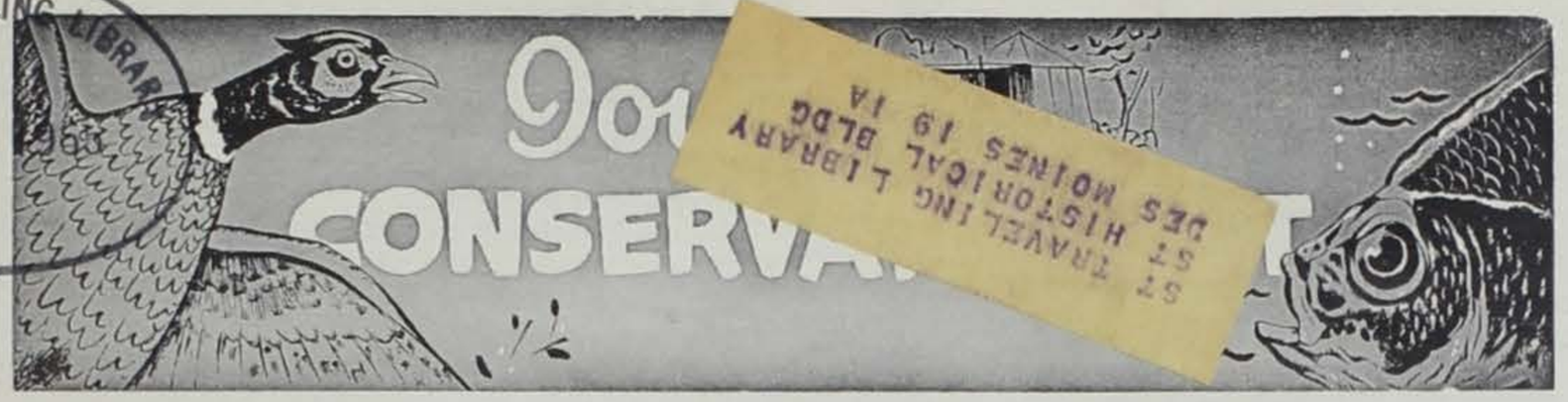

lume 24 January, 1965 No. 1

Fishing Iowa's farm ponds and artificial lakes in winter can result in a pile of frostbitten panfish like these crappies. Jim Sherman Photo.

WINTER FISHIN' FUN

Jim Mayhew
Fisheries Biologist

ometime ago I was caught—no this isn't the story of the fish—in argument between a couple of friends of mine. The young one had related to Ol' Ez that winter fishing left him "cold." This caused a to raise his neck hackles a bit and answer caustically, "Son, this ter fishin' is like drinkin', if ya ain't never done it, don't knock it." see my old weathered friend would rather fish through the ice n he would in the summer. I suppose he had several reasons—Ez never short of words and sound to piscatorial procrastinators.

l' Ez had a habit of laughing heartily at we who used to drive conrable miles to the natural lakes in northern Iowa and the Mississi to fish in the winter. Often I've heard him jibe, "You dern fools r yerself out drivin' all them miles. Why son, we got the best e is right in our own backyard. Ya cain't see the forest for the s." In a way my grizzly old buddy was right, but to me the grass always somehow looked greener on the other side of the fence.

hroughout southern Iowa there exists a vast network of artificial s, municipal reservoirs, industrial pits, and agricultural ponds. t of these have high population densities of game-fish that can be ght the year around. All the angler needs is a pinch of patience, a dgeon of "know-how," and a bit of elementary tackle. Ol' Ez was t, as usual. For those of us that think only "big waters" are productive to the ice fishermen, he had news. We have been passing up some of the best winter fishing we have ever had in the small lakes and ponds.

Until the past few years ice fishing in southern Iowa lakes and ponds was seldom tried, but after it was demonstrated that favorite summer fish can also be caught in the winter, multitudes of anglers are replacing off-season dreams with fish in the skillet. Particularly for the ever popular crappie and bluegill.

WINTER TACKLE

There are as many different types of terminal tackle used in the quest for frostbitten panfish as there are fishermen who use them. Of course, any type of tackle that is used in the summer can also be used for ice fishing, but most anglers find it too bulky and cumbersome. The typical ice fishing rig in southern Iowa consists of a broomstick or large diameter dowel with a sharpened nail driven in one end. Two "L" screws are attached to the dowel six inches apart. Six-pound monofilament line is then wrapped around the screws for storage. The line is lowered into the water, hand over hand, and the nail end stuck in the ice near the hole. This prevents the fish from pulling the pole through the hole. Slack line is wrapped around the screws to prevent tangling by wind.

Several brands of short, specially designed, ice fishing rods are also commercially available, but are fundamentally no better than the

(Continued on page 8)

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CIRCULATION THIS ISSUE 52,000

COMMISSION MINUTES

December 2 & 3, 1964

FISH AND GAME

Approval was given to exercise an option on 75 acres of land at a cost of $73 per acre and another option on 47 acres at a cost of $175 per acre for Hendrickson Marsh in Story County.

A discussion was held concerning the possible abandonment by a public utility company of the power dam at Humboldt and another power dam at Rutland on the Des Moines River.

A discussion concerning shoulder patch designs was held and no action was taken.

Approval was given to the transfer of budget funds to provide money for the purchase of land for the Hendrickson Marsh.

Problems created by the present raccoon population were discussed.

The possibility of procuring abandoned railroad rights-of-way for game cover was discussed.

The Director was requested to prepare an appropriate resolution for Commission consideration concerning firearms registration.

COUNTY CONSERVATION ACTIVITIES

Adair County received approval for the acquisition of 120 acres of land at a total cost of $19,800 for use as a multiple use outdoor recreation area to include a 30 acre artificial lake.

Adair County received approval for an agreement with the County Board of Supervisors transferring 3 acres of County owned land to the Conservation Board for the purpose of developing a roadside park located west of Greenfield.

Dallas County received approval for the acquisition of 40 acres of land on the North Raccoon River formerly used by the Perry Sportsmen's Club at a total cost of $6,000.

Howard County received approval for the acquisition of additional land of 30.13 acres at a total cost of $4,000 in order to install a better designed overflow structure for the Lylah's Marsh Area.

Linn County received approval for the acquisition of 350 acres of land as a gift from C. Ira Lewis, Sophia Lewis, and John K. Lewis, subject to various restrictions as to its future use with the primary purpose of preserving the area as a forest preserve with limited public use for hiking and nature study.

Worth County received approval for the acquisition of 3 acres of timber land at a total cost of $225 for the establishment of a wildlife habitat area.

Wright County received approval for the acquisition of 80 acres of land by a gift for a development to be called the Benton Wildlife Area, located on the Iowa River.

Adair County received approval for a development plan for a County roadside park located ½ mile north of State Highway 92, at intersection of two county roads.

Des Moines received approval for the east segment of the Skunk River Access Area for installing picnicking and camping facilities in part of this wildlife habitat area.

Franklin County received approval for further development of Robinson Park to include a low-head dam on Otter Creek and development of the western part of the property as an outdoor classroom.

Wright County received approval for a development plan for the 12 acre Bingham Park mainly as an outdoor classroom and also for limited picnicking and playground area.

Wright County received approval for a development plan for the 16.67 acre Sportsmen's Park located on the Boone River southwest of Eagle Grove for camping, picnicking, fishing access, trap shooting, archery and a rifle range.

The Commission asked for further information concerning a development plan for the Deer Creek Game Area in Worth County.

LANDS AND WATERS

Approval was given to exercise an option for land purchase from Raymond C. Mohatt of 47 acres at a cost of $75 per acre located adjacent to the Shimek Forest Area in Lee County.

Approval was given for a land trade with Mr. Robert Heffern to trade 8 acres for 17 acres adjacent to the Yellow River Forest Area in Allamakee County.

Approval was given to a new minimum rate for the use of group camps at Dolliver, Springbrook and Ahquabi State Parks, which would be 40c per person with the minimum of $19 per day for youth groups or a fee of $15 plus $4 for a day per cabin for these areas.

The Chief of Lands & Waters gave a report on planning a rehabilitation camp to be located at Williamson Pond to be used by boys from the Eldora Training School, and a joint bill to be sponsored by the Conservation Commission and the Board of Control in the next legislature.

Announcement was made that the Governor had designated the State Conservation Commission as the agency which would be responsible for the administration of Bureau of Outdoor Recreation Funds and the appointment of Everett Speaker as the administrator of these funds.

GENERAL

Approval was given for travel to meet with the Corp of Engineers at Kansas City; a National Shooting Preserve meeting at St. Louis, Missouri; Hydraulic Studies at Vicksburg and Jacksonville, Mississippi; and a Wing Bee Duck Session at Poynette, Wisconsin.

A report was given on the planned dedication of an Indian Village Site in the Wittrock Area in Cherokee County to be held next spring.

A request for a Scuba Diving Tournament permit at Lake Okoboji for next summer was denied.

The Sup't. of Game gave a progress report on planning for the Three Mile Creek Watershed in Adair and Union Counties and the Walters Creek development plan, and the Commission asked for further planning work to be done on both proposals.

The Commission approved a construction permit for an additio dike to be built on the Mississ River Area near Ft. Madison improve the control of the charge from the California Che cal Plant.

Approval was given for an a tional employee for a period of days to be assigned to the Wa Section to assist in the progr on the Missouri River.

Approval was given for printing of the fourth edition the **Iowa Fish and Fishing** bool

A brief report was given on possibility of procuring excess plus materials from the Fed Government.

Approval was given to the newal of the five year lease a relay tower located on the F Mound Area in Boone County.

The Sup't. of Engineering g a report concerning damages State lakeshore property adjac to the New Inn on Lake Okob

Other information reports c cerned Personnel matters; pheasant season and the Lans and Sabula Fisheries Stations.

CONSERVATION IN AN URBAN SOCIET

It has been suggested that modern America's pre-occupation w luxuries may be the key to continued greatness for our nation. more and more of us seek to spend our leisure hours in the out-of-do nature herself assumes the task of teaching a basic fact: **conservat is everybody's business.**

The one blemish in this otherwise rosy picture is that more and m people are carting along all the distractions of our civilized, urbani society when they seek their sojourn in the open. The fact that t carry their everyday distractions (transistor radio, transistori phonograph, and even transistorized TV), the great lesson is blur and in some instances obliterated. Family appreciation of natural s roundings is decreased in an almost direct ratio to the amount "canned" entertainment that is made available.

Thus, the need for conservation education through the schools, ne papers, magazines and the various electronic media remains as gr as ever. Adults as well as children must be constantly made aw that our high standard of living is based on our high quality so waters, forests, wildlife and minerals; that without these basic ingr ents our standards would be no higher than those found in the so-ca emerging nations.

Iowa has lately been described by Ben Clausen, director of Teach Conservation Camp, as "being on the move in the area of conservat education." Proof of Mr. Clausen's statement is found in contin high attendance figures at the nationally known Iowa Teachers Cons vation Camp, the popularity of conservation courses at various pu and private institutions, and the establishment of County Conservat Education Units for use by school children.

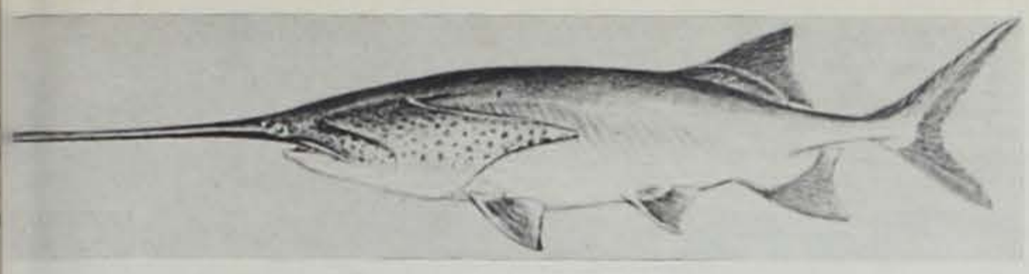
These are satisfying and heartening facts, but they represent me a step forward. So far only about 5,000 teachers out of an Iowa tea ing force of over 27,000 have been properly trained to teach conser tion as an integrated part of the school curriculum.

These 5,000 dedicated individuals have done much to impress u the minds of their students the vital need for conservation of resour But in the same way that 5,000 represents only a token of 27,000, number of children taught by the 5,000 is only a small portion of total school enrollment in Iowa. Literally, over a hundred thousand more children are being deprived of the knowledge and love of world that sustains them.

The Editor of the *Bulletin on Conservation Education* stated the c quite clearly when he recently wrote, "We, as educators, cannot esc the responsibility of helping our students learn the art of making lightened choices—choices that will play such a vital part in shaping future. We will need every tool at our command: science to supply necessary data; social studies to point out the results of past decisi making; the humanities to nurture a sense of values. And we m begin where we are—in the crowded, maddening, remarkable stimulating complex which is now our dwelling place."

Are the children of Iowa learning the techniques and mastering tools that will guarantee them a world that will be habitable to m Only an aroused and concerned citizenry can make their future cert

Jack Higgin



MR. PRIMITIVE

Millions of years ago, an odd, shark-like fish appeared in the evolu- nary process. Unlike most of his contemporaries, however, *Polyodon ıthula,* commonly known as the paddlefish or spoonbill catfish, for- t to become extinct. Today as in the past, he swims the murky ɔths with mouth open, engulfing crustaceans, plankton and other nute water organisms which he strains from the water with his ve-like gill rakers.

This primitive specimen originally inhabited the large silty rivers d flood-plain lakes of the entire Mississippi River drainage system. veral paddlefish were taken from Lake Okoboji. Today, this fish's ıge is pretty much limited to the Mississippi and Missouri Rivers and ɜ lower reaches of their larger tributaries.

The paddlefish is dark gray in color with lighter underparts. He ɔws to six or eight feet in length and attains a weight of over 200 unds. His conspicuous paddle-like snout, absent at birth, developes the fish grows. The function of the paddle is uncertain, but it is lieved that it serves either as a food detection organ or as a ıbalizer.

Little or nothing is known about the paddlefish's reproductive pro- ss. In fact, it has not even been determined where or when the nales lay their eggs or how many are laid.

Paddlefish are of little value to the sport fishing clan. It is only by :ident that one mouths a tasty morsel that happens to be the busi- ss end of a fisherman's rig. Most of the paddlefish caught in Iowa ɜ taken illegally by snagging. It is, however, legal in some states snag these fish; and some people consider it great sport. Most of s legal snagging activity takes place in the open water below river ms during the winter months.

Once quite common, the paddlefish's numbers have been reduced changing environmental conditions and exploitation. The latter is e mainly to the high edibility of the fish's white flesh and the fact ıt paddlefish eggs were and still are used to some extent as caviar. e paddlefish's future existence will probably depend on a third limit- ; factor. Mr. Primitive is a highly specialized and degenerate fish, d the evolutionary process has shown time and time again that a generate animal is doomed to extinction.—M.S.

Jack Kirstein Photo.

IOWA RECEIVES HUNTER SAFETY AWARD

ast month the State Conservation Commission received an honor- mention award from the National Rifle Association for Iowa's ıtribution to the cause of hunter safety." Governor Harold E. ɔhes, acting in behalf of the NRA, presented the framed certificate Everett Speaker, Director of the Commission.

he annual hunter safety award winners are chosen by the awards mittee of the International Association of Game, Fish and Con- ɜation Commissioners.

Kindergarten Conservation

Jack Higgins

When is a child old enough to learn conservation principles? Mrs. Betty McDowell of Eldora, Iowa, emphatically says that kindergarten is the place to start.

Mrs. McDowell is a 1964 product of the Iowa Teachers Conservation Camp. At Camp she elected to devise a conservation program for use in her kindergarten classroom at Eldora for this year. A progress report on the success of her activity was given at the Fall Conference on Conservation Education held at the 4-H Camp near Luther last October.

The purpose of the year long unit was limited to trees: why and how they grow, what they do for us, and what we do for them. To achieve this goal, Mrs. McDowell stresses six major objectives. They include learning to identify five trees by shape, leaf and seed; discovering why trees have seeds, leaves, branches and bark; observing the differences in bark (skin is the name the students first use in talking about it); learning the three main parts of a tree—crown, trunk, and roots; discovering the beauty of a tree; and realizing how trees help us and our animal friends every day.

"Mother Maple"

To tie the whole story together in the minds of the children, Mrs. McDowell early in the year brings an apple to class. She holds it up for the class to see and asks the riddle:

I know something big, tall, green and brown.
It looks like this shape upside down.
What is it?

After the class guesses for awhile, but before interest lags, they go outdoors to look for the answer. There they find the maple tree. The trees is examined carefully, and a few twigs and leaves are gathered for study. Since this tree will serve to hold the unit together, Mrs. McDowell suggests that the tree be called "Mother Maple."

Back in the classroom the children use Mother Maple as the basis of a language arts study. Stories are made-up, and the children tell their personal reaction to the tree. From here it is a short step to reading about trees. Such books as Darby's WHAT IS A TREE, and the Golden book, SMOKEY THE BEAR, and an audio-visual aid that Mrs. McDowell has put together are used. To bring some "academic" knowledge to the fore, the class has access to such reference books as Cormack's THE FIRST BOOK of TREES, Jullius King's TALKING LEAVES, and LET'S TRY, published by the Benefic Press.

Poetry, always a favorite of small fry, takes on added meaning now. When such poems as "Leaves," "Five Little Chickadees," or "Whisky Frisky" are read, the children have first hand experience to add to their already fertile imaginations.

The tree study offers many creative art situations, Mrs. McDowell says. For instance, the children are able to create the tree in its various seasonal dress with the use of various media. By cutting free hand paper maple leaves, they learn both coordination skill and creative design, for the leaves are then used to make leaf men or animals. A set of wood blocks helps stretch the imagination when the student is asked if he can find pictures and color in the wood grain.

Number skills are introduced when the children first examine a cross section of wood that shows wide growth rings and are asked if they can count them. And because Mother Maple can be seen from their classroom windows, time is spent observing the number of birds and squirrels that visit the tree. From these observations, the children learn how to keep records.

"Mother Maple's Relatives"

Knowing that the children would tire of just one tree, provision is made for the introduction of four other trees at various times of the year. They are "Peggy Popular," whose feather shape holds great interest during a companion unit on Indians and Thanksgiving; "Frankie Fir" and Friends, whose cone shapes are so familiar to all the children at Christmas time; "Oscar Oak," whose cup shape is very visible during the bleak winter months, and who also provides food and shelter for the winter animals; and near the close of school "Wonderful Weeping Willow" with its "fireworks" shape helps to convey the message of the fourth of July.

To keep all this in the minds of her students, Mrs. McDowell prepared a stand from which are hung posters that she designed. By cartooning each name concept, the children more readily identify the benefits of each tree. To further reinforce the unit concepts, the State Park officer from near-by Pine Lake is invited to the school to talk to the youngsters about the trees and how they "belong" to the community.

With conservation principles being introduced in such an unobtrusive manner when the child first starts school, the future of America looks bright indeed.

No other big game animal in North America is as widely known and hunted as the whitetail deer. There are almost four and one-quarter million of them in the United States.

The range of the western chipmunk extends west of the Great Plains, from the frozen Yukon south well into Mexico, and from the lowest valleys far up on the mountains.

1964's FISH STORIES

The big ones don't always get away!

Max Schnepf

Some anglers have a tendency to fib a little when it comes to relating their fishing escapades. As a result, stories of colossal proportions get started. Iowans undoubtedly contributed their share of tales in 1964, but 26 of the state's anglers, who may have sounded like they were stretching the truth, weren't, because they produced proof of 28 braggin' size catches including five state records.

Leading last year's parade of lunkers entered in the State Conservation Commission's Official Big Fish Records was a 58-pound paddlefish caught by Leslie Young of Cedar Rapids. The giant was taken from the Mississippi River in Allamakee County. Close on its heels was a 50-pounder, also caught in the Mississippi.

Lawrence Carpe of Des Moines topped the previous channel cat fish mark by more than four pounds when he hauled a 25-pound, three-ounce specimen out of Rock Creek Lake. The 35-inch fish was caught on chicken liver. A second channel cat entered weighed 21-pounds, two ounces. It surpassed the old record by a scant two ounces.

Record honors in the crappie division were taken by a four-pound, 19-inch whopper landed by Harold Conrad of Keota. Conrad caught his crappie in Lake Darling using a worm for bait. Carl McCann of Burlington almost matched Conrad's fish with a three-pound, nine and three quarter-ounce crappie he took from a Des Moines County farm pond. The previous state record in the crappie division was three-pounds, six-ounces.

Two Iowa fishermen, Harley Bryan of Montezuma and Bill McBee of Chariton, raised havoc with the standings in the largemouth bass division. Bryan smashed the old mark by nine ounces with a nine-pound, eight-ounce largemouth he caught in Diamond Lake in Poweshiek County. One day later, McBee took a nine-pound, six-ouncer from Morris Lake in Lucas County to cop runner-up honors.

Only recently, the state's rainbow trout record was shattered and in grand style by Fred Daugs of Robbinsdale, Minnesota. On December 22, Daugs, while fishing in Bloody Run Creek in Allamakee County, landed a seven-pound, 26¼-inch rainbow. His fish surpassed the old mark by 12 ounces. Then, two days later, the Minnesotan broke his own record with a nine-pound, six-ounce rainbow. This second trophy was 27 inches long and was taken in French Creek, also in Allamakee County Daugs caught both fish on Colorado spinners.

Some interesting sidelights to last year's contest include the fact that three of the five state record fish and four of the seven 1964 record fish were caught during the month of May. This could be due to extremely heavy fishing pressure early in the year or it could be merely coincidence. Then again it may prove the old adage that the lunkers bite best early in the year (or late in the year).

On the live bait vs. artificial bait controversy, it was a standoff. The type of bait used was specified on 17 of the 28 entries. Seven fish succumbed to live bait, seven to artificial lures and three to commercially prepared bait. Before you draw any conclusions about the merits of one or the other, remember that some fish, such as bullheads and catfish, rarely hit artificials. On the other hand, bass, northerns, walleyes and crappies readily hit both artificial and live baits.

All but two of the 26 entries came from either rivers and streams or artificial waters. Only two fish entered were taken from natural lakes. The geographic distribution of the entries was so wide that no matter where you live in Iowa, you should be within easy driving distance of prime fishing waters and a possible record breaking lunker.

The Conservation Commission always likes to hear fish tales; but right now, we're more interested in proof of your braggin' size catch in 1965.

THE 1965 CONTEST

Entries for the 1965 Official Big Fish Records are now being accepted by the State Conservation Commission. Any species of fish commonly taken by hook and line and caught in state or boundary waters is eligible. There are, however, minimum weight limits on certain species: crappies must be over two pounds; channel catfish over 18 pounds; carp over 20 pounds; northerns over 10 pounds; smallmouth bass over four pounds; largemouth bass over seven pounds; walleyes over 10 pounds and flathead catfish over 20 pounds.

Any potential 1965 or state record fish must be weighed to the nearest ounce on scales legal for trade. The weighing must be witnessed by two persons. The fish's total length should also be recorded.

The angler must fill out an official entry blank or a facsimile and send it and a photo of himself and the fish to the State Conservation Commission, East 7th & Court, Des Moines, Iowa. The entry blank includes the angler's name and address, the species of fish being entered, date caught, where caught, county, total length, weight, method of catch and the witnesses' signatures and addresses.

Any fish that surpasses the state record will be publicized through the Commission's weekly news release. All state records and the 1965 record fish will be published in composite form in the January, 1966, issue of the IOWA CONSERVATIONIST and the news release.

The range of the common, striped skunk includes the entire United States and parts of Canada and Mexico.

The coyote is satisfied with one mate for at least a year and probably for a lifetime, or until she is killed.

Carl McCann's Crappie

Lawrance Carpe's Catfish

Leslie Young's Paddlefish

William Marsh's Catfish

Robert Wedemeyer's Northern

Harold Conrad's Crappie

Tom Schleuger's Northern

Courtsey Logan Herald-Observer

Larry Meeker's Catfish

STATE RECORD FISH

Species	Weight	Length	Where caught County	Date	Angler
Bluegill	1 lb. 12 oz.	11 "	Lineville Gun Club Wayne	September 1962	Mrs. Grant Dillon Lineville
Brown Trout	9 lb. 8 oz.	28 "	Hickory Creek Allamakee	September 1963	Roger Jones Ottumwa
Bullhead	3 lb. 9 oz.	17¾"	Farm Pond Harrison	July 1963	Larry Kocour Missouri Valley
Carp	40 lb. 0 oz.	40 "	Mississippi River Clayton	April 1963	Peter Hach Cedar Rapids
Channel Cat	25 lb. 3 oz.	35 "	Rock Creek Jasper	June 1964	Lawrance Carpe Des Moines
Crappie	4 lb. 0 oz.	19 "	Lake Darling Washington	May 1964	Harold Conrad Keota
Flathead Cat	56 lb. 0 oz.	49 "	Little Sioux River Harrison	May 1963	Floyd Flint Little Sioux
Largemouth Bass	9 lb. 8 oz.	25 "	Diamond Lake Poweshiek	May 1964	Harley Bryan Montezuma
Northern	18 lb. 4 oz.	41 "	Spirit Lake Dickinson	October 1963	Doug Hall Estherville
Paddlefish	58 lb. 0 oz.	60 "	Mississippi River Allamakee	May 1964	Leslie Young Cedar Rapids
Rainbow Trout	9 lb. 6 oz.	27 "	French Creek Allamakee	December 1964	Fred Daugs Robbinsdale, Minn.
Sauger	5 lb. 2 oz.	22½"	Mississippi River Dubuque	November 1963	Art Hurlburt Dubuque
Sheepshead	46 lb. 0 oz.	38½"	Spirit Lake Dickinson	October 1962	R. L. Farran Clarion
Smallmouth Bass	5 lb. 10 oz.	21½"	Spirit Lake Dickinson	October 1963	Fred Schuneman Milford
Walleye	13 lb. 8 oz.	36½"	Cedar River Bremer	May 1963	Fred Stifter Waverly
Yellow Perch	1 lb. 13 oz.	14¾"	Mississippi River Allamakee	September 1963	Neal Palmer Maynard

1964 RECORD FISH

Species	Weight	Length	Where caught County	Date	Angler
Bluegill	None entered				
Brown Trout	4 lb. 0 oz.	22 "	Paint Creek Allamakee	May 2	Francis Kessel Waukon
Bullhead	2 lb. 8 oz.	15 "	Iowa River Johnson	May 29	Bill Stroud Iowa City
	2 lb. 8 oz.	15½"	Mississippi River Allamakee	September 5	Harry Enabnit Harpers Ferry
	1 lb. 8 oz.	13¾"	Farm Pond Harrison	July 6	Jim Stueve Missouri Valley
Carp	27 lb. 4 oz.	34½"	Wapsipinicon River Scott	May 2	Norman Dean Davenport
Channel Cat	25 lb. 3 oz.	35 "	Rock Creek Jasper	June 10	Lawrance Carpe Des Moines
	21 lb. 2 oz.	35¼"	Little Sioux River Harrison	May 4	Larry Meeker Logan
Crappie	4 lb. 0 oz.	19 "	Lake Darling Washington	May 31	Harold Conrad Keota
	3 lb. 9¾ oz.	18½"	Farm Pond Des Moines	June 18	Carl McCann Burlington
	2 lb. 10 oz.	17 "	Gravel Pit Kossuth	May 11	Harold Elbert Rodman
	2 lb. 9 oz.	18 "	Pilgrim Heights Tama	June 28	Mrs. J. Sorrell Traer
Flathead Cat	44 lb. 0 oz.	44 "	Des Moines River Van Buren	June 12	William Marsh Farmington
	34 lb. 0 oz.	39 "	Iowa River Johnson	July 30	George Knapp Cedar Rapids
Largemouth Bass	9 lb. 8 oz.	25 "	Diamond Lake Poweshiek	May 10	Harley Bryan Montezuma
	9 lb. 6 oz.	24⅛"	Morris Lake Lucas	May 11	Bill McBee Chariton
	8 lb. 12 oz.	24½"	Arrowhead Lake Sac	April 18	Bill Hart Denison
Northern	17 lb. 0 oz.	39½"	Arrowhead Lake Sac	May 17	Robert Wedemeyer Anita
	15 lb. 0 oz.	37 "	North Twin Lakes Calhoun	May 21	Thomas Schleuger Fort Dodge
	11 lb. 0 oz.	37 "	Iowa River Johnson	June 15	Gary Bloom Iowa City
Paddlefish	58 lb. 0 oz.	60 "	Mississippi River Allamakee	May 2	Leslie Young Cedar Rapids
	50 lb. 0 oz.	57 "	Mississippi River Jackson	August 21	Earl Busch Lost Nation
	27 lb. 12 oz.	47 "	Iowa River Johnson	July 19	Gary Bloom Iowa City
Rainbow Trout	9 lb. 6 oz.	27 "	French Creek Allamakee	December 24	Fred Daugs Robbinsdale, Minn.
	7 lb. 0 oz.	26¼"	Bloody Run Allamakee	December 22	Fred Daugs Robbinsdale, Minn.
	5 lb. 9 oz.	23½"	Grannis Creek Fayette	May 1	M. H. Anderson Fayette
Sauger	None entered				
Sheepshead	28 lb. 0 oz.	33 "	Mississippi River Clayton	August 4	Guy Waalk McGregor
Smallmouth Bass	None entered				
Walleye	12 lb. 4 oz.	30½"	Mississippi River Clayton	December 5	Byron Olinger Manchester
	11 lb. 4 oz.	31 "	Spirit Lake Dickinson	January 26	Bob Holtz Spirit Lake
Yellow Perch	None entered				

BOOK REVIEW

Men of Ancient Iowa, Marshall McKusick, Iowa State University Press, Ames, Iowa, 260 pp., $6.50.

State Archeologist of Iowa, Marshall McKusick, has undertaken the task of sorting through the accumulated knowledge of the ancient Indian culture that preceded the white man's arrival in Iowa. Admittedly, the problem of relating the information collected over many years by archeologists, amateurs and curious individuals, is a difficult one. McKusick has, however, accomplished the task with great skill.

The archeologist suggests a date of about 10,000 B.C. as a possible beginning of an early Indian culture in Iowa. The people are known as the Paleo-Indians and have left as evidence of their presence, fluted projectile points. Since these are similar to those found at the Folsom, New Mexico, excavations of the extinct pleistocene bison, a possible relationship exists. The connection is not definite, but as McKusick suggests ". . . the archeological evidence which lies buried somewhere in Iowa will be exposed, recognized, and studied. Gravel pits would be a reasonable place to come across this early evidence."

The collapse of Indian culture and traditions following early colonization of the New World by white men was not, according to McKusick, due to basic flaws in the culture, but instead a physical inability to adapt to the common diseases of the Old World. The startling thought is: what would be the course of the world today if Western men had been susceptible to Indian disease?

Although **Men of Ancient Iowa** definitely ranks as a scholar's treatise, it is an easy book for the untrained reader. It contains hundreds of pictures and drawings depicting the many artifacts of the culture. Facts are heavily footnoted, but since the references are placed in a special appendix, they cause no distractions. As a further help to the student or casual reader, a splendid glossary of terms is also appended.

PLANNING PAMPHLET AVAILABLE

A pamphlet outlining the State Conservation Commission's long range planning program for outdoor recreation facilities in Iowa is now available. The pamphlet, written by Commission Chairman Sherry Fisher, contains brief discussions on parks expansion, water recreation, fishing programs, wildlife habitat development and forest development. Free copies are available from the State Conservation Commission, East 7th and Court, Des Moines, Iowa.

DISCOVERING AN ANCIENT INDIAN FORT

Marshall McKusick
State Archeologist

A lost chapter of ancient Iowa history has been discovered in the rugged hills of northeastern Iowa, an area inhabited by many different Indian tribes many years before the coming of the White Man. Through the application of archeological techniques, a fortified Indian village, the first fortification found in Iowa dating from ancient Indian times, was discovered. The village is located on a rise of land overlooking the junction of French Creek and the Upper Iowa River.

Excavation of the village site by the author and a crew of students from the University of Iowa revealed who built the fort, when it was built and the details of its construction.

The story begins about 800 A.D. when numerous groups of agricultural Indians began to build large towns along the Mississippi River in Missouri, southern Illinois and farther south. These river Indians possessed a vigorous expanding culture, and they drove out the resident Woodland Indians. These tribes in turn moved northwards pushing out other Woodland tribes from their home territories. The result was a chain reaction in which much of eastern North America was thrown into turmoil and warfare by 1200 A.D. The northern periphery of this warfare extended in a long arc from central New York westward through Michigan, Wisconsin, Iowa and eventually the Dakotas. Local Woodland tribes fought each other for possession of tribal territories far from the original scene of action around the central valley of the Mississippi River.

The Stockade

The fortification discovered dates from the time of troubles around 1200 A.D. It was a square fort measuring about 200 feet on each side. The wall was built of large posts, set upright in the ground to form a stockade. The main entryway did not have a hinged gate for true gates were unknown to the Indians of this area. Instead the Indians built a very effective substitute consisting of overlapping walls so that no enemy could rush directly in or shoot down the defenders with arrows.

The upright stockade posts were set in holes and then driven in about three feet deep. To strengthen the stockade posts dirt was heaped along the base of the stockade row forming a low rampart inside and outside the post walls.

The posts themselves had rotted completely away long ago and it was a difficult but interesting job tracing out where they had once been set. This job was done in the following way. The posts had been driven into subsoil. As the posts rotted out, the hole gradually filled with black topsoil. By very carefully trimming off the subsoil which was reddish brown in color one could see where the actual posts had been set for these post holes were now filled with darker earth.

The south rampart of the fort before excavation. String indicates the suspected location of the stockade posts.

The wooden stakes mark the location of posts. The palisade of posts formed south wall of the fort.

A number of arrowheads and small pieces of pottery were found side the fort. Yet it does not appear that the Woodland Indians built it lived inside for very many years. A careful examination of stockade post holes revealed that no extra posts had been set the stockade. In other words, no rebuilding of the stockade was made. Most of the posts were large, about six to eight inches in meter. Even so, green unseasoned oak posts of that size would not more than thirty years in the ground and remain strong enough an effective stockade. It would seem necessary to do quite a bit maintenance to keep a fort defensible. The fact that no rebuild could be found certainly points to a short period of occupation by Indians, perhaps ten years or less. There was very little refuse f camping inside the walls, although usually fairly thick accumulati of pottery, animal bones and flint chips are found at Indian vill sites. This fact that the inside of the fortification contained c paratively little refuse confirms the short span of years during wh the Indians relied upon the fort for protection from enemies. A for this size might have contained two or three hundred Indians in a t of crisis.

Archeological Analysis

The many specimens collected from the excavations are now und going study in the Archeological Laboratory at the University of Io The charcoal by its amount of radioactivity will give us an approxim date in years when the fort was built. The pottery is being compa

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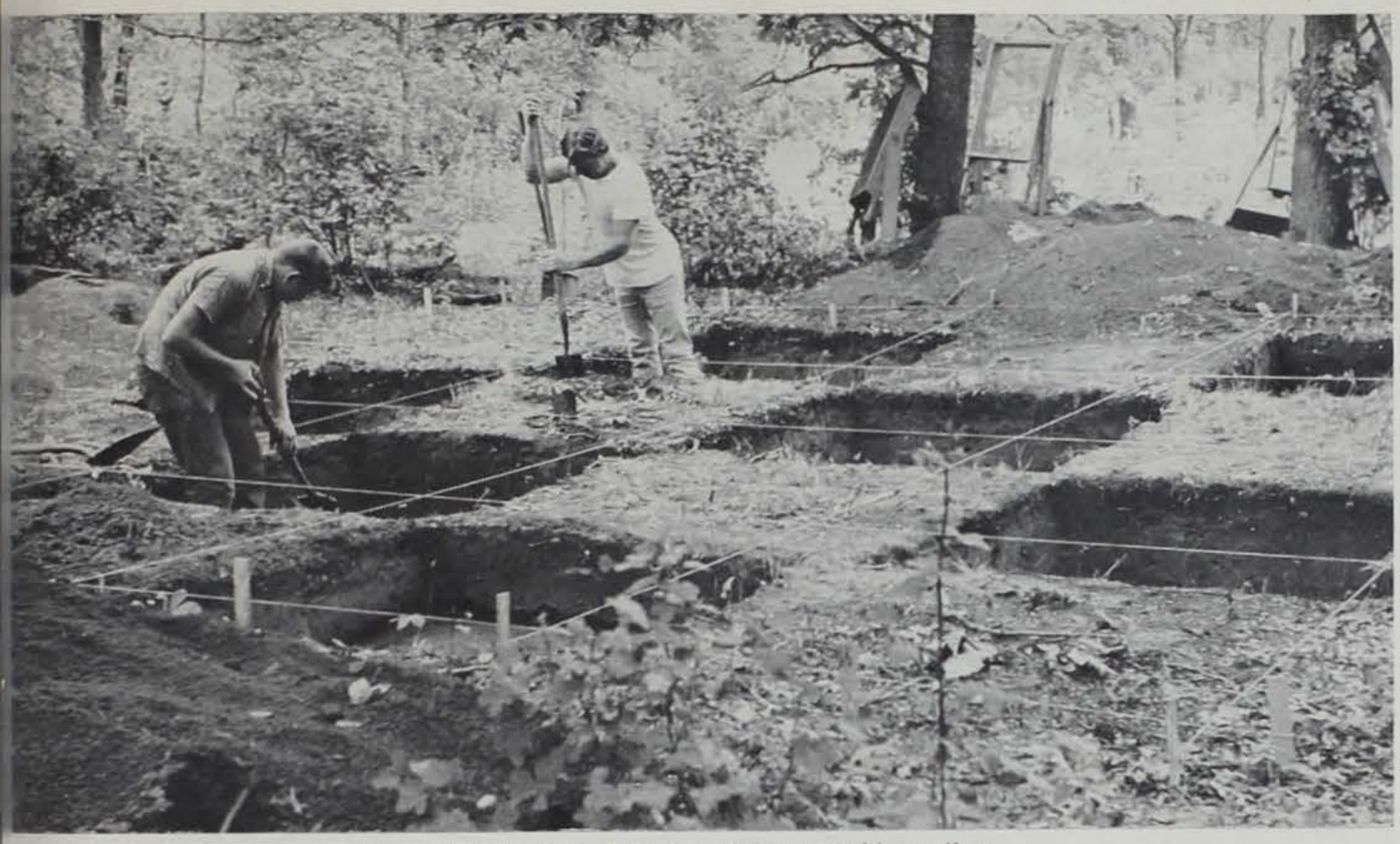
BOOK REVIEW

Wildlife on the Public Lands by the U. S. Department of the Interior, Bureau of Land Management. 34 pages, $.35, Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

A quick glance at this booklet might leave one unimpressed; however, closer examination will reveal the fine quality contained therein. The color photography is magnificent, and it alone is worth the price of the publication.

Wildlife on the Public Lands is a description of the types of land and the wildlife inhabitants that exist on some 465 million acres of public lands managed by the Bureau of Land Management in western United States and Al ka. It contains a brief discuss of nature, the life cycle, popu tions and habitat. Also inclu are distribution maps for the m jor mammals found on these p lic lands and maps locating public lands under BLM mana ment. Furthermore, managem of the habitat is discussed.

The booklet is well illustra with many close-ups of dese plains, forest and arctic wildl It has received popular treatm by its author, but contains s ficient detail to be a teaching at the elementary, junior high high school levels.—M.S.



The southwest corner of the fort was excavated by sections.

DIAN FORT (Continued from page 6)

th samples from western Iowa, Wisconsin and Illinois in order to ermine cultural relationships of the fort's builders with other tribes. ich interesting information is being slowly pieced together through s laboratory analysis. So far it seems certain that our work has ablished the presence of a previously undiscovered ancient culture of jor significance. This culture is now named the Hartley culture er the landowner where the fort is located.

The fort appears to have been abandoned by the Hartley Indians. It s never burned down in an attack, but probably just rotted away. ng after the fort was abandoned later Indians termed Oneota or historic Ioway visited the area and noticed the remnants of the then ramparts which once supported the stockade. Mistaking the nparts for long burial mounds, the Oneota Indians buried their dead them for it was sometimes their custom to reuse more ancient rial mounds. We found a number of Oneota burials dating from out 1500 or 1600 A.D. in the ramparts where some of them lay over holes of the original stockade built hundreds of years earlier.

The State Archeologist hopes that eventually this very interesting cient Indian fort which contains so much fascinating Iowa history long ago will be made into a state park. With rebuilt stockade walls d a small museum the Hartley fort would form a fascinating out- or exhibit of Iowa's ancient Indian heritage.

Excavated earth was carefully screened for scraps of bone and stone.

al of child found inside the fort. Child belonged to the Oneota culture and was buried long after the original fort was abandoned.

This antler found during the excavation may have been used as a rake.

BEGINNER'S BASIC

Minute Of Angle is a term that applies to all rifle shooting done with micrometer and telescopic sights. Both telescopic and micrometer rear sights are fitted with elevation and windage scale adjustments measured in Minutes Of Angle.

Each Minute Of Angle changes the bullet's impact point on the target by one inch per 100 yards of distance. For example, a one minute elevation of the rear sight will raise the impact point one inch on a target 100 yards away. The same adjustment for a target 50 yards distant would raise the impact point one-half inch; at 25 yards, one-quarter inch.

Minute Of Angle adjustments on micrometer and telescopic sights are measured in clicks (increment of movement) of the windage and elevation knobs. Some sights require two clicks per Minute Of Angle, others four. The former represent half-minutes; the latter, quarter-minutes.—*From the Winchester Proof.*

THINGS YOU MAY NOT KNOW

New Guinea's Greater Bird of Paradise, noted for its magnificent and multicolored plumes, is a cousin to the common crow.

The heavy antlers cast off annually by deer are usually eaten by rodents to satisfy their craving for calcium and other minerals.

Although a young cottontail rabbit has only one chance in twenty of reaching its first birthday, it is one of our most common animals.

Herons fly with their necks drawn in and their feet extended. Cranes, on the other hand, extend their necks in flight.

Crickets' chirps have surprising carrying power. One cricket barely an inch long sounds a note audible for almost a mile.

Beavers can work under water sawing poles with their teeth without getting water in their mouths. The lips are so designed that they close in back of the long, front incisor teeth.

Hawks are equipped with eyes that have been called "perhaps the most developed organs of vision in the world." They can see at least eight times as well as the most "hawk-eyed" human.

The fisher is the fastest tree-top traveler in the animal world. It can even overtake the marten which is so adept at catching red squirrels in the treetops.

The ocelot has a gentle disposition and is the only native cat that has been known to be partly domesticated successfully.

TREE ORDERS BEING ACCEPTED

John Stokes
State Forester

Orders for trees and shrubs to be planted this spring are now being accepted by the State Conservation Commission. The hardwood and conifer seedlings plus wildlife shrub plants will be shipped or can be picked up from the Forest Nursery at Ames, Iowa, sometime between the latter part of March and early May.

The conifer seedlings, including the various species of pines, are usually the most popular with Iowa landowners. A table, included in this issue, shows the seedlings available, cost and ordering procedure. Landowners in a county can pick up their trees in one lot to insure fresh trees to plant. If landowners do not wish to pick the trees up at the nursery, they will be shipped to the purchaser collect. Shipment will be made by the available commercial carrier assuring the quickest possible delivery of the nursery stock to the purchaser.

By studying existing plantations, foresters have indications of which pine trees will do the best in certain soil types and conditions. The Conservation Commission has 10 District Foresters located at Adel, Chariton, Independence, Anamosa, Fairfield, Muscatine, LeMars, Charles City, Red Oak and Elkader who assist landowners in choosing species to plant and other timber management problems. The foresters also assist landowners in signing up under the County ASC Program. The tree planting practice under this program assists landowners by paying part of the cost involved in clearing for tree planting, land preparation, the actual planting and fencing where needed. Additional information may be obtained from your County ASC Office or your District Forester.

Trees for sale from the State Forest Nursery are to be used for forest land and game area plantings. The trees cannot be used for ornamental, shade or other landscape purposes and may be used for windbreaks only when the area planted will be at least 200 feet in width and 300 feet in length. A new practice under the ASC program allows landowners to plant game shrubs to provide low cover plants in existing windbreaks. The shrubs used under this Federal Cost-Sharing practice, however, must be purchased from a commercial nursery. Trees grown by the State and shipped from the State Forest Nursery cannot be used.

Planting trees as recommended by Commission Foresters means a return to production of idle submarginal farm land, isolated areas and hillsides that erode easily and other lands where trees provide the most desirable type of vegetative cover. The trees will provide many benefits including erosion control, financial return, wildlife cover and aesthetic values which bring the greatest satisfaction to many landowners.

TREES AND SHRUBS AVAILABLE FOR FARM PLANTIN(
STATE CONSERVATION COMMISSION
East Seventh and Court Avenue, Des Moines, Iowa 50309

SPECIES	AGE CLASS	PRICE FOR: 250	500	750	:00
Austrian Pine	2-0	$ 5.50	$ 11.00	$ 16.50	$:00
European Larch	2-0	5.50	11.00	16.50	:00
Jack Pine	2-0	5.50	11.00	16.50	:00
Ponderosa Pine	2-0	5.50	11.00	16.50	:00
(Western half of Iowa only)					
Red Cedar	2-0	5.50	11.00	16.50	:00
Red Pine	3-0	5.50	11.00	16.50	:00
Virginia Pine	2-0	5.50	11.00	16.50	:00
(Southern two tiers of counties only)					
White Pine	3-0	5.50	11.00	16.50	:00
Multiflora Rose	1-0	5.00	10.00	15.00	:00
Dogwood	1-0	4.00	8.00	12.00	:00
Wild Grape	1-0	4.00	8.00	12.00	:00
Honeysuckle	1-0	4.00	8.00	12.00	:00
Ninebark	1-0	4.00	8.00	12.00	:00
Russian Olive	1-0	4.00	8.00	12.00	:00
Green Ash	1-0	4.00	8.00	12.00	:00
Walnut	Stratified Seed	1.50	3.00	4.50	:00

SPECIAL WILDLIFE PACKET 4.50

The wildlife packet contains 250 plants including 50 evergree 50 honeysuckle, 25 Russian olive, 25 wild grape, 25 multiflo rose and 75 other plants beneficial to wildlife. Illustrative su gestions for odd areas and farm pond plantings will be furnish with each packet.

SPECIAL NOTICE

(1) The nursery reserves the right to substitute species of a suita type if a shortage occurs.

(2) **PAYMENT FOR NURSERY STOCK MUST ACCOMPA ORDER.**

(3) Nursery stock must be ordered in multiples of 250 and ea order must total at least 500 plants. The wildlife packet may ordered singly.

(4) All trees and shrubs will be sent to the purchaser COLLEC unless the purchaser specifies the order is to be picked up. Sh ments will be made by the available commercial carrier assuri the quickest possible delivery of nursery stock to the purchas

TREES PER ACRE AT DIFFERENT SPACINGS

5′ X 5′ — 1,742	5′ X 6′ — 1,452
6′ X 6′ — 1,210	6′ X 7′ — 1,037
7′ X 7′ — 889	8′ X 8′ — 681

WINTER FISHIN' FUN

(Continued from page 1)

equipment described above. Many members of the ice fishing fraternity take great pleasure and pride in the creativity of personally designed ice poles. Several small plastic bobbers, some split shot, and a few pan fish hooks (size 6 or 8) should round out your rig.

One of the most important tools of the ice fisherman is the ice auger or chisel. It is possible to cut a hole through ice with an axe or hatchet, but those of you who have tried both will agree the axe is doing it the hard way. Spud bars and augers are commercially available.

BAITS AND LURES

Like its artful cousin—summer fishing, fishing through the ice is done with either natural bait or artificial lures, or a combination of both. Natural baits include a long list of insect larvae and small minnows. Some of the common bluegill baits include corn borers, mousees, golden rod grubs, hickory bark borers, mayfly nymph, caddis nymph, mealworms, and maggots. Minnows are used almost exclusively for crappie fishing. Hooked lightly through the back and carefully lowered around a crappie bed, the catch is often more rewarding and quicker than in the summer. However, make sure the minnow is hooked very shallow in the muscle structure of the back, since spinal damage will curtail its natural movements.

Artificial lures are generally small brightly colored weighted flies or spoons. Ice flies are simply made by crimping a small split shot just below the eye of a small bluegill hook. The shot is then painted a bright color by dipping it in a small amount of quick drying enamel. Marabou feathers are then attached just below the shot and clipped evenly at the bend of the hook. By raising and lowering the fly with short, jerky movements, the marabou creates a curious fluffing action that is attractive to fish. The addition of an insect larvae, such as a corn borer, will often add a little something which might spell added success. Another widely used artificial lure is the small willow leaf spinner soldered to a long shank hook. These can either be fished with or without natural bait.

SCHOOLS AND DEPTH

During the winter months, crappie and bluegill are usually found in large schools. That is, you rarely find a single fish. It is also common to find mixed schools of these panfish. Thus, to be succe in your venture you must first locate a school of fish.

Probably the quickest and most widely used method is to sta shallow and fish toward deep water. Usually the angler will about 10 minutes in each hole; if he is not successful, he will about 50 yards in a straight line toward the deeper part of the lake repeat this process until fish are located. Once fish are found, sta this hole until the school has moved. Then try your best to rel the fish again, or if you prefer try to find a new school.

Vertical and lateral movements of fish are far less pronounce the winter than any other period of the year. There is a direct relation between the bottom and the vertical distribution of cra bluegill, largemouth bass, and perch.

Studies with depth marked gill nets at Red Haw Lake near Cha during winter ice cover revealed a concentration of perch, blu and largemouth bass near the bottom regardless of the dept water. In fact, bluegill were always caught in greatest num within 2 feet of the bottom. Crappie were not so concentrated a narrow stratum, but were most abundant within 6 feet of the tom. Thus, the relationship of the lake or pond bottom and the v cal location of fish becomes important to the angler. It would be less to fish in shallow water stratum, if the fish were located nea bottom.

GOLDEN RULE

An unwritten rule of the ice fishing fraternity is courtesy to fellow fisherman. Nobody wants a hole chopped in the ice right to his, especially if the fish are biting. Treat your fellow angler you would want him to treat you. Companionship and friendship be the highest in winter fishing, but it can also be just the opp with short sightedness and rudeness to the other fellow.

Ice fishing has put the run on the off-season doldrums of many angler. Like Ol' Ez told me, "Son we got it made. Who else boast of fishin' in his own backyard. It can be the bitterest da January, but when them stumpnockers start ta' hit, the coldest on the ice will warm in body and soul. And fer a little while least, it's summer agin."