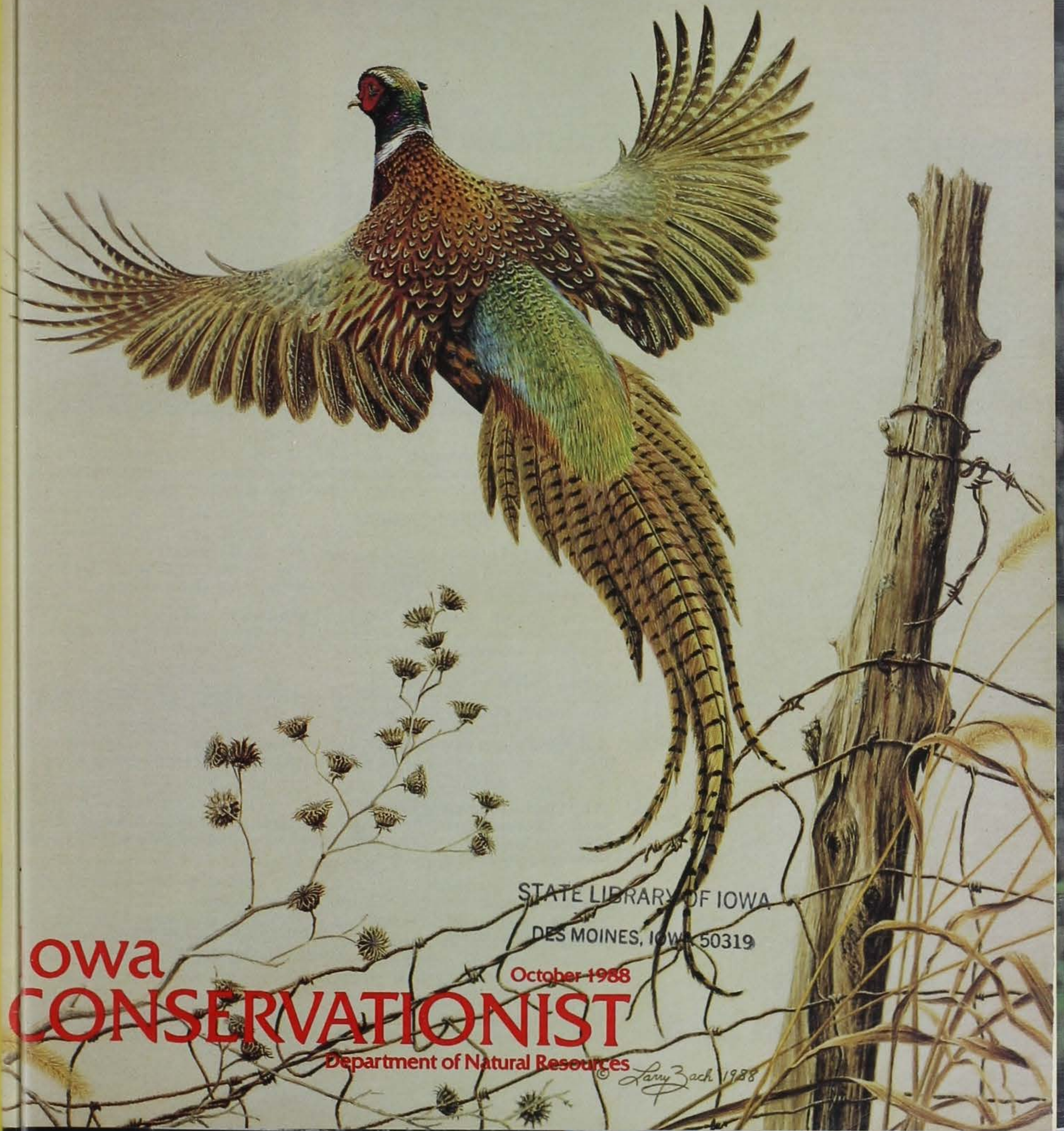


OCT 14 1988

17  
N286  
9  
YR



STATE LIBRARY OF IOWA  
DES MOINES, IOWA 50319

October 1988

# Iowa CONSERVATIONIST

Department of Natural Resources

Larry Zach 1988



Iowa  
CONSERVATIONIST  
OCTOBER 1988, Vol. 47, NO. 10

STAFF

Ross Harrison ..... Bureau Chief  
Julie Holmes ..... Editor  
Tami Pavlicek ..... Managing Editor  
Lowell Washburn ..... Writer/Photographer  
Larry Pool ..... Graphic Artist  
Ron Johnson ..... Photographer  
Ken Formanek ..... Photographer

NATURAL RESOURCE COMMISSION

Sam Kennedy, Chairman ..... Clear Lake  
Douglas R. Smalley, Vice-Chairman ..... Des Moines  
(Mrs.) Marion J. Patterson, Secretary ..... Cedar Rapids  
Thomas E. Spahn ..... Dubuque  
John D. Field ..... Hamburg  
William B. Ridout ..... Estherville  
Richard C. Young ..... Waterloo

ENVIRONMENTAL PROTECTION COMMISSION

Robert W. Schlutz, Chairman ..... Columbus Junction  
Richard L. Timmerman, Vice-Chairman ..... Johnston  
Charlotte Mohr, Secretary ..... Eldridge  
Catherine Dunn ..... Dubuque  
Donna M. Hammitt ..... Woodbine  
Gary C. Priebe ..... Algona  
Nancylee A. Siebenmann ..... Cedar Rapids  
Clark A. Yeager ..... Ottumwa

DIRECTOR

Larry J. Wilson

DEPUTY DIRECTOR

Robert Fagerland

DIVISION ADMINISTRATORS

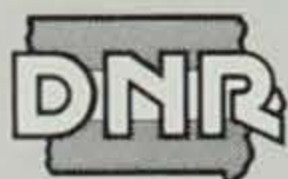
Stan Kuhn ..... Administrative Services  
James Combs ..... Coordination and Information  
Larry Bean ..... Energy and Geological Resources  
Allan Stokes ..... Environmental Protection  
Allen Farris ..... Fish and Wildlife  
William Farris ..... Forests and Forestry  
Michael Carrier ..... Parks, Recreation and Preserves  
Teresa D. Hay ..... Waste Management Authority

SPECIAL PHONE NUMBERS

DNR Central Office 1-515/281-5145  
Emergency Spill Response 1-515/281-8694  
Groundwater Hotline 1-800/532-1114  
Turn in Poachers (TIP) 1-800/532-2020

Iowa CONSERVATIONIST (USPS 268-780), is published monthly by the Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034. Second class postage paid in Des Moines, Iowa, and additional mailing offices. **Subscription rates: \$6 for one year or \$12 for three years.** Include mailing label for renewals and address changes. **POSTMASTER:** Send changes to the Iowa CONSERVATIONIST, Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034.

The Iowa Department of Natural Resources offers equal opportunity regardless of race, color, creed, national origin, or handicap. If you feel you have been discriminated against, please contact us.



# CONTENTS



Page 8



Page 13



Page 20

- 3 **1988 Hunting Forecast** by Terry W. Little  
The drought has certainly affected Iowa's farmers — but what about the wildlife? It is time to take a look at biologists' predictions for game populations and this year's hunting seasons.
- 8 **Gifts For the Holiday Season**
- 10 **A Matter of Quality** by Darrell McAllister  
The quality of Iowa's water is difficult to measure. Now, with the Clean Water Act's "fishable/swimmable goal" for surface water, we can better assess just how clean our lakes and streams are.
- 12 **There is More Than One Way to Skin a House** by Randy Martin  
Thinking about building a new house? Why not consider one of the many options available for constructing an energy efficient home.
- 16 **Going Public** by Douglas Harr  
Although scorned by some as too crowded or over-hunted, the fact is, public hunting areas can offer some very fine hunting experiences.
- 20 **A Bird Made of Spare Parts** by Lowell Washburn  
This bird may be odd looking, but the snipe offers the hunter top shooting unlike any of Iowa's other game.
- 28 **Why Plant Trees** by Robert Hibbs  
Planting trees provides necessary winter cover and nesting sites for wildlife. In addition, many types of plantings provide recreational opportunities as well as additional income. Discover the advantages of planting trees on your land.
- 9 **Warden's Diary**
- 22 **Conservation Update**
- 25 **Classroom Corner**
- 26 **County Conservation Board Feature/Calendar**

COVER:

"Fenceline Ringnecks" by Larry Zach of Ankeny, the 1988 Iowa Pheasants Forever Print and Artist of the Year. For further information, see page 24.



# 1988 Hunting Forecast

by Terry Little

**T**he year 1988 will be remembered as the driest year in Iowa since the dust-bowl era of the 1930's. For months the dry, hot weather has altered our lifestyles, affected our pocketbooks and shortened our tempers. The impacts on crop yields and farm income have made the front page news daily, while rising utility costs and food prices have affected city dwellers as well. Most of us will look back on this summer as one we had just as soon forget.

But drought impacts more than just the civilized parts of our world. Summer is the most critical season for our wild neighbors — the time when their populations are renewed. Fortunately wildlife is seldom as directly affected by changes in the weather as we are. Thousands of years of coping, unaided, with Mother Nature's whims have made them more capable of surviving climatic extremes than our domesticated crops and livestock. Lack of water and hot temperatures are not usually a problem. Most of our wildlife habitats are associated with rivers, creeks and smaller drainages where the land is too rough to plow. In a pinch the water in green vegetation provides enough moisture for most birds to survive. Dry weather normally provides good nesting conditions and insect outbreaks, normally associated with dry weather, supply protein for newly hatched young.

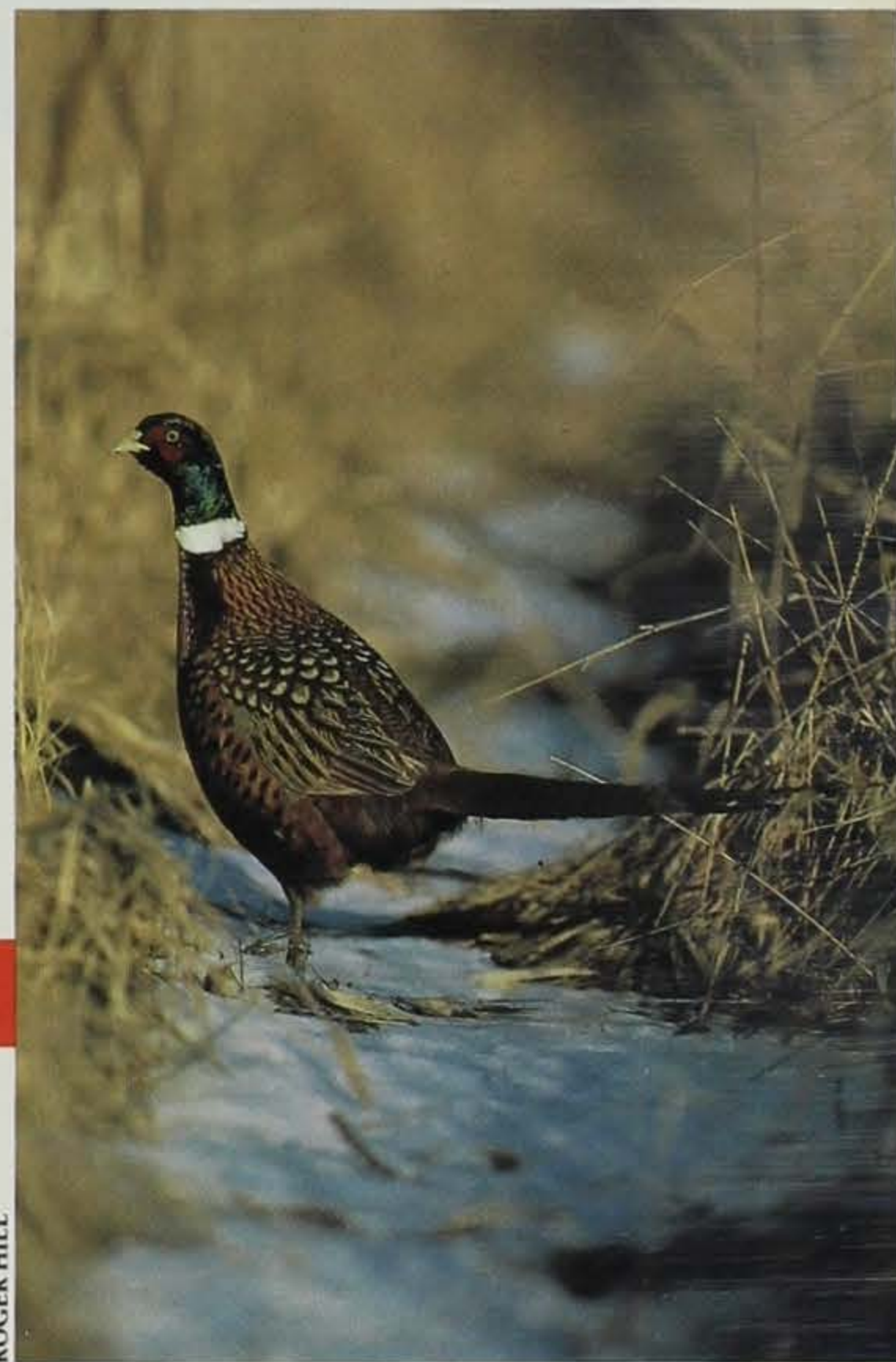
The effects of drought on wildlife result more from changes in farming practices that alter wildlife habitats. They are often subtle, difficult to measure and very local in effect. This makes it hard to predict just what wildlife populations will be like this

fall. For some animals like deer, there will be little noticeable impact and the outlook is excellent. For waterfowl, so dependent on wetlands to replenish their fall migrations, the impact is major and the outlook grim. For most other species, many unmeasurable factors come into play and the outlook is uncertain. In some cases hunters won't know what to expect until their season is underway.

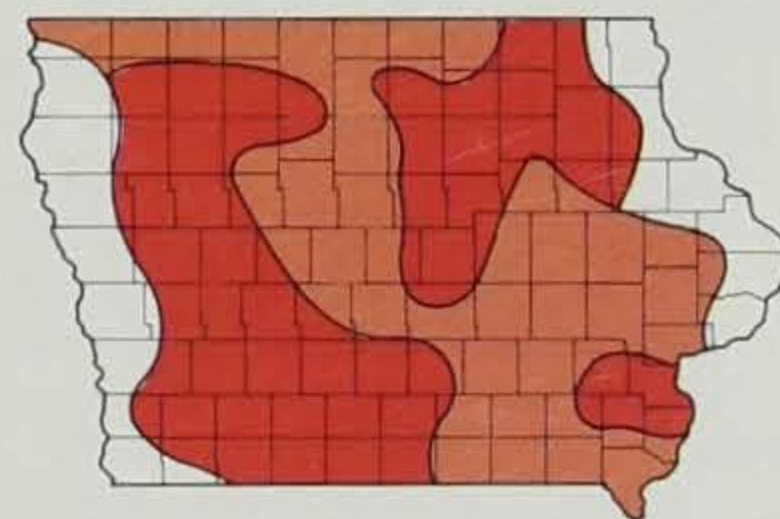
The following predictions are based on the best information available to DNR wildlife biologists in late August, coupled with some intuitive guesses based on what has happened in previous dry years in Iowa. Details on season dates, bag limits and shooting hours are included in this issue's "Conservation Update" section on page 23.

## Upland Wildlife

The status of upland wildlife populations going into this fall's hunting season is by far the most difficult to predict. The outlook this spring was very favorable. Consecutive mild winters and warm, dry nesting seasons had returned pheasant populations to average levels statewide by 1987. Pheasant hunters bagged 1.4 million rooster pheasants in 1987, nearly double the number taken just two years before. Quail and gray partridge counts were at or above all-time high levels recorded on DNR surveys. Another mild winter in 1988 had little effect on wildlife, and breeding populations of all small game animals were in excellent condition. The USDA's Conservation Reserve Program (CRP) had idled more than 1.5 million acres of crop ground and produced more potential



ROGER HILL



Pheasants





nesting cover for ground-nesting birds than existed even during the fabled Soil Bank era. Warm, dry spring weather should have produced excellent nesting success and the drought seemed to guarantee good brood rearing conditions. Upland bird hunters should have been ecstatic. Then the problems began to mount.

Surveys by DNR biologists revealed that less than half of the CRP acres were providing good nesting cover. Some were first idled and seeded this year, too late to provide good nest habitat. Many of the previously seeded acres had been mowed in late 1987 in the name of weed control and had not received enough moisture to re-grow adequate nesting cover by spring. Then the emergency declarations by state and federal officials in late June that permitted the mowing of road ditches and CRP acres for hay further complicated matters. Luckily not many roadsides were mowed, and biologists felt that much pheasant nesting should already have been completed in an early year like this one. But potential brood habitat and cover for re-nesting attempts was eliminated on mowed acres. Even in good years many pheasant hens lose their first nest and lay one or more additional ones until they are successful or run out of time. The additional young produced by this re-nesting effort are often the difference between a good or a poor nesting year. Reports from around the state indicated farmers were mowing into some nests and broods as CRP acres were mowed in June and July. On the plus side,

mowing was most common in the livestock producing acres of southern and western Iowa where some alternate nesting cover was available.

Outbreaks of spider mites in drought-stricken soybean fields added to the dilemma. The federal EPA granted a two-week permit for aerial spraying of the toxic chemicals DI-SYSTON and dimethoate in August to control mites. Both are highly toxic to wildlife if animals are present when the spray is applied or if they eat enough poisoned insects or plant material. The actual impact depends on the dosage received, length of exposure and the size and condition of the animal.

The combined effects of the additional mowing and insect control were without a doubt detrimental to upland wildlife. There will be fewer pheasants, quail, partridge and rabbits for hunters to pursue than if these problems had not occurred. But the extent of the impacts are very difficult to measure and will vary from area to area depending on specific local conditions.

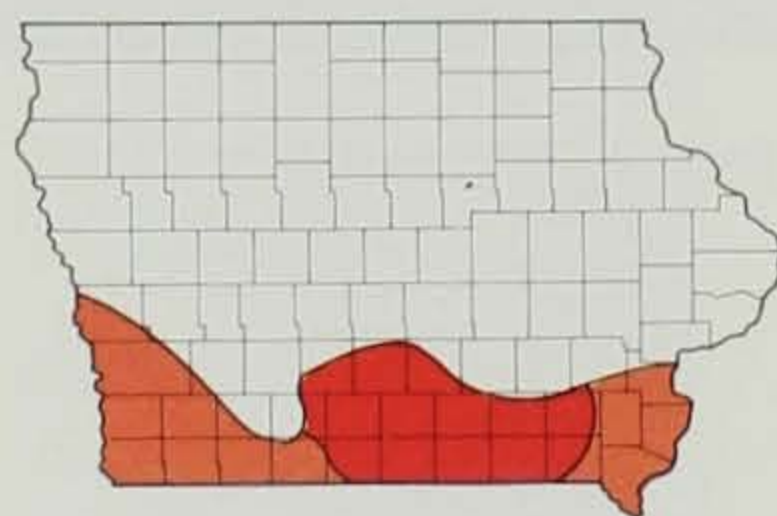
Normally the DNR's August roadside surveys would have given a good idea of what to expect for small game populations this year, but the dry, hot weather reduced their reliability, too. Roadside surveys most accurately predict changes in pheasant, quail, partridge and rabbit numbers when they are run on cool, sunny, calm mornings with heavy dew. Animals come into the road to dry off just after sunrise and are easily counted by biologists and conservation officers driving slowly on standardized, 30-mile routes. As you

might expect, most routes this year were run under marginal or poor conditions. Mowed fields, coupled with the poor condition of most pastures, also provided birds with lots of places to escape the dew besides roadways.

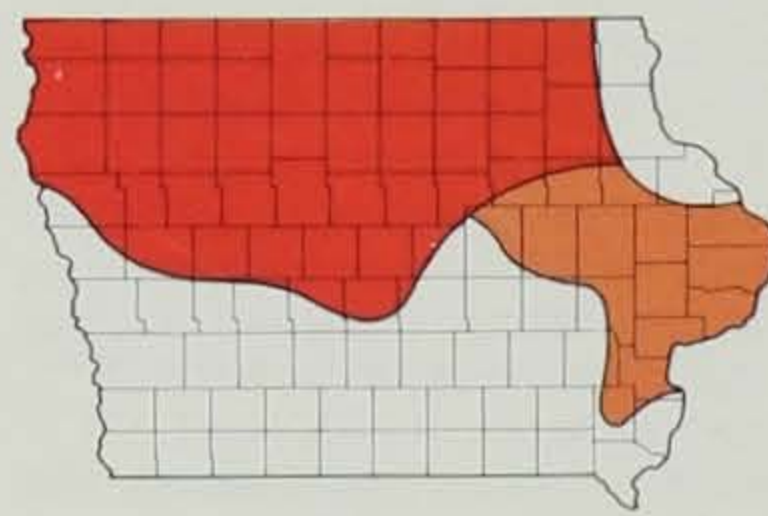
The number of pheasants counted on roadside surveys was down 15 to 20 percent across the state, quail counts were down 31 percent and rabbits decreased 48 percent. The only bright spot was gray (Hungarian) partridge. They have continued their astounding expansion and were up 27 percent. The question that lingers in the minds of biologists is: "Are populations really down, or did the poor survey conditions bias the results."

**PREDICTION:** Predicting wildlife populations is a bit like predicting the weather, except that hunters remember your mistakes longer. Nevertheless, I'll go out on a limb on this one. In spite of the inconclusive survey results, upland bird populations should be strong again in 1988. Pheasants are only slightly below the long-term average level counted on surveys over the past 25 years and are well distributed across the state. Good pheasant hunting can be found within reasonable driving distance of nearly every pheasant hunter (see map). An expected early crop harvest and the mowing of CRP cover will make rooster pheasants more vulnerable than last year and the harvest should exceed 1.5 million birds. Quail and partridge numbers are above long-term average levels. Hunters will find at least as many quail and more partridge than last year, with quail extending farther north and partridge farther into southern Iowa. Rabbit numbers will be good, too, but so few hunters now pursue rabbits that this resource will be vastly under-used.

**LONG-TERM OUTLOOK:** Bird populations will remain good only as long as we avoid a severe winter. Most CRP acres will not shelter birds against a blizzard and major losses will occur. Fortunately populations will be able to rebuild more quickly than in the past because more nesting cover is available. Until a blizzard happens, Iowa bird hunters should have excellent hunting. It would be even better if federal and state agri-



Quail



Gray Partridge





cultural agencies permitted an intelligent program of managing CRP acres to remain in effect.

## Waterfowl

**Ducks** - The easiest predictions to make are for waterfowl. The following excerpt from the U.S. Fish and Wildlife Service's annual report on the status of waterfowl populations says it all for ducks:

*In 1988, another warm, dry winter and spring produced drought conditions in major portions of Prairie Canada and the northcentral U.S. In some areas, the extremely poor conditions have persisted throughout this decade. Wetland numbers were significantly below the long-term averages for all areas in southern Canada and northcentral U.S. Habitat conditions in some northern areas also showed the effect of little precipitation. The total duck breeding population declined slightly from last year and remains well below the 1955-87 average. ... Overall, five of the ten principal species are substantially below their long-term averages.*

*Because of the mild winter and spring and persistent dry conditions, farming activities and grazing have negatively impacted upland nesting cover. Quality nesting habitat is scarce throughout much of Prairie Canada and the northcentral U.S. Results from July production surveys showed a substantial decline in production indices in most areas, compared to last year. ... With the poor outlook for production and major declines in breeding populations in key areas, the fall flight of ducks will be markedly lower than last year. In 1988, the fall flight index of ducks is 66 million, down substantially from 74 million in 1987...*

*The outlook for a rapid return to better breeding conditions and much-improved duck populations is not good.*

Mallard breeding populations were down 25 percent, blue-winged teal 31 percent and pintails 59 percent from goals established for these birds in the North American Waterfowl Management Plan. A fall flight, substantially reduced from last year's, is predicted. However, these will be mostly unsuccessful adult breeders, rather than young birds. Shooting too heavily into them could further reduce next spring's breeding popu-

LOWELL WASHBURN



lations. Wood ducks, which do not depend on the prairie potholes for breeding habitat, are abundant and remain the only bright spot in an otherwise dismal picture.

In response to these trends, the U.S. Fish and Wildlife Service announced duck season guidelines aimed at reducing the duck harvest by 25 percent from last year. Changes include more restrictive shooting hours and bag limits, elimination of the point system and later opening and earlier closing dates.

**Geese** - Fortunately goose populations are in much better shape. Most geese nest along the Arctic Circle north of the drought area. Goose production was fairly good this summer and goose populations that migrate through Iowa are in good to excellent condition. A good flight is forecast. Iowa's local giant Canada goose program continues to prosper and more locally produced geese will be available to the goose hunter. No additional Federal restrictions were placed on goose seasons this year and regulations are similar to last year's.

Every waterfowl hunter knows, however, that more than ducks and geese are needed to make a successful hunting season. As of this writing most of Iowa's wetlands are in poor condition to attract and hold migrating ducks and geese. Dry conditions have allowed the regrowth of vegetation around marsh borders and in flood control reservoirs. Good habitat could develop if we receive enough rain before October to re-flood these

areas. September is Iowa's second wettest month, so there is some hope this could happen.

**PREDICTION:** Too tough to call. If fall rains re-create good migration habitat and if mild weather doesn't develop north of us to shortstop birds in Minnesota and the Dakotas, Iowa hunters could have a very good season. We seldom have thirty days of good duck hunting in a single year anyway, so most hunters won't notice much difference if the weather and birds cooperate. If they don't, things will be slow.

Goose hunters should enjoy some good early giant Canada goose hunting, particularly since duck season won't open until mid- to late-October. Snow geese seem to be migrating farther west each year and a significant portion of the flight now passes through South Dakota and Nebraska rather than down the Missouri River. Unless that changes, snow goose hunting will be limited to occasional flocks scattered across the state.

**LONG-TERM OUTLOOK:** Canada goose hunting should continue to improve as our current short season allows more geese to remain in the state unmolested. Hopefully new migratory traditions will develop and fall resident flocks will develop on our major water areas and refuges.

Duck hunting will be restricted for several more years even if water returns to the prairies. Drought has lowered waterfowl breeding populations before and they have recovered when the rains returned. It may take



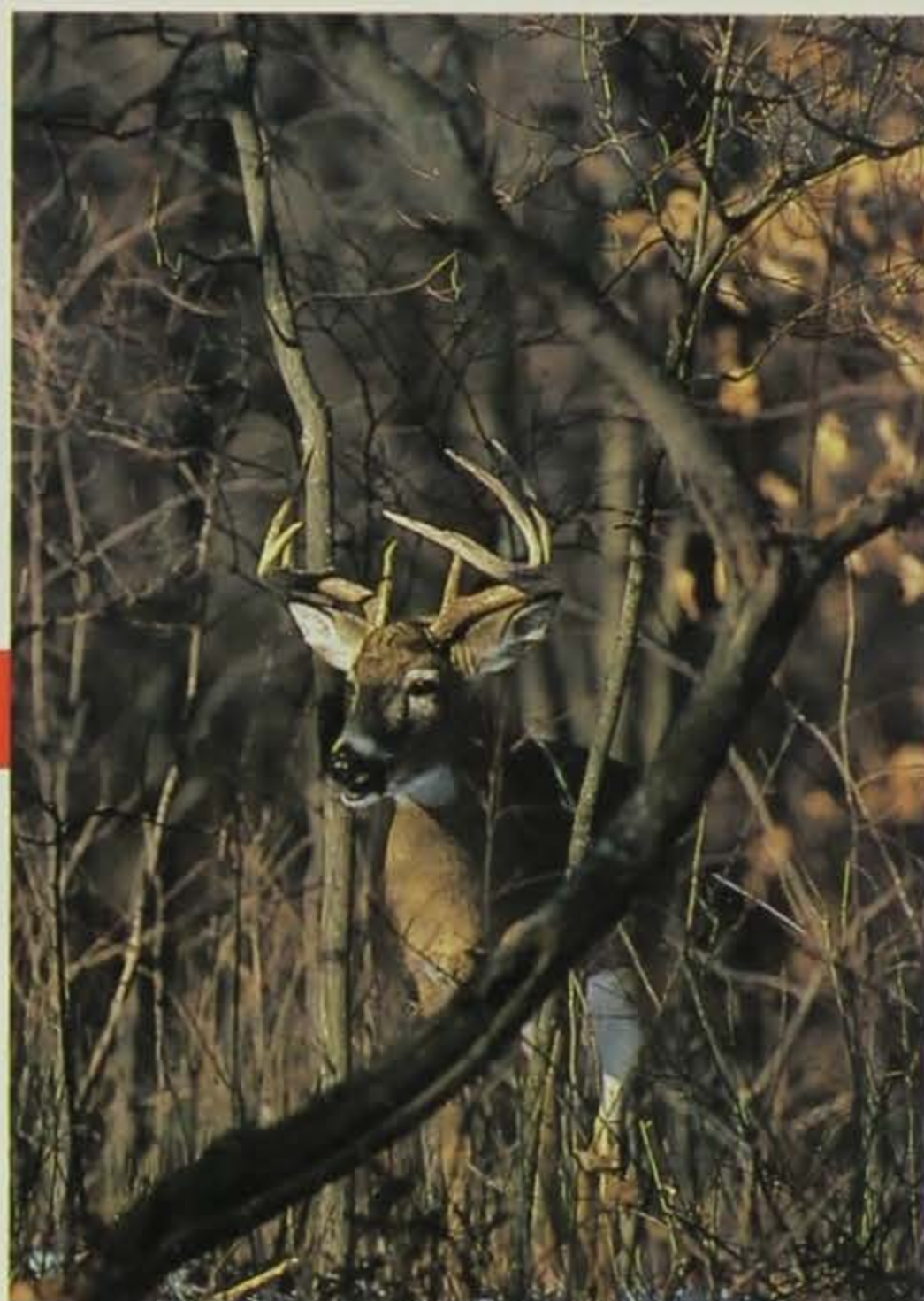
longer to recover this time because much habitat has permanently been lost, but improvements will come. The USFWS will continue to protect breeding populations until habitat is restored and fall flights recover. This makes it important for waterfowl hunters to support habitat initiatives like the North American Waterfowl Management Plan and its Prairie Pothole Joint Venture to see that this objective is reached.

## Forest Wildlife

**Deer** - Forest game species are probably the least affected by the drought and the outlook for hunting seasons on deer, wild turkey, ruffed grouse and squirrels range from very good to excellent. White-tailed deer harvests and the popularity of deer hunting continue to rise as more liberal hunting regulations have been implemented during the last several years. Just over 150,000 deer hunters took 73,000 deer in Iowa in 1987, both new records. As a result even more liberal seasons have been set for 1988. Bow hunters will continue to have long seasons, more muzzle-loader licenses will be issued and all shotgun hunters (except for two zones in northwest Iowa) will be issued any-sex deer licenses. Deer numbers in Zones 1 and 2 are increasing more slowly than in other zones. In the rest of Iowa, regulations are designed to stabilize or slightly reduce the herd to balance hunting opportunity with damage to crops in localized areas where deer concentrate. Anyone who wants, can now hunt deer and has an excellent chance of bagging one. Hunters choosing to hunt with both a firearm and a bow may take two.

**PREDICTION:** If the weather cooperates, another record harvest of around 80,000 deer will be taken in 1988. An early crop harvest should especially benefit bow and early-season muzzleloader hunters. More any-sex tags will push up the shotgun harvest also.

**LONG-TERM OUTLOOK:** Is the end in sight? If the deer herd continues to increase, even greater liberalization might be permitted in the future. Allowing hunters to cross over between muzzleloader and



ROGER HILL

shotgun seasons and providing multiple deer permits for bow and gun hunters are among the possibilities that could be instituted if needed. More deer will be harvested, with an increasing emphasis on taking does, until population goals are met.

**Wild Turkey** - Fall hunting for wild turkey of either sex should also be good. Spring and fall turkey harvests have set new records nearly every year. Last fall, hunters took 3,534 birds in six hunting zones, nearly double the previous year's bag. Spring hunters in 1988 bagged just over 7,000 birds, up 40 percent from the previous year. Excellent hatches the past three years and the continued growth of turkey flocks in northeast and central Iowa as the result of the DNR's restoration program are the primary reasons for this excellent turkey hunting.

Turkey breeding populations were at an all-time high going into the 1988 nesting season. The dry summer weather should have favored nesting and survival of poults. Some grazing of timber to relieve drought stricken pastures may have hurt brood habitat, but the effects should not be widespread. Results of this summer's brood survey indicated that turkey production was above average, so

this year will produce an excellent number of birds for fall hunters.

License quotas have been increased and the season extended to six weeks to take advantage of the excellent fall hunting that exists across much of the state. The dedicated fall hunter could take as many as three birds by buying a bow license and purchasing two gun licenses (extra permits are usually available in some zones).

**PREDICTION:** Fall turkey hunters will set a new harvest record in 1988 if enough licenses are sold. Fall hunting has not attained the popularity of spring hunting and harvests will be well below allowable levels until hunters learn to take advantage of this opportunity.

**LONG-TERM OUTLOOK:** Excellent until poor spring weather eventually reduces hatching success.

**Squirrel** - Squirrels, like rabbits, seem to have fallen into disfavor with Iowa hunters. Squirrel harvests decline nearly each year even though there has been no obvious decrease in squirrel numbers. Squirrel hunting remains excellent throughout the state and the dry weather should have little impact on hunting this year. Reductions in food supplies (seed and mast crops) caused by drought stress could impact winter survival and reduce next years squirrel population, but more than enough will remain to satisfy the demand.

**PREDICTION:** Good squirrel hunting early if temperatures return to normal levels. An early leaf drop caused by drought stress could make hunting difficult earlier than usual.

**Ruffed Grouse** - Huntability populations of ruffed grouse are restricted to the northeast quarter of the state and are pursued by a small but loyal band of avid hunters. If you have spent a day huffing and puffing up and down northeast Iowa's limestone bluffs, fighting your way through every kind of bramble bush known to mankind, only to have your partner



say "I think I heard one flush," you know why their following is so small. On top of that, ruffs go through 10 year cycles of abundance, with peaks and valleys every five years or so. Fortunately for the Iowa grouse hunter, things are on the upswing after numbers bottomed out in 1982. Like turkeys, grouse production should not be affected much by the drought except for a reduction in habitat where timber was grazed particularly hard.

**PREDICTION:** Grouse numbers should be up and dry conditions should cause an early leaf drop, making hunting good early in the season. Finally!

**LONG-TERM OUTLOOK:** They will not be here long. Get them now before the next crash comes again.

## Furbearers

Muskrat, raccoon, fox and other furbearer populations remain a mystery even to wildlife biologists. Without the slightest way to monitor trends in actual numbers of furbearers, biologists are reduced to tracking harvest and hoping they reflect population changes. Fortunately, most furbearer populations are very resilient; when they are harvested heavily, they respond by producing more young. Hunting and trapping efforts are dictated as much or more by pelt prices than the numbers of animals available. The effort expended in pursuit of furbearers also limits the take unless prices are very high. A trapper once told me "Bird hunting is a sport, trapping is just plain hard work." It may be enjoyable, but a few weeks of all-night hunting or running trap lines take the fun out of it for a lot of fur harvesters. As a result numbers of even the most sought after furbearers remain high enough to support the trapping interest of the 26,000 or so Iowans out to capture their hides.

The effects of the drought on the furbearer population will be highly variable, depending on the preferred habitats of each species. Muskrats are the most commonly harvested furbearer in the state, based on total pelts taken. Annual harvests range from one-quarter to three-quarters of a million pelts. Muskrat numbers

should be down this year because many marshes, ponds, drainage ditches and some streams will be dry or nearly so. Trapping many wetlands will be harder also, as many wetlands become difficult to negotiate. This sort of thing happens periodically to muskrats; low populations caused by drought occurred in the late 60's, 70's and now the 80's. Muskrats are forced to find water or perish. The survivors have a tremendous reproductive capacity, however, and will take advantage of food supplies in newly vegetated marshes to quickly repopulate wetlands.



LOWELL WASHBURN

Terrestrial furbearers should be less affected. Raccoons are one of the more intensively sought after furbearers because of their size and greater pelt value. The take of raccoons has remained stable and shows no sign of slacking off. In excess of a quarter million have been taken in each of the last 14 years. 'Coons may be displaced temporarily from some dry creeks and drainage ditches, but they are hardy and adaptable and should be plentiful this fall.

Red fox are not as numerous as muskrats or raccoons, but are sought after for their trophy value as much as their pelt. The fact that fox harvests have not changed much in the past 20 years even though their habitat has declined tremendously in

some areas is probably a testimony to the relatively high pressure that was expended on them in the 1970's. Fewer fox are sustaining the same harvest today as 20 years ago. Fortunately the return of more grasslands to the state in the CRP should increase habitat and eventually fox populations.

**PREDICTION:** Poorer harvest of muskrats because of the drought, but little or no change in numbers of other furbearers taken. The timing of freeze-up and snowfall is critical to the success of both trappers and hunters, so weather will play an important role in their activities.

**LONG-TERM OUTLOOK:** Good or at least improved for most furbearers. More grasslands mean more prey for furred predators and probable population increases. Wetland acquisitions under the Prairie Pothole Joint Venture will benefit most furbearers as well as waterfowl. Fur harvesters should continue to contribute several million dollars to Iowa's economy annually through the sale of pelts.

## Summary

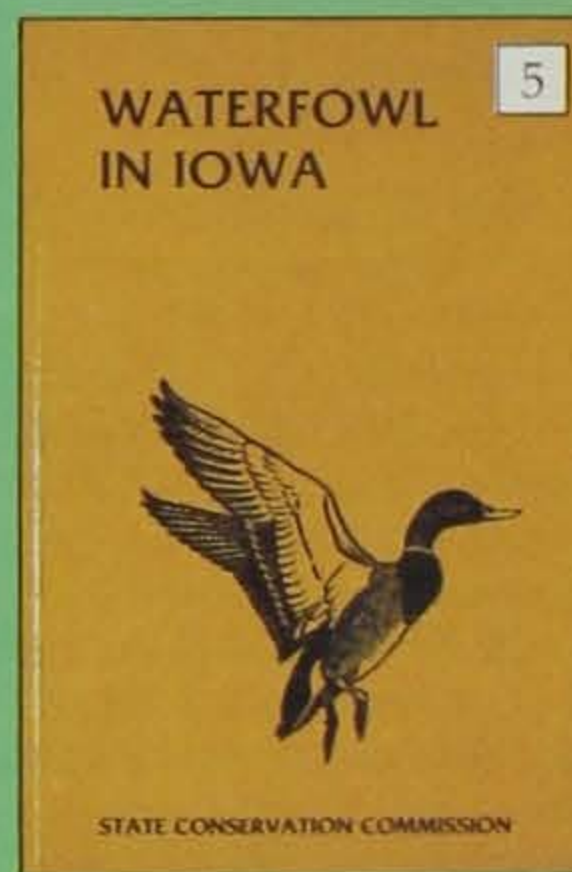
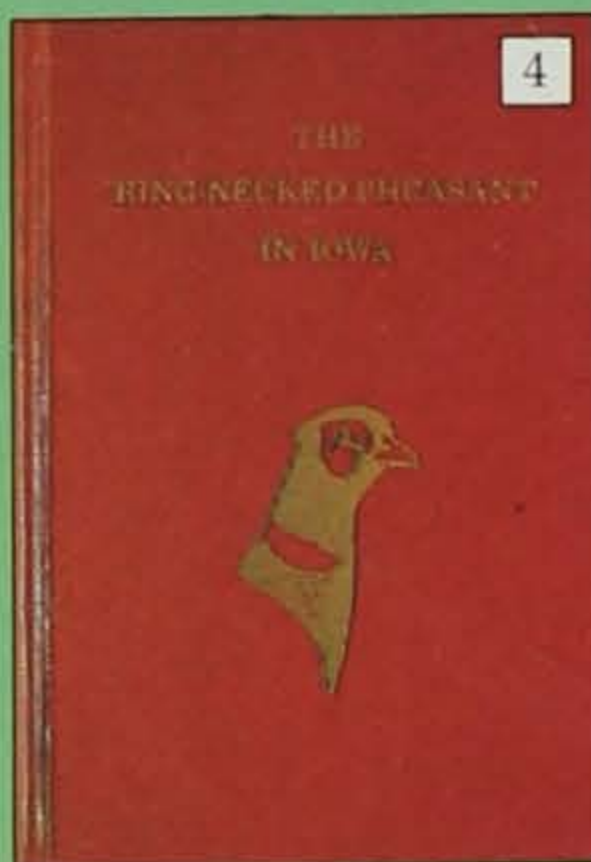
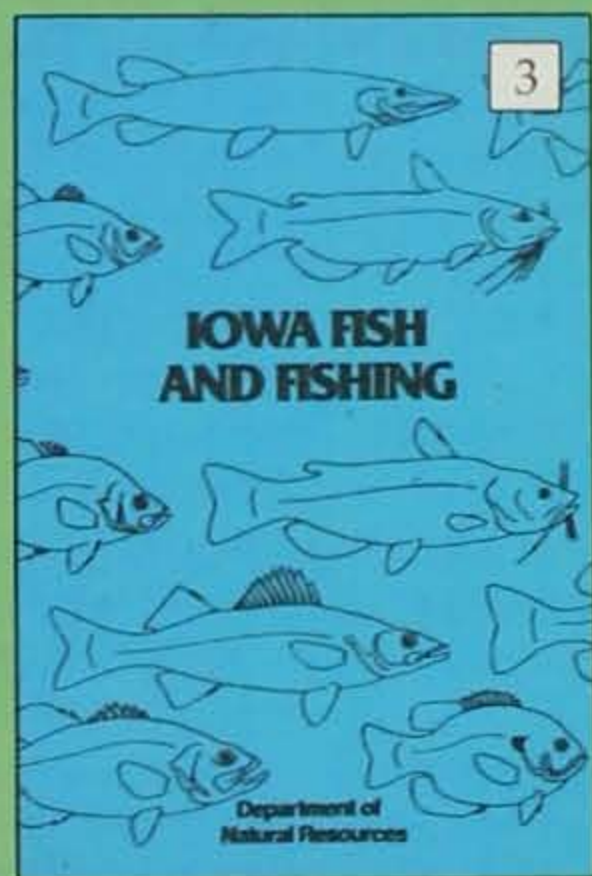
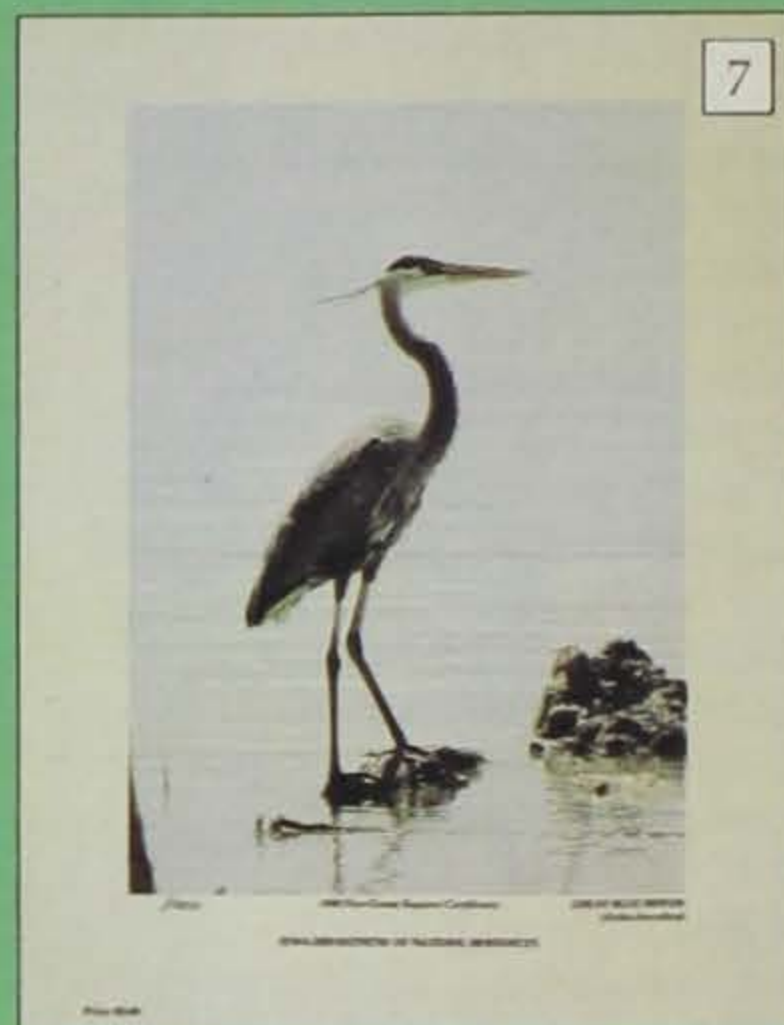
Hunting seasons for most species should be good to excellent. Populations of upland game birds, rabbits, squirrels, grouse, wild turkey, deer and most furbearing animals should be about as good as last year or better. The drought of 1988 may have affected populations of pheasants in some areas by instigating accelerated haying and grazing of grasslands that should have been protected. This loss is not expected to be serious over large areas. Quail and partridge populations are not expected to be affected much by this disturbance. Duck flights will be reduced this year and adjustments have been made to hunting seasons to compensate. If wetland habitat and migrations are right, however, duck hunters could still have a good season. Goose hunting should be as good or better than last year.

---

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

---





## Gifts For The Holiday Season

To make your holiday shopping easier this year, the Iowa Department of Natural Resources is offering these items for wildlife and outdoor enthusiasts. To order, fill out the attached order form, enclose appropriate remittance and mail to:

Iowa Department of Natural Resources  
Wallace State Office Building  
Des Moines, Iowa 50319-0034

Order early as some quantities are limited. Additional order forms may be requested from the above address.



## Gifts For The Holiday Season

	Quantity	Cost
1. <b>Iowa CONSERVATIONIST</b> — 12 issues per year; one-year subscription, \$6; three-year subscription, \$12. Include name and addresses of gift recipients on separate sheets. All gift recipients will receive a FREE 1989 Iowa CONSERVATIONIST Calendar (\$3 value).	_____	_____
2. <b>1989 Iowa CONSERVATIONIST Calendar</b> (1988 shown) — 12-month; full-color photos of Iowa's native wildlife and colorful outdoors; \$3.	_____	_____
3. <b>Iowa Fish and Fishing</b> — 1987 edition; James Mayhew, editor; 323 pages; color plates by Maynard Reece; hard bound; \$15.	_____	_____
4. <b>The Ring-Necked Pheasant In Iowa</b> — Allen L. Farris, editor; 147 pages; color photos; hard bound; \$5.	_____	_____
5. <b>Waterfowl In Iowa</b> — Jack M. Musgrove, editor; 130 pages; color plates by Maynard Reece; hard bound; \$3.	_____	_____
6. <b>Bald Eagle Poster</b> — photo by Don Poggensee. Make tax-deductible donation of \$5 or more to the Chickadee Checkoff to be used to support nongame wildlife.	_____	_____
7. <b>1988 Nongame Support Certificate</b> — photo by Jim Messina. Great blue heron; image 6" x 8 1/2"; 5,000 limited edition numbered; available until March 31, 1989; \$5.	_____	_____
8. <b>1989 State Park User Annual Permit</b> (1988 shown) — \$5.50.	_____	_____

Total Enclosed \_\_\_\_\_

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone \_\_\_\_\_

To ensure delivery by Christmas,  
 orders must be postmarked by November 15, 1988.  
 Offer expires January 15, 1989.

en

of car. As I still had my uniform on, he got out his license as I approached. "Doing a little squirrel hunting?" I asked.

"Yup — got a fat one, too."

"Did you get permission to hunt this area? You're pretty close to that house."

re "Oh, yeah, always ask old what's his-face. Can't ever remember his name."

ed "Did you ask this year?" I inquired and couldn't help but start to grin.

d "No, it was a couple of years ago, but he always lets me hunt."

nd When I asked him which house he had gotten the permission from, he pointed towards my house which you could just make out through the trees. I looked him in the eye and said, "I just built that house."

He shut both eyes and dropped his head. "Guess that was the wrong thing to say, wasn't it."

I asked what else they had been up to that weekend and one mentioned duck hunting. I said, "I think I'd better take a look at your ducks."

That proved most interesting. I ended up seizing close to 50 ducks — mostly wood ducks — all breasted out with no identifying head or wing. According to Iowa law you must leave a head or wing intact while transporting waterfowl. It wouldn't have made much difference for them anyway — they were over the limit.

As the men prepared to drive away, one asked, "What about that squirrel?"

I told him he could keep the squirrel with a reminder to ask next time. I could hear his buddy say, "You and that d \_ \_ \_ squirrel!"

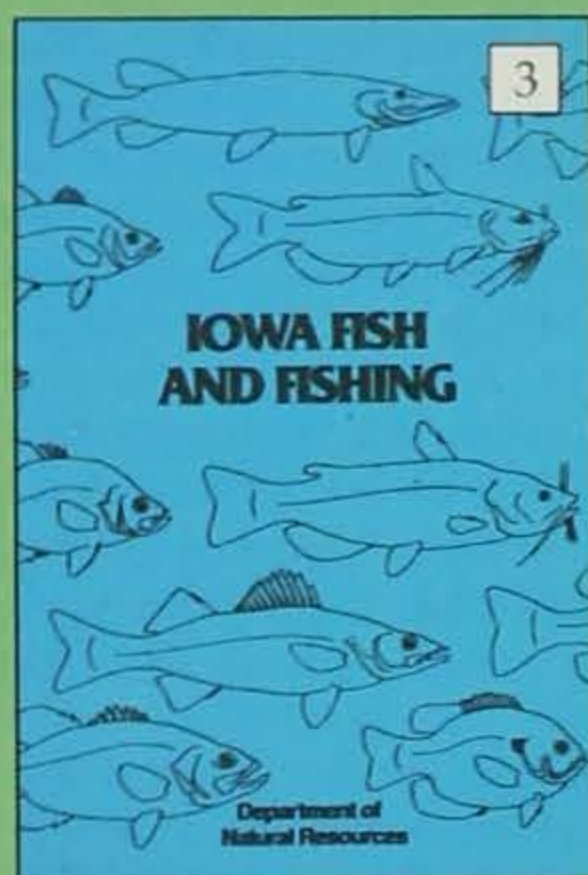


the edge of the road. I can attest to the care of their deer, because after the hunt there appears on my doorstep a couple of packages of venison. All nicely cut and wrapped. Nice to have hunters like that around.

Now I know what you're going to say. Yeah, but what about all those

*"Doing a little  
squirrel hunting?"  
I asked.*





appropriate remittance and mail to:

Iowa Department of Natural Resources  
Wallace State Office Building  
Des Moines, Iowa 50319-0034

Order early as some quantities are limited. Additional order forms may be requested from the above address.



# WARDEN'S DIARY by Jerry Hoilien

I received an interesting letter one day, right after the article came out on the two ol' gentlemen from Missouri who liked to road hunt. Interestingly enough, the writer didn't seem to be anti-hunting, but felt all hunters should walk. I agree, but it's important to understand that some hunters can't walk because of physical limitation. Unfortunately the writer linked all road hunters with a few violators. I'd like to say — I live on a gravel road and too have cars go by. Probably not too many violators, since the hunters soon realize a warden lives nearby. I live in one of the highest deer-populated areas in the state, and for sure, there's probably some shot illegally very close to my home.

The great majority of cars contain people I know. I'd like to tell you about a group of them. They always are sure to ask each and every year if they can walk down through my place on their annual deer hunt. There's quite a few of them, including some of their kids who tag along for the excitement. They've all got 4-wheel drives, but they only use those for getting back to their hunting areas. They're careful and to my knowledge have never even come close to an accident. When they make their drives they go away from any houses, and I've never seen any evidence of a deer being dressed on the edge of the road. I can attest to the care of their deer, because after the hunt there appears on my doorstep a couple of packages of venison. All nicely cut and wrapped. Nice to have hunters like that around.

Now I know what you're going to say. Yeah, but what about all those

violators. Sure there's always some of those, but having groups like this around soon weeds out the other kind. Not that they don't show up once in awhile.

Have to tell you about the time I came home for lunch one Sunday afternoon during the opening of duck season. My wife, Joyce, and I were drinking our coffee when there was a shot that sounded as if it was right outside the front door. I walked out but couldn't see anyone so I drove out to the highway and could see a car parked on the shoulder and an individual just climbing over my fence with a squirrel. I drove down and got out of my car to talk to him. His two buddies were sitting in the

car. As I still had my uniform on, he got out his license as I approached. "Doing a little squirrel hunting?" I asked.

"Yup — got a fat one, too."

"Did you get permission to hunt this area? You're pretty close to that house."

"Oh, yeah, always ask old what's-his-face. Can't ever remember his name."

"Did you ask this year?" I inquired and couldn't help but start to grin.

"No, it was a couple of years ago, but he always lets me hunt."

When I asked him which house he had gotten the permission from, he pointed towards my house which you could just make out through the trees. I looked him in the eye and said, "I just built that house."

He shut both eyes and dropped his head. "Guess that was the wrong thing to say, wasn't it."

I asked what else they had been up to that weekend and one mentioned duck hunting. I said, "I think I'd better take a look at your ducks."

That proved most interesting. I ended up seizing close to 50 ducks — mostly wood ducks — all breasted out with no identifying head or wing. According to Iowa law you must leave a head or wing intact while transporting waterfowl. It wouldn't have made much difference for them anyway — they were over the limit.

As the men prepared to drive away, one asked, "What about that squirrel?"

I told him he could keep the squirrel with a reminder to ask next time. I could hear his buddy say, "You and that d \_ \_ \_ squirrel!"



ILLUSTRATION BY NEWTON BURCH

*"Doing a little squirrel hunting?" I asked.*



# A Matter of Quality

by Darrell McAllister



RON JOHNSON

**W**hat is the quality of water in Iowa? What appears to be a very simple question does not have a simple answer. Iowa, a state that contains 56,275 square miles of surface area also contains 18,300 miles of streams, each stream with a drainage area of five or more square miles; 282 lakes and reservoirs that total 81,400 acres; and about 35,000 acres of wetlands. So answering the question of what is the water quality in Iowa at any given time becomes quite complex.

But the question is a valid one and the United States Congress, through the Clean Water Act (CWA) has attempted to get an answer. In 1972 when the CWA was passed, Congress adopted the goal that "water quality should, wherever attainable, provide for the protection and propagation of fish, shellfish and wildlife and recreation in and on the water." In the last year, the Department of Natural Resources has made an attempt to determine if the waters of Iowa, where attainable, are achieving the goals established by Congress. At the same time, the DNR also determined if the designated water uses established by the Environmental Protection Commission are being achieved.

First, let's look at the goals established by Congress. Simply, their goal statement, commonly referred to as the "fishable/swimmable goal" says that where attainable, water quality is to provide for fishing and swimming. In Iowa, there are 8,211 stream miles, 48,546 acres of lakes, 26,192 acres of wetlands and 31,700 acres of reservoirs that are capable of attaining the "fishable goal." Assessment of these waters shows that 1,497 stream miles, 712 lake acres and 3,640 acres of wetlands are not meeting the fishable goal.

The "swimmable goal" assessment shows that 1,638 of the 2,218 stream miles in Iowa are meeting this goal. Also, 45,650 of the 46,336 lake acres and 4,572 of 6,265 wetland acres are meeting the "swimmable goal." All of the 31,700 reservoir acres are meeting both the fishable and swimmable goals.

Therefore, it can be concluded from this first assessment that Iowa's waters are not meeting the goals established by Congress. This does



not mean these waters are dangerous or unsafe, just that they are not meeting their potential for providing fishable, swimmable waters.

Attainment of the "fishable/swimmable goal" is one way to evaluate the overall quality of Iowa's waters. In addition, the Environmental Protection Commission has established water quality standards to monitor water quality in Iowa. These standards are composed of two parts: designated uses and numerical criteria. As an example, the Mississippi River at Davenport has been designated as a Class A (protected for swimming), Class B (protected so fish and aquatic life can live and reproduce) and Class C (protected as a drinking water source) water body. In addition to these designations, the commission has identified the Mississippi River as an important resource to Iowa and so has designated it as a High Quality Resource Water. High Quality Resource Waters require the DNR to preserve the physical and biological character of the river and to improve the quality when possible. All streams and rivers in the state are protected for certain designated uses. Not all streams are capable of supporting multiple uses like the Mississippi River, but all streams are protected for at least one use designation. All streams in Iowa are protected at minimum for "general use." The general use designation means the stream is to be protected for wildlife and livestock watering, aquatic life, non-contact recreation, crop irrigation, and industrial, domestic, agricultural and other incidental water withdrawal uses.

The DNR has identified the minimum chemical quality which is needed to assure that each specific designated use can occur. The chemical quality parameters are referred to as numerical criteria. The DNR compares actual water quality against the numerical criteria to see if they are being met, and, therefore, allowing the designated use. This gets us to the second type of assessment the DNR carries out to determine water quality in Iowa.

This assessment was to identify which water bodies were fully supporting, partially supporting, or not supporting the designated uses as established by the Environmental

Protection Commission. With this assessment completed, we can determine where additional work is needed, the cause of water quality problems and if designated uses need to be modified.

The assessment of designated uses shows that 79 percent of the stream miles, 41.9 percent of the lake acres, 54.2 percent of the wetland acres and 100 percent of the reservoir acres in Iowa are partially supporting the uses for which they have been designated. Approximately 20 percent of the stream miles are not supporting their designated uses. This means less than one percent of the stream miles, only 69 miles, are fully supporting their designated uses.

The primary reasons that rivers and streams cannot fully support their designated uses are siltation, nutrients and pesticides. These causes are primarily attributed to agricultural non-point sources. That is, sediment, nutrients and pesticides are carried from farm fields to streams and rivers during runoff events related to precipitation.

Lake acres fully supporting their designated use amounted to 55.2 percent of the 48,546 lake acres assessed. Only 2.8 percent did not support their designated use. Approximately 32 percent of the wetland acres fully support their designated use while 13.7 percent of the wetlands are not.

Now, we are in a better position to answer the question, *what is the water quality in Iowa?* The water quality in Iowa is such that we can swim in 74 percent of the stream miles and fish in 81.4 percent of the stream miles where it should be possible to swim and/or fish. The goal of swimmable and fishable waters where attainable, is still not a reality. But now we have a way to measure our progress in attaining this goal. We still need further progress for each water body to support its designated uses. But we have now succeeded in identifying the primary causes of non-support and have paved the way so programs can be designed to attack these problems.

*Darrell McAllister is the chief of the department's surface and groundwater protection bureau.*

### Miles of Designated Iowa Streams Attaining Clean Water Act Goals

Goal Attainment	Fishable Goal	Swimmable Goal
Miles meeting	6,714	1,638
Miles not meeting	1,497	580
Miles not attainable	24	6,017*
Miles capable of attaining goal	8,211	2,218
Total	8,235	8,235

\* Does not include 81 designated stream miles that were not assessed.

### Acres of Designated Iowa Streams Attaining Clean Water Act Goals

Goal Attainment	Fishable Goal	Swimmable Goal
Acres meeting	47,834	45,650
Acres not meeting	712	686
Acres not attainable	3	2,213*
Acres capable of attaining goal	48,546	45,650
Total	48,549	48,549

\* Does not include 123 designated lake acres that were not assessed.

### Acres of Designated Iowa Wetlands Attaining Clean Water Act Goals

Goal Attainment	Fishable Goal	Swimmable Goal
Acres meeting	22,552	4,572
Acres not meeting	3,640	1,693
Acres not attainable	0	19,927*
Acres capable of attaining goal	26,192	6,265
Total	26,192	26,192

\* Does not include 849 designated wetland acres that were not assessed.

### Acres of Iowa Flood Control Reservoirs Attaining Clean Water Act Goals

Goal Attainment	Fishable Goal	Swimmable Goal
Acres meeting	31,700	31,700
Acres not meeting	0	0
Acres not attainable	0	0
Acres capable of attaining goal	31,700	31,700
Total	31,700	31,700



# DON'T LET THE COLD TAKE HOLD!

## October is Energy Awareness Month

For more information contact the  
Iowa Department of Natural Resources  
Wallace State Office Building  
Des Moines, Iowa 50319-0034  
515/281-8681

### Hypothermia CAN be prevented if you:

- dress appropriately (hat, extra socks, mittens) and use extra blankets
- keep your thermostat at 70° or warmer
- eat well and drink plenty of fluids
- keep in touch with family and friends
- seek help from your local government or voluntary agencies

For a free booklet on how to stay warm and reduce your energy costs, write to: "In Good Health With Energy" (D12023) • AARP Fulfillment • 1909 K Street, N.W. • Washington, DC 20049.

Older people are especially vulnerable to accidental hypothermia. (a dangerous lowering of the body's temperature)

If you or someone you know:

- is shivering • has cold or cool skin
- is sluggish or confused • has puffy or bluish skin • has a body temperature below 95°

Then you or someone you know should:

- call immediately for medical help
- keep warm with blankets or extra clothes • move slowly and deliberately to avoid shock





# There Is More Than One Way To Skin A House

Story and photos by Randy Martin

Some Iowans have gone to great lengths to achieve energy efficiency. They have covered their roofs with dirt and have tried to naturally capture the free heat of the sun. They have incorporated mechanical devices to capture the sun's energy and have added large amounts of insulation.

When one covers the roof and up to three sides of the home with dirt, it is called an *earthsheltered* or *underground* home. When a home is bermed on two or three sides with dirt, it is called an *earthbermed* home. A home that naturally captures the free heat of the sun is called a *passive solar* home. One that uses mechanical means to collect, store and distribute the sun's energy is an *active solar* home. A home that relies on large amounts of insulation and an airtight envelope is often called a *super-insulated* home.

The earthsheltered concept was one of the first energy efficient options tried in Iowa. Earthsheltered homes are often built into the sides of southern-facing hills to naturally blend into the surrounding landscape. Besides being fairly energy efficient and comfortable, the earthsheltered house provides excellent protection against

Iowa's tornados. To be energy efficient, however, adequate insulation is still needed between the house and the earth.

Earthsheltered homes do have several drawbacks. To be able to cover the roof with earth requires a significant amount of engineering and structural support. An engineer must be consulted, which can be costly. A second drawback is keeping out the

water. Many of the early earthsheltered homes had leakage problems, so it is very critical to have the waterproofing installed correctly. Digging the roof up later is quite expensive. The final drawback is a psychological one — with earth on three sides and on the roof, only one side is left for windows. If not designed properly, the interior can be quite dark.

To combat the high cost of placing earth on the roof and to avoid the leakage problems, some people have chosen the earthbermed approach where the earth is bermed to the eave on one or more sides. A conventionally insulated roof is then placed on the structure. Since the earth does not cover the roof, the opportunity exists to push back the berm in certain locations and place windows where needed. The earthbermed structure is lower in cost and is an easier alternative as compared to an earthsheltered house.

Passive solar construction is another alternative in achieving energy efficiency by using natural means to collect, store and distribute the sun's energy. To work properly, passive solar homes require a fairly unobstructed southern exposure and careful design.

*An attractive means of collecting solar heat is the sunspace.*





Three types of passive solar designs work well in Iowa: the *direct gain approach*, the *thermal storage wall* and the *sunspace*.

The *direct gain approach* relies on large amounts of southern-facing glass to capture the sun's energy. Large amounts of thermal mass within the home stores the energy to be released during the cooler evening (Figure 1). Mass, as in concrete, masonry or water, must be sized properly to keep the house from overheating during the day and cooling off too rapidly at night. The Laurent Hodges home in Ames,

designed by Dave Block, was the state's first passive solar home. It uses the direct gain approach to supply 85 percent of the energy required to heat the home.

A *thermal storage wall* is shown in Figure 2. A wall of southern-facing glass is usually placed in front of a concrete or masonry wall. The sun shines through the glass during the day and heats up the thermal storage wall. When the temperature falls at night, the wall re-radiates the heat to the indoors. Thermal storage walls are usually used where privacy is desired or where there is no view to

the south. The main drawback is getting to the inside of the glass to clean it. Even though it is a closed space, it will trap dirt.

The *sunspace* is a very attractive means of collecting solar heat. Figure 3 shows the sunspace as a separate room on the southern side of the house. During the day, the heat from the sunspace is transferred to the house through either a door or window or by means of a small fan. At night, the sunspace is closed off from the house and is allowed to cool.

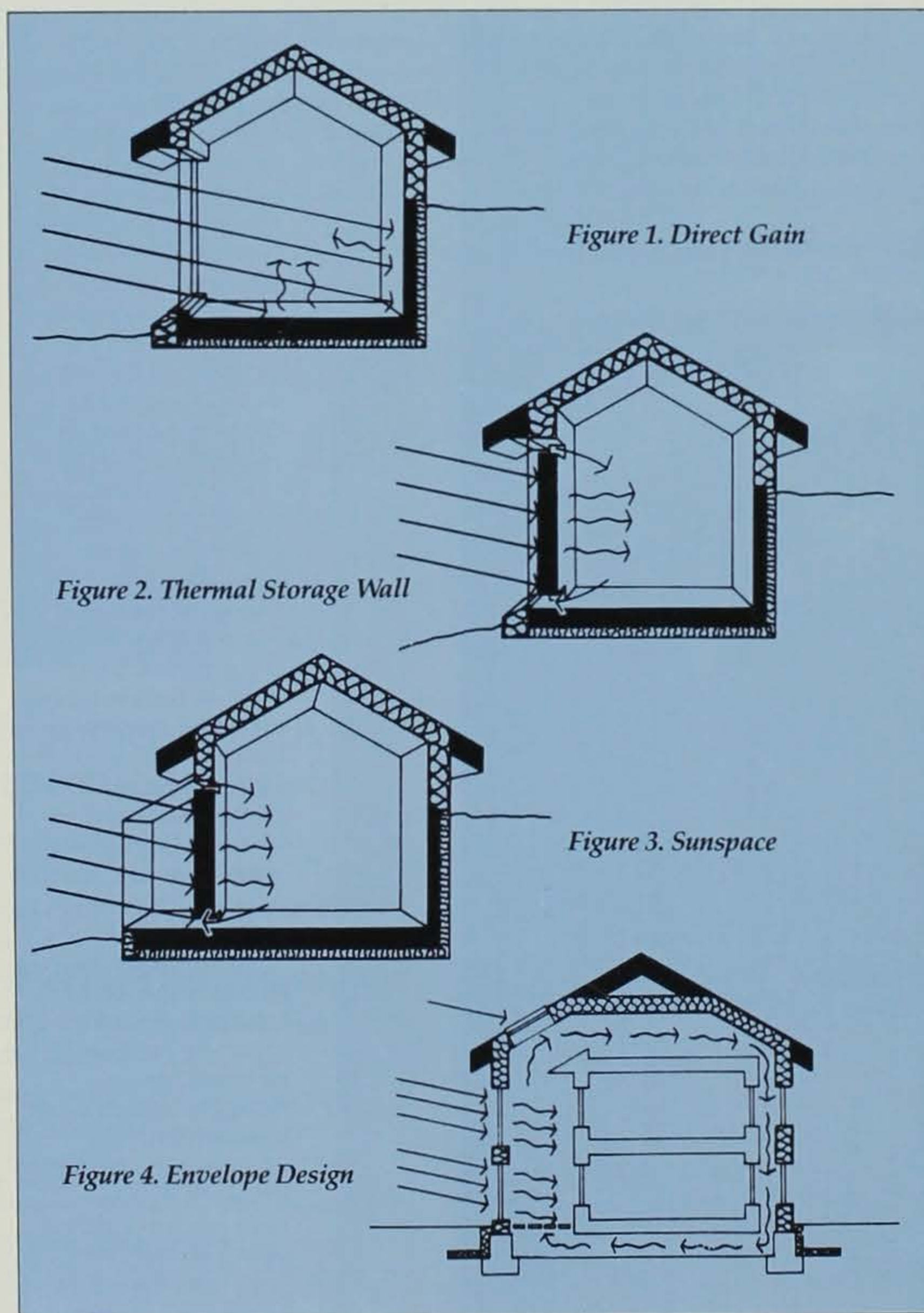
Sunspaces can be exciting places to grow plants and also vegetables. However, to keep plants from freezing at night, the sunspace must be designed with more mass to absorb enough of the sun's energy during the day to be released to the space at night. Some type of night insulation on the windows is also recommended to keep the space from freezing when it gets extremely cold.

Sunspaces designed primarily for capturing extra heat for the house do not need large amounts of mass or roof glass. Roof glass is good for plant growth, but does not do much for winter solar gain. The roof glass, however, is very good at gaining solar energy during the summer when it is not wanted. Vertical glass for solar gain is the most practical for Iowa.

A variation of the sunspace concept is the *envelope* or *double envelope* house as seen in Figure 4. The envelope house has a sunspace along its southern side with an attic open to the sunspace, a double back wall and a crawl space beneath the lower level. This allows the solar-heated air to circulate all around the living environment.

Envelope homes have worked very well in Iowa, although how they work is controversial. In some studies the envelope has been closed off and the home has performed just as well or sometimes better. The main drawback to the envelope home is the cost — building the double shell adds significantly to the cost.

Many people believe that if they choose to build an energy-efficient home they will have to settle for one of the unconventional designs just discussed. These approaches work, but with energy efficient construction, you can have your cake and eat

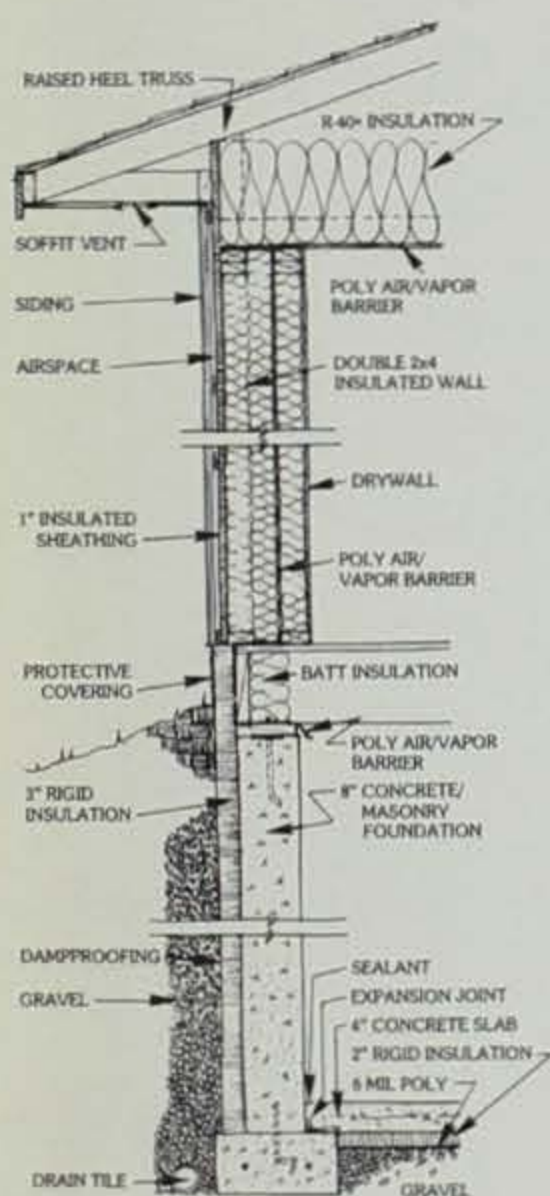


ILLUSTRATIONS BY IOWA STATE EXTENSION SERVICE



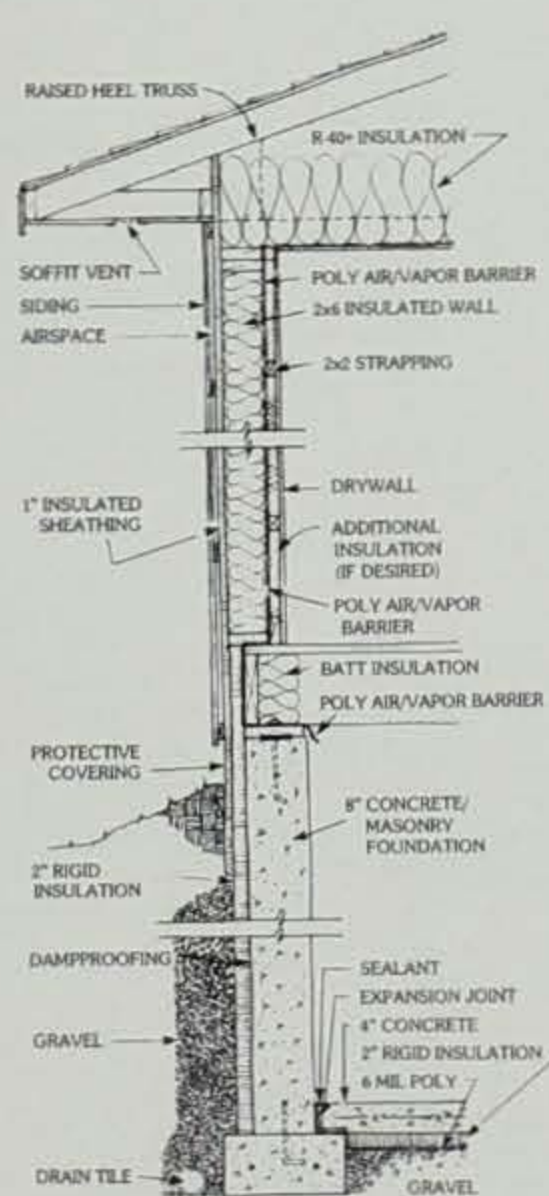


*The only visible evidence of a superinsulated house is its deep-set windows.*



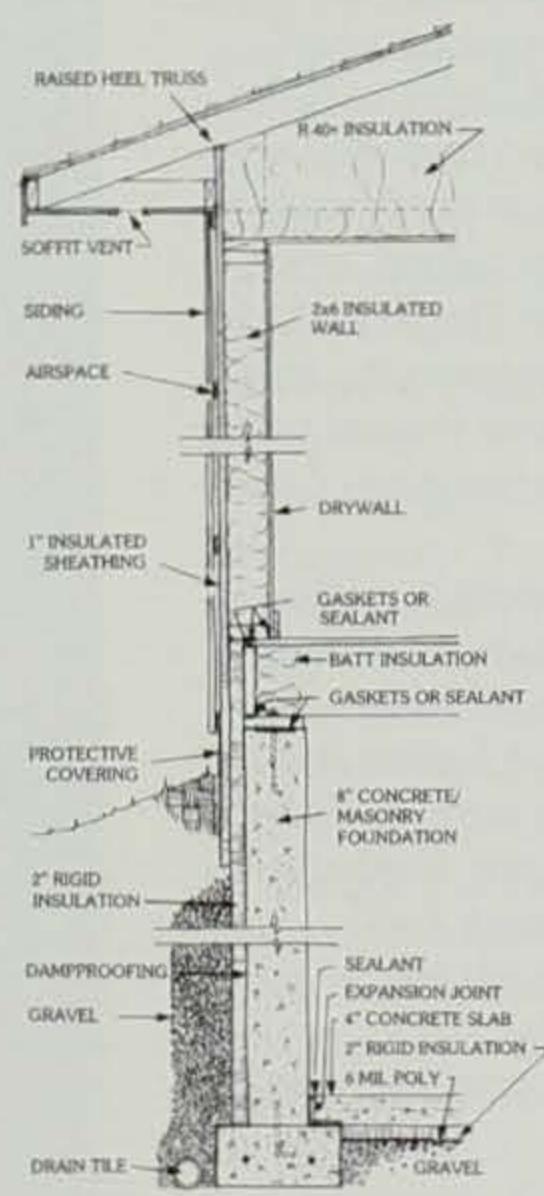
**Figure 5.**

**Double two-by-four construction.**



**Figure 6.**

**Beefed-up two-by-six construction.**



**Figure 7.**

**Airtight Drywall Approach (ADA)**

it, too.

Enter the superinsulated house which can be built in any style and face any direction. Any home plan can be modified with superinsulated techniques. There are many variations of the superinsulated house, but all rely on high levels of appropriately placed insulation and airtight construction. Some use double two by four construction (Figure 5), and some use beefed-up two by six construction (Figure 6). Most superinsulated homes are wrapped on the inside with polyethylene plastic to make them as airtight as possible.

Superinsulated homes are very comfortable — their tight construction eliminates drafts, and their high levels of insulation provide warm interior surfaces. Most also contain controlled ventilation systems to provide fresh outdoor air. The combination of these items yields a quiet, warm, comfortable home that often requires only one-fourth the amount of heating energy that a conventional house requires.

The only real drawbacks of superinsulation to the home buyer are the higher initial cost (which are often offset by the lower energy costs) and the potential for high levels of humidity if the house is built

tight without installing a controlled ventilation system.

It is difficult to show a photo of a superinsulated house because it looks just like any other house from the outside. The only visible evidence is seen from the inside. It has deeper windows — which make nice areas to set plants or other items.

While superinsulation is good, the stable energy prices of the past few years have resulted in a re-evaluation of the need for high levels of insulation. More emphasis is being placed on airtightness. Researchers at the University of Toronto developed a technique called the Airtight Drywall Approach (ADA). The approach does not require a polyethylene air/vapor barrier. It relies on the drywall, construction materials and gaskets placed at construction seams to form the continuous air barrier (Figure 7).

Reviewing the alternatives, the best approach for today appears to be moderate levels of insulation and moderate amounts of southern-facing glass, and when applicable, coupled with airtight construction. Referred to as the energy-conscious house, it does not go overboard but invests in the energy alternatives which yield the highest return.

Building a new home is a luxury many of us may never have, but if we do, the decisions we make will affect the lives of the many people who will live in that house after us. If you build a new house, do not get talked into putting in better kitchen cabinets or a hot tub in lieu of the energy features. Energy investments pay for themselves — kitchen cabinets and hot tubs do not. If you make the right energy investments, the energy savings you achieve may be just what you need to afford the luxuries you desire.

If you would like additional information on how to design and build an energy-conscious house, write Energy Information, Iowa Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034, for a free copy of the booklet entitled, *A Builder's Guide to Iowa's IDEAL Homes*.

*Randy Martin is an energy specialist with the DNR's energy bureau in Des Moines.*



# GOING PUBLIC

Public lands in Iowa can provide some of the state's best hunting experiences.

by Douglas Harr

**"I** won't hunt those state lands!" the seasoned hunter vigorously exclaimed to me. "They're all hunted out and overrun with people. Besides, most game is raised on farmers' land anyway."

That is an idea heard quite often lately — too often, in my way of thinking. To be sure, individuals looking for a good duck or pheasant opener on a state wildlife area may find themselves rubbing shoulders with fair numbers of people. Under that kind of gunning pressure, there likely will not be much game around either. But public lands in Iowa can still provide some of the state's best hunting experiences. In most cases, I personally prefer those public lands. Let's examine some of the reasons why.

To begin with, we need a definition of just what constitutes public lands. The Iowa Department of Natural Resources owns or manages considerable acreages of property. Some of these are designated wildlife refuges, normally off limits to hunters, but a vast majority of state areas are public hunting areas; therefore, open to everyone. These include wildlife management areas (WMAs), state forests and a few other categories of public land.

Federal agencies, likewise, maintain considerable public acreage. The United States Forest Service is one of the nation's largest land managers, through its national forests and national grasslands,

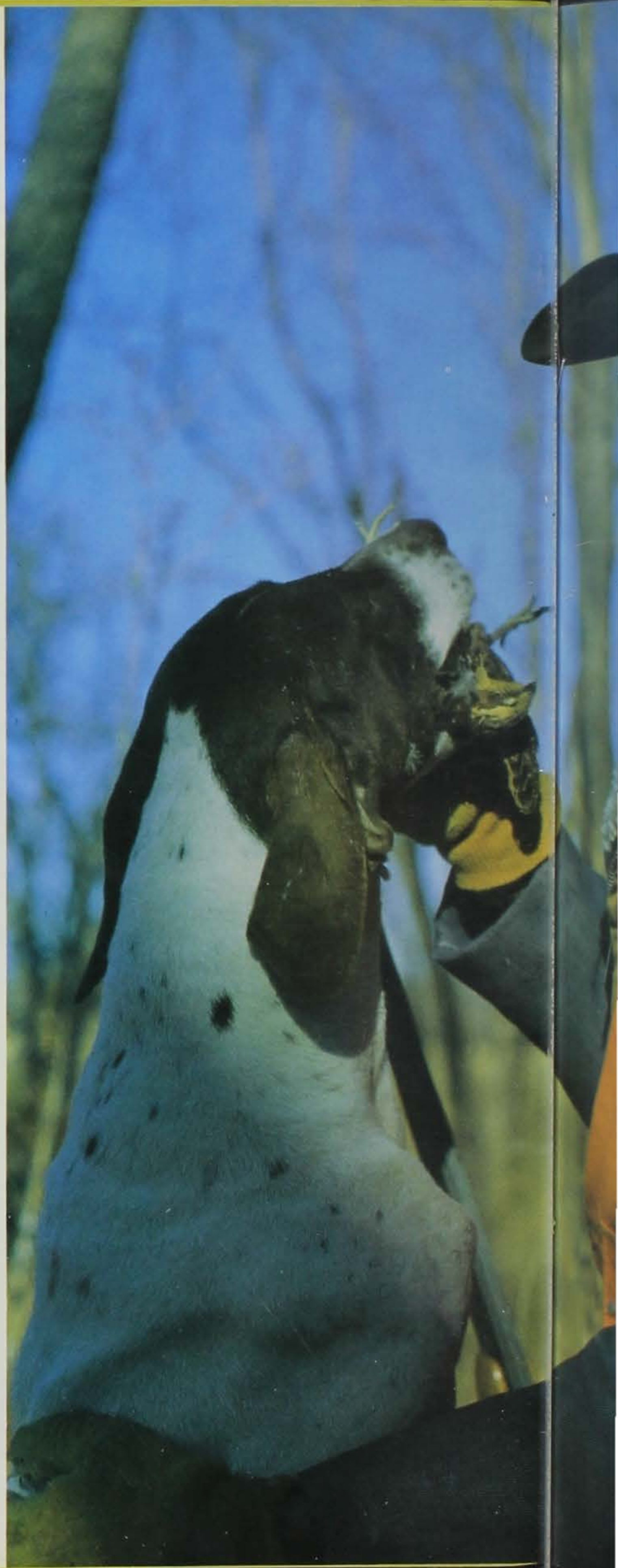
although they presently own no Iowa lands.

Best known of federal lands sometimes open for hunt-

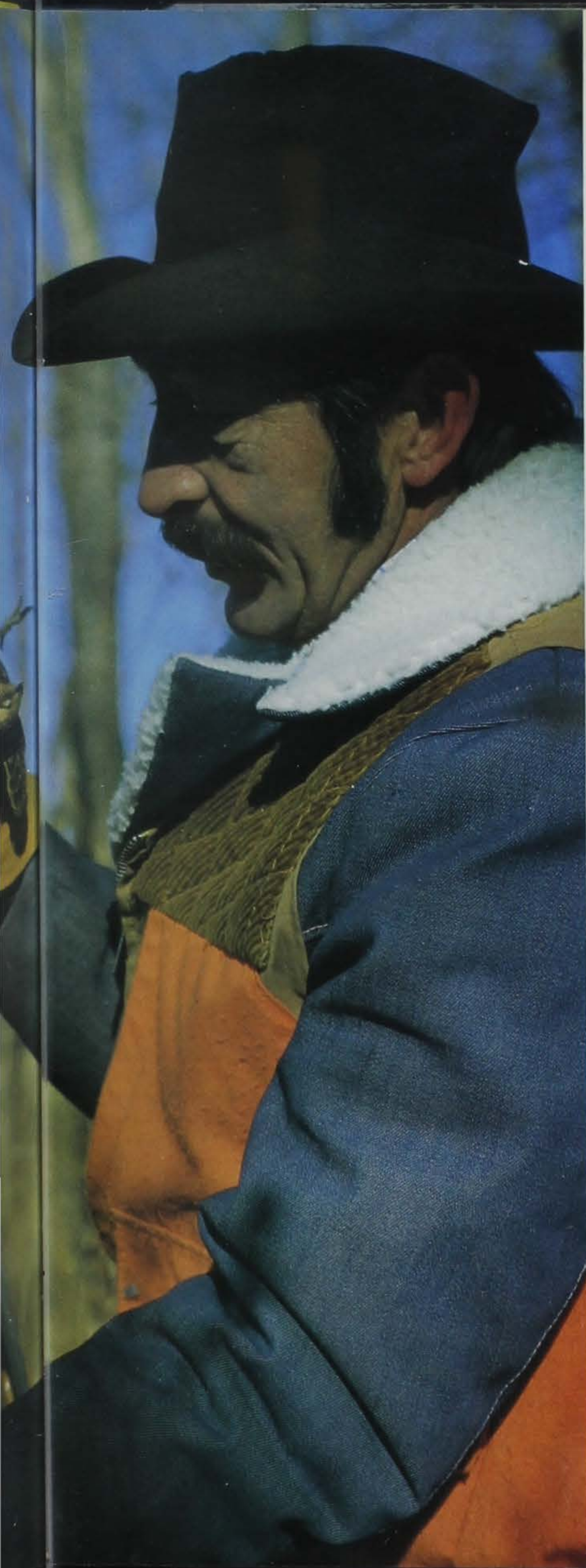
*Although public wildlife management areas comprise less than one percent of Iowa's total land area, these pieces of valuable habitat help assure there will be game species to hunt now and in the future.*



KEN FORMANEK







RON JOHNSON

ing may be the national wildlife refuges operated by the U.S. Fish and Wildlife Service. Although called "refuges," many of these have provisions for hunting and other outdoor recreation. Closely related to the federal refuges are the smaller waterfowl production areas (WPAs) so numerous in the Dakotas and Minnesota. Only two are found in northwest Iowa.

Taken together, these state, federal and many county conservation board lands comprise an incredible opportunity for public hunting. Their very existence assures there might be a steady supply of game species for years to come.

So why would anyone shun such a wealth of public hunting lands? Good question. There is no doubt private lands, both unfarmed and intensively agricultural, which produce a lot of wildlife. In Iowa, for example, the more than 290,000 acres of managed public WMAs constitute less than one percent of our state's total land area. Much of our famed pheasant population resides chiefly on private lands. But when one looks at ringneck populations, at least in the heavily farmed northern half of the state, it is not surprising to find the best numbers on or adjacent to public land. Why? Because those public areas, unlike most private land, provide everything a pheasant needs to survive.

Pheasants are well-known for their affiliation with the midwestern "cash-grain" region — farming areas dominated by corn, soybeans and small grains. These crops, however, are used by ringnecks primarily for feeding and for summer cover sites. Come nesting season, and again each fall and winter, pheasants return to dense grasses, cattails and even woody cover, especially if there are small cropfields nearby. One need not search far to find that the best cover mix of all is located on public ground.

Similarly, a visit to a northern Iowa wetland can convince one where the future for ducks and geese lies. But once again, it is primarily on public rather than private lands. Ducks Unlimited has a big stake in waterfowl production in Canada, but in the states the only real hope for waterfowl is on state or federal marshlands. WMAs and WPAs provide permanent, protected production sites along with plentiful places to hunt. A few northern Iowa counties still reveal wetlands on private ground, but at

KEN FORMANEK





RON JOHNSON



KEN FORMANEK

**...the duck hunt on a public wetland, with only prairie or wooded shores around me, is more exhilarating than one on a private marsh in sight of the local landowner doing the fall plowing.**

least up until now, agricultural interests have tended to view bucks as preferable to ducks. Marshes have dwindled alarmingly over the past few decades. Some hope of finally thwarting this trend has been found in the 1985 federal farm bill. That act provided a "swampbuster" provision that offers hope of deterring landowners from draining wetlands by threatening to remove their federal farm benefits, ranging from price supports and loans to crop insurance. But knowing the loopholes that seem to plague federal laws, perhaps the best we can hope for is a slowing of wetland losses. If so, then publicly owned wetlands will continue to offer the best game production and public hunting opportunities as private sloughs disappear.

The situation is similar for woodlands. Some of our neighboring states, notably Minnesota, Missouri and Wisconsin, have huge tracts tied up as public forests. Iowa, however, with only a few relatively small state forests, must produce much woodland wildlife in private timber. The Hawkeye State has realized a tremendous conversion of private woodlands into cleared pasture and farmland, eliminating not only deer, turkey and grouse habitat, but also the places where hunters may seek out their quarry.

How has Iowa handled that situation? Tax incentives to those who preserve woodlots have helped, but they have not been effective enough in preserving timber. Therefore, Iowa is now attempting to provide more public woodlands which, under the DNR's exemplary multi-purpose forest management plans, will open up additional new lands to hunting. Using lottery money, donations and other funding, the DNR is presently acquiring the new "Loess Hills Pioneer State Forest." This targets up to 17,000 acres for purchase in the steep hill country of western Iowa. Once again, public lands will try to rescue some woods and wildlife from an uncertain fate if the land was left to private development. Hunters will be among the beneficiaries.



## WILDLIFE MANAGEMENT BIOLOGIST UNITS

1. Bays Branch Wildlife Unit	(515) 993-3911 801 Court, Courthouse, Adel 50003
2. Big Marsh Wildlife Unit	(515) 456-3730 SCS Office, 115 2nd Ave. N.W., Hampton 50441
3. Big Sioux Wildlife Unit	(712) 472-3751 301½ 1st Ave. Rock Rapids 51246
4. Black Hawk Wildlife Unit	(712) 657-2639 Box 815, Lake View 51450
5. Coralville Wildlife Unit	(319) 354-8343 ASCS Office Bldg., 438 Southgate Ave., Iowa City 52240
6. Ingham Wildlife Unit	(712) 362-7222 SCS Office Bldg., 2109 Murray, Estherville 51334
7. Maquoketa Wildlife Unit	(319) 652-3132 201 W. Platt, E., Maquoketa 52060
8. Missouri River Wildlife Unit	(712) 423-2426 912 7th, Onawa 51040
9. Mt. Ayr Wildlife Unit	(515) 464-2220 SCS Office Bldg., R.R. 3, Mt. Ayr 50854
10. Odessa Wildlife Unit	(319) 523-8319 ASCS Office Bldg., 220 N. 2nd, Wapello 52653
11. Otter Creek Wildlife Unit	(515) 484-3752 USDA Office Bldg., 203 W. High St., Toledo 52342
12. Rathbun Wildlife Unit	(515) 774-4918 RR 2, Box 310, Chariton 50049
13. Red Rock Wildlife Unit	(515) 961-0716 Box 423, Indianola, 50125
14. Rice Lake Wildlife Unit	(515) 324-2431 SCS Office, Rt. 2, Box 241A, Northwood 50459
15. Riverton Wildlife Unit	(712) 374-3133 SCS Office Bldg., Box 490, Sidney 51652
16. Ruthven Wildlife Unit	(712) 262-4177 SCS Office Bldg., 1900 N. Grand, Box 4086, Spencer 51301
17. Saylorville Wildlife Unit	(515) 432-2235 1327 Hwy. 30, Boone 50036
18. Sweet Marsh Wildlife Unit	(319) 422-5832 SCS Office Bldg., RR 1, Box 103, West Union 52175
19. Upper Iowa Wildlife Unit	(319) 382-4895 ASCS Office Bldg., 903 Commerce Dr., Decorah 52101
20. Wapello Wildlife Unit	(515) 682-3552 700 Farm Credit Dr., Ottumwa 52501

How about the management of private lands for wildlife as opposed to management of public lands? It appears there is no contest. Certainly, many farmers and woodlot owners conduct admirable wildlife management on their properties. There seems to be a fair number of people who implement such practices, especially in more heavily forested states. That is due, in part, to the recognition of how much hunting and fishing add to those states' economies. With some good exceptions, such commitment to private land stewardship at times seems non-existent in Iowa.

Now look at public lands. The several hundred thousand acres of public lands in Iowa often have as their main objective the production of fish and wildlife for public use or enjoyment. They are almost always managed by natural resource professionals who grew up hunting and fishing. These land managers, without exception, do their experienced best to make their assigned lands attractive to wildlife and the citizens who use them.

Many public lands are even farmed, but with wildlife as the production goal rather than bushels of grain. Corn may be left standing as winter food. Hayfields are left unmowed until after the nesting season. Under an existing soil conservation plan, crops are rotated to benefit the soil, which indirectly aids wildlife. It is the rare farmer who can afford to turn so much of his operation toward wildlife production.

More than a few hunters these days have been heard complaining about how some landowners charge fees to hunt, and prices for such fee hunting are on the rise. Public lands, on the other hand, are almost always free. One might argue that they are not really free because hunters must buy a license, which in turn buys and supports public lands. True, but you will need that license when you hunt private lands as well, so why not hunt some of the places you have paid for?

Even where hunting on private land is free, as it still is in much of our area, it can sometimes be difficult to secure permission. If the landowner is not home and you have not made prior arrangements, that ground is effectively closed to hunting. Enter it, and you have violated the trespass laws of most states. Public lands are almost always open to hunters with no permission required for use. As long as existing statutes and regulations are heeded, no one must be asked for the privilege to enter and hunt.

One more good reason for favoring public hunting lands over private ones is an aesthetic idea. That is the ability to seek relief from humankind's effects on the landscape. Put another way, it is the chance to hunt in something more closely approximating primitive conditions.

I must admit that I do hunt on private lands from time to time. There are always a few pheasants, ducks or other game to be had on a nearby farm. Those places are also a bit closer to home than the nearest WMAs; therefore, it saves a little driving when time is short.

But like many hunters when they have outgrown the "full bag limit" syndrome and appreciate hunting as much for the experience as for the kill, I most enjoy the stalk that puts me back in touch with things wild and free. Thus, a hike through native grasses and brush on a state WMA is more satisfying than plodding through corn stubble spreading to the horizon, whether or not I ever bag a bird. Likewise, the duck hunt on a public wetland, with only prairie or wooded shores around me, is more exhilarating than one on a private marsh in sight of the local landowner doing the fall plowing. And what deer hunter on a deer stand in an Iowa state forest does not fondly remember the surprised squirrel on a branch only feet or even inches away? The farmland deer hunter who drives along country roads until spotting his quarry — a type of deer hunting seen all too frequently these days — has lost some of the meaning of sport and all touch with nature.

While there may be hunters who believe hunting is better on private land, I must politely disagree. The pressure might not always be as great on those private areas, but, all things considered, I will opt for the experience on public lands. And if habitat continues to shrink on private land, those who prefer to hunt there will almost certainly discover their hunting success to be disappearing right along with the habitat.

---

*Douglas Harr is a wildlife biologist located at the Big Sioux Wildlife Unit.*

---





# A Bird Made of Spare Parts

Story and photos by Lowell Washburn

**T**he noise created by the two men and their dogs slogging through the ankle-deep water drew ever closer. As the sound became too much to bear, the holding bird lost its nerve and flushed. Uttering a loud *scaipe*, the alarmed snipe rocketed from the wetland floor and began a series of low-level escape maneuvers for which the species is famous.

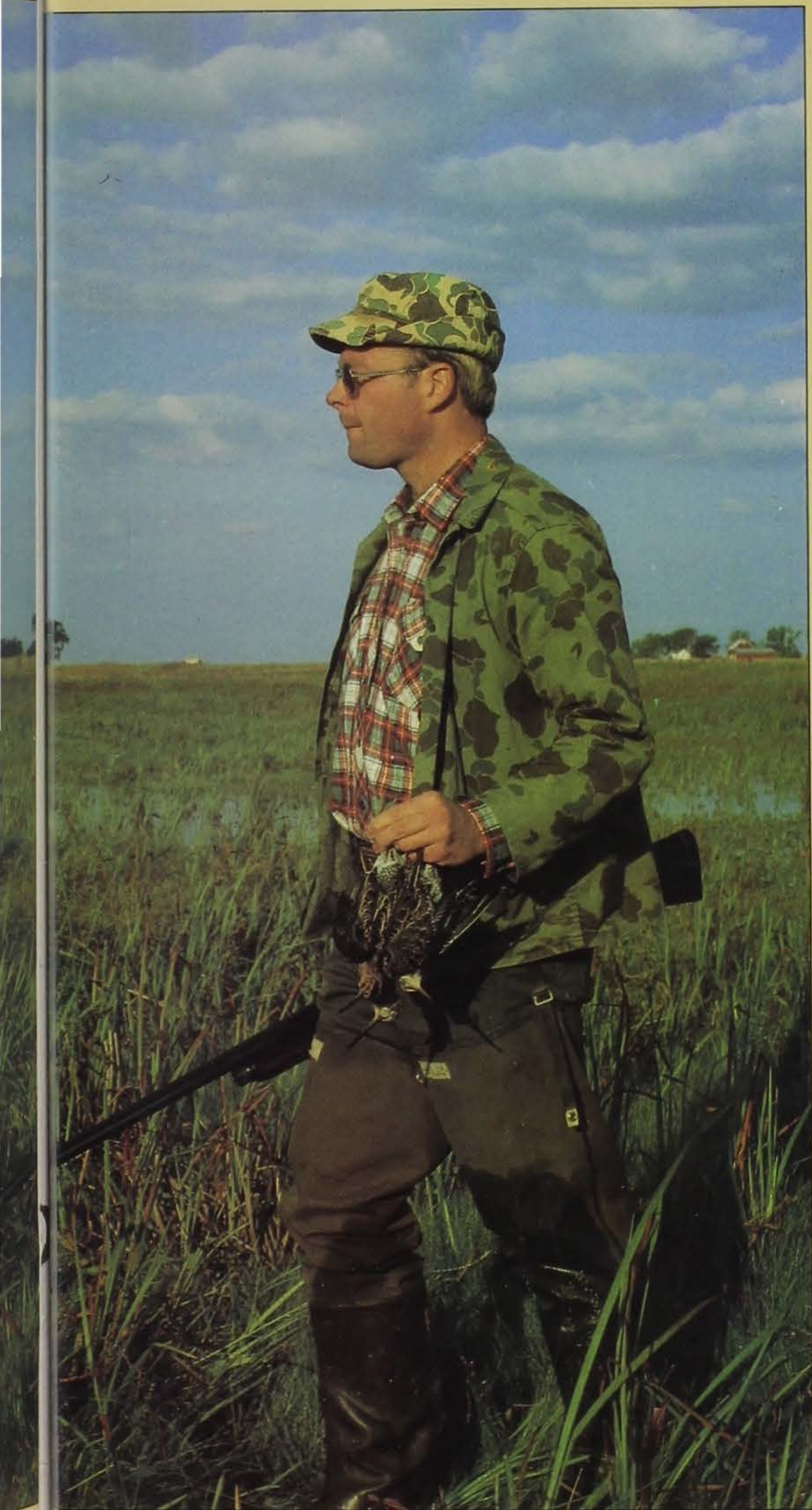
Within three feet of take-off, the bird seemed to have attained the speed of sound, and I strained to track the phantom with the 20-gauge double. Within a couple seconds of its appearance, the fleeing bird's zig-zag course had nearly taken it beyond range. But now I had the rhythm, and squarely covering the bird with the barrels, I squeezed the trigger. It was at that precise moment that the unpredictable creature decided to zig while I zagged. I fired

and the corn dog tops of a nearby cattail clump exploded into a fuzzy cloud of down, a full two feet to the left of the escaping target. Sounding a final *scaipe*, the bird bid a not-so-fond farewell and was quickly gone from view.

Pulling a fresh shell from my rapidly dwindling supply, I refilled the empty tube and marched on. In short order, three more snipe erupted from a half-submerged point. Two flew to my right side but disappeared behind the cattails before I had the opportunity to waste another shell. The third bird headed to the left and passed Iowa conservation officer and fellow snipe enthusiast, Steve Schutte. After some fancy maneuvers of his own, Schutte caught up to the bird and tumbled it in a shower of feathers. When the dogs returned, we took time out to examine one of North America's more unique wild-







life forms.

At first glance, the snipe, also commonly referred to as jacksnipe, looks like a creature made mostly of spare parts. Its legs are obviously too long. The tail is too short and the body too plump. To top off this bizarre combination, the bird's face is equipped with a sharp, stiletto-like bill that nearly doubles the snipe's length. But of course, there is good reason for these outlandishly exaggerated features. The long legs allow this highly specialized marsh dweller to remain high and dry while wading the wetland edge probing for food with its sewing-machine bill.

More so than other shorebirds, the jacksnipe is a nervous critter, always on the lookout for danger. If possible, it would rather hide than fly and is consequently bedecked in a marvelous pattern of brown and buff camouflage that rivals that of even the upland gamebirds.

During the breeding season, the snipe resides primarily on the marshes and treeless tundras of Canada. For the most part, it winters along the Gulf states, Mexico and Central America.

Most snipe migrate at night and spend their days replenishing spent fuel reserves. The first substantial migrations of snipe usually move into Iowa during early October. Peak numbers most commonly occur during the second and third weeks of the month.

The best places to locate snipe concentrations are along wetland margins that contain short, grassy habitat in one or two inches of water. Mud-flat edges are a sure bet. And low, boggy pastures are also favored by migrating snipe.

Although the birds normally hold tight in cover, bagging these elusive creatures presents the wing shooter with a major challenge. For the best results most sport enthusiasts prefer open-bored shotguns. Steel shot is required for hunting snipe in Iowa, and #6 steel is by far the best shot size to use.

As a rule of thumb, if you manage to bag more than one bird for every five shots fired, consider yourself a better-than-average snipe hunter.



# CONSERVATION UPDATE

## DOT PROVIDES SITES FOR DISPOSAL OF USED MOTOR OIL

Iowans may now dispose of used motor oil from their cars, pickups, tractors and other motorized equipment at Iowa Department of Transportation (DOT) sites in Mason City and Atlantic. The sites are being provided as part of a research project authorized by the 1987 Groundwater Protection Act passed by the Iowa Legislature.



*The Iowa Department of Transportation (DOT) has set up two sites — one in Mason City and one in Atlantic — to collect used motor oil from farmers and household users. Oil used by businesses or industries and oil mixed with chemicals will not be accepted at the sites.*

The purpose of the project is to protect groundwater supplies by providing do-it-yourself oil changers with a place to safely dispose of used motor oil. Only farmers and household users of motor oil may bring used oil to the DOT sites. Oil used by businesses or industries and oil mixed with chemicals will not be accepted.

The used oil collection sites are at DOT maintenance garages. The Mason City garage is on the south side of U.S. Highway 18 near the east edge of the

city, with the entrance to the facility on Sixth Street S.E. Used oil should be left in the small white building located in the center of the open area at the garage. The Atlantic garage is on Ash Street one block north of U.S. Highway 6. Oil should be left in the small white building beside the garage. Both buildings are marked with Iowa's household hazardous materials symbol and signs concerning the project. Anyone from surrounding counties may bring used oil to the collection sites.

Persons disposing of used motor oil at the sites are asked to leave the oil in closed, disposable containers which hold no more than five gallons each. Plastic milk jugs or similar tight, clean containers are preferred. Persons will be asked to fill out a tag asking how the oil was used and how far away the person lives.

The collection points are open from 8 a.m. to 3 p.m. weekdays only and will be closed holidays. The used oil will be transferred to storage tanks by DOT maintenance garage staff at the end of each collection day.

Persons delivering oil to the collection points are asked to use caution, since the DOT buildings are in areas where large trucks and other equipment are operated.

The DOT is cooperating with the Iowa Department of Natural Resources and the Iowa State University Center for Industrial Research and Service in fulfilling the Groundwater

Protection Act requirements. Once the oil is collected, ways to recycle it or dispose of it less harmfully will be identified and studied. The project will also include research on area sales of new motor oil and public attitudes concerning groundwater protection.

The oil collection project is to run until June 30, 1989. The state agencies involved are to report to the Legislature and recommend whether to expand, modify or discontinue the project.

Financing for the used motor oil project is provided by the Groundwater Protection Fund and by petroleum overcharge funds. The latter is money several oil companies were ordered to pay states after it was determined the companies had overcharged customers. The overcharge money is to be used by the states to fund projects which promote energy conservation.

Questions or comments regarding the oil collection project may be directed to the DOT's project coordinator, Walt McDonald, at (515)239-1263. For information about the research project or groundwater protection, call the Iowa Department of Natural Resources Groundwater Protection Hotline, 1-800-532-1114.

## FORT ATKINSON MUSEUM OPEN TO THE PUBLIC

The Fort Atkinson State Preserve museum is open to the public Friday through Sunday from 11



a.m. to 5 p.m. through mid-October. Earlier this year the museum had been open only on a group reservation basis.

The preserve, located in the town of Fort Atkinson in Winneshiek County, is the site of a partially restored U.S. Army fort built in the 1840s. The museum has a variety of exhibits on the history of Fort Atkinson.

For more information, contact Scot Michelson, Volga River State Recreation Area, Route #1, Box 72, Fayette, Iowa 52142, (319)425-4161.

## IOWA DUCK HARVEST LOWEST SINCE 1968

The 1987 duck harvest estimates for Iowa indicate that the duck kill decreased from 217,000 in 1986 to 161,000 in 1987, the lowest duck harvest estimate since 1968 when 96,000 ducks were taken.

Preliminary duck harvest estimates recently released by the U.S. Fish and Wildlife Service for the 1987 hunting season estimated Iowa's kill was down for nearly all species, with mallards dropping from 89,000 to 65,000. Jim Hansen, waterfowl biologist with the Iowa Department of Natural Resources, attributed the reduced harvest to several factors including fewer ducks and fewer hunters, but especially to poor habitat conditions over much of Iowa. "Even with fewer ducks in the fall flight, we can still have a good duck season in Iowa if we have good habitat,

but last fall many parts of the state were drier than normal," Hansen said.

There were decreases in duck harvest for several other states, and for the Mississippi Flyway the harvest dropped from about 4.2 million to 3.9 million.

For Canada geese, the news was somewhat better. Although Iowa's estimated Canada goose kill dropped from 17,200 to 15,200, the 1987 kill was still the third highest since the estimates were begun in 1962. The 1986 kill was a record high. The continued high harvest of Canada geese was not surprising to DNR officials with the increasing numbers of Iowa-reared giant Canada geese and the increasing interest in Canada goose hunting. "I expect our Canada goose kill to increase during the next few years," Hansen said.

The estimated snow goose harvest for Iowa dropped considerably, from 11,800 to only 3,600, probably due to their late arrival and early departure in southwestern Iowa and to the small percentage of young in the fall flight, according to DNR officials.

Other information provided along with the harvest estimates included duck stamp sales and seasonal bags. The preliminary figures indicated that the number of federal duck stamps sold in Iowa decreased from 33,504 in 1986 to 30,605 in 1987. The average number of ducks killed per adult hunter for the entire season in Iowa was 5.13, down from 6.47 the previous year.

## 1988 IOWA HUNTING & TRAPPING SEASONS

(Effective to June 30, 1989)

### HUNTING AND TRAPPING SEASONS FOR FURBEARERS

The furbearer seasons all open at 8:00 a.m. on the opening date. There are no daily bag or possession limits.

SPECIES	OPENING DATE	CLOSING DATE	AREA OPEN
Mink, Muskrat, Raccoon, Weasel, Badger, Opossum, Striped Skunk and Fox (Red and Gray)	Nov. 5	Jan. 22, 1989	Statewide
Beaver	Nov. 5	April 9, 1989	
Groundhog	June 15	Oct. 31	
Coyote (Hunting)	Continuous Open Season		
Coyote (Trapping)	Nov. 5	Jan. 22, 1989	
Otter, Spotted Skunk and Bobcat	Continuous Closed Season		

### HUNTING SEASONS AND LIMITS

Game	Season	Shooting Hours	Daily Bag Limit	Possession Limit
Cock Pheasant	Oct. 29-Jan. 8	8:00 a.m. to 4:30 p.m.	3	12
Quail	Oct. 29-Jan. 31		8	16
Gray Partridge	Oct. 29-Jan. 31		8	16
*Ruffed Grouse	Oct. 8-Jan. 31		3	6
Rails (Sora & Virginia)	Sept. 3-Nov. 11	Sunrise to Sunset	15	25
Snipe (Wilson's-Jack)	Sept. 3-Dec. 18		8	16
Woodcock	Sept. 17-Nov. 20		5	10
Cottontail Rabbit	Sept. 3-Feb. 28		10	20
Jackrabbit	Oct. 29-Dec. 11		3	6
Squirrel (fox and gray)	Sept. 3-Jan. 31		6	12
Pigeons	Oct. 1-March 31		UNRESTRICTED	
Crows	Oct. 15-Feb. 15		UNRESTRICTED	
*Turkey	Oct. 10-Nov. 27	1/2 hr. before sunrise to sunset	ONE TURKEY PER LICENSE	
*Turkey (bow only)	Oct. 1-Dec. 2 and Dec. 19-Jan. 10	1/2 hour before sunrise to 1/2 hour after sunset	ONE DEER WITH BOW AND ONE DEER WITH SHOTGUN/MUZZLELOADER	
Deer (bow)	Oct. 1-Dec. 2 and Dec. 19-Jan. 10			
Deer (muzzleloader)	Oct. 15-Oct. 23 or Dec. 19-Jan. 10			
*Deer (gun)	Dec. 3-Dec. 7 or Dec. 10-Dec. 18	Sunrise to Sunset	ONE DEER PER LICENSE	

\*Check Regulations for Open Areas

### WATERFOWL HUNTING SEASON AND LIMITS

Game	Season	Area	Shooting Hours	Daily Bag Limit	Possession Limit	
Ducks	Oct. 8-9	N. Zone	Sunrise to Sunset	**See below		
Early Season	Oct. 22-28	S. Zone				
Ducks	Oct. 22-Nov. 18	N. Zone				
Late Season	Nov. 5-Nov. 27	S. Zone		15	30	
Coot	Same as Ducks				†See below	
Geese (Snow, White-Fronted and Brant)	Oct. 1-Dec. 9	Check Regulations				
	Oct. 15-Dec. 23	SW Goose Zone				
Geese (Canada)	Oct. 1-Nov. 14	Check Regulations				
	Oct. 15-Nov. 28	SW Goose Zone				

**\*\*DUCKS:** The daily bag limit is three (3) ducks and may include no more than two (2) mallards (no more than one of which may be a female), one (1) black duck, two (2) wood ducks, one (1) redhead and one (1) pintail. *Canvasbacks:* The season is closed.

The possession limit for ducks shall not include more than four (4) mallards (of which not more than two (2) may be female mallards), two (2) black ducks, four (4) wood ducks, two (2) redheads and two (2) pintails.

**MERGANSERS:** Daily bag limit is five (5) (no more than one (1) hooded); possession limit is ten (10) (no more than two (2) hooded).

**†GEESE:** Daily bag limit is five (5) including no more than two (2) Canada and two (2) White-Fronted. Possession limit is ten (10) including no more than four (4) Canada and four (4) White-Fronted.

**NOTE:** Check regulations for areas closed to waterfowl hunting. Steel shot is required statewide for waterfowl hunting.





## LEOPOLD PAPERS GIVEN TO STATE HISTORICAL SOCIETY

A rare field notebook written by Aldo Leopold, recording his observations of wildlife and conservation interests in Iowa in 1928, has been presented to the State Historical Society of Iowa by the Department of Natural Resources.

Considered the country's "father of wildlife management," Leopold spent his boyhood around Burlington in Lee County. The notebook was part of his field record while he worked for the Sporting Arms and Ammunition Manufacturers Institute (SAAMI) to compile the Game Survey of North Central States. Iowa was one of the survey states in which Leopold was to make recommendations to SAAMI for improvements in game populations. The survey was published in 1931 and was followed by *Game Management* in



1933, a classic text on the subject.

Leopold is more widely known for his book, *Sand County Almanac*, a compilation of nature sketches and philosophical essays on the ecological attitudes of people and the land.

David Crosson, administrator for the Historical Society, envisions that excerpts from Leopold's field notebooks and some of his other works will help punctuate areas of the society's new exhibit, "The Delicate Balance, Human Values and the Natural Resources of Iowa," which is planned to open in the fall of 1989.

## BEGIN WINTER BIRD FEEDING IN THE FALL

Officials of the Iowa Department of Natural Resources say the best time to start a winter bird feeding program is during October or early November.

"This will enable the birds to include the feeder in their regular feeding circuit. Starting feeders in December or January is much harder because the birds have already selected their primary feeding sites," said Laura Spess Jackson, urban biologist for the DNR.

Feeders should be placed near shrubs, trees or other structures that can be used as perching sites while the birds wait to feed. Jackson also recommends placing the feeders in sunny areas that are protected from the wind.

Further information on

winter bird feeding is available by contacting Laura Spess Jackson, Non-game Program, Department of Natural Resources, Wallace State Office Building, Des Moines, Iowa 50319-0034.

## AUTUMN COLOR REPORT

People interested in the fall foliage color change this autumn may call (515)233-4110 for a weekly progress report from the Iowa Department of Natural Resources forest nursery in Ames.

The recorded information is updated each Monday and will run through mid-October. The weekly message describes fall color throughout the state, which tree species are most colorful and when the peak of color will likely occur in different areas of the state.



## "FENCELINE RINGNECKS"

This 1988 Iowa Pheasants Forever Print of the Year, featured on our cover, was designed by Larry Zach, 1988 Pheasants Forever Artist of the Year. "Fenceline Ringnecks," a limited edition print of 500, can be purchased for \$103.80 (which includes tax, shipping and handling) by writing P.O. Box 2093, Waterloo, Iowa 50704, or by calling (319) 233-6280 or (319) 277-5424. Mastercard and Visa accepted. Remarques are available for an additional \$50.



Before sealing envelope, be sure to enclose holiday gift order form along with your remittance.

ing faucets. \_\_\_\_\_

r 68° or less in winter. \_\_\_\_\_

set for 78° or higher in \_\_\_\_\_

changed once a month. \_\_\_\_\_

are shut to rooms not in \_\_\_\_\_

nd doors are installed, \_\_\_\_\_  
d caulked. \_\_\_\_\_

stalled behind outlet and \_\_\_\_\_  
p cold air from coming in. \_\_\_\_\_

ated. \_\_\_\_\_

d rooms are insulated. \_\_\_\_\_

sulated. \_\_\_\_\_

ated. \_\_\_\_\_

locked. \_\_\_\_\_

trees on the north. \_\_\_\_\_

is trees, vines, or shrubs \_\_\_\_\_  
west to help shade win- \_\_\_\_\_  
r. \_\_\_\_\_

pipe coming from your \_\_\_\_\_  
lated. \_\_\_\_\_

re installed. \_\_\_\_\_

red with plastic in the \_\_\_\_\_  
ndows are used). \_\_\_\_\_

art

00

50

C = 61-150

D = 51- 60

F = 50 or below

GRADE \_\_\_\_\_

• Stove reflectors are clean. \_\_\_\_\_

• Door seal on oven door is tight. \_\_\_\_\_

• Door seal on refrigerator is tight. \_\_\_\_\_

• Door seal on freezer is tight. \_\_\_\_\_

To test door seals: Close the door on a dollar bill. If you can remove it, the door is too loose and a new rubber gasket is needed.

Adapted from *IDEAS*, the Iowa Developed Energy Activities Sampler.





## LEOPOLD PAPERS GIVEN TO STATE HISTORICAL SOCIETY

A rare field notebook written by Aldo Leopold, recording his observations of wildlife and conservation interests in Iowa in 1928, has been presented to the State Historical Society of Iowa by the Department of Natural Resources.

Considered the country's "father of wildlife management," Leopold spent his boyhood around Burlington in Lee County. The notebook was part of his field record while he worked for the Sporting Arms and Ammunition Manufacturers Institute (SAAMI) to compile the Game Survey of North Central States. Iowa was one of the survey states in which Leopold was to make recommendations to SAAMI for improvements in game populations. The survey was published in 1931 and was followed by *Game Management* in



1933, subject Le know Coun lation and on th of pe Da istrat Socie cerpt

notebooks and some of his other works will help punctuate areas of the society's new exhibit, "The Delicate Balance, Human Values and the Natural Resources of Iowa," which is planned to open in the fall of 1989.

POSTAGE WILL BE PAID BY ADDRESSEE  
IOWA CONSERVATIONIST  
IOWA DEPARTMENT OF NATURAL RESOURCES  
502 EAST 9TH  
C/O GRIMES STATE OFFICE BUILDING  
DES MOINES, IOWA 50309-9968

BUSINESS REPLY MAIL  
FIRST CLASS MAIL PERMIT NO. 781 DES MOINES, IOWA



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

## "FENCELINE RINGNECKS"

*This 1988 Iowa Pheasants Forever Print of the Year, featured on our cover, was designed by Larry Zach, 1988 Pheasants Forever Artist of the Year. "Fenceline Ringnecks," a limited edition print of 500, can be purchased for \$103.80 (which includes tax, shipping and handling) by writing P.O. Box 2093, Waterloo, Iowa 50704, or by calling (319) 233-6280 or (319) 277-5424. Mastercard and Visa accepted. Remarques are available for an additional \$50.*



## CLASSROOM CORNER

### Become an Energy Detective

by Wendy Zohrer, information specialist

Iowa imports 98 percent of its energy. You can become a detective and search out and grade the energy usage in your home. Give points to each item and total at the end. Review your grade and check items which are energy wasters.

Could you make some improvements in any of these areas? These changes could result in reducing your home energy needs yet not affect your comfort. After one month go back and grade your home once again.

### The Energized Home Report Card

of \_\_\_\_\_

#### Possible Points

Always = 10 points

Usually = 8 points

Sometimes = 5 points

Hardly ever = 2 points

Never = 0 points

#### Electricity

- Light bulbs and shades are clean. \_\_\_\_\_
- Our hot water heater is set at \_\_\_\_\_.  
less than 110° = A    110° to 125° = B  
125° to 140° = C    more than 140° = D
- The hot water heater is insulated. \_\_\_\_\_
- The refrigerator coils at the rear or bottom are clean and free of lint. \_\_\_\_\_
- The refrigerator is not crowded so there is free air flow. \_\_\_\_\_
- The refrigerator is set at 38 to 40°. \_\_\_\_\_
- The frost in the freezer is less than 1/4" deep. \_\_\_\_\_
- Stove reflectors are clean. \_\_\_\_\_
- Door seal on oven door is tight. \_\_\_\_\_
- Door seal on refrigerator is tight. \_\_\_\_\_
- Door seal on freezer is tight. \_\_\_\_\_

To test door seals: Close the door on a dollar bill. If you can remove it, the door is too loose and a new rubber gasket is needed.

#### Water

- There are no dripping faucets. \_\_\_\_\_

#### Heating and Cooling

- Thermostat is set for 68° or less in winter. \_\_\_\_\_
- Air conditioner is set for 78° or higher in summer. \_\_\_\_\_
- Furnace filters are changed once a month. \_\_\_\_\_
- Doors and registers are shut to rooms not in use. \_\_\_\_\_
- Storm windows and doors are installed, weatherstripped and caulked. \_\_\_\_\_
- Foam gaskets are installed behind outlet and switch plates to keep cold air from coming in. \_\_\_\_\_
- Attic floors are insulated. \_\_\_\_\_
- Floors over unheated rooms are insulated. \_\_\_\_\_
- Exterior walls are insulated. \_\_\_\_\_
- Attic walls are insulated. \_\_\_\_\_
- Heat ducts are not blocked. \_\_\_\_\_
- There are evergreen trees on the north. \_\_\_\_\_
- There are deciduous trees, vines, or shrubs on the south and west to help shade windows in the summer. \_\_\_\_\_
- The first 10 feet of pipe coming from your water heater is insulated. \_\_\_\_\_
- Insulated curtains are installed. \_\_\_\_\_
- Windows are covered with plastic in the winter (or storm windows are used). \_\_\_\_\_

#### Grade Chart

A = 251-300

B = 151-250

C = 61-150

D = 51- 60

F = 50 or below

GRADE \_\_\_\_\_

Adapted from *IDEAS*, the Iowa Developed Energy Activities Sampler.



It was one of those cold, dreary fall days  
...a day reminiscent of many others that  
I have spent in the marsh...



## Moments In A Marsh

It was one of those cold, dreary fall days. The sky was dark and cloudy with strong northwesterly winds hinting of the first blast of winter. It was the kind of day that finds most people tucked safely inside the warmth of their living rooms.

*What am I doing out here?* kept drifting through my mind as I stood waist-deep in water, shifting from foot to foot in a futile attempt to generate a little heat into my half-frozen feet. Compounding the problem was four inches of ice water sloshing in my hip-waders after I tripped over a sunken log. It was a day reminiscent of many others that I have spent in the marsh, my only company being a loyal labrador

that shares the same enthusiasm I have for marshes.

Standing in a makeshift blind fashioned among the fallen trees and muskrat houses gives a person an



Story by Robert J. Walton  
Photos by Ron Johnson

interesting perspective of life in the marsh. Already the dog and I had watched several muskrats cut cattails for their winter homes and had the pleasure of seeing a mink scurry

down a log a short distance away in the flooded timber. Birdwatching was excellent as a flock of migrating tundra swans passed high overhead, and a pileated woodpecker announced its presence in the marsh by hammering on a dead tree near our blind.

The greatest thrill of the afternoon occurred when an immature bald eagle hovered 30 feet above the blind for sev-

eral minutes, eyeing our small spread of mallard decoys floating in the pothole. The dog and I surmised



that our decoy spread must be natural looking to fool the sharp-eyed eagle.

The day had been rewarding in terms of the amount of wildlife witnessed. But we were really out there to hunt ducks! This sentiment occasionally brings gasps to non-hunting friends who consider it quite a contradiction for a nature-loving naturalist to even entertain the notion of deliberately killing a wild creature. As a hunter, however, I enjoy the anticipation and pursuit of my prey. But, most importantly, I enjoy the taste of wild game. And I believe eating wild game inflicts less environmental damage than a diet confined to domestic animals, especially considering the chemicals used and habitat destruction that occurs to produce a pound of hamburger.

Only 45 minutes of legal shooting time remained, and the great-horned owl already began to send its chorus of hoots across the quiet marsh, acknowledging the coming darkness.

A tiny kinglet landed only inches away in the brush of my buttonweed blind. I watched for several minutes as the kinglet carefully inspected the seed heads, trying to pry out any remaining seeds for a late afternoon meal.

It was then that the first duck came streaking across the marsh, right above the decoys and out the other end of the small pothole. I was unable to draw a shot from my gun, much to the dismay of the lab who retaliated with a look only a dog owner can appreciate. She was obviously displeased at my preoccupation with a tweety-bird.

Our chance soon came when a large flock of mallards circled overhead, spotted the decoys, set their wings and cautiously began a spiral descent.

Suddenly, a primeval feeling stirred within me. I was no longer cold. The shotgun sprang to life, shattering the silence of the marshland. As the flock exited the pothole, one greenhead lay dead and another floated off into a tangle of cattails several hundred yards away. I could feel my heart sink as the cripple disappeared, but the dog was ready for the challenge.

Following her instincts and training, she plunged off the muskrat

house, swam across the deep pool, disregarding the floating dead mallard, and swam a direct line to the area of the downed cripple. Ten minutes later, the lab returned, cripple in mouth, acknowledging only a quick pat on the head before returning to the pond to retrieve the dead mallard. I am sure the hungry mink viewed the entire scene, dismayed at the efficiency of the dog that deprived it of an easy meal.

A feeling of regret came over me as I examined the plumage of the beautiful mallards that only minutes before had been winging over the pothole. The regret soon faded as I thought about how well my companion had performed and how delicious these heavy birds would taste. I doubt that non-hunters ever feel the emotion of death as they gather their chicken and other fowl from a grocery store counter.

It was now time to bring our marsh outing to an end, for sunset had arrived and legal shooting hours had expired. I had come to the marsh as a predator much like the owl that continued to hoot as I gathered in the decoys. Like the mink, the owl, I am sure, viewed my methods of hunting as being far too restrictive as the nighttime predators continued their "poaching" activities well into the night.

As I left the marsh, I paused at the water's edge. It was time for reflection upon the day I had just experienced. In the now-darkened marsh, I listened for the night sounds and conjured up images of muskrats, kinglets, eagles and ducks and of a day well spent. These were the images that will leave a lingering imprint on my mind until the Mississippi River marshlands call me back again.

Today's citizenry should be thankful for the past efforts of conservation agencies and private citizens involved in protecting our wetlands. Through continued diligence, we can preserve our precious and beautiful wetland resources, allowing future generations the opportunity to enjoy their "moments in a marsh."

*Robert J. Walton is the director of the Dubuque County Conservation Board.*

# CALENDAR

## OCTOBER 8

**Hawk Watch.** Stone State Park in Woodbury County is the location to view hawks as they migrate through the state. The park overlooks the Missouri River Valley. For more information, contact Stone State Park, Rte. 3, Sioux City, Iowa 51103, (712)255-5751.

## OCTOBER 8 AND 9

**Heritage Days.** Osborne Pioneer Village in Clayton County is the location for pioneer crafts and skills. For more information, contact Clayton County Conservation Board, Osborne Conservation Education Center, Elkader, Iowa 52043, (319)245-1516.

## OCTOBER 8 AND 9

**Forest Crafts Festival.** A festival of wood crafts and demonstrations, chain saw carvers, buckskinners and an operating sawmill at Lacey-Keosauqua State Park in Van Buren County. For more information, contact Lacey-Keosauqua State Park, Box 398, Keosauqua, Iowa 52565, (319)293-3502.

## OCTOBER 8 AND 9

**Covered Bridge Days Open House.** Open house at Pammel State Park in Madison County with guided nature walks and hayrides. For more information, contact Pammel State Park, Rte. 3, Box 106, Winterset, Iowa 50273, (515)462-2188.

## OCTOBER 22 AND 23

**Halloween Night Hike.** Nature hike with educational skits about the environment and natural resources. Rain date of October 29 and 30. For more information, contact Todd Von Ehwegen, Sac County Conservation Board, Rte. 3, Box 96A, Sac City, Iowa 50583, (712)662-4530.



**T**here are many good reasons for planting trees. For the person who enjoys wildlife, trees provide necessary winter cover and nesting sites for the wildlife. Land unsuitable for normal farming operations can be productive growing trees. With some time, a little labor and minimal expense, trees can become economically attractive. A forest plantation improves water quality and offers an aesthetically pleasing environment. Many types of plantings provide recreational opportunities.

Low-cost seedlings are available from the Department of Natural Resources' State Forest Nursery. Each year the state nursery sells four million seedlings to landowners in Iowa for forestry, erosion control and wildlife habitat purposes. Look for this year's order form in the November issue of the *Iowa Conservationist*.

by Robert Hibbs

KEN FORMANEK



# WHY PLANT TREES?



ROBERT HIBBS

*A hillside planting of trees is superior to terraces in holding the soil and providing clear water downstream.*

*Whether a one-acre or a 100-acre planting, weed and grass control is the key to the growth and survival of any tree planting. As with any crop, good management will result in faster growth and larger yields.*

GARY BEYER

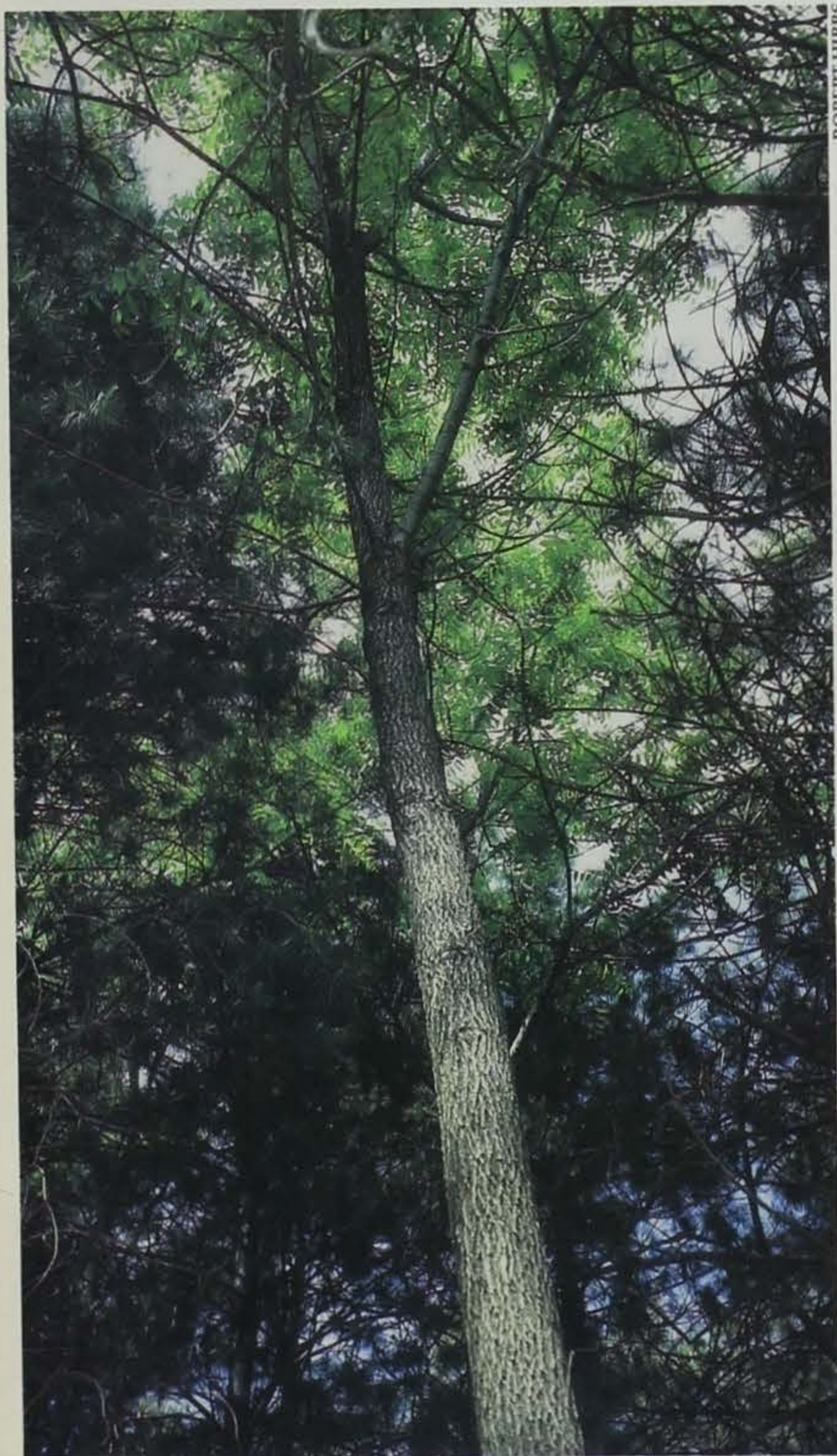




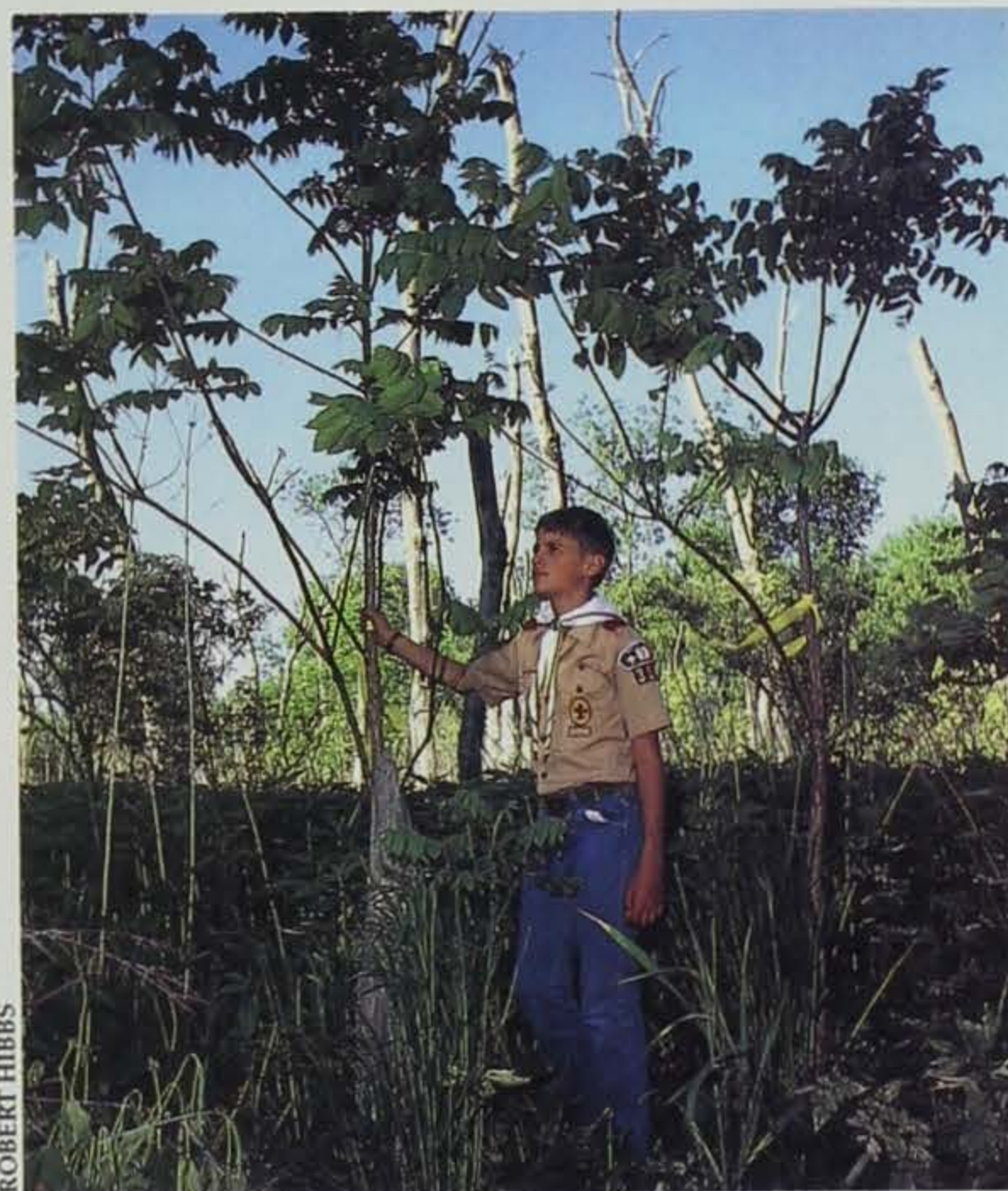


RON JOHNSON

*Tree plantings provide nesting for songbirds, winter cover for many species, as well as food for survival.*



ROBERT HIBBS



ROBERT HIBBS

*In just six growing seasons this plantation of hybrid poplar has produced nine cords of firewood per acre. A perpetual supply of firewood for an average home can be grown on as few as six acres of land.*

*Plantings mixed with pines and high-value hardwoods are becoming increasingly popular. The pines will help create tall, straight hardwoods, and at the same time, they will offer winter wildlife shelter. After 20 years, when the pines begin to lose their wildlife value, they will be thinned out resulting in a high-quality stand of hardwoods.*



*Christmas tree plantations produce joy and profit. Potentially, an acre can produce 1000 trees, at \$20 each, in just eight years.*



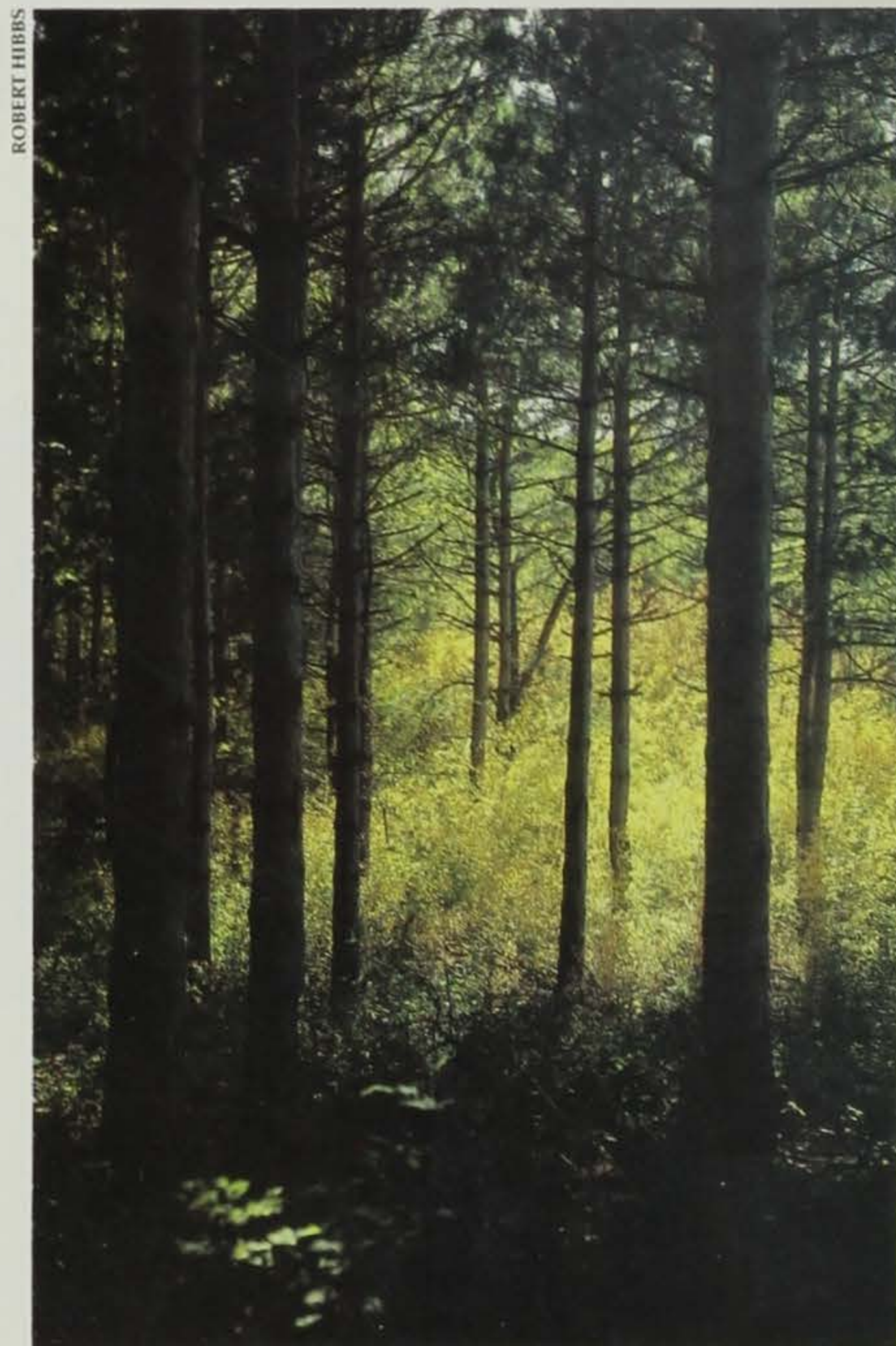
ROBERT HIBBS



ROBERT HIBBS

*Plantings around a farm pond help to beautify the area making recreational time more enjoyable. Windbreaks and shelterbelts reduce the chill of Iowa's cold winter winds, protecting man and livestock.*

*Trees, like any crop, reach maturity and die. If harvested, trees provide an economic return to the landowner, jobs to the wood industry and a boost to the Iowa economy. One walnut tree can be worth several thousand dollars.*



ROBERT HIBBS





ROBERT HIBBS

Larry Gnewikow, Amana Society forester, marks trees for thinning in this red oak, ash and walnut plantation. Removing low-quality trees provides more growing space for the future crop trees. Roundwood or chips can be used to heat homes, schools, factories or to dry corn. One cord of hardwood will dry 1,200 bushels of corn.

Prairie grass and 90 acres of tree plantings dominate this 120-acre Benton County tree farm. The 10-year Conservation Reserve Program, the Agricultural Conservation Program, and the federal Forestry Incentive Program offer cash assistance to landowners willing to plant trees.

ROBERT HIBBS



JERRY LEONARD

Like an IRA, trees gain value each year through growth. The gain in value is not taxed until the trees are harvested. Walnut plantings can yield a rate of return of 6 to 10 percent over and above the rate of inflation. Once they reach 14 inches in diameter, high-quality walnut trees can gain 20 to 30 percent in value per year!

Robert Hibbs is a district forester located in Marshalltown.



