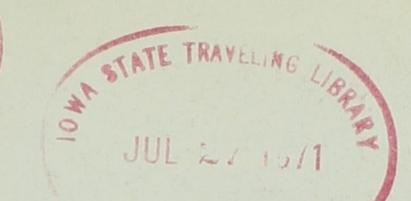


JULY, 1971





conservationist



# conservationist

DAVID R. EVANS, Editor
ROGER SPARKS, Managing Editor
WAYNE LONNING, Photographer
JERRY LEONARD, Photographer

#### CONTENTS

#### Page

- 2 Pleasure Boating 1971
- 6 Stone Park
- 8 P.M. Prowlers
- 10 How to Manage Your Farm Pond
- 13 Record Helpful Hunting Hints NOW for NEXT Season
- 14 Help Save Our Eagles
- 15 Campfire Cookery



FRED A. PRIEWERT, Director COMMISSIONERS:

WILLIAM E. NOBLE—Oelwein

JIM D. BIXLER—Council Bluffs

JOAN GEISLER—Dubuque

LES LICKLIDER—Cherokee

DR. KEITH A. McNURLEN

—Ames

ED WEINHEIMER—Greenfield
JOHN G. LINK—Burlington

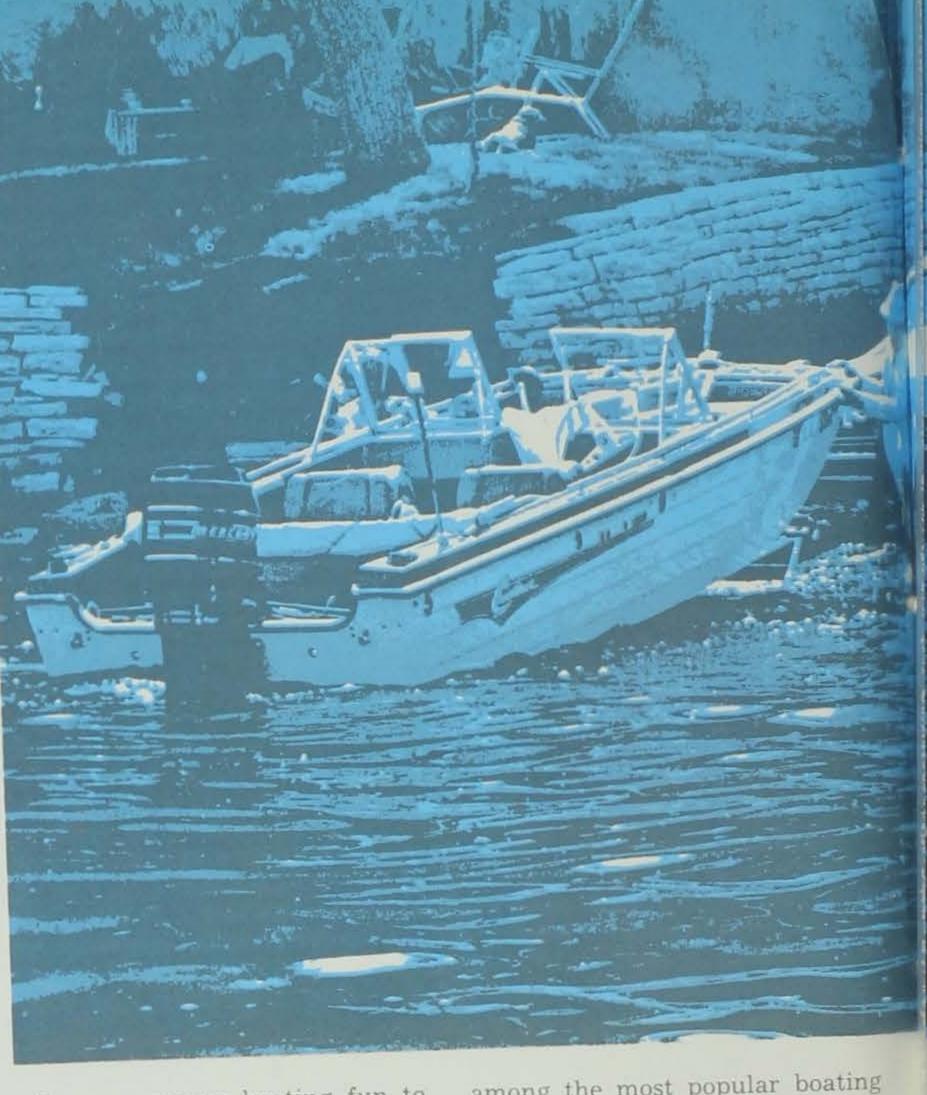
#### **Iowa Conservationist**

Vol. 30 July, 1971 No. 7

Published monthly by the lowa Conservation Commission, State Office Building, 300 4th Street, Des Moines, Iowa 50319. Address all mail (subscriptions, change of address, Form 3579, manuscripts, mail items) to the above address.

Subscription price: two years at \$2.00 four years at \$3.50

Second class postage paid at Des Moines, Iowa. (No Rights Reserved).



Summer means boating fun to many Iowans. Especially to the 50,000 power boat owners in the state.

This summer as in the past many boaters will be leaving their home waters in search of new areas. To help these people the Iowa Conservation Commission would like to suggest some of the better areas for water skiing and pleasure boating.

Louis Nuchring, state waters supervisor, said that most boaters look for large clean water areas that have good launching and docking facilities. The pleasure boater who intends to water ski should keep in mind that for safe skiing the water should be at least six feet deep.

There are three different water areas that are being used by the pleasure boaters. These areas are the federal reservoirs, natural lakes and portions of the river systems.

The most recently formed and

among the most popular boating areas in the state are the federal reservoirs. Built by the U. S. Army Corp of Engineers these areas have increased the recreational water area of the state by more than half. There are three completed federal reservoir projects.

The main reason for the heavy use of the reservoirs by boaters, is that they lay near large population centers. Boaters on the reservoir areas should keep in mind that state boating laws apply to all federal impoundments. Also state waters officers are present on each reservoir for the safety of the boater.

#### Federal Reservoirs

#### RATHBUN RESERVOIR

This area is the largest water impoundment in the state with 11,000 acres. It is located in south-

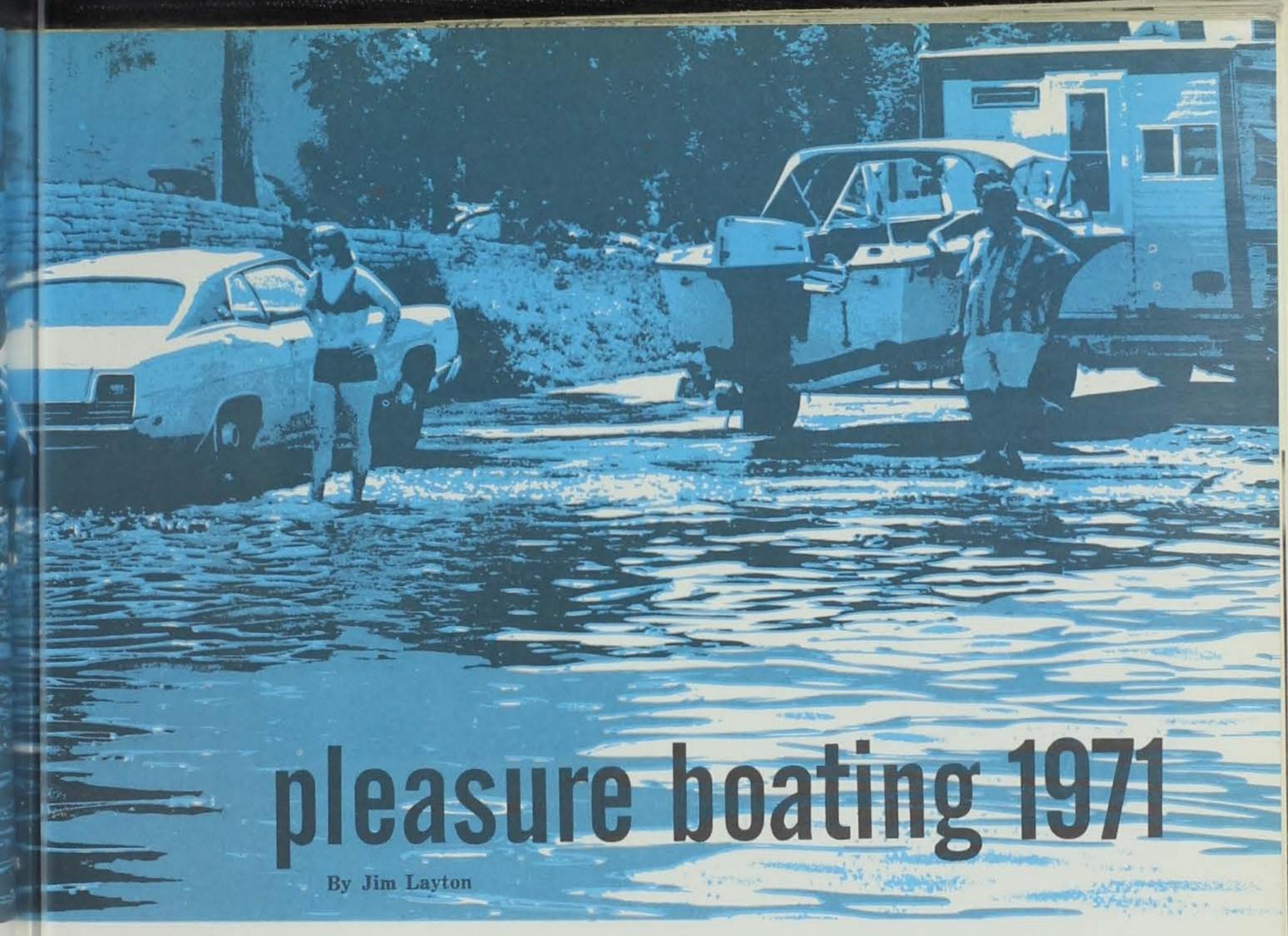
ern Ionose eight being of parcomm Buck Creek north

Loc south

provide water both to concrete marin the li-

Shore

Coral cialization boat in marin



ern Iowa. The dam is in Appanoose County. It currently has
eight public boat ramps each
being either two or three lanes
of paved concrete. There is one
commercial marina located in the
Buck Creek east area. Honey
Creek State Park is found on the
north shore.

#### RED ROCK RESERVOIR

era

hese

Tea

e by

hree

proj

eav)

iters

pula-

esermind

ly to Also esent

afety

water

south-

Located in Marion County in south - central Iowa, Red Rock provides 8,900 acres of boating water. It has 11 public boat ramps both two and three lanes of paved concrete. The one commercial marina is located off the shore of the lake north of the dam. Elk Rock State Park is found near the shoreline.

#### CORALVILLE RESERVOIR

The oldest reservoir in Iowa, Coralville is the most commercialized. There are seven public boat ramps and three commercial marinas on the 4,900 acre impoundment. The large population centers located near the lake cause Coralville to become congested with boating traffic during the weekends and holidays. Located in Johnson County, Coralville has ten different public camping areas.

Maps of the federal reservoirs may be obtained from the Iowa Conservation Commission or the U.S. Army Corp of Engineers.

#### **Natural Lakes**

The natural lakes of Iowa have been providing excellent pleasure boating for some time. All of the larger clear water lakes would have to be rated as good boating areas. Some of the better lakes are listed below. All boat ramps mentioned are state owned and maintained. Other ramps may be available on the lakes.

#### BLACK HAWK LAKE

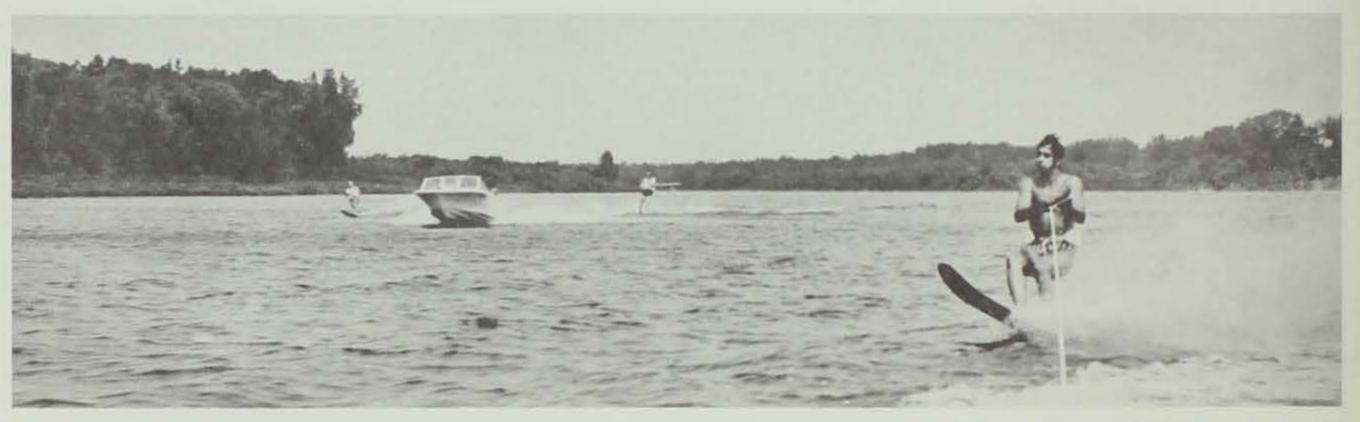
Located at the town of Lake

View in Sac County, this 957-acre lake receives many pleasure boaters during the summer season. There are two public ramps with loading docks. One of the ramps is located on Ice House Point in Black Hawk State Park and the other ramp will be found on the northeast shore near the one commercial marina on the lake. Camping areas can be found in the state park.

#### CLEAR LAKE

This 3,643-acre lake is located at the town of Clear Lake in Cerro Gordo County. There are four public boat ramps and a 250-foot fishing dock that can be used for loading. The lake is better known for its fishing, but each summer hundreds of pleasure boaters vacation in the area. Ramps with loading docks may be found at McIntosh Woods State Park in the city of Clear Lake and on the south shore just





west of the island at Bay Side. Smaller craft may be launched at Ventura.

#### LITTLE WALL LAKE

This small 273 acre lake located south of Jewell in Hamilton County is close to being the most heavily used lake (per acre) in the state. There are two concrete ramps with loading docks on the lake. Camping is allowed north of the lake.

#### NORTH TWIN LAKE

This 569 acre Calhoun County lake has two public ramps with loading docks. These are found on the southeast and south shores of the lake. A county camping area is found on the north shore.

#### THE OKOBOJI CHAIN

These members of the Iowa great lakes system have nearly 6,000 acres of water area. Located in Dickinson County this lake system draws many summer vacationers for its fine fishing and its water recreation. West Okoboji is listed as one of the few blue lakes of the world. There are four public ramps in the area. Those ramps with loading docks can be found at the following areas; Upper Gar at the Hennshaw bridge, Emerson Bay access and at the city park in Arnolds Park. A public ramp can be found at Triboji Beach without docking facilities. There are several marinas throughout the chain.

#### SPIRIT LAKE

Known for its excellent fishing, this lake provides 5,684 acres of boating fun to the Iowa great lakes area. Located just north of the Okoboji chain, Spirit lake has two public boating accesses. A ramp and loading dock can be

found at Marble Beach and the Orleans access.

#### STORM LAKE

This 3,060 acre lake is located by the town of Storm Lake in Buena Vista County. It has two public ramps with docks and one commercial marina. Both ramps are located at the water patrol station on the northeast shore of the lake. Camping can be found in the area.

In addition to the lakes already mentioned there are a number of other lakes which serve their local area residents and property owners as recreational areas. A list of all natural lakes in Iowa is available from the State Conservation Commission.

The last of the water areas to be considered will be the stream areas. In this category the Missouri and Mississippi rivers are far ahead of all others in quantity The Des and that reat The ly b

two

The cess a river

Sion the fillowa locate tercha Sny next rimiles on In

located

the par

Monon Huff county

West Oi

and quality of boating water. There are several areas along the Des Moines river, Cedar river and other streams of the state that provide excellent water recreation for the local residents. These areas are common especially behind power dams and near the large tributaries. But only the two larger streams will be mentioned here.

#### Missouri River

The Missouri River public access areas on the Iowa side of the river are as follows:

#### Woodbury County

Sioux City Municipal Basin is the first public ramp found in Iowa coming down the river. It is located at the Isabella Street interchange of Interstate 29.

Snyder Bend County Park, the next ramp down stream, is three miles southwest of the Salix exit on Interstate 29. This ramp is located near a camping area in the park.

#### Monona County

the

9 10

two

Olis

mp

atrol

ound

eady

er of

their

perty

wa is

Con

285 to

tream

. Mis-

antity

Huff Access is one of the few county conservation areas that has free camping. It is 2½ miles southwest of Blencoe.

Also in Monona County is the only Iowa commercial marina on the Missouri. It is the Light House Marina southwest of Whiting. This marina offers complete facilities.

#### **Harrison County**

The first boat ramp in this county is found at the Little Sioux River Access. This access located at the mouth of the Little Sioux is ½ mile west of the Little Sioux interchange on Interstate 29.

Harrison County Conservation boat ramp is down stream from the mouth of the Little Sioux. It is directly west of Mondamin.

The last public boat ramp before leaving Harrison County is found at the Western Iowa Fishing and Wildlife Club. This ramp is at the Highway 30 bridge.

#### **Pottawattamie County**

Wilson Island State Recreational area is one of the state's most beautiful river accesses. It has complete recreational facilities and is conveniently located four

miles west of the Interstate 80 and 29 interchange.

Long's Landing is a Pottawattamie County conservation park that is located one mile south of Council Bluffs at the Lake Manawa interchange. Camping is available for a fee.

#### Fremont County

NAME OF THE PROPERTY OF THE PR

The state's most southwestern county features two public boat ramps. They are the state owned and maintained Waubonsie access ½-mile south of the Highway 2 bridge and the Hamburg access which is eight miles west of Hamburg.

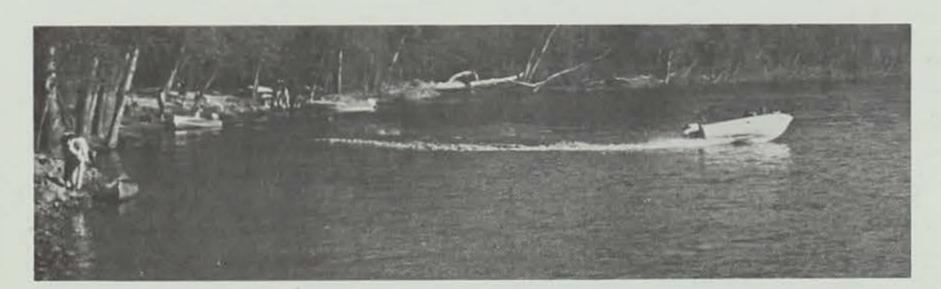
Along the Missouri there are many commercial accesses.

#### Mississippi River

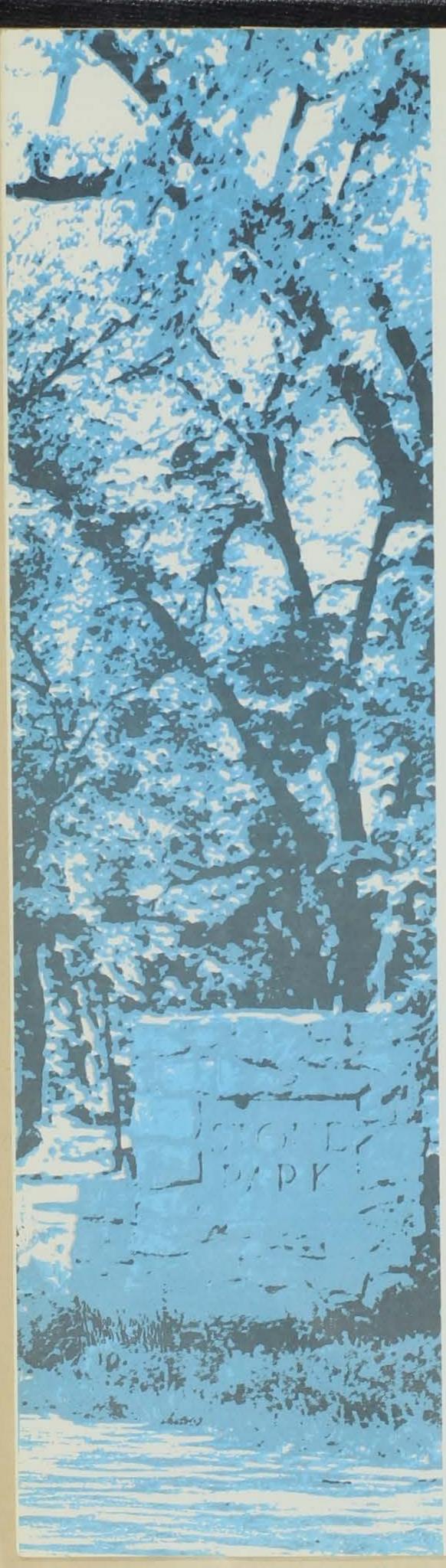
As the Mississippi meanders by ten Iowa counties, it also passes close to 50 public boating accesses. A list of these plus the commercial marinas has been compiled into the Mississippi River Boating Facilities Guide that is available along with the other material mentioned above at the Iowa Conservation Commission, 300 Fourth Street, Des Moines, Iowa 50319.

West Okoboji's famous clear blue water.









## STONE PARK Witness W

By David R. Evans

Some of history's most colorful sights have passed below the wooded hills of Stone Park in western Iowa — buffalo herds, painted Indian warriors, explorers, mountain men and the flags of three nations.

Could these hills talk they would tell of covered wagon trains winding their way west, log houses, river boats, gold miners, fur traders and adventurers.

But to most Iowans, the 900acre park is exceptional for the recreational facilities available. Located just north of Sioux City, it features six beautiful picnic areas with tables and fireplaces. Some of the state's best bridle trails are located in the park. Seven and a half miles of good roads wind their way through the lush area and between hills. For a closer look at wildlife species and nature, foot trails are prepared for the hiker and casual walker. The park also has a fine lodge, shelter house and modern camping area. Other facilities include water, hot showers, sanitary facilities and electrical outlets.

Perhaps the most unusual species of over 70 wildflowers found in the park is the yucca which grows on the loess hills of the area. Native to the southwestern regions, the yucca is at its most beautiful in the summer months. The yucca blooms the first week

or two in June and lasts about a week.

The loess soil of Stone Park and the surrounding area is unique, found in only two or three places in the world. Geologists believe that the park's hills originated from this dry silt. Dust storms for over 30,000 years or more formed these hills - and nature is still at work. Loess is really a fine, light buff colored silt, between a sand and a clay. Loess will stand vertically where it has been cut. Highways leading into the Sioux City area have many examples of perpendicular walls of loess soil which will stand many years. Other soils such as sand or clay alone would soon be washed into long irregular slopes.

Located near the intersection of the Missouri and Big Sioux Rivers, Stone Park has a magnificent view of the surrounding countryside. One can see three states — Iowa, Nebraska and South Dakota.

Stone Park did not become an outdoor recreation hot spot by accident. The park, named for the Thomas Jefferson Stone family, was given to the state in 1935 as a gift from Sioux City. The land, upon Stone's death, was equally divided between a son and daughter. The daughter gave her share to Sioux City and the city bought the son's share. The state, upon receiving this generous gift, developed the area.

The resolution giving the park

to the as a natural of the development of Si

of Si of the the which proper that and c

Der ried perm most

Dako other It archi Servi stran

Stone An What under them years

Spair
ly the
An
assoc
the D
Sloup

of the lowa

### the Western History



to the state says in part: "Whereas . . . Stone Park is noted for its natural beauty . . . and because of the great expense necessary to be incurred in keeping up and developing the park . . . the city of Sioux City realizes that people of the entire state are entitled to the privileges and enjoyment which the park can afford if properly developed . . . resolved that Stone Park be . . . granted and deeded to the state of Iowa."

ark

0.5

olo-

ills

)ust

OF:

and

Dell

nave

ular

will

soils

ould

egu-

ction

HOUX

gnifi

iding

three

and

ne all

at by

of the

mily

5 as 8

land

jually

augh

share

ought

upon

ft, de-

park .

5 15 1

The Civilian Conservation Corps constructed the first facilities including buildings, sewage and water systems and trails.

Developments have been carried out over the years, as funds permitted. Today it's one of the most popular spots in that area, attracting visitors from South Dakota, Nebraska, Minnesota and other states.

It was a state park landscape architect for the National Park Service who once wrote: "What strange sights have passed before Stone Park's hills."

And he was certainly correct. What is now the park has been under the three flags, two of them twice each in the last 450 years. Successively Spain, France, Spain and France again and finally the United States.

Among the Indians most closely associated with Stone Park are the Dakotas, commonly called the Sioux. They were the strongest of the tribes to occupy northwest Iowa. On a bluff above the Missouri River near Stone Park is

Chief War Eagle's grave. A colorful figure, he remained a friend to the white settlers until his death in 1851. In recognition of his peaceful endeavors, the government granted him much authority over this area. It is said that War Eagle spent a lot of time in the hills and valleys that are now Stone Park.

The park was evidently part of the last great buffalo range in Iowa. Old worn trails still weaving through the dense undergrowth of Stone Park are believed to have been originally formed by herds of buffalo. The area was once the feeding ground of many kinds of wildlife including bear, panther, lynx, deer and smaller game.

After a lot of international politics and wars in the 1770's, the United States got the bargain of all times when it made the Louisiana purchase for a paltry \$15,-000,000 in 1803. Meriwether Lewis and William Clark were commissioned to explore the new land. They passed near the future park as they made their way up the Missouri River in 1804. A 100-ft. monument at Sioux City marks the grave of Sergeant Charles Floyd — the only man to die on the famous expedition.

As an additional footnote to history, last May a unit of the U. S. Army's Special Forces Green Berets, tracing the route of the Lewis and Clark expedition, passed by Stone Park.

The great naturalist and artist,

John James Audubon, was aboard a Missouri River steamer that entered the mouth of the Big Sioux River below Stone Park in May, 1843. The Missouri's channel then went through what is now McCook Lake and the river banks were near the present Riverside Park.

The geological history of Stone Park is also fascinating. A 1936 Department of the Interior report on the geology of Stone Park, noted:

"Stone Park holds secrets older than the Rocky Mountains, older than our oldest rivers, when dinosaurs were still upon the earth and man had not yet appeared.

"It is a story of great waves pounding upon the beach of an ancient sea, of shells and sea fossils, the bones of sharks and evidences of sea life in a mighty ocean which covered much of North America.

"It is a story of glaciers — mountains of ice thousands of feet high, of dust storms which are still recurring and of forces of nature to which a million years is only another day."

It's really not enough to read about the beauty and historic past of Stone Park. One must see it. From several overlooks the incredible beauty of western Iowa is spread out in a fascinating panorama. If you let your imagination wander, you might still see the lodges of the Dakotas, the keel boats going upriver and a wagon train on the distant prairie.



Although not the most abundant species in Iowa's Great Lakes Region, the walleye is the most prized. On Spirit Lake, Clear Lake, Storm Lake and the Okobojis, few catches turn the heads of envious fishermen like a stringer of fat "pike" as they're

locally called.

Around the lakes yellow perch and large bullheads command most of the angling attention because of their tremendous numbers, while walleyes, northerns, white bass, bluegills, smallmouth bass, crappies and catfish are also commonly taken. A great number of people come to the area to enjoy the sunshine, clear blue lakes, boating, and casual fishing for this wide variety of fish. And when the fish are hitting, nearly everyone catches something. And if the fish don't cooperate there is plenty more to do.

But by late afternoon the hustle and bustle calms to a quiet sigh and sailboats and snorkles make way for hot dogs and lawn chairs. From across the lake the last ray of sunlight finds the happy, exhausted, sunburned folks relaxing in front of their summer homes, motels, and lake

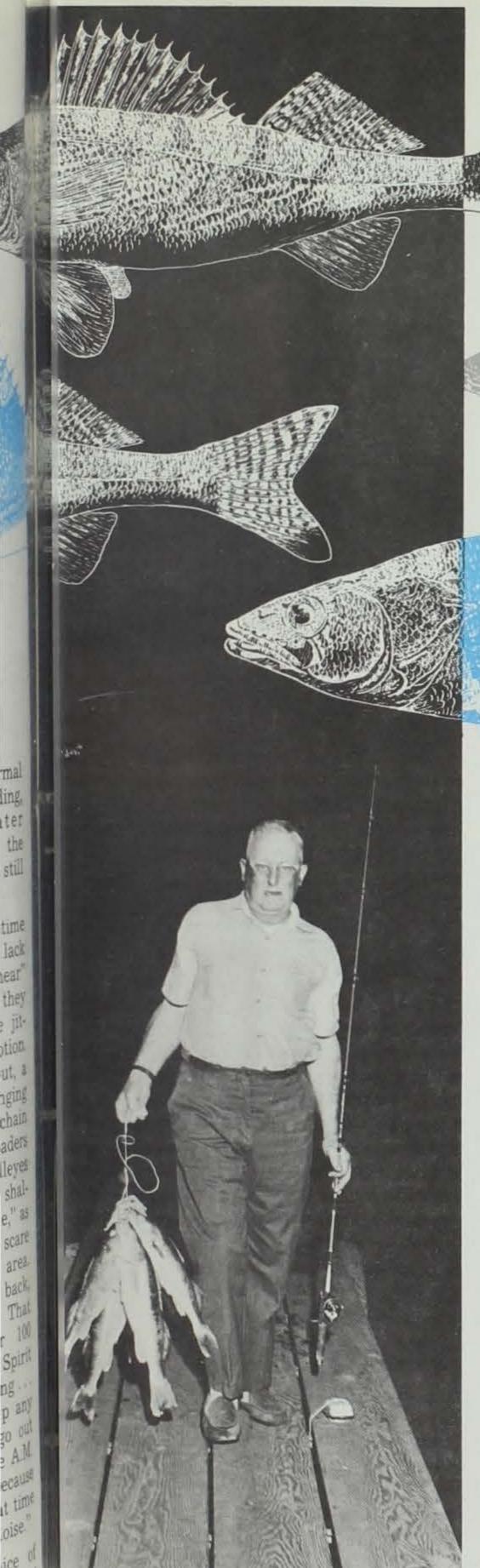
shore cabins. For the serious walleye fisherman, the activities are about to begin.

Generally in the twilight hours walleyes begin to move toward the shallow reefs, stream outlets, and rock piles. Here they prowl about for minnows or small panfish with little to disturb them. They will move in and out of these areas, often in small schools, all night and usually shortly after sun up the next morning. Of course on some days these shallow, rocky areas produce good walleyes all day long. This seems particularly true on overcast, windy days, and on the windy side of the lake. Small walleyes are always present around these natural feeding grounds. Because these fish may feed at any part of the day, trolling or still fishing live minnows over deep holes can spell success most any time. But the most predictable fishing for walleyes comes at night.

Much of the night fishing is done from shore. Particularly around stream outlets and rocky points, short casts into water five to ten feet deep are easy. Nighttime wading is popular in areas where drop offs exceed normal casting distance. (Before wading, be familiar with the water depths.) A boat (remember the proper lights) is best in still other areas.

A key to successful nighttime walleye fishing is sound (or lack of it). Of course fish don't "hear" as we think of the word, but they do sense vibrations and are jittery about unfamiliar commotion. Stumbling and sloshing about, a tumbling rock, an oar banging the side of a boat, or even a chain stringer rattling against waders may spook a school of walleyes for a half hour or more. "In shallow water, it takes very little," as one local expert puts it, "to scare the big walleyes out of the area. The little fish come right back, but the big ones are gone." That same angler caught over 100 "keeper" walleyes from Spirit Lake in one month this spring . . . all at night. He didn't keep any small fish and he didn't go out every night. He prefers the A.M. hours of the night only because "fewer people go out at that time and consequently - less noise."

The most popular choice of tackle for this 'midnight mania'



ter

the

time

lack

lear"

they

jil

tion

ut, a

1ging

chain

aden

level

shal-

e," 85

back

That

Spirit

oise

consists of a light spinning rod with an open or closed face reel. The line (usually 6 to 8 pound test monofilament) doesn't foul often and casts light lures with ease.

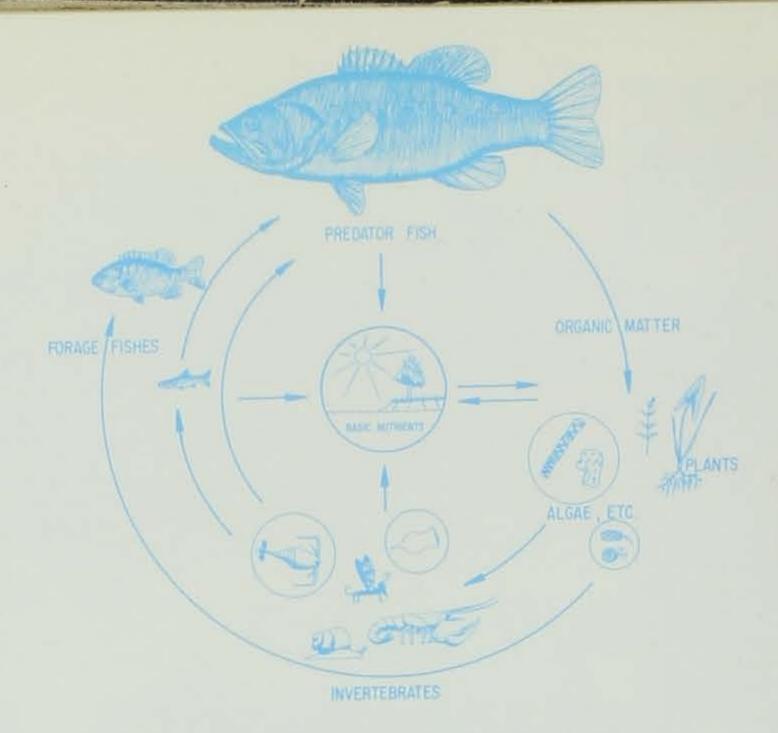
Lure or bait preference has spawned many an argument, but if popularity is an accurate measurement, a 1/4 to 1/8 ounce leadhead is the number one lure. Everyone has their favorite choice of color combinations, but after dark anglers generally prefer silver, white or yellow, or any combination thereof. Walleyes are sight feeders and light or shiny colors fished deep on dark nights seem to work best.

But occasionally, on a bright moonlit night, a different tactic for walleyes has scored. A shallow running balsa minnow-type lure is cast and retrieved at a steady pace so that it dives only about two feet, at most, under the surface. Of course these lures aren't new to walleye fishermen, but normally they are weighted and fished deep. Retrieved near the surface the fish can apparently see the silhouette of the lure backlighted by moonlight. At

such a time this technique may outfish everything.

According to E. T. Rose, limnologist, in a chapter on angling for walleyes in the book IOWA FISH AND FISHING, the best seasons to fish for walleyes in Iowa's great lakes are spring, fall, and winter. "Fishing is generally good in the spring (May-July) because of the shortage of natural foods. After July 1 practically all of the other species of fish have reproduced and the waters are crowded with young fish, all of which are natural foods of the walleye." By early fall however most of these young fish have either grown beyond forage size or have been thinned out. From September until the close of the season in February the fishing is good again. Of the comparatively small number of big walleyes taken during the slack season, a large percentage are taken at night.

Fishing for walleyes by starlight is a little more difficult than the daylight approach. Some of the visual enjoyment may be sacrificed. But the chance to bring home a heavy stringer is adequate compensation.



# how to manage yourla





# u arm pond

By Jim Layton

Your farm pond has the potential to produce record fish if it is managed properly. But proper management just doesn't happen, it takes a lot of fishing.

#### Stocking Your Pond

The initial stocking is your investment in future fishing. The most successful stockings have resulted from introductions into suitable water where no fish are present. Once stocked, additional plantings do not necessarily improve the fishing, and more often than not cause serious problems. Over stocking is possible with results similar to over grazing, but in the aquatic sense of ruining the ecological balance.

The recommended rate for stocking largemouth bass and channel catfish is 200 fry per surface acre of water. The stocking schedule should allow for the channel cats to be safe from bass predation during the first year. This can be done by either obtaining the catfish fry from a southern state and stocking with the bass fry, or stocking the channel cats a year before the bass. The southern catfish spawn earlier in the year. In June there would be a noticeable size difference between those channel catfish raised in Iowa and those from the south. The large size discourages the young bass from making a meal of the channel catfish. Two years after the bass stocking, ten pair of adult bluegills can be released into the pond. The Iowa Conservation Commission and U.S. Fish and Wildlife Service in cooperation with the Soil Conservation Service provide free brood stock for farm ponds upon application by the owner. There are also many commercial hatcheries in the local area where fish may be purchased for stocking.

#### Bass From the State

Each year the State Conservation Commission stocks over 200 farm ponds. There are two general conditions that must be met before the stocking. The pond must be inspected by an Iowa Conservation Commission agent and the pond must be at least one-half acre. Then the owner signs a cooperative agreement in which he agrees to "... maintain fences, dikes and other features of the pond containing fish stocked and owned by the state of Iowa."

The Code of Iowa gives the authority to stock privately owned ponds. It states: "... the commission may, after investigation... provide a breeding stock of fish for privately owned farm ponds on request of the owner." The Commission only stocks the brood fish. The success of the stocking will not be known for several years. Because of the varying success of pond stockings, there is no list of state stocked farm ponds.

#### Forage - Predator Fish Management

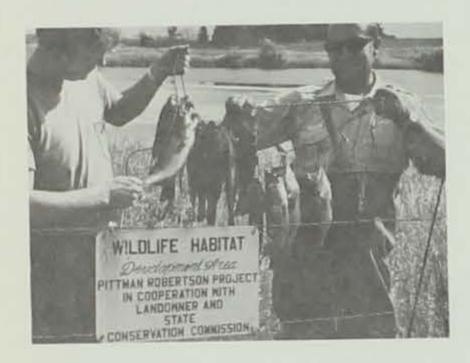
Stocking is just one factor that enters into a pond fish management program. A management technique that works for one may not work for another. But in farm pond management there is one basic principle that all owners should try to establish, that is a proper or balanced ratio between the number of forage and predator fish. A balanced ratio of species will give maximum production by angling. It also gives the best utilization of the pond resources.

There are different forage-predator fish combinations stocked in Iowa ponds, but approximately 80 percent utilize bluegill - largemouth bass. Many of these ponds do not produce good fishing because not enough of the bluegills are removed. What happens is that the bluegills, when not managed, will increase in numbers to such a large population that stunting occurs. Stunting is defined on the basis of average growth of species. The advent of stunting is arbitrary and varies greatly with each water impoundment. When a total population of a species is growing at an abnormally slow rate, it is likely that there is a stunted condition. Several indications of stunting includes poor body condition and exceptionally large eye diameter.

What harm does a stunted bluegill population do to your pond? Plenty. First of all, with a stunting problem there is usually insufficient food and space for the

large numbers of fish. This means small fish and poor fishing. Secondly, the bluegills can and will feed upon the young bass. With food at a premium the bluegills will eat just about anything and that includes the bass eggs and fry. When a largemouth nest is swarmed upon by a bunch of bluegills, the male bass who guards the nest is not able to keep them from robbing the nest and the pond of the next generation of bass. When about a third of the eggs are destroyed, the bass will usually abandon the nest. A largemouth bass will only spawn once in a season.

Jim Mayhew, state fisheries biologist, said: "Bluegills may not be the best forage fish in combination with bass in farm ponds,



but it's the best we know." He continued to say that experience has showed that the fewer number of different species in a pond, results in fewer problems with the fish population. Best production by angling for all species has been found to come from combinations of one predator fish and one or two forage fish. The largemouth has already proven itself to be the best predator species for Iowa farm ponds. Combinations without bluegills are possible but each lacks the production potential that is found with a bass-bluegill combination.

#### Obtaining the Balanced Ratio

Here are several things that you can do to keep your pond in balance. Try to remove at least five pounds of bluegills for every pound of bass. Never put back bluegills, if they are too small to eat, bury them. Always return

bass that are under 12 inches unless hooked so badly that they would die anyway. Don't wory about over fishing the bluegills, an 8-ounce bluegill can produce 70,000 eggs a year. The removal of bass without taking bluegills can cause the pond's ratio to grow unstable and eventually lead to the stunted bluegill.

#### Checking the Ratio

A simple test to establish the condition of a pond's fish population has been established by Dr. H. S. Swingle of Alabama. During the summer make several seine hauls around the pond with a quarter inch minnow seine. The results tell the story. A balanced population will show few three to five inch bluegills with many recently hatched. There should also be young of the year bass along with several larger fish. Don't be surprised if there are no larger fish because they are able to escape the seine.

Another test for checking fish conditions can be conducted by the fisherman. If the catch includes bluegills that average six inches and bass of all sizes, there is usually a balanced population. When bluegills become too plentiful, they will average a smaller size and only a few large bass over two pounds will be caught.

#### Controlling Weeds

There are several different ways to control bluegill populations in ponds, but fishing and bass predation can be the most effective. In weed choked ponds the bluegills are able to find protection from bass and fisherman. This helps the bluegill to increase in numbers even with good management practices. Therefore the control of weeds is very important. In fact it is recommended to the farm pond owner that he keeps brush and vegetation to a minimum.

There are chemical and mechanical means to rid your pond of aquatic weeds. Small areas of a pond can be covered with black polyethylene plastic. This causes the plants to die from the lack of sunlight. Raking the weeds out of

the water also provides as a good mechanical method.

Herbicides have been found to be one of the most effective controls, but they are deadly to all forms of life if not properly used. Before deciding which chemical you will use, positive identification of the weeds to be destroyed should be made. Algae, floating plants, submersed plants, and emersed plants are the general types of aquatic plants.

The algaes can be controlled with copper sulfate. Herbicide treatment for floating plants includes liquid endothall, diquat, 2,4-D and kerosene. The submerged plants which are usually rooted to the bottom can be controlled with endothall, silvex, diquat, 2,4-D and others. Emergent plants including cattails, water lily, smartweed, bulrushes and willows can be controlled with dalapon, amitrole, 2,4-D, silvex and diquat. It is very important to remember that herbicides are very dangerous if label directions are not followed. It is also recommended that you consult someone who has used the chemicals before trying it for the first time.

If everything else fails to bring your pond into balance there is also the possibility of chemically killing off all the fish and starting all over. Your local conservation officer can give you advice on the use of chemicals.

Some of the other factors that can enter into a farm pond management program are design for construction and location of the pond. As a rule, good land management as it applies to croplands should be practiced in the watershed of the pond.

Because every pond community is somewhat different many different problems may arise. Everything from a fish kill to not being able to catch the fish. When problems come up that you are unable to answer, contact your local conservation officer (game warden). As you can see the management of your pond takes a lot of work, but how many times have you called fishing work?

# keep a notebook

ils,

rst

лее

hat

an-

for

the

ian-

nds

ter-

un

any

rise to

fish

you

itact

fice! see

ond

how

fish

It's true that a small minority of fishermen and hunters account for most of the success in their respective sports.

Something like 10 percent of the fishermen catch 90 percent of of the fish, so the saying goes, and doesn't it always seem that the same hunters manage to return with a deer year after year?

There's a reason for it. They don't leave everything to chance. Their method is simple. They record just about everything they do and see.

This type of devoted sportsman, who applies himself more seriously than his average counterpart, is probably found more commonly among fishermen than hunters.

He knows what species of fly hatches on a particular stream and at what hour. He knows when to fish and where to fish with a given artificial fly from his collection, and he takes fish without too much difficulty. He records everything in a diary, or at least mentally.

The boat fisherman applies himself in similar fashion. He takes note of the conditions which surround a flurry of action on a particular body of water. He records the hour, the type of lure, trolling speed, depth at which the fish struck, water temperature, boat speed, wind velocity, amount of line out, type of line and weather conditions.

When he returns on another day, or the following year, he has a head start on the average angler. He doesn't fish blindly, and although his data does not always result in repeated success, it pays off often enough to place him among those enviable 10 percenters.

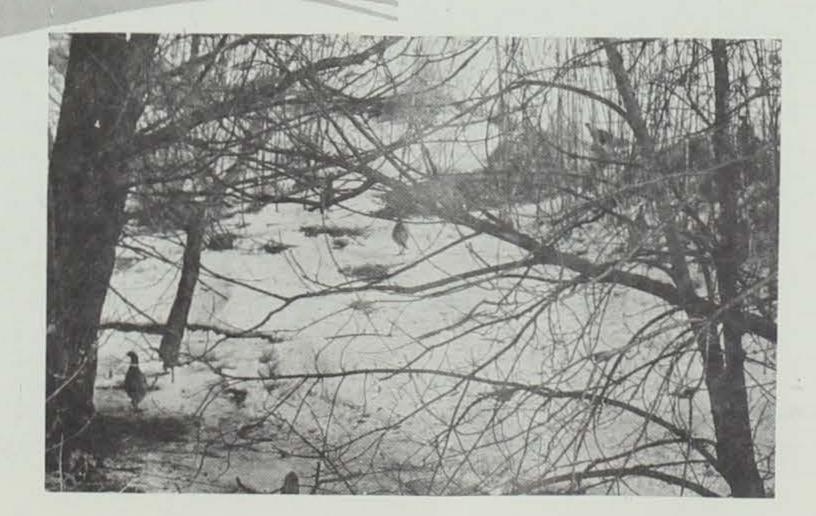
The same kind of application can be used in hunting to increase success odds. How about that new cover you stumbled onto last season, for example, where game was so abundant. Forgotten it already?

Trusting such important data to memory doesn't always work. The excitement of shooting a deer, or flushing a covey of birds, may easily blot out any recollection of the area's location or how to reach it when another season rolls around.

If you're the type who prefers not to use maps when hunting, jot down the necessary information in a handy, pocket-size pad or notebook. Keep a record of where and when you shot the most birds. Make a note of where you saw the most deer sign last season, or where you missed that big buck.

When the hunting season arrives this fall, you'll have considerably more to work with than pure chance. That's the way the 10 percenters do it. If you want to be one, you'll have to do the same.

Record that spot — it will produce well next hunting season.





# Help Save Our Eagles Buy a Hunting License

By David R. Evans

"The eagles are in trouble, what can I do to help them?"

"What can I do for conservation, how can I help?"

These questions are frequently directed to the Iowa Conservation Commission by public spirited citizens. And the answer is really quite simple points out Harry Harrison, chief of the Commission's Fish and Game Division.

The most important thing you can do is BUY A HUNTING LICENSE, emphasizes Harrison.

This suggestion has a certain shock effect if nothing else. But, the fact remains that buying an Iowa hunting and fishing license is still one of the best things an individual can do to further the cause of conservation.

The purchase of hunting and fishing licenses will not only help

save the eagles, but other species as well.

Basically, money from hunting and fishing licenses goes for the operation of the Fish and Game Division. The money is spent for a variety of conservation efforts that include public health, pollution detection and control, wildlife habitat, recreation areas for the public and informational programs.

The main point here is that a heck of a lot of people who don't hunt and fish benefit from license money paid by sportsmen. Many non-hunted game species prosper because hunters put out hard cash for the opportunity to enjoy their sport.

Let's take a closer look at how this money is used. Few license holders realize they are contributing to public health efforts. But, funds from license sales help pay for research concerned with levels of pesticides in fish and birds. The license money pays for salaries and equipment of personnel engaged in pollution detection and control. It pays for investigations into the status of all birds and animals. These efforts benefit not only game and fish, but non-hunted species and humans as well.

License money goes for the purchase and development of public hunting and fishing areas. Public areas mean just that open to all the public, not just those who buy licenses. Public hunting and fishing areas are also used by bird watchers, picnickers, campers, hikers and other nonconsumptive users who don't buy hunting and fishing licenses. Yet these people use the areas, fill the garbage cans and make road repair and other developments necessary. If you go canoeing, chances are you make use of areas developed and maintained by license money. Many families picnic and camp at wildlife areas paid for by sportsmen.

These non-comsumptive users are getting a free ride at the expense of sportsmen who pay cash for their licenses.

Forney's Lake Game Area in western Iowa is a prime example of this. The land and lake were bought, developed and are managed with funds from license sales and money received through federal aid. The federal aid was derived from an eleven percent excise tax on sporting arms and ammunition. It's an excellent waterfowl hunting area. But it is much more than that. Thousands of non-hunters visit Forney's Lake each spring to watch the annual goose migration. Boy Scouts and other organized groups make use of the area and facilities. As many as 10,000 will be goose watching on a weekend. Forney's Lake is a tremendous tribute to the American hunter. However, the non-hunters who enjoy it apparently don't stop to realize that it took money and effort to build the lake, roads and parking lots.

License money goes for the purchase, development and main-

and tain fers hun wat beneather the

tena

But

gan

gan

sible over tion prot shor of n

enda hun is or an help equi prot and

tion, poise river

Ju relat Wha unde

stree grou kids. week looki they

head W. Two wate

your

make miles also her

eight acres reser But a lot of management for game species rubs off on non-game species like eagles, doves and robins. The carefully maintained habitat for game also offers protection for the non-hunted birds and animals. A waterfowl hunting area will benefit shorebirds, songbirds and other marsh inhabitants.

oth:

and

on-

lon

iga-

irds

efit

10n-

as

the

of

Just

blic

ers.

non-

Yet

the

Te-

nts

eing

01

ined

111168

reas

ISETS

ex-

a in

mple

were

man-

cense

ough

Was

rcent

and

elleni

it 15

sands

nevs

ie an

cours

make

es. As

goose rney

ite to

veven

e that

buill

10ts

r th

mall

it at

also |

License money makes it possible to keep a continual watch over all Iowa wildlife. Conservation officers, biologists and others protect hawks, owls, song and shorebirds and an endless variety of non-hunted species — including the eagle.

How about a closer look at the endangered eagle. How does a hunting license help this bird that is on his way downhill faster than an Olympic skier. The money helps pay the salary and provide equipment for personnel who protect the big bird. Eagles can and have been affected by pollution. A fish dies of an overdose of poison that was dumped into a river. The eagle eats the fish and

in turn dies. However, with officers and biologists on pollution patrol, their vigilance will keep the eagles alive. Naturally, state officers enforce laws that protect the bird. Eagles find food and cover in areas developed for waterfowl and hunting.

Unfortunately, many people still equate a hunting and fishing license with the chase and killing. Far from being blood thirsty, the hunter and angler have done more for conservation and wildlife than any other group in our society. The non-consumptive segment of our population benefits greatly from the people who put their money down for conservation in the form of license fees.

Naturally, there is a certain selfish motive on the part of hunters and fishermen who buy licenses. They pay with the expectation of getting an opportunity to pursue game and fish. Hunting, itself is a tool of wild-life management, and it plays a vital part in the overall conservation plan to maintain nature's

proper balance. And the man who finds pleasure in the sport has contributed far more to the cause of conservation.

In Iowa approximately 350,000 hunters and 450,000 anglers purchase licenses annually. There is no other group that makes such a remarkable contribution to conservation. These sportsmen have been in the forefront of every worthwhile conservation movement. They were contributing both money and hard work many years before ecology was the "in thing."

Protectionists, sincere, but misled, may call for a ban on hunting. They may refuse to buy a license. But look what they are missing — a chance to become really committed to a cause, and to make a meaningful contribution to conservation. Otherwise, it is just a freeloading ride.

The purchase of a hunting and fishing license is the best buy you can make — even if you don't hunt or fish. It will help save the world or at least an important part of it.



## Campfire Cookery By Dick Ranney

July is the month when water related recreation hits its peak. What kid can resist running under the lawn sprinkler? Just let it rain and the water in the street becomes a water playground with boats, dams and kids. A vast number of Iowa's weekend sailors spend all week looking forward to Friday when they can load mom and the youngsters, hook on the boat, and head for a weekend of water fun.

WATER IN IOWA? YOU BET! Two of Iowa's boundaries are water in their entirety. This makes up some of the 1600 plus miles of rivers in the state. Iowa also has 43,235 acres of water in her natural lakes; added to that is 4,800 acres of water in twenty-eight artificial lakes; plus 24,800 acres of water in three federal reservoirs. If you throw in the

farm ponds, county board lakes and all other water in the state it's easy to see why our water conservation officers are busy.

It is impossible to over-emphasize the importance of water safety. Watch your kids, watch each other, and use good common sense. Boating regulations and water safety practices are available from the Conservation Commission upon request.

The Sunday night ritual of putting the gear away, hanging up the wet life jackets, swim suits and towels, or treating the sunburn gives way to thoughts of something quick and cool to feed the tired happy water rompers.

Hard boil three eggs. Cook six oz. of macaroni until tender, drain and blanch with hot water. Place the eggs and macaroni in

the refrigerator to cool. Chop up any or all of the following in a large bowl; celery, onion, green peppers, sweet pickles, assorted cheese, cold cuts, yesterdays wieners, left over meat loaf, cold chicken, beef, pork, bacon, peas, or green beans. Drain left over vegetables before you add them. Slice in the hard boiled eggs and add the macaroni. Mix salad dressing, milk and a little sweet pickle juice together. Don't worry about the amounts, just mix it to taste. Spoon the dressing over the salad and serve on crisp lettuce with toast or crackers. A glass of cold milk or iced tea will add a final touch.

RVL+



A productive lowa farm pond see article on page 10.

### THE CONSERVATION FORUM

Beginning in the August, 1971, issue of the IOWA CON-SERVATIONIST, a letters to the editor column — The Conservation Forum — will appear. A A A A Readers are invited to inquire about, or express their opinions on conservation matters in Iowa. Space will dictate which and how many letters are used each month, and the CONSER-VATIONIST staff reserves the right to make editorial revisions and comment on any subject discussed.