

# KANSAS FISH & GAME



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# KANSAS FISH & GAME



January-February, 1973

Vol. 30, No. 1

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Snow-draped evergreens and plump green head mallards. Ekta-chrome transparencies by Ken Stiebben.

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### Look At It Another Way

There are many ways to view the increase in license fees which the Forestry, Fish and Game Commission is asking the Legislature to approve this session.

Evidence to date shows the avid sportsman, the outdoor club member and the fish and game naturalist are all pretty much in favor of increasing the fees. They understand that Project SASNAK and its five worthy objectives can only be implemented with such an increase. And they know that SASNAK will provide them with a higher quality fish and wildlife resource. They feel too, that SASNAK will provide the necessary assurance that these resources will continue to be available far into the future.

There is, however, one group of sportsmen, who are not quite so sure. These men and women may take to field and stream only a few times a year. To them the outdoor experience is not one of their major areas of recreation. They may question, and rightly so, whether the objectives of SASNAK are worthy of an increase in the cost of fishing, hunting and boating license.

But let's look at it another way.

To a once-a-year angler, the loss of one or two bass lures can easily surpass the additional \$2 cost of his license, if not the entire \$5 license itself.

To a one-a-year pheasant hunter, a box of shotgun shells will cost more than the \$2 increase in his license (the upland game bird stamp abolished). Add the money he spent on gasoline to get there, and he will have no doubt spent much more than the \$6 cost of the whole license.

With each additional fishing or hunting trip, the price of these licenses become even less of an expense. While costs of licenses in most other states are higher than the existing costs in Kansas, national averages show licenses account for 2.6 per cent of the amount fishermen and hunters spend on their sport.

Yet, this 2.6 per cent they spend on licenses accounts for about 80 per cent of the money which goes to protecting and improving the subject of their sport.

Because the cost of a boat and motor can run 15 to 150, or more, times the cost of the proposed, three-year \$9 boat registration, this fee adjustment is even of less significance to the overall cost of this sport.

Any way you look at it, license fees are a necessary cost of these forms of recreation. Any way you look at it, it's the sportsman who pays the tab to insure the quality of his sport. And any way you look at it, the increases being sought by the Commission mean little to the total sportman's cost. They do, however, mean a great deal to the quality of Kansas fish and game resources.—ROSS HARRISON

# SASNAK

## Why and How

By Richard Wettersten, Director

**I**T WAS JUST A year ago that a group of Kansas sportsmen meeting in Hutchinson took strong issue with the handling of hunting and fishing license dollars. The gist of their discussion was that we are paying for an aggressive program but we are only getting an increasing "bank account."



Wettersten

As a new Fish and Game Director in the State, I made note of the very strong interest of these dedicated sportsmen and conservationists and I had the feeling that this group spoke for a great majority of Kansas sportsmen.

Returning from the meeting I couldn't help but notice bulldozers working on hedgerows and I mentally calculated that a covey of quail would be lost permanently for every two days of 'dozing. I doubt that replacement cover was being established at the same rate.

These events brought to mind a tour of southeastern Kansas made shortly after arriving in the State. Some state game management areas just weren't providing the hunting that they had once been capable of.

Other events added to this somewhat confused picture. Reservoirs supporting only 200 pounds of fish per acre when they could have supported 500 pounds were pointed out

by our fisheries biologists. Commissioner Bill Fowler questioned the wisdom of using game protectors almost full time on boating law enforcement and Commissioner Jack Haley wondered about the feasibility of a habitat program.

All of these comments and observations were brought into focus when Fish and Game employees at all levels were asked to submit budget recommendations.

It became apparent that the sports-

man and the citizen of Kansas was not in fact getting a dollar value.

Even though a survey of landowners throughout the State indicated an interest in game habitat development there was no habitat program. This despite the fact that 95 percent of the hunting in Kansas was done on private land. Fishing license sales have increased 25 percent in the last six years but the fisheries program has grown less than one-half of that pace.



Doubling the take of upland game on the Commission-managed 218,000 acres of public hunting land is one of SASNAK's goals.



Another SASNAK objective is increasing by 50 percent, the take of game fish from Kansas waters.

In summary, the Forestry, Fish and Game Commission had the funds, expertise, and opportunities. All that was needed was to package these factors into a sound program that would be long standing and produce positive results. That package has been developed and it is called SASNAK. Fisheries biologists believe that the catch of game fish can be increased by fifty percent during the next five years and implementation of SASNAK will guarantee it. This will be accomplished by better utilizing fish populations; by making better use of hatchery stock; by habitat development in reservoirs, small lakes and streams; and by working on the initial design of all new impoundments of the State to make sure fisheries values are included.

The Forestry, Fish and Game Commission owns about 75,000 acres in fee title and has license to about 125,000 acres. While this is only about one percent of the land area of Kansas, it plays host to about 5 percent of the hunting effort. Game biologists believe that populations and harvests of small game from these lands can be doubled by intensive development. This will be accomplished by planting cover, nesting areas and food crops,

and by controlled burning, grazing or any other manipulations necessary to make sure every acre produces a maximum number of birds.

To utilize the private landowners basic interest in wildlife and to maintain good supplies of game species for 95 percent of our hunters, SASNAK calls for the implementation of a private land development program. Working with State and Federal farm programs and directly with landowners we can be assured that those bulldozed hedgerows will be replaced elsewhere. Furthermore they will be replaced in a manner compatible with farming and ranching operations.

The 1972 Legislature enacted the Firearms Safety Training program for young Kansans. SASNAK calls for the complete implementation of this law with strong emphasis not only on the safe handling of firearms but also on basic conservation and hunter ethics.

Finally SASNAK calls for revamping the boating program. Instead of game protectors spending up to 95 percent of their time enforcing boating laws during the summer season, it is proposed to establish courtesy water patrols. The courtesy patrols will not only handle law enforcement work but will provide opportunities for free

boat safety checks and will develop safe boating programs during the off season.

When presented with SASNAK as a package, the five men of the Forestry, Fish and Game Commission adopted it unanimously and with enthusiasm. Commissioner Bob Lemon said that this is the kind of action program our sportsmen deserve. Commissioner John Luft, an avid hunter like the rest, was also enthusiastic. Commissioner Fred Sears, who is Chairman and did not have to vote, cast his ballot anyway to make clear his support of the program.

Since SASNAK's adoption many have asked how it will work. The answer basically is to provide the money and manpower in the field where it is needed most. A fisheries biologist will be assigned to each of the 20 reservoirs in the State and game biologists will be employed on a district basis to work primarily with other farmer-ranchers on the program.

Emphasis will be placed on doing work by contract and strong efforts will be made for cooperative ventures with other units of government.

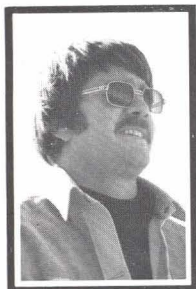
SASNAK results should be impressive and long standing. We believe a boating ethic will be developed in the State so that boating activity will be largely self-enforced by boaters. A new partnership will be developed among the Commission, landowners and sportsmen. Fishing will continue to be as good or better than we have known it to date and Kansas will achieve recognition for fishing quality. And finally, Sunflower sportsmen continue to be offered some of the finest upland bird hunting in the United States.

But all of Kansas will benefit from SASNAK—the sporting goods dealers will dispense over twenty-five million shotgun shells a year; the bird watchers that are more abundant on Cheyenne Bottoms than the duck hunters; the families on a weekend outing for fishing, water skiing and camping at one of the reservoirs and all of those who appreciate the Kansas out of doors.

# Snaggin' for Spoonbill

By Vic McLeran  
EDITOR

**TOM CRISPINO** CALLED me a little after midnight. "They just snagged the first spoonbill," he said. "You better get down here!" Mumbling something ugly about late-hour phone calls,



McLeran

I hung up and reset the alarm clock for 3:00 a. m. Tom, then the Commission's gace protector in Parsons, and now the law enforcement supervisor in south-central Kansas, had been keeping tabs on the spoonbill situation for me. I'd asked him to call as soon as these large fish started running in the Neosho River so I could get down for a story on the event.

It was May, 1972, and the Kansas Forestry, Fish and Game Commission had just opened the state's first modern-day legal snagging season on spoonbill or "paddlefish," as they're called in some areas. So, with four hours of sleep and some hot coffee under my belt, I left Pratt for Chetopa, a bustling little river town which bills itself as "The Catfish Capital of Kansas."

The Neosho River had been down for several weeks. But recent rains and a release of water from John Redmond Reservoir upstream had raised

Spoonbills, or paddlefish as they're called in some areas, offer the Kansas snagging enthusiast a chance at some really big fish.

the level several feet. And the spoonbills, distant relatives of the sturgeon, had started their annual spawning run upstream. Now, they were temporarily congregated below the dam at Chetopa waiting for more water which would allow them to cross the impoundment and continue their journey.

Driving through the town and crossing its river bridge, I noticed several fishermen working the swollen, turbid waters below the dam. I parked the car in a nearby grove of trees and walked to the water's edge.

"Any luck?" I asked of two men who were retrieving their hooks in vigorous side-sweeping motions.

"Got a couple last night," replied one. Introducing myself, I learned the two men were Kenny Reed of Chetopa and his cousin, Howard Riddle from Oswego. Both men had spent the last two nights on the river working their heavy snagging rigs. Reed had scored on two "spoonies," the largest weighing 62 pounds.

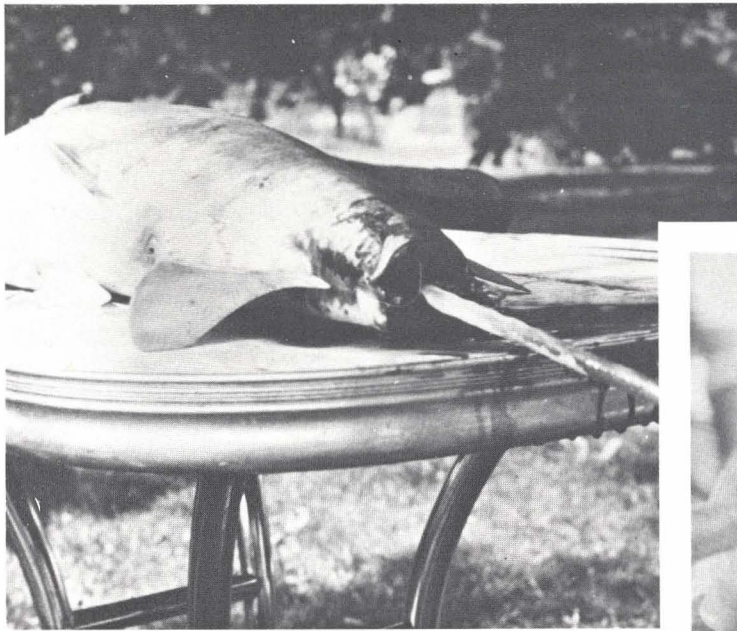
"We've got 'em alive up in the bait tank if you want to see them," Reed said, pointing to the Riverside Bait Shop at the west end of the bridge.

As we walked up to the bait shop, Reed and Riddle explained the procedure for snagging spoonbills. "It's really pretty simple," Riddle explained. "You just cast out as far as you can, then start retrieving your hooks in a sharp sweeping motion, taking up slack line with the reel after each jerk."

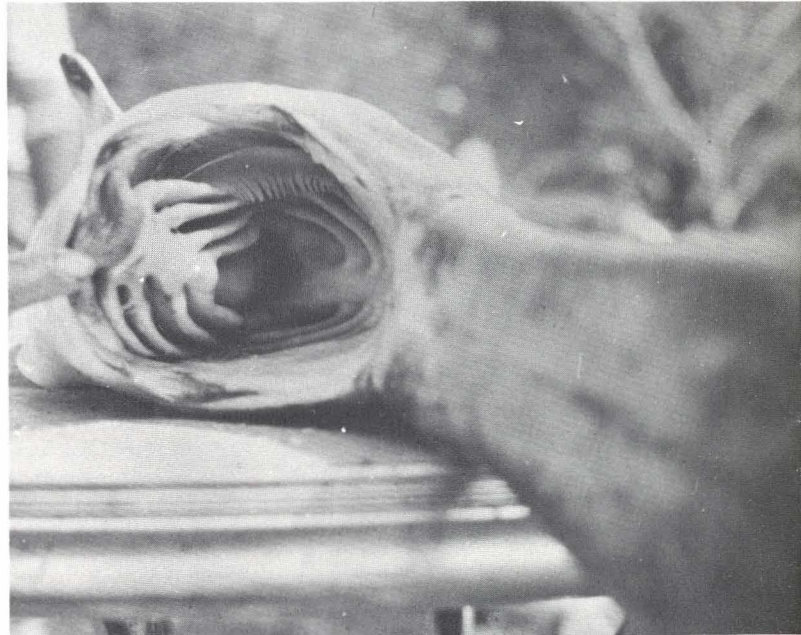
Since spoonbills often lay right on the bottom below the dams, the terminal rig with hooks and sinker, must be pulled right across the bottom in order to snag the fish. It's no sport for a weakling since the hooks have to be retrieved as hard as possible in order to penetrate and hold the fish solidly. Furthermore, once the fish is hooked it can put up quite a battle, sometimes lasting thirty minutes or so. Reed told me a little about the tackle they employ when trying for these prehistoric fish. "Most of the guys around here use a good stout rod with an open-faced spinning reel," he explained. "Their line is usually 30- to 40-pound test monofilament. The terminal rig consists of a two- or three-ounce egg sinker at the end of the line with a couple of 6/0 hooks half-

Spoonbills, distant relatives of sturgeon, often attain weights of 50-60 pounds.





Spoonbills differ from most other Kansas fish by the absence of a true backbone. Instead, they have a gristle-like spinal cord called the notochord. Another unusual feature of these ancient fish is their spatula-like paddle.



hitched to the line at eight-inch intervals."

When we reached the bait tank, I got my first good look at a spoonbill. Reed's 62-pounder was there along with several others in the 40- to 50-pound class. One glance at the paddlefish and you can see how he got his name. The paddle or snout is a long spatula-shaped appendage which in fact, resembles a paddle. Little is known about the function of the paddle. Kansas University's Dr. Frank Cross, well-known ichthyologist, says it is not used for rooting in muddy stream bottoms as many people have said. He feels, however, the taste buds on the paddle may assist the spoonbill in locating concentrations of food organisms.

With the exception of the large snout, the species is shark-like in appearance, featuring high dorsal and tail fins. The skin is smooth like that of a catfish—probably why the fish is erroneously called a spoonbill "catfish" in some regions. The fish's body is bluish-gray above fading to white or light gray below.

In Kansas, spoonbills are restricted to only several river systems. Dr. Cross, author of *Handbook of Fishes of Kansas*, notes, "The paddlefish is confined to the Missouri River and the lower mainstems of the Kansas, Marais des Cygnes and Arkansas Riv-

ers. Authenticated records exist for several localities in the Arkansas River system in northern Oklahoma, from Grand (Neosho) River westward to the Arkansas mainstream."

The enormous size which paddlefish attain prompts some anglers to call them our "big game" fish. The book *Iowa Fish and Fishing*, mentions a 200-pound specimen which was taken from the waters of Lake Okoboji years ago. The modern day record is a 163-pounder caught in Indiana. In Kansas, the current record is 72 pounds.

In addition to their large size, spoonbills also attain quite an old age. Biologists determine the fish's age by taking a small piece of bone from the lower jaw. This bone is cut into thin slices and examined under a microscope. Growth rings, similar to those found in trees, can be counted to determine the fish's age. In Missouri, spoonbills as old as 29 years have been checked.

On the fish's feeding habits, Howard Walden, in his book, *Familiar Fresh-*

*water Fishes of North America*, says, ". . . the paddlefish is a plankton eater, sifting out unwanted foods by a filtering system on the gill arches."

Authorities say paddlefish have been around for 40 million years. Now, however, there's indication the species may be doomed in some areas. In Missouri, for example, where spoonbill snagging has been popular for many years, the construction of Truman Dam threatens to wipe out the spoonbill's historic spawning areas on the Osage River.

Tom Russell, paddlefish biologist for the Missouri Department of Conservation, noted, "As far as we know, it doesn't look like there's a great deal of hope (for the paddlefish) once the dam is completed. Using what we know now, it looks as if the paddlefish will be just another declining species."

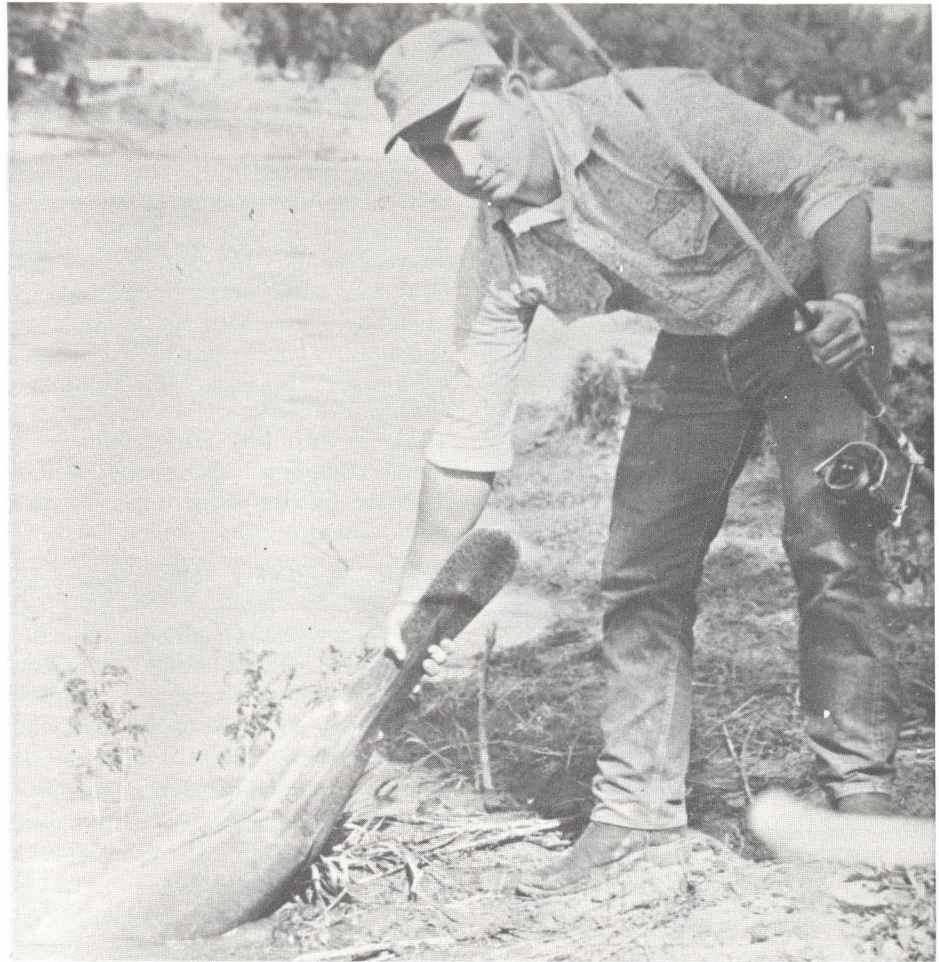
The annual cycle for Kansas spoonbills starts in the spring when rains raise water levels in the Neosho River. Coming upstream from Oklahoma, the fish spawn over gravel beds which are

washed clean by constantly flowing water. The eggs are fertilized by the male as soon as the female releases them. A female of 50 pounds will carry approximately 400,000 eggs which weigh about 11 pounds. In Missouri, where most of the paddlefish research has been done, a 73-pound female spoonbill was caught carrying more than 20 pounds of eggs!

The eggs hatch nine or ten days later but the young spoonbills don't resemble their parents until they are several weeks old and the paddle begins to form.

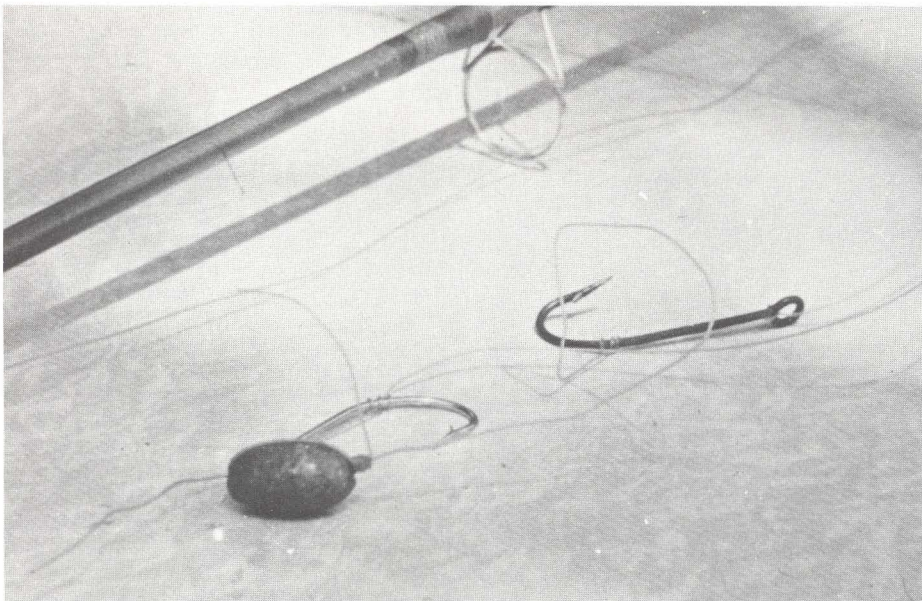
In talking with fishermen around the bait shop, I learned the turnout at Chetopa had been good with quite a few anglers scoring on big spoonbills. Dan Columbia, Chetopa, was first with a 60-pounder on May 4. After Columbia broke the ice, a number of other fishermen landed "spoonies" in the 40- to 60-pound class, including Jerry Barker, Chetopa; Joe Plummer, Chetopa; John Battitori, Coffeyville; Vernon Whitney, McPherson, and Tom Teal of Chetopa. Then, on May 6, Chetopan Phillip Harris hauled in a 72-pounder to establish the state record on paddlefish.

Even though a lot of anglers got in on the fun at Chetopa, it's nothing like



Kenny Reed of Chetopa hauls a 62-pound "spoonie" from the Neosho River waters.

Heavy terminal tackle like two-ounce sinkers and 6/0 hooks coupled with 50 or 60 pound test line are standard equipment for snaggers.



the turnout downriver at Miami. Reed and Riddle, who have both snagged in Oklahoma waters, say it gets a little hairy below the state line.

"Those guys fish shoulder-to-shoulder and sooner or later someone crosses somebody else's line," they said. "When that happens a fight usually breaks out. Those Okies get real serious about this snaggin'."

Aside from the danger of a roundhouse right, snaggin' for spoonbill holds another hazard. "Ever now and then one of them big ol' three-ounce sinkers will tear off the line and go sailing across the river when you cast," Riddle said. "One night a couple years back, some fella got hit in the head by one of 'em. Dropped him cold! He was unconscious for quite awhile and everybody thought he had a heart attack. But he finally came around



Danny Columbia (left) of Chetopa was the first angler to score on spoonbill during the 1972 special season. Here, Columbia and Jerry Barker, Oswego fisherman, display their "big game fish."

and got alright. Sure had a big ol' knot on his head though!"

After getting some pictures of Reed's fish at the Bait Shop, we hauled them over to his house where we started to clean and dress them.

Dressing out a spoonbill is a real education. Since these fish are cartilaginous — like sharks — they don't have a backbone. Instead, they have a long, flexible, tube-like piece of gristle called the notochord. When dressing the fish, this chord is first severed immediately behind the head. Then a shallow cut is made clear around the narrow part of the tail, being careful not to sever the notochord. Next, the tail is given a twist and it, along with the notochord is pulled from the fish's body. The blood is then allowed to drain. After the fish is gutted, the body is sliced cross-ways into steaks about one and one-half inches thick.

The dark outer meat is said to contain a strong, muddy flavor so many anglers trim this, along with the skin, away from the light-colored inner meat.

When dressed out, these boneless cuts resemble porkchops in texture and grain. Spoonbills can be cooked as you would any other fish. The ones I've eaten were deep-fried and tasted delicious. One recipe book says spoonbill is best when boiled because the meat's flavor is then similar to shrimp or lobster.

Along with this tasty white meat, there's usually a large amount of dark eggs on females which can be prepared like any other caviar.

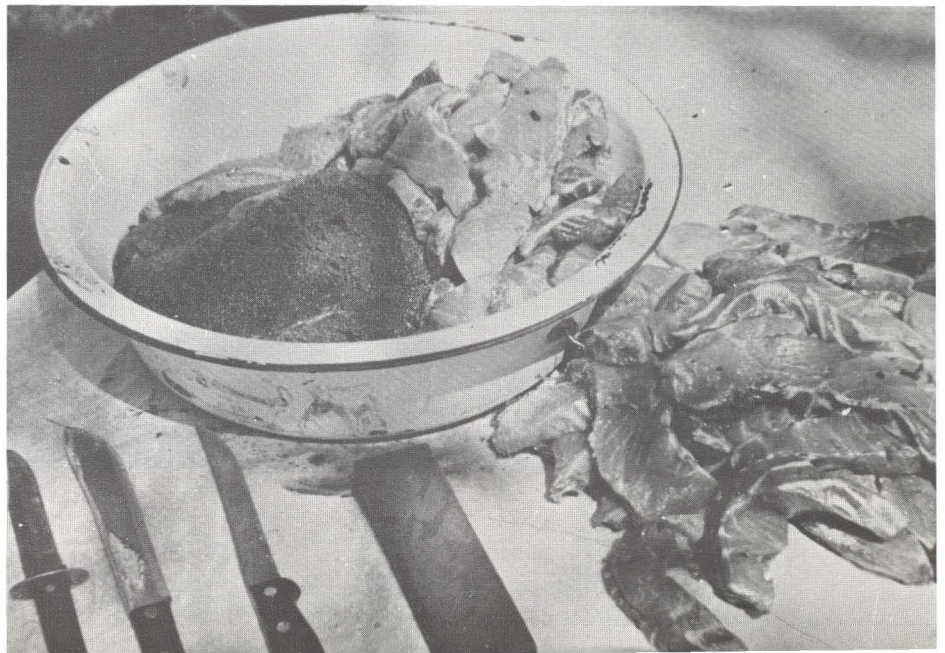
Since paddlefish seldom take bait, they are rarely caught with hook and line. Occasionally someone will catch one on a trotline baited with cottonseed cake, but it's a once in a lifetime occurrence. Because of this, snagging is about the only way to catch the monsters consistently. However, prior to the 1972 special season, snagging for any species of fish was illegal in Kansas. This prohibitive law, plus the fact that spoonbill were known to congregate below the Chetopa Dam, prompted some Chetopa anglers to take action. These fishermen knew spoonbill snaggin' was a big event farther south on the Neosho River at Miami, Oklahoma. Some had even done some snagging in Oklahoma and were interested in obtaining a legal snagging season in Kansas.

These men contacted Crispino who

helped them present the idea to R. W. "Bill" Fowler. A Weir banker, Fowler is southeastern Kansas' representative on the Fish and Game Commission. Fowler agreed to present the idea at one of the Commission's monthly meetings. The proposal was later adopted and Kansas had its first modern legal snagging season on a trial basis. The season ran from April 1 through May 15 with snagging legal *only* when the signs announcing it were posted. The only species which could be legally possessed were spoonbill and rough fish as defined by law. Catfish and other game species which were snagged had to be returned to the water immediately. Not more than two single-shank hooks or one treble hook could be used. Snagging was permitted from the Chetopa Dam southeast to the Cherokee County line only.

In retrospect, the 1972 snaggin' season was, for all practical purposes, successful. Violations were held to a minimum and although some game fish were accidentally snagged, most anglers were cooperative and returned these fish to the water. Then too, the season gave many Sunflower anglers their first opportunity to try for paddlefish.

Chances appear good for another spoonbill snaggin' season in 1973. If this materializes and Mother Nature cooperates with some high spring water, there should be more "big game" fish for the Sunflower snaggin' enthusiast.

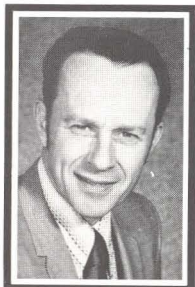




# Fire--Tool or Tyrant

Lee Queal  
GAME CHIEF

**FIRE WAS ONE** of prehistoric man's first tools; undoubtedly it was also one of his greatest fears. The ancients regarded fire, along with air, water and land, as a basic element of the universe.



Queal

The numerous roles of fire have changed with the advance of civilization; however it continues to be a most useful servant, yet at times a fearful master.

Wildfires have periodically covered most of the temperate areas of North America. Historically, fire was a naturally oc-

curring phenomenon in the prairies. Next to soil and climate, fire has been the most important natural factor affecting the extent, composition and growth form of vegetative cover on wildlands. Modern man has controlled fires until, in this area, fire as a natural occurrence no longer exists.

Prior to the advent of modern fire control methods in the 1930's, unplanned forest and range fires were common place. Technology, Federal funds and Smokey the Bear have done much to reduce the great annual loss to wildfire. In the past 30 to 40 years, control of wildfires has probably had as great an affect on changing plant succession on wildlands as did the fire themselves. The plants and animals that evolved with fire

may well be jeopardized to varying degrees when this naturally occurring phenomenon is removed from their environment.

The campaign against forest and range fires has been far reaching. Smokey the Bear repeatedly tells everyone from age 2 to 102 that fire is bad. The advantageous uses of fire in resource management are totally ignored. Yet fire is a tool which wildlife managers, foresters and range managers are using with increasing frequency. It is a good tool when applied wisely. The role of fire in the management of wildlife habitat is better understood now than a generation ago. The use of fire must be placed in its proper perspective.

The key to successful prescribed burning is adequate control. Here Regional Game Manager Richard Hager is setting a backfire with a drip torch. Wetting the vegetation helps establish the fireline.



**Most species of wildlife** are dependent on a particular habitat type or condition. Some species are more adaptable than others and can occupy a variety of types. However, even these with greater adaptability find their greatest numbers under very specific habitat conditions.

Several of the game species of Kansas can benefit from controlled or prescribed burning. These include bobwhite quail, prairie chicken, cottontails, deer and pheasants. The absence of fire sometimes is the sole factor in restricting or preventing an area from supporting game. Plant succession is the change in a plant community over a period of years. The trend or rapidity of this change can be influenced by fire. An abandoned crop field will develop into annual weeds and grasses, if left unplowed. Depending on soils, climate conditions and local weather variability this will progress to perennial weeds, forbs and grasses and on to brush and eventually to timber.

**If succession leads to climax** prairie conditions, quail and cottontails and other associated wildlife species may be quite abundant in the early stages. However, in the climax stage the

dominant game species may be prairie chicken if the area is large enough.

If, on the other hand, the local conditions dictate that the plant succession is toward timber an entirely different groups of game species may be present. Quail and cottontails may be present early, then deer become the major large animal in young forest situation. As forest areas mature, the habitat is no longer suitable for large numbers of deer but then becomes squirrel habitat.

**Under one point of the SASNAK program**, it will be this agency's effort to double harvest and hunting recreation on public lands. Certain wildlands under jurisdiction of the Forestry, Fish and Game Commission will be managed for high yield production of certain species. Retarding plant succession is probably the only approach available to achieve this goal. Fire is the cheapest and probably the best technique.

What does fire do? Basically, fire has three direct effects: first, it consumes vegetative material; secondly, it creates heat effects which kills or damages woody plants; and thirdly, it produces residual mineral products and chemical effects in relation to the soil.

The first two factors are critical in setting back succession. The timeliness of a fire in relation to the growing season and the differential growth development of various vegetative types is very important. The speed and temperature of a fire are equally important.

**If control of woody growth**, such as young cottonwood or willow groves, is desired, a fire hot enough to kill the wood is essential. Woody plants are killed by heating of the cambium layer. A spring fire while the trees are dormant may not result in control. After green up, a fire may not carry well if there is insufficient fuel on the ground.

Ungrazed patches of native grasses in eastern Kansas will develop a ground cover of both living grasses and a mulch from previous years, growth that is too dense to be suitable for bobwhite quail and other ground dwelling animals. They may fly into it for escape cover, but it does not provide good nesting or brood rearing cover.

**A fire here will open up** the stand of grass, permit quail to walk through the cover. While the hunter seeks a flying target, the quail is basically a

This slow spring burn removes the bulk of the mulch prior to the nesting season. Adult and young quail will use this habitat in much greater numbers than if it had not been burned.





Planned burning can afford many benefits as contrasted with this fall wildlife which removed all protective cover for the entire winter.

ground bird. Ease of mobility on the ground while still having the protection of overhead cover are key habitat requirements. Bare ground is necessary for insectivorous feeding activity of young birds and finding seeds during winter months. Seed dropped in a mulch accumulation is unavailable for feeding.

Fire in the prairie grasses results in another phenomenon which is highly desirable. A greater variety of small insects are found on the burned, more diversified sites, than on ungrazed or unburned areas. The result is more food for young birds, and if weather conditions are favorable, more quail for the hunter.

**The great herds of white-tailed deer** which developed in the Great Lake's states in the mid-40's and early 50's were a result of multiple fires which occurred in the 20's and 30's. Fire control has resulted in maturation of more acres of timber and a declining deer resource base—early succession brush lands.

Use of controlled fire is not restricted to game species. The rare

Kiabab squirrel is associated with mature ponderosa pine stands of northern Arizona. Total fire protection is resulting in understory growth of fir and this change in habitat may have serious consequences for this attractive tree squirrel which spends much of its time on the open ground under the ponderosa pine.

In northern Michigan, the Kirtland's warbler—a small, isolated population of perhaps only 250 to 500 pairs—nests in early successional stages (10-12 feet) of jack pine. Jack pine is a coniferous species which must have fire to open the cones so seeds may germinate. Controlled burning on a periodic scattered basis is done to provide assurance that a sufficient acreage of jack pine of the right size is present in order to sustain this fragile population.

**The list of applications** of controlled burning is endless but the basic goal is generally the same—retard plant succession to make an area more suitable for the particular species being managed.

Controlled burning cannot be a

haphazard affair. The specific objectives must be outlined. Detrimental aspects must be considered and weighed against the benefits. Protection of particular habitat types must be assured and when considering public land, the property rights of neighbors must be observed.

**The Forestry, Fish and Game Commission** will continue to increase its use of controlled burning on state lands particularly in the eastern half of the state. It is a proven wildlife management tool—it is only proper that the agency afford the citizens of the state with the most efficient management techniques.

Resource workers of a generation ago launched an all out effort to control wildfires. Like many causes, it was oversold. Today's resource manager is faced with convincing a public that fire can be a most helpful management tool. Twenty-five years of exposure to admonitions against all burning by Smokey the Bear will be difficult to overcome.

# WILDLIFE FROM WASTE

Ross Harrison  
STAFF WRITER

**W**ITH EACH BITE of earth he takes, Brutus can pick up, pivot and dump behind him enough Kansas soil to fill three train cars. Standing taller than a 15-story building, the electrical power it takes to operate Brutus could sustain a city of 15,000.



Harrison

And at the end of the year, if Brutus were a thinking machine, he could quiet his gears, gaze over the terrain he had worked and marvel

in the fact that he had helped extract one million tons of coal from southeast Kansas.

Brutus, the lesser shovels before him, and the horses and men before them have upturned roughly 60,000 acres, mostly in Crawford and Cherokee Counties, into vast hillocks in the quest for coal. With each harvested seam, life producing topsoil is dumped into heaps then covered with almost sterile layers of clay, rock and shale.

Realizing there is a need for coal to generate electricity for home and industry, conservation-minded scientists and sportsmen have been trying to make the best of the strip mine situation in Kansas for about as long as the land has been stripped for coal.

Their efforts have turned "a disaster into a plus," to quote former U. S. Secretary of State Stewart Udall who visited the strip pit area in 1964.

From the beginning, one important factor was on the side of the conservationists. Acid forming compounds normally associated with Midwestern strip mines didn't cause much of a problem in southeast Kansas. Massive limestone deposits react with and canal out the bad effects of the acid minerals so that at least an estimated 90 percent of the strip pit waters are capable of supporting some type of fishlife.

So what's been done to change thousands of acres of steep barren hills and deep narrow necks of water into a useable resource, or "plus" as Udall called it?

From the 1930's to 1950's, work involved grading the steep hilltops, planting them to trees and grasses, and continually stocking the waters to game fish.

The early work reaped many rewards. From the time the habitat became established right up to today, upland game has flourished in the strip pits. In fact, the only real problem the strip pits pose for hunters is

Three happy anglers display a string of bass, crappie and bluegill taken from strip pit waters.



that in many places the going is so tough through the countless hills and thick brush that it almost takes a young athlete to endure a day's hunting.

But more than wildlife, the real excitement of strip pit rejuvenation has been in the angling.

As far back as the early 1900's, whenever pits were mined out, abandoned and subsequently filled with water, most were stocked with game fish. Up to the 1950's, stocking programs were somewhat haphazard in their approach. Still, many pits sprouted thriving populations of channel cat, bass and other popular fish, and anglers began discovering a new fisheries resource in Kansas.

As mining continued and more pits were created and successfully stocked, the popularity of pit fishing blossomed. And with good reason.

Bass, eight pounds and more, three-

pound crappie, two-pound bluegill, sunfish and catfish going over 20 pounds have been building up the muscles of many pit anglers ever since a few years after the first pits were stocked.

But strip fishing is an art and another story in itself. It requires a thorough knowledge of the area, or a guide, a little time and the mastering of some special techniques before it pays the rewards of such fine catches.

Waters available to the public is no problem. The Kansas Forestry, Fish and Game Commission owns more than 6,000 acres of strip pit land in 24 separate tracts, containing many good angling pits and open of course to all fishermen. The Sunflower Sportsman's Club of Parsons and the Cherokee County Sportsman's Club of Columbus control several hundred acres also open to the public. And a spokesman for Pittsburg and Midway

Coal Mining Co., presently the chief miners of the area, says almost all of their pits are available to fishermen.

To accommodate anglers, the Fish and Game Commission has constructed about 50 mile of roads to interior pits, as well as more than 60 miles of footpaths, 38 toilet units and about 40 boat ramps. The outdoor clubs have enthusiastically carried out similar improvements on their holdings.

Accompanying these access improvements, the Fish and Game Commission, in close cooperation with the biology department of Kansas State Teacher's College, Pittsburg, since the 1950's has been intently studying the biology and chemistry of the strip pits. Discovering what factors limit good game fish production is giving them a target at which to aim for improving the fisheries resources of the area.

"Brutus," the large shovel used to extract coal from southeastern Kansas strip mines, can pick up enough soil to fill three railroad cars.





Conservation-minded scientists and sportsmen have turned the strip pit area into a veritable sportsman's paradise.

One important limiting factor they have to deal with is the shape of the pits. Similar to a large bathtub, they are steep sided and deep, from 12 to 20 feet and on down to 40 in some cases. The lack of shallow shoreline areas where oxygen, sunlight and vegetation can combine to make feeding and spawning grounds is a definite liability to game fish.

**Fertility is another problem.** Most of the pits get runoff only from the spoilbanks on either side. The spoilbanks, consisting of clay and shale have very little rich humus to offer as a nutrient source to aquatic life. Without these nutrients, the bottom parts of the food chain, microscopic plants and animals, are held back.

The result is that the entire food chain, with predacious game fish at the top, can not exist as densely as it could if more nutrients were available.

In addition stratification bites into the production of game fish. In summer months when fish could most use it, a large portion of their habitat is taken away from them. The lower depths of pits become devoid of oxy-

gen as organic material which settles to the bottom decomposes and eats up all the life supporting gas.

**Where there is no oxygen,** fish can not exist. And again, the first links in the food chain suffer as their nutrient sources settle through the upper layers of water down to the zone of no oxygen.

Due to the size limitation of the pits, the chances are good that fish populations become unbalanced about five years after the initial stocking. Sure some of the lunkers will remain, but for the most part, the waters support thriving populations of many more numbers of smaller fish, stunted through keen competition for food.

**Countless suggestions** on how to improve the strip pits for outdoor recreation have been offered by nearly everyone who has lived in or visited the area. They have included leveling two of every three pits or so, liming and fertilizing some of the waters and stocking of more and different varieties of fish.

Recent laws enacted by the Kansas

Legislature are in the process of making it easier for fish and wildlife rejuvenation. On areas mined since 1969, the coal companies must post a bond of between \$200 and \$500 per acre. To recover that money the steep hills have to be graded into a more rolling terrain and they must revegetate the soil. And it all has to be approved by a special seven-member board, one of the members of which is W. T. "Bill" Fowler, the Fish and Game Commission.

**Biologists and sportsmen,** both conservationists, are eager to see the best potentials of the pits fully realized. But that includes weighing heavily all the scientific facts and alternatives so that future of the area is not jeopardized. Already much has been accomplished in turning a disaster into a plus through the efforts of these men.

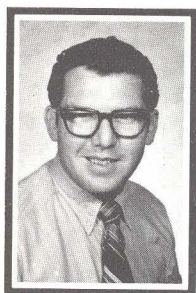
And the future remains bright that as older areas are rejuvenated and newer areas added, more and better fish and wildlife will increase and improve the strip pit resource of southeast Kansas.

The Bell system, trammel nets, gigs, DuPont spinners, fish traps—all are a part of . . .

# Outlaw Fishing

By Farrell Brewer  
STAFF WRITER

**I**T WAS A DARK night along the banks of the Cottonwood River. The only discernible light was the flicker here and there from a fisherman's lamp and the glow of a cigarette in the distance. One had to be extremely cautious not to become snarled in another angler's tackle. All indications were right for a good evening's fishing as anglers began to ply their talents to outwit the fish. Several



Brewer

shouted their success to others present. To the untrained eye all was well and everyone was having a good time. However the trained eye could detect something amiss on the scene.

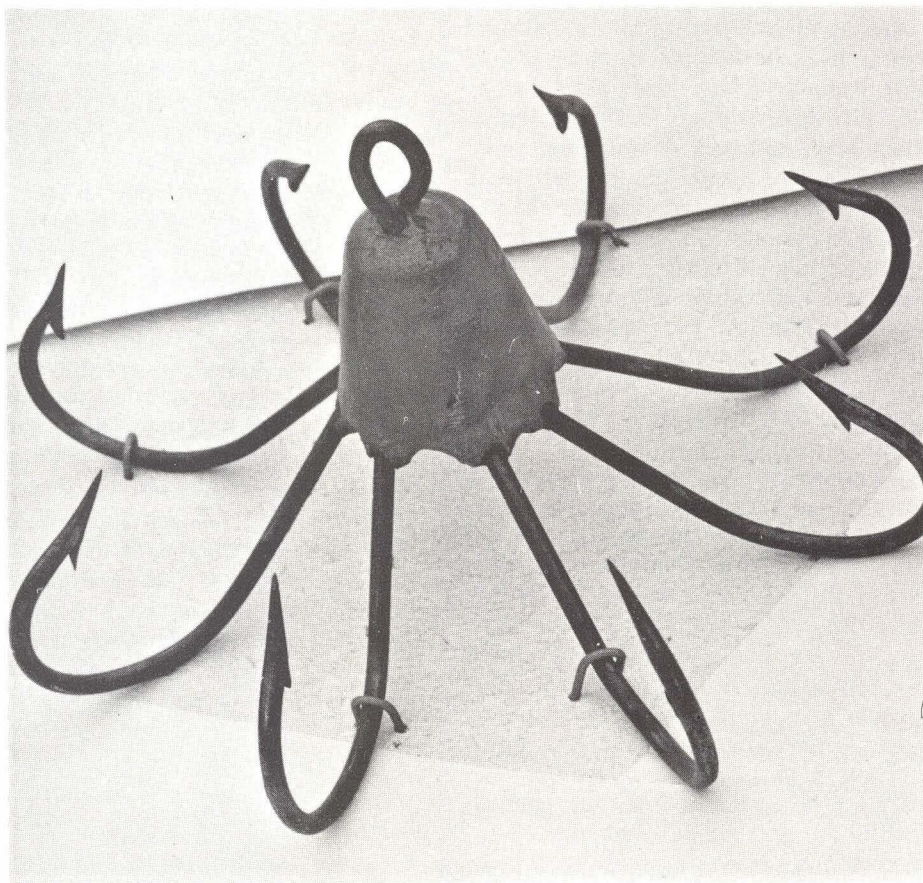
Old John, a pro at unlawful fishing methods, was up to his usual tricks. John had boasted that the Kansas Forestry, Fish & Game Commission game protectors would never catch him, stating he was too wary for them. John meant to keep this promise. He worked with two companions; one was a lookout, John did the snagging, and the other kept a lighted cigarette to burn John's line if anyone approached. The trio was having exceptionally good luck this particular evening, having snagged three nice flatheads and placed them in their sack. The flathead is an extremely vulnerable fish and can be snagged easily. The unsportsman-like angler will drop a heavy weighted hook into a favorite loafing area and jerk, catching the fish in the sides or tail.

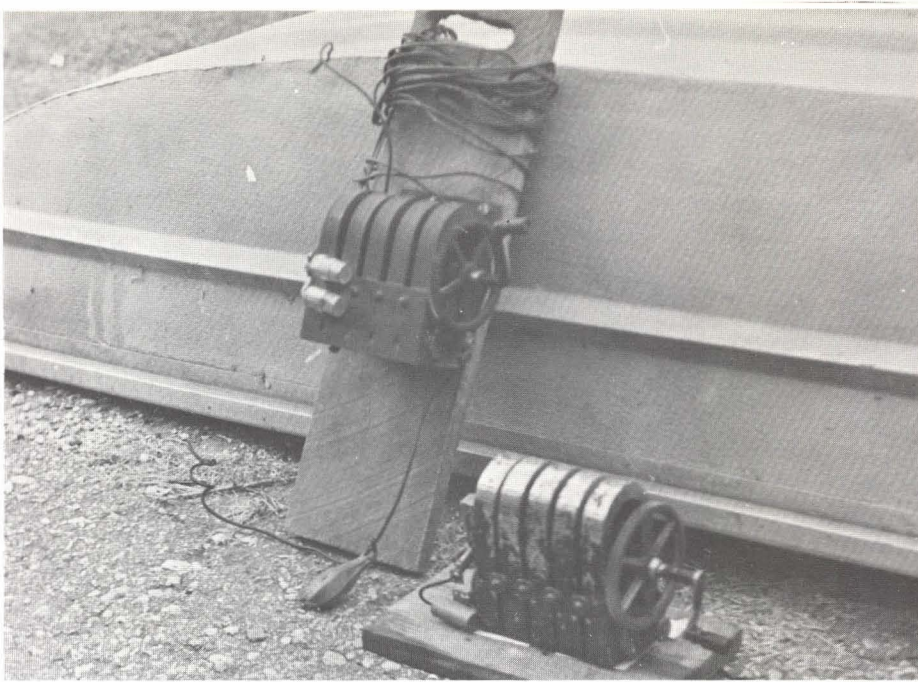
The trio became so engrossed in their illegal activities that they became completely unaware of nearby anglers who happened to be state game protectors. The lookout left his post and helped John and the other man take the fish from the water. Just as they were hauling in their fifth lunker of the evening, game protectors moved in. In the sudden commotion, John attempted to sling the fish and illegal equipment into the river but

failed. Officers seized the evidence and issued John and his accomplices citations to appear in county court.

Kansas law provides that a fish hooked anyplace other than the mouth must be immediately released into the water from which it came. This John and his partners failed to do. The penalty section of the law provides that upon conviction of the snagging, first offenders shall be fined not less

This snagging hook is just one of many illegal fishing devices confiscated by game protectors each year.





Here's the notorious "Bell system,"—a telephone magneto which generates a current that stuns fish.

than ten dollars nor more than \$100, and that upon conviction for a second and each subsequent offense shall be fined not less than \$25 nor more than \$250 and in addition shall have his fishing license revoked.

John and his associates were convicted in county court of a first offense and given the maximum fine.

Snagging is only one of the many methods violators use to take fish. One favorite of the clan is known as a Du Pont spinner. This is two sticks of dynamite tied together and hurled in the water in a spinning motion. When it explodes the shock kills and stuns fish and they can easily be taken from the water. This method is not commonly used as the explosion can be heard for several miles and attracts attention. Another reason for the demise of the Du Pont spinner is that dynamite is not easy to obtain.

Another common violation of the law is using too many poles. The law provides that any person having a valid state fishing license or person exempt by law from having such license may use, operate or have set two rods and lines with not more than two single-baited hooks on any rod or pole line, or in lieu of two single hooks a person may legally use one multiple hook of not more than three baited hooks attached to one shank and the hooks shall be limited in size of from number one to twelve.

A game protector on routine patrol duty was using his binoculars to scan a lake for possible violations of the law. He spotted a boat with one angler aboard and so many poles protruding from it that the boat resembled a porcupine. He issued the person a citation for fishing with too many poles. The penalty for this violation is the same as for snagging. The judge may, if deemed just, confiscate the equipment that was used in the violation. In many cases the seizure of the equipment may amount to more of a monetary loss to the violator than the fine and court costs.

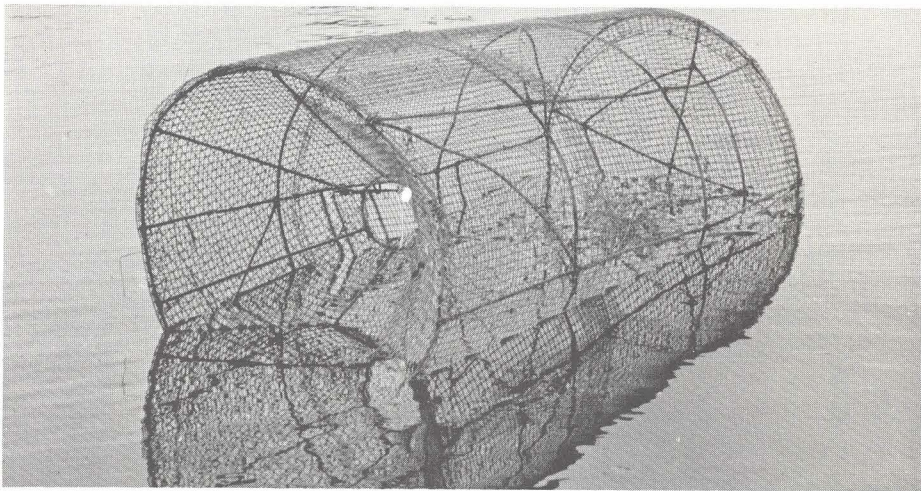
Once widely used as an unlawful method to take fish is the homemade fish trap. The homemade trap takes many forms, some are constructed of a heavy metal frame, with chicken wire mesh attached to the frame and a funnel-type throat which allows fish to enter but not escape. Others are made of wood, with wooden slats for the throat which contract when wet and allow the fish to push them open for entry but not escape. Traps such as this are usually set along streams. One reason they are not as prevalent as they once were is that more anglers are using the streams, and when they spot a trap or other suspicious objects they contact their local game protector. The game protector will check the report and if a trap is spotted he will then watch it and issue a citation to anyone caught running the trap.

If this is not possible he will destroy the trap. It is not always easy for the untrained eye to spot a fish trap as they are usually submerged in the water and tied to something solid along the bank.

Game protectors located a hoop net in the Arkansas River in Wichita a few years ago, and they decided to use a stakeout to apprehend the operators of the trap. First they scouted the area to select a good place for an officer to conceal himself and also have a good vantage point to watch the net. Later, in the dark of night, an officer was dropped near the lookout spot with a two-way radio, and he began the vigil on the net. Hours passed with no action, the sun came up, and then noon came, with no activity around the net.

Shortly after the sun had reached the high-noon mark, there was a noise in the brush not far from the lookout point. The officer tried to further conceal himself in the brush to no avail; the noise was a youngster ambling along the banks. He came upon the officer and struck up a conversation. The officer told the youth he was bird watching and it was a must that they be very quiet; the youth went along with the story. He soon tired and went on his way. The officer, shaking off the intrusion, resumed his surveillance. Near dusk he noted a foursome proceeding to the water near the net. He notified other officers to be alert and stated he had some suspects spotted. The foursome appointed a lookout and then proceeded to take the net out of the water. As the men in the water began to bring the net to shore the lookout became excited and ran to the river bank to help. Officers were called into the area by the undercover officer. One of the foursome heard the officers coming and ran up the embankment into their arms; another spotted them and fell back into the river, while another tried to escape by running down the river in chest-deep water with a game protector in hot pursuit on dry ground. The group was rounded up and issued citations to appear in court; they were subsequently fined and





Wire fish traps like the one above and fish gigs, are additional "outlaw" fishing tackle.

their net seized. The surveillance of this net paid off in the apprehension of the subjects; this is not always the case. Many man-hours are spent on such assignments, to no avail. The violators are wary persons, and will abandon their nets to avoid detection. In this case the nets are seized and destroyed.

Some violators have found that the old crank-type telephone can be used to take fish from the water. The magnet of the phone produces an electric current when the crank is turned, wires connected to it are dangled into the water to stun the fish with an electric current. Some models of the telephone have been hopped-up with the use of capacitors to increase the current output.

One trio using this method of calling fish were plugged in long-distance by game protectors. They had taken a total of 65 pounds of fish from the lake at the time of their apprehension. They were taken to court and the bill came to \$280 plus court costs. Also all of their equipment was seized, including the boat valued at \$300. The real clincher is that the boat was one they had borrowed from a friend. One might note that when involved in unlawful acts not to borrow the equipment; it could cause the loss of a good friend.

In many cases the violation of one law leads to the violation of another. A case in point is when snagged or otherwise unlawfully taken fish are offered for sale. The law provides that

it shall be unlawful for any person, firm or corporation to sell or offer for sale, buy or offer to buy any bullfrog, any bass, crappie, perch or catfish taken from Kansas water or to sell or offer for sale, buy or offer to buy any bullfrog or any bass or crappie regardless of where taken.

Game protectors were working a diversion dam site on the Little Arkansas River near Wichita where they had received reports of illegal activity. Many violators are so brazen that they work in broad daylight, so officers work areas such as this in plain clothes, posing as fishermen. While working this area, a game protector in plain clothes was approached by a fisherman and they started discussing the arrest of other fishermen. The fisherman told the plain-clothes officer to meet him at the same place that evening, and he would show him how to make some money. He told him, "them guys (meaning the game protectors) won't mess with me because I have something here to take care of these 'bleep' game wardens," and showed a machete he had hidden in the exhaust cover of his motorcycle.

They met as arranged, and Jake proceeded to snag a 25-pound flat-head within five minutes—he was good at this. He told the plain-clothes officer, "Watch this—I am going to sell this one." He climbed up the bank to a group of fishermen and offered to sell them the fish. Much to his surprise, the fishermen he was try-

ing to sell the fish to were game protectors. One of the officers seized the machete from Jake's motorcycle and assisted other officers in apprehending him. Jake was charged with two counts; one for snagging the fish, and the other for offering it for sale.

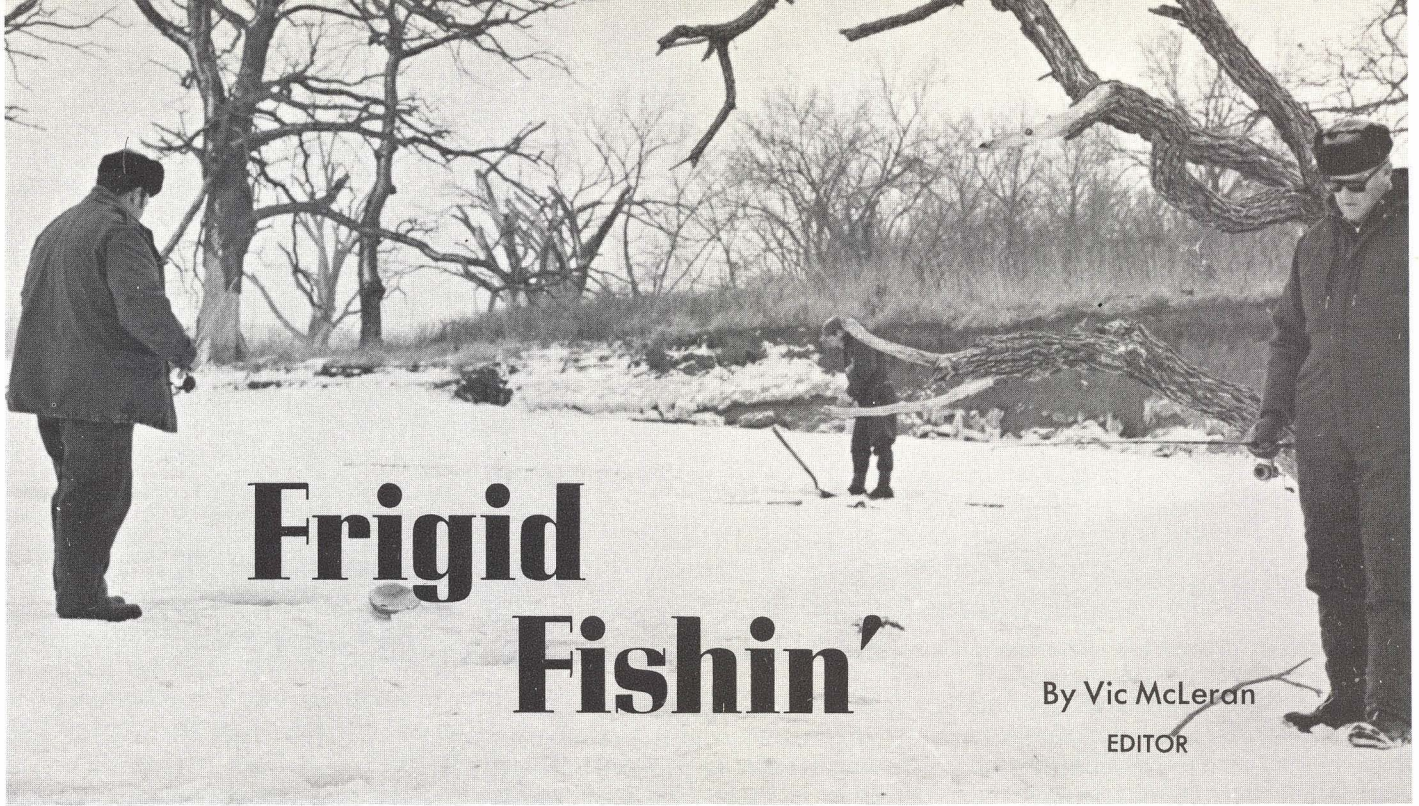
The penalty section for this violation provides that any person, firm or corporation violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$25 nor more than \$100 or by imprisonment in the county jail not exceeding 60 days, or by both such fine and imprisonment in the discretion of the court imposing the sentence. Jake was given both the maximum fine and the 60-day jail term.

Cases are often made in unusual sets of circumstances. One game protector was off duty and happened to be riding with a Highway Patrolman. The Patrolman stopped near a bridge to help a motorist change a tire. While waiting for the tire to be changed the game protector, out of habit, checked under the bridge and saw a man with a gig (a multiple barbed spear) and a sack. He checked the man out and discovered that he had 25 bullfrogs, which were over the limit, and that they had been taken with the gig, which is unlawful. The man stated, "I saw the patrol car stop, but I didn't expect you to be with him. If I'd known it was you I would've thrown this 'censored' gig and frogs away."

After reading this article, one might assume that many Kansas anglers and hunters are violators. This, however, is not the case since less than one-half of one per cent of those who purchase fishing licenses are violators.

Although the primary responsibility of game protectors is enforcement, they also spend much time assisting sportsmen by giving them information on various laws and regulations thereby helping to eliminate future violations before they occur.

As one long-time sportsman said, "I'd a whole lot rather be on the right side of the law than be caught doing something illegal. The game protector is there to help you if you will let him."



# Frigid Fishin'

By Vic McLeran  
EDITOR

**T**HE ICE CREAKED ominously as I shifted weight to reach the scoop. "Hey stupid, quit movin' around so much," growled Barry Burkhart. Thanking the clown for his concern, I finished scooping icy slush from the hole I'd chopped earlier. Along with Barry, who's an outdoor writer for the *Topeka Capital-Journal*, Jim Kidd, Rush Lang and myself were doing some ice fishing on Milford Lake. I should say trying to do some ice fishing because Burkhart's constant chatter and buffoonery was jinxing our efforts.

Kidd runs a bait and tackle shop on the lake and had asked me up to do some crappie fishing under the ice when he thought Burkhart wouldn't be there. But just as we started to leave Kidd's place, up drove this bearded dude—lookin' like the sole survivor of a Joe Cocker-Leon Russell rock festival. It was Burkhart!

Lang, out of Junction City, is a game protector with the Kansas Forestry, Fish and Game Commission. And though he didn't say anything, I always suspected he was there to keep an eye on Burkhart.

Our catch on that trip wasn't anything to brag about and since the chill

factor was about  $-40$ , I can't say it was one of my favorite days. It wasn't a fruitless trip though because Burkhart taught me some new "ugly words" when he ran a bronze Eagle Claw through the fleshy part of his thumb. More important however, the trip showed me ice fishing is for real here in Kansas.

It hasn't always been this way. Before construction of our large reservoirs and state lakes, ice fishing was practically unheard of in Kansas. Since it's a fairly new sport to many Sunflower anglers, let's take a look at some of the fundamentals involved in "frigid fishing."

## CLOTHING

"Bring some warm clothes," Kidd had warned me. And I had, but they weren't warm enough. As a result, I shivered and shook most of the day. There's absolutely no way to enjoy yourself or do any serious fishing when you're standing out on the ice doing isometrics trying to stay warm. Since body heat escapes first from extremities, particular attention should be paid to protecting the head, feet and hands from the cold. Most cold weather experts say the most important single piece of clothing for the

ice fishermen is head gear. A heavy wool cap with a peak and ear flaps is probably best. And for facial protection, it's not uncommon to see anglers on northern lakes decked out in knitted face masks, much like those worn by skiers. Burkhart claims a beard is better than the woolen face masks since the beard offers more protection, you don't have to take it off inside and there's no dry-cleaning bill involved.

In trying to keep your feet warm, start out with a pair or two of heavy wool-nylon socks. If they're worn loose fitting, they should provide good insulation inside a pair of rubber boots. Since individual tolerances to cold will vary, some anglers may require more protection while others won't need as much. For dryness and warmth while ice fishing outer footwear should always be rubber.

Since an ice angler's hands are constantly getting wet, it's a good idea to have two or even three extra pairs of gloves along so you can change.

For years wool was thought to be the best material for outer garments like coats and jackets, especially for protection against wind and cold. Wool is good but it has some draw-

backs. It's subject to moth damage, requires special protection during the off season and needs professional dry cleaning. Then too, once wet, wool is really wet. Down-filled garments and the new insulated jobs are probably the best bet for today's ice angler. The insulated coveralls are especially good. Although more expensive than conventional garments, these insulated coveralls pay dividends in warmth while you're on the ice.

### TACKLE

One of the nicer things about ice fishing is the fact that you don't need all the equipment that's required for a summer fishing trip. In fact, many Kansas ice anglers simply use their fair-weather tackle on the ice. "Most guys start out using their regular tackle and then move on to specialized gear as they learn more about ice fishing," said Kidd. There are drawbacks in using conventional tackle for ice angling though. The bigger, heavier rods and reels often are sensitive enough to let you know when a soft-mouthed crappie has your jig or minnow. "Short ultralight rods with light line seem to work best for ice fishing,"

Kidd continued. "Especially when you consider the fish are often taking the bait gently and it's difficult to tell when they're on." Reels can be a problem when the mercury takes a big drop. Once a reel becomes wet, ice quickly forms making it useless. Other panfishermen simply tie monofilament directly to the rod, not bothering with a reel. The tip section of a fly rod makes a fair substitute rod for crappie and bluegill.

A tipup is a small device which contains line, and a simple underwater reel. It's constructed so that a flag tips up when a fish is hooked. These rigs are popular on northern lakes where an ice angler can set out several then watch them from the warmth of an ice shanty. Although a few Kansas ice anglers use them, these devices haven't really caught on yet.

Another basic piece of equipment for the winter fishermen is an auger or drill for cutting fishing holes in the ice. Although you can use an axe, it makes a sloppy hole, disturbs the fish and you invariably get showered with icy particles when chopping.

An ice skimmer or scoop is needed

for removing the icy slush which freezes over the hole. Stringers or fish baskets aren't required since most anglers simply toss their catch on the ice for a quick freeze.

### BAITS AND LURES

Bluegill, crappie, whitebass, yellow perch, walleye and even an occasional northern pike are the primary targets of ice anglers here in Kansas. On most of our reservoirs, minnows, small jigs, tiny spoons and weighted ice flies produce well. "White, yellow and cinnamon-colored jigs catch crappie real well at Milford," Kidd said. Small sizes seem to draw fish more consistently than the bigger jigs. "Lures in the 1/32- to 1/64-ounce class have been real real good producers in the past," explained Kidd.

Other panfish baits include salmon eggs, small bits of cheese, canned corn, peas, marshmallows, tiny strips of cut fish and even the eyeball of a crappie or bluegill.

Most of the crappie we caught that day were taken as we worked the bait gently in an up-down jigging motion just above the bottom. Some anglers clip a small bobber to the line. This helps them detect the slight movement made by a sluggish crappie or white bass as it takes the bait.

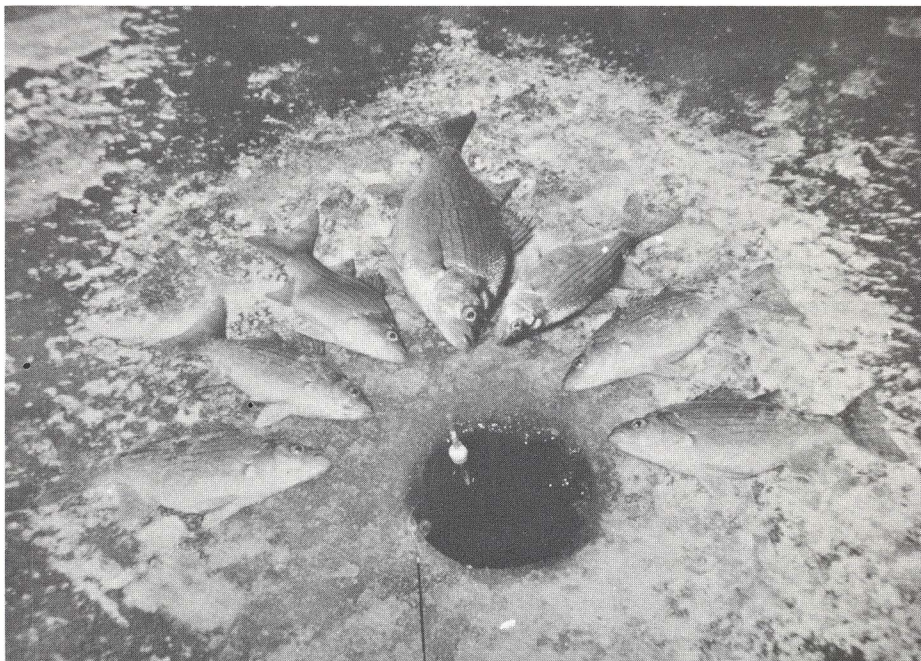
### ACCESSORY EQUIPMENT

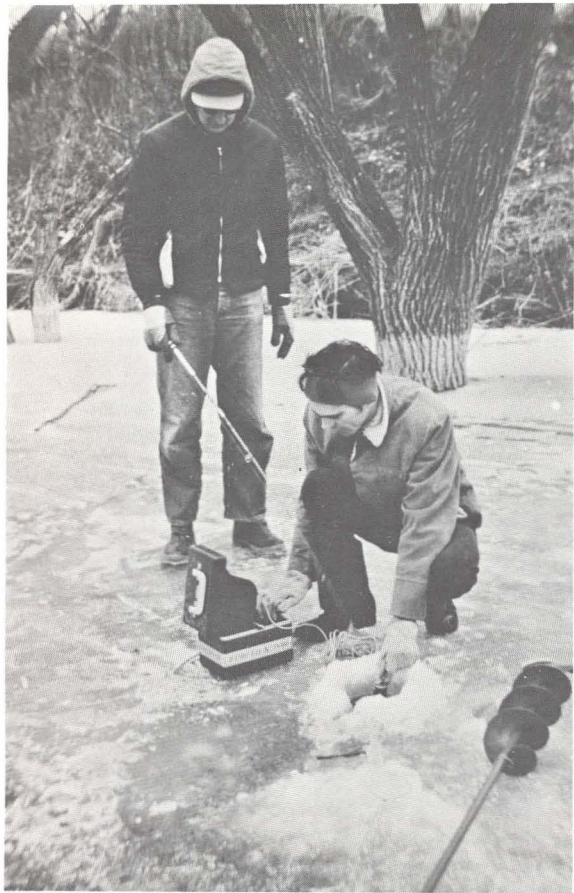
There are several items which can make any ice fishing trip more pleasant and enjoyable. The handwarmer is one. Since ice anglers often get their hands wet while changing baits or removing fish, it's not long before fingers and hands are numb. One or two handwarmers can go a long way in restoring circulation and comfort to chilled fingers.

Lanterns also, are a good source of heat. Even small catalytic heaters are taken out on the ice by many northern anglers. In addition to providing heat, these stoves enable the angler to cook his catch fresh—right on the ice.

Speaking of something for the tummy, it's not a bad idea to take along a thermos or two full of hot soup, stew, coffee or chocolate. Hot soup especially, can do wonders on a raw wintry day.

White bass, like the one below are favorites of frigid fishermen. Crappie, bluegill, walleye and northern pike are also taken through the ice.





Electronic fish locators are used by many ice anglers to read the lake's bottom structure.

When the fishing gets slow, a folding camp stool and a transistor radio can make the time pass a little more pleasantly. Burkhart has even been known to show up on the ice with a portable tape player—he claims listening to Joe Cocker helps his fishing and Burkhart's fishing needs all the help it can get.

#### WHERE TO FISH

Areas within a lake which contain fish during the summer months often harbor them in colder weather also. There are exceptions sure, especially in extremely shallow water. But areas like submerged road beds, sand bars, dropoffs and deep holes often hold fish year around. Spots that produce crappie or white bass immediately before the freeze-up are often good areas to check once the ice is on, although the fish are generally deeper. At Milford for example, we were catching crappie in submerged brush—an area where crappie had been taken during the fall. The fish were deeper than they had been earlier with the small crappie at 10 or 12 feet and the larger fish being taken at 17 to 25 feet. Another good idea in locating fish is to

look for the fishermen. A cove full of anglers huddled around holes in the ice generally means they've found fish. And if you have one of the electronic fish locators, you can put it to work locating good underwater habitat.

#### SAFETY ON ICE

Safety on the ice is a must and it's wise to know something of ice strength and thickness before venturing out. As a rule of thumb, ice should be at least four inches thick before it will support a man safely. Since shore ice is constantly being pushed upward and outward, it is often the most dangerous part of the total ice surface. In large deep lakes however, the center ice is usually weakest since it's the last to freeze. On many of our Kansas reservoirs occasional water draw-downs leave a hollow space beneath the ice. Without water to buoy the ice up, it's weak and dangerous. It's a good idea to check with your area game protector or Corps officials at the dam to see if the water level has been lowered recently.

Ice near "stickups" like old pilings, brush, trees and stumps is usually weaker than ice without these obstructions. At the same time however, fish are usually attracted to these stickups. When fishing on ice near them, check the thickness and stay alert for cracks or other signs of weakness.

Underwater springs with circulating water can also cause weak spots in the ice. Ironically, these springs attract fish and are often good spots for the ice angler.

Strong sunlight shining through the

ice and reflecting back up from a shallow rock or sand bottom can soften the ice from beneath and create danger spots. A cover of heavy snow over the ice can insulate it from the cold and eventually deteriorate the ice. Always remember that new ice is stronger than old and ice formed by direct freezing of the lake is stronger than ice formed from thawing snow or slush.

It's always wise to fish with a companion. Going it alone on the ice is dangerous. As a precautionary measure, some anglers pull a small flat-bottomed boat, sled or inner tube out on the ice with them in case they should fall through. Kansas ice doesn't freeze thickly enough to sustain the weight of an automobile. So never attempt to take a care out on the ice as they do in northern states. When venturing out to a new fishing spot, stop occasionally and check the ice thickness by chopping a hole. It only takes a minute or two and it's a lot better to be safe than sorry.

These have been just a few of the basics in ice fishing. It's a new sport in Kansas and we're all still learning. If you can, try to find an experienced ice angler for your first few trips out on the ice. If not, don't let it stop you. Your local bait and tackle dealer or marina operator will be glad to give you a few pointers. If you're dressed warmly and the fish are hitting, frigid fishing can be as much fun as warm weather angling. And the end result—a mess of fried fish—often tastes better in winter than it does in summer.

A folding camp stool or chair can make the time between bites pass comfortably.



# TRAPPING-

## Then and Now

By Ross Manes  
STAFF WRITER

**"DAD** STARTED buying furs when he was sixteen, and was still buying them when he died in 1961. He was 65 or 66 then. He used to ride horseback all over this area, buying from one and another. One year he shipped about \$44,000 worth of raw fur, back in the early '30's. I'm still using some of the stretching boards dad made."



Manes

That's what Dean Burkdoll, a fur buyer-farmer, told me one rainy morning at his farm home near Lyndon. Dean still buys furs because, in his own words, people sort of expect it of him. This year Dean's son quit his job in Topeka and joined his father's farming and fur-buying operation. So another generation will be included on the shrinking list of people who derive a part of their income from an industry that's as old as this country.

Much of the early expansion of the American frontier was based on the fur market. Riverfront cities, such as St. Louis, sprang into existence to meet the demand for transportation of furs from the western frontier to more settled areas. Many of the first settlers of the north and northwestern United States, and Canada were primarily trappers. The history and legend of this country would be slim indeed without their stories.

But, while the stories of America's early development, with its larger-than-life characters, have been handed down in their original form, the fur industry has been constantly changing.

Perhaps the most noticeable change is in the number of active trappers. It is impossible to estimate the percentage of the total population of this country that earned all or part of their living trapping prior to 1900. Around the turn of the century, however, practically all rural dwellers did some trapping, according to conversations with people who lived at that time. In more recent times, trapping pro-

vided much-needed spending money for farm boys of the '30's and '40's, and in Kansas nearly 8,500 residents purchased trapping licenses in 1951. The eight years following 1951 saw a steady, almost precipitous decline in the number of trappers, to a low of less than 1,500 in 1959. Since then, the level has become relatively stable at between 2,000 and 3,000.

There are several, inter-related reasons for the decline in trapping. The most obvious reason is that the bottom dropped out of the fur market. Muskrat, which had at one time brought as much as four or five dollars, fell to seventy-five cents and less. Certain

Greg Garst, Pratt, shows some processed muskrat pelts.



specimens of fox dropped from the ten to twenty dollar category to two dollars, and big buyers were caught with thousands of pelts on hand. Most of the blame can be placed on fashion designers who suddenly abandoned long furs.

At about the same time, someone discovered that some furbearers could be raised domestically. Mink in particular, which were still very much in demand, were found to be readily (if not easily) raised on "ranches." Wild mink that had brought a dollar an inch, twenty-five to thirty-five dollars when I was trapping as a boy, came to be worth only eight or ten dollars. The mink rancher could not only guarantee primeness, he was able to provide a variety of colors by selective breeding. M'lady was now clad not just in mink but in morning star gray or pearl pink mink.

Fur farming and the changes in fashions were not, however, the complete answer. There was also a change in the country's culture. Boys found money becoming more easily obtainable, and a new emphasis was being placed on leisure time. Trapping meant cold, hard work before the sun was up in the morning, and from the time school was out until dark. New recruits to the ranks of trappers became fewer and fewer.

A recently concluded study conducted by the Kansas Forestry, Fish and Game Commission offers indication of the significance of cultural changes to trapping. While trappers of thirty, fifty or a hundred years ago were motivated primarily by the need for income, less than one-fourth of those currently trapping in Kansas said they trapped for the money. Well over half, 58 percent, indicated that they trapped for enjoyment. The necessity for control of nuisance animals accounted for 12 percent, and another eight percent gave a variety of reasons other than the three mentioned above.

Many of the furs being sold in Kansas are taken by hunters, rather than trappers. In fact, nearly 30 percent of the Kansans who sell furs are strictly hunters, and an additional 19 percent of the trapping license holders take some furs by hunting. Nearly four

times as many raccoon and twice as many coyotes are taken by methods other than trapping.

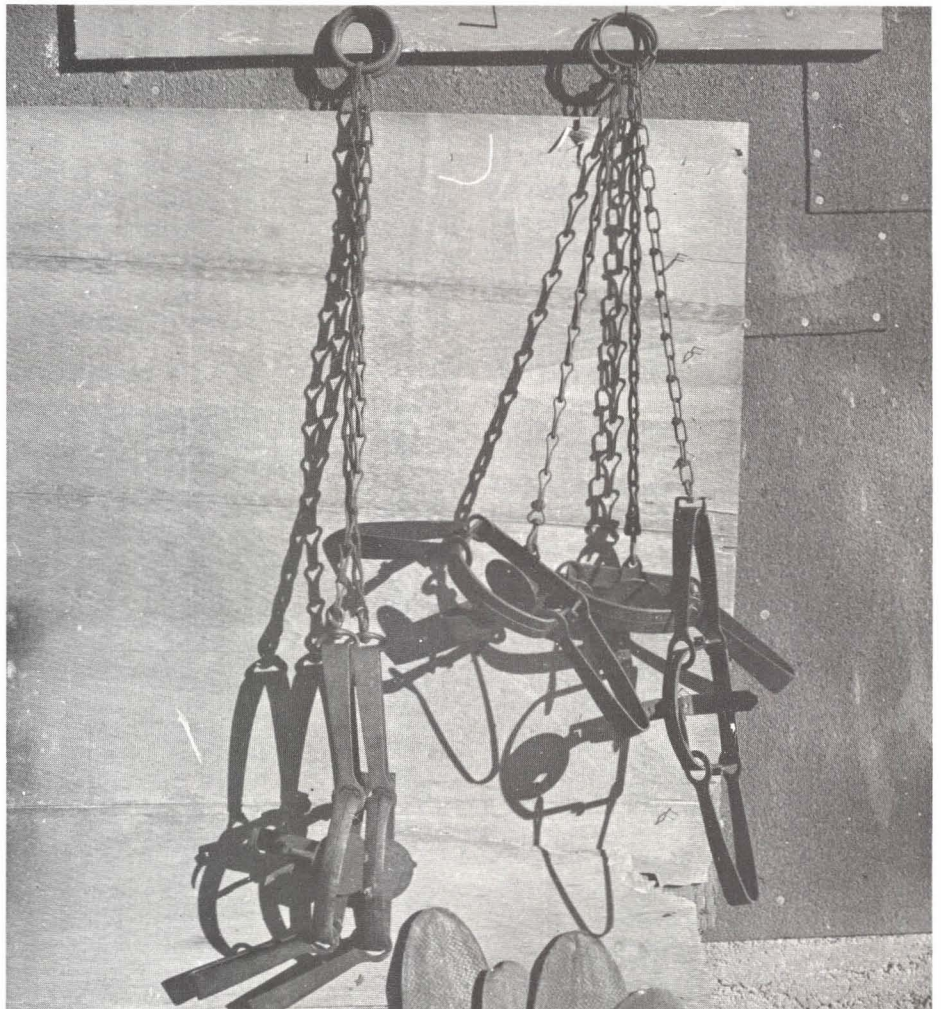
In spite of the fact that trapping license sales plummeted following 1951, most trappers currently active in Kansas have started since then. When asked how much experience they had, over 63 percent said 20 years or less, and over 48 percent said 10 years or less. This is somewhat surprising in light of the fact that nearly 50 percent of the trappers are over 35 years old. Apparently, trapping has become recreation for adults rather than part-time work for boys. People involved in agriculture still account for the single largest percentage of trappers, but over 41 percent are either students or skilled workers.

Trapping, perhaps more than any

Although trapping procedures haven't changed much through the years, declining wild fur prices have discouraged some trappers.

other pursuit, produces a familiarity with wild animals. The ability to recognize tracks, preferred foods, and favorite habitats of furbearers is basic to a trapper. Beyond that, the successful trapper will quickly learn how a mink stalks and kills its prey, how a beaver holds its feet when entering and leaving the den, and a wealth of other information that would be trivia to anyone else.

For example, years ago while trapping several miles of a small intermittent stream in central Missouri, coon and muskrat were blundering into my poorly set traps at a fairly consistent rate. But the big prize, mink, continued to elude me. Prime mink were bringing from \$8 to \$15 at the time and the thought of that much money was almost too much to bear. Traps were set at every likely looking spot



and the area liberally smeared with evil smelling mink lure. With the exception of a couple of sprung traps and a lot of healthful exercise, it was all to no avail. Fortunately, I was well acquainted with an old man, who frequently smelled like mink lure, that knew mink and muskrat as well as the cracked and wrinkled back of his hands.

"Son," he asked me, "what does an old boar mink do when he's hungry?" Taking a circuitous route, I eventually got around to admitting that bit of information had escaped me, which he already knew. "Well sir," the old man said, "about dark that customer is gonna come out and start off down the creek. He's gonna stick his head into every hole in the bank he comes to that's likely to have a rat or crawdad in it 'til he gets something to eat."

With that new-found knowledge in mind, I quickly proceeded to set a trap in every mink-sized hole I could find, even going so far as to create a few extra holes with a garden trowel. The harvest of muskrat, confused no doubt by the extra front doors I trowelled out, went up considerably, but nary a mink was caught. There were, however, a number of sprung traps and in one, the toe of a mink!

When I confronted the old man with the problem of sprung but empty traps he went right to the heart of the matter. "Son," he says, "how do you set your traps," and I knew he referred to the tension on the pan that triggered the trap. Proudly, I told him how the trigger was carefully brushed free of rust and the pan set so lightly that a wet maple leaf would trigger it. "Well then," says he, "there's your problem. A mink is quick as lightning and light-footed as a falling feather. If your trap springs before he puts his full weight on the pan he'll jerk his foot out before the jaws shut."

At this point some serious doubts developed regarding the old man's ability to tell the truth, but having nothing better to go on I followed his instructions. The rest of that season, and in many others, the traps were set heavy enough that you could feel the



Ray York, veteran Junction City trapper, displays some prime beaver pelts taken from the Smoky Hill and Republican rivers.

pan resist before it sprung. Several mink succumbed to the old man's knowledge, including one with a missing toe.

For producing a variety of experiences, pleasant and otherwise, nothing can compare to trapping. Each fruitful set is like finding money, an empty set is a frustration, and walking away from a carefully selected and prepared, but unproductive site is a test of confidence.

Walking the ice-fringed edges of a small stream or pond when the sun is still just a pink glow over the horizon is an experience well worth an occasional bootfull of freezing water. The situation can, however, become serious in a hurry. On one occasion, while walking on ice that should have been plenty thick for safety, I succeeded in falling through into waist-deep water. Although there was no danger of drowning, by the time I arrived at home wearing water-soaked and frozen trousers, my legs looked like I had been chased by a bear five miles through a blackberry patch, and I was a most interesting shade of blue. Anyone who has done much trapping has had similar experiences.

Although prices for wild furs will probably never approach those of the 1940's, there has been an upswing that today's trappers find encouraging.

No reputable fur buyer is likely to guarantee a firm price on any pelt prior to the opening of each year's market, but judging from last year's prices, trappers can expect that muskrat will probably be worth between \$1 and \$1.50. Coyote pelts may bring as much as \$5, coon \$4 or \$5, mink from \$4 to \$10, and beaver up to \$20. Of course, prices will depend on size of the fur, primeness, and the individual buyer, as well as the current market. There is a great amount of difference from one buyer to the next, and care should be used in selecting a buyer with a reputation for fairness.

Some of the hardest work, the skinning and preparing of pelts for market, can be eliminated. Most fur buyers will accept animals with the skin on, deducting a nominal amount from the price to cover their own work. Some buyers will deduct less than others. Dean Burkdoll, for instance, said he can get more for the furs he ships if he prepares them himself because many of today's trappers lack the experience to do a proper job.

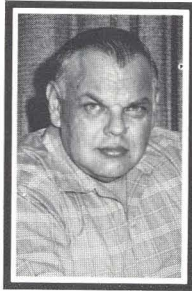
Anyone who sells furs must have a trapping license, even if he takes his pelts while hunting. Other laws relating to seasons and numbers of traps are contained in the Guide for Hunters, distributed by the Fish and Game Commission.

# BUILDING BIRDHOUSES

By George Valyer  
STAFF WRITER

**W**INTER IS A TIME when outdoorsmen often get those penned up blues and are at a loss to know just what to do with themselves.

Of course, there is always rabbit hunting but even that can occupy only a limited amount of time. So let's start a project that can be of benefit to our wildlife friends this coming summer — let's build a bird house.



Valyer

A basement or garage workshop can be a pleasant place to spend a winter day and, when you are making something which can be of use to our feathered friends, your time can be spent quite productively. Song birds provide a definitive service around any home, be it city or country, by reducing the number of harmful insects and worms. One of the best pest-eaters which can be encouraged to stay through the erection of nesting boxes is the house wren. If you have watched a pair of wrens feeding a hungry brood of youngsters, it wasn't long before you became convinced that they were worth many dollars worth of insecticides and were much less damaging to the environment.

So, let's build a wren house—or maybe two or three.

Construction is simple and the materials can be salvaged from almost any pile of scrap lumber. Even if you have to buy new material, the outlay for enough for several houses should amount to less than a box of shotgun shells. If you can push a saw and drive a nail, you have the necessary talents to provide deluxe accommodations for a family of wrens.

Naturally, the better the materials used, the longer the house will last. Perhaps the ideal wood for most bird houses is redwood. It will last for many years when exposed to the elements and is easy to work. The disadvantage is its high initial cost. More in line with the simplicity of the construction would be pine or cedar in

one-inch thickness along with exterior grade plywood.

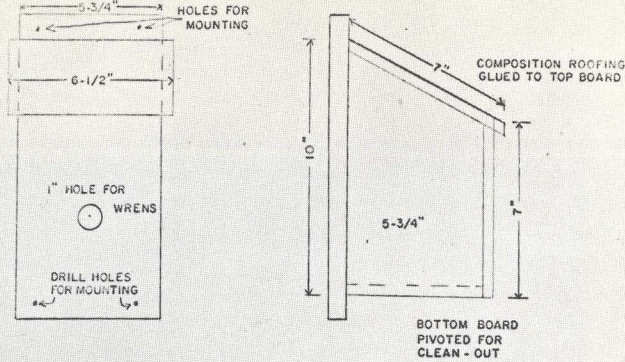
Note that we were careful to specify exterior plywood. Ordinarily interior plywood is not designed to stand exposure to rain, snow and alternate wetting and drying. When exposed to the weather, interior plywood and paneling rapidly separates, layer from layer, and the house will need replacement in a year or two.

One of the most important dimensions in building any bird house is the size of the opening. For wrens, many authorities suggest a  $\frac{3}{8}$ -inch hole. However, it has been my experience that a one-inch opening has several advantages. First, it is small enough to restrict access to wrens only. (Hummingbirds do not use houses for nesting.) Secondly, it is large enough to provide easier access for a wren carrying sticks and twigs which are its nest-building materials. The entrance hole should be circular and is best cut with a wood bit of the appropriate size. In order to prevent splintering of the wood around the opening, drill part of the way through the panel from one side, then reverse and drill from the opposite side. The result will be a clean, snag-free hole.

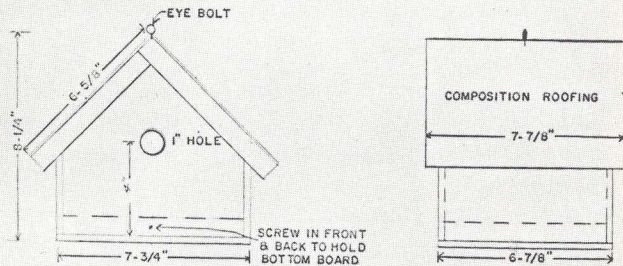
The inside dimensions of the house are not too important but should be fairly close to four inches square on the bottoms and six to eight inches high. The entrance should be about three to five inches above the bottom.

A wren house should be designed for single occupancy only. Multi-compartment houses are a waste of time and materials since wrens will not tolerate the presence of any other of their species nesting too close to their place of abode. Many persons who have constructed multiple-unit wren boxes in the past have been disappointed by the fact that only one pair of birds occupied only one compartment each season but this is the nature of these little insect eaters. Any other pair of wrens who may try to occupy a nesting cavity too close to another occupied house will be ruthlessly driven away by the pair who got there first.





WREN HOUSES  
SCALE 1/4" = 1"



Building birdhouses is a good wintertime activity for the sportsmen who wants to attract birds around the home or cabin.

This is the reason why wren houses should not be placed close together around anyone's premises. If you erect a nesting box on the back porch pillar, place another one near the front porch or on an outbuilding some distance away.

Some birds, such as purple martins and other members of the swallow family, nest in colonies and houses for these birds can and should be of a multiple-cavity nature. Both wrens and purple martins are excellent insect destroyers although they feed in different manners. The wren takes most of his food from beneath low-growing vegetation and amid thick-growing vines. He is most valuable in controlling pests which normally inhabit gardens. On the other hand, the purple martin feeds mostly on flying insects and is quite adept in controlling mosquitoes and other winged insect pests. At a later date we hope to publish details on the construction of a martin house which will be simple and economical to build.

One other note is in order regarding the placement of wren houses;

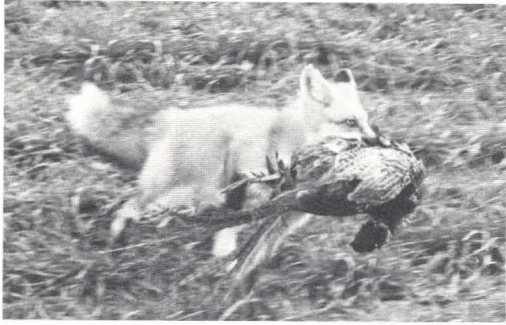
whenever possible, place them in a shady location where direct sunlight will not strike them during the heat of

the day. Baby birds in the confinement of a nest box can suffocate if temperatures get too high. That is why placement of a nest box is quite important and also why ventilation holes or cracks should be provided near the roof of a wren house at the time of construction.

Some excellent locations for wren houses would be under the eaves of a home or other building or fastened in a tree which normally produces thick, shading foliage. If placed in a tree, hanging from a limb is the preferred method since it helps discourage predators such as cats and snakes. While usually quite efficient in controlling rodent populations, both cats and snakes are fond of little birds and any method to reduce predation will be appreciated by the wrens.

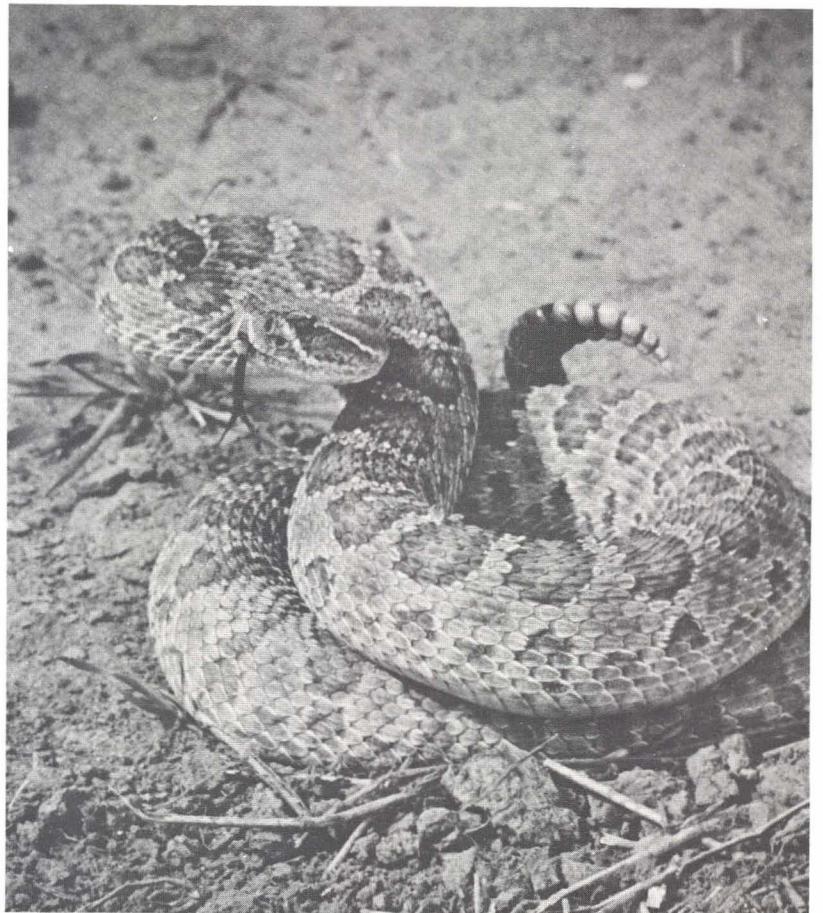
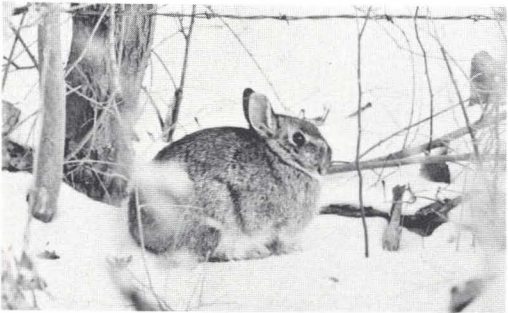
The cheery song of the wren plus their industrious searching for food for their broods were payment enough for the hour or two I spent in building and erecting a housing facility. I'm sure you will feel the same way about it. So let's get busy one of these long winter evenings and see what can be done.





WILDLIFE

# *Alimpases*



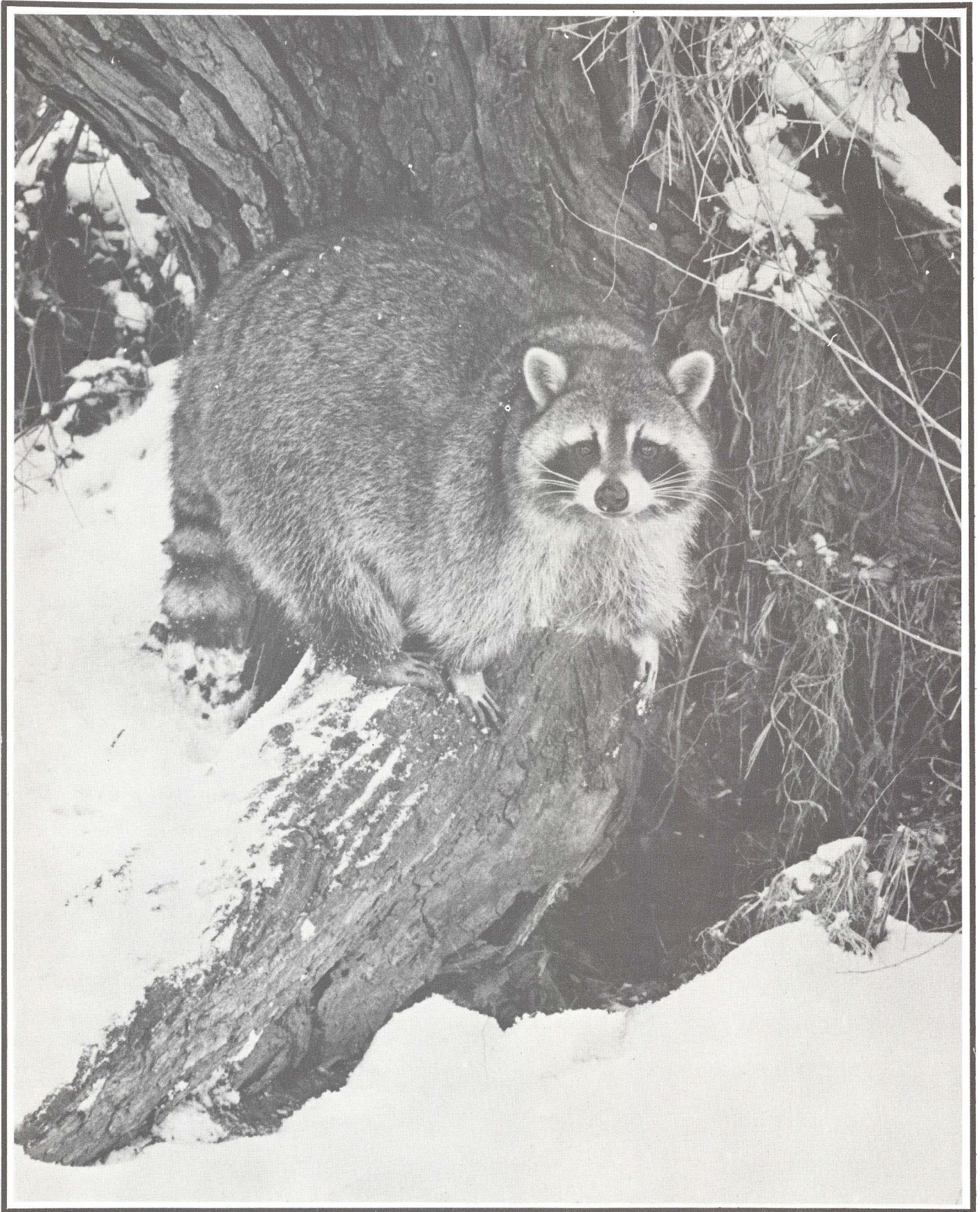
Prairie rattlesnake by Ken Stiebben

Red fox by Vic McLeran

Coyote by Vic McLeran

Fox squirrel by Ken Stiebben

Cottontail by Ken Stiebben



Raccoon by Ken Stiebben

