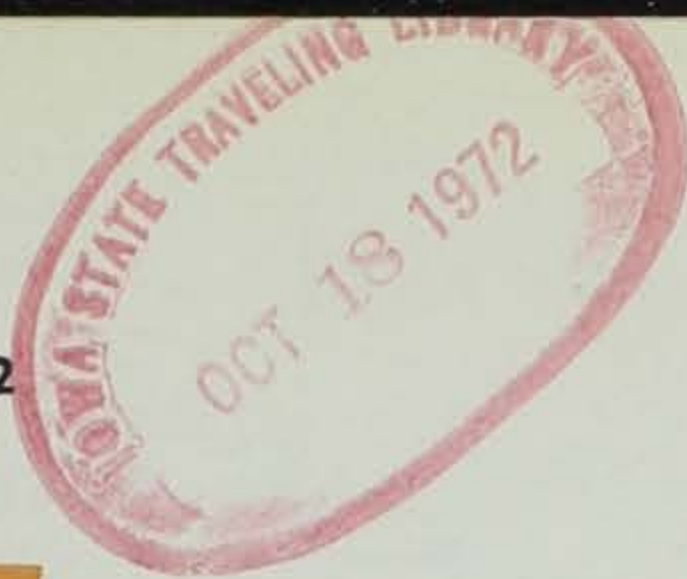


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OCTOBER, 1972



conservationist





ROGER SPARKS, EDITOR
WAYNE LONNING, PHOTOGRAPHER
JERRY LEONARD, PHOTOGRAPHER

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Editorial

Fred A. Prielwert

Director Iowa Conservation
Commission



Fred A. Prielwert

The State Conservation Commission is responsible for setting and regulating hunting seasons on all Iowa game birds except the mourning dove. There is no logical reason for this omission — doves are certainly game birds and are classified as such by the federal government. Doves are by far the most abundant game bird in North America; their populations are closely monitored and a tremendous surplus is unused annually.

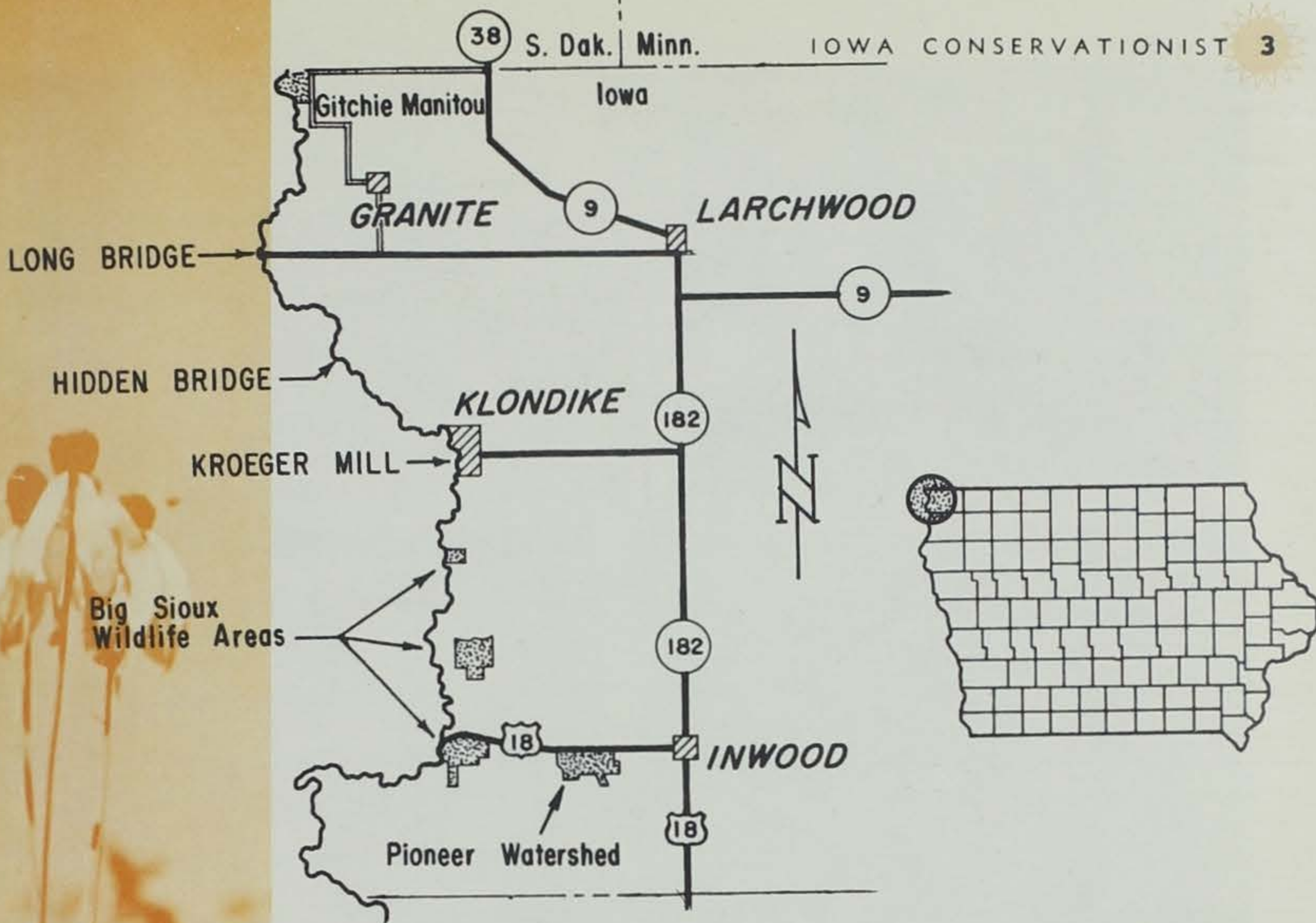
Opposition to dove hunting stems from arguments based largely on emotion rather than fact. Some equate the mourning dove with the biblical dove — the symbol of peace. The mourning dove has no religious significance. Biologically it is far removed from the biblical bird (in fact, the common pigeon is more closely related to that dove). Others take the preservationist stand that a hunting season could jeopardize the species, or that it is wrong to "kill anything." Doves are hunted in 31 states and nationwide data clearly indicates that hunting is **not** a decimating factor. Killing is indeed a necessary part of hunting, but it is also a necessary part of the procurement of beefsteak, pork, lamb, or fried chicken. There is also opposition from those who argue that any use of guns ultimately leads to crime and war. The legitimate use of sporting arms has no bearing on the cause of these problems, and prohibiting hunting of one game bird for such a reason is absurd.

Unlike the vociferous opposition, hunters "put their money where their mouth is." Through license fees and excise tax on

sporting arms and ammunition, they pay the way to insure healthy dove populations. Hunter money and concern have made the mourning dove an important, carefully managed species. The federal government grants Iowa \$3,500 per year for dove banding projects. An additional \$3,500 annually will be given for dove research, beginning in 1973. Many thousands of acres of state-owned wildlife habitat in Iowa, paid for by the hunter, directly benefit mourning doves. This is sound wildlife management financed by the sport hunter and based on fact, not emotion.

Surveys indicate this state plays an important role in annual dove production. Thus, Iowa has the dubious distinction of being one of the nation's leading dove producers while not permitting hunting of this sporting bird. Doves are migratory and every state south of Iowa hunts them. So as soon as the birds cross the state line, they become "fair game," offering thousands of recreation hours to southern hunters.

Why not in Iowa? Opponents of the dove season are few but noisy, and Iowa hunters must become motivated. They dole out the money for research and management then sit back and watch hunters from other states shoot more shells at mourning doves than any other game bird in the country. Iowa hunters now must organize their efforts and be heard above the din of the misinformed, non-paying minority. Only then can Iowans be allowed to harvest and enjoy their reasonable, safe and fair share of this abundant resource.



BIG SIOUX FLOAT

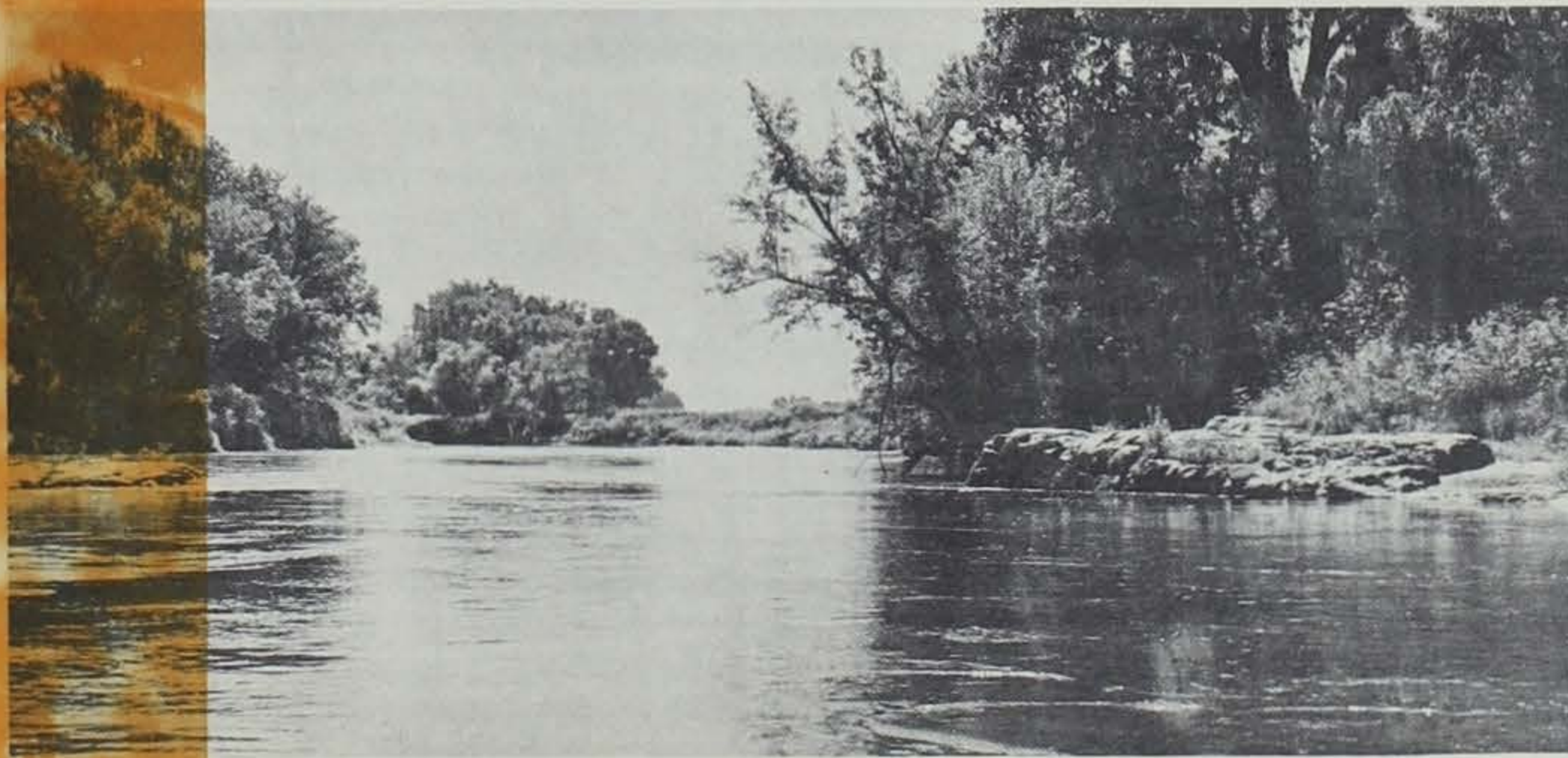
By Jon Gibson Information Specialist

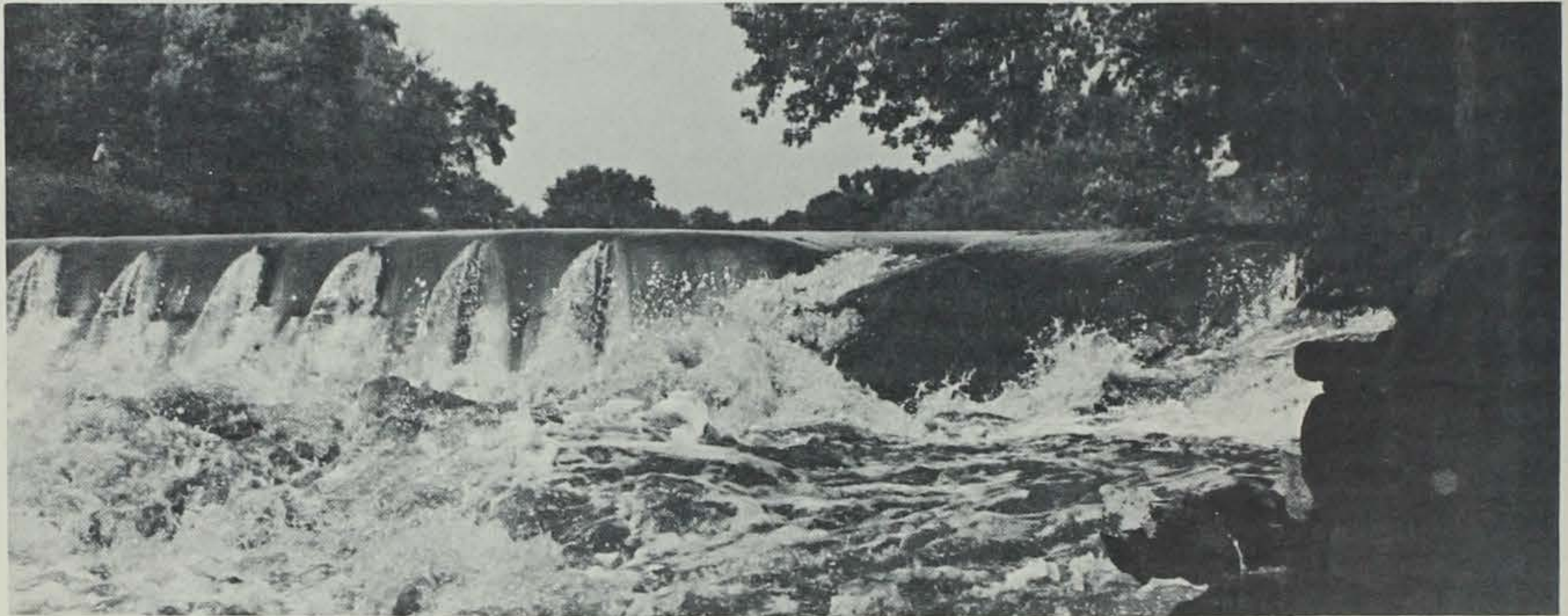
Where can one float a remote river past cactus covered rock ledges more than a billion years old; over frontier stagecoach crossings; along sites of massive Sioux encampments; by a pioneer grist mill, mill dam, and mill pond; and through waters once

scoured for pearls and gold? On extreme northwestern Iowa's Big Sioux River, of course.

The upper Big Sioux is divided into two float trip segments. The first runs from Gitchie Manitou State Preserve near Granite to the Kroeger Mill at Klondike.

Two slabs of Sioux quartzite jut out into the river just below Gitchie Manitou to create a narrow chute. Boaters should be careful of this area, particularly during low water.





The mill dam at Klondike is too dangerous to run. A landing area is located just upstream on the east bank.

The second leg extends from the mill to the U.S. Highway 18 Bridge near Canton, South Dakota.

It is advised that the two segments be floated separately. If a two-day trip is planned, the best locations for overnight camping are on private property above Klondike. Permission from the landowner must be secured, however. Because farmhouses are few and far between, and the landowners themselves often reside elsewhere, pre-trip arrangements must be made.

Gitchie Manitou (the Sioux name for "Great Force of Nature") is noted for its outcrops of Sioux Quartzite. This pink rock, between 1.2 and 2.5 billion years old, holds Jasper Pool, a pond set into the quartzite and formed by quarrying at the turn of the century.

Marking the transition from humid eastern prairies to arid western prairies, Gitchie Mani-

itou's native prairie sprouts prickly pear cactus, sagebrush, and blue gramma, in addition to such common native Iowa prairie plants as big and little bluestem, Indian grass, prairie cone flowers, and lead plants.

At the northern edge of the preserve is the site of Lyon County's first post office. The riffle in the Big Sioux directly west of the site is believed to be a stagecoach crossing.

Difficult Start

Consistent with the rugged nature of the river, there are no good put-in points at Gitchie Manitou. A good back and a long rope are needed to launch your canoe, johnboat, or whatever. There's a parking area just southeast of the preserve gate.

Below Gitchie Manitou the river is lined with high cutbanks. Constant erosion exposes the skeletons of animals that roamed the prairies long before the white man came. A bison skull complete

with horns is a possible souvenir on any Big Sioux float trip. Bank swallows take advantage of the endless cutbanks and numerous nests are dug into the side of the dirt walls all along the river. Above the cutbanks stand silver maples so large that their branches form an arch over the water and douse it in shade much of the time. Yellow-billed cuckoos, wood ducks, great blue herons, green herons, and belted kingfishers are occasionally seen among the branches.

The river broadens four miles below Gitchie Manitou. A few prospectors have attempted to pan for gold here, but with little success. Still, there are a few old-timers in the area who claim "there's gold in that 'thar' stream."

The old and abandoned Chicago, Rock Island & Pacific (C. R.-I. & P.) Railroad Bridge is the next landmark on the journey. Souvenir and antique collectors



occasionally come across spikes that have fallen to the sand bars from the bridge above. In the vicinity is one of the most massive encampments of the Sioux Nation ever discovered. Encompassing hundreds of acres, the site holds artifacts from the Great Oasis Woodland, Oneota, Omaha, Ioway and Sioux Cultures. In an 1873 account, S. C. Hyde states, "These works (earthen formations) are the most singular character, and bear evidence of great labor and ancient origin." Hyde talks of mounds covering twenty or more acres, giant amphitheaters, circles formed from huge blocks of Sioux quartzite, and long lines of redoubts and breastworks. Due to cultivation most of the earthen formations are no longer visible through ground level visual observation. This entire site is on private property and written permission is strongly suggested before entering such lands. If any artifacts

are found, they and the details surrounding their discovery should be reported to Dr. Anderson of the Sanford Museum in Cherokee.

In the vicinity of Long Bridge the river has carved steep cutbanks through acres of prairie grasses. The remoteness and the prairie setting give the float tripper a feeling of being a pioneer in a primitive land. One almost expects to see a bison stick his head over the edge at any moment.

After passing Hidden Bridge, where only the pilings are left, numerous jams of driftwood disrupt the flow of the river. Channel catfishing can be excellent here. When the water is rising the deep holes below the jams yield some fine stringers of channel cats. In the spring when the northern pike are running, good catches are frequently taken.

The mill dam at Klondike is too dangerous to run and neces-

sitates beaching on the rivers' east side just above the old Kroeger Mill. The best spot to put back in, after a short portage across the bridge located by the mill is on the South Dakota side about 100 yards below the dam.

Built in 1883, the mill was noted for high quality flour. Much of the machinery has been taken away, but if a restoration project is started, area farmers know where most of it is and can return it.

Heavy Timber on Second Leg

The area downstream from the dam was well known for clamming at the turn of the century. The clams, or freshwater mussels, were dug off the stream bottom with potato forks and boiled in large troughs over open fires to open the shells. The meat was fed to livestock, the shells were shipped to Muscatine to be made into

(Continued on Page 16)



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upland game birds

By Roger Sparks



The exciting moment of upland game bird hunting is the flush. Just watching a fine dog work can save an otherwise fruitless afternoon, but in the long run it's the sudden blur of the bird taking to wing that brings the shooter out each fall.

The opportunity for a mixed bag doubles the excitement in many areas of the state. When hunting in good quail country it's common to see the dogs point what is assumed to be a covey of quail only to watch a cock pheasant bust in front of the barrel. The hunter who concentrates his effort in areas where one species predominates misses this occasional surprise.

In 1972 things look pretty good for the mixed-bag hunter. Areas rated "Best" on population density maps for pheasant and quail overlap in southwestern Iowa. The quail population is rapidly

building there, particularly in the bottom two tiers of counties. During the past decade, pheasant populations have also built to a steady peak in this southwestern quarter of Iowa. Fairly good mixed bag hunting for pheasant and quail is available along much of the "good" and "excellent" quail range across the state. Note however, that the extreme southeastern corner of Iowa is closed to pheasant hunting (see map).

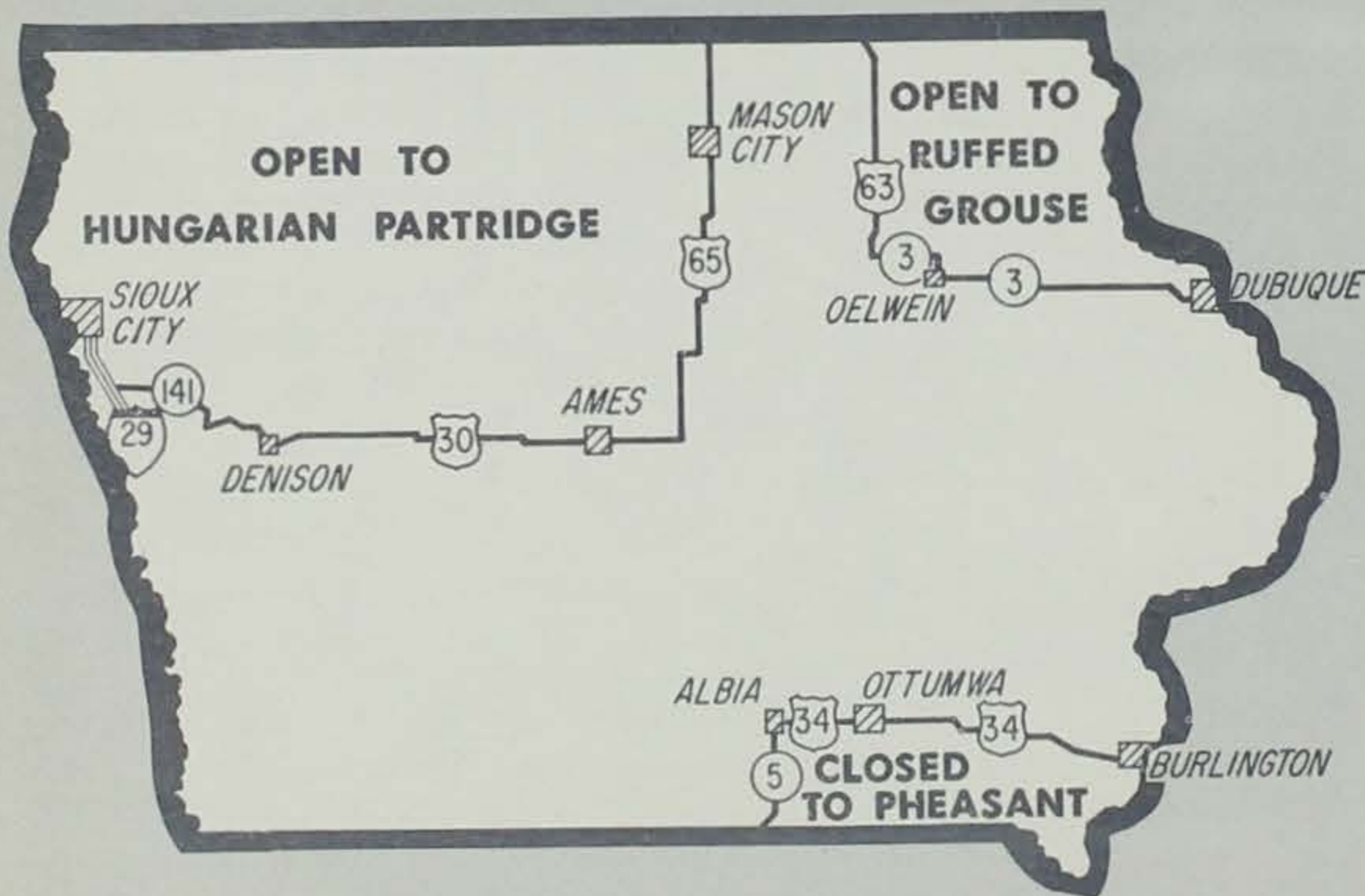
Surveys indicate that the pheasant population in north central and northwestern Iowa has risen slightly over last year. Hungarian partridge in this area have also shown a slight increase and the daily bag limit on "Huns" has been increased to four birds per day with eight in possession. Very little hunting is done specifically for "Huns" in Iowa. They are a bonus bird for pheasant hunters



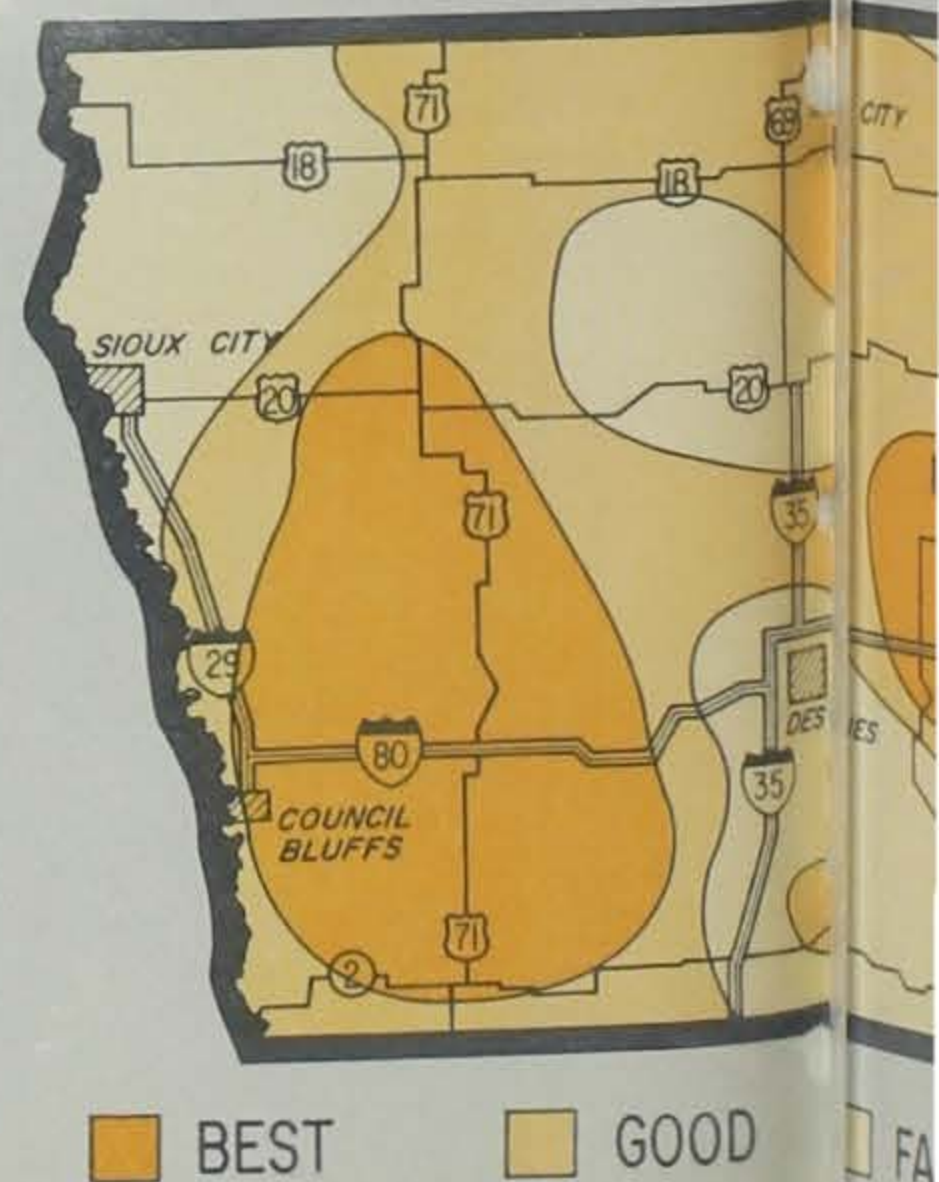
and population densities are fair in the better areas. However, Huns normally remain in coveys and may be found almost anywhere. These unpredictable birds are a welcome addition to the hunter's daily bag.

For the first time this year grouse hunters will have the opportunity to bag a few "timberdoodles." The woodcock season coincides with the roughed grouse season of October 1 through December 31, and hunters working their favorite grouse thickets along the Mississippi River in NE Iowa will flush an occasional woodcock. These birds will also be taken by eastern Iowa quail hunters as they work the brushy areas along streams.

Snipe and rails are fair game around duck marshes across the state and the seasons overlap.



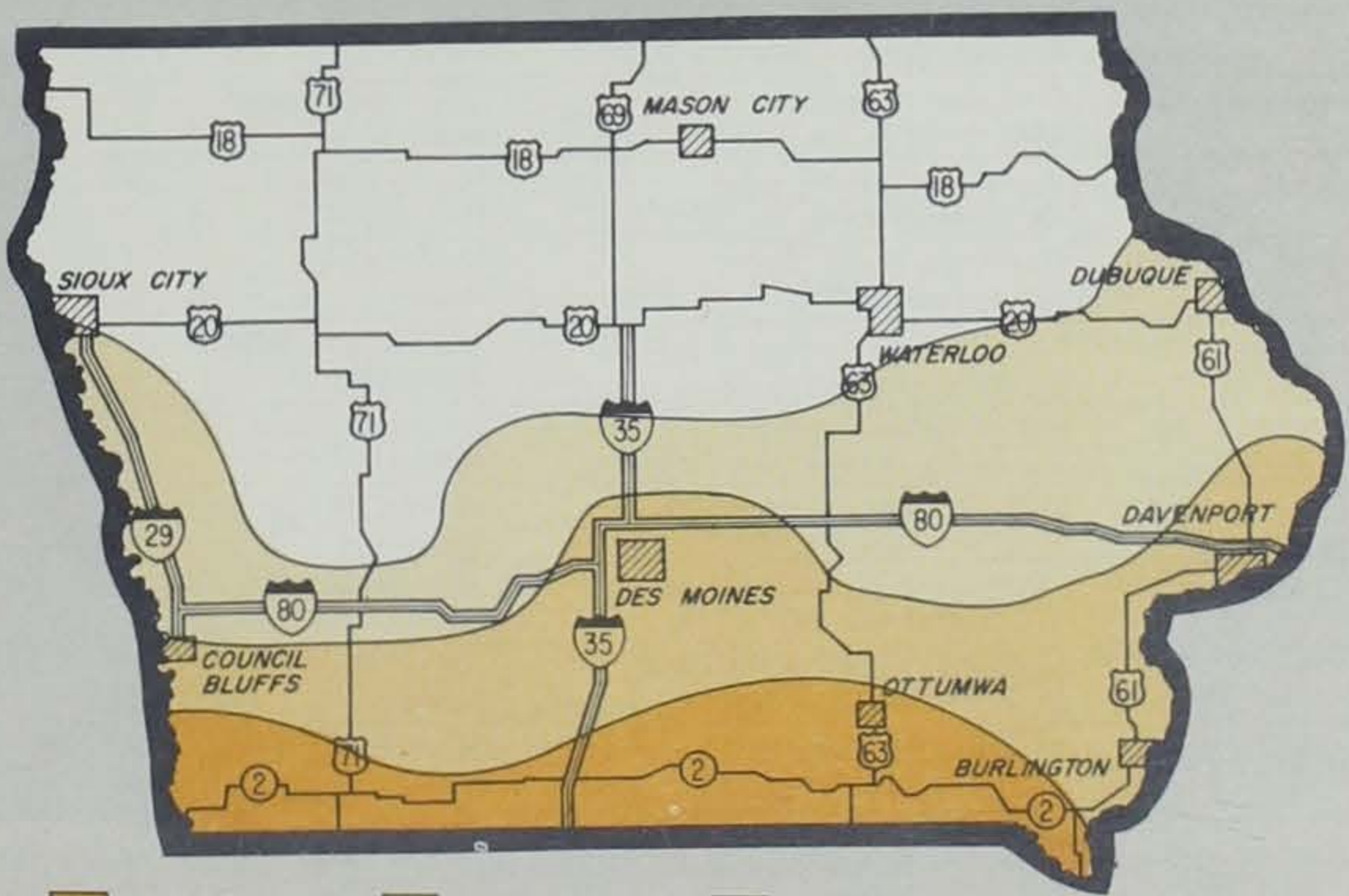
PHEASANT DISTRIBUTION





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QUAIL DISTRIBUTION



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1972 TRAPPING SEASONS

Mink-Muskrat — 6 a.m. Nov. 11 to midnight December 31, 1972.

Fox (Red and Gray) — 6 a.m. Oct. 28 to midnight January 31, 1973.

Beaver —

Zone I — 6 a.m. Nov. 11 to midnight Feb. 28, 1973.

Zone II — 6 a.m. Dec. 16 to midnight Feb. 28, 1973.

Raccoon, Striped Skunk, Spotted Skunk, (Civet Cat), Opossum, Badger, Weasel — 6 a.m. Oct. 28 to Feb. 15, 1973.

Otter — No open season.

Coyote — Continuous open season.

NOTE: Water sets will not be permitted prior to 6 a.m., Nov. 11.

1972-73 Iowa Shooting Preserves

Shooting Preserve Hunting Season is from September 1st through March 31st

Year Starting	Lic. No.	Shooting Preserve Name	Owner or Manager	Location From Nearest Town	County	Species Available*
1957	5	Bird Layne Farms New Sharon, Ia. 50207	Ed Lloyd Owner	6½ mi. E. of New Sharon (public)	Mahaska	P-Q-C
1957	8	Arrowhead Hunting Club Box 28, Goose Lake, Ia. 52750	John Mullin Owner	3½ mi. SW of Goose Lake (public)	Clinton	P-Q-C-M-T
1959	16	Wingover Ranch RFD, Keokuk, Ia. 52361	John Broughton Manager	5 mi. N of Keokuk (public)	Lee	P-Q-C-M
1963	19	Windy Hills Hunt Club Rt. 5, Muscatine, Ia. 52761	Howard James President	4 mi. S of Muscatine (public)	Muscatine	P-Q-C
1964	21	Oak View Game Farm Rt. 1, Prairie City, Ia. 50228	Ron DeBruin Owner	7 mi. SW of Prairie City (public)	Jasper	P-Q-C-M
1968	28	Logan Sports Farm Delhi, Ia. 52223	Marvin Kruetner Manager	2 mi. SW of Delhi (public)	Delaware	P-Q-C-M
1968	30	Ivanhoe Hunting Club Rt. 2, Mt. Vernon, Ia. 52314	Stephen West Owner	1½ mi. S of Mt. Vernon (private)	Linn	P-Q
1969	32	Buffalo Valley Sports Club RFD, Murray, Ia. 50174	Harold B. Pearson Owner	3 mi. SW of Murray (public)	Clarke	P-Q-C
1969	33	North Star Shooting Preserve RFD, Montour, Ia. 50173	Arlo Hinegardner Owner	3 mi. NE of Montour (public)	Tama	P-Q-BG
1969	35	Outdoorsmen Hunting Club RFD, Webb, Ia. 51366	Larry Buettner Owner	4 mi. W of Webb (public)	Clay	P-Q-C
1971	37	It's For the Birds, Inc. RFD, Melbourne, Ia.	Martin Halblom Owner	4½ mi. N of Melbourne (public)	Marshall	P-Q

Public — Open to the general public.

Private — Hunting available to club members only.

*P-Pheasant Q-Quail C-Chukar M-Mallard T-Turkey BG-Big Game

SHOOTING PRESERVES BECAME LEGAL IN IOWA ON JULY 1, 1957



brush piles are wildlife habitat

By Charles Schwartz
Game Biologist

Did you ever stop and think of the value that old brush piles have for wildlife? Yes, that's right. Brush piles provide excellent cover for many wildlife species. Cottontail rabbits use brush piles all year long. Many females use that old tangle of limbs and stumps for a safe place to raise their young. During the fall and winter when much of the cover disappears, brush piles provide excellent protection. On cold winter days both rabbits and bobwhite quail seek these protected areas.

Burning these brush piles destroys not only wildlife cover, but also the organic material in the soil. The accumulation of ashes produces a "dead spot" due to excess potash and the area may not support plant growth for several years.

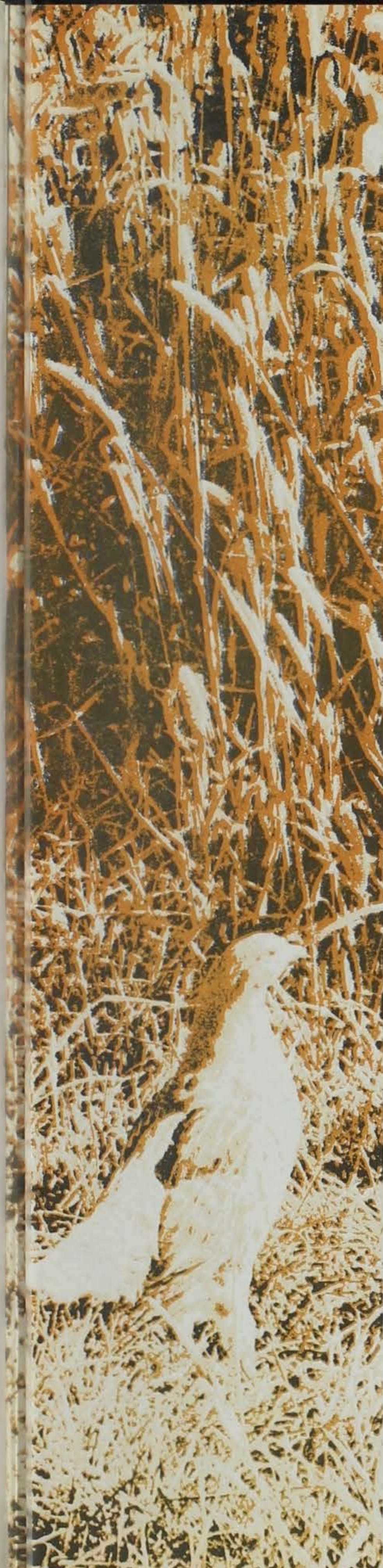
If land clearing operations are a must, plan to leave the spoil piles for wildlife habitat. Have the bulldozer operator locate these piles in areas that do not hamper tractor operations. Areas where the slope is too steep to

farm or where soil is extremely poor, offer ideal spots to pile brush. Odd areas in the corner of pastures or adjacent to woodlots are good. Near farm ponds, pile brush below the dam and to one side. This way it is out of sight of the pond and will not interfere with pond construction.

Don't push brush into ditches. Brush pushed into gullies will not stop erosion, and it often prevents natural healing. In some cases, brush pushed into ditches actually speeds up erosion.

If brush piles are thought to be an eyesore, there are varieties of climbing plants that can be established to cover them. Virginia creeper, bittersweet, and grape will hide brush piles. These plants can be collected in the wild, or they can be purchased from one of the many nursery supply houses.

So, when you think about burning that brush pile, remember how nice it looks to rabbits and quail on a cold wintery day. It's much better than a pile of ashes I'm sure.



WALLEYE



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in southern iowa

By Don Kline Fisheries Biologist

Walleyes are highly prized both for sport and food wherever they are caught, but their traditional home has been the natural lakes of the North-Central United States. The summer season of this region is shorter than southern Iowa and summer water temperatures are somewhat cooler.

Walleye introductions into warm water lakes below the southern extent of this cool water area have been closely studied by fisheries biologists.

Early stockings in southern Iowa have produced some good walleye fishing, particularly in the first few years. Lakes stocked include Lake Macbride, Green Valley Lake, Lake Geode and Lake Wapello.

Recent stockings have also been made in Rathbun Lake, Red Rock Lake, Don Williams Reservoir, Hickory Grove Lake and Lake Ahquabi. These introductions are being watched and evaluated in hopes of finding more lakes that will produce walleye for southern Iowa fishermen. A look at the habitat requirements will allow us to understand why some of our southern lakes will not support large numbers of walleye.

Need Room

Our larger lakes like Lake Macbride have produced the best walleye fishing because there is more room suited for walleyes and an adequate food supply to maintain them. The larger lakes (over 800 surface acres) have

more open, deep water area that can support enough adult walleyes to maintain a fishery. The open, deep water area is not heavily used by other species of fish found in southern Iowa lakes so competition is much less fervent.

Iowa lakes are filled with warm water fish which are natural to the area. These native fish are well adapted to our smaller Iowa lakes and have filled most of the available living space. The young walleye finds himself an outsider and must compete with the young bass, bluegill and crappie for food and space. This competition factor is probably the biggest stumbling block to a successful walleye population in small southern Iowa lakes.

Hatcheries Must Produce Young

We cannot depend on natural reproduction to supply adult fish. Our hatcheries have to produce fry and fingerling walleyes in places of naturally produced fish.

Adult walleye move into shallow water to spawn in April. Eggs are deposited in the most suitable bottom material available about three feet deep. Normally, this would be pea-sized gravel, but coarse gravel, rip rap, and sand are often used. In southern Iowa, most artificial lakes have large rip rap on the dam face where walleye congregate.

Eggs are released by the female, immediately fertilized by the male and settle to the bottom. The male and female leave the

eggs and do not return to guard them as bass and panfish.

Competing fish and heavy silt loads have devastating effects on the fertilized eggs and fry. Southern Iowa lakes have large populations of bluegills, crappies and other panfish which relish eggs and fry of any fish. Walleyes do not build nests so there is no protection for the eggs or fry. Iowa lakes typically have heavy inflows of silt from the erosion of upstream lands so as walleye eggs fall to the bottom many are covered by settling silt.

Fry stockings work best in new or renovated lakes because there is no predator problem. The usual fry stocking rate is 1,000 per surface acre, but trials of 3,000 per acre are being conducted at Lake Macbride, which has an established population. Soon after hatching fry swim to the middle of the lake where they begin to feed on microscopic organisms. During this process they are in turn eaten by larger fish. Some small walleye may remain in the open water after their first month, but most return to the shallow shore areas.

Although the young walleye are growing larger in size, their numbers are decreasing. Walleyes will grow from six to ten inches during their first summer, depending upon the food supply and available living space. As they grow larger, they gradually

(Continued on Page 14)

WALLEYE . . .

(Continued from Page 13)

switch from the microscopic organisms to aquatic insects and finally to minnows. During their first summer they will pass through the advanced fry, fingerling and advanced fingerling stages.

Fingerling sized walleyes are usually stocked in lakes with established fish populations. Hatchery personnel place walleye fry in rearing ponds which have no other fish and remove them as three inch fingerlings. Walleye fingerlings are stocked in smaller numbers because they are big enough to escape the heavy losses of the smaller fry.

The large fingerling walleye that have survived their first summer congregate in loose schools and move to the deeper portion of the lake during the winter months. Some of the larger ones will be caught by ice

fishermen and some of the smaller ones will be eaten by larger fish. Again the number decreases.

Walleyes that survive until the next spring supply the year class that will be available to the fishermen in about three years.

The problem in small southern Iowa lakes is not enough sub-adults survive the competition to supply a strong year class. Some walleye will survive to form weak year classes, but not enough to supply good fishing. On the other hand, stocking programs in some larger lakes such as Rathbun Reservoir and Lake Macbride show definite promise.

Each lake has its unique fisheries potential and all species of fish cannot survive in large enough numbers to support fishing. The decision to stock a lake rests with the area fisheries biologists as they continue looking for the proper conditions to support walleyes in catchable numbers. ☆

**NEW COMMISSIONER**

DES MOINES, IOWA—Governor Robert D. Ray recently named Thomas A. Bates, Bellevue, to fill an unexpired term on the Iowa Conservation Commission.

Bates, 51, is Editor of the Bellevue Herald-Leader and succeeds Joan Geisler, Dubuque, who resigned last September because of ill health. The term expires June 30, 1975.

Bates is a graduate of Kent State University, Kent, Ohio. He has operated newspapers in Akron, Ohio; Savanna, and Geneseo, Illinois. He purchased the Bellevue Herald in 1950. ☆

IOWA CONSERVATION COMMISSION**Rated the Best**

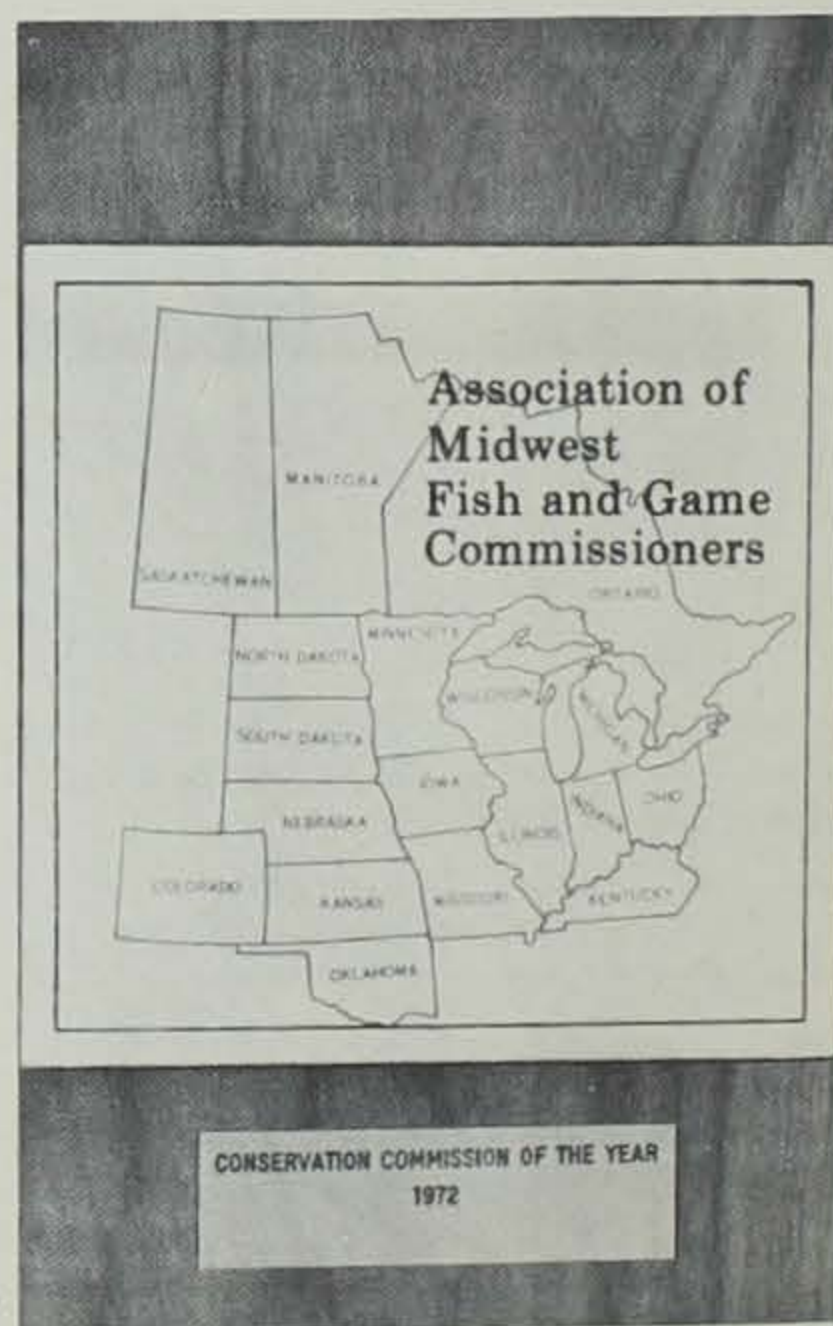
DES MOINES, IOWA — The Midwest Association of Fish and Game Commissioners (MAF&GC) rated the Iowa Conservation Commission the best at its recent Wichita, Kansas meeting.

The MAF&GC award, won in competition with 14 other states and three Canadian provinces, was based to a large extent on the commission's actions in the Cordova Nuclear Power Plant controversy.

In a strong stand for a quality environment, the Commission rendered a unanimous decision in denying the permanent installa-

tion of two diffuser pipes on the Cordova Nuclear Power Plant. By taking such a position against the potential hazards of thermal pollution, the commission has received acclamation from both private and governmental conservation agencies all over the country.

The commissioners receiving the award were: William E. Noble, Oelwein, Chairman; Ed Weinheimer, Greenfield, Vice Chairman; Jim D. Bixler, Council Bluffs; Les Licklider, Cherokee; Dr. Keith A. McNurlen, Ames; John G. Link, Burlington. ☆



Classroom Corner

By Curt Powell

Administrator
Conservation Education Center



Have you noticed anything different in our forests in the fall? Do the forests have a different color in the fall than they had in the summer? Do you notice many red, yellow, purple or even green leaves on Iowa's trees?

Iowa's forests present us with a beautiful cavalcade of color in the fall. Can you see why people enjoy autumn drives?

What makes the leaves on trees change color in the fall? I asked this question of our good friends in the Forestry Section of the Iowa Conservation Commission and was very amazed at the response. Leaves on trees receive their green color from a chemical substance called "Chlorophyll." Chlorophyll is very important to the tree and any other green plant.

Leaves of plants are often called the food-making organs of the plant. Plants need water and carbon dioxide (CO₂) to produce sugar. This sugar is later used by the plant to produce starches and other food products that the plant needs to live.

The root system of the plant carries the water and other minerals to the leaves. It happens through the same principle that blood vessels carry nutrients to the various parts of our body. When the water and minerals reach the leaves they come in contact with sunlight, chlorophyll and carbon dioxide (absorbed from the air by the leaves).

The plant or tree requires energy to produce food, the same

as we need energy to lift a book, or play, or work at a job. The tree obtains this energy from the sun. When the sunlight is combined with the chlorophyll, water, and carbon dioxide, sugars are produced. Oxygen, a by-product which the tree gives off during this process, is also produced. This process is called photosynthesis.

This is the long way around an explanation, but it is necessary to understand this process before we can discuss colors of leaves. All spring and summer, trees are busy in this food-producing process. Along with the green colors that chlorophyll gives the leaves, there are other pigments (colors) found in the leaves. However, the green chlorophyll masks the other colors. In the fall, because of changes in the period of daylight and changes in temperature, the leaves stop their food-making process. The chlorophyll breaks down, the green color disappears, and the other colors then appear. All of the various colors are due to the mixing of the chlorophyll residue and other pigments in the leaves. Many of us believe that frost causes our leaves to change color, but it is not true.

As the fall colors appear other changes take place in the tree. At the place where the leaf is attached to the tree, a special layer of cells develop and slowly cuts through the tissues that holds the leaf to the tree, then as the wind blows or the weight of

the leaf becomes too great, the tree sheds its leaves.

Let's do an experiment to determine the presence of chlorophyll in a leaf. We will need one green leaf and one that has turned color. Heat some water on the stove until it starts to boil. Place your green leaf and your colored leaf into two separate baby food jars. Fill each baby food jar nearly full with alcohol. Please be careful! Remember that alcohol burns and you are working near a stove. A hot plate would be better and safer. Place the baby food jars in the hot water. The alcohol will soon boil. Allow it to boil for several minutes. All of the coloring in the leaves will come out in the alcohol.

In which baby food jar is the alcohol greener in color? Does this indicate which leaf had the most chlorophyll in it?

If the temperature and daylight affect the color change in leaves, would there be trees in the southern part of the United States that wouldn't change color and lose their leaves? Are there trees in Iowa that retain their leaves during the winter? Isn't Iowa beautiful in the fall?

Are you interested in visiting the Conservation Education Center or bringing a school or youth group or conservation group to the Center for classes or instruction in learning more about Iowa's natural resources? If so, for more information write to us in care of: Conservation Education Center, Route 1, Box 138C, Guthrie Center, Iowa 50115. ☆

BIG SIOUX . . .

(Continued from Page 3)

mother-of-pearl buttons, and the pearls that were sometimes found sold for as much as \$1,800.

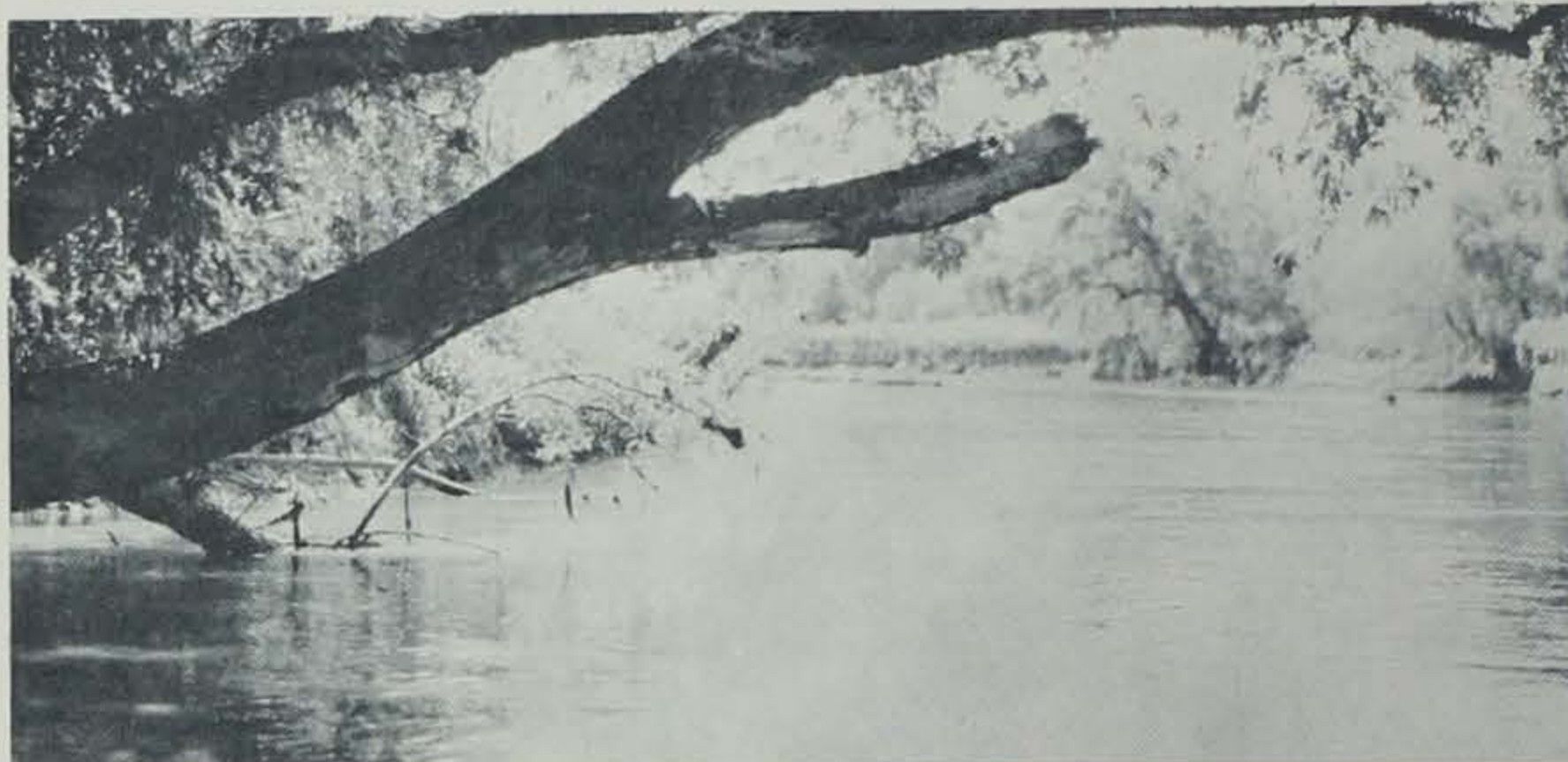
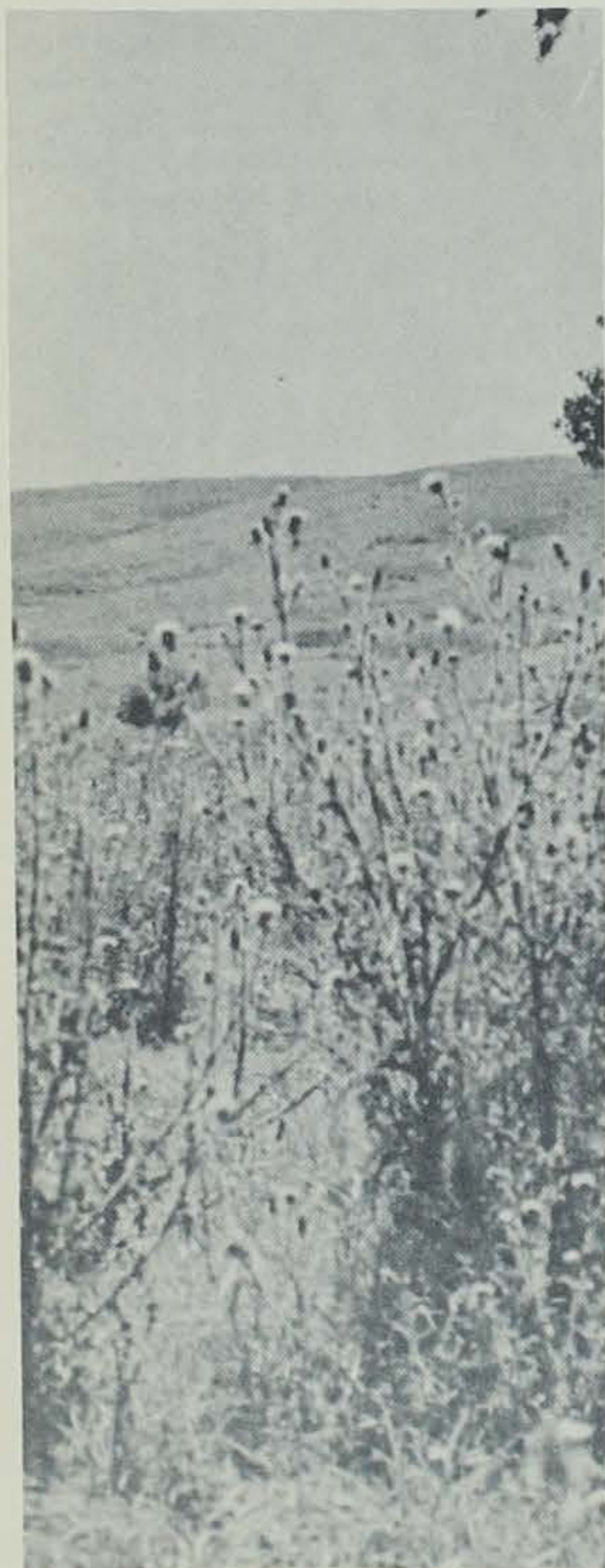
The Chicago, Milwaukee, St. Paul and Pacific (C.M.St.P&P) Railroad Bridge is passed just upstream from the U.S. Highway 18 Bridge (the take-out point) near Canton, South Dakota. Just south

a few hundred yards is the largest tract of the Big Sioux Wildlife Area. This tract is heavily timbered with silver maple, basswood, American elm, and bur oak. Good hunting for squirrels, rabbits, and deer, as well as a chance for truly primitive camping are some of the activities offered.

The Big Sioux has no lime-

stone bluffs draped with balsam fir, and no brown trout lurking in spring-fed, crystal clear waters. But on the Big Sioux it's never hard to see the stream for all the canoes.

For those who seek to float the various types of Iowa streams, the unique scenery and historical character of the upper Big Sioux can no longer be overlooked. ☆



BIG SIOUX

