

IOWA CONSERVATIONIST

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SPORTFISHING THE MIDDLE MISSISSIPPI

CARP ARE NOT VEGETARIANS

By Tom Moen
Fisheries Biologist

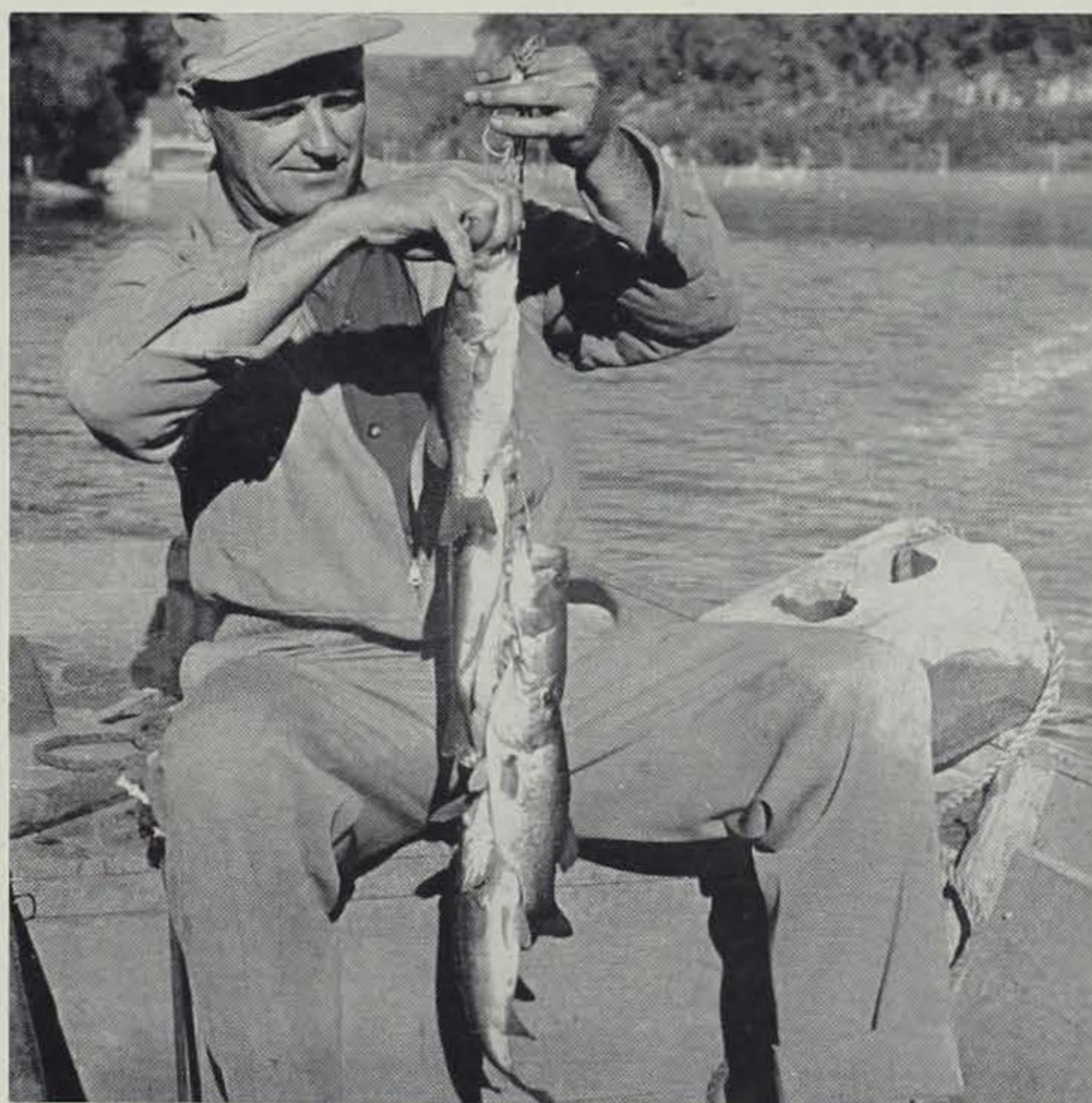
Contrary to a well-entrenched popular belief and one bolstered by many authoritative statements in the past, *carp are not vegetarians* in a normal habitat. We realize that such a statement needs a considerable amount of explanation in view of the past history of carp in Iowa and the U. S.

In the comparatively short time since carp were brought to the United States (about 1870) they have dominated an amazingly large percentage of the fishing waters of this country and an equally large percentage of the efforts of fisheries management. Carp have been credited at one time or another, by sportsmen and biologists alike, with being the "root of all evil" in fisheries problems and some game problems as well. The food and feeding habits of the carp is usually the reason given.

As early as 1904 the carp was being blamed for destruction of aquatic vegetation. L. J. Cole, in a report on "The German Carp in the United States" stated that "... the evidence seems to be pretty strong that in general they are very destructive, and are probably in part, at least, responsible for the great reduction of wild celery and wild rice that has been noted in many of our inland marshes in the last few years." Some years later, (1920) Forbes and Richardson, two of the foremost authorities on fish at that time, reported that carp were omnivorous feeders, taking principally vegetable matter. These and similar statements have led to the belief that all carp eat vegetation and are responsible for the disappearance or reduction of aquatic plants.

In spite of the apparent damage done by carp, relatively few scientific studies have been made concerning the food and feeding habits of carp. Prior to 1946 only four

(Continued on page 134)



There is prime largemouth bass water in the running sloughs in the thickly wooded islands below the Mississippi River dams.

Jim Sherman Photo.

CATCHING THE BUGLEMOUTH BASS

At six o'clock in the evening on Labor Day, traffic was heavy on the Court Avenue bridge in Des Moines.

Fishing from the bridge, Art Williams felt something working on his bait, and he waited until the fish ran with the doughball and set the hook. That's when traffic began stopping.

Within half an hour there were five hundred people watching the battle. The fish fought back and forth across the river, and Art could only follow it from the bridge and hope the fish didn't lean too hard on the 15-pound test line.

By seven o'clock there were a thousand people on the bridge and riverbanks. Cars had completely blocked the street. Patrol cars sent to clear the traffic jam were

stalled too, but finally managed to open lanes for traffic.

After an hour and twenty minutes the fish swam to the west bank and sulked. The next twenty minutes were spent trying to move him, but there was little action until a friend plucked Art's taut line. The fish surfaced for the first time in an hour and forty minutes, slapped the water with his tail, and brought a roar from the multitude.

The fish made a few more runs after that, but it was played out and soon came to the net. It was a carp that measured an even three feet in length, and weighed twenty-two pounds.

This show added to Williams' growing reputation as a carp fisherman. In fact, the stories of his

(Continued on page 135)

By John Madson
Education Assistant

The Conservation Officer made a despairing gesture toward the west and said "People back there just can't realize the fishing here in the river. Can you get it across to them?" We told him we'd try. . .

Where eastern Iowa bulges over into Illinois, the Mississippi begins to broaden. It is a world in itself, with swift channels, broad, placid pools, and a wilderness of sloughs and islands. One lake south of the Green Island levee covers nearly two thousand acres, and it is said that the entire city of Des Moines could be lost in the Green Island bottoms.

This is the home of countless walleye pike, catfish, largemouth bass, crappies, silver bass, and bluegills.

Among the major game species, the walleye is king. Nearly all of the walleye fishing is in the wild water just below the channel dams, number 12 at Bellevue and number 13 at Clinton.

Most of this fishing is with a spinner-minnow combination that is heavily weighted, and for good reason. Until it was partly filled, the water below the Bellevue dam was nearly ninety feet deep. With these heavy lures, anglers troll slowly on the bottom, letting the current do much of the work. There was a twelve-pound walleye taken at Bellevue last summer, and one just over nine pounds at Clinton.

Spring is usually the heavy walleye season, and things tend to drop off during the summer, picking up again in fall and winter. Winter fishing below the dam, is superb, but that's October's story.

If the river raises in the spring but does not become too roily and turbid, walleye fishing may become exceptional. One day last spring there were thirteen boats below the Bellevue dam and every man took his limit of walleyes. But, although 95 per cent of the walleye fishing is below the dams, it is extremely dangerous in close. Remember too that federal law prohibits fishing within 300 feet of

(Continued on page 133)

Iowa Conservationist

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Jim Sherman Photo.
Ecil D. Benson.

**ECIL BENSON
DIES SUDDENLY**

Ecil D. Benson, 55, of Fort Madison, State Conservation Officer in charge of Lee and Van Buren counties, died suddenly at 10:15 p.m. April 20.

Mr. Benson and C. A. Graham of Fort Madison had gone to Farmington to exhibit some conservation movies. The officer became ill enroute, but upon arriving was much better and went ahead with the program.

While driving home, he was fatally stricken a short distance from Farmington.

Benson had been a State Conservation Officer for 19 years, moving to the Fort Madison territory from Ottumwa in 1937.

The popular conservation officer was born March 8, 1898, in Davis county. He was married to Ruby Huff September 1, 1920, at Blakesburg. He had no children.

Benson belonged to the Elks and the Izaak Walton League.

He is survived by his widow and two brothers, Virgil and Charles Benson, both of Blakesburg.

**STATE OF IOWA
EXECUTIVE DEPARTMENT
PROCLAMATION**

WHEREAS, the life of our civilization is dependent upon our conservation of soil and water resources, and the planting of trees, shrubs and grasses is an important phase of conservation; and

WHEREAS, the observance of Arbor Day or Arbor Week has long been observed for the planting and the preservation of trees, particularly in public school, park and recreational areas; and

WHEREAS, the "Plant Iowa to Help Plant America" program coordinates with this observance in the endeavor to beautify and protect our public and private lands, to prevent erosion and to control flood waters, in the conservation of soil and water; and

WHEREAS, not only the progress but the attractiveness of our state rests in part upon the extent to which we replant and care for the land, and the observance of the principles of conservation will offer to both present and future generations a widespread, beneficial effect upon our human resources;

NOW, THEREFORE, I, Wm. S. Beardsley, Governor of the State of Iowa, do hereby proclaim the week of April 19 through 25, 1953, as

ARBOR WEEK

and suggest that every man, woman and child in the State of Iowa assume a share of the responsibility to cooperate in the program to Plant Iowa to Help Plant America during Arbor Week and the weeks to come, in order to preserve our natural resources, and to make Iowa a more beautiful place in which to live.

In Testimony whereof, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Iowa. Done at Des Moines this third day of April in the year of Our Lord One Thousand Nine Hundred and Fifty-three; of the State of Iowa the One Hundred Seventh, and of the Independence of the United States the One Hundred and Seventy-seventh.

Signed:
WM. S. BEARDSLEY
Governor

Attest:
Signed:
MELVIN D. SYNHORST
Secretary of State

The common mole is a meat eater, living mainly on earthworms and grubs, while pocket gophers are primarily vegetarians living on a variety of plant materials. These facts must be taken into account during a control program for either of the species. One poison bait will not satisfactorily control both species.—G.S.

An ordinary teaspoon will hold 20 or more newborn opossums.—G.S.

FISHERMEN DON'T ALWAYS TELL—THE TRUTH

Of late I'm becoming laughingly amused at the frantic efforts of us outdoor columnists to inform the rank and file of fishermen on the how, when, where, what and why of tackle, baits, waters, seasons, and hours in which to catch fish.

I've not the slightest notion that you, my reader friend, can't or don't catch just as many and as big and as good fish as do I. And I've another notion that you probably know just as much about where to go and when as do I. And for me to undertake to tell you what kind of tackle to use and what kind of bait to employ is asinine—or something.

So why should fellows like myself write this kind of drivel—and why will reputable newspaper publishers permit the publication of such superfluous admonitions and suggestions?

There are several dozen exceptionally successful fishermen in Delaware County. Many of them I know and am on happy speaking terms with them. Yet I've never found one of them who follows my style of fishing, and neither do I use the technique they use successfully. Yet they catch a lot of fish—and so do I. Sometimes they go forth in high anticipation—and come home very quiet and with almost nothing to say. And so many times I've been utterly skunked.

It isn't that fishermen are such consummate liars. The high stories we tell about our catches are more the results of bubbling-over enthusiasm than any purpose to garble the truth. I'm sure every last one of us of the fishing fraternity would be grievously shocked if we were told you disbelieve our statements about fish and fishing. As enthusiastic followers of the greatest sport known to man we merely go to extremes, occasionally, in the telling of our experiences.

It is this way: All of us want to let you know how very expert we are in this sport, yet in our secret hearts we really don't want you to catch many. We are pretty much show-offs—nothing delights us quite so much as to come in dragging a legal-limit string of good fish, especially if the rest of you are having tough luck. See what I mean?

I know a guy in Delhi who is definitely a most successful bass fisherman. With him the keenest enjoyment of this phase of the sport is when he can cast his bait or lure within six inches of your offering, and he hooks the bass and takes it away from right under your nose. How he enjoys that!

Then there's another fellow who disdains catfishing but how he enjoys catching big carp—the variety that runs from 10 to 30 pounds. He smiles so wise and knowing—loads his gear and bait into a boat and takes off—in two or three hours he returns with a hundred pounds of huge carp—you just try to get him to tell you how he does it! He's an egotist—he's a show-off—but he's a catcher of fish.

There's a fellow I know who's both skilled and lucky at walleye fishing in the Mississippi. Seems to me his keenest joy in life is to get four other fellows with him, take off for Guttenberg, get over on that rockpile—then he catches most of the fish and so sweetly gloats over the empty stringers of his friends!

Then there's my friend who, I'm quite positive is the most successful pole-and-line fisherman for catfish in all Iowa. In speech he's genteel, in manners he's a gentleman, in generosity he's utterly unselfish about everything except his fishing. I like the guy—but it is no secret that his greatest buzz in enjoyment is to get his limit of 3-

(Continued on page 132)



Jim Sherman Photo.

"I like the guy but it's no secret that his greatest buzz in enjoyment is to get his limit while you catch nothing."

AMBROSE A. CALL STATE PARK

By Charles S. Gwynne
Professor
Department of Geology
Iowa State College

Ambrose A. Call State Park, attractive as a wooded area, would not seem at first thought to have any geological features worthy of comment. However, take a look about. Here on an upland are several picnic areas set in a stretch of almost level woodland. Away from this level upland area of picnic spots and woods one encounters steep slopes, narrow ravines and valleys. The sharp contrast in topography calls for explanation.

The park, an area of about 130 acres, is in southern Kossuth County just across the East Fork of the Des Moines River from Algona. All of this area has been glaciated, and not so long ago geologically speaking. It is underlain with glacial drift, the subsoil material deposited at the time of glacial waning. The surface to begin with was mostly one of gentle slopes, seemingly level in places. Much of Kossuth County is still like this.

As the ice disappeared the East Fork took its course, flowing in a shallow depression in the drift. As time went on it deepened its valley, widening it at the same time. Tributaries started cutting their way into the upland. They were favored by high gradients, and so formed deep, steep-sided ravines.

Thus the contrasts in topography are explained. The level upland with its woods and picnic areas is part of the original drift plain. The ravines which traverse the park are results of post-glacial erosion by running water. It seems remarkable that there should be so much level upland so close to the Des Moines River. It is only because so little time has elapsed

since the ice disappeared and running water started its work. In time, much time, of course, the country will be further dissected by running water. The level picnic areas will grow smaller and finally disappear.

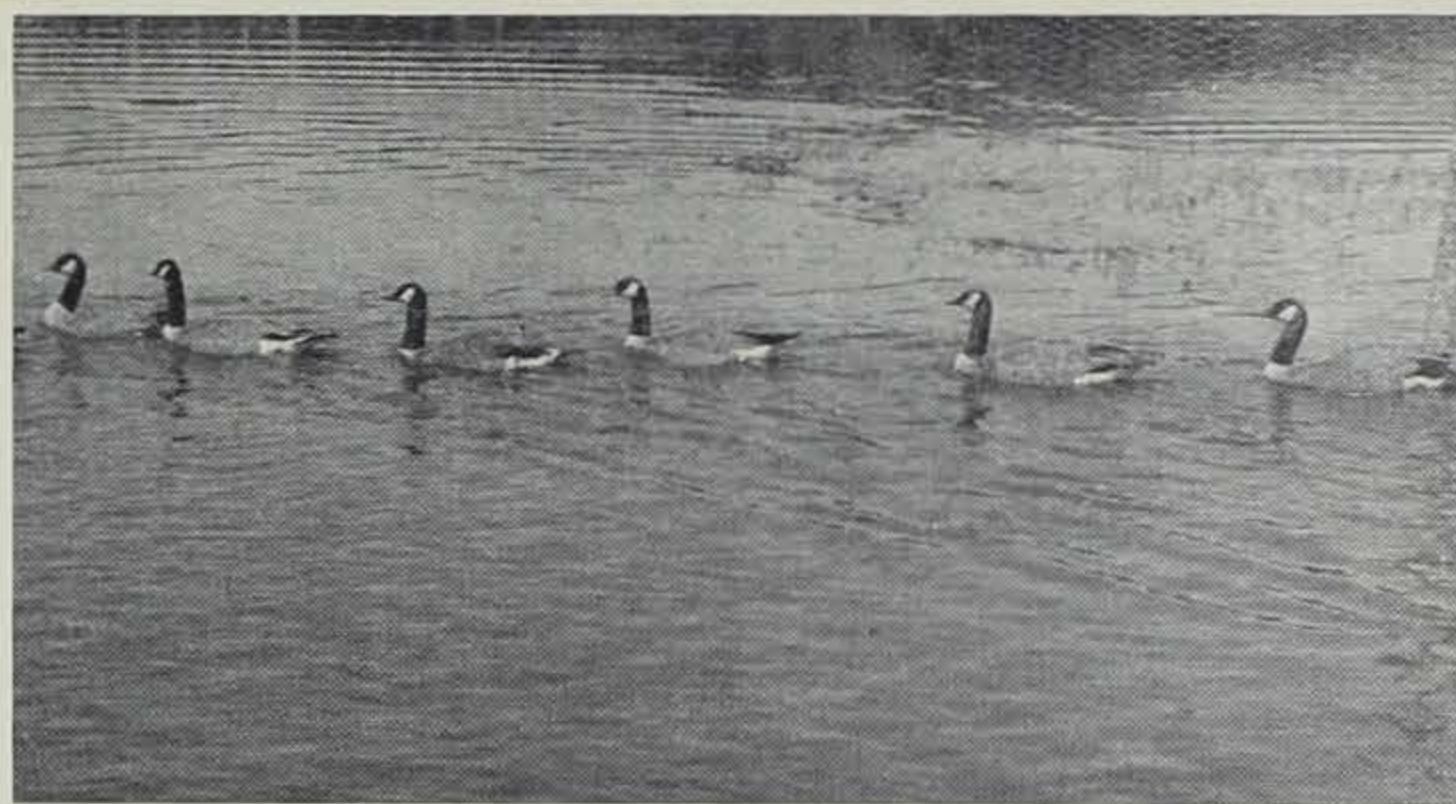
The trail back of the lodge goes along the upper end of one of the tributary valleys, a short one. It can be seen to become smaller and finally end. Another trail is at the bottom of a much larger valley which runs through the park. The effect of landslides in widening the valley is apparent in several places along the sides of this valley.

What about the glacial drift, what is it like and where did it come from? There are small exposures of it along the sides of some of the deeper ravines. It is a brown clayey material, packed with sand, pebbles, and boulders. It was originally grey in color, but is now brown because of weathering. The clay, silt, and sand are washed downstream, as erosion continues, but the pebbles and boulders collect along the stream channels.

The pebbles and boulders are of many kinds. They were once part of the solid rock of the earth's crust of the country to the north. The pillars at the entrance to the park have been made from such glacial boulders. Most of them are of red granite and gneiss. The latter is much like the granite except that it is banded. About half way up the south pillar on the front side there are a couple of blocks with garnets, pulplish-red in color, dotting the surface.

The bronze plaque to the pioneer Ambrose A. Call is on a boulder of gneiss. The grains of the principal minerals of granite and of granite gneiss as well show up very clearly on this boulder. The feldspar is delicate pink, and the quartz a light gray. A large mass

(Continued on page 136)



Quite often on rainy nights during migration, geese confuse wet blacktop paving with water. Jim Sherman Photo.

FISH STOCKED IN NEW CITY RESERVOIR

There are now fish in the Montezuma city reservoir, "the big pond the little town built." They were put there recently by representatives of the Conservation Commission and local citizens.

Into the pond went about 3,000 fish, between one-fourth and one-half pound each, the first load released this year by the Conservation Commission from Lansing. In the group were 1,000 crappies, both white and black, and 2,000 bluegills. More fish have been put in this week.

The fish came to Montezuma, and we hope they have a happy home, from the Mississippi River from which the Conservation Commission took them.

The fish are taken from the river in large nets, sorted by hand and then put in the holding pens at Lansing. From Lansing they travel in a special truck in compartments.

Very few of the fish did not swim right off after being dumped into the reservoir. They were transferred from the truck in large baskets.

Mayor Bob Brownell dumped in the first bushel. Fish were put in near the northern end of the reservoir.

Also present was Conservation Officer Gene Hlavka to help make

GEESE LIGHT ON WET BLACKTOP

Charlie See almost got on "speaking terms" with a large flock of Canadian "honkers" one night last week.

Charlie went out to the radar station to fire the boilers. It had rained and the blacktop streets glistened in the lights of the base. Charlie was amazed to discover the presence of a large flock of Canadian geese. The geese had apparently been attracted by the lights and the shiny blacktop street which resembled water from the air. At any rate the geese were so tired they didn't even "take off" when Charlie came upon the scene.

Charlie summoned Dave Prophet, one of the Air Force men who was on duty, and pointed out the remarkable sight. The geese were so numerous that they covered the area almost wing to wing. They kept up a constant honking and other honking could be heard from a field to the east where more geese apparently had made a landing.

The geese finally became frightened and took off with a noise that sounded like a four-motored plane, heading north. Just another sign that spring is here.—*Waverly Independent*.

sure the fish got off to a good start.—*Montezuma Republican*.



In Ambrose A. Call State Park, tributaries from the east fork of the Des Moines River have formed steep-sided ravines by cutting their way into the uplands. Jim Sherman Photo.



"There are now fish in the Montezuma city reservoir 'the big pond the little town built'." The lake is not yet open to fishing. Montezuma Republican Photo.



Although many classes are held outdoors, the school is not a summer vacation but rather a serious study of basic conservation principles.

IOWA'S OUTDOOR COLLEGE

By George W. Worley
Superintendent of Public Relations

Every summer when the kids have begun their vacations and the long, green days of the ice cream season are upon us, a lot of Iowa teachers go back to school. Most of them go to sweltering classrooms where pens and pencils are slippery to the touch, but a few teachers go elsewhere.

They go to a place called the Iowa Teachers' Conservation Camp, a kind of campfire college that has been held each summer at Springbrook State Park since 1950. It offers intensive instruction in water, soil, and forest conservation, and in trees, birds, rocks, fish, and wildlife. Sandwiched between the field trips and laboratories is instruction in fly-casting, boating, swimming, and even 'coon hunting. By the time the teachers go back to their teaching jobs they are well equipped to give students the fundamentals of conservation. They also write back comments like these:

"This is the type of education I have dreamed of ever since I became a teacher. It is superb!"

"This has been the most enjoyable, interesting and enlightening three weeks of summer school I have ever attended."

"The camp proved to be an ideal vacation as well as an outstanding learning experience."

"A wonderful three weeks . . ."

It doesn't take much browsing through the average schedule to find the reason for such comments.

Morning—Field demonstration and discussion of legal and illegal hunting and fishing practices in Iowa. Discussion of regulations. Field trip to study signs of wildlife activity (tracks, trails, dens).

INSTRUCTION: State Conservation Officers.

Afternoon—Field trip and laboratory work . . . plaster casting of animal tracks, leaves, etc. Plants attrac-

tive to animals as food, shelter, escape cover.

INSTRUCTION: Resident Staff.

Evening—Free time until dark, when a "drag" 'coon hunt will be held, complete with campfire, coon hunter, dogs, stories and refreshments.

The lights go out at 10 o'clock. It's a good idea to go right to sleep, because there's a 5 o'clock bird trip in the morning.

The conservation camp is divided into three three-week sessions, beginning in mid-June and ending in mid-August. The first session deals with the nature and interrelationships of Iowa's natural resources, and is popular with high school teachers and advanced students. The second and third sessions are studies in soil, water, forests, wildlife, and the balance in nature, and are intended mainly for teachers of elementary grades. Each session is a complete course and may be taken separately or in combination with another session.

Painless as the school is, it is not a vacation camp. Each session is worth five hours of college credit, and they are earned. There are also opportunities to work on graduate theses at the school. Thus in six weeks at the Camp it is possible to receive ten hours of college credit, and any teacher knows that a ten-hour load in any summer school is no vacation.

The Conservation Camp isn't a heavy financial strain, since tuition is \$17.50 per session and board is \$55. That's as cheap as living at home.

Even so, some teachers have trouble finding the money. This can be solved in two ways; through local sponsorship or by an established scholarship.

In some localities clubs and sportsmen's organizations have sent teachers to the school with all or part of their expenses paid. Last year the Linn County Fish and Game Club sponsored two local teachers and sent them to the

camp. This year the club is sending four teachers.

Pottawattamie County's Conservation Incorporated is paying half the tuition of two teachers this summer, and the Northeast Iowa Fox and Coon Association of Decorah is helping a local teacher. The Nature and Garden Club in Cedar Rapids voted a \$50 scholarship.

If a local teacher is not available, or if the scope of an organization prevents a specific choice, contributions may be sent to the Camp scholarship fund at Iowa State Teachers College. For the past two years the Federated Garden Clubs of Iowa have donated \$120 to the scholarship fund. The Iowa Division of the Izaak Walton League gave generously to support the Camp when it was struggling for recognition. The Nation-

al Wildlife Federation has granted aid to help increase the effectiveness of ITCC training.

These clubs and organizations are only examples; there are many more. Any club wishing to lend a hand but not knowing where to start can receive full information by contacting its local Conservation Officer or Iowa State Teacher's College in Cedar Falls. Such a club won't have much trouble in finding a teacher willing to attend the camp, for the word is getting around among Iowa's school-marms.

But more important than the sunshine and fried chicken of the Conservation Camp is what it gives our children. They will hear things in their classrooms that we never heard, and upon what they are taught will hinge the wealth and health of a people.



During the three-week sessions teachers receive intensive instruction in water, soil, forest, and wildlife conservation by recognized experts in each field.

The Truth . . .

(Continued from page 130)

4- and 5-pound whiskered fish while you catch nothing.

And there's my Earlville friend who, I think, knows more about catching panfish with a fly than anybody in northeast Iowa. He's surpassed for his good conduct, his sincere friendliness and his cordiality—but how he enjoyed taking trout, crappies and blue-gills on a fly while you make the same effort alongside him and you get nothing.

Me? Well, to be honest, I'm just like the others. I'll write volumes telling you all about catching fish, but if and when I go out with you my real purpose is to demonstrate how many more and how much bigger fish I can take than can you.

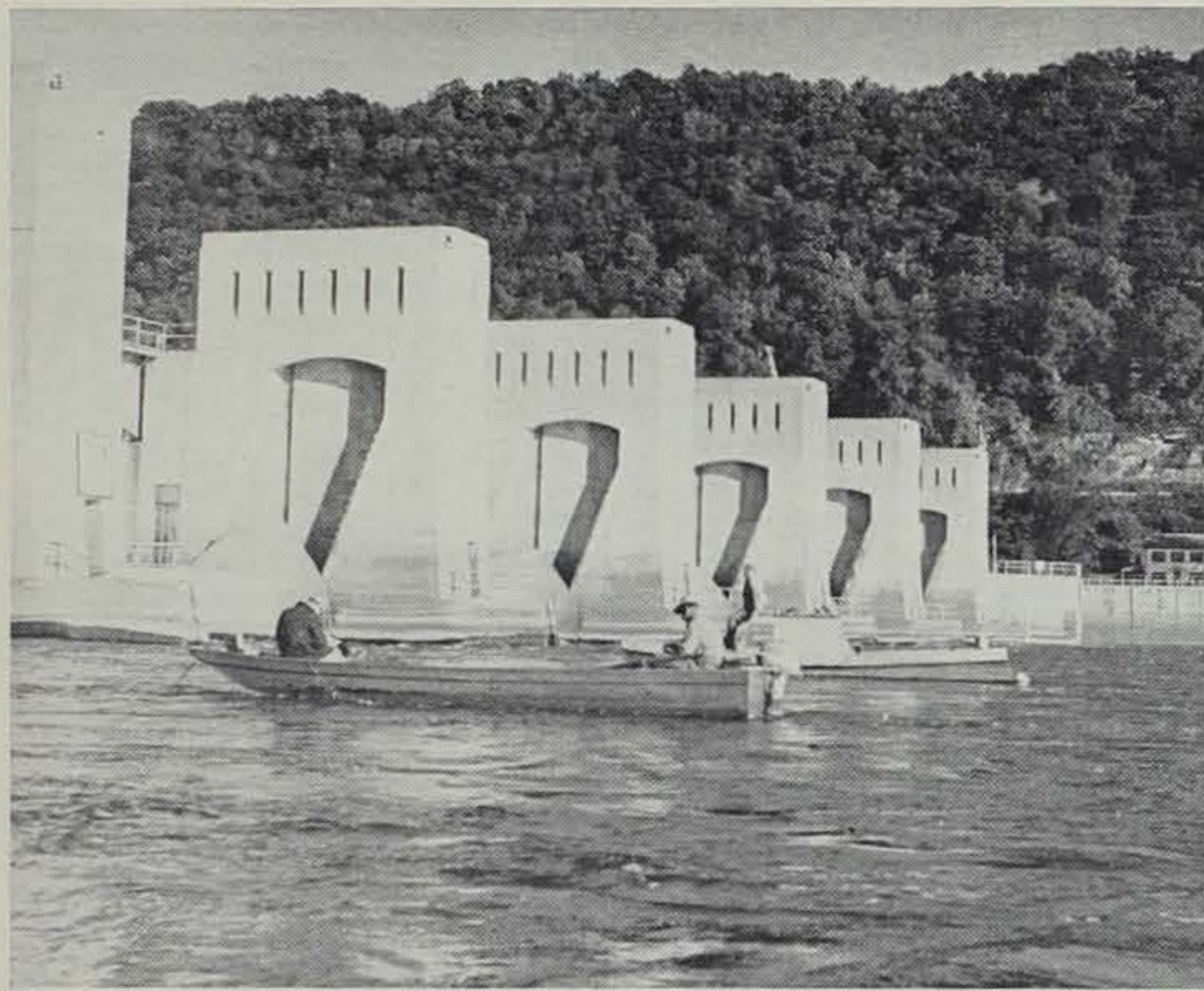
Now, you take your very best friend with you on a fishing trip. I don't care a whoop about the strength of the bond of friendship between you—if he catches more and bigger fish than you, you'll be sore. And if you catch more and

bigger than he does, he'll sulk and pout like a five-year-old youngster that can't have its own way.

Yes, sir, this stuff about fishing amuses me and makes me laugh. So—let's go fishing. You name the day.—*Fins, Furs and Feathers* Manchester Democrat-Radio.

A Missouri report on the food habits of 71 house cats states: "The fact that nearly two-thirds (63.4 per cent) of the cat's diet consists of mice, rats and shrews should label the house cat as the greatest mouser among the predators, and other contents fail to confirm the detrimental feeding habit attributed to this animal."—G.S.

The "Iowa Great Lakes," Spirit and the Okobojis, are less polluted today than they were prior to 1939. The towns of Spirit Lake, Okoboji and Arnolds Park are now connected to a trunk sewer and modern treatment plant which flows into the Little Sioux River. E.R.



Nearly all of the walleye fishing in the Mississippi River is in the wild water immediately below the channel dams. Jim Sherman Photo.

Sportfishing . . .

(Continued from page 129)

any channel dam in the Mississippi.

As in the upper river, there is almost no pole-and-line catfishing in the "big bulge". However, a logging road has opened up the "Heads", an area of river about five miles south of Bellevue which has produced many fine catfish. Most of the catfishing, however, is left to the commercial fishermen, and the anglers concentrate on other species.

There is prime largemouth water in the running sloughs in the thickly wooded islands below the dams. Much of this is in the Green Island bottoms and the Sabula Lakes, and in and around Beaver Island in the river at Clinton. These largemouth bass may go over five pounds, and last summer two fishermen took 176 bass from Beaver Island between August 1 and October 15. They were all keepers.

Local bass baits are about half minnows and crayfish and half artificial lures. There is comparatively little fly or plug fishing, and live minnows are a favorite. The natives often use long cane poles with short lengths of line, dunking their minnows into likely-looking coves. This is all right, but with no reserve line to play a big bass, you may be left holding a bamboo stub and an empty stringer.

Most of the bass are taken within two or three feet of the banks. One seldom casts more than ten feet in these running sloughs, but in the tangles of logs and roots the demand for accuracy is great.

There is also some good bass fishing from the wing dams. These structures can be detected by piles of rock on the river bank and strips of rough water projecting out into the river about thirty feet wide and two hundred feet long. The best bass angling is not in the hole below the wing dam, but on top of the dam itself where the

water is a foot or so deep. Most fishermen, however, are never quite comfortable in such a location. Like the water below the channel dams, it is dangerous.

There's crappie fishing in the eddies beside the channel dams, but much of it is in the running sloughs and lakes. The river men lean toward natural baits, particularly live minnows. Some crappies are taken at the dams on "Hildebrand Flickers" and other small flies and spinners. These dam crappies are taken throughout the year, and run around nine or ten inches.

An old but interesting fishing gimmick is still used in the sloughs. When a lively "calico bass" is taken from a school, a thin line is run through its back or dorsal fin, tied to a light bulb or balloon, and the fish is released uninjured. It usually rejoins the school, and the fisherman simply follows his buoy and fills his stringer.

The cream of the crappie fishing is around snags and fallen trees in quiet water, and some local anglers even drag trees out on the ice, attach anchors, and wait for spring to do the rest. Result: a good crappie hole. There is excellent crappie fishing at Sodus Creek near Camanche, Beaver Island at Clinton, the Sabula Lakes and sloughs north of Sabula. Crappie fishing is best after August, and about a month before duck season it may be phenomenal.

Crappie water around the two channel dams will also produce silver bass. Like crappies, they are caught near the ends of the dam in rather deep eddies. In recent years more artificial baits have been used, and small plugs, streamer flies, and fly spinner combinations may be deadly. But the old standby is still live minnows.

As well as the dams, there is also fine silver bass fishing in the four lakes just west of Sabula. Silver bass and many other game fish are taken in the flowing flumes

beneath the roadbeds that separate the lakes.

Probably the most caught fishes in the middle Mississippi are bluegills and bullheads. Bluegills are taken in the sloughs, usually on worms just after the river begins to drop in the spring. Few are taken on artificial baits. Bluegills are often taken at Beaver Island that run eight inches, and at least one taken there last summer weighed one pound eight ounces. . . a pieplate with fins. And if you're after bluegills, don't overlook two gravel pits just north of Sabula.

Much of the bullheading is in the quiet waters of the back lakes and sloughs near Sabula and in the Green Island bottoms. In the summer, however, these quiet pools are often choked with "moss" and other aquatic vegetation. When bullheads take refuge in this stuff, there's not much doing. That's when the natives run their motorboats rapidly around in the mossy water and then feverishly catch a few bullheads before they retreat back into the moss. When the moss closes up again, the routine is repeated.

These bullheads may go over a pound in weight, and some fishermen keep at it until they half-fill gunny sacks and baskets. There is also fine bullhead fishing on Beaver Island, and "when the mosquitoes are biting, so are the bullheads".

There are a few northern pike taken by commercial fishermen, but no one sport fishes for them. We wonder what would happen if an angler consistently worked bass water with pike lures. It might be interesting. . .

Last (and least) are the trout in the middle Mississippi. They aren't quite a major river species, but now and then someone takes a rainbow below the Bellevue dam. These are fish that have moved out into the river from Little Mill Creek, a local trout stream. (We just threw the trout in as a point

of interest. Don't show up on a slough with a four-ounce rod and 5X tippet!)

A boat is almost essential in the river, but there are areas which can be reached on foot. In the Green Island bottom, Fish Lake, Densmore, and Mergans Sloughs are accessible by foot, as is the Smith Creek dike. These spots offer bullheads, bass, and crappies. At Bellevue you can drive into the "Heads" already mentioned, or go into Golden Lake or Flat Lake for bullheads, crappies and bass.

Sabula's four lakes offer bass, bluegills, silver bass and bullheads, and one can walk to the flume and levee south of town. The thing to remember is that except just below the channel dams, there is little sportfishing in the channel proper. The bulk of angling is in the vast maze of running sloughs and back lakes. Stick to these areas and you'll do some good. They are tremendously underfished.

Well, there it is. We told the Conservation Officer we'd try. . . the rest is up to you.

(Next month: Sportfishing the Lower Mississippi).

The call of a cock pheasant is a loud two syllable squawk. The seasonal peak of pheasant crowing activity in Iowa usually occurs about the first of May. The spring brood stock count is taken during this period.—R.N.

Millipedes have about twice as many legs as centipedes but, in spite of the greater number of legs, run much more slowly than the centipedes.—R.N.

Farmer cooperators in Iowa reported 329 pheasant nests in 1952 with an average of 9.6 eggs per nest.—R.N.

Look a little longer for that cripple. Many thousand pheasants are wasted each year.—R.N.



A boat is almost essential in fishing the Mississippi River. Some areas, however, can be reached on foot. Jim Sherman Photo.



Jim Sherman Photo.

Contrary to popular belief, carp are not vegetarians in normal habitat.

Carp . . .

(Continued from page 129)

such studies (involving the examination of less than 700 stomachs) appeared in scientific literature.

In 1946 the Conservation Commission decided that a study of the food of carp should be made as a part of an over-all examination of rough fish problems. During the period of 1946-49 a total of 687 carp were collected from several lakes and an examination made of the food found in their stomachs. An attempt was made to sample carp living under a variety of conditions.

Although carp have long been accused of feeding on aquatic vegetation, the data from this study indicate that *under normal lake conditions the diet of carp of all sizes is predominately animal material* of three principal groups — aquatic insect larvae, small crustaceans (third cousins of the common crawdad) and snails. Of these three groups, insect larvae were consistently the most important, with the larvae of midges ranking number one in the group. Midge larvae are small worms that live most of their lives in the silt on the bottom of the lake; as adults they form vast hordes of small flying insects that plague the fisherman on his evening fishing trip. Midge larvae are important items in the diet of many species of game fish.

Crustaceans, the small relatives of the crawdad, were second in importance in the food of carp, especially young carp and in the food of carp during the winter.

The third group in the order of importance was snails. When snails

were found in carp stomachs there was likely to be small amounts of green vegetation. That is only natural because many snails spend most of their lives crawling around on vegetation. Carp vary in their ability to separate the snails from the vegetation, but in general, large volumes of snails in an individual stomach were associated with relatively small volumes of vegetation. To the casual observer the stomach contents might appear quite green but a closer look would indicate that the bulk of the food was snails and other animal organisms and not vegetation. Snails in the diet of carp usually indicated that the carp came from a lake with better than average environmental conditions.

The eating of fish eggs has been cited, usually by non-biologists, as one of the serious objections to carp. Prior to 1946 scientific studies failed to show that carp take fish eggs of any kind. Our study indicates that carp will take walleye eggs during the spawning period but not extensively. It seems to be a matter of individual preference. One stomach from an April collection of 37 Spirit Lake carp contained three walleye eggs. Another collection of 51 Spirit Lake carp had taken no eggs but nine eggs occurred in one stomach in a collection of two carp from East Okoboji Lake. Nest building fishes, such as bass, bluegills, crappie and bullheads were common in East Okoboji, West Okoboji and Spirit Lakes during the period of this study but no eggs or fry of these fish were found in the stomachs examined. Harry Harrison, State Conservation Commission Biologist, in the examination of 87 carp from the Des Moines River found no evidence of egg predation but he did find that one per cent of the carp had taken min-

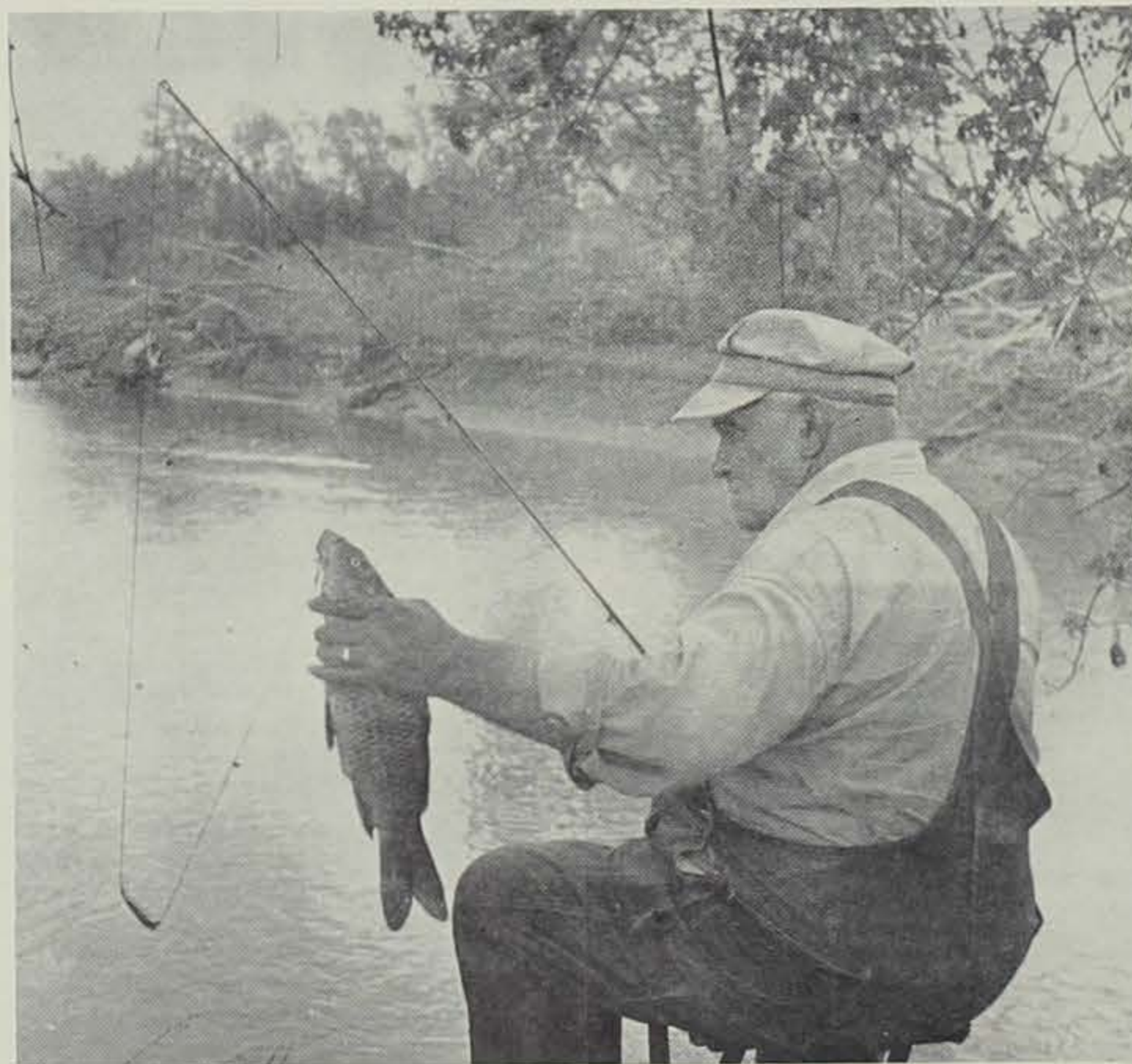
now fry. Thus the actual consumption of fish or their eggs is true enough, but its effect on game fish is negligible.

Although the bulk of the carp's diet is animal material, plant material has its place. The plant material taken by the carp in this study can be divided into three categories—debris (dead plant material), green fragments of living plants, and seeds of aquatic plants.

Any sample of an average lake bottom includes various amounts of dead and decaying plant material readily classified as debris. Debris was the most consistent form of plant material found in carp stomachs. In general, the quantity of debris taken by carp increased as the available quantity of animal organisms decreased. In other words the harder they had to hunt for the animal food, the more dead plant material appeared in their diet. This continual search for bottom foods, especially midge larvae, muddies the water and eventually reduces light penetration to the point where green vegetation cannot grow.

Green plant material was taken by carp both deliberately and incidentally. Where the green material was taken by choice the bulk of the volume was taken by only a few carp of any one collection. Green material was considered incidental when liberal numbers of animal organisms were found mixed with the plant material. Living parts of plants were taken primarily by adults of two pounds and over.

Seeds of aquatic plants appeared in the diet of carp the year around, but the volume and occurrence increased during late summer months. Seeds were taken in numbers by certain individuals but the volume did not exceed two per cent of the total volume in any



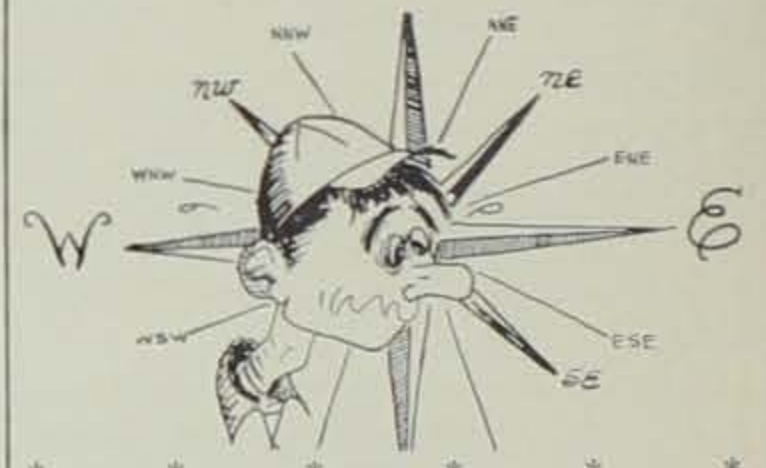
Jim Sherman Photo.

The carp in its continual search for bottom foods muddies the water and may eventually reduce light penetration to the point where green vegetation cannot grow.

period for any lake, except one collection of two fish from Spirit Lake in September.

Carp do feed to some extent under ice cover, but fewer stomachs contained food and the volume of food in each stomach was less than during the summer period. During the winter 100 per cent of the diet was animal organisms, primarily small crustaceans and midge larvae.

Since nearly all the food taken by carp is also important game fish food, carp are direct competitors of game species. As this food becomes more scarce, carp add insult to injury by stirring up the bottom in an increased effort to find food, thus causing turbidity, cutting off light, and reducing aquatic vegetation. But as far as deliberately grazing on green water plants; most of them don't.



WARDENS' TALES

Wes Ashby, Conservation Officer for Dubuque County, writes:

"Many Iowa counties have more than one 'Bear Creek,' 'Deer Creek,' or 'Cedar Creek.' This can be confusing, especially to a Conservation Officer."

"In the western part of Dubuque County we have the North Fork of the Maquoketa River. In the northern part of the county we have the North Maquoketa, a separate stream. Above Durango there are the North Fork of the North Maquoketa, the South Fork of the North Maquoketa, and the Middle Fork of the North Maquoketa."

"In the center of the county we have the North and South Forks of still another stream."

"A couple of times after answering a call, I have found myself on the wrong stream, 40 miles from the scene of the violation."

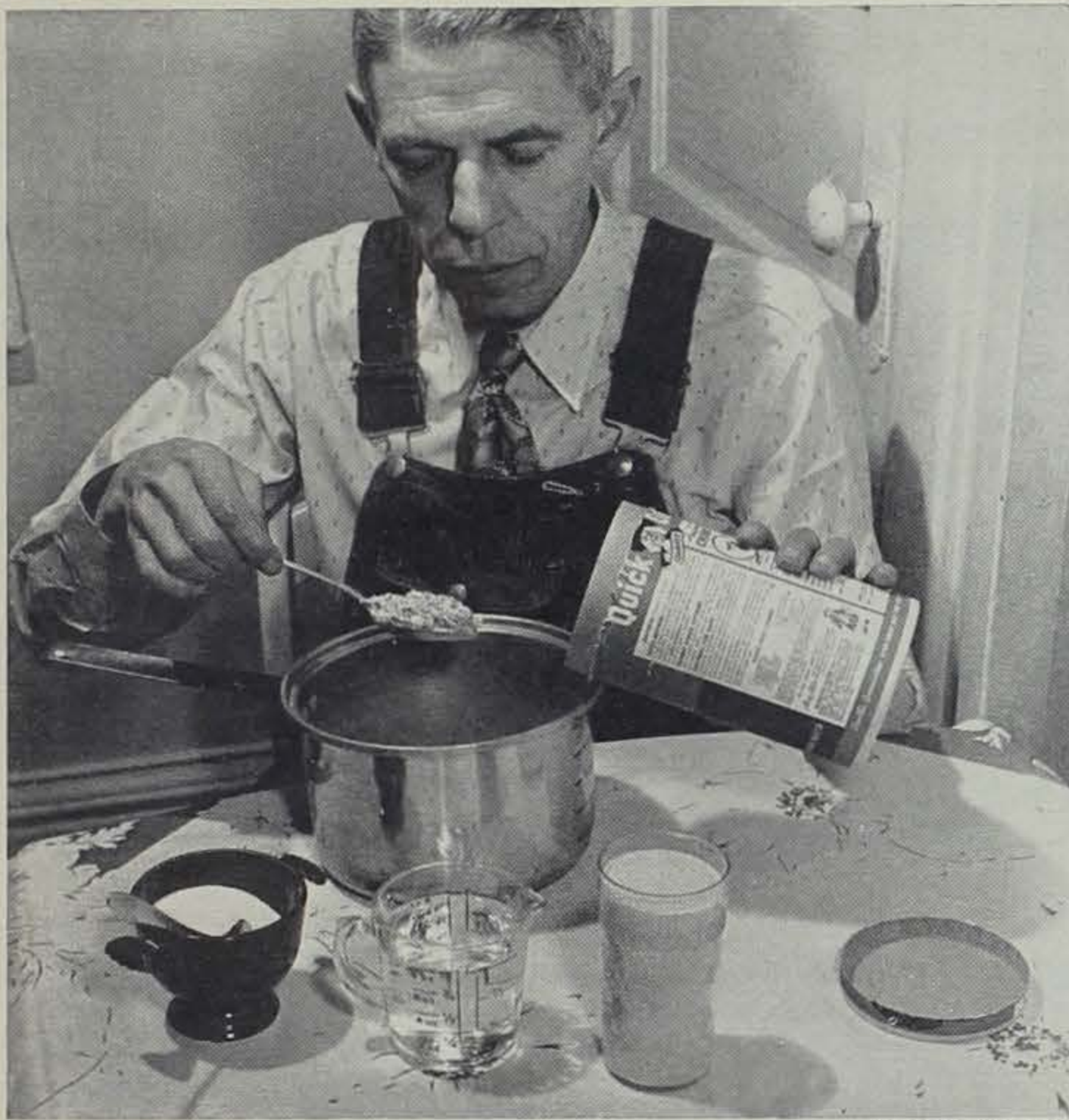
Overheard at the Burlington migratory waterfowl meeting:

John Talbot and Dave Fisher, Conservation Officer Supervisors for Areas 2 and 3, were doing a lot of duck hunting last fall but not having much luck. Highly disgusted, they finally decided to analyze their bad shooting.

"Dave," said Talbot, "I don't think we're leading those ducks enough. How far ahead of them have you been shooting?"

"Darned if I know," Fisher replies. "It all depends on how fast they're swimming."

Four-week-old pheasant chicks are about the size of meadow larks. The chicks can fly for short hops when only two weeks old.—R.N.



Art Williams' doughball is tough and durable and almost impossible for a fish to remove from the hook. It is compounded with the exactness of a prescription.

Bass . . .

(Continued from page 129)

catches became so spectacular that a friend hinted at elements of untruth. The next morning the doubting Thomas had a string of thirty carp on his front porch.

Art believes that, like all fishing, the success of carping lies in correct bait, tackle, and know-how. His favorite carp bait was copy-righted and sold for several years under the trade name "Tackle Smasher," but because carp fishing is so much fun he is passing it on free:

- 1½ cups Quaker yellow corn meal
- 2 heaping tablespoons of Quick Quaker Oats
- 1 level tablespoon of sugar
- 1 cup of cold water

Water, sugar, and oatmeal are stirred together. Two-thirds of the cornmeal is then added and stirred in. Place on a medium to hot fire, stirring constantly for 5-7 minutes, until the dough works up into a stiff ball. Remove the pan from the fire. Sift the rest of the cornmeal into the cooked dough and work it well into the mixture. The resulting dry dough is placed on a paper and thoroughly kneaded. Before wrapping the dough in paper for a fishing trip, allow to cool; if not, the dough will sweat and soften. If too much sugar is added the dough will be sticky. If not enough sugar, the dough will not be rubbery.

This is not the conventional carp doughball. Unlike most dough baits (and this is the secret of its success), it is tough and durable and almost impossible for a fish to remove from the hook. In a fit of despair a carp will finally take the whole thing and run with it. When he does, hit him!

Art's favorite carp tackle is a fly rod with a light line and a number 4 carlisle hook. A treble hook is not recommended. A half-ounce slip sinker, running freely along the line is stopped about twelve inches above the hook by a small piece of matchstick tied in the line. According to Art it is an absolute must that the carp not be allowed to feel the weight and drag of a solidly attached sinker.

There are carp almost everywhere in Iowa. Like many fishermen, Williams prefers areas around brush piles in rivers at just about the place where the bottom drops off. He also fishes around rocks and just below riffles, but generally avoids water much over four feet deep. Another good spot for carp is the rather deep, quiet eddies in coves in the riverbank. Like ba-



A favorite carp fishing location is just below river dams where big carp often congregate in large numbers.

nanas, big carp often run in bunches, and these coves are favorite hangouts. Still another favorite location is just below river dams, where big carp often congregate in large numbers.

All major Iowa streams contain carp, and if any particular stretch of river contains other fish, it will have buglemouth bass. Art doesn't usually fish in the channel in such streams, but in quieter water three to four feet deep. He seldom has out more than seventy-five feet of line.

If you are after lunkers, don't overlook most Iowa lakes, where carp usually reach the greatest size. There are records of lake carp in Iowa that weigh nearly fifty pounds. We will go into sport fishing for carp in Iowa lakes in another article.

Since Art uses light tackle, he prefers medium to low water levels, although carp may be taken from high water with heavier gear. Most of his fishing is done in the Des Moines River, but he does just as well elsewhere. His best day was on the Grand Avenue Bridge in Des Moines, when he and a friend took seventy-two carp. The total weight of this string was almost exactly three hundred pounds, an average of four pounds per fish.

None of the carp's bad name is due to a lack of fighting spirit, and it is untrue that they are not good to eat. If taken from fresh, cool water their flesh is firm and delicious. While carp do have many small "faggot" bones along the back, these may be eaten in small fish and removed by hand from big ones. For best eating the dark streak along the side of the carp should be removed. (Keep it . . . it is fine catfish bait.) Carp have long been a prized food fish, and have been cultivated by man for thousands of years.

However, the carp's breeding potential is high, and the fish can easily take over a body of water. This and the habit of rooting up bottom, making the water muddy and destroying aquatic vegetation,

have earned the enmity of many fishermen.

That's the recipe for taking carp. It's also the formula for a lot of fine fishing, because in spite of the carp's bad reputation, he fights!—J. M.

Effective August 9, 1952, all fur products were required to be labeled with their true names and country of origin by the federal fur products labeling act.—G.S.



"There are too many deer and they are multiplying too rapidly."

POTTAWATTAMIE COUNTY DEER

. . . The deer problem is probably more acute in east Pottawattamie County than in any other part of Iowa. Farmers here are genuinely concerned about the large herds of deer that are gobbling up corn silk and trampling their crops.

It's impossible to get an accurate cross-section of public opinion by talking to only a handful of the people concerned. The Gallup poll has found it difficult even with a scientific, thorough cross examination of the public. But we've talked to perhaps a dozen farmers in this area about the deer problem and the answer has always been the same.

The farmers of East Pottawattamie County seem to agree that something should be done about the deer. Every single farmer that we have talked to has favored an open season. The only thing opinion varies on is the restrictions to hunters.

Then, of course, there are the townspeople who love to hunt. True, the sportsman isn't suffering a loss of crops because of the heavy deer population. But it's the sportsmen of Iowa who pay the freight in our conservation program. Without the revenue from hunting and fishing licenses we would not have much of a program. . . .

We're inclined to agree with the average farmer and sportsman we have talked to in this area. There are too many deer and they are multiplying too rapidly. Something has to be done about it.—Oakland Acorn.

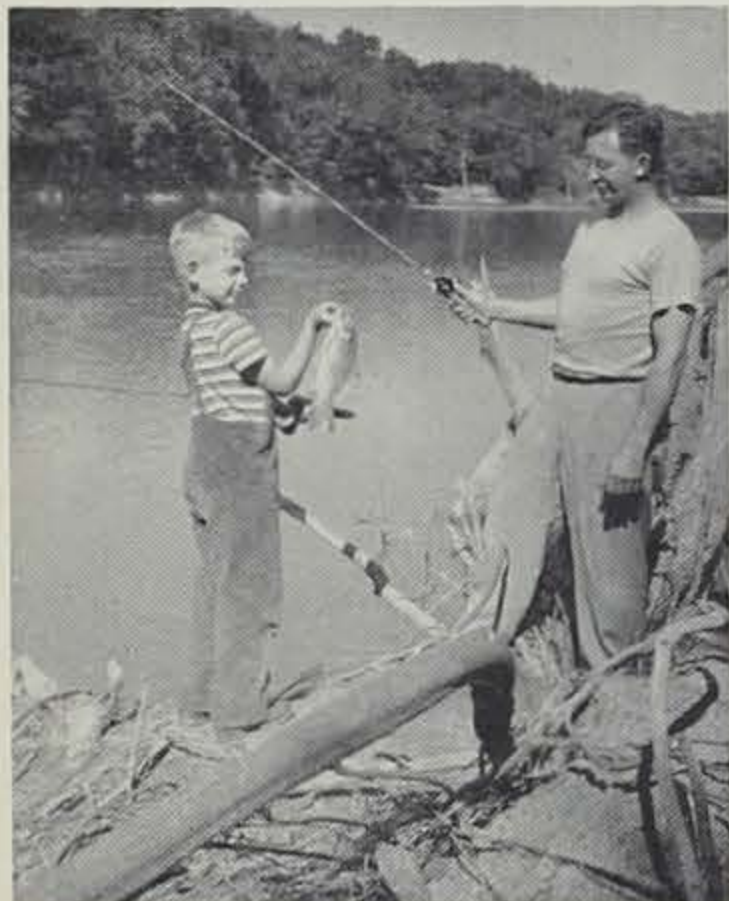
THE OUTDOORS FOR SON OR DAUGHTER

Just how early should one begin to foster a spirit of the out-of-doors in his son or daughter? This question and others like it are frequently asked by parents who are truly interested in the welfare of their children.

I recall several years ago that I had occasion to refer to gun safety and proper handling of fire arms at a public appearance. At the close of the talk, the superintendent of the northern Wisconsin school took me to task for what he called "fostering a spirit to kill." It was the first time that I had run up against a thing like this, and I was taken back not a little.

But a few days later I had occasion to re-think the matter, and I made up my mind then, and it has not changed a bit up to the present, that gun knowledge is worthwhile.

Most of those early scouts that we trained went into war, the ma-



Jim Sherman Photo.

"Just how early should one begin to foster a spirit of the out-of-doors in his son or daughter?"

majority of them into combat . . . a few of them did not return. I recall vividly a little Belgian lad . . . the smallest and weakest of the whole troop. We were camping on the Canadian shore at the end of the Gunflint Trail, rain came in torrents that night, and the shoddy tent took water like a blotter. The little lad's bunk and blankets were soaked, and he cried in the middle of the night like a baby.

But the day came and with it the rising sun. Our spirits lifted and with a little breeze blowing we hung the blankets on the tree branches to dry. This little lad wiped his eyes, grew up, learned marksmanship, and when World War II broke he enlisted. This little fellow cited for gallantry in action gave all that he had . . . his life.

I don't have a moment's regret for any hour that I gave him in camping or hunting. It may have made those war months a little easier, yea, even in death.

I don't like to see boys become wanton killers of game. I don't



Gib Knudson Photo.
The winter kill in Five Island Lake may have been a blessing in disguise. After the freeze-out, of 566 fish taken in test-net hauls, only one was a carp.

FIVE ISLAND FISH KILL

The state's survey last week of the fish population in Lower Five Island lake indicates a happy ending of the winter kill which looked so devastating a few short weeks ago.

Earl Rose of Spirit Lake, state biologist, told us when he was here Thursday he believes game fishing in Five Island lake will be "better than ever" this year and if it's that, superior to 1952's good fishing, nobody has any kick coming.

It is still a mystery why so many carp bunched up in the Lower lake and died there. Many think carp can take anything, like most pests, but Rose says it isn't so. They are more vulnerable to winter killing than yellow perch, great northern pike and bullheads, he says.

Here is the order in which Rose ranks our fresh water fish and their vulnerability to winter kills: bluegills, largemouth bass, walleyes, crappies, carp, perch, north-erns and bullheads.

Fish have an instinct to seek oxygen wherever they can find it as the count goes down in the winter and it may be the carp headed for the Lower lake shortly before the high count there dropped abruptly in late winter.

If they did, they were boxed in, because behind them, on the east side of the Rock Island bridge,

want them to be cruel to birds or beasts. And it seems that something in boys leans that way unless it has been taught otherwise.

I haven't seen a boy who has been truly trained with a gun go out and use telegraph insulators for targets. Have you? A boy trained in the use and care of fire arms knows the business end of a gun. He knows that every gun is loaded! Let's keep the boys trained. Ignorance is not bliss!—Bellevue Leader.

was a dead zone with a zero reading. That's one of Rose's theories. Anyway you dope it, we are lucky the kill turned out the way it did, even including the loss of walleyes and crappies with the carp.

There is much yet to be learned about fish and their reactions to environment. Rose says sometimes even with solid zero readings all over a lake the kill of fish is small. Many factors determine fish kills besides oxygen content.

He recalled the summer of 1931 when hundreds of northern pike died in Five Island, then Medium lake. He came down from the lakeside laboratory to help on that deal. That was a drought year, and the water was low and tepid and fish died like flies.

Rose says it is well to remember dredging is no cure-all for a lake's troubles. The first years it is hard on fish although the water is deeper in places. Cutting through the silt on the bottom releases marsh gases in an unnatural way, increasing the carbon dioxide which makes it difficult and sometimes impossible for fish to assimilate oxygen, although oxygen is plentiful.

Even with those thousands of carp dying, in the Lower lake there were pockets here and there where many game fish survived. The test nets, which by no means would show all of them, disclosed 26 northers from 19 to 26 inches long, 90 nice crappies 9 to 10 inches, 7 walleyes 9 to 13½ inches, 210 perch 5 to 8 inches and 243 bullheads, mostly small.

The payoff was that among all the fish taken in the nets, 566, there was only one lone carp. Rose believes there was a carp concentration in the Lower lake, which we all hope there was. If there had been that many all over the lake last summer there would have been more signs of them, he says.

Limber up your tackle, gents!—Emmetsburg Democrat.

State Park . . .

(Continued from page 131)

of this gray quartz is prominent on the front of the boulder at the right, rather low down.

The boulder was probably separated from the bedrock, wherever it was a part, by weathering. Changes brought about in the minerals by action of the atmospheric gases and by the freezing of water in cracks were chiefly responsible. The surface is rough because some of the minerals have weathered more easily than others. The quartz is extremely resistant to weathering.

Lichens, a low form of plant life, are growing on the boulder. Unlikely as it may seem, these play a part in the weathering of rocks. Their rootlets penetrate tiny cracks. Weak acids are formed when they decay. Such acids are active in the weathering of minerals like feldspar.

This rock was formed deep in the earth's crust. As time went on the crust was elevated. Weathering and erosion were continually active at the surface, wearing the rock away. Finally the rock mass, once far underground, was right at the surface. Then the boulder was separated from the rest by weathering. When the glacial times came along the ice brought it to this part of Iowa.

There is another feature of geological interest in this part of Iowa, not apparent in the wooded area of the park. That is the Algona moraine, a wide belt of hilly country extending east-west through north central Iowa. It is believed to have formed by deposition as the retreating glacier maintained a shifting front here for a number of years. It was named for its prominence in the vicinity of Algona. Ambrose A. Call State Park lies just within the southern margin of the Algona moraine. Although the glaciers are responsible for the subsoil material of the park and its surrounding, and for the topography of much of the surrounding territory, it is the work of the Des Moines River and its tributaries which accounts for the hilly character of much of the park area.

In the days of the steamboat, in early fall, hunters built river boats on the Mississippi. By easy stages they floated down the river, hunting, and fishing along the way. Deer, geese, ducks, prairie hens, snipe, quail, and rabbits were sold as food to the river boats, and to river town markets. Swan were killed for the down, which was used in bedding.—M.S.

Observers report that the bob-white quail uses eleven different calls or conversational notes. Except for the "Bob-white" spring, and summer call of the male, the calls are given by both males and females.—M.S.