Iowa CONSERVATIONIST

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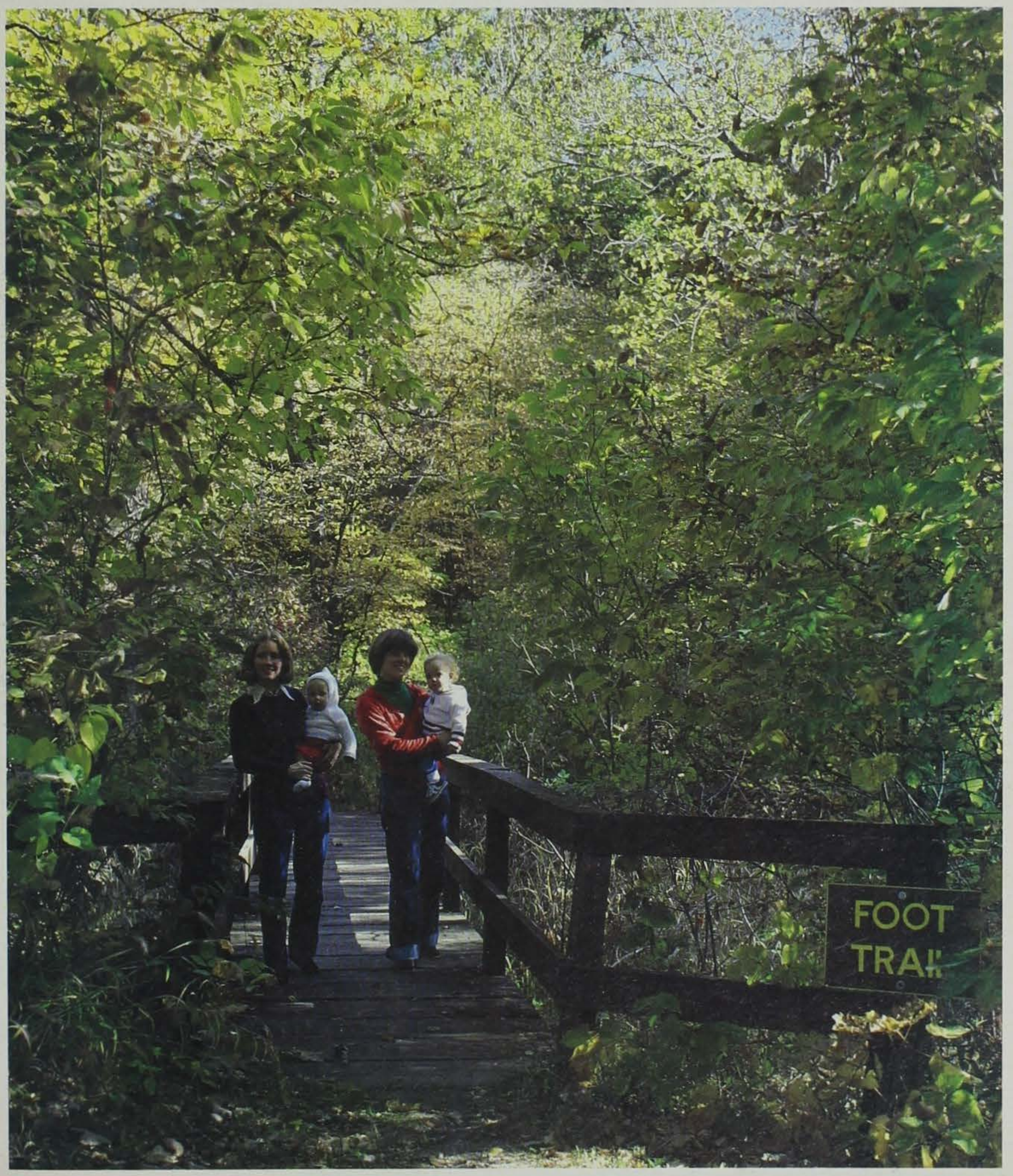

Iowa CONSERVATIONIST

MAGAZINE

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Front Cover: A pleasant October day at Stone State Park. Photo by Jim Leachman.
Back Cover: Pheasants - Photo by Ken Formanek.

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HUNTING CAME LATE to North America.

It was only yesterday, by Old World standards, that men followed the great migrations of game across the Bering land bridge into the New World. This may have been only 12,000 years ago, and no more than 30,000 years at most. No one is sure. But there's little doubt that the newcomers were mighty men with their weapons of bone, wood, and stone, hunting even the largest Ice Age animals with great success.

For thousands of years Neolithic men spread through the Americas. Some cleared fields and planted squash and corn; others built mighty temples, learned to work gold and copper, and even developed basic astronomy. Most of them, though, were hunters and gatherers with no domestic animals but dogs, and no herds but wild ones. Until late in the 15th Century the New World cultures were fixed in the New Stone Age — and those cultures began to crumble with the coming of western man.

Into the ancient hunting heritage of the North American Indian came a clumsy, inexperienced race of amateurs. These early colonists brought no real hunting tradition of their own. They came from places where common men had long been forbidden to hunt, and where an untitled man killing game might be hanged with his own bowstring. They had no knowledge at all of the New World's wildlife, lands, and native hunting methods and traditions. They brought nothing but ignorance, faith, a grim determination to survive — and gunpowder.

The first hunting by these colonists was as crude as their guns. Most of them never did become much good at it. But others took hunting seriously from the first, and learned swiftly from the Indian. To some of these, hunting became a way of life — a sort of whole new inner world within the new outer world. They set about adapting their equipment and their thinking to new needs. The long rifle appeared in Pennsylvania and went on to the Dark and Bloody Ground of Kentucky with a new breed of men. The Kentucky rifle evolved into the plains rifles which were carried west by the mountain men — sons of the Kentucky long hunters. The powerful single-shot breechloaders appeared, and with them came the buffalo runners of the plains. The lever-action repeating Henry was succeeded by the first Winchester, and the West was won. Each new rifle had been marked by a new breed of hunter, and sharper skills in dealing with new places.

Step by step, an American hunting tradition was being shaped. It began with the red man. Some of us still hunt from canoes, and millions of us wear moccasin-style boots. For war or hunting, we use camouflage and the concealment skills that Indians taught us. Nowhere else in the world are waterfowl decoys used as we know them — another lesson from the red man. Some of our most durable folk heroes are white men who learned from the Indian and refined that lore into a remarkable body of knowledge.

Our Hunting Heritage

by John Madson

Illustrations by Sumner Heman, Fort Dodge

Much of our hunting tradition comes from these "white Indians": Leatherstockings, Dan'l Boone, Jed Smith and Jim Bridger.

Down through the years, other flavors were added. In parts of the East there is a British accent to some hunting, ranging all the way from fox hunting with horses to those bird-shooters who use only double-barreled shotguns and favor tweed jackets for shooting. Farther west, hunting has cowboy overtones that include packstrings of horses, and pick-up trucks with rifle racks. There are a hundred subcultures in American hunting today, with sharp regional variations in the kinds of game hunted and the ways of hunting them. But with all those little differences, a single strong tradition underlies all of our hunting heritage.

Wildlife in North America is public property. No free-ranging wildlife belongs to any landowner. It is in the public trust. A game bird or animal becomes private property only when it is lawfully reduced to possession; and even then, its disposal may be controlled by law.

Furthermore, hunting is not limited to a privileged few. There are many restrictions on hunting but none restrict the hunter because of his rank or class. Our hunting must be done within a framework of regulations. But even so, it is an exercise of personal freedom in environments good enough to support quality wildlife — which means that those are very good environments, indeed. The most cherished part of our hunting heritage is freedom to hunt in places that are worth being free in.

Our hunting is a special expression of personal freedom. Some other nations have the same basic civil freedoms that we enjoy. But nowhere else in the world today are there environments like ours in North America, with such abundant and varied wildlife and freedom to hunt it. Nowhere else do so many people hunt so much for so many kinds of game.

This is unique in the modern world — and so is the system of management that makes it possible. For a while there, a few generations back, our hunting heritage was a lot richer in tradition than in game supplies. We were in danger of inheriting nothing but the fleshless legends of bygone time. It was a close thing. American hunting was saved by a way of thinking, by the idea of achieving a biological balance in which hunting harvests no more than the annual surplus of a game population. Figuring out what that surplus is, and how to increase and sustain it, is what scientific game management is all about.

Such management is the newest part of our hunting heritage, and the most important. Maybe it isn't as colorful as the old buckskin traditions we grew up with — but without it there'll be no buckskin in the years ahead, and no place for the traditions of free hunters.

John Madson is a former editor of the Iowa Conservationist and is nationally known for his conservation writing.

Upland Gamebird Hunting

Frequent sightings of pheasants and/or quail while traveling to and from work or while choring around the farm probably have your thoughts turning toward the upcoming hunting season. You may have already asked the landowner for permission to hunt in your favorite "hotspot". You probably have taken your most trusted shotgun out of the closet, wiped off any accumulated dust, and swung on that imaginary blurr of wings crossing the far side of your living room. If you really have an itchy trigger finger, you may have even shot a few clay targets. If you own a bird dog, you may be hastily working off nine months of overfeeding and impatiently re-teaching old commands that you feel the dog should already "know" (something you should have been doing since late April or early May).

Pheasants

The pheasant harvest during the 1980-81 season was estimated at 1,430,000 cocks, a 19 percent increase over the 1979-80 season. Tentative dates for the upcoming pheasant season are November 7 through January 3 with a bag limit of 3 cocks daily and 6 in possession.

Early indications are that the pheasant population and harvest will be similar to last year on a statewide basis. At this writing, the August roadside data (data used to predict harvest and to finalize upland wildlife seasons) was not yet available. However, good over-winter survival due to last year's mild winter resulted in abundant brood stock this spring. That coupled with dry spring weather allowed for successful early

Photo by Larry Pool

ng Forecast '81-'82

by William B. Rybarczyk
WILDLIFE RESEARCH TECHNICIAN

nesting throughout the state. Several reports of broods 3 to 4 weeks old in early to mid-June were indicative of this.

Many portions of the state were plagued with heavy rains and flooding during June this year. Above-normal precipitation and subsequent flooding in mid-June (peak of the pheasant hatch in Iowa) can have a severe negative effect on pheasant production. Nests near hatching are destroyed and newly hatched chicks are prone to death due to exposure and drowning, therefore, the outlook for pheasants on a regional basis may vary somewhat from the 1980-81 season.

Pheasant numbers within the Cash Grain Region have been increasing slowly since the severe winter of 1975 but this fall are expected to be similar or slightly lower than last year. Intensive agricultural practices have eliminated most nesting habitat except for small grain fields (which have declined drastically in recent years) and roadsides. Heavy rains and flooded roadsides in June undoubtedly had a detrimental affect on nesting and production within this region. The Western Livestock and Northeast Dairy Regions did not experience the heavy rains found in other portions of the state. Subsequently, with abundant brood stock available, pheasant numbers in these areas probably will be higher than last year.

The Eastern Livestock Region was the area most severely affected by the severe winter of 1978-79. Pheasant numbers have been rebounding in this region since then and are expected to continue to increase this year. This may be the area to show the largest increase this year because of abundant brood stock this spring and much of the area experienced generally favorable weather during June. A mild winter, dry early spring, abundant nesting cover, and a high spring population all pointed toward a banner year in the Southern Pasture Region. However, heavy rains and severe flooding in portions of the region, particularly in Clarke and Lucas counties, undoubtedly destroyed nests and young chicks. Frequent sightings of 1 to 4 hens with cocks following the flood were indicative of destroyed nests, remating, and subsequent renesting which reduced production below earlier expected levels. Populations within this region will probably be similar or slightly lower than last year.

Quail

Two mild winters in succession with little snow have allowed quail numbers to equal or exceed the level they were before the severe winter of 1978-79. Quail in southeast Iowa (the portion of the state most severely affected by the '78-'79 winter) should reach normal levels this year. However, in south-central and southwest Iowa quail numbers reached that level in 1980 and are expected to increase again this year. It should be noted here this increase would have occurred even if the 1979-80 quail season had *not* been shortened by one month. These restrictions were based on public reaction to reduced quail numbers following the severe winter. Quail hunting mortality in the fall replaces and does not add to natural mortality that occurs primarily during the late winter months. Hence, the biology of the species actually would have allowed the same lengthy season and liberal bag limits that had been maintained previous to the '79-'80 season.

Like pheasants, quail brood stock was abundant this spring with pairs of quail sighted in even some of their more marginal range in the state. Sightings of quail broods in June in the Southern Pasture Region (Iowa's primary quail range) were common despite heavy rains and flooding. Undoubtedly, some quail nests were lost due to unfavorable weather (in Clarke and Lucas counties in particular) but if renesting attempts were successful it looks like a very good year for Iowa quail hunters, especially in south-central and southwest Iowa. For those hunters that would like to combine a quail and pheasant hunt in Iowa, the southern three tiers of counties west of Highway 63 (which passes through Ottumwa) to the Missouri River are probably the best areas. Tentative season dates for quail are November 7 through January 31 with limits of 8 daily and 16 in possession.

Gray (Hungarian) Partridge

The gray partridge index in August 1980 was the highest on record and harvest during the 1980-81 season increased 28 percent to 71,000 despite a lack of snow and generally poor hunting conditions throughout the season. Partridge are more hardy birds than pheasants or quail and can withstand more severe winter weather. Nevertheless, last winter's mild weather didn't hurt them any and reports of paired birds (they are monogamous — one male mates with one female) throughout their range last spring were common. Not only are partridge increasing within their traditional range in northwest Iowa, they are rapidly expanding their range south and east in the state. Partridge are probably the most underharvested gamebird in the state for which there is a season. Most partridge are presently taken incidental to pheasant hunting, but hunting solely for "huns" after the pheasant season closes can be challenging and exciting.

Partridge sighted on the August roadside counts are expected to reach another record high this year and tentative hunting season dates are November 7 through January 31 with limits of 6 birds daily and 12 in possession. This season is similar to last year's and allows sportsmen greater opportunity to hunt these elusive birds. Other regions of the state may eventually be open to partridge hunting; however, for the present only that portion of Iowa north of Interstate 80 is open for gray partridge hunting.

Mourning Doves

Mourning doves are our most abundant game bird in Iowa and again this year there will be no hunting season on this species. This year, South Dakota became the 34th state in which mourning doves are hunted, joining other states surrounding Iowa including Nebraska, Kansas, Missouri, and Illinois. Sportsmen in Iowa will need to sway the legislature in their favor before a mourning dove season will be held in this state. □

William Rybarczyk has been with the Commission since 1977. He is a wildlife research technician and is stationed at the Chariton Research Station located at Red Haw State Park near Chariton.

A LAST WILD LINK

Some Personal Thoughts about Prairie Marshlands

by Douglas Harr

It's not always easy to explain what attracts some of us to a marsh. Duck hunters have a good excuse at least in the fall because that's where the waterfowl are. A trapper's excuse even lasts well into the winter. But how does one explain what he's doing sloshing around in a smelly old "swamp" during the spring or summer?

Swamps. In the marsh country where I grew up it seems they were generally known by that epithet. Actually, a swamp is a particular variety of marsh usually associated with forested regions in the southeastern United States. The term wouldn't fit northern Iowa's shallow prairie lakes or potholes, but in the prairie-to-forest transitional area of Minnesota where I was raised I suppose it could be loosely applied. Oak savannahs or hardwood forests frequently border those marshes, so they had a vague appearance of a swamp even if the name was geographically misplaced.

That's where my infatuation with marshes began — as a boy, rowing an old, heavy, flatbottomed, oak boat around the swamp near our house, my companion golden retriever, Dusty, standing on the front seat in a sort of imitation of Washington crossing the Delaware. There I became acquainted with everything from loons to mudpuppies, crayfish to bluegreen algae, American bitterns to mallards.

Since that time I've seen a lot of marshes, including Minnesota's northern bogs, Alaska's beaver ponds, New Mexico's alkali marshes, and mosquito-infested estuaries on Virginia's Chesapeake Bay and Atlantic coast. All were greatly interesting and each holds some fond memories.

Yet as wondrous and unique as those various wetlands are, my favorites must be the countless potholes and marshes that reach from north central Iowa to Canada's prairie provinces, the legacy of Pleistocene glaciers. To my way of thinking there are few ecosystems that compare with a prairie marsh, in terms of productivity, diversity, and nature's simple beauty.

Waterfowlers are acutely aware of how important these prairie wetlands are because of their absolute necessity to breeding ducks. According to some estimates the largest percentage of North American ducks are raised in this habitat type, which accounts for only about 10% of all wetland habitat available on the continent. Most of that production is centered in an even smaller area of North Dakota and southern Canada. Iowa once played a more important role in waterfowl production prior to drainage of most of our wetlands. Nevertheless, even today Iowa is a major producer of blue-winged teal, and in terms of ducks raised per acre of surface water must be considered among the richest production areas in North America.

In both Canada and the U.S., state, provincial, and federal government agencies, plus private organizations like Ducks Unlimited, and uncounted individuals have tirelessly worked to stop agricultural wetland drainage and to preserve or improve remaining marshlands. Hunters do recognize how crucial prairie marshes are to waterfowl production and are due congratulations for their ceaseless efforts.

Attitudes or goals change, however, and today many people, including an increasing number of hunters, are learning that marshes are far more valuable than just for duck production alone. Each prairie pothole is an entire ecosystem on its own, complete with a colorful array of birds, mammals, fish, herptiles, insects, crustaceans, and incredible plant life that can boggle the mind of experienced biologists, not to mention novice naturalists.

Add to those things some other useful marsh qualities, such as oxygen production, sedimentation, water filtration, and flood control, and one really begins to realize how much

more than only waterfowl can be involved. In fact, a few years ago a Wisconsin scholar attempted calculating a dollar value for wetlands based on all the aforementioned attributes plus recreational benefits and other considerations. His estimated value of $60,000 per acre might now even be considered low when corrected for intervening inflation. Whether or not one agrees with that estimated value, marshes must certainly no longer be written off as wastelands as they once were.

Recognition of wetland worth has forced a change in thinking by other individuals and agencies. The Soil Conservation Service, once actively assisting large drainage schemes, especially in the Dakotas, now approaches marshes in an enlightened view of their importance to flood control and water conservation. Likewise, the Army Corps of Engineers now regulates filling of marshlands where once it promoted and practiced such very customs.

Even real estate agents have increasing interests in marsh preservation. At one time developers saw marshes near cities best utilized by filling them in and selling resultant dry ground for industrial or housing developments. Today, realtors frequently find the public desirous of homes overlooking a marsh where wildlife might be easily observed and where unobstructed vistas are valuable selling points. Of course, unrestricted developments around wetlands can have effects almost as deleterious as drainage. Encroachments on a wild marsh must, therefore, be carefully scrutinized. But if these developments are approached cautiously and with care to protect the marsh, they can offer potential for those people living there to become more intimately acquainted with wetlands. This will in turn assure even more people will join the ranks of those wishing to save our marshes.

Even with such positive attitude alteration towards marsh preservation, more changes are still needed. Many Iowa counties continue listing marshes as wastelands for tax assessment and other purposes, resulting in the supervisors' desire to convert such areas to supposedly better uses. County zoning ordinances or land use planning to preclude wetland conversions must be a high priority among local conservationists.

Tax deductions for private wetland owners would go far in gaining public acceptance for marshes. Government incentives for preserving marshlands, such as the often-used "Set-Aside Acres" program for croplands, would similarly be a positive step. Several states already participate in just such a payment program called the "Water Bank."

While we wait for increased public recognition of wetland values, chances are you'll find me back on the marsh. Maybe you'll find me in waders,

sloshing around to view Forsters tern chicks in their floating nests, or perhaps I'll be silently slipping through the bulrushes in a canoe to watch mallards loafing atop an old muskrat house.

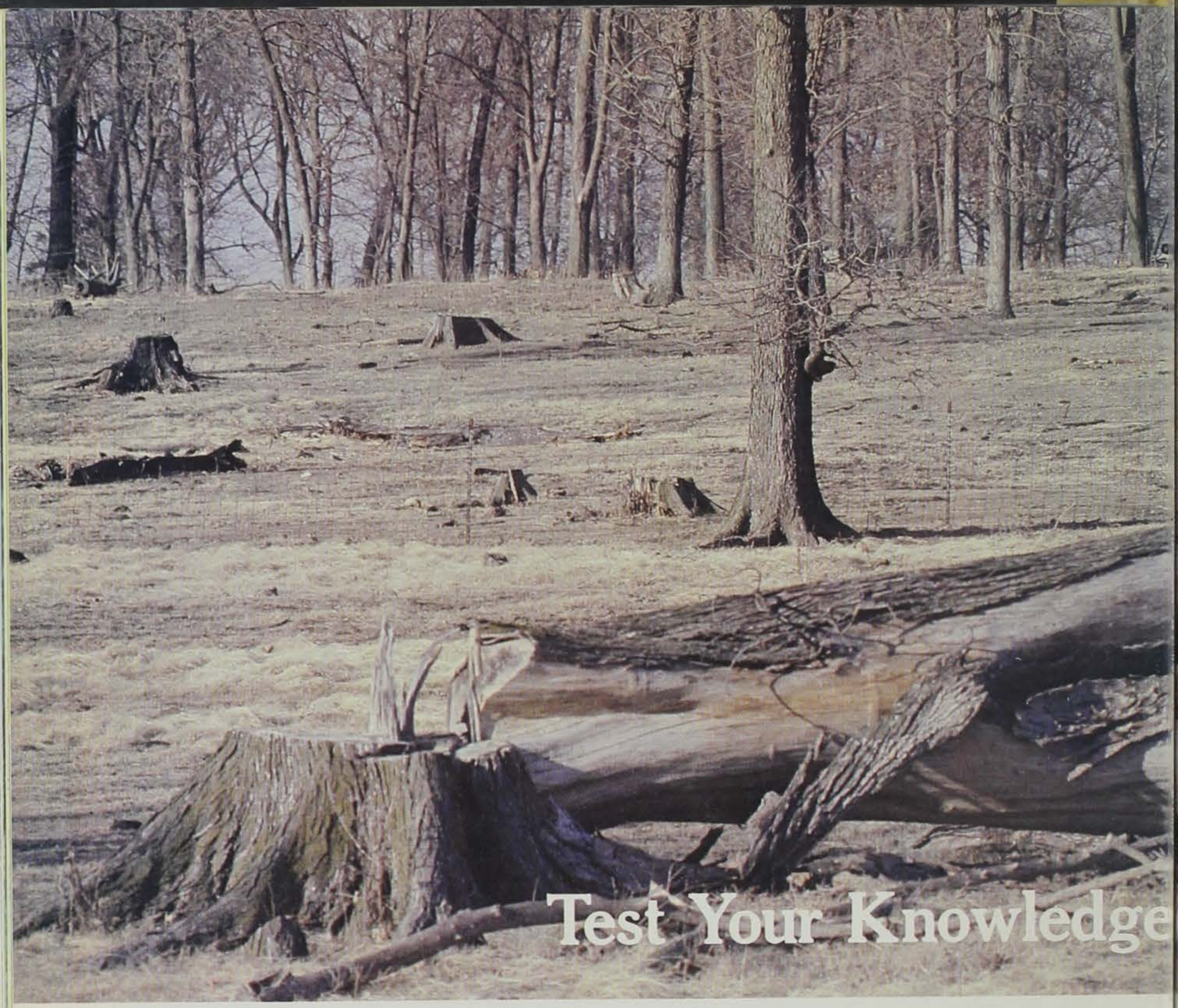
It's on the marsh I feel most at home, much as I did on the "swamp" at home as a boy. There, where I can breathe in heavy perfume from a wild mint spring freshly crushed underfoot near water's edge. There, watching a young mink catching small bullheads trapped in the shallows after water levels have dropped.

There, listening to the haunting cry of a pied-billed grebe as dusk approaches. There, observing a canvasback hen lead her downy brood to safety, ducklings following so tightly that all appear part of one body. There, marveling at turquoise damselflies resting on a spiked burreed fruit.

These are but a few of the things which attract me to a marsh. Perhaps it is still hard to understand entirely when you consider all the biting deerflies, burning nettles, and sometimes almost overwhelming marsh gas that must be endured, just for the privilege of viewing that canvasback brood or smelling that crushed mint. If you've discovered the wonders of a marsh, though, I doubt you'd disagree with my assessment.

Of the late Paul Errington, expert marsh biologist and long-time professor of zoology at Iowa State University, it has been said that, to him, "No other natural feature . . . has ever had the enduring attraction of an undespoiled chain of marshes in an undespoiled setting of glacial hills." I can't think of anything that would much better sum up my feelings as well. The marsh is one of Iowa's last links to all things truly wild and free, and that's why it is so important that those remaining be protected and preserved, no matter what the cost.

Douglas Harr has been employed as a wildlife management biologist for the Commission for nine years. He is responsible for managing the Big Sioux Wildlife Unit in northwest Iowa. His office is at Rock Rapids.



Test Your Knowledge

What is killing this timber?

(A multiple choice quiz.)

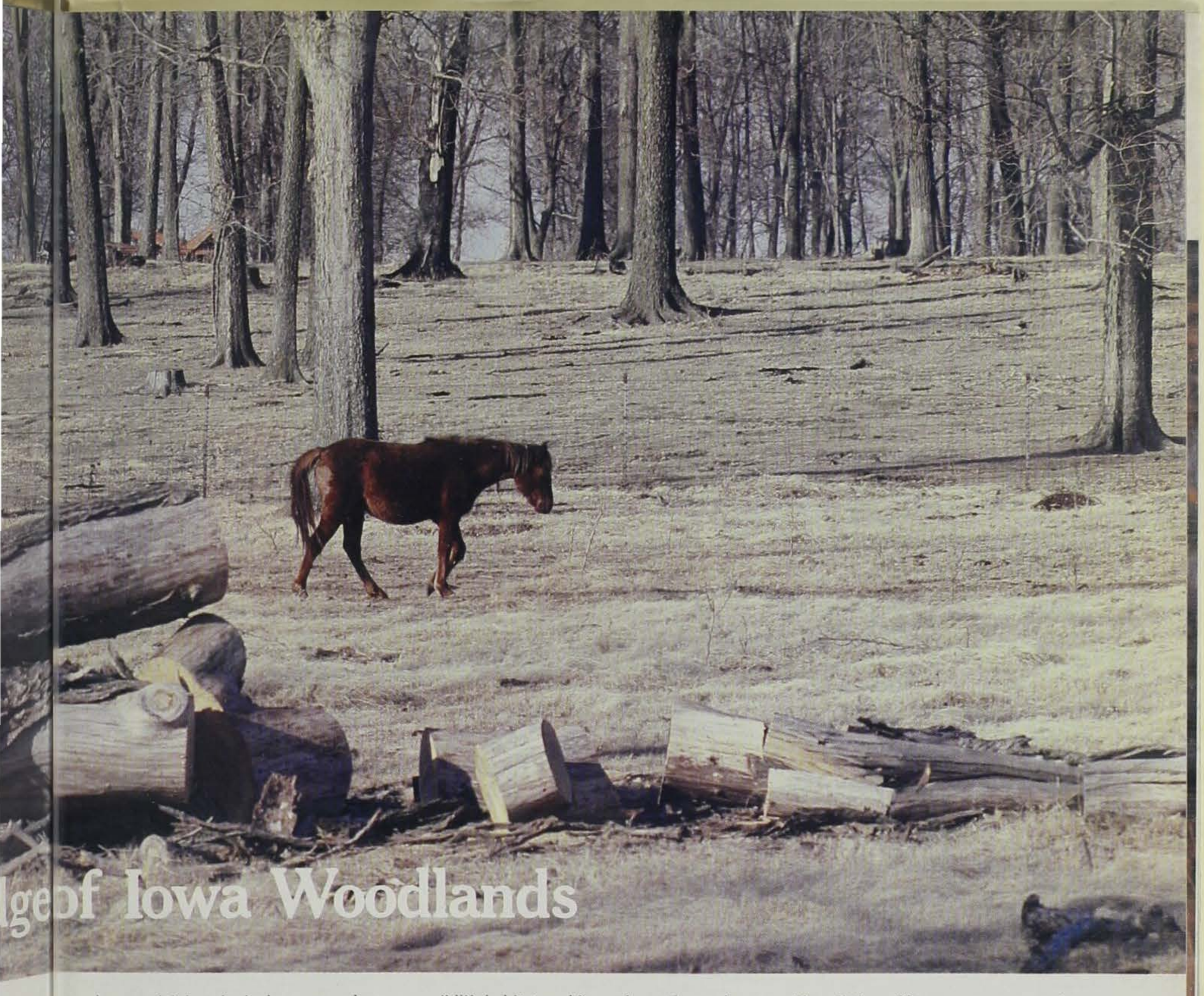
(a) livestock
(b) insects & disease
(c) firewood cutters and loggers
(d) fire
(e) all of the above
(f) none of the above

by Bob Hibbs
DISTRICT FORESTER

PHOTO BY THE AUTHOR

If you answered (a) livestock, then you have been reading the Iowa Conservationist or you have been listening to your district forester. Probably 80% of Iowa woodlands are pastured, with about 30% so heavily pastured that the trees cannot survive. Livestock, of course, trample and eat small trees, compacting the soil and making regrowth of the timber impossible. When the old trees die (everything in nature has a finite life span) there will be nothing left of this timber.

If you answered (b) insects & disease, you are probably above average in the ability to identify trees. You probably recognized the tree in the foreground as being an elm, and you are knowledgeable about Dutch elm disease. Insects helped spread the disease from tree to tree, and woodlot to woodlot.



lge of Iowa Woodlands

Answer (c) is a logical answer when you look at all the cut stumps and the firewood sized chunks. But this is a misconception. Woodcutters have *never* destroyed timberland. They may be guilty of reducing an average stand diameter when they take the largest trees, but with proper land use the forest will return quite rapidly. It has done so for centuries and will continue to do so if the land is not plowed or pastured.

You who answered (d) fire, are very astute. No doubt you noticed the burned snag just beyond the horse. But fire hasn't limited Iowa's forest acreage since prairie grasses disappeared. Prairie fires prevented Iowa's oak-hickory timber from expanding beyond the cooler, more moist areas. This is not to say that fire is unimportant to forest conservation. Fire can kill young plantings; fire destroys wildlife habitat, and fire reduces the quality of logs available from the forest.

Having read the prior discussion, you no doubt feel that (e) all of the above, must be the correct answer. Not so. In this writer's opinion, there is only one correct answer: (f) none of the above. All of the items listed contribute to the decline of this timber. But the real reason the woodland is disintegrating is because the landowner doesn't care. He has made his land use decision, and that decision does not favor woodlands. He will pasture the area, cutting dead and dying trees until there are too few left to bother with. Then he'll call the bulldozer operator to clean up the mess, he'll scour his plow, and next year he'll grow corn.

Don't do this to your timber. There are too many incentives to ignore. Managed timber can be held in the forest reserve with as little as 30¢ per acre per year tax. The federal government, through your local ASCS office, makes cost-share payments for tree planting and timber stand improvement. Occasional harvest of sawtimber and firewood will yield a return on your investment. And twelve months every year you can enjoy the wildlife, the wildflowers, or just the solitude of your own forest. Contact your district forester through the Wallace State Office Building, Des Moines, 50319, if you want management advice for your woodland.

■

Bob Hibbs has been employed as a district forester for the commission since 1970. Currently he is the district forester for a nine county area with his headquarters located in Marshalltown.

The "Why" of the Conservation Education Center

"Thank you for letting us have that beautiful day."

"That was the most fun field trip I have ever had."

"We took some water and put it under our microscope and saw bugs and algae. It was pretty neat."

"A very conducive place for an atmosphere of learning."

"Excellent facilities! Beautiful Scenery!! Fantastic and delicious food! Cooperative staff!"

"Thank you for sharing your day with us. I learned a lot from the things you shared, like owls can't turn their head all the way."

These are but a few of the typical comments received almost daily by the Conservation Education Center, the only state-owned facility of its kind. Located in Guthrie County adjacent to Springbrook State Park, the Center has played host to hundreds of different groups since it opened in 1970.

Users come to the Center for a variety of reasons including education, relaxation, attendance at conferences and retreats. They arrive in large groups, small groups and as individuals. Most come for conservation/environmental education, but not all. For example, during 1980, users included elementary through college age school groups, teacher education groups, scouts, private and public in-service training groups, conservation groups, Iowa Conservation Commission staff training programs and others. Some of the groups use all of the facilities available, especially the outdoor laboratory, while others concentrate their programs in the classrooms, dormitories and dining hall.

The most predominant users are school groups. They arrive in buses and cars, usually one to three classrooms of students at a time, in the early morning. Often the groups arrive in time to see the sun's rays reflecting off the early morning dew. As the students leave their buses and cars they hear the first sounds of nature, birds singing their morning songs, breezes whispering through the trees and shrubs waving a warm welcome. Behind them are the city, bean and corn fields, and the restored prairie entrance to the Center. An opening in the forest is filled with the Education Center. Little does the group realize they are in for a full day of outdoor activity as they walk past the dormitories and dining hall on the path to the indoor classroom. Once seated in the classroom, most begin to fidget in their chairs attempting to find the most comfortable position possible, anticipating a long classroom session. Shortly, however, the Center staff arrives, opens the door to the outdoors and says, *"Let's go to the classroom!"*

During the next several hours, the students are guided through discovery activities — the students discover nature, they are not taught about it. An observation hike is a welcome chance to stretch muscles that had become accustomed to sitting during the one and one-half hour bus ride. The hike exposes the group to the various habitats in which they will become involved. One of these habitats is the marsh. A walk along the marsh results in the discovery of many new plants and animals, and provides a chance to get one's feet wet. As the morning races by, one discovery leads to another until suddenly it is time for lunch. Conservation during lunch drifts toward the morning's activities.

The afternoon activities are similar, as students continue to discover habitats around them, now with students frequently leading discussions. Finally, late afternoon arrives and the students, tired but rewarded, return to their buses for the ride home.

This is an example of one of many days that occurs at the Center. These types of programs require intensive Center staff involvement. Other groups place different demands upon the Center staff. These demands may range from securing specialists, to making classrooms available, to leading groups. Last year over 62 percent of the groups using the Center re-

Ken Formanek

Biologist instructs group on live-trapping.

by Daniel D. McLean and Bob Rye

quested and received leadership assistance from the Center staff. Demand for staff time in a leadership role has stabilized over the last two years, but other demands upon staff time, such as off-site programs, Commission staff training, and administrative functions, have continued to increase. The result is that more people are being served from a wider spectrum, but with no measure of the quality of the effort.

As operating costs and staff commitment have increased and budget growth has stabilized, it has become more important that the Center staff identify why people use the Center and what the Center staff can do to enhance user visits. To answer this question, the Commission, the Education Center and the Leisure Studies Curriculum at Iowa State University developed a questionnaire and mailed it to leaders of all groups who used the Center in 1979.

The survey explored nineteen different activities that previous users felt are or could be a part of Center operations. For each of the activities, users were asked to rate them as a primary function of the Center, a secondary function of the Center, a tertiary function of the Center, or not a function of the Center. The responses to the perception of individual activities were analyzed and clustered with similar activities. These activity clusterings were titled functional areas. Four functional areas were identified: (1) conservation education, (2) program development, (3) ICC staff training, and (4) miscellaneous support activities. Each of the four areas identifies concerns that Center staff must have in working with current and future users.

The first functional area, conservation education, included activities such as conducting activities with on-site groups, co-sponsoring education courses with outside groups, teacher training at the Center, and assisting educators to plan environmental education activities. This area consumes the majority of the Center staff's time. The emphasis has been to serve the on-site users as effectively as possible. The concentration of effort has, therefore, focused upon direct assistance.

The second area, program development, includes activities such as developing environmental education resource materials, evaluation of existing programs, and preparing a state plan for environmental education. Currently the Center staff is only involved in evaluating existing programs. These activities remove the staff from direct contact with the Center user, but are essential to maintain the quality of the programs.

The third and fourth areas deal with ICC staff training and miscellaneous support activities respectively. ICC staff training could include such activities as training for interpretation in state owned parks, forests, and wildlife areas. Other activities include assisting in the conduct of ICC in-service training and coordination of a state interpretive program. The development of a state interpretive program and formalized interpretive training is a future goal of the Commission.

Miscellaneous support activities could include such things as conducting environmental research, making the Center available for conservation programs, planning off-site activities, and providing a focal point for state-operated conservation programs. A number of conferences are conducted annually, and are sponsored by different user groups. Examples are the County Conservation Board meetings, Fall and Winter Teacher Workshops, Association of Interpretive Naturalists regional meeting, and an Outdoor Ethics Conference. Off-site activities have included working at elementary and secondary schools, colleges, with Area Education Agencies, and at science fairs.

Increasing pressures by users and programs are compelling the Commission and Center staff to reassess the goals of the Center. This survey has been an initial step in defining how users view current and potential Center operations. It has provided the ICC with a better understanding of what users think the Center should be doing. The Center will always remain committed to providing on-site leadership for user groups, but the intensity of leadership will adapt to changing requirements and roles of the Center. Future studies will concentrate on program effectiveness and methods of program presentation.

Dr. McLean is Acting Coordinator and Assistant Professor of Leisure Studies at Iowa State University. Bob Rye is Administrator of the Conservation Education Center. Rye has held this position since 1975.

A Different Bird

Photos by Ken Formanek

by Roger Sparks

IN THE NORTH WOODS of Canada ruffed grouse are sometimes referred to as "fool's hens." Up there the birds don't exhibit much in the way of gamebird qualities or common sense for that matter. "Partridge", as they are called, seem to prefer staying on the ground when danger approaches or fluttering to the nearest tree where they might sit until they are actually booted out.

Although biologically identical, the Iowa version of the ruffed grouse is a different bird entirely. He may hold tight one day and flush wild the next, but either way he'll fly, when he flies he always seems to find that familiar tree to slip behind, leaving you with more splintered bark to chew on than wishbones. Yes indeed, he is all gamebird here.

There is no easy way to kill an Iowa-grown grouse. The grouse likes the prettiest, rockiest, straight-up-and-down,bramble-infested, stickers-in-your-pants, and get-lost country that northeast Iowa has to offer. The bushier the brush, the better (for him, not you). A grouse hangs out where the hills require a half-hour of hard puffing, with new growth timber fighting your every step. He has sent more than one flat-footed cornfield stomper back to pheasant country with brier scratches on his face and unpleasantries on his breath. But, for those rare strong souls willing to ply his terrain, Old Ruff is an object of deep respect. In Iowa and other states where he is enthusiastically pursued, the grouse remains the hunting heritage of the great eastern hardwoods. He is simply, a foxy, classy gamebird.

The ruffed grouse is tops on the table as well. Weighing up to 1½ lbs., a grouse or two can beat a pan of baked quail or roasted young pheasant — and that is covering some hallowed ground. A grouse, having been carefully plucked and slow roasted until tender, sets the standard for that mild, delicate flavor unique to wild fowl.

Grouse aren't just everywhere. Look for good, ungrazed timber with a heavy understory of young trees which will produce plenty of buds to be used for winter food. Grouse like timber trails, logging roads, small weedy clearings and fence lines. Red cedar and aspen stands, are also choice spots. This type of habitat provides adequate protection and nesting cover while yielding food when crops are not available. Find a corn or bean field adjacent to such timber within the bird's range and you are certain to find grouse.

Some long-winded grouse enthusiasts claim they have ideal grouse dogs. Perhaps this is so, but don't expect just any wide ranging quail pointer to pin these birds down — you will be lucky to hear the flushes let alone see them. Still, a good dog working in close can more than pay his way by retrieving a cripple.

Much of the good grouse timber is privately owned which of course requires permission to hunt. The state owns some excellent public hunting areas. Some of the best are the Volga State Recreation Area in Fayette County, the Yellow River State Forest in Allamakee County, the Lansing Wildlife Area in Allamakee County, North and South Bear Areas in Winneshiek County, French Creek Wildlife Area in Allamakee County, North Cedar and Sny Magill Area in Clayton County, and several state-owned tracts along the Upper Iowa River in Winneshiek and Allamakee counties.

If you are tough enough to find some grouse, smart enough to flush a few properly, and lucky enough to drop one through the trees, consider yourself a successful Iowa grouse hunter. You are in elite company.

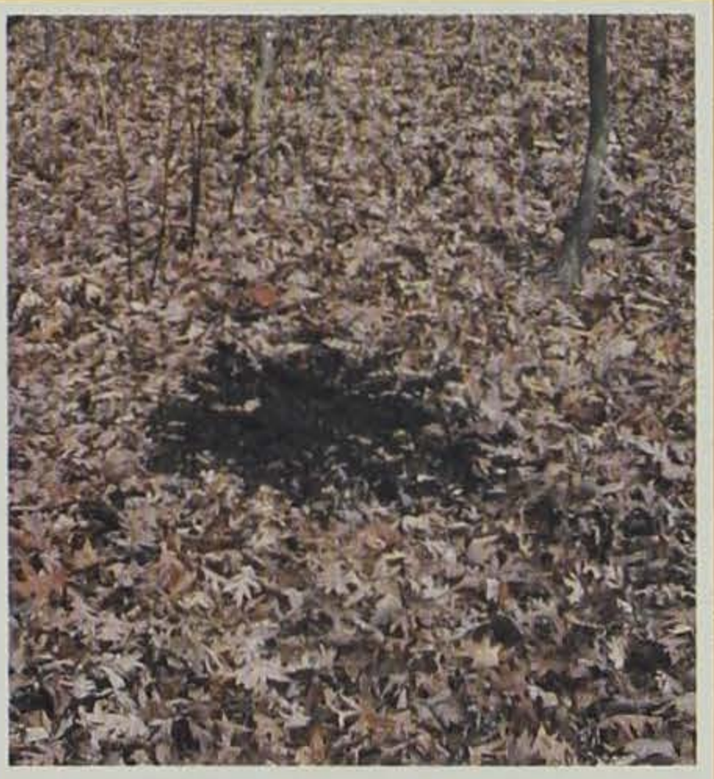
Roger Sparks has been employed with the Commission since 1969. He has been editor of the Iowa Conservationist for the past 12 years.

WHITE-TAILED DEER SCRAPES AND SCENTS

Do they make sense?

by Richard Mohr and William L. Franklin, Department of Animal Ecology, Iowa State University

In the pre-dawn chill of early November, the bowhunter huddled motionless in his tree stand. Night was giving way to the gray shadows of morning. The hunter strained his eyes to locate the deer trail and the several active buck scrapes he was watching. This is the time of day when a deer hunter's imagination and anticipation turns every trusting leaf into a deer footstep, every branch into an eight-point rack, and every stump into a 250 pound buck. The hunter had carefully scouted out this site in hopes of bagging himself a prize-trophy white-tailed deer: one large "rub" scrape surrounded by three smaller scrapes along the trail. The hunter had also carefully anointed the scrape, his boots, treestand and gear with both home prepared and commercially made deer scents.

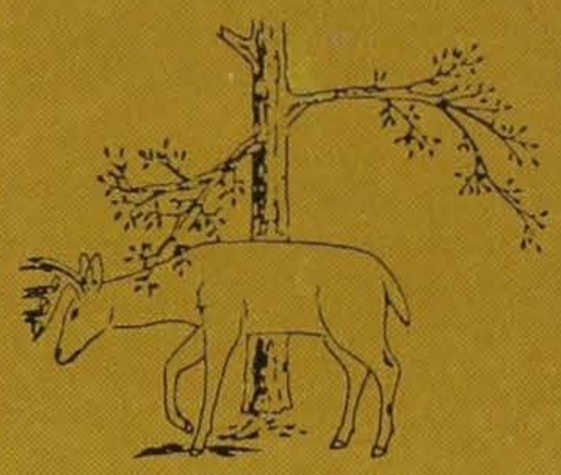


There's no question that the bowhunter is a special breed: woodsman, tracker, marksman, and deer naturalist. The later is especially important because he must be able to employ all his experiences and knowledge of deer behavior in order to predict where his deer is most likely to pass. He then picks a tree for his stand and long wait. But just how do Iowa bowhunters use scrapes and scents to help them hunt? Do those who use them get more deer? And do those highly flaunted scent lures really make any sense?

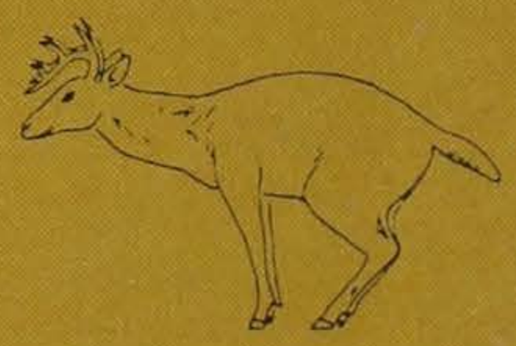
To get at some of these questions on buck scrapes and scent lures we drew on the knowledge and experiences of nearly 3,000 Iowa bowhunters who responded to a questionnaire study supported by the Agricultural Experiment Station at Iowa State University. In total, these bowhunters had bagged close to 3,000 deer during a cumulative 7,000 years of bowhunting experience!

Just what are scrapes? They are small patches of clearings two to three feet in diameter that have been formed by a white-tailed deer buck during the fall breeding season. It's a behavior apparently confined to the white-tail, but not found in the closely related mule deer of the west. Scientists studying white-tailed deer buck scraping behavior have observed a number of generalized and stereotyped behaviors. While walking through wooded areas, the buck will occasionally stop at a low hanging branch; smell, nuzzle, lick, pull on it

with his mouth and even thrashing it with his antlers. After interacting with the overhanging branch, the buck then turns his attention to an area below the branch where he is standing. He paws the ground, "scraping" away the forest litter to leave a circular clearing.



The buck then does a "rub-urination-rut" behavior by urinating on the scraped site, of which some urine wets



the tarsal gland on the inside of the legs at the hock joints. The normal mild smell of the urine is intensified by the tarsal gland secretions. Scraping is obviously a marking behavior, but it is not yet fully understood whether its function is to attract does or to discourage other bucks from entering that area occupied and marked by the resident buck. Perhaps it is both.

If a doe in estrus (heat) has visited a buck's scrape and left her urine scent there and the buck discovers her sign, it has been observed that he will follow her trail with his nose to the ground at a fast walk until he locates her nearby.

Nearly half (46%) of all bowhunters questioned had observed a deer using or responding to a scrape during the two hunting seasons of the study. Of all the animals seen interacting with

scrapes, does were the most common (50%), followed by bucks (40%) and fawns (10%). More deer were observed using scrapes near sunset (40%) than near sunrise (25%). Deer behavior at scrapes as observed by Iowa bowhunters was much the same as previously observed and reported upon by wildlife biologists studying deer behavior.

We also asked some questions about where hunters hunted and about their hunting success. As might be expected, Iowa bowhunters with more years of experience had the best hunting success. Hunters with less than 5 years of hunting experience got their deer about 25% of the time; hunting success increased with more years of experience until hunters with 15 or more years of experience bagged a deer 55% of the time.

Our survey was conducted for the hunting seasons of 1976 and 1977 when compound bows were becoming more popular and replacing the recurve bow. However, there was no correlation between the type of bow used and hunting success.

About 60% of Iowa's bowhunters prefer to hunt in oak-hickory forests from a tree stand. Eighty-three percent of the hunters responding to the questionnaire used scrapes to help them hunt, and a similar percentage (79%) found scrapes common in the areas they most often hunted. Those who used scrapes for hunting either located themselves above or nearby the scrape (36%), or on trails that had scrapes (54%); only 5% intentionally avoided scrapes and hunted trails without scrapes along them. Bowhunters chose hunting locations that had an average of three scrapes. Hunters first began seeing scrapes during the opening week of the bow season, but most hunters (57%) saw their first scrape in the last week of October and first week of November when the breeding season begins in Iowa. Scientists working on deer behavior have reported that as much as three-fourths of all scraping behavior takes place within the first few days of the rut.

It is generally believed among many bowhunters that waiting by a large scrape combined with the liberal use of a scent lure are the prime ingredients for bagging that trophy buck. There are a variety of deer scents and lures on the market today, each with its magic ingredients for hopefully doing the trick. Some are made to imitate the smell of a doe in estrus or some other scent that might arouse the romantic urges of a buck during the rut. Other scents are made to smell like skunks or other animals and others smell like foods such as apples, acorns, and cedar. Some bowhunters feel that placing the scent on your boots when you walk into the woods to their hunting site, a buck will follow or "hunt you up." Another practice is to open a bottle near the hunting stand, perhaps even spread some around, with hopes of attracting a buck, while at the same time hiding human scent.

WARDEN'S DIARY

by Jerry Hoilien

ALONG WITH all the other things I had to do today, I had two beaver complaints to check out. Beaver are nature's engineers and, in many cases, if we could just get them to do things our way we could save a lot of time, money and trouble. But they won't listen. And, they're persistent at it.

There are several ways to take care of beaver problems. First of all, it's unlawful to disturb a beaver dam without permission. When their dams cause damage to crop fields, and other private property, there's no problem getting permission, but with all the red tape to go through when you use dynamite, you'll look for a better method.

A few years ago I discovered beaver don't like electricity. Actually I got the idea after watching my old rooster. He was so busy calling all his lady friends to the feast of spilled corn he'd found he didn't notice the electric fence wire. As he strutted around, taking credit, his comb touched the wire. I thought all his feathers would come out. He ran to the hay stack and tried to call his hens away from that shocking sensation but they were shorter and just continued to eat.

I soon tried this method on an energetic beaver who wanted to build his dam in a metal road culvert. Dynamiting was out of the question unless you like oblong water culverts. By removing a few sticks from the dam and dropping the water level about a foot (I knew this would attract the beaver that evening; he always had repaired any damage I tried to do by morning) I placed the smooth wire a couple of inches above the water. You can imagine the reaction when he swam up to the dam. I've never killed a beaver with this method, but I know they'll abandon the dam. I would!

To get back to my beaver calls...when I arrived at the first place, the man was quite disgruntled. I guess he hadn't had his second cup of coffee. We looked the situation over and I made some suggestions. I then pointed out that the beaver season would be opening shortly and inquired if his two boys had ever tried trapping. Dad got to thinking about his old trapping days and I agreed to lend the boys a couple of my traps until they sold some furs to buy their own. Their father liked the idea plus he could show his boys some pointers on how he used to trap. I pointed out the boys didn't even need a license on their dad's place; just their names and address on a metal tag attached to each trap.

I left feeling real good about that "problem" and drove to my next beaver complaint. As I stood in the yard petting "old shep" an older gentleman came from the barn. *"Over this way, Warden."* Right behind the barn, just down the draw, those beaver had water backed up almost a quarter of a mile. Two male wood ducks were spending their waiting time out in the middle. As I watched the overhanging branches touch the water, I couldn't help thinking, some people would pay a fortune to have that "lake" in their back yard. I sighed, turned to the owner, and inquired what he wanted us to do.

"Not a thing — ain't it a beauty. Just thought you ought to see it."

Of the bowhunters responding to our questionnaire, 71% either used a commercial or home-made deer scent lure in conjunction with their hunting. Food-derivative imitations (18%) and sexual-scents (69%) were some of the most popular lures reported to be used by bowhunters. Most hunters (51%) used scents to conceal human odor. And although 27% of those questioned used them to attact deer, only 6% felt the lures appeared to help them get their deer.

Do scrapes and lures improve the hunter's chances of making a kill? The number of scrapes "sat-on" by hunters was not correlated with hunting success. But although all hunting techniques were successful, there was a significant difference between them: hunters using scrapes only averaged a 40% hunting success, using neither scrapes nor scents 30%, using both scrapes and scents 25%, and using only scents 21%. This doesn't mean that bowhunters should forsake their use of scent lures, since these results were compounded by the fact that the more experienced hunters (and the more successful as mentioned earlier) were more likely to use only scrapes without the aid of scents for hunting. With this type of study it was impossible to differentiate whether the veteran hunter was more successful because of his experience, and/or he used only scrapes for hunting.

It appears that the beginning bowhunter is quick to stock up on and liberally use the many popular brands of scent lures in hopes that they will help get deer. Scents might assist, but once experienced bowhunters are depending upon their skills and knowledge of deer natural history and use of scrapes by bucks during the rut, scent lures are less frequently used. Most scent lures clearly instruct in the directions to "place a few drops to clothing or brush near stand." Perhaps if over-used by the beginning hunter and a "few drops" becomes a "few squirts," they might be more detrimental by alarming deer instead of attracting them. More research is needed to clarify some of these questions.

Thus, even though scents are popular among bowhunters, they may not make as much sense for helping bag that buck as envisioned. Understanding how to use and hunt scrapes, appears to make more sense. ■

CLASSROOM CORNER

by Bob Rye

ADMINISTRATOR, CONSERVATION EDUCATION CENTER

WITHIN the vast ocean of air that surrounds earth, there are currents and eddies swirling about which have a great influence on the daily lives of humans and, indeed, most other life forms. These currents and eddies represent the movement of air with respect to the earth's surface and are referred to as the wind. The mountains and valleys of the earth tend to direct this flow of air as does the effect of uneven heat by the sun.

Have you thought about the ways of the wind? What can they tell you? Can you detect these things without being in the wind?

The ocean of air, called the atmosphere, rotates with the earth at a faster speed in some places, while in other spaces the flow is slow or even backwards. It is wind that transports heat from the warmer to the cooler parts of the earth and back again. Moisture is also transferred with the heat from the oceans to dryer areas. Similarly, we find smoke, dust, and gases are carried to us by the wind.

Narrow bands of air moving at high speed meander around the hemisphere at high levels, and are called the jet stream, with winds of 250-300 mph. The jet stream axis may be 1,000-3,000 miles long with a portion of the axis running west to east, or it may dip southward in a deep loop, then back northward again.

Where the axis is oriented from north to south the wind tends to pull colder air southward underneath it. Likewise where the axis loops back to the north it brings warmer and more moist air northward. Also, sometimes the jet stream dips from high altitude to low altitude, bringing cool upper air down to us.

It is the interaction of these differing air masses as they are pushed together which produces our weather. And it is the wind that moves these air masses from one place to another. The jet stream winds are one kind of wind. There are also clockwise and counter clockwise winds around high and low pressure areas, and winds off large water bodies.

Frequently we hear discussions on wind chill factors, how uncomfortable summers would be without breezes, and the importance of wind direction in relation to hunting deer, ducks or fox.

How can the wind be read? Frequently used and readily applicable information is found in the following chart on air movements.

	MPH	Description of effects
0. .Calm	Under 1	Smoke rises vertically; no perceptible movement.
1. .Light Air	1-3	Smoke shows wind direction; leaves barely move.
2. .Light Breeze	4-7	Wind felt on face; leaves rustle, small twigs move.
3. .Gentle Breeze	8-12	Leaves and twigs in constant motion; stirs up dry leaves, paper.
4. .Moderate Breeze	13-18	Moves small branches; raises and moves dust, paper.
5. .Fresh Breeze	19-24	Large branches, small trees in leaf sway; wavelets crest.
6. .Strong Breeze	25-31	Large branches constantly move; telegraph wires whistle; dust raised.
7. .Moderate Gale	32-38	Whole trees in motion; inconvenience in walking.
8. .Fresh Gale	39-46	Breaks twigs and small branches; difficult to walk.
9. .Strong Gale	47-54	Loosens bricks on chimneys; roof slate, branches litter ground.
10. .Whole Gale	55-63	Trees uprooted; considerable structural damage.
11. .Storm	64-75	Widespread damage.
12. .Hurricane	Above 75	Severe and extensive damage.

Wind is a difficult force to understand. We can use the wind for drying clothes, flying kites, sailing or as an aid in hunting by determining where ducks might land. We can see the winds force in action as we watch it move the slats on a windmill and hold a vulture as it soars.