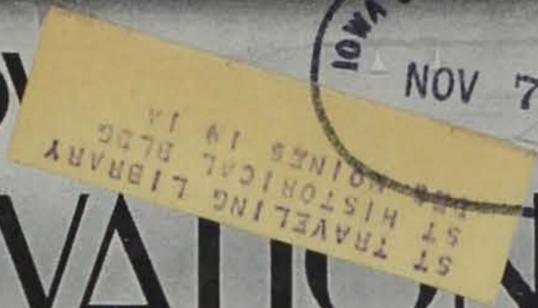
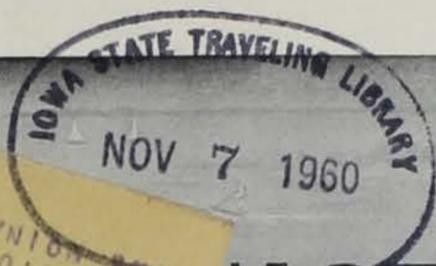


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IOWA CONSERVATIONIST

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Number 11

ACTION PROGRAM AT LITTLE PAINT

Malcolm K. Johnson

THE FALL QUAIL OUTLOOK

M. E. Stemple

Ups and downs in wildlife populations occur every year. This fall the less desirable effects of these processes will be noticed because our quail hunting will be less productive than in some of the good years as in 1954 and 1958. The first opportunity to measure the 1960 quail population was in the winter and at that time the survival was high. Later, snows, rains and cold weather and the winter season that followed did cut down the number of quail. A similar story comes from states throughout the midwest. However, the noticeable decrease was in areas where cover and food were not available during the latter part of winter. Survival was high in Iowa where there was ample brushy cover, where there was bare ground along steep creek banks, and where there was unharvested corn or beans in the fields. In flatlands and on wide river valleys cover was scarce, corn was harvested and there was no bare ground.

Summer counts of whistling quail confirmed the indication that losses were highest in exposed areas.

Harsh winter weather was unfavorable what are some other factors that affect birds? Chief among these are: moisture, storms, and nesting conditions.

These are conditions that define the quail population, what has been the situation since winter?

On a monthly basis, the conditions were as follows:

March: temperatures below normal
April: temperatures above normal

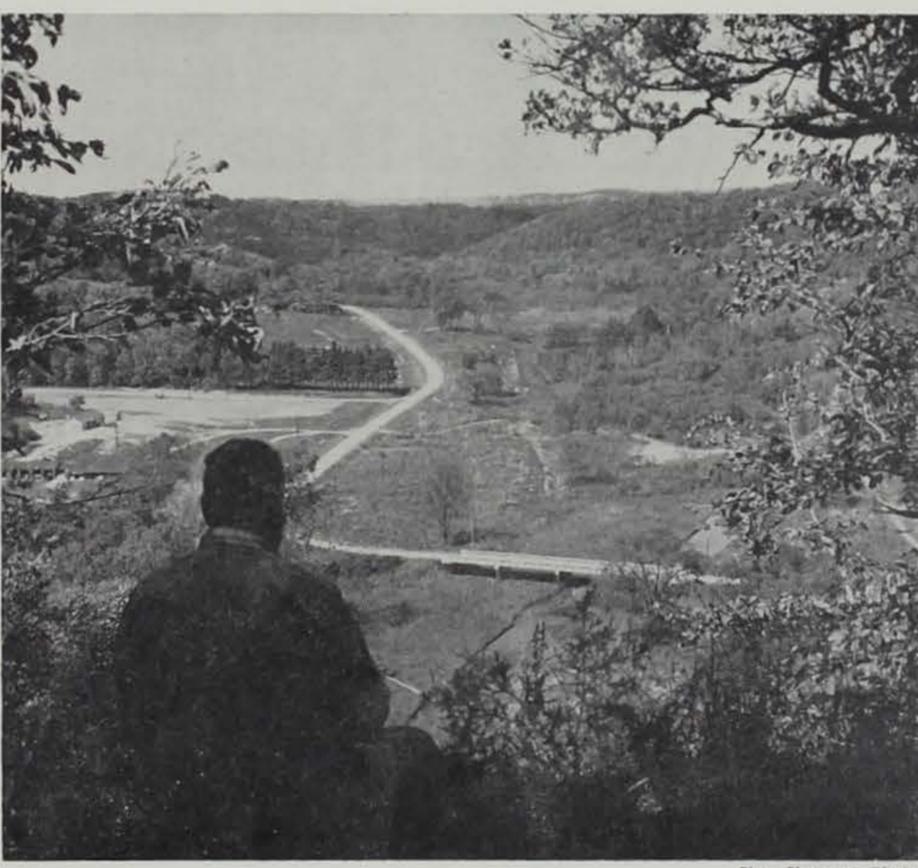
May: wet, similar to 1959.

June: cool, rain, no destructive winds or drought.

July: dry, but there was dew at night.

August: dry, but with dew.

September: mostly dry, but with dew at night.



Jim Sherman Photo.

From Peterson's Point the view overlooking Little Paint Creek and its valley is truly scenic. The State Conservation Commission's sawmill is at far left. A major campground is planned for the point and long ridge leading up to it.

After the month of March, everything was favorable for quail survival and production. Rains were favorable because successful hatching depends on ample moisture. Even though rainfall ceased for a time in July, there was considerable dew each night. This persisted throughout most of the morning in sheltered areas. Fortunately, the most violent storm of summer went north of the best quail country. Destructive storms in the quail range were limited in extent.

Food was plentiful in the form of green plants and insects. These are essential to good laying and successful brooding because food must be plentiful near the nest site so that the hen will not be absent for long periods. Plenty of insects furnish essentials for growing plumage quickly. Water is not so important when greens and juicy insects are plentiful.

Pairs of quail on the roads in

September indicated that nesting was not completed. Birds that experienced previous nest failures nest into October.

During mid-September there were many reports of quail broods seen. Squirrel hunters in some areas saw broods. Final checks on the number of quail coveys, as compared to those of other years, will be made in October when frost has reduced the amount of pollen, and when weather is cooler. (Editor's Note: Weather was too nice up to the time of printing—no frost so no count by mid-October.) Judging by past years when Iowa, and other states have kept records of survival and production in quail, this won't be an outstanding quail year. But there will be plenty of coveys for the hunter who can pick good hunting spots. We may as well use the opportunity to hunt these productive areas, the ups and downs in the quail population are natural.

Since late summer, a new cooperative program has been taking shape in northeast Iowa's Yellow River Forest. The ultimate limits of the development are at this time unknown, but from results already in evidence, much can be accomplished. Under the combined planning of the fish, game, and forestry sections of the State Conservation Commission and with enthusiastic assistance from the State Board of Control, inmates from the state reformatory at Anamosa are learning new skills and work habits by doing needed construction work that will eventually make Paint Creek and its locale one of the finest recreation spots in Iowa.

The prison labor program is one of manifold benefits. First and foremost is the rehabilitation of men who soon will become useful members of our society. Sixteen inmates, who because of their good record at the institution, have been assigned to live in the mobile unit now located near the state forestry headquarters on Little Paint Creek. Four trailers comprise the unit which can be moved to other areas as projects are completed. The men are learning to operate two bulldozing caterpillars, welding equipment and the sawmill. Future plans call for acquisition of a dragline and a large earth-mover from military surplus. Such training should give the men a good foothold and a measure of security upon their release. In the terms of George Callenius, chairman of the Board of Control, "These people never knew what a work habit was, now they have the ability to make a good living and contribute their share."

Besides the humanitarian aspect, the work involved is completing a comprehensive multiple use program designed to make the area available for maximum recreation. Heavily forested hills, sheer bluffs, and deep cut stream valleys are unique in Iowa where much of our terrain is fertile but flat. While many outdoors lovers prized this spot for its primitive values, more feel a few concessions should be

(Continued on page 82)

Iowa Conservationist

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COMMISSION MINUTES OCTOBER, 1960

Meeting Held at McGregor

The Commission:

Commended Mrs. John Crabb, commissioner from Jamaica, for her appointment to the Board of Directors of the National Conference on state parks.

Decided that Chapter 106 of the Code of Iowa (dealing with water navigation laws) should be rewritten and agreed that adequate help should be hired to help expedite this job.

Ordered the purchase of ten prints of the Commission's latest film "Iowa's Hunting Heritage."

Met with a delegation from McGregor who again asserted that a campground should be constructed in or adjacent to Pikes Peak State Park and also requested that a full time custodian be hired to take care of this park.

Fish and Game

Approved the option for purchase of 199 acres in the Elk Creek Area in Worth County.

Approved the option for purchase of 300 acres south of present holdings on Cone Marsh.

Parks

Decided that a non-feasible report be given on construction plans for adding to the lake area of Upper Pine Lake in Pine Lake State Park.

Recommended that signs be erected on areas turned over to other governmental bodies stating the change of ownership.

Waters

Gave permission to the residents of Lake Cornelia to remove silt and weeds on the east side of the lake.

Granted a construction permit for removal of earth from the bottom of Lake Cornelia to allow boat access provided that there will be no hazard or destruction to the fish population.

Directed the director to ask the Attorney General to see that two property owners on the southeast shore of Lake Cornelia replace the earth they took from the lake bed

EDITORIALLY SPEAKING

DON'T LET THIS HAPPEN TO YOU

J. R. Sherman

Superintendent of Public Relations

The Cruuunch of breaking bone, bending metal and shattering glass ended the brief glimpse of a large buck deer flying through the air toward my car early one evening last week. Such a sound is hard to forget.

Could this accident have been prevented? What could I have done to prevent it? Afterwards I thought of the terrible catastrophes which could have happened: the deer could have gone under a wheel and turned the car over, following traffic could have compounded the accident in a terrible manner, the head of the deer could have smashed the windshield in front of us. Luckily the only real damage was to my pocketbook.

At the sportsmen's meeting where our arrival was tardy, several people consoled me with the remark "there's nothing you can do about a deer jumping into your car." My next conclusion was that the Conservation Commission's policy of controlling deer population is certainly a wise one.

After returning to the office I of course heard a lot of good natured kidding about my misfortune. This kidding also led to several tales of near misses and deer accidents which my cohorts had witnessed. It is obvious that a careful driver can minimize the chance of hitting a deer on the highway.

When in deer territory such as river valleys, the hilly area in north-east Iowa, near forest areas or deer crossings, **DRIVE SLOWLY** and be alert, especially at night.

If you see a deer, **SLOW DOWN IMMEDIATELY**. A deer can start and stop and change his direction of travel with incredible suddenness and often does.

If you see one deer, **WATCH FOR ANOTHER DEER** to follow.

Watch for **SHINING EYES** in the darkness along the highway and slow down immediately before you are unfortunate enough to find a deer in your lap.

A flare or signal light might save your life from traffic after the collision.

Most deer-auto accidents occur at night.

Reported deer kills in Iowa by autos in 1959 totaled 403 deer killed with \$34,000 damage to automobiles. Estimates for this year are that 480 deer-auto accidents will be reported. Many such accidents aren't reported. November is the peak month for such accidents due to the rutting activity of the deer and we have a greater number of these collisions each year.

Deer do constitute one more highway menace. The number of these accidents can be reduced through alert driving and awareness of the problem.

It can happen to you—it happened to me.

with which they extended their property and encroached upon public territory. They will also be required to restore the shoreline to its original position.

Granted permission to the Highway Commission to build a one mile bridge on Highway 14 over the Des Moines River at Knoxville.

Directed the director to ask the Attorney General to take care of the situation involving the East Okoboji Lake Development Corporation which platted and sold lots that are actually state property.

Decided that certain state parks should be closed during the three day shotgun deer season, December 17, 18 and 19, 1960.

County Conservation Activities

Approved the following:

Bremar County's purchase of a 76 acre area in the northeast corner of the county for a multiple use county park.

Delaware County's purchase of two areas of three acres each for use as roadside parks.

Linn County's lease of 1.2 acres

to add to the Waubeek Quarry Area.

Benton County's purchase of 21 acres south of Ravenna on the Cedar River for a multiple use project.

Franklin County's purchase of 10 acres to add to a previously purchased park site.

Hardin County's acceptance of a four acre tract on the south fork of the Iowa River for a multiple use area.

Page County's purchase of a 64.77 acre plot near Clarinda for use as a school and county forest and as a picnic and camp area.

General development plans for two roadside parks in Delaware County and one roadside park in Jackson County.

LAW

Everyone is presumed to *know the law*, and is presumed to *intend the legal consequences of his acts*.

This holds for Game Laws, too. Don't violate the Game Laws.

Pickled Cat

From Doc Meder in Elkader, dentist who wields a fly rod as well as his drill, we gained recipe and a sample of catfish deliciously pickled. "Doc" says he got the idea from his grandmother's treatment of tough old chickens. For what would approximate a nice evening's catch of catfish, three two-pounders or vice versa; the following amounts of materials should do the trick.

One pint of cider vinegar
One-half pint of water
One large onion sliced
Three tablespoons of pickling spice in a cheesecloth bag
Boil till the meat falls from the bone about four minutes. Add sliced lemon and a few bay leaves. Add salt and/or sugar to taste.

Let cool in refrigerator, the mixture will solidify and make a snack (if it doesn't turn into a meal) that will make your friends flock to your kitchen if they fly.

ACTION PROGRAM—

(Continued from page 81)

made such as family camping facilities, improved access roads and a few picnic sites to allow more varied use of the 3,200 acre unit. Rabbit hunting, for many years "has been" sport in these parts, another activity getting extra attention. Rabbit motels, placed near food patches, are constructed to allow easy entrance and exit of "hotfoot" and vice versa for fox who're liable to wind up with knot on the head if they try follow the rabbits into the brush piles. The secret lies in the way the pile is put up. A parallel series of ten foot poles is laid on the ground six to eight inches apart. Across these rests another series leaving doorways only a couple inches high—a real fox stopper.

For the gobbling newcomer alternate strips of oats, wheat grass, and clover have been planted and will be rotated in the clearings. Here again, the edge effect for maximum use and protection of the turkeys and other game is operation. Game management plans also call for travel lanes contoured and terraced food crops.

Down on Little Paint Creek itself, a stream improvement project is getting underway. In time, no productive straight stretches of water which are without fish holding pools will be used only passage of high water floods, with the normal channel being meandering ditches dug to order. A few low head dams may be put up to make more pools and further increase to the fish carrying capacity of the stream. Although this will be experimental in a sense, the results from other states have shown the idea workable and capable of being from the labor unit will be available for any modifications.

Campers wishing for a scenic spot while visiting this region will be richly rewarded here. High on Peterson's Point, overlooking the valley of Little Paint Creek and the Yellow River Forest headquarters, sprawls the proposed campsite. Individual nooks and

(Continued on next page)



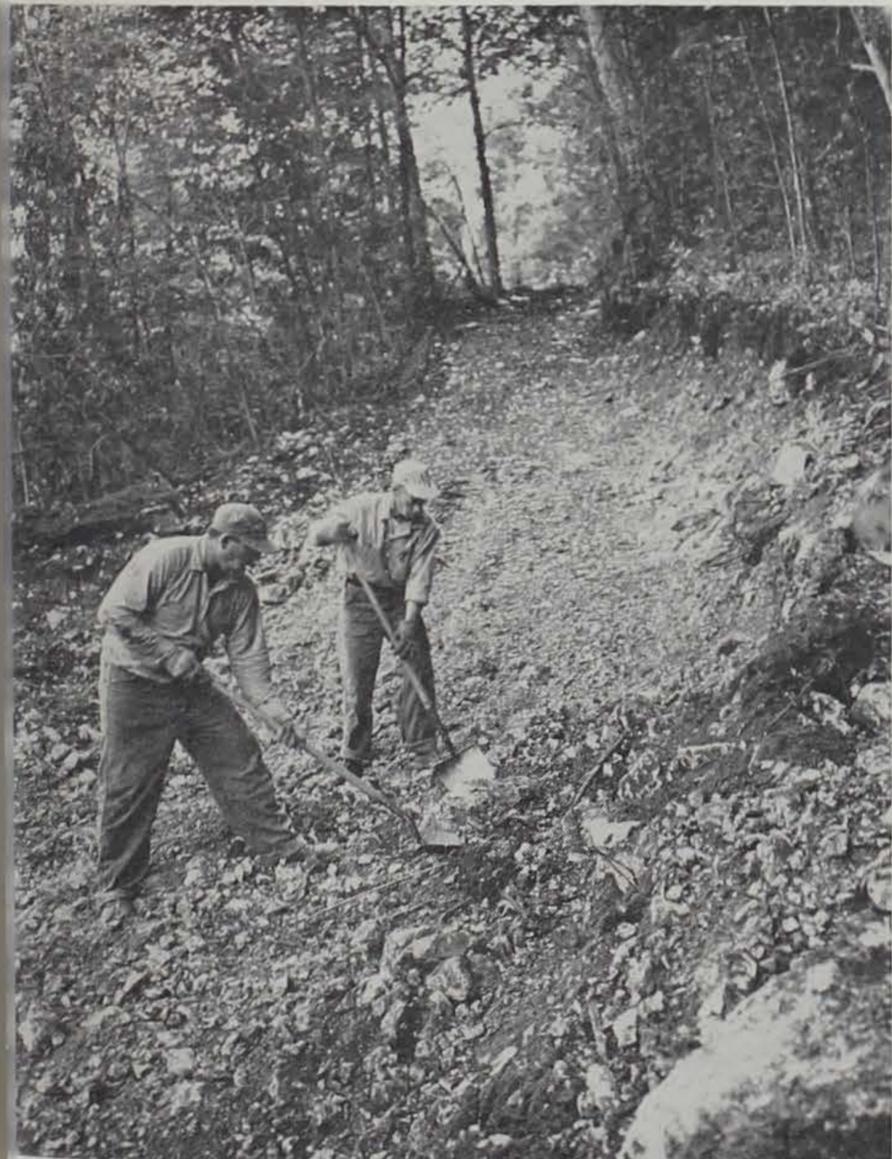
Jim Sherman Photo.

While spreading fertilizer and grass seed around their compound area, the inmates are preparing the grounds for the erection of a group camp. When this project is completed they will be able to pack up and move the mobile unit to another site.



Jim Sherman Photo.

Throwing car thumping rocks from the fords of Little Paint and other trout streams is a job that's never finished. Even on routine work such as this the men are eager to get at it and do it well to show their appreciation of working outdoors.



Jim Sherman Photo.

Trail construction also aids logging operations and gives visitors more roads to use while touring the forest. The many projects underway are highly instructive and are intended to help the men make their way successfully upon release.



Jim Sherman Photo.

The first step in building a rabbit's idea of a really plush motel. The top layer of cross logs provides a pretty effective barrier to the predacious fox who is a keen competitor with man for the long-eared dinner. Poles are later covered with brush.

PROTECTION PROGRAM—

(Continued from page 82)

...nded by tall trees should glad-ly the heart of the most critical...pers. Improved roads into and...ough the forest already have...reased the number of visitors...ilding fire access roads not only...kes fire protection easier and...enefits campers, it facilitates the

removal of veneer logs and pulp wood from mature and over-mature trees whose total value is estimated to be one-third of a million dollars. Being a state forest calls for timber management which includes both harvest and planting as well as periodic thinning of the trees. Whereas trees are left for nature to take

care of in parks, our forest lands are training grounds and living exhibits of proper management techniques. The prisoners won't be expert foresters when they leave, but they will have had experience in making access roads, felling, hauling, and sawing logs.

Present plans call for a permanent camp to be established in the

unit. When this is completed, the four trailers and their inhabitants will be transferred to another locality needing attention. The men will be working from the mobile unit the year around, doing themselves and outdoor Iowans a great service. At little Paint Creek the taxpayer is getting more than his money's worth.

MAKE MINE OVEN FRIED

Stan Widney

The only trouble with perch fishing in Iowa's Great Lakes is that it doesn't take long enough. If the fall weather is right and a man knows what they're hitting on and where, he can catch his limit in less than half an hour. That's a lot of fish especially if they're king size like at Angler's Bay in Spirit Lake and sometimes in East Okoboji. Fifteen 12-inchers makes plenty for the whole family with a couple guests to boot.

So there you are, stuck with a boat and motor rented by the hour and your limit of perch in the bucket. For the rest of the hour you troll for walleyes, not caring whether they strike or not because you are looking at the neat cottages along the shore and wishing your Aunty Dee was in one of them with the cook stove hot and ready to work her magic on those perch.

It didn't happen quite that way when Cousin Newt and I were up there last time. It was in October and the weather that weekend was far from "right." We got there around noon Saturday and drove right around Spirit Lake to Angler's Bay intending to row the little two man boat we'd borrowed from a friend instead of renting one with a motor. Newt is a real good rower. As soon as we got a good look at the bay we knew it couldn't be done. The south wind was chopping Big Spirit into white meringue and the whole lake was as empty as a drive-in movie at noon.

We drove back to the east shore of East Okoboji where I had good luck in '43 with king-size perch, thinking it might not be so rough. By the time we got there the wind had shifted to the northeast and some black clouds had started sneezing.

We didn't want to have to tell our wives we had made that 215 mile trip for nothing, so I said let's go see if old Irv has some perch in the wire basket he keeps in the water off his dock. I thought maybe if Sunday was going to be as bad as this we'd have to borrow some someplace. I never bought a live fish in my life but I have borrowed a few—just to keep Mama from saying I told you so. I knew old Irv would loan us a mess if he had them and I could pay him back in horned pout (bullheads) next time he came down our way.

When we got to Irv's west side cottage on West Okoboji, the wind was in the south again and had cut down to a breeze that was as warm and friendly as the clasp of a baby's hand. Irv was already in his big boat and had the motor started when we pulled up in the yard. He yelled for us to come on, that he had minnows and worms enough for all of us.

Previously, I had thought that

the perch in West Okoboji were a bit small and, since we have quite a few mouths to feed, it would take more than the limit, even with our guests left out, to make a mess that Aunty Dee could do justice to. I told that to Irv and he laughed and said just wait.

Perch are not too proud. They'll take minnows, worms or crawdads with equal vigor, but usually not at the same time. When they're on a worm kick, they'll ignore the others and when they want minnows they want minnows. This day they preferred small minnows and that's what we fed them.

And they were not small by any means. Not king size, like in Angler's Bay, but not over three inches shorter, and real chubby. You could get three big bites off their humps alone. We had half our limits by two o'clock and that's the time they usually stop biting in the fall anyway. They lay off till four for some reason, then start again till around six but we didn't go back at four. Irv took us to a weed bed where we fly-fished till supper time with so-so luck. Irv got one four-pound bass but Newt and I couldn't catch anything but bluegills.

After supper, just as the sun went down, Irv said we'd try for perch on the lee side of the point. Fishing from the shore, we used leadhead jigs in deep water just off the bottom. A harvest moon was spreading silver on the water and the breeze broke it up into small change. We'd retrieve with a slow, jerky style and got more hits than the Pirates in the last World Series. Only landed five before plumb dark when they move back out to deep water again—that is, Newt and I landed five. Irv got ten and two walleyes.

Next morning it was as cold and damp as a healthy dog's nose. A north wind was trying to tidy up the leaves in Irv's yard that the south wind had messed up Saturday. After church we went out again and like to have froze, but after finding out the perch preferred worms this time, we each had our limit by two o'clock.

Somehow or other, after cleaning all the perch, we found we had 30 apiece, the possession limit. I didn't remember catching that many but Irv insisted we had. Irv's kind, even if he is sort of proud of his bass fishing.

Back home we had a real old-fashioned perch fry with Aunty Dee at the skillet. I'm going to give you her recipe because she told me to. She always says that really good food should be kept from none.

Perch have a taste all their own. If you prefer a "fishy" flavor, don't go after perch. Their white, flaky meat comes off the bones in two neat pieces **after** you've savored the two or three big bites off the back that I call the hump. It's a taste thrill I just can't describe, so if you want some, go out and catch yourself a mess.

BIOLOGISTS



CORNER

HOW ABOUT THOSE QUAIL FEATHERS?

M. E. Stempel

Quail have all the feathers they need. They also have feathers to spare, of which some of the most important are the primary wing feathers which enable quail to escape enemies.

Close lying bird feathers give protection from summer sun, cold chilling rain and from wind or snow. Streamlining is the job of feathers on the leading edge of wings. Then there are rudder feathers: did you ever watch the tail of a bird making a sharp banking turn? Long flight feathers are efficient air foils. Short ones may be rigid or flexible; they may be coarse or fine in texture.

Quail instinctively treat each feather properly. Most of us have seen a quail, or a robin, use its

Too late, you say? Not by a long shot. Perch fishing through the ice is way above average at all three of Iowa's Great Lakes. So bundle up and have at it. You'll have the time of your life—from chilly rod all the way to your taste buds.

Now here's Aunty Dee's recipe: Because of their heavy skin and scales, perch should be skinned. After cutting along both sides of the backbone with a sharp knife, turn the fish around and make a deep cut down through the forehead toward the nose to take advantage of the plentiful meat on the hump. The dorsal fins pull out easily with pliers and the fish is easily skinned with either pliers or by hand, working both ways from the top and front. The head is cut off and the insides come out in one piece. Cut off the bottom fin and tail and wash the perch thoroughly. Dry it on paper towels or newspaper.

Crush crackers into fine crumbs. Beat eggs lightly, and have some salt and peppered flour handy. Put enough butter in the skillet to cover the bottom thoroughly after it melts to about an eighth of an inch. As soon as the fat is melted, turn the heat down to medium and put the fish in at once after dipping it first in egg, then flour, then cracker crumbs. **DON'T LET THE FAT GET TOO HOT.** Let fish fry on one side until it turns to light brown, then turn it over and do the same. Preheat your oven to 350° and put the skillet in it as soon as the fish are light brown on both sides. They will be ready to eat in about half an hour and are best served piping hot.

bill to adjust the long flexible feathers that cover the base of the wing so that the joint is concealed when the wing is folded. Another time you may have seen a bird slide his bill along the primary feathers to straighten the vane. Birds will fluff their crest after dusting or bathing. Then the crest lays neatly and firmly on the skull and the bird is streamlined for flight.

Condition of plumage is so important to quail that if feathers are in poor condition, quail will hide rather than be flushed. The very young that have few feathers will not take to the air until actually kicked out of hiding.

All these traits demonstrate that feathers are important to the bird. However, just as a lizard may shed its tail in order to escape, sometimes a bird sheds its feathers to avoid capture.

Do you recall seeing dogs that didn't want to pick up upland game birds that were shot? Let me tell you why. The bird sheds feathers which the dog dislikes. Handle a live quail, and if you touch just the right spot on his upper leg he will shed the feathers.

Thus, while all feathers are important to the quail, none are more important than the ones it loses when in trouble.

Remember when your companion shot at the quail and the bird flew on, but the feathers streamed out behind? You said, "Boy, you sure dusted him."

Perhaps you did dust him, but that might also be a demonstration of the oldest trick in animal defense. After all, quail have a lot of feathers, and some of them are sacrificed when the right time comes—just to fool an enemy.



Jim Sherman Photo

If you're a "birdshooter" you're already well acquainted with this figure. If you're missing something. A covey quail can bust off the ground with an uproar that all but the experienced hunters get too shook up to shoot.



George Tovey Photo.

farmers at the field day near Farmington get a demonstration of safe techniques chain saw operations. People from four states attended the day-long meeting.



Jim Sherman Photo.

The common Canada goose is the largest member of the wild goose family. You can often hear them honking before the wavering V formation comes in sight.

FARM FOREST FIELD DAY

Malcolm K. Johnson

Some 700 persons availed themselves of the opportunity to see the latest developments in the field of farm-timber management at an exposition adjacent to the State Forest near Farmington. There it was avidly demonstrated that machines are an integral part of working in the woods. The chain saw, of course, was most evident, popping and rattling even above the rumble of all, farm-sized diesel caterpillars. If you've never seen a chain saw expertly felling a tree it's hard to imagine its speed and versatility. Less than a minute it takes to take down an oak some four one-half feet in circumference. Twenty seconds to cut out the slash around it and forty seconds to send it crashing back to earth!

Not only is the cutting quick, planting is quicker. A tractor-mounted tree planter can put seedlings in the ground at the rate of 1,000 per hour under ideal conditions and survival is better than with hand-planted seedlings. The thing the mechanics haven't figured out is how to change the growth rate of trees from years to hours. The foresters have improved on nature, however, by thinning, and debrushing and selected stock which can double the growth rate.

Several cats were kept busy all day building a quarter-acre pond. The gully selected was deep and narrow so that when filled, the water surface would be small. Less water evaporates from an impoundment of this type but it also provides poor habitat for fish. The safety and usefulness of the small ponds was apparent as they were covered over and dragged off trees

and saplings and gouged out the bottom and sides of the gully to throw up a dam.

About noon a pretty unhappy visitor showed up. A traffic director on the highway had assumed that anyone coming down the road was coming to the field day. The visitor (from Texas) was all steamed up because he couldn't see how the forest trail could take him to his destination of Keokuk. The people viewing that Texas license coming into the area knew that farm forestry is getting to be a big business, but wondered if it wasn't a little far to drive for a one-day meeting. People had come from Wisconsin, Illinois and Missouri though to see what was new in the way of machines and methods.

During the formal part of the meeting, several people received "TREE FARM" certificates. These awards are made to landowners who take care of their woodlots in the prescribed manner. The "Tree Farm System" is a national organization formed by the Forest Products Industry of America to insure a continued crop of wood for manufacture. At this time there are 18,000 cooperators in 47 states holding some 53 million acres of timber or about one and one-half times the area of Iowa. Here in this state the program is five years old. At first there were six members, now 110 cooperators manage 8,000 acres for the production of saw logs, veneer, pulp, fuel, and barrel staves.

In a short talk given by Professor Stoltenburg of the forestry department, Iowa State University, it was pointed out that the market for pulpwood will double in the next 15 years and will triple by the end of the century. Iowa has 2½ million acres of forest land and another 600,000 acres should be added to this because the land is unfit for crops and pasture.

WELCOME STRANGER

Jim Ripple
Conservation Officer

September 23, 1960, just another busy day for a couple of Conservation Officers—dull sky, scudding clouds, rain and mud. A spark of interest is aroused when you see something new, not really new, but different, and hardly different at that. What could be different about that lone Canada goose in the distance, a man working a marsh sees thousands every year. Why should this one old gander make you wonder?

Your hearts and thoughts step up a pace. Could this be the same "honker" that you and a neighboring officer have seen three years in a row? If so, what force of nature brings him back to go through the same routine each fall? Perhaps he was born or reared here, or more likely, this may be where he lost his mate and family.

The first year we noticed the Canada, we were on the regular marsh and waterfowl inventory patrol prior to opening the duck and goose season. As we motored up the middle of Lakin Slough (north of Bays Branch in Guthrie County) this fully mature goose took wing not 30 yards ahead of us. Cautious, but not hurried, he called, turning his head from side to side and climbing, flew west.

Besides the need for wood, the number of tourists to the national forests has gone up 300 per cent since 1945.

At the end of the day one of the new recipients of a Tree Farm certificate was cornered and his comment on the soundness of the program was that he was making his living from trees on a 160-acre farm that is 85 per cent white oak, walnut, and hickory. This man is convinced.

turned north a few seconds, banked east and finally south. He covered the shoreline like a plane flying a fixed navigation pattern. The last we saw of him that year was just a speck over the skyline.

The second sighting was under similar circumstances. This time, however, other geese were in the area, blues, snows and a few Canada's. Startled, beating wings pushed a number of them into the air over the open water. The few ducks in the crowd realigned, but the geese continue to gain altitude. Behind and below the main group a straggling honker looks familiar as he circles higher, left behind by his friends. The large, lone Canada flew the same old circuit around the outer extremes of the slough and disappeared again in the north. Several times he was reported that year, catching up to a south-bound flock of geese, visiting a while, and breaking away to fly north alone, never in range of the hunters below.

This year he came to our attention in Dunbar Slough, roughly 20 air miles from Lakin. The rain was just quitting as we arrived at the refuge area in Dunbar. Blue wing teal with a sprinkling of green wings, egrets and great blue herons grew nervous as we watched. Five Canadas flapped from the water and flew south. Nothing unusual there so we drove around to the south end of the slough. Coming over a rise, on the open water we saw a single Canada goose swimming among a flock of ducks. The same thought raced through our minds—"Could this be our old friend?" Through binoculars we watched him swimming back and forth, obviously bothered by something. We were a good 600 yards away and the ducks were quite unconcerned by our presence—what could be on his mind? For no cause he jumped

(Continued on page 87)

DOES WALLEYE FRY STOCKING PAY IN CLEAR LAKE?

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The Iowa State Conservation Commission stocks millions of newly hatched walleye fry in Clear Lake. The fry come from eggs taken from walleyes spawning in the lake. Does this artificial propagation result in more walleyes than if these fish were permitted to spawn naturally? Twenty years ago most fishery scientists would have said "No."

In no lake where walleyes had natural spawning beds, had stocking of fry been shown to be worthwhile. Fry stocking had resulted in the establishment of good walleye fishing in lakes where there had been none, but the situation is different where a population is already established. Fish hatcheries on the Great Lakes were closed when it was shown that there was no relationship between the numbers of walleye fry stocked and the catch of walleyes in subsequent years when the fish should have been of catchable size. In Lake of the Woods, Minnesota, the 1936 year class contributed more walleyes to the commercial fisheries than any other year class in the period of study and yet 1936 was the year in which the fewest walleye fry were stocked!

As a test of walleye stocking in Spirit Lake, Iowa, no fry were stocked from 1944 through 1948. The walleye population declined over these years and increased again after the hatchery was opened in 1949. However, as pointed out by Earl Rose, who conducted this study, evidence of the effect of the stocking was not clear cut because another factor entered the picture at the same time. White bass became extremely abundant in 1941 and dominated the fishery until 1948. White bass are predatory, feeding on young fish including young walleyes. Closing the hatchery was not responsible for the abundance of the white bass, but the white bass may well have been responsible for the decline of the walleye.

In 1949, a test of fry stocking was initiated at Clear Lake as a cooperative project between the Iowa State Conservation Commission and the Cooperative Fishery Research Unit at Iowa State University. To avoid the complications which arose at Spirit Lake because of the big change in the white bass population, walleye fry were stocked in Clear Lake only in alternate years, 1948, 1950, 1952, 1954, 1956 and 1958 but not in 1949, 1951, 1953, 1955 and 1957. In this way, if some other species became abundant, the years of stocking and no stocking could be compared during similar population conditions. If fry had been stocked from 1950-54 but not from

1955-9, it would have been impossible to say whether the differences in the walleye populations were due to the stocking or to the fact that the water was high in the first period but low in the second. By alternate year stocking we can compare fry stocking with no fry stocking at both high and low water levels.

The number of walleye fingerlings taken in test seines were higher in the years when fry were stocked than in years when fry were not stocked. This suggests that the stocking did have a beneficial effect upon the walleye population, but possibly the stocked walleyes act differently than the naturally produced walleyes and are more easily caught by seines in the first few months of their lives.

The important question is whether there are more catchable fish. Most walleyes are at least 2 to 3 years old before they are caught by fishermen and therefore it takes longer to evaluate the effects of fry planting on catchable fish than on fingerlings. We have no way to mark stocked fry so that they later can be distinguished from naturally produced fish. However, rings on the scales of the walleyes indicate their ages and thus the year classes to which they belong. From examination of 2,786 walleyes collected from 1948 to 1958, we find that about three times as many walleyes have come from the average year class supported by fry stocking than from the average year in which no fry were stocked. Some of this difference may be the result of natural fluctuations, but statistical tests indicate that the alternation of good with poor year classes which has been observed over the 10-year period would occur by chance only once in over 100 times.

Thus, unless a one in a 100 chance occurred, it would appear that fry stocking does provide more walleyes in Clear Lake. But, there is one other possibility which has to be considered. The alternation of abundant and poor year classes may be a result of neither mere chance nor the fry stocking. An alternation of year classes may result from competition and predation. An abundant 1948 year class may have prevented the 1949 year class from developing. Then the 1950 year class would probably be abundant because of little competition from the 1949 year class, resulting in an alternation such as observed. To test this possibility it is recommended that the fry stocking program be tried on a three-year cycle with two years of stocking followed by one year of no stocking. To compensate for any losses which may come from no fry stocking on the third year, 10,000 fingerling walleyes will be stocked each year in such a way as to not affect the research. If this results in two abundant year classes and a poor year class, even the more skeptical will have to admit that



A fat ringneck from northwest Iowa's pheasant factory. Above all, while you're enjoying nature's bounty, keep in mind the rules of safe hunting. It's your life!

Good Ringneck News

Iowa's pheasant crop has rebounded (as you've no doubt discovered) from last year's slight decline. The statewide population is up ten per cent, mainly in the best range in north central counties. Northeast counties have made substantial gains, but this was the area hardest hit in the spring of 1959. The better hunting districts are considered to be north central, northwest and west central, and northeast. Production was a little below average in the southern range, but these are marginal areas where greater fluctuations may be expected. The extreme conditions of last winter in

the fry stocking is affecting the walleye population in Clear Lake.

This is an example of the difficulties in designing research so that precise answers can be secured. To avoid the difficulties which arise from population changes, such as appeared in the Spirit Lake studies, the year of stocking and no stocking were alternated. While the wisdom of this choice was proven, particularly with the changes in water level which occurred, the strict alternation left the possibility of another explanation, mentioned above. The need to eliminate all other explanations is particularly important since the apparent effectiveness of fry stocking at Clear Lake is at variance with that in other lakes where little or no effect of fry stocking could be shown.

Why is the situation different in Clear Lake? First, in most other lakes, walleyes spawn in tributary streams whereas Clear Lake has no suitable tributary streams and the walleyes spawn only in the lake where the abundant bullheads and yellow bass may feed on the emerging fry. Secondly, many

this part of the state caused the poor hatch. The over-all hatch was equal to the ten-year average.

Fully as important as the number of birds is the amount of corn picked before the season closes. A good season on the long-tailed Asiatic imports is predicted if half of the corn is harvested when hunters take to the field.

Other than the primary range north of U. S. Highway 3 there are many islands of high population scattered throughout the state. The northern counties, of course, take the brunt of heavy hunting but good-sized flocks of birds have been reported in southwest and south central Iowa. Good luck!

more fry are stocked in Clear Lake (5-10 thousand per acre) than the lakes where stocking shows an effect (under 450 per acre).

If 5 to 10 thousand fry per acre increase the walleye population in Clear Lake, would 20 to 50 thousand have even more effect? A analysis of the present data indicates no difference in the results when 5,000 and when 9,000 fry per acre were stocked. But, it should be mentioned that the methods of measuring the population are not precise enough to detect this small change without several years of comparison. The lake will not support an infinite number of walleyes and possibly added fry would increase the population more than can be maintained with 5,000 per acre. Perhaps even 1,000 per acre would bring satisfactory results. For economic management of the fishable walleye population, the optimum number of fry should be determined, even though this will take several years of careful testing.

Canada geese mate for life and family units stay together until they return north in the spring.

WILLOW SLOUGH— the happy hunting ground

From the editor's notebook.

genuine hunter's heaven, a place where north and south-bound waterfowl stop to rest and feed, a little stretch of wilderness along the fertile bottomland on the west bank of the Nishnabotna River—make up one of the latest contributions of hunters to themselves. You can arrive at the public shooting ground by driving three miles north of Henderson. One of the most familiar green and yellow areas with a fish and duck on it leads the way west from U. S. Highway 59. Entrance may also be gained by going south from Henderson on county road "C" or driving north from U. S. 34 on black-topped county road "A."

This area is another one of the man-Robertson projects that will pay 11 per cent tax on sporting equipment and ammunition makes possible. Within its boundaries are 1,000 acres, more than two hundred of which are covered by a shallow pool of water. A two mile "U" shaped dike embraces the pool on the south, west and north sides, and the confines of the dike are areas of brush that shelter pheasants and rabbits and dense thickets of willows, trembling aspen, and scattered cottonwoods, and hickories.

The casual visitor making his appearance here will have the difficulty of finding plentiful signs and leafy squirrel nests in the tree-lined river flat. Walking the dike (no cars are permitted on it) your attention is constantly sought by the multitude of sights and sounds that are so typical of a marsh. A grebe, busily satisfying his appetite, disappears from the water surface, leaving a widening ring of ripples. I don't know if he ever came up but my eyes were drawn to a half dozen coots swimming over the grebe's point of submergence. They evidently didn't see what attracted the grebe, just paddled by, unbothered and uncaring that they were out of stroke and in a hard formation. Just time for a thought about this asymmetrical picture—"Those odd balls really need a drill sergeant"—and from across the water amid a splash and a number of teal and ascended above the sky-line. Up with the binoculars just in time to catch sight of four mallards, frightened by whatever had scared the teal, commence a large circling over five miles of tryside. The cause of their interest: two conservation officers periodically dismembering permanent duck blinds put up before the state bought the property. The covering permanent blinds and decoys are meant to give evidence, including the ducks, a fair

rumbling of a rock truck, laden with some 25,000 pounds of limestone chunks for rip-rapping, flushed a squawking cock pheasant and his charge of hens. Moments later the dump truck discharged its load, sounding for all the world like a small avalanche—which it was. (Rip-rapping the dike may be only the finishing touch in the construction of an impoundment, but it is a mighty important one. Dirt fill without a shielding mantle of rock in such an area is viciously attacked by winter ice and wave movement. And the larger the water surface, the more pronounced are these effects.) A bullfrog in mid-flight between the sunny bank and plunking into the water caught my eye. Near the timber bridge over a stoplog water control structure the remnant of a coot wing gave mute evidence of trapping possibilities. Mink, muskrat, skunk and raccoons are reported in the vicinity. On the bridge itself was a coon sign. This brings to mind the point that trappers should check with unit manager Gene Goecke before making any sets. His address is 202 Benton Street, Council Bluffs.

Thinking in terms of the present waterfowl season, goose hunters should make hay here; last year the nearby cornfield was covered with blues and snows.

Willow Slough is another area of natural waterfowl habitat that

was nearly drained for the production of more grain. The failure of this project, as with Goose Lake near Jefferson, is fortunate for wildlife and those who spend their energies for its preservation. A big bull ditch, along with two feeders, were dug to carry off the shallow water usually present in the area. Spring torrents, however, deposited too much silt and effectively dammed the flow. The new dike has backed up some 200 acres of water averaging three feet deep and makes the slough even more acceptable to visiting ducks and geese. Management will be primarily for waterfowl with controlled water levels and growth of favored food plants. Aid will also be given to stimulate the already high population of pheasants, rabbits, squirrels, quail and deer. Some parts of the impoundment are suitable for game fish production; bass big enough to take home have been observed near the control structure. Fishing will be allowed as will the use of boats except that no motors are permitted for either hunting or fishing.

Next year will more than likely see a few picnickers and campers taking advantage of the site for getting away from crowds. No facilities will be provided for such activities, but the record shows that there are many who show a definite preference for the more primitive locations. When they

say "roughing it" they mean without hot and cold running water.

If you've been kicking about high taxes and rising prices, you owe it to yourself to stop in on Willow Slough or other public accesses sometime. At least here you can see some return for your money. Remember that all those green and yellow signs indicate lands or waters available for public hunting and fishing that might now be plowed under or closed were it not for the federal-aid program financed by the users of sporting goods.

WELCOME STRANGER—

(Continued from page 85)
into the air, assumed the old altitude, made his survey of the area and disappeared in the north.

I've seen him twice since then, always alone. Hope he makes it next year after the long trek south.

(Editor's note: To add a further note of wonder, I was among several persons talking about this bird down by a parking lot at Bay's Branch a week before the goose season opened. A lone Canada was sitting in the water a couple of hundred yards away. Perhaps he heard our conversation, but whatever the case, he rose from the water and flew a tight circle around us, not 25 feet away, and returned to the take-off spot. Maybe he wanted to place an ad in the lost and found department.)



Jim Sherman Photo.

Debaring from a scaled down river packet at Dubuque, legislators, candidates, conservation personnel, and newsmen return from an inspection of adjacent wildlife areas on the Mississippi. Such river trips are planned to inform legislators and others of the development possibilities on both sides of the state. A similar survey of the Missouri River was made last summer.

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MUSKIES STOCKED IN TWO IOWA LAKES



Jim Sherman Photo.

Before being released in the rushes on the north side of Clear Lake the sub-adult muskies are carefully acclimated to the temperature of the water where they will be living. Everything possible was done to insure their success in the new home.



Jim Sherman Photo.

The same procedure was followed at Emerson's Bay on West Okoboji. As the retreating day gilded clouds over Okoboji, 40 young muskellunge nervously swam in their new surroundings. It will take several years before positive results are known.



Jim Sherman Photo.

Under the sparkling blue waters of West Okoboji a musky begins a new life in water unknown to these fish before. Extremely wary and a savage fighter, they are prized above all other inland game fish as the most sporting on the end of an angler's line.



Jim Sherman Photo.

The muskies were between 11 and 13 inches long at the time of stocking. Their alligator like snout is some indication of their vicious demeanor. Food is most anything that lives in water from young muskrats to suckers, shiners and frogs.

Scoring a first in the development of the Iowa fishery, the State Conservation Commission recently put to water the 80 surviving nearly foot-long muskies purchased as three-quarter inch fry early last summer. A total of 85 fish made the grade, but five were held as brood stock and the remaining ones were divided equally between Clear Lake and West Okoboji.

The stocking took place at the north end of Clear Lake and in Emerson's Bay, Gull Point, and Miller's Bay on West Okoboji. A number of them were already displaying the strong tiger markings so typical of the muskellunge. But

don't reach for your rod yet, the stocking is purely experimental so far. Normal development of the species takes several years and add a few years to that for studies on reproductive success. High hopes are entertained for the establishment of these fish, but any number of factors could intercede.

Canibalism, so common to the species, played its usual role in the Decorah hatchery rearing ponds. More than 1,500 musky fry were obtained from a commercial fish breeder in Wisconsin and given care far in excess of the breeder's recommendations. Under natural conditions the number of fish reaching sub-adulthood from

fry size may vary from less than one per cent to something over one per cent. For a first attempt our five and one-half per cent is considered well above average.

The life span of the musky is 10 to 15 years and they often achieve a weight of 30 or 40 pounds. As most every angler knows, the muskellunge is accorded highest honors for fightability, often taking many minutes to land, once hooked. Cases are known of fishermen jumping in the water to throw a big one up on shore because they were afraid the fish would be lost using any other method of recovery. A friend of Cal Johnson's up in Wis-

consin once tried this and had to ride the old tiger for awhile before it could be landed.

ANTIBIOTICS FOR AILING TIMBER

A dramatic breakthrough in the use of antibiotics against tree disease promises foresters new weapons with which to protect our timberlands. It is said that a new antibiotic called Actidione has successfully killed blister rust cankers hundreds of thousands of west white pines in northern Idaho. Several million trees are now being treated there to kill the crippling fungus.