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water wolf

By Vic McLeran, Editor

NE BRIEF glance is all it takes—just one look and you know this is a killer; a predator that is rarely preyed upon. It's the northern pike, a torpedolike warrior from the cold north-

ern lakes of Minnesota and Wisconsin.

Lean and hungry in appearance, these freshwater "wolves" have long slender bodies and broad tail fins. The pike's ground color is a dark grayishgreen, splotched



McLeran

with a series of bean-shaped lighter markings.

But it's the pike's head and eyes that really catch your attention. The head and snout are broad: the latter is shaped somewhat like a duck's bill. Inside the pike's mouth, you'll find a number of needle sharp teeth slanting toward the rear. Once a prey species like bluegill or shad is impaled, there is no escape from these daggerlike teeth. And the eyes of the pike have a permanently angry look, as if they're mad at the world.

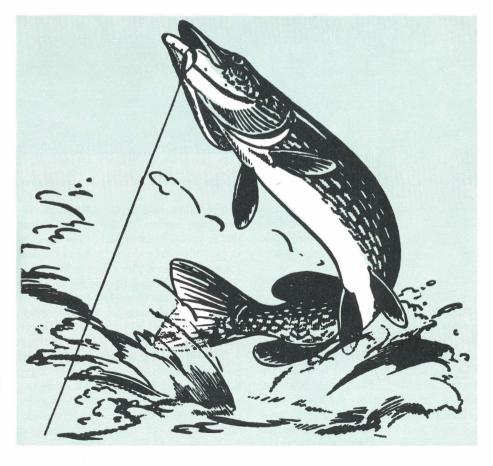
Armed as he is, the northern pike feeds on just about anything that swims in its watery world. As a fingerling, he starts out on zooplankton, insects, worms, and small crustacea. As he grows, the hungry young northern goes on to bluegill, frogs, mice, snakes, ducklings and even mammals as large as young muskrats or beaver kits. Reaching the 20-pound class, a big pike can easily take waterfowl or muskrats. Along the way, he's not adverse to swallowing a brother or sister since cannibalism is common with predatory fish like the northern pike. As many as seven small northerns have been observed attached to each other in a chain, each trying to eat the one in front of it.

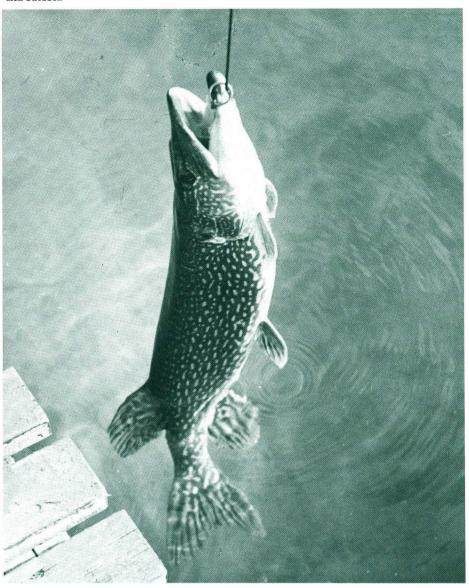
If it moves and the pike happens to be hungry, he'll grab it. In Minnesota, a duck hunter had one of his decoys knocked 10 feet in the air by the smashing strike of a hungry northern. While swimming peacefully, a Wisconsin beaver was knocked silly by a large northern pike. There are reports from northern states of anglers who were working on their outboards and dropped a pair of pliers or a screwdriver, only to have it grabbed by an eager pike.

The northern pike's voracity is fantastic. In Missouri, a northern was caught with 35 small bluegill in its stomach and Iowa's West Okoboji Lake produced a pike which contained 27 young yellow perch.

The following unusual items have been removed from the stomachs of various northern pike: old fishing plugs, shotgun shells, beer cans, a kitchen spoon, pop bottle lids, a cigar stub and even an old Fuller brush.

Like many predators, the northern pike is a sprinter-not a miler. He takes his prey with quick short dashes, counting on the element of surprise to give him an advantage. Like the short dash of a bobcat after a cottontail, the pike knifes out from beneath a submerged log to impale a hapless bluegill or perch. Feeding as they do, on just about anything they can catch, some northern pike eventually reach enormous sizes. Research into the pike's history show several old records that mention European pike weighing more than 100 pounds. One report from Germany mentions a northern pike which was caught in 1475 with a ring attached bearing the date 1230. This would have made the fish 249 years old with an estimated weight of 350 pounds! Old records like that are highly questionable though. The North American record for northern pike is a 46pound 2-ounce lunker taken from New York's Scandaga Reservoir by Peter Dubuc. He took the record pike September 15, 1940, on a "Flaptail" plug—a surface lure.





The transplanted northern pike is rapidly becoming a favorite with many Kansas anglers.

The northern pike goes by a number of aliases in other areas: grass pike, golden muskie, jack pike, pickerel, snake, jackfish, lake pickerel and northerner are just a few. The northern belongs to a family that includes the pickerels and the muskellunge or "muskie." All three species are similar in appearance and fisheries biologists have found that interbreeding and hybridization occurs between northern pike and these other two species. Up North, a new "blue" pike was reported—a light silvery blue fish with a dark blue back. These fish are now believed to be a cross between the northern pike and the muskellunge. The spawning process for a northern pike begins in the spring when water temperatures reach the mid to upper 40s. Pike don't build nests and spawning takes place in shallow water. The male and female swim along side by side, scattering eggs and milt at random. There is often a great deal of splashing as they move through the shallows.

The female has a high reproductive potential, with the number of eggs depending on her size. Biologists say a 25-28 inch female northern can deposit 63,000 eggs. The eggs are sticky and adhere to aquatic vegetation where they hatch about two weeks

later. This submerged vegetation is essential for a successful spawn, since without it, the eggs would drop to the bottom where silt would cover them. The young pike's first meals consist of microcrustacea and zooplankton but they soon move on to aquatic insects and small minnows.

The northern pike program got its start in Kansas back in 1961 with an initial stocking of fry in Tuttle Creek. Although this stocking yielded no fantastic returns, it did account for some of the first state records on the species. Later as reservoirs like Council Grove and Norton were stocked and opened to fishing, angling for northern pike really began to catch on.

Anglers who fish specifically for northerns usually look for them in the shallows over weed beds, around sandbars that drop off into channels, in bays, coves and wherever underwater structures afford cover.

In his Sportsman's Guide to Game Fish, Byron Dalrymple offers these suggestions for pike fishing. "Spring and late fall are the best time for pike fishing and they're one of the most gullible species as far as artificial lures are concerned. Metal spoons of all kinds, sizes and shapes are the standard pike lures. Plugs also work well. On spinning tackle the metal flasher lures are excellent. The plug rod however, has long been the old standby of the pike addict and it is hard to beat. Short metal leaders should be used or else a length of monofil of substantial poundage test for a pike's teeth can cut braided line as neatly as shears.

"There is nothing especially tricky about catching pike on artificials. Many of the fish will lie right in the weed beds whose tops show above the water. But such places are difficult to fish and sunken weed beds often hold the largest fish. A lure that runs well down along the dropoff edge, or among the submerged tops of weeds that rise from beds ten to fifteen feet down, will intrigue many a big fellow.

"Sinking lures such as the metal flashers and wobblers are especially good for pike fishing because they are easy to fish at varying depths, depending on how the angler handles his rod, and the speed of retrieve. It is necessary of course to discover the depth at which the fish are lying.

For bait fishermen, Dalrymple offers this advice: "Bait fishing is also a tried and true method. In fact, it sometimes works when pike cannot be induced to strike artificials. Although various baits such as frogs are used, the standard pike bait is a good-sized minnow. It can be anywhere from three to ten inches long. An average of four or five is generally considered best. Suckers, shiners and chubs are all considered good. They seldom get results if dead or inactive. Most bait fishermen use a float. They learn to give the pike plenty of time after it seizes the minnow, before the strike is made. Pike seize their prey crosswise and are inclined often to fiddle with it a long time. They seldom make long carrying runs with it as does a bass, but rather take the float more or less straight down as they sink lower in the water preparing to turn the prev and swallow it. All too often the inexperienced bait fisherman after pike gets excited and tries to set the hook too quickly."

In Kansas, three of the last four state record northern pike came from Council Grove Reservoir, one of the best pike-producing lakes in the state. The current record, a 24-pound, 12ounce pike, was taken from Council Grove August 28, 1971, by Mr. and Mrs. H. A. Bowman of Manhattan. They caught the fish on a silver spoon with a skirt. Prior to that catch, Vincent Miller held the record briefly with a 19-pound, 11-ounce specimen he caught on a crawfish at Norton Reservoir. Going back to Council Grove, Tobie Davison of Kearney, Mo., took an 18-pound, 5-ounce northern on a hellbender August 20, 1969. Earlier that year, in March, Clarence Nelson of Wilson, hauled a 17-pound, 15-ounce pike from Council Grove on a minnow. It's interesting to note that three of these state record catches were made in August—a month when fishing for many other species is slow.

Verl Stevens, the Commission's hatchery superintendent, has been involved with the northern pike program for several years and is probably

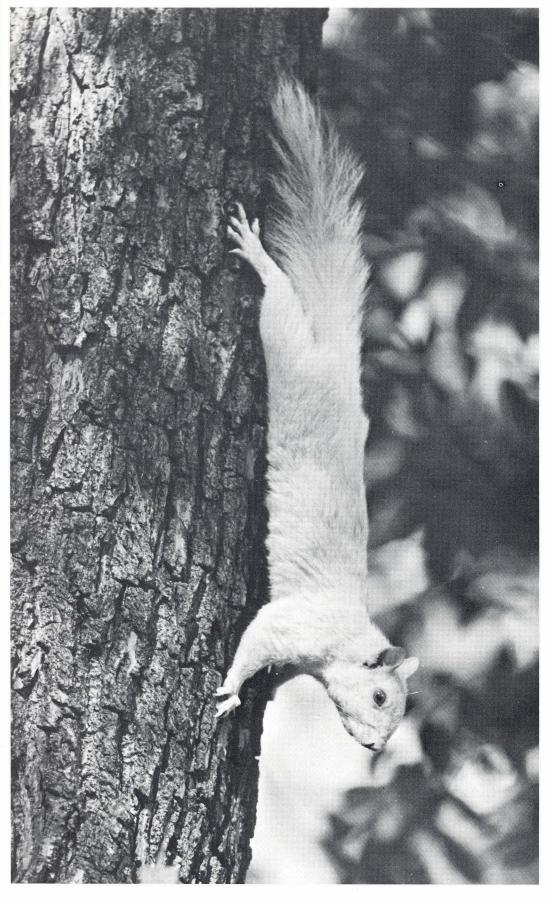
more familiar with the species than anyone in the state. We asked him about some of the better pike fishing lakes in Kansas. "In the western part of the state, I'd fish Meade or Clark State Fishing Lakes," he replied. "The pike resource at Norton isn't as good as it used to be, but we stocked a number of 'shorts' at Webster last year so that lake should be coming along nicely in the future. And of course, anglers in the eastern part of the state have been doing well at Council Grove," he added. Lakes which offer good northern pike fishing are usually impoundments in which the initial stockings had a good survival rate, Stevens said.

The future of the northern pike in Kansas is questionable. "The reproduction success of northerns has been marginal," the hatchery superintendent admitted. "They need rising water and inundated vegetation for successful spawning and there aren't too many lakes in the state which provide these conditions at the proper time. But if we can build up our brood stock to sufficient numbers in some of our lakes, there's a possibility we'll eventually get some successful spawning."

A lot of anglers hope so. Because more and more, they're finding the "water wolf" an exciting addition to their fishing trips.

Each spring fisheries biologists like Jim Beam and Mike Theurer, pictured here, net northern pike as part of the species' propagation program.





Salt and Pepper Wildlife

By George Anderson, Staff Writer

THE OCTOBER sun in northwest Kansas was dropping below the rolling hills of the prairie, about to call it quits for another day. Like the sun, the two camouflaged archers



Anderson

emerging from the tree-lined river bottom, were about to do the same.

Both men had been quietly moving through the sparse timber for past several hours hopeful of locating their quarry—a deer bedded in one

of the many grassy cuts that joined the river. The Kansas archery season had opened several weeks earlier and both men were taking advantage of the mild fall weather, checking the area for deer they knew were there. But at least for the time, the animals were content to stay hidden.

Arriving back at the pickup concealed in a brushy farm lane, they talked of the lack of deer sign in the area and agreed that the weather had been too nice for the deer to have bunched. "They're probably scattered throughout the hills and pastures down around the river bottom," said one of the men. Starting the truck, they began slowly driving down the road when they noticed a light-colored form walk from a stand of trees onto a meadow bordering the river. The ghostly form was joined shortly by several other shapes, darker in color and apparently deer.

Bringing the truck to a halt, one of the men grabbed a set of binoculars. In the fading light, at a distance of about three hundred yards, he saw for the first time one of nature's rarities. It was an albino deer or at least what appeared to be an albino. The deer was with four normal colored deer, who did not seem to mind that one of their members stood out like a lighthouse in the fog! The men, both very excited, watched the deer browse until darkness overtook the valley and the animals were no longer visible.

The sighting of the white deer was reported to this writer, who was then a district game protector for the fish and game department. The area where the white deer was observed was in my district so I made a mental note to check the area from time to time and attempt to see for myself, this unusual animal. For the next several weeks it seemed like everyone in the area had heard of the white deer and several other calls came in reporting the animal.

I talked with several farmers in the area who had seen the deer but it was a month later before I briefly glimpsed the ghost-like animal. My sighting of the white deer came one evening shortly before sunset and was in the

This melanistic woodchuck and the albino gray squirrel on the preceding page, represent color variations which occur among many wildlife species including deer, raccoons, hawks and even snakes.



Fish and Game

same general area where the archers had first seen the animal. Through binoculars the deer appeared to be a pale cream color, a doe and probably last year's fawn judging from her size. She was a striking sight beside the normal winter gray of the five mule deer that shared the hillside where she was standing.

This white deer was a topic of much conversation in the next month. School bus drivers traveling the area reported seeing her and several reports from some of the hunters using the area came in. But to my knowledge, she was never taken by any of the deer hunters who had permits to hunt the area during that winter. I would not be surprised if she is still back in the hills. I hope so.

The case of an albino sighting may cause some to ask the expected question. What is an albino? Albino is defined as an animal or plant that is unable to produce pigment-coloring substance in some or all of its organs. It's caused by a change in genes (units of heredity) and can be inherited. A person who is a true or complete albino has milky-white skin, white hair and pink eyes. The eyes are pink because the blood in the tiny vessels of the iris, colored part of the eye, shows through the transparent parts. In normal eyes, the iris hides the pinkness. Albinism may vary from complete absence of color to the presence of nearly normal amounts of pigment in some organs.

The albino has captured the imagination of man for centuries. One of the most famous examples would have to be the fact and fantasies surrounding the legendary white buffalo. Indians are said to have believed it had great power, a sacred animal and a gift of the sun god. Buffalo hunters cared only for the money that the white hide would bring them. Whatever the reasons, the albino or white creature has always been a mystery to mankind.

Let's concern ourselves with albinism in wildlife and why it is as rare as it appears to be. The data relating to how often an albino occurs is broad. Some say one in one hundred thousand and in some writings, one in a million or somewhere between the two. So at best, the albino that occurs in the wild and attains a growth that makes it noticeable to others, is indeed phenomenal.

Most wildlife depends greatly on the natural camouflage that mother nature has provided so it blends into the environment that it normally inhabits. Even with the normal coloration, wildlife faces a rough life if it is to survive for any length of time. Take for instance the case of a covey of bobwhite quail. In brush or grass, their natural brown mottled feathers provide them with good disguise from the searching eyes of predators. You can see how an albino quail, while even in its regular habitat would make an easy target for the various predatory species.

True albinos have weak eyesight from birth and are often blind. If they do manage to survive the many pitfalls before them, the sun also becomes a problem in their everyday life activities.

The albino predator's problems and hardships are varied and difficult to overcome. The ground predator would have a tough time concealing itself while hunting, and albino birds of prey, depending on their keen eyesight for a living, would find life most difficult.

Confirmed cases of albinism among our sunflower wildlife has involved such species as deer, coyotes, oposum, snakes, pheasants, crows, hawks and numerous species of waterfowl. Marvin Schwilling, waterfowl project leader for the state, says "I have seen albinos of several of the duck species brought into the check station at Cheyenne Bottoms and have observed several albino wild geese with the wild flocks."

Perhaps one of the better places to observe albinism would be at a fish hatchery where millions of tiny fish fry can be viewed at one time. The National Fish Hatchery at Cedar Bluff reservoir in western Kansas would be a good place to check in June when vast numbers of the small channel cats are in the holding tanks. If you look close you might see a fleck of white among the normal-colored fish. According to Jim Hudson, hatchery manager, "Albinos occur each year

during the catfish spawn, maybe twelve to fifteen albinos per one million fry hatched. We put them in the rearing ponds with the other fish and never see them again." This shows how fast the tiny snow-colored fish are located by other fish and eaten.

True albinism is rare, but there is another unusual color pattern called color phase or in some cases referred to as partial albino. The so-called partial albino could range from total white in color to only parts of the body being white. This is more common than albinism and can be identified by the normal pigment in the eye. In other words a bird or mammal in color phase would lack the pink eye of the true albino.

In Kansas each year part albino specimens are taken by hunters during the pheasant season. Ringneck specimens in this phase show white feathers mixed in the normal plumage. This intermingling of white with the normal gaudy colors of the rooster makes for a striking bird.

Occasional opossums, as white as the new driven snow but lacking the pink eye of the albino, are taken each year. Color phase in the racoon seems to appear more often as a cinnamon or pale reddish color. Raccoons in the reddish phase are frequently referred to as "blond" coons. This came color phase has been seen in skunks and several of our bird species.

While we have the unusual occurrence of albinism and color phase, let's not forget that many wild creatures are normally white and depend on this color as part of their survival.

Such species as ptarmigan, snowshoe hare, arctic fox and ermine have the unique ability to change colors with the seasons. This color change is generally from the summer browns to white in winter and is not a form of albinism. Examples of this type of color change have been recorded in specimens of the least weasel in northern Kansas.

Misidentification of an albino or light color phase of wildlife that makes Kansas its home, is uncommon. Even the casual observer knows what color most wildlife should be. So when the unexpected white one ap-



Leonard Lee Rue

pears they are quick to notice the difference.

Everything being equal, this is the way it should work in wildlife observation. But wildlife does not always cooperate and another oddity makes an appearance on the Kansas scene. That would be the sighting of a bird or animal in Kansas that really does not belong here.

A good case in point occurred in Kansas this past winter involving a bird that caused some Kansans to think they had seen an albino. Some were sure of it. The bird involved was the snowy owl, a beautiful, medium sized owl of the far north, stark white in color. In the past, this owl has been observed in the Sunflower

State but not in the numbers that were reported and confirmed in 1974. Twenty of these alabaster-colored owls were known to be here at one time. The snowy owls' exodus to the plains was probably triggered by a larger than normal hatch and a food shortage in the arctic.

To mistake this owl for an albino would have been a common error. However, if the observer had been close enough to the white owl he would have seen the large orange eyes set in the powder white head. While not an albino, the snowy was just as rare to Kansans who saw them.

In addition to albinism and the light color phase in wildlife, there is

also a condition known as melanism—the dark phase.

The color of hair comes from melanin which is a dark pigment deposited in the hair cells as they form in the root. Melanism, or dark phase, is the complete opposite of albinism and is caused by the overproduction of pigment. Most often referred to in wildlife as a melanistic phase, it simply means the animal is a much darker color than it would normally appear.

Man does not seem to be near as captivated by the dark phase of animals as he is with the light phase or albino. This might be explained because animals affected with melanism may not appear out of the ordinary

to the average person. The melanistic phase commands the greatest attention when it is in the extreme or almost totally black condition.

As an example, a raccoon in dark phase would probably not be noticed as being much different than a normal colored raccoon. A coyote on the other hand when in a melanistic phase draws the attention of many. Of course coyotes are more likely to be seen than raccoons during daylight hours which may account for this.

Black coyotes in Kansas are reported each year, usually during the winter months when hunting is at its peak. Many times, the black coyote turns out to be a dog-coyote cross and not a true melanistic phase coyote. A black specimen will however turn up from time to time at one of the various fur dealers in Kansas, and is treated as just another coyote.

Our old friend the opossum that

has already been mentioned as a candidate for the white phase also is fairly common in the black phase.

The tree dwelling fox squirrel will take on the midnight look which is another form of melanism, often called the black phase of the red squirrel. There are several areas in Kansas where good populations of squirrels in this black color phase can be found.

John Madson, in his publication, *Gray and Fox Squirrels*, says that in either species there are dramatic departures from the typical color patterns. Tree squirrels are genetically unstable and appear in a spectrum of colors and patterns.

Another unique color phase involves the red fox. Normally reddish in color, the red fox can appear in three other color forms, sometimes in the same litter. They are: a semimelanistic form known as the silver

fox; the pure black form and the "cross" form which is reddish with a black band along the back, crossed by another band over the shoulders from foreleg to foreleg.

In bringing to a close this topic of albinism and melanism you might have a better understanding of some of the whys involving the "salt and pepper" affliction in our wildlife. Variations in the appearance of our wild friends have been noted for centuries and will continue to be noted in the years to come. Perhaps even more so with the new awareness in our environment. Someday you may even look up and see a product of one of Mother Nature's mistakes. If that mistake turns out to be an albino or any of the various color phases mentioned consider yourself a member of a very select minority who have witnessed one of nature's more spectacular natural phenomena.



Ken Stiebben

Dr. E. Raymond Hall

By Bill Scott, Staff Writer

(Author's Note: Talking with Dr. E. Raymond Hall was pleasant and provocative—like eating candied red hots. In this article, he will say a few things that will cause some wildlife professionals to form steam on their glasses and tiny curls of smoke to issue from their nostrils.

Part of the journalist's code is to quote what the man says, whether or not you happen to agree with what he says. I have no desire to be turned on a spit in a 360 degree oven 'til well done. Therefore, remember that what Dr. Hall says here does not necessarily reflect the views of the Kansas Fish and Game Commission or the author.

Dr. Hall was interviewed because he unquestionably made a huge contribution to Kansas mammalogy while most of us were still contemplating the difference between a cottontail and a lop-eared jackrabbit.

He richly deserves the title that some have given him—"The Grand Old Man of Kansas Conservation.")

was born in Imes, Kansas," the strong-faced gent before me was saying. His eyes got soft and voice low and loving as he said it.

The Velvet smoking tobacco



The pipe sprang to gusty life.

breathed its last

and he stopped to

stroke a kitchen

match on the heel

of his black zip-

pered boot.

What a task it had been to tie down this energetic man long

enough to reminisce about the past. Like tying a square knot around that smoke now puffing from his revived pipe. Seventy-three-year-old Dr. E. Raymond Hall is bound up in the

Now, going at a breathless pace before the inevitable future catches up with him.

"And next you're going to ask me 'Where is Imes, Kansas?'"

Yep. I was.

"Imes was in Franklin County on the Marais des Cygnes River, near Ottawa. Grew up trapping there as a boy."

So that's how this author of 334 articles and five books got his start.

"It was a joint venture with Harley Williams. One day I was setting my traps and stuck my hand under a stump. Something bit it. I knew it was a copperhead and rushed home. By the time I got there I had developed all the symptoms and died a thousand deaths.

"I ran in the house and gasped, 'I've been bitten by a copperhead!'

My father assured me copperheads weren't active then. (It was fall, of course.) He went with me to the stump and knocked it over with a rock—only to have a possum come out. That impressed me—watching my dad knock over that stump—and after he killed the possum he showed me how to skin it. Now that really impressed me, my dad doing that."

Even an author of 334 articles and five books had to start somewhere.

Raymond's misadventures with Harley on the trapline continued. After setting their traps, a striped skunk decided to come calling on the neighborhood one night. When the boys found that streamlined kitty with its fluid drive in the trap, Harley was sensible. "Raymond, don't go too close."

But Raymond did.

"I was excited—and I was in awful shape at school. The teacher took care of me—so I learned that you don't go to school after getting too close to a skunk.

"I felt bad about that episode in several ways, too. When we came back, somebody had taken the skunk!"

The next year, Raymond Hall was 10 years old and on his own. Harley Williams apparently wanted nothing more to do with a skunk lover.

The boy received a single shot Stevens .22 rifle from his father for his tenth birthday. "To say I was delighted is putting it mildly. I'd shot my dad's double-barrel shotgun, which was pretty rough for a kid. My dad and I saw eight or ten mallards land on a pond a few days after that and tried to sneak 'em. But they were in the open, spotted us and flew. Dad didn't even shoot—it was 70-80 yards out. I came up with my gun and shot a mallard through the left humerus, breaking the wing. I believed that rifle would kill anything, anywhere." In those days, it was legal to take a waterfowl with a .22.

At 14, the boy was almost full grown and making 75¢ a day shocking wheat. "Any boy that size would be sure to do his part with the men, you understand. Har-rumph!"

Major Hoople would have been proud of that har-rumph.

But good old days have a way of ending, and they ended temporarily for the boy when he left Imes to attend high school in Ottawa. For Raymond, it was a traumatic period. Unhappy and miserable at being away from home and the outdoors he loved, he was a good candidate for the flu bug of 1918. He came down with it in early fall and didn't go back to school until Christmas.

His father, looking for a better life, took Raymond and the family and moved to Yakima, Washington. Because of rampaging inflation, he returned to Kansas and settled in Lawrence.

E. Raymond went to KU only because his father's wishes prevailed. "I wanted to go to the north woods and be a trapper."

"Well, son, why don't you try it for one year and see how it goes?"

"O. K.—but I know I don't want to be a medical doctor. I'd a lot rather go to law school."

But he went to K. U.

At KU, he fell under the influence of Jean Linsdale, "who had been out looking at birds and told me names of birds that I didn't know." Linsdale, a fellow student, had got a job working with birds at the KU Museum and told Hall there might be a chance for somebody to work with mammals. Charles Bunker, assistant to Prof. L. L. Dyche who was soon to become Director of the thenfledgling Kansas Forestry, Fish and Game Commission at Pratt, told Hall he couldn't hire him but Hall "could go to work and in about two months he would pay me something."

This gratis work gave priceless exposure, though. He was in more or less constant contact with Alexander Whitmore, later of The Smithsonian Institute and Remington Kellogg, des-

tined to become Director of the United States National Museum in Washington.

Bunker, a formally untrained man, was nonetheless gifted and knew how to handle people. "Anything we brought in was 'good' to him. And, we'd go out to his cabin seven miles southwest of Lawrence on weekends. I'd cut wood and trap—so the die was cast. I lost interest in going to the north woods because I could do it here!"

Handel Martin and Samuel Williston, similarly untrained, both shaped the young Hall. Martin and Williston, today recognized giants of vertebrate paleontology, took a personal interest in the budding biologist. Martin took the young man with him on an unpaid vacation to western Kansas in the summer of 1922. It was on that trip that Hall and Martin observed the white-tailed jackrabbit in the Oberlin area shortly before it vanished from that area.

Between his junior and senior years,

Dr. E. Raymond Hall, native Kansan, has made enormous contributions in the field of mammalogy and conservation.



KANSAS FISH & GAME



NEWS

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PRATT, KANSAS 67124

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CORRECTION

While quail stocking is an expensive practice, two errors were inadvertently made in the "Fish and Game Forum" in the March-April 1975 issue of KANSAS FISH & GAME magazine (page 20)

First, the statement, "It takes more than the price of a hunting license to produce one pen-raised bird," is not entirely correct. A study to determine survival and harvest of pen-raised bobwhite quail was conducted by the Commission from 1962 through 1969 when a resident hunting license cost \$3.00 per year. The average cost per quail released during the eight-year period was \$2.52 based on game farm records.

The final sentence of the article state, "If these birds were stocked in the fall on a public hunting area, the cost for each bird bagged would be approximately \$20." Actually, the cost per fall released bird bagged on state management areas during the study was \$11.19 based on production and costs during the period of study.

DISPERSAL OF GEESE VOTED BY COMMISSION

(released May 1, 1975)

HAYS--The Kansas Forestry, Fish and Game Commission at an April 30 meeting in Hays voted to make a maximum effort to discourage snow geese from using Brown State Fishing Lake near Hiawatha, according to Art Hanson, first district commissioner.

During the winter of 1974-75, between 200,000 and 300,000 snow geese used the 62-acre state fishing lake as a water sanctuary. The duration of stay and size of the flock was the greatest since geese started using the lake in 1967. This high population density of waterfowl poses an extreme risk of disease.

In 1973, a duck viral enteritus (DVE) outbreak in South Dakota claimed 40,000 mallards. This past month an outbreak of fowl cholera in southcentral Nebraska resulted in the death of 15,000 ducks and geese. An outbreak of diseases of this type in a concentration like occurred at Brown State Fishing Lake would be disastrous to the midcontinent snow goose population.

Continual harassment of the geese following their first arrival in mid-October will be the principal effort. Geese have a strong instinct to return to previous wintering areas. Opening the entire area to hunting probably would result in an unnecessarily large kill of these geese. The refuge area imposed last year will be revised and reduced in the 1975 season.

The Fish and Game Commission recognized that this decision will not be popular with waterfowl hunters. However, the long-term welfare of the mid-continent flock of snow geese dictates this difficult decision.

Behavior of geese in response to such harassment is totally unpredictable. It is hoped the geese will disburse to other state game management areas in Kansas such as those located at Perry, Melvern, John Redmond and Elk City reservoirs, and the Marais des Cygnes and Neosho Waterfowl Management Area. The geese may move outside of Knasas. One thing is certain, the geese cannot be permitted to stay at Brown State Fishing Lake.

Public meetings will be held in Hiawatha in Brown County later this year to permit opportunity for public discussion of the problem.

-GA-

FURBEARER AND HOUND REGULATIONS ADOPTED

(released April 22, 1975)

PRATT--The Kansas Forestry, Fish and Game Commission has announced that new regulations on furbearers and on the running of hounds are now effective.

Adopted on an emergency regulation basis, these regulations will be reviewed for a second time by the agency in public hearings this summer and permanent regulations adopted on the basis of these hearings.

One regulation change requires any person or organization conducting any sanctioned field trial must secure a permit. This permit will cost \$10 and will expire on December 31 in the year issued.

Another regulation change will allow a commercial trainer or breeder of hounds to obtain a permit for the running (no taking) of hounds in pursuit of raccoon, opossum, red fox and gray fox during closed season. This permit will also cost \$10 and will expire on Dec. 31 in the year issued. Information on further restriction in the regulations can be obtained by writing the Kansas Fish & Game Commission, Box 1028, Pratt, Kansas 67124.

OPENING DATE FOR 1975 UPLAND BIRD SEASON SET

(released February 28, 1975)

PRATT--The Kansas Forestry, Fish and Game Commission at their February meeting held at Topeka, set November 8, 1975, as the opening of the Kansas pheasant, quail and prairie chicken hunting season.

Commissioners also approved a proposal to drain one of the three permanent pool areas at Marais des Cygnes Waterfowl Management Area and Neosho Waterfowl Management Area in southeast Kansas. The drawdowns in 1975 will allow re-establishment of natural vegetation to develop better waterfowl and fishery habitat.

-GA-

HUNTER SAFETY SEMINAR ATTENDED BY OVER 1,000

(released March 16, 1975)

SALINA--Special recognition to 141 outstanding instructors highlighted the Kansas Hunter Safety Seminar, March 15 at Memorial Hall in Salina. More than 1,000 guests attended. Initiated into the Order of the Buffalo, the honor society of the Kansas Hunter Safety Association, were 105 men and 36 women instructors. Dwayne Miller, a volunteer instructor from Overbrook, was presented with a special achievement award at the evening banquet. Miller saved a woman from drowning in the Pomona Lake stilling basin.

Two 13-year-old twins, Roger and Rodney Weinman, received hunter ethics awards for helping landowner Ted Friebus of Phillipsburg. The lads discovered two of his cows had broken through the ice on a pond and summoned help. Hunter Safety Administrator, Royal Elder of the Kansas Forestry, Fish and Game Commission, presented the awards. Elder worked with the Saline County Hunter Safety Instructors Association in planning the Hunter Safety Seminar.

Natural Resources Commissioner, Robert Herbst of Minnesota, was the banquet speaker. He was introduced by Director Richard Wettersten of the Fish and Game Commission. Other speakers appearing in the morning and afternoon workshops were law enforcement chief Harold Lusk of the Fish and Game Commission, Hunter Safety Coordinator Lou Ritter of the National Rifle Association, Hunter Safety Coordinator Bud Eyman of Missouri, KSU extension specialist Bob Henderson and Steve Burr of the Saline County Hunter Safety Association. A special program for the ladies was presented by home economist Mrs. Anna Jane Baird of the Kansas Wheat Commission.

State winners of the 1974 Marlin Essay contest were Robin Terry, 13 of Onaga and Gay Sunderland, 15, of Lawrence. Their hunter safety instructors, Wilma Honig of Onaga and Donald Dalquest of Lawrence were also recognized.

RECORD SALES IN 1974 LICENSES

(released March 24, 1975)

PRATT--Income from the sale of hunting, fishing and trapping licenses in 1974 amounted to \$2.3 million for the Kansas Forestry, Fish and Game Commission. The 1974 sales were about \$229,000 more than in 1973, according to Robert Ward, business management chief.

Hunting and fishing licenses are sold separately or in combination. Separate hunting license sales to Kansas residents in 1974 numbered 154,524 or a decrease of 2,784 from the year before. There were 275,662 separate fishing licenses sold to Kansas residents in 1974, about 7,000 were than in 1973.

A significant increase in combination hunting and fishing license sales was reported in 1974. There were 57,544 combination licenses sold, an increase of 9,184.

Much of the increased revenue came from higher fees on out-of-state licenses. Regular hunting licenses went up from \$15 to \$25 and regular fishing licenses from \$5 to \$10 for non-residents in 1974. Ten-day licenses were also increased.

Trapping licenses were sold to 6,360 persons in 1974. This amounted to 1,728 more than a year earlier and was the highest in more than 10 years.

-PB-

RECORD STRIPER AT WILSON

(released April 9, 1975)

RUSSELL--A striped bass weighing $18\frac{1}{2}$ pounds has been caught from Wilson Reservoir, topping the state record by two and one-half pounds, according to Fred Sears, Colby, second district commissioner of the Kansas Forestry, Fish and Game Commission.

Caught Feb. 15 on a quarter-ounce jig by Lennart L. Olson of Garfield, the record striper was 33 inches long and $22\frac{1}{2}$ inches in girth. Olson caught the large striper in the Cedar Creek area.

Joe Patterson, Glen Elder, had the previous record striper that weighed 16 pounds, caught May 19, 1974, from the Walnut Creek area on Glen Elder Reservoir.

CORPS APPROVE BIG HILL LAKE CLEARING PLAN

(released April 11, 1975)

PARSONS--Kansas' own lake for lunker bass! Such may be the case in a few years thanks to the cooperative efforts of numerous state and federal agencies, sportsmen groups, and private citizens.

According to the Kansas Forestry, Fish and Game Commission officials, the clearing plan approved by the commission and submitted to the Corps has been approved by the U.S. Army Corps of Engineers.

"We're extremely pleased with this action," said R.W. (Bill) Fowler, Weir, commissioner for southeast Kansas. "For the first time since the Corps has started building reservoirs in Kansas, a clearing plan has been approved which was designed with fishermen in mind.

As approved by the Corps, large stands of timber will be left standing in the 1,200-acre impoundment, to provide habitat for large-mouth bass and other game fish. The commission has agreed to allow selective removal of timber in the basin near the dam and in certain other public use areas where necessary. In addition, several 50-foot wide boat access lanes will be cleared through standing timber. However, most cleared timber and brush materials will be used to construct fish attracting brush shelters.

According to John Ray, Chanute, fisheries supervisor for the commission's southeast region, concrete bridge structures will be left standing, except for concrete railings, and abutements will be left intact to provide more spawning and protective cover areas for fish.

"Two farm ponds will be inundated by the conservation pool which will be stocked with game fish species, particularly largemouth bass, during the construction period. As these ponds are inundated, these fish will be released into Big Hill to give a wider range of year classes in the lake. This will provide earlier spawning than can be realized by stocking with fry or fingerling-sized fish," Ray said.

In addition to providing protective cover for fish and increasing the lake's food producing potential, the decision to leave large stands of timber is expected to provide additional benefits. Standing timber will reduce wave action which in turn will provide for a clearer lake with improved water quality. There will also be a considerable reduction of clearing costs.

In addition to receiving approval by the commission and the Corps, the clearing plan was approved by the Kansas Water Resources Board, U.S. Fish and Wildlife Service and Kansas Department of Health.

Several sportsmen organizations including the Kansas B.A.S.S. State Federation supported the plan to enhance the fisheries potential of the lake. Clyde M. Reed, publisher of the The Parsons Sun, led local interests in support of the plan.

Completion of the multi-purpose lake, located 14 miles southwest of Parsons on Big Hill Creek, is slated for April of 1979.

DISABLED SPORTSMAN REGULATION IN FORCE

(released April 15, 1975)

PRATT--The Kansas Fish and Game Commission is now implementing an emergency regulation allowing disabled persons to hunt from motor vehicles.

The regulation provides that a permanently disabled person who is unable to walk or is able to walk only with the aid of orthopedic appliances may apply to the director of the Commission for a permit, allowing him to take game from a land or water vehicle especially adapted for that person.

The holder of the permit will otherwise observe the same laws and regulations as other sportsmen. The permit is valid for a period of two years, at which time the disabled person would submit his permit for revalidation by the director.

The disabled sportsman regulation, adopted by the Commission on an emergency basis, will be reviewed for a second time by the agency in public hearings this summer and permanent regulations adopted on the basis of these hearings.

-PB-

ANGLERS INTERVIEWED IN CREEL CENSUS

(released April 22, 1975)

PRATT--A statewide creel census of reservoirs and state fishing lakes in Kansas has been launched again this spring by the Kansas Forestry, Fish and Game Commission. It is a continuation of the 1974 census, which was the most extensive of its kind conducted to date in the state.

In last year's census, it was discovered that anglers put in an estimated 915,000 man days on the 20 reservoirs over the eight-month census period. Reservoirs received $3\frac{1}{2}$ million man hours of angler use. There were 26,686 fishermen intereviewed on these federal impoundments.

At 20 state fishing lakes, there were 17,131 fishermen interviewed during 1974. These lakes produced 266,417 fish weighing approximately 76 tons. There were approximately 260,000 angler days of fishing effort on these lakes.

Census clerks have been stationed this year on all reservoirs, 22 state fishing lakes, and three park authority lakes managed by the Commission, according to Robert Hartmann, assistant chief of the fisheries division.

They will contact anglers at these impoundments to determine their success. The census takers will be asking what was caught, how long the angler has fished at the site and other pertinent questions.

Fisheries biologists and census clerks will be working at these locations during most of the fishing season, March through October. They have already started gathering information about the best fishing spots. In return for their assistance, anglers will be provided summaries of the 1974 census, along with guidelines for more successful fishing.

State fishing lakes being surveyed this year, listed by regions are:

Northeast Region - Leavenworth, Nebo, Nemaha, Atchison, Pottawatomie No. 1 & 2, and Osage;

Southeast Region - Farlington, Big Hills, Bourbon, Neosho and Woodson;

Northcentral Region - Saline, Jewell and Geary;

Southcentral Region - Lyon, Butler, Cowley & McPherson;

Northwest Region - Rooks, Sheridan & Scott;

Southwest Region - Meade, Hain & Barber.

-PB-

5,000 FISHERMEN ASKED TO TELL ALL

(released April 30, 1975)

PRATT--Some Kansas fishermen are being given a chance to sound off about their sport to the Forestry, Fish and Game Commission.

About 5,000 of the state's 320,000 licensed anglers are being contacted in a random sampling conducted by Central Research Corporation, Topeka.

Questions will be asked about the most popular fish species and types of fishing waters. In addition, the poll will tell how many days a year anglers pursue this sport, how far they travel and other information, according to Roy Schoonover, fisheries division chief of the Fish and Game Commission.

Schoonover said results of this first-of-its kind poll will be used to better guide the state's fish management program. Results will be available by counties, regions and on a statewide basis.

BOAT REGISTRATION FEE INCREASES JAN. 1, 1976

(released May 1, 1975)

PRATT--The Kansas legislature has enacted legislation to increase boat registration from \$3 to \$9 for a three-year period. However this increase will not become effective until January 1, 1976, according to the Kansas Forestry, Fish and Game Commission.

The Commission's boating division has received numerous inquires concerning the fee increase and in some cases \$9 has been sent to register boats this spring. The three-year fee for boat registration until January 1, 1976 will remain at \$3. Registration of boats prior to January 1, 1976 will remain valid until expiration at the end of the three-year period.

The present \$3 fee is the lowest in the nation and did not generate enough revenues to cover administrative costs associated with the registration process.

- GA -

WALLEYE STOCKED IN TWO RESERVOIRS

(released May 1, 1975)

PRATT--Two Kansas reservoirs are receiving approximately three million walleye fry from the Kansas Fish and Game Commission.

Melvern and Kirwin Reservoirs are receiving the deliveries of fry from the Pratt Hatchery. An additional 183,000 walleye fry will be stocked in the hatchery ponds to rear to fingerling size. They will be delivered as fingerlings to state fishing lakes.

Walleye fry are about the size of wheat grain but should be large enough for anglers in about two years.

Hall was asked by the U.S. Fish and Wildlife Service to work in its Food Habits Bureau in Washington. He was assigned to work on the stomachs of water birds, to determine their diets.

Hall graduated January 10, 1924. He applied for and got a teaching assistantship at the University of California at Berkeley. He received his Ph. D. in 1928 and "I never got away from there for 20 years."

He came to the University by "quite an accident." Early in 1944 Dean Mallott, then chancellor of Kansas University, wrote Hall and casually remarked, "We're organizing a natural history museum and having trouble with it." Mallott went on, "Stop in when you're coming here." Hall replied and suggested the individual in charge be made a director rather than a curator.

While visiting his parents in Lawrence a few months later, word came that Mallott wanted to see him. "I had never met the man—I should have smelled a mouse—but I don't want to say I hadn't guessed what was coming."

The two men met, shook hands and Mallott asked, "How about your coming and taking charge of the Natural History Museum?"

"No, no."

Mallott won.

"And that's the end of the story," Hall said as he clapped his hands and came forward in his chair. "I've never told it that way to anybody before."

"Who were the big influences in your life?"

"My dad, Bunker, two ladies and others. Anne Alexander was one of those ladies." Miss Alexander and her father had been missionaries in Africa in its early days. When her father was killed by a falling boulder, Anne fell heir to the entire Alexander estate, which included such sizable holdings as the Alexander Steamship Company and sugar mills scattered across South America.

When Hall was Curator of Mammals at the California Museum of Vertebrate Zoology in the '30's, Miss Alexander would visit about every six months. She'd ask one question: "Do you need more funds?" It was like

Santa himself asking that question. Hall's book, *Mammals of Nevada*, was published thanks to her philanthropy.

"The other girl who was a big influence was a fellow student who took an interest in me." Mary Frances Harkey became Mary Frances Hall August 9, 1924.

An increase in wildlife populations and their harvest in Kansas has been Hall's abiding passion. "I started 50 projects as Director of the State Biological Survey because I wanted this," he said. "I knew that a harvest of up to 40% of the quail population each year was possible and not harm breeding stock, but others were difficult to convince of that."

Dr. Hall, never one to shy from controversy as he grows older, is one of the driving forces behind one of the hottest potatoes around today, the Tallgrass Prairie National Park. This area is variously proposed as sixty to one hundred thousand acres in eastern Kansas. "All we want is less than one-third of one per cent of Kansas' grassland," Hall said.

Big bluestem, indiangrass, switchgrass and eastern gamagrass predominate in the area. "If these grasses are plowed two successive years they are gone forever," Hall said. "Plowing is proceeding now near the intersection of I-70 and K-177.

Bitterly opposing the Park are the cattlemen, who see governmental intervention eating away the freedom of the grasslands. They also see mature grass decaying, making only soil instead of being consumed by cattle. Grasshoppers, they fear, will spread from the Park to invade their adjacent grasslands.

Dr. Hall also sees a side benefit in increased greater prairie chicken populations in eastern Kansas. "The Park will provide increased nesting cover for chickens, and this should provide increased huntable populations fanning out from the Park."

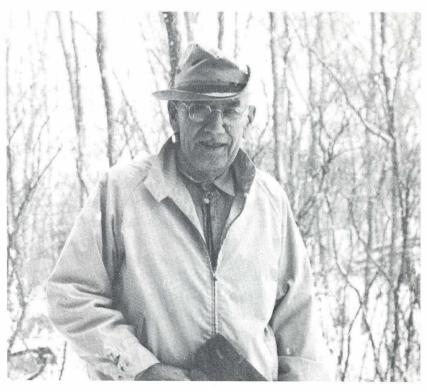
Then he got emphatic. "We need to rejuvenate species like the chicken that are native to Kansas! I view with abhorrence the reintroduction of Rio Grande turkeys and Chinese pheasants—non-native birds that have no place in Kansas."

The same man who could make a statement like that claimed he retired July 1, 1972.

But does Dick Tracy retire?

Does Little Orphan Annie find her folks?

Har-rumph.





Sharpen that old pocket knife, select a block of wood and you're on the way to having some great fun whittling your own plug. I did it and so can you.

Sounds simple, doesn't it? Well, here are a few tricks that will help. First, select a piece of wood suitable for the job. A friend that does a lot of wood carving suggested red cedar since it's fairly easy to work with and the end product is desirable. If you can't lay your hands on red cedar, try white pine or a good grade of fir. By all means stay away from balsa wood. Balsa is easy to carve but it won't hold up when you are ready to use it.

I started with a chugger type top water lure. The chugger is used to make a disturbance on the surface. It resembles an injured critter and is a great lure during the bass spawning season.

When the water temperature hits 60 to 68 degrees the largemouth, spotted and smallmouth bass head for shallow water for their annual spawning. The male fish remains on the nest guarding the young.

The males are very vulnerable at this time and often take this type of lure since they usually charge anything that threatens their nest.

Remember, when you take a male off of the nest all of the young will be lost, so you might consider catching him and then releasing him to guard the young bass.



Decide on the style of plug and use a sharp pocket knife to rough cut a block of red cedar.



A wood rasp can be used to accomplish final shaping of the plug.

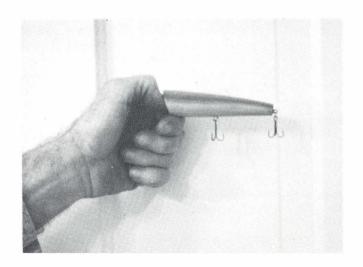


Sand the plug after the shaping is completed. Start with rough sandpaper and finish with fine paper.

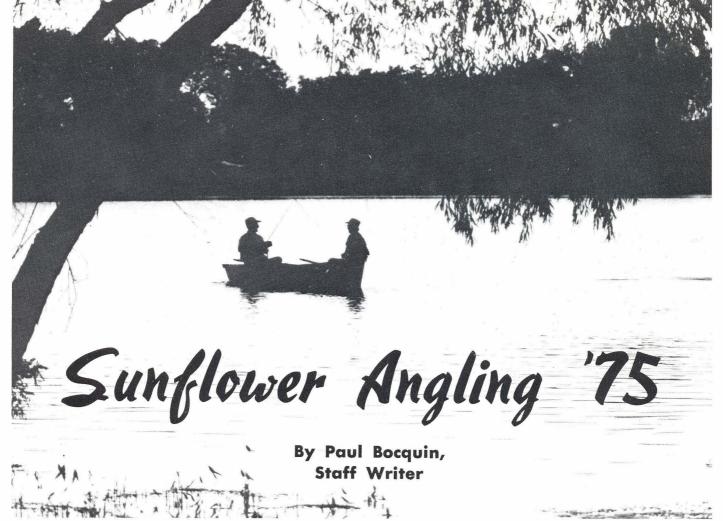
Insert hook or eye screws into the plug body. You can then attach the desired fish hooks. Hook or eye screws can be purchased from various fishing tackle supply catalogues.



This is a chugger type plug finished with lacquer. You may also paint your plug with enamel in the color scheme you desire.



Fish and Game



Ken Stiebben lakes. The remaining lakes will be

surveyed in 1975.

WITH THE arrival of summer, thousands of Kansas sport fishermen are digging out their gear for what could be a record take of game fish from Kansas public waters. With



more intense use made of federal reservoirs and state fishing lakes, the Kansas Forestry, Fish and Game Commission has recognized the need for current and reliable information on what these public im

Bocquin these public impoundments have to offer the Kansas sportsman.

Thus, the first statewide creel census ever taken on federal reservoirs in Kansas was launched in 1974. Creel work at the state fishing lakes was also carried out with more to continue in 1975.

For those unfamiliar with the term, a creel census is defined as the collection of data concerning the number of fish caught by sports fishermen (as on a particular stream or in a particular area). This information is especially useful in determining the effects of stocking and in planning future limits for various species.

Three factors motivated the need for a creel census at this time, according to Robert Hartmann, assistant chief of the fisheries division.

First, one of the major goals of Project SASNAK is to increase by 50 per cent the take of game fish from impounded public waters. The Fish and Game Commission is now in its second year under SASNAK.

Second, to evaluate and improve the effectiveness of management procedures at state fishing lakes and reservoirs.

Third, to develop a base line of data for future planning to establish the needs of the Kansas angler.

During 1974, creel activities were started on all of the federal reservoirs and on one-half of the state fishing Fisheries personnel, using data sheets, put in over 15,500 man hours over an eight-month period. Biologists, with the assistance of summer aides and creel clerks, interviewed 43,817 fishermen, asking what they caught, how long they had fished that day, what was their take and other pertinent questions.

Coupled with a fish tagging program, the creel census makes it easier for the district fisheries and reservoir biologists to find out just how many of these tagged fish were caught on a hook and, therefore, the population of the fish in the water.

Roy Schoonover, chief of the fisheries division, announced the start of the creel census March 1, 1974. He noted that when biologists analyze the activities and success of fishermen, they will be able to adjust fisheries management for increased harvest of game fish.

The initial program was set up to

cover a three-year period, with the creel census team slated to work at these installations from March through October. They were soon gathering this valuable data from thousands of anglers.

"We were able to pinpoint some good locations," Hartmann reported. "Failure to catch a fish is just as important to us as success."

So census takers are interested not only in the whopper on the end of your line but also in the one that got away.

The long hours of interviews were only Phase I. During the fall and winter months, biologists spent additional hours tabulating all of this data. It was then summarized and broken down into categories listing surface acres of water, total number of fish caught, pounds of different species and distance travelled by the sportsman.

Reservoir Angling

When these reports were completed

last February, considerable variations in fishing success were noted on the 40 impoundments. For instance, Melvern and Glen Elder Reservoirs, two of the more recent federal projects, had listings of 2.3 and 2.9 fishermen per surface acre respectively, while Fall River Reservoir received 16 per surface acre. The statewide average on federal installations was 7. But at the other extreme, Norton Reservoir, which always has exceptionally heavy use, chalked up 58.

In total numbers of fishermen, Tuttle Creek led the score with 115,124. Lovewell had the lightest usage with 10,700. Close to one million fishermen patronized the reservoirs in 1974.

A tabulation of the total hours of fishing effort shows that a lot of time was spent by Kansas anglers pursuing their favorite pastime. A leisurely three and one-half million hours were spent enjoying the reservoirs. Cheney, a favorite "hideaway" for Wichitans, topped this list with 508,000 fisher-

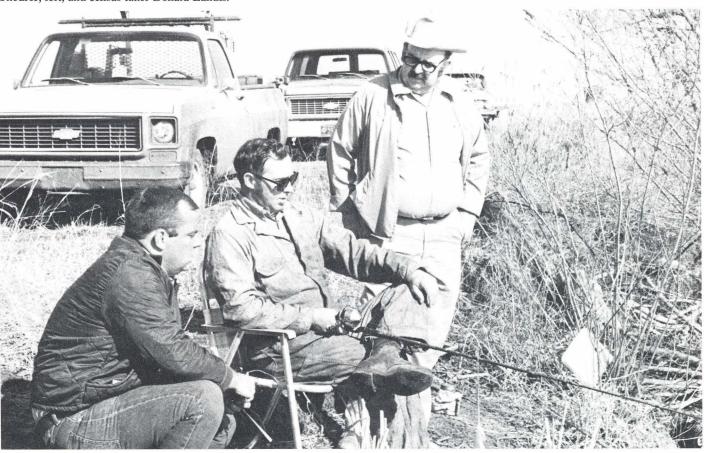
man hours. Runners up were Tuttle Creek, 367,255 and Milford, 358,000.

But the dyed-in-the-wool sportsman doesn't count the hours, especially when he gets results. The "take" from the reservoirs shows that those who came prepared and made the effort did not go home disappointed. There were 1,407,413 fish caught, weighing 1,383,673 pounds.

Fishermen were asked their point of origin, or in layman's terms, their stomping grounds. More than one-third came to fish from within a 25-mile radius and almost 50 per cent drove 25 to 100 miles. A few came from as far away as 100 to 150 miles or more.

Elk City Reservoir tabulated the largest segment of "home town" fishermen. There were 84.4 per cent who drove 25 miles or less. This was followed in local enthusiasm by Milford with 78.7 per cent and Webster with 68.5 per cent coming from close range. On the other hand, figures from Love-

Jerry Wornkey, a regular visitor at Barber State Fishing Lake, watches his line while chatting with district fisheries biologist Mike Theurer, left, and census taker Donald Landis.



well showed 50 per cent drove in from out of state. Almost 60 per cent of the anglers at Fall River and Toronto commuted 50 to 100 miles.

Although reservoirs are neither fished as heavily nor harvested as successfully as state fishing lakes, several of the older, established reservoirs produced significant numbers of sport fish. There were 24.57 pounds of fish per surface acre harvested from Fall River, 16.54 from Kanopolis and 17.34 pounds out of Elk City. Conversely, Melvern Reservoir, one of the "youngsters," yielded 3.22 pounds per acre, Pomona 3.47 and Cedar Bluff 4.25. These latter impoundments offer the greatest opportunity for improvement, Hartmann noted.

Almost half of Fall River's heavy production consisted of panfish, which includes bluegill and crappie. Another 25 per cent were channel and flathead catfish. Panfish accounted for nearly half the total take at Kanopolis and more than half at Elk City.

At John Redmond Reservoir, where 15.29 pounds an acre were harvested, predaceous fish such as largemouth and white bass filled one-third of the fish buckets and catfish 20 per cent.

The largest haul out of Redmond came in the form of "other sport fish," such as carp and drum.

Another bountiful harvest was reported at Milford, which gave up 13 pounds per surface acre. About one-half were predaceous fish and one-third were catfish, with smaller samplings of panfish.

More than half of the 11.5 pounds per acre taken from Toronto Reservoir were panfish, with the remainder a combination of catfish and other sport fish. Cheney yielded 10 pounds to the acre. Although the average day's take was only 0.9 pound per fisherman, its close proximity to the metropolitan area attracted over 104,000 anglers.

A noted exception to the average fishing potential of most Kansas reservoirs is the unusually heavy take of game fish at Norton. Irrigation had shrunk the reservoir down to a seasonal average of 561 surface acres. This drawdown concentrated the fish into a smaller area, resulting in a staggering harvest of 167 pounds to the acre. This included 128 pounds of panfish and 30 pounds of catfish.

A study of the choice fishing spots on the reservoirs reveals that stilling basins and other tailwaters can be just as important in fish yield as the lake itself. There were 345,000 fish hooked out of the tailwaters, weighing 185 tons. This was about 20 per cent of the total take from the 20 reservoirs, so these areas should not be overlooked.

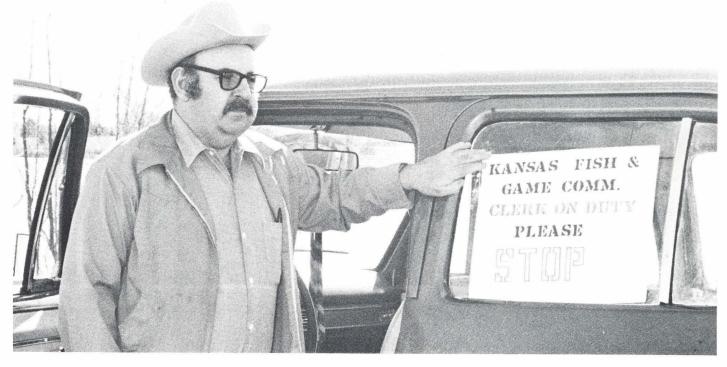
Tuttle Creek was at the head of the class in harvest by anglers out of the stilling basins. The yield was 44 tons out of the tailwaters and 46 tons out of the main reservoir. John Redmond also ranked high with 45 tons from the stilling basin and only 35 tons from the reservoir proper.

State Fishing Lakes

State fishing lakes get more fisherman pressure. Thus, additional tonnage of select species may require replenishment by supplemental stocking.

Out of the 20 state fishing lakes covered in the '74 census, Shawnee SFL in northeast Kansas ranks highest in angler use with 29,800 fishermen. Kingman SFL in south central Kansas was a close runner-up with 27,600. But lakes used most intensively per surface acre were Saline, 312 and Kiowa 380.

Donald Landis, the official census taker at Barber State Fishing Lake, stations his panel truck near the lake shore to interview anglers. Landis also operates a bait shop in Medicine Lodge.



Kingman led in total fish harvest with 34,580 fish tipping the scales at 7% tons. Clark SFL produced 29,700 fish that weighed over 14 tons and Montgomery SFL, 29,100 fish weighing 7 tons.

When success rate is used as a standard, Hartmann said the average angler should ideally be able to take home one pound of fish per fishing trip. But creel data supports the argument that those who love to fish will accept one-half pound or less if the catch rate is not up to par.

Brown SFL fishermen topped the charts with 2,3 fish per angler. In second place were Kingman anglers who averaged 1.3. At the other end of the scale was Washington SFL with an average of .20 fish per angler. This means four out of five went home empty handed. Saline SFL was a little better with .40 fish to the man (or woman).

Panfish populations run high at lakes in the northeast, west and south central regions of Kansas. In northeast Kansas, panfish at Nemaha, Brown and Pottawatomie No. 1 amounted to over 50 per cent of the total harvest weight, with catfish also plentiful but less abundant. Likewise, panfish at Clark and Kiowa SFL in southwest Kansas accounted for more than 60 per cent of the weight and catfish, about 25 per cent.

In southeast Kansas, the ratio was not so lopsided. Neosho SFL listed nearly equal amounts of panfish and catfish and high averages of certain predaceous species, particularly largemouth bass.

Sheridan SFL in northwest Kansas had 60 per cent of its tonnage in catfish and 40 per cent in pan fish.

Distance travelled to reach the state fishing lakes varied from lake to lake. Some received visitors from a close range and the majority drove 50 miles or less. But there were interesting exceptions. For example, 50 per cent of Kingman's anglers and one-third of Clark's fishing patrons traveled 50 to 100 miles. At Brown and Washington SFL, out of state visitors accounted for 42 and 19 per cent of the anglers respectively.

Tips From Biologists

It appears that anglers are passing



up some excellent fishing at various locations. For instance, white bass were discovered to be abundant at Milford, according to Calvin' Groen, reservoir biologist.

Large concentrations of white bass are usually found in the causeway area in March and early April. In late April and May, they make a spawning run up the river and anglers aren't utilizing them. From late May through June, the dam face and other rocky areas in the lake yield white bass to jigs, spinners and minnows.

In late summer, white bass anglers at Milford have their best luck fishing in early morning, evening and night from boats or from shore with spoons and minnows on points and mud flats where there is plenty of incoming wave action. In the fall, another upriver run occurs.

White bass were also numerous at Kanopolis, taking jigs, minnows and spoons. Reservoir biologist Bruce Zamrzla recommends fishing the sand flats in March and early April and

trying the river upstream from the reservoir in late April, May and September. Between times, try underwater structures along bluffs and in coves.

Webster Reservoir has a sizeable stock of flathead catfish that few sportsmen have been taking advantage of. Reservoir biologist Leonard Jirak reports flatheads in the 8- to 20-pound range. Look for them from mid-May through June near the dropoff level at 10 to 18 feet. Leonard suggests fishing with trotline, using sunfish and carp. He also recommends trolling with thin fin or lazy Ike lures.

Largemouth bass have also been making a comeback at Webster in the last three years and are plentiful in the 1- to 4-pound range.

Following are additional forecast reports received from fisheries biologists stationed at some of the reservoirs, state fishing lakes and game management areas:

NORTH CENTRAL REGION-

Council Grove Reservoir — White crappie abundant; best fishing in September. Channel catfish numerous in June and July. Anglers missing good fishing for white bass in spring and fall migrations.

Lovewell Reservoir — White bass abundant, July through September. Channel catfish and walleye good in September.

Kanopolis Reservoir—White crappie abundant in spring, good almost all year. Channel catfish numerous from June through September.

Wilson Reservoir—Crappie abundant in the spring, numerous in summer and fall.

Glen Elder Reservoir—Black bullheads abundant through October. Largemouth bass in brushy cover, spring and fall, and in deeper water in summer months.

Milford—Channel catfish and flatheads numerous. Walleye and largemouth bass good in summer and fall.

Saline SFL — Bluegill abundant through September. Channel catfish numerous through June and in September and October.

Jewell SFL—Channel and blue catfish good through June and again in the fall. Bluegill abundant almost the year around. Black bullheads good in spring and summer. Largemouth bass good in spring and fall.

Geary SFL—Largemouth bass good in spring and fall. Channel catfish numerous through July and in the fall.

SOUTH CENTRAL REGION-

Cheney Reservoir—Walleye, white bass and channel catfish should be good, as numbers and growth have increased.

Marion Reservoir—Good for walleye, white bass, crappie and channel catfish.

Fall River Reservoir — Crappie, white bass, channel catfish, flathead and drum should be good in 1975.

Toronto Reservoir—Good populations of flatheads, white bass, crappie and channel catfish.

Butler SFL — Fishing should be good for channel catfish, largemouth bass, bullheads and red ear sunfish.

Chase SFL — Crappie and white bass fishing excellent, channel catfish and largemouth bass good.

Cowley SFL—Fishing for largemouth bass and bluegill should be excellent.

Kingman SFL — Channel catfish should provide good fishing in late summer and bluegill should be good from June through August. Good population of walleye.

McPherson SFL—Fishing for channel catfish, bullheads and although small, crappie should be good.

Lyon SFL — Channel catfish and bluegill should be good. Crappie and walleye should be good off the dam.

SOUTHEAST REGION-

John Redmond Reservoir — Very good prospects for channel catfish and white bass. Good for flatheads.

Elk City Reservoir — Good prospects for channel catfish, crappie and

flathead. Normally good runs of white bass in Elk River above reservoir. Dependent upon discharges, good prospects for flathead and channel catfish in stilling basin and lower Elk River.

Bourbon SFL—Excellent for bluegill and channel catfish. Good for largemouth bass, crappie, green sunfish and bullheads.

Crawford SFL No. 1—Good prospects for bluegill, bullheads and channel catfish.

Crawford SFL No. 2—Good prospects for bluegill, red-ear sunfish and largemouth bass.

Montgomery SFL—Excellent fishing for largemouth bass. Very good prospects for crappie, channel catfish, bluegill and bullheads.

Neosho SFL—Excellent prospects for channel catfish, bluegill and crappie. Good prospects for largemouth bass, walleye, bullhead and green sunfish.

Wilson SFL—Good prospects for crappie, bluegill, other sunfish, channel catfish and flatheads.

Woodson SFL—Good prospects for channel catfish, bluegill and crappie.

Marais des Cygnes Waterfowl Mgt. Area—Good fishing for bluegill, channel catfish and largemouth bass in Unit G.

Big Hill Game Mgt. Area—Good for largemouth bass, channel catfish and bluegill.

Strip Mine Lakes (Crawford and Cherokee counties) — Good fishing prospects for channel catfish, bluegill and other sunfish. Fair for largemouth bass.

CURRENT KANSAS FISH RECORDS



- BASS, LARGEMOUTH BLACK—Weight: 11 pounds, 3 ounces. Length: 25 inches. Date: January 6, 1965. Taken from a private lake in Bourbon County by Charles Prewett, Pittsburg, Kansas. Tackle: spinning rod and reel with Johnson spoon and porkrind.
- BASS, SMALLMOUTH—Weight: 2 pounds, 9½ ounces. Length: 17¼ inches. Date: May 15, 1972. Caught at Norton Reservoir by Mrs. Max Ball, Norton, Kansas. Tackle: rod and reel with yellow agitator lure for bait.
- BASS, SPOTTED (Kentucky)—Weight: 4 pounds, 2 ounces. Length: 19¾ inches. Date: September 9, 1973. Taken from Council Grove City Lake by Newell Julian, Council Grove, Kansas. Tackle: rod and reel with jig and worm.
- BASS, STRIPED—Weight 16 pounds. Taken by Joe Patterson, Glen Elder, Kansas, from Glen Elder Reservoir on May 19, 1974. Taken on rod and reel with Johnson Silver Spoon lure. Length 31 inches, girth 21½ inches.



- BASS, WHITE—Weight: 5 pounds, 4 ounces. Lenth: 17 inches. Date: May 4, 1966. Taken from the spillway area below Toronto Reservoir by Henry A. Baker, Wichita, Kansas. Tackle: rod and reel (spincasting) with "Tiny Tot."
- BLUEGILL—Weight: 2 pounds, 5 ounces. Length: 11 inches. Date: May 26, 1962.

 Taken from a Scott County farm pond by Robert Jefferies, Modoc, Kansas. Tackle: rod and reel with worms.
- BUFFALO—Weight: 54 pounds, 4 ounces. Length: 45 inches. Date: May 24, 1971. Taken from a farm pond north of Tescott by Randy Lee, Minneapolis, Kansas. Tackle: bankline with worms.
- CARP—Weight: 35 pounds, 4 ounces. Length: 42½ inches, girth 27½ inches. Date: May 2, 1970. Taken from a sand pit near Lyons by W. Amos Henry, Lyons. Tackle: rod and reel with corn for bait.
- CATFISH, BULLHEAD—Weight: 5 pounds. Length: 18½ inches. Date: June 2, 1974. Taken by Mary Louise Sachetta, Scammon, Kansas from Fish & Game Strip Pit, (Unit 15). Tackle: rod and reel with worm for bait.
- CATFISH, CHANNEL—Weight: 32 pounds. Length: 40½ inches. Date: August 14, 1962. Taken by Edward S. Daily, Gardner, Kansas, from Gardner City Lake. Tackle: Throwline with small sunfish.
- CATFISH, FLATHEAD—Weight: 86 pounds, 3 ounces. Length: 55½ inches. Date: August 24, 1966. Caught by Ray Wiechert, Brazilton, Kansas from the Neosho River near St. Paul. Tackle: Trotline with sunfish.
- CRAPPIE, BLACK—Weight: 4 pounds, 10 ounces. Length: 22 inches. Date: October 21, 1957. Taken by Hazel Fey, Toronto, Kansas, from Woodson County State Lake. Tackle: rod and reel with live minnow.
- CRAPPIE, WHITE—Weight: 4 pounds, ¼ ounce. Length: 17½ inches. Date: March 30, 1964. Caught by Frank Miller, Eureka, Kansas, from a farm pond in Greenwood County. Tackle: rod and reel with live minnow.
- DRUM—Weight: 28 pounds, 2 ounces—Length: 32 inches. Date: August 12, 1974. Caught by Tony J. Fornelli, Arma, Kansas, from KOP Dam near Parsons on the Neosho River. Taken on a trotline with crawfish for bait.
- GAR—Weight: 31 pounds, 8 ounces. Date: May 21, 1974. Taken from the outlet at Perry Reservoir by Ray Schroeder, Topeka, Kansas. Tackle: rod and reel with yellow %-oz. beetle.
- GOLDEYE—Weight: 1 pound, 14½ ounces. Length: 17½ inches. Date: May 20, 1973. Taken by Kris Eenhuis, Wakefield, Kansas, from Milford Lake. Taken with rod and reel and white spinner for bait.
- PADDLEFISH—Weight: 73 pounds. Length: 69 inches. Girth: 34½ inches. Date: April 10, 1973. Caught by John D. Krider, Chetopa, Kansas, at dam on Neosho River east of Chetopa. Caught with rod and reel (snagged) during 2nd open snagging season.
- PERCH, YELLOW (RING)—Weight: 12 ounces. Length: 11½ inches. Date: July 12, 1970. Caught by Merlin Sprecher, Manhattan, Kansas, at Lake Elbo in Pottawatomie County. Tackle: rod and reel with Gold Nuggett.
- PIKE, NORTHERN—Weight: 24 pounds, 12 oz. Date: August 28, 1971. Taken from Council Grove Reservoir by Mr. and Mrs. H. A. Bowman, Manhattan, Kansas. Tackle: rod and reel with silver spoon and skirt for bait. Length: 44 inches and girth 20 inches.
- STURGEON—Weight: 4 pounds. Length: 30½ inches. Date: November 17, 1962. Caught by J. W. Keeton, Topeka, Kansas, from the Kaw River near Topeka. Tackle: rod and reel with worms.
- SUNFISH, GREEN—Weight: 2 pounds, 2 ounces. Length: 12 inches. Date: May 28, 1961. Caught by Louis Ferlo, Scammon, Kansas, from a strip pit in Cherokee County. Tackle: rod and reel with Abu spinner.
- WALLEYE—Weight: 13 pounds, 1 ounce. Length 31½ inches. Date: March 29, 1972. Caught by David Watson (16 years of age), Manhattan, from Rocky Ford fishing area. Tackle: rod and reel with jig.
- CATFISH, BLUE—Weight: 33 lbs., 12 ounces. Date: June 21, 1974. Taken from the Kansas River near Lawrence by Harold Hunsinger and Gordon D. Chappell, Jr., both of Lawrence. Taken on a bank line with goldfish for bait. Length: 42¼ inches, girth: 23% inches.



Fish and Game Forum



- Q. A friend of mine said he saw a porcupine here in Kansas but I told him we didn't have any of these animals in the state. Who's right?
- A. Your friend wins. Though uncommon in Kansas, porcupines are occasionally seen in all but the eastern sixth of the state. In the *Handbook of Mammals of Kansas*, Dr. E. Raymond Hall, author, lists Toronto in Woodson County along the Verdigris River as the easternmost occurrence for porcupines in the Sunflower State. Since Dr. Hall's book was published (last fall in fact) a porcupine was reportedly killed in eastern Allen County.

Contrary to folklore, the porcupine doesn't throw his quills. It reacts to tormentors by moving slowly away and flipping its tail in the attacker's direction. The quills make painful wounds since the tip of each has a barb that causes the quill to work into the victim's flesh. Armed as it is, the porcupine has few natural enemies. From time to time though, great horned owls, foxes, coyotes and bobcats are found with their faces full of quills—evidence that these predators have tried and failed to make a meal of the porcupine.

- Q. Where can I get a list of books on falconry that are currently in print?
- A. The Pierce Book Company in Winthrop, Iowa 50682 and Falcon Head Press Ltd., P.O. Box 913, Golden, Colorado 80401, both handle books on falconry.
- Q. Why is it that in some counties the fines assessed against fish and game violators are high, while in other counties poachers guilty of the same offenses are only fined lightly?
- A. The Fish and Game Commission has no authority to levy fines against violators; this is up to the individual judges who assess fines within a statutory framework. In some areas, county attorneys and judges seem to take a dimmer view of fish and game law violations than their counterparts

in other sections of the state. As might be expected, these judges tend to sentence and fine violators more stringently than other judges. All fine monies collected from fish and game law violations are deposited in the state school fund.

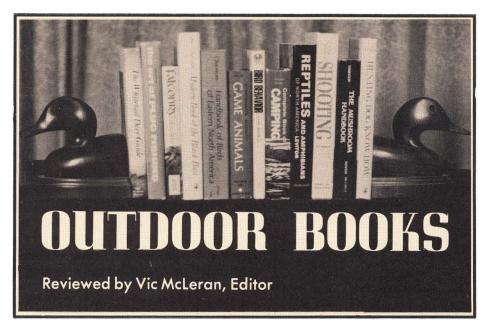
- Q. When does the 1975 squirrel season open and what are the limits?
- A. The 1975 squirrel season opens statewide June 1, and runs through December 31. The daily bag limit is five with a possession limit of ten. Legal shooting hours are from one-half hour before sunrise to sunset. Squirrels may be taken with shotgun, rifle or bow and arrow.
- Q. What's the difference between the common snapping turtle and the alligator snapping turtle?
- A. Joseph T. Collins, in his book, Amphibians and Reptiles of Kansas, writes: "The aquatic alligator snapping turtle is the largest turtle in Kansas and can be distinguished from other species in the state by (1) a sawtoothed tail being longer than half the length of its upper shell, (2) rigid upper shell and very small lower shell, (3) eyes not visible from above, and (4) large scales on top of the head." This turtle is evidently very rare in the Sunflower State with only two

EDITOR'S NOTE: Each month, hundreds of letters reach Fish & Game Commission headquarters with questions regarding various phases of the department's activities, policies, projects and plans. In addition, we receive numerous queries about hunting, fishing, trapping and wildlife. As space permits in future issues, we'll publish some of these questions and their answers to provide Sunflower sportsmen with a greater appreciation and understanding of their Fish & Game Commission and the Kansas outdoors. If you have a question, it to FISH & GAME FORUM, Box 1028, Pratt 67124.

specimens being reported. One was taken from the Arkansas River in Cowley County and the other came from the Neosho River drainage in Lyon County. Collins says the species is probably restricted to the major rivers of southeastern Kansas.

On the creature's habits, Collins says, "At night this large, primarily carnivorous animal eats anything it can stalk, overpower and drag beneath the water's surface, including other turtles. Alligator snapping turtles resting on the bottom beneath water during the day have a different technique for obtaining food. The animal blends into the muddy bottom and opens its mouth, remaining completely motionless. Attached to its tongue is a pink or red fleshy projection resembling a worm, which the turtle wiggles to attract unwary fish. When the fish swims into the gaping mouth to examine the worm, the alligator snapping turtle has a meal." These ancient reptiles reach enormous proportions, some weighing more than 200 pounds with a shell length of nearly five feet.

- Q. I know that prescribed burning of native grassland is good for livestock production, but isn't it harmful to wildlife production?
- A. Only on a temporary basis. Although some nesting cover may be destroyed and reproduction affected slightly during the first year, the benefits derived from burning greatly offsets these. The benefits include: improving the grass, legume and forb stands thus providing better loafing and feeding areas and removal of dead leaf and grass litter which makes easier traveling for young bobwhites and prairie chickens. Burning also provides better quality food for the birds. Good wildlife production on native grasslands depends upon the proper maintenance of those grasslands. In eastern Kansas, this includes adequate prescribed burning.



BOBWHITE QUAIL HUNTING by Charley Dickey; Oxmoor House, P. O. Box 2463, Birmingham, Alabama 35202; 112 pages, \$2.95

Charley Dickey is well qualified to write about quail hunting. For more than 30 years, he's hunted various North American quail from Florida to California, from Idaho to Cape Cod and most states in between. During this period he worked with the Tennessee Department of Conservation, spent 12 years as a wildlife consultant on shooting preserves and 7 years as director of the National Shooting Sports Foundation. He is currently a freelance writer.

Dickey leads off with a chapter on the life history of the bobwhite, refuting a number of myths about the bird with sound wildlife management principles. There's an excellent chapter entitled, "A Place to Hunt," which offers some good advice on locating hunting territory in today's shrinking world. This chapter also presents some sound, common sense suggestions for achieving and maintaining good landowner relations.

In the chapter on quail dogs, Dickey outlines the type of dog that's best for you according to where you live, the type of country you'll be hunting and the kind of hunts you'll be involved with. He discusses the advantages and disadvantages of the various breeds and talks about purchasing a dog.

There are detailed chapters on all types of equipment including choice of shotguns, shells, boots and clothing. Throughout the text, Dickey provides the reader with the names and sources of various equipment, catalogs and books which will help the quail hunter.

Detailing the actual hunt, Dickey tells you when the birds are most active, where they're most likely to be found, when scenting conditions are best, how to position yourself for the covey rise once the dogs are on point and much more on hunting bobwhites.

In the chapter on instinctive shooting, the author explains in detail the fundamental steps in shooting. There are other chapters on shooting, preserves, leases and clubs; field care and dressing quail and an excellent section on cooking quail which includes a number of delicious-sounding recipes. Bobwhite Quail Hunting is a book many Kansans will want to read. All in all, it's a good common sense book which will entertain the veteran shooter and inform the novice.

INTRODUCTION TO CANOEING by Bradford Angier and Zack Taylor; Stackpole Books, Cameron and Kelker Streets, Harrisburg, PA 17105; 191 pages, \$2.95

In the past year or so, the Commission has received more and more questions and letters regarding canoes and canoeing in the Sunflower State. This book should take care of most of the questions. Written by Brad Angier, well-known outdoor writer and Zack Taylor, Sports Afield's boating editor, Introduction to Canoeing contains just about

everything the beginner will need to get started canoeing.

There's a chapter on choosing canoes which rates aluminum, canvas and fiberglass canoes; tells how to make necessary repairs and where to buy your canoe. In a chapter on paddles and paddling, the authors discuss the best material for a paddle, the weight, grip, balance, shape, finish and length of the paddle; strokes for guiding, backing, jamming, sweep, drawing, pushing and throwing. They talk about poles versus motor power, describe the best methods in various situations, whys and wherefores of outboards; mountings; and assuring fuel supplies in the wilderness. There's a section on canoeing basics which includes boarding and balancing; capsizing for practice; standing, kneeling, sitting, moving without toppling; canoeing alone or with friends and maintaining, beaching and storing.

Also included is a discussion on lake cruising and river running including special techniques for each; moving with or against current; reading the river and handling chop. The authors talk about transporting and portaging, transporting by rail or bush plane; when to portage; finding portages on strange water and relaunching and reloading. There's also a section on launching, packing, boarding and pushing off which includes where to pack the heaviest weight; launching safely; keeping the load dry; packing tricks; lashing the load; keeping boat and gear afloat in emergencies; and stowing gear for best accessibility. By the time a novice canoe buff finishes reading Introduction to Canoeing, he'll be ready for white water.

OUTDOOR TIPS by L. W. Johnson, Robert Elman and Jerry Gibbs; The Remington Sportsmen's Library, P. O. Box 731, Bridgeport, Conn. 06601; 190 pages, \$2.95

This is unquestionably a "must" book for anyone with an interest in the outdoors whether it's hunting, fishing, camping, hiking or boating. The authors are three wellknown outdoor writers and they've assembled more tips and ideas on outdoors than one man could ever learn by himself. Just look at some of these chapter headings: general outdoor tips, hiking and camping, winter camping, snowmobiling, outdoor cooking, recreational vehicle camping, boating and canoeing, saltwater fishing, ice fishing, fishing tackle care, general hunting tips, shooting tips, small game hunting, medium and big game hunting, upland birds and waterfowl, gun care tips, bow hunting and archery and conservation

This book would make a perfect gift addition to any sportsman's library.

