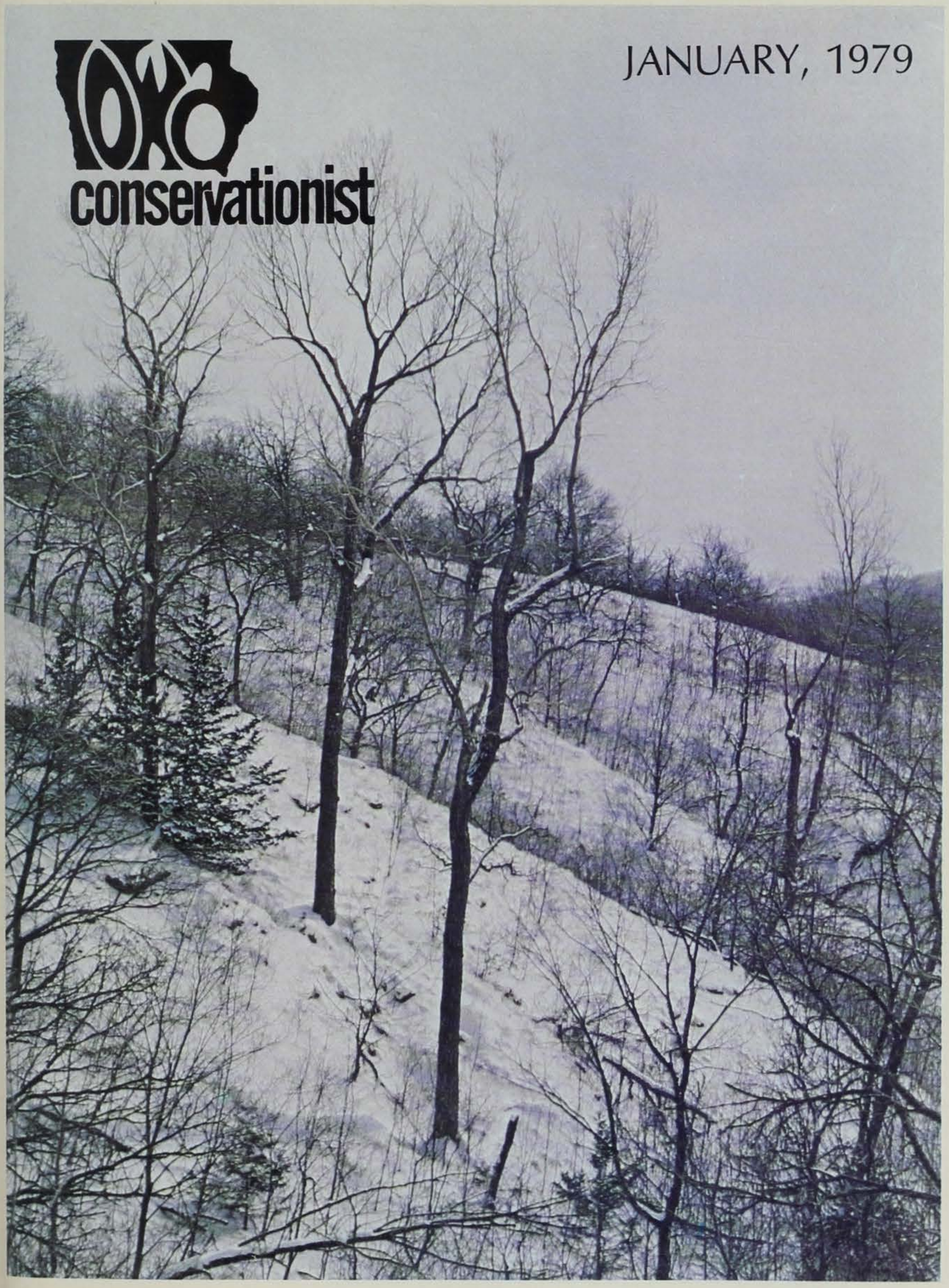
Iowa conservationist

JANUARY, 1979



IOWA conservationist

Volume 38, No. 1 • January 1979

CONTENTS

COVER: Loess Hills by Ken Formanek

Published monthly by the Iowa Conservation Commission, Wallace State Office Building, Des Moines, Iowa 50319. Address all mail (subscriptions, change of address, Form 3579, manuscripts, mail items) to the above address. Subscription price: one year at $2.00; two years at $3.00; four years at $5.00. Second class postage paid at Des Moines, Iowa and other points.

LOESS HILLS IN DANGER

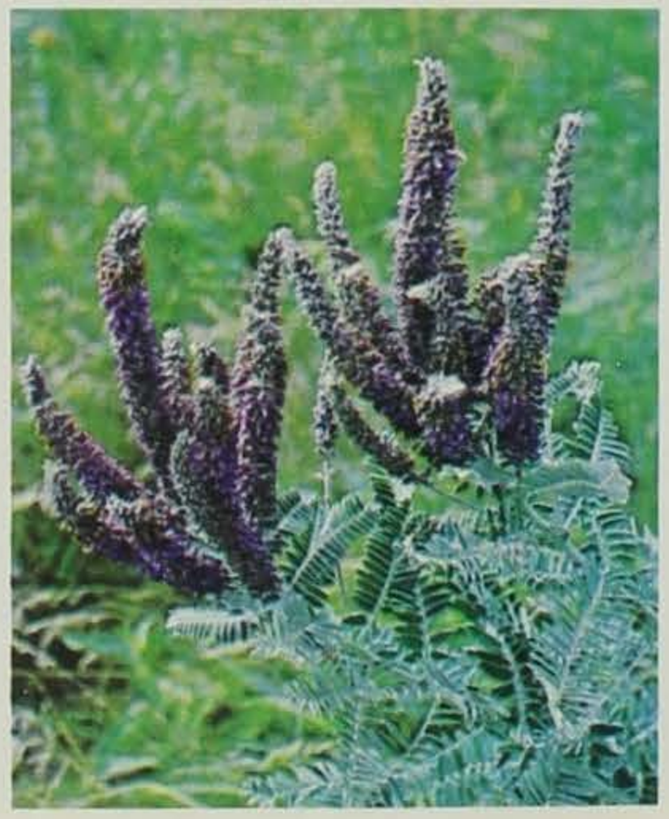
The fastest way to China is by way of Council Bluffs

by Rebecca Leach

Although Marco Polo and most Iowans would be surprised by the fact, a little of the orient can be seen in western Iowa, masquerading as the "Loess Hills". The Loess Hills are an unusual geological formation, the likes of which are found in only one other area in the world — mainland China. These rugged bluffs, rising from the Missouri River bottomlands and extending northward for 175 miles, are composed of a fine-grained, yellowish-brown soil, and provide a striking contrast to the surrounding Iowa lowlands.

The history of the Loess Hills region began long ago, when retreating glaciers carved a large "sea" in the Missouri River Valley. Approximately 14,000 years ago this sea dried up, and fine dust from the sea bottom began blowing inland across what is now Iowa. Much of this wind-blown soil, or "loess", formed dunes over 100 feet in height, creating the distinctive hills. Today the Loess Hills support an array of interesting, seemingly displaced vegetation. Prickly pear cacti and yucca plants cover the slopes, although the species are normally found in arrid regions hundreds of miles to the west. Roaming coyotes add to the oddity of the area, which also provides a suitable habitat for numerous squirrels and other animals. Preparation Canyon State Park, the site of an early Mormon settlement in the Loess Hills, is a reminder of man's contribution to the unique history of the region.

Lead plant *PHOTO BY KEN FORMANEK*



Without a doubt, this hilly area is of great biological and geological value. It is unique in the United States, and an asset to the state of Iowa. Nevertheless, the future of the Loess Hills could very well prove grim unless steps are taken to halt the advance of man-made developments and protect this area in its natural state. Continued grazing of the hills, conversion of areas to agricultural production, and the demand for space created by growing populations could destroy the qualities of the Loess Hills.

The Iowa Conservation Commission recognized the importance of the loess formations and has begun considering several proposals to insure protection of the bluffs. The best of the proposed ideas would result in the creation of a Loess Hills National Monument. Gerald Schnepf, Planning Administrator for the ICC, has contacted the U.S. Department of Interior, in hopes of gaining support for a federal study of the area. One of the most significant areas under consideration by the Commission is located near the town of Little Sioux, between the Soldier and Little Sioux rivers. This area encompasses approximately 30,000 acres and presents an excellent example of the unique terrain.

(Continued Page 12)

PHOTOS BY THE AUTHOR

Iowa's Unique Heritage

by Jeanne Novacek Bates

It was a hot, close morning with lead-colored clouds hanging low in the sky as I was driving to Onawa to interview Neil Heiser, the wildlife management biologist of the Missouri River Wildlife Unit, Iowa Conservation Commission, about the Loess Hills Wildlife Area. The Loess Hills is a 2400 acre tract obtained by the Iowa Conservation Commission in 1974 under the original Open Spaces Program, which promotes the preservation of unique, geologic, historic land for future generations. Cruising down the interstate, I thought of the many travelers who use I-29 and possibly never realize the special uniqueness of the loess hills. Squint your eyes a little and the hills resemble the Rocky Mountain foothills in Colorado.

As I arrived in Onawa, I was experiencing my usual thrill of excitement at the prospect of hiking in my favorite area to pursue my hobby of photographing prairie wildflowers. But first, I talked with Neil Heiser who explained that the Loess Hills Wildlife Area is managed for wildlife as the primary purpose, and various ways visitors can enjoy the area.

The boundaries are completely fenced to protect the fragile land from grazing and vehicles. A rotating crop system, half alfalfa, is used to create an edge effect important to wildlife for nesting, protection from predators, and for forage with 20% left unharvested for this purpose during winter. Another tedious, but necessary part of managing a wildlife area is maintaining and building parking areas, signs, fences, and trails. Neil said they hope to make a better, more extensive trail system which will be advantageous to hunters, hikers, and cross-country skiers. Backpacking and primitive camping are excellent ways to become familiar with the Loess Hills. If birdwatching or photography interest you, this is the place for you. Many outdoor classrooms are conducted by Neil and his staff, so there is literally something for everybody. Remember not to leave any indication of your visit, which is a polite way of saying do NOT litter, trample, mutilate, or otherwise plunder the land, plants, or animals!

Thanking Neil for spending part of his busy day with me, I proceeded out to

the recent burn site he directed me to. Usually I am a well prepared individual, but I noted I forgot my hat. With such a gloomy horizon though, who needed it? Much to my later chagrin, I found that clouds have a way of dissipating at the least opportune time. Well, I had my canteen, camera, lenses, binoculars, and field guides to assist me. The weatherman on the radio had just predicted a high in the upper nineties and the humidity was fierce!

Not a breath of air stirred as I assembled myself to hike up a wooded ridge to reach the prairie. Approaching a stand of brome grass, I was surprised by a bright flash of royal blue — an indigo bunting! Almost at the same moment, I heard a deep gutteral growling emitting from the grass. By that time, I was beginning to doubt the wisdom of hiking on such a mercilessly hot day, and now there was this ominous growling to contend with! My mind raced with what fierce animal might be lurking in wait for an unwary photographer. Since I had no intention of becoming a meal, I decided to skirt the area. Just as I was about to attempt to climb another way, I could see the grass rustle in my direction. Increasingly nervous, I backed further down the hill, and the rustling grass relentlessly followed. By now I was trying to recall first aid for animal bites and was desperately searching for a club of some sort. Reaching down for a dead limb, the ferocious, rustling beast burst out of the grass . . . then another!! I was looking straight into the beady eyes of two black, wiggling lab-mix puppies! I must admit my relief was greater than my embarrassment! The pups then proceeded to jump all over me slavering me with wet dog kisses. Not knowing what they were doing in the middle of a wilderness area, I adopted them as my companions until I could later inquire at the nearest farm about them.

A welcome breeze stirred the thick air as we reached the prairie. The leadplants in bloom were the first thing to catch my eye. Leadplant is one species of more than 45 plant families that can be found on a prairie with many represented by only one or two species, and some by six or more. Prairie plants are for the most part long-lived perennials, with the upper part dying back to ground level each fall, leaving the roots alive for new growth in spring.

The prairie is a closed community excluding most invaders except on degraded areas, which means man, machines, or domestic animals have been at work plowing or overgrazing. Weeds and woody plants can then take hold, although with no more interference, prairie plants can usually outcompete weeds. Woody species such as red cedar, dogwood, and sumac are not so easily controlled, however. Prescribed burning kills red cedar outright and sets back dogwood and sumac. Prairie plants are adapted to fire and grow vigorously back in good health. April is the best month to burn as the ground is cold and usually wet, prairie plants are still dormant, and most birds have not yet begun nesting.

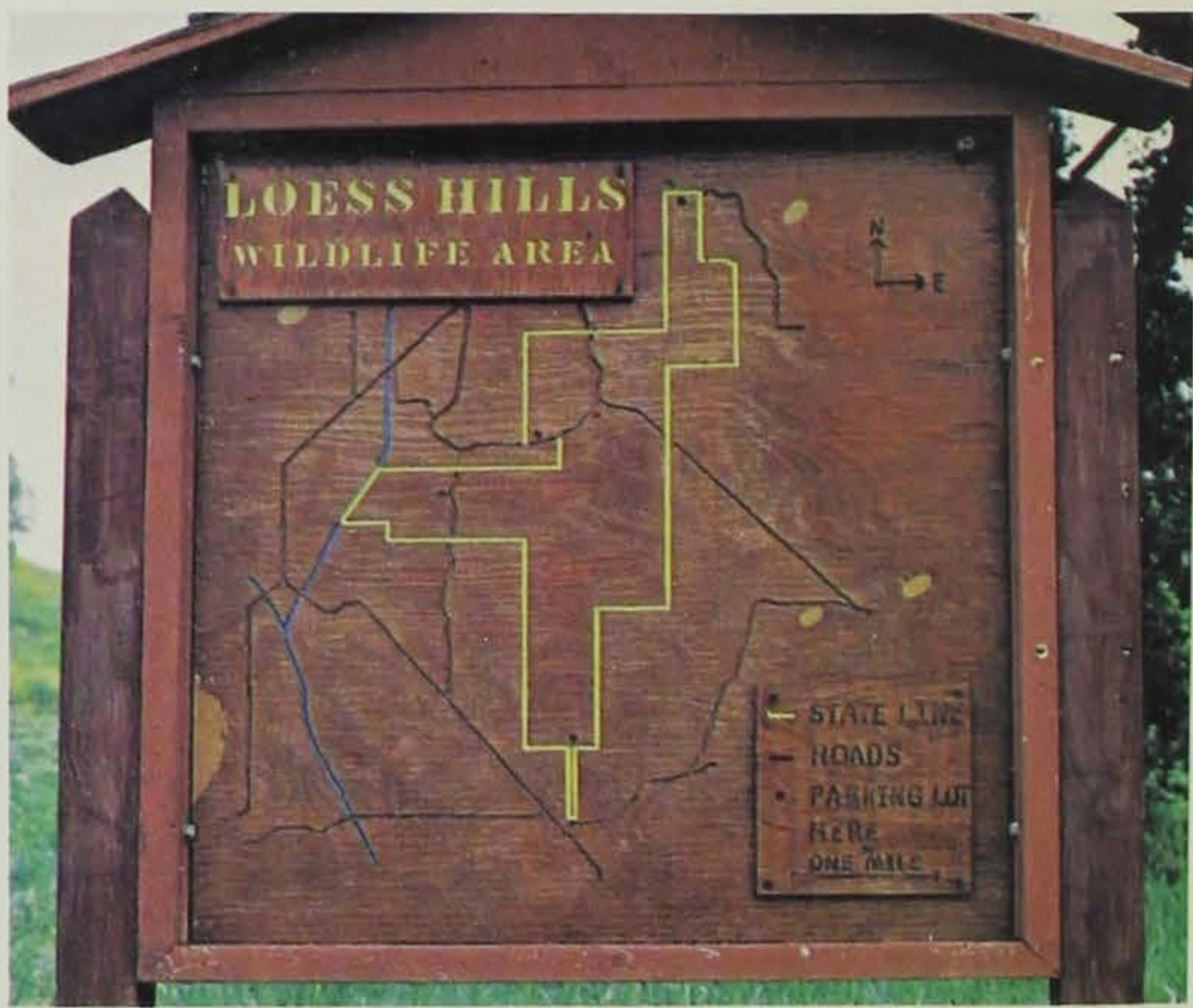
Under Neil Heiser's supervision, one of four prairie areas is burned each year to control invasion from woody plants. He stressed a stern warning against unguided burning and suggested asking the Conservation Commission for advice.

Before settlers came, prairies periodically burned when set by lightning and sometimes accidentally by Indians. Fire came under control, and settlers introduced two foes the prairie could not compete against, the plow and domestic grazing. Iowa was once 80% prairie, but now of course, you must look hard to find any. Luckily some prairie is already preserved in areas such as the Loess Hills. The prairie is our link to the past and a tie with the natural world. Even if there were no scientific merit in the prairie, it would be an unatonable sin to destroy something so beautiful!

After inquiring at two farmsteads, I found my friendly escorts' home and left them in the care of their mother. My next plan of action was to hike up the northern-most ridges of the Loess Hills to take some overall photos. By now the temperature seemed easily 103 degrees in the shade, I was covered with loess, wishing I had at least a headband to prevent sweat from trickling into my eyes and off my nose. The pups had earlier helped me polish off half the contents of the canteen, and as I really never seem to get very thirsty when hiking, I decided to lighten my load. I left the canteen and field guides in the car and walked through the area I camped in while participating in the Loess Hills Prairie Seminar.

Memories flooded back as I recalled the three short days in May. The Seminar was sponsored by the Area 12 Education Agency thanks to the organization powers of Larry and Carolyn Benne of Sioux City. Its purpose was to bring together educators, conservationists, and interested citizens to learn about the uniqueness of the Loess Hills and prairie. Four very learned men conducted hikes through the Hills sharing their special knowledge from each one's particular field. I learned more in the three days than I could have from weeks of book work.

Concern was expressed about obtaining and preserving more land surrounding the Loess Hills and consideration was given to forming a citizens group with the suggested name of "Friends of the Loess Hills". Neil Heiser thought perhaps we could be more effective by using group pressure to make our wishes known to the state legislature. Neil explained all the state-owned areas have to compete for money from a general fund approved by the legislature each year. Which areas should receive the funds is a difficult decision. The "Friends" would have to be persistent in making their desires known to be able to help at the present time. The Sioux City



Audubon Society and Area 12 Education are tentatively planning additional seminars to get the ball rolling toward officially organizing the "Friends of the Loess Hills".

The four instructors commented on the Seminar and the Loess Hills. Sylvan Runkel, Iowa Preserves Board Chairman, noted, "The Loess Hills differ greatly from the rest of the state in vegetation and wildlife, the natural citizens of the woodland community. I loved every minute of the Seminar — even the chill rain, which accented the beauty of the next two days in the unique Loess country — with ancient, sacred hilltops."

Dean Roosa, Iowa Preserves Board Ecologist, pointed out, "The Seminar is a great idea to inform local citizens about the possibilities of this unique area of loess soil. Preservation of such an area is always more successful if the project has the support of knowledgeable people instead of being left entirely to the experts."

Doug Wade, Botany professor at Northern Illinois University, Oregon, Illinois suggests that, "Iowa Nature Conservancy or Conservation Commission lease, purchase, or option some 10 to 12 of the best remaining prairie remnants throughout the Loess Hills. These could be 10 to 40 or more acres each. This would insure representative sampling. A type of protective buffering should be examined carefully, particularly dangers from sprays."

Roger Landers, Dept. of Botany and Plant Pathology, Iowa State University, talked about establishing prairie cover and gave an informative slide presentation on prairie experience in Iowa. He noted, "In the past few years, we have seen more acres in Iowa planted to native prairie species than we have seen being plowed for the first time!"

One last comment I thought was worthy of note came from Don Reese, a Turin farmer whose family has farmed in this area since pioneer days: "I was struck by the conflict between the farmer and the botanist. As a cattle raiser in the loess hills, I was much impressed by a lush stand of brome grass wishing I could duplicate it at home."

I shook myself out of my reverie and decided the only way to get to the top of the bluffs was to plunge in. Plunge in I did, the sweet clover was towering over my head! It was so thick and tangling, I had to lift my legs quite high just to take one step. Rivers of sweat trickled down every available inch, but after several breathers, the prairie opened up to me. Pale purple prairie coneflowers were in bloom everywhere I looked, and since it's quite dry on the ridges, yucca was abundant also. From the peaks I could view the Missouri Valley stretching almost beyond the horizon, creating a sharp contrast between the steep loess hills and the flat fertile flood plain checkered with colorful crops.

By this time the clouds had disappeared and the sun relentlessly baked the earth ... and me. Ultra-violet rays were doing their insidious work and sweat was stinging my eyes to virtual blindness, but my love for the Loess Hills greatly overshadows any test of bodily comfort. I cannot help but admire the stalwart pioneers who crossed the Great Plains in covered wagons with not a tree in sight for miles and miles!

Unsuccessfully convincing myself I wasn't thirsty, I decided to call it a day and headed downhill. I realized I had hiked much further than I anticipated from my car which I now viewed as an oasis in a burning desert. I found that I had cut myself off from the road by a steeply eroded ravine. My choices were either to hike back up the bluffs (quarter-sized blisters on my heels protested this) or become an inept mountaineer and attempt to climb down in and scale up the ravine walls. Luck was on my side, however, I followed the ravine and found it narrowed enough to clumsily jump across.

I reached the road a mile from my car and the warm contents of my half empty canteen. My body protested each plodding step, no shade alleviated the sun's powerful rays, my throat was parched bone-dry ... I actually thought I might not make it! I learned the hard way, **never** hike without a canteen and **always** wear a hat!

I hope my endurance test has not made anyone think the Loess Hills Wildlife Area is an inhospitable wilderness. Iowa is a beautiful state with so much to offer. The prairie heritage, the wildlife, and the unique soils make the Loess Hills a worthwhile and rewarding place to visit any season of the year. If enough people care about such places, we can help the world become a better place for future generations. Now is the time to act. Help Mother Nature any way you are able, and not only your life will be enriched, the whole earth will benefit. □

Over the Coffee Cup

by Larry Squibb
FISHERY TECHNICIAN

THE WINDCHILL FACTOR is fifty below and as you try to curl your fingers around a warm cup of coffee to thaw them out, your toes feel that they will surely shatter at the slightest touch. The concerned citizen on the stool next to you asks, *"What do you guys do all winter, drink coffee?"* No, the truth of the matter is we continue to monitor wildlife and the environmental factors governing their livelihood. The coffee is just a psychological crutch.

The field season for fisheries personnel starts in the spring just as the ice breaks up. The collection of northern pike for hatchery stock is first on the agenda and progresses to walleye and other species as the water warms. As the season progresses, data is collected on fish populations and their environment; including food chain, water chemistry, vegetation, movement and related parameters.

Field work grinds to a ... wait a minute, you had better quicken your pace or those nets will freeze in and you with them. Winter work begins when a water sample has to be taken and the coin is tossed to see who ventures to the middle of the lake on ever so thin ice. The laugh is on the individual who puts a sample bottle in his pocket and the temperature proves to be so low it freezes and breaks the bottle before he reaches shoreline.

When the ice becomes thick enough to support a crew of three it is time to set gill nets for more information on fish populations. As we remove a block of ice from our put-in hole, an onlooker asks what we are doing, and the helpful park attendent jokingly informs him we are preparing to feed the grass carp (white amur) bails of hay through the ice. Our first sucker is snagged and we haven't even set the net.

To explain the operation — a 2 x 4 foot hole is chopped for a "put-in" hole; a "take-out" hole is chopped two or three hundred feet (depending on length of net) from our original hole. Pilot holes are chopped every forty feet between the holes. A 40 foot 1" x 4" batboard with a tow rope attached is then piloted under the ice by means of a grab hook through the pilot holes. The net is attached to the tow rope and pulled the length of the run. The ends of the net are then anchored to the lake bottom by anchor poles or are weighted to the bottom. Should the net float to the surface it will freeze to the bottom of the ice necessitating a lengthy removal session. The net is checked daily.

PHOTO BY RON GEORGE

Mapping of shorelines and bottom contours is done prior to snowcover if at all possible. Bottom depths are obtained by use of an electronic depth finder. The transducer is put in a puddle of water on top of the ice which gives a seal between transducer and ice. Should the temperatures freeze the water prior to getting a reading, antifreeze must be added to the supply of water. This method can also be used by ice fishermen to find dropoffs.

There is a great deal to keep one busy in the office between the brisk activities out-of-doors. The data collected through the summer must be compiled and finalized into a publication. The paper work usually starts with the tabulation of species composition, lengths and weights, and their relationships.

Scale samples are impregnated in plastic to be aged on a microprojector. Spine samples are sectioned and aged, a process that proves to be tedious and time consuming.

Stomach samples, benthos (bottom-dwelling organisms), plankton, vegetation, and water samples are analyzed in the laboratory.

Winter months are also spent constructing and repairing nets and equipment. Specialized equipment is often needed which entails design as well as construction. As spring approaches there is a flurry of activity to make those last minute adjustments to the equipment.

As with the start of winter, spring is near when you must span the receding ice with a plank to collect water samples.

Watch your step! Have a hot cup of coffee, the water wasn't all that deep! □

PHOTO BY LARRY MITZNER

PHOTO BY V. L. PARAGAMIAN

SAFETY COURSE FOR SNOWMOBILERS

SNOWMOBILING can be fun for the entire family. There are age restrictions and safety certificate requirements that should be noted, however. The Iowa Conservation Commission, in cooperation with numerous volunteer instructors, sponsors snowmobile safety courses across the state. Earning a safety certificate from such a course is mandatory to operate on public property for certain age groups, and recommended for all snowmobilers. Iowa off-road recreation vehicle age restrictions and safety certificate requirements are as follows:

PERSONS UNDER AGE 12: Cannot operate any snowmobile on public property unless they are accompanied **on the same machine** by a person 18 years of age who possesses either a valid drivers or chauffeurs license, or a safety certificate.

PERSONS AGE 12-15: must have a safety certificate to operate on public property. To operate on a public highway they must have a safety certificate **and** be accompanied by and under the direct supervision of an adult 18 years of age or older who possesses either a valid driver's license, chauffeur's license or safety certificate.

PERSONS AGE 16 & OVER: Safety Certificate recommended.

For information on a snowmobile safety course being offered in your area, contact your nearest waters officer.

WATERS STATIONS

Water Stations	Address	Area Code	Telephone Number Office	Telephone Number Residence
Bellevue	R.R. 3 Box 2 Bellevue 52031	319	872-4976	872-4031
Black Hawk	P.O. Box 605 Lake View 51450	712	657-2639	657-8759
Clear Lake	Bayside Lake Patrol Clear Lake 50428	515	357-5000	357-5889
Coralville	R.R. 2, Box 256 North Liberty 52317	319	626-6300	626-6300
Fairport	R.R. 3 Box 116 Muscatine 52761	319	263-2791	263-2791
Guttenberg	P.O. Box 429 Guttenberg 52052	319	252-3663	252-3663
Harpers Ferry	P.O. Box 15A Harpers Ferry 52146	319	586-2464	586-2464
Montrose	Water Patrol Station Montrose 52639	319	463-7122	463-7122
Okoboji	Milford 51351	712	337-3377	337-3170
Rathbun	R.R. 2 Moravia 52571	515	724-3304	724-3304
Red Rock	R.R. 3 Knoxville 50138	515	842-3805	842-3805
Saylorville	Route 1, Box 37 Polk City 50226	515	984-6621	984-6621
Spirit Lake	Gull Point Lake Patrol Milford 51351	712	337-3377	332-2080
Weedland	R.R. 1 Sergeant Bluff 51054	712	943-4189	943-4189
Wilson Island	R.R. 2, Box 202 Missouri Valley 51555	712	642-2015	642-2015

THE BLACK HAWK LAKE DILEMMA-

Its causes and cures

By Lannie R. Miller
FISHERIES BIOLOGIST

PHOTOS BY THE AUTHOR

Dead fish following a winterkill.

"Whatever happened to all those big walleye and catfish used to catch in Black Hawk Lake?" Since the winter of 19 this question has been asked by many people. Black Hawk Lake, which once provided many hours of angling enjoym has fallen on bad times. The main cause of these bad times a villain known as winterkill.

Black Hawk Lake is a 957 acre natural lake located in S County. Like most of Iowa's natural lakes, Black Hawk is shallow with an average depth of 5 feet and a maximum de of 13 feet. The bottom is composed of sand and muck and few rock reefs. The lake has two campgrounds located on shores, four boat ramps, and a new marina. The town of I View is located on the west side of the lake.

The Dilemma

Although Black Hawk Lake has a history of fish winter none of them were quite as devastating as the kill that occurred during the winter of 1974-75. That particular wir was marked by extremely cold temperatures and heavy accumulations of snowfall. By December 19, 1974, the dissolved oxygen in the Town Bay area of the lake was d to 0 parts per million (ppm). During the winter months 3 of dissolved oxygen is considered critical to fish life. By mid-January the dissolved oxygen was 0 to 1 ppm throug the entire lake and a severe winterkill was assured.

During a winterkill situation the game fish such as largemouth bass, walleye, and crappie are usually the firs

Aerial

rish from lack of oxygen. Rough fish like carp and buffalo e more tolerant of low oxygen levels and a few of these ecies survive even the most severe winterkill. A survey ne by fisheries personnel shortly after the ice went out owed that this was the case. No game fish were found in lack Hawk Lake, but a few carp, buffalo, and bullheads ere captured.

Largemouth bass, northern pike, channel catfish, crappie, d bluegill were stocked in the spring of 1975 to establish a od population of game fish in Black Hawk Lake. However, ring the spring of 1975 the carp, buffalo, and bullheads that rvived the winterkill reproduced in unbelievable numbers. undreds of thousands of young-of-the-year carp and buffalo uld be seen throughout the lake. Although the game fish owed good growth during the summer of 1975, the extreme mber of rough fish and their astounding growth soon ilized all of the food and space in the lake.

To compound the problem, the summer of 1976 was the art of a severe drought in northwest Iowa. The water level Black Hawk Lake dropped by 42 inches, further reducing th food supply and space needed for fish growth. Fish rveys during 1976 showed most of the game fish had been t-competed by the rough fish and had ceased to grow. Some the fish, especially the bullheads, showed a loss of flesh d appeared starved and emaciated.

The final 'straw that broke the lake's back' came in the rm of a partial winterkill in the winter of 1977, wiping out the remaining game fish and again leaving the carp and buffalo. Although 1978 brought much needed rain and once again filled the lake, an almost complete absence of game fish and a tremendous rough fish population has almost eliminated fishing in Black Hawk Lake.

The Cures

In the winter of 1978, the research branch of the Fisheries Section will begin a 3 year project designed to reduce or eliminate the chances of winterkill in Black Hawk Lake. Using two different types of aerators, the project is designed to keep from 30-40 acres of water in the Town Bay area open which will allow an exchange of oxygen between the air and water. If successful, this project should provide an area of Black Hawk Lake with sufficient oxygen to prevent winterkill in even the most severe winters. The Town Bay area will be closed for safety reasons during the winter months.

If the research project is successful, the fisheries management branch will purchase fish toxicant in order to renovate the fish populaton in Black Hawk Lake. Chemical will be applied in the early fall and the lake will be restocked with game fish. Although this will be an expensive project, it is necessary to reduce the numbers of rough fish and allow the game fish a chance to grow. With good management and a little help from Mother Nature, Black Hawk Lake will once again produce those big walleye and catfish that everyone longs for. □

Hawk Lake.

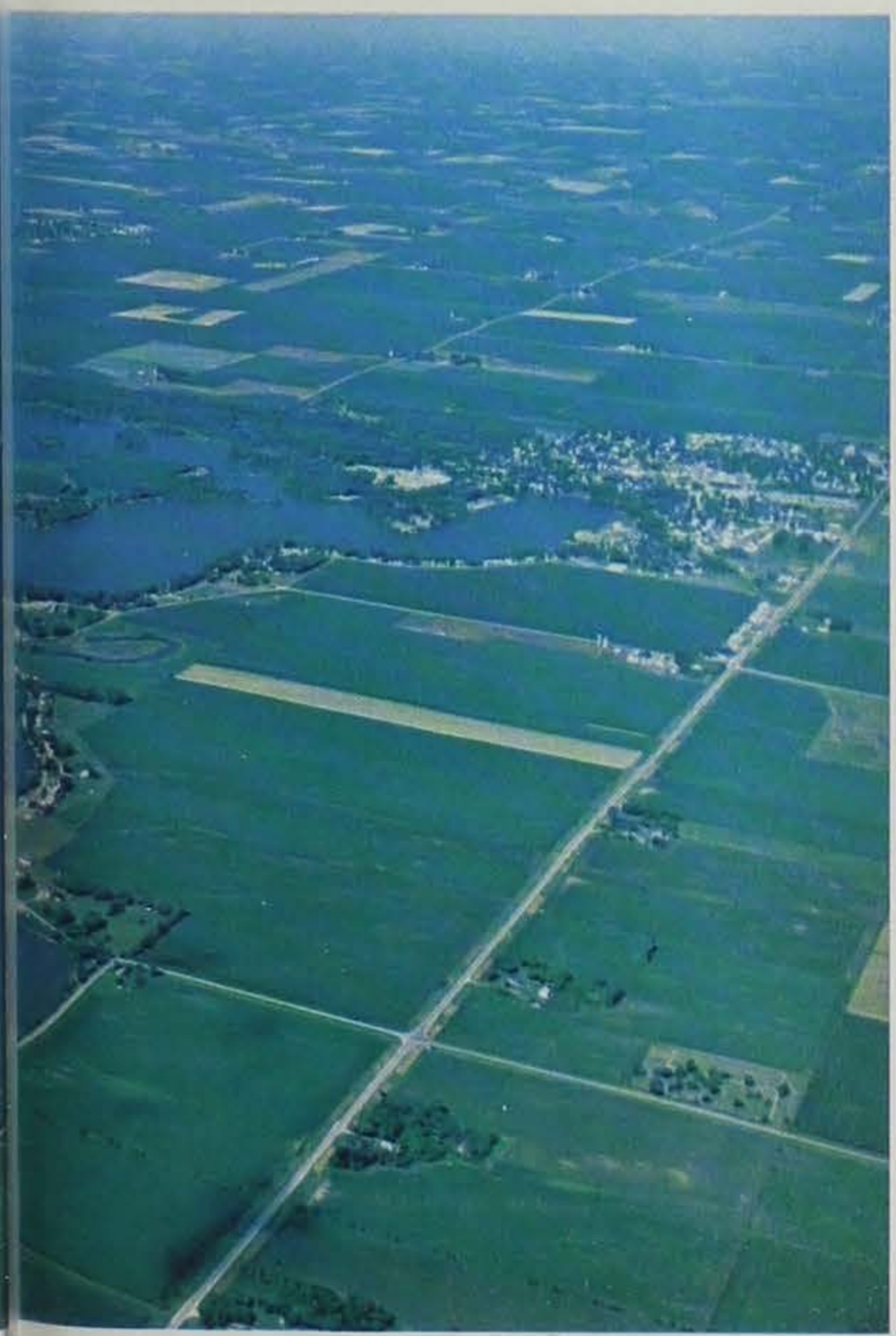
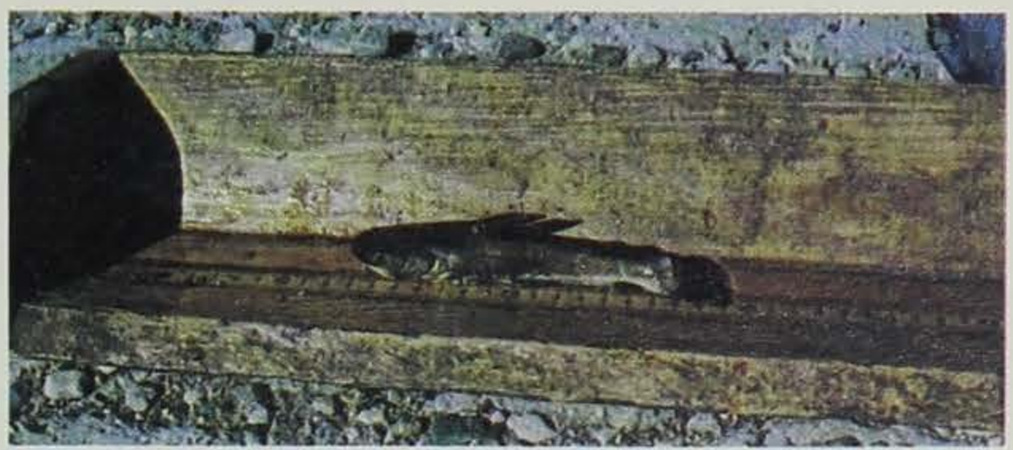


Photo showing effects of drought on Black Hawk Lake. Taken in August 1977.



Bullhead taken in the spring of 1978. Notice poor body condition.

TRY RATHBUN

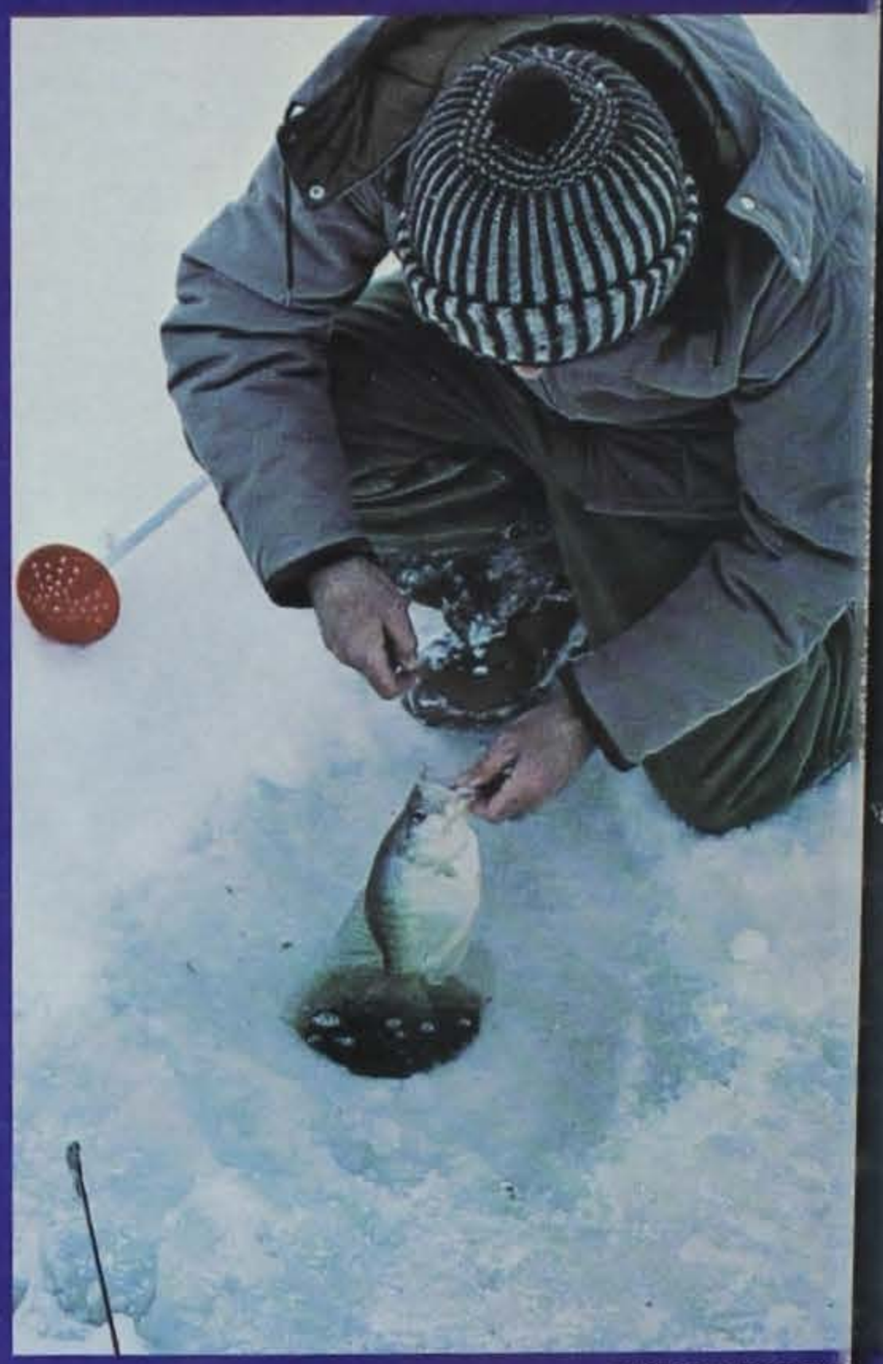


PHOTO BY ROGER S

THROUGH THE ICE

By Sonny Satre

Ice fishing for crappies at Rathbun Reservoir has been a fisherman's paradise for several winters. The action usually begins in late December when ice conditions have safely firmed up and continues to mid-March.

For some unknown reason, consistently larger crappies seem to be caught through the ice than at other times of the year. Most of the fish caught at Rathbun are keepers — averaging between one-half to over a pound in size. Some "slabs" over two pounds are taken to the delight of the angler.

Some of the best areas to catch these highly-prized panfish include the upper reaches of the lake in the flooded timber areas on the south side (west of Bridgeview area). The Bridgeview area on either side of Appanoose County road S-70 and the Southfork region are also proven popular spots. I am sure there are many other good areas on this 11,000 acre lake, all you have to do is find them! For up-to-date ice fishing information, anglers should check with Commission personnel at the Rathbun Hatchery or with local area bait houses.

A number of successful Rathbun ice fishermen swear the best areas to fish are over old river and creek channels. You can't knock success as crappies seem to congregate in these areas. Lakebed contour maps of Rathbun can be obtained from the Iowa Conservation Commission, Information and Education Section, Wallace Building, Des Moines 50319 for $1 each. An electronic depth finder is a good way to search out these areas. The water depths in the river and creek channels range from 15 to 25 feet.

Most Rathbun crappies are ca using small to medium-sized min and fishing them at various depth a size #4 hook. Fish one rod a three feet from the bottom an other at a higher depth to try to l the fish. Last year a succe angler was outfishing everybod was only fishing six feet deep feet of water! So it pays to e ment to see what works best. A split shot is recommended to s sinking the line and minnow to th sired depth. The smallest po bobber (styrofoam or cork as lo it's buoyant) is important. Cra often bite lightly and the sli twitch of the more sensitive er bobber is the difference of ing a fish or not. Fishermen larger bobbers almost always fewer fish.

In case you haven't tried ic

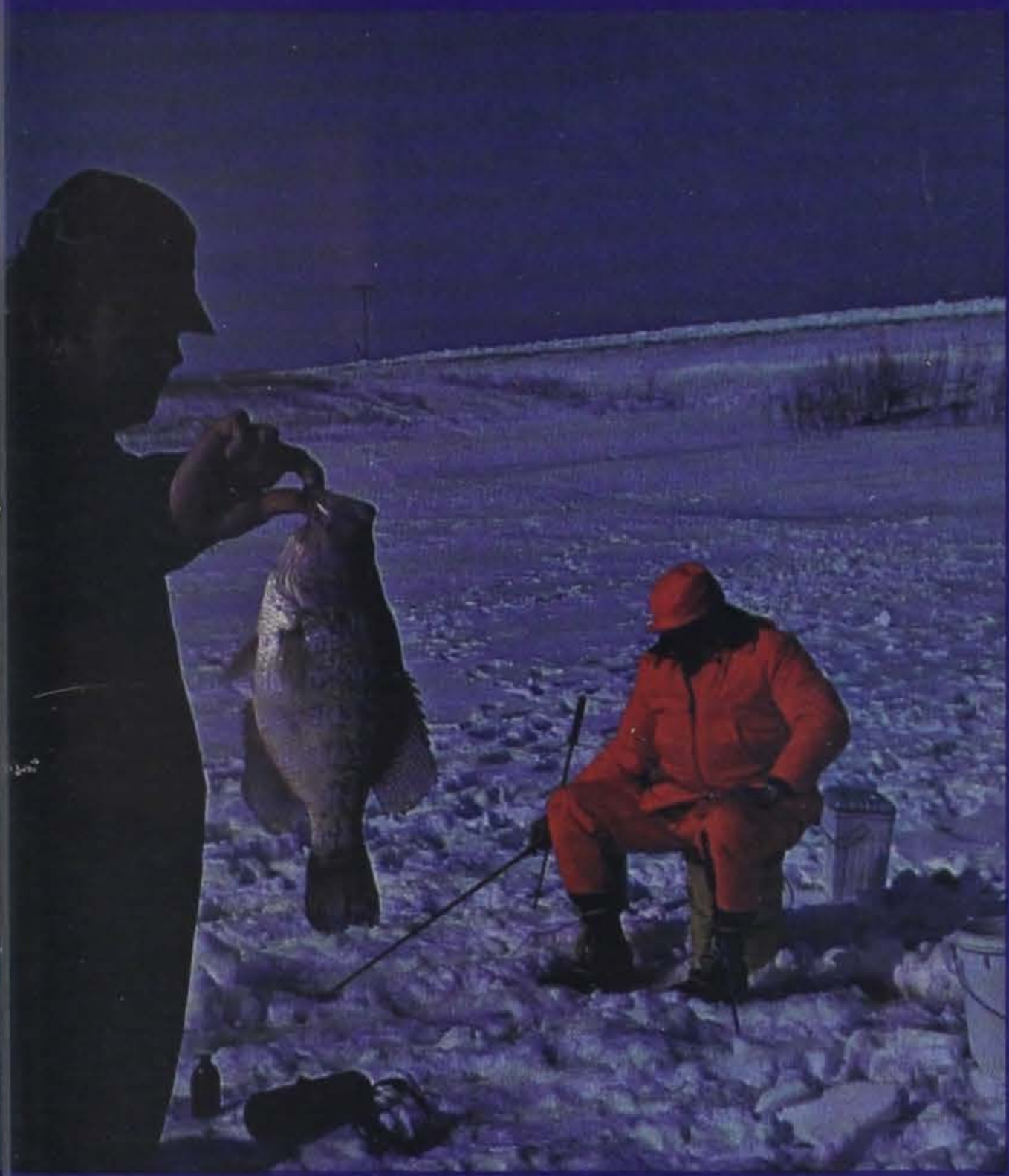


PHOTO BY DON BONNEAU

re ca before, here are a few things you
minn uld have in the line of equipment.
depth st anglers prefer two ice fishing
rod a s with four- or six-pound test line,
n and auger, ice skimmer ladle, a
y to lo mp-on sinker depth finder, bait
succe ket, some extra tackle such as
ybody ks, split shot and bobbers and a
leep i -gallon bucket to serve as a seat
to ex for carrying all those crappies! A
st. A s d equipped with an attached wood-
to s crate is a handy rig for transport-
to th your equipment across the ice.
t pos Warm clothing is essential. A winter
as lon ing trip can be a disaster if you're
Crap properly dressed. Bring plenty of
e slig m clothes; if the weather warms
tive s you can always take some off. Es-
e of c tial apparel items might include
men ulated coveralls and boots, extra
ways of gloves, a hooded sweat shirt,
long underwear. For an optional
ed ice n, throw in a hand warmer.

Time of day usually doesn't make much difference during the winter season at Rathbun. The fish seem to feed in "spurts" during most daylight hours. Watch that bobber closely and be careful how you lay your rod on the ice. Larger fish hit with no warning and a number of poles are pulled to the bottom of the lake to the angler's chagrin (speaking with experience). These big strikes can be walleye, channel catfish or large crappies. Sometimes to the angler's dismay, a larger fish is hooked but the four- or six-pound test monofilament line snaps (also speaking with experience). These experiences and countless others are what makes sportfishing one of the most popular forms of outdoor recreation in the United States. Fishing for crappies through the ice at Rathbun is no exception! ■

LOOKIN' BACK

in the files of the CONSERVATIONIST

Ten Years Ago

the *Iowa Conservationist* examined the Big Fish Awards that were presented in 1968. Four new state records were set. The only one still standing today is Herb Aldridge's 14 pound, 2 ounce walleye.

An interesting article collected the group names of some common birds, mammals, etc. Have you ever seen a sleuth of bears, an army of frogs, a husk of jackrabbits, a knot of snakes, a cartload of monkeys, a murder of crows? How about a kindness of conservationist readers?

Twenty Years Ago

the magazine braved the cold to do a story on ice fishing for walleyes at West Okoboji. The main thing learned from the trip was that walleyes moved into feeding areas at certain times of the day. Some veterans claim you can nearly set your watch by these movements. At any other time of day you may as well go look for perch.

Also in this issue was an article on the speed of fish. The all-time champion is the swordfish which has been known to take out 100 yards of line in three seconds — a speed of nearly 70 m.p.h. Iowa's champ is the northern at 20 m.p.h.

Thirty Years Ago

the *Conservationist* reviewed the public's use of state parks during the year 1948. It was estimated that ten cents was the total cost to the state for each park visitor. Nearly 2,776,000 people used the parks in 1948.

It was noted that the increasing numbers of deer were going to cause management problems in the future. It was only four years later that Iowa had its first modern-day deer season.

A reader from the Decorah area complained that too many farmers were plowing under much needed game cover. He hadn't seen anything yet!

Profile of an Endangered Species

PHOTO BY KEN FORMANEK

BALD EAGLE

(Haliaeetus leucocephalus)

by Dean M. Roosa
STATE ECOLOGIST

THOSE WHO HAVE SEEN the Bald Eagle (Haliaeetus leucocephalus) in graceful flight or in regal pose as it roosts, fully understand the reasoning behind the decision, 196 years ago, to make this bird our national symbol. At that time, it was widely distributed throughout the United States and likely nested fairly commonly in parts of Iowa. It disappeared from Iowa as a nesting bird about the turn of the century; in recent years, however, it has been nesting farther south in the Mississippi River Valley and may soon nest here again. Though gone as a nesting bird, it is perhaps more common as a wintering bird now than at any time in our history because of construction of locks and dams and power-generating stations which keep more water open all winter and increase the fishing habitat.

The Bald Eagle is a large, bulky bird with wingspan approaching seven feet. The nest of the eagle is also large and bulky, usually located high in a tree near water. The record nest weighed nearly two tons. Strangely, it is easy to miss this large bird on its nesting territory as it is secretive, fishes early in the day, doesn't defend its nest and is not normally vocal. The young remain in the nest for 7-8 weeks and are nearly four years old before they get their white head and tail and are three to five years old before they nest.

A number of people have championed the cause of the Bald Eagle. An outstanding example is Charles Broley, who began climbing into nests and banding young eagles after he retired from a banking career. His pioneer work, which resulted in over 1200 eagles banded in Florida, led to a basic understanding of resident populations and migrations.

Because Iowa is a very important wintering ground for eagles, we should locate roosting areas and attempt to protect them. Illinois and Wisconsin have both protected the main winter roosts, especially valleys where they congregate during inclement weather.

Recently this bird was listed as 'endangered' for all of the contiguous states except Washington, Minnesota and Wisconsin, where it is called 'threatened'. With the banning of certain persistent pesticides, the ratio of immature to adult Bald Eagles along the Mississippi River in winter is improving, indicating improved hatching of young in the northern United States and southern Canada. However, we should not be overly optimistic because the battle looms large before us. Despite gains, we still need to acquire large tracts of land in the eagles' prime nesting habitat and set aside the good winter roosts. This large bird needs a large nesting area with little disturbance; we must work to provide it.

The Bald Eagle is a symbol of strength and courage; this is why it was selected as a symbol for our country. This is also the reason it is so widely used in all forms of advertising. Can you imagine a strong, free country like ours without its symbol flying strong and free? I hope not. □

(Continued from Page 2)

Although other proposals have been considered by the Commission, such as the possibility of a "theme study" aimed toward designation of the region as a National Landmark, inclusion of the site in the National Monument system would be most desirable. If the Loess Hills were named a National Monument they would receive not only recognition, but federal funding and protection. However, if the region gained only "landmark" designation, no provisions for protection would be provided. Without national protection, and the crucial funding necessary to maintain it, the uniqueness of the Loess Hills may be lost. Another consideration is the scarcity of federal parks or monuments in the Midwest. Traditionally, National sites have stressed dramatic scenery, often to the neglect of equally valuable, less spectacular areas such as the Loess Hills. "Federal money is always going to the West or East," says Schnepf. "The Midwest is not getting its balance proportionally." Iowa presently has only two national areas — Effigy Mounds National Monument, and Herbert Hoover National Historic site.

Others across the state have recognized the possible plight of the Loess Hills, and are working to gain protection for the area. Iowa Senator Dick Clark announced his support of the region, and one of the most hopeful signs so far has been the Iowa House of Representatives' bill urging the "Congress of the United States to establish a National Park in the area."

Unfortunately, time may be running out for the Loess Hills. The federal project remains only a hope of the Conservation Commission. The state cannot afford to purchase and maintain a significantly large area in the hills. The federal government must assume a major responsibility if the valuable area is to be preserved. Of course, the specter of governmental control dismays many Iowans. State officials hope there may be ways to avoid this, perhaps by cooperative management of the hills by both the state and federal governments. Instead of purchasing land "outright" the government could lessen the worries of current owners by a system of "protective easements". Only managerial rights to the land in question would be purchased with the citizens retaining ownership.

Certainly, it would be a bit of an inconvenience to travel all the way to China to view loess formations! If the Iowa Loess Hills are not protected, a priceless and unique natural treasure may be lost. Can Iowans afford to throw away a part of their heritage? Without local and statewide support, from private citizens and special interest groups, the Loess Hills may never receive Federal consideration, much less actual protection. This strange combination of ancient sea dunes and Wild West vegetation could vanish forever.

PHOTO BY RONNIE R. GEORGE

The Upland Sandpiper

by Rodney D. Perry
WILDLIFE RESEARCH ASSISTANT

DURING THE COURSE of my work on a pheasant telemetry project in south-central Iowa, I was trudging through a muddy cornfield when I noticed two birds giving a very strange and shrill cry. I only glanced at the birds and trudged onward since there was other work to be done. Yet, the scene stuck in my mind and irritated me much like a splinter in my finger. *"What type of bird had I seen? Was it something out of the ordinary?"* Further field sightings of these birds and a check through my bird identification manual convinced me I had observed upland sandpipers.

Once a common nester in Iowa, the upland sandpiper (previously known as the upland plover) is now found in only a few localized areas. The upland sandpiper population began to decline during the 1940's and was considered a threatened species by Woodward Brown as early as 1958. A survey conducted in 1977 by State Ecologist Dean Roosa classified the upland sandpiper as an endangered species in Iowa. The favorite nesting habitat of these birds on my study area appeared to be clover-alfalfa fields and moderately-grazed bluegrass pastures.

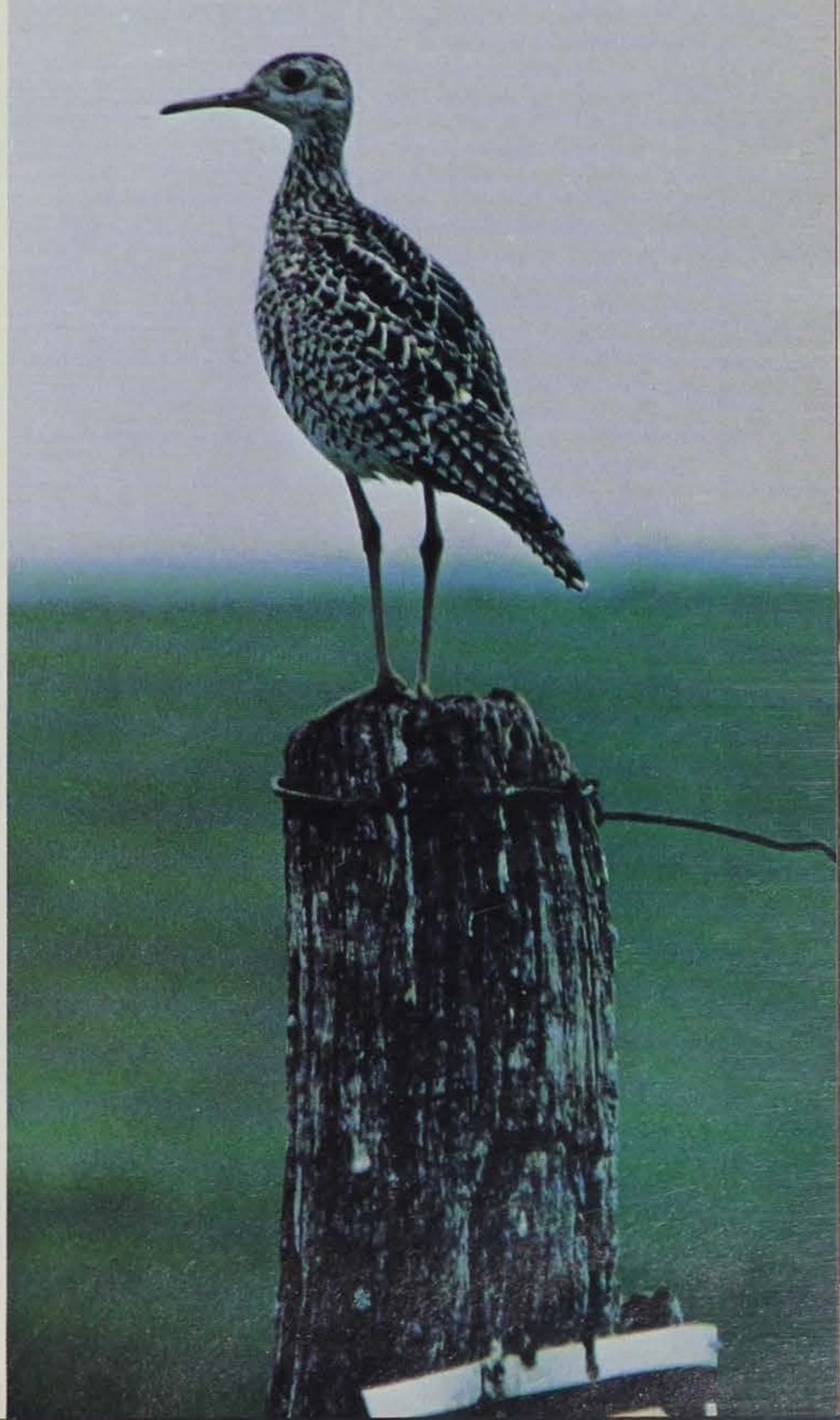
The female generally lays an average of four eggs, rarely five, and sometimes three. The eggs appear oval in shape. The shell is smooth and glossy with a creamy buff coloring. Reddish-brown spots appear at one end. Knowing where to look and what to look for when searching for a nest does not always mean one will be successful. The female usually walks several yards away off the nest before flushing and when returning lands some distance away before walking back to the nest. I have observed a chick of less than five days old, which means nesting is still occurring in south-central Iowa.

The upland sandpiper can usually be identified by its slender and graceful body which supports long pointed wings. The body is mottled gray to buffy brown along the head and neck with a whitish unstreaked belly. The wings appear cocked and V-shaped in flight exposing black and white barring on the underside. When flushed, the bird's flight is generally strong and swift ending in a slanting dive earthward. This dive is usually performed without any perceptible movement of the wings. A few feet from the ground, the long and beautiful descent is gently checked and the bird alights as quietly as though it had dropped only a few feet instead of a few hundred. Upon lighting, the bird usually holds its wings over its head for a second or two before lowering them.

Another distinguishing characteristic of the upland sandpiper is its call or calls. According to Arthur Cleveland Bent, the upland sandpiper has three distinct calls: the courtship call, the alarm call, and the rolling cry. The courtship call is a long drawn out *whip-whee-ee-you*. The alarm call is a rapid *quip-ip-ip-ip* and may be repeated several times. The three-part rolling cry, *tre-e-e-e-e-e-e-e-e-e, tre-e-e-e-e-e-e-e-ep, tr-r-r-r-e-e-e-e-e*, is the most common call. It is given during flight and may be the only evidence of the bird's presence in an area. Once heard, it will never be forgotten or mistaken for any other bird call.

The upland sandpiper is not only beautiful and graceful, but may be one of the most beneficial birds to ever patrol the grasslands of Iowa. The bird's diet is largely composed of insects and plant seeds. The sandpiper consumes vast numbers of grasshoppers, locusts, weevils, and crickets annually; insects which are known to cause thousands of dollars in damages to corn, wheat, barley, and rye. The troublesome buttonweed, foxtail, and sandspurs fall prey to the upland sandpiper through the seeds it consumes. Sandpipers may even befriend cattle by eating horseflies and their larvae.

The upland sandpiper is a migratory species. It will leave Iowa in late September to start its 7,000 mile migration to the pampas or grasslands of Argentina. While I cannot enjoy the antics of these birds all year long, I anxiously await their spring arrival in late April in hopes of discovering something new about the birds which has been overlooked for so long. □



Warden's diary

by Rex Emerson
LAW ENFORCEMENT SUPERVISOR

"Wow! Is it ever cold! How - cold - is - it? It's so cold that this morning I saw a jack rabbit pushing a cottontail to get him started."

Even when it's cold and everything is frozen up, people (that is, **some** people) still go fishing. The first thing to do is to get a new fishing license. Your old one ran out at the end of 1978. Next, put on the warmest clothes that you have. If your spouse is larger than you, put on some of his or her clothes over yours. Don't forget, that is ice out there, not a warm, sandy beach. Grab your fishing tackle that you have previously placed on the kitchen table, because with all those clothes on you can't bend over to pick the stuff up off the floor.

This tackle consists of such simple items as a three foot rod, the remainder of the one you stepped on last summer and broke in half. After all, you don't need a light action rod for fish that are half frozen. The reel could be a block of wood attached to the rod, on which about twenty-five feet of monofilament line can be stored when said line is not in use. This line needs to be only long enough to reach to the bottom of the lake or river where you are going to fish. Take a band-aid box in which you have placed some spare small hooks and split shot and put it in your pocket where it will be handy. Naturally, that will not be the pocket that contains your warm mittens, as there wouldn't be room. Next are the insulated boots worn over two pairs of wool socks. After all, that's *ice* out there. After about three tries to reach your feet, you take off some of the warm clothes to put the boots on.

After the inexpensive tackle has been put into the trunk of the car and you have spent several minutes squeezing in behind the steering wheel with all the family clothes on, you think you are ready to go forth into the frozen world.

Wrong! You forgot the bait. So, wriggle out of the car, go to the refrigerator and get the bait. It might be wax worms, or mousies. What's a "mousie"? *I don't know.* They are some kind of a little worm that you buy for fishing under the ice. I never heard of anyone using them in the summertime, so they must be what fish like only when they are in a deep freeze. I do know they do not in any way resemble a mouse.

Now you are at your favorite lake. If it is in northern Iowa you just might get by with driving your car out onto the ice to a likely spot. If you are in southern Iowa and drive out onto the ice you might get the upholstery of your car wet. Some people will use the kid's sled to pull their equipment out onto the ice. After all, the kids should be in school and shouldn't need the sled today. Also, it makes something to sit on while fishing.

The question immediately comes to your mind, *"Where shall I fish?"*

It's quite obvious that the best place to fish would be just as close to the other people out there as possible. After all, they surely wouldn't be out there if they weren't catching something, or about to catch something. Of course, it's possible the first person out there had never fished the lake before.

After choosing just the right spot, the next thing is to make a hole in the ice. If you tried to use an ax or hatchet last year you now have an ice auger made just for this need. It works similarly to a brace and bit and makes a nice neat hole about eight inches in diameter. You hold the top steady with one hand and turn the offset handle in a circular motion with the other hand. The only problem — too many clothes on to turn the auger. So, off with coat and sweat-shirt. After the hole is drilled and the sweat shirt and coat are back on, you are ready to fish — almost.

With numb fingers you put one of those little tiny mousies on a little tiny hook. A split shot sinker on the line takes the bait to within about a foot of the bottom, where it is held in that position by a skinny little bobber which looks like a pencil.

Sit down on the sled. Clasp the fingers of both hands together over one knee and sort of lean back and look at the other fishermen with a slight smile on your face. They will think you know more about ice fishing than they do.

Some of the winter fishermen who are not quite so hardy will use a shelter called a "dark house". They will have a little stove and all sorts of conveniences in this little house, with a hole in the icy floor to fish through.

After only thirty minutes of shivering and skimming the film of ice from the hole several times, that cute little bobber starts to dance around. The hook is set and the line pulled in hand over hand until the fish has been landed. It is a "whopping" eight inch bluegill which you would have thrown back last summer.

You hold up your trophy and turn around so the other fishermen can see your beautiful catch. At which time you step into the hole with one foot and get wet up to the knee.

Now that the school of fish have found your fishing spot you are in business. It will be a very short time between bites now. There will be no problem keeping your fish fresh as you toss them onto the ice.

Well, that is ice fishing! Sounds kind of dumb, doesn't it? It's a different experience than summertime fishing and kind of gets into your blood. And after tasting those fish taken from that cold water, you're hooked. You'll go back again!

Recently, we have begun sending out a second renewal notice ... another reminder that your magazine subscription is about to run out. Please note that on both the first and second notice we print, *"NOTE: IF YOU HAVE ALREADY RENEWED YOUR SUBSCRIPTION, DISREGARD THIS NOTICE."* We must send renewal notices at set times and many times they are crossing your letter to us with your renewal money. Don't be offended that we are sending a second notice if you have already mailed us your money.

Iowa pheasant hunters enjoyed another good season in 1978. Pre-season pheasant counts were about the same as in 1977 and hunters reported good success.

SKETCH BY MARVEL HOUGE

Classroom Corner

by Robert Rye
ADMINISTRATOR, CONSERVATION EDUCATION CENTER

WINTER HAS A NATURAL attribute which many people miss. It is something like missing the forest for the trees. What I am writing of are winter shapes.

What is a shape? Isn't it the dimensions an object has? Did you ever study an object's shadow or its shape?

All of us have encountered spider webs — whether walking through the woods, in the garden, or in the house, but did you ever consider its shape?

Imagine you being a spider and having to construct a web. What will support it? Will it work to catch prey or as a defense? What will its shape be?

Try to record the shape of a spider web. This can be done by tracing its shadow on a piece of paper, or by spray painting the web, having the web in front of a piece of paper.

Trees have their own shapes in winter. Many can be identified at great distances using only shape as a differentiation. For example, a black oak is rather rounded in appearance while a maple is tapered. Other comparisons which can be made are: Does the trunk divide into branches or does it extend through the center of the tree and the branches come off from its sides? Do the branches lift or droop ? Are the lower branches longer than the branches above them? These are some considerations a landscaper uses around buildings in the planning stage.

Those of us who spent several days watching the birds move south for the winter looked at shapes. Those shapes will be back again in the spring. Many people are familiar with the "V" shape of the Canada Geese, but what about the characteristic shape for the wood ducks, mallards, or black birds?

PHOTOS BY LE ROY MOORE

There are some ducks which "winter over" where there is open water. Now would be a good time to observe their shapes while flying from the water to feed and back again. With binoculars, study the shape the birds make while on the water.

The image they exude while on the water is important to other ducks. It is essential for hunters trying to attract ducks that they place their decoys in an arrangement that would look natural to a duck. Also, they must consider shape when they plan where the "called in" ducks are to land.

Many times while travelling we have played the childhood game of identifying what the shape of a cloud or snow bank looks like. Usually there are as many different identifications as there are people in the vehicle.

Take time now to go and look at the snow. Look at the entire view before you. What shapes do you see? Now look at just part of it — say an acre. Have the shapes changed? Now look around you — say within 20 feet. What shapes have the wind and objects under the snow formed? Can you see any flowers, birds, insects, or spiders?

Make a list of all these shapes; come back in a week and see what new shapes have appeared.

PHOTO BY RON JOHNSON