

IOWA CONSERVATIONIST

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MAQUOKETA CAVES STATE PARK

IOWA FISH AND FISHING RECEIVES WIDESPREAD ACCEPTANCE

The new book *Iowa Fish and Fishing* published at cost for \$2.00 by the Iowa Conservation Commission has received widespread acceptance. Less than 3,000 of the first 10,000 edition remain unsold and a second edition will go on the presses as soon as printing and binding materials can be secured. The book may still be ordered from the Iowa Conservation Commission, East 7th and Court, Des Moines, Iowa. Send cash, check or money order.

The following brief excerpts are from reviews in Iowa and out-of-state publications, and from letters of fisheries and conservation officials.

...I am delighted with its thoroughness and beauty... Maynard Reece has done a splendid job with his color illustrations—the best I have seen anywhere by anybody. . . . J. N. "Ding" Darling, *Captiva, Florida*.

Harry J. Fey, Rod and Gun Editor of the *St. Louis Globe-Democrat* writes: "Enclosed you will find what I consider to be the greatest array of understatement ever printed."

He writes in the *St. Louis Globe-Democrat*, "The folks in the State of Iowa can pat themselves on the back for the progressive men they have in their Conservation Commission. The Iowa group has for years put out a monthly magazine that carries more tips on fish and fishing, game and hunting per line than any in the field with the possible exception of the Pennsylvania Angler. The latest contribution to better fishing in Iowa is a book. . . . It is a volume that every Missouri fisherman should have in his collection of angling lore."—Harry

(Continued on page 144)



The rock formation and caves in Maquoketa Caves State Park are composed of Niagara limestone. This rock formation is named from Niagara Falls where it forms the brink of that famous waterfall.

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

Maquoketa Caves State Park, an area of 85 acres located 8 miles northwest of Maquoketa in southwestern Jackson County, has a fine natural feature, unlike any in the other state parks of Iowa. This is a natural bridge, similar to the famed one in Virginia, though it is not as large.

Natural bridges of stone are rare natural objects, although they are found here and there all over the world. Most of them are of limestone, like this one at Maquoketa Caves Park.

The story of this bridge begins with the spreading of the Niagaran Sea over the continent millions of years ago. A mud composed of precipitate from the sea water and of the shells of marine invertebrates was laid down in this sea. This was a limey deposit. Some of the element calcium in it was replaced by a similar element, magnesium, coming from the sea water. Then the area became land. When the sediment hardened to a rock it became a dolomite or dolomitic limestone, known to geologists as the Niagara series. It is named from Niagara Falls, where it forms the brink of the falls. This is the same rock that forms the "backbone" at Backbone State Park. It also lies beneath the soil and subsoil of a large area of eastern Iowa. It extends westward beneath other layers of rock, formed as sediments in later seas.

Streams began to flow on this rock after the sea had withdrawn. They cut their valleys, and a hilly country developed. Millions of years later came the glaciers. They left a deposit of drift over the area. This was composed of ground-up and weathered rock. Later this was covered by loess, the windblown silt so widely distributed over the state.

The last glacier to cover this part of Iowa left the country a sort of plain. The streams took

(Continued on page 143)

Know 100 Birds And Be An Expert

By Fred J. Pierce
Editor of "Iowa Bird Life"

Every person knows at least a few birds. Those with no interest at all can name a half dozen common varieties of birds on sight. The child who has had some nature study in school, or has his interest awakened in some other way, knows a dozen to 25 birds. People who have become bird-conscious and make an effort to look for and identify birds, will be able to identify 50 or more the first year.

Those who get above the 100 mark are getting up in the expert

class, and have sufficient interest to make them confirmed bird watchers. At the top of the list are the professionals and veterans who spend much time all through the year studying birds. Their yearly list runs from 150 to 200 species, and they can identify 50 or more species on any spring trip merely by hearing the birds' songs or call notes.

Many people think of birds as associated only with spring and summer. Birds are present in Iowa during the entire year. Not every-

(Continued on page 142)

Iowa Conservationist

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A BIOLOGIST LOOKS AT THE ANGLING PICTURE

Fishermen in Buchanan County have some golden opportunities and some very definite problems as they go out in increasing numbers to catch those elusive "big ones."

You can take that statement from a man who makes his living studying streams in this area and their watery inhabitants. He's an expert in a little known but very important job called fisheries biology.

His name is Bob Cleary, resident of Independence, and graduate of Iowa State College. He works for the sportsmen of Iowa and draws his pay check from the Iowa State Conservation Commission.

A lot of things enter into the outlook for a good string of fish when a fisherman, male or female, drops his line and baited hook into the water. Are the fish hungry? Are they hungry for the type of bait the fisherman is offering, free of charge? Are the fish actually in the area the angler has selected as the most likely looking spot?

Are the odds good for a fish to be attracted to the bait offered and is the technique of the fisherman advanced to a point where he knows how to make his bait appealing to the fish?

These are the main factors which enter into the problems of a fisherman; whether he will take home a well-loaded creel or stringer or if he will have to tell about the big one that got away.

After talking to Bob Cleary you soon get the impression that fishing is becoming more and more of a science. In his work he has been able to draw a number of definite conclusions based on what he calls trends.

Imagine, if you can, trying to determine the fish population, winter kill, and many other things that a biologist must do. For it's rather difficult to be working with something you can't see.



The primary job of fisheries biologists is to maintain a running inventory on fish populations. With determination of numbers and growth rates, fish management may be taken out of its trial and error phase and become a matter of scientific fish farming.

You hear a lot about a stream or lake that is "fished out." According to Cleary that just isn't possible under normal conditions. Fish are a product of their environment and the laws of survival of the fittest still holds true. A stream, a creek, lake or pond can get "out of balance" but usually nature and "its wondrous ways" have more to do with fishing than the number of fish hauled out by the most patient people in the world, fishermen.

Iowa and her streams and lakes each year are confronted with new problems, but one of the greatest of the problems is habitat destruction by erosion and siltation. Rough fish, more tolerant of silt and the like, seemingly thrive in an altered habitat which has become too poor for game fish to live. Rich silt from Iowa's farm land usually drifts downstream and ends up in New Orleans. But the heavier particles of dirt and sand cover up natural food for fish and destroy nesting places on rivers and creek bottoms, Mr. Cleary said.

Carp are one of the hardiest fish there are and they are notorious, not because they eat fish eggs, but because they destroy vegetation and nests while rooting along the bottom in search of food they like. And, too, a fish must have adequate space in which to feed, grow and populate. A fish needs what you might call breathing space, elbow room or fin room. A carp just takes up space in a body of water.

"You might tell anglers, though, that smoked carp or pickled quillback are a rare delicacy and mighty good eating," the biologist said. He pointed out that anglers could help by catching more rough fish as it is difficult to seine them in seines pulled across uneven river bottoms.

The local fisheries specialist has

established a survey and research station at Otterville where he catches fish in nets. Their fins are clipped and they are released. It is the frequency that fish with the clipped fins are recaptured that he can determine a population trend for various species of fish.

In commenting on the Wapsi

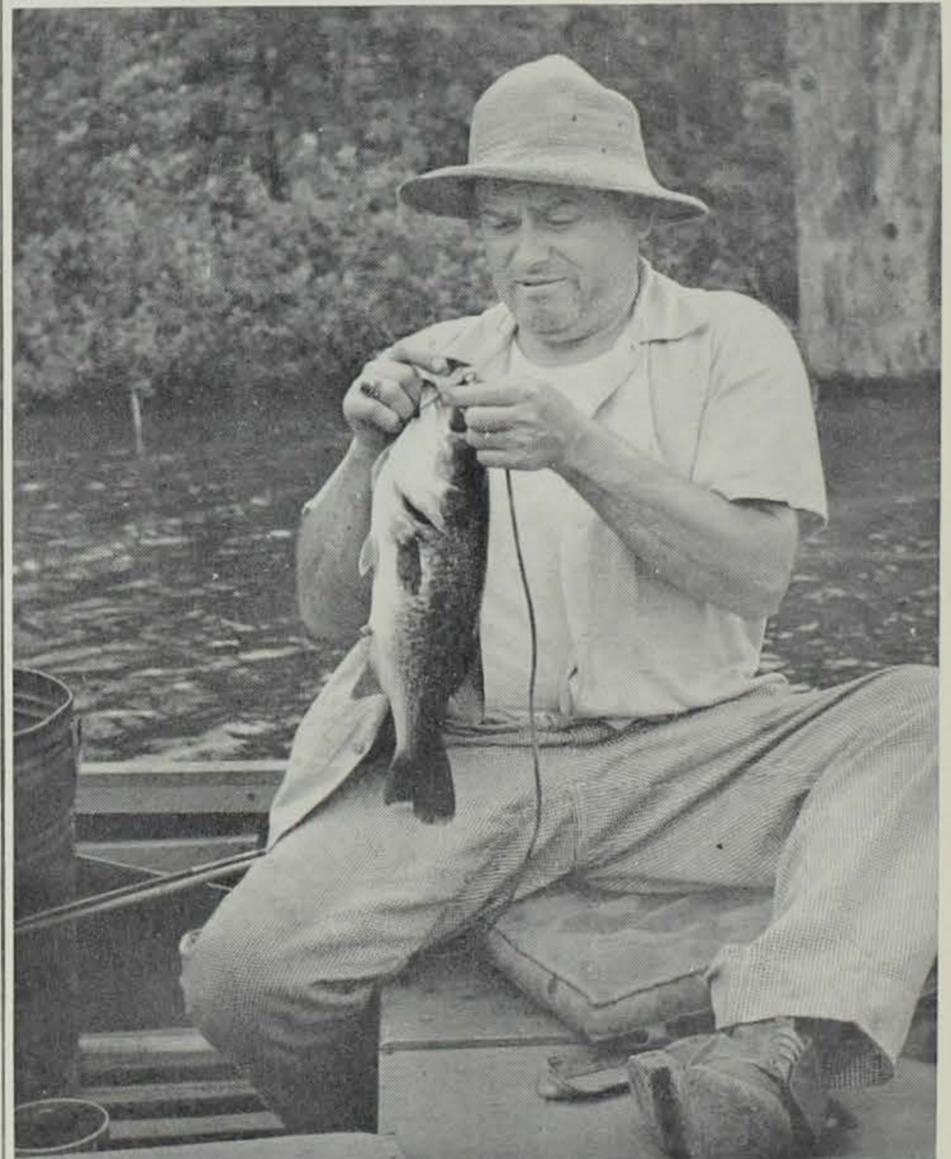
River he said it was an outstanding fish stream. In the upper part of the river there are more northern pike and smallmouth bass. In the mid-section of the river, in Buchanan County, the stream has more catfish, and largemouth bass and some walleye pike. Downstream near the river mouth the catfish and largemouth are most predominant. There are seemingly more quillback in the river than any other one type of fish.

Fishways at dams in Iowa have been generally discontinued because it was found that mainly rough fish were the kind that made use of the unique elevator to get them above or below a dam.

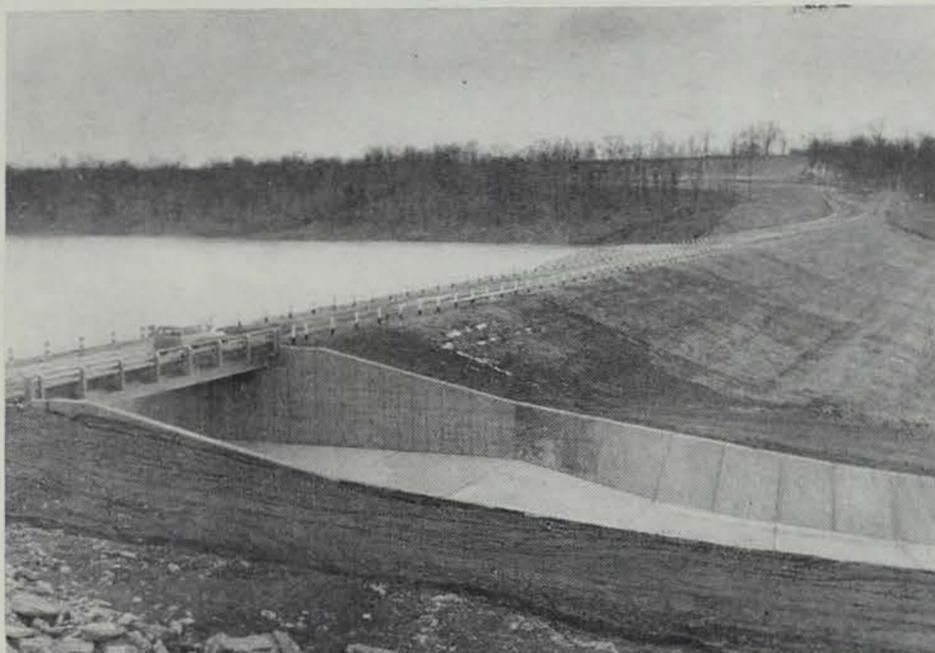
"Actually a fish during its whole lifetime may be confined to a given area. That area is between two dams. In Buchanan County we have three creeks, Lime, Bear and Pine which have become nursery streams for smallmouth bass. Conditions are ideal for spawning and after that the adult fish move to the Wapsie where there is more water."

On the smaller creeks it is possible to foretell the population of smallmouth bass in the streams during the summer months, for part of the work of Mr. Cleary is in walking along streams which he is investigating. And, if you can imagine it, he counts the nesting

(Continued on page 144)



Fish on the stringer depends on many things. Are the fish hungry? Are they actually in the area selected by the angler, and has the fisherman the ability to present the proper bait in an appealing manner to the fish?



Jim Sherman Photo.
Governor William S. Beardsley will be principal speaker at the Lake Geode dedication on June 20. The new Geode Dam impounds 303 acres of recreation water in a magnificent setting.

GEODE LAKE DEDICATION TO BE JUNE 20

Tentative plans for the dedication June 20 of Geode State Park northwest of Denmark were approved at a meeting of the Geode development committee in the Burlington City Hall.

Approximately 10,000 persons are expected to attend the dedication of the park and its lake, according to a member of the development committee's executive group. That figure is based on attendance at openings of similar projects throughout the state, he said.

The plans, drawn up by the executive committee, call for a 2½ hour program of music and speeches, including the main dedication speech by Governor William S. Beardsley. Power was given the committee to complete all other details necessary to fill out the program.

State Representative Thomas Dailey of Burlington was named the master of ceremonies for the afternoon program scheduled to start at 2:00. Ed H. Smith of New London will give the history of the park and lake.

Invocation and benediction will be given by the Rev. Oren Wilson, pastor of the Mt. Pleasant Presbyterian church, and by the Rt. Rev. Msgr. William B. Schmidt, V.F., pastor of St. Mary's Catholic church in Fort Madison.

The flag raising will be in the hands of the southeastern Iowa Girl Scouts assisted by other youth groups. Boy Scouts of southeast Iowa will handle refreshments.

Music will start at 1:00 and continue until the 2:00 starting time of the program.

Also submitted by the committee were the names of individuals and groups who will have charge of other arrangements. Engineers and supervisors of Lee, Henry and Des Moines counties will take care of roads. Traffic will be handled by Thomas Simpson of the State Highway Patrol at Burlington.

Roy Trout of West Burlington will handle the public address system. T. H. Harvey of Mt. Pleasant will make arrangements for programs and maps of the lake area.

ELSIE CAME BACK

Talk about a raccoon not knowing a good thing when they see it! Most of our readers, and nearly everyone else in Waverly, for that matter, made at least one call on Elsie, the coon, and her family of babies, over at the home of Mr. and Mrs. B. E. Sweet during the spring and early summer last year.

The Sweets and other neighbors were very good to Elsie. They fed her the season's delicacies and did nothing to molest either Elsie, or her family, during their stay at that maternity hospital. The family thrived and remained in that old tree until about the time the sweet corn was ready for harvesting. Then they disappeared. Elsie was forgotten. Likewise the fam-

Each member of the executive committee will be responsible for his community's part in the program, including bands and other entertainment.

The next meeting of the executive committee will be held at the Izaak Walton club here.—*Fort Madison Democrat*.

1950 BEAVER SEASON

The state-wide 15 day open season did not produce the number of beaver pelts expected, due primarily to an early freeze-up which drastically reduced the number of most furs harvested, not only in Iowa but in surrounding states as well. It is believed that the total beaver harvest in Iowa when fur reports are completed will be between 2,000 and 2,500 pelts.

According to Glen Sanderson, upland mammal biologist, there was a 78 per cent decrease from 1949 to 1950 in the beaver harvest in the 33 counties open to trapping both years. It is believed that this decrease is due to weather conditions rather than to a decline in over-all population. The estimated value of beaver taken in Iowa last year is between \$20,000 and \$25,000.—*April Biology Seminar*.

ily's raids on a number of sweet corn patches in southeast Waverly were forgotten and forgiven.

But Elsie had not forgotten that maternity hospital. No sir, she and her family fared so well last summer that Elsie decided to return to that tree for the blessed event again this spring. At least two people saw Elsie Wednesday and they are now expecting to see Elsie and a group of her babies playing around that tree again this summer.

Don't tell us that a coon doesn't know a good community in which to live and rear a family. The youngsters going up and down that street don't yell to frighten animals. They don't throw sticks, neither do they shoot at mama coons or baby coons.—*Waverly Democrat*.



Jim Sherman Photo.
"Her family fared so well last summer Elsie decided to return to the same tree for the blessed event again this spring."

MULTIFLORA ROSE

Multiflora rose, to be successful as an ideal permanent farm fence and wildlife habitat, must be cultivated and cared for during the first two years after planting, according to E. B. Biffle, cover restoration agent for the Conservation Commission.

Biffle said that too many landowners apparently consider multiflora a wonder plant, which to be a success only has to be stuck in the ground. "These same owners," he added, "wouldn't consider planting corn or other farm crops unless they intended to cultivate or care for them." He urged those who plant multiflora this spring to cultivate and keep plantings weed free during the first two growing seasons. "After that, the rose will take care of itself." Plantings can be cultivated during the first season and mulched heavily in the fall with straw, old hay or sawdust and will not require cultivation during the second year.—*Missouri Conservation Commission*.

The U. S. Fish and Wildlife Service, Department of the Interior, reports that the recorded catch of predatory animals for the fiscal year 1950 included 66,281 coyotes, 1,159 wolves, 10,874 bobcats and lynxes, 753 stock-killing bears, and 236 mountain lions.

CONSERVATION DIRECTOR LAUDS IKES' JOHNNY GRASS SEED PROGRAM

Des Moines, Iowa
May 25, 1951.

Mr. Murray Russell,
President,
Iowa Division, Izaak Walton League of America,
Newton, Iowa.

Dear Murray:

The Izaak Walton League in their "Johnny Grass Seed Program" has launched a conservation program which in my opinion will have most lasting and far-reaching effect. I believe it to be one of the most fundamental and highly commendable undertakings ever adopted by a conservation organization.

Furnishing grass seed free to individuals or organizations for use in stabilizing soil and associated purposes is indeed promoting the fundamentals of conservation.

The Izaak Walton League is certainly to be congratulated.

With kindest personal regards, I am

Yours sincerely,
Bruce F. Stiles,
State Conservation Director.



The ruffed grouse is no longer on the game bird list in Iowa. It does, however, nest in considerable numbers in the northeast part of the state.

ECHOES FROM THE PAST

One of the birds that intensive farming has eliminated in most of Iowa is the ruffed grouse.

When we were boys we called them partridge, and we pronounced it pat-ridge. The partridge is the great drummer of the woods. The cock does the drumming and it is both a love call and a challenge to other males. The drumming can be peculiarly deceiving, both as to direction and the distance from which it comes. The sound begins as a deep-toned hollow "Thump-Thump-Thump," like the muffled beating of a great heart, quickens into a drummy toll like distant thunder and ends as a rapid whirl. Every few minutes for hours at a time a cock performs day after day, and often spring after spring on his favorite drumming spot, usually a large hollow fallen log. One time we were hunting in the woods, up the Wapsie River, known in those days as the Mel Peet big woods. We heard a partridge drumming. After several trips back we finally found the log in the deep woods. Several days later we went back before daybreak, and hid in the hazel brush within 20 feet of the log. As the sun came up, out came the partridge. After strutting up and down the log for a few moments he started drumming. The sound is made by the cupped wings striking the air and using the hollow log as a sounding board, and not by striking the wings together, nor by striking the body or log. As we lay there never moving a muscle, we watched this large reddish-brown bird, resembling a small domestic fowl in shape, strutting up and down the log and drumming, his crested head encircled by the raised ruff or collar, his tail held high and spread into a wide fan, hoping the drumming would attract a female grouse to see him in all his glory.

The ruff or collar is purplish black with a metallic sheen. The rich brown tail feathers are crossed by six or more dark bands and a broad black band near the tip add to his beauty. We could not help but think that Old Mother Nature had done a grand job for her children, and what peculiar

things for here was a boy dressed in his Sunday best strutting and drumming for his "gal." Is that not life right over again?—*Anamosa Eureka.*

SOIL CONSERVATION AIDS FISHING

A recent issue of "Outdoor America" carries a photo of an Iowa reservoir, well filled with silt, typifying story of a thousand dams across the nation.

With this editorial comment we heartily agree:

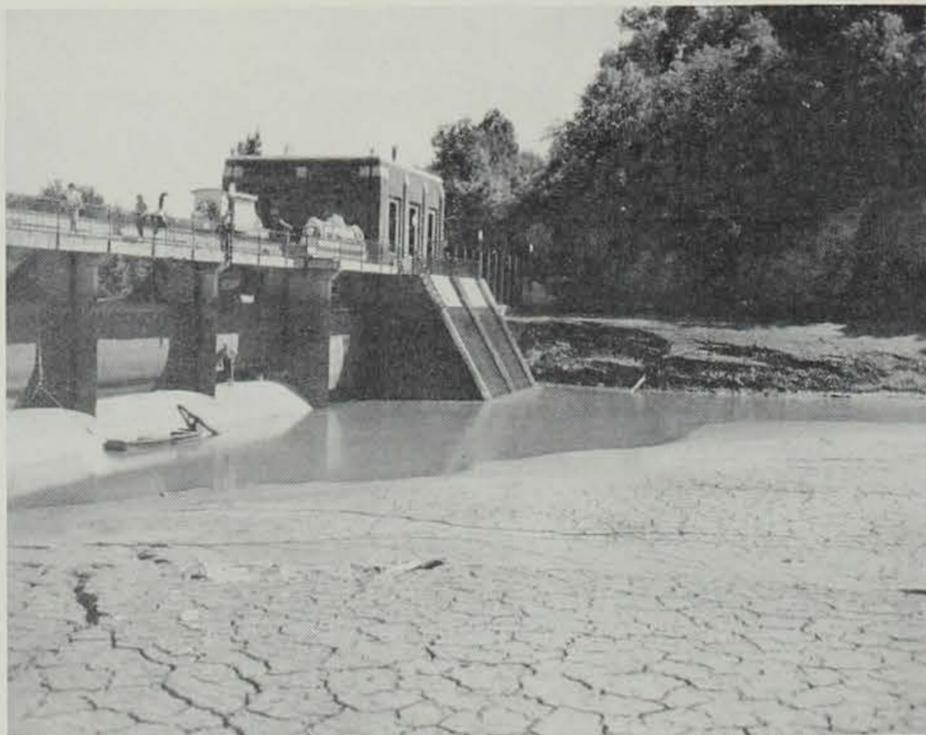
"A fantastically costly plug of concrete across a river is useless for flood control, hydropower, irrigation, or recreation when this (siltation) happens.

"If HALF the money spent now for high dams were used to improve land practices upstream, the so-called need for most of the mammoth flood control structures would cease to exist."

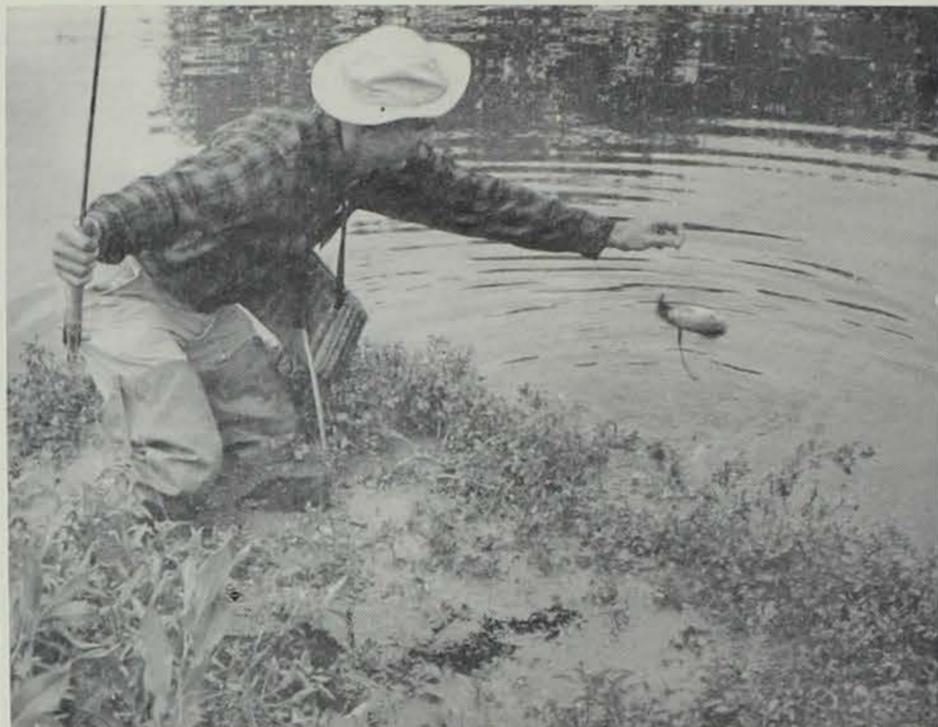
Amen.

Dams strike at the effect, not the cause of flooding. Floods occur because of deforestation, over-cropping, over-grazing, heavy soil that results from lack of humus building and similar reasons.

Fewer dams and more emphasis on true conservation, please.—*Estherville News.*



Upstream side of the Lakehurst Power Dam on the Maquoketa River in Jackson County showing the rich filling of Iowa farm land blanketing the reservoir.



There is no cure for fishing fever and medication is useless. The disease is not considered fatal, however, and if stricken, one should go fishing as often as possible. This is the only disease known that usually lengthens the life span of its victims.

WARNING—FISHING FEVER

CAUTION: This malady is spread by the slightest exposure, and by sight, sound, telegraph, telephone, television, radio, mail, or by pertinent conversation. It need not be reported to the authorities.

SYMPTOMS: Apathetic attitude toward any regular occupation. Aversion to going to church on Sunday. Evasive answers to family and friends and business associates. Frequent checking of tackle, catalogues, resorts, maps and barometers. Inexcusable loafing in tackle shops.

Frequent desire to look for minnows. Uncontrollable desire to crawl on hands and knees late at night on lawns and in parks with a flashlight and tin can. Frequent contacts with fishing pals by phone, wire, mail or otherwise.

Insatiable desire for liquids, especially lakes, streams and rivers.

Inclination to prevaricate. Offensive and boastful attitude. Continual complaint as to need for fresh air and sunshine.

TREATMENT: There is no cure and medication is useless. Disease is not considered fatal. If stricken, one should go fishing as often as possible. Usually the life span of victim is greatly increased.

BEST ADVICE: Enjoy yourself—it's later than you think. The earlier it is, the better they bite—*SOMETIMES.—Lake View Resort.*

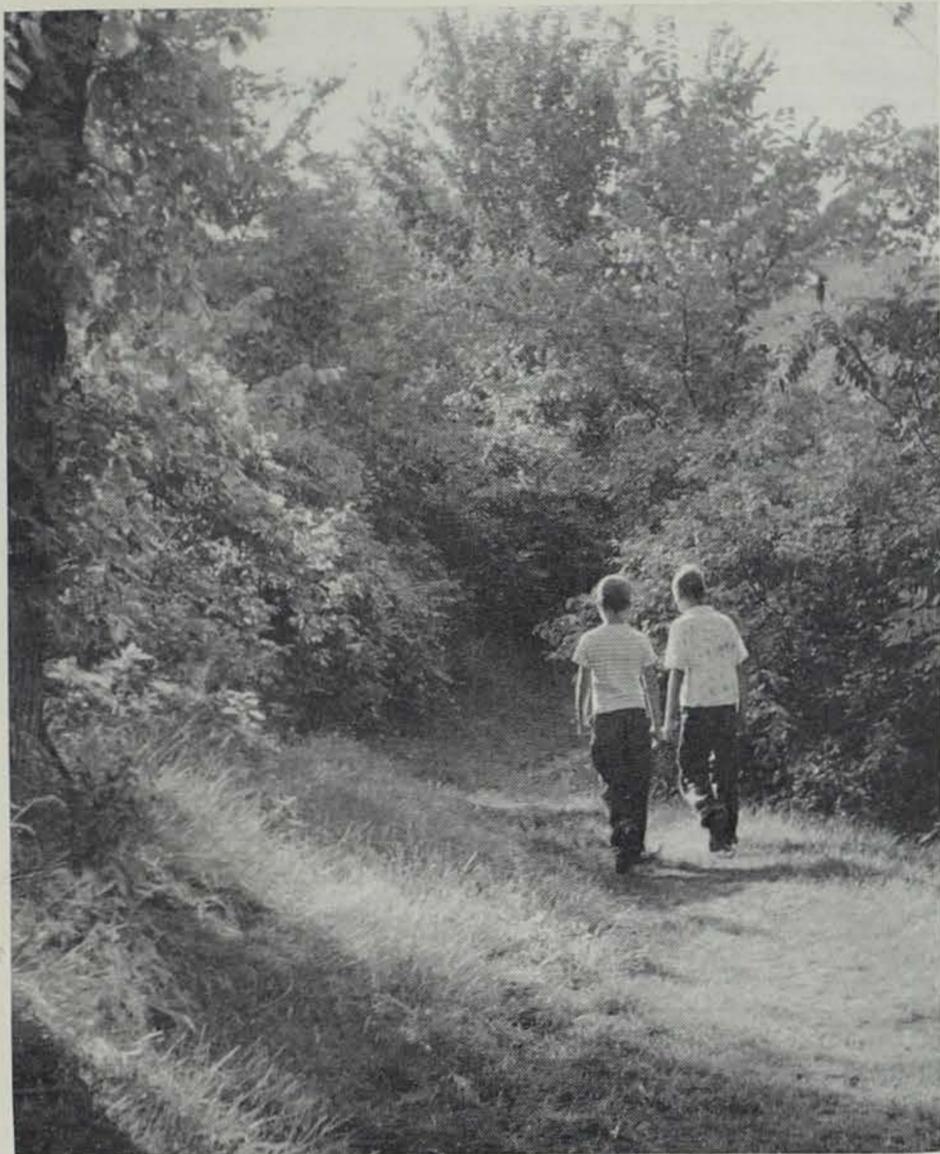
WANDERING BEAVER

A wandering beaver gave some of the fishermen at the Davenport levee quite a show one night last week. The beaver was first seen swimming back and forth in front of the levee below Snug Harbor about 10 p.m. Finally it came ashore and walked up on the levee. Putting its front feet up on the running board of a pick-up truck owned by John Hastrup, the "eager beaver" looked the situation over—but wasn't sure. About that time, one of the veteran levee anglers, Tommy Thompson, laid his booted foot lightly on the animal's broad flat tail. The beaver took a quick snip with its razor-like teeth and now Thompson has a patch on the leg of his new rubber fishing boot.

The visitor then started to explore the levee but the men decided the next bite might be out of someone's leg, so they headed it off. Apparently resentful of such lack of hospitality, the fur-bearing wanderer went back into the water and swam out of sight.—*Davenport Times.*

With slightly more than 20 per cent of the birds, the hunters in the Mississippi flyway accounted for nearly 50 per cent of the national bag of ducks and geese during the 1949-50 duck hunting season.

The Carolina parakeet, a beautiful little parrot, once was found in the wild in Iowa. It fed on cockleburrs and fruit. It became extinct early in 1900.



Jim Sherman Photo.

THE SAWMILL RIVER ROAD

By Allen L. James

*Old friend, my thoughts revert tonight
To days of youth and youth's delight;
Two lads with ne'er a thought of care,
Two hearts as light as summer air,
We crossed the brook and, lying there
Was the sawmill river road.*

*Ah, road of magic memories,
I see it winding through the trees,
As we went running—me and you,
Across the meadows fresh with dew
And down the hill which led us to
The sawmill river road.*

*Would that life's road might be as sweet
And void of pitfalls for my feet;
That I might run in boyish glee
Across life's meadows, there to see
Life's steadfast friends beckoning me
On the sawmill river road.*

*But age has come and youth has gone,
Yet in mem'ry still I travel on
That road of boyhood happiness;
The tears are falling, I confess,
As in fond fancy I progress
Down the sawmill river road.*

*So come ye back old friend of mine,
Tear a page from the book of time;
Come back with me thru mem'ry's lane,
Forget the years of grief and pain;
On phantom steeds we'll ride again
Down the sawmill river road.*

FISHING— GOOD MEDICINE

Go fishing and forget your woes as well as regain the spark of life that again will make you well physically.

That's the advice given in the May issue of the *American Magazine* by a prominent Washington (D. C.) physician, Dr. Roy Lyman Sexton, who says fishing is not only the most fascinating sport in the world but also "the best cure for what ails you."

"The best form of health insurance is a regular vacation fishing trip," states the doctor. "The harder a man works and the bigger his job, the more he needs this insurance."

And Dr. Sexton is one who practices what he preaches. He has been practicing medicine and grasping every opportunity to fish for the past 25 years. He has fished in all parts of the U. S. and in such distant waters as the Bering Sea and the Mediterranean.

"I've seen as much sickness cured with a rod and reel as by surgery," writes Dr. Sexton. "When we are worried about real or imaginary ailments, or are on the verge of a nervous breakdown because the boss looks grouchy, there's nothing that will do more good than to head off-shore in an open boat and get hooked to a big fish. I guarantee it'll cure almost anything from falling hair to incipient cirrhosis of the liver."

Every boy, in the doctor's opinion, should be sent off in a boat with tackle as soon as he's old enough. "As the boys get bigger, the fish get bigger, and so does the excitement of the sport," he states. "Fishing also helps teach self-reliance and resourcefulness."—*Centerville Iowegian.*



The chickadee is no fairweather friend.

WRENS AND CHICKADEES

Most of the songbirds have moved in for the summer. The wrens finally showed up at our place Tuesday morning after taking their own sweet time to come. We had hung out three houses under the cedars, all posted so we could see them from our porch and kitchen windows, and then, at last, a wren was busy stuffing sticks in all of them.

This is a trick of the first wrens. They make it appear as if claims have been staked on all the dwellings and discourage others from moving in. This way they have a certain location all to themselves. Well, maybe it's better that way; sassy little birds like the wrens need plenty of room.

Among the small birds we can never decide between the wrens and chickadees, as our favorite. When you first hear the wren's liquid song on a dewy May morning, with the whole world sprouting green around you, you think nothing can match the wren. But the chickadee is no fairweather friend, he spends the winter here, too, a cheery little bundle of feathers braving the worst blizzards, and such loyalty means much when most other birds have fled to the south.—*Emmetsburg Democrat.*



The best form of health insurance is a regular vacation fishing trip. Angling is good medicine.



Jim Sherman Photo.

Most people know the familiar English sparrow shown here, but how many know the 20 other species of the sparrows found in this state.

Be An Expert . . .

(Continued from page 137)

one knows that 75 species of birds are found in Iowa during the winter months. The total Iowa list stands at about 375 species and subspecies, but a good many of these are rare or only casual visitors.

Northeast Iowa, noted for its rugged terrain and scenic features, is also noted for its abundance and variety of bird life. The diversity of topographical features provides natural habitat attractive to an unusually varied bird fauna. And, of course, we are within the great Mississippi River Valley artery of bird migration. Bird scientists have found that there are four migration routes which birds use to travel across the United States, south to north. We are located in the "Mississippi Flyway", a fairly broad band extending from the Gulf of Mexico to the Hudson Bay and the Arctic.

The more hardy birds—robins, bluebirds, killdeers, blackbirds, meadowlarks and ducks—arrive in Iowa while the snowbanks are disappearing under a warming sun. In a backward spring, such as 1951, the early birds are from two weeks to a month late. Robins often misjudge the weather and get caught in late blizzards. They usually do the sensible thing—retreat south a hundred miles or so where the weather is more congenial.

Although northeast Iowa has state parks and other areas set aside for recreation, one can watch birds wherever he is. The farmer has troops of grackles (blackbirds) following his plow to pick up grubs and bugs in the freshly-turned earth. Crows also do the same thing—but at a safe distance.

Dozens of bird species find food in the fields or nest near by. Prairie horned larks, the plump little birds that sing high in the air like the English skylark, nest in Iowa fields. The prairie lark sings in the clouds, a mere speck in the azure blue. When he has finished, he closes his wings and drops to earth with lightning speed, opening his wings to check his precipitous fall just before he strikes the ground. He lights on a convenient corn stalk as casually as if he had just been flying by! The upland plover also gives a similar performance. This bird goes so high it is out of sight when it makes its drop. The plover is more scarce and not many people have seen its aerial demonstration.

Another common bird of the open fields is the marsh hawk, a long-winged raptor with a white patch at the base of the tail as an identifying mark. The marsh hawk hunts field mice, gophers and other rodents that destroy the farmers' crops. It is not unusual to see one winging overhead with a garter snake dangling in its talons.

Most people will say, "I know the sparrow." But do they? The English or house sparrow could hardly escape notice, but how many people know that 20 species of sparrows are found in Iowa, some of them very common neighbors?

The vesper sparrow, a dull-colored bird with white outer tail feathers, nests in or near almost every cultivated field. The field sparrow, identified by a pink bill, is a rather common summer resident whose whistled trill on a descending scale is most frequently heard in dry uplands near woodlots, where it makes its home. The song sparrow favors thinly wooded streams, and its catchy song is full of vigorous melody.

The grasshopper sparrow hides in the meadows. Its song is a weak, insect-like trill which you will miss unless your ear is trained for bird songs. Then there are clay-colored, chipping, lark, white-crowned, and white-throated sparrows, to mention only a few of the numerous sparrow family.

Everyone likes to go to the McGregor and Lansing regions for the fine scenic effects through various seasons of the year. Birding is just a shade better there because of the chance to see some birds that are not found elsewhere in the state.

One of these is the duck hawk,



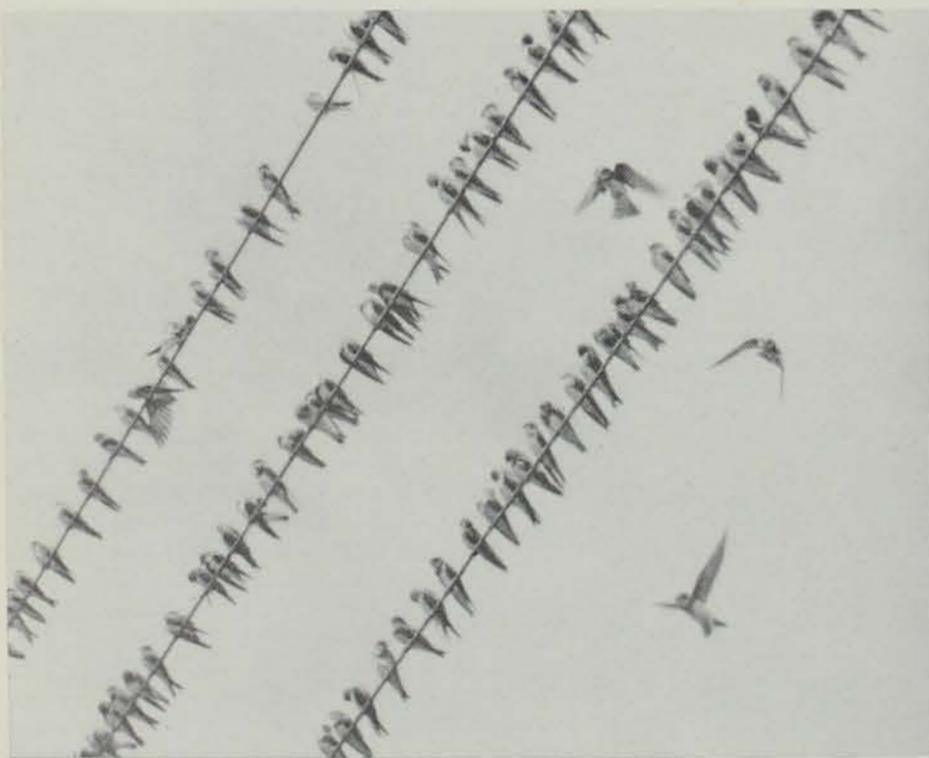
Jim Sherman Photo.

Horned larks and longspurs gather in large flocks on our gravel roads in winter. Here a horned lark posed on a snowbank fluffs its feathers for the cameraman.

or peregrine falcon. This bird is the one most used in falconry, the ancient sport of kings.

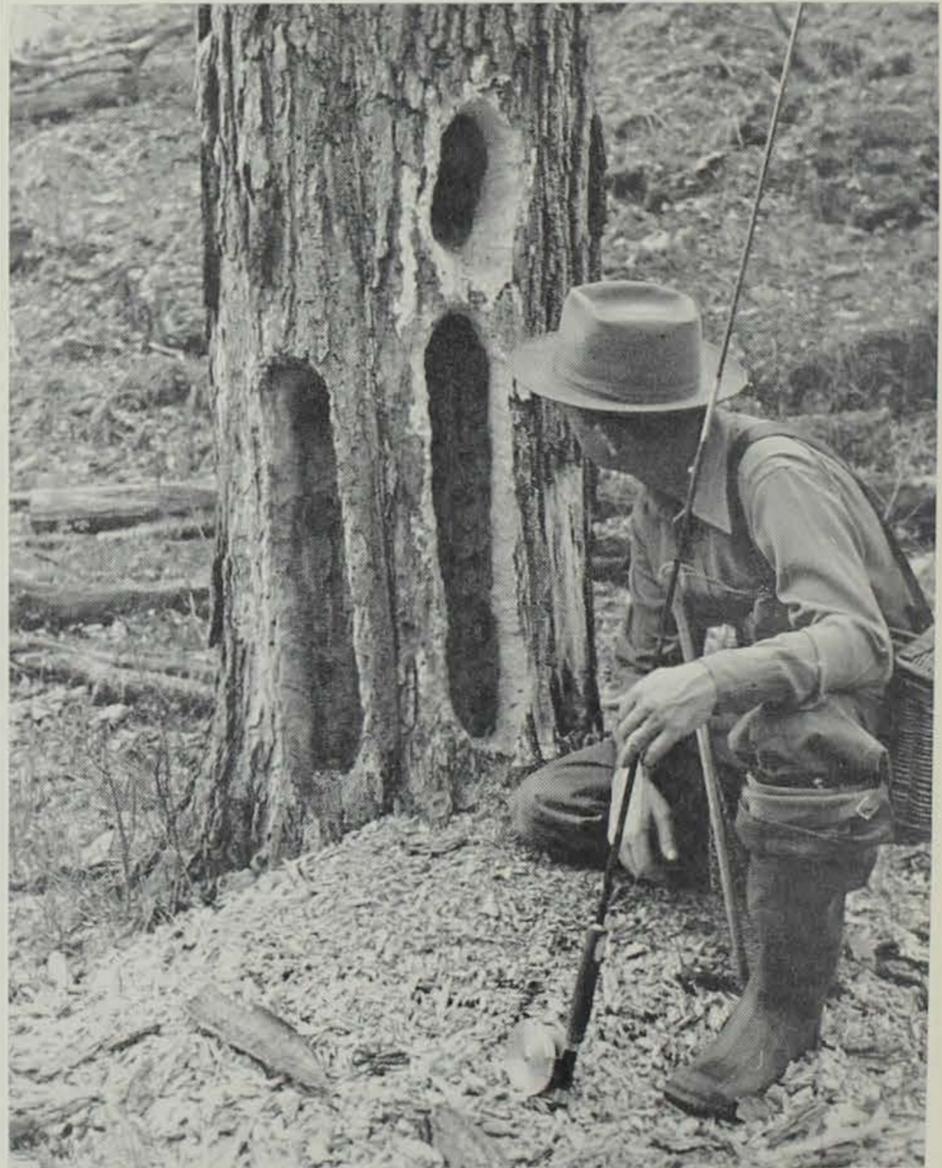
Those who would see the duck hawk, should drive north of McGregor in the month of May, following the river road to the ghost town of Waukon Junction, then on north a mile or two in the region of the high river bluffs. Here, if

(Continued on page 143)



Jim Sherman Photo.

Iowa lies in a north-south bird highway between two great rivers. This state is a virtual paradise for study of bird migrations. Bank swallows resting during fall migration.



Jim Sherman Photo.

The pileated woodpecker is a large crow-sized woodpecker found in northeast Iowa's timberlands. It is a busy carpenter, cutting large holes in living trees in search of tree destroying ants.



Council Bluffs Nonpareil Photo. Conservation Officer Ward Garrett displays a burbot caught in Lake Manawa by Hurbert Zack. The burbot is quite rare in Iowa and is also known in this state as ling cod, lawyer and fresh-water cod.

FRESH-WATER COD CAUGHT AT LAKE MANAWA

The first real days of spring during the week produced a good bit of fishing activity and variety if not quantity.

Crappies and bullheads began to hit fairly well Saturday, and a vague report of a four-and-one-half pound catfish drifted in during the week.

But the most unusual catch was turned in Wednesday by Hurbert Zack. He pulled in a burbot at Lake Manawa. The fish is a species of fresh water cod and is commonly known as a ling.

Zack, fishing with Mel Boehme at the time, reported he landed the ling using a nightcrawler as bait.

The fish, rarely caught in this state, confounded observers who had to call on Sharpe Osmundsen, local naturalist, for identification. He called the shot on it correctly and his observation was backed up by Everett Speaker, Chief Biologist for the State Conservation Commission.

The fish measured better than a foot long and weighed about a pound. The species is native to the northern cold water lakes of North America and is found in quantity in the Great Lakes.

But they're very seldom caught on a hook and line. They're fished commercially with nets. One well-known commercial by-product of them is cod-liver oil.

The fish probably got into Manawa by way of the Missouri River. Conservation Officer Ward Garrett says it's the first one he's ever seen.

At any rate, the season is off to an interesting start. — *Council Bluffs Nonpareil*.

The bat has the face of a tiny bulldog and the body of a mouse.

Be An Expert . . .

(Continued from page 142)

you are lucky, you may see the duck hawk.

The duck hawk nests in crevices in high, rocky cliffs overlooking the Mississippi, preferably 300 to 400 feet up the face of a sheer cliff. When and if you sight the bird, you will see a medium-sized falcon with sharply pointed wings take to the air from the high cliff. It begins a circling flight and berates you with a high-pitched, strident cry.

This bird is nature's own dive-bomber. It pursues its victim with relentless zeal, striking it with outstretched talons at speeds estimated in excess of 175 miles per hour. Its prey often includes ducks, which are knocked lifeless in mid-air.

An aviator, flying a small pursuit plane at considerable altitude, sighted a flock of ducks below and decided to dive at them for a little practice. He nosed his plane down and opened the throttle, quickly gaining speed. He happened to glance at his wing-tip, and at that instant a duck hawk shot by him as if he were standing still and struck one of the ducks, which fell lifeless to the ground. The plane was doing 175 miles an hour at the time, and the pilot thought the hawk might be doing almost double that speed.

Another characteristic bird of the timberland of northeast Iowa is the pileated woodpecker. It is shy and hard to approach. When you see a black woodpecker almost as big as a crow, and hear its high, penetrating cry which will carry a half mile on a still day—this is the pileated woodpecker, and you have added a fine thrill to your outdoor experiences. Large pits in decayed trees show where the pileated has been digging out carpenter ants. These pits range from four to seven inches deep and are always identifiable as the work of this very large woodpecker.

The wood duck is fairly numerous along the Mississippi near McGregor, and the brood of young are safely brought down from tree nesting cavities to their future home on the water. The pileated woodpecker unknowingly aids the wood duck, for the latter uses its old home in trees for nesting places.

The ruffed grouse, game bird of pioneers, is still a resident in the forests of northeast Iowa. The sight of it is worth the careful stalking and waiting necessary if one would add the bird to his list.

The warbler migration in the month of May is the peak of expectation and realization on the bird student's calendar. No less than 37 species of these diminutive birds pass through Iowa in their migrations or remain to nest. Their plumage is the most colorful of all the bird families and is suggestive of tropical bird life.—*Cedar Rapids Gazette*.



The beautiful natural bridge in Maquoketa Caves State Park is a rare natural phenomena not found in any other Iowa state park.

Maquoketa . . .

(Continued from page 137)

hold again and eroded the country into hills and valleys. As time went on they cut right down into the Niagara dolomite. This brings our story more nearly up-to-date.

Limestones and dolomites are rather soluble rocks. Water, aided by carbon dioxide, the soda-water gas, takes them slowly into solution. As a result, much of the wearing away of this Niagara dolomite was accomplished by solution. The water flowing down the valley of the bridge made a falls, over a cliff. The stream at that time flowed at the level of the present top of the bridge. Gradually the water of the stream, above the falls, found its way down into cracks. It widened these cracks and presently all the water was bypassing the falls, and reappearing at the foot of the cliff.

Time went on, and the stream bed upstream from the cliff got lower and lower. The water also widened the space in which it was flowing underground. Gradually the rock above the underground channel appeared as a bridge. As the years have gone on weathering has removed more and more of the ceiling of the underground channel, so that it now appears as a bridge, 50 feet high. Downstream from the bridge the stream passed through a long cave. This is really a bridge too, but a long one. It is only a few feet high in places, but the roof is very thick. In time, this cave may develop into a bridge like the one upstream.

When first found this cave had stalactites hanging from the roof, and stalagmites standing on the floor. These are icicle-like forms of rock, found in many caves. They are deposited from the water which drips from the roof.

Sometimes the stream in this valley is very high. The force of the water is so powerful that a great load of sediment is moved. Large rocks are swept along, and piled into the cave. This makes the passage through it very low.

The park has other rock features. In places great blocks and columns of limestone have separated. Some of the blocks have fallen. Steep cliffs line the valley here and there. The surface of the stone is rough from weathering.

Most natural bridges in limestone are formed in the same way as this one. They are also gradually destroyed by natural processes. The rain water is gradually dissolving the rock, and pieces are being broken off by frost and plant roots.

This bridge was first found by pioneers who were deer hunting. They had tracked a herd of deer up the valley in the snow. Presently they saw what appeared like a solid rock wall ahead. There were cliffs on both sides of the valley. They thought they had the deer cornered. But when they got there they found the deer had gone into the lower end of the cave and out of the upper. The hunters went through the cave and there before them appeared this wonderful natural bridge which nature had been so long in the making.

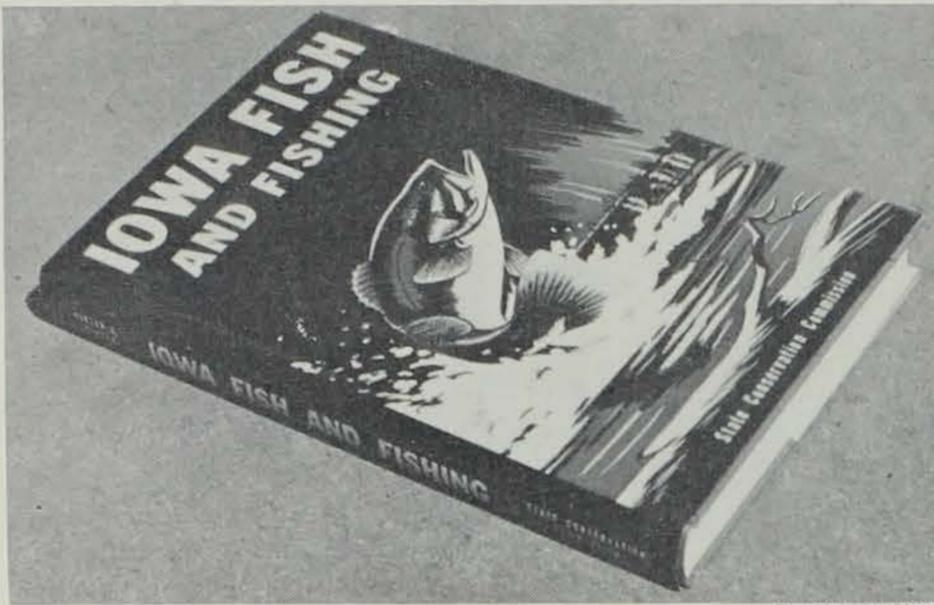
FISH FOR FARM PONDS

Landowners who wish to stock farm ponds should contact the Iowa Conservation Commission, East 7th and Court, Des Moines, or the local conservation officer, for farm pond fish application blanks.

Applications will be accepted until September 1 and fish will be stocked from state fish hatcheries during the fall months.

Upon receipt of farm pond applications, a representative from the Conservation Commission will inspect the pond to determine whether or not it meets requirements and to determine the number and kinds of fish to be stocked.

These fish are furnished free of charge and are delivered by fisheries personnel to the pond. Landowners desirous of receiving fish for their farm pond should make application as soon as possible to insure delivery during 1951.



"Next to your fishing license, it will be the finest investment you have made." Jim Sherman Photo.

Fish and Fishing . . .

(Continued from page 137)

J. Fey, St. Louis (Missouri) *Globe-Democrat*.

There are numerous books on fishing, priced from a very reasonable fee up to a small fortune. . . . On rare occasions one appears which gives the reader more in return for his money. . . . Such a work reached our desk last week. It is entitled *Iowa Fish and Fishing*, but it is equally as much of interest to Pennsylvanians, Ohioans, and West Virginians as it is for the folks of Iowa, for whom it was written. . . . Johnny Mock, Pittsburgh (Penn.) *Press*.

It has remained for the Iowa Conservation Commission to pioneer a much-wanted information plan all the states should follow. The Commission has just published a handsomely bound, profusely illustrated 248-page book titled *Iowa Fish and Fishing*. . . . In brief, this most excellent work tells residents where to fish, how to identify fish caught, how to catch them. As many of the fish described are found in a majority of states (most of them can be taken in Ohio) Iowa's object lesson in filling this void in comprehensive fishing information for sportsmen should be taken to heart throughout the nation. . . . V. B. Gray, Cleveland (Ohio) *Plain Dealer*.

. . . And it is one book that every true Iowa fisherman will want for his own. . . . Since the fish mentioned are common to other states, this book will appeal to anglers in other midwest states. . . . *Wallaces' Farmer and Iowa Homestead*.

. . . It is easily read and worded in such a way as to make each scientific fact crystal clear to the lay angler. . . . Wm. J. Nichols, Quincy (Ill.) *Herald-Whig*.

. . . This book is aimed strictly at Iowa fishermen. It is a splendid example of what the fishing enthusiast always has wanted—a

localized fishing "bible" complete with all the information to be had on the subject. . . . For the Iowan with a yen for fishing, this book is worth infinitely more than the cost. —Walter Cody, *Sioux City Journal and Journal-Tribune*.

. . . This is such an unusual book that to keep from telling our readers of its merits would be just about as bad as not owning a copy. . . . Next to your fishing license it will be the finest investment you have made. —Ted Lorenzen, *Davenport Democrat*.

I got my copy of Iowa's new book, *Fish and Fishing*. It's a dandy. The pictures of the fish are the most real I have ever seen, and I make no reservations for that statement. The book is a combination of documentary data and unabated thrills. You couldn't get my copy for \$25.00 if I could not replace it. . . . Laurence Nelson, *Bellevue Leader*.

. . . We urge you to get your copy of *Iowa Fish and Fishing*. Even if you do not fish it is a valuable addition to your library. . . . It's a complete book—248 pages—not a pamphlet—and for only two dollars. If this book had been published by any commercial concern it would sell for at least \$10. . . . John Garwood, *Marshalltown Times-Republican*.

. . . Has long been needed and I regard it as the most valuable volume in my collection of fishing books. —William D. Severin, *Waterloo Daily Courier*.

. . . I am overwhelmed with the scope, the beauty and the whole book. . . . Michael Hudoba, Washington Editor, *Sports Afield*.

Here is a book published by a state agency at cost that actually answers almost every possible question that could be asked about recreational angling. . . . Down in Iowa they agree with the modern theory that too many of our fishes die of old age, that the fishermen should be taught better ways to

take more fish. That is why a book was conceived and then, because of its low price, made available to almost everybody. . . . J. Hammond Brown, *President Outdoor Writers of America*.

As a veteran bookshop browser I had *Waterfowl in Iowa* tagged as an all-time bargain in outdoor publications, but this new fish book rolled us back on our heels with a starry look in our eyes. It's simply superb! —James B. Trefethen, Editor Wildlife Management Institute *Outdoor News Bulletin*.

This is by far the best job of its kind I have yet seen. —Seth Gordon, Consultant California Wildlife Conservation Board.

. . . An outstanding piece of work, and as usual Reece's paintings are superb. —Clarence Cottam, Assistant Director U. S. Fish and Wildlife Service. . . .

Received my book on Iowa fishing. It is the finest book I have ever seen. I tried to eat supper and look at the book at the same time. Supper got cold. . . . Walter Laverenz, Davenport.

Angling Picture . . .

(Continued from page 138)

places of bass, and determines the potential brood.

How in the world do you know what a fish nest is like? "It's not as hard as it sounds. When the water clears up you can walk along the bank of a stream and you'll see rocks on the bottom which seem to have been polished or cleaned off. That is done by the fish which swish their tails over rocks to clean up the nesting place where the female will release its eggs. Quite often you'll see the male fish hovering over the nest. After the female lays the eggs it has no more to do with the arrival of the young ones. The male will stand guard over the watery nest until the fish hatch out from the tiny eggs."

What do fish do in the winter-time when a foot or two of ice cover streams and lakes? "Well, except for crappies, bluegills and several other kinds of pan fish the life of a fish comes close to a standstill. All bass become semi-dormant and go into a form of hibernation. Catfish and carp congregate in pools and life is uninteresting. They get sufficient air to breath from the water due to oxygen dissolved by the wave action and from plant life in the water."

During the months when rivers and streams are open Mr. Cleary is in the field a great deal of the time studying streams, the fish, and carrying out various experiments or surveys for the Conservation Commission. During the winter months he may go out checking on winter kill of fish or some other

type of outdoor work. But it's usually then that he gets busy in his laboratory in his home where he compiles figures and data from work done in the summer months.

The sole nature of his work is to study fish, streams, and lakes so that more will be known about how man can aid and not hinder the state's fish and wildlife population. Without a doubt it is the fish and wildlife that bring enjoyment, recreation and good eating to more people than any other sport or activity.

His work, only one of many things done by the Commission, becomes a selling point for the Conservation Commission. As a parting question he was asked what it would be like in Iowa if there was no such thing as a Conservation Commission.

He admitted nobody could prove any answer he might give. "But I'd guess there would be a few pheasants, quail and some game fish, of course. But there probably wouldn't be enough for a hunting or fishing season. It would be similar to Europe today where fishing and hunting is done mainly on private estates where wealthy owners are able to stock their own streams or forests for their own private hunting and fishing. The average man wouldn't have a chance." —*Independence Conservative*.

4-H CLUBS PLANT WILDLIFE AREAS

Fourteen wildlife areas will be established this spring by the 4-H clubs in Adair County on farms distributed all over the county as a result of the wildlife conservation activity in 4-H club work this winter.

Walter Gerdes, county extension youth assistant, stated that the wildlife areas are being sponsored jointly by the 4-H clubs and the Iowa Conservation Commission. A total of 15,500 multiflora rose one-year seedlings, will be set out by 4-H members this spring for cover for wildlife on these areas. Farm ponds are included in nine of these areas. The sites selected by the clubs were all inspected and okayed by State Conservation Officer, Robert Barrett, and Robert Winders, of the local Soil Conservation Service. The multiflora rose is being used in most instances as a living fence enclosing these areas, with other tree plantings, and shrubs being used within the area.

The farmers cooperating with the 4-H to establish these areas on their farms are: Preston Varley, Stuart, Zort Brown, Sr., Casey; Paul Kelloway, Adair; Clark Williams, Stuart; Ross Stephenson, Fontanelle; Floyd Hoadley, Greenfield; Ed Carrow, Anita, Harold Lundy, Fontanelle; Sam Mitchell, Bridgewater; Charles Neilson, Fontanelle; John Bre Dahl, Greenfield; George Williams, Orient; and W. A. Hughes, Casey. —*Adair County Free Press*.