

# KANSAS FISH & GAME



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**MARCH-APRIL 1974**

# KANSAS FISH & GAME



March-April, 1974

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## COVER ART

The wild turkey and cardinals in snow are by Albert Earl Gilbert, one of America's leading wildlife artists. The paintings were recently published and are now available in full color print form from the National Wildlife Art Exchange, Inc., P. O. Drawer 3385—Suite 934, Vero Beach, Florida 32960. The prints are suitable for framing, hand numbered, signed by the artist, and published only in Guaranteed Limited Editions. They are copyrighted by and reprinted with the express written permission of the National Wildlife Art Exchange, Inc.—ALL RIGHTS RESERVED.

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# Jim Zeiner:

## Conversations

### With a Catfisherman

By Vic McLeran, Editor

**I**T WAS one of those hot steamy dog days in August, the kind of day when you really have to work for your fish. Sweating freely, I struggled up the banks of the Arkansas River south of



McLeran

Wichita. In one hand, two reels and a bait can, in the other, a dripping tow sack which contained six fat, channel catfish in the 3-4 pound class. I'd taken the channels on lip-hooked frogs and felt pretty proud of myself. Working my way up the path toward the car, I met an old-timer on his way to the water. He stopped, tackle in hand, and eyed the dripping burlap sack warily.

"Do any good?" he asked.

"Yeah, I got lucky," I grinned, opening the burlap bag to show him the wet flopping catfish.

"Hmph," he snorted. "Those ain't even good bait fish compared to what Jim Zeiner just caught up by the bridge."

"Who's Jim Zeiner?" I asked, the grin fading.

"Best damned catfisherman on the Ark' River!" the old man exclaimed, obviously irritated at my ignorance.

"Oh," I said dumbly, staring at the old man as he shuffled down the path.

That little incident occurred several years ago. Since then, I've heard a lot

about the "best damned catfisherman on the Ark' River." Eventually I got to know Jim Zeiner. So when it came time for an article on rod and reel fishing for channel catfish, Zeiner seemed like a natural.

Jim's no stranger to river fishing or to channel catfishing. Born in Cherryvale, he cut his eye teeth on river fishing along the nearby Verdigris.

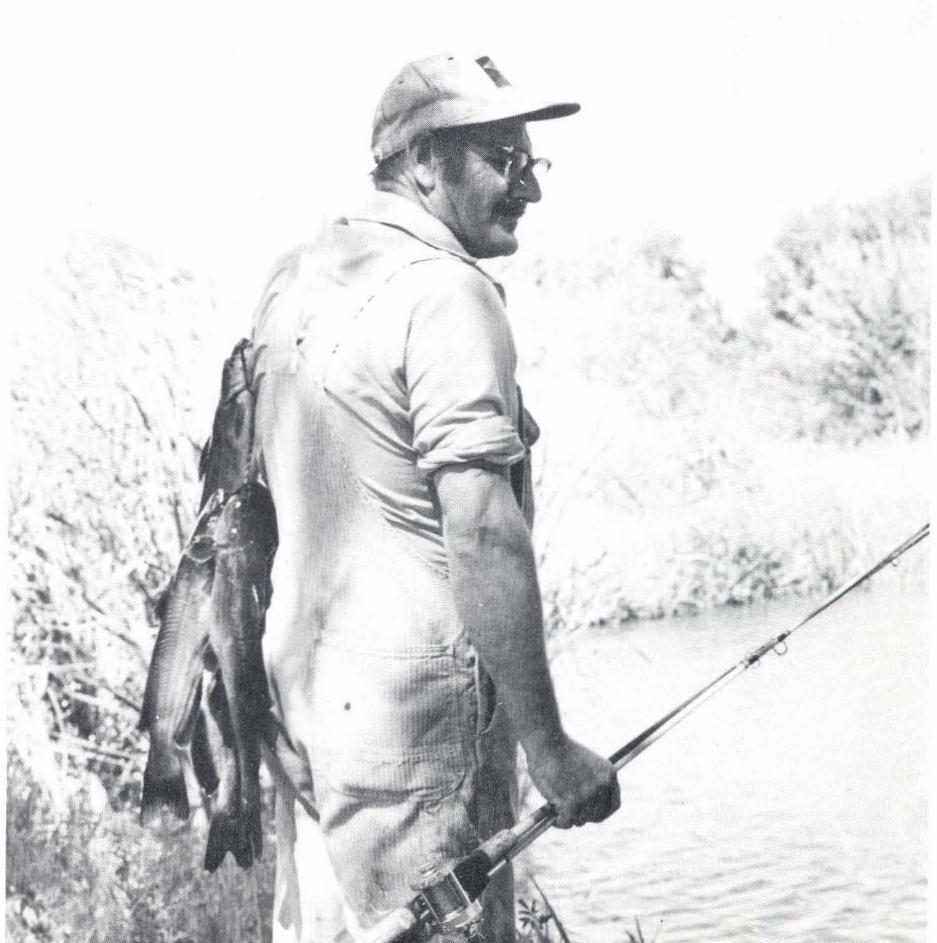
Zeiner is constantly experimenting with his baits, trying to find new methods and techniques for fishing them.

Later, with his parents, he moved to Denver where he fished the irrigation ditches for anything he could catch. After a couple of frigid and fishless Colorado winters, the family moved to Wichita where Zeiner has been located ever since.

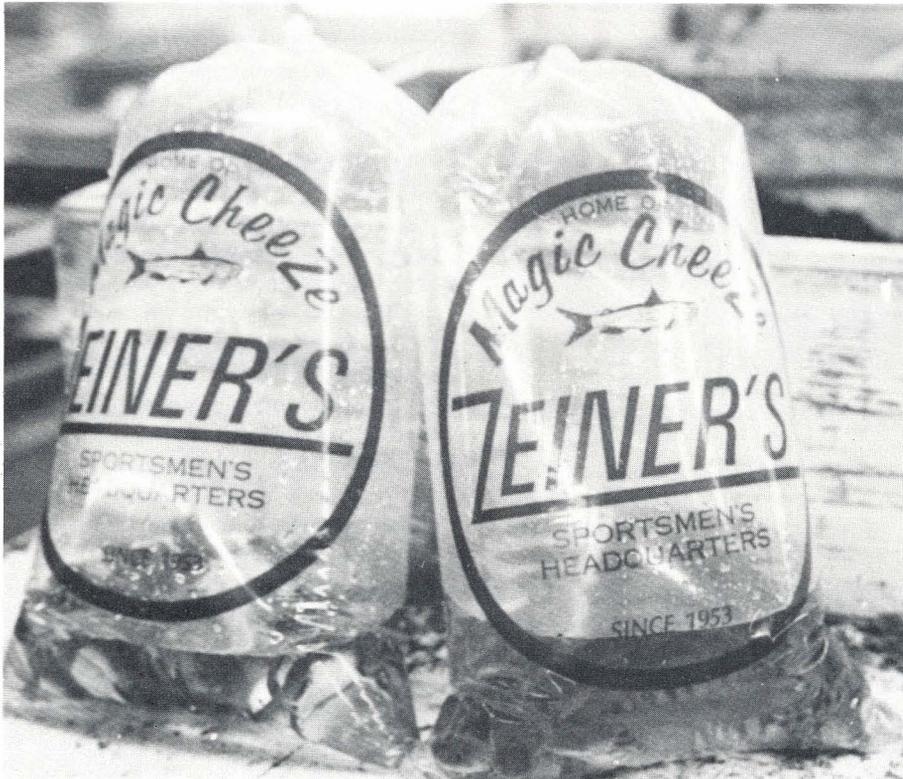
Back in Kansas, Jim lost no time in learning the Arkansas River, spending every spare moment on the water. At the time, he was primarily a live bait fisherman and usually seined or trapped his own bait. He eventually became so proficient at gathering bait that he often found himself with more crawfish, frogs and minnows than he could use. The next logical step was selling of this excess bait.

"I found a fair market for bait at the time," Jim recalls, "but it was still a pretty poor way to support a growing family."

At the time, Jim was working at Boeing and handling the bait business only during his spare time—mainly in the warmer months. Since live bait is difficult to obtain during cold winter months, Jim started experimenting with some of his ideas for a prepared



Photos by Vic McLeran



Zeiner's prepared baits include regular cheese flavor, blooded and shad.

room, a lot like home brew. Some of this is then put up in jars for sponge bait while the remainder is mixed with some other ingredients. This is allowed to congeal or set up and is used in making the regular cheese bait. All of these baits are hand-packed at our headquarters in Wichita."

Zeiner says the regular and blooded baits sell best nationwide but that in some particular areas, the gray ghost is favored. Marketing his products in 26 states, Zeiner sells to retailers, wholesalers and jobbers.

The market wasn't always this good though. When starting out, Zeiner simply sold to bait and tackle dealers in the Wichita area. However, when you have a good product, the word gets out. And catfish anglers from other parts of the country started picking up his bait when they were in Wichita visiting. Taking it back to their native waters, the Magic Cheeze started getting a reputation for catching channel catfish. Before long, or-

bait, one that could be made and sold when live bait was unobtainable.

By 1964, Zeiner had what he felt was an excellent catfish bait. So he started marketing his "Magic Cheeze." The first Magic Cheeze came in a soft form for use on strips of sponge. This so-called "sponge" bait has long been a favorite with catfishermen and is still available. From this original recipe, Zeiner has branched out and now markets four other prepared baits: Regular, which is the same as the sponge bait but with more consistency which keeps it on the hook longer; Blooded which contains some blood for added flavoring; Gray Ghost, that features the rotten shad taste, and his latest offering, Carp Candy—designed especially for carp fishermen.

Zeiner didn't want to tell me too much about the ingredients or the process he uses but he did say cheese constitutes about 50 percent of his original Magic Cheeze.

"I buy scrap cheese wherever I can get it," he said. "This is ground up and mixed with several other ingredients. The whole mess is then allowed to work and ferment in a heated

Live bait including salamanders, frogs, crawfish and minnows are sold in plastic bags inflated with pure oxygen.





Mike Doherty, Wichita insurance executive, hoists a string of channels and carp taken from the Ark' River on Zeiner's bait.

From his Wichita location, Zeiner has branched out into a franchise operation with outlets in several towns including Derby, Augusta, Cheney, Independence and Topeka.

In addition to his prepared baits, Zeiner sells live frogs, salamanders, worms, goldfish, carp, crawfish and minnows of all sizes. In the past couple of years, he's also been designing and selling plugs and lures for bass, crappie and walleye. At his Wichita location he has an experimental pond where he tests any new bait or lure before it hits the market.

Last July, I got a chance to test some of Zeiner's bait on the Ark' River channel cats. With us was Mike Doherty, Wichita insurance executive and accomplished river fisherman. Al Rogers, a fishing friend of Zeiner's was also with us. We had a mess of Magic Cheeze with us so we baited up and cast out.

Action wasn't long in coming. Suddenly Mike's rod bent double as a big channel catfish inhaled his slug of cheese. Mike used to play a little football at Kansas State College of Pittsburg and he's a pretty husky boy. When he leaned back to set the hook on that channel cat, I figured he'd either break the rod, pop the line or give himself a king-sized hernia. I was wrong on all three counts—and

ders started pouring in from across the country.

Not long ago, I saw a vivid example of the lengths to which some people will go for good catfish bait. I was standing in Zeiner's headquarters when a woman walked in and asked for a case of the regular Magic Cheeze. Seems she'd driven all the way from southern Oklahoma for some of the stuff. "They just don't keep enough of it in stock down there," she explained. "So I thought I'd drive up and get my own personal supply."

Jim told me one of the nice things about his bait was that it rarely attracted bullheads. Since then, in conversations with other anglers and my own fishing experience, I've found it's true—you just aren't bothered much by bullheads stealing and pecking your bait when you're using Zeiner's cheese.

Zeiner pours baitfish into his tank truck while Bus Hartley (right) of Kingman, looks on. Hartley wholesales minnows and goldfish to the Wichita bait dealer.



Mike beached the lunker several minutes later, a nice eight-pounder.

As we fished through the rest of that hot muggy afternoon, I talked with Jim about how he fishes his prepared baits and some of his methods for fishing with live baits.

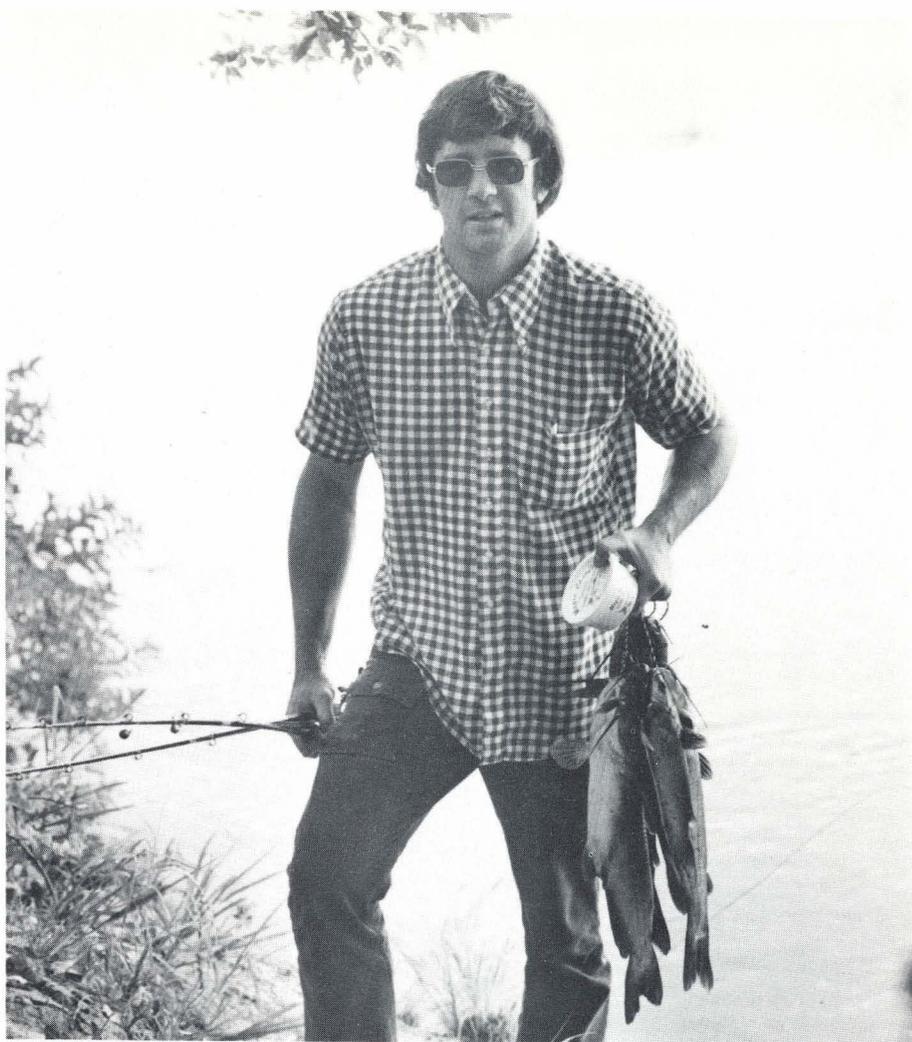
"This Magic Cheeze works well in hot weather," Jim explained. "The warmer waters that you find in shallow rivers and small farm ponds during the summer seem to speed the action of the bait by actually melting off some of the cheese. When this happens, the aroma draws up channel cats in a hurry. In colder weather, it's best to dip the bait in water several times before casting out. This tends to speed up the melting process."

I've found the best (at least for me) way to rig up with Magic Cheeze is to form a little pear-shaped pellet, about as large as the end of your thumb, over a 1 or 1/0 hook. Several inches above the hook I place a small barrel swivel and a small sliding sinker. Jim also recommends leaving a little slack in the line after you've cast out. By watching the line, you can tell when a fish picks up the bait and starts moving off with it.

When speaking of live baits, Zeiner likes to start off with his favorite—grass or leopard frogs. "I hook frogs through both lips then run the hook back through one hind leg. This seems to immobilize the critter and keeps him from crawling under a log or rock. Most of the time I use a 1/0 hook on frogs.

Suddenly we looked up to the sounds of splashing as Mike waded into the shallows to land a flopping carp of about 10 or 12 pounds. "That carp candy's not bad bait either, Jim," Mike said as he hoisted the big carp out of the water and onto the sandy beach.

Of crawfish, Zeiner says: "This is another excellent bait. I usually pull the crawfish in half. Then I pinch the nerve at the base of the tail. Then with my thumb, starting at the end of the tail, I just push the meat right out of the tail. You need a small hook like 4 or 6. The only bad thing about this bait is that almost anything—carp, drum, channel cats, will hit it.



The author with a string of fat channels hooked on Zeiner's Magic Cheeze.

Worms aren't one of Zeiner's favorite baits but he admits there are times when this is the only bait a channel cat wants. "They're usually real good right after a rain since worms are often being washed into the river at that time. When this is what the channel cats want, I wad the worms into a ball and put 'em on a small hook."

Jim stopped talking abruptly and leaped to his feet. A big channel cat had jerked his pole from the rod holder and both fish and rod were headed for the center of the river. Making a frantic dive, Zeiner retrieved his rod. After he landed and strung the channel cat, a "fiddler" of about two pounds, he resumed talking.

On the subject of salamanders, the bait man gets enthusiastic. "This is one of the finest live baits you can use," he says. "They'll take channel cats, flatheads and bass. I hook 'em through the tail right above the hind legs and fish them out in open water where they can't crawl under a log or

rock. Hook choice varies depending on the size of the salamander but it's usually 1, 1/0 or 2/0."

When fishing with minnows, Zeiner prefers a large shiner, hooked through the eyes. "A lot of fishermen kill their minnows by using too large a hook. I'd advise using a hook no larger than 1, but then the size of the minnow makes this variable."

Later, as evening shadows from the West began drifting across the river, we gathered our fish and tackle and headed for the car. We had about 20 pounds of channel catfish and we'd caught and released more than 30 pounds of carp. As we loaded our tackle and gear into the car, I noticed a note of caution on the side of Zeiner's bait carton. It read: **WARNING—** When using this bait do not leave pole unattended!

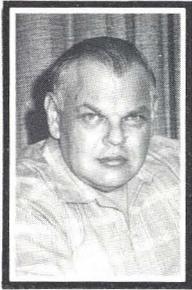
From my experience that afternoon on the sandy Ark' River and the times since when I've fished with Jim's bait, I have to believe this is sound advice.

# Elephant Hunting in Kansas

By George Valyer, Staff Writer

Illustrations by Dr. Robert Boles, Emporia State College

“NOW WHAT kind of a title is that for a magazine article?” you must be saying! “The only elephants I have seen in Kansas were in a zoo or circus. A guy must be some sort of a nut to write about elephant hunting in the Sunflower State.”



Valyer

I would be the first to agree with you when you are thinking about the modern-day Kansas we know. But, there was a time when several forms

of elephants were quite common in the Great Plains area. And I am not talking about pink elephants either.

Go back in time with me for a few moments and we will see many strange creatures inhabiting the area we now call Kansas. For our mythical trip in our time machine, let's set the dials for about 12,000 years ago and see what we will find in the prairies and scattered forests of the mid-part of what is now the United States.

Now, 12,000 years is only a short time when compared to the age of this planet we call Earth. Only the Almighty himself knows the exact time of when our Solar System came into being and how it was formed but, through intensive study by geologists, paleontologists, anthropologists and archeologists, educated guesses can be made regarding the chronology of events that transpired through the ages.

Anthropologists now believe that the dawning of man may have taken place as long as two million years ago. Recent excavations of the late Dr. Louis Leake in Africa uncovered the skeletal remains of human-like creatures which are thought to be at least that old, thus indicating that man has been here for some time. Traces of

past human occupation in North America have led archeologists to believe that mankind has been on this continent for at least 26,000 to 30,000 years. Therefore, it is probably safe to assume that the ancestors of the Red Man were well established in Kansas in nomadic bands of hunters.

The bow and arrow had not yet been invented and pottery had not yet come on the scene. Farming as practiced by the Indians when white man first stepped on these shores, was not yet a part of the culture of these people and their life was probably, at best, tenuous. The weapons of that day were somewhat crude spears tipped with stone points. Some of the spear points of that time show a good deal of skill in fashioning but there is no way of telling how much artistic development had been obtained. The only remains of this human inhabitation so far discovered have been their bone and stone tools and an occasional fire pit where they cooked their food or warmed themselves to stave off the chill of a cold winter wind.

Botanists believe that vegetative types were quite similar to those found in Kansas today. Most of the trees, shrubs and smaller plants would be readily identified by today's generation. The major difference probably would be the larger areas of oak and hickory forest in the eastern and central parts of the state. Apparently, the climate was more moist than at present and much more conducive to the growth of woody plants. Even then, meadows and prairies probably occupied much of the land and grazing herds of animals found lush grass to satisfy their hunger.

There is also evidence that conifers were in more abundance at that particular time. Larch and spruce were to be found along the streams indicating, perhaps, a cooler climate, especially as an aftermath of former gla-

ciations. With few exceptions, most of the vegetative growth would be similar to that found today but it was probably more abundant in quantity and variety.

But what of the animal life 12,000 years ago? How did it differ from what the white man found in the early 1600's when he first viewed the rolling plains and the eastern woodlands of Kansas?

Claude W. Hibbard, formerly a paleontologist with the University of Kansas and now head of that division for the University of Michigan, was kind enough to supply me with a list of the mammals which occurred in this part of North America from 90,000 years ago up to the time when man began written history, about 6,000 years ago. According to Dr. Hibbard, a recognized authority on Kansas fossils, many of the forms of animal life which existed then are to be found today. For instance, deer, coyotes, prairie dogs, rabbits, foxes, beavers, racoons, antelope, weasels and other wild creatures that the sportsman sees in the countryside of Kansas were also present then.

However, there were also a number of species that passed into oblivion before the discovery of North America by European explorers. Probably the largest mammals which would have been present were mammoths and mastodons. Thus our reason for the title of this story, "An Elephant Hunt in Kansas."

Let's take an imaginative trip back through time and see what might have been found in the central part of the continent. Let us join a band of roving hunters as they search for meat in that long-ago unrecorded past.

The day dawned chilly and clear and our hunting party arose from their beds in the thicket with the first rays of light. The cold of winter had passed and the flight of waterfowl on

their northward migration indicated that warmer weather would soon be here. A crackling fire was soon kindled from the coals of last night's blaze. Our hunting party gathers close to the warmth in an effort to drive the chill from sore muscles and two rabbits were placed on sticks over the blazing embers. The small amount of meat would provide strength for the day's coming activities.

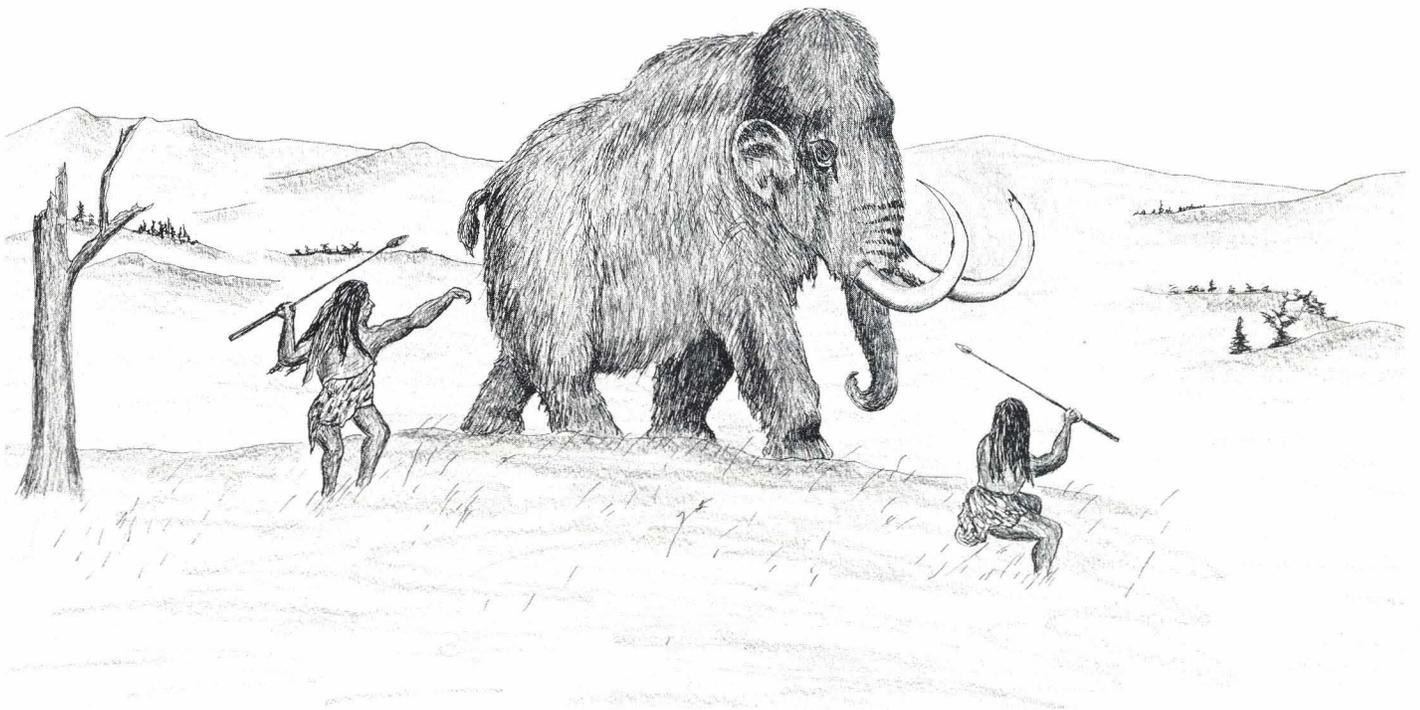
It had been a cold winter with many of the larger animals drifting farther south than normal. Young children had suffered and died in the winter camp farther west on the river as food supplies ran low. The only meat available for the past month had come from small animals in the camp vicin-

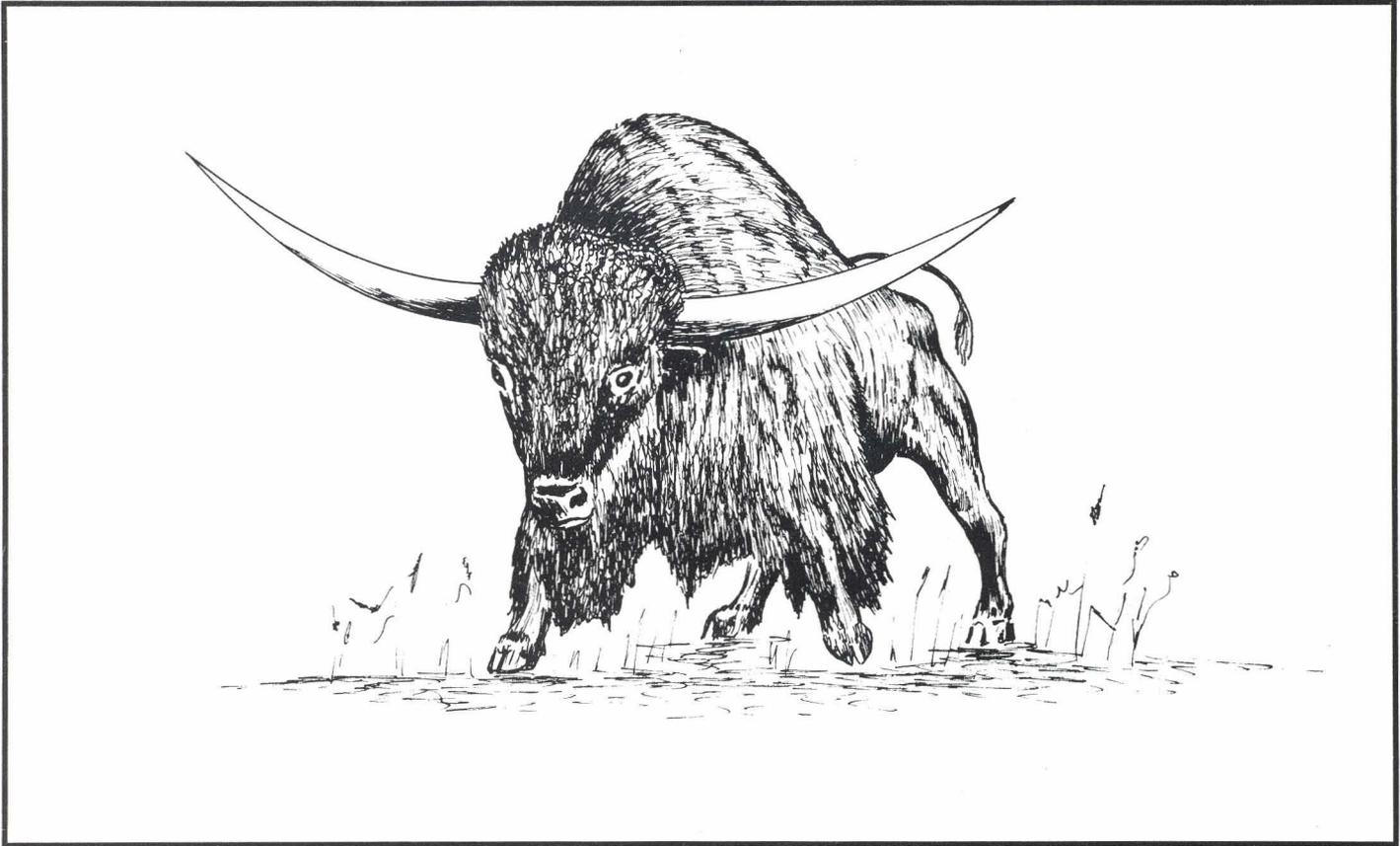
ity and from that which was dried earlier from a small herd of bison which wandered by. These bison were the long-horned variety and a hunter had been killed when he was pierced by an enraged, wounded bull. Survival had been difficult during the winter storms but, now, spring was on its way and the large animals were moving back to their former range. The hunters contemplated their chances for a successful hunt and, when a herd of horses was sighted on a nearby hill, a scout was dispatched to see if they could be approached with any chance of getting close enough for a kill.

Shortly, the scout returned with the news that all the horses were too ex-

posed for an unobserved approach but that a small number of imperial mammoths had moved into the creek valley on the other side of the hill. The huge beasts, nearly nine feet tall at the shoulders, were eating the fresh, newly emerged green shoots of willow along the stream bank and could probably be approached close enough to strike a telling blow. True, mammoth meat was coarse but the huge size of the beast would produce meat for the camp until more desirable game returned in abundance. It was decided to try for a kill.

Due to the size of the animal, the strongest and sharpest of the spears would be needed and the younger hunters were again cautioned about





Bison latifrons, a huge animal known to have existed in Kansas in ages past, had massive horns which measured nine to ten feet between the tips. A skull and horns of this species was found in Comanche County in 1925 and is now preserved at the K. U. Museum of Natural History.

approaching too close to the strong trunk and sharp tusks should the beast be wounded or enraged.

Carefully, our hunting party eased through the underbrush on the downwind side of the feeding mammoths. The approach must be made to within a few yards so that the spear could be hurled with enough force to penetrate the thick hide. Fortunately, one of the huge animals had sunk into a bog which was surrounded by brush which would afford concealment for the hunters. The miry ooze would also prevent the animal from making a hasty retreat or charging the hunters.

A faint man odor and movement in the bushes alerted the mammoth but, mired in the muck, he was unable to whirl and avoid the projectile hurled by the lead hunter. Its sharp flint head found its mark at the back of the rib cage and a lucky throw by another of the party blinded the ponderous beast. The hapless creature was able to leave the bog but could

make it only several yards before the pursuers launched a literal shower of spears rendering the animal helpless. In a short time the hunt was over. Tonight there would be full stomachs in camp and a celebration of the end of the winter's privations.

So ends our mythical elephant hunt in Kansas. All I can say is that I am glad I wasn't there and forced to exist on what the land provided to those with so limited technology. Can you imagine facing a charging mammoth or mastodon with only a flint-tipped spear? Or, how about defending your family from a big saber-toothed cat with only a sharpened bison rib? These perils plus the constant struggle of obtaining food and shelter would soon result in the demise of a modern-day hunter. Even with those, our primitive ancestors, only the strongest were able to survive. Who among us should complain about lowering the thermostat to 68 degrees?

The forerunner of the modern horse

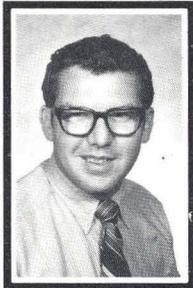
had its beginnings on the North American continent. By the time of our make-believe trip, he had developed to nearly its present form, but it did not survive here much past 8,000 B. C. Only because it found its way to the continent of Asia in the ages past was it domesticated and returned to the Kansas scene. Other mammals became extinct in America and will never be seen again—only their bones remain to testify to their existence. Among these former residents are several strange species of bison (buffalo), saber-toothed cats, a giant ground sloth, Cervalses (a large moose-like animal), several species of camels, a short-faced bear and a giant beaver weighing in excess of 200 pounds.

Why all these species disappeared from North America, no one knows for sure. Speculation ranges from sudden climatic changes to the advent of diseases. Of one thing we are sure, they were here and they are now gone.

# Build Your Own Smoker

By Farrell Brewer,  
Staff Writer

**S**MOKE COOKERY as it is known today derived its beginning from techniques used by early-day man. Although the appliances used in smoking have changed the basic principles



Brewer

have remained the same. Primitive man first used smoking as a method to preserve supplies of meat and fish for future use, by building smudge fires under drying racks to speed dehydration. As a by-product,

modern man learned that smoking not only insured the preservation of meats but gave it a delightful taste.

Modern technology in preservation methods nearly dealt a fatal blow to the art of smoke cookery. It seemed it would go the way of the horse and buggy until a recent revival of the art. Now much is being written on the subject; books and magazines carry information on smoking techniques. Missing in these articles, however, is information on how to acquire the proper equipment for the task. Those who would like to try their hand at the art are left with the options of buying an expensive commercial smoker or converting an old refrigerator. Those made from a refrigerator are not the handiest things to have around since they are bulky, and they present a safety problem for the neighborhood children. What is a good

solution? Why not build a smoker that is portable, inexpensive and can be broken down and stored when not in use?

Don't be alarmed at the suggestion to build one; you need not be an accomplished craftsman or have a well-equipped workshop to complete the task. Construction is fast and easy—a teenager can complete one in less than an hour, and materials for the job can be purchased for less than ten dollars.

## MATERIAL LIST

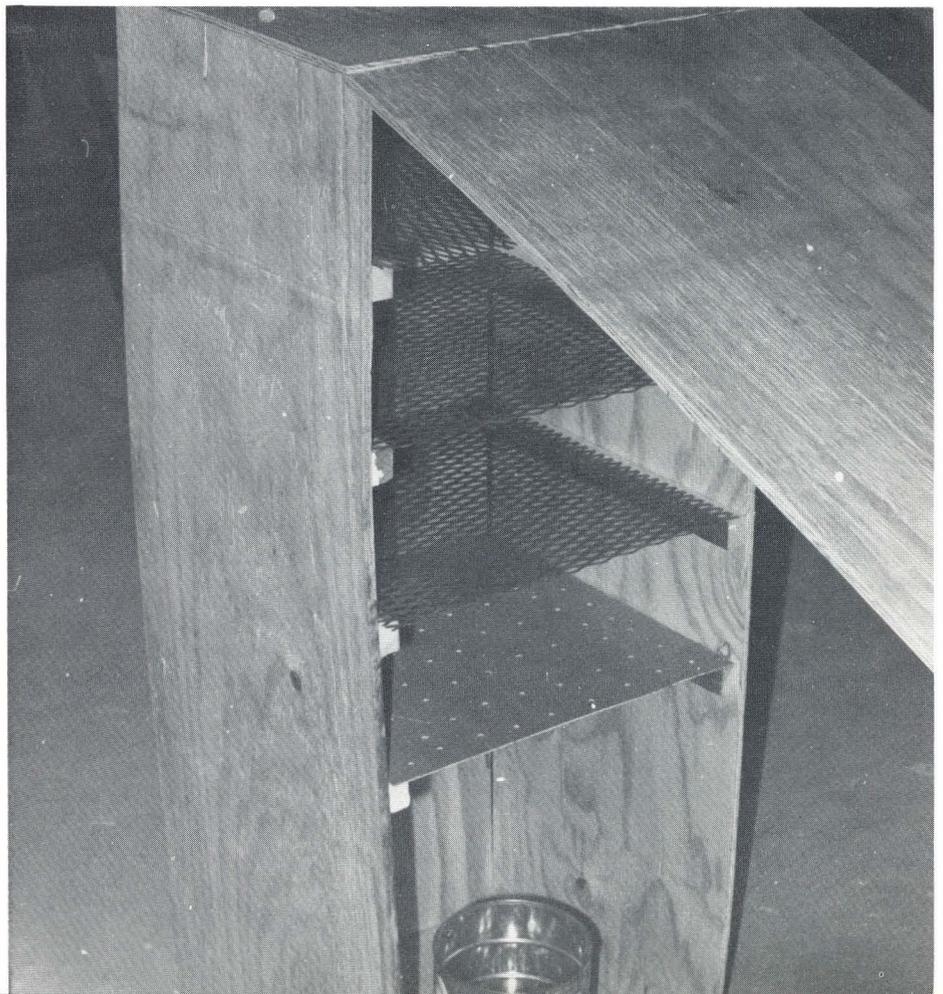
- 1—4 × 8 foot sheet of either  $\frac{3}{8}$  or  $\frac{1}{2}$  inch exterior plywood
- 6—one and one-half inch hinges with removable pins
- 3—15 × 15 inch pieces of non-galvanized expanded metal or wire screening
- 1—15 × 15 inches piece of thin tin or sheet metal (non-galvanized)
- 8—1 × 1 × 15 inch pieces of wood  
a few nails and screws found in most home workshops

First, it is advisable to cut the plywood into the dimensions needed to build the outer structure of the smoker. I found the easiest method was to set up a rip fence (cutting guide) on the plywood by clamping

or nailing a relatively straight one by four, eight foot or longer to the plywood. To determine where to place the rip fence on the plywood you should measure the distance from the saw blade (jig or skill) to the outer edge of the saw base. For example, if the distance is one inch you would add this to the desired cut. In other words, if you wanted a 15 inch cut you would set the rip fence 16 inches from the outside edge of the board.

Now rip a section 15 inches by eight foot, next cut a 17 inch by eight foot strip; this should leave a section 16 inches by eight foot. To salvage the largest piece of wood to use at a later date for some other project, take the 16 inch by eight foot strip and cut off 42 inches, then cut off one inch to make this a 15 × 42 inch piece. Now take the 17 inch by eight foot piece and cut a 17 × 17 inch piece and one piece 17 × 40 inches for the top and front. Cut two 15 × 42 inch pieces from the 15 inch by eight foot strip. This completes the saw work; you are now ready for assembly.

The finished smoker, ready for fish, chicken or game birds.



Photos by Farrell Brewer



Construction of the smoker is fast and easy, taking less than an hour to build.

You will now need to make lines to align the shelf support cleats. On two of the 15 × 42 inch pieces, measure 18 inches from one end, make two pencil marks at this location; use a straight edge to draw a line on the marks. Now measure up six inches from this mark and repeat the procedure, up another six inches and do the same, another six inches and repeat. Take the 1 × 1 × 15 inch cleats, place on mark so the top of the cleat aligns with the mark and attach it with either small nails or screws. Repeat the above procedure, attaching all of the cleats to the sides.

Place these completed sides cleat side upon a flat surface and insert the other 15 × 42 inch section between them. Attach each cleated piece to the center section with hinges, using two on each side. Joint the top and front sections by butting them together and attach the remaining two hinges. Set the three piece section upright with the 18 inch cleat at the bottom. Swing the outer sections inward to stabilize it. The rack material should now be placed on the upper

three cleats. If you use a wire screen material for the racks, it may be necessary to build a frame around them for support. Take to 15 × 15 inch sheet metal baffle and perforate it with small holes; this will allow the smoke to be evenly distributed throughout the smoking chamber. Place this baffle on the bottom pair of cleats.

On the top edge of both cleated sides drive a six penny finishing nail approximately half their length into the wood. Square the sides and carefully place the front and top onto the sides; with a hammer lightly tap the top directly above the nails to mark the top. With a drill bit slightly larger than the nail head drill through the top where marked. This will allow the top to be stable when placed over the nails.

The construction of the smoker is now complete. To disassemble and store simply remove the hinge pins and stack flat; tape the pins to the sides so they will be handy for future use.

I will assume that since you went to the trouble to build the smoker, you

will not be ready to store it at this point. If so, you will need a heat source for it. There are a variety of ways to accomplish this. You can use an electric hot plate, an old electric skillet, a hibachi or an old coffee can with charcoal; all serve well as a heat source. These sources, however, will not produce the desired smoke effect by themselves. You will need to use wood chips to create the smoke.

Many people use hickory; however, there are other popular woods, such as maple, oak, apple, sassafras and willow. I find that if you will immerse the wood chips in water overnight they will not only last longer but will give off more smoke. When using an electric hot plate, place the chips in a pan directly over the heat; in an electric skillet place the chips in the skillet. When using a hibachi or a coffee can with charcoal you may either put the soaked chips directly in the charcoal or in a shallow pan on the baffle above the heat.

When smoking foods that drip grease, it may be necessary to place a piece of heavy aluminum foil over the heat source to prevent flare-ups. In the event you feel too much smoke and heat is escaping through the cracks in the smoker you may want to place a canvas or blanket over the cracks to stop the loss.

Experience is the best teacher when it comes to pleasing individual tastes but for the novice there are some excellent smoking tips in many outdoor publications and helpful hints may be found in various cookbooks in libraries.

A new and excellent book on the market is *The Smoked Foods Recipe Book*, by Jack Sleight, published by Stackpole Books. Sleight and Raymond Hull teamed for another good publication *Home Book of Smoke-cookery Meat, Fish and Game*, also published by Stackpole.

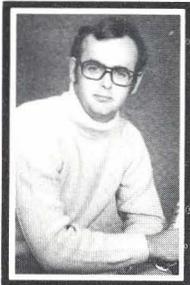
A dandy recipe for jerky is found in the *Texas Wild Game Cookcook*, by Judith and Richard Morehead. Making jerky in your new smoker will also provide and good neighborhood conversation piece if you smoke it in your back yard.

# Fish Magnets Will

## Boost '74 Catch

By Ross Harrison, Staff Writer

**T**HERE ARE a lot of reasons why the saying "10 percent of the fishermen catch 90 percent of the fish" has a ring of truth in it. (Though for Kansas sportsmen who are more adept than most, the adage may be a bit steep.)



Harrison

Among the reasons for outstanding success of a minority is that those experienced 10 percent know where to find fish. More often than not, they can separate a creel

of crappie from millions of gallons of water with ease by knowing what good crappie habitat is and where they can find it.

However, a rejuvenated project of the Forestry, Fish and Game Commission, underway since Christmas, will help change that 10/90 percentage in favor of more anglers catching more fish.

In a campaign to turn a waste product into a bonus for fishermen, about 7,000 discarded Christmas trees have been collected and appropriately made into fish attractors or shelters in the following lakes and reservoirs.

### Reservoirs

Tuttle Creek	Glen Elder
Perry	Cheney
Pomona	Marion
Melvorn	
Council Grove	
Milford	

### State Fishing Lakes

Pottawatomie No. 1 and No. 2	Cowley Nemaha
Douglas	Barber
Leavenworth	Kiowa
Atchison	Clark
Brown	Chase

Dick O'Bryant, left, of the Kansas Highway Patrol and R. T. Mizer, Linn County Sheriff, know that big channel cats love underwater cover.

Photos by Ken Stebbins



# KANSAS FISH & GAME

# NEWS

P.O. BOX 1028

PRATT, KANSAS 67124



EDITOR'S NOTE: The following news items have been condensed from the Kansas Forestry, Fish and Game Commission's weekly news release. Compiled by the Information-Education Division the release is mailed to news media throughout the state. In coming months, we'll select items of interest for inclusion in this news insert.

News contact: Ross Harrison

Phone— 316/672-6473

RELEASE \_\_\_\_\_

## STATE LAW DISCOURAGES SPOTLIGHT HUNTING - Released Dec. 7

The Forestry, Fish and Game Commission reports several recent incidents involving the illegal use of spotlights for night time raccoon hunting. Charges were filed in Leavenworth County against two coon hunters who had in their possession a .22 caliber rifle using the wrong size ammunition. A violation in Chautauqua County involved two men charged with using a spotlight from a vehicle and having in their possession a .30 caliber rifle. Hunting with a spotlight or other artificial light is regulated by a law passed two years ago in the Kansas Legislature. It is unlawful to use a spotlight or other artificial light for hunting purposes while carrying any firearm, bow or other implement that can kill game. One exception does permit raccoon hunting by artificial light, while in possession of a firearm not larger than .22 caliber, but only when the raccoon is treed with the aid of dogs. Only .22 short or .22 long rim fire cartridges are allowed under these conditions. A .22 long rifle cartridge is illegal.

###

## FISH IN FEDERAL WATERS NEED ADVANCE PLANNING - Released Dec. 7

Under Project SASNAK the Kansas Forestry, Fish and Game Commission is working with planners of federal lakes and reservoirs to ensure that vegetative cover will be preserved for fish to thrive and reproduce. Assistant Chief of Fisheries Bob Hartmann said the commission is cooperating with the Corps of Engineers and other federal agencies who are building and operating these federal projects in Kansas. Hartmann said the commission's first extensive cooperative effort was with Melvern Reservoir and assistance is being provided at Clinton Reservoir and Big Hill. As the physical features of a basin have a far reaching effect on its future for fish production, Hartmann advised local organizations involved in planning a lake or reservoir to contact the Fish and Game Commission early, so the best program can be worked out in advance.

###

NEW LAW ENFORCEMENT CHIEF - Released Dec. 14

Harold R. Lusk, Osage County sheriff for the last six years has been appointed chief of the law enforcement division of the Forestry, Fish and Game Commission it was announced this morning.

Lusk, 51, will assume duties Jan. 7 as the first full-time chief of law enforcement over 66 state game protectors. Assistant Director of the FF&G Commission, Fred Warders who had been serving both as chief of enforcement and assistant director now will be fulltime assistant director.

Prior to being Osage County sheriff, Lusk was self-employed at Lusk Motors, Osage City. The Madison-area native currently is president of the Kansas Sheriff's Association.

Lusk soon will move to Pratt to take over his new position. His wife Ann and two children, Luree Ann, 15, and James, 17, will remain at Osage City to complete the school year, then join him here.

###

NIGHT HUNTERS SPOTTED IN AIR PATROL SEARCH - Released Dec. 14

Kansas Highway Patrol and state game protectors formed a night air patrol Dec. 7, 8 and 9 in southeast Kansas in an effort to curb deer poaching and illegal night hunting. Two night hunters, George Gillman of Coffeyville and Carl Vencen of Oklahoma City were arrested. Gillman pleaded guilty to hunting with artificial lights and using a vehicle to pursue game. Vencen entered no contest to charges of hunting without a license, assisting in pursuing game with a vehicle, and hunting with an artificial light. Labette County Court Judge Charles Sell fined the two \$195 total. At least three other cases are under investigation. The suspects were apprehended after being spotted from the Highway Patrol plane, then approached by game protectors on the ground. Law Enforcement Supervisor Tommie Crispino of the Fish and Game Regional Office in Newton, who went on the nightflying mission, said night hunters can be spotted 10 miles or more from a plane. He said this method is by far the most efficient poaching enforcement tool available.

###

SPOTLIGHT VIOLATORS PAY OUT \$750 FINES - Released Dec. 14

Three Leavenworth men charged with illegal spotlight hunting paid fines totaling \$750 in Atchison County Court. David M. Poer, David C. Visocsky and John P. Visocsky were fined \$250 each plus court costs. They were charged with using a spotlight at night to search for game while having prohibited firearms in their possession. State game protectors Frank Nesmith and Dave Hoffman made the arrests. The three men were transporting a 25-35 and two .22 caliber rifles, a 12 gauge shotgun and .22 caliber pistol. The trio received suspended 30-day jail sentences each in Atchison County Court from Judge Richard Dempster.

###

RECORD DEER HARVEST - Released Dec. 18

Kansas firearm deer hunters came up with an impressive amount of venison during the 1973 season. The Kansas Forestry, Fish and Game Commission reports that the total harvest of deer has now passed the 3,100 mark with nearly all the reports now in from hunters. Earlier, it was estimated that 2,400 to 2,500 would be taken by gun hunters but nearly ideal hunting conditions on the last weekend of the season increased the total bag. State-wide, hunter success averaged 37 per cent, one of the highest success rates across the nation. Bow and arrow hunters have taken nearly 700 deer this year. In 1970, Kansas bow hunters harvested a record 800 deer.

###

PUBLIC HUNTING AREAS POPULAR - Released Dec. 18

Public hunting areas are popular in Kansas. A recent survey by the Kansas Forestry, Fish and Game Commission reveals that 22 per cent of the state's 200,000 licensed hunters used the 50 areas open for public hunting in 1972. About 13 per cent of the total hunting effort was expended on the more than 200,000 acres of land managed by the commission. While the acreages of public hunting areas are small compared to private land holdings, they still support a sizeable amount of the hunting pressure. The results of the survey will strengthen the efforts of the Fish and Game Commission to intensify habitat management to increase game populations on public hunting lands.

###

LANDOWNER CONVICTED FOR USE OF CYANIDE TO CONTROL COYOTES - Released Dec. 28

A Finney County landowner was assessed \$39 fine and \$11 court cost for the illegal use of a predator-control pesticide. Juhn Huber, Sr. appeared in the court of Judge Don Fall on charges of using cyanide gas guns to take or attempt to take coyotes. Huber pleaded guilty. The Kansas Forestry, Fish and Game Commission reports a federal directive from the Environmental Protection Agency prohibits the use of cyanide for predator control because of the danger to other wildlife and domestic animals. The Finney County conviction is believed to be the first case in Kansas under the federal regulation announced by EPA last March.

###

BUCYRUS MAN SENTENCED FOR ILLEGAL DEER TAKE - Released Dec. 14

An anonymous tip led to the arrest of a Bucyrus, Kansas man for illegal possession of deer. The Kansas Forestry, Fish and Game Commission reports Judge Brooks Hinkel sentenced Paul Becker to 60 days in county jail and fined

-more-

him \$250 plus \$13.65 court costs in Miami County Court. Becker was released and placed on probation for one year. A deer was found hanging in a shed at the Becker farm. Becker was arrested by State Game Protectors Kenneth Campbell of Ottawa, George Shaw of Garnett and Dick McCullough of Mound City.

###

15 HUNTER SAFETY WORKSHOPS HELD ACROSS STATE - Released Jan. 11

Fifteen workshops for the 3,400 volunteer hunter safety instructors of Kansas were conducted across the state in January and February announced Royal Elder, hunter safety administrator for the Forestry, Fish and Game Commission.

"The overwhelming success of the new hunter safety program, only nine months old, is due to the sincere interest and dedication of our volunteer instructors," said Elder. "We wanted to recognize their efforts and name a host of them for their special work."

Elder said Gov. Docking attended the Topeka workshop Jan. 24 to recognize the importance of the program.

Elder said he attended all workshops to conduct sessions on what problems some of the instructors are having and what they recommend to improve the program. As of Jan. 10 about 36,000 youth have graduated from the course, a record for all states in the country with a similar course, according to Elder.

He added that 11 students who have qualified for the hunter ethics award also were announced at seven of the workshops. The award, the only one of its kind in the country, recognizes youth who have made a special effort to show a landowner he appreciates the opportunity to hunt on his land.

The workshops were held in the following cities: Wichita, Jan. 14; Augusta, Jan. 16; Parsons, Jan. 17; Garnet, Jan. 21; Kansas City, Jan. 23; Topeka, Jan. 24; Holton, Jan. 28; Clay Center, Jan. 30; Herington, Jan. 31; McPherson, Feb. 4; Osborne, Feb. 6; Great Bend, Feb. 7; Greensburg, Feb. 11; Garden City, Feb. 13; and Colby, Feb. 14.

###

\$1.2 MILLION TO FF&G FROM FED SPORT TAX - Released Jan. 11

The Kansas Forestry, Fish and Game Commission will receive about \$1.2 million in fiscal year 1974 as its share of federal money for fish and wildlife projects, announced the U.S. Dept. of Interior.

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Nearly \$250,000 of the total amount will go towards improving sport fishing in Kansas and was generated from the 10 per cent federal excise tax on fishing gear.

About \$870,000 of the total will go for wildlife work in this state. These funds come from the 11 per cent tax on firearms and ammunition. An additional \$70,000 from the 11 per cent tax on hand guns will help fund the new Kansas hunter safety program.

The Forestry, Fish and Game Commission receives no funds from general taxes, operating solely on the sale of hunting, fishing and other sport licenses and its share of the federal excise tax on sporting gear.

###

#### COMMISSION PAYS \$25,000 IN LAND TAXES - Released Jan. 11

The Kansas Forestry, Fish and Game Commission paid \$24,415.42 in land taxes on 19,750 acres during 1973, it was reported by Robert Ward, chief of the commission's business management division.

Taxes were paid on commission-owned land from which agricultural or mineral income was derived. Although the fish and game agency receives no general tax money, it contributes to tax funds in 26 counties by paying property taxes on public hunting lands that are partially leased for agriculture.

Commission-owned land on which no income is received is not taxable. Following were the taxes paid in each county.

Barton, \$3,095.17; Butler, \$1,566.62; Chase, \$174.06; Cherokee, \$641.50; Cheyenne, \$155.25; Clark, \$36.07; Cloud, \$886.14; Finney, \$238.86; Jewell, \$255.79; Kingman, \$1,459.24; Linn, \$2,787.54; Labette, \$1,802.98; Leavenworth, \$79.72; Lyon, \$472.84; McPherson, \$129.95; Montgomery, \$33.32; Neosho, \$2,453.25; Osage, \$143.48; Ottawa, \$576.78; Pratt, \$3,198.08; Rooks, \$1,602.17; Russell, \$476.24; Shawnee, \$253.95; Sheridan, \$256.52; Sherman, \$170.49; Washington, \$234.42; and Woodson, \$2,644.98.

###

#### TURKEY HUNTERS SELECTED - Released Jan. 11

The Forestry, Fish and Game Commission selected 400 persons January 8 in a drawing to determine who will participate in the wild turkey hunt next spring.

The first season on wild turkeys in Kansas since the turn of the century runs April 20-28.

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Successful applicants of the 964 who applied had until Jan. 31 to send in \$10. Hunting regulations and hunting tips were furnished along with the permits.

###

COMMISSIONERS HONORED BY WILDLIFE FEDERATION - Released Jan. 11

The 5,000-member Kansas Wildlife Federation Jan. 5 honored the five commissioners of the Forestry, Fish and Game Commission with a testimonial dinner and a handsome plaque, citing the commissioners' "devotion to duty in the best interest of Kansas sportsmen."

Ted Cunningham, executive secretary of the Wildlife Federation made the presentation to Commission Chairman Jack Haley, Minneapolis. Commissioners Fred Sears, Colby, Art Hanson, Bonner Springs, and John Luft, Bison, were on hand to thank the federation for their support for responsible fish and wildlife management. Commissioner Bill Fowler, Weir, was unable to attend.

About 30 regional directors, officers and other members of the federation attended the dinner Saturday night and business meeting the following day.

###

WINTER TOLL ON WILDLIFE IS HIGH - Released Jan. 18

Although a temporary spring appeared to come to Kansas in mid-January, state game biologists say the short but severe winter to date already has taken an abnormally big bite out of wildlife populations.

Wildlife have suffered from extreme cold and snow-covered food supplies for two or three weeks in most areas. In areas where habitat is scarce or low quality, birds are using much of their fat reserves which normally see them through winter.

Game Chief of the Forestry, Fish and Game Commission, Lee Queal, said, "It is important to understand that winter loss of wildlife is to be expected. It is a natural occurrence every year which sometimes is magnified, such as this year, resulting in additional losses."

Queal said a new program of the FF&G Commission to get underway in March will increase the winter carrying capacity of the land for wildlife in future years. It is called WHIP for Wildlife Habitat Improvement Program, focusing on saving and developing more habitat on private lands with little expense to the landowner or loss of agriculture productivity.

Artificial feeding of wildlife on a statewide or regional basis is impractical due to the huge expense of buying grain, storing and distributing it,

according to Queal. He added that severe winters are too infrequent in Kansas to have an organized winter feeding program.

Queal does not discourage individuals from winter feeding birds on their farmsteads or yards, but said they should realize that wildlife can become dependent on handouts.

He said high energy foods like milo should make up most of such winter feed and that it should be made available to wildlife in areas that provide good cover but where natural foods are lacking.

Kansas has a pheasant and quail hunting season extending through January this year, but Queal said this late portion of the season has little or no significance compared to winter losses.

"It is wise use of the resource to let hunters have an opportunity to take some of these birds that otherwise would be lost to starvation or exposure to the elements," said Queal.

###

#### LAKES, RESERVOIRS STOCKED WITH 10 MILLION GAME FISH - Released Jan. 18

More than 10 million game fish were stocked in Kansas public lakes and reservoirs during 1973, according to Verl Stevens, hatcheries supervisor of the Forestry, Fish and Game Commission.

More than 500,000 fry and fingerling size channel catfish, largemouth bass and black crappie were stocked in state fishing lakes, reservoirs, municipal and county lakes.

In 39 state fishing lakes and five county municipal lakes, there were 104,000 channel catfish stocked, ranging from 7 to 12 inches in length. Melvern Reservoir, a new impoundment near Lyndon, was stocked with 1.9 million northern pike fry and 7.8 million walleye fry, said Stevens.

Following were the total pounds of fish distributed to state fishing lakes and reservoirs: southwest region, 443 pounds; southcentral region, 401 pounds; southeast region, 825 pounds; northwest region, 658 pounds; northcentral region, 207 pounds; northeast region, 1,070 pounds.

More than 1,000 farm ponds, containing 2,600 acres of water, were stocked with 447,000 fingerling channel catfish, largemouth bass and bluegill.

###

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COOPERATIVE WATERSHED PLANNING FOR WILDLIFE - Released Jan. 25

The Kansas Forestry, Fish and Game Commission is now playing an active role in environmental quality planning on state watershed projects.

Although the commission has worked with the state Soil Conservation Service in other areas of planning, this is the first time it has had input on environmental factors such as areas of natural beauty; quality considerations of water, land and air resource; biological resources and selected ecosystems; and projects that have an irreversible or adverse effect on the environment.

Commission representatives are meeting with SCS officials to assist in drawing up watershed district work plans and are making recommendations that will enhance fisheries and wildlife programs and outdoor recreational activities.

The first planning session of this type took place recently at state SCS headquarters, Salina. Fish and game representatives were Frank Schryer, watershed biologist and Bob Wood, agricultural liaison biologist.

Preliminary plans were discussed on three proposed watershed projects, Schryer said. These are Sand Creek located on Little Arkansas River near Newton; Big Sugar Creek on Marais des Cygnes River near Mound City; and Wet Walnut Creek near Rush Center, Ness City and Dighton.

###

Similar fish shelter projects have been conducted in the past by a few biologists and a number of sportsmen's groups such as the Flint Hills BASS Club, Topeka, and the Geary County Fish and Game Association, Junction City. This winter, however, marked the first year the state agency coordinated efforts over a large area of the state and relied mostly on the help of sporting organizations and civic groups to assist.

For that reason, the project still has to be considered experimental. Undoubtedly the fisheries biologists will be coming up with more advanced and efficient methods of collection, construction and marking fish attractors. And after they follow up this spring and summer to check how anglers are making use of these structures, there should be more revelations to come.

Fisheries biologists are confident that anglers this spring and summer will be able to take full advantage of these newly added shelters. And they anticipate similar campaigns will be expanded statewide as an annual event in years to come.

On the benefits of fish shelters, an Oklahoma Department of Wildlife Conservation pamphlet describing them states:

"Fish shelters are one of the best aids yet developed to further the harvest of Oklahoma's sport fisheries. These artificially positioned fish gatherers attract almost all species and sizes of Oklahoma lake fishes, and have been used successfully for years by commercial dock operators to improve the catch rate at their docks."

The pamphlet continues, "In some northeast Oklahoma lakes, officials report that 80 percent of the crappie catch comes from shelter areas."

Simply stated, a fish attractor or shelter is an underwater structure anchored in a fixed position on or near the lake bottom. They are as effective in a private pond as in a 100-acre state fishing lake or 15,000-acre reservoir.

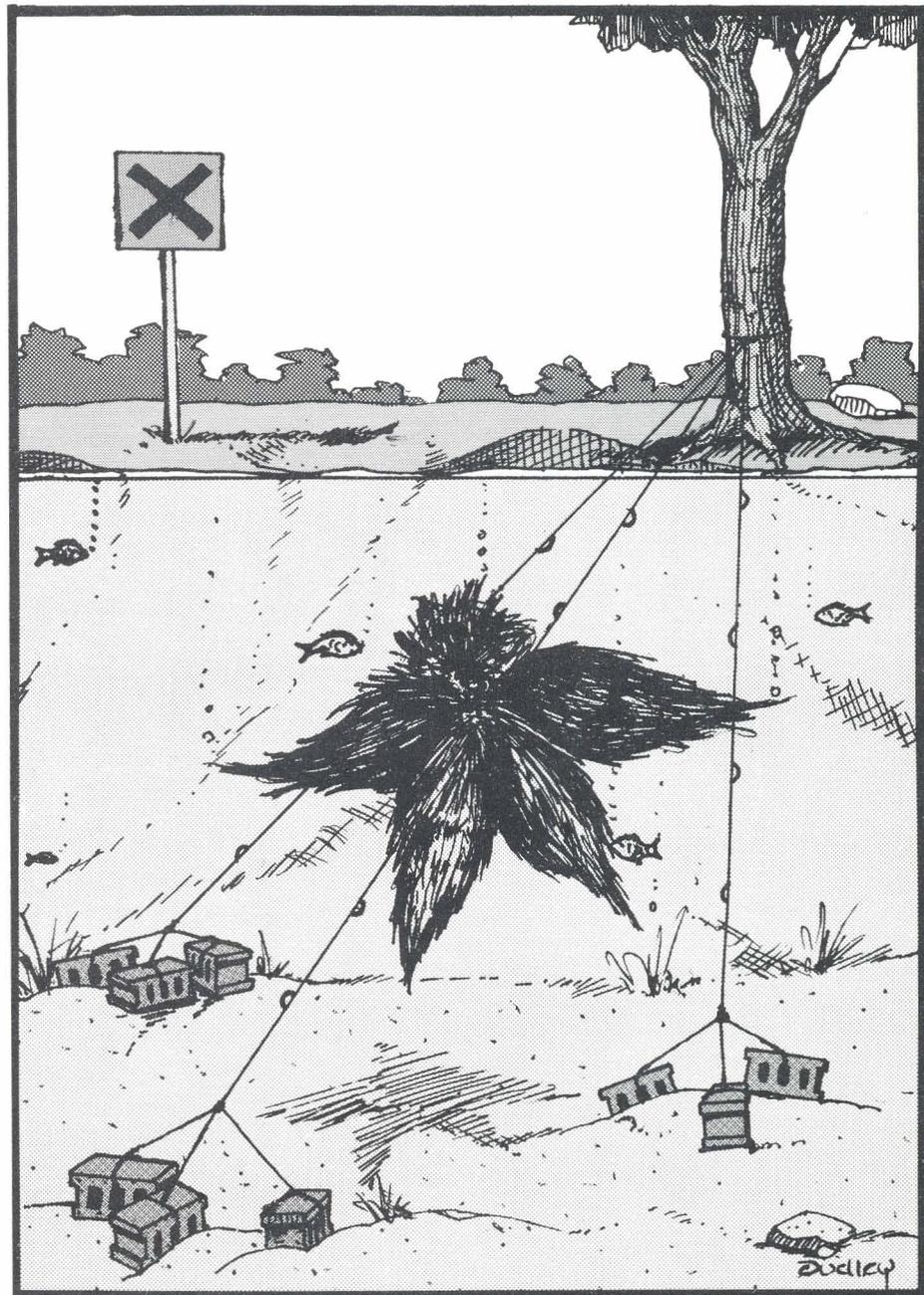
Because of their brushy characteristics, ease of handling and availability (they're free after Dec. 26!), Christmas trees make ideal attractors. Other structures such as cedar trees, fallen

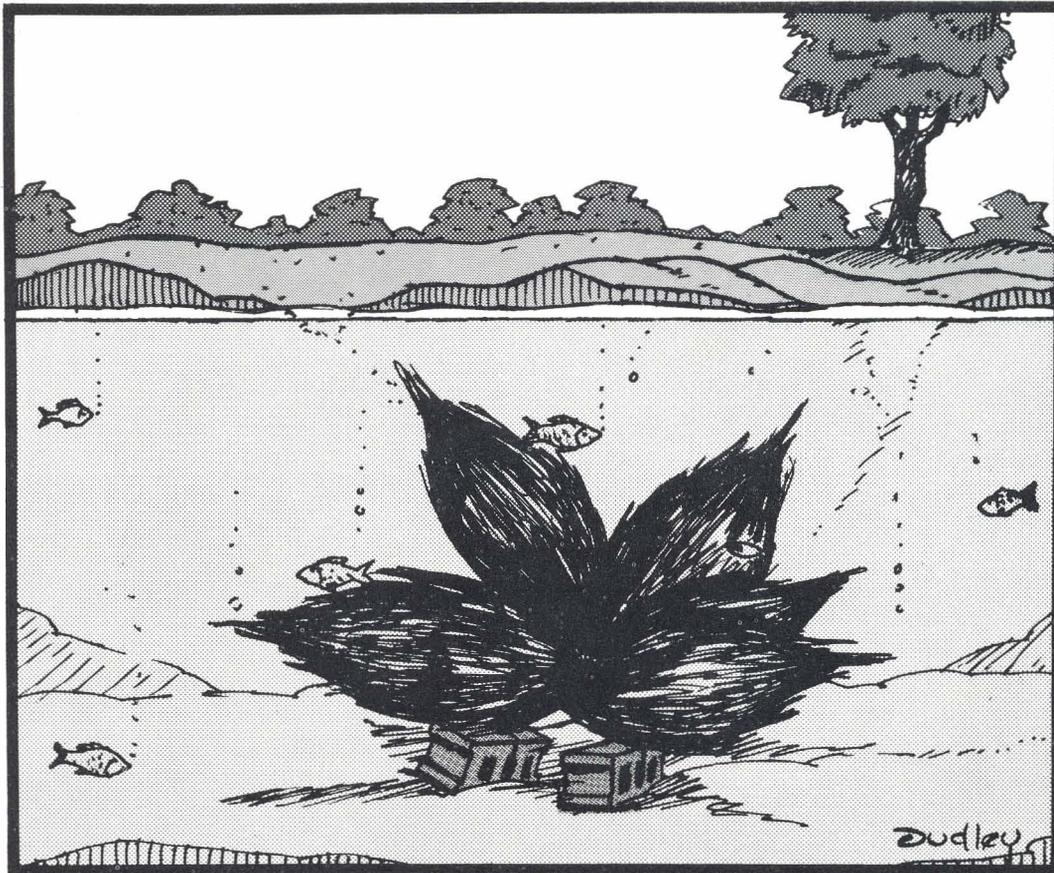
timber, Osage orange hedge and other hardwood brush have been used successfully in Kansas but on a limited basis. In southeast Kansas, for example, the lake and strip pit water usually doesn't freeze hard enough around Christmas time to safely locate the holiday trees on the ice. A fire hazard becomes a reality if Christmas trees are stored for very long. Later

in winter, other brush can be used if the ice firms.

As an attractor, submerged brush offers a sanctuary for minnows and other small aquatic life. This of course tempts game fish also to take up residence near this concentrated food supply. As a shelter, the structure provides a resting-hiding area for game fish during their "off-hours."

This fish shelter would be similar to those in reservoir coves. A cable attaches several groupings of trees, anchored to one end and tied to a tree on the other end.





A typical fish shelter for a state fishing lake anchored but with no shoreline connection.

In effect, artificial fish shelters offer ideal habitat in areas where there is little — similar to the fish-drawing powers of a wooded cove in a reservoir whose main basin was cleared of timber before it was filled with water.

**The importance of wooded coves** is evident from a study at Tuttle Creek Reservoir near Manhattan. Here it was discovered that game fish in a wooded cove outnumbered and outweighed game fish in an open cove about three to one!

Constructing fish shelters is a simple task. But each tree has to be handled several times and that requires a considerable amount of manpower when you're talking about a couple thousand trees at one reservoir. And in areas where volunteer help from sportsmen's clubs or civic groups is lacking, individual biologists put in many weekends of shelter construction, sometimes not completing the job or making full use of the trees.

**That is why it is absolutely neces-**

**sary** that volunteers assist in the project. One fact discovered in this first year of the project was that biologists have to do a better job of coordinating volunteers not only to collect the trees, but to follow up with shelter construction. In a number of cases, the Kansas Park Authority and U. S. Army Corps of Engineers were invaluable as they donated trucks and manpower to transport the trees to lakeside.

Basically there are two types of shelters that can be made from Christmas trees.

**One type is the single pile** with four to six trees bound at the base of the trunk and anchored by cable to a weight such as a concrete block.

The other is the line type, where four or five groups of trees are secured at intervals to a cable line, extending from shore into the lake and anchored on the end with a weight. There may be 3 or 4 of these lines to reach varying depths from the tree.

**To bind the trees at the trunk base,** a hole is drilled through the trunk and heavy wire (#9) passed through the hole and into the other trees. Where a number of shelters are built, an electric drill is almost a necessity.

The weight of the anchor and strength of the cable from trees to anchor is of prime importance. The shelters once anchored should not move. The buoyance of the trees has to be fully compensated for with a sufficient anchor to keep trees near the bottom of the lake.

Best locations for shelters are near natural gathering places for fish. The shelter doesn't necessarily pull fish in from a long distance; rather it congregates them in a part of the lake more compactly than they would be otherwise.

**Logical locations** would be off points or bluffs, at the edges of creek or river channels, in the mouths of coves and near boat docks and fishing piers. In most cases they should be

in water of depth from three to 20 feet.

Clearly shelters are of prime importance, otherwise they would be of little value. This is one of the toughest problems the biologists faced in the project. Though a selection of buoys is wide, most biologists are leaning towards a shore making system—something like a steel post with an indicative sign located up the bank. Until more is known about such markers fishermen are likely to see anything from Clorox bottles and styrofoam floats to a red bandana around a tree trunk as markers.

**Maps are being prepared** for the above lakes and will be available to marinas and concessionaires to help fishermen find the general vicinity of the markers. It is hoped that newspapers will run maps of the lakes with shelters indicated so anglers can clip the map and keep it with them.

Fishing a Christmas tree fish shelter requires that you always fish straight down or anchor out from the structure and cast near the edges. Unless you have an unlimited lure or bait supply, don't cast into the structure. Minnows, light jigs and similar lures are good baits, or a weedless plastic worm

or eel cast close to the side may prompt a lunker bass out of hiding and into your creel.

**Sportsmen's groups** who would like to build some fish shelters as club projects should first get in touch with the fisheries supervisor in their region at the following offices: northeast, Manhattan, 913/539-6731; north-central, Concordia, 913/243-3857; southeast, Chanute, 316/431-0380; south-central and southwest, Newton, 316/283-2482. The northwest fisheries supervisor position is vacant, but Frank Schryer, Pratt office, 316/672-6473 can be of assistance.



# One Step Forward,

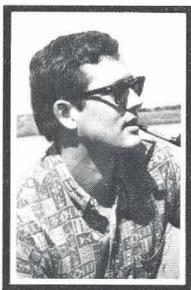
# One Step Back

## National Wildlife Week:

### "We Care About Endangered Wild Life"--

By Bill Scott, Staff Writer

**“W**HERE THE Kansas environment is concerned, for every one step forward we take one step back,” Game Biologist Bill Hlavachick said, his expression somber. The painting of that mixed picture is shared internationally by the vast majority of ecologists in 1974. They wish they had something more cheerful to say, but they don't. There are reasons for the naturalists' concern. “The energy



Scott

crisis has caused many people to take a second look at ecological principles as opposed to a cold house,” Hlavachick said. When people didn't have to wear sweaters in their homes to keep warm, regular gas sold for 30¢ a gallon and a man could fill his gas tank whenever and wherever he wanted and Sunday driving was still a national pastime, hordes of people

swarmed onto the ecology bandwagon. It was easy to do.

But ask that same fair-weather ecologist today, as he sits shivering in his home and winces every time he looks at the prices on the gas pump, if construction of the Alaskan pipeline should have been delayed further because of inevitable environmental destruction, and see what kind of answer you get. If the public wants something, it will be done, and the public has handed industry a free pass to do as it pleases and to blaze with the environment.

But of even more immediate danger to our wildlife are recent statements issued by Secretary of Agriculture Earl Butz, encouraging conversion of more and more acres to cropland for increased wheat production. Thousands of acres that provided food and cover for birds and animals have felt the cold steel blade of the plow because of this.

“We realize that habitats are being altered and destroyed at an accelerated rate, but we haven't resigned ourselves to the inevitability of that loss,” Hlavachick declared. “With the advent of our Wildlife Habitat Improvement Program (WHIP) as part of SASNAK, we hope to reverse this trend of habitat loss with a trend of

habitat gain. With WHIP, as with all Fish and Game Commission habitat restoration programs past and present, nongame as well as game species will benefit.”

March 17-23, 1974 is National Wildlife Week, set aside to call attention to wildlife's plight and urge an involved public. The theme chosen was “We Care About Endangered Wildlife,” a difficult thing when to do so endangers our lifestyle!

There is a difference between “rare” and “endangered.” The Conservation Committee of the Kansas Academy of Science and the Soil Conservation Service write, “a rare species is one that, although not threatened with extinction, is in such small numbers throughout its range that it may become endangered if its environment worsens.” An endangered species is one whose “—prospects for survival within its relict (remaining) range are in immediate jeopardy because its habitat is threatened with destruction—or because of over-exploitation, disease, predation or competition.”

But some of Kansas' wildlife is endangered, because of what you and I have done and not done. The black-footed ferret is one of these.

While there is some controversy among authorities as to whether this



Photo by F. Robert Henderson

The ferret's shy and elusive nature make it hard to determine whether or not the animal exists in Kansas.

species exists in Kansas, the last official sighting of a black-footed ferret was in 1957 near Studley. "Endangered" may be too optimistic to describe the ferret's status in Kansas. It is "probably extirpated" (extinct), writes E. Raymond Hall, zoology professor at Kansas University.

The ferret's former range was the grasslands of Texas, eastern Colorado, Oklahoma, western Kansas and other areas. Its diet is unusual: It feeds exclusively on prairie dogs.

The ferret's shy and elusive nature

—"it's nocturnal, kills underground, feeds underground and defecates underground, according to Hlavachick—makes it hard to pin down whether it does or does not exist in Kansas. Thus far, however, reported sightings of ferrets have not been documented. In southwest Kansas, sightings may be of the "masked" or "bridled" weasel. While it has the contrasting black and white "mask" on the face similar to the ferret's the masked weasel does not have black feet characteristic of the ferret.

A hopeful sign is the number of plugged prairie dog holes being found in western Kansas grasslands. When a prairie dog realizes a ferret is after him, he frantically begins to plug his hole. The ferret digs into the hole, backing out and taking the soil with him, forming a "trench" perhaps 10 to 12 feet long. These trenches have been found in western Kansas recently.

Since the ferret depends entirely on prairie dogs for its diet, it's obvious what is to be done to save the ferret;

for as the prairie dog goes, so goes the ferret. The prairie dog, through indiscriminate poisoning, has suffered a substantial decline in population the last 50 years. Although not now endangered, the prairie dog should be given special attention to prevent this from happening. But should the prairie dog be preserved, just for the sake of preserving the black-footed ferret? Look at it this way:

The ferret is nature's way of controlling the prairie dog from overpopulating any given area. When overpopulation occurs, it is almost invariably man's own fault because of overgrazing and poor range management. Man then reacts in a typical pattern: Having upset the balance of nature between the ferret and the prairie dog and being overrun with dogs, he seeks to correct the situation by further fouling this delicate balance and using poison.

The prairie dog, and the ferret, deserve a better fate. While it is true prairie dogs do consume grass crowns, a town more than offsets the damage it does by bringing up from the soil valuable nutrients in their digging before it moves elsewhere, and the land is left more fertile in their passing. It's as though the creatures of the land are trying to correct the sins of man.

The American peregrine falcon, commonly called "duck hawk" or "blue bullet hawk" is a second endangered species. As with all raptors, it is protected by Kansas law.

A winter Kansas resident, the peregrine is migratory through the state, and Hlavachick reports that sightings by qualified game biologists have been made in Pratt county near duck marshes, a favorite spot of the peregrine.

DDT and its metabolite, DDE, are basically responsible for the decline of the peregrine falcon. Through the pesticide's action in the tissues of a nesting female, her eggs are rendered thin-shelled and break before the young are ready to hatch. As a predator, the falcon is at the top of the "food chain," which means that while birds and small animals consumed by the peregrine may not suffer markedly from the DDT they eat, the effects are cumulative. As the peregrine consumes bird after bird tainted by DDT, it ultimately gets hit hard from the gradual buildup.

Cornell University is making a heart-warming, and highly successful, attempt at captive breeding (out of 35 peregrines hatched, 33 were raised). With these birds as "brood" stock, Cornell is hoping to bring the raptor back to pre-DDT levels in the

eastern United States where they are now virtually extinct. But whether these pen-raised birds, free from DDT, can stand up to the diehard DDT residues when released into the environment is the big question. While it appears residual levels are slowly receding, DDT's after-effects still present a serious threat to Cornell's re-population efforts.

This article has covered only two of the better known endangered species. However, the Soil Conservation Service and the Conservation Committee of the Kansas Academy of Science, chaired by Dwight Platt of Bethel College, North Newton, has compiled a comprehensive list to be published periodically this year in the Transactions of the Kansas Academy of Science. All rare, endangered and extirpated species of fishes, plants, reptiles, amphibians, birds and mammals in Kansas, along with recommendations for their preservation or reintroduction will be noted.

What can you do as a concerned citizen, sportsman or landowner? Here are several suggestions:

(1) Landowners, contact your regional Fish and Game Commission office for information on the Wildlife Habitat Improvement Program. (WHIP). Formulated by the Commission's game biologists, WHIP can mean an end to habitat loss and deterioration and a beginning of a new era of habitat management in Kansas.

(2) Also, landowners, contact your county agent about Acres for Wildlife. A sound program, Acres for Wildlife can show you how to farm in an economically profitable manner while leaving homes for wildlife.

(3) And all concerned citizens should buy at least a hunting and fishing license, whether they hunt and fish or not. The Fish and Game Commission, operating on valid principles of wildlife management, depends on hunting, fishing, boating and trapping license dollars and cannot continue its work without you.

The daring theme of National Wildlife Week challenges each of us to care, and put our money where our motives are.

The peregrine falcon is seen in Kansas only as a winter migrant.

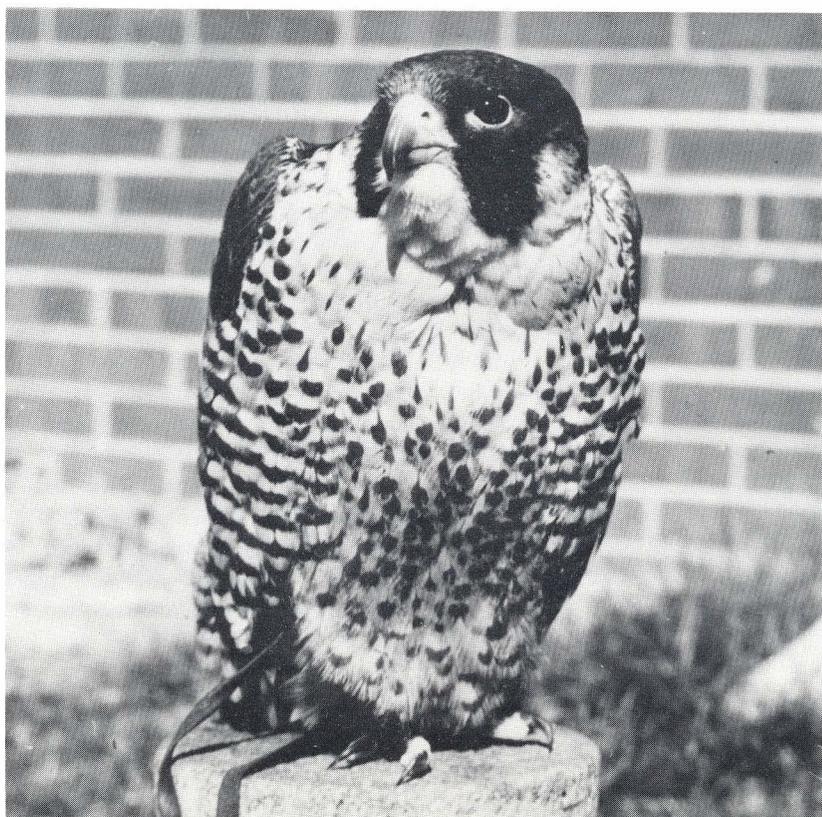


Photo by Dr. Carl Marti

**M**OST OF us know the buffalo only by the few that we may have seen in zoos or enclosures. But these are not buffalo—they are but in a sense cumbersome cattle that bear pitiful resemblance to a once magnificent beast. They hardly bring to mind the animal that at one time ruled a continent by sheer numbers.

Long before wagon ruts cut across trails carved by hooves, the North American bison (*Bison bison*) was the most abundant ruminant on earth. No one knows how many there actually were, but naturalists and historians have ventured guesses from 40 to over 100 million.

It staggers the imagination to envision the plains and prairies when teeming hordes of grazing bison spread to the horizon in every direction, covering several townships or even counties at one time. If it were only possible for us to travel back through the lost pages of time, what a marvelous spectacle we could witness. Perhaps . . . in the unlimited powers of the mind's eye . . . we could make such a trip.

Passing through the uncharted corridors of time and space, we come to a place that will one day be marked on maps as central Kansas. The time is 1540, May 12th, 4:15 a. m. At first we are confused because we cannot see anything, but as a thin, pale line of red begins to form on a treeless horizon, we realize it is just before daybreak.

In the predawn darkness a din of noise heralds the new day. This is green-up time on the midgrass prairie, a transitional zone between the tall grasses to the east and the shortgrass plains to the west. Everywhere feathered harbingers are giving their ringing melodies, shrill whistles and bubbling, throaty calls with a cacophony that pervades the darkness.

In the absence of elevated perches, horned and meadow larks sing on high, ceremonious flights. Every patch of tall, dead grass holds a male dickcissel or bobolink that proclaims it as a territory. We become aware of a low, throbbing sound around us, but we cannot pinpoint its source until we

# Trail of the Bison

By Larry Roop

*Reprinted from Wyoming Wildlife*

make out a group of prairie chickens strutting in the dim light, dancing to an age-old ritual. Hundreds of migrating plovers and curlews probe the soil with their long bills for grubs and worms.

Suddenly, as though a signal had been given, the singing stopped. For several minutes there is an ominous silence. Then, with calls of alarm, the birds take wing.

By this time we notice a solid black line growing along the southeastern skyline. Soon the ground begins to vibrate; we no longer wonder what frightened the birds.

We await the advance of the black mass. It is still too dark to make out details, but the approaching multitude looks like a huge blanket being pulled across the earth.

Then the first rays of sun strike the prairie, long shadows stretch like fingers behind each knoll. In every direction the prairie is an undulating carpet of humps and horns. Here and there a patch of green grass opens up, only to be swallowed in black again. As we look closer we can see that some of the animals have already begun to shed, and the bleached wool hangs like pieces of tattered rug across their backs. The dark brown fur on these beasts, growing like long wool on the massive head, forequarters and beard, makes it easy to see why white hunters of a later era will call them "shaggies."

It is impossible to try to count them—the whole earth seems to be a myriad of moving bodies. The ground

is still wet from spring rains, otherwise the pounding hooves would raise a mountainous cloud of dust. Grunting like hogs, the animals snatch mouthfuls of wheatgrass and move steadily, lazily on.

By midday the herd begins to mill about as the sun becomes fierce. There is no shade to escape the shafts of shimmering heat, and the bison's dark backs unmercifully soak up the sun's rays. Yielding to the heat, the animals rest. One after another they drop onto folded legs and begin chewing their cud.

They are spared the nuisance of swarms of gnats by a northwest breeze, while hundreds of brown cow birds pick at flies on and around the buffalo. These dull-colored members of the oriole family are constant companions of the bison, and help rid them of insect pests.

We notice that a portion of the herd has come upon a prairie dog town and they delight in the ready-made piles of dirt. Rolling on their backs and kicking a flurry of dust upward with their feet, the animals snort and wallow with relish until the mounds are leveled to powdery depressions. Dust is the ointment that soothes the itches and insect bites.

Now and again the prairie dogs spurt out of their holes to bark in disgust at their unwelcome guests. A few braver ones even run from hole-to-hole under the feet of the giants. A runty family of burrowing owls, awakened by all the commotion, have also come out to stare wide eyed at the melee.

At another site of activity we can see that some of the buffalo have found a small pothole. They take turns rolling and wallowing until their thick wool is completely caked with mud—the perfect protection from sun and flies. This continues until the pothole is completely dry.

There is a great deal of fighting among the animals near some eight-to ten-foot high piles of boulders. Amazingly the rocks are hide-polished and have two-foot-deep ruts around them. Untold generations of buffalo must have rubbed their shaggy humps

on these boulders. As evidenced by the large amount of hair in the vicinity, these animals use rubbing posts to help them shed their winter wool, along with imbedded three-awn and buffalo bur. No one animal spends any time at the rocks before being prodded by another awaiting its turn.

The urge to scratch is an insatiable one for the bison, and anything sticking up out of the prairie becomes a rubbing post. The few cottonwood trees along the watercourses are often barked and killed, and when the first telegraph lines are put across the plains, the poles will provide a virtual buffalo orgy before being pushed down.

Although the frontiersman will strangely call this animal the "buffalo," it is not at all related to the African or Asian buffalo. Such misnomers will be common among European descendants, however, since the pronghorn antelope is not an antelope, the mountain goat is not a goat, and the prairie dog is not a dog, to name only a few.

Numbers become meaningless in such vast proportions, but the size of this herd in its entirety could easily exceed 2,000,000 head. A rider on horseback, would take four days to cross through it; however, few men would be foolish enough to try. Though stupid and sluggish in appearance, bison are treacherous and unpredictable animals. Most are timid and fearful, but when least expected a bull might attack and gore a man or horse. In addition, buffalo will sometimes begin a panic-stricken stampede at the least disturbance. Nothing will send terror through the heart of a plainsman more than an earth-shaking wave of flesh and hooves bearing down on him. Where could one escape on the open plains?

Slowly, doggedly the herd passes by us. As the black mass is swallowed by the horizon, the ragged flank becomes scattered herds.

Close on the heels of the herds come some groups of nearly white specks in the distance. These we recognize as wolf packs—the opportunists that wait to pick off any buffalo

Photos by Ken Stebbins



At one time, millions of bison roamed the grassy Kansas prairies. Now, they are restricted to state parks and zoos.

stragglers that cannot keep up. Rarely will they challenge a healthy adult bison, but they groom the herds of the unthrifty and injured.

Something strange now appears to be happening among several of the small herds. The wolves show a great deal of interest and draw close, only to be met by a formidable wall of horns. It is calving time. As soon as a cow begins to give birth, other cows surround her to fend off the wolves. They keep this vigil for hours until the new reddish calf is dry and able to walk.

When the cows finally move on, they leave a large circle of worn sod. This circle of exposed soil will be temporarily invaded by forbs instead of grasses. With the mystique they usually place on what they cannot explain, the first settlers will be awed by these numerous circles on the prairie and call them "fairy rings."

This enormous herd is but one of several on the Western plains and prairie that spread from northern Texas to southern Alberta. Always on the move, these herds migrate north-

ward 200 to 400 miles in the spring and southward again in the fall. This is an unwitting way for these wild cattle to prevent overgrazing . . . there is always fresh grass ahead.

The herd marches across the land day after day, stopping to rest in the midday heat and at night. By keeping their faces into the prevailing winds, the lead cows take the herd to the northwest. Usually taking the line of least resistance, they string out in single file at times to pass through rugged terrain. The old trails ahead of them stand out in bright green from tons of natural fertilizer dropped by past generations. Near watercourses and steep embankments, the ancient routes of the heavy beasts are worn six to eight feet deep.

Eventually the animals disperse on the semi-arid high plains that will one day be within Wyoming—the short-grass country. Abundant here is the low-growing but highly nutritious blue grama and buffalograss, so highly favored by the buffalo. Here and there among the profuse but heavily grazed grasses are patches of yucca

with swordlike leaves and prickly pear cactus with waxy yellow flowers.

Still farther north, they begin to filter through a land of mesas, buttes, and scattered rocky hills with a sparse covering of pines. They begin to intermix with tremendous herds of pronghorn antelope, which browse among the bison without concern. Occasionally a group of these delicate, fleet-footed animals will join in a whimsical gallop, flowing like a long graceful snake across the terrain.

Now another black patch looms ahead on the plains, but this one doesn't seem to be moving. As we get closer we can see that it is a recent burn with a new crop of grass which is growing more profusely than in other areas. The charred sod soaks up more of the sun's heat and causes an early green-up. Already a part of the herd has found the succulent grass and begin feeding up onto the back side of a mesa. In their dull-witted brains is no inkling that they are being lured into the jaws of a trap.

The trap is not sprung until day-break the next day. Under cover of darkness all the able-bodied members of a Kiowa band, not more than 90 in all, have surrounded the portion of the herd on the mesa on three sides. A yearling cow farthest from the herd is the first to sense their presence. A brave clad in buffalo robe stands up so that the cow can see him for just a moment. The animal becomes nervous and raises her muzzle to sample the wind. There is no breeze to carry the man scent. Once again the brave stands up, this time startling the cow and the animals nearest her.

Like the waves set in motion by a stone cast in water, the frightened animals spur the whole herd into movement. At first the buffalo are moving at a fast walk, but suddenly they break out into a full stampede. As they gather momentum, the rumble of hooves grows to a thunder.

They start to turn back down the slope, but several hidden Kiowa stand up in front of them, shouting and waving their robes in the air. The lead animals wheel to the side again and the rest follow blindly. With massive heads down and tufted tails

erect, the alarmed mass rolls like a freight train between two converging rows of stone piles. As the animals pass, Indians begin jumping from behind the stone piles to fan the flames of an all-out stampede.

**Then it came.** The front animals, with eyes bulging and black tongues hanging out, see the dropoff. Desperately they try to avoid the precipice, but with others pushing from behind they cannot lurch to the side.

Suddenly the ground is gone from beneath them. Giant hulks paw and bellow in mid air . . . death comes in rapid succession with sickening thuds on jagged rocks. Finally, after more than 200 have perished, the woolly beasts manage to turn and they rumble off across the plains.

**An enormous pile** of ruptured and bleeding bodies lies at the bottom of the cliff. The jubilant natives gather to finish off the stunned or crippled, and begin the long, hard task of processing the kill. Camp is moved to the buffalo jump for the butchering. The many days of skinning and dressing hides and drying meat begins.

**Plains Indians used the entire carcass of the bison; its hide, horns, meat, hooves and marrow.**



These are truly a buffalo people for they are almost totally dependent on the great herds. The Indian leaves little of the buffalo unused: Its rich meat fills his belly, hides become tepees or clothing, bones are broken for the marrow or made into tools and toys, and horn and hair headdresses are used in ceremonies. Even the buffalo chips provide him fire and warmth. It is not surprising that 330 years from this time white military strategists will conclude that killing off the buffalo will defeat the Plains Indian.

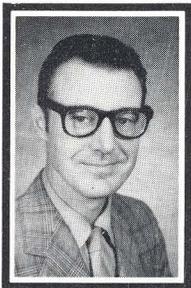
**The loss to the great herd** was infinitesimal, and the rest of the animals move ever northward into their summering grounds. Small bunches scatter from the Black Hills to the Big Horn Basin during the breeding or "running" season. Before late summer, when they will begin the journey back to the wintering area, they melt into a sea of aromatic gray-green sagebrush. They melt, like a mirage dancing on heat waves, into an age when bison roamed freely across the land.

# The Opossum

## Glimpses of Kansas Wildlife

By Paul Bocquin, Staff Writer

**H**IGH FUR prices this winter have brought out a rash of Kansas hunters and trappers seeking raccoon, beaver, muskrat, coyote, you name it. Even the "lowly" opossum has become a coveted prize with his hide going for \$1.50 when in top shape, compared to when it was about 55 cents two years ago.



Bocquin

But, it's probably a mistake to refer to the possum as lowly. If the truth be known, the possum probably is one of the best adapted creatures on this continent. He's the only marsupial, like his Australian cousins, the kangaroo and wombat, in this country, and he has made a good place to live all the way from the Caribbean up into Canada. Though winter might freeze off his rat-like tail and make his ears look like he is a professional prize fighter, the possum hangs on in areas where most other mammals just can't adapt.

In Kansas, possums are more common in the eastern part of the state, according to the *Handbook of Mammals of Kansas* by E. Raymond Hall, Kansas University. Hall documents the powers of adaptation of this pointed- and pink-nosed furbearer, stating that he can hole up in burrows dug by other animals, in rock walls, hollow trees or fallen logs, in tangles of dense vegetation, or under the porch of your house.

Opossums have benefited by us humans. Some zoologists contend there

were no possums in western Kansas until settlers brought in more trees and shrubs for his favored habitat. Their numbers have spread and their body condition has prospered by making use of our trash cans around rural and suburban areas and occasional use of a chicken or pig feeder. They flourish on livestock carrion rarely being bold enough to take a live chicken as some would have you believe.

One reason possums seldom take poultry and such is they just aren't equipped for it. They have a mouth full of sharp teeth, but they are slow on their feet and rather dim witted of mind. Actually, the possum has been on this continent longer than most other mammals and he has changed little over the years. Like most scavengers, he's an opportunist and would rather not put up with a fight, but takes life easy and his meals as he finds them.

A study in Douglas County, says Hall's book, showed 60 possum bellies contained 42 percent insects, 41 percent mammals, 3 percent birds and 9 percent fruit. The remaining five percent was made up of lizards, a snake, a frog, crayfish, snails and seeds. Most of the mammal and bird items probably were carrion.

The adage that the fattest possums can be found around rural or suburban homes, and the garbage associated with them, is indeed true.

Playing possum or faking death may be resorted to if the creature is attacked or roughly handled when captured. But anyone who has caught a mature male by the tail and had him

latch on to a finger knows the possum is always the best actor.

Opossums are prolific, with some mothers having litters of 20 or more, too many to successfully raise. They breed almost year around in Kansas except for a few months in winter. Like his Aussie cousins, the pouched mammals, young possums are exceptionally immature at birth, born only days after conception.

At birth a young opossum weighs about 1/10,000 as much as the mother instead of the 1/18 as in some higher mammals. Immediately after birth, the tiny youngster attaches itself to a teat for 70 days until he begins to look like a real possum.

Adult opossums usually are gray, but some are nearly black due to the dark guard hairs that keep them warm in winter. Sometimes, cinnamon-colored coats are seen and rarely a white albino possum has surprised a trapper.

Possums have 18 incisors, or front teeth, which is more than any other mammal in Kansas. Their tail is termed "prehensile" being strong enough to support them hanging from a branch. The very adept climbers have grasping paws with first toe of the back feet separated for a strong gripping.

Those who know a lot about the ways of nature and wildlife include the opossum with three other animals in saying with some degree of assuredness—"If habitat conditions ever get so bad that wildlife borders on extinction, we'll still see plenty of crows, rats, coyotes and possums."



Opossum by Leonard Lee Rue



Albert Earl Gilbert  
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