upland wildlife, particularly in the very intensively farmed regions of northern Iowa. Believe it or not, the first CRP contracts will begin to expire in 1996. Nearly 150,000 acres came out this year in an early buy-out program and millions of acres will be taken out of wildlife habitat if the program is terminated or markedly altered in the 1995 Farm Bill. As of this writing, the future of this critical program is very uncertain.

Forest wildlife populations continue to do well. Willy Suchy, the DNR's deer specialist, predicts another outstanding season in 1995 as deer numbers continue to build across much of Iowa. And, for the first time in five years there will be a fall turkey season nearly statewide because of improved turkey populations nearly everywhere. Dale Garner, the DNR's wild turkey biologist, explains why and the outlook for the upcoming season.

Although my predictions for the past decade have been for generally good hunting, I've always had to include the caveat "except for the duck

hunter." Waterfowl hunters, if you've chosen to sit out the short seasons and reduced bag limits of the past six years, it's time to dust off those decoys and patch your chest waders. Guy Zenner, the DNR's waterfowl specialist, predicts the longest, most liberal duck season in years and explains the reasons why.

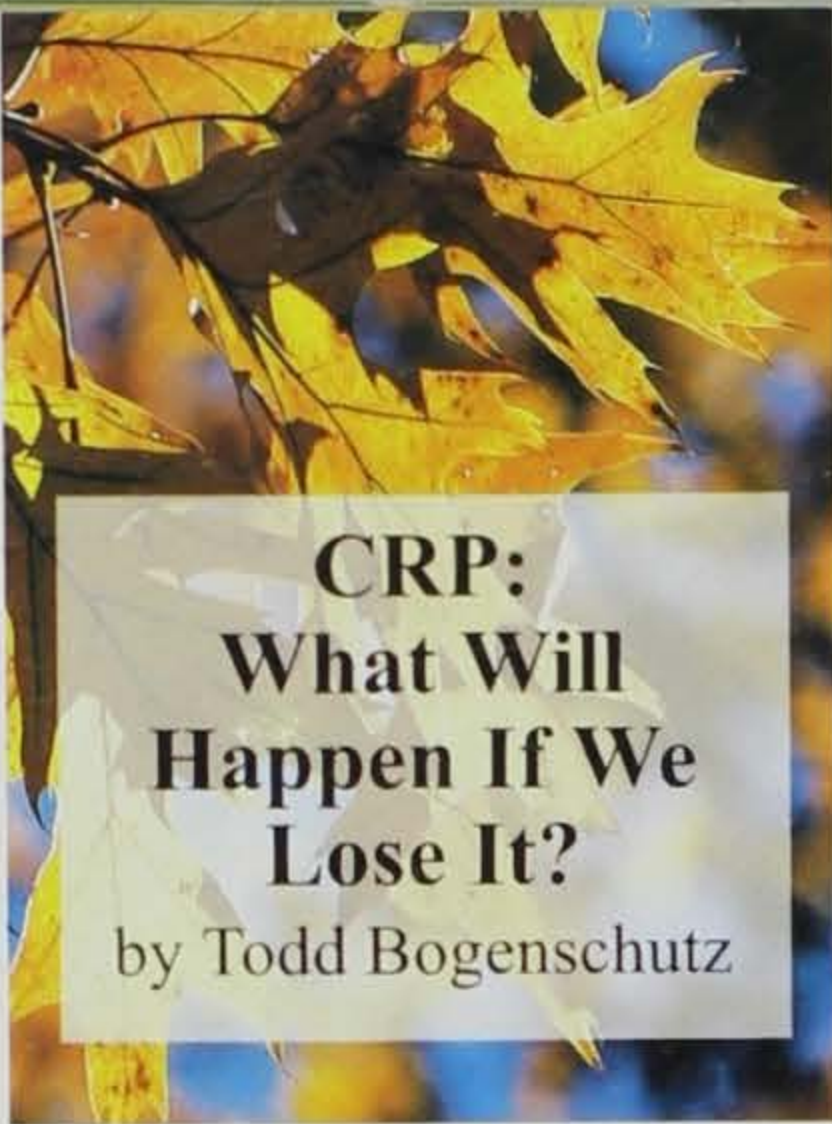
For fur harvesters, it's the same old song with maybe a sadder refrain. Furbearer populations continue at modern high levels, but pelt prices remain low and will probably go lower. Ron Andrews, the DNR's furbearer specialist, explains why there is a mostly dismal outlook. For the fur harvester motivated by recreation and not profit, however, things could hardly be better.

That about sums up the outlook for the species of greatest interest to most of our hunters. Cottontail rabbits and squirrels continue to be plentiful and vastly under-harvested. Ruffed grouse are recovering from their 10-year cyclic low in 1991 and a good nesting year should improve their numbers in northeast Iowa, too. Woodcock, rails and snipe are so seldom hunted in Iowa that fluctuations in their numbers go mostly unnoticed. But all should be available in good numbers for the dedicated few that choose to pursue them. When all is said and done, 1995 should continue the traditionally good hunting Iowans have enjoyed for the past decade!

---

*Terry W. Little is the wildlife research supervisor for the department located in Des Moines.*





## CRP: What Will Happen If We Lose It?

by Todd Bogenschutz

To answer this important question, we first need to know what the Conservation Reserve Program (CRP) is and what it has done for wildlife in Iowa. In a nutshell, the CRP was authorized under the Food Security Act of the 1985 Farm Bill with the goal of reducing agricultural surpluses and increasing farm crop prices. Farmers were paid to plant their most highly erodible lands to grasses or trees for 10 years, thereby removing agricultural land from production and increasing crop prices. These idled lands, planted mainly to mixtures of grasses and forbs, have benefited virtually all wildlife in Iowa from deer to leopard frogs.

Prior to the 1985 Farm Bill most of Iowa's grassland-dependent wildlife species were in long-term declines. Statewide population surveys indicate all-time lows in ring-necked pheasant and bobwhite quail numbers occurred just prior to the implementation of the CRP. Prior to CRP authorization (1975-84), statewide pheasant populations were declining 2.2 percent a year. Since 1985, statewide populations have increased .5 percent annually. Populations in the agriculturally intense regions of north-central and east-central Iowa were declining 2 percent and 4.3 percent annually before the CRP. These populations are now increasing 1.5 percent and 2.1 percent a year respectively, after the CRP. Gray partridge numbers were increasing only .2 percent per year before the CRP, versus 2.5 percent per year after the CRP. Before the CRP, quail populations were

declining statewide. Populations in western and eastern Iowa are now increasing with the CRP.

Many additional species have also benefited from the CRP, such as grassland songbirds, waterfowl, turkeys and deer. Iowa studies have demonstrated songbird abundance is four times greater in CRP fields versus row crop fields. The same study found 16 grassland songbirds nested in CRP fields versus two species in row crop fields. Large CRP fields are particularly beneficial to area-sensitive prairie species. Many species, such as the savannah sparrow, prairie chicken, white-tailed jackrabbit and short-eared owl, require large blocks of undisturbed grass to successfully reproduce.

Duck populations have rebounded from 30-year declines thanks, in no small part, to the secure nesting cover CRP fields provide. More than 500 wetlands have been restored on CRP fields in Iowa, providing year-round habitats for waterfowl, shorebirds, reptiles and amphibians. These restored wetlands provide habitat for more than 7,000 pairs of breeding ducks and produce approximately 2,000 Canada geese annually.

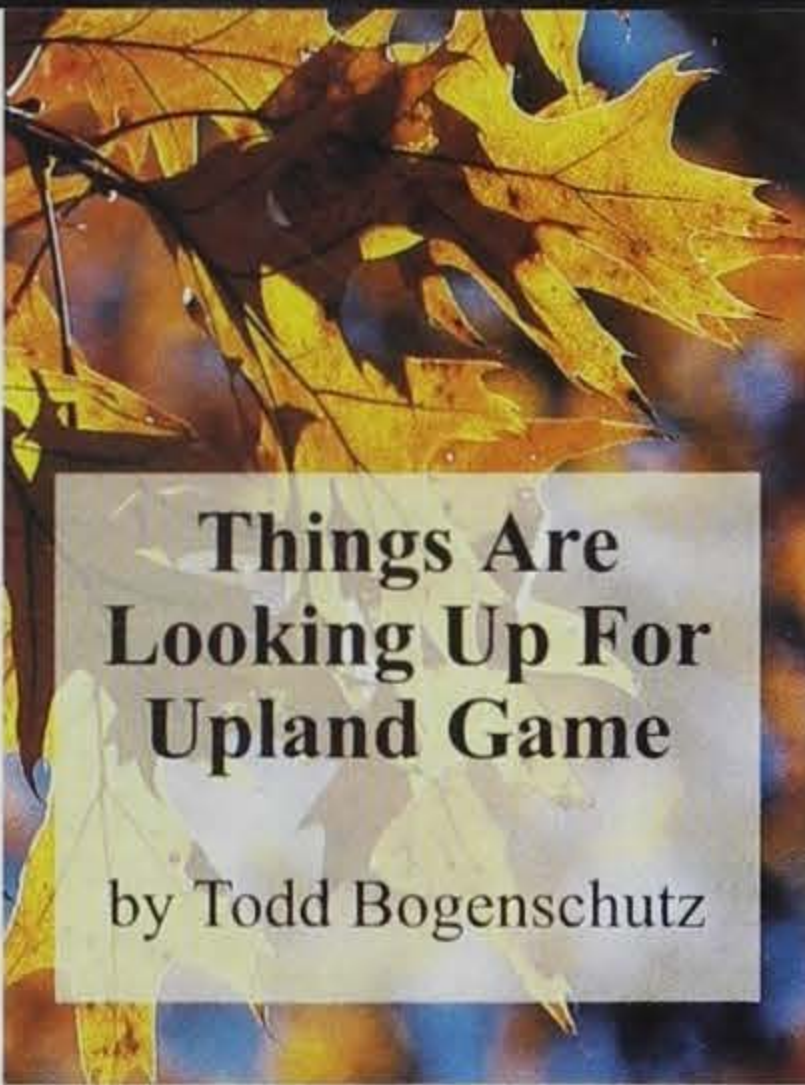
Southern Iowa studies have found some forest species also benefit from the CRP. CRP fields create additional fawning, bedding and feeding habitats for white-tailed deer. Research conducted at Springbrook State Park showed that CRP fields planted adjacent to deer concentration areas reduced deer damage to surrounding row crops. Other research has shown hen turkeys use CRP fields for nesting

and brood-rearing activities.

If the CRP is cut from the 1995 Farm Bill, Iowa's grassland wildlife species will suffer tremendous habitat losses. All upland wildlife populations -- including pheasants, quail, and gray partridge -- will decline, with the exception of cottontail rabbits, which will probably remain fairly stable. Duck production will decline and many restored wetlands will be destroyed. Many prairie grassland species that require large tracts to survive will face a renewed danger of being eliminated from the Iowa landscape, including savannah sparrows, prairie chickens, sharp-tailed grouse and white-tailed jackrabbits. The loss of the CRP will influence turkey, deer and goose populations in more subtle ways. Habitat loss will force these species to redistribute themselves on the landscape. In the case of deer and geese, this will likely lead to increased depredation problems because many fields now in the CRP will be restored to row crop production. In short, it is hard to imagine any wildlife species benefiting from the loss of this valuable program.







## Things Are Looking Up For Upland Game

by Todd Bogenschutz

Cool wet weather in April and May did not bode well for Iowa's nesting hen pheasants, particularly in hard-hit southern Iowa where rainfall was five to six inches above normal. However, warmer drier weather in late May and early June was perfectly timed for the pheasant hatch. Iowa's pheasant hatch typically peaks between June 10-20 in a normal year. Early brood reports from across the state indicate the early rains did not adversely affect reproduction. Statewide, populations are at, or above,

long term averages, except in northeastern Iowa where populations are 36 percent below the long-term average. Western, and north-central Iowa, particularly Sac, Buena Vista, Winnebago, Cerro Gordo and Hancock counties, show the best promise for high pheasant numbers this fall. However, east-central Iowa, north and south of Interstate-80, has reported some very high pheasant populations the past several years. The hilly topography of this region resulted in a large CRP sign-up, which has been a boon to local pheasant populations. Iowa pheasant hunters harvested 1.25 million roosters during the 1994 hunting season, up slightly from the 1993 hunting season. Expect lowans to harvest around 1.4 million roosters during the 1995 hunting season with a normal crop harvest. The average pheasant hunter spent six days afield and harvested seven birds last year.

Reports from southern Iowa, the state's historic quail range, are very encouraging. Biologists are reporting many calling males and even a few early broods. Early spring rains delayed hay mowing, allowing hens to bring off first nests. Quail numbers remain 14 percent below historic statewide averages. Western Iowa populations remain above the long-term average for the region, but southern and eastern populations remain well below historic numbers. Iowa's population has mirrored quail populations nationwide, which have declined steadily the last three decades. Most of this decline can be attributed to changing agricultural practices. Larger fields, clean farming practices, and the removal of thousands of miles of field hedgerows have proven devastating to quail. Quail are primarily an edge species, that do best in a small field setting with less intensive agricultural practices. Quail hunters harvested almost 180,000 bobwhite during the 1994 quail season. Hunter numbers were up, while total harvest was down somewhat from 201,000 birds harvested in 1993. Quail hunters averaged six days afield and harvested just under four birds during season. The southern two tiers of counties still remain as Iowa's best quail hunting range. Quail harvest during the

1995-96 hunting season should approach 230,000 birds.

Few reports of partridge broods have been received to date. Gray partridge were imported to North America from the arid steppe region of northern Asia. They do best during dry years in Iowa. The early rains of April and May may have delayed nesting. The summer of 1994 was a good year for partridge as counts were up across the state. Harvests in 1994 (22,000) were down from the 1993 hunting season (25,000). However, populations overwintered very well and with adequate reproduction this spring,



Lowell Washburn

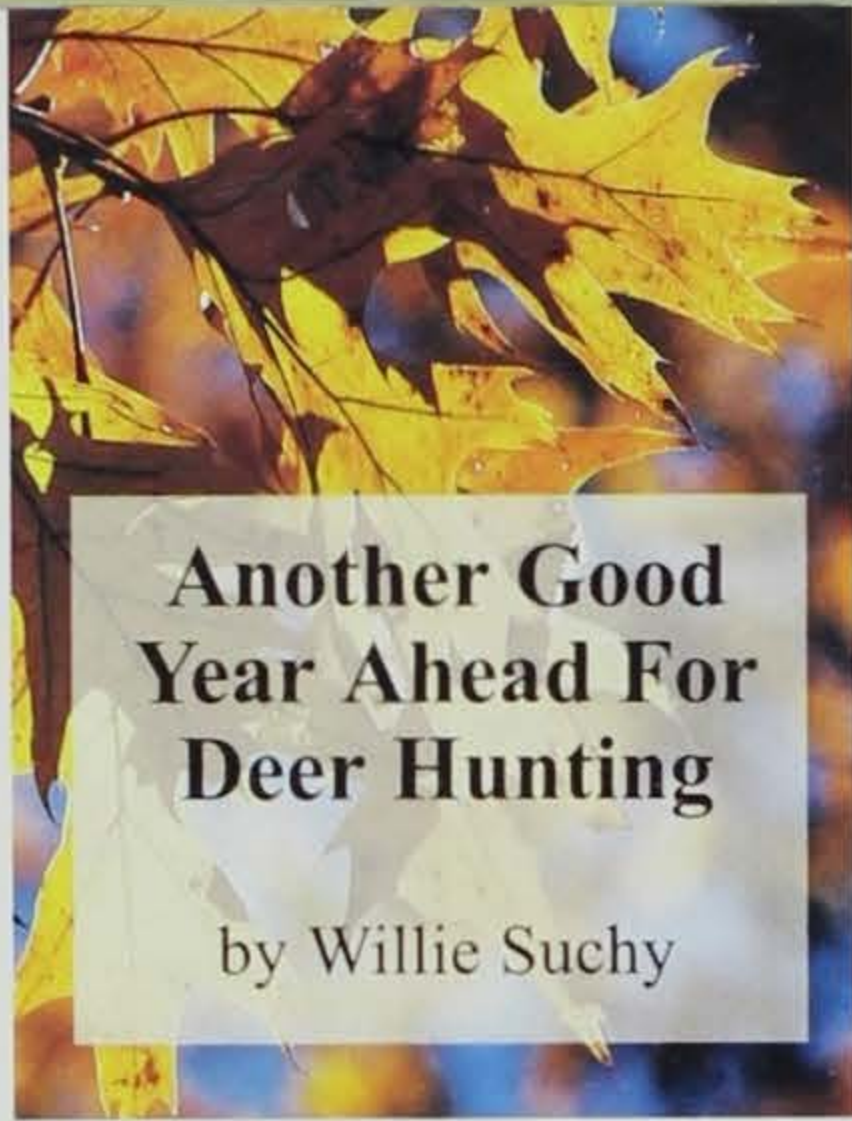
harvests should once again top 25,000 birds. Partridge hunters averaged six trips afield last fall and harvested one bird.

Statewide rabbit populations remain stable and are at historical levels. Rabbits produce several litters per year and do best during years with warm temperatures and normal precipitation. Southern Iowa has the highest rabbit populations, although good hunting can also be found in western and eastern Iowa. Rabbit hunters harvested 289,000 rabbits in 1994, down 14 percent from 1993's harvest figure. Rabbit hunters spent an average of four days afield and harvested one rabbit per day. Hunters will likely harvest 300,000 rabbits during the 1995-96 season. Rabbits are an under-used resource in Iowa. Hunter numbers have declined 64 percent since 1974, while harvests have declined 77 percent.



Ron Johnson





## Another Good Year Ahead For Deer Hunting

by Willie Suchy

After a very successful season in 1994, Iowa's hunters can expect another good year in 1995. Last fall's take was the highest recorded since 1990. The primary reasons for the increase appear to be excellent fall weather and increased numbers of deer, particularly in the northern half of the state. It appears that populations in this area have responded well to the restrictive hunting regulations that have been in place for the last three years. This fall, hunters will begin to see some loosening of these regulations which should further increase the kill and keep the population from getting too large.

The DNR relies on three methods to keep track of Iowa's deer populations. These include an aerial survey conducted in January and February, a spotlight survey conducted in April and a record of the number of deer that are killed on Iowa's highways. All three surveys show deer numbers increased last year and are approaching the record number in the state in the late 1980s. Only about 70 percent of the aerial surveys were completed last winter due to the mild weather. However, in most of the areas flown, there were as many or more deer than last year, and some areas of northern Iowa reported all-time high counts. The spotlight survey was at an all-time high this spring, with good numbers of deer seen in most parts of the state. The number of deer killed on Iowa's highways last year was also at an all-time high. However, when we adjust

the kill for the increased number of miles driven, this number was still lower than the number recorded in the late 1980s.

### Shotgun Seasons

Shotgun hunters should have another good fall although it is hard to believe things can improve from 1994 when 61 percent of the hunters were successful. Besides increased numbers of deer, last year's change to a statewide license with county-by-county regulations appears to have allowed hunters the flexibility they needed to be very successful. There are no real changes in the first shotgun season, with two more counties being added to the antlered-only zone. Changes for the second season include reducing the number of counties in the antlered-only zone from 35 to 29. Additionally, hunters in these 29 counties will be able to take a doe on the last two days of the season.

Last year, about 60 percent of the hunters obtained licenses for the first season. The above change should encourage a few more to try the second season. Another option available to second-season hunters is to obtain a additional permit for the 14-county bonus antlerless zone in southern Iowa. These tags have been effective in

increasing the number of does taken in this area. This has helped to keep deer numbers from getting too large.

### Muzzleloader Seasons

The early muzzleloader season has been an increasingly popular season for Iowa's hunters. This season is designed to allow dedicated hunters the opportunity to use a primitive weapon to take a deer. The biggest factor affecting the success rate during this season is how far the crop harvest has progressed. With the late-planted crops this spring, hunters could be looking at a sea of corn and beans which could make hunting tough. Otherwise, there were few changes for this season and hunters should be about as successful as last year when nearly 40 percent of the hunters tagged a deer.

Hunters during the late muzzleloader season will also see some of the regulations relaxed in response to the increased number of deer. The number of counties in the antlered-only zone will be reduced from 35 to 29 and hunters in these 29 counties will be allowed to take a doe during the last five days of the season. In another change, hunters will not be allowed to obtain an additional antlerless permit for this season.



Roger A. Hill



Last year, the regulations were changed to allow hunters with this tag to use a bow to take their deer. Many hunters still do not know about this change. All-in-all, hunters should be about as successful as last year when more than 40 percent of the hunters bagged a deer.

#### Archery

Bowhunters will have a tough time doing better than they did in 1994 when they set a new record harvest. The new record of 12,040 topped the old record of 11,857 set in 1989. More than 37 percent of the hunters bagged a deer and nearly 65 percent of the deer taken were antlered bucks. With this kind of success, there is little room for improvement and no changes were made in the regulations.

#### Special Youth Season

This will be the fourth year for the special youth deer season. Young hunters from 12 to 15 years of age are eligible for this season, but must pass a hunter safety course and must be accompanied into the field by an unarmed adult. These young hunters also had a good year in 1994 with about half reporting they successfully tagged a deer. There were no regulation changes for this fall and hunters can expect to have another successful year.

#### Specially Managed Hunts

Several special hunting areas have been established in places where hunting activity is normally restricted. These areas include state and county parks in Black Hawk, Guthrie and Johnson counties. These hunts are strictly controlled and in some cases hunters must meet special requirements to be eligible to participate. The purpose of these hunts is to remove does from "problem" areas and only antlerless deer are legal. Special regulations are also in effect for the Iowa Army Ammunition Plant near Burlington.

Deer hunters can indeed look forward to a good season this fall.

Keys to success include preseason scouting and putting in some time practicing with your weapon. Time spent on these activities will pay real dividends when the season actually rolls around.

Hunters play an important role in managing Iowa's deer population. With this privilege comes responsibility. Hunters should always respect every landowner's rights when hunting. Hunter groups need to police themselves, as "bad apples" in their group may leave a lasting impression on the public.



Roger A. Hill



Roger A. Hill



## 1995-96 HUNTING SEASONS AND BAG LIMITS

SPECIES	SEASON (dates inclusive)	SHOOTING HOURS	BAG LIMITS		
			DAILY	POSSESSION	
Pheasant	Oct. 28 - Jan. 10, 1996	8:00 a.m. to 4:30 p.m.	3	12	
Quail	Oct. 28 - Jan. 31, 1996		8	16	
Gray Partridge	Oct. 14 - Jan. 31, 1996		8	16	
Duck and Coot	Sept. 23-27 (North) } Remainder of Season Sept. 23-25 (South) } Set In September		5 (Duck)	10 (Duck)	
		15 (Coot)	30 (Coot)		
Geese (Canada, White-fronted, Brant)	Season Set In September	1/2 Hour Before Sunrise to Sunset	10	20	
Geese (Snow)			(no more than 2 Canadas and 2 white-fronted)	(no more than 4 Canadas and 4 white-fronted)	
Rail (Sora & Virginia)	Sept. 2 - Nov. 10		12	24	
Snipe	Sept. 2 - Nov. 30		8	16	
Turkey (Gun)*	Oct. 16 - Nov. 30	1/2 Hour Before Sunrise to 1/2 Hour After Sunset	One turkey per license	One turkey per license	
Turkey (Bow Only)*	Oct. 1 - Dec. 1 and Dec. 18 - Jan. 10, 1996		One turkey per license	One turkey per license	
Deer (Bow)	Oct. 1 - Dec. 1 and Dec. 18 - Jan. 10, 1996		One deer per license	One deer per license	
Deer (Muzzleloader)	Oct. 14 - Oct. 22* (Early) or Dec. 18 - Jan. 10, 1996 (Late)		One deer per license	One deer per license	
Youth Deer (Age 12-15) +	Sept. 16 - Oct. 1	Sunrise to Sunset	3	6	
Deer (Shotgun)	Dec. 2 - Dec. 6 or Dec. 9 - Dec. 17		5	10	
Ruffed Grouse	Oct. 14 - Jan. 31, 1996		10	20	
Woodcock	Sept. 16 - Nov. 19		2	4	
Rabbit (Cottontail)	Sept. 2 - Feb. 28, 1996	None	6	12	
Rabbit (Jack)	Oct. 28 - Dec. 1		6	12	
Squirrel (Fox & Gray)	Sept. 2 - Jan. 31, 1996		None	None	None
Groundhog	June 15 - Oct. 31				
Crow	Oct. 15 - Nov. 30 and Jan. 14 - March 31, 1996				
Pigeon **	Oct. 1 - March 31, 1996	None Open 8:00 a.m. First Day Only	None	None	
Raccoon and Opossum	Nov. 4 - Jan. 31, 1996				
Fox (Red & Gray)	Nov. 4 - Jan. 31, 1996				
Coyote	Continuous Open Season				

\*Residents only.

\*\*However, within 100 yards of buildings and bridges pigeons may be taken year round.

+ See regulations for all requirements.



### Waterfowl Information

**Ducks:** The daily bag limit is five (5) ducks and may include no more than four (4) mallards (no more than one (1) of which may be a female), one (1) black duck, two (2) wood ducks, one (1) redhead, one (1) pintail and one (1) canvasback.

The possession limit for ducks shall not include more than eight (8) mallards (no more than two (2) of which may be female), two (2) black ducks, four (4) wood ducks, two (2) redheads, two (2) pintails and two (2) canvasbacks.

**Mergansers:** Daily bag limit is five (5) (no more than one (1) of which may be a hooded); possession limit is ten (10) (no more than two (2) of which may be hooded).

### 1995-96 TRAPPING SEASONS

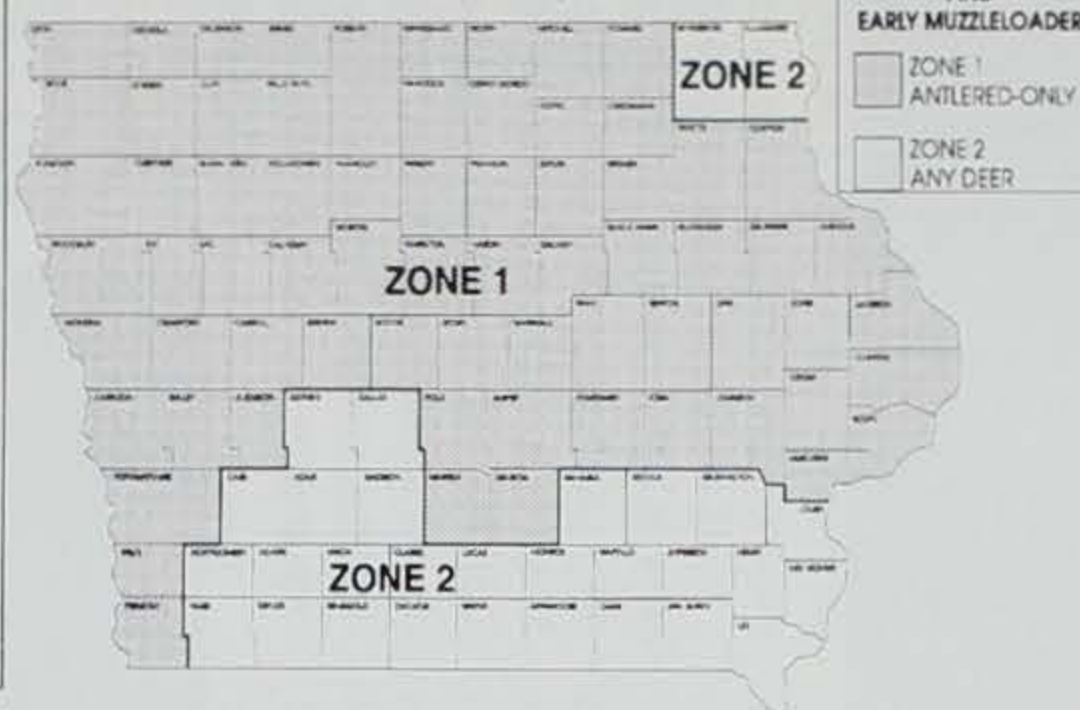
SPECIES	OPENING	CLOSING
Mink, Muskrat,* Raccoon, Weasel, Striped Skunk, Badger, Opossum, Fox (red & gray), Coyote	Nov. 4  **	Jan. 31, 1996  **
Beaver	Nov. 4	April 15, 1996
Civet Cat (spotted skunk), Bobcat and Otter	Continuous Closed Season	
Groundhog	June 15	Oct. 31

\*Selected areas may be established in February, for muskrat trapping only.

\*\*All furbearer seasons open at 8 a.m. on the opening date. There are no daily bag or possession limits.

**Waterfowl seasons and bag limits will be published on a separate flyer available at DNR and county recorder offices. Steel shot is required statewide for waterfowl hunting. See the regulation brochure for details. Check regulations for areas closed to waterfowl hunting.**

### Early Muzzleloader and Regular Gun Season 1 (Deer)



### Season 1 (Deer) Zone 1 (All Licenses Antlered Only)

Audubon, Benton, Black Hawk, Boone, Bremer, Buchanan, Buena Vista, Butler, Calhoun, Carroll, Cedar, Cerro Gordo, Cherokee, Chickasaw, Clay, Clayton, Clinton, Crawford, Delaware, Dickinson, Dubuque, Emmet, Fayette, Floyd, Franklin, Fremont, Greene, Grundy, Hamilton, Hancock, Hardin, Harrison, Howard, Humboldt, Ida, Iowa, Jackson, Jasper, Johnson, Jones, Kossuth, Linn, Lyon, Marion, Marshall, Mills, Mitchell, Monona, Muscatine, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Polk, Pottawatomie, Poweshiek, Sac, Scott, Shelby, Sioux, Story, Tama, Warren, Webster, Winnebago, Woodbury, Worth, Wright

### Season 1 Zone 2 (All Licenses Any Sex)

All counties not in Zone 1.

### Late Muzzleloader and Regular Gun Season 2 (Deer)



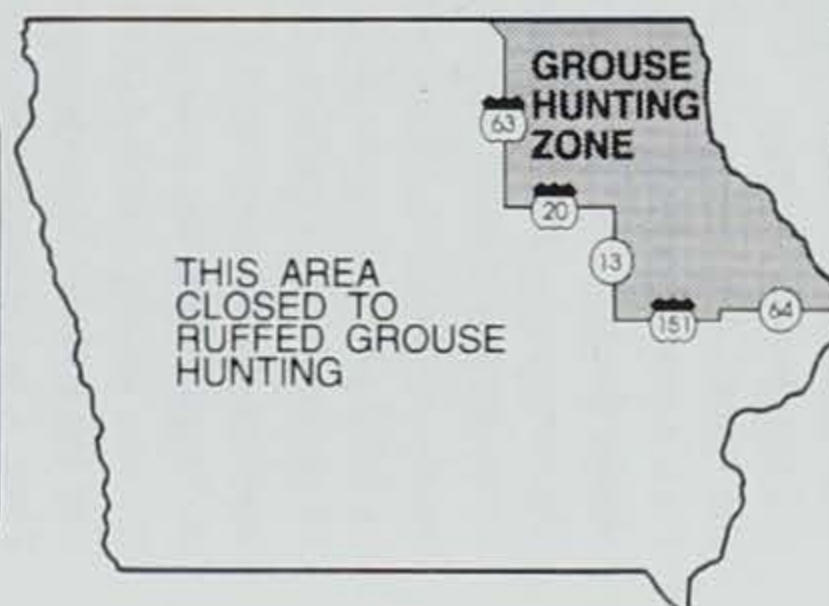
**Season 2 Zone 1 (All Licenses Antlered Only)**  
Black Hawk, Bremer, Buchanan, Buena Vista, Butler, Calhoun, Cerro Gordo, Cherokee, Clay, Dickinson, Emmet, Franklin, Grundy, Hamilton, Hancock, Hardin, Humboldt, Ida, Kossuth, Marshall, O'Brien, Osceola, Palo Alto, Pocahontas, Sac, Story, Tama, Webster, Wright

### Season 2 Zone 2 (All Licenses Any Sex)

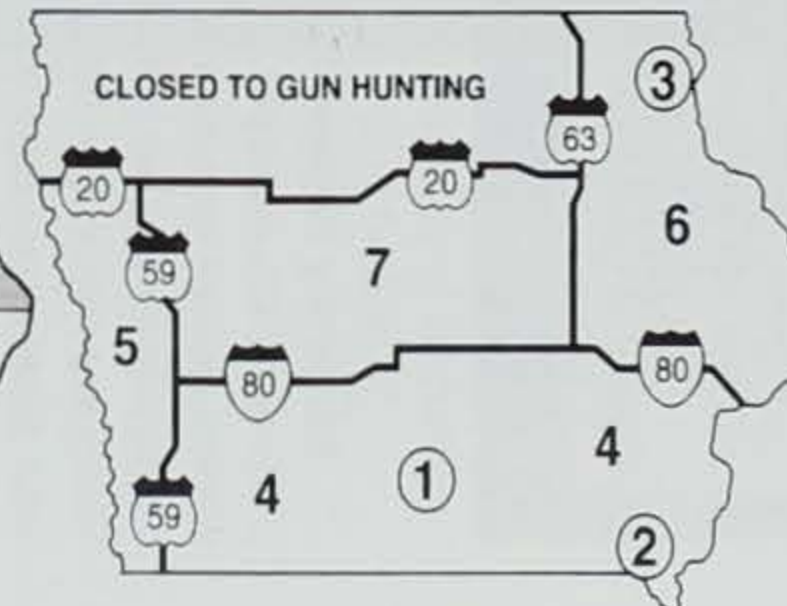
All counties not in Zone 1 (includes the Special Antlerless Zone.)

**Season 2 Special Antlerless Zone**  
Adams, Appanoose, Clarke, Davis, Decatur, Jefferson, Lucas, Monroe, Ringgold, Taylor, Union, Van Buren, Wapello, Wayne

### Ruffed Grouse Zone



### Fall Turkey Zones

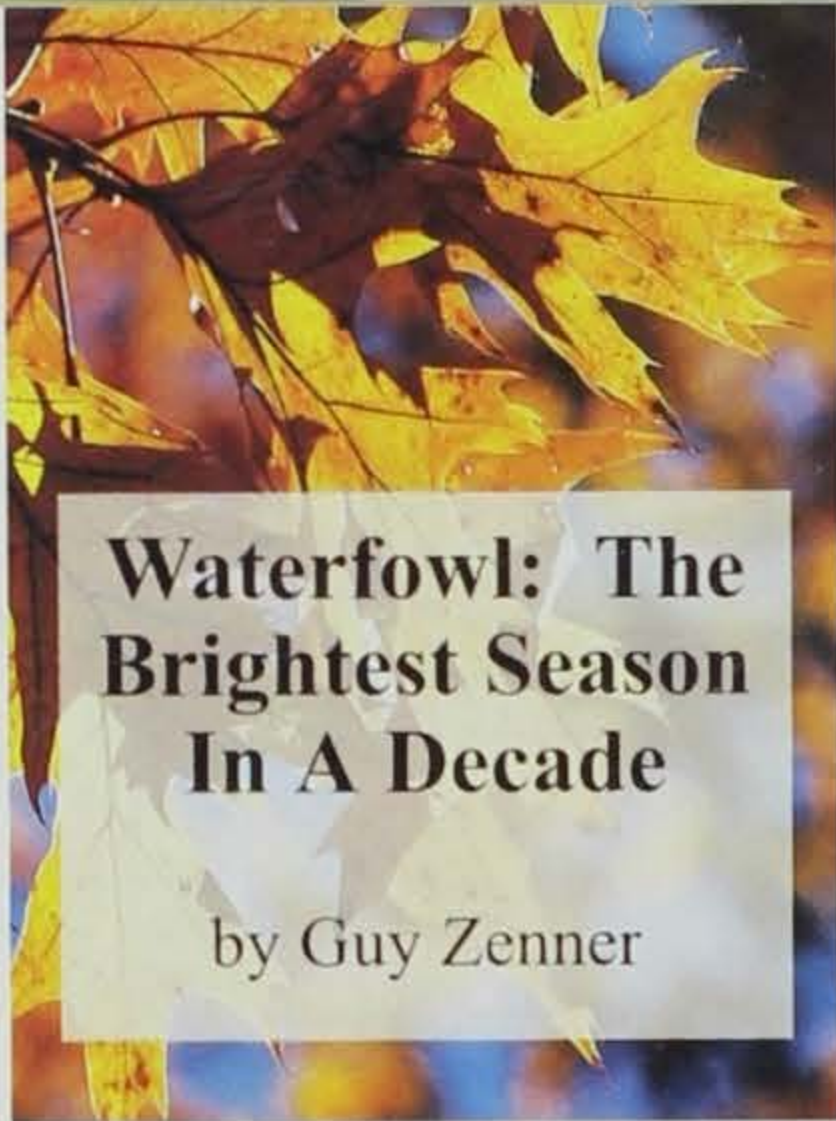


### Fall Turkey Zones

**Zone 1** is the Stephens State Forest west of U. S. 65 in Lucas and Clarke counties  
**Zone 2** is the Shimek State Forest in Lee and Van Buren counties  
**Zone 3** Yellow River Forest in Allamakee County

Bow-only fall turkey licenses are valid statewide. Fall turkey season is closed to nonresidents in 1995.





## Waterfowl: The Brightest Season In A Decade

by Guy Zenner

As Jimmy Robinson, the famous outdoor writer, once put it, "patch your waders and oil your shotgun, this may be the season you've been waiting for." Water has returned to the prairies and duck populations have risen to the levels of "the good old days." How good is the news? Well, consider these facts. Prairie pond numbers were 38 percent above the 1974-94 average and the highest since 1979. This spring's duck breeding population was estimated at nearly 36 million, 10 percent higher than in 1994. Breeding mallards increased 18 percent to 8.3 million, the highest number observed since 1972 and surpassing the goal of 8.1 million for the North American Waterfowl Management Plan. Canvasbacks, redheads and gadwalls all reached historical high levels this spring. Shovelers and green-winged teal are both at the second-highest levels recorded since 1955 while blue-winged teal numbers are the third highest. Seven of the 10 species surveyed are now above the goals set in the North American Waterfowl Management Plan. Only pintails and scaup remain well below their long-term averages.

Some waterfowlers are asking "how this could have happened so fast?" The answer is that it didn't. It actually started back in 1993 when the Dakotas and eastern Montana received some of

the same drenching rains that flooded Iowa. The rains helped boost production well above expected levels and set the stage for improved pond and waterfowl numbers in 1994 and 1995. The precipitation that fell in 1994 and 1995 not only helped sustain the revived wetland habitat in the north-central U.S., but also improved wetland habitat across most of prairie Canada. Once again, it has been shown that when the habitat improved, so did the affected wildlife population -- in this case, ducks.

According to the *Outdoor News Bulletin* of the Wildlife Management Institute, the director of the U.S. Fish and Wildlife Service (USFWS), Mollie Beattie, gave much of the credit for the recovery to the millions of acres of waterfowl habitat that were restored and conserved in the past decade. She gave special recognition to sportsmen and women for supporting wetland restoration efforts. "Many conservationists had a hand in bringing about this success, but I especially congratulate the nation's hunters for their vital role," she said. "They were the vanguard who opened the way for this recovery, who continued to buy licenses and duck stamps even when seasons were shortened and bag limits lowered, and who contributed their time and money to protect and



Lowell Washburn

restore waterfowl habitat."

So what can waterfowl hunters in Iowa expect this fall? Well, very possibly the largest fall flight they have seen in decades. Undoubtedly, there will be more ducks migrating over Iowa this fall, but whether or not they stop

will depend upon local wetland habitat conditions and the weather pattern. Wetland habitat conditions should generally be good in most of Iowa, although water levels in the central Iowa reservoirs have been higher than desirable this summer and their habitat may not be as good as last year. The weather will ultimately determine how much of the fall flight we get to see. Last year's predicted fall flight did not materialize in Iowa because of the unusually mild fall weather. Hopefully, we will see more normal duck hunting weather this fall.

Opening weekends, especially in the north zone, should be good regardless of what the weather is, as local duck production was once again very good in north central and north-western Iowa. Wood duck production has been good across the entire state, and Iowa's giant Canada goose population has increased another 18 percent over 1994.

In contrast to recent years, there should also be ample time to pursue ducks and geese this fall as the Mississippi Flyway Council and the USFWS will be considering more liberal hunting regulations for the coming season. This past winter, the two groups agreed that the regulations

setting process had become too political and that limiting the number of regulation options for consideration would improve the procedure and allow us to learn more about the effects of hunting on duck populations. The regulation options agreed

upon for 1995 were a 30-day duck season with a three-duck limit, a 40-day season with a four-duck limit, and a 50-day season with a five-duck limit. Each bag limit would include one less mallard than the total number of ducks, with only one hen, and restrictions on





Roger A. Hill

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Some waterfowl hunters, and even some biologists, might be uncomfortable with moving to a 50-day season after what has been a long stretch of very conservative hunting regulations. We can not precisely predict how much the duck harvest will increase given a 50-day season or what effect an increased harvest might have on next year's breeding population. Weather will have a large impact on the harvest and will also determine how much wetland habitat will be available for ducks to return to next spring. The only thing we can be certain of is that there will be more dry spells, and more wet spells, on the prairies in the future and duck populations will continue to fluctuate with the habitat base.

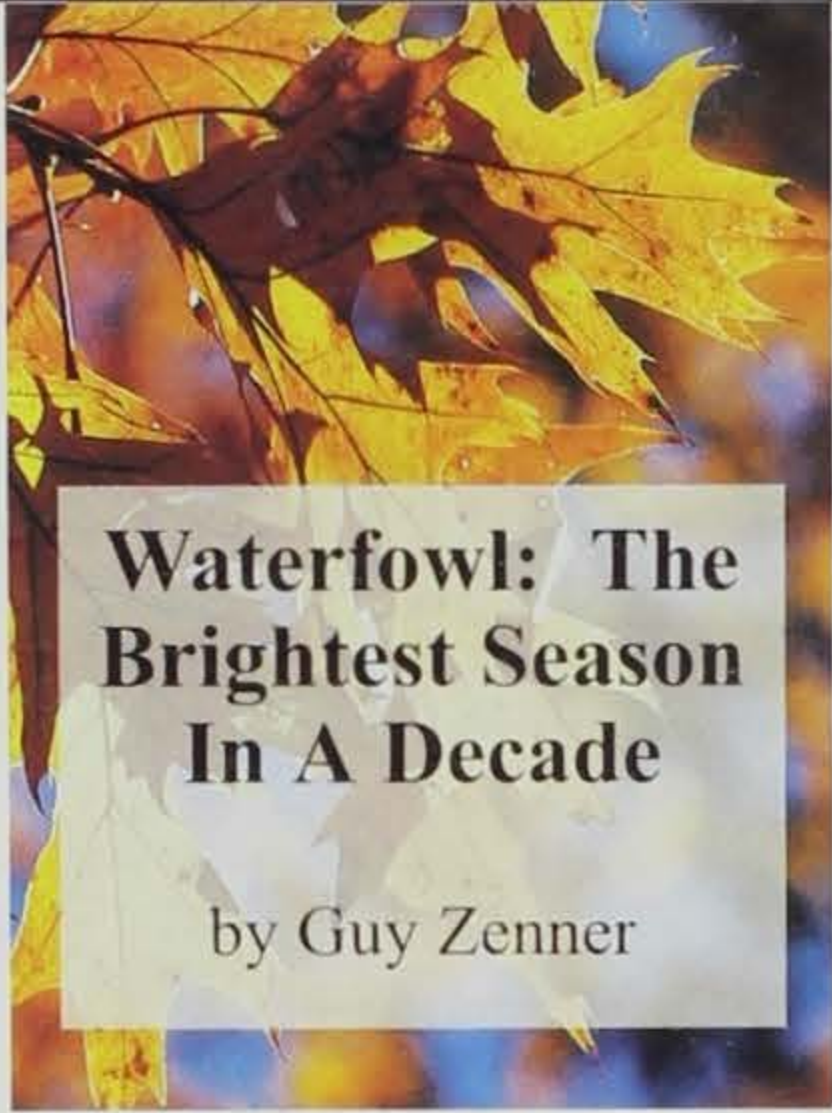
We have learned a lot about duck populations, hunting seasons and harvests over the past 40 years, but there

are still a lot of uncertainties and unknowns in waterfowl management. That is one of the reasons the flyway councils and the USFWS are moving toward a new way of regulating waterfowl hunting called adaptive harvest management. Adaptive harvest management is an outgrowth of what has been learned in the past about duck populations and harvests. It is a data-driven, goal-based process for improving regulation of waterfowl harvests. In the past, the waterfowl regulations process has been fraught with controversy and many decisions were based on gut feelings, not hard data. One of the reasons for the controversy was that biologists could not agree on harvest management objectives. Obviously, one of the primary objectives was to sustain waterfowl populations for future generations. But beyond that, there were those who wanted to see regulations stabilized and/or simplified, those who wanted equal harvest opportunity as defined in a manner that was best suited for their constituents, and several other philosophies that influenced regulation choices. This led to a proliferation of different regulation packages in the past that has hindered assessing the effects of regulations on harvests and subsequently, duck

resulting from their territorial behavior causes production to decline.

These unknowns have made it very difficult to determine the impact of waterfowl hunting regulations on duck populations. We have arrived at a point in time in waterfowl management where we need to end the debate and acquire some answers to these vexing questions. This is where adaptive harvest management comes in. Adaptive harvest management improves upon the current regulations process because it uses clearly defined harvest-population management objectives, a limited set of regulatory options (such as the three regulation packages being considered in 1995), and new data-assessment procedures. To the average waterfowl hunter, it means that he or she can expect: (1) maximum hunting opportunity consistent with long-term waterfowl conservation, (2) less squabbling in the regulations-setting process, (3) more objective, data-based decisions, and (4) more efficient use of the data collected from survey programs. In a nutshell, the process will allow biologists to learn more about the effects of hunting regulations on waterfowl harvests and breeding populations and thereby enable them to make more informed waterfowl management decisions in the future.





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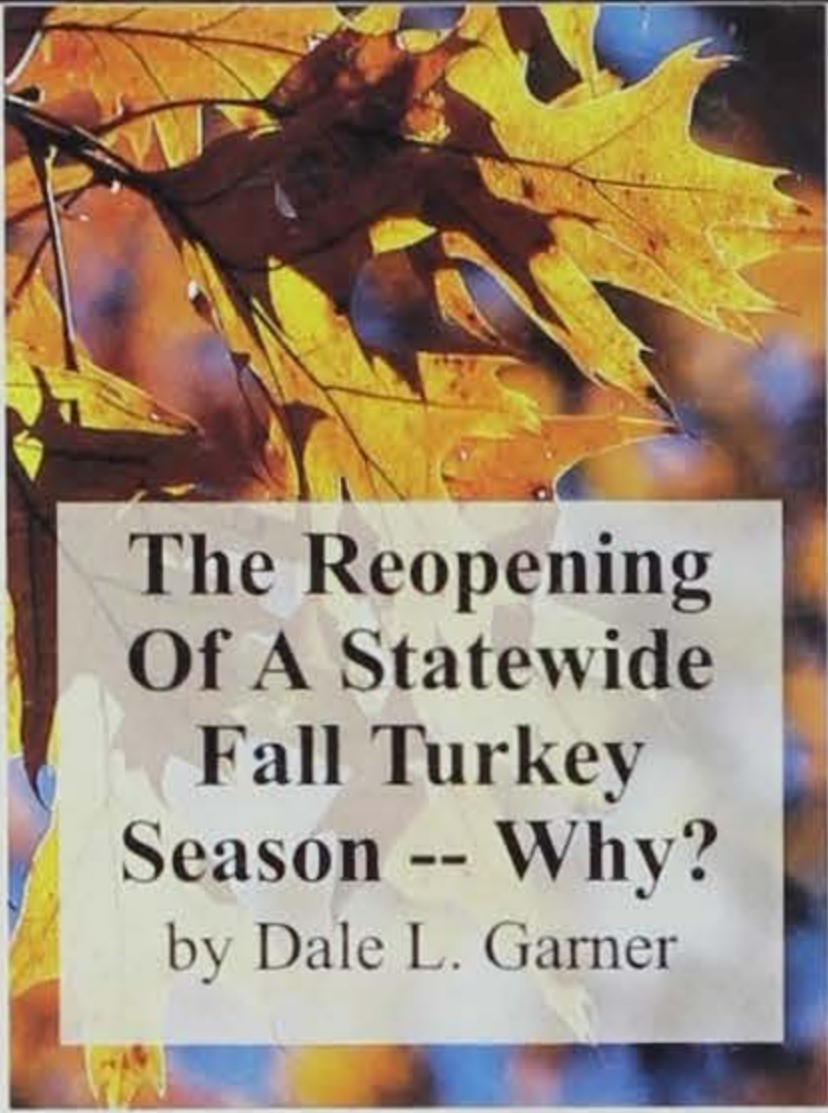
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## The Reopening Of A Statewide Fall Turkey Season -- Why?

by Dale L. Garner

Turkey hunting in Iowa is a popular recreational activity. Although the vast majority of Iowa's turkey hunters prefer the spring season, numerous individuals enjoy hunting turkeys during the fall as well. In fact, in many states, it is more traditional to hunt turkeys in the fall than in the spring. Although the major emphasis with regards to turkey management in Iowa centers on maintaining a "quality" spring season, the opportunity to have a fall season is also of interest in order to provide maximum recreational use of the turkey resource.

Fall turkey hunting in Iowa was initiated in 1981 on an experimental basis. In 1990, following several years of poor brood production, the fall turkey season in Iowa was closed with the exception of the northeast corner of the state, where turkey production remained moderately high. The fall turkey season remained closed in the majority of the state through 1994. However, because of increased brood production over the past couple of years, the fall turkey

season was reinstated statewide in this year.

Often, spring turkey hunters are concerned that fall hunting takes away spring hunting opportunities and causes a general turkey population decline. However, previous research in Iowa suggests that as much as 20 percent of the fall turkey population can be removed without seriously affecting Iowa's spring turkey population. The removal of this "harvestable surplus" has little effect on the overall turkey population because these are individuals that would have died over the winter anyway. However, if fall turkey harvest exceeds this 20 percent level, hunting mortality becomes a problem and decline may ensue.

Hunter success rates during the fall turkey season in Iowa generally exceed 40 percent. Because of the high success rate, and to safeguard against population decline, conservative quotas are used during the fall. Limited quotas not only

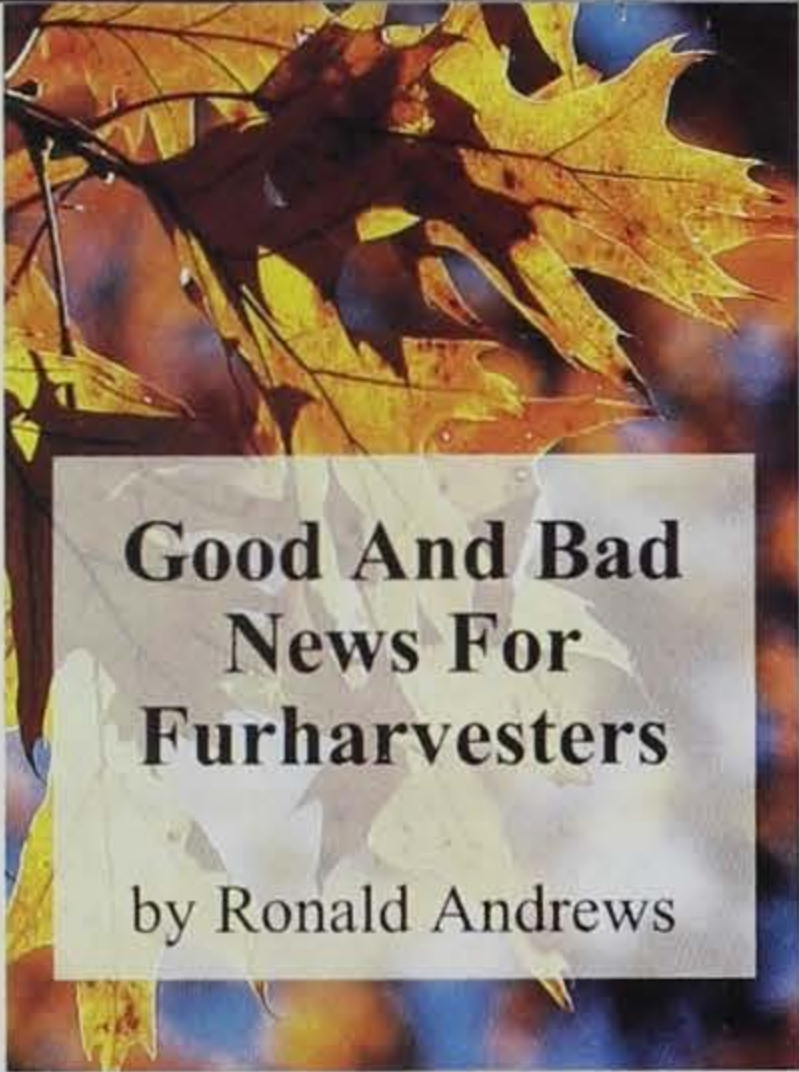
help prevent overharvest, they also help control hunter densities. Hunter density is further controlled through zoning. Controlling hunter density is important on both public and private lands. Generally, hunter densities are far greater on public land than on private land; therefore, quotas are much lower on popular state forest areas.

In the immediate future, Iowa's fall turkey season will continue, provided the turkey resource remains unharmed. If Iowa's turkey population continues to expand, recreational hunting opportunities will increase through increased quotas. As far as the fall 1995 turkey season is concerned, it should be a good one. Preliminary brood observations indicate a fair hatch and thus we anticipate a good season. Northeastern Iowa is a good bet to bag your fall turkey, but all areas should do well with the limited quotas. Remember -- safety first, and good hunting!



Roger A. Hill





## Good And Bad News For Furharvesters

by Ronald Andrews

The outlook for furbearer harvest during the 1995-96 fur season brings both good and bad news.

First of all the good news -- raccoons appear to be at or near record populations. Raccoon hunters and trappers should be able to capitalize on abundant quarry with their hounds and traps when the November 4 opening rolls around.

Fox numbers appear to be gaining slowly from the mange outbreak of three years ago. Numbers declined substantially but it appears the worst of the mange outbreak is past and foxes are making a slow comeback.

Coyote continue to be very abundant and have virtually filled about every niche of the state. Fur values will not be much different than last year and hunters will want plenty of snow cover to increase their take, while trappers will want an open, relatively mild, fall and winter.

Muskrat trappers will not find the abundant numbers they found during the past two seasons. On most marshes muskrat numbers have peaked and crashed over the past three years. Trappers, however, should take advantage of less competition on the marshes and go out after muskrats, as most marshes will still have many present.

Mink trappers are kind of a specialty trapper and, although they may have to work harder, their efforts will produce successful results.

Beaver continue to be extremely abundant, but beaver trapping is very

labor-intensive and the interest in trapping them is still very low. The DNR receives numerous complaints of beaver plugging tiles, damming up streams and flooding crops. For more than a decade we have had a 5-1/2-month season on beaver with little, if any, impact on the population.

Now the bad news -- European countries have formed a coalition called the European Union (EU). They have developed a regulation that would prohibit the import of U.S. fur into the European market effective January 1, 1996 unless the United States bans the leg-hold trap.

More than 70 percent of U.S. fur is sold to European countries so if the regulation is implemented, the U.S. fur trade will collapse, at least in the short term.

The history associated with this regulation has been more than a decade in the making. Initially it started as a development of international trap standards for all traps.

Professionals and trade experts were periodically meeting to develop and test such standards. The animal rights groups then began to infiltrate the ranks of the international trap standard committee to the point now that even the most humane leg-hold trap would not meet the international trap standards.

Actually, the regulation was due to go into effect January 1, 1995 but a one-year extension was allowed. During this last year of grace, the committee has focused their attention on this as a free trade issue and are attempting to find a solution both sides

could live with that is legal and follows the General Agreement of Trade and Tariff (GATT) agreement. To date, no agreement has been reached. In fact, currently the EU commission indicates they will do nothing to further delay the implementation of the regulation.

No one really knows where this will all end. We do know that without commercial trapping we are likely to experience substantial increases in animal damages to crops and property nationwide, and the economic impacts will be millions of dollars. The upcoming fur market could actually



Roger A. Hill

react positively to this threatened ban but unless we get an additional extension, fur harvesters should sell by early December. There is speculation that customs will not monitor furs closely enough to enforce such a regulation. Also, there is some thought that Asian countries might tool up to capitalize on world fur trade. All in all, the chaos will continue, but I remain optimistic that reason will win out on the world trade issue. In the long term, we'd like to believe the leg-hold traps will remain the most effective and viable tool in the world of furbearer management.



# IN TROUBLE

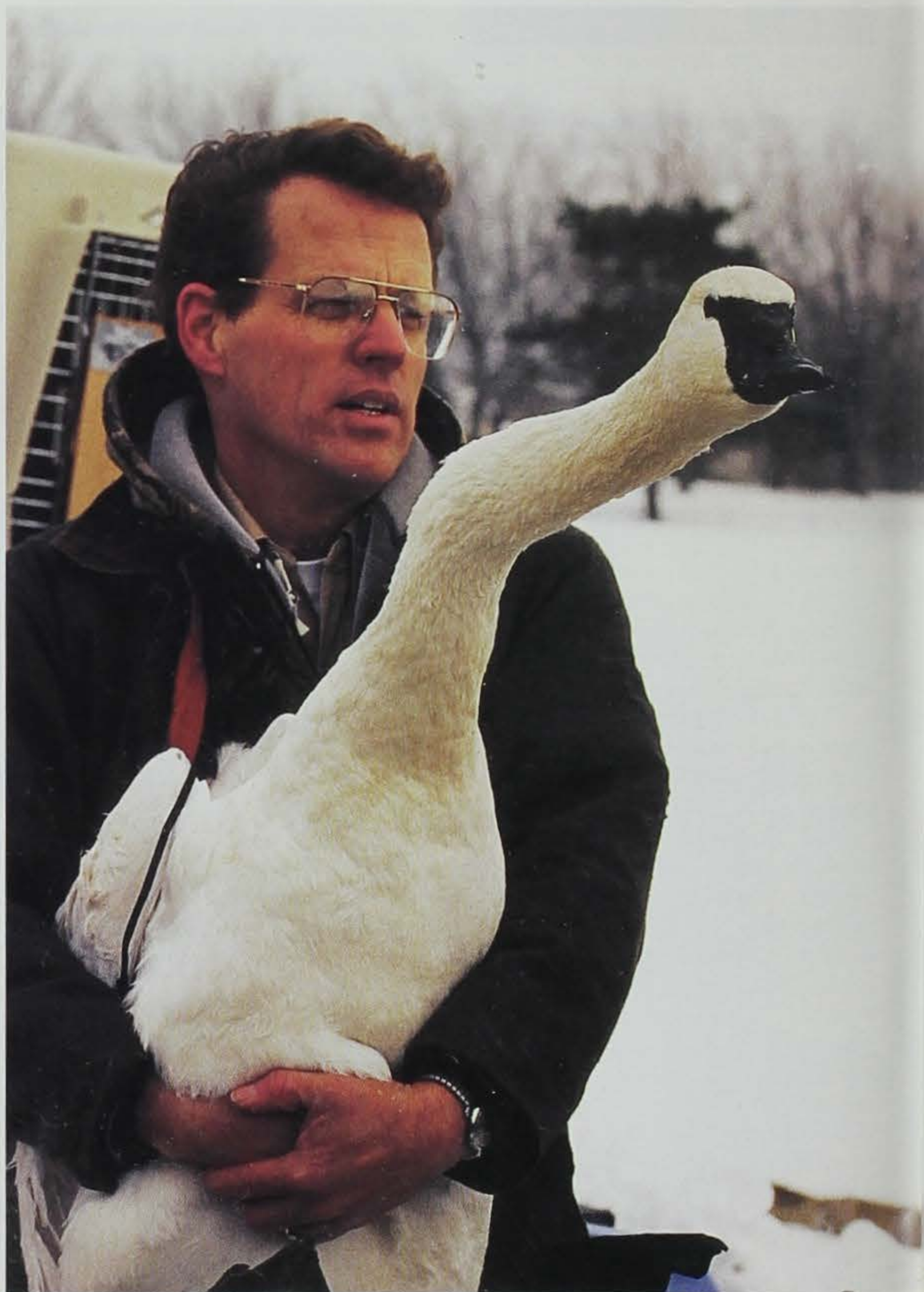
by Terry W. Little

Since the Iowa State Conservation Commission (now Iowa Department of Natural Resources) was created in 1935, its fish and wildlife programs have been funded primarily by sportsmen and sportswomen. License fees paid by hunters and anglers, and excise taxes of 10 to 11 percent on hunting and fishing equipment have been placed in the DNR's Fish and Wildlife Trust Fund and, by law, used only for fish and wildlife conservation and law enforcement. These funds are used to acquire fish and wildlife lands; manage 275,000 acres of wildlife management areas (public hunting areas); field and support 93 conservation officers; conduct a hunter ethics and education program and fishing clinics for new hunters and anglers; manage fish resources in our lakes and rivers; operate six fish hatcheries to stock public and private waters; conduct vitally important research and survey projects to better manage fish and wildlife resources and the many other duties carried out by Fish and Wildlife Division personnel. Except for a few short-lived programs to acquire land or make major capital improvements (for example, lake developments), very little general fund tax money has been appropriated to the Fish and Wildlife Division by the Iowa General Assembly.

How important are the DNR's fish and wildlife programs? A recent survey

▶ **Without adequate funding, wildlife diversity programs such as the recent swan restoration effort will not be possible.**

Ken Formanek





revealed that 853,000 Iowans (nearly one-third of our citizens) and 62,000 nonresidents fished or hunted in Iowa in 1991. Hunters and anglers contribute at least \$20 million to fish and wildlife conservation annually -- \$14 million was spent purchasing one million hunting and fishing licenses and stamps in 1993, and excise taxes on equipment added another \$5.3 million. They are also an important force in our economy, spending \$810 million in 1991 for hunting and fishing equipment, food, lodging, gasoline and other items. Much of this spending represents an economic windfall to small, struggling, rural communities, where most fishing and hunting occurs.

Because the funding comes from hunters and anglers, nearly all wildlife programs have been designed to primarily benefit hunted (game) species. But species not hunted (nongame) have not been ignored. Conservation officers enforce laws that protect all wildlife, not just game animals. The DNR's wildlife management areas (WMA) provide substantial benefits to nongame animals from projects designed to create or manage habitats for hunted species. (Yellow-headed blackbirds nesting on a state-owned marsh don't care that it was purchased with hunters' dollars for duck and goose management. Bobolinks and field sparrows nesting in a brome-alfalfa field on a WMA aren't concerned that the wildlife manager's first goal was to produce lots of ring-necked pheasants.) Without question, Iowa's 400+ nongame species have benefited collectively far more from "game" habitat programs than the few species that are hunted or trapped. But for the first 60 years of the DNR's existence, few purely nongame projects were undertaken. Nonhunters had no means to contribute to wildlife conservation other than by purchasing a hunting or fishing license.

That began to change in 1979. That year the first in an annual series of *nongame support certificates* (outstanding photographs of resident nongame animals) was sold to generate funding for nongame programs. But the big breakthrough came in 1981 when the "Chickadee Checkoff" on state income

tax forms was created by the General Assembly. The checkoff allowed Iowans to contribute all or part of their state income tax refund to the DNR, or make a direct cash contribution. (In 1984, the checkoff was liberalized to allow donations by persons owing additional tax to the state). Funds from the checkoff, support certificates and donations are deposited in a special nongame account dedicated wholly to nongame wildlife conservation. For the first time, nonhunters could contribute directly to the management of the wildlife they enjoyed watching and studying.

In anticipation of increased revenue, the DNR created the Nongame Program (now Wildlife Diversity Program) in 1982 to promote nongame

management and enhance wildlife diversity in the state. Expectations were rightfully high. After all, public opinion polls showed that more than half of Iowans felt nongame species were important in their lives and "the State" should spend more money on their management.

#### Promoting Wildlife Diversity

A variety of strategies have been used to promote funding for the Wildlife Diversity Program. Presentations have

**Table 1. Total revenues to the Wildlife Diversity Program.**

Fiscal Year	All Donations	Nongame Certificates	Total Receipts
1983	\$213,188	\$ 9,241*	\$222,429
1984	221,092	9,241*	230,333
1985	170,585	9,241*	179,826
1986	148,608	9,241*	157,849
1987	218,168	9,241*	227,409
1988	212,915	3,665	216,580
1989	216,845	11,992	228,837
1990	179,737	10,790	190,527
1991	180,444	8,290	188,734
1992	175,907	17,428	193,335
1993	187,881	8,214	196,095
1994	171,556	4,310	175,866
1995 (est.)	161,847	9,241	171,088
<b>TOTAL</b>	<b>\$2,458,773</b>	<b>\$120,135</b>	<b>\$2,578,908</b>

\*average figure

**Table 2. Contributions to the Wildlife Diversity Program through the Chickadee Checkoff on state income tax returns.**

Tax Year	Number Contributing	Percent of Returns	Average Contribution	Total Contributions
1982	43,150	6.6	\$5.52	\$238,477
1983	39,225	6.1	5.54	217,175
1984	38,668	2.5	4.78	184,793
1985	37,006	2.3	4.63	171,422
1986	34,751	2.2	5.09	176,800
1987	38,641	2.4	5.58	215,728
1988	36,099	2.2	5.60	202,255
1989	32,862	2.0	5.79	190,409
1990	30,568	1.8	5.86	178,984
1991	28,733	1.7	6.03	173,177
1992	29,202	1.7	6.63	193,541
<b>TOTAL OR AVERAGE</b>	<b>388,905</b>	<b>2.09</b>	<b>\$5.55</b>	<b>\$2,142,761</b>



▼►  
**The Chickadee Checkoff enabled Iowa's Wildlife Diversity Program to restore river otters to the state and sponsor such public events as hawk watches and bald eagle days (opposite page).**



Ron Johnson

sion stations have promoted the check-off. Free or reduced-cost radio and television time has been donated by the media or paid for by conservation groups. The *Wildlife Diversity Newsletter*, circulated to 6,000+ avid program supporters, prominently features funding efforts and problems. Several highly visible and photogenic wildlife restoration programs have been designed to try and create additional donations to the program (for example, river otters and peregrine falcons). And hundreds of wildlife presentations, given by wildlife biologists, during the past decade have included a plea for donations.

#### Funding For Wildlife Diversity Programs

Tax checkoff revenues have been the most important source of program funds (see Table 1). Direct donations seldom



Ron Johnson

been made at tax preparers' schools to familiarize them with ways their clients might contribute to the checkoff. Colorful wildlife posters have been given to tax preparers to distribute to contributors (taxpayers completing their own returns can order them directly from the DNR for a modest handling fee and postage). Hundreds of public service announcements, news releases, media events and articles written by DNR staff for the *Conservationist* and for local newspapers, radio and televi-

account for more than \$10,000 annually and the sale of nongame support certificates is less than \$20,000.

Through 1993 (the last year for which tax collections are complete), nearly \$2.3 million has been contributed through the Chickadee Checkoff (see Table 2). Contributions have fluctuated around \$200,000 and averaged \$194,796 for the 11 years. But in spite of a dedicated and sustained effort to publicize the need for donations, contributions have, with minor fluctua-

tions, been on a steady decline. The preliminary estimate for 1994 is for a total contribution of \$149,000 -- the lowest ever.

Declining contributions have coincided with a decline in the number of contributors and a small increase in the average contribution. Very few taxpayers have ever contributed to the checkoff (less than three percent since all tax payers became eligible in 1984), and the number has declined steadily. The average contribution is increasing,

Lowell Washburn



probably because less-avid contributors (those most likely to give small contributions) are no longer giving.

During the first several years of the program a substantial reserve was accumulated in the nongame account as new programs were being developed by a single nongame wildlife biologist (see Figure 1). Wildlife diversity budgets have gradually increased over the 11 years as more personnel have been added and more projects funded to meet a growing public demand for noontime



wildlife programs. Capital improvement projects, such as land acquisition and trail development, were undertaken in the early years of the program when operating budgets were small. Not one has been developed in the past seven years as funding has lagged.

As a result of escalating costs and reduced income, this reserve has steadily dwindled until just \$40,039 remained on June 30, 1994 (the end of the DNR's fiscal year). If projected income and expenditures for 1995 are accurate, the reserve will be depleted and leave a shortfall of more than \$20,000. Without more funding or major program cuts, the shortfall will only grow worse.

### The Wildlife Diversity Program

In spite of continual funding problems the Wildlife Diversity Program has accomplished a great deal in 11 years. Public events like bluebird

Ron Johnson



Ken Formanek



Ron Johnson

▲ Modeled after the excise taxes hunters and anglers pay on sporting equipment, the Fish and Wildlife Diversity Funding Initiative would impose a one to five percent tax on the outdoor equipment nonhunters or anglers use in their outdoor activities.

workshops, bald eagle appreciation days and hawk watches have been attended by thousands annually to learn more about the need for conservation of our bird life. Restoration of otters to our rivers, peregrine falcons to our urban skies, and trumpeter swans to our marshes, are just some of the many projects that have helped increase wildlife diversity. Less-exciting but vitally important research and survey projects that have provided valuable knowledge about the status and distribu-

tion of Iowa's breeding birds, eagles, hawks, frogs and toads, prairie butterflies and colonial nesting birds like great blue herons will help manage and protect these fragile species. A widely acclaimed series of publications on some of Iowa's less-appreciated residents have improved public awareness and understanding of snakes, frogs, turtles, salamanders and bats, and their roles in maintaining a healthy ecosystem. And a new *Watchable Wildlife Guide*, just off the press, will help direct Iowans and visitors to 77 of the best



places in the state to look for our most viewable wildlife species.

But much remains to be done. Increasing urban and suburban sprawl and pressure from agricultural development continues to threaten wildlife habitat in a state where 90 percent of the land is in agricultural production. Much remains to be learned and implemented if the 400+ nongame species in Iowa are to be protected and kept from reaching threatened or endangered status.

#### The Future?

In the near future, the prospects for the Wildlife Diversity Program seem grim. Without an infusion of funds, activities will have to be scaled down severely. None of the current public events, or research and survey projects can be supported at the current rate of contributions. There is no reason for long-term planning for the Wildlife Diversity Program unless a stable, secure funding source can be found -- one not dependent on annual, voluntary contributions.

The fate of the Wildlife Diversity Program lies squarely in the lap of the wildlife enthusiasts it was designed to support. Hunters and anglers have taken their own fate in their hands, and secured stable and reliable funding sources to perpetuate their activities. The average hunter or angler in Iowa spent \$25.17 in 1993 in license and stamp fees to be sure sound management of game species continues. Contributions to the Wildlife Diversity Program amounted to just 14 cents per person, if they are averaged over the half of Iowa's population that says it is concerned about the future of Iowa's wildlife populations. Clearly that concern has not translated into adequate financial support.

#### The Opportunity

Fortunately, there may be a silver lining to this otherwise cloudy outlook. The lack of funding for nongame fish and wildlife is a problem of national scope, and not just restricted to Iowa. To remedy the inability to address the needs of many species virtually nationwide, the

International Association of Fish and Wildlife Agencies has organized a *Fish and Wildlife Diversity Funding Initiative*, and proposed legislation to create predictable funding for nongame. Modeled after the excise taxes hunters and anglers pay on sporting equipment, the bill would impose a one to five percent tax on the outdoor equipment nonhunters or anglers use in their outdoor activities. Viewed widely as a "user fee," the tax would be applied at the manufacturers level, collected by the Federal government and apportioned back to the states in the same manner that hunters and anglers taxes have been successfully handled. Binoculars, tenting equipment, hiking boots, bird seed and a lengthy list of other equipment would be taxed if the bill passes. The average person purchasing this equipment would only spend an additional \$5 a year in user fees if the legislation is enacted, far less than the \$27 in license fees spent by hunters and anglers. Predictions are for revenues of \$350 million nationally, with Iowa's share amounting to \$4.2 million annually. If the full Federal share is to be obtained, funds would be cost-shared, requiring the DNR to come up with \$1.5 million each year for wildlife diversity funding (about seven times more than the average contribution to the checkoff).

Like all revenue bills in a time of austerity, this one faces an uncertain and difficult future. It will not pass unless all wildlife enthusiasts -- hunters, anglers, bird watchers and anyone who just enjoys seeing wild animals in a natural setting -- actively supports the bill. A sustained effort will also need to be mounted if the full state share is to be raised.

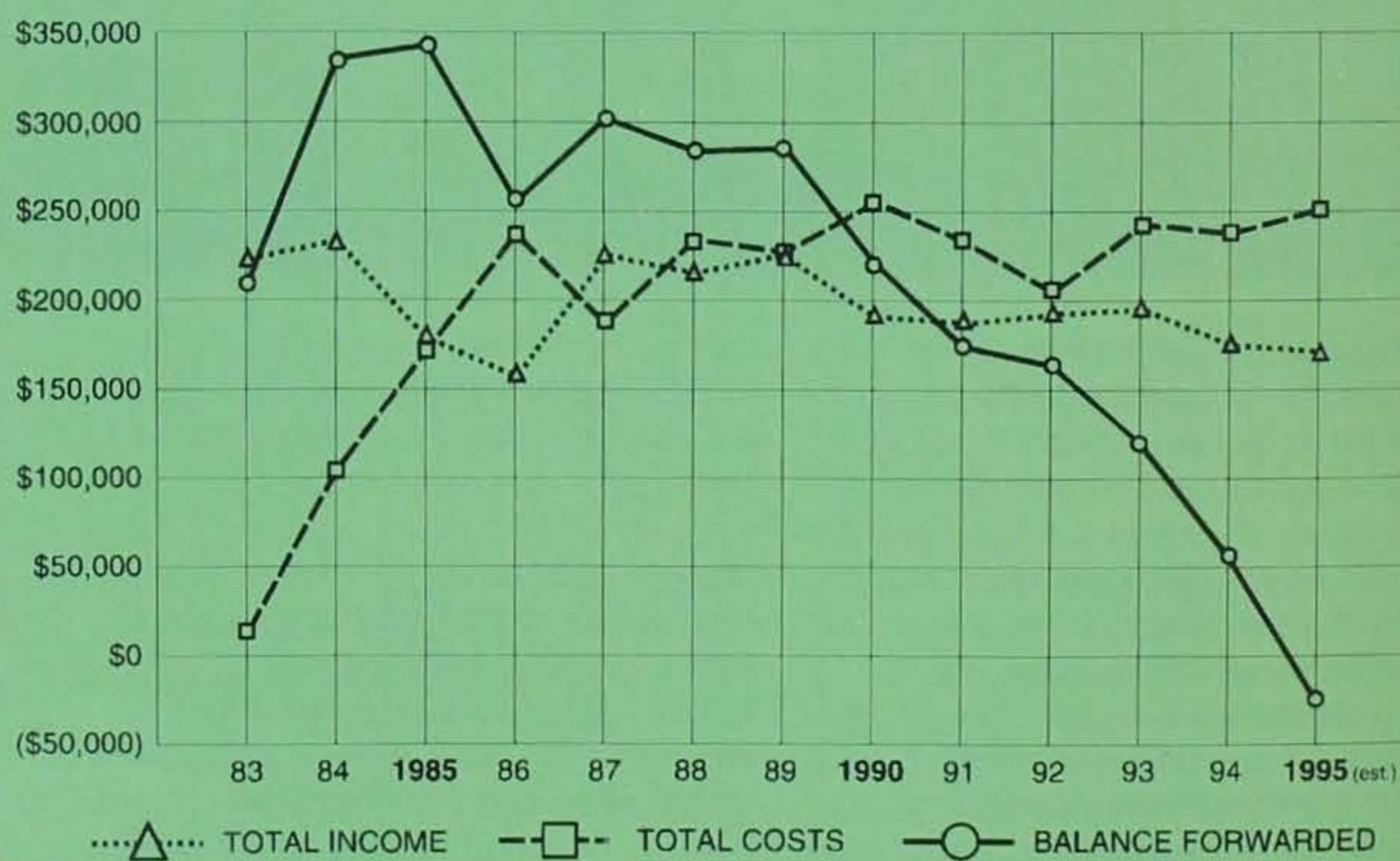
The future is up to the nonhunting public. Are they aware of the problem, or do they simply not care enough to act? How deep is their interest and commitment to our natural environment and the wildlife it supports? With the sustained efforts of nonhunting wildlife enthusiasts, a group that so far has been largely silent and uncommitted, the future can be assured. Without it, little can be accomplished.

To learn more about the national and state wildlife diversity initiatives, and to become an active participant, contact the Wildlife Diversity Program, c/o Sara Berg, Wildlife Research Station, 1235 266th Street, Boone IA 50036 or call 1-515-432-2823. Your help is essential!

*Terry W. Little is the wildlife research supervisor for the department located in Des Moines.*

Figure 1.

### WILDLIFE DIVERSITY FUNDING STATUS





# And Then There Was Light . . .

## Illuminating The Future

*When I was asked to do an article on lighting my thoughts first focused on Thomas Edison, inventor of the first light bulb. Then I wondered why an article on lighting would be in the Iowa Conservationist. What was the connection? Subsequently I saw myself writing something informative for consumers and businesses alike -- beginning the article with a history of the light bulb and eventually working up to energy-saving products and programs that are available now. I delved into pamphlets, leaflets, sales brochures, manuals, booklets and fact sheets on lighting. I read about lumens, filament supports, base and bulb temperatures, rattlers, leakers and the flicker factor. The realization that I knew next to nothing about lighting hit me like a bolt of you-know-what.*

*I've since tried to digest the material and translate alien terms into understandable information for the lighting layperson. Read on to find out about the new directions lighting is taking, the "old" versus the "new" plus other "illuminating" information.*

When you think about it, artificial light is a rather new concept -- Thomas Edison invented the first operational electric light bulb in 1879. In "people years," 116 years may seem like an ancient figure, but technology-wise it's still a young concept. Edison's principle of passing an electric current through a strip of carbonized cotton thread remains intact today, except for the eventual replacement of cotton thread with tungsten wire. We know this technology as the familiar incandescent light bulb. So what is the status of electric light in the 1990s, and what is an article on lighting doing in a natural resources magazine?

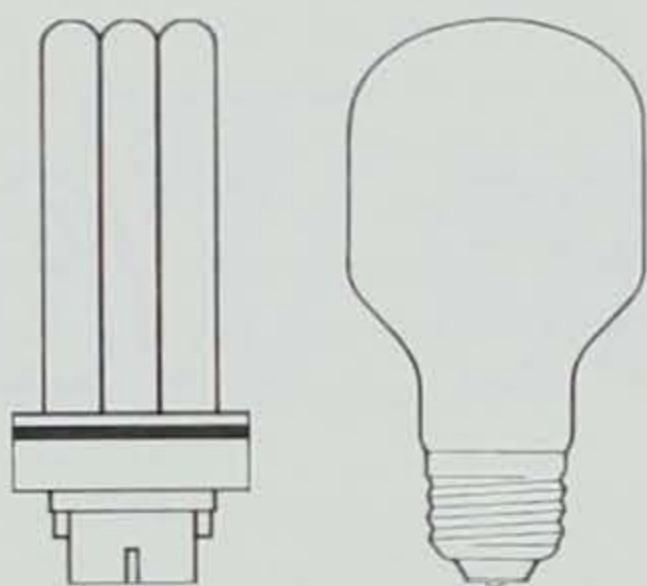
For starters, the use of electrically charged light bulbs has ended up



*Compact fluorescents are small versions of the fluorescent tubes most commonly used in office lighting. They are capable of fitting into a standard light socket -- replacing standard incandescent bulbs at an energy savings ranging from 25 to 75 percent and increasing lamplife 10-fold.*

by Jennifer Campbell





*Incandescent bulbs are the traditional lights used in most household fixtures. They are inefficient when compared to new compact fluorescents, with 90 percent of the electricity they use going to heat, not light.*

contributing significantly to our nation's energy consumption. Their use accounts for 20 to 25 percent of the electricity used annually in the United States. Electrical consumption for lighting can be as high as 50 percent for stores, offices and warehouses.

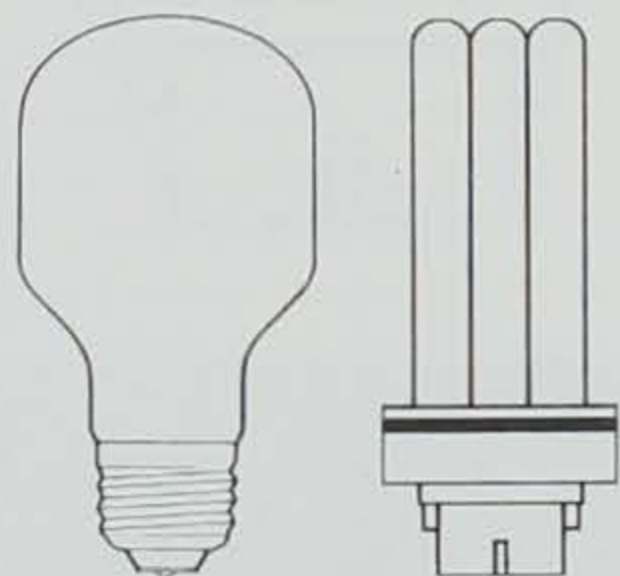
Electricity is generated from the burning of fossil fuels or the running of a nuclear reactor or hydroelectric plant. They all result in various types of pollution, including oil spills, natural gas leaks, toxic waste, acid mine drainage and air pollutants.

Now that you've had some "light" history, it probably makes sense that lighting technology is targeted for change.

## EPACT

One of the factors pushing for change is a new federal law. The National Energy Policy Act (EPACT) is the most comprehensive attempt by Congress to promote energy efficiency, and was passed into law October 24, 1992. According to the U.S. Department of Energy, the law will help reduce the nation's electricity bill by nearly \$250 billion over the next 15 years. One way is by eliminating the manufacture of full-wattage (40W, 75W, 110W) fluorescent lamps in favor of energy-efficient reduced-wattage (34W, 60W, 95W) lamps.

April 30, 1994 became EPACT's first official deadline -- lamp manufacturers subsequently ended production of full-wattage eight-foot slimline and eight-foot high-output lamps (lamps already in inventory could be sold). The next scheduled deadline of October 31, 1995, will see the elimination of several types of directional incandescent lamps



*A lumen is the unit used to measure the level of light output produced by a bulb.*

that do not meet EPACT's efficiency requirements.

EPACT's lighting regulation deadlines extend to the year 2005 . . . so far. Lighting products, technology and standards continue to evolve as a result.

## Green Lights

Another important national effort is Green Lights. Unlike EPACT, the U.S. Environmental Protection Agency's (EPA's) Green Lights program is strictly voluntary. Green Lights, launched in 1991, promotes the widespread reduction of energy usage specifically through lighting technologies. As a result of the program, many major U.S. corporations have evaluated and replaced their lighting systems with energy-efficient fluorescent lamps and ballasts.

By the year 2000, Green Lights is expected to save 226.4 billion kWh (kilowatt hours) -- that's equal to a utility company providing power to more than 25 million houses for a year! It makes sense that going the "green way" has made saving energy and preserving the environment a reality through the use of energy efficient fluorescents.

Not everyone who wants to save energy has to go through a national program -- there are local options that have become increasingly popular.

## Utility-Sponsored Incentive Programs

Local utilities nationwide offer their commercial and industrial customers direct financial incentives to promote energy efficiency within their businesses. The goals of the utility companies are to reduce or postpone the need for new power plants through the reduction of customer demand for electricity.

At this point, homeowners and builders are probably wondering if there are any incentives out there that meet *their* specific needs.

IES Utilities Inc., one of Iowa's



largest utility companies, does offer residential incentive programs for homeowners. Their E-Plus Bright Choice program offers rebates in exchange for the homeowner's purchase of compact fluorescents. For more information call their customer service line at 1-800-822-4348.

So what are some of these new products that so many consumers and businesses have been saving energy dollars with recently?

## Compact Fluorescents and Residential Use

We use incandescent lights every day when we turn on a lamp to read or flip a switch to illuminate a room, yet one incandescent uses four times the electricity and produces four times the pollution compared to an energy-saving compact fluorescent. Only 10 percent of the incandescent's electrical energy emits useful light -- the other 90 percent produces heat. However, the not-so-recent introduction of compact fluorescents has had noticeable impact on the incandescent market. Just what are compact fluorescents?

Compact fluorescents are an energy-efficient alternative to the incandescents we use in our homes. One compact fluorescent can last up to 10,000 hours, compared to the incandescent's average lifespan of 750 to 1500 hours. Compacts don't replace actual lighting fixtures, they just screw in like a regular light bulb. They're made with a miniaturized version of the fluorescent tubes we've seen in offices, for example. These scaled-down fluorescent tubes are bent into an upside-down U-shape that rest at the bulb's base. The term "compact" aptly describes these fluorescents, and because of their adaptability they are becoming more of a permanent "fixture" in our homes. Compact fluorescents weren't always so popular, though.

Problems arose during the compact fluorescent's initial introduction. Their

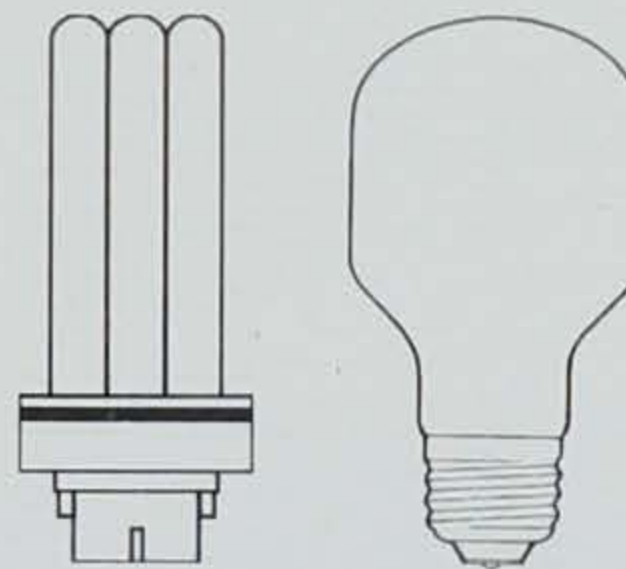
large size, compared to incandescent light bulbs, wasn't compatible with traditional lamp fixtures -- they simply didn't fit. Another problem with the early compacts was that the colors weren't "natural."

Today, compact fluorescents come in sizes that easily adapt to traditional light fixtures in the home. They simply screw in like a traditional light bulb, and with the introduction of "rare earth" (triphosphor) colors they now closely match natural light. Compact fluorescents received another image boost when EPACT began penalizing the use of cheaper halo-phosphor colors formerly used in compacts, thus encouraging the natural "rare earth" colors.

## Commercial T8 Lamps and Energy-Saving Electronic Ballasts

According to Don Lilly, Phillips Lighting salesman, fluorescents were introduced into many homes during the 1950s. They were initially tried out in the most popular of rooms back then -- the family kitchen -- but ended up making Sunday's pot roast look green instead of the usual juicy pink color. Fluorescents, then, were unnatural and unappetizing. Who wants pot roast from Mars? Fluorescents for both residential and commercial use have come a long way since then.

Fluorescents are used most often by businesses because of the need for high-quality lighting, and today more than ever there is a demand for energy efficient buildings. Compared to a 20 to 25 percent electricity usage by the



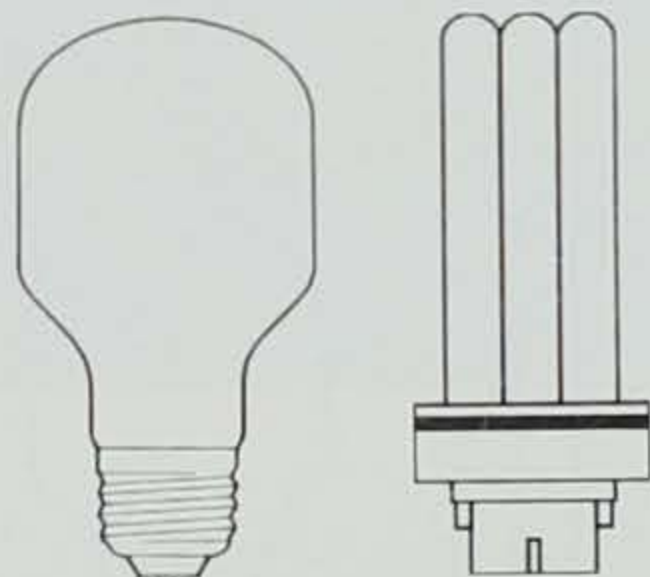
*A watt is the unit used to measure electricity. A kilowatt is 1,000 watts of electricity and a kilowatt hour is 1,000 watts of electricity used for one hour.*



United States overall, the electrical consumption of store, office and warehouse lighting can reach as high as 50 percent.

Because of the significance of those numbers EPACT was passed into law, and the lighting industry has and continues to change. T8 lamps and electronic ballasts are examples of those technological changes.

Today, once an old fluorescent lamp burns out, it is replaced with a new energy-saving lamp and ballast in accordance with EPACT regulations. Although there is a savings of 25 percent in energy costs by using the newer energy-efficient lamp, there is also a 20 percent light loss. A T8 fluorescent lamp system is one of the most recent energy-saving systems for commercial use, and can save 40 percent over the now-standard energy-efficient lamps and ballasts. Best of all, the T8 lighting systems provide more (and higher quality) light for less energy than reduced-wattage T12 lamps and standard ballasts. Because of those T8 fixtures, businesses have and continue to save energy costs with energy-saving lighting retrofit projects (the replacement of existing fluorescents with energy efficient fluorescents).



*A fluorescent ballast is a device used to provide the necessary starting voltage, while limiting and regulating the bulb's current.*

*Fluorescent lamps come in a variety of shapes and sizes. T8 refers to the diameter of the fluorescent bulb. The T8 system is replacing the standard T12 fluorescent lamp and magnetic ballast -- producing more lumens per watt than the T12 lamps.*

### Occupancy Sensors

Have you ever walked into a darkened room only to have the lights mysteriously blink on as if sensing your presence? It sounds like the makings of a script from Star Trek, but occupancy sensors are very real. They control areas where lights are left on even though they may not be occupied by anyone. Rest rooms and large warehouses are good examples of these types of areas. There is generally a 20 percent savings that can be seen with the installation of the sensors.

### Choices

There are lots of things to consider when choosing energy-efficient lighting. Is it a home or business? If it's a home, are you looking for filtered light for the relaxed atmosphere of a living room, or lots of quality light output for the kitchen? If it's a business, is it industrial or a restaurant? There are big differences here, and many factors to consider for both optimum light quality and energy efficiency.

The best solution for homeowners and businesses who have questions and want to know more about how they can save energy dollars with efficient lighting is to go to the right sources. Your local utility has a wealth of information to share about product costs, efficiency ratings and incentives that fit your personal needs. Lighting retailers also have practically unlimited resources they use to inform you about specific lighting products and prices. They usually provide substantial discounts to customers who purchase lighting products in quantities.

Additionally, businesses can enlighten themselves further if they're looking into commercial construction. There are building designers available who actually work with building interiors and design the ultimate in energy-efficient lighting systems.

Another resource that energy-efficient lighting enthusiasts can use is the Iowa Energy Center (IEC) in Ames. IEC not only holds workshops in lighting but has uncountable resources available that can answer just about any question you can come up with related to lighting.

*Admit it. Haven't you always wanted to know about the "flicker factor?"*

*Jennifer Campbell served as an intern with the department's information and education bureau this spring.*



*The summer is ending and I'm sitting at my computer trying to get some work done. My thoughts keep returning to the events of the past three months. It is nice to look back at the good times and enjoyable events.*

*Then, I remember I did not get to motorcycle as much as I wanted to in the spring because of all the rain. Although there was some flooding in Iowa, and some crops were planted a little late, no buildings or structures were seriously damaged.*

*In June, it stopped raining and the temperature was in the 90s and the*

# WATER

## Managing Our

by Darrell McAllister



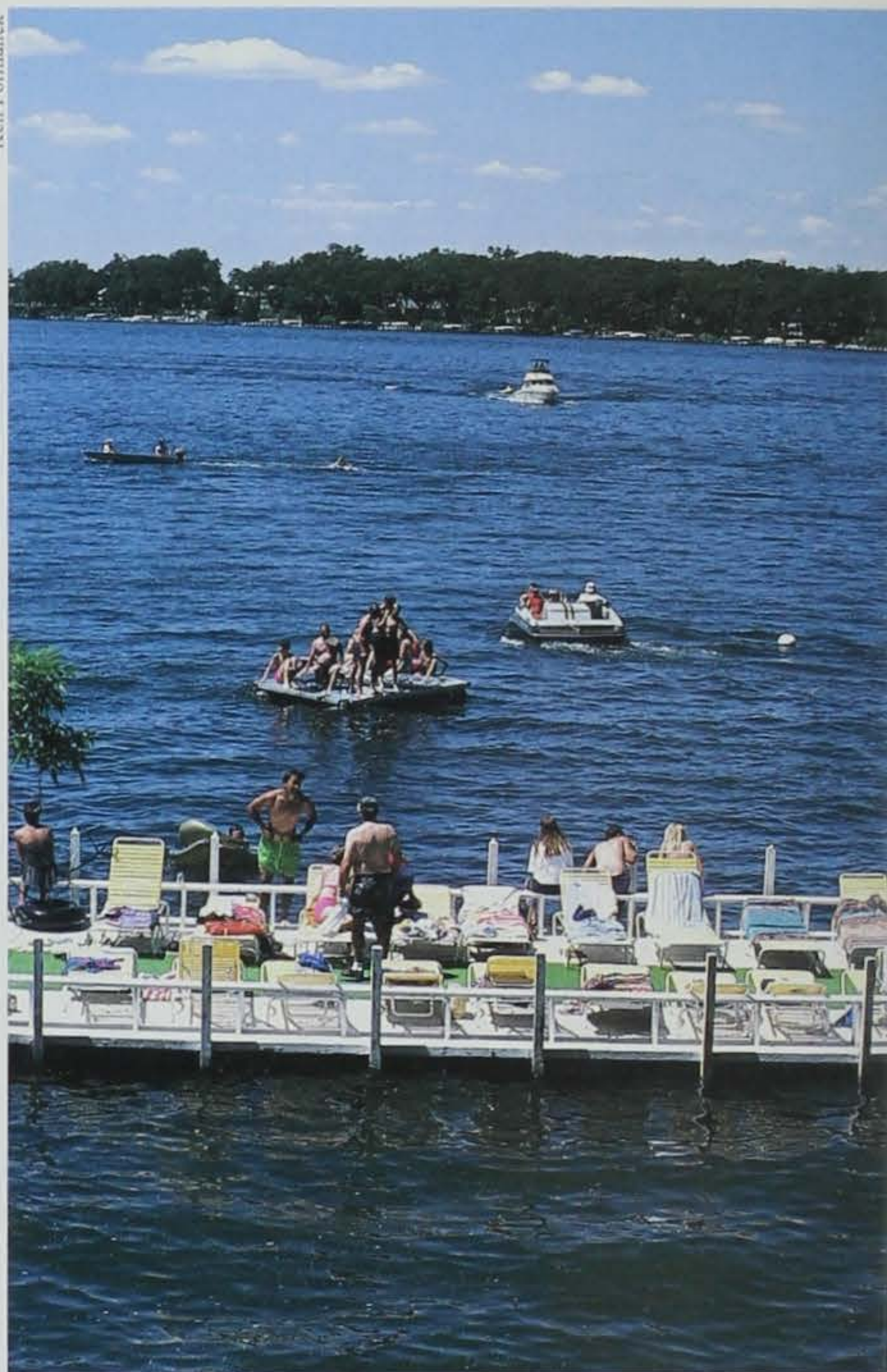


Electric generating facilities in Iowa need 2.06 billion gallons of water . . . each day!



Ken Formanek

Ken Formanek



humidity was equally as high. Instead of doing yard work I retreated to the comfortable temperatures provided by the air conditioner.

July was dry and my lawn started showing the strain. I took a road trip to northeast Iowa, not only as a weekend outing, but to check up on how the corn and soybeans were growing. I noticed several farms with crop irrigation facilities and this reminded me that if it didn't rain soon both the farmer and I might be watering.

August rolled around, and it was time to relax by my favorite fishing hole -- catch a few fish and cool off with a dip in the waters of a state lake. A night of camping, a warm shower and fresh water for morning coffee, followed by a refreshing dip in one of the park lakes was a good way to celebrate the season.

By now, you may be wondering what my daydream has to do with managing Iowa's water resources. All the experiences mentioned have to do with managing water.

The reason floods in Iowa have fewer impacts on building and structures than in other states is due to Iowa's comprehensive flood plain program. Initiated after the floods of the early 1950s, this program was designed to protect life and property from the damage of floods. While this purpose is partially met through the development and operation of federal flood control structures, the bulk of the protection is provided by avoiding construction in flood plains and flood ways. Both the DNR and local governments play an active role in this program. Although floods are

natural disasters that often can't be avoided, Iowa has done a good job in reducing the impacts caused by them.

But what does managing water resources have to do with keeping cool when it is hot? Electric generating facilities in Iowa need 2.06 billion gallons of water . . . each day! Without water, there is no electricity. Without electricity, there is no air conditioning. With no air conditioning, keeping cool in the summer is tough.

The DNR makes sure the water resources in Iowa are used for beneficial purposes and not wasted. Any and all water uses of more than 25,000 gallons per day are reviewed, to assure the water is not being wasted or that its use is not causing other problems. Water used for drinking, livestock





and the quality of water needed to allow these uses. With this information, the DNR requires dischargers to remove pollutants from their wastewater before it is allowed to go into the stream. The 1,200 facilities discharge about 362 million gallons of water a day into Iowa streams. This is more than 120 gallons per day for each person living in Iowa.

Not only does the DNR look after the discharges of treated wastewater, the drinking water quality from 1,900 public water supplies is also monitored. To assure the drinking water is safe, each water supplier is required to do routine testing. The DNR looks over the test results daily. If the drinking water is safe, you may not hear anything about it. If it is not safe, the public water supplier is obligated to tell you the results of the test and what can be done until the water is made safe to drink.

Iowa state parks provide drinking water, and are tested on a regular basis. So, when I made coffee using the water supplied by the park and swam in the lake, I knew it was safe, not only for me, but for you, too.

The water resources in Iowa may not be one of the things you daydream about, but the effective management of them may help you keep your mind on experiences enhanced by Iowa's water resources.

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*Darrell McAllister is the chief of the department's water quality bureau.*



years. It takes about 30 million gallons of water a year to irrigate 160 acres of corn. This is about the same amount of water used by a city of 1,000.

The DNR does a lot of work to assure anglers there are fish to catch. And all good anglers know that fish need clean water to both survive and reproduce. Managing the water resources in Iowa not only means making sure there is enough water or controlling it when there is too much, but

watering and production, manufacturing, irrigating, even water for recreating (watering of golf courses and water slides) is reviewed to make sure there isn't an overuse. There are about 5,500 permitted water users in Iowa. They use about 2.86 billion gallons of water a day -- even more than the 2.06 billion used by electric generating facilities.

Now that you know irrigation of crops is a water use that gets reviewed, you understand the connection to irrigation and water resources. Irrigation of crops does not take place each year but is a large water user during dry

also making sure it is clean. With about 1,200 facilities approved to discharge wastewater to Iowa's streams, it is important to make sure these pollutants are not harming the fish, or the people who want to swim or wade in them. More important, if a city wants to use a stream for its drinking water supply, (for example, Iowa City) it is important to make sure discharges to the stream allow for this use.

To protect the quality of Iowa's streams, the DNR has identified both the uses made of streams and lakes,



*Long known for its amusement park, trendy summer homes and trophy muskies -- the Iowa Great Lakes are one of the Midwest's most heavily used recreational areas. Less known is the fact that these waters also harbor one of the finest smallmouth bass fisheries to be found anywhere. Here is everything you need to know for cashing in on a...*

There is an old adage that states pound for pound and ounce for ounce, the smallmouth bass is the fightingest fish that swims.

I tend to agree with that statement, so much so in fact, that along with the brown trout, I rank the smallmouth at the very top of my list of favorite fish. Over the years, I have pursued the smallmouth in a variety of settings that have included gravel-bottomed, cow pasture creeks, fast-moving rivers, and among the most spectacular back drops

of all -- the stark, island-studded lakes of the North Country.

But, wherever the bronzeback and I have crossed trails, one factor has remained constant. The smallmouth bass has never failed to provide the brand of rod-bending, tackle-ripping action that anglers live for.

Like many of you, I spend a lot of my time dreaming about far away waters and the big fish that live there. However, recently I have joined a growing rank of angling enthusiasts who believe that some of the very best trophy smallmouth fishing to be found anywhere in the Midwest, if not in all of North America, is quietly existing right here in the Iowa Great Lakes. In addition to harboring a tremendous population of lunker bass, the Iowa Great Lakes are also home to one of the deadliest methods ever devised for connecting with trophy smallmouth bass.

This article, via the wisdom of Great Lakes angler Lance Christensen, is designed to provide every detail and scrap of information that you will need to successfully sample this fishery for yourself and to quite possibly land the trophy bass of a lifetime. Happy Fishing!

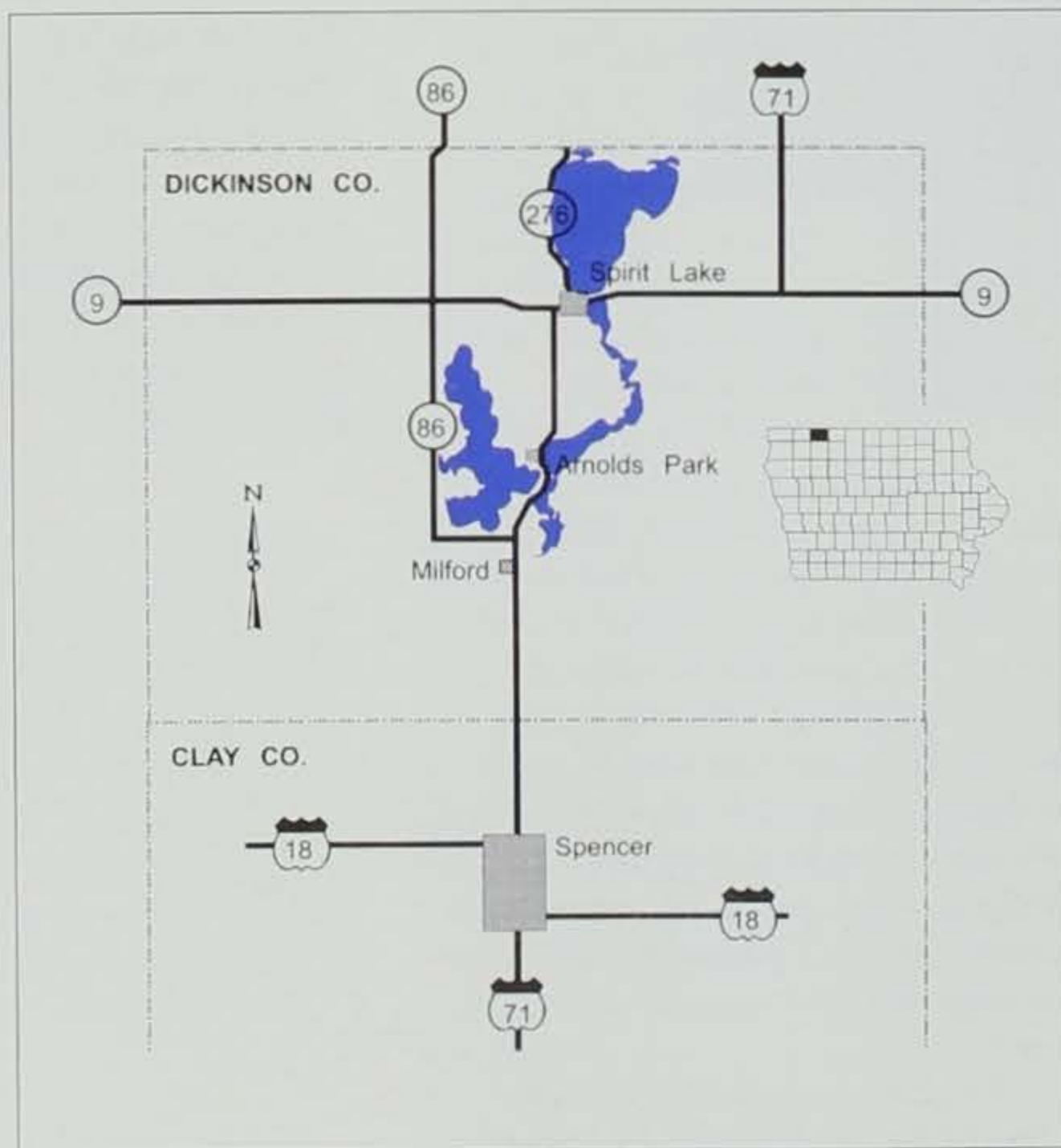
When you first launch a boat in West Okoboji, it is hard to imagine that you're still in the Midwest. At depths of 6, 8 and even 10 feet, boulders, rock piles, individual fish remain clearly visible. The next thing you notice is the abundance of habitat. Between what you can physically see and what the electronics record, it doesn't take long to realize that you're sitting on top of an angler's paradise.

"Is this Canada?" you muse. No, it's still Iowa -- Dickinson County to be exact. It is obvious that others have also noticed the beauty of these waters. As is the case with Iowa's other natural lakes, the shoreline here is ringed with cabins, summer homes and dwellings that can only be described as small mansions.

During the summer months, the Iowa Great Lakes represent one of the Midwest's busiest tourist centers and the recreational pressure is intense.

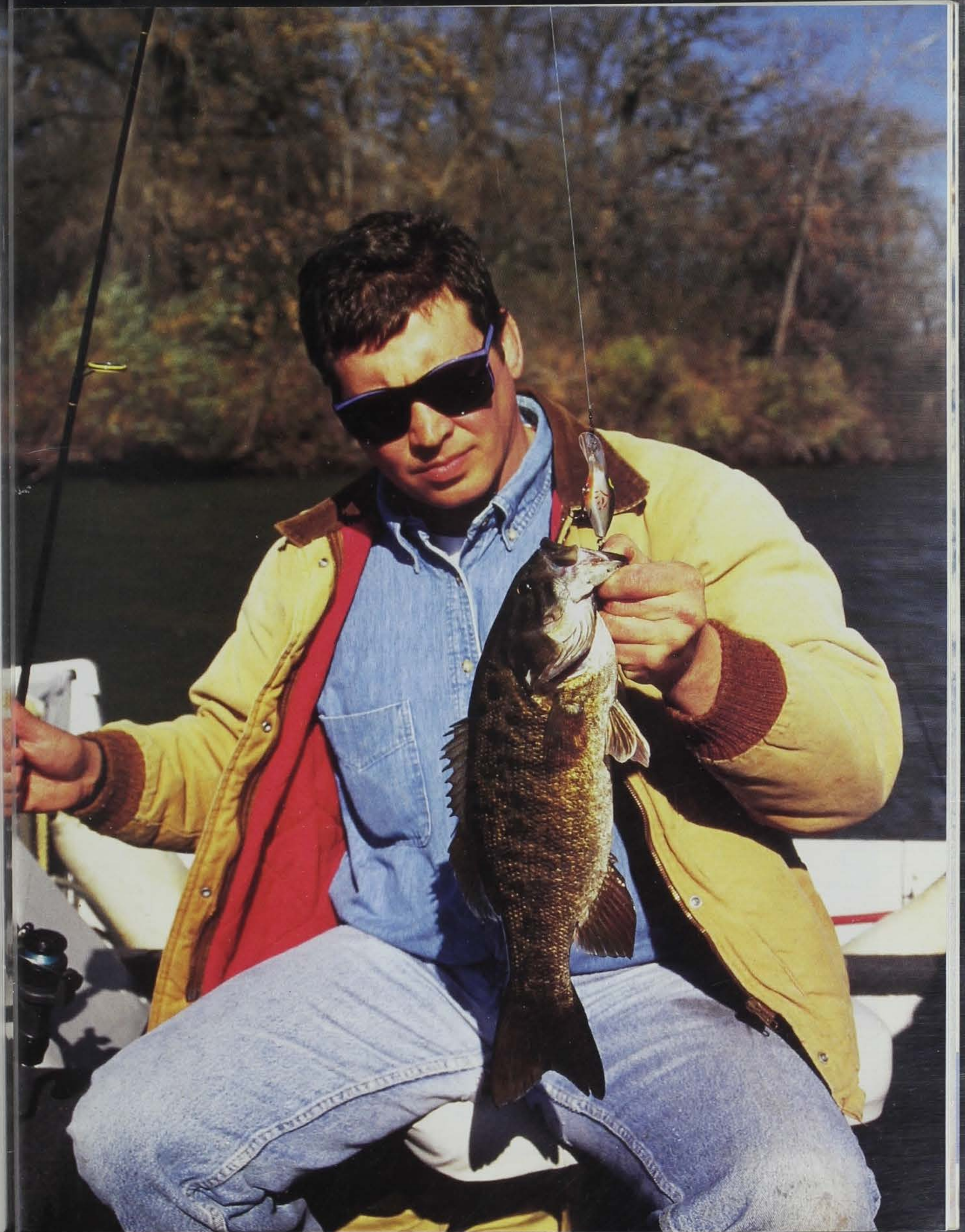
# smallmouth BONANZA

Article and photos by Lowell Washburn





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According to Christensen, there are just two key elements to remember -- *think big and fish slow.*

Labor Day weekend marks the last rites of summer for the lakes area. When the holiday passes, the waters are taken by a sudden calm. About the loudest thing you're likely to hear now is a passing flock of Canada geese.

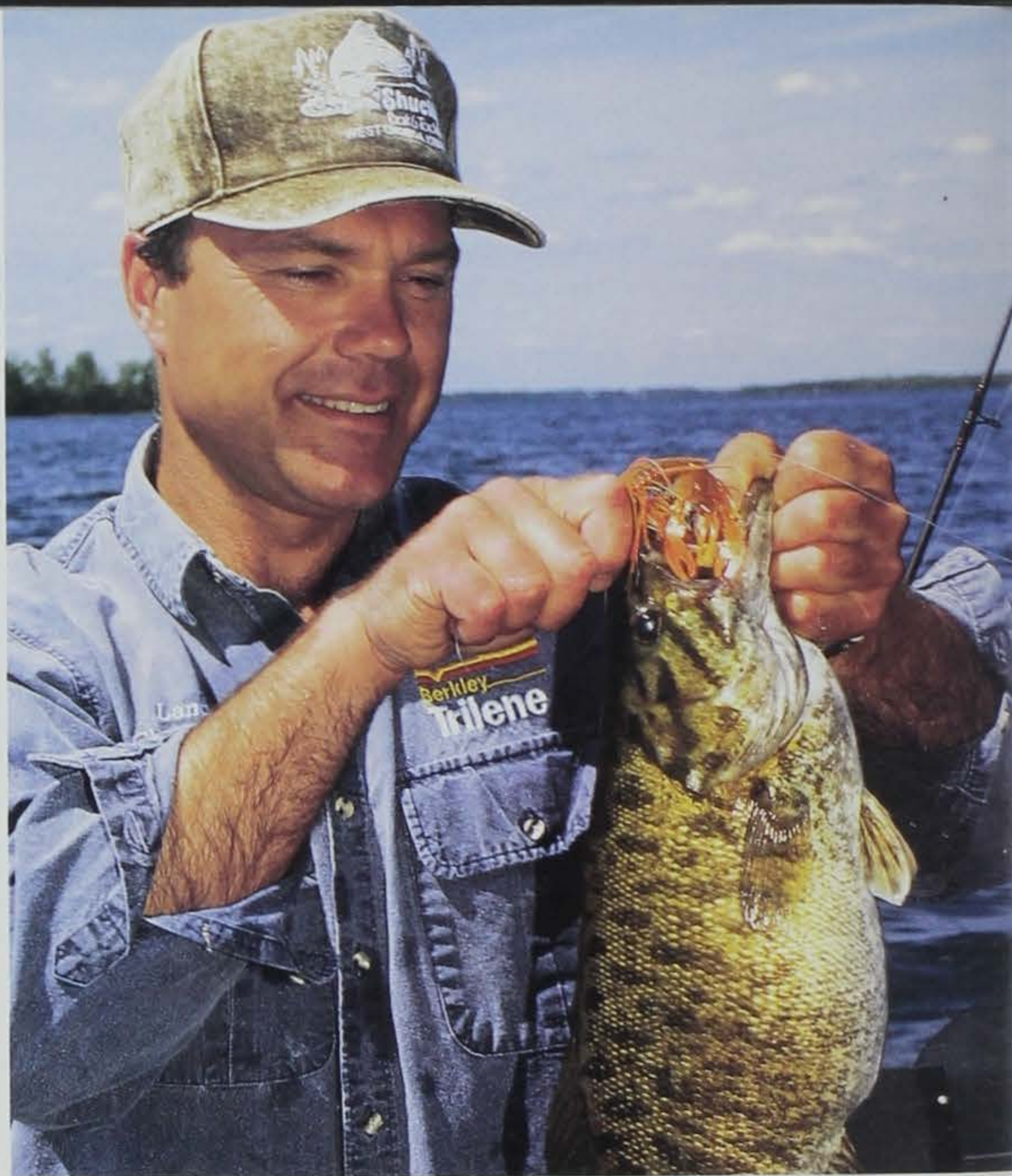
Some folks mourn the passing of summer. Others do not. In fact, it is this precise moment in time that hangs somewhere between warm weather and bitter cold that area bass fishing enthusiasts live for.

One of those enthusiasts is Lance Christensen of Spencer. Christensen, 34, is a professional taxidermist and fishing guide who grew up on the Iowa Great Lakes. For 15 years he has been a semiprofessional tournament angler, specializing in trophy muskies. But, when the first hint of autumn hits the air, Christensen's thoughts turn to smallmouth bass.

"For me, there's just no question that the smallmouth is one of the world's finest gamefish," says Christensen. "It's a fish that has the power to go straight up one second and then straight down the next," he says. "They jump, they tail walk and best of all -- they fight, fight, fight," he adds.

Good to excellent angling success for smallmouth bass in the Great Lakes begins in May and continues throughout the summer. But if your ambition is to tie into a bass of lunker proportions, then fall is the time to go. Early September, with its shorter days and cooler nights, marks the beginning of the best.

"Just as soon as the water begins cooling off for the year, these smallmouths become very serious about feeding and really start packing on the groceries," says Christensen. "One thing is certain, if you're looking for big fish, this is the time to be here," he adds. While the best fishing in spring or



summer may occur during the early morning and late afternoon hours, smallmouths frequently bite throughout the day during autumn. Midday is as good a time as any.

"I've fished smallmouth in Canada and northern Minnesota and everyone knows their fishing is tremendous," says Christensen. "But no matter how good a particular lake may be, it can support just so many fish. As far as I'm concerned the population of bass, especially trophy sized fish, is as good here as anywhere," he adds.

Christensen notes that although Spirit Lake, East Okoboji and others have plenty of bass, he spends most of his hours on West Okoboji.

"I guess I like the diversity of habitat here," says Christensen. "This lake is just loaded with structure in the form of rocky shorelines, reefs, rock piles, sunken islands and stony points," he says. "Believe me, this place is loaded with trophy bass."

Several methods may prove productive for taking fall smallmouths. Preferred methods include anchoring on a rock pile and fishing with a leech and slip bobber, or a leadhead jig and a minnow. A more aggressive approach uses a deep-running crank bait or one of the Rapala-type lures. But when it's the fish of a lifetime you seek, there is only one way to go -- the Great Lakes live-bait rig.

"At this time of year I really focus on trophy fish," says Christensen. "They are very vulnerable now, and for the really big ones there's no substitute for live baits. The most important thing is to keep the bait big," says Christensen. "Several species will work, and the best are blue chubs, large shiners, perch, and bluegills. According to Christensen, there are just two key elements to remember -- *think big and fish slow.*

"I use bait that is as long as my hand, or about 5-1/2 to 6 inches in length," says Christensen. "I know this is the type of bait that most people equate with catching



## RESEARCH PROJECT AIMED AT IMPROVED FISHING

The Iowa Department of Natural Resources, in cooperation with Iowa State University, has launched a three-year investigation involving the interaction of gamefish and their prey at northwest Iowa's Spirit Lake. According to Joe Larsheid, DNR natural lakes research biologist, the results of this study could ultimately aid fisheries management biologists in providing anglers with better fishing opportunities across the state.

"What this research project is focusing on is a very detailed examination of the bioenergetics within Spirit Lake," says Larsheid. "In a nutshell, we intend to actually measure how many pounds of food are produced in Spirit Lake in one year. The next thing that we will look at is how much of that food is actually consumed by gamefish," he adds.

The project's objective is to determine the total carrying capacity of the lake for combined populations of gamefish. "We want to know exactly how many total smallmouth bass, largemouth bass, muskie, walleye, and northern pike we can support in the lake at one time," said Larsheid.

This spring, DNR fisheries personnel began capturing and marking individual gamefish at Spirit Lake. Before release, the contents of the stomach of each fish was pumped to determine the number and species of food items being consumed. By using information obtained through angler creel surveys, the DNR will have a reliable estimate of the total number of gamefish in Spirit Lake at the end of 1995. The information will also show how many of the total gamefish caught were released and how many of the total were harvested.

"A fishing lake is very much like your garden," says Larsheid. "You can only have so many things growing in there at one time."

As is the case with many fishing areas, there is currently a very high demand for walleyes in Spirit Lake. And, it has been suggested that the DNR should make attempts to triple the biomass of this popular species.

"The question to ask is do we (DNR) really want to do that," says Larsheid. "For example, how would a major increase in walleye populations affect the numbers of yellow perch?"

"We need to be realistic," says Larsheid. "We cannot expect to increase the densities of walleyes or any other predator fish without considering the impacts it will have on other species."

According to Larsheid, there is no doubt that catch-and-release fishing has helped the smallmouth bass in Spirit Lake. However, at the same time the recruitment of young walleye has decreased. Why?

"Let's say that at some point in time we decided to make this or some other lake a 'no kill' area for bass," says Larsheid. "What would that do to other populations? Or what if we decided to dramatically increase the population of muskies?" he asks. "What would the impact be on other fish?" In essence, the Spirit Lake research project is geared toward the wise management of the total fishery.

Hopefully, the final results of this study will allow DNR biologists to accurately predict the consequences of

▼ Pumping the stomach of a smallmouth bass and examining the contents.



specific management actions before they happen. "In the past, it has taken up to five years to assess the actual consequences of certain management decisions, says Larsheid. "Now for the very first time we may be able to accurately gauge the results of our actions before they occur. That will be a significant step forward both for us and for the angler."

-- LW



big northern pike, but it will also produce big smallmouth," he notes. With this method, 16-inch bass are about the smallest fish you'll see. Of course, there are plenty of smaller fish down there, but the idea is to select away from them and concentrate on lunkers.

"In a way, this is a lot like matching the hatch for fly fishing," says Christensen. On certain days some bait species work better than others. The main thing is to go prepared with plenty of options. "The thing to keep in mind is that we're using exactly what big bass feed on day in and day out," says Christensen. "That's a terrific edge for catching trophy fish."

When pursuing big smallmouths under fall conditions, the tackle is probably less important than is technique. Any rod of medium action will work, although graphite is preferred because "feel" is critical. Any reel spooled with high-quality, low-diameter

line of 10- to 12-pound test will work as long as it is in excellent working order. When dealing with large, powerful fish, even the slightest slip or hesitation on the part of your equipment will mean a lost fish.

Once you're on the water, assembling the "world's deadliest bait rig" is amazingly simple. "I start by peeling three to six feet of line from the reel and then cut it off," says Christensen. "That is my leader. Next, pull off some more line and thread on a 1/8-ounce to 3/8-ounce bullet sinker and then tie on a #10 barrel swivel." The trick is to use just enough weight to get the rig to the bottom. Anything beyond that is a cardinal mistake. Lastly, tie on the leader and attach a #1/0 short-shanked bait hook. That's all there is to it. You are now holding the world's most lethal weapon for early autumn trophy bass. Nothing is better.

The next task is to locate the quarry. Like other black bass, smallmouths are

homebodies and relate to specific territories. They may be in two feet of water today or in 50 feet next week, but they are always in the same vicinity.

"During tournaments (there is at least one on the Great Lakes each weekend) smallmouths have been released at boat ramps two to three miles from where they were taken and have come right back to where they were caught," says Christensen.

Basically, when you find good rocky habitat the fish will be nearby. It's just a question of figuring out where.

During stable fall weather patterns, good numbers of bass will often be found in 10 to 15 feet of water. During a cold front, they'll continue to bite but will be deeper. This mainly applies to adult fish that measure 16 inches or better. Once an area has been selected, bait up (hook the bait through the lips), and start peeling out line. "This is clear, clear water and you want the bait to be



▲ Think big -- fish slow. Live bait should be about as big as your hand.

▶ Go prepared (top), but tackle is probably less important than technique. Electronics are important for locating smallmouth habitat.





# What Could Be Better Than The Perfect Gift?

mindset that panfish are for eating and bass are for releasing.”

“To me, that’s very positive,” says Larsheid.

But can the concept of catch-and-release reach an unreasonable extreme? Perhaps. “There is no question that catch-and-release will improve fishing,” says Larsheid. “But we also need to keep things in perspective.”

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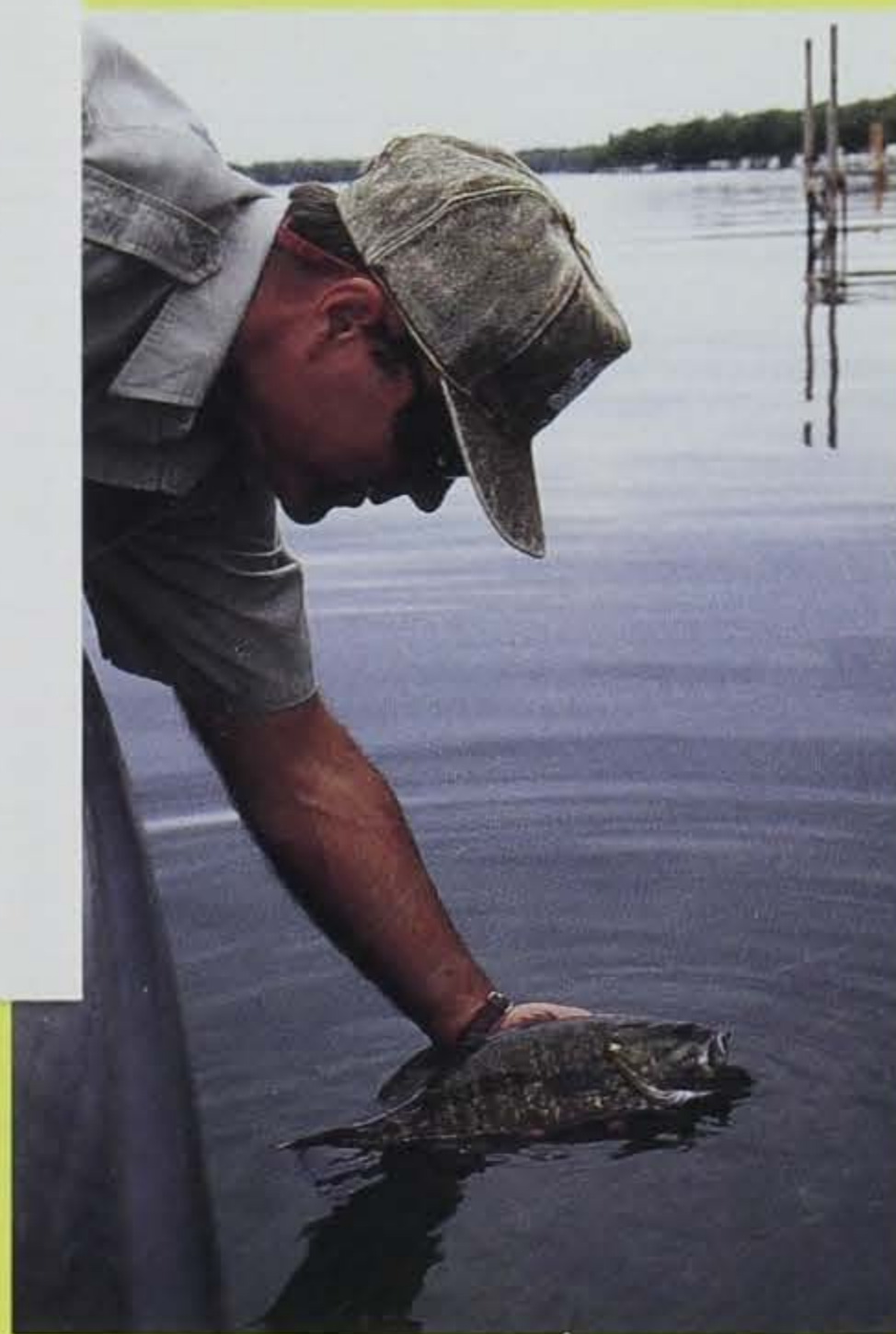
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line of 10- to 12-pound long as it is in excellent condition. When dealing with live bait, even the slightest slip can result in the part of your equipment being lost fish.

Once you're on the water, setting the line is amazingly simple. "You just pull three to six feet of line, then cut it off," says Christensen. "This is my leader. Next, you tie a line and thread on a 1/2-ounce bullet sinker and a barrel swivel." The weight is enough to get the line to the bottom. Anything less is a cardinal mistake. Last, you tie your leader and attach a #2 hook. That's all there is to it. Now you're holding the weapon for early autumn. Nothing is better.

The next task is to find the fish. Like other black bas

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▲ Think big -- fish slow. Live bait should be about as big as your hand.

▶ Go prepared (top), but tackle is probably less important than technique. Electronics are important for locating smallmouth habitat.





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Once you've caught the "winner," bring the "winner" up to the boat. When dealing with even the slightest current, the part of you that lost the fish. Once you've caught the "winner," bring the "winner" up to the boat. When dealing with even the slightest current, the part of you that lost the fish.

The next time you go out, bring a black



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as far away from you as possible," says Christensen. Seventy-five feet of line is better than 60 feet, and 100 is better than 75. It is virtually impossible to fish with too much line, but you can definitely use too little.

Once the line is out, troll or drift over the area as slowly and as quietly as possible.

Systematically work the structure or as Christensen puts it, "thoroughly comb the habitat." Start shallow and work your way down. More often than not, the most active or aggressive fish will be found in the shallowest part of the water column and the least active will be found at the bottom. Expect fast action or move on. Come back later, but don't waste time in an area that doesn't quickly produce what you're after.

One of the distant benefits of the

Great Lakes method is that the bait fish are large enough to alert the angler before a strike occurs. "When these baits see a big predator start to follow, they go ballistic and telegraph the message right up the line to your hands," says Christensen. "When you feel the bait go crazy it means get ready," he adds. "Nine times out of ten the fish will hit."

But these strikes are very different from what most of us are used to, or perhaps would expect, on a "big bass outing." Actually they are somewhat of a disappointment and could perhaps be better described as a "pick up" than an honest-to-goodness strike.

But that is where the disappointment ends. As soon as you feel that tug, start releasing more line. Twenty or 30 seconds is usually enough. Close the

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## CATCH-AND-RELEASE BASS FISHING -- A GOOD THING

There is no doubt that catch-and-release has improved the quality of smallmouth bass fishing in the Iowa Great Lakes. Studies elsewhere have shown that the closely related largemouth bass can be caught and recaptured seven or eight times per season. In Wyoming's Yellowstone Lake, individual cutthroat trout are also caught and released up to eight times per season.

The Iowa Great Lakes have some of the best bass fishing in the Midwest, if not the entire country, according to Joe Larsheid, natural lakes research biologist. "Whenever you can consistently go out and catch bass the way a person does here, that's awesome fishing," he says.

"People here are really programmed to voluntarily release legal bass," says Larsheid. "Most of the people who are actually fishing for bass release them. People who accidentally catch a legal smallmouth while fishing for perch or bluegill are more likely to keep the fish," he adds.

"We frequently see adult smallmouth that have four or five identifiable hook marks in their jaws," says Larsheid. "It's amazing, but at least 80 percent of the legal bass landed are voluntarily returned. People here just have the mindset that panfish are for eating and bass are for releasing."

"To me, that's very positive," says Larsheid.

But can the concept of catch-and-release reach an unreasonable extreme? Perhaps. "There is no question that catch-and-release will improve fishing," says Larsheid. "But we also need to keep things in perspective."

According to Larsheid, people who opt to keep a legal bass should not be ridiculed. If, for example, a youngster or anyone else catches a nice bass and decides to take it home -- is that wrong? "No, that is definitely not a bad thing," says Larsheid.

--LW





action, and then set the hook like you really mean it. "Sometimes it feels like you have snagged the bottom or something, but then you will feel it move," says Christensen. "After that, everything just sort of breaks loose and it gets real exciting," he adds.

The results of using this technique during the fall weather months must be experienced first hand to be believed. My initiation to the Great Lakes bait rig was a classic example. At 10:30 in the

bass. Upon release, the plump fish darted for the depths with apparent energy to spare. *I was pumped!*

An hour and a half later, Christensen asked me if I had any idea how many bass we had landed so far. Was it a dozen, or was it maybe a dozen and a half? I had no idea, but I did know that I was having lots of fun. "We've had days out here where two anglers can boat up to a dozen and a half fish during a half day and every one of them is a real trophy," says

question that these fish can be caught over and over again," he says. "Because bass are homebodies, they can be fished out. You can only take so many pennies out of the jar before its empty."

"Ten years ago the idea of releasing a good fish was just a joke at the coffee shop," says Christensen. "But today we are seeing a new generation of anglers come on board and they have a different set of motives and expectations," he adds. "Today, most of these smallmouths are going right back into the water."

No one should object to the person who wants to keep a trophy bass to put on the wall, says Christensen. "But by the same token it is very difficult for me to think of an 18- to 20-inch smallmouth as an eating fish," he says. "They're just too good of a fighter for that. The way I look at it, there are plenty of perch, bluegills and other panfish that are really good to eat," says Christensen. "Why kill one (bass)? he asks. "It just doesn't make sense."

Christensen's view is apparently shared by members of the Iowa Great Lakes Fishing Club as well as the Upper Great Plains Chapter of Muskies Inc. Both organizations have staged aggressive educational efforts aimed at promoting the catch and release of smallmouth bass in the Iowa Great Lakes. Because the practice of catch-and-release bass fishing is currently so accepted the lakes area, most serious smallmouth enthusiasts feel "pretty positive" over the future of this Iowa sport fishery.

"When it comes to fishing for smallmouth bass, these lakes are nothing short of a national treasure, and that's no exaggeration," says Christensen.

There is no doubt that places like Lake of the Woods and other Canadian shield lakes, harbor some tremendous populations of smallmouths, he said. "But I don't know of anyone that has gone up there and has consistently caught the kind of lunkers that you can find here," said Christensen.

Where else can a person go and have at least a fair-to-good chance of tying into a five-, six- or even seven-pound smallmouth bass?" asks Christensen. "This place is simply the best."



▲ Smallmouth fishing on the Iowa Great Lakes.

morning Christensen and I baited up with six-inch chubs and began slowly trolling along a rocky shoreline. Precisely five minutes and 30 seconds later, I felt the chub go ballistic. Then there was a slight tug and I started releasing line. Thirty seconds later I set the hook. At first I thought I'd snagged an old minnow bucket, or a hip boot or something. But then I felt "it" move and after that everything just sort of broke loose and it got real exciting. Several reel screaming runs later I was admiring a stunningly beautiful bronze-backed, red-eyed, 19-inch smallmouth

Christensen. By using this method and keeping the bait very large, it is not uncommon to hook 19-inch, 20-inch or even larger smallmouths.

In September 1992 this method (using a yellow perch) was employed in West Okoboji to take the 22-3/4-inch, seven-pound, 12-ounce current state record smallmouth. During the same month another smallmouth weighing more than seven pounds was taken on a blue chub.

"I firmly believe that catch-and-release fishing has made this fishery what it is," says Christensen. "There's no



# Look-Alikes

by Lannie R. Miller

In these days of reduced bag limits, length limits and seasons, it is imperative that anglers know the kind of fish they catch. Most of Iowa's gamefish are very easy for even the most novice angler to tell apart. There are, however, a few species of closely related fish that are tough for even the most experienced anglers to discern.

The first rule of thumb to be observed when trying to tell different species apart is to never use color as an indicator. Fish color is affected dramatically by water clarity of the lake or stream, and also by the season or time of year.

Let's look at some fish that are often misidentified by the average angler. This is not meant to be too technical, so we will be using obvious characteristics for determining the identity of the fish. Even if there are no bag or length limits on some of these species, you can always use this knowledge to impress your fishing friends!

The fish illustrations on the following page were done by Maynard Reese, with the exception of the muskie done by Duane Raver. These and other Iowa fish illustrations can be found in the brochure *Fish Iowa!* available from the DNR.

▼ Because of different bag limits, as in the case of walleye and sauger, it is important to know how to tell species of fish apart.



DNR

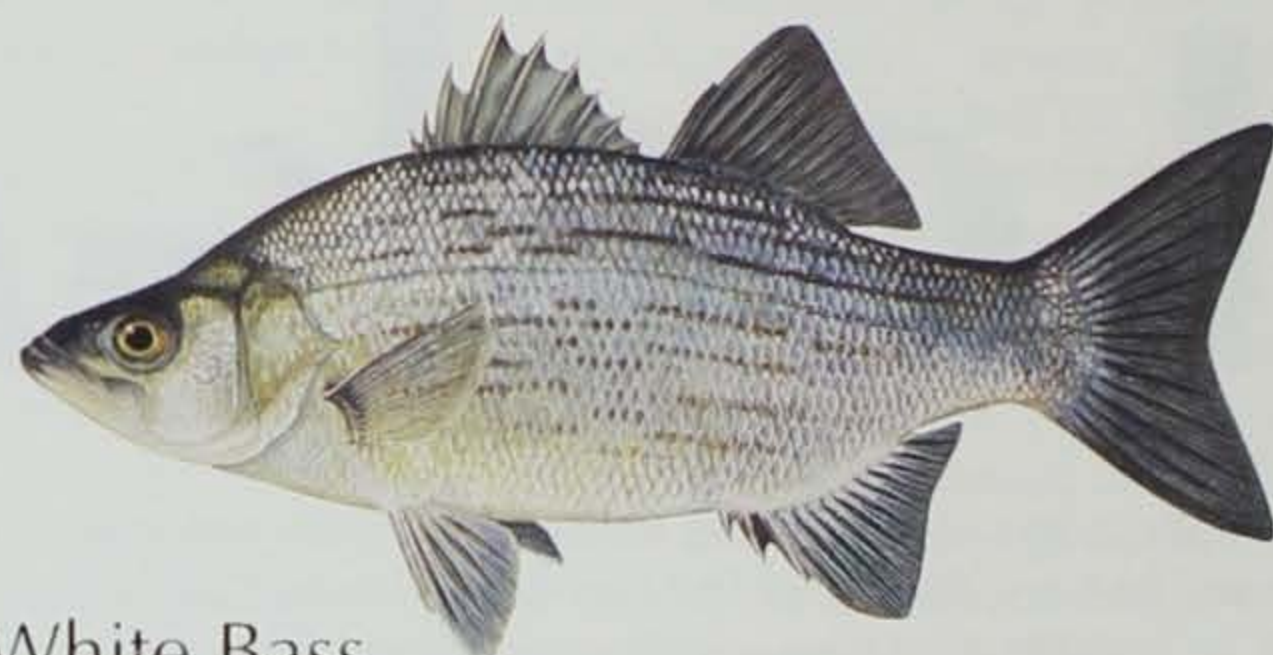


## White Bass vs Yellow Bass

The white and yellow bass are both members of the temperate or true bass family. (The largemouth and smallmouth bass are not bass at all, but rather are members of the sunfish family.) The white and yellow bass are both native to Iowa.

Color should not play a role in determining the difference between yellow and white bass. Young fish of both species are often silvery in color. Older, mature yellow bass may have a yellowish tinge. There are two ways to tell whether you have caught a yellow or white bass. One has to do with the anal fin, which is the fin on the bottom of the fish, closest to the tail. In a white bass, the anal fin has three spines that are evenly graduated. In other words, the first spine is the shortest, while the last spine is the longest. The anal fin spines of a yellow bass are unevenly graduated, meaning the first spine is considerably shorter than the other two, which are usually equal in length.

The second way to distinguish between a yellow and white bass deals with the dorsal fin, or the fin that runs along the back of the fish. The dorsal fin lobes or parts of the fin are not completely separated in yellow bass. The white bass dorsal lobes will be completely separated, looking like two dorsal fins.



White Bass



Yellow Bass



Channel Catfish

## Channel Catfish vs Blue Catfish

I do not know how many times in the 20 years I have been a biologist that an angler has approached me and told me about the "blue catfish" he or she caught out of some lake or inland river. In those same 20 years, handling tens of thousands of fish, I have only seen one blue catfish in the wild. Blue catfish are inhabitants of the large rivers such as the Missouri and the Mississippi, but are rare even in those bodies of water in Iowa. (We don't even have a good illustration of one.) Impounding of the Mississippi by locks and dams probably caused the greatest decline of the blue catfish.

Many people mistake a male channel catfish for a blue catfish, particularly during May, June and July. During this time of the year, male channel catfish turn a dark "blue" color in preparation for the breeding season. Following the breeding season, the male will return to its normal, silvery-gray color.

As mentioned previously, catching a blue catfish in Iowa, especially in a lake or small river, would be a very rare occurrence. If you really want to distinguish a channel catfish from a blue cat, you must once again look at the anal fin. A blue catfish will have 30 to 35 soft rays in its fin, while a channel catfish will have 24 to 29 rays. Also the anal fin of the channel catfish has a rounded appearance while the anal fin of the blue catfish is straight.



## Black Crappie vs White Crappie

Crappies are abundant throughout Iowa and are found in such diverse habitats as farm ponds or the Mississippi River. Members of the sunfish family, crappies are extremely prolific and at this time are not restricted by bag or length limits in Iowa. By law, you may have as many black or white crappies as you desire in your daily bag limit, so you really do not have to be able to tell these two fish apart. However, if you would like to impress your friends -- here's how you do it.

Once again, you have to count spines. Ever notice how many species are differentiated by counting rays in their fin? Crappies are a little easier than catfish, because instead of counting soft rays in the anal fin, you have to count the hard spines of the dorsal or back fin. White crappies have five or six spines in their dorsal fin while black crappies have either seven or eight.



Black Crappie



White Crappie

## Sauger vs Walleye

Sauger and walleye are both members of the perch family, which also includes the perches and the darters.

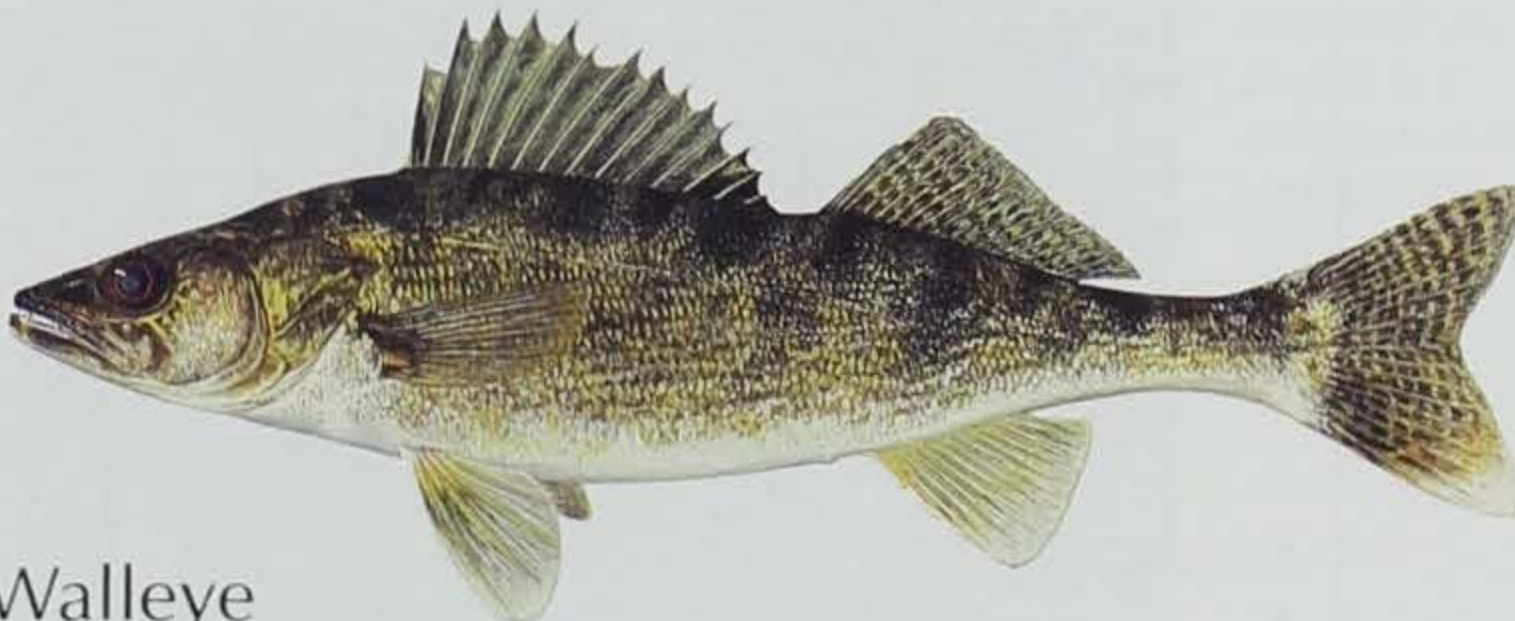
Walleye and sauger are piscivorous, eating mostly fish. It is imperative for anglers fishing Iowa's border rivers to be able to distinguish between sauger and walleye, due to the difference in bag limits.

There are two quick ways to distinguish between a walleye and sauger. First and probably the easiest is to look at the caudal or tail fin. If the lower lobe of the fin has a white tip on it, it's a walleye. The caudal fin of the sauger is all the same color.

The other feature that quickly identifies a sauger or walleye is the dorsal fin. The dorsal fin membranes of a sauger will be marked with rows of round black spots. The membrane of a walleye's dorsal fin will not have these spots but will have one large blotch near the base of the last few spines.




Sauger



Walleye





Northern Pike

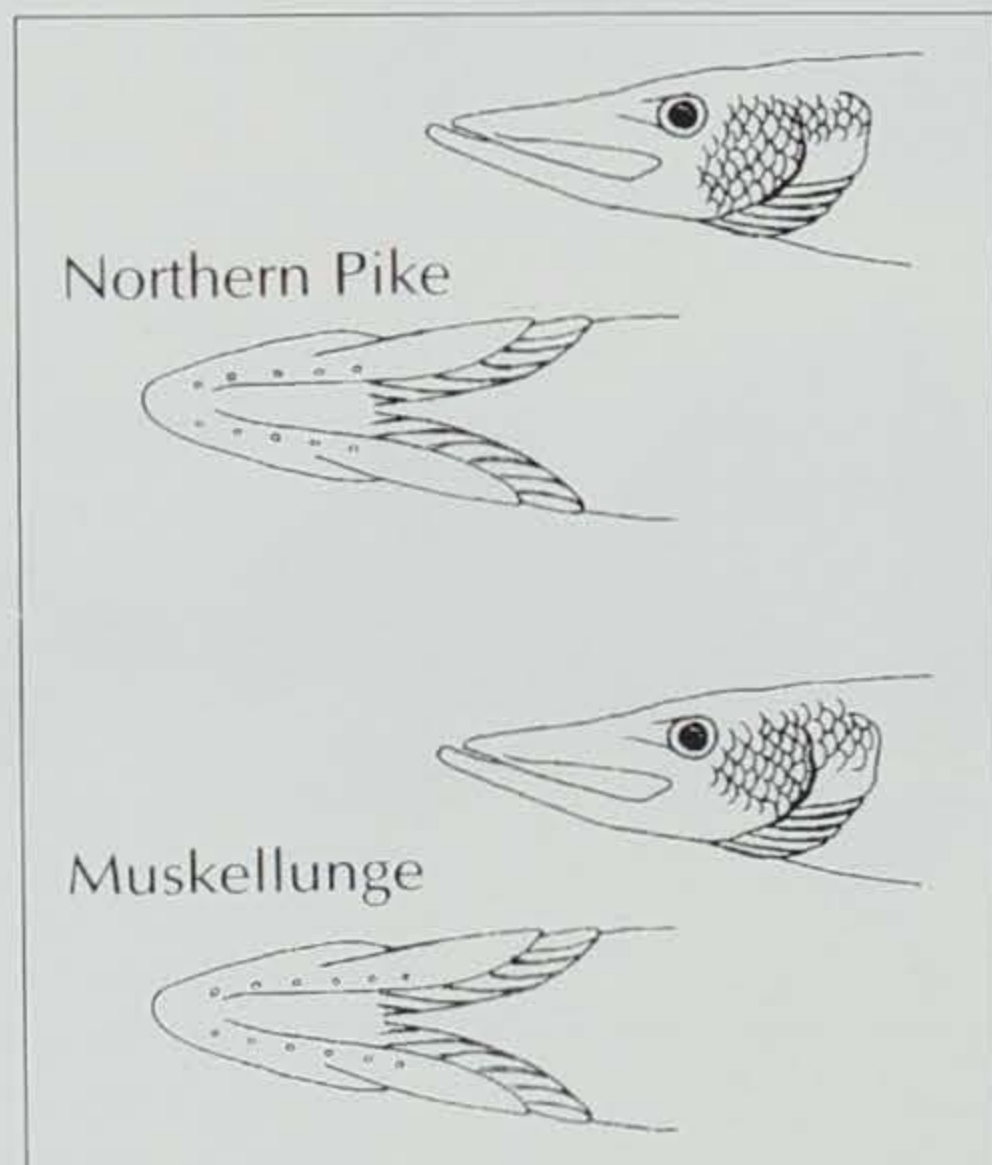


Muskellunge

## Northern Pike vs Muskellunge

I saved the hardest species for the last. Since there is presently a 36-inch minimum length limit on muskellunge and no minimum length limit on northern pike, in Iowa waters, it is again important to be able to distinguish these two species apart.

Northern pike usually have rows of light, rod-shaped spots that run horizontally on its body, whereas markings on a muskellunge are dark spots or bars over a light background. As with other species, color should not be used exclusively to determine what species the angler has caught.



Northern pike have cheeks that are fully scaled whereas the cheeks on a muskie are only scaled on the upper half. This is at times difficult to discern. The easiest way to tell a muskie from a northern pike is by counting the sensory pores on the lower jaw. Here we go counting again. Sensory pores look like little holes in the fish's jaw. A northern will have a row of five sensory pores along each side of its lower jaw, whereas a muskellunge will have six to nine pores along each side of the jaw.

Well, there you have it. A quick and easy method of telling some look-alike fish apart. The more experienced angler will notice I did not delve into the hybrid fish such as wipers and saugeyes. Hey, Mom didn't raise a fool. Besides, that may be material for a future article.

*Lannie R. Miller is a fisheries management biologist stationed at Lake View.*



# What's Ailing Your Ash Trees?

It could be a recently discovered disease called ash yellows. Ash yellows inhibits growth and causes decline of ash (*Fraxinus*) species.

Since the 1930s, an unexplained progressive decline of white ash, and to a lesser extent green and black ash, has been observed in the northeastern and midwestern United States. This decline syndrome is commonly referred to as ash decline. Early studies linked ash decline to adverse environmental factors such as drought, shallow soils, flooding or parasitism by opportunistic fungi. It was not until the 1980s that a distinct disease, ash yellows, was discovered to be frequently associated with ash trees exhibiting symptoms of slow growth and branch dieback.

Article by Jill D. Pokorny  
Photos by Wayne Sinclair

The impact of ash yellows on ash populations is not well documented. Individual infected trees are likely to

show declining branch and trunk growth, and often treetop dieback.

The disease occurs in woodlots and forests, home landscapes and urban plantings. Ash is a major tree species in Iowa communities. A 1990 survey found ash yellows in forested stands of white and green ash in the Midwest. To help clarify the impact of ash yellows in the urban forests of the upper Midwest, the Forest Service is assisting in funding a two-year project to survey green ash trees in nine Iowa and Wisconsin communities. The project is a cooperative effort with Iowa State University, and the



▲ Green ash sometimes produce witches'-broom without other distinctive symptoms.



Iowa and Wisconsin departments of Natural Resources, municipal and state foresters and county conservation boards in the nine communities surveyed. According to Mark Gleason, Extension plant pathologist from Iowa State University, preliminary results indicate that ash yellows is far more common in Iowa and Wisconsin communities than previously suspected. "If borne out by other analyses and the 1995 follow-up sampling," says Gleason, "this result will



▲ This declining branch shows loss of apical growth on slow-growing lateral branches.

▶ This tree, suffering from ash yellows, has tufted foliage at the tips of twigs and its crown is thinning.



lead to a significant reappraisal of the potential threat of this disease in the upper Midwest."

Ash species play a significant role in the ecology of rural and urban northeastern forests. Ash trees provide nesting sites and roosts for several species of birds and other wildlife. Green and white ash are in high demand for landscaping and community tree planting programs. They also represent a valuable hardwood resource. Ash wood, tough and resistant to shock, is used for handles, oars, baseball bats and furniture. Black ash is also highly prized by Native Americans for use in basketmaking.

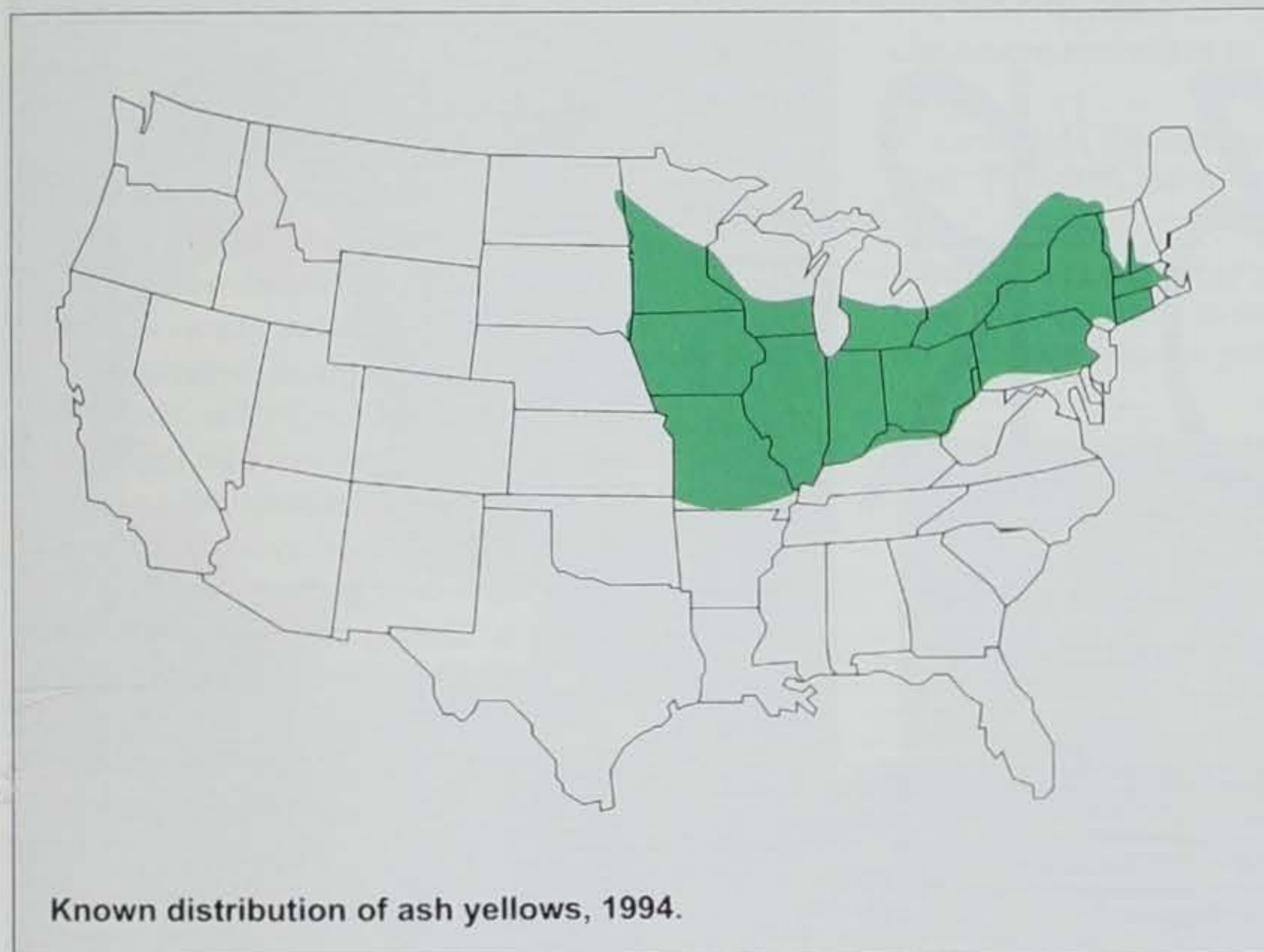
## The Disease Cycle

Ash yellows is caused by wall-less microbes called phytoplasma organisms which invade the tree's vascular system. The causal disease is presumed to be spread by insects such as leafhoppers. Symptoms develop up to three years after disease is detected in ash tissue.

## Distribution and Range

Ash yellows has been reported only in North America. The main range of the disease includes parts of 16 northeastern and midwestern states and the southernmost portions of Canadian provinces





**Incidence of ash yellows in green ash tested, 1994.**

City	% Positive
Burlington	17
Davenport	22
Des Moines	17
Fort Dodge	11
Iowa City	18
Waterloo	21

Ontario and Quebec. In addition to white and green ash, ten other ash species including blue ash, black ash and velvet ash are also reported hosts.

### Symptoms

Symptoms of ash yellows vary with species. Slow growth and short internodes can cause foliage to appear tufted at the tips of twigs and the crown to appear thin and sparse. Small leaf size and light green leaf color, upturned leaf margins, and premature fall coloration are common. Abnormal branching may occur. Witches'-brooms, clusters of upright spindly shoots, may develop.

### Diagnosis

Field diagnosis of ash yellows can be difficult. Reduced growth, abnormal branching and progressive decline are typical symptoms but can be caused by other factors. Witches'-brooms are diagnostic, but only a small percentage of infected trees display this symptom at a given time.

A standard microscopic test is available to detect the disease in ash tissue. Microscopic testing is required for diagnosis of the disease in most individual or landscape trees.

### Management

There is no known way to prevent or cure ash yellows.

Management of forest stands where ash yellows occurs should be aimed at gradual replacement of ash with other species. Where ash yellows occur in marketable stands, ash trees that exhibit greater than 50 percent dieback should be harvested within five years. Managers of shade and ornamental trees should consider management strategies which remove trees with severe dieback, promote species diversity in tree planting programs, select tree species suitable to planting sites, avoid planting ash in drought-prone sites, and encourage tree care practices that reduce plant stresses. Watering during drought and periodic fertilization to promote general tree health may be useful for shade and ornamental trees.

The U.S. Forest Service has published a new informational brochure entitled, "How to Identify and Manage Ash Yellows in Forest Stands and Home Landscapes." For a free copy, write: USDA Forest Service, State and Private Forestry, 1992 Folwell Avenue; St. Paul, MN 55108; or phone: (612) 649-5262; or fax: (612) 649-5238.

Your local DNR forester should also have a supply for distribution.

*Jill D. Pokorny is a plant pathologist with the USDA Forest Service's forest health protection.*



## Cedar Rapids Schools Learn . . .

# The 3 Rs

Article by Mary Koens  
Photos by Ken Formanek

The Cedar Rapids School District is the third largest school district in Iowa. Approximately 17,000 students attend classes in the district, and all 17,000 take tests, do homework and most eat a hot lunch provided by the school lunch program. What happens to all of the waste generated from these activities? What happens to old homework and tests? What happens to glass, plastic and tin containers used in food preparation? Bruce Frana and Joe Baldus, teachers at Metro High School in Cedar Rapids asked these questions. Unfortunately, they found that in some way, shape or form these items were ending up at area landfills. During the spring 1991, Frana and Baldus approached Steve Chambliss,

executive director of Cedar Rapids' Middle and High schools and Mary Wilczynski, Metro High School principal and proposed a recycling program be set up. They had two goals in mind -- to show leadership in a district-wide recycling program and to provide students with work experience through the program. Today, Frana and Baldus are co-directors of the largest organized school district recycling program in Iowa.

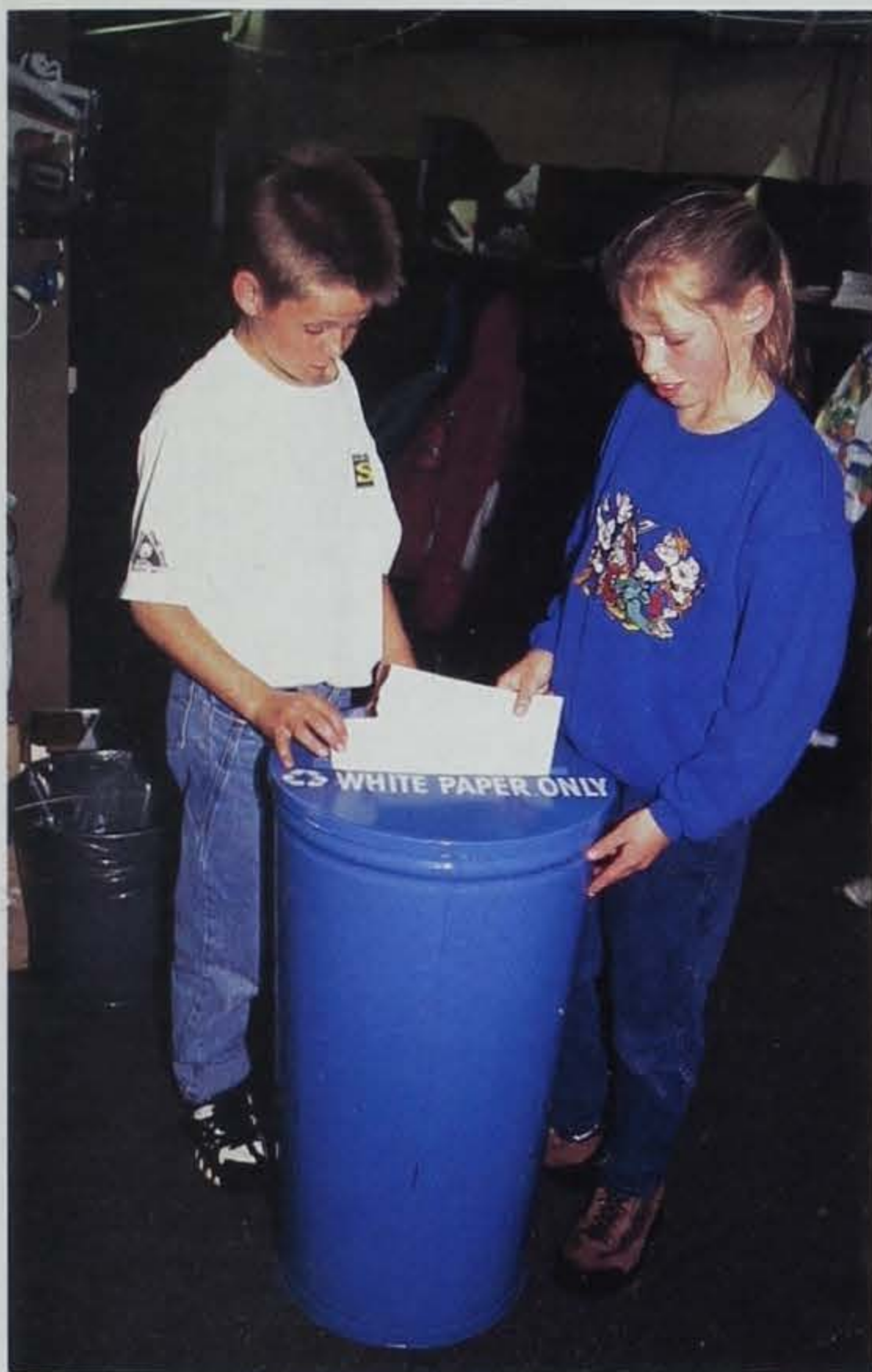
District recycling efforts are managed by the staff and students at Metro High School. The district's overall commitment to the recycling program was recognized by the Iowa Department of Natural Resources. A financial award, provided through the Landfill Alternatives Financial Assistance Program, was given to the district

in December 1993. The purpose of the financial assistance program is to provide funding to eligible applicants to imple-



▲ Mrs. Schott and members of her 5th grade "Pollution Patrol" unload recyclables at the recycling shed at Polk Elementary in Cedar Rapids.





The blue recycling containers are located in each school classroom and office in the entire district.



The students perform unannounced "inspection tours" as part of their "Pollution Patrol" duties (top).



Cardboard is collected and baled and, as with the money received from all recyclables in the project, proceeds from the cardboard are put back into the school district's recycling program.



ment education programs and solid waste management projects that will reduce solid waste going to the landfill. Through December 1994, the Landfill Alternatives Financial Assistance Program has provided more than \$21 million in financial assistance to 168 projects. The program has had an impact on every waste stream in the state of Iowa.

In the case of the Cedar Rapids schools, the grant enabled the district to purchase recycling equipment and recycling receptacles, aided in the development of educational and promotional activities and pays for student wages. "The DNR grant has made it possible for us, as a district, to expand our entire process, from collecting only white paper to now being able to collect colored paper, tin, plastic, cardboard and small amounts of other items," explains Frana. "The amount of





cardboard being collected now, because of the truck and baler, is amazing -- and continuing to grow."

Most visible of these grant-assisted items are the blue recycling receptacles. These containers are located in each classroom of the 32 schools and offices in the district. The receptacles are fireproof and leave a friendly reminder to both students and staff to recycle white paper.

Voluntary involvement in the recycling program varies from school to school, and office to office. Items collected for recycling by the school district are white paper, colored ledger, cardboard, tin, glass and #2 plastics. Special collections of newspaper and magazines are made if needed. All 32 schools and offices recycle white paper. Beyond white paper recycling, materials collected are dependent on involvement at each particular school or office. Twenty-four of the 32 schools and offices collect materials other than white paper.

▼  
**Joe Baldus and Bruce Frana are co-directors of the Cedar Rapids School District's recycling program. It is the largest organized school district recycling program in Iowa.**



Responsibility for the collection and preparation of materials varies among the schools. "What has been neat, is that if one person does not or cannot do it, someone else pitches in to help -- custodian, food service manager, teacher, student or principal," comments Baldus. Evidence of this cooperation is seen at Jefferson High School. "The kids are really doing the best job making sure things get recycled," says Elwood Garlock, Jefferson High recycling coordinator. "They'll tell a teacher *Don't throw that away, it goes in the recycling bin.* As with many things, kids are really the first ones to take an idea," he adds. "In fact, our special ed kids are the ones that pick up the paper three times a week. Our cooks and custodial staff do a great job, too. They pick up plastic, tin, cardboard and glass."

As at Jefferson High School, the students at Polk Elementary School are very much involved in the recycling program. Imagine an unannounced inspection of a classroom recycling receptacle by the "Pollution Patrol." The class sits on the edge of their chairs as the patrol checks items on the patrol "recycling check list." Cheers erupt as the class passes all check points on the list. The class has put acceptable items into their recycling container, they have not thrown any items in the actual garbage can that could be recycled, and they have a plan of action for the collection of their recyclables. The class is awarded a certificate at a monthly assembly. The "Pollution Patrol" is the idea of Ms. Schott, 4th and 5th grade teacher at Polk Elementary. Ms. Schott and her students developed this program to keep students interested and excited about recycling. Schott feels the commitment among the students is quite evident. "The patrol and its inspections are a great incentive for the kids," she says. "[The students] have taken ownership of the program and frequently remind me of their duties as the "Pollution Patrol."

Materials collected by students and staff at each building are taken to a centrally located area of the building for



pick up. A full-time recycling driver and student workers from Metro High School collect materials daily from scheduled locations. Unscheduled pick ups are made if necessary. As materials are collected, they are sorted by kind into a 16-cubic-yard truck. A small scale is set up in the back of the truck to weigh white paper collected at each location. Weights of the other collected materials are determined from scale tickets as materials are delivered to markets for processing.

All recyclable materials collected and processed throughout the district are managed at a building located at Metro High School. After a morning or afternoon pick up, materials are unloaded by hand and processed at the Metro High School facility. White paper is collected into boxes and taken to a local paper processor. The same preparation is used for colored ledger. Cardboard is baled and again taken to a local paper recycler. Plastics, tin and glass are also prepared at the facility and sent to a local recycler. On average, seven tons of materials are being recycled by the Cedar Rapids School District per month.

Not only is the recycling program diverting materials from area landfills, it is providing jobs for two Metro High School students. Through DNR funding, the students are able to go to work half a day and attend classes the other half. "The job has been very convenient for me because I can be at school and also be at work," says Bill Downer, student assistant. The students are given the opportunity to learn the importance of a job along with the importance of an education.

How does an entire school district become involved in a program that is strictly voluntary? "Over the past three years, recycling continues to grow with the help of the schools in the district," says Baldus. "The more the word gets out, the more recycled materials we collect and distribute to the recyclers." The district is getting the word out by showing *Turning Trash into Cash* in all classrooms. The video, developed by the district for both elementary and

middle/high school classes, highlights the Cedar Rapids Community School District's recycling program. The video simulates students and teachers in the classroom discussing topics such as why students should recycle; reduction and reuse techniques; what items can be recycled through the recycling program and successes of the program. Most importantly, the video points out the tremendous progress being made.

Just three school years ago, no type of recycling was taking place in the district. Data collected from the previous two school years show a constant increase in the amount of recyclables collected for processing. Over the past three years, recycling tonnages for the program have increased 300 percent. Through February 1995, 47.5 tons of materials have been recycled. Revenues received through the sale of recyclable materials are put back into the district-wide recycling program.

Frana feels the success of the program is due to the cooperation received from the district and teachers. "I can't say enough about how the DNR grant has allowed us to expand and progress so rapidly in the last year," he says. "Of course, much needs to be said about the cooperation we have received from district personnel -- they believed in our idea and supported us in our endeavor to develop the concept and continually expand the program." "However," Frana advises, "in a district this size, the progress over the last three years has been incredible -- but it has been, at times a seemingly slow process. We have been surprised by all the logistics and complications we did not expect nor anticipate as we developed the program."

Although unexpected complications do occur in such a program, the Cedar Rapids School District recycling program continues to grow and inspire the students and staff involved. Teach

Over the past three years, recycling tonnages for the program have increased 300 percent. Through February 1995, 47.5 tons of materials have been recycled. Revenues received through the sale of recyclable materials are put back into the district-wide recycling program.

your school district the importance of the 3 Rs -- Reduce, Reuse and Recycle!

If you would like further information on how your school or district can start its own recycling program, please contact Bruce Frana, Metro High School, at (319)398-2193.

For further information regarding the Landfill Alternatives Financial Assistance Program, contact Tom Anderson at (515)281-8623 or Mary Koens at (515)281-8263

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*Mary Koens is a environmental specialist with the department's Waste Management Assistance Division.*



# WAPSIPINICON

## ONE OF IOWA'S

# "RIVER BEAUTIES"

Article by Mike Brewer and Steve Pennington

Photos by Ken Formanek



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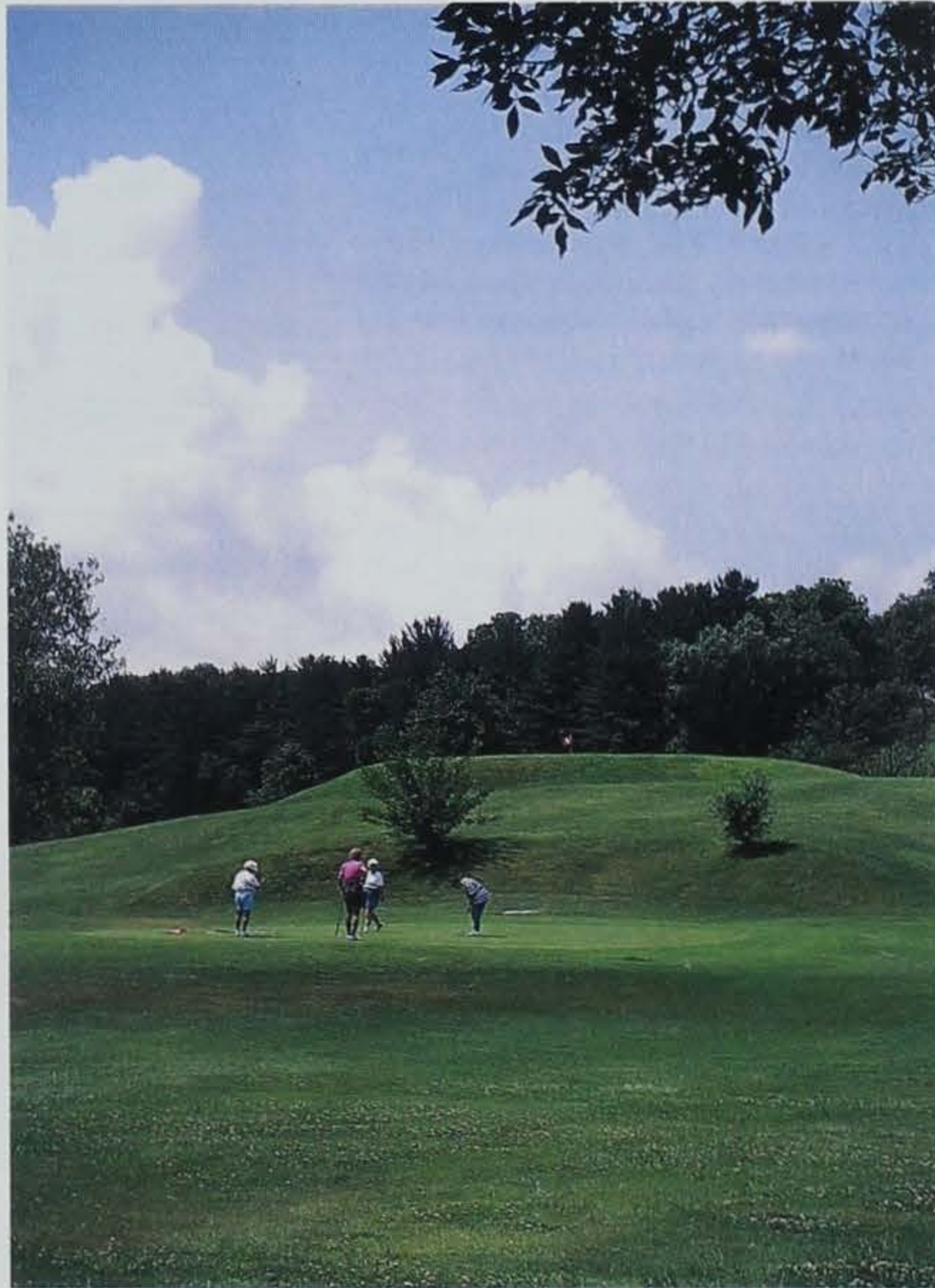
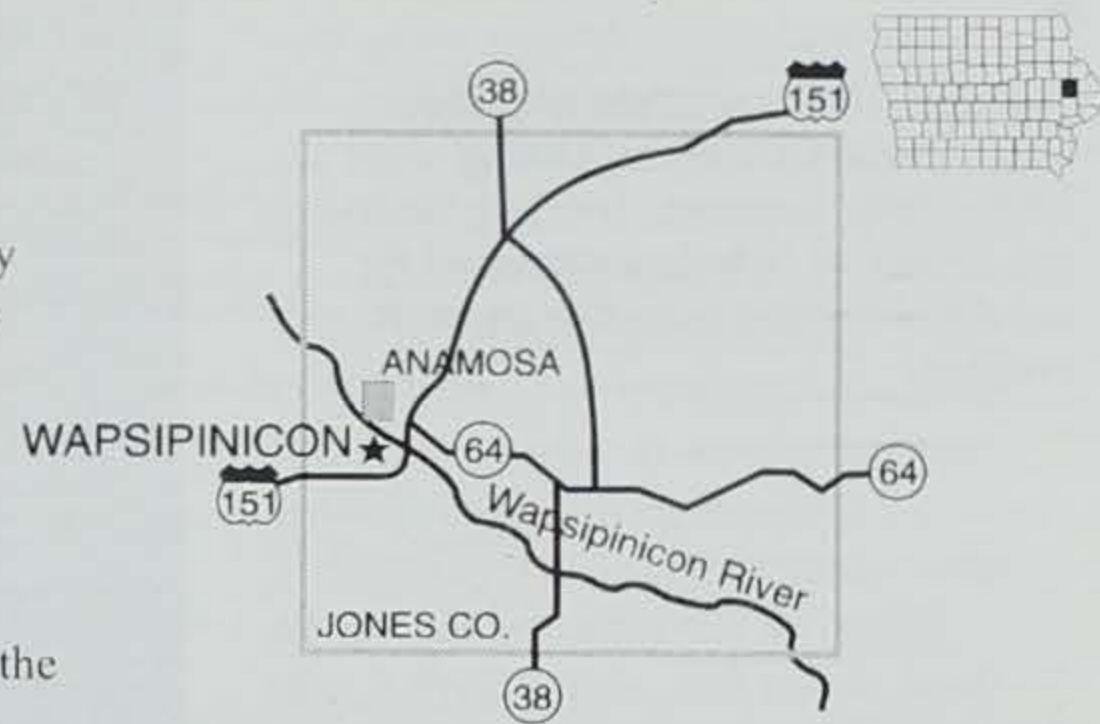
Wapsipinicon is a beautiful park with more than two and a half miles of frontage on the Wapsipinicon River. Most people refer to the park, located at Anamosa in Jones County, as "Wapsi." The 400 acres at Wapsi contain excellent stands of native hardwood timber and impressive rock formations and caves. The park has campgrounds, trails, picnic areas, fishing, a lodge, shelters and scenic waterways. The Wapsipinicon Country Club nine-hole golf course sits beside the park. Canoes frequently float the river and Wapsi is a favorite river access point.

The story of Wapsipinicon State Park always includes the local community. It is an integral part of the park's success, and Wapsi's community support seems to be higher than at most parks. This involvement makes Wapsi unique and translates into some excellent community benefits as well.

A recent example of community support at Wapsi is the acquisition of an adjacent farm, increasing the park from 250 to 400 acres.

Another effort has been the construction of an enclosed shelter on the new property.

The purchase of the adjacent farm could not have occurred without strong community support. Land purchase by the DNR's Parks Division occurs only in the presence of such support and it was evident at Wapsi. The 150-acre farm has added river frontage and two ponds, and holds great promise for making the park even better than before. In recognition of community support, the new acreage is being managed for the most benefit possible to the most park visitors under a multi-use policy. Hunting and fishing are allowed and one open field is rented for hybrid seed corn production. In return, the renting company has supported park management by planting wildlife food plots and by performing weed control in a new tree planting corridor that



▲ Wapsipinicon Country Club nine-hole golf course sits beside the park, giving park visitors a convenient spot to play a few rounds.







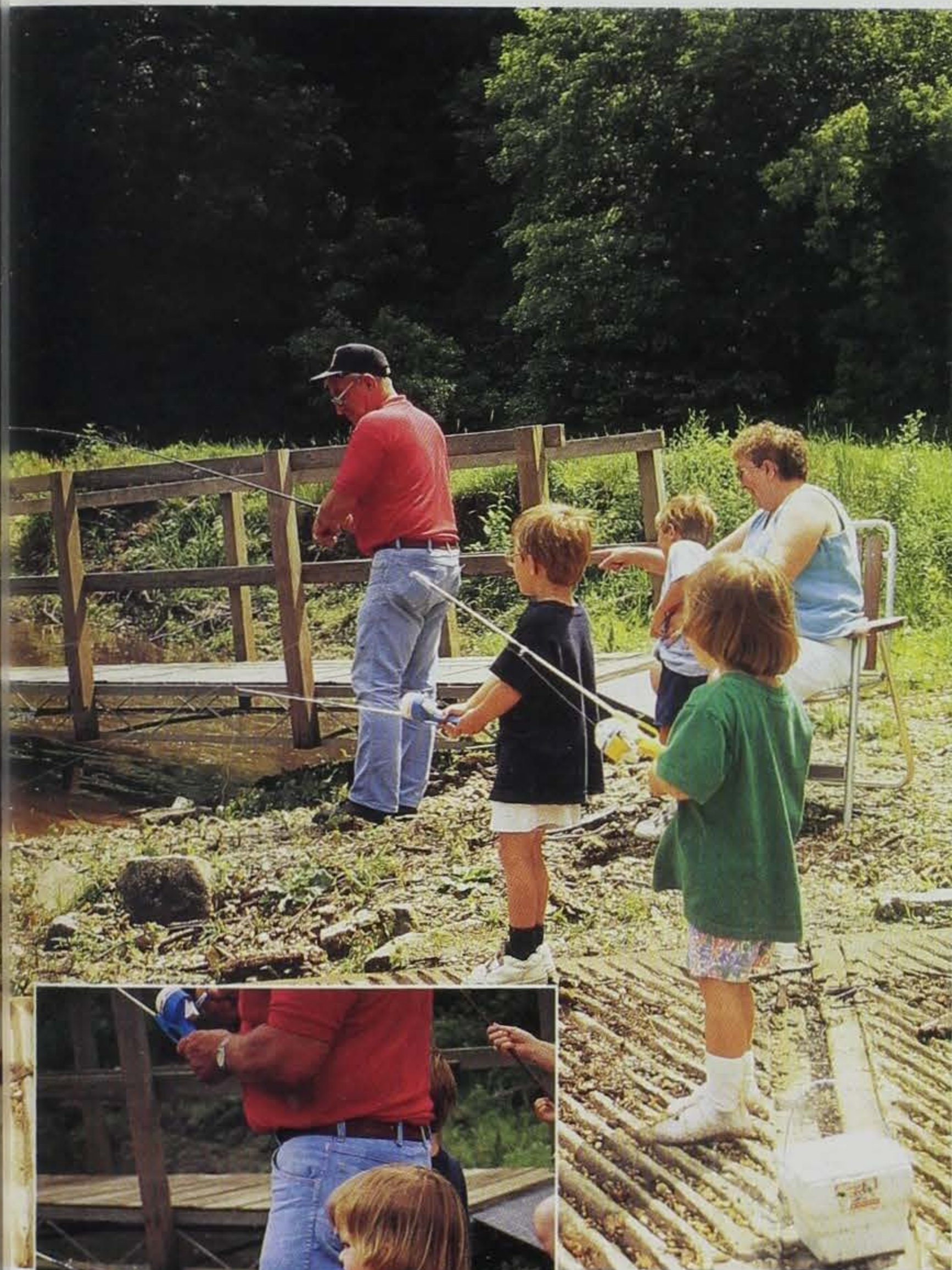
The new acreage could not have been acquired without strong community support. Under a multi-use policy, it is being managed for the most benefit possible by park visitors.



A recently completed enclosed shelter was built almost entirely by donations from the community and volunteer labor. Set in the midst of a wonderful view, the heated shelter has indoor space for gatherings, a roofed patio and rest rooms.







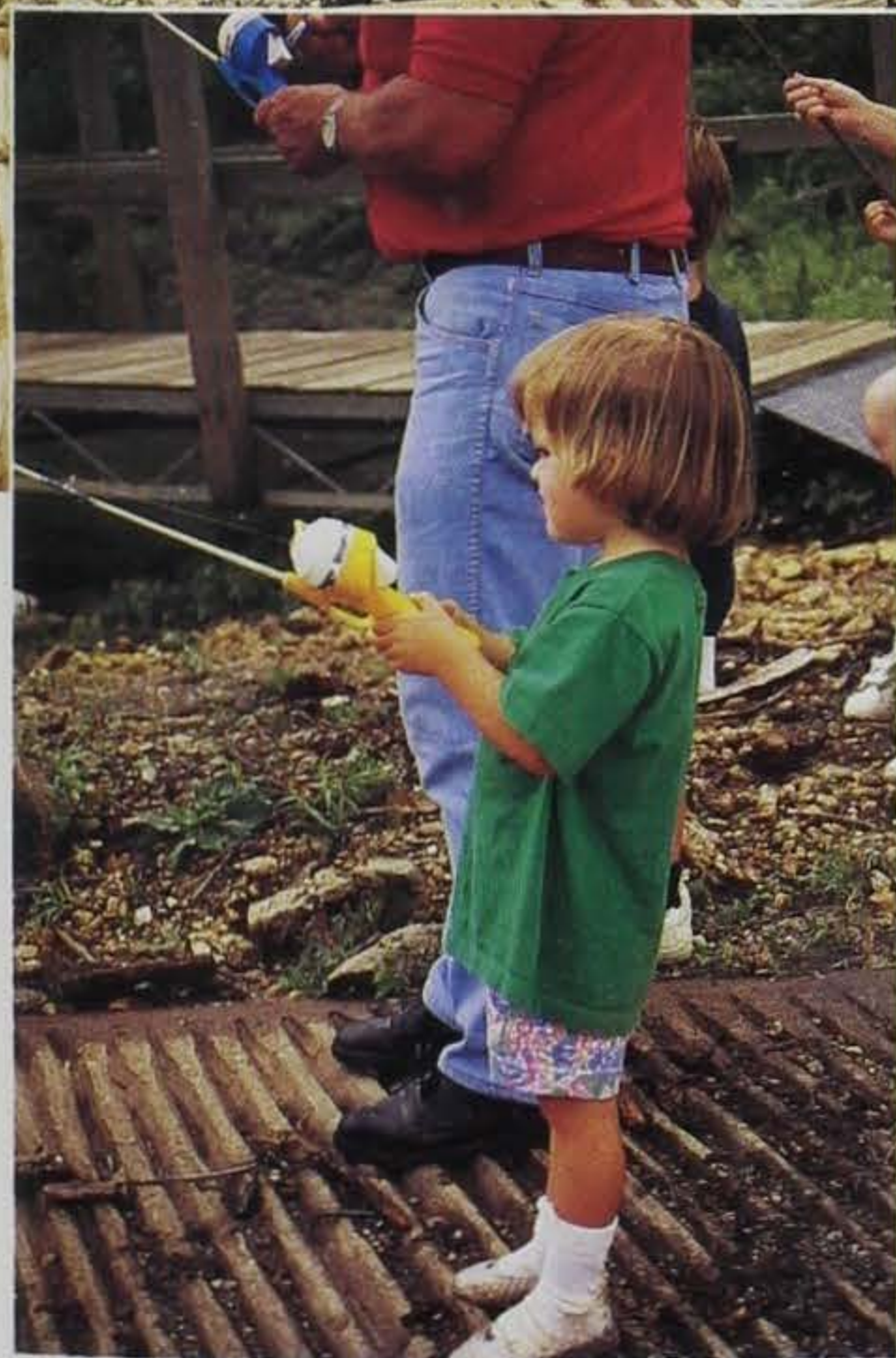
will allow wildlife to access the river for drinking water. The park helps the community and the community helps the park.

Another major community effort at the park has been the completion of an enclosed shelter on this new acreage. It was built almost entirely by donations from the community and volunteer labor. The shelter has indoor space for gatherings, a roofed patio, rest rooms, heat and a scenic view of the valley.

Seventy-five years ago, the Iowa state park system was founded. The original founders had great vision and the foresight to plan for their children and grandchildren, assuring they had outdoor places to visit and enjoy. Seventy-five years later, this same vision and foresight is alive and well at Wapsipinicon State Park and the surrounding community. The recent additions to Wapsi demonstrate the same commitment to the next generation. With community support and volunteerism, such things can happen and are happening at Wapsi.

*Mike Brewer is the park ranger at Wapsipinicon.*

*Steve Pennington is the field operation bureau chief for the Parks, Recreation and Preserves Division in Des Moines.*



Wapsi's beautiful surroundings make it a little easier to pass the time as you acquire the skills and patience needed for fishing.



# THE PRACTICAL CONSERVATIONIST

## Field Dressing Your Deer

Remember that spoilage is prevented by fast care of game in the field. The three things to watch out for are heat, dirt and moisture. Use a sharp knife and bring a whetstone for sharpening. Be careful with the knife but also do not cut your self on pieces of bone. Work quickly but safely.

Here are the steps to field dressing your deer.

1. If your deer is a buck remove the sex organs. Do not cut into the body cavity.

2. Cut through the skin without puncturing the intestines. With the sharp edge of the knife upturned, guide the knife with your fingers until you have cut through the belly hide.

3. Cut all the way up to the breastbone.

4. Finish the belly cut to the anus, split the pelvis bone and cut out the anus.

5. Turn the deer to one side and make as many more cuts as necessary to spill the paunch.

6. With its head elevated as much as possible, turn the deer on its stomach and allow the blood to drain. You may wipe the abdominal cavity with clean, dry grasses or leaves.

7. To drag your deer, tie one end of the rope around the neck or the antlers and take a half hitch around the upper jaw. Cross the deer's forefeet in back of its head and tie them securely. Leave a short length of rope free that will serve as the "carrying strap." Use a sturdy, short stick and tie it to the free end of the rope and use that as the handle for your strap.

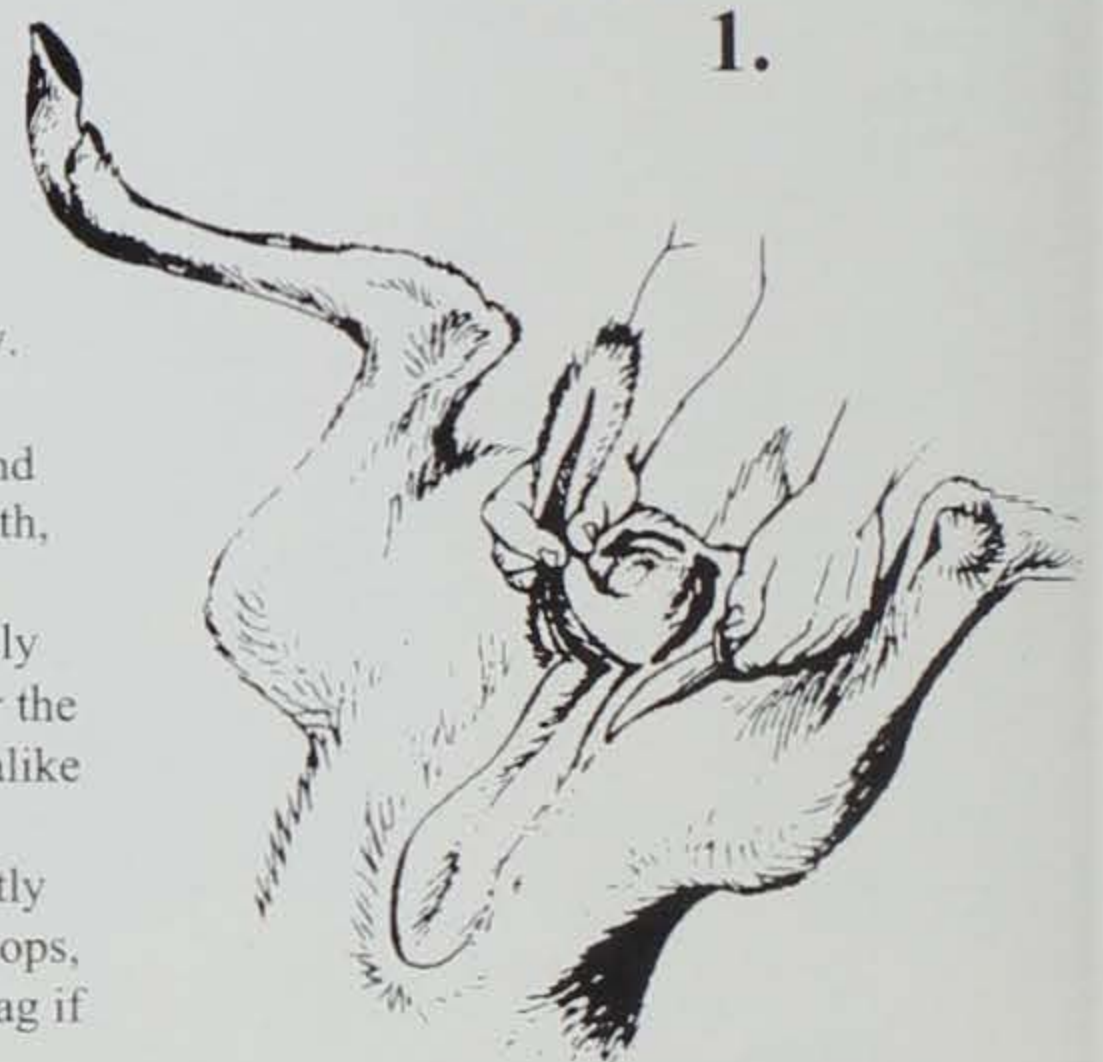
8. If there are two or more people in your party you can lash a deer to pole to carry it out. You will need to tie the entire body securely to prevent it from swinging. It is a wise precaution to drape the deer's body with piece of blaze orange clothing (shirt, vest, coat, etc.) or blaze orange tarp, cloth or game bag. That should eliminate anyone

carelessly viewing the deer's body as a target. However, do **not** remove your blaze orange apparel. Remaining as visible as possible is a good safeguard.

9. As soon as you possibly can, hang the deer up by its antlers or head. Then prop open the deer (with a stick or rod) to allow the meat to cool completely. As soon as possible wash off the interior body cavity with water and dry it thoroughly with a clean cloth, paper towels or dried grass.

10. Transport your deer safely and display the proper respect for the animal. Hunters and nonhunters alike can be offended by improperly handled game. Avoid the unsightly display of the animal on vehicle tops, hoods and fenders. Use a game bag if you can and never carry a large animal on the hot hood of your car.

Illustrations reprinted courtesy of the NRA's *Whitetail Deer Hunting*; drawings by Doug Pifer.



1.



2.





4.

*Venison can be a dish fit for a monarch, but remember -- any recipe, however good it is, will not correct the poor taste of venison improperly cared for.*

*Take the time to field dress your deer and properly chill the meat.*

## RECIPES

### Barbecued Venison Meat Balls\*

1-1/2 lb. ground venison  
1 egg, slightly beaten  
1/2 c. bread crumbs  
1 tsp. salt  
pepper to taste

Sauce:

1 c. ketchup  
1 T. Worcestershire sauce  
2 T. brown sugar  
2 T. vinegar  
1/4 tsp. salt  
Dash of pepper

Mix venison, egg, bread crumbs, salt and pepper. Shape into 1-inch meat balls and place in a shallow baking dish. Mix sauce ingredients together and pour over meat balls. Refrigerate until ready to bake, even overnight. Bake at 350° for 1 hour and 15 minutes. Baste once or twice.

### Barbecued Deer Chops\*

2 lbs. deer chops  
1 med. onion, chopped  
1/2 c. celery, chopped  
2 T. butter  
1 c. ketchup  
1 c. water  
2 T. brown sugar  
2 T. vinegar  
3 T. Worcestershire sauce  
1/4 c. lemon juice  
salt and pepper

Brown chops in skillet. Remove and put in a baking dish. Brown onions and celery in butter. Add remaining ingredients and cook slowly until flavors are well blended, about 15 minutes. Pour sauce over chops and bake at 350° for 1-1/2 hours.

*\* These recipes are from the Wardens Diary Cookbook available from your conservation officer. Cost is \$12, the supplement is \$5. The cookbook contains a variety of outdoor recipes for all seasons of the year.*



# CONSERVATION UPDATE

## CONSERVATION UPDATE

### Forty-Three Years Ago . . . and Today at the Iowa Veterans Home

Forty-three years ago humans had not gone into space. There was not a television set in every household, let alone a VCR or computer. Forty-three years ago some rural areas were just getting electricity. Cars did not have shoulder belts or air bags. And, 43 years ago, the Iowa Veterans Home (IVH) installed a brand new heating system.

Last year, given that technology has changed immensely in the last 43 years, the Veterans Home staff received approval from the Commission of

Veterans Affairs to upgrade the heating/cooling plant at the facility. The outdated equipment was having an impact on residents' comfort, with unreliable heat and air conditioning. The old system also was affecting the facility's budget, wasting energy and increasing utility bills.

The project was initiated by the IVH staff and implemented by a partnership between the IVH, the DNR's State of Iowa Facilities Improvement Corporation, Ament Engineering, Inc., IES Utilities Inc. and the Iowa Department of General Services. The improvements included providing a state-of-the-art steam boiler operation, installing a new air conditioning chiller and adding electrical generators.

The new systems will



P. S. Cale

▲ The Iowa Veterans Home provides housing and medical care to Iowa's veterans. New improvements to the Home's energy systems are making the residents' environment safer and more comfortable.

save money in both energy and operating costs. In addition, the new generators will provide emergency power and allow the facility to reduce utility bills through

lower rates. Best of all, the new energy equipment will make the facility, home to Iowa's veterans, safer and more comfortable for the residents and employees.

▶ New, automated steam boilers and chillers at the Iowa Veterans Home are a vast improvement over the 1952-era models they replaced, with better efficiency and reliability at a lower cost.



P. S. Cale



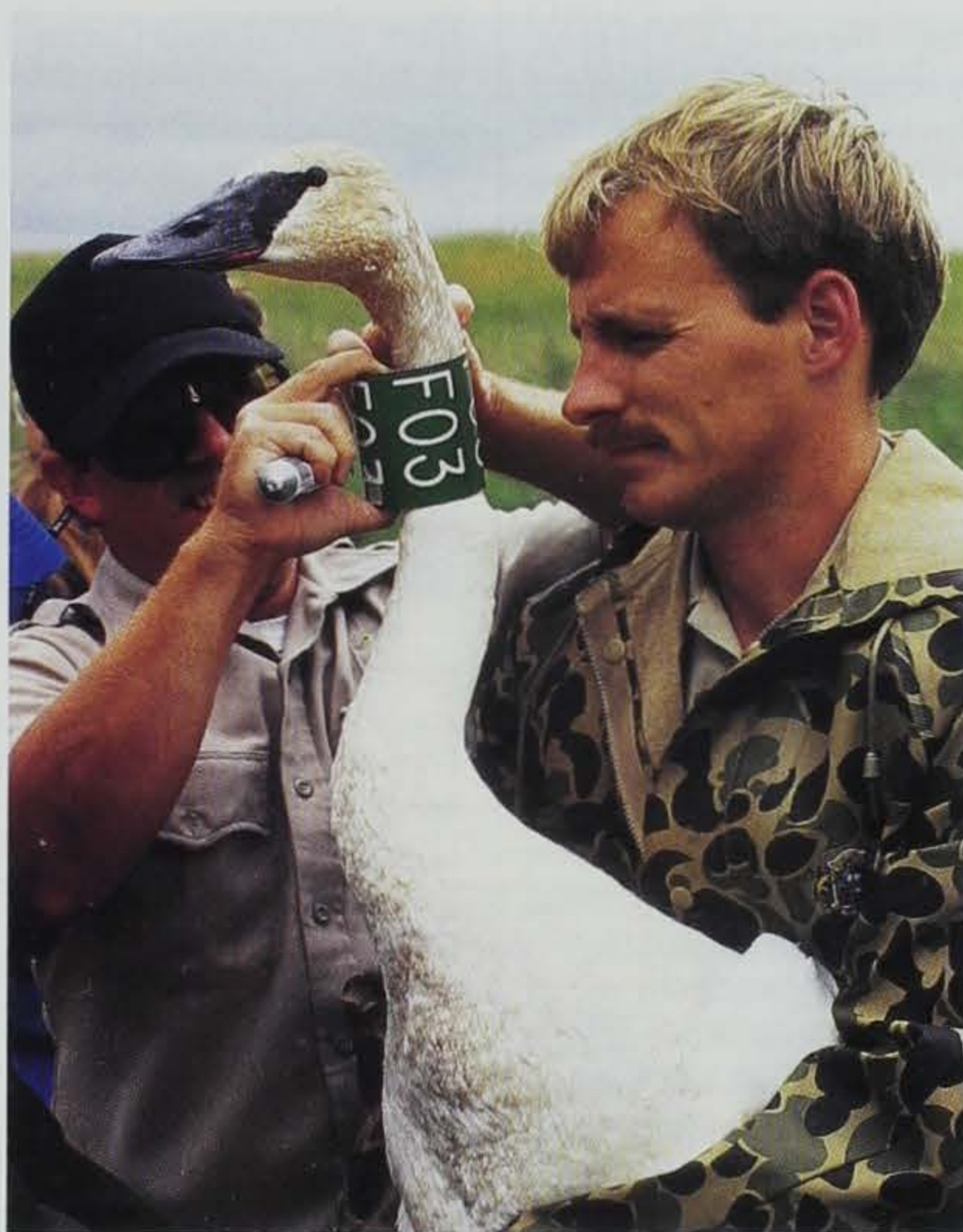
The \$1.9 million energy efficiency project is now complete and will be dedicated at a ceremony at the IVH this September.

No additional taxpayer money was involved in funding the project. Because the new systems are much more energy efficient, the cost of the improvements was financed and will be paid for out of energy and operational and maintenance savings. Financing was provided by the State of Iowa Facilities Improvement Corporation through private investment capital. The \$275,000 annual savings in energy, operations and maintenance will allow the IVH to pay off their financing in about 10 years.

### WANTED: SWAN SIGHTINGS Public Support Sought In Monitoring Swan Migrations

Biologists with the DNR are seeking public assistance in monitoring the movements of 14 wild trumpeter swans.

According to DNR wildlife biologist and swan restoration coordinator Ron Andrews, the wing-clipped birds were released into a fenced, Dickinson County wetland early last spring. The swans were recaptured during the summer molt and fitted with large, green and white plastic neck collars. As new flight feathers returned, the huge birds were given their freedom.



Lowell Washburn

▲ Alan Hancock (left), wildlife technician and Tim Waltz, wildlife worker, neck collar a trumpeter swan near Spirit Lake.

"Since this is the first large flock of swans to be liberated in Iowa, we do not know for sure what to expect in terms of movement," said Andrews. Hopefully, the individually numbered neck collars will help keep tabs on the swans as they disperse. "These collars are easily read from a distance, and public sightings will provide critical information in keeping track of the trumpeters whereabouts," said Andrews.

Biologists hope that



Lowell Washburn

the swans will travel southward this autumn to find safe wintering areas. As adults, the birds should return to Iowa wetlands for nesting. However, since there is no longer a "traditional" migratory pathway for Iowa swans, biologists remain uncertain as to where the birds will travel. The last wild pair of trumpeter swans to nest in Iowa occurred in Hancock County in 1883.

The DNR hopes to reestablish 15 breeding pairs of trumpeters by the year 2003.

▼ A neck-collared trumpeter swan swims across a Dickinson County wetland. As swans begin to migrate this fall, the DNR is requesting the public report any collared swans they see.



# CONSERVATION UPDATE

## CONSERVATION UPDATE

### Environmental Education Programs

As fall comes around again and the children head back to school, teachers and youth leaders plan the year's schedule. This is a partial listing of the educational programs and services provided by the Department of Natural Resources that may be helpful.

#### *Trees for Kids/Trees for Teens*

This tree education and planting project provides a free, detailed teacher's education manual and the opportunity to receive a free landscape tree for classroom planting on school grounds. Contact the DNR urban forester at the DNR Central Office, 900 E. Grand, Des Moines, IA 50319-0034, 515/242-5966.

#### *Big Tree Program*

The Iowa Big Tree Program maintains a list of the largest tree of various species in Iowa. Tree size is based on three measurements -- circumference, height and crown spread. Recognition is given to both the owner and the nominator. Contact the DNR urban forester (see above).

#### *Springbrook Conservation Education Center*

The primary purpose of the center is to train educators in the use of conservation-related educational materials and to work with student groups. Staff is available on-site to work with visitors. The center is a 104-bed conservation education facility located on the south side of Springbrook State

Park. The center can be used by reservation only. Please check with the center for pricing and availability. Contact the Springbrook Conservation Education Center, 2473 160th Road, Guthrie Center, IA 50115, 515/747-8383.

#### *Aquatic Education*

This is an education program for elementary and secondary teachers and students. Teacher workshops and educational materials are provided, and rods and reels are available for loan to classes throughout the state. Contact the Aquatic Education Coordinator, 2473 160th Road, Guthrie Center, IA 50115, 515/747-2200.

#### *Fish Iowa!*

This aquatic education program, available to schools, promotes fishing as a lifetime skill. The basics of conservation, safety and angling are covered through a variety of teaching aids. The teaching module is targeted for physical education classes of middle through high school, with interdisciplinary components. Contact the Aquatic Education Coordinator, 515/747-2200 (see above).

#### *Project WILD, Project WILD Aquatic and Project Learning Tree*

These are national environmental education activity guides for teachers and other educators. Guides are available through workshops. Iowa-specific supplements are provided with the manuals.

Contact the Aquatic Education Coordinator, 2473

160th Road, Guthrie Center, IA 50115, 515/747-2200.

There are other agencies and organizations that also provide environmental education materials. Some of these are:

**Department of Education**, Bureau of Instruction and Curriculum, Grimes State Office Building, Des Moines, IA 50319, 515/281-3146.

Many environmental education materials are available by in-service. Please contact the Department of Education for a current workshop schedule. Materials include: *Iowa Clean SWEEP*, *I.D.E.A.S* and *Food, Land and People*.

**e.i.i. -- Environmental Issues Instruction**, Division of Continuing Education, University of Northern Iowa, Cedar Falls, IA 50614, 800/772-1746.

This is a transdisciplinary curriculum that meets the needs of all discipline areas of a self-contained classroom. The goal of all e.i.i. workshops is responsible environmental action. Topics for e.i.i. workshops have included tropical rainforest, solid waste and feeding the world.

#### **Project LS -- Land Stewardship and Life-style Decisions Curriculum**

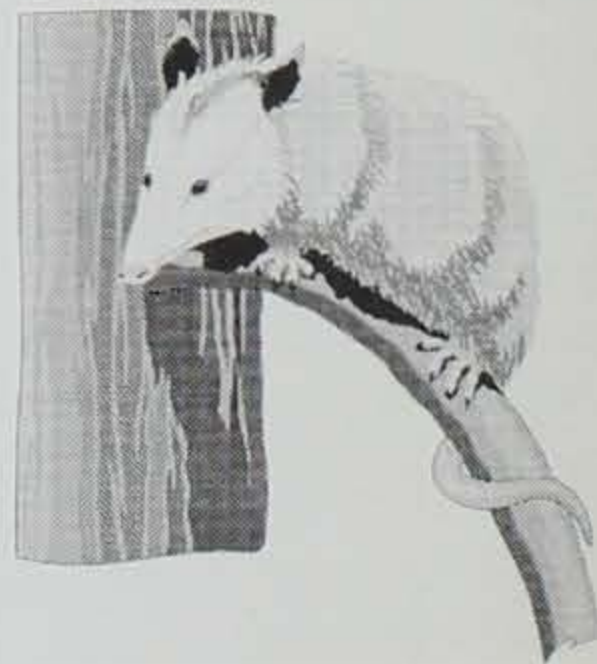
The goal of *Project LS* is to improve public understanding of Iowa's ecological heritage -- the natural and unnatural processes that have made our environment what it is. The program provides students with a basis for responsible

decision-making concerning the management of Iowa's natural resources. Contact Mary Norton, RR 1, Prairie Hills Farm, New Hartford, IA 50660 for workshop schedules and materials' costs.

The **Energy Education Curriculum Project** is a joint effort of The Iowa Energy Center and the University of Northern Iowa. The project has developed and tested energy education materials for use with students in the upper elementary and middle school grade levels (5th-8th). The IEC also has a curriculum available for use in high school agriculture classes. For information on available energy education programs contact: Adriene Koett-Cronn, 2521 Elwood Drive, Suite 124, Ames, IA 50010-8263, 515/294-4391.

#### **Branch (PLT Newsletter)**

To be included on the mailing list of this free publication write: Project Learning Tree, 1250 Connecticut Ave., NW Suite 320, Washington, DC 20036.







DNR

▲ To help celebrate the 75th anniversary of Iowa's state parks, for a limited time, this replica state park truck is available for \$24.95 by contacting: Toy Collector Club, P.O. Box 302, Dyersville, IA 52040, FAX 319/875-2455, Phone orders 800/452-3303.

### Diversity In Action

The success of the trumpeter swan restoration project depends on many individuals and organizations. Fund-raising efforts across the state have been as diverse as the individuals, organizations, businesses and age levels that conducted them. T-shirt sales, raffles, small barbecues and other "feeds," the "pennies for swans" programs in schools, auctions of "scrimshaw" swan art, donations of swan food and aeration maintenance, memorial donations and outright gifts are all examples of fund-raising projects. Each adult trumpeter swan pair can cost as much as \$2,500 to \$3,000 and younger swans cost about \$500 apiece. In the effort to

establish the 15 breeding pairs, literally every penny counts and truly makes a difference.

For information about the project, possible fund-raising ideas or other ways you can become involved call Ron Andrews at 515/357-3517. (See the related article on page 53.)

► Conservation officer Mark Edwards displays a stuffed trumpeter swan (courtesy of the Story County Conservation Board) to elementary students at Bryant School in Boone as a kickoff for their Kids Saving the Earth club fund-raising effort. The effort is typical of the many individual efforts working towards the goal of more the \$150,000 needed to establish the trumpeter swan population,

### Off-season Camping Rates Start Sept. 5

Fall is a great time to enjoy one of Iowa's many state parks you might have missed this summer. During this 75th anniversary year, check out the fall color display at Pikes Peak, get in some great fall fishing at Lake Anita or enjoy the Forest Crafts Festival at Lacey-Keosauqua. Iowa's state parks, recreation areas and forests offer 58 campgrounds with a total of 5,700 campsites. These camping areas provide a variety of camping settings and are a great way to enjoy the outdoors.

Campers can also take advantage of the off-season rates in state parks and recreation areas beginning Sept. 5. These rates are \$3 per night lower than the

peak-season rates. The reduced rates are \$4 per night for a nonmodern site and \$6 for a modern site. It is still an additional \$3 per night for an electrical site, and a limited number of parks have water and sewer hookups for an additional \$2 per night.

Campers are reminded that all campsites are on a first-come, first-served basis, no reservations are accepted. Campsites marked with the wheelchair sign are reserved for use by persons displaying a handicapped parking permit on their vehicle.

*Your Guide to Iowa State Parks and Recreation Areas* lists the features found at each site and is available at many parks and the DNR central office, or by calling the DNR 24-hour information system at (515)281-5145 and requesting the brochure.



Boone News-Republican



# CONSERVATION UPDATE

## CONSERVATION UPDATE

### Upcoming NRC, EPC and Preserves Board Meetings

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

Agendas for these meetings are set approximately 10 days prior to the scheduled date of the meeting.

For additional information, contact the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034.

### Natural Resource Commission:

- September 7, Brushy Creek Area
- October 12, Onawa
- November 9, Des Moines
- December 14, Des Moines

### Environmental Protection Commission:

- September 18, Des Moines
- October 16, Des Moines
- November 20, Des Moines
- December 18, Des Moines

### State Preserves Advisory Board:

- September 8, Howard County

### Fall '95 Toxic Cleanup Days

Toxic Cleanup Days (TCDs) allow Iowans to dispose of their household hazardous wastes and provide an opportunity for education on alternatives to disposal, or in some cases, proper disposal management in the home. If you are stumped about what to do with unusable chemicals in your home, call the DNR Waste Management Hotline at (800)367-1025.

Toxic Cleanup Days dates and the counties participating are listed below. Watch local newspapers for phone numbers to call for appointments.

- ❖ **Sept. 16**  
Grundy County  
Tama County
- ❖ **Sept. 23**  
Linn County
- ❖ **Sept. 30**  
Guthrie County  
Shelby County
- ❖ **Oct. 7**  
Harrison County

### 1994 Iowa Deer Season Excellent

The numbers have finally been tallied and Iowa's 1994 deer season was the most successful in four years, according to DNR wildlife biologist Willie Suchy. The total harvest of 87,231 deer for all seasons was 14 percent higher than 1993.

"Archery and muzzleloader hunters, and hunters during both shotgun seasons were more successful than during the past couple of years," Suchy said. "Shotgun hunters had a 60 percent success rate and muzzleloader success was 40 percent. Bow hunters, with a success rate of 37 percent, set a new record -- 12,040 deer taken, slightly topping the previous record of 11,857 set in 1989. Last fall's ideal weather probably encouraged



hunters to remain in the field a little longer. That, combined with a slight increase in license sales, accounted for most of the increase in kill."

Suchy said the increase also reflects an increase in deer numbers. Most of the increased kill came from the northern two-thirds of the state, an area where the DNR has been trying to build the herd. Biologists are watching the deer numbers carefully, trying to keep a balance. Suchy said surveys indicate deer populations in many of these areas are reaching 'tolerance' levels. If the herd goes beyond that level, people begin to get very upset with the problems that deer can cause.

"I anticipate another good fall," Suchy said. "Our surveys indicate deer numbers have increased, especially in the northern part of the state, and we have liberalized the regulations there so hunters should be even more successful."

(See the 1995 *Hunting Forecast*, page 4.)



Lowell Washburn



# CLASSROOM CORNER

by Barbara D. Gigar

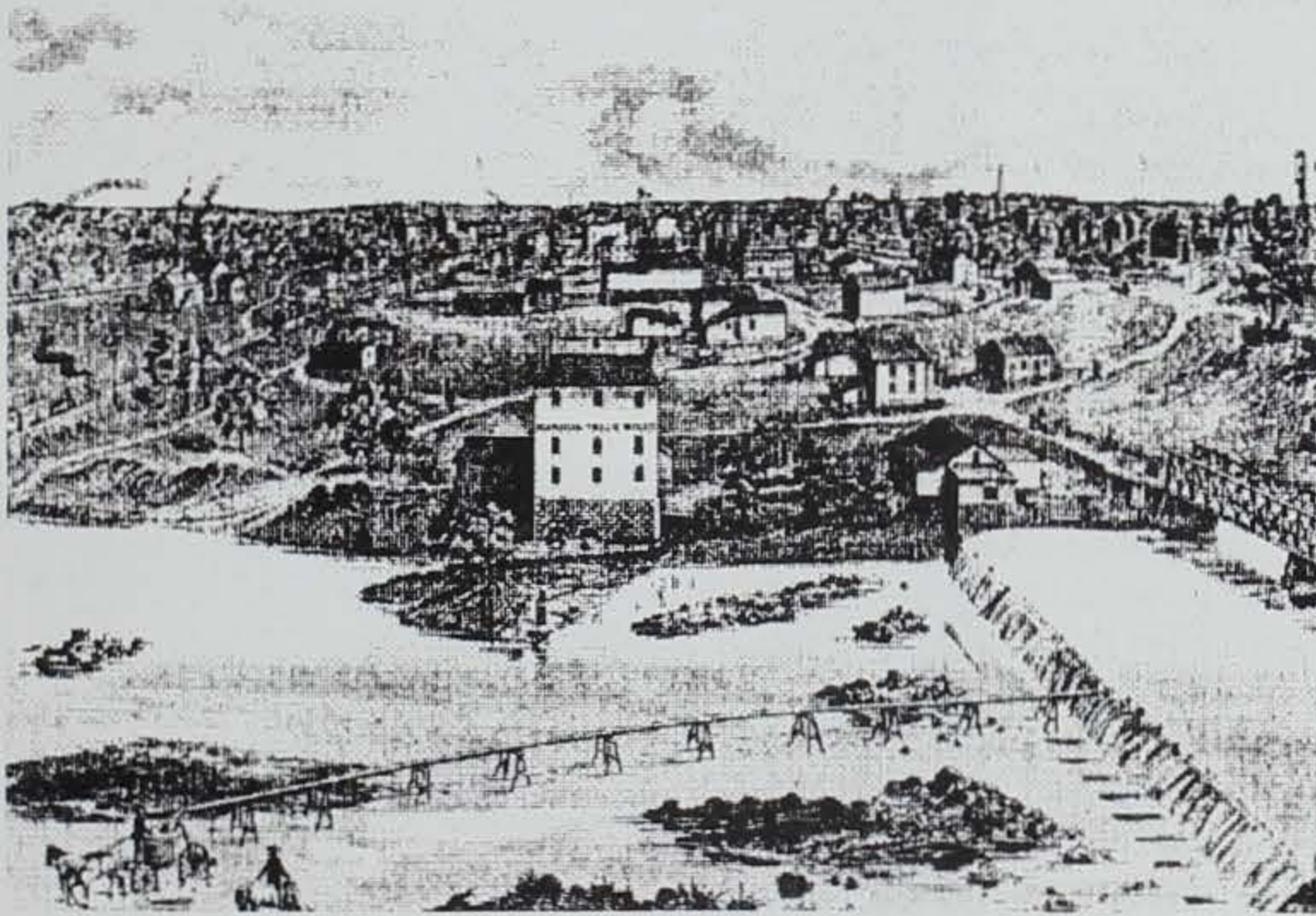
## *Watered Down History*

Adapted from "Watered Down History" found in *Aquatic Project WILD*, Western Regional Environmental Education Council

### **Background:**

Rivers historically have provided a readily available path for exploration and transportation, serving as a magnet for human settlement. Even before humans appeared on the scene most rivers provided a rich habitat for wildlife. Throughout human history, rivers have been considered a traditional way of life for people, and for the plants and wildlife associated with them. Iowa rivers have nourished an abundance of plant and animal life. Rivers provided transportation, power, irrigation and a source of water for Native Americans and early settlers.

Rivers and streams are the most widely distributed of Iowa's naturally occurring aquatic resources. They range in size from the intermittent streams containing water for only short periods of time, to the Mississippi, draining nearly one-third of the continental United States. Currently, Iowa's rivers are under great pressure. Many have been channelized (straightened), and the trees and woody vegetation removed from their banks. Changes in rivers have an impact on wildlife as well as on humans. Some may be beneficial; others are damaging. The major purpose of this activity is for students to acquire an insight into the heritage associated with Iowa rivers, especially those in their area of the state. Students gain this insight by exploring natural as well as human history. The activity culminates with students writing a "future history" for a local river.



▲ This print shows Nashua, Chickasaw Co. Iowa from the 1875 *Andreas Iowa Atlas*.

### **Age:**

Grades 4-12

### **Subjects:**

Social Studies (History, Geography), Language Arts, Math

### **Skills:**

analysis, classification, communication, description, discussion, drawing, inference, interpretation, interviewing, listening, listing, mapping, prediction, public speaking, reading, reporting, research, small group work and writing

### **Objectives:**

Students will:

1. describe the functions of rivers in Iowa in the past and at present;
2. analyze cause-and-effect relationships between events and consequences affecting local rivers.

### **Materials:**

County, state and/or regional maps  
Names of agencies responsible for historical records  
Art materials  
Original and simulated historical materials from the "Explorations in Iowa History" project

### **Other Resources:**

"Explorations in Iowa History" project, Malcolm Price Lab School, University of Northern Iowa, Cedar Falls, IA 50613

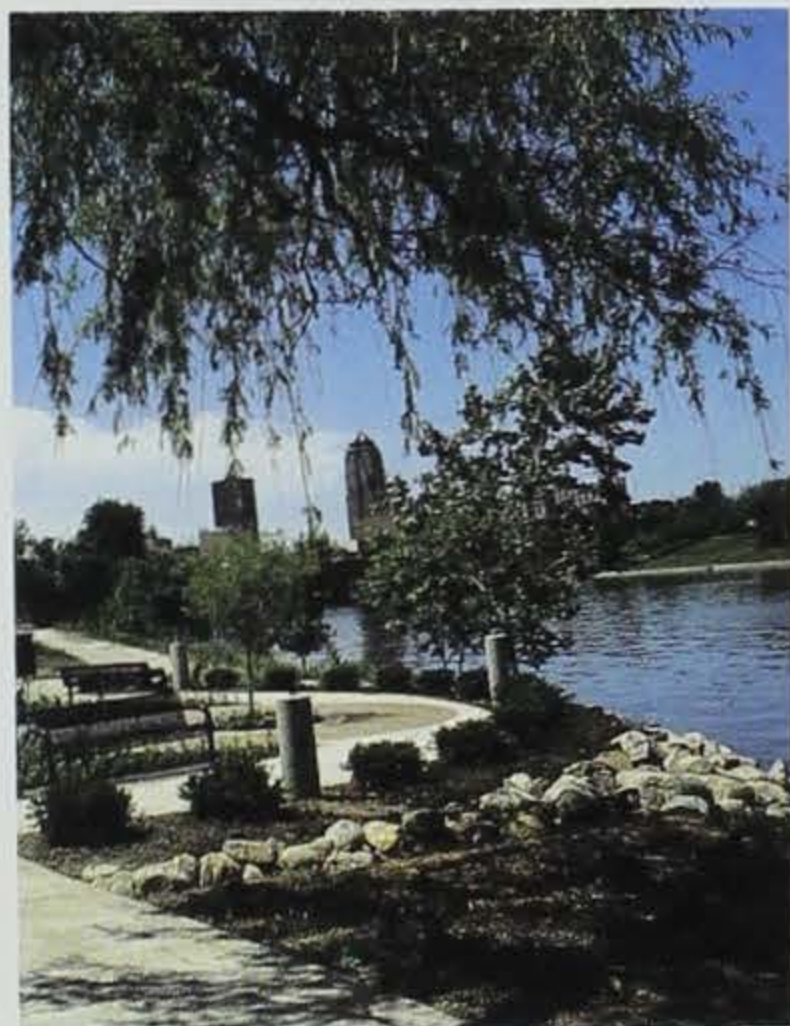


## Evaluation:

1. Have the students list at least five functions of rivers throughout history.
2. Have the students write at least two paragraphs describing how the river might have changed during the last 150 years. Then have them write another paragraph predicting what might happen to the river during the next 50 years.

## Extensions:

1. Have the class create a "future history" of the river. They could do this by going back into history and "undoing" things they feel were damaging to the river ecosystem. This could be illustrated by replacing their artwork with artwork depicting what they would like to have happened.
2. Students could create an image of the future they feel represents an effective ecological balance between people, wildlife and the environment in association with the river.



▲ Recent projects have brought pathways back along the river in Des Moines.

*Barbara D. Gigar is the aquatic education coordinator for the department stationed at the Springbrook Conservation Education Center in Guthrie County.*

## Procedure:

1. Explain the general purpose of the assignment, which is to trace the history of how rivers have functioned in relation to wildlife and humans, and look to the future of a local river(s).
2. To help students gain a broader view of the importance of rivers throughout history, obtain copies of the original and simulated materials from the "Explorations in Iowa History" project or obtain historical maps, newspapers, etc. Have students review them and develop lists of various historical functions of rivers from the publications. Discuss the historical importance of rivers for humans and wildlife.
3. To provide a more local perspective, ask students to refer to county, state or regional maps, and (as a group) select one river that will be the focus of their research. (NOTE: If possible, the students could visit the river as a pre-research field trip. This would provide them with an awareness of present conditions so that historical perspectives and future recommendations would have a base in experience.)
4. Once students have chosen a river to research, divide the class into small working groups. Ask the students in each group to choose a major topic area -- geology, plants, animals, ancient peoples or recent history. Choosing a variety of topics helps to establish historical perspective as well as to spread out the demand for references. More specific topics the students might explore include floods, dams, agriculture, wildlife common to the area, life and culture of ancient peoples in the area, early Euro-American settlers in the area, recreation (fishing, boating) and irrigation.
5. Ask the students to identify resources for their research. If possible, try to include resource persons such as long-lived citizens of the area, members of local historical societies and government professionals (DNR, county conservation board, soil and water conservation district, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, etc.) History, science and social studies teachers from high schools or colleges also may be viable sources. Old newspapers, historical archives or any other historical references for the local area would be useful.
6. Student groups will research their specific topic, but each group should be alert to information and ideas that would benefit the other groups. Questions to provide guidance might include: *What forms of ancient life populated the regions around the river? How did these people interact with the river? How did explorers find this river? What kinds of wildlife did explorers and/or early settlers find here? What kinds of vegetation were along the river when explorers/settlers first arrived? Are the plants and animals found by early explorers still here? How has the river changed since it was first found by explorers/settlers?*
7. Once the research process is underway, have student groups report their findings to the rest of the class in historical sequence from earliest times to the present. As a class, identify major time periods being researched by each group. Establish a sequence for reporting so that each topic (geology, archeology, etc.) is covered for all major time periods. Encourage students to use a variety of research techniques to gather information.
8. Once the research is complete, have the class create a large map of the river, to scale if possible. Students will create an art form for each major time period (decided earlier by the class) depicting information they discovered about their topic through their research. Have each group report their findings and place their artwork on the map for the earliest time period. Then have each group repeat the procedure for the next major time period, and so on. This will create a "layering" of history represented as a collage on the map of the waterway.
9. Once the reporting is complete, ask students to collectively analyze major changes that have taken place through time involving the river and its associated life. Ask them to try to identify cause and effect relationships between events and consequences affecting the river. Have the class create a timeline noting major events in the river's history.



# 1996 IOWA

# STAMP Designs



The **1996 Iowa Waterfowl Stamp** was designed by Michigan artist Dietmar Krumrey. Krumrey designed the 1994 Iowa duck stamp, the 1981 and 1989 Michigan duck stamps, and has been named Michigan Ducks Unlimited Artist of the Year on five different occasions. Iowa Ducks Unlimited coordinates the design of Iowa's duck stamp each year. This image also serves as the 1996 Sponsor Print for Iowa Ducks Unlimited. Prints are available by contacting your local DU chapter or the state office at 515/592-3600. Signed and numbered prints are also available from the artist for \$125 by writing Dietmar Krumrey, RR 2, Box 2472F, Manistique, Michigan 49854, or by calling 906/341-5263. A duck stamp can be ordered with the print for an additional \$5. Image size of the print is 6-1/2 X 11 inches.



Iowa artist J.D. Speltz, of Armstrong, designed the **1996 Iowa Trout and Habitat Stamps**. Speltz also designed the 1995 trout and habitat stamps, and has been named 1996 National Pheasant's Forever Button Print of the Year Artist. An ex-high school art teacher, Speltz is the pioneer Iowa artist of what he calls "industrial wildlife" in which he combines natural historic and cultural sites with humans and nature coexisting. The 1996 trout stamp displays a brook trout in front of the current Manchester Hatchery building. The 1996 habitat stamp features a fox crouching near one of the shelters in Iowa's Lake Macbride State Park. Both prints are 6 1/2 X 11 inches. Cost is \$39.95 for each regular edition print; \$49.95 for an artist proof. Postage is \$6 for each order. The trout print is an edition limited to 150 (15 artist's proofs) and the habitat stamp is limited to 300 (30 artist's proofs). A trout or habitat stamp can be added to each print for \$10 and \$5 respectively. Prints can be purchased by calling Speltz at 712/864-3001 or writing Speltz Studio of Wildlife, Box 391, Armstrong, IA 50514.





# Iowa Youth Hunter Education Challenge

Photos by Ken Formanek

*This weekend course pays big benefits for those young hunters and the future of wildlife and shooting sports*

The combination of young people, a couple dozen instructors, a summer weekend and a difficult outdoor curriculum combine to create Iowa's Youth Hunter Education Challenge held each summer at the State 4-H Camp near Madrid in Boone County. This year, 85 youngsters from around the state participated in the two-day competition, June 10-11.

Each contestant participates in eight separate events, including archery, .22-caliber rifle shooting, shotgun shooting, muzzleloading, a hunter responsibility exam, a hunter safety trail, hunting/wildlife identification and orienteering skills. Awards are presented in two team categories -- junior, ages 12 to 14 and senior, ages 15 to 19. Winning teams receive a trophy and each member of the team receives an Olympic-type medal -- gold, silver or bronze. In addition, awards are given to the top individual scorer in each division. This year, more than 30 certificates were given to the participants who placed highest in each category in both divisions.

In the junior division, individual winners were: First Place -- Nathan Allen, Central City; Second Place -- Matt O'Rourke, Glenwood; Third Place -- Brandt Hopp, Glenwood. Senior division winners were: First Place -- Joseph Martin, Glenwood; Second Place --







Michael McElderry, Batavia; Third Place -- Michael Vannoy, Libertyville.

The Hunter Education Challenge is sponsored by the DNR, Iowa 4-H Safety and Education in Shooting Sports and the National Rifle Association. Next year's Hunter Education Challenge will be held June 8 and 9, 1996. For more information contact your local hunter education instructor or one of the sponsors.

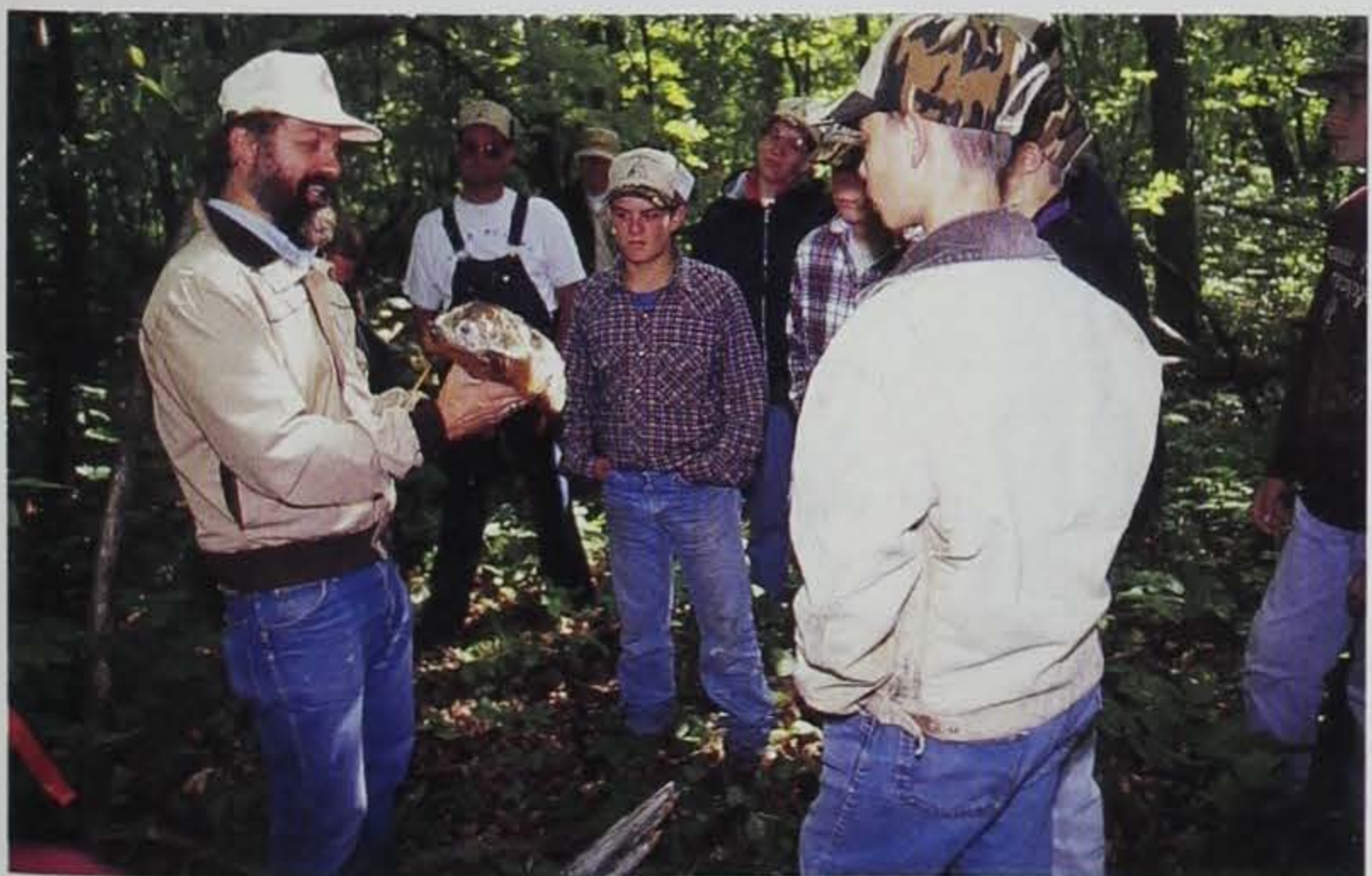


Kids get a crash course in habitat, wildlife and ethics, and apply what they have already learned in hunter education classes. They learn how to avoid problems when lost in the woods, and how to take responsibility.



Participants fire guns they might not have handled before and use firearms loaded with dummy ammunition during the hunter safety trail challenge.

On the hunter safety trail challenge, simulated targets and situations prepare participants for what they may encounter in the field, often with just an instant to decide. The reward for the trail challenge is not for hitting the target, but making the right decision.



"We have young people who are involved in hunting, they learn about the outdoors and care about the outdoors. It turns out they also care about much more than just hunted species. They care about habitat, care about nongame species as well as game species and tend to take care of the environment around us," said Jim Pease, Iowa State University, wildlife extension specialist.

◀ (far right)

Archery is one of the eight events in the two-day outdoor competition.



# WARDEN'S DIARY

by Chuck Humeston

## Bright Lights

Now, no matter what anyone may tell you in this business, *one* of the reasons a person wants to be a conservation officer or any law enforcement officer is for excitement.

Sure there are other reasons -- to protect natural resources, to help people, to arrest lawbreakers, but most officers enjoy that "t factor." "T" standing for thrills, a moment on the edge, red line or whatever you want to call it.

When I started this job, fur prices were at a high. Raccoon in the \$40s. Anytime you connect big money with wildlife, trouble follows. The unscrupulous poacher (that's about the nicest word I can come up with for these lowlifes) will take advantage. And, they did, because spotlighting complaints were also at a high.

Now if you aren't familiar with spotlighting, jacklighting or shining as it is sometimes called, it's just what the name implies. The poacher (see, I'm being more sensitive, more 90s, no adjectives to describe the poacher) shines a spotlight on the animal, serving two purposes. One, it locates the animal, and two, it causes the animal to freeze in place making an easy target for the usually lower-than-average marksmanship skills of the poacher.

Anyway, at that time a person could make big money spotlightin' coon.

Well, I had just started. New, rookie, green. I wanted to catch a jacklighter *real* bad. We all did.

My chance came when I got a complaint about someone who was shining regularly. It was good information, giving me the general time and area where the guy was doing his thing.

For several nights in a row, I sat in wait for him. He never showed

up. "Be patient," I thought.

One night it was getting late, and I was just about to give up. "Just another half-hour," I told myself. I was running on very little sleep, and very honestly I started to fall asleep.

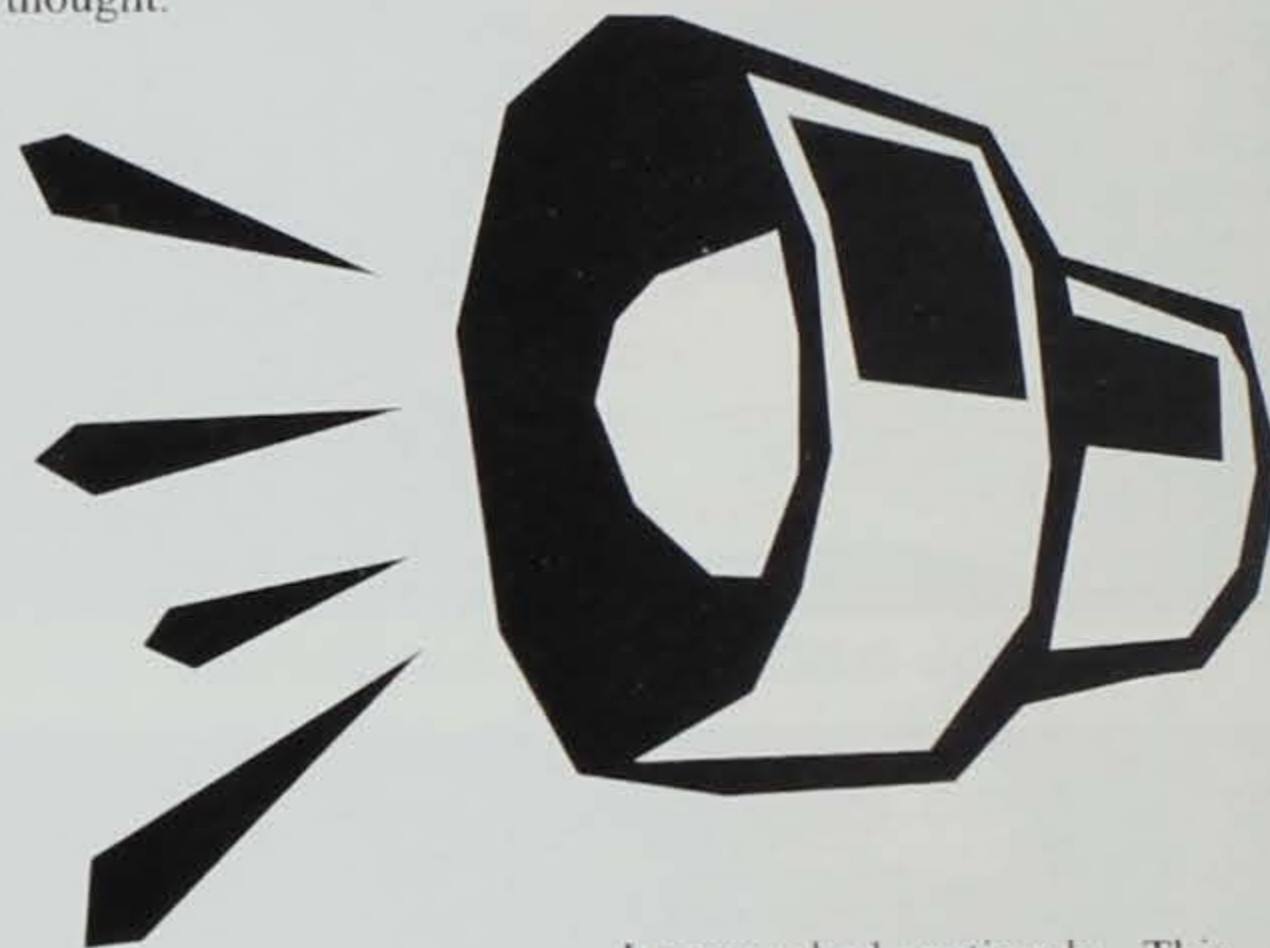
All of a sudden the whole world lit up. I jumped up. My heart was pounding. A car was slowly coming down the road. The spotlight hanging out the window had been pointed right where my car was parked in a field. "Did he see me?"

The car went on by. My plan was to follow it. I tried to start my car but my shaking hands were fumbling with the keys. Finally, I pulled out behind the car, following it with my lights off. The spotlight was shining everywhere. "Should I turn on the red light? No, get closer!"

The car pulled off into a field and started shining the field while driving parallel with the road. I knew there was another fence opening ahead. "I'll cut him off there."

Sure enough, he pulled back onto the road. Just as he entered the road, I pulled up to his driver's side door and turned on every light I had -- headlights, red lights, yellow lights. I would have fired a flare if I had one.

The driver looked into my lights squinting. I stuck my head out my window and yelled. "Conservation Officer. Do not move, Shut off your engine and put your hands out our window!" Man, had I ever been waiting to get a chance to say that! Maximum "t factor!"



I approached cautiously. This was probably a seasoned criminal. At any rate, I knew he was armed. I reached his car. What? This is a master criminal?

Inside the small car were the driver, a female passenger and an infant in the woman's arms. A spotlight was plugged into the dash. A loaded .22 rifle, was on the seat between the driver and passenger.

"Is this your wife?"

"Yes."

"Is this your child?"

"Yes."

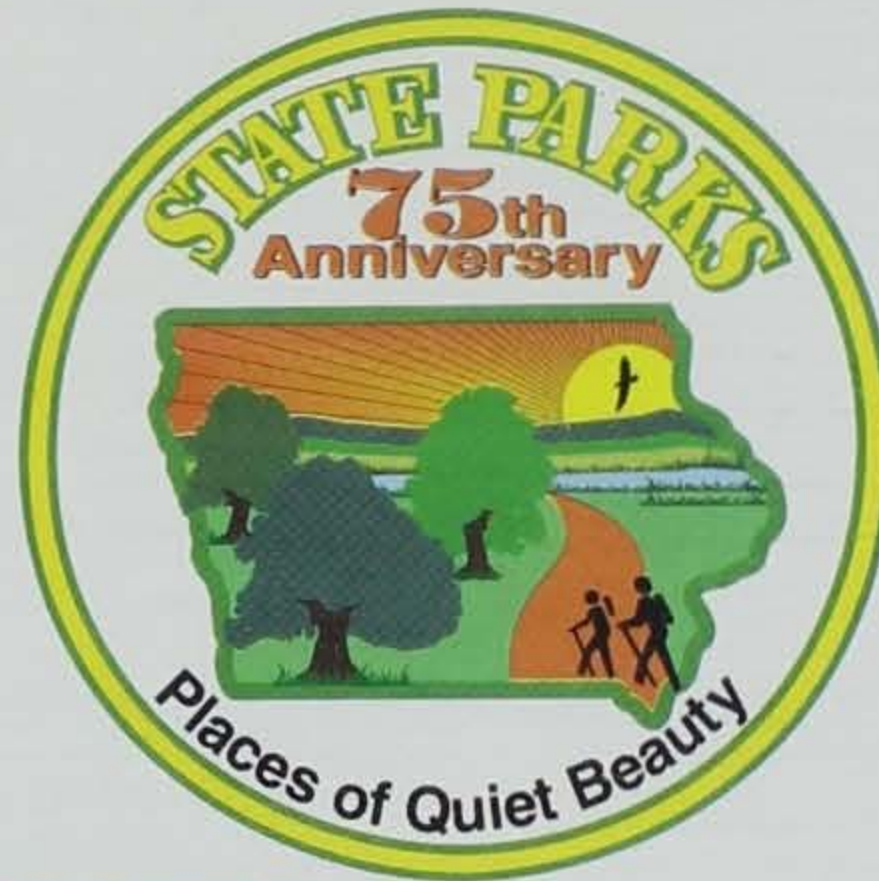
"Step out of the car."

I grabbed the spotlight, rifle and ammunition and told his wife to roll up the window so the baby would be warm. Suddenly I was very angry. Take a baby out on a cold night, windows down? What is this anyway? Master criminal? No, it's the family who shines together. It would be first of many times I'd say, "Now I've seen everything."

My "t factor" faded quickly. I gave the man tickets for spotlighting, no license and the loaded gun. I drove home, hoped they'd done the same and had tucked their young one safely in bed for the night. Thinking of that, I fell asleep myself -- and slept like a baby.



# STATE PARKS 1995 CALENDAR



## SEPTEMBER

- 16 VOLKSSPORT WALK -  
LAKE OF THREE FIRES  
AND NINE EAGLES
- 23-24 FORT ATKINSON  
RENDEZVOUS
- 29 NISHNA VALLEY BIKE  
TRAIL RIDE -  
LAKE ANITA
- 30 VOLKSSPORT WALK -  
BRUSHY CREEK AND  
DOLLIVER

## OCTOBER

- 7 ANNUAL GREAT RIVER  
ROAD -  
PIKES PEAK RACE
- 13-14, 20-21, 26-30  
HAUNTED FOREST WALK -  
WALNUT WOODS
- 14-15 FOREST CRAFTS FESTIVAL -  
LACEY-KEOSAUQUA



Ron Johnson

▲ The Forest Crafts Festival at Lacey-Keosauqua in Van Buren County is a wonderful way to spend a crisp fall day. There are activities that provide something of interest for almost everyone.



