

# KANSAS FISH & GAME



*Albert Earl Gilbert*  
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**JULY-AUGUST 1974**

# KANSAS FISH & GAME



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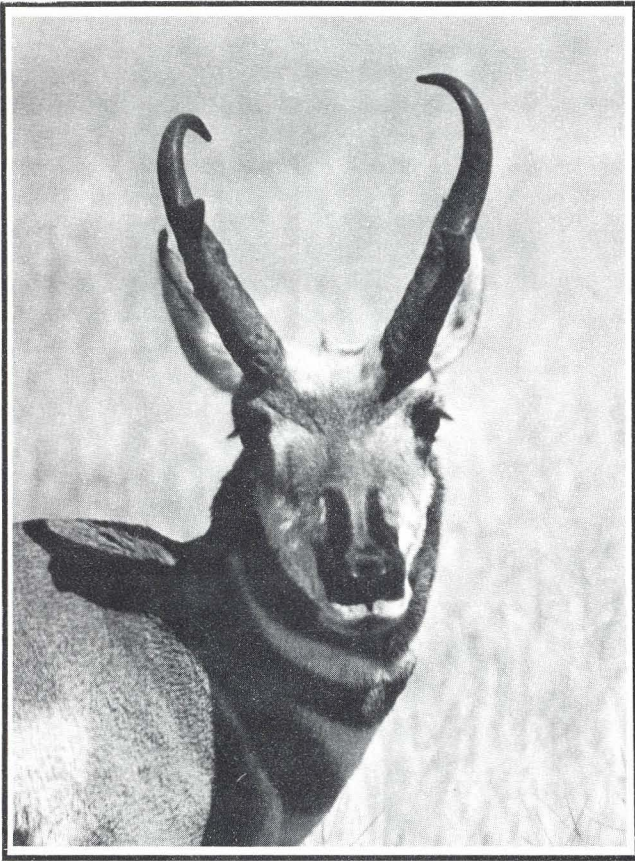
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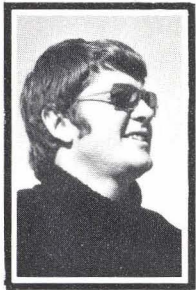
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# The Pronghorn

By Vic McLeran,  
Editor

**T**HE KANSAS Forestry, Fish and Game Commission has done it again; successfully re-established another member of the Sunflower big game community. This latest entry is that old prairie speedster—the pronghorn antelope.



McLeran

During the fifties and early sixties, the white-tailed deer and its western cousin, the muley, received much of Commission biologists' attention. These efforts culminated in the establishment of a deer season in 1965. Then, during the late sixties, and early seventies, the Rio Grande wild turkey was the subject of a re-introduction project by the Commission. Fruits of this effort were seen last spring when hunters harvested 122 of the wily birds during the first turkey season in modern times.

And now, it's the pronghorn antelope.

At its April meeting, the five-member Commission voted to open a limited season on the pronghorn September 28-30. Issuing 80 permits, 40 to landowners and 40 to general residents, the Commission opened portions of Wallace, Sherman and Logan counties to hunting.

It all started back in 1962 when the Commission hired Bill Hlavachick, a burly big game biologist from Colorado. It was Hlavachick's responsibility to formulate and administer a plan for managing and eventually increasing the antelope resource in Kansas. His first chore was to determine how many of the animals we actually had in the state.

Using an airplane, Hlavachick started censusing the animals. At that time, there were several small bands of antelope scattered across the sprawling short grass prairies of Wallace and Sherman counties. Historical reports indicated there had always

been some small remnant bands of antelope along the Kansas-Colorado line. In the mid-50's, during a prolonged dry spell, the pronghorns reportedly increased to more than 100. But a few years later, when extended rainy weather spurred plant growth and sunflowers shot up across the prairie, the antelope again dispersed into small bands. Many drifted back across the Colorado line, never to return. Antelope, like other prairie inhabitants such as jackrabbits and prairie chickens, seem to increase during dry years with production falling off during wet periods.

Hlavachick's tallies placed the total Kansas pronghorn herd at about 60. In 1964, the Commission negotiated an agreement with several landowners where they agreed to let the agency place additional antelope on their land. The stage was set for stocking.

In November of 1964, 75 antelope were trapped by Montana Game and Fish personnel at the National Bison Range near Moise, Montana. These

animals were transported to Kansas and released in Wallace and Sherman counties to supplement the existing herds.

Two months later, in January '65, 61 antelope were received from the Colorado Game, Fish and Parks Department. They were released in suitable habitat down in Barber County's red hills.

The following January, 85 pronghorns were trapped on the Sioux Army Depot near Sidney, Nebraska. Trucked to Kansas, they were released in Edwards and Ellsworth counties. "It was a disaster!" claims antelope specialist Hlavachick. "They had been living on the Army Depot in a semi-tame state and had apparently lost much of their herding instinct. As a result, they scattered to the four winds—some as much as 90 miles." Hlavachick tells an interesting story about one small group of these rather tame transplants. "We got a call one morning from a lady in Galva who said several antelope were bedded down on her front lawn eating her rose bushes."

Eventually road kills, predation, poaching and other factors accounted for most of these Nebraska pronghorns. However, reports still filter in of an occasional stray antelope being spotted.

Looking back, the Montana transplants were a real shot in the arm for the western Kansas antelope herd. "Prior to this introduction our antelope were actually on the verge of extinction," Hlavachick says. "Their fawn production was so low the herd was barely maintaining its numbers. But the new stock from Montana really boosted annual fawn production."

The western Kansas herd now numbers around 600 with an additional 150 roaming the Gyp Hills of Barber and Kiowa counties. Hlavachick feels the state's herd could go as high as 1500.

Let's take a look at this latest addition to our big game family.

Standing three feet or so at the shoulder, a mature pronghorn buck will average 100 to 120 pounds. Measuring four or five feet in length, the



Doe antelope, left, is slightly smaller and has shorter horns than her male counterpart.

species has a deerlike build. Does run slightly smaller than bucks. The animals sport a tan body color with creamy white underparts. There are two bands of tan around the lower neck with a slash of white up higher on the neck. Above this white, the bucks wear a black patch from the rear of the jaw onto the throat. This black mark is lacking on the female.

Both sexes however, have a white rump patch which is bisected by a narrow strip of tan. Antelopes possess a unique muscular structure that lets them sharply erect this rump hair—flaring it out in all directions—when startled or excited. This white rosette catches the sun's rays and flashes out

a heliographic warning to all pronghorns in the area. This danger signal is comparable to the lifted flag of a white-tailed deer. Even more unusual than the white rump patch are the antelope's horns—a feature which gave the animal its name. These are actually true horns and not antlers like deer and elk possess. They're composed of a bony core covered with a black outer sheath. This sheath is shed each year but the core remains. Joe Van Wormer, in his book, *The World of the Pronghorn*, writes: "The pronghorn is never without visible horns. It is the only horned animal in the world that sheds its horns and the only one whose horns

are branched or pronged." Although both sexes have horns, the females are little more than small spikes.

The pronghorn is strictly a North American animal and is found nowhere else in the world. Its scientific name, *Antilocapra americana*, comes from the Latin *antilope*, meaning antelope and *capra* meaning goat—literally, American goat-antelope.

Life for a young antelope begins in the spring—an eight month product of the fall rutting or breeding season. Most young fawns are born while the mother is lying down although some are born while she is standing. They apparently suffer no harm in the fall to the ground. Some zoologists have theorized the shock of the fall is a factor in starting the fawn's breathing. Joe Van Wormer says twins are born about 60 per cent of the time in first pregnancies and about 98 per cent of the time in subsequent pregnancies. But this production rate may vary from one area to another. Triplets are rare and quadruplets virtually unknown.

The young antelope, averaging five or six pounds at birth, usually stands and nurses an hour or so later. There's some indication antelope fawns, like deer fawns, have little or no scent while they're very young. This is apparently a built-in factor which protects the young vulnerable animals from predators.

Biologist Hlavachick cites a first hand example: "We were tagging deer fawns at the time," he recalled, "and we were using Game Protector Jim Kellenberger's labrador to help find the young animals. In one instance we netted a fawn when the dog was out of sight. We called the dog over to where the fawn was lying beneath a net. The Lab was within several inches of the fawn and still didn't smell or sight the youngster. I finally pushed the dog's nose against the fawn and he then realized it was there." Other researchers have made similar observations.

The antelope's famed running ability develops quite rapidly in fawns. Generally speaking, the youngsters are able to stand and walk within a matter of hours; the second day they

test their legs by beginning to run and three of four days after birth, they're able to outrun a man. In one amazing case, an Arizona fawn judged to be less than 36 hours old, was paced by an auto for four tenths of a mile at 25 miles per hour!

At four or five weeks of age the young pronghorns are eating tender top foliage of grasses, weeds and other herbaceous plants. They're also beginning to ruminate, or chew their cuds. Milk consumption decreases during the summer until by September, the fawns are no longer nursing.

The antelope's rutting or breeding season takes place during September or October. Fights between bucks are usually mild. Occasionally though, they get pretty bloody. Mammalogist Victor Cahalane mentions one particularly gory battle in his book *Mammals of North America*. "In Yellowstone Park a buck was badly wounded by his rival. With blood streaming, he fled and disappeared over a knoll.

The victor followed and found him lying flat on the ground by a fallen tree. Ruthlessly, he dug his horns into the prostrate animal again and as the tormented creature writhed in agony, the pronged horns twisted and tore out its vitals. Satisfied, the vain glorious antelope bounded away."

Summer is a relatively carefree time for antelopes. The small bands drift slowly across the prairies, feeding and resting at intervals. Food, in the form of grasses, weeds, cacti and sagebrush is abundant, the weather is seldom a problem and the fawns are large enough to escape most predators. As a rule, pronghorns suffer little from predation. Bobcats and coyotes take an occasional fawn, but this is rare. In fact, antelope does are quite capable of defending their youngsters when the need arises. Several observers have watched does attacking and routing hunting coyotes. Using their sharp forehooves like knives, the does

Pronghorns are considered the swiftest mammal in North America, capable of speeds approaching 70 miles per hour.



Leonard Lee Rue

slash and stab at the coyote until it withdraws.

Mammalogist Victor Cahalane once watched three coyotes trying to pull down a large buck antelope. He recorded the incident in his book, *Mammals of North America*. "The trio came running, a coyote on each side and about twenty feet away from the buck's hind quarters. From time to time, one of the coyotes would make a move to close in or to head off the antelope. At each attempt, the antelope jabbed furiously at the coyote with a front foot. Each time the coyote recoiled hastily. Galloping, then stopping to strike off his tormentors, the antelope disappeared over a ridge."

Like deer, the pronghorn also uses its sharp hooves on rattlesnakes. The prairie rattler and its big diamond-back cousin have both been chopped up by angry pronghorns—especially by does with fawns.

But the pronghorn's two main lines of defense against predation are its extraordinary speed and its amazingly keen eyesight. Generally considered the fastest mammal on the North American continent, the pronghorn has been clocked at speeds approaching 70 miles per hour. Leonard Lee Rue, in his *Guide to Game Animals*, states: "The pronghorn takes great pride in its speed and it will often race horses, automobiles and trains. Years ago, before our mechanical monsters became so perfected, the pronghorn would run alongside and then, like a porpoise racing a ship, put on a burst of speed and cross over in front of the speeding vehicle."

There are rare cases where several coyotes teamed up and chased pronghorns in relays until they finally captured the animal. But even here, the coyotes are usually unsuccessful since antelopes are quite capable of long distance races. One band of pronghorn was observed averaging 30 miles per hour for seven miles. During a live-trapping operation, where the animals were pursued with planes, some of the antelope ran as far as 15 miles.

Even though the pronghorn's legs look as thin as pipestems, the bones are exceptionally strong. In actual

pressure tests, it took 45,300 pounds to a square inch to crush an antelope's leg bone.

Unlike deer, pronghorn don't have much of an ability to jump vertically. Even so, barbed wire fences offer little problem to antelopes. On approaching a fence, the animal simply lowers its body to a crouch and slides under the lower strand. They can do this while running. Hlavachick says when they slip under a fence on a dead run, there's often an explosion of antelope hair as the animal's back brushes the lower strand.

According to most records, the pronghorn is rather short-lived. The animals reach maturity at four or five and live to be about eight years old.

Coupled with its amazing speed and running ability, the pronghorn possesses binocular-like vision. In fact, the animal's eyesight has been compared to that of a man aided by 8-power binoculars. Some zoologists claim the antelope's vision is so keen it can spot a small object in motion at a distance of four miles. In addition, the pronghorn's eyes protrude slightly from its head so that the animal has an extremely wide field of vision—nearly 360 degrees.

With physical attributes like these, it's easy to see why the animal is a difficult quarry for hunters. More often than not, the pronghorn spots the hunter and is gone before the man is anywhere near rifle range. Antelope hunters consider binoculars or spotting scopes a necessity.

In *The Hunter's Field Guide*, author Robert Elman writes of antelope hunting methods: "Sometimes one man remains in view of the pronghorns, a diversion while his partner stalks. Sometimes the hunter reaches a point from which he is confident of his target. Sometimes the stalk ends unexpectedly, not quite within range but with no more cover. Gambling on the notorious curiosity of pronghorns, he raises his hand above the brush and wiggles his fingers or flutters a handkerchief. Perhaps the herd buck looks toward the hunter, snorts softly, and comes closer. Or perhaps a dozen rosettes flare and the chance is lost.

"There is also the possibility that nothing at all will happen, and in desperation the hunter gambles again. Slowly he rises, in full view of the band. If curiosity overcomes fear and the animals still choose not to flee, he approaches—obliquely, quietly, steadily. Finally he eases himself to the ground, hoping he will be steadier than he feels.

"The other method is the ambush at a hiding place that commands a view of a frequently used water hole, a salt lick, or a pasture."

For those 80 Kansans fortunate enough to draw a permit, Elman gives these suggestions regarding equipment. "A hunter needs binoculars to search distant hills, and if he is mounted or scouting in a vehicle, he usually packs a high-powered spotting scope. The .270 has long been a popular caliber for pronghorns; other good choices range from the old .25-06 and various 6mm rifles to the .30 caliber Magnums. The bullet should be the fast-expanding soft-point type. Most hunters prefer a 4- or 6-power rifle scope or a variable model with settings from 2- or 3-power to 7 or 9.

Sunflower gunners who plan to apply for antelope permits should start contacting landowners now for permission to hunt. It's also a good idea to do some homework on the pronghorn. The more a hunter knows about his quarry, its habits and activities, the more he increases his chances of success.

Hlavachick is no longer with the antelope project, having transferred to Pratt headquarters as technical services biologist. But the pronghorn program continues under the direction of Kent Monte, a big game biologist at the Hays District Office.

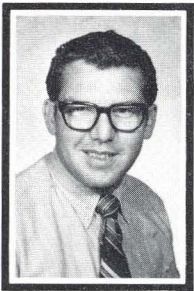
Even though this first season represents a conservative effort, nonetheless it's a start. And the pronghorn season is a tribute to modern game management techniques and the cooperation of several western Kansas landowners. Hopefully, as the herd increases, more and more Kansas big game hunters can experience the thrill of hunting pronghorn antelopes.

# WHITE BASS FISHING

By Farrell Brewer,  
Staff Writer

**K**NOWLEDGE IS the key to fishing success.

That's a bold statement, but it's the truth. Ever wonder why the guy fishing right next to you was filling his stringer and you weren't having much luck? Chances are he's knowledgeable as to what the fish are hitting and at what depth. How do you obtain this knowledge? One thing is for sure and that is no one, but no one, was born a natural angler. The experienced fishermen had to start someplace.



Brewer

I realized that knowledge was the key the first time I went white bass

fishing with an old pro. He had a stringer full of whitey's and I was working my tail off without much luck. That's when I decided to gain a little knowledge.

Millions of words have been written on angling, but somehow we never seem to tire of the subject. Reading how-to and success stories on angling is one way to obtain knowledge. I do a lot of this and find it very helpful; however, I am a firm believer in on-the-job training. You can read and read, but when you start putting what you've read into practice you find the moment of truth.

Anglers are depending more and more upon activity charts, super lures, and all sorts of gadgets for fishing. I haven't found a lure or bait that will take fish under all conditions. The basics of fishing are fairly easy to

learn, but just because you can master the art of casting does not necessarily mean you will be a successful angler. Many have developed a technique of placing the bait where they want to, but may not have learned where to look for the fish.

A knowledge of the habits of the fish sought is invaluable to fishing success as it often enables the fisherman to choose the combination of lure or bait and method of presentation that will take a fish.

Let's move back to the white bass and see what can be learned about their habits. In Kansas this species has been stocked in most of our reservoirs. Research by California Fish and Game shows that white bass are primarily a lake fish; however, during spawning activities they move to shallow water in rivers above the lakes.



Farrell Brewer

In addition, they can be found in waters below the outlet structures at this time.

Some of the best white bass fishing in Kansas occurs during this spawning run up the rivers. There is no way to predict when this run will occur, although there are some factors that enable biologists to narrow down the time period. It is known that the water temperature must be near 58 degrees F. Kansas waters generally reach this point from mid-April to the first of May.

White bass prefer to spawn in waters from 20 inches to 12 feet in depth, although the usual depth is probably three to six feet. White bass move upstream in schools during spawning, with males outnumbering females. Also during this activity the bass feed heavily both day and night. That's one of the reasons that the spawning run provides excellent angling.

You might ask that if large numbers are put on the strings during the spawning run what will happen in future years. Will there be enough brood fish left? Don't worry about this; research biologists tell us that in a sample of 14 females the number of eggs in the ovaries averaged half a million.

Will you have to drive to each reservoir, take a thermometer and check the temperature? Not at all. The Kansas Fish and Game Commission provides a weekly fishing report to the media; it gives the current fishing conditions at any particular impoundment. They also provide the media with hot-spot fishing reports. These reports are given when the fishing for any particular area becomes excellent. An example would be, "The white bass fishing is excellent at Fall River Reservoir. The best areas are in the riffles above Ladd bridge in Fall River and Otter Creek." However, you should remember that if there is a time lapse between the time you hear the report and head for the water, conditions can change. Changing weather conditions will also change fishing conditions.

The commission also publishes a booklet called *Where to Fish in Kansas*. It can be obtained at any of the

six regional offices, or by writing the Kansas Fish and Game Commission, Box 1028, Pratt, Kansas 67124. This booklet tells what species are stocked in what impoundments and gives the location of each body of water.

With all of this help, how could you go wrong? As I stated earlier, you can read volumes, but putting your knowledge to work is another story.

I received a report that the white bass had started to move into the riffles in Fall River. I immediately called a fishing buddy, Al Molzen, and we headed for the water. We stopped at Eureka to pick up Tom Griffin, who is a pro when it comes to fishing for the whiteys.

The discussion from Eureka to the riffles at Fall River centered around the proper lures to tempt the white's appetite. Tom maintained that they were hitting on white jigs and Al added he had heard the white shyster was the lure, while I had been told they were hitting dead minnows. I suppose this points out that there are as many preferences as there are anglers.

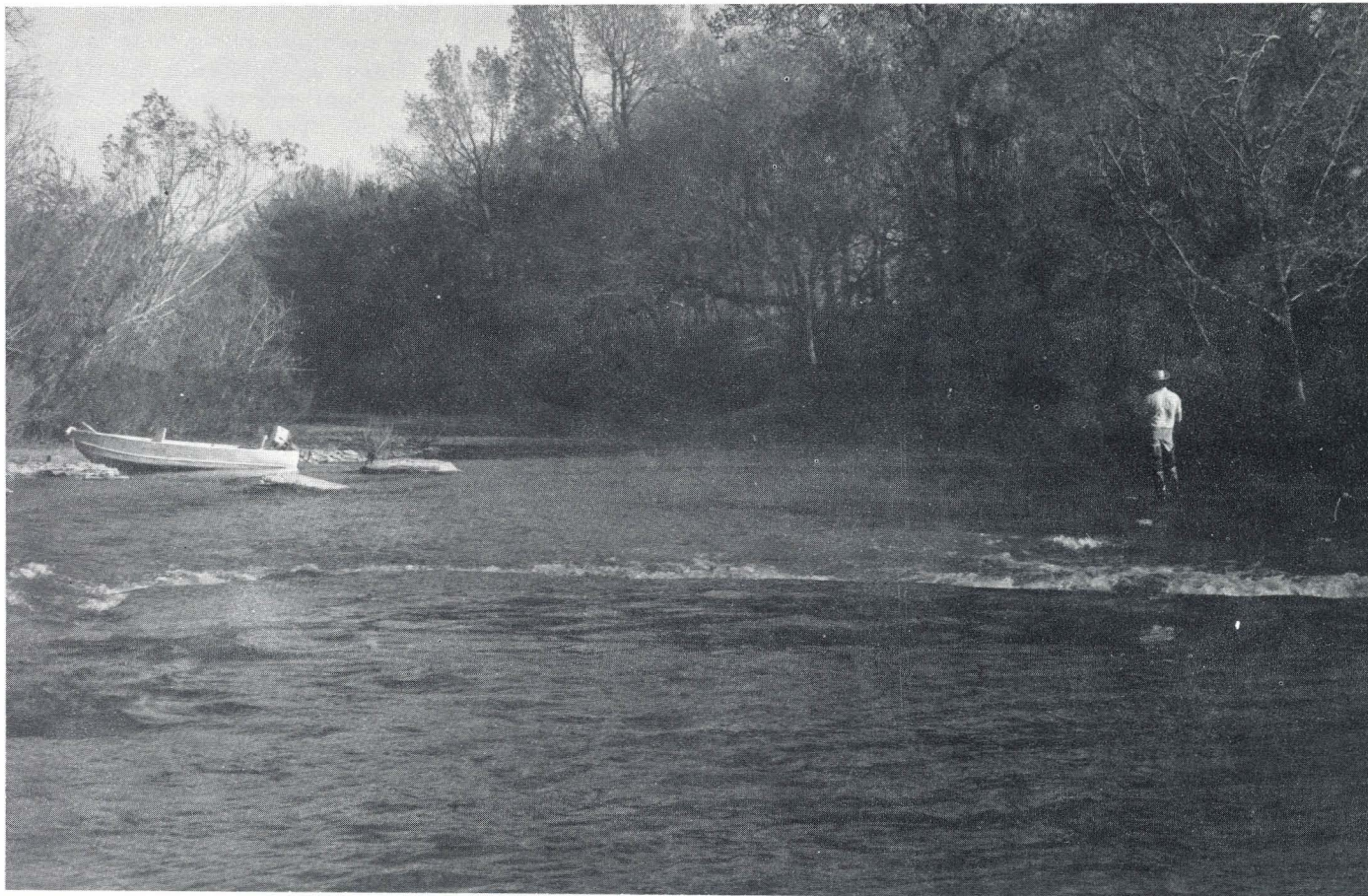
When we reached the area, it was apparent we weren't the only ones who had heard the news of the run; the banks were lined with people. Before we wet our lines I talked to several people to see what their success stories were. Much to my disap-

A nice stringer of whiteys, the product of a spring run.



Farrell Brewer





A good set of riffles is an ideal place to check for white bass on their spawning run.

pointment the stringers were small and fishing was poor. We decided to put the boat in and troll upstream to the riffles.

This method did not prove successful, so we tied up and began wading the shallow areas. I might point out that the proper equipment for wading will make a more enjoyable outing. Hip boots will be helpful, but I prefer chest waders as they allow you to wade deeper waters. When the water warms up I would rather put on a pair of old tennis shoes and blue jeans for wading, but in the early spring this is uncomfortable. Another must is a good life saving device. Here again I will tell you my favorite; I prefer the vest type and mine has pockets for lure boxes. Most of the people I have seen wading and fishing don't wear any device, but in my estimation they're asking for trouble. You never know when you are going to drop into a deep hole.

Back to the fishing. We began casting the riffles, Tom using his white jigs, Al with his white shysters and my dead minnows. Boy! What happened to the fish? After an hour of casting, we were all three still muttering to ourselves and at times out loud. I changed to a beetle spin, which didn't help, and changed locations several times. I didn't feel too bad; no one in the area was having any luck.

Finally, Tom hung one; he yelled for me to move up where he was fishing. I might as well have saved my energy, as I didn't get a tap.

I was becoming disgusted with the whole ordeal and said so to the others. We decided to float back down to the boat ramp and see if we could pick up a few. I used every lure imaginable to try to boat a fish and wasn't successful. I finally started rummaging through my tackle box to see what I had left. Since we were down the river and getting into some deeper

pools, I decided to tie on a deep runner. I selected a ditchdigger that resembled a rainbow trout, according to Tom and Al. They really gave me a lot of razzing about the lure and made comments about my fishing. Well, I'll agree I'm not the best angler in the state but I have my share of fun.

The third cast after I tied on the ditchdigger I hooked something. My spirits began to pick up and when I got the white bass into the boat I really was feeling good. It tipped the scales at a pound and a half and I began to talk back to the others, offering to loan them some of my lures.

Probably the only thing the whole day's fishing pointed out to me was that when every lure you think should work on a particular fish fails, try something else.

Too many anglers try a particular area one time and never return. This is a mistake, for a knowledge of a lake or stream is one of the prerequi-

sites for regular fishing success.

With this in mind we returned to the area the next morning. We decided to start several miles upstream from our location of the day before. We put the boat in near the Rice Bridge on Fall River and floated down. We must really have wanted to float that area of the stream as we had to carry the 16-foot boat through a muddy field and let it down a steep bank into the water. We also had to pack in the motor and all our gear. The effort was worthwhile as we saw the territory that many people haven't seen. This was evidenced by the fact that there were no human signs such as litter.

The fishing day started off right when Al boated a smallmouth bass. Although we were after the whiteys this was a pleasant addition to the trip. All three of us vowed we would return and do some serious fishing for these little dandys.

We floated and fished, tying up at likely spots and fishing for a time. Shortly before noon we reached a good set of riffles. A closer investiga-

tion indicated that it was a white bass running upstream.

This made my blood run hot. This was what we were after. I quickly tied on a white shyster on my new ultra-ultra light rig. You might make note when you are using a spinner type bait such as the shyster it is imperative that you use a snap swivel. This will keep you line from twisting. On the first cast I hung a dandy, Tom hollered for me to keep his head up or I would lose him. He was right, I wasn't able to handle the fish and it swam in to some underwater brush and broke my line.

Naturally I was angered but the anger soon dissipated when I hooked another. I watched my actions on this one and played it just right as he wound up on my stringer. If you haven't been in on the whitey runs you have missed some excellent fishing. In a matter of twenty minutes or so I had a stringer of nine good fish. This will sure pump blood through your veins at a rapid pace.

The fish were hitting so fast I lost track of my partners. Stopping for a

moment to check on them I found they were also filling their string.

Things went hot and heavy for another hour and then just completely shut off. The others suggested we move on downstream to another riffle. I opposed this suggestion as I wanted to do some experimenting. They agreed we had enough fish and some experimenting might get us a few more.

I decided to use a yellow shyster to see what it would do. After using it for awhile I was convinced it wouldn't work. I dug into my box and came out with a yellow and white jig. I placed the white on the bottom and tied the yellow up 18 inches. Al reversed the procedure placing the yellow on the bottom. Tom was trying a white minnow.

The jigs turned the action back on. I yelled at Tom to rig up with jigs if he wanted to catch a few more. He did and we had another hour of good fishing.

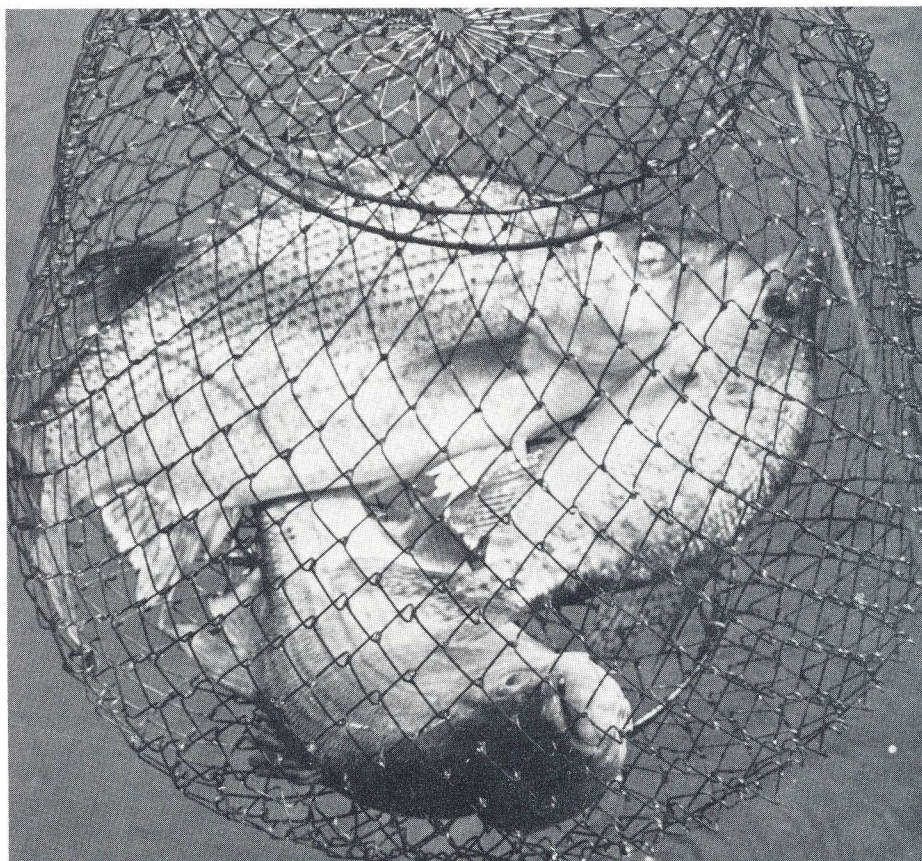
The point here is if the first lure you try doesn't put you into the action try something else until you get into the fish. It also pays to watch other successful anglers in the area and copy their methods and lures.

Now that you have the fish what do you do with them. I have heard many stories about the white bass. Some say they aren't worth eating. After fixing my first batch I was inclined to agree with them.

I am happy to report I didn't give up on my first try. A friend of mine suggested mixing a batter of flour, salt, pepper, half milk and half lemon concentrate. You will notice I didn't give any measurements. The reason, I don't know them, when I get to mixing it up I just keep adding until I reach the consistency of pancake batter.

I fillet the fish and cut them into strips about the size of my little finger. I then roll them in flour and lay them out to dry. When they are dry I dip them into the batter and fry them in deep fat until they're golden brown.

Some mighty good eating is in store. And fishing a white bass run will provide you with all of the excitement you will need for a week-end.



Leroy Lyon

# Where Crows Are King

By Bill Scott,  
Staff Writer

What you are about to read in no way relates to the entire state of Kansas.

It is not to be read as an argument for stamping out a bird species, for this bird is protected by the United States government and has a place in the ecosystem.

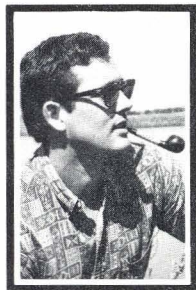
What you will read occurs only in an extremely small area of Kansas.

This condition exists in one county only, with isolated exceptions. That county is like no other in the state. Crows are king there.

It is Stafford county.

ONE THING was for sure. The calf was dead.

Leon Dunn, the owner, and I looked down at it. It was probably the worst thing I have ever seen happen to a living thing, animal or human. Both eyes were completely gone, and the tongue was missing. Even the hair on its head had been stripped. Where the navel had been was a gaping hole and the



Scott

whole backside of the calf was gone. Around the calf was an area about 10 feet in diameter where the wheat had been flattened and was littered with droppings and black feathers.

What creature had done it?

Coyotes?

Free-ranging dogs?

Hawks?

Vultures?

No.

Crows.

Leon had called me one morning early in April at Pratt. He said, "I've had the good fortune—or misfortune

—to have had one killed about two hours ago. You want pictures?

Did I ever. This was the chance he and I had looked for for two weeks. Like he said, it was either good fortune or misfortune, depending on how you looked at it.

On our way to his ranch in the Hudson area, Leon had explained. "My father, Russell Dunn, saw this calf being born at six this morning. It was alive, healthy and normal. He had to take his granddaughter to St. John to catch a bus to a music festival. When he returned at 8 a. m., it was in the condition that you will see it.

"Crows usually go to work in the eyes first. They like that best. Then the tongue, if it's a big calf like this one was. A big calf is often born with the tongue hanging out. Then the navel or the rectum. The calf quickly bleeds to death."

"Why in the world haven't you people told someone about this before?"

"Because nobody will believe us."

Small wonder. This is heavy stuff, and to someone who hasn't been raised in crow country it's just about impossible to believe. Sounds like mountain lion stories. Sensationalism.

Everybody knows crows eat seeds and insects and dead animals. But they don't kill livestock! Can't blame you for sitting there with your mouth open. That's just like me, when I was over at "Pawnee Beefbuilders" feedlot south of Larned checking on one of these reported incidents in Pawnee county. I was talking to Harold Koehn, chairman of the board; Jerry Postier, feedlot hand and two other foremen.

I asked, "Have you ever seen the pecking of huge holes in the sides of steers by crows here?"

All four answered yes. Koehn kept talking. "Hell, yes, we've all seen it. Ask anybody who works here. It was during the cold months of December and January it was going on. It's no big deal. It's obvious you haven't been raised on a farm."

I responded. "I wasn't, but I may as well have been. I was raised in a small farming town of 500 people and I worked 11 summers on farms in Dickinson county. I've never heard or seen anything like you guys are telling me here in Pawnee and Stafford counties."

Jerry Postier spoke up. "We had a bunch of steers that had holes pecked



Bill Scott

In addition to eating large amounts of feed, crows sometimes peck at sores and brands on cattle, causing large wounds.

in them that were big enough for a man to run his fist in.

"The crows would go to work on the brands of full grown, healthy steers or wherever there was a scab and get the blood started. Then they would really go to work on it and keep working until the hole was opened up."

The other three backed him up.

If I read Koehn's mind correctly, he just kept being amazed at my amazement. "You dummy," he seemed to be thinking. "Don't you know nothin' about crows?"

No. I guess I didn't. But I was learning.

Still don't believe? Let's press on.

Don Cooper of St. John told this story:

"This spring I had my sixth loss in three years. I had checked a newborn calf at 11:30 the night before. It was O. K.—healthy and normal.

"I got back out there at 7:30 a. m. Some of the crows were standing on the mother's back and the others were on the ground behind her, pecking away on the dead calf. It was still bleeding and both eyes were gone."

Cooper continued. "I lost another normal and healthy calf last year. Sheriff Gary MacKenzie and I thought at first it had been shot. It had two holes two to three inches big in its belly. However, Sheriff MacKenzie took a stick and poked it in. It went in just four to five inches and stopped. A gunshot would have been deeper or gone clear through. One foot was turned under and one foot was out, showing it had made an effort to get up."

Newborn calves bring \$125 on the market. If the loss for fattened cattle is figured, \$600 is a fair average. Depending on how you figure it, Don Cooper has absorbed \$750 to \$3,600 in

crow kills in the past three years.

George Walls is an eyewitness. "It happened during a bad snowstorm in about 1970. The calf had scours and 40 to 50 crows landed on it. I saw the calf struggling and the crows went to work on the eyes and tail and then the navel, which killed it.

"Another time, I had a heifer down east of the New Hope church in the spring of 1973. She was down with calf paralysis and would have pulled through. I've done it by just letting them stay down for two to three weeks and bringing them feed and water.

"I watched crows peck her anus, female organs and her back end to pieces. Her whole back end was gone, and I had to shoot her.

"I have more than a dozen calves born in the spring of '73 that were blinded, had their tails pecked off or were killed."

# 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 in this news insert.

News contact: Paul Bocquin

Phone— 316/672-6473

## NEW "PET" LAW SET

(released April 26)

PRATT--A new regulation regarding the keeping of raccoons or other furbearers as pets has been approved by the Forestry, Fish and Game Commission.

Raccoons or other furbearers which were legally acquired on or before Feb. 28, 1974, can be possessed alive, if prior to June 1, 1974 a notarized application is filed with the FF&G Commission. The application must state where the animal was taken and under what circumstances.

###

## PERRY SPILLWAY CLOSED AGAIN

(released April 26)

PERRY--The spillway at the dam of Perry Reservoir again is being closed to fishing due to outbreaks of illegal fish snagging, announced Forestry, Fish and Game Commission Director Dick Wettersten.

Effective at 5 p.m. Wednesday, April 24, fishing was closed at the outlet structure and numerous no fishing signs were posted in the area.

Wettersten said the first closure of the Perry spillway to fishing April 5 - 9 was too short of time to have much effect on reducing snagging. He said now it will be closed for an indefinite period of time.

###

## SIX MILLION WALLEYE STOCKED

(released April 26)

PRATT--More than six million walleye fry have been distributed to four Kansas reservoirs by the Forestry, Fish and Game Commission.

Melvorn Reservoir received more than three million walleye fry, Elk City Reservoir about one million fry, John Redmond about 1.4 million and Kirwin Reservoir got a half million. Two to three hundred thousand walleye fry were retained at the Pratt Hatchery to rear to fingerling size.

Walleye fry are about the size of wheat grain, and are susceptible to high initial losses. Those surviving should begin to show up in the angler's creel in about two years.

###

1st TURKEY HUNT  
HIGHLY SUCCESSFUL

(released May 17)

PRATT--Kansas turkey hunters scored high in the state's first turkey season, April 20-28, with about one-third of the hunter's bringing home a bird.

From questionnaires returned by hunters to the Forestry, Fish and Game Commission, as of May 1, about 120 turkeys were harvested. A total of 400 persons received permits to hunt turkey in a limited area of south-western Kansas.

With more reports coming in, and accounting for a number of hunters who didn't hunt, it is estimated the total harvest may reach 130. According to Ken Montei, Hays, turkey biologist of the FF&G Commission, the hunter success rate in Kansas may be one of the highest in the nation.

In southeastern U.S. where unlimited turkey permits are usually available, hunter success is generally 10 to 15 per cent.

Montei noted several reasons why Kansas hunters were so fortunate.

"The terrain in our turkey hunting areas is easy to hunt," he explained. "It is not difficult to stalk turkey along a river bordered by just a few trees from which the birds can be flushed into the open.

Montei added that opening morning of the season found many of the turkeys less wary than they should have been, but this feature, according to a number of hunters, changed dramatically by the second day.

Montei said the hunting season was good for the overall turkey population. He said it put "wildness" back into the birds which were protected for many years and in some areas were tending towards becoming domestic. He said hunting also will disperse large flocks into smaller ones, decreasing chances of disease and increasing turkey range.

The biologist speculated the turkey harvest accounted for less than 10 per cent of the tom turkey population, most of the harvested birds being old and nonproductive. He said since this was the first season, the FF&G Commission decided to start out with a conservative number of permits in hopes of increasing it in coming years.

###

LUFT IS NEW FF&G  
COMMISSION CHAIRMAN

(released May 17)

PRATT--John Luft, Bison, was elected chairman of the five-man board of the Forestry, Fish and Game Commission at its meeting here Wednesday.

Beginning his third year on the commission, Luft had served as secretary the year before. He replaces Jack Haley, Minneapolis, who was chairman the previous year. Art Hanson, Bonner Springs, was elected secretary. Hanson has served on the commission for about one year.

Commission Bill Fowler, Weir, moved the commission accept the low bid of about \$88,000 for improvements at Miami State Fishing Lake south-east of Osawatimie. Nation Bros. of Mound City submitted the low bid which will go for deepening the lake, building 14 fishing piers, raising the dike three feet, road work and more.

Construction at the 104-acre lake should be completed in a year. Fish then will be stocked and allowed two summers growth before the lake is opened to fishing.

Commissioner Haley announced he will participate in the Show Me Tour of Ducks Unlimited through the province of Saskatchewan in late June. This will provide first hand information on waterfowl production status in the "duck factory" of North America.

Commissioners heard some concerns of goose hunting clubs representatives from Phillipsburg. Among other things, the representatives complained of too many cases of "sky busting" or long shots by persons who wound or harass more geese than they bag. They also commented that the goose season last year started too early and didn't last long enough. The group also wanted the commission to see if it would be possible to restrict commercial goose hunting pits or blinds which result in flock shots and wounded birds.

Concerns of the goose hunters will be taken into consideration, according to Chairman Luft. Luft said the federal government will provide guidelines within which states will set waterfowl season in early August.

The next meeting of the FF&G Commission will be the morning of June 21 at the Ramada Inn, Salina. The main consideration of the meeting will be approval of the fiscal year 1976 capital improvement budget.

###

#### 16-POUND STRIPER

(released May 24)

GLEN ELDER--A 16-pound striped bass caught from Glen Elder Reservoir Sunday has bettered the state record by six ounces.

Caught on a weedless Johnson silver spoon by Joe Patterson of rural Glen Elder, the record striper was 31 inches long and 21½ inches in girth. Patterson caught the large striper in the Walnut Creek area about sundown.

Norman Newell, Beloit, had the previous record striper that weighed 15 pounds, 10 ounces, caught January 18 from the outlet below Glen Elder.

###

#### COOS COUNTED IN KANSAS

(released May 24)

PRATT--Fifty game protectors and biologists are now in the middle of their annual "coo" counts throughout Kansas.

They aren't really trying to find the number of coos in the state. The coo is, of course, the romantic music mourning doves make this time of year. Biologists census these each year in the early hours of dawn to compare densities of doves from one year to the next.

The rely on the dove's call in the early morning hours for the census because it is when the bird is more stationary, but sometimes difficult to see.

Twenty-six traditional routes, each 20 miles long, will be run through several Kansas counties for the coo counts. Every mile, the census takers stop, get out of the car, and listens for nature's music. Conducted in every county of the state, the coo count is one of the most long-standing and accurate methods of wildlife censusing.

###

'73 BUMPER YEAR  
FOR DEER HARVEST

(released May 24)

PRATT--Heavier hunting pressure and a longer firearms season in western Kansas resulted in a record harvest of deer in 1973.

Other forms of deer mortality last year, including road kills, poaching, and natural deaths also reached a record high, according to Bill Peabody, big game biologist of the Forestry, Fish and Game Commission.

Peabody has released a county-by-county breakdown of all forms of deer mortality in Kansas last year.

The big game biologist said deer numbers have been steadily increasing in Kansas in recent years, resulting in more liberal hunting seasons. Two thousand more permits will be issued for the season this fall, compared to last year.

He said even with the record deer harvest last year, there should be more deer available this year. One reason would be the reduced speed limits which will lower the number of deer killed on roadways.

Deer hunters in Kansas have some of the highest success rates of all states. Last year almost 40 per cent of the firearm hunters bagged a deer and nearly 20 per cent of the archers got deer.

###

RECORD GAR TAKEN

(released May 31)

PRATT--A topeka angler, Ray Schroader, has broken the record for the largest gar fish taken in Kansas. The 31 pound, eight-ounce fish was nearly five feet in length and was caught in the spillway area below Perry Reservoir on May 21.

According to game protector Jim Hale, the gar was the longest fish he had ever seen taken from Kansas waters. He said Schroader plans to have the fish mounted for display.

The previous Kansas record gar weighed 28 pounds and was taken from the Neosho River in 1966 by Mike Carter of Chetopa.

###

\$500 FINE FOR  
ILLEGAL TURKEY

(released June 7)

PRATT--An Andale, Kansas man paid \$500 fine and was placed on parole May 30 in Reno County court for shooting a wild hen turkey, the Kansas Forestry, Fish and Game Commission reports.

Clem C. Hein was arrested April 20, the opening day of turkey season at the upper end of Cheney Reservoir. Unbearded or hen turkeys are protected by law and cannot be hunted.

Hein appeared in Reno County magistrate court before Judge Richard Rome. He told the judge he had been shooting at what he thought was a male turkey, but found after shooting the bird that it was a hen.

-more-



Steve Capel, Newton, south central regional game biologist, told the judge the 10-pound hen was one of about 1,500 wild turkeys in the state. These turkeys descended from an original 1965 stocking in the Arlington area of nine hens and three toms.

In addition to the fine, which amounted to \$50 a pound for the illegal bird, Hein was sentenced to six months in jail. He was paroled for two years. The judge also confiscated Hein's hunting license for 30 days.

The bird showed 16 eggs developing at the time it was killed. About 10 of these would probably have been hatched, it was reported.

###

NEW BULLHEAD  
RECORD ESTABLISHED

(released June 14)

PITTSBURG--A new record bullhead has been caught by Mrs. Mary Louise Sachetta of Scammon, it was announced by the Forestry, Fish and Game Commission.

The fish was caught June 2 from a strip pit near her home. It weighed an even five pounds on state inspected grocery store scales. The fish measured 18½ inches in length and 15½ inches in girth. Game protector Harley McDaniel witnessed the measurements.

Mrs. Sachetta said she is a rank amateur and the new record bullhead is the largest fish of any species she has caught. She was fishing with a small hook baited with a worm, trying to catch sunfish when the whopper struck. She hopes to have the fish mounted since it is a new state record.

The previous state record bullhead weighed four pounds, six ounces and was taken in 1973 from Ford County Lake by Charles Gunkel of Kin-sley.

###

SIX GET STERN LESSON  
ON FROG SEASON

(released May 17)

LEAVENWORTH--Five Texans and a Leavenworth, Ks. man found out the hard way that bullfrog season in Kansas doesn't open until July 1.

The six men were fined a total of \$210 in Leavenworth County Magistrate Court for a late-evening frog catching episode May 5. The five men of El Paso, Tex., pleaded guilty to two charges--not having a fishing license, which is required to take frogs, and taking frogs out of season.

James L. Patrick, 25, Leavenworth, had a fishing license, but pleaded guilty to taking frogs out of season. The plea made Patrick guilty of parole violation, so he remained in jail to complete a previous sentence.

-more-

The six frog paochers were arrested by Larry Culbertson, police chief of Easton, Ks., for trespassing at the Easton Rock Quarry. After they admitted they were after frogs, game protector Frank Nesmith, Atchison, issued them tickets.

The eight frogs, held as evidence for the May 13 court date, were released back to the quarry, all in fine shape.

###

ENVIRONMENTAL QUALITY  
PROJECT MAN EMPLOYED  
BY FF&G COMMISSION

(Released 5/2/74)

PRATT--After a vacancy of several months, the post of environmental quality project leader has been filled in the game division of the Kansas Forestry, Fish and Game Commission, it was announced by Commissioner John Luft of Bison.

Neil F. Johnson, 30, a native of New Jersey, received a bachelor of science degree in biology from Rollins College, Winter Park, Fla. and a master of science degree in wildlife biology from the University of Massachusetts.

Johnson served on the faculty of Bottineu, N.Dak. junior college, where he taught chemistry from Aug. 1, 1972 until accepting his present position.

Neil and his wife Joyce will be living in Pratt.

As environmental quality project leader, Johnson will be engaged in research and consultation work. He will design and supervise research in wildlife environmental quality and wildlife habitat requirements.

Johnson will investigate wildlife mortality caused by man-made changes in environmental conditions. He will also act as the Commission's representative on steering committees, advisory councils and other groups concerned with environmental quality.

###

FISHING OPPORTUNITIES  
GOOD AT JEWELL STATE  
FISHING LAKE

(released

PRATT--Recent test netting of Jewell State Fishing Lake showed good populations of channel and blue catfish, most of keeper size, are thriving in the lake.

-con't-

Tom Bowman, Concordia, district fisheries biologist of the Forestry, Fish and Game Commission, conducted the netting survey at the 57-acre lake, six miles south and four west of Mankato.

Bowman said several large channels showed up in the test netting and that opportunities for catfish angling should be excellent.

According to the biologist, most of the largemouth bass are small, but some of the larger ones are being caught by anglers. Clear water and much submerged cover provides many good areas for bass fishing, he said.

A fair number of walleye in Jewell are of keeper size. But Bowman said fishing for this species should improve later in the season. Bluegill are extremely numerous in Jewell, providing excellent angling opportunities in shallow areas. Bowman said black bullheads are not overly abundant, but all are good sized.

###

CORPS TO DECIDE FATE  
OF BIG HILL RESERVOIR

(released June 12, 1974)

CHERRYVALE--Recommendations made Monday by the Kansas Forestry, Fish and Game Commission could make Big Hill Reservoir the finest bass fishing lake in the state, but it's all up to the Corps of Engineers.

Meeting at Cherryvale with representatives from the Tulsa District of the Army Corps of Engineers, Commission biologists strongly suggested that large stands of timber be left standing to provide habitat for largemouth bass and other game fish.

"If the Corps leaves this timber standing in the lake's basin, Big Hill has the potential of becoming a small Toledo Bend," said Johnny Ray, Regional Fisheries Supervisor from Chanute. Toledo Bend is a large wooded reservoir on the Texas-Louisiana border, famous for its excellent bass fishing. Monday's meeting followed conversations held last fall between Fish and Game representatives and Corps personnel. In building an impoundment, the Corps has traditionally removed all standing timber from the lake's basin. "Clearing timber from a lake bed greatly reduces the impoundment's food producing potential and eliminates protective cover for the fish," explained Ray. "It also allows wave action to muddy the water which is bad for bass which need fairly clear water for spawning. Then too, bass and other sight-feeding fish require clear water in order to catch their prey. Lakes which contain standing timber simply make better fishing lakes." In addition, bass need the underwater cover provided by standing timber.

###

CORPS TO DECIDE FATE (released June 12, 1974)  
OF BIG HILL RESERVOIR

CHERRYVALE--Corps officials took commission recommendations under advisement and returned to Tulsa where final decision on the lake will be made. "it's up to the Corps," said Ray. "They can give sportsmen of Kansas an excellent fishing lake or they can merely build another impoundment."

"There's another factor involved here," Ray added. "By leaving the timber standing, the Corps could save a great deal of the taxpayer's money by reducing construction costs."

Representatives from the Kansas State Board of Health and the Water Resources Board gave Commission recommendations their blessings. Commission biologists also recommended that fish attractors, in the form of large brushpiles, be placed at strategic points off the lake's shoreline to increase productivity and concentrate fish for anglers.

Completion of the multi-purpose 1200 acre impoundment, located 14 miles southwest of Parsons, is slated for 1977 according to Corps spokesmen.

###

MIKE LITTLE APPOINTED (released 6/18/74)  
STATE GAME PROTECTOR

SALINA--The appointment of Mike Little as state game protector in Saline and Ottawa counties was announced by Jack Haley, Minneapolis, commissioner-at-large for the Kansas Forestry, Fish and Game Commission.

Little, 23, is transferring from the Kansas Highway Patrol, where he served as a state trooper. He received his law enforcement training at the Kansas Highway Patrol Training Academy in Salina in 1972.

Before joining the Highway Patrol, Little was employed with DG Oil Company and Bob's Fina Service, both in Minneapolis.

Mike and his wife Karla will be living in Salina. He is the son of Mr. and Mrs. Jack Little of Parsons.

Little is filling the game protector I position vacated by Marvin "Butch" Hamilton, who moved up to regional game supervisor of the southwest region and is stationed in Dodge City.

In the May-June KANSAS FISH & GAME news insert, one news story stated "Opening dates for pheasant, quail and prairie chicken hunting seasons have been set for Nov. 2 by the Forestry, Fish and Game Commission." Since then, Commission action changed the season opener to Nov. 9 through Jan. 31 with a mid-season closure during deer season--Dec. 7 through Dec. 15.

George Walls told the truth. He took me through his corrals and I took pictures of six that were either blinded or had their tails lopped off or both.

Probably Merl Heyen has suffered the worst losses of all. Leonard Getty, Heyen's hired hand, told of one specific instance. "The calf had just been born and was standing good. It was good weather. I checked the calf for scours and laid it back down. I drove two miles to tell Merl that he had a newborn that was in good shape. By the time he stopped and talked to me for a few minutes and drove the two miles back, the calf was dead. The crows had pecked the navel and eyes out."

Heyen took over. "In the spring of 1974, I saw a calf standing with crows working it over. I've seen the calves down and struggling when I've shot the crows off their eyes and navel.

"I lost better than 26 head of calves to crows in late December and early January of 1974.

"On another occasion, there were three eyewitnesses to the killing of a calf: My wife, Leonard and I. We all saw the calf running around and then it lay down. The crows gathered on it. My wife got over there and drove them off. It took the crows four or five minutes to kill it. There were 10 to 12 working on it; it sure doesn't take long!"

It didn't take long for Hayen to lose big money, either. Figuring \$125 per head for calves, the 26 cost him \$3,250. If the fat cattle price of \$600 per head is used, he lost \$15,600 in the two months. Hayen claims he also had three cows killed in the act of calving, and \$375 per cow is a conservative estimate. That comes to \$1,125.00. Total loss for December and January, \$4,375 to \$16,725.00.

The crows' activities aren't confined to cattle. Dennis Siefkes of Hudson lost two pigs this spring like this:

"It was good weather, and I was letting the pigs run out in the open. Two of them went out of my Smidley farrowing unit.

"I saw them alive, normal and healthy at 8 a. m. They were running and frisking about. Both were large

pigs, and both were dead by 1:30 p. m. They had their eyes pecked out and the feet were worked over. The anuses were pretty well mutilated. Crows are the only thing it could have been."

In the other incident I checked out that occurred in Pawnee county, college zoology major Gary Schmidt recalled:

"It was in the winter, and it was cold. There were thousands of crows flocking into our feedlot here at Pawnee County Pork Producers. They'd climb in with the pigs and eat in the creep feeder.

"A sow had farrowed outside the fence. When I got there, a crow was pulling one of her baby pigs away. Its eyes had already been pecked out.

"Are you sure it was alive?"

"Positive. I saw it struggling to get away from the crow as it dragged it away. It was bleeding badly. Ten others were already pecked to pieces."

"You mean an entire litter was almost wiped out?"

"Yes. Eleven pigs were in the litter and 10 were pecked to pieces. They

were great big, normal and healthy. The sow hadn't even moved and she hadn't cleaned yet. It was impossible they killed them in 30 minutes, but it happened. I saw it.

"You say 30 minutes did it. Were they seen alive 30 minutes before?"

"Harlan Colglazier, the owner of the feedlot, saw them alive 30 minutes before. The crows were just cleaning up when I got there for the killing of number 10."

Baby pigs at eight weeks old bring \$25.00. That 30 minutes cost Colglazier \$250.00.

Some highly credible people back up these ranchers and feedlot hands in their claims. Dr. Harry Anthony, director of the veterinary diagnostic laboratory at Kansas State University, said—"if the observation of the farmers in that area is that they have noticed killing attacks on livestock by crows, I would not doubt it. I go along with them; they are good, solid people."

Clelland Cole, an outdoor writer whose articles have appeared in *Outdoor Life* and who has written for the

On rare occasions, crows may kill newborn calves. But in most instances the calves are stillborn and simply discovered by the scavenging crows.



Bill Scott



Young crows—scavenger or predator? Basically the birds are scavengers but they're also opportunists. As such, they'll supplement their standard diet with ducklings, young songbirds and rabbits.

Associated Press, knows the people and the situation personally since he makes his home in St. John. Cole said:

"These farmers aren't saying these things because they have inborn prejudice toward the crow. The crows have done them damage, and that's why you're being told about it.

"They are intelligent people—if Leon Dunn told me that crows are attacking and killing healthy livestock, it would take monumental evidence to make me disbelieve him."

W. G. Leitch, chief biologist for Ducks Unlimited in Canada, shed further light on the predatory nature of crows. He told me.

"Crows are a significant predatory factor on nests and ducklings in Canada. When a hen is taking the brood to water the crows will attack the ducklings—I've seen this and so have many other waterfowl biologists up here." This surprised me, and I told him so. Leitch said, "Well, it was as big a surprise to me when you told me crows were attacking livestock down in Kansas!"

This whole situation has a history behind it.

Crow numbers reached an all-time high in the late 1940's in Reno and Stafford counties. Some reports of livestock being killed were heard, although not as frequently as today. Severe control measures were enacted and a storm of protest erupted from protectionist societies. The control measures were discontinued.

Today, according to Cole and several other ranchers who remember crow numbers in Stafford county then and now, the numbers today double what they once were in the '40's; estimates vary from as little as one million now in the county to as many as four million.

Like the swallows to Capistrano, the migratory crows return to Stafford county in the fall and winter months. It's impossible to envision it unless you've driven through Stafford county any evening from October to March. Have you, for example, ever seen 500 acres blanketed with crows so solidly "you couldn't throw a hat out there without touching one?"

What has caused the black invaders to overwhelm one particular county? Some ranchers think one reason is that in Reno county hundreds of acres of

roosts have been cleared, driving the birds to Stafford county. Cole doesn't think so.

"Historically, Stafford county has always had more crows than Reno," Cole said. "I believe it was worsened by two major factors: The coming of milo as a basic agricultural crop in Stafford county, and the maturing of the catalpa groves to a size that crows found attractive for roosts."

William Stoughton, landowner in the Hutchinson area, said "Crows are no longer a problem in our area," but he went on to say that milo is not raised in large fields there; orchards are the big agricultural item. Possibly, Old King Crow doesn't like apples and peaches as well as he likes milo.

Washington is aware that certain areas of Kansas do have crow problems, although not of the magnitude of Stafford county; and as a result has placed Kansas under Standing Depredation Orders.

SDO means simply that crows may be taken when they are committing or about to commit depredations on ornamental or shade trees, livestock, agricultural crops or are concentrated in such numbers as to constitute a hazard to health or sanitation.

For Sam Salem, crows have meant the difference between a comfortable middle age and a middle age where he has to squeeze nickels until the buffalo bellows. Since 1937 Salem claims he has absorbed \$148,000 in crop losses alone.

Last year was an example. In 1973, he had two fields of milo; one was for 60 acres and one was 50 acres. Both fields were yielding 60 bushels per acre. When the crows finished with him, one field yielded 15 bu. per acre; the other yielded nothing at all. On the 60-acre field, Salem said crows took 3,600 bushels; on the 50-acre field, they took 2,250 bushels. Figuring the 1973 price of \$1.50 per bushel, Salem lost \$8,775.00 from only two fields in one year.

Leon Dunn is another typical example. His cornpickers were just ready to move into his 110-acre field

when wet weather hit him. That left it open to the crows, and he lost 32 bu. per acre. The 1973 price was \$2.80 per bushel. Unless my math is incorrect, he lost roughly \$9,800.00 from one field in one year. Dunn fed 100 head of cattle on the other end of the same field. In other words, the crows took as much as 100 head of cattle did.

The spreading of disease among livestock by crows is something no one can pin down but crows and disease are often linked by factors that seem more than coincidental. One operation will not have infectious scours. Crows move in, and infectious scours move in too.

There may be something to concern humans, too. Bob French, assistant director of epidemiology of the Kansas State Board of Health, said that histoplasmosis is known to occur in humans who work or live near a bird roost.

French explained that this chronic, progressive and little-known lung disease occurs in humans from starling roosts or any bird roost where droppings cover the ground. This protective cover allows the *H-capsilatum* fungus, which produces histoplasmosis in humans, to proliferate. It is most common in the Mississippi and Missouri river valleys and up to 80% of those infected have no knowledge of it. Its symptoms resemble a cold closely. The patient runs a low grade fever and has the sniffles for a few days, then the symptoms disappear. The problem is that the disease does not. In its chronic form, it can be as bad as tuberculosis, French said.

While it is unknown in the Stafford county area at this time, French said no records are kept of skin tests run and it would be impossible to say how common it may be in that area. French pointed out that hunters and landowners entering a roost are not in great danger, but anyone who stirs the dust of the roost may be exposed. This would include people like tractor and bulldozer operators.

This article was started with a sure thing.

Let's finish it with a sure thing.

Crows are King in Stafford county.

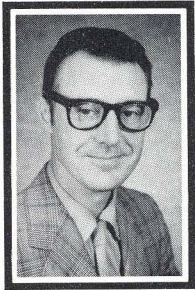


The crow is currently protected by Federal Law. In Kansas, however, the bird is under Standing Depredation Orders. This means the birds can be shot when committing or about to commit depredations on ornamental or shade trees, livestock, agricultural crops or are concentrated in such numbers as to constitute a health hazard.

**EDITOR'S NOTE:** The author mentions the death or wounding of 66 cattle and hogs; deaths and injuries which may or may not have been caused by crows. Readers are cautioned about jumping to conclusions. It's often difficult to determine whether or not crows were actually responsible. For instance, a still born calf simply represents a free meal to the crow. Seconds after the still born calf is dropped it may be covered with feeding crows, because the crow is first of all a scavenger. To a lesser degree, the birds are predators. In many instances these victims were injured or incapacitated in some manner which made them unusually susceptible to predation. However, to the farmer who arrives moments after the calf's birth and finds the crows feeding—well, it's a case of those crows killing his calf. In other cases, the kill, if it was a kill, was not actually witnessed. True, there are some eyewitness accounts describing predatory acts by crows. It's not our purpose to attack the credibility of these accounts, but it is our responsibility to put them in perspective. The 56th Annual Report from the Kansas State Board of Agriculture shows 72,000 head of cattle and hogs produced in Stafford County during 1973. Even if crows were actually responsible for all 66 deaths and injuries to livestock, these cattle represent only .009 of one percent of the 72,000 cattle and hogs in Stafford County! In other words, a localized problem in only one of 105 counties. On the other hand, crop depredations by crows may be a more serious problem.

**T**HE MARKET in southern states for Kansas timber products has produced a rash of loggers operating in many of the state's wooded areas.

The Raymond Wagler farm 1½ miles north of Plevna was visited by such a logging firm two years ago.



**Bocquin**

They offered a market for a stand of cottonwood trees in a section pasture.

The loggers from Oklahoma moved in with chain saws and axes and soon were felling large trees all over the section. But before all the marketable logs had been trucked out, their retail outlet fell through.

Wagler was not only left with tree tops and timber debris scattered everywhere, but also many large, choice logs were left to deteriorate.

**Shrugging it off** as a raw business deal, Wagler left the timber lay while his cattle grazed around hundreds of limbs, eating the native buffalo grass wherever it wasn't covered or out of their reach.

The cows would probably have continued waltzing around the timber toppings for several more years until it finally rotted and decayed. But game biologists from the Kansas Forestry, Fish and Game Commission noticed the trees while driving along highway US-50 that borders the Wagler farm on the south.

**They came up with** a solution that benefits both landowner and hunter. It also gave an ambitious Boy Scout troop an opportunity to earn points for merit badges.

Steve Capel, south central regional game manager stationed in Newton, and Steve Sorensen, district game biologist in Hutchinson, contacted Scout leaders of Troop 740 in Kingman. Arrangements were made for a Friday night campout at the Wagler Farm.

**After pitching tents** and enjoying a night out under the sky, the lads, ranging in ages from 11 to 14, were ready and eager to go to work. It took

# Brushpiles for Game

By Paul Bocquin,  
Staff Writer

a lot of hiking, pulling and tugging to accomplish their efforts over the square mile of central Kansas rangeland. The white cottonwood slash was scattered throughout the pasture.

Under supervision of the two biologists, the boys soon mastered the skill of building brush piles for Kansas wildlife cover. This is one of the quickest methods of improving quail and rabbit cover, the biologists point out. It doesn't take game long to lo-

cate a series of good brush piles and put them to use.

**Using the large trunks**, as a base, the scouters criss-crossed the smaller limbs over the trunk, building four or five feet high. Care was taken not to make the piles too large or too dense. A loosely-built brush pile with its accompanying growth of grass and weeds will be attractive to both quail and cottontails.

Some of the larger logs that had been hollowed out were converted into rabbit shelters. Brush was piled over one end of the open log, with the covered end facing northwest and the open end on the warmer side.

In most cases, only three or four tree tops are needed to build a brush pile of suitable size, 12 to 15 feet across by five feet high. Whenever possible, the youngsters located the brush piles on the south side of slopes and hillsides, where there would be less snow cover, more protection from cold, northerly winds, and where sunlight encourages growth of grass

**Building brushpiles for wildlife cover is a good project for boy scout troops or civic clubs.**



**Paul Bocquin**

*Fish and Game*



through the loosely-piled brush.

Capel recommends building two or three piles in a cluster, 20 to 30 yards apart, then spacing the next cluster of piles about 200 yards away. This provides more than an isolated habitat for wildlife while leaving an ample grazing area for livestock in between. The open area also creates an escape and loafing area for the birds.

Do not pile brush in the middle of an eroding gully, the biologists warn. Place the heaps around the upper part of the wash. The object is to retard runoff and keep water out of the cut if possible. For brush piles help to prevent erosion as well as furnish wildlife cover.

"We do not endorse cottonwood logging as a means of building brush piles for wildlife," Sorensen pointed out, adding that the wildlife cover project is more of a salvage operation for cleaning up the area after the damage has been done.

They suggest timber be piled around the outer edge of the field, leaving the center open to allow growth of grasses and tree reproduction. In a few months, the biologists and scouts will return to the Wagler pasture to examine the results of their efforts.

Piles of droppings will give evidence of where the birds have roosted. The undigested seeds which this material contains will sprout readily if the sod is not too heavy. In several years a thicket of shrubs and vines will be established around the brush if soil conditions and sunlight are favorable.

Annual tree trimming on the Wagler farm will provide material for new brush piles or fodder for old ones that have weathered down.

Wagler's cattle also will benefit from construction of these brush piles. As the scouts pulled the slash together to build them, they opened up additional grass for grazing. Thus, wildlife gained by creation of permanent cover and the cattle gained access to additional grass.

"A group like this can build four or five brush piles an hour," Capel said. "It is not hard work but takes a lot of hand labor and is just the thing for



Wildlife like these quail will benefit from the protection afforded by brushpiles.

4-H'ers, Boy Scouts or Girl Scouts to use as club projects."

Scoutmaster Byron Walker and Scout leaders Clarence Burroughs and Bill Drake, all of Kingman, work closely with their Boy Scouts and take pride in noting that Troop 740 has produced nine Eagle Scouts in 18 months.

Walker is employed by the Kansas Forestry, Fish and Game Commission as game manager of the Kingman Game Management Area.

Capel and Sorensen have also worked with another group of youngsters who built brush pile cover for wildlife on land near Burrton. Biologists are available to assist other groups in similar projects now that Project SASNAK is underway.

Any type of timber slashings will serve as brush pile material, but Capel advises building the piles soon after the timber is cut and before the wood weathers and deteriorates.

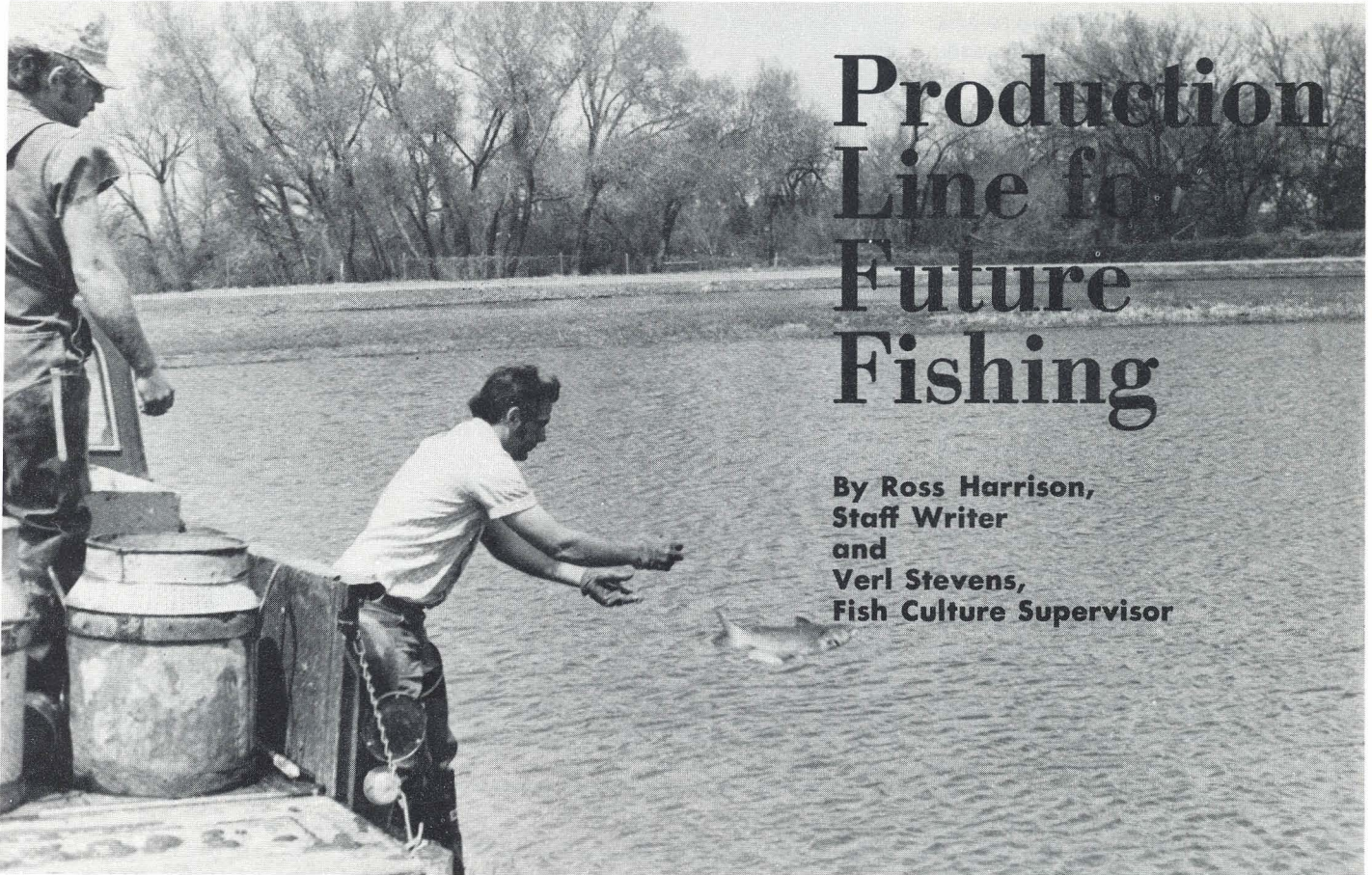
In providing this type of wildlife cover, remember to keep the piles small, 12 to 15 feet across by 4 to 6

feet high. A series of brush piles or windrow of brush will serve as both winter cover and escape cover. By placing brush adjacent to a grassy fencerow and a grain field, bobwhites can find all their needs filled close at hand.

Several smaller, loosely-constructed brush piles placed along a fencerow, gully or field border will prove more beneficial than a single large one.

After the brush piles are constructed, the farmer or landowner can aid the wildlife process by digging up a few sprouts of Virginia creeper, bittersweet or wild grape and planting them along the edge of the brush piles. As the cuttings rot down, the vines will keep growing.

Another way to make a living brush pile is to cut down two or three of the thick, round osage orange trees that grow in old pastures. Place these around a gully or outcrop and plant the vines beneath them. In a few years, each tree will be a thriving tangle of cover.

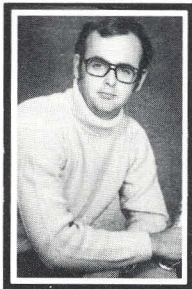


# Production Line for Future Fishing

By Ross Harrison,  
Staff Writer  
and  
Verl Stevens,  
Fish Culture Supervisor

**D. B. LONG** OF Ellsworth in 1877 was appointed as the first fish commissioner in Kansas.

He had no staff. He was limited to \$3 a day and 10 cents a mile expenses, not to exceed \$500 a year for his two-year term. Long barely let the ink dry on his appointment certificate before he asked the Legislature for a fish hatchery.



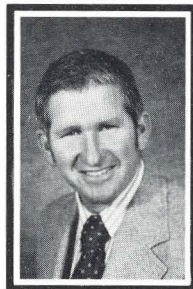
Harrison

Twenty-five years and several commissioners later, it became obvious that the few federal fish hatcheries in the country couldn't meet the demand for fish in Kansas. The Legislature approved construction of the state's first hatchery in 1903.

Pratt County donated 12 acres of land in the Ninnescah River Valley to

the cause. Several ponds were dug by hand and horse, and the state was into the fish culture business.

Today, there are 87 individual culture ponds at the Pratt Hatchery, plus 50 more at other state hatcheries and fish rearing areas around Kansas. In 1973 these ponds of the Forestry, Fish and Game Commission produced more than 16 tons of nine different species of fish that were stocked in Kansas waters.



Stevens

In those earlier days, the fish hatchery was thought to be the cure-all for poor angling. Shad, salmon and carp, among others, were cultured and stocked in Kansas waters in astronomical numbers. In the late 30s and 40s, however, the once overwhelming

support for fish hatcheries was losing ground. Faith in fish culture was waning because 40 years of intensive fish stocking had not created the fishing paradise that was expected.

As fish management became more scientific, the practice of stocking was put into proper perspective.

Today's concept of fish stocking is: Stocking is ONE important tool of fish management. Properly prescribed, stocking can be just what the doc ordered. Carelessly used, stocking fish can be a waste.

In the last 10 years anglers in Kansas have increased about 40 percent. This demand for more and better fishing has resulted in more intense fisheries management efforts by the FF&G Commission. This in turn is leading to more dependence on fish culturists to produce increased numbers of a wider variety of fish for stocking.

Coordinating the activities of fish

culture in the Forestry, Fish and Game Commission is Verl Stevens. Five years as supervisor of fish culture, Stevens is rearranging fish culture planning.

Historically, the eight different fish culture facilities operated by the agency were virtually independent of each other. Stevens has started molding the separate operations into a state-wide system. His idea is to maximize the good points of each facility and increase overall efficiency. He has just been assigned a new assistant, Bruce Taggart, who will for the first time gather uniform data on all the different culture facilities. Taggart will formulate reasons for low production in some cases and high production in others, eventually to upgrade all operations.

**We'll talk more on the facilities later.** First, some background.

There are two stocking programs of the FF&G Commission which indicate the makeup and magnitude of the annual production of cultured fish.

Highest priority is stocking public impoundments. This annual quota of fish is set by fisheries biologists across the state who submit requests for a certain number and size of different species to be stocked in their area.

The other stocking program is for new or renovated farm ponds. Between 1,000 and 1,200 farm ponds are stocked each year.

**There are three general sizes of fish** which culturists produce for these stocking programs: fry, fingerling and shorts—all rather loosely defined.

"Fry" are fish anywhere from just hatched to two or three weeks old. Fry of most species are produced by the millions, but when stocked, survival can be extremely low, especially in waters with established fish populations. For this reason, fry are reserved for two main uses. Either they are stocked in new impoundments which do not contain large numbers of fish, or they are retained in rearing ponds and fed to more survivable sizes.

"Fingerlings" are fish just out of the fry stage and up to four or five inches. Fingerling production is usually in the hundreds of thousands, due to mortality of many fry. They can be any-

where from several weeks to a year old, depending on species. When stocked, fingerling survival is higher than that of fry, but fingerlings are still generally reserved for initial stockings in new waters and for new or renovated farm ponds. Many fingerlings are retained in rearing ponds and fed to larger sizes.

"Shorts," or intermediates, range from six to 10 inches. Because of the tremendous amount of space and food required to produce shorts, their annual production is much lower than smaller fish. Shorts are used as supplemental stockings in waters where fish already exist, but fail to reproduce.

Although it complicates fish culture, each of these different sizes of fish fits a particular stocking need as prescribed by the fisheries biologist. And each year, requests by biologists will vary by species, size and number of fish needed.

It is difficult, then, to outline a typical annual production figure for different species and their sizes. Some rough averages will give you a better understanding.

**Channel catfish shorts** usually make up the largest portion of the year's production by weight. About 100,000 of these shorts, going six to eight to the pound, are stocked in public waters annually. Recently, blue catfish shorts have supplemented this figure, with an annual target of about 10,000 blue shorts produced for stocking. Blues are reared similar to channel cat, but are more disease prone.

**Depending on the amount** of new impoundments available for stocking, channel cat fry going into Kansas waters each year may vary from more than a million to a few hundred thousand. Actually, two to three million channel cat fry are produced each year, but most are retained and reared to larger sizes. Fingerling channel cat production is in the 500,000 to 600,000 vicinity each year.

At least 10 million walleye fry are hatched each year in March and April in a temporary hatching unit at Webster Reservoir. Some walleye fry are stocked in new impoundments; others are retained to produce 500,000 to

100,000 fingerlings, stocked as 2½ to three-inch fish in early summer.

**Annual production of largemouth bass** fingerlings goes from 150,000 to 200,000. Most of the bass fry which have made up the initial stockings of Kansas reservoirs have come from federal fish hatcheries. The FF&G culture operation rarely stocks bass fry, but instead raises them to fingerling size.

Close to 5,000 largemouth bass shorts are produced each year, but Stevens says this is incidental. It happens that a few bass fingerlings get a small jump in size over their companions in a rearing pond, then turn to cannibalism. Production of largemouth shorts is a sacrifice of fingerlings.

**Although some fishermen** have requested stockings of six to 10-inch largemouths, they would probably not be willing to pay for the expense of raising such fish. Current hatching and rearing facilities for this are not available, nor is the manpower or funds.

Bluegill production numbers about 100,000 fingerlings annually. Crappie fingerling production has tapered off to below 50,000 due to low demand for stocking this fish.

**Northern pike fry** have been raised in an experimental program the last several years with varying success. Last year 1,100, 10-inch northers were cultured in less than three months. Most were stocked in Norton Reservoir, a few in Clark State Fishing Lake.

Enough striped bass are obtained from federal and other state hatcheries each year to raise several thousand fingerlings for summer stockings in large reservoirs. Rearing striper fry is extremely difficult and many are lost.

**Each year several million fathead minnows** are produced and stocked in many state lakes and other smaller impoundments as forage for game fish.

The Commission's statewide system for fish production involves many transfers of different sizes and species from one culture facility to another to maximize output. This shuffling between facilities is changing with



Don Patton of the Pratt Fish Hatchery checks some channel catfish brood stock.

new discoveries from experiments and trial and error.

**Main culture operations** in Kansas are: Pratt Hatchery in southcentral Kansas, Farlington Hatchery in the southeast and Meade Rearing Station in the southwest. In addition, there is one rearing pond each at Woodson, Leavenworth and Shawnee State Fishing Lakes and two smaller ponds at Neosho State Fishing Lake.

The walleye hatchery is a small, temporary unit located at Webster Reservoir, limited to use in March and April for walleye and sometimes northern pike. It is a hatching facility only and has been operated by local fisheries biologists, not the culture section. It is being studied whether to move the walleye operation to Pratt, where water quality and temperature are more dependable. This would probably result in more predictable and efficient walleye hatching.

### Pratt Hatchery

The Pratt Hatchery consists of 87 ponds, totaling about 100 acres of water. Most of the hatchery was built before modern fish culture techniques were developed, resulting in a number of drawbacks.

**Coming from the Ninescah River**, water for the hatchery ponds carries millions of undesirable fish fry, such as carp and shad. The smallest possible screen allowing suitable passage of water cannot keep out these "exotic" fish. The exotics compete for space and food with game fish, holding total production far below what it could be.

Complicating this, the water flowage system through the ponds is interconnected. Consequently, problems of exotic fish or diseases in upstream ponds can also be a problem in downstream ponds. Even some game fish hatched in the ponds, such as bluegill, move through the system, popu-

lating improper ponds and creating problems of time consuming fish sorting.

Stevens estimates the upstream one-third of the hatchery ponds are almost useless for rearing game fish because of abundant exotics.

Well water could eliminate much of the problem. But, the ponds were built in a sandhill region and they lose tremendous volumes of water daily through seepage. For a well to be practical, engineers say ponds would have to be sealed at a cost of \$5,000 an acre.

**Despite these drawbacks**, the Pratt Hatchery is one of the best hatcheries in the Midwest for hatching channel cat, producing two to three million annually. This production comes from only 12 ponds.

Channel cat eggs are retrieved from spawning containers in the ponds in June. They are taken into the fish house and placed in troughs of flowing water until they hatch. Some of the fry are shipped to Farlington where they're reared to fingerling size for fall farm pond stocking in eastern Kansas. Most of the fry are retained and reared to fingerlings at Pratt and are distributed between Meade, Farlington and rearing ponds associated with state lakes.

**When fish of most species hatch**, they are still in possession of a yolk sack which serves as a nutrient supply for several days. The small fish soon graduate to zooplankton—minute aquatic animal life such as crustaceans and insects. It is a big job of fish culturists to manage this zooplankton so that it "blooms" or is fully producing when fish need it most.

For fish larger than fingerling, dried, commercially prepared fish food is provided to catfish, while live minnows nourish predators like northern pike. Fathead minnows have adapted well to small ponds and naturally replenish their numbers enough to maintain their numbers despite heavy predation.

Production of crappie traditionally has been limited to the Pratt Hatchery, but only a few ponds are devoted to this. Biologists several years ago recommended against stocking crappie in farm ponds or small lakes.

They are stocked only under special circumstances because crappie tend to overpopulate and stunt in small impoundments.

**Bluegill fingerling** production for farm pond stocking also has been limited to Pratt for the most part. Farlington is beginning to hatch and rear more of these to satisfy eastern Kansas pond quotas.

The Pratt Hatchery is run by Don Patton with the assistance of a four-man crew.

### Farlington Hatchery

Obtained as a gift from the U. S. Bureau of Sport Fisheries and Wildlife in 1971, the Farlington Hatchery is equipped with 20 ponds for about 29 acres of water. Six ponds are presently being added which will increase fish rearing capacity by one-third.

**Unlike the Pratt Hatchery**, the ponds at Farlington are not tied together by the same drain-fill water flowage system. Farlington does have some new unique "fish kettles" or small concrete structures designed by Stevens at the outlet of the ponds. These allow for much easier retrieval of fish from the pond, compared to seining them after partial drainage.

Farlington has somewhat of a problem with filamentous algae. Algae competes with fish for space, ties up nutrients in the water and interferes with harvest. Algae control is being worked on, however.

**Most cultural efforts** at Farlington since it was acquired by the FF&G Commission have been to devise rearing and harvesting techniques for predacious fish such as northern pike, striped bass, walleye and largemouth bass.

According to Stevens, the quality of the rearing facilities at Farlington make it one of the best producers of channel cat in the system. However, as mentioned earlier, Farlington has had some problems in over-wintering fingerling catfish due to bacterial infections. These infections are most prevalent during winter because that's when fish are under the most stress.

**Farlington also hatches** some bluegill and largemouth bass, freeing the Pratt Hatchery of farm pond obligations in eastern Kansas.

Jack Nuss operates the Farlington facility with two assistants.

### Meade Rearing Station

The name of this facility has become misleading. Beginning this year, all largemouth bass hatching activities which used to occur at Pratt have been shifted to Meade. In addition, Meade produces the majority of the fathead minnows for state lake stocking.

**Built by the Civilian Conservation Corps** in 1937, Meade Rearing Station has 16 ponds and 22 surface acres of water. About 80 percent of the total culture effort at Meade each year has gone into production of channel and blue cat shorts.

Because of the clear water from irrigation wells, there have been problems with weeds choking production down in some of the ponds at Meade. Fertilization of the water clouds it somewhat, shading out sunlight and reducing the weed problem. The irrigation water source is beneficial for bass production because eggs are not lost due to silting as has been the case at Pratt.

John Venard of the Meade Hatchery raises a large number of channel and blue catfish each spring.

John Venard maintains the Meade facility with one assistant.

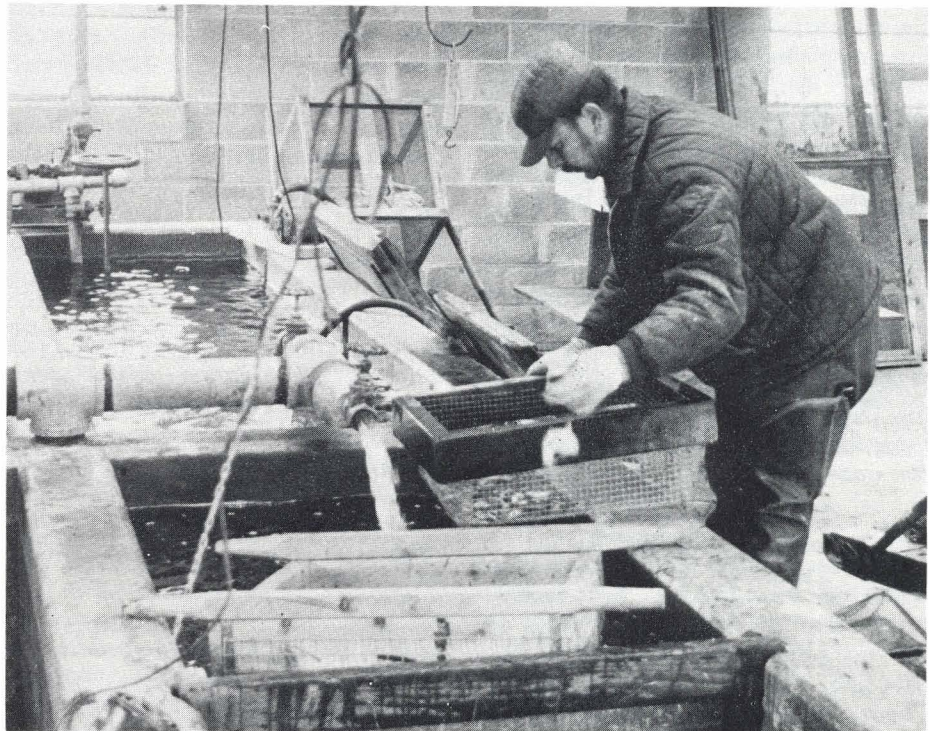
### Rearing Ponds

The four rearing ponds, one each at Woodson, Leavenworth and Shawnee State Fishing Lakes, plus two small ones at Neosho State Fishing Lake produce at least 30 percent of the channel cat shorts each year. These short channels are stocked in the lake associated with the pond and two or three other state lakes.

**All of these ponds** have been used for production of various other species such as largemouth and walleye. However, successful production of these fish requires much attention by qualified culturists and the ponds are too far removed from the culture staff.

These ponds are about one acre each and are located at the base of the dam of the state fishing lake. Water from the main lakes is piped to an inlet of the pond and usually flows continually through the system.

**Lake and grounds keepers** of the FF&G Commission care for the Leavenworth, Neosho and Woodson ponds, while a part-time helper is employed for Shawnee.



Ross Harrison



# Fish and Game Forum



**Q. How can I get some fish from the Fish and Game Commission to stock in my ponds?**

A. In order to obtain fish, it's necessary for the pond or lake owner to fill out a formal application card available from Commission headquarters in Pratt. Ponds and lakes must meet the following certain requirements in order to be approved for stocking with fish from the State Hatchery. (1) The water area must be a minimum of one-fourth surface acre in area; (2) The pond or lake must be of adequate depth, or have a reliable water supply so as to maintain fishlife during average periods of drought conditions and winter ice cover; and (3) The pond or lake must not already have been stocked or contain an established fish population.

The Commission's experience has shown that fishing is generally not improved by adding more small hatchery fish to waters which already contain fish population. The survival of the newly-stocked hatchery fish is normally very low since many are eaten by larger fish. Ponds and lakes which contain fish populations must be rehabilitated by use of fish toxicant or drainage to eradicate all fishlife before they will qualify for being restocked with fish from the State Hatchery. If information is requested, the Department can provide instructions for the use of fish toxicant and the sources from which it can be purchased so that rehabilitation can be carried out by the pondowner.

Applicants whose ponds have been approved for stocking will receive notification by mail several days in advance of the date on which the distribution trip has been scheduled. This card will inform the landowner

**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, mail it to FISH & GAME FORUM, Box 1028, Pratt 67124.

of the date, time of day, and place where he should meet the delivery truck. The applicant will also be advised of the number and kind of containers that he should bring for transporting the fish from the hatchery truck to his pond or lake.

Fish are distributed from the State Fish Hatchery during the fall of each year, normally September through November. Fish are not usually available for stocking ponds during other times of the year. Largemouth bass, bluegill, and channel catfish are the only species available for farm pond stocking.

**Q. Where can I obtain some information on raising channel catfish commercially?**

A. The January and February, 1970, issues of *The American Fish Farmer* contain several articles which give a great deal of information on commercial channel catfish operations. Those requesting copies of the article can write: *The American Fish Farmer*, P. O. Box 1900, Little Rock, AR, 72203.

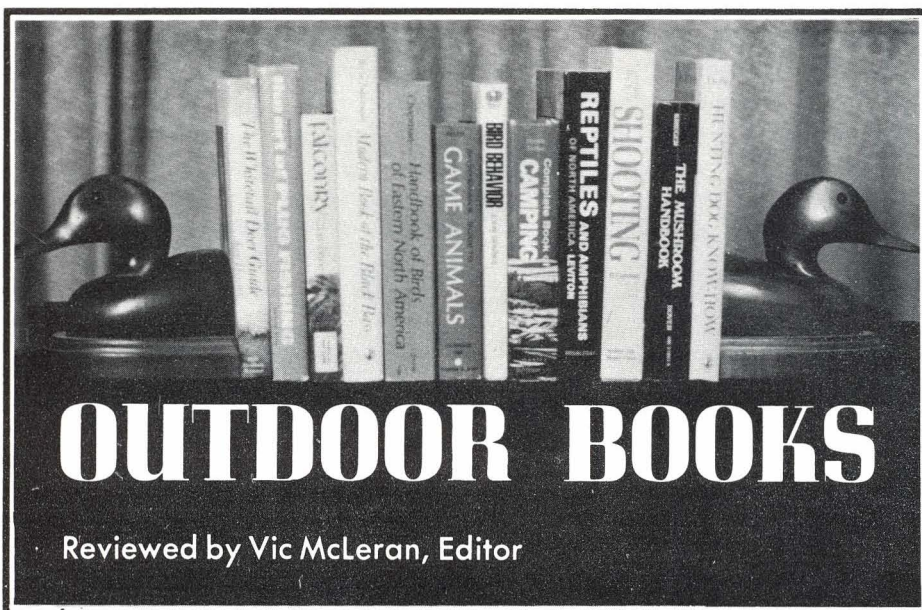
**Q. Why doesn't the Commission stock more largemouth bass?**

A. In 1973, the Commission stocked 135,502 largemouth bass in farm

ponds, state and city lakes, and federal impoundments throughout the state. During the same year, 843,231 channel catfish and 94,550 bluegill were also stocked by the Commission. Channel catfish are stocked in larger numbers since they seldom reproduce in large enough numbers to sustain their population. This failure to reproduce adequately is often due to extremely high predation on the small catfish by bass and bluegill and other sunfish.

The Commission's current hatchery facilities are geared to raising largemouth bass to fingerling size only. To raise the fish larger would require additional water acreage, not only for the bass but also for the food minnow production which would be needed to feed the larger-sized bass. Biologists have found that stocking these fingerling bass in waters which contain established fish populations is a poor proposition. The young bass are quickly eaten by the larger fish. This is why the Commission distributes fish fingerlings only to pondowners whose ponds contain no fish life.

Anglers often wonder why the supply of large bass doesn't remain constant in farm ponds. The answer is simple. Fishermen usually remove the larger bass of one pound and up. In effect, the anglers are constantly reducing the effectiveness of the bass population to crop and control the bluegill population. With the larger bass gone, there's nothing left to prey on the many bluegill which are competing with the smaller bass for food. The bluegill further reduce the bass population by eating the bass's spawn, fry, and by constantly harassing the nesting male.



**CATCH MORE BASS** by Stan Fagerstrom; Caxton Printers, Ltd., P. O. Box 700, Caldwell, Idaho 83605; 1973; 167 pages, \$7.95.

This is another new bass book which figures to be of great interest to Kansas bass anglers. Stan Fagerstrom, long time outdoor editor of *The Daily News* in Longview, Wash., has done one hell of a fine job. Stan is no newcomer to bass fishing. He's been studying and fishing for largemouth bass since the mid-30's. Evidence that he knows his subject is seen in his having won the Oregon Bass & Panfish Club's biggest bass contest for five of the past eight years. He's also been a state winner in both *Field & Stream* and *Sports Afield* competition. There's probably no other outdoor writer on the scene today who's specialized in writing about bass fishing like Stan Fagerstrom has. His bass fishing pieces have appeared in most of the major outdoor publications.

Stan's book covers the full field of largemouth bass fishing. It's all how-to in approach and features hundreds of illustrations. There are more than 10,000 words on the subject of lures alone, almost as many more on tools and tricks any bassman can employ. The 20 full-length chapters also cover fish preparation, special techniques for bluegill and crappie, and a comparison of the author's own approach to bass fishing with that of the tournament anglers with whom he's fished.

If you study bass fishing the way many anglers do, you'll want to own this book—it's a good one. Autographed copies are available directly from Stan. Just send a check or money order to: Catch More Bass, P. O. Box 27, Silver Lake, WA 98645.

**GETTING THE MOST OUT OF MODERN WATERFOWLING** by John O. Cartier; St. Martin's Press, 175 Fifth Avenue, New York, N. Y. 10010; 396 pages, \$10.95.

John O. Cartier, Midwest Field Editor for *Outdoor Life*, is recognized as a leading authority on waterfowling. In *Modern Waterfowling*, Cartier shows the reader all about new hunting methods that were developed when the old ones stopped working. In addition, you'll learn why the old rule book is out of date, and you'll learn how to adapt your tactics to changing situations.

If you're a veteran waterfowler, you'll find this book will help you analyze your successes and failures and make your hunting more enjoyable and successful than it's been in years. If you're a novice, this book is the best teacher you'll find. It's a complete book on modern waterfowling. The book covers all the waterfowler's favorite species of both ducks and geese. Detailed sections on hunting puddler ducks, divers, and geese describe the techniques that work best for the various species. These sections and many additional chapters tell you exactly how to get the most out of modern waterfowling. Here are a few "How-To" sections; How to get within shooting distance. How to select a gun. Shooting techniques. How to Select and display decoys. Calling techniques. All about blinds, including how to build them. Characteristics, strengths, and weaknesses of various breeds. All about boats. Waterfowl identification. Migration patterns. Waterfowl management. How to preserve and cook your kill. Waterfowl photography.

If you're an avid duck or goose hunter, *Modern Waterfowling* is a book you'll want in your library.

**EASY GAME COOKING** by Joan Cone; EMP Publications, Inc., 1003 Turkey Run Road, McLean, Va. 22101; 144 pages softcover, \$1.75.

With today's inflated dollar and spiralling food costs, people are constantly trying to save money and eat well at the same time. *Easy Game Cooking* helps you do both. It's loaded with 124 savory, home-tested, money-saving recipes and menus for game animals and birds.

Joan Cone has shot everything from moose to muskrat and she's learned how to cook all of it in her own kitchen. A trained home economist, Mrs. Cone knows how to cook game easily to its succulent best in the least amount of time. She uses ingredients found in most kitchens.

Among her recipes are ways for preparing squirrel, deer, raccoon (which tastes like good roast pork), dove, pheasant, quail, beaver (with a flavor of prime veal), wild ducks and geese. There are also recipes to help prepare the complete game dinner.

This is an excellent little cookbook for the hunter or his wife. For those of you who aren't near a book store, send \$2 to: EPM Publications, Box 422, McLean, VA 22101. This includes the cost of handling and shipping for each book.

**ONE MAN'S WILDERNESS** by Warren Page; Holt, Rinehart and Winston, Inc., 383 Madison Avenue, New York, N. Y. 10017; 256 pages, \$8.95.

Warren Page, currently president of the National Shooting Sports Foundation, was shooting editor of *Field & Stream* for nearly 25 years. In *One Man's Wilderness*, he's brought together the best of his writings about big game hunting in the world's exotic places.

Included are fifty stories of hunting lore, exploits of daring, and wise advice to the outdoorsman. There's new material on game rifles and calibers, wryly amusing notes on the fads, foibles and foolishments which are sometimes exhibited in the world of guns and shooting. Page considers the ethics of hunting and explores the rigid code which the modern hunter must set for himself to preserve both the species and the land. *One Man's Wilderness* is not only for hunters but for anyone interested in the very finest writing about the outdoors.

In addition to his history of prolific outdoor writing, Page was recently selected for the Hunting Hall of Fame, has been a Weatherby Big Game Trophy Award Winner, nine times a national bench rest rifley champion and an accepted expert on ballistics. If big game hunting is your thing and you want to read about it from an expert, *One Man's Wilderness* is a book you'll want to own.



Albert Earl Gilbert  
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