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IOWA'S GREAT LAKES...

Winter Fishing Bonanza



Winter in Iowa brings out the ice fishermen on Spirit Lake.

by
Robert W. Hollingsworth
 Fisheries Biologist

When most of us are hanging up the old fishing pole and have oiled the reel for the winter, a hardy breed of angler is just breaking out a different kind of fishing gear. This guy is probably dreaming of a winter's first mess of perch or the lunker walleye he almost snaked through that hole in the ice last year. He may also remember catching a northern as big as a fence post glide up to his chub, circle once and swim off into a weed bed. The bright winter sun dazzling thousands of acres of ice patched with snowdrifts may even come

to mind. He will not remember how cold he got, how hard the wind blew, how much ice he had to chop through, or how long it took his hands and feet to thaw out when he got home. He is one of the growing number of winter fishermen who spend their weekends and odd hours on the ice of Big Spirit and West Okoboji Lakes in northwest Iowa's "Great Lakes Region."

There is good reason for fishing in the winter. For example, bigger fish are caught. The walleyes taken through the ice on Spirit Lake average .3 to .5 pounds heavier than those caught during the summer. Almost twice as many West Okoboji perch were caught last winter than were taken the summer before, and winter fishing lasts only

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CIRCULATION THIS ISSUE 62,742

COMMISSION MINUTES**State Conservation Commission Meeting Held in Des Moines, Iowa, October 3 and 4, 1967**

A motion was made and seconded that a request be made to the State Comptroller for the release of the \$2,000 Budget Item (Outside Services) for a study of the restoration of the Old Fort Madison Site.

Fish and Game

An option to purchase approximately 67 acres of marsh and fishing access adjacent to High Lake in Emmet County from Leland McQuown for \$9,000 was exercised subject to the approval of the U. S. Fish and Wildlife Service.

A motion was made and seconded that the option of Jorgen Knutsen for the purchase of 10.4 acres of marsh land, plus 33 feet of right-of-way to a county highway, at our Fallow Marsh Area in Palo Alto County be exercised subject to the approval of the U. S. Fish and Wildlife Service.

Exercised an option for the purchase of 80 acres of marsh and upland game area at Elk Lake in Clay County from Leo Hansen for a total price of \$10,850 subject to the approval of the U. S. Fish and Wildlife Service.

The agreement with Lester Ledvina for the use of the road for public access to Otter Creek Marsh for 99 years at a remuneration of \$500 was approved subject to the approval of the U. S. Fish and Wildlife Service.

The format of the proposed Cooperative Farm Agreement for state-owned lands leased for agricultural purposes was approved.

In accordance with the action of the Commission at the previous meeting, the Chemplex Construction Corporation's modified plan to submerge a waste affluent pipeline in the Mississippi River by placing the riser above the average flood level of the river was accepted.

A motion was made and seconded to submit a claim for damages in the amount of \$6,077.30 to

the Morton Frozen Foods Company for the loss of fish in the Boone River.

Land and Waters

The contract for the lake bed excavation and beach sanding at Spring Lake State Park in Greene County was awarded to the Al Munson Construction Company at Boone, Iowa, in the amount of \$29,572.80.

An option offered by Roy and Janice McGeough on 260 acres of woodland for a total sum of \$11,900 in the Yellow River Forest area was exercised.

An option by Fay and Flossie Shannon on 1.8 acres of land in Buena Vista County at a total sum of \$13,700 was exercised.

Approval was granted for an erosion control cost-sharing agreement with Joseph K. Walkup of Ames for a project on the watershed of Rock Creek Lake not to exceed \$3,271.67.

Approval to straighten the County road running north of the Lennon Mill Area in Guthrie County was granted.

County Conservation Board

The request of the Cedar County Conservation Board for a partial development plan and report, which covers the construction of the dam and the installation of the water mains and drinking fountain on the Bennett County Park located adjacent to State Highway 150 and 2½ miles east of the town of Bennett, was approved.

Delaware County Conservation Board received approval of a development plan and report prepared for their Haynes-Maquoketa River Access Area adjacent to the Maquoketa River and approximately two miles southeast of Manchester.

Approval was granted the Johnson County Conservation Board development plan and report prepared for their F. W. Kent Park area located adjacent to U. S. Highway 6 and approximately three miles west of the town of Tiffin.

WINTER HUNTING GUIDE

By Paul Kline

Assistant Superintendent of Game

Hunters in Iowa will be missing some good shooting if they put away their guns after the opening weekend. Winter hunting can provide excellent opportunities for sportsmen.

Seasons are still open on pheasants, Hungarian partridge, quail, squirrel, rabbits, foxes and coyotes. And although the weather may be rougher than in October, there are advantages to those willing to brave cold and snow.

First of all, once corn picking is completed there is but a fraction of the cover (hiding places) there was available early in the season. Naturally, game will tend to concentrate in the remaining cover. Because the 1967 corn picking proceeded much more slowly than normal, this is of particular significance. Pheasants, quail and cottontails were dispersed in the abundant cover early in the season and have been relatively diffi-

cult to find. Since fewer were bagged because of the heavy cover, more are available at this stage than is usually expected. Consequently, late season hunting will be above par.

Advantage in Snow

Snow can also work to a hunter's advantage. Snow concentrates game in the best cover areas. This will make it easier to locate game because of tracking possibilities and the visibility factor. Hunting in snow can actually be enjoyable. The scenery is pleasant, there are more signs of game, and we are aware of wild birds and animals that we otherwise overlook.

Hunting in December has another advantage. There is less competition for our prize game bird the ringneck pheasant. The season for this bird remains open through January 1, 1968. This should give holiday hunters plenty of extra opportunity.

Pheasants will be concentrated in farm windbreaks, sloughs and other cover areas in northern Iowa particularly if these areas are near picked cornfields or farm feed lots where the birds can find something to eat. In southern Iowa, heavy weed patches or brushy areas near picked corn should attract pheasants.

Quail hunting in December should be excellent. The coveys will be stabilized in their winter cover areas. Brushy draws or fence rows near cornfields will be favored places for coveys to winter. Our quail populations remain much higher than normal. Best hunting will be found in the primary range of southeast and south-central Iowa. Good quail hunting will be found locally in much of central, southwest, west-central and east-central Iowa. If we have a lot of deep snow this winter we can expect fewer quail next year. So go after them while they're abundant. Quail season extends through January 28, 1968.

Quail Areas

The best rabbit areas coincide in a general way with the best quail areas. Cottontails are abundant this year all across southern Iowa. For best success, hunt them in grassy fields or weed and brush patches near readily available food—such as a picked cornfield. Cottontails are most likely to be above ground when the temperature is above 20 degrees and the wind is negligible. They don't like a hard blow, particularly if it comes from the north. Sportsmen may harvest rabbits until February 18, 1968.

The squirrel season remains open through January 1. Late season squirrel hunters will have two advantages. Leaves are gone from most trees, thereby aiding visibility; and competition with other hunters will be negligible. A two-hour winter hunt in good squirrel

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Late season hunting successful.

Conservation Forum

Dear Sir:

Just a quick note to tell you how much I enjoy your pamphlet "Iowa Conservationist."

My husband subscribed a few years ago and is now serving with the U. S. Navy in the Philippines. Myself, being from Pennsylvania, I have thoroughly enjoyed reading it each month. I was thinking of having them sent to him but he will return to Iowa in a few months and we hope to take up permanent residence here.

You have a beautiful state and some "outstanding" camping grounds, and a very informative pamphlet. My husband's parents are great campers and while he was on leave during June and July, we enjoyed many of the state and county facilities.

I must say, my favorite is Pine Lake at Eldora. I would like to see an article about Pine Lake sometime.

You have a wonderful pamphlet. Keep up the good work.

Very Sincerely,
Mrs. E. P.

IOWA'S STATE PARK SYSTEM . . . WHERE DOES IT GO FROM HERE?

Over 10½ Million
Visitors This Year

By
David Evans
Superintendent of Public
Relations

Iowa's state parks are more popular than ever. But, our state park system faces a crisis.

Over 10,500,000 people visited the parks and recreation areas this year—an increase of nearly a million over 1966. However, this was not unexpected because the number of people using the parks is growing at a phenomenal rate each year. And with this tremendous increase comes a very serious problem.

"Naturally, we are pleased that we can accommodate these millions of people," said Joe Brill, superintendent of parks for the Conservation Commission. "However, our state park system is now facing a crucial period in its history."

Parks Overused

"We are at a point where many of our parks are being overused. For instance, at Clear Lake, a relatively small, yet very popular state park in Cerro Gordo County, the grass is being worn off and the roots of some trees are being exposed by constant use. It's simply a case of our parks being overcrowded and overeroding results in overuse and destruction of other important features of the area."

The answer to this problem is to acquire and develop new areas as quick as possible, emphasized Brill. However, at the same time we will not neglect our existing parks where development must be continued to keep pace with demands. Funds must be made available to provide adequate areas and carry out necessary development for the people of the state.

The dramatic increase in the number of park users is complicating the problem. In 1946 there were 2,292,311 visitors to the state parks and recreation areas, a relatively small number compared to the total for the past 12 months.

Many other states are already in serious trouble with their park systems. They simply can't provide enough camping sites. As a result, campers have to obtain reservations in advance before they can enter a park and camp or have to be turned away when the parks and camping areas are full.

Some Areas Crowded

"We are crowded in several major areas right now," admits Brill. "But fortunately we have been able to accommodate everyone. And I hope that we don't have to put a limit on the number of users in a park. But, if we don't ob-

tain these new areas and develop them this may be the case in the future."

The problem of providing outdoor recreation in state parks and recreation areas is one of nationwide importance. All levels of government should realize that meeting this problem is an absolute necessity. With an estimated population increase from 190,000,000 to 300,000,000 in the United States in the next 25 years and the unprecedented shorter work week, leisure time has become almost a national issue.

Meeting the problem of overuse is not as easy as just buying the land and placing park signs on it. "We must not rush headlong into the purchase and development of land," points out Brill. "There must be prior planning and a program set up. We must never lose sight of the concept of our park system. It's important that we supply every type of park from virgin prairie areas, of which we have four, to highly developed parks. Different types of areas certainly have a place in the state park system."

Variety of Activities

Parks mean different things to different people. For the rugged type it can be a return to nature in a primitive area. For others it may only amount to a way to get out of the city for a drive and to

take some pictures. Between these extremes there is bird watching, hiking, swimming, picnicking, horseback riding, fishing, loafing and outdoor cooking, to name a few.

The National Conference on State Parks has prepared and published a "Park Practice Guideline" which includes definitions of various classifications of state park areas. The state of Iowa has followed the guideline where it applies. The classification for state parks follows:

State Park—Relatively spacious areas of outstanding scenic or wilderness character, often containing significant historical, archeological, ecological, geological and other scientific values, preserved as nearly as possible in their original or natural condition and providing opportunity for appropriate types of recreation where it will not destroy or impair the features and values to be preserved.

The state park system has more than physical and aesthetic value to the people of Iowa. It also has an economic value. Tourism has obviously contributed to the welfare of the state. Travelers from other states spent \$244 million in Iowa in 1966. The development of state parks and recreation areas certainly offers the possibility to increase tourism and the economic return to the state.

The proper development of state parks is a necessity for Iowa. This task can be accomplished, but it will take dedication and cooperation. It's up to the people of Iowa. New areas must be acquired and developed if we are to continue to provide the top-notch state park system that the people want.

Parks are especially crowded during weekends which see a mass exodus from the cities. Actually, the facilities needed at parks, such as water, sewage and even law enforcement, exceed that of many small towns. Providing proper service in the parks is another big job and this brings up a related problem.

There is a serious shortage of qualified park men to handle the work. There are 40 park officers and 21 assistants for 10½ million people who visited 80 parks and recreation areas this year. That averages out to about one park man for each 172,131 people. It's easy to see that park personnel are spread mighty thin.

An interpretive program is also needed. A recent study by the University of Iowa indicated that an interpretive program, designed to interpret the things the visitor sees with relationship to what it means to him, is a necessity. This will make the individual a better park visitor. The study also pointed out that Iowa park visitors are eager to learn and favor such a program.

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Iowa's state parks are more popular than ever, but overuse poses serious problem.

IOWA'S GREAT LAKES . . .

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about four months at best! For these reasons, ice fishing is becoming more popular all the time. Besides, the seasons don't regulate a dyed-in-the-wool fisherman's itch to go after the big ones.

West Okoboji reigns supreme as far as sheer numbers of fish caught through the ice and the yellow perch is king of the lake. Perch composed 89 percent of the catch from West Okoboji last winter. In 1966, Okoboji was dotted with 446 ice fishing shacks. Many more fishermen stood out in the open to catch perch. Spirit Lake produced only about one-tenth as many perch as Okoboji did last year, but the Spirit Lakers were lunkers. They averaged over $\frac{1}{4}$ pound heavier than the Okoboji perch. The best place to chop out a perch hole is near the edge of an old weed bed or close to a drop-off. Most people will move around a little, cutting holes until they find a spot that produces. If you're not familiar with an area, the best way to get located is to head for the biggest concentration of fishermen on the lake and cut a hole near them. Most people don't mind someone moving fairly close if he doesn't make too much noise. In fact, two or three lines fished in the same hole will all catch perch if they're biting.

One of the best perch rigs is a short fiberglass affair with a wooden handle or butt. The whole thing is about 30 inches long and it has no reel. The line is simply wound around two pegs or nails in the handle. This type of rod is easily made by shoving the tip section of an old casting or spinning rod into one end of a 10-inch piece of broom handle. Monofilament line is most common on such rods.

There are several small lures which take perch readily. All are fished just off the bottom and are jerked or twitched frequently. The more popular are small silver or gold lures such as the number 3 "Super Duper" or "Swedish Pimple." Various one-eighth ounce leadheads or jigs and small teardrops are also popular. The effectiveness of all of these is increased by the addition of a white grub or rat-tailed maggot (locally called "mousies") on the hook. Many fishermen use the eye of a freshly caught perch to enhance their lure. Small minnows sometimes work well for perch, but artificial lures with grubs or perch eyes are more consistent producers.

Walleyes are occasionally taken while fishing for perch, but heavier tackle is used by the serious walleye fisherman. Spirit Lake yields lunker walleyes through the ice every year. These frequently top the ten pound mark. Walleye fishermen commonly use a short rod equipped with a reel for any of the types available. They also use either a monofilament line or a long leader. Walleyes are taken on larger versions of the same lures used for perch. After all, these two species belong to the same family. Number 5 or larger Super Dupers and Swedish Pimples and $\frac{1}{4}$ -ounce leadheads are effective. Minnows and chubs are also popular and are still-fished near the bottom. The best places to catch walleyes in Spirit and West Okoboji Lakes are over rock reefs and ledges or drop-offs. Fishing around points may be productive, but should be avoided for safety's sake. There is often enough movement of water in these areas to keep the ice thin and treacherous. Long seams or cracks which open up in the ice every winter often start from or end at a point.

Northern pike will take the same lures that walleyes do but the best places to fish for them are where the perch are. Most northern pikes are probably caught by West Okoboji perch fishermen. This lake is usually clear enough that you can see through 17 or 18 feet of water if you shield out all light as you look down the hole. A shack does this for you and every detail of the bottom can be seen. It's a real thrill to see a big northern glide into view and if he happens to clobber your lure, you're in for some real excitement.

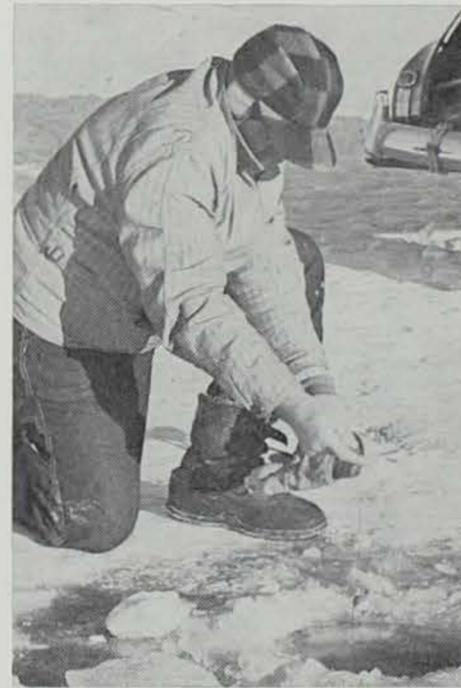
Bluegills are caught incidentally to perch fishing in the bays of the big lakes. However, little Center Lake (264 acres) is the best bluegill lake in the Lakes region. These little scrappers are readily taken on perch baits, especially teardrops with a grub or mousie on the hook. Also effective are black spider lures and mealworms commonly found in feed bins. Old weed beds, again, are the most productive areas for bluegills. Several crappies are usually taken in an afternoon of bluegill fishing on Center Lake. The methods for catching them are the same as those for bluegills.

Winter fishing requires some special equipment other than tackle. First of all, warm clothing and a lot of it is needed. Insulated boots and long underwear are musts for a long stay on the ice. An ice auger or spud bar (ice chisel) is also essential. A good auger is easier to use than a long, heavy spud, but it must be kept very sharp to cut well. An axe or hatchet is useless when you have to cut through the two feet or more of ice that covers our northwest Iowa lakes. A dipper or strainer is a handy gadget to keep your hole from freezing over while you're fishing. A five-gallon bucket or a box mounted on a small sled doubles as a seat and a handy way to carry tackle. Experienced winter fishermen usually wear ice creepers, especially if the ice is wet or if they have a long walk to a fishing shack.

Driving cars on the lakes is safe if there is ten inches or more of good clear ice. Speeds should be kept low since stopping distances are long and drivers should be alert for open holes. Cracks big enough to drop a wheel into frequently develop. Ice weakens in warm weather of course, and should not be driven on when it becomes "honeycombed" with air bubbles.

There is no substitute for a small fishing shack when it comes to comfort when you're out on the ice. And that can add a lot to your trip. They are easily constructed from 2x2's or 2x4's and masonite plywood, stonewall or fiberboard. Most of them have a floor (with a hole, of course) and are mounted on 2x4 runners so they can easily be pulled over the ice. They may be moved several times during the winter. Most of them also have a stove or heater of some sort which must be well vented for safety. There are three things to remember when putting an ice fishing shack on a lake. First, it must be registered with the Conservation Commission and the owner's name, address and registration number must appear somewhere on the outside of the shack. Second, it must be anchored solidly. Winds blowing across our lakes sometimes reach gale force and can flip a fishing shack like a matchbox. It's a good idea to pack ice and snow around the base of a shack and pour water around the runners so it will freeze down tight. This makes moving more difficult, but at least you won't have a pile of kindling left if the wind comes up. The third thing to bear in mind is that the Conservation Commission requires all shacks to be off the ice by February 20. Anything left to go through the ice when it thaws becomes an immediate hazard to boating. Besides, the walleye season closes February 15.

Ice fishing is a fine sport enjoyed by all ages, but it takes a rugged individual to get the most out of it. There must be a lot of these around since fishermen made an estimated 33,892 trips on Spirit and West Okoboji Lakes last winter. They took literally thousands of limits of fish and the best part of it is that there are thousands more where they came from.



Ice fishing is cold and requires warm clothing. However, results can be mighty satisfying.



"Ed is having a difficult time teaching him to point."

THE HUNTERS

By John Madson

Assistant Conservation Director, Winchester Western,
Olin Mathieson Chemical Corporation, East Alton, Illinois

It's no secret that a wave of anti-hunting sentiment is building behind the current anti-gun legislation.

Some of it is being directed by organized protectionist groups. Most of it stems from critics who don't really want to protect anything, but who feel uneasy about sharing society with men who shoot guns at wild animals.

I have never known a militant critic of hunting who really knew anything about hunting, and it's hard to talk to such a man. It's even harder when you're a hunter who doesn't understand himself—and most of us don't.

I am puzzled by the forces that lead me afield. But I am more mystified by the double-standard emotions of the anti-hunter.

I remember a raw December evening when I had just come in from a pheasant hunt. A neighbor was passing, and stopped to talk. She looked at the brace of rooster pheasants in my hand and said: "Oh, I feel so sorry for the poor things! How could you bear to shoot them?"

Before I dressed those birds that evening, I sat for a long time and looked at them. But my neighbor and I must have seen different pheasants. Try as I might, I could find nothing in those birds to pity.

They were splendid ringneck cocks. Each had been the warlord of his own covert—smart, tough, bold and strong. They were birds of great integrity, thriving in our northern midwest under conditions that no other game bird today can endure in numbers.

I sat there and tried to relate those dead birds to human tragedy and failed. I didn't feel debased for having shot them. It had been a hard hunt, and the pheasants and I had conducted ourselves well. The events of the day had been closely woven into a fabric of action and response, and there was no place in that ancient fabric for kindly neighbor ladies.

Furthermore, I knew those pheasants far better than did my neighbor, and had infinitely greater reason to respect them. I had felt no claim on those birds as I went to hunt them. My hunting license was a lottery ticket, not a coupon for goods receivable. My neighbor had just as much moral right as I to enjoy those pheasants, yet she had never chosen to exercise her option. Their actual existence was apparently a matter of indifference to her. She said she pitied them, but she would have been just as happy if there wasn't a pheasant in the world. I did not pity them, and even sought to kill them, but I would be bitterly unhappy if there were no more pheasants in Iowa cornfields.

Pheasants have always been a part of the spirit of place in my home country and hunting them is part of the spirit of place, and perhaps my six-mile hunt through horseweed thickets and marsh edges was greater testimony to the value of those pheasants than was pity.

If hunting were a simple act of butchery, there would be few sport-hunters today. It is the host of attendant factors that lift sporthunting beyond mere killing, and invest it with an elemental dignity that is unique.

The aggregate hunter is a simple man, with simple aims and tastes. He may be an ascetic to a marked degree, and as solid as the rough land he hunts. He is outspoken and quickly roused by intrusions on his rights and privacy. In many ways he is the prototype American, embodying the attributes of a younger nation. He is a citizen who has kept his nationalistic youth in a society that is becoming sophisticated and jaded. He is an anachronism of a sort we should cherish.

Within his own lifetime, this hunter is likely to reflect his own racial history. As a boy with a gun, he may have sought tribal honor by shooting all he could, equating manhood and recognition with the weight of his game bag. Many hunters never grow beyond this.

But with his years afield, the genuine hunter achieves something more than bag limits. He gains a personal tradition, and a measure of freedom that he can find nowhere else. He becomes an unbridled sentimentalist cherishing old guns, old partners, old dogs, old boots, and memories that are burnished a little brighter with each year's telling, and he becomes a walking litany of the "good old days."

He may be immature, as his critics claim, for the real hunter seems to seek elemental tests that most civilized men try hard to avoid. Such a hunter develops a marked ability to endure stress. In thirty years afield, I have never heard a real hunter whine in the face of physical adversity that he knew he could not change. If Hemingway's "grace under pressure" definition of bravery is valid, then most real hunters are probably brave. In their own parlance, they are "good men to walk the river with." I am also convinced that they can be good men to fight wars beside.

Hunting can develop strange reserves in the men who go afield all their lives—reserves that accrue interest and can be drawn upon in times of spiritual bankruptcy. It develops a fiber of purpose that justifies yesterday's doings and gives substance to tomorrow's.

His sport is often branded as callous, as a childish lack of depth and compassion. For how can a man deliberately kill for pleasure and still profess any reverence for life?

The hunter is ill-equipped to defend himself against such accusations, for he is rarely an intellectual and he rarely "loves" or humanizes animals.

Instead, he allows these creatures the dignity of their own identities. They are simply the wild ones, each endowed with superb gifts for survival, and for the hunter that is enough. His animals do not inhabit enchanted forests, and are not imbued with human virtues and mischiefs. He knows that Chippy Chipmunk is a vector of tularemia, and that Bambi becomes a swollen-necked fury during the Rutting Moon. He knows that wild creatures have guts and blood, that they starve, that they are ravaged by sweeping epizootics, that they freeze and suffer and die, and that of all the deaths they may die, the hunter-death is infinitely the most merciful. Yet, in knowing the wild ones for what they are, the hunter feels a bond that is less tenderness and tears, and more respect and pride.

The protectionist is inclined to think as a civilized moralist, and observe lofty motives of compassion. The dedicated hunter is simpler and more direct. In regard to life-taking he may seem to be amoral. However, he kills within a rigid ethical framework, out of a basic need to participate in wildness in a traditional role. And it is not the place of our critics to say that this role is obsolete in modern culture.

As long as wildlife has such enemies as the modern hunter, it hardly needs such friends as the outdoor moralist.

For all his alleged irreverence for life, the hunter has done the most to restore and sustain today's wildlife populations. Without him, it is unlikely that any effective conservation programs would exist today. The hunter himself is directly responsible for the great modern populations of deer, antelope, turkey, pheasant, geese, elk, and a host of nongame creatures associated with the wildlife habitat that the hunter has caused.

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Most hunters are brave and "good men to walk the river with."

SOME PESTS OF COTTONTAILS

By Paul D. Kline

Assistant Superintendent of Game

Cottontail rabbits, like all other living things, are subjected to the indignity of having their bodies lived upon by other living things. Unlike people, they cannot go to a physician for advice in removing or evading the pests. They simply have to put up with them. As a consequence, probably every cottontail in Iowa supports a crop of parasites.

These commonly come to the attention of hunters and result in numerous inquiries to the Conservation Commission such as "What have I found?" or "Is this harmful to people?" Some of the more common observations will be discussed.

Probably the most common parasite noted is the larva form of tapeworms. These appear as small, fluid-filled sacs inside the body cavity, usually in the pelvic area. These small sacs, about the diameter of a lead pencil or smaller, are clear with white cores. If one were to examine a specimen under a microscope the white core would appear as the real-live head end of a tapeworm, hooks and all. The adult tapeworms live in foxes, dogs, coyotes or cats.

Cottontails get these pests by accidentally eating the eggs during their normal foraging on grasses, clovers and other food where the eggs have been dropped with the feces of an infected dog

or whatever harbors the adult tapeworm. The eggs hatch inside a rabbit and the larvae migrate through the intestinal walls into the body cavity. Here they stay living off body fluids, increasing in size, and waiting for an unlucky prey animal to eat the rabbit.

If, for instance, a fox eats an infected rabbit, he very likely will accidentally eat one or more of these tapeworm larvae too. If this happens, one of the larvae may attach itself with its hooks on the intestinal wall of the fox and grow into a full-bloom tapeworm. This adult tapeworm produces eggs, and the cycle is completed. So don't feed your dog rabbit viscera.

There is little evidence that these tapeworm larvae are harmful to cottontails. Nor do they ever infect humans. Even if one were to eat a raw tapeworm larva (Who would?), it would not produce a tapeworm in the person eating it. There is no need to discard a rabbit infected with these larvae. Those tapeworms which rarely infect man are found as larvae in cattle, hogs and perhaps some other domestic livestock.

Another harmless parasite, rather a reaction to parasites, is the papilloma or "horns" occasionally found growing from the head of a rabbit. These are wart-like growths caused by virus infections. They are, and commonly are called—warts. These occur rarely in Iowa, but because of their ugly appearance, sometimes bring concern to a hunter who has bagged an infected rabbit. Since the growths arise from the skin they will be

removed when the animal is skinned during cleaning. They are absolutely harmless to humans and infected rabbits need not be discarded.

Dog fleas occur on rabbits, sometimes in very noticeable numbers. They live on the rabbits by sucking blood when they feel like it. These are the same fleas one may find on dogs and cats. They will bite humans, but tend not to live on them. However, here again, they do not harm the cottontails as far as human consumption is concerned.

Ticks of two kinds can be found on rabbits: The common dog tick, the one which will attach itself to humans; and a smaller tick specific to rabbits. These are rarely noticed, however, because they tend to leave the animals during fall or early winter. They are not detrimental to the quality of rabbit flesh.

Another parasite which is common, but rarely noticed is the warble fly larva. These are found beneath the skin usually in the neck or groin area. They appear as soft lumps, sometimes very prominent. Most rabbits have

none. Some have one or two, and a rare, unfortunate individual may have as many as seven. Infections of these fly larvae appear during late spring and are usually gone by mid-September when the season opens. The larvae grow to full size under a rabbit's skin, feeding on body fluid. When they are full size they emerge and drop to the ground where they burrow and pupate. In the spring the adults emerge from the pupae. They mate and seek out a rabbit victim on which they lay a few eggs. The eggs hatch and migrate to a select site under a rabbit's skin to complete the cycle.

Heavy infestations on a cottontail are debilitating and may cause secondary infections sometimes resulting in death of the victim. However, most cottontail survive. These warble fly larvae are harmless to people.

These are but a few of the "little varmints" to be found on our second most important game animal in Iowa. The hunters should remember that parasite infection is normal, and in most cases offers no threat to the hunter or anybody who may like fried rabbit.

MAKE THEM COUNT

One way to enjoy the shooting season to the highest degree is to make every shot count.

"This business of blasting away in the general directions of flying game in the hope that some of the shot will connect just doesn't pay off in the game bag," says Clark Webster, manager of wildlife management for Remington Arms Company, Inc. "More important, it's apt to result in crippled game which will eventually die—and no sportsman can condone this.

"The hunter who takes his time and makes sure that he is on his target and that it is in range before he presses the trigger is the fellow who will get his limit and serve the cause of conservation. Sure, game birds fly fast, but shot travels fast, too. And if the shooter does not crowd his shots, he'll find that he usually has plenty of time to point his gun properly before the game has passed beyond the effective range.

"Most upland game birds will fly at the rate of about 40 miles per hour, some a bit slower and some a little faster. This depends on the species and whether or not the individual bird has attained full flight speed. Most shooting chances are rather tricky, particularly in heavy cover. Practically none are the same. But the average shot is only about 20 yards and a standard load of 1½ ounces of No. 7½ shot is traveling at the rate of about 600 miles-per-hour when about 20 yards from the gun.

"When a game bird flushes in front of you," says Webster, "you do at least four things. Probably several other things happen, too,

but these four are the most important. First, you estimate the range as best you can. Then you shift your feet into as comfortable a shooting position as possible, mount your gun and swing ahead of the target and, lastly, pull the trigger and, if you are shooting properly, follow through."

This sounds like a lot of time has been consumed before the shot is fired, but it isn't so much after all. Ballistics engineers have figured that you consume about one-fifth of a second in "getting set." Your bird, in this time, has flown about 18 feet. He'll fly another 18 feet while you're pulling the trigger. On the basis of an average shot charge velocity of 900 feet per second over your original range of 20 yards, the shot charge will require approximately one-fifteenth of a second to reach the crossing point with the path of the bird. In that time he will have flown an additional six feet, or a total of 60 feet from the time you saw him until your shot reaches him.

These calculations are based on a crossing shot, and are used as an example only, for you won't get this type of shot every time. Straightaway shots should require slightly less time, others slightly longer. The human element, too, varies and is the determining factor. But the general idea is that a number of things happen—and happen fast. But not so fast that you don't usually have time to get on your target if you'll only take it.

Don't wait too long, but don't try to be an ultra fast shot. Try to make every shot count. Cripples usually mean wasted game.

THE HUNTERS . . .

(Continued from page 93)

It is inaccurate to say that if it had not been for hunting in the first place, wildlife would never have had to be conserved. America's original wildlife was not spent by the sporthunter. It was decimated by relentless shooting by settlers, by commercial hunters, and by vast changes in the habitat.

Yet, the modern hunter must expect to be criticized, for he has openly assumed responsibility for game species. He is apparently the only one willing to do so. He can expect to receive full blame if wildlife declines, and no credit if it increases.

Brilliant arguments against hunting have been advanced by such thinkers as Albert Schweitzer, who once said that man is really ethical only when he goes out of his way to avoid injury to any living thing.

In his own fashion the modern hunter may be among the most ethical, for the consummate injury to any living thing is extermination. By causing and supporting professional wildlife conservation, it is most unlikely that the modern hunter will ever cause the extinction of another animal species. If anything, he has declared open war on the broad cultural economic factors that threaten wildlife today.

Our good friend Dr. C. H. D. Clarke of the Ontario Department of Lands and Forests, offers this rebuttal to Dr. Schweitzer:

"Any concept of life that does not comprehend the whole organic cycle is inadequate. The reluctance to accept death, evidently a predominant Schweitzer characteristic, reveals an unseeing devotion to the vital spark. It is death that makes it glow, measure for measure."

Today's hunter will not snuff out that spark. If anything, he will feed and fan it—whatever his motives. And when the spark glows most brightly he will go out on his own as he always has, and let it light his way through the best places of America.

* * *

Editors Note: This article is a condensation of a talk given by John Madson during the 1967 NRA annual meeting. Mr. Madson, a former resident of Iowa, received the Conservation Education Award of the Wildlife Society. He holds a similar award from the American Association for Conservation Information.

THE RUFFED GROUSE NORTHEAST IOWA NATIVE

By Wayne R. Porath and
Paul A. Vohs, Jr.

The ruffed grouse, one of our native game birds, makes his presence known in a rather dramatic fashion. The low, slow boom, boom of the male ruffed grouse beginning his courtship display in the spring is a thrilling sound. The sudden, loud whir of wings from the almost-stepped-on grouse in the fall will startle the coolest of men.

This sporty bird will be found in the woods on the steep hill-sides, valleys and within the narrow fringe of trees that border the cultivated fields carved from the hilltops in northeast Iowa.

Hunters in Minnesota, Michigan and Wisconsin work with careful precision to catch up with this elusive non-migratory bird during open seasons in those states. The State Conservation Commission and the Department of Zoology and Entomology at Iowa State University are cooperating in a study to learn more about Iowa's ruffed grouse and investigating the feasibility of a hunting season. The current research project was initiated in the spring of 1966 to gather information about the grouse in northeast Iowa. A 500-acre study area in the Yellow River State Forest in Allamakee County was selected.

Prior to this study information on the ruffed grouse was limited. Drumming counts were made the past several years by Commission personnel and a study was made of the distribution of grouse in northern Dubuque County in 1964-65.

Previous studies in North America provided some general information about the grouse. The ruffed grouse inhabits forests and forest edges. Larger than the bob-white quail and smaller than the ringneck pheasant, an average adult grouse weighs about 22 ounces. Males and females look very much alike and blend perfectly with the forest environment. The birds come in either red (cinnamon) or gray and apparently inherit their color from their parents. The tail feathers form a fan when spread, and the black or dark brown stripe near the outer margin of the tails of the adults is used by biologists to determine whether an individual bird is a male or a female. The stripe of males is continuous while the band crossing the center two feathers is lighter in females. Length of the central tail feathers is generally shorter in females. Long, dark feathers occur along either side of the neck and are more prominent on the males. This group of feathers is called the "ruff," and the uniqueness of

the feathers gives the species its name.

Hearing the drumming of male ruffed grouse during March, April and May is a common experience for persons living in northeast Iowa. The drumming functions to space the males in "territories" and to attract females. The sound is made by the rapid beating of the wings against the air. This produces a series of "thumps" that are widely spaced as the bird initiates the drumming behavior and climaxes in a manner that resembles the whirring of a "muffled drum." The males generally choose a fallen log for drumming and may have from one to six logs within their territories that meet their requirements as a podium for their spring and more brief fall drumming activities.

When encountering another grouse, a male may spread its tail into a half-circle, lower and drag the wings on the ground, and erect the ruff. The males apparently use this display to entice females prior to mating and to defend their territories against intruding males.

The females tend to locate their inconspicuous nests at the base of a tree or log, but have been known to nest on boulders and rock ledges in Iowa. The nest is generally a simple depression in leaf litter. The female usually lays an egg every 1.3 days until 9 to 14 eggs have been deposited in the nest. Incubation lasts for 24 days, and the female spends most of her time on the nest, leaving only for food or water. The incubating female is almost impossible to detect among the leaf litter as she sits on the nest. She remains on the nest when approached from a distance and is extremely reluctant to flush, especially late in the incubation period. When forced to flush, the female will react by feigning injury as if she has a broken wing or leg and by moving from the nest site.



Ruffed grouse used in study has back tag.

The young grouse are precocial and can leave the nest as soon as their feathers become dry. The female and the young can generally be found in areas where insects are available. During the first few days the chicks are brooded under the wings of the female at night. As the chicks grow and become more self-sufficient, they find roosts near that of the female. When the brood is disturbed by man or natural enemies, the female warns the chicks and exhibits a feigning action similar to the behavior used when flushed from the nest. Females have been known to dive toward intruders that were persistent. When the intruder has left the area, the chicks will respond to a call and regroup.

As the young get larger and fall approaches, the broods become less and less closely knit and finally break up. Biologists call the period of brood breakup the "fall shuffle" in which the young birds are moving to wintering areas and young males begin an attempt to occupy a territory in preparation for the spring breeding season. It is during this period when the young are attempting to find a place for themselves among the adult population that the well-known "crazy flights" of grouse occur. Young birds have been observed to fly into telephone poles and plate glass windows.

The ruffed grouse is associated with deciduous forests of considerable size, but is not found in mature, older stands of trees. Edges of the woods, clearings and other openings seem necessary for young grouse, and buds of ironwood and aspen provide winter food staples. Land areas satisfying the needs of the grouse formerly extended over much of Iowa but are now restricted primarily to the northeast corner. Farming and other practices have reduced the range of the species to more rugged areas where forests have been logged but not entirely removed.

Spring populations of grouse in northeast Iowa, as measured by the index of drumming grouse conducted each year by Commission personnel, have remained relatively stable over the last several years. This means that the grouse have not increased or decreased significantly in number or moved to new areas during the period that hunting has not been allowed. Other studies on grouse and similar species have shown that game can't be stockpiled once the birds are occupying all of the habitat available to them. When this occurs, production must be equalled by mortality and hunting is man's method of harvesting the crop prior to nature's forced reduction. The initial phase of our detailed investigation into the life history of Iowa's ruffed grouse is almost completed. Future articles

DALTON LAKE PROJECT TO IMPROVE FISHING

Renovation completed this fall at Dalton Trout Lake in Jackson County will result in a better fishing area there for anglers next spring.

Work included silt removal by the Fisheries dragline and crawler tractor. Some of the silt was used on the bank shoreline to make it wider on top for fishermen. This will also make it easier to maintain and mow the area and alleviate seepage and drainage to adjoining croplands. The remainder of the silt was used to improve a parking area and to level off the surrounding area.

Personnel also re-negotiated for fence lines around the area to provide better shoreline for angling.

The maximum depth of the lake prior to the silt removal was about four feet. Now the depth has been increased to seven feet over most of the bottom area where work was done.

"It looks like we were able to increase the water holding capabilities of the lake by more than 50 percent," said Robert Midden-dorf, fish culturist at Lake Macbride Fish Management Station, who was in charge of the project. "It took seven days for the water to fill the area we dug out. This should help control the weed problem, keep the water cooler during the summer months and improve fishing at this popular lake."

"Work is now complete except for rip rap and some bank improvement," he said.

The lake will be ready for the first good trout fishing days next spring. Normally between 4,000 and 5,000 rainbow and brown trout are stocked in Dalton Lake during a season. The lake contains approximately two surface acres of water.

"The purpose of the work at Dalton Lake is to provide better fishing opportunities for the people of Iowa," explained Ken Madden, superintendent of fisheries. "Through other habitat improvement projects such as this, we can continue to work toward better fishing in Iowa and provide for the future."

will provide more information concerning how the grouse is studied, what we have learned and what we suggest as future management options.

Editors Note: This article is a contribution of the Department of Zoology and Entomology, Project 1565, Agricultural and Home Economics Experiment Station, Iowa State University and Iowa State Conservation Commission. Wayne R. Porath is a graduate assistant, Department of Zoology and Entomology; and Paul A. Vohs, Jr., is an assistant professor of wild-life biology.

FORESTRY AND LAND USE

By Gene Hertel
Assistant State Forester

The changes in a woodland cannot be seen in the lifetime of a bark beetle, a woodpecker, fox or raccoon or even the lifetime of a man.

A woodland developed as a complete thing—a natural "balanced" community of plants and animals—is found a few centuries later as an unbalanced and incomplete association of plants, animals—and man.

The untouched woodland was perpetuated on the same land for hundreds of years, protecting its own foothold in the soil and providing a comfortable home for wildlife and in turn depending upon these animals for its own continuation.

A red squirrel found it an easy task to bury an acorn beneath the leaves and softness of a hundred seasons. The woodland soil was loose and porous, a good place to

store food when the crop was good and there was too much to carry away.

Acorns could be dug, even during the winter, from the lightly frozen soil under the mulch of leaves. Toward spring the squirrel was in need of these hastily stored acorns of the previous fall. The woodland did not slip backward because of the squirrel's habit of eating acorns. Actually it benefited. In May it was evident that the squirrel had been unable to find every last buried acorn, and oak seedlings began to appear on the woodland floor. The seedling would grow for a season or two in the shade of the parent trees. However, it would not thrive in such shade, and finally died. If, by chance, the parent tree and some of its neighbors were to blow down or die as they stood, the new seedling would be given the opportunity to succeed. Its destiny, and that of its generation, would be to inherit the particular plot of land for the next century. Then, the cycle would be repeated.

Man has stepped into this cycle. We have all seen the evidence of his land stewardship. Some have taken pride in the woodlands and maintained them in a natural condition. Some have saved the large trees and eliminated the young trees by permitting animals to graze and browse too heavily. Still others have cleared the forest to grow crops.

The man who protected the natural condition of the woodland—perhaps cutting only dead and dying trees for fuel—protected the soil as well. He also sacrificed immediate income for the sake of this woodland preservation. Men who grazed the woodland, preserved the large trees for a generation, but ultimately lost them. He may also have lost much of the productivity of the soil and the topsoil. The steward of the land who cleared the timber may have grown crops which preserved the soil and its productivity. He, also, may have chosen less prudent methods of farming and may have seen the topsoil disappear with the

spring rains, taking with it the power to produce future crops.

Wiser men who had a foresight their neighbors lacked, envisioned land well managed—protected and yet productive. There is evidence of such responsible management in our state and country. The crop under management may be a row crop, grass or timber. The slope of the land was an important factor in the choice of a crop. The wisdom and foresight of the owner was the prime factor in his choice of management.

The man who chose to leave timberland in trees and gain some return from woodland crops was practicing forestry to a degree. Foresters define their profession as "the science, the art, and the practice of managing and using for human benefit the natural resources which occur on and in association with forest lands." The human benefit may be in sale of forest products, pleasure of hunting, use as a picnic area, use as a natural area for finding solitude and peace of mind, or a combination of these. The owner of forested land has these and other alternatives for gain. A woodland can be maintained or built up to the natural community it represents when managed wisely. The value for wildlife, protection from erosion and the pleasure of owning a timberland can be kept or reclaimed. Practicing forestry involves these values and can often point the way to a good cash income by harvesting mature trees in the bargain. Today there is much evidence of a wise stewardship of forest land, preserving the soil for future generations.

Aldo Leopold said: "Practice of conservation must spring from a conviction of what is ethically and esthetically right, as well as what is economically expedient. A thing is right only when it tends to preserve the integrity, stability and beauty of the community. The community includes the soil, waters, fauna and flora, as well as the people." With this concept in mind, can we not attempt to protect the soil for the future, while realizing the highest "human value" now?

Many Iowa timberland owners have questions about getting the most benefit from their land. The advice of a professional forester would be helpful. These services are available, on a fee basis, from private consulting foresters, but Iowa ownerships are small and are usually unable to bear the cost of this type of management advice.

The Conservation Commission, recognizing the need for professional advice—presently limited to certain areas of the state—has employed foresters. These men are available to give free advice in most counties of the state. For information, address requests to the Forestry Section, State Conservation Commission, East 7th and Court Avenue, Des Moines, Iowa 50308.

PARKS . . .

(Continued from page 91)

What accounts for the upsurge in park use over the years? Of course, one reason is that the Iowa Conservation Commission has, in spite of difficulties, been able to provide an outstanding park system. There is a nation-wide boom in camping and other outdoor recreation. We are becoming a more urban society and, as such, people are seeking more opportunities for outdoor recreation. People today have much more leisure time to pursue such things as camping, bird watching and water sports. Improved highways, better transportation, a more affluent society and the tremendous amount and variety of recreation equipment available has contributed to the increase in park use.

Campers Increase

There has been a very noticeable increase in campers each year. As a result the camping season is extended. There was a time a few years back when park use was generally over by Labor Day. Now people are camping well into October and in many parks winter camping is becoming popular.

An estimated 35 percent of the 10½ million visitors were non-residents, many of them passing through Iowa on their way to or from other states. However, there have been cases when campers have stopped in Iowa enroute to a western state and liked what they found in the way of facilities and natural attractions and stayed to spend their entire vacation here. At some parks near the borders of other states, 50 to 55 percent of the users are from neighboring states. Without a doubt, word of Iowa parks is spreading.

WINTER HUNTING . . .

timber can be a joy, especially when other hunters are not blundering around in the same area.

December is the time when fox and coyote hunting really gets underway in Iowa. Fox populations seem to be high in most portions of Iowa. If we get good snow cover, hunting will be good. Highest populations occur in the rough terrain of Allamakee, Winneshiek, Clayton and Fayette counties. For a real thrill try your luck at calling up a fox in that country. There are enough foxes to make it worth-while.

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Fox calling is most successful in the early morning and late evening hours. A hungry fox is a fox that may come to a call. A sleepy fox probably will not. Foxes usually sleep most daylight hours. Through mid-day they seldom respond to a call.

The primary hunting rule applies late as well as early. If you hunt on private land, "Ask the farmer first." To do so will extend our welcome for generations to come. To fail to do so will reduce the chances of our sons for hunting opportunity in the future.



Snow cover can be advantage for hunters.