

KANSAS FISH & GAME



September-October, 1976

Single copy 50 cents



Featuring . . .

Dove Hunting

Ringneck Pheasants

Decoys

Buffalo

The Raptors

Subscription Blank Inside

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KANSAS

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September-October, 1976

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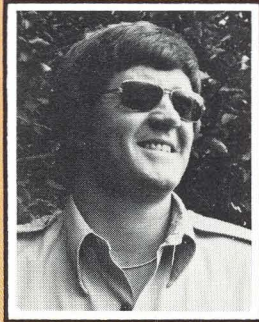
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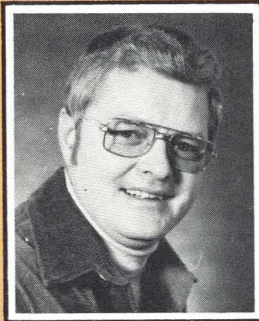
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Duck decoys and the results of a September squirrel hunt by
Ken Stiebben.

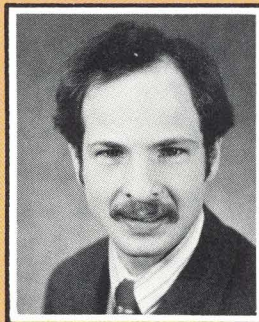
Editorial PREVIEW



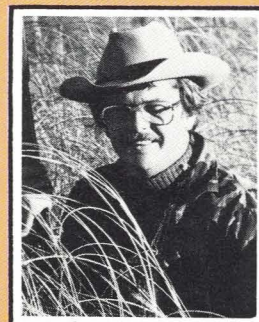
McLeran



Anderson



Wellborn



Stiebben

Here it is—September again. Ragged flights of teal are drifting south, there's cut milo fields, a harvest moon in the East, the sumacs and cottonwoods are turning and the September nights hold a promise August didn't offer. Then, all of a sudden—the doves are flying!

Yeah, if you're a wingshooter, September means dove season. 'Course, how you view dove season depends a lot upon whether or not you've paid your dues. If you've done your homework with the blue rocks out on the trap ranges, you're probably looking forward to the season with optimism. If you haven't . . . well, it's liable to be one of those, "Damn; I can't believe I missed that bird *too!*" We've worked up a piece on dove shooting that's not guaranteed to make you a better shot, but hopefully it'll give you an edge over those little gray comets—birds that have grown men throwing tantrums in the milo fields and ammunition manufacturers dancing with joy. Talking about dove season, thinking about oiling shotguns—it all gets a fella' thinking about the upcoming waterfowl seasons.

Enter George Anderson, who's put together a nostalgic piece told through the eyes of an ancient decoy. A veteran of the old market hunting era, this antique decoy has an interesting story to tell. And if the article doesn't conjure up memories of November mornings over cold duck marshes, I'll put in with you.

Moving to bigger game, Bob Wellborn, staff writer, presents us with a portrait of the bison—as he was and as he is in Kansas. Weaving excerpts from Dary's *The Buffalo Book*, Wellborn creates a historical mosaic of this big shaggy critter that once covered the prairies of Kansas in vast, slow-moving tides. He also tells you where you can now observe these historic mammals across the state.

If you've spent any time along the creeks and rivers of Kansas, or around its many ponds and lakes, you've probably run into a big gawky-looking bird that went "squark" as you flushed him. Paul Bocquin, former staff writer, has an article on some of the different herons that call Kansas home. It's an informative piece that provides you with some interesting facts about these unusual birds.

From time to time, you're gonna' see articles in *Kansas Fish & Game* that have been reprinted from other state fish and game magazines, especially when they're applicable to the Sunflower State. You'll find two in this issue. The first is a story on ringneck pheasants that was reprinted from *Colorado Outdoors*. It deals with the problem of diminishing habitat and its message will remind you of things you've seen in western Kansas. The second reprint is a piece on birds of prey which was taken from *Outdoor Oklahoma*.

John Madson, one of the finest outdoor writers in the country, has done a thing entitled, "Hunting Beyond the Bicentennial" which is being distributed by the National Shooting Sports Foundation. John brings an impressive list of credentials with him. A wildlife biologist by training, he did a stint as a writer for the Iowa Conservation Commission; served as outdoor editor for the *Des Moines Register* and is now assistant director of conservation for Winchester-Western. It's an honor to have his stuff appear in *Kansas Fish & Game*.

Finally, if you're a duck hunter or a decoy collector, you've got to appreciate the super front cover by Ken Stiebben, our resident John Denver freak. Ken's the Commission's staff photographer and an avid duck hunter. So what you see on the cover is part of Ken himself.

Vic McLeran, Chief
Information-Education Division



DOVES in the graveyard

Here's a few tips that can help you put this elusive, but tasty, gamebird on the table.

By Vic McLeran, Editor

COUPLA' YEARS back I was driving south out of Chanute on US 169, headed for Coffeyville. It was one of those super October days—fall colors flaming, long wavy skeins of geese drifting south in the clear autumn sky and from a distant farmstead, the faint smell of woodsmoke. Alongside the road, a pair of saucy fox squirrels scrambled through dead leaves at the base of a hedge row and ahead of me a covey of bobwhites scurried across the highway to disappear in frost-burnt sumac.

Down below Thayer, I glanced ahead and saw this fella' crawling up over a bridge—he had two snow geese, a limit of doves and a battered old Model 12 slung over his shoulder. He looked like some kind of "troll" in camouflage clothing, crawling out from under his bridge.

Being blessed (or cursed) with an above average curiosity quotient, I had to stop and visit with this fella—find out how he came by the limit of doves and the geese.

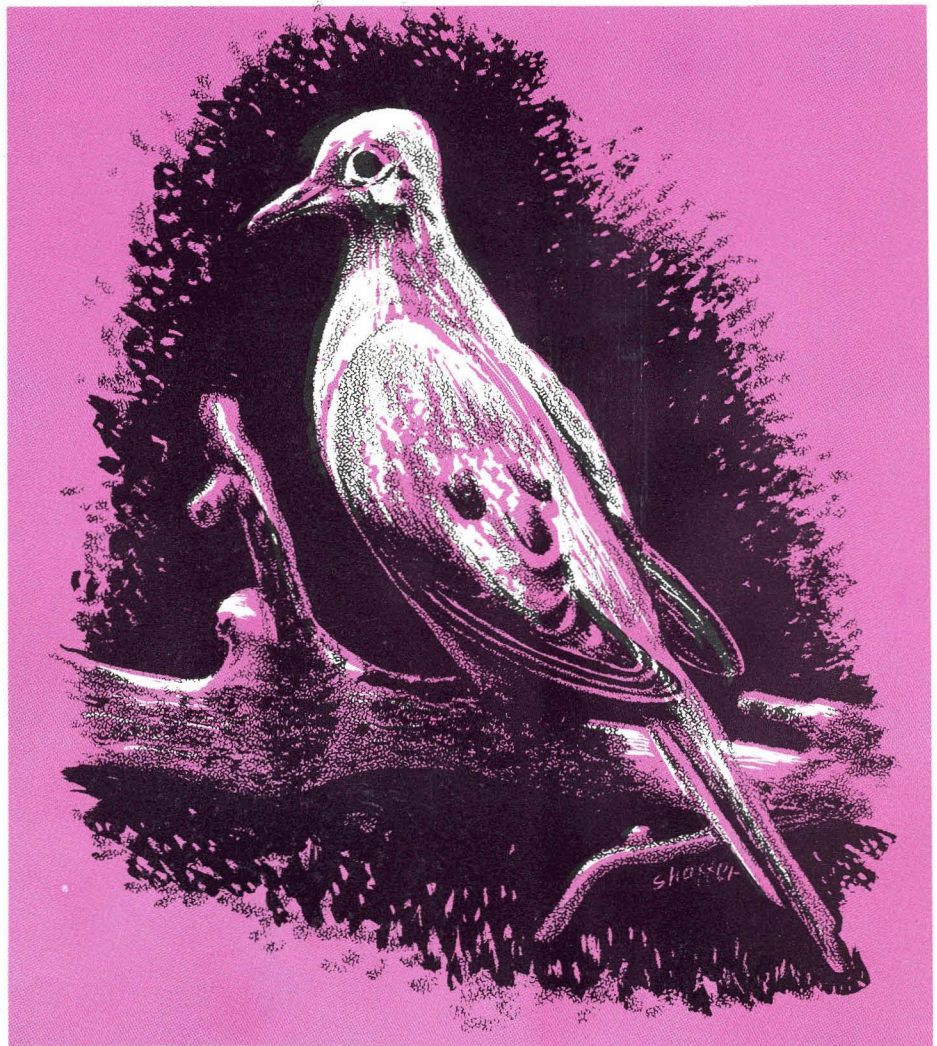
The troll-lookin' fella turned out to be Joe Goodeyon of Chanute. Since that day, I've shared a good many hours afield with Joe, including some red hot afternoons in the cut maize fields of Neosho and Allen Counties when doves were flying thick and heavy. After watching Joe put dove after dove in the graveyard, I've come to respect him as one of the most competent dove hunters around. I can recall, years back, sitting in a little north Mississippi tavern, listenin' to folks call some local quail hunter "boss." They meant this guy was the top hand—the best, at least from what they'd seen. It's like that with Goodeyon. I've shot doves with quite a few different folks, for quite a few years, under quite a few different conditions.

But watching Joe Goodeyon drop doves in the milo stubble makes me realize I'm watching one of the best. While most guys just go out and shoot doves, or shoot *at* 'em, Goodeyon hunts doves—and there's a difference. Aside from being one of the best wing-shots I've ever had embarrass me, Joe also studies his doves—kind of a thinking man's dove hunter.

So what we're gonna' do here is take a look at doves and the various types of dove hunting in Kansas. And from time to time, we're gonna' hear some of Goodeyon's comments on the art of puttin' doves in the graveyard.

For doves, the season actually begins in April when the birds start pairing off. It's no big spectacle, mostly billing, cooing, picking and preening. Following the courting process, doves begin nest-building activities. The male usually gathers the nesting material which is given to the female who works it into the nest. Doves are notoriously lazy nest builders and their flimsy stick-like affairs are often destroyed by high winds and hard rains.

The egg-laying process normally takes only a couple of days with one solid white egg being laid each day.



Two is the average number of eggs in the clutch and since the dove begins incubation immediately, the squabs usually hatch on two successive days.

Young doves are fed on a strict diet of "pigeon milk." This concentrated food material resembles a white granular curd and is secreted from glands on each side of the parents' crops. Both adult birds feed the youngsters this "milk" for several days. Later it's mixed with seeds and after 10 days or so, the diet is composed almost entirely of small seeds.

Doves normally raise several broods in one season. As many as six nesting attempts may be made, but three is usually the average. Researchers say the observed nesting attempts for doves is about 50 percent.

After leaving the nest, young doves feed on a variety of foods—both domestic and native. Cultivated crops like corn, milo, wheat, sorghum, millet and peas are used heavily. Native weed and grass seeds like dove weed, pigweed, bull grass, wild millet and the various foxtails are used extensively by the doves for feed. Sunflower seeds are super dove food and the good dove hunter knows the location of big sunflower patches in the areas he hunts.

Doves have been observed picking up small snail shells for their calcium content. Sand and small gravel is used by the birds as grit to grind up seeds in their gizzard—a digestive organ surrounded by powerful muscles.

Doves normally water twice a day. Unlike most birds, a dove drinks by dipping its beak in the water and sucking. Dove hunters know that the birds seem to prefer dirty stagnant water. A pond surrounded by heavy weed growth, lacking these bare spots, usually won't attract doves.

As the young doves leave the nest they gradually gather into flocks which peak in size during late August or early September.

Opening day, September 1, is the date from which the serious dove hunter marks his year. Although there are several types of dove shooting in Kansas, the most common is probably feed field shooting. Milo, corn, soy-



Joe Goodeyon (left) and Drexel Allen, Chanute dove hunters leave the field after some heavy shooting in the cut milo fields of Neosho County.

beans and wheat stubble all rank high on the dove's menu. As soon as a flock of doves has decided on a feeding area, the shooting can be hot and heavy for a few days.

Down in the southeast corner of the state, farmers often cut their milo during the last week of August if the weather permits.

"It's a good idea to get out and locate these cut fields, then get permission before the season starts," Goodeyon told me. He also pointed out the fact that it's best to have several different fields located. "A couple days of hard shooting will often send the birds to another field," he added. "So the hunter who has access to several different locations is usually ahead."

Doves will gather on power lines, old dead snags, phone lines and in hedgerows near their selected feeding fields. Keep your eyes open for doves gathered in these areas. Once you spot them, it won't be difficult to locate the fields they're feeding in. Again, it's best to have several of these areas in mind once the season begins.

The number of shooters you'll want in a field depends on the size of the field. The larger the field, the more gunners you'll need to keep the birds flying; otherwise the birds simply settle in at the far end of the field, feed, then pick up and leave.

The position you'll take in the field depends on what's available. I've seen

hunters using fence-corner posts, brushy fence corners, a patch of ragweed or sunflowers, under a tree or even in the middle of the field taking advantage of any available cover.

I asked Goodeyon, who invariably picks the best spot in the field, how he selects a position.

"Before getting into a field, I stop and watch the birds flying for awhile," he replied. "Chances are, the majority of the birds will be flying into the field in some sort of pattern or invisible pathway. Once you've determined this path, you can station yourself accordingly. Also, I try and find a slight rise or high spot near the center of the field then kneel down on the low side so that I'm fairly well concealed."

Some guys even bring a portable blind. I've never used a blind but the little portable canvas folding stools are real handy. And they're a heck of a lot more comfortable than kneeling on one knee, then the other.

I don't think there's any question but what camouflage clothing is best when you're in the dove fields. Although mammals see everything in shades of black, white and gray, birds recognize colors quickly. A white or light-colored shirt stands out like a sore thumb against the backdrop of cut grain stubble. Some dove enthusiasts even go so far as to apply camouflage paint to their hands and face. As the

birds swing your way, try and follow them out of the corner of your eyes with as little movement as possible. Too much head turning or neck craning on your part and you can kiss those doves goodbye. It's also a good idea to keep extra shell boxes, empty hulls—anything that might attract attention—out of sight under the milo stubble.

Some dove shooters I know, prefer young "doves of the year" when it comes to cooking the birds. It's impossible to select immature from mature birds when they're awing. But if you like the young birds best, Dan M. Russell, author of *The Dove Shooter's Handbook*, offers a handy piece of advice which you may want to keep in mind.

"Doves will lay up' in the woods and thickets during the hot part of the day—until three or four o'clock in the afternoon. They then fly out to feed, and after that to water and on to the roost. Young doves, like all young animals, move around more than the older ones. They fly about more and eat more often. An early-afternoon shoot at feeding areas usually means lots of young doves bagged. A late-in-the-day shoot around feeding areas and watering holes will usually show a larger percentage of older doves bagged. As an example, I checked two shoots one year on the second and fourth of September. At the first shoot, about five p. m., a total of 27 doves were bagged. Of the 27 birds, 19 were adults, and 15 of these adults were in breeding condition, as determined by the glandular crop. At the second shoot, a much bigger affair that began at noon, 303 doves were examined. All but 23 were young birds; none were breeders."

Feed field shooting usually lasts until an hour or so before dark, when the birds start leaving for their water-holes and grit sources. As we mentioned earlier, doves seem to prefer scummy dirty-looking ponds and brackish water. Some authorities theorize that this type of water contains more minerals which satisfy doves physiological needs in the production of "pigeon milk" for their young.

Since doves show a preference for ponds with bare ground around them,



A pair of doves will raise from two to five broods during the summer.

you'll want to look for ponds that have partially dried up and left a band of dry mud flats around them. If you find an area like this and the doves are using it, there'll be small dove feathers around the water's edge.

"I've found the best pond shooting occurs when the water hole is close to both the fields they've been feeding in and their roost," Goodeyon said. "And waterhole shooting will be much better if there hasn't been much rain. If there's been a lot of rain and water is standing in fields or in puddles along the road, your pond shooting won't be as good as it will in dry years."

After leaving their water holes, doves usually head directly for their roosting areas. More often than not, Kansas doves utilize hedgerows and shelterbelts for their roosting sites. By the time doves are headed for their roost, it's usually pretty close to quitting time and the light is fading rapidly. In the poor light, shooting becomes even more difficult than usual. I've found that a roost which runs north and south is usually the

easiest to hunt especially if the birds are coming in from a water hole or feed field in the west. Silhouetted against the western sky, they make a better target than if coming in from other directions. But the poor light visibility and the fast shooting make the crippling rate high. And since there's often rank vegetation adjacent to the roosting sites, many downed birds are lost. All in all, roost shooting is probably the hardest way to fill your limit.

Some days you'll find the doves feeding in mid-afternoon in a field of partially-cut milo or maybe a weed field of foxtails. It's jump shooting and while it's not as fast as good feed-field shooting, it's a method that sometimes puts doves on the table when other methods fail. The birds flush anywhere from 30 to 50 yards out so a modified choke is usually better than an improved cylinder or open bore. This is especially true later in the season after the birds have been peppered a few times. By then, they're often flushing out of range. Early in the season though, you can often get

surprisingly close to birds feeding along the edge where the stubble meets the uncut grain.

Select a path between the rows of grain five or six rows into the field, then walk toward the feeding doves. The standing grain often provides enough concealment to let you within shotgun range. In situations like these make sure you're careful to avoid knocking down standing grain.

In jump shooting, or any other method of dove hunting, I've found it's best to avoid trying to take more than one bird when several swing in. Unless you're shooting over ground that's free of weeds and stubble (and you probably won't be) there's a good chance you'll lose the first bird you drop if you take your eyes off him to swing on a second bird. As soon as I roll one of these gray speedsters, I start walking toward the spot where I saw him drop, keeping my eyes glued to that exact spot. Once I reach this location it's usually easy to spot the bird by the small pinfeathers and fluffy down on the ground. If the bird has fallen in deep weeds, uncut grain or heavy ground cover, I drop a handkerchief or hunting cap where I think the bird should be. A systematic search of the area using the handkerchief or cap as a reference point will usually turn the bird up for you.

Talking about the difficulty involved in hitting doves consistently, Russell mentions the bird's flight in *The Dove Shooter's Handbook*: "These birds never seem to rest their wings or dip like a blackbird or a woodpecker. It is always a steady, powerful, rhythmic wingbeat that carries the bird along at a rapid clip. The speed and agility of the species is always amazing to a new dove hunter, especially one who has observed the hesitant, timid movements of cooing doves nesting in the backyard. Migrating doves probably cruise along at 35 or 40 miles per hour, but when they're flaring from gunfire as they cross a field—and especially if they have the benefit of a tailwind—a lot of shooters claim the birds hit 70. And while the wingbeats are steady, the flight path is often erratic, twisting and evasive. Anyone who averages two doves for

four shells is definitely a good wing-shot!

In his book, Russell devotes a graph or two to the hunting success of dove hunters: "By adding up the figures from surveys and counts, we get a picture of the 'average' dove hunter. He takes home five or six doves a day and hunts five or six times a season, for about 30 doves per year. A state with 50,000 dove shooters may harvest from one to one and a half million doves per season. Hunters I've checked with tell me they shoot about five boxes of shells per season to get their share of the doves. They score on maybe one dove out of four shots."

According to estimates from the Fish and Game Commission. Sunflower dove shooters don't quite measure up to Russell's averages. In 1974, the most recent year for which data is available, nearly one and three-quarter million doves were harvested in the cut milo fields and around the water holes of Kansas. That year the estimated total of 94,300 dove hunters had a season kill of 17.6 birds per hunter and a daily bag of only 3.2 birds per shooter.

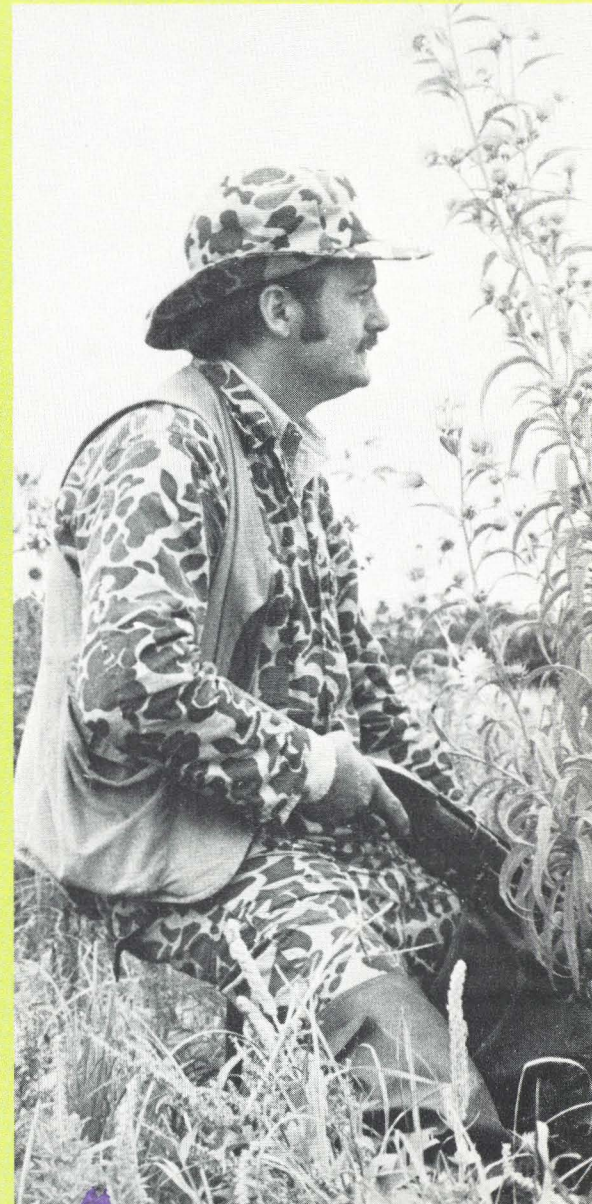
Russell continues: "Let's assume that in your state a million doves are harvested each year. And each dove bagged required an average of four shots at a dime a shot. This amounts to \$400,000 in your state each year. In order to get \$400,000 in interest at five per cent per annum you would need to invest eight million dollars. So your state alone, harvesting just a million doves, has a dove population flying around that represents an investment of eight million dollars in shotgun shells alone.

"There are fairly reliable estimates of 40 to 50 million doves harvested in the U. S. each year. So you can multiply the \$400,000 by forty and arrive at a total of 16 million dollars worth of shells fired at doves each year in the U. S. A \$16,000,000 cash return each year at five per cent interest would require a capital investment of some three hundred and twenty million dollars! Now you can begin to see the real value of a dove and why such birds must be expertly managed. And that's not all, since you use more than just shells in a dove

hunt. Add food, drink, clothing, gasoline, etc., and you'd show a billion or more dollars in value for the nation's dove populations."

The subject of hitting doves always leads to the question; how far do you lead a dove? I don't think there's any set formula but the dove hunters that I've watched who swing and follow through seem to be the most consistent good shots. The snap shooters can be something to watch if they're having a hot day. But when they're bad, they're very bad. Most of the snap shooters I've watched have trouble with doves they can see coming in from a long way off—maybe it's the build-up of tension. On the other hand, they're beautiful on the birds that slip in quickly without a long approach.

Goodeyon crouches in a patch of sunflowers next to a cut milo field. Both sunflower seeds and milo are favorite dove foods.



Vic McLernan

When it comes to the question of which shotgun is the best for doves, you'll get all kinds of answers—mainly because all kinds of shotguns are used. But thinking back, I recall seeing more 12 gauges in the dove fields than any other kind.

Improved cylinders and modified chokes are probably the most common bore for doves, but you're liable to see anything from full chokes to open cylinders and skeet bores.

Automatics and pump guns are real popular with dove hunters, but here again, over-and-unders, double and single barrels are all used too.

The preference of shot size for doves runs all the way from high brass No. 4's up to No. 9 skeet loads. Most dove hunters though, stay with No. 7½'s and 8's since the smaller shot provides a thicker pattern than the larger shot sizes. And there are some gunners who believe that No. 9's don't have the shocking power of the 7½'s and 8's. The standard dove load contains three drams of powder and one ounce of No. 8 shot, "I prefer a load containing 1½ ounce of 7½'s," Goodeyon told me. "I find that I get fewer cripples

with this load than I do with the standard load."

After you've put your doves in the graveyard, it's time to start thinking about getting them ready for the table. Like all game, it's best to get them dressed as quickly as possible. Most guys just shuck out the breasts, although a few purists pluck and cook the whole bird. If you're not going to cook the birds immediately and want to freeze them, Goodeyon has a handy tip about avoiding freezer burn. "I've found that it's best to place the doves in an old milk carton then cover them with water and freeze them," Goodeyon said.

While there are a number of different methods for cooking doves, I thing Goodeyon's technique of charcoaling them is the best I've ever tasted.

Here it is:

Take the individual dove breasts (after soaking them overnight in salt water with baking soda added) and dust them with black pepper, garlic salt and some dried onion flakes to taste. Wrap each breast in a strip of bacon. Cheap bacon with a lot of

fat is best. Then skewer the bacon to the breast with a toothpick. If you're really into black pepper, dust 'em again.

Place the wrapped breasts on the grill over hot charcoals. A covered grill seems to work best since it lets you close down the air and shut off flames as well as giving the birds a good smoky flavor. When the bacon begins to brown, turn the breasts with a pair of tongs. When the other side is browned, they're done. But don't let the bacon get so brown it becomes crisp since this tends to dry the meat out. On the other hand, slightly-browned bacon fat keeps the dove meat moist to the bone. The combination of charcoal, smoke, black pepper, garlic salt and onion flakes give the doves a flavor that'll have you taking your vacation in September—just to hunt those dove fields. Serve the charcoaled breasts with baked potatoes full of country butter or sour cream along with a combination salad. Then sit down and be good to yourself.

Like Goodeyon says, "It'll make you wish dove season lasted all year."

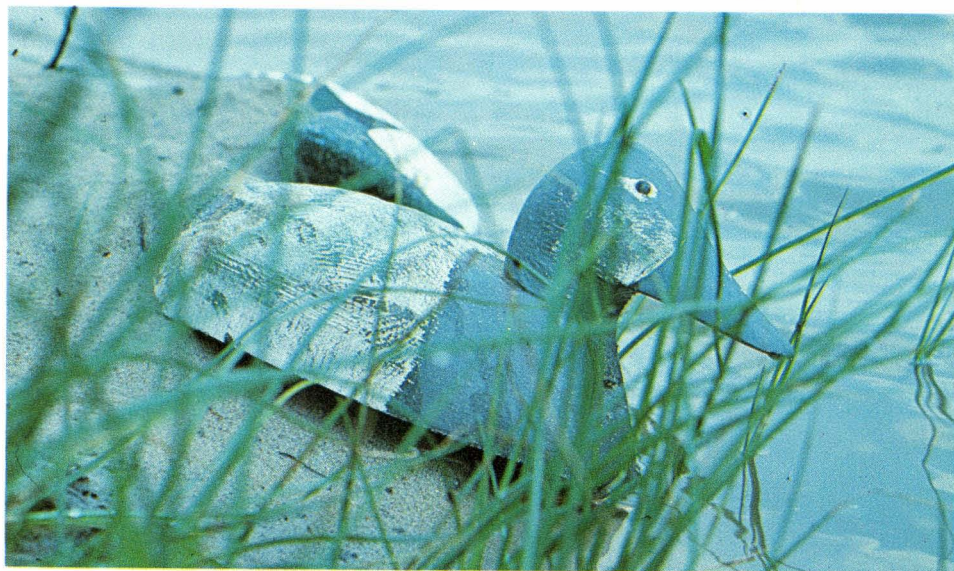


REFLECTIONS

of a DECOY

By George Anderson,
Staff Writer

Photos by Ken Stiebber



THE FIRE in the old fireplace burns softly. Tongues of pale-yellow flame lick at the old hedge log. Above this quiet drama, resting peacefully on the massive rough-cut timber sit three battered wooden decoys. Like the mantle that supports this weathered old trio, they're a sad sight. Not much paint remains to identify their kind.

The bird resting at center mantle has many nicks and dents covering the yellow-white body. A long sloping head with just a hint of rust identifies the bird as a "bull" canvasback. The decoy bears marks from a blast of buckshot fired just a little low.

On the right of the old duck sets another. The same long profile head held alert in a frozen position but the paint is much better. A smoke-brown color with a saddle of dirty white across the back. Any serious duck gunner would recognize the wooden replica at once—hen canvasback.

That old hedge log, still losing ground to fingers of flame, suddenly breaks, shifting its position. The fire burns brighter, exposing a third wooden sculpture on the mantle. Its once uniform black body has now faded to a dingy-gray, a dirty white bill points nowhere and patches of bare wood leech through the remaining colors.

A coot. A lowly bird by hunters' standards, but here on the mantle he rests proudly with his neighbors—the "Bull Can" and his mate.

Above the mantle, gathering dust and showing signs

of light surface rust, hangs an old ten-gauge double. Like the decoys below, both of its hammers are now at full rest from four score years of hunting.

Partners from another time in history but finally allowed to retire, they bask in the soft, fire's warmth.

Watching the finger of flame eat away at the old hedge log, I wonder what stories the faded old decoys could tell. Stories that perhaps would make me aware and appreciate the chain of events that set in motion the greatest wildfowl hunt the world has ever known.

It's a chapter of our American heritage that is now looked upon with a measure of shame and regret by this modern society. Those old cracked and weathered ducks could tell me, for they were there and I wasn't. I'm forced to rely on the stories and writing of man and then decide for myself what is fact or fiction.

Like myself, this group of wooden waterfowl, must accept the birth of wildfowl market hunting as the mid-nineteenth century. While these old decoys were nothing more than a dead cedar log gathering moss in an east coast bog, the guns of the market hunter were starting to thunder.

If the market hunting era had not come along when it did that big chunk of cedar might have just layed there or become the mast or planking on an Atlantic sailing ship.

It might have been but it wasn't. A market gunner had another idea. This wood was available, easily

worked and resistant to rot. With axe and rasp in hand and a keen eye for detail he transformed the old log into tools of his trade—decoys.

As if on cue, the log in the fireplace lets go with a series of rapid cracks and pops as the flames seek out last traces of moisture and sap. A signal in our reflection that the thunder of the market guns were now at full roar.

When the fire returns to normal I settle down in my over-stuffed chair with a hot buttered rum and allow the decoys to return to the hunt. A hunt that was their first exposure to the wintery east coast of Maryland's legendary Chesapeake Bay.

Hard winter was at hand. The casual shooting days of sprigs, blue bills, teal and woodies were over. The mighty Susquehanna River, tributary at the head of the Chesapeake, was funneling the "king of waterfowl" down from the northwest. The canvasbacks were on the flats, and for the market gunner, the hunt was on.

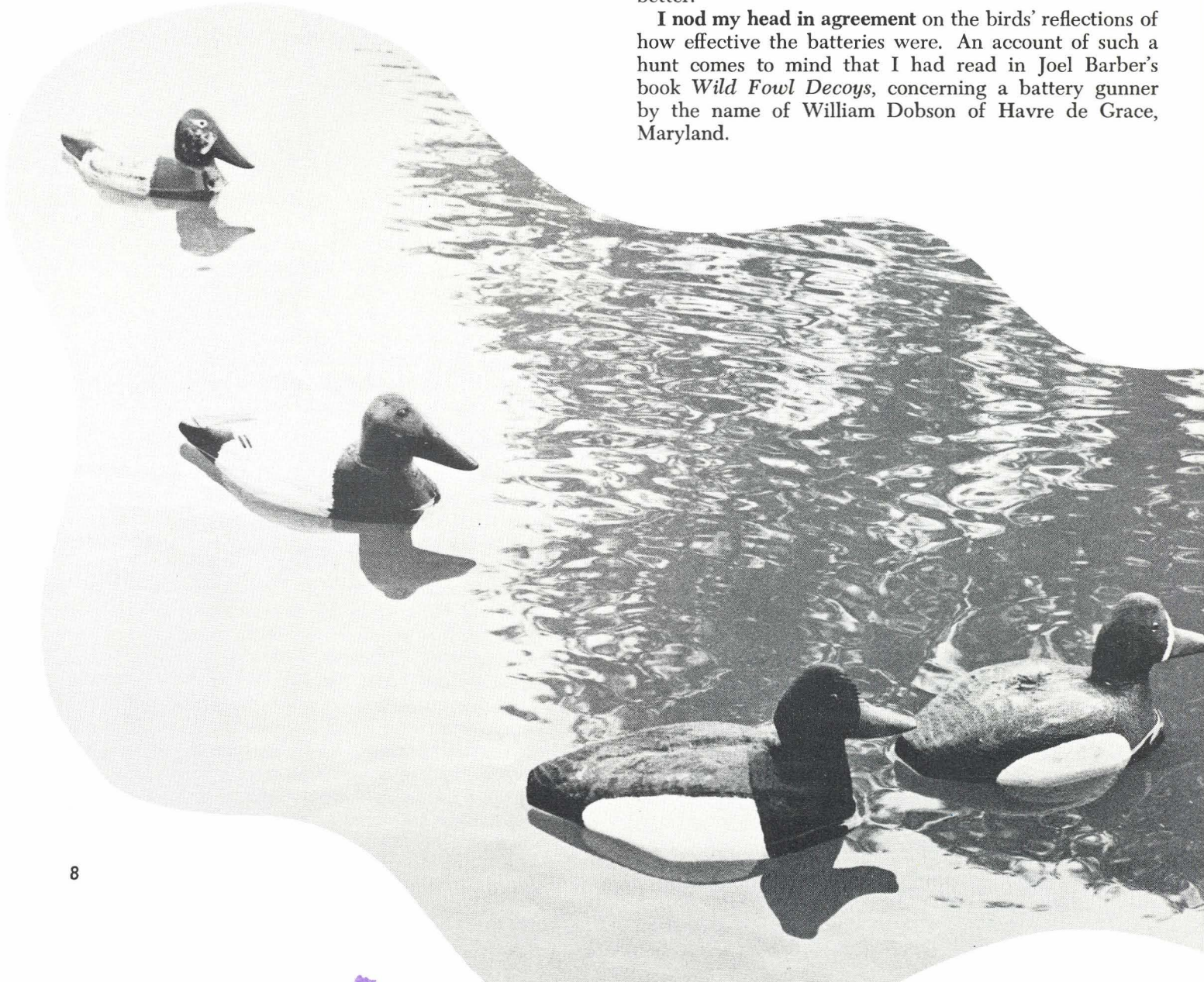
In the flickering light of the fire the decoys paint a picture for me of a style of hunting that is now illegal. It's called battery shooting. With the big celery-fed "cans" on the flats, and bringing almost twice the price

of any other duck on the market, hunting became serious business.

The old cedar forms tell me a story of how they were carried in small prams towed by a large sailing boat to the sight of the battery a casket like box with an oblong deck. Attached to this deck were hinged wings of slats covered with canvas. Painted a dull color to match the surrounding water, the battery was no more than a man-made hole in the water.

The decoys recall being thrown overboard with several hundred others and positioned in groups surrounding the battery. Held in place by weighted lines while an icy mist formed on their backs, they watched as heavy iron decoys were placed on the wings of the battery. Decoys like themselves, but weighing as much as fifteen pounds were used to lower the battery so when the gunner was in position even the smallest of waves would wash the deck surface. It was a less than comfortable method of hunting but it was effective. The decoys recall that on that very day, ninety of their wild counterparts were lured to the battery and collected for the market. It was a good day, but market hunters had better. Much better.

I nod my head in agreement on the birds' reflections of how effective the batteries were. An account of such a hunt comes to mind that I had read in Joel Barber's book *Wild Fowl Decoys*, concerning a battery gunner by the name of William Dobson of Havre de Grace, Maryland.



Dobson, it appears, was something of an autocrat, one who took no part in handling boats or gear. He was a battery gunner only. When the time came for him to do his stuff, he went aboard the box with guns and shells, his sole duty being to kill on-coming birds. Socially, he is reported to have been shy and an indifferent at local trap shoots. Alone in a battery, however, he is acknowledged to have been the fastest and most accurate shooting man the Chesapeake ever produced.

The account was verified by Capt. W. E. Moore of Havre de Grace, a friend of Dobsons and rival gunner from boyhood. "It happened right here, on the flats off Havre de Grace," verified Capt. Moore, "on the opening day of the season in 1879. On that one day, Dobson killed over five hundred ducks—there is no question about it. He started out as usual shooting two guns, double breech loaders of ten gauge. During the early hours of the morning, one gun burst and was thrown overboard. Birds were coming in so steadily there was no time to replace it. He continued shooting all day with the remaining gun, keeping it cool by frequent immersion in the bay. When results were tallied that evening, it was found that Mr. Dobson had shot five hundred and nine birds. About sixty canvasbacks, the remainder redheads."

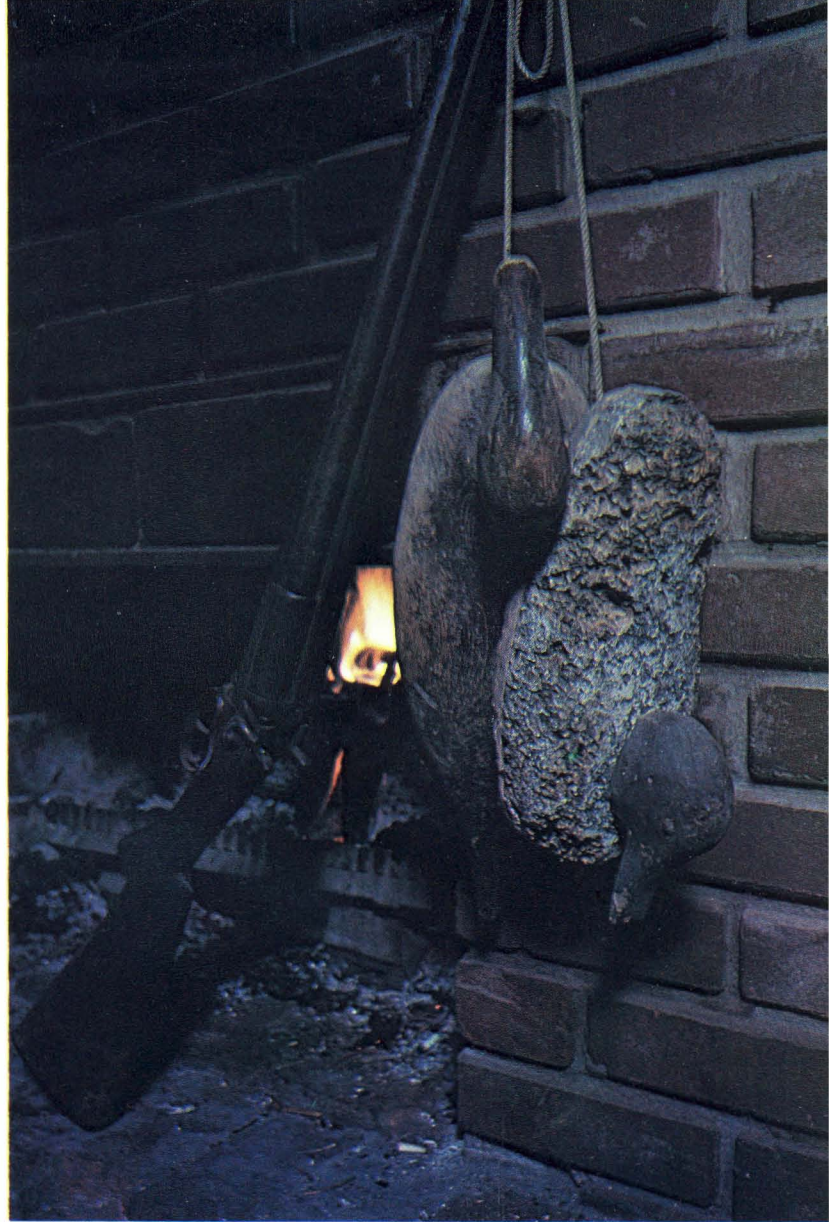
The hedge fire is now very dim. With an iron poker I shift the log's position to give its enemy the fire new life. The flames respond but with less vigor than before. I am eager to return to the conversation with my friends on the mantle.

For the next generation the decoys served their maker well. Many birds were lured to the gun, but with each passing year fewer ducks were taken to market. The winds of change were blowing. A strange, but unspoken feeling was building like the gathering clouds of a summer storm. The great flight of wildfowl were disappearing. It could be seen in the strained eyes of the gunner as he searched the gray winter skys and waited. It was the beginning of the end of an era.

During their last ten years of active use the old 'cans' said they made the grand tour around Chesapeake Bay. It was a journey that if you were to walk every marsh, slough, creek and shoreline would cover some 5,000 miles. They remember changing ownership several times during the period as sudden, fierce winter storms snapped their anchor lines, setting them adrift to be picked up and added to other rigs.

The large rigs of decoys were becoming smaller with each ensuing year. Legions of canvasback blocks were now reduced to mixed sets of red heads, bluebills, ring-necks and blacks. It was during these latter days that the old coot decoy joined forces with his mantle partners. Used as a confidence decoy, he lured the remnant flocks of gun-shy birds.

The market hunting days were all but gone. Even sadder, a number of birds were also gone. Gone forever. Birds like the labrador duck are now extinct. This little sea duck was never abundant and apparently was unable to withstand the pressures of man. The old decoys remember the Labradors and how all at once they were



Old decoys and an old hammer gun—both full of stories about cold duck marshes and gray November skies.

no longer there. The last one was shot during the autumn of 1875.

The day has suddenly turned a sullen gray. A cold north wind rattles the clapboard siding and pellets of sleet hammer lightly at the windows. The hedge log has lost its battle with the fire and is now only a glowing ember.

The days of market hunting could almost be compared to the old log. It started slowly, raged into full fury then slowly died. The log gave up because it was spent. Nothing left to burn. The market hunter yielded to public pressure and the passage of the Migratory Bird Treaty Act in 1918.

The selling of wildfowl had come to an end and with it the thunder of the market guns faded into history.

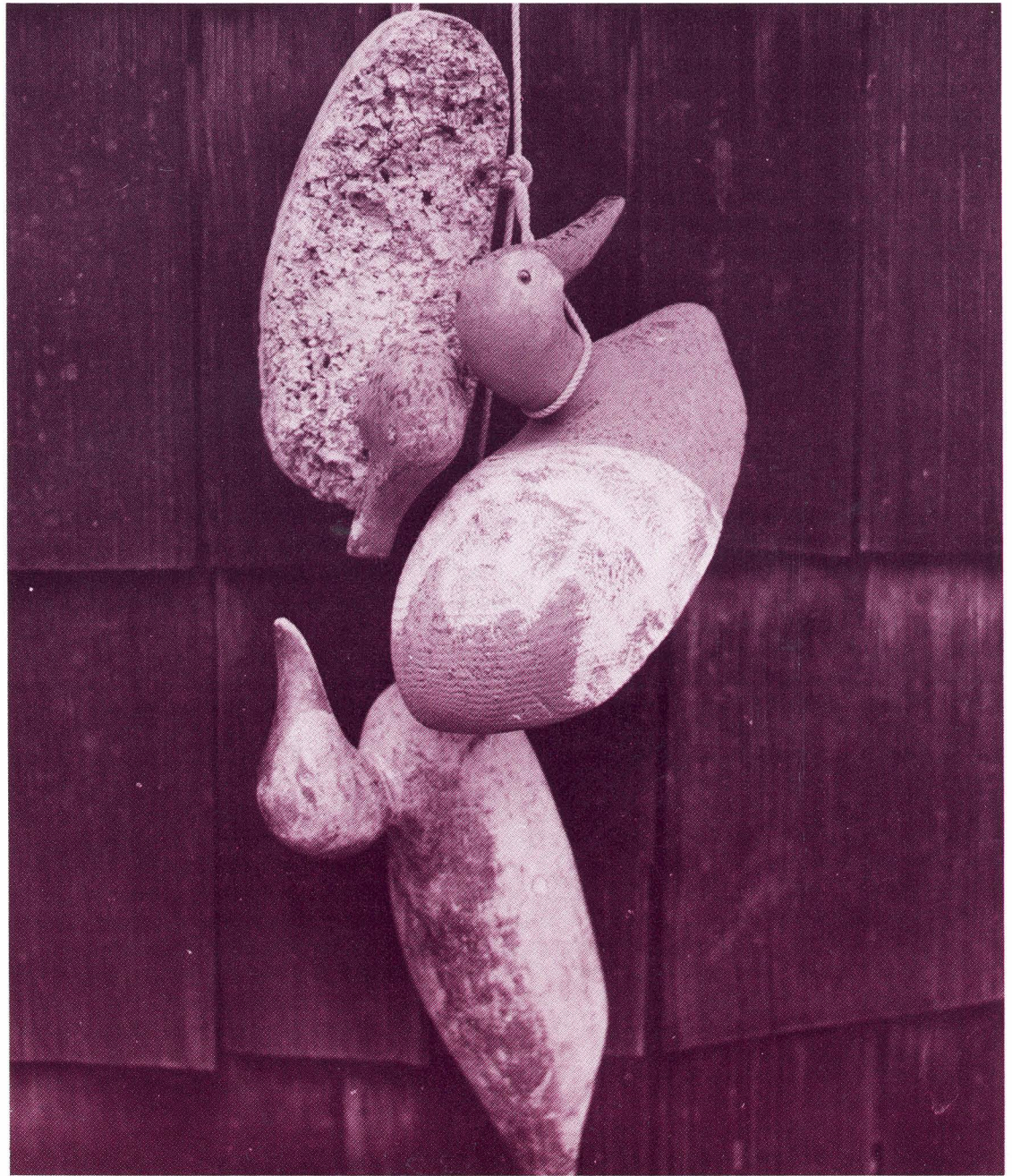
The cabin is cold now as I take a last look at the reminders of another era gathered on the mantle. I do not condone the methods employed during the period but neither do I condemn them.

Market hunting was a legitimate business which helped feed this growing young nation. It is a time long since gone, never to return. So we look to tomorrow.

The waterfowl hunter of the twentieth century is a different breed. He enjoys his sport and puts his efforts and money into conservation groups such as Ducks Unlimited. Through the efforts of agencies like these, we're assured that wild flocks will continue to cast shadows across the autumn marshes.

**National
Hunting & Fishing
Day**

SEPTEMBER 25, 1976



This gaudy gamebird's future is filled with doubt. Here's why:

the beleaguered

Ringneck

By Warren Snyder

Reprinted from Colorado Outdoors

IT IS THE same story throughout the Great Plains, the Midwest and the Far West. In fact, in every state containing pheasants, the old ringneck is on the decline. In too many localities he slowly and systematically seems to be on the road to oblivion.

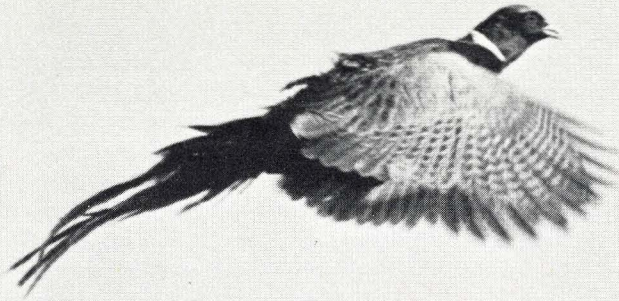
What are the reasons for this long term, widespread decline in pheasants? Habitat deterioration is the many-faceted answer. Habitat changes have been subtle and often overlooked, and they vary in degree from one locality to the next. Fall plowing that eliminated corn stalks and other cover needed in winter, has been a major detriment. At the same time, production of corn and

other row crops has increased in most areas, whereas small grain acreages have declined. Essential nesting cover has been eliminated in the transition.

Alfalfa, too, has replaced native hays, which were cut in mid to late summer after the main nesting season. In many localities, alfalfa is the only major nesting cover available. But it is a death trap from which few incubating hens escape when the first cutting is swathed in late May or June. Nest loss is devastating in these fields. Late spring plowing of wheat stubble also causes much nest loss. These are the major factors of decimation, but there are many others. Field size has been enlarged,

Art by Bernard Martin





The removal of fences, edge cover, hedgerows and shelterbelts has contributed to the ringneck pheasant's decline.

Leonard Lee R

reducing the amount of field edge which is needed by pheasants. Fences and edge cover have been removed. Old building sites and accompanying windbreaks are bulldozed under. More land is under crop production, and increased burning and grazing is evident. Clean farming has been achieved by use of better equipment and vast increases in use of herbicides and insecticides. Marsh drainage, land leveling and concrete lined irrigation ditches, all subsidized by the federal government in the name of conservation, have had their detrimental impacts on pheasants and other wildlife. Urban sprawl takes many acres of pheasant range each year and the list goes on and on.

These changes have come about gradually, and without willful intent to eliminate the old ringneck. Many farmers, themselves, don't understand that these are the agents of destruction. This is illustrated in their oft repeated requests for closed hunting season to let the pheasant build up, and in their condemnation of predators. It is easy to visualize the hunter or the coyote as the culprit. It is not easy to visualize that a hen without a safe place to nest or survive is not going to perpetuate her kind.

The old ringneck, polygamist that he is, has never shown evidence of being overhunted. Even where up to 90 percent or more of the roosters are bagged annually in Pennsylvania and other states with high pheasant and hunter densities, there has always been a surplus of roosters to carry on reproduction. With our vast fields for escape, relatively low hunting pressure, and low pheasant densities, hunters cannot begin to approach a high level of harvest. Overharvest of roosters is virtually impossible in Colorado.

Predators? They are simply opportunists, ready to take advantage of whatever is available to eat. Their opportunities for predation increase as prey, such as pheasants, are subjected to additional habitat deficiencies. For example, deficiencies in nesting cover confine nests to smaller areas, increasing opportunities for predation. Predators come in many forms, from snakes to ground squirrels, and from crows to skunks. Predator control is

expensive, often ineffective, and it still does not cure the basic ailment of habitat deficiency for the prey species.

And wildlife agencies, like good historians, have been documenting this decline, but they are frustrated in their futile efforts to stymie or reverse this trend. They documented the excellent populations of the forties, the declines of the fifties, and the increase brought about by the Soil Bank cropland retirement program of the late fifties and early sixties. Unfortunately, the Soil Bank was soon replaced, or supplemented, with a Set Aside program where acres surplus to crop production were signed up on an annual basis, and therefore lay fallow, barren and useless for wildlife production. So the pheasant continued to suffer declines through the sixties and on into this decade.

Demands for more crop production have terminated the Set Aside program, but in Colorado, pheasants are probably better off. Many of those surplus acres now contain wheat, which at least offers marginal cover for nesting and survival. Before, summer fallow offered nothing. In the Corn Belt, however, it is a different story. Corn and soybeans provide little in the way of essential nesting cover.

State wildlife agencies are hamstrung when it comes to providing significant supplemental pheasant habitat on privately owned, intensively farmed croplands. They can make recommendations to the farmer, but economics, time and weather factors, that constantly plague the farmer, preclude much action that would benefit wildlife. Unfortunately, there is no incentive to the farmer to do this other than his own concern and interest.

In many states, manipulation of pheasant cover along rural county roadsides provides about the only opportunity remaining to wildlife agencies for pheasant management in most farmland areas. Past studies have shown that roadsides produce up to a fourth or more of the young pheasants each year in the Midwest. Roadsides are usually ten to twenty times more productive than small grain fields on a per acre basis. Low traffic volume along county roads usually does not pose a major mortality hazard.

In Illinois, researchers found that by seeding perennial grasses in roadsides, and then inducing farmers to delay mowing of roadsides until after the nesting season, they could obtain dramatic increases in pheasant production. In addition the seeded cover helps control weeds and reduces roadside maintenance costs. It also provides near permanent cover that is attractive and helps control erosion. At present, Illinois is expanding this work into an important management tool. Other state agencies in the Midwest are also considering its values.

The situation in much of eastern Colorado is somewhat different than that in states farther east. Few fences exist anymore and most telephone lines have been placed underground. This has permitted extension of farming right up to the road shoulder. In the northeastern corner of Colorado, two thirds of the roadsides have already been eliminated and more are lost each year. Thousands of acres of nesting cover have been lost. Pheasant populations have declined by the thousands as a result. However, there is still a lot of opportunity for roadside seeding in eastern Colorado. Electric line poles still make farming to the road shoulder difficult in some locations. Some fences still exist. Irrigated fields cannot usually

be extended to the road shoulder. Many roadsides, now farmed, are not productive cropland and could be reseeded to permanent cover.

A combination of alfalfa and tall wheatgrass provides about the best nesting cover combination for use in eastern Colorado and much of the Great Plains Region. If other grass species are substituted, alfalfa should be added to the mixture since the combination produces more cover for a greater number of years.

Seeded roadsides will provide near weed free cover within a couple of years. Where permanent cover of this type already exists, noxious weeds such as downy brome and Canada thistle have less chance to become established. Annual maintenance costs are reduced or eliminated. Perennial cover along roadsides is also attractive and provides a nesting site for lark buntings, meadow larks, horned larks and other wildlife.

Evaluation studies in northeastern Colorado confirm that pheasant production will be increased in seeded roadsides. Increased production is the basic key to higher populations. But, survival cover is also needed. Alfalfa in uncut roadsides helps provide that to young pheasant broods. But, when cold winds drift snow, filling roadsides and other edge areas, pheasants must look for



Ken Stiebben

The ringneck has never shown evidence of being overhunted. Even where 90 percent of the roosters are bagged annually, there has always been a surplus to carry on reproduction.

better protection to survive. They then need a shelter-belt, plum thicket, willow thicket, cattail slough, tall weeds such as sunflowers and kochia, a clover patch, standing corn or grain sorghum to provide a winter home. So it takes a combination, nesting cover and survival cover, to sustain pheasants.

Aldo Leopold, in his *Sand County Almanac*, stressed that wildlife was more than just something to shoot at or to look at. It represented the difference between rich

country and mere land. Regrettably, today more and more of our farmlands are becoming void of wildlife. They are becoming bleak, sterile and "mere land." Surely wildlife has a place in our farmlands. Isn't it time that we started giving more emphasis to quality of farm life instead of to the quantity associated with crop production and the almighty dollar? Seeding roadsides or planting a plum thicket would be a good start toward making that farm "rich country" to live in and enjoy.



Leonard Lee Rue

**National
Hunting & Fishing
Day**



SEPTEMBER 25, 1976



Kansas Fish & Game NEWS

DOVE, TEAL AND SHOREBIRD SEASONS ESTABLISHED

PRATT — Season dates and bag limits for teal, mourning doves and four species of shorebirds has been established by the Kansas Forestry, Fish & Game Commission.

Dove season will open Sept. 1 and run through Oct. 30. The daily bag limit will be 10 birds with a possession limit of 20. Shooting hours for dove will be one-half hour before sunrise to sunset.

Teal hunting is set for Sept. 11 through Sept. 19. The daily bag limit is four teal with a possession limit of eight. Teal hunting will be allowed statewide except for the Marais des Cygnes Waterfowl Management Area in Linn County and Neosho Waterfowl Management Area in Neosho County. As in past years both areas are closed to protect resident wood duck populations which will not be legal targets until later in the fall.

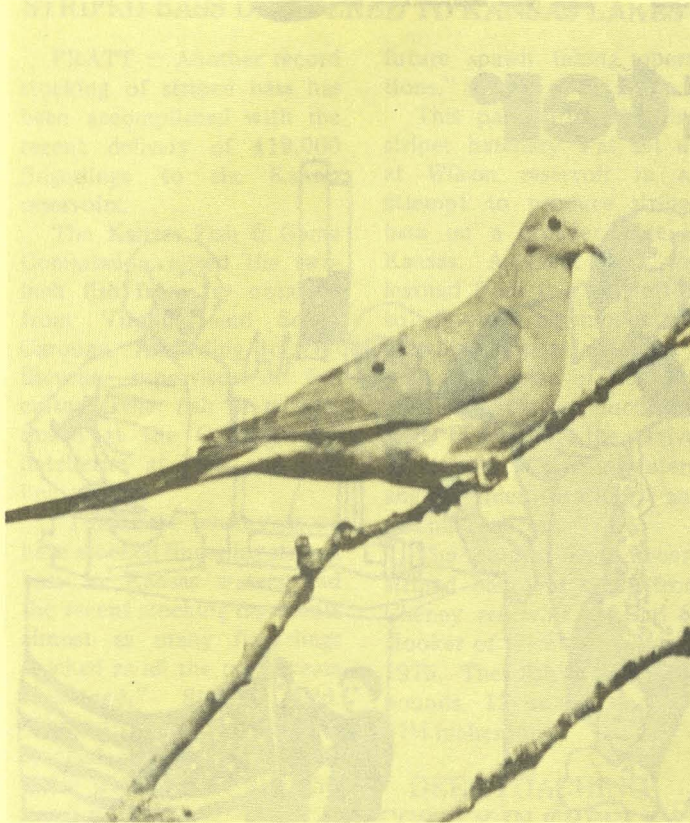
At Cheyenne Bottoms Waterfowl Management Area in Barton County, pools two, three, four and five will be open to teal hunting. Pool five is normally in refuge and will be open to hunting during the nine-day teal season only.

Sportsmen are reminded that shooting hours for teal are from sunrise to sunset during the special season to assist in waterfowl identification.

The shorebird seasons set by commissioners include: sora and virginia rails, Sept. 11 through Nov. 19, daily bag limit 25 and possession limit 25; common snipe, Sept. 11 through Dec. 26, daily bag of eight and possession limit of 16; woodcock, Oct. 9 through Dec. 12, daily bag of five and possession limit of 10.

Federal regulations on these migratory game birds require hunters to plug shotguns so they are capable of holding no more than three shells in the magazine and chamber combined. Persons 16 years or older who hunt teal must have a \$5 migratory waterfowl stamp in addition to their Kansas hunting license. This stamp is not required for dove hunting.

Any person born on or after July 1, 1957, must have successfully completed the Kansas Hunter Safety course in order to purchase a hunting license or hunt in Kansas.



PHEASANT, QUAIL AND PRAIRIE CHICKEN SEASONS TO BE ADOPTED AUG. 13

PRATT — Hunting seasons for pheasants, quail and prairie chicken will be set August 13 by the Kansas Forestry, Fish & Game Commission.

The meeting will be held at Commission headquarters east of Pratt and will begin at

9 a.m., according to Commission Director, Richard Wettersten.

The meeting is open to the public and all interested sportsmen and landowners are urged to attend.

RESERVOIR MANIPULATION PHASE COMPLETED

PRATT — Fish & Game Commission personnel have been hand-seeding millet over several hundred acres of reservoir lands this month, according to Roy Schoonover, fisheries chief for the Kansas Forestry, Fish & Game Commission.

The hand seeding has been accompanied by aerial seeding as part of the water level manipulation program on some of the reservoirs.

Milford, Kanopolis, Wilson, Perry, Pomona, Melvern and Tuttle Creek Reservoirs have all been seeded with millet. The grass will hold duck populations for longer periods in the fall and provide better nursery habitat for sport fish in the spring.

Lovewell and Glen Elder Reservoirs are not included in the water level manipulation

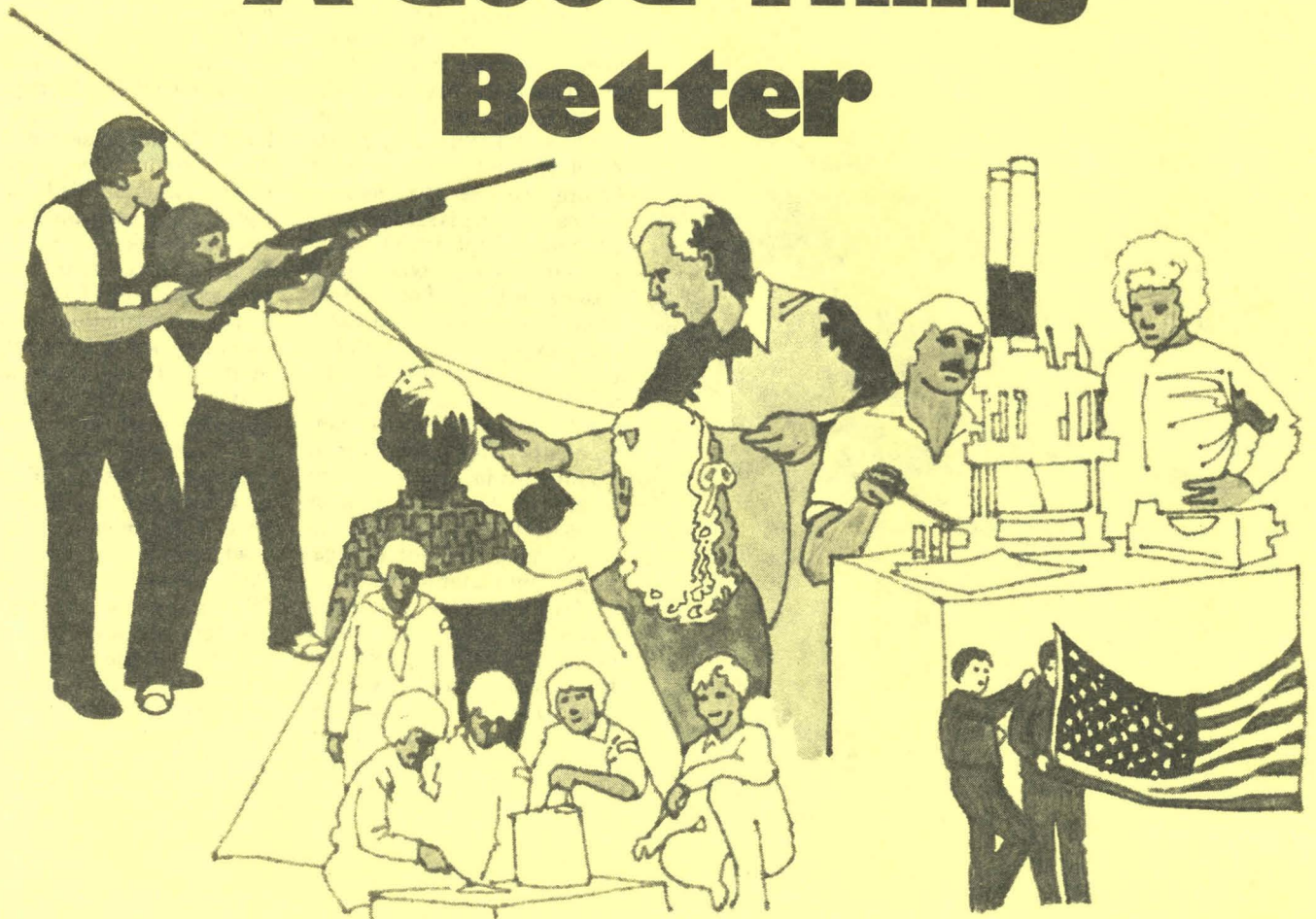
programs. However, they were also seeded with millet because of a three-foot drop in Lovewell Reservoir for irrigation purposes, and a drawdown at Glen Elder Reservoir to allow inspection of the dam. Approximately 550 acres were seeded at those two reservoirs.

Milford and Wilson Reservoirs were lowered one foot below conservation pool to expose the acreage for millet seeding.

Kanopolis Reservoir was lowered to one foot above conservation pool before seeding operations began there.

The reservoir water levels will be raised according to water level manipulation plans and other reservoir requirements through the fall and next spring.

Making A Good Thing Better



National Hunting and Fishing Day September 25, 1976

In its brief four-year history, National Hunting and Fishing Day has developed into this nation's newest, and most meaningful, sporting tradition. Thanks to outstanding support from local sportman's clubs and conservation groups, NHF Day activities are now held at nearly 3,000 gun clubs, shopping centers, schools, parks and libraries—each year attracting some 20 million visitors. This year's observance, on September 25, can be the best yet—with a little help from you.

When you help organize an NHF Day program, you'll be helping to give the non-sportsmen in your town a better understanding of what hunting and fishing are all about. You'll be showing how sportsmen help wildlife by providing over \$250 million for conservation annually.

In short, you'll be showing them that there is a lot more to hunting and fishing than guns, fishing rods and reels. They will get the message, loud and clear, that the people who

hunt and fish are the real protectors of our wildlife. It is not hard to organize an NHF Day program and it's even easier to improve an existing one. You'll find lots of individuals and clubs that will help, and NHF Day headquarters has prepared a 64-page manual and 60-piece aids kit to make the job even easier. Please use the order blank below to order yours today. You'll be well on your way to making a good thing better.

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Please send _____ copies of the NHF Day Action Manual @ \$2.00 per copy (same as '75 edition).

_____ NHF Day Aids Kits @ \$3.00 per kit

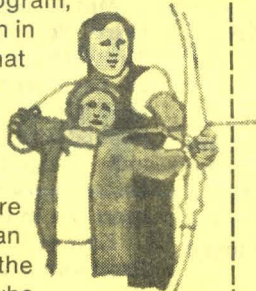
_____ NHF Day bumper stickers @ 5 for \$1.00

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Kansas Fish & Game NEWS

STRIPED BASS DELIVERED TO KANSAS LAKES

PRATT — Another record stocking of striped bass has been accomplished with the recent delivery of 419,000 fingerlings to six Kansas reservoirs.

The Kansas Fish & Game Commission raised the two-inch fish from fry obtained from Virginia and South Carolina. According to Verl Stevens, supervisor of fish culture, the fish were produced at the Commission's hatcheries at Pratt and Farlington.

"This is the tenth year we have stocked fingerling striped bass in Kansas waters and the recent stocking represents almost as many fingerlings stocked as all the other years combined," Stevens said. "During the 1975 season we stocked 321,000 stripers so we're well pleased with this year's effort."

Reservoirs that receive supplemental stockings this year include: Cheney, Wilson, Tuttle Creek, Glen Elder, and Milford.

"We're concentrating the striped bass efforts at Cheney, Wilson and Webster reservoirs to establish these fish for

FURBEARER RUNNING SEASONS OPENS AUGUST 1

PRATT — Running season for raccoon, opossum, red fox and gray fox opens August 1 in Kansas and will continue through October 31, according to the Kansas Forestry, Fish & Game Commission.

These furbearers can be run with hounds during the season, but there is no open running season on any other furbearer. The running season is defined as pursuing or chasing of these animals but not killing.

future spawn taking operations," Stevens noted.

This past spring the first striper hatchery was set up at Wilson reservoir in an attempt to produce striped bass on a broader scale in Kansas. A great deal was learned from this first effort to develop techniques for spawning stripers in Kansas.

A committee of biologists are currently conducting a study to determine the survival of stripers in Kansas waters, angler identification and catching success.

The current state record striped bass was taken from Cheney reservoir by Carl G. Hooker of Wichita on June 1, 1975. The fish weighed 33 pounds, 12 ounces and was 37½ inches long.

DEER POACHING COSTLY IN GREELEY COUNTY

TRIBUNE — A recent deer poaching case in western Kansas has proven to be a costly venture for two Greeley county men, according to the Kansas Fish & Game Commission.

Victor Beezley, 18, Tribune, was charged with taking a deer during closed season and illegal possession of a deer. In the same case Carl Galpin, 20, Horace, was charged with illegal possession of a deer.

Both men appeared before Greeley County Judge, C. Ann Kennis, on June 28 and entered pleas of guilty. Beezley was assessed a fine and court costs totaling \$509.15 and Galpin was assessed a fine and court costs totaling \$259.15.

The investigation and arrest were conducted by state game protectors Ken Knitig, Goodland, and Claude Blair of Scott City.



Northern pike recently stocked in Kansas lakes will provide fine future fishing.

STATE LAKES & RESERVOIRS RECEIVE NORTHERN PIKE

PRATT — Northern Pike populations received a shot in the arm recently when

a quarter-million fingerlings and short pike were stocked in Kansas water impoundments.

A total of 227,600 three-inch fingerlings were delivered to seven state fishing lakes and five federal reservoirs. The reservoirs that received the pike include: Norton, Glen Elder, Council Grove, Marion and Webster.

In addition to the fingerlings, 6140 northern pike shorts, were stocked in four lakes as an experimental research project. The purpose of the project is to evaluate the effects of northern pike on other fish populations in certain water impoundments.

Verl Stevens, supervisor of fish culture for the Kansas

Fish & Game Commission, said 3,700 of the six to ten inch shorts were stocked in Council Grove reservoir to establish a brood stock population for spawn-taking operations in future years.

Northern pike fry were obtained earlier this spring from the Nebraska Game & Parks Commission and reared to fingerling and short size at Kansas hatcheries in Pratt, Meade and Farlington.

Northern Pike have become a favorite fish of Kansas anglers and the current state record weighs 24 pounds, 12 ounces. The record fish was taken from Council Grove reservoir on August 28, 1971 by Mr. & Mrs. H. A. Bowman of Manhattan, Kansas.

FURBEARER SEASONS SET BY FISH & GAME COMMISSION

PRATT — The five Commissioners of the Kansas Forestry, Fish & Game Commission met June 17 at their monthly meeting and passed regulations on trapping, hunting and running of furbearers.

Trapping season for mink, muskrat, opossum, raccoon, striped skunk, spotted skunk, weasels, red fox, gray fox, badger and bob cat was set from Nov. 20, 1976, through Jan. 31, 1977. Beaver trapping season was set for Jan. 1, 1977, through Feb. 15, 1977. The Commission continued the closed season for otter, swift fox and black-footed ferret.

After several suggestions from the floor, the Commission also voted to prohibit dry land sets of large conibear traps (model 330).

The running season on furbearers, which provides for running raccoon, opossum, red fox and gray fox with hounds, was set from Aug. 1, 1976, through Oct. 31, 1976. None of the legal species to be run may be killed or taken during this period.

The hunting season for raccoon, bobcat, red fox, gray fox, spotted skunk, badger and opossum was set from Nov. 10, 1976, through

Jan. 31, 1977. The striped skunk season will be open throughout the year.

The Commission changed the opening date of the furbearer hunting season to coincide with the Missouri furbearer hunting season dates. The change came after a group of Eastern Kansas hunters protected the large number of out-of-state hunters. They said high prices being paid for raccoon and other long-haired furbearers has increased hunting pressure.

This change in the hunting season will provide for a 10-day period when furbearers will neither be run nor hunted.

The hunting season for otter, swift fox, black-footed ferret, beaver, mink, muskrat and weasels will remain closed.

The Commissioners also passed live furbearer and furbearer pelt regulations. Raw pelts of furbearers may be possessed until June 1 following the date of being taken. Striped skunk pelts can be possessed at any time.

Live furbearers legally taken can only be possessed or kept alive until the last day of the hunting or trapping season.





Kansas Fish & Game NEWS



STATE FISHING LAKES RECEIVE WALLEYE

PRATT — A bunch of you walleye fishermen are going to be happy in the next several years. In fact if you catch every walleye recently stocked in Kansas, 28,000 limits of walleye will have been taken.

A total of 140,000 walleye fingerlings have been distributed to fourteen state fishing lakes and two federal reservoirs by the Kansas Fish & Game Commission.

"This is the fifth year the Commission has stocked walleye fingerlings in public waters," said Verl Stevens, Pratt, supervisor of fish culture for the Commission. "The fingerlings measure about three inches in length and were hatched earlier this

spring at the Pratt hatchery. Raising walleye from fry to fingerling size insures a much better survival rate when placed in the lakes and reservoirs with existing fish populations," Stevens explained.

The program was started in 1972 and a number of walleye in the two to four pound class are being taken by anglers in the state fishing lakes across Kansas. This was a record year for the fingerling program and should provide some excellent walleye fishing in future years.

FISH & GAME COMMISSION PASSES IMPROVEMENTS BUDGET

PRATT — The Kansas Forestry, Fish & Game Commissioners met June 17 to discuss several Fish & Game Commission issues and passed the 1978 fiscal year capital improvement budget.

"The capital improvement budget will be reviewed by the Division of Budget and will be ultimately included in the total budget request for fiscal year 1978," said Richard D. Wettersten, director of the Commission.

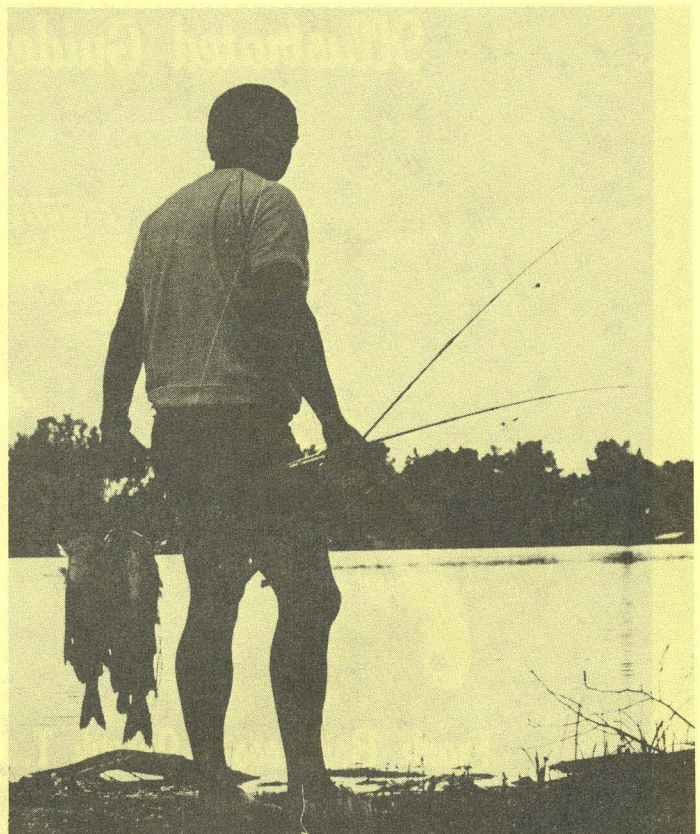
Included in the budget are provisions for marsh development at Perry Game Management Area, Fall River Reservoir, and Elk City Reservoir.

The capital improvement

budget also contains provisions for acquisition of wildlife and public hunting land.

Other items in the budget include fish and wildlife pond development on several game management areas, shoreline development at state fishing lakes, fencing on certain game management areas, road construction on state game management areas, state fishing lake property maintenance and road improvement on federal reservoir game management areas.

The Commission also allocated some of its budget to prevent mine waste leaching in the strip pit area.



The University of Kansas Museum of Natural History and the State Biological Survey have released the 4th publication in the Public Education Series entitled Illustrated Guide to Fishes in Kansas. The authors, staff members of the museum, are Frank B. Cross, who is Curator of Fishes, Joseph T. Collins, Vertebrate Zoologist, and Jeanne Robertson, Scientific Illustrator.

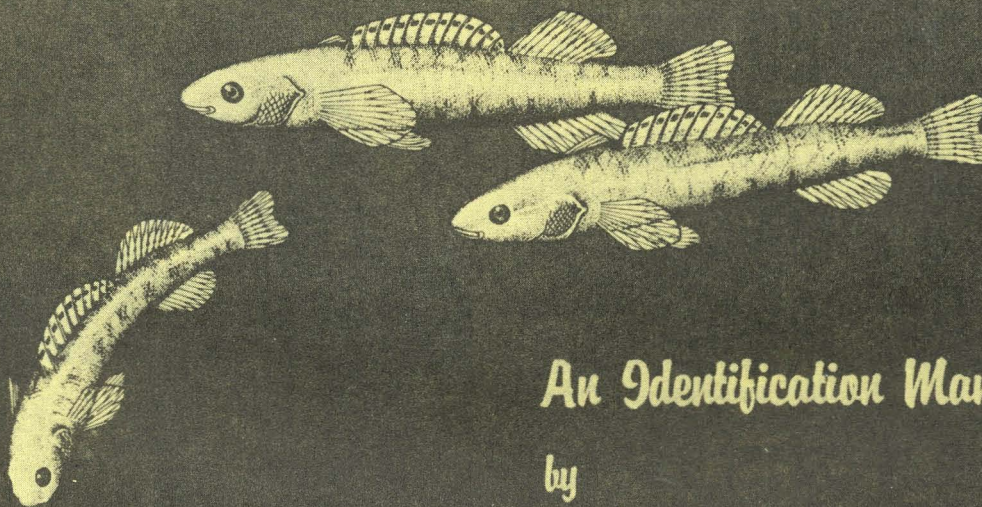
This 24-page booklet presents a new technique in identifying animals in the field with clear drawings, a simple characteristics, and a flow chart design. The Guide includes 80 figures, a check list of all species currently recognized in Kansas, and a short discussion on the differences between fishes and other vertebrates.

The identification manual accompanies Fishes in Kansas, No. 3 in the Series, by Frank B. Cross and Joseph T. Collins.

Copies of the publication may be obtained from the Publications Secretary, Museum of Natural History, The University of Kansas, Lawrence, Kansas 66045. The Guide sells for \$1.00, plus 25 cents postage and handling. Kansas residents should add 3.5% sales tax.

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Illustrated Guide to Fishes in Kansas



An Identification Manual

by

Frank B. Cross - Joseph T. Collins - Jeanne Lenahan Robertson

The University of Kansas Museum of Natural History and State Biological Survey

CHANGE OF ADDRESS NOTICE

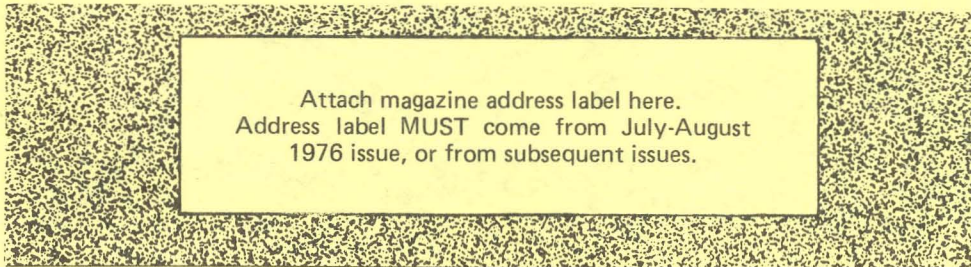
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Thanks.



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The abundant supply of cattails at Cheyenne Bottoms will be reduced to a manageable size if a new Kansas Forestry, Fish and Game Commission technique is successful.

Cattails are being mowed with a special machine mounted on the front of an airboat. The mowing should provide channels and open water space for waterfowl and hunters when hunting season begins this fall.

District game biologist Bob Bartels said there are 900 to 1,000 acres of unwanted cattails in Pool 1 which contains about 3,000 acres.



Extensive maintenance and repair work on duck blinds is also underway at the famed Cheyenne Bottoms Waterfowl areas according to Dr. Jerome Sayler, third district commissioner from Great Bend.

Heavy wave action washed away much of the dirt around the blinds in Pool 3. The pool was drained last spring and heavy equipment operators are now pushing mounds of dirt up around the blinds.

Barring bad weather, the work should be completed in two or three weeks. The pool will be refilled and the blinds will be in good shape for the special teal season, slated for early September.

Sunflower

HERONS

A profile on some long-legged,
long-necked Kansas natives.

By Paul Bocquin

THEY CAME swooping in from all directions. The graceful, elongated birds came gliding into a nesting colony along the Medicine River in Barber County. It was mid-March and the Great Blue Herons were making their annual spring pilgrimage into Kansas.

As we watched from a distance, the flock settled into a grove of cottonwood trees that have served as nesting habitat for the herons for decades. They were returning from their wintering grounds in the southern states.

In each tree was from one to as many as eight platforms of sticks high overhead in the upper branches. The heron's nest is perennial, with new sticks added yearly. It is used over and over again by the herons but requires annual repair after withstanding the winter's wind and ice.

As we listened to the rustling in the heronry, the deep, disgusted "Gawk" of a disturbed heron could be heard above the clatter. The nests are bulky, about three feet wide and once built, become permanent homes for the water birds that return each spring to add only a few twigs to restore necessary strength.

The great blue heron is our tallest breeding bird in the sunflower state. It rises to a slender but sturdy four feet with a six-foot wing spread. It is not actually blue in color but rather a blue-grey, plus black and white

plumage, especially noticeable during the spring mating season.

Because the herons prefer life in warm climates, most of them have departed the state by November. But the great blue heron during the spring and summer months provides an almost unique challenge to man as a general observer, a photographer, or as a scientist.

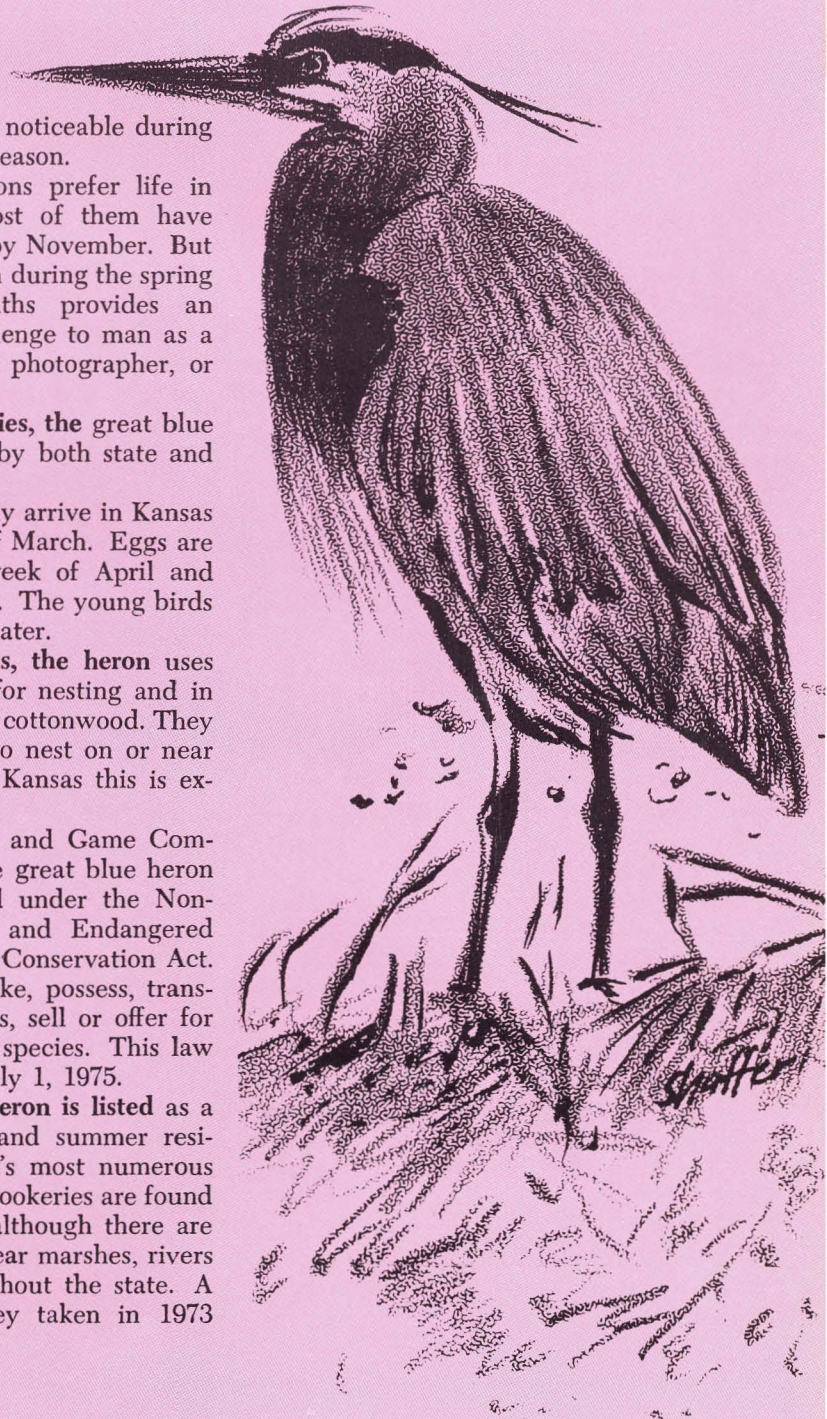
A migratory species, the great blue heron is protected by both state and federal laws.

The herons usually arrive in Kansas about the middle of March. Eggs are laid by the first week of April and hatch in four weeks. The young birds fledge eight weeks later.

In eastern Kansas, the heron uses the sycamore tree for nesting and in western Kansas, the cottonwood. They have been known to nest on or near the ground, but in Kansas this is extremely rare.

The Kansas Fish and Game Commission protects the great blue heron as a nongame bird under the Nongame, Threatened and Endangered Species of Wildlife Conservation Act. It is unlawful to take, possess, transport, export, process, sell or offer for sale such nongame species. This law became effective July 1, 1975.

The great blue heron is listed as a common transient and summer resident of Kansas. It's most numerous nesting colonies or rookeries are found in the Flint Hills, although there are colonies scattered near marshes, rivers and streams throughout the state. A heron colony survey taken in 1973



lists 76 known colonies with more than 3,000 nests.

Each pair of the huge birds raises between two and four young yearly and establishes and replenishes the population of the communities.

The heron feeds on toads, tadpoles and frogs, water shrews and meadow mice, aquatic insects and fish. It stalks through swamps or along the edge of a pond or lake. It often stands motionless, supported by one leg.

A hardy species, the heron only leaves its Kansas habitats as the ice closes their natural feeding grounds. They are solitary and silent except during the breeding season. Even then, they are not social, though often nesting in communities and with others of the family.

They seem to have no interest in common, only coming together because the location suits them and at such times fight fiercely for a favorite branch or place for a nest. However, while mated, the pairs are true to each other and share alike in the duties of nest building, hatching and rearing the young.

When they fly south in the fall, the herons migrate to just below the freezing zone. Those from Kansas usually overwinter in Oklahoma and Texas, remaining within the United States.

Raising the offspring is a laborious task and requires constant work during the day and into the night, even where food is abundant, as their growth is rapid and digestive organs large. But when they have only their own appetites to satisfy, the herons generally feed at dawn and dusk, resting during the day in swampy lands and treetops near the waters.

Their food consists chiefly of fishes, aquatic life and rodents which they usually obtain by standing motionless in water of upland. With bill poised, the heron patiently awaits the near approach of its prey. Then, the victim is pierced with a rapid stroke of the bill and quickly swallowed, head first.

These birds possess great strength of wing, and their flight in migration is high and protracted. At other times, unless going a great distance, they flop leisurely along near the water or land. In flight, the head is drawn back upon the breast, with legs ex-

tended rudder-like in line with the body.

In localities that are destitute of trees, the heron builds its nest in cattails, upon bushes, rocks and the ground. The nest is a flat, bulky structure of sticks, lined sparingly with grasses.

Great Egret

Hérons and egrets belong to the family "Ardeidae" and subfamily "Ardeinae". The common or American egret pays a shorter visit to Kansas.

The egret arrives from the south in July and August and departs in September. It is almost as large as the great blue heron but has white plumage, black legs and a yellow bill. It sounds more high pitched.

The great egrets were numerous here in the last century. But during and after the Gay Nineties, plume snatchers almost brought the bird to extinction.

Styles in women's hats eventually changed and the Audubon Society succeeded in getting laws passed to protect the egret.

Great egrets nest in colonies

The great blue heron shown here at its nest, and the little blue heron on the opposite page are the most common herons in Kansas.

throughout the South. As soon as the young birds can fly, they wander off in all directions, visiting swamps and lakes all across the country. They breed in suitable localities throughout the Gulf states and on the Pacific slope north into Oregon. The stragglers that remain north of their breeding grounds are chiefly young birds that soon realize their mistake and hasten on south at the first sign of winter.

Their food, manner of flight and habits are similar to the great blue heron but they are not as solitary and quarrelsome. While they do on occasion nest in tall trees and upon broken-down reeds and rushes, they seem to prefer low bushes and dry spots of ground in well secluded and almost inaccessible places.

Their nests are usually made of sticks and lined with grasses. The egret lays two to four pale, bluish green eggs.

Little Blue Heron

The small species of the heron family have shorter necks and legs and are usually more squatty. But the little blue heron has the typical



heron shape. The adults are slate blue, with head and neck maroon and legs dark in color. The immature bird is snow white with slate blue wing tips.

The little blues can be found in the tropical and warm temperate climates of North America. When nesting is over, they scatter, arriving from the south in July and August. They fly north to Illinois, Kansas, Massachusetts, Lake Erie and on up into New England, and south throughout the West Indies to Columbia and Guiana. These birds are numerous in Florida

and the adjacent islands and not uncommon west along the Gulf coast and in Central America. They are quite social in their habits, collecting together in large flocks at their roosting and breeding places.

For feeding grounds, they prefer the margins of inland streams and ponds of shallow water, where they patiently watch for hours, or slowly move along with a dignified tread, striking swiftly and with unerring aim at their prey, occasionally giving chase.

Their nests are located in trees,

bushes and cactus; a flat, loose structure built of small sticks, with a mixture of leaves, moss and grass. There are usually three or four eggs, dark, bluish green.

Eastern Green Heron

The Eastern green heron is far less numerous than it once was. It cannot exist in the "dead" water of a polluted stream. They do not nest in colonies like most herons but are more secretive and solitary.

Their habitat comprises the whole of temperate North America, West





In late summer and early fall, the immature little blue herons are garbed in their juvenile white plumage.

Indies, Bermudas; north into Maine, Dakota and Oregon; south into Venezuela and Columbia, South America.

The green heron actually has a bluish shade over its back and is brown to maroon over its top and front. The neck is short for a heron and so are its bright yellow legs.

These birds are not shy, and where not persecuted, are easily approached. Their feeding habits are similar to those of the great blue, but they are more strictly a nocturnal or night bird.

Their nests are located on the branches of trees and bushes along streams and ponds, and are loosely made of sticks lined with twigs in leaf. The green heron lays four or five eggs that are light greenish blue in color.

Black-crowned Night Heron

This is the heavyweight of the heron family and does not have the slender, elongated appearance of its cousins. They inhabit almost the entire continent except the arctic regions.

This species is the most widely distributed of any of the heron family. It breeds south of the northern regions into the southern part of South America.

Contrary to their name, the night herons do a certain amount of day fishing, often from limbs overhanging

the water. They live together in societies and assemble in large numbers at their breeding grounds and roosting places.

The adult bird is jet black to dark green, with the neck and front a pale, ash gray. The occipital or posterior plumes are pure white. The immature bird in no way resembles its parent, for the young bird is brown with gray lines down the front and sides and grey spots over the wings.

Their food consists of fishes, frogs, crustacea, and most small forms of life in the shallow waters, swamps and marshy ground. When frightened or disturbed, they take off with angry squawks. Occasionally, they utter an occasional hollow, guttural "Qua," and for this reason, are generally known as the "Qua-bird."

Unlike the great blue which can glide over long distances with wings outstretched while in flight, the night heron flaps its wings, noiselessly, in an owl-like fashion.

Perhaps more information on the herons in Kansas will come to light in a research project recently completed by Homer Stephens, Botany Research Laboratory, University of Kansas. He has prepared a 40-page article which is being published. It covers 22 years of research.

"I started the work in 1952 with 13

known colonies containing 519 nests. In 1962, there were 111 known colonies with 2,239 nests. In 1973, there were only 76 known colonies but with 3,009 nests," Stephens explained.

Each of these sites was visited and counted each year for the first 11 years, then again 11 years later, in 1973. Stephens traveled to all corners of the state each year at his own expense. He reports that in 1973, the size of the colonies ranged from 3 to 235 nests.

When published, this extensive research will no doubt shed more light on herons that occupy the Sunflower state and their breeding and nesting habits. But to nature lovers who may wish to do their own research, Stephens offers a word of caution.

"Please keep in mind that a few of the colonies have been abandoned because of scientific (?) studies—just too much human activity to suit the herons. This is always regrettable. My work was done during the winter and from a concealed blind during the summer, with only five climbs into the trees during the nesting periods of the 22 years."

So, self-styled researchers, take heed. Enjoy the graceful heron on the wing. But please keep your distance around the heron rookeries.

THUNDER

..... on a clear day

By Bob Wellborn, Staff Writer

THE PLAINS frontier, a vast expanse of grasses that rolled away to gently blend with the sunburnt sky. It was a grassy ocean, complete with wind-whipped waves.

Thunder—off in the distance. But the sky was clear and unbroken.

Over a high bluff the burnished-gold grasses changed to brown and black, as far as the eye could see.

This was the thunder heard by a company of Kansas state militia while on patrol in North-central Kansas in June, 1869.

From just west of Jewell to 15 miles northwest to the head of the Limestone, west another 15 miles to Oak Creek, to the southwest past Cawker City at the forks of the Solomon River, southwest toward Beloit and across the Solomon River as far as could be seen with field glasses, this was the size of the herd.

The company blended in the northwest-moving herd for a day, camping in a sheltered area as the herd moved around them. The thunder became a steady roar throughout the night as the herd slowly moved around them.

Two counties of buffalo. This was the story William D. Street told in 1904 and David Dary retold in his book *The Buffalo Book*.

It took Kansas 94 years to recognize this master of the plains.

The late Bernard “Poco” Frazer, a University of Kansas alumnus and track star made the original recommendation that the buffalo be adopted as the official state animal. What does a KU track star have to do with legislative matters and the aesthetics of choosing an official state animal?

Frazer was commissioned while living in Oklahoma to carve three stone panels to be mounted near the entrance of the State Office Building in Topeka, across the street from the Capitol building. One of his ideas was the buffalo.

A news story in the *Topeka Daily Capital*, January 24, 1955, reported three senators listened to Frazer’s idea.

“Last week they introduced Frazer’s idea in the state senate, saying the Kansas state song, ‘Home on the Range,’ mentions a place ‘where the buffalo roam.’”

Leonard Lee Rue





Ken Stiebben

The bison's value at the market place, coupled with his free-ranging habits made peaceful coexistence with the pioneers impossible.

The story also noted Frazer was born and raised near the log cabin in Smith County where "Home on the Range" was written.

"... his first love is Kansas, where he wants the Buffalo to roam once again, figuratively at least, as the official state animal," the story concluded.

Who was the first white man to see buffalo in the new world? Hernando Cortez saw them first in 1521, but not on the plains in herds numbering in the hundreds of thousands, as might be expected. The Aztec emperor Montezuma held several captive in a zoo near present-day Mexico City.

The second was Alvar Munez Cabeza de Vaca, who was shipwrecked in 1530 on the Gulf Coast. He saw the vast herds of buffalo in the wild in what is now Texas.

The buffalo range was widest from the coasts of California and Virginia south to Nicaragua. They were originally from Asia, crossing a land mass that is now covered by the Bering Strait.

They were a different kind of buffalo, larger, and with horn cores that spread sometimes six feet. They arrived between 200,000 and 800,000 years ago on the North American continent during the Illioisan glacial age, the

third of four Pleistocene ice advances. That buffalo was known as *Bison latifrons*.

Because of climate changes, the *Bison latifrons* died out, leaving two new forms, the *Bison antiquus* and the *Bison occidentalis*.

The *Bison occidentalis* survived to develop into two new forms of Bison.

The first fossil remains of the *Bison occidentalis* were discovered at Fort Yukon, Alaska. Remains have also been discovered in Logan County in Northwest Kansas.

The *Bison occidentalis* developed into the *Bison athabascae* and the *Bison bison*, the Kansas buffalo. The other is known as the woods buffalo, though most observers might not recognize the difference.

It was probably inevitable that an animal as wide-ranging and profitable as the buffalo could not live free and wild on the Kansas plains and prairies, coexisting with the white man.

According to newspaper accounts and other historical notes, buffalo hunting by the white man in Kansas started about the same day he first saw them. Usually then as a primary food supply, but the numbers killed rose. It peaked in 1873, according to railroad freight figures compiled by Col. Richard I. Dodge in his book published in 1877.

There were two markets for buffalo hides. The first prevalent market was the buffalo robe, tanned with the hair on and popular in the 1860's. These were difficult to obtain, because only the cow had hair over the entire body, and that thick hair on the cow's robe grew only between November and March to protect the animal from bitter winter winds. They were sold by buffalo runners for about six dollars each.

In 1870 the buffalo became a prime producer of leather, tanned with the hair off.

In the late 1860's the major areas of leather supply were the pampas of Argentina and California. In 1870 the supply began to dwindle. Too many cattle had been killed for their hides.

An English tannery began earnestly experimenting with buffalo hides for leather when they contracted William G. Lobenstein in Leavenworth for 500 hides.

Lobenstein contacted several hide dealers who bought the hides from several more hunters, including J. Wright Mooar from Dodge City. Mooar had 57 hides which were not bought for shipment to England. He shipped his hides to his brother in New York on a hunch. His brother easily sold the hides for tanning into leather at hide houses in New York and Philadelphia. Early in 1871 J. N. Dubois received a similar order from tanners in Germany.

The experiment worked. The word flashed across the state that hides would be bought during any time of the year, with or without the hair.

Prices for fur and hides have always fluctuated rapidly, but Dubois was paying \$2.25 for cow hides and \$3.25 for larger bull hides. Instructions for handling the hides were simple. They were to be stretched and pegged on the

ground, hair down and an insecticide was to be used to keep moths and other insects away.

"Thousands upon thousands of buffalo hides are being brought in here by hunters. In places whole acres of ground are covered with these hides spread out . . . to dry. It is estimated that there is, south of the Arkansas and west of Wichita, from one to two thousand men shooting buffalo for their hides alone," reported a Wichita newspaper story in the *Kansas Historical Quarterly*.

The hides were the prize then. The prairie scavengers; turkey vultures, coyotes and wolves; were left great feasts from many buffalo hunts.

Refrigeration cars came into use in 1872, but still there was a great deal of spoiled meat shipped east. Cured buffalo hams and salted tongues were about the only things that could be safely shipped. The hams sold for about two cents a pound.

David A. Dary, writing in the Autumn, 1973 edition of the *Kansas Historical Quarterly*, said, "Almost overnight the tiny village (Dodge City) became the hide capital when the Atchison, Topeka and Santa Fe railroad reached

there in early September, 1872. Buffalo hunting and shipping became the town's chief industry. During the three months that followed, the railroad shipped 43,029 hides and 1,436,290 pounds of buffalo meat east. One observer concluded that these figures represented about 50,000 dead buffalo and did not include those animals killed in 'wanton cruelty, miscalled sport, and for food for the frontier residents.'"

The sporting aspect of buffalo hunting was also big business, as trains were organized for excursions into buffalo country where they could be shot from the railroad car.

By 1875 the business of buffalo hunting had largely ended in Kansas, according to Dary, because there were few buffalo to hunt and no more hides to sell.

A new buffalo industry was beginning to thrive, however, with the end of the buffalo hunting.

Buffalo bones could be used as fertilizer and in making bone black for refining sugar.

Some settlers in Western Kansas took to collecting the bones that dotted the plains as their sole income after a

By 1875 the business of buffalo hunting had largely ended in Kansas, mainly because there were few buffalo to hunt and fewer hides to sell.

Ken Stiebhen





severe winter, a business panic and a locust invasion ruined their farming.

The boom in bones lasted until the late 1870's, when the supply of bones, like the earlier supply of buffalo, gave out.

McPHERSON—A buffalo herd of three bulls and seven cows has been established in the new Maxwell State Game Preserve six miles north of Canton in northeastern McPherson County. The ten buffalo were trucked in in two trucks from a (*sic*) Oklahoma herd at Cache, Okla., and no difficulty was experienced in moving the animals.

The buffalo were unloaded into a heavy plank cutting pen and then released to freedom in the four-section preserve. Two creeks run thru (*sic*) the Maxwell Preserve and on one of the creeks a couple of dams have been built by beavers. The entire preserve is made up of native pasture land that has not been grazed for several years.

—*Topeka Capital*,
Oct. 19, 1951

The above news story from the files of the Kansas State Historical Society marked the beginning of what is

today the largest of several buffalo herds managed by the Kansas Forestry, Fish and Game Commission.

The land was given to the state for the refuge by Henry I. Maxwell, a McPherson businessman.

Verle Warner, refuge manager, said the optimum herd size for the refuge is 200 buffalo, though the numbers fluctuate annually due to harvest and calving.

The four sections of bluestem prairie that make up Maxwell Game Refuge are similar to the prairie that confronted the white man over 100 years ago, only smaller.

"When they graze, they'll cover a mile and a half in no time at all," Warner said. The buffalo do cover a lot of ground in a day, as they did on the open prairies years ago. This is one of the goals of the refuge, to allow the buffalo to exist in as natural habitat as is possible to supply.

Some of the 8,760 1974 and 1975 visitors may not have

been able to see the buffalo and elk herd maintained there.

"The buffalo is a pretty big animal, but when you get them out in those rolling hills, they can disappear pretty quickly," Warner said.

The buffalo dust or wallow daily, as was their habit in the wild, protecting themselves from insects. When calving starts, the cows are predictable—mean.

"Glen Davis, the manager here for 16 years before me, told me when a cow's got a calf, try not to get between them. I guess he got a few pickup bumpers dinged up doing that," Warner said.

The buffalo "don't require much care," which is probably an obvious conclusion to make about an animal that roamed the prairie and has been estimated to number 60 million on the North American continent, but when they are confined and their numbers limited, some care is taken to watch the health of the animals "supply hay when forage is covered by ice and put out range cubes to keep the cows in stronger condition for calving season," Warner said.

A buffalo cow with her calf. When calving starts, the cows get mean. Scenes like this one were common years ago when some 60 million bison roamed the North American continent.

Many Kansans have participated in keeping the buffalo from going the way of the carrier pigeon in a changing environment that man manages for his own survival.

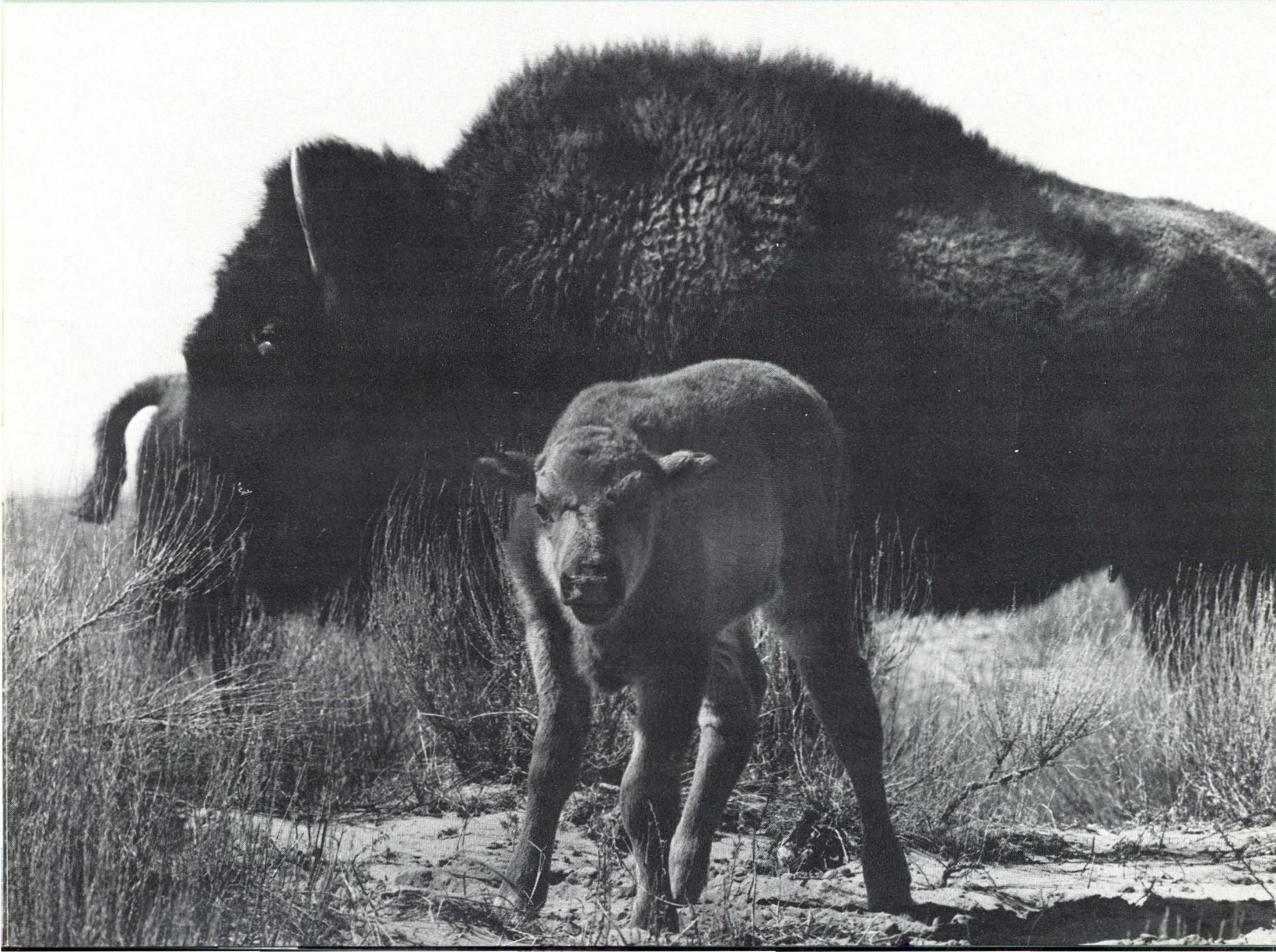
C. J. "Buffalo" Jones started his career of saving the buffalo from extinction after finishing a career of buffalo hunting. He captured a few wild calves and introduced a bull to his small herd in Garden City.

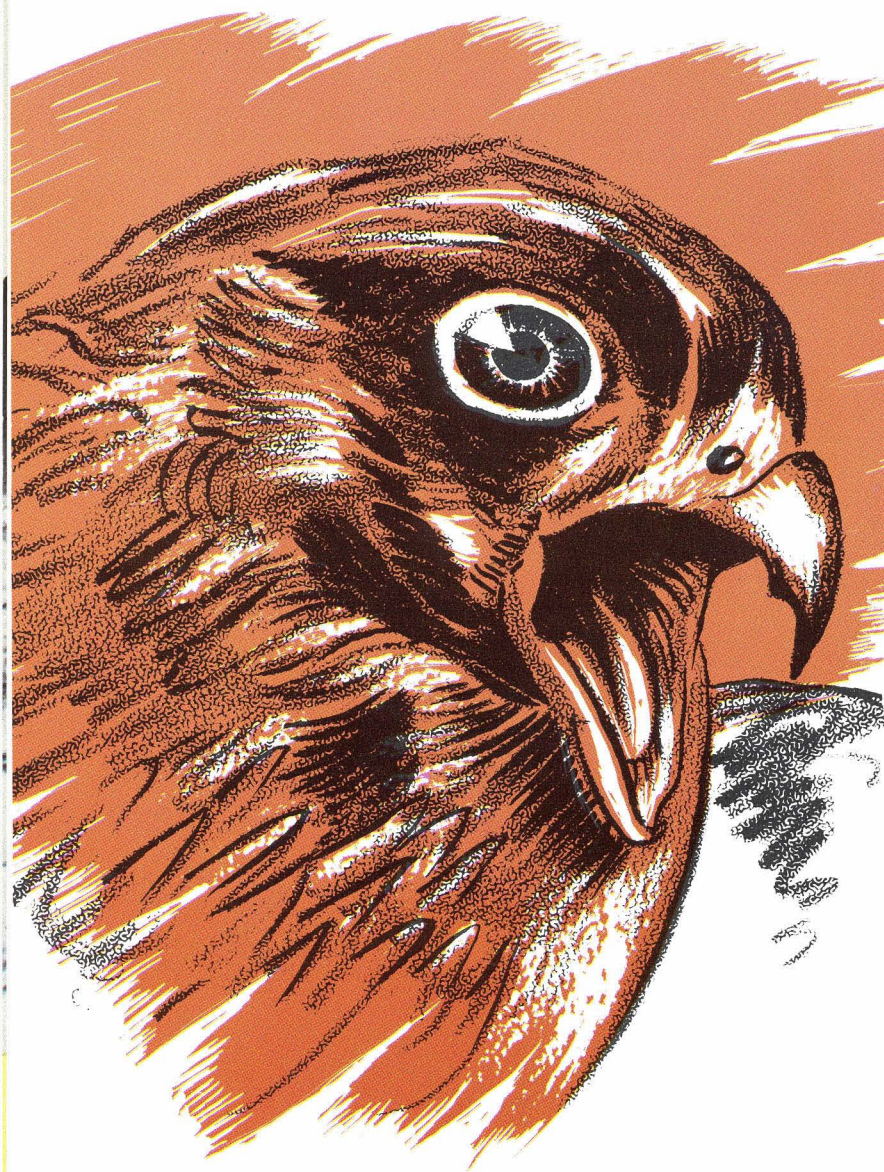
Dary listed in his *Buffalo Book* 28 zoos and ranches where buffalo are being kept in addition to the Finney County Game Refuge, the Kingman Game Management Area, Crawford State Lake and the Maxwell Game Refuge where the Fish and Game Commission keeps buffalo.

Not to be forgotten is David Dary himself, whose book contains more information on the history of the buffalo than any other recently published book.

The herds kept by the Commission allow the buffalo to survive in a natural habitat and give the interested public a chance to see these masters of the plains that have lived such a colorful history in the state.

Leonard Lee Rue





The RAPTORS

By Chris Wille

Reprinted from *Outdoor Oklahoma*

Photos by Leonard Lee Rue

Man is the only serious threat to these beneficial birds of prey.

MOST BIRDS are benign, almost ornamental, creatures. They sit in treetops orchestrating the sweetest of music and flashing plumage that varies from bright bawdy-house hues to subtle pastels. Occasionally, they will flutter forth to take another insect or seed.

But some of the most spectacular and beautiful birds are raptorial; killers and flesh eaters. The birds of prey include hawks that soar patiently overhead while seeking unwary rodents, falcons that dive out of the sun like fighter planes to intercept a pigeon or song bird, owls—nocturnal assassins and carrion eaters celebrating the natural process of life and death.

Carnivorous birds have reigned at the top of food chains for eons. As highly skilled and mobile predators, they have sat long at the head of the table. Little threatened their existence until man came along.

Thirty-six million years ago prototypes of the great

horned owl, bald eagle and vulture soared, hunted and feasted on the dead, while homo sapiens were not yet a glimmer on the evolutionary horizon. With that sort of a background, 36 million years of using the same tools and tactics, one would think that the birds of prey had found a reasonably secure ecological niche. But man's quick rise to supremacy has greatly altered the natural succession of things.

Under man's influence the world's flora and fauna have become less and less diverse. Long standing interrelationships and survival chains have been broken. Monoculture is civilization's vanguard. This trend threatens plants and animals that have specialized requirements. Some birds of prey have been among the chief sufferers of man's dominion. Take the plight of the Everglade kite for example. This broad-winged soarer feeds almost exclusively on snails found in southern swamps. Since man has drained much of the original swampland, the Everglade kite has been reduced to a place on the endangered species list.

Because the birds of prey are at the top of the food chain, feeding on large quantities of rodents and fish, they are highly susceptible to pesticide poisoning. The chlorinated hydrocarbons, like DDT, have contributed to the decline of such spectacular raptors as the peregrine falcon and the bald eagle. These man-made poisons accumulate in the bird's body tissues and reduce successful reproduction by causing the eggs to be soft shelled.

Hawks and eagles have long been persecuted by man because they sometimes compete with us for farm and game animals. Many thousands have been shot, trapped

and poisoned out of competition with man. Sheep ranchers have even hired helicopters to chase down and shoot eagles. We now know that there is no justification for this paranoid slaughter.

Any predator plays a vital role in its ecosystem. With the now common understanding of the checks and balances of nature, the importance of predatory birds is widely recognized. In addition, the hawks and owls serve man well by feeding on destructive rodents and other pests. All birds of prey are now protected by strict state and federal laws.

Except for their run-ins with the poisons and prejudices of man, the birds of prey are well equipped for survival. They all have sharp talons for catching and killing their prey. The mammal-eating raptors have very strong clutching talons designed to crush the life out of a rat or rabbit. The accipiters, or bird hawks, have longer, sharper talons suited for aerial combat. Fish eaters, like ospreys and eagles, have talons adapted to catch and hold their slippery prey.

All birds of prey have deeply hooked beaks that are used in combination with the talons to deliver a killing blow and to tear meat into bite size pieces. Raptors do not have the best of table manners. They eat bone, fur

and feathers with their meat. The indigestible portions are separated by the stomach and regurgitated.

Owls will often swallow a rat or mouse whole and let their stomachs do the field dressing. Dozens of golf-ball sized remains can be found under an owl's favorite roost tree. These pellets contain the bones and fur of past meals. Biologists have collected owl pellets to determine the composition of the diets of some species.

No one would want to go to dinner with the carrion-eating vulture or buzzard. Evolution has left the heads and necks of these birds bare, so that they don't collect dangerous bacteria while feeding on a particularly ripe corpse.

A sense of smell is not important to birds of prey and most seem to have only a rudimentary ability to detect odor. However some ornithologists argue that the carrion eaters can detect distant carcasses by smell. Research on this question has been inconclusive.

Few sights in nature are more dramatic than the attack of a falcon, or more restful than the relaxed and effortless soaring of a hawk. The hunting habits of the different raptors are related to their wing structures. Vultures, eagles and buteos (buzzard hawks like the

One of our smallest native owls, the screech owl is an excellent mouser and is found throughout the state.





The redtailed hawks (above) and the little sparrow hawk or kestrel (right) are two of our most common Kansas raptors.

red tail) have long, wide wings that allow them to ride for hours on thermal air currents.

The accipiters or short-winged hawks like the Cooper's hawk and goshawk, have shorter rounded wings for alternating fast wing beats and gliding. The accipiters are woodland birds, so they have adapted to brief flight and maneuverability.

The spooky, moth-like flight of the owl is aided by broad wings with splayed tips. The sound of the owl's flight is cushioned by special downy filaments at the bases of the feathers. This adaption allows owls to hunt silently over meadows at night.

Children and aeronautical engineers alike have marvelled at the flights of falcons. Their compact bodies and long, pointed wings are masterfully designed for high speed flight and screaming dives. Peregrine falcons may attain speeds of more than 200 mph as they plummet from the sky to strike a pheasant or other hapless bird. The very fast falcons have even developed special nostril ridges that act as air foils, allowing them to breath normally in their incredibly swift flights.

All birds have keener eyesight than mammals. Hawks and owls have the excellent forward vision required of the hunter, but lack the versatile eye movement of mammalian prey species. Owls, for example, cannot see out of the corners of their eyes, so they must turn their heads to see to the side. They can flex their necks 180



degrees in either direction. They are also farsighted, so they must tilt their heads to look at something nearby.

Birds of prey that feed on fish have developed some methods to adjust for the double image caused by the water's reflection. Many falcons have black patches under their eyes that absorb light and reduce glare while hunting in the open sun.

The sensory and structural adaptations of the birds of prey make them efficient predators. Few small animals are safe from predatory birds. All animals are highly vulnerable in the spring as they go about establishing their territories and raising young. Some animals, like snakes and ground squirrels, are safe in the winter while hibernating, but they become ready prey in the spring.

A great horned owl—one of the most competent predators on the North American continent. All hawks and owls are protected in Kansas.



Burrowing animals, like moles, gophers and prairie dogs, court danger whenever they emerge from the ground. Even fish are not safe from ospreys, eagles and some owls.

Defense mechanisms, such as scent, poison and armor, often are not sufficient protection. Both the red-tailed hawk and the great horned owl feed on skunks. Some harrier eagles have heavy plating on their legs for dealing with poisonous snakes. Turtles find their shells ineffective defenses against strong beaks. Only the porcupine seems to have found an adequate defense against the winged predators.

Like all predators, the raptorial birds are at the mercy of inevitable population fluctuations in the various prey species. But, unlike some fourfooted predators, these birds are highly mobile and can travel great distances in search of new food supplies. Many species migrate regularly with the seasons. Unlike waterfowl, the birds of prey migrate individually or in a broad, widely-spaced front. Some species have traditional wintering and nesting territories separated by hundreds of miles.

Nesting habits vary widely over a group of birds as diverse as raptors, but the red-tailed hawk serves as a fairly typical example. Red-tails build nests in the highest trees they can find, preferably 35 to 70 feet above the ground. The male usually has the final say over the nest site selection and begins the structure by wedging a few sticks into the crotch of a tree to build a sturdy platform. The pair cooperates in nest building activities, sometimes diving together into tree tops to break off dead limbs. The red-tailed, and some other hawks, decorate their nests with small bits of greenery.

The hawks incubate their eggs for about 34 days. The down-covered young are fed a variety of snakes, lizards, young opossums and skunks, mice, rats and an occasional turtle. In six weeks they are ready to face the world on their own.

The parents teach the youngsters to hunt by diving over a scurrying field mouse, checking their flight just above the ground and calling for the fledgling to fly over and capture the confused rodent. After a few weeks of training, the adolescent has learned to use the tools of his trade.

Men have always admired the beauty and hunting skills of the raptors. Every species of predatory bird is represented somewhere in the mythologies and religions of the world's cultures. The feathers of these birds are especially important to the rites of native Americans. The bald eagle is, of course, the symbol of modern America, but national ties to raptors are as old as civilization. Training falcons for personal use or enjoyment originated in central Asia around 2,000 B. C., and falconry was the popular sport of royalty throughout medieval England.

Our attitudes toward these marvelous birds are changing. We no longer consider them a threat to our own food or game supplies. If we can control our uses of pesticides, curtail errant shooting and the destruction of critical habitat, we will allow the birds of prey to survive to inspire and delight future civilizations.

Hunting Beyond the Bicentennial

By John Madson

Whatever the future holds for hunting, good or bad, the hunter has probably got coming to him. If game management continues to enhance and regulate the game supply, it will be due to the financial, moral and political support of the hunter. If game management is corroded and weakened by political spoilers it will be largely due to the inaction and indifference of the hunter—and his hunting will lose by default. Game management depends on the hunter, and the quality of hunting will be determined by the quality of the hunter, today and tomorrow. Whatever friends and allies he has, he'll have earned. And whatever enemies the hunter has, he'll probably have earned also.

A number of surveys have indicated that much of the so-called "anti-hunting sentiment" is essentially anti-hunter sentiment. There's a difference. Many of our critics are not opposed to the hunting of wildlife so much as the ways in which wildlife is hunted. They are not really against hunting in principle, but hunting in practice.

If there is good hunting in the future it will be because the average hunter has shown a greatly increased willingness to cause and support such hunting. In other words, a man who has largely abandoned the old myth of "free-hunting" and has become willing to spend a great deal more in terms of some kind of coin: money, time, effort, or all three.

The greatest danger to hunting today is the chiseler who wants something for nothing. At no real expense of time or effort or money, he demands something to hunt and places to hunt it. He invests little knowledge in his act of hunting, and little sympathy or understanding of wildlife and its land base—and the genuine hunter ends up paying for it.

If there's such a thing as good free hunting, I've never seen much of it. The good hunting I've had has averaged out costing a lot of time and effort—and some money, although I've usually had more time and sweat to spend than cash. Granted, the greatest benefit of good hunting is quality freedom in quality country. But in this lies the germ of hunting's own destruction, for too many hunters demand freedom without responsibility. It is this demand for freedom afield, without concurrent willingness to pay the costs of freedom, that can be the ruin of genuine hunting as we know it.

Now, a hunter may say, and understandably so: "Daily life has restrictions enough; I go hunting to find freedom and escape restrictions." However, this is impossible. The ethical hunter imposes special restrictions on himself when he goes afield, and a sure definition of the slob hunter is one who refuses to observe any restrictions in the course of his hunting, or accept any responsibility for his actions. This is an especially critical problem in hunting because, as Aldo Leopold pointed out: "The hunter ordinarily has no gallery to applaud or disapprove his conduct. Whatever his acts, they are dictated by his own conscience, rather than by a mob of onlookers."

I know a guide down in Stuttgart who is highly offended by the term "arkansawing" ducks. He's plumb opposed to shooting ducks on the water, and once told me: "A man who does a thing like that ain't got no heart—all he's got is a thumpin' gizzard." And there's the problem: how do you prevent a heart from becoming a thumpin' gizzard?

We can't think of a more immediate way than effective hunter safety training programs. Some states now have good programs in force and are working to expand and improve them, but other states are still doddering along with weak hunter safety programs or none at all. We believe that these should be mandatory, high-budget, top-priority programs with stringent requirements, competent instructors, and first-class teaching materials. The programs must involve gun safety, of course. But just as important, they must entail basic instruction in conservation, hunting ethics and practices, and instill an abiding intolerance for slob hunters.

There are other practical approaches too. Stiffer trespass laws, for example. We feel that unauthorized trespass by hunters should not be just listed in the game and fish code, or in the civil code, but should be an offense included in the criminal code and enforceable by all peace officers. It should entail maximum penalties, which sounds pretty strong, but remember: the commonest offense of the slob hunter is unauthorized trespass, and the commonest form of anti-hunter is the outraged landowner whose property rights have been violated.

And always, underlying everything else, there must be effective professional management. Its main produce may always be huntable game for that is the commodity that attracts the investors. But it goes beyond that, for it is a process that can help instill a land ethic in a landless public by providing a whole range of human experiences with wildlife in quality natural environments. Professional game management can produce more wildlife for everyone. And in doing so, it may produce something far more important: a growing state of harmony between men and land. Such management is the only solid ground from which we can defend the sport of hunting—and the lack of it is the only solid ground from which our enemies can attack.

There's an interesting line in the new movie "3 Days of the Condor." An old spy is talking to a young spy. The kid has heard that the senior spy dates back to the OSS and World War II, and the old-timer replies: "Yes, and even before that. And I certainly miss those days." "Oh? What do you miss—all the action that you had then?" "No," was the reply. "I miss the clarity."

Many of us here miss the clarity with which we viewed game management 25 years ago, when we were young and the dragons were smaller. But however the problems have grown, so has the new breed of men and women who'll be facing them. Next week my son Chris will take his orals for the M. S. degree in wildlife ecology at the University of Wisconsin. In his peer group he is nothing unusual—but he's far smarter, better trained, and better equipped than his father. He's a better man than I, and he'll have to be, for his dragons are bigger.

His allies, the genuine hunters, face those same dragons. They, too, will have to be better men than their fathers. If there is good hunting in the future, it will be caused and practiced by men willing to pay their dues in terms of time, money, and effort, and who proudly accept the restrictions that ethical field conduct imposes. These are not just the requirements of an increasingly critical society, but also of increasingly vulnerable environments. The same qualities that will help make the hunter acceptable to society as a whole will also impel him to fight for the quality landscapes that produce and support game surpluses. His deepening commitment will not only provide a solid ethical base for his act of hunting, but a sound political base from which he can help perpetuate quality country and its wildlife component.

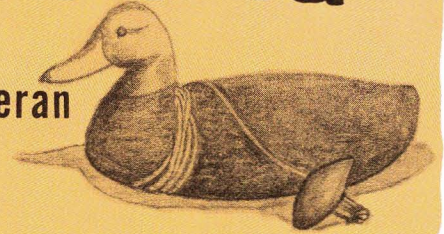
Again, we're not saying that this ideal will develop, but that it must develop. Through almost all of human existence, huntable land and huntable wildlife have preceded the hunter. They caused the hunter. But in the future this must be reversed. It is the hunter who must cause huntable land and wildlife, and a world worth being young in.

Courtesy of the National Shooting Sports Foundation



Ramblin' Afield

with Vic McLeran



With the sumac starting to turn, and fall just around the corner, we thought it might be appropriate to mention some of the outdoor activities you can start gearing up for.

FALL FISHING

First off, there's fall fishing. Some of the year's most productive angling is found during the next three months. Each year a large number of big fish are taken during autumn here in Kansas. As summer fades into fall and water temperatures begin to drop, bass and other game fish move closer to shore on feeding sprees much as they did during April and May. Another nice thing about autumn angling is the fact that you often have the lake to yourself. The noisy crowds that covered our state fishing lakes and reservoirs during the summer are gone. Most water skiers, boaters and swimmers have called it quits for another year. Blazing fall colors, crisp autumn breezes laced with the smell of woodsmoke and a stringer of fat black bass or crappies can make fall fishing a real joy. Keep it in mind when the bird shooting gets a little slow.

ITEM FOR DOVE HUNTERS

When you talk about shooting in September, you automatically think of doves and teal since both seasons traditionally open then. Last year during dove season I bought one of those little folding camouflage stools to take into the dove fields. It's one of the best investments I've ever made. If your knees complain like mine do at the end of a dove shooting session, you know what I mean. Kneeling in the dove fields, first on one aching knee, then the other can take a lotta' fun out of the hunt. But these little camp stools really make it easy on the knees. They're lightweight and equipped with a shoulder strap that makes them handy to carry. The stools are available from many sporting goods stores or through mail order outfits like Eddie Bauer's, Cabela's, L. L. Bean or Gokey's.

TEAL SEASON

September's teal season will be opening before long and it's time to start thinking about waterfowl. In the past there's been some questions of how the point system applies to teal during this special season. During the special season in September, teal are not under the point system. The Commission simply sets a daily bag limit. Later, when the regular waterfowl seasons are open, teal are assigned points just like any other duck. Waterfowlers are reminded that in addition to teal, some of the early migrants include pintails and shovelers. So make sure your target is a teal—not some other species.

IMPROVEMENTS AT CHEYENNE BOTTOMS

Cheyenne Bottoms is a favorite teal hunting spot of many Kansas gunners. But in the last couple years, the abundant cat-

tails have invaded new areas, making much of the marsh useless for hunters and waterfowl. So to combat this encroachment, fish and game personnel have been cutting out boat lanes and opening pools in the dense foliage. The mowing is handled by cutting blades mounted on the front of an airboat. Controlled burning and high water levels are other methods of controlling cattails. The one-half acre to one-acre pools which have been cut in the reeds will provide more open water for waterfowl and hunters alike.

NATURAL FOODS

If you're a natural foods freak, fall is your time of year. There are several species of edible mushrooms now in fruit; persimmons and paw paws will soon be ripe and before long the hickories, pecans and black walnuts will be falling. So keep your eyes open when you're afield on fall hunting or fishing trips—the wild natural foods now available are an added bonus.

NATIONAL HUNTING AND FISHING DAY

September 25 marks the fifth annual observance of NHF Day. The fourth Saturday of each September is set aside to honor hunters and anglers for their leadership in major wildlife conservation programs as well as their role in contributing toward improved outdoor recreation. As in past years, NHF Day will be observed throughout Kansas with displays at shopping centers in the state's larger cities. Fish and Game personnel will be working with sportsmens' organizations, civic clubs and other groups and individuals who are interested in giving a salute to hunters and fishermen who pay for the entire operation of the agency.

OUTDOOR BOOKS

I recently leafed through several books which should be of interest to Kansas outdoorsmen. The first is entitled *Gunning for Upland Birds & Wildfowl* by Shirley E. Woods, Jr. and is published by Winchester Press. This is a book for the man who likes to use a shotgun. It features chapters on ducks, geese, crows, snipe and all the major upland bird species. Drawing on a lifetime of gunning experience, Woods has packed this book with practical, down-to-earth advice that should improve your shooting and increase your bag. The second book is entitled *Nebraska Wild Flowers* and was written by Robert C. Lommasson, a professor of botany at the University of Nebraska. The book is illustrated by 260 color plates and describes the most conspicuous native and naturalized prairie flowers, many of which are found in Kansas. *Fishing With Natural Baits* by Vlad Evanoff is published by Prentice-Hall. It's a complete illustrated guide to the subject of natural baits. It provides practical tips such as how to find baits, how to rig them, even how to raise them for profit. The material is organized for fast, easy reference and the author has provided more than 150 line drawings to identify various baits and illustrate their proper use. It's a book for any angler who uses natural baits.

Vic McLeran

