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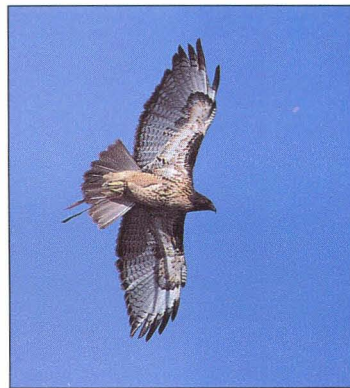
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Front: This white mule deer buck is not albino. See story on Page 2 for the facts on white animals. Photographed by Mike Blair, 600mm lens, f/9.5 @ 1/250.
Back: Seeing deer is the essence of stillhunting. Mike Blair exposed this buck in heavy weeds with a 400mm lens, f/11 @ 1/125.

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Editorial Creed: To promote the conservation and wise use of our natural resources, to instill an understanding of our responsibilities to the land.

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THE BUCK STOPS HERE



Selling Our Soul?

This past summer, I attended the Outdoor Writers Association of America conference in Niagara Falls, N.Y. Although my work and vocation alone qualify me to belong, that wasn't the capacity I attempted to fill. I was there to sell Kansas.

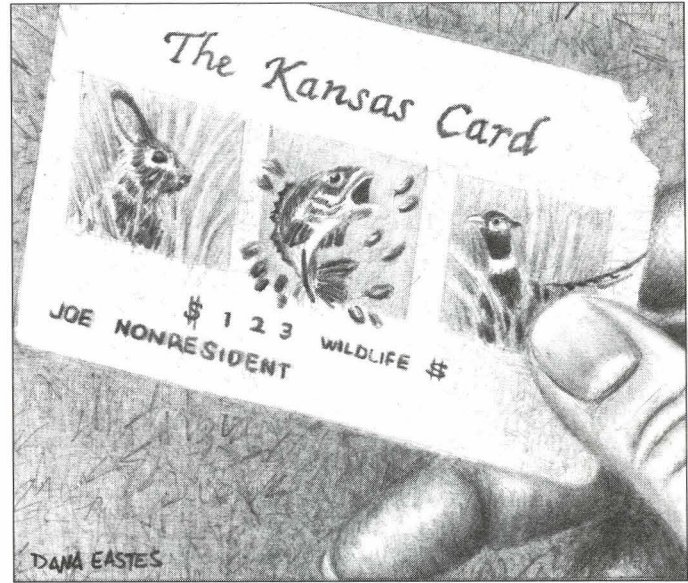
I realize that might not sound ethical, environmentally, but before you jump to a negative conclusion, read me out. It's not hard to sell something you believe in and love. In fact, it just sort of happens every time you talk. I promote Kansas outdoor opportunities nearly every day, whether I'm answering a caller's question or writing a column like this. But I would be the last one to sell the state to the point that the resource is damaged, or the quality of the experience is diminished.

The truth is, we're selling fewer hunting and fishing licenses each year. License and permit fees, along with federal funds based on sporting equipment excise taxes, pay for our wildlife management. We've made some tremendous strides in wildlife management in the last 50 years, and it would be a damn shame to lose ground now because of diminished funding. A low key marketing approach has been undertaken by the Department in an attempt to offset the declining license sales. We're not trying to set sales records.

Diminished license sales is probably a result of a complex group of factors. One certainly is the lack of available opportunity. And the lack of available opportunity is actually a combination of factors. For example, 30 years ago, more Kansans lived on farms or had rural ties. Hunters could easily hunt on Uncle Joe's land or visit Grandpa down on the farm. As the number of family farms has diminished, so has the migration of population to the urban areas increased. Those urban residents with no direct ties to the country, probably perceive getting permission to hunt on a stranger's land an obstacle. Of course those willing to work at it will find plenty of land to hunt on in Kansas. But that leads to another of the factors.

We have less free time today, especially in the city. Everyone is in a hurry, and work is a high priority. There's a multitude of other activities competing for our dollars and our time. It takes time to travel to an intended hunting area, contact landowners, get acquainted with them and gain their trust and permission. Many people don't feel they have the time to do it. And as more families grow up this way, fewer and fewer youngsters are exposed to hunting and the outdoors and are less likely to make the sacrifices necessary to hunt.

Another factor theorized to have some impact is the growing number of single-parent households. Because hunting has traditionally been a man's sport, few women



Dana Eastes illustration

were exposed to it as young girls. Since most single parents are mothers, they are less likely to have the knowledge and background to take kids hunting and fishing.

There are doubtless other subtle factors in the decline of license sales, but the point is we are trying to find ways to replace lost revenue. And frankly, we have some fantastic outdoor opportunities here in Kansas that are underutilized. Hunters from the eastern Midwest love to hunt cottontail rabbits. Here in Kansas, the rabbit is overlooked and often not really considered a serious game animal. We promoted that. We have 24 federal reservoirs, many of which offer tremendous crappie and walleye fishing. "Where do you fish in Kansas? I didn't think there was much water." You should see their mouths drop when we tell them about the reservoirs. Many of the eastern Midwest states have very few large reservoirs. We promoted that.

Our intent was not to open flood gates of nonresidents into Kansas, but we did open some eyes and educate some easterners about Kansas. It will be several years before we see any real returns, but we hope this effort and programs within the state aimed at youngsters and urban populations will slow or stop the slide in license sales.

Mike Mill





Wild Ghosts

by Marc Murrell

wildlife information representative, Valley Center

photos by Mike Blair

Although merely a result of genetics, white animals create truly awe-inspiring impressions. Those who have glimpsed a rare ghost-like individual are lucky indeed.

People are fascinated with things out of the ordinary. The more abnormal and rare something is, the more interest it draws. In wildlife, rare and unusual individuals have been sought after and even written about in legends. Some are real, some may not be. The Indians of the Northwest U. S. feared Sasquatch, in Europe there's the Loch Ness monster and in Asia the abominable snowman. But sometimes individuals of a common species are so different, they are held in similar awe. Albinos or white animals are one example.

We expect to see a brown white-tailed deer, a gray channel catfish, and a rust-colored fox squirrel. But once in a while ole' Mother Nature throws an animal a curve and it appears ghostly white, causing the casual observer to wonder if they should get their eyes checked.

White and various color phases of wildlife have been

admired, worshipped and even considered sacred. The term "white elephant" was derived from the near white appearance of certain elephants in former times. These animals were held in high esteem and considered so valuable that only kings were worthy to own one. They were never worked, were kept in elaborately decorated palaces and were often fed on spotless white cloths or in silver troughs. Hence, the term has come to mean something expensive to keep, yet yields no returns. Little did our ancestors know that the only difference between these and normal elephants was one gene.

Albino comes from the Latin word *albus* meaning "white." Albino simply defined, is an organism in which normal pigment is absent. Specifically in wildlife this pigment is melanin which is responsible for the browns, blacks, and grays found in the eyes, skin, scales, feathers

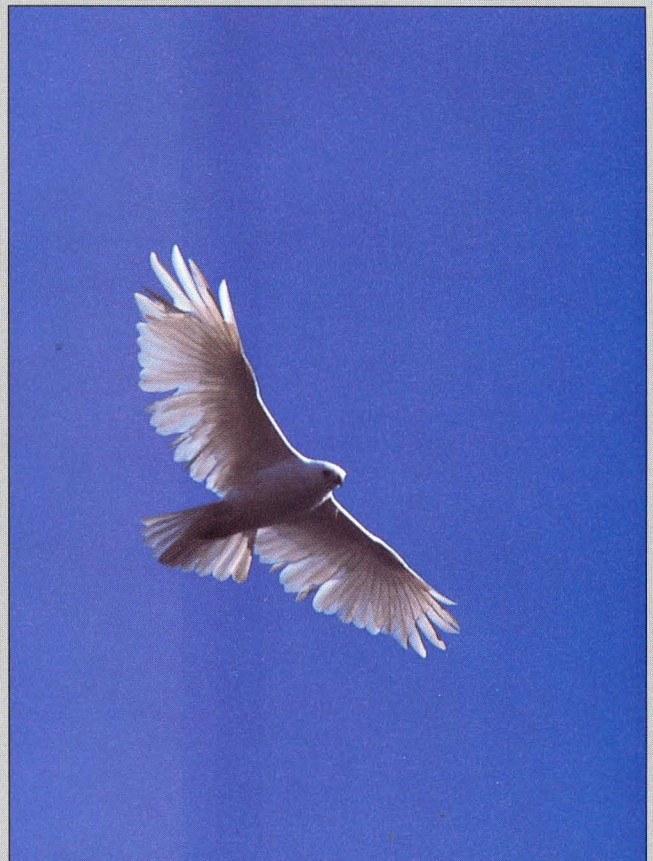


This black-tailed prairie dog is a true albino, notice the pink eyes and nose. Albinism is the complete lack of the black pigment melanin. The mule deer on the previous pages is not a complete albino, as areas such as the nose, eyes and tips of the ears have some pigment.



Mike Blair photo, courtesy of St. Louis Zoo

While rare, albinism and its various degrees occur in a variety of species. Another reason for the rarity is that white individuals face nearly insurmountable odds surviving in the wild. Prey species are easy marks because of the white color, and white predators lack necessary camouflage. **Left:** black rat snake. **Below left:** house finch. **Below right:** red-tailed hawk.





The cottontail at left is a true survivor. Standing out in the brown weed growth, the animal was extremely wary and tough to photograph. The robin above is an example of partial lack of pigment, sometimes called piebald.

or hair. Pink eyes and skin are normally associated with albinism. Actually these are colorless and the pink appearance comes from the reflection of light from the blood vessels in the retina and under the skin.

Albinism is hereditary and caused by a single gene. It may result from a total absence of pigment cells, interference with the migration of these cells to their intended location during the development of the embryo, lack of a hormonal stimulus necessary for pigment production, or subcellular abnormalities of the pigment cell.

Albinism should not be confused with leukism which is simply a white color phase of various kinds of wildlife. The majority of white animals seen probably belong to this category and are not considered true albinos. Leukism may be generalized with brown or black spots on certain parts of the body, or localized with large patches of dark skin, fur or feathers sometimes known as piebald.

The opposite of albino is a condition known as melanism which is an excessive amount of the pigment melanin. The black "panther" of Asia is one example as it is a

melanistic form of the leopard.

Although rare, albinism occurs in many wild species including channel catfish, giraffes, deer, rhinos, frogs, turtles, porcupines, robins, squirrels, parrots, lobsters, trout, hawks and snakes. Many people who spend a great deal of time observing wildlife have never seen an albino. The condition is a handicap to prey animals acting as a neon sign to a predators. White predators lack the natural camouflage normally afforded them and have difficulty hunting. Natural selection acts against white animals and few survive long.

Albinism occurs among plants as well and is caused by the absence of chlorophyll. Albino plants seldom live beyond the sprouting period, because no starch, needed for plant metabolism and growth, can be formed.

It is a strange and wonderful experience to catch a glimpse of one of these rare and unique individuals. If you have ever seen an albino species of wildlife, consider yourself lucky. If not, keep looking because sooner or later you may see one of these wildlife ghosts. ♡

Taking Off With Falconry

by Marty Burke

wildlife information representative, Topeka

photos by Mike Blair



Falconry requires a tremendous commitment and dedication that few possess. Those who fly these magnificent birds, however, receive a special reward.

There was an expectant rustle of activity inside the small red and white building as Todd Johnson approached the front door. He paused to slip a thick leather glove on his right hand before cautiously entering the hawk house. After a brief moment of flapping wings and muffled movements, man and bird emerged from the dim building and into the afternoon sunlight. Immediately the young red-tailed hawk was at full alert, noticing details important to a hunter. The fierce looking bird of prey seemed perfectly at ease as it surveyed the area from the arm of the falconer.

Falconry, or hunting with hawks, first became a legal in Kansas in 1988. Todd Johnson of Milford was the second person to receive a falconry permit and the first in the state to trap his own hawk. Starting as an apprentice falconer in the fall of 1989, Johnson was limited to using a red-tailed hawk or the tiny kestrel, two of the most abundant raptors nesting in Kansas. Falconry regulations also require that trapped birds be in the passage stage, a term used to describe an immature hawk on its first migration. Johnson had to be careful that his red-tailed hawk lacked the characteristic red tail feathers of the adult to assure he had a first year bird. It is difficult, if not impossible, to determine the age of a red-tailed hawk in adult plumage.

The "Sport of Kings," as falconry is sometimes referred, has a long history dating to the earliest records of mankind. The oldest evidence of the practice comes from China and dates from 2000 B.C. Middle Eastern art from 1700 B.C. depict falconers with hawks perched on their wrists. Falconry was introduced to Europe by



Manning, or allowing the hawk to accept human presence, requires many hours of work. Eventually, the bird is conditioned to fly to the falconer's gloved arm for food.

soldiers returning from Persian raids. The sport flourished in England where by the 17th century, birds of prey were available according to rank: an eagle for an Emperor; the northern goshawk for Kings and Queens; the peregrine falcon for an Earl; and the lowly kestrel, or sparrow hawk reserved for knaves and servants. By the 18th century, the combined effects of war and settlement on the British Isles had reduced the sport to a point where it was only practiced by a devoted few.

As European settlers came to North America to pursue their religious and political beliefs, many of the customs of the privileged classes were left behind. Falconry, being associated with the ruling nobility, was virtually unknown. Also, the availability of effective hunting firearms resulted in little need for hunting with hawks. As the continent was settled and farming and ranching became dominant practices, pioneers tended to view wildlife as either game to be hunted for food or predators, including birds of prey, that competed for that resource. For much of early American history "chicken hawks" were routinely slaughtered in the name of conservation. Fortunately, the role of raptors in nature is now more clearly understood, but early attitudes towards birds of prey likely

inhibited the growth of falconry in this country. In fact, it wasn't until the late 1930s that falconry emerged as a serious sporting activity in the United States. By the 1970s falconry had gained a dedicated following in this country for both the historical and pure hunting aspects of the sport.

Given the antiquity of falconry, it is not surprising its terminology is based in obscure and unfamiliar terms. To refer to a "hawk house" would likely raise the hackles of the purist falconer who calls the structure a "mew." The falconer does not merely hunt with his bird but rather the bird is "entered to quarry." A glossary of falconry terms reveals a somewhat bewildering array of jargon. The matter is further complicated by multiple meanings as the term "mew" is also used to describe the process of molting. It is these unusual and colorful terms that add to the appeal of falconry. To become versed in the ways of the sport is to embrace its full history and tradition.

Todd Johnson followed the time-honored traditions of generations of falconers as he trained his hawk for the hunt. He was sponsored as an apprentice by veteran falconer Rick Gullotto, formerly of Pratt, who has a captive bred hawk. Johnson made most of the gear for handling the

bird, starting with the “jesses”, the strips of soft leather permanently attached to the legs of the hawk. Jesses are installed at the time of capture along with a leather hood to allow easier handling. Traditional one piece jesses are used when the bird is not being flown and two-part, aliymeri jesses are required for free flight. The jesses are fitted with metal swivels and attached to a leash for tethering the hawk to a perch when resting. The configuration of the perch depends on the type of hawk and can be a wooden block for large species that normally perch on rocky ledges or a covered metal ring perch for smaller birds such as kestrels that typically rest on tree branches.

With the basic equipment in place, Johnson went about the process of “manning” or habituating the hawk

to a human presence. The young red-tail already possessed the ability to hunt from its months in the wild. Manning makes the association between the trainer and food and allows the falconer to control the bird’s actions to form a hunting team. The falconer gradually trains the bird to reach, hop, and finally fly to food offered. In this way the bird simultaneously learns to overcome its fear of the trainer and fly to an outstretched hand. Eventually the hawk is allowed to fly outside on a fifty foot tether. The hawk must never be allowed to fly free with tether attached. It would mean sure death if the bird were to become entangled out of sight of the falconer.

Johnson does not view his hawk as a pet or even as being particularly tame. To be useful as a hunting

hawk, many of the wild qualities of the bird must be present. Constant training and the continuing availability of food create the bond that holds man and bird together. The moment of truth comes when the bird is removed from the tether and coaxed into free flying several yards to the falconer’s hand. Even after meticulous training, many birds are lost at this point. Johnson confessed to being pretty nervous the first time he allowed his hawk to fly free. His hawk flew to him on the first try and has been returning ever since.

The final phase in training a hawk for falconry involves the actual pursuit of game. Here, as in the other steps, man and bird function as a team. Rather than simply turning the bird loose and waiting for it to return with a catch, the falconer usually



The leather straps on this redtail’s legs, called jesses, are the only evidence of ownership. Falconers do not attempt to tame raptors but consider many of the wild characteristics necessary for a true hunting bird.



Much of the falconer's equipment is handmade, including a leather hood used to calm the bird and these jesses, which are used to tether the hawk to a perch when resting. The heavy leather glove protects the falconer's arm from the piercing talons.

flushes game for the hawk to pursue. The overall technique varies considerably depending on the natural hunting style of the species of hawk. Once the prey has been caught, the falconer must coax the hawk into exchanging it for food.

Captive reared hawks must be trained to hunt. A leather lure which roughly resembles a bird is either drug along the ground or swung on a tether to simulate prey. Food is attached to the surface of the lure to reward a catch. A lure may also be used to exercise a trained hawk after hunting seasons have closed. Considerable patience and repetition are necessary to train a hunting hawk and the process may take from three weeks to over three months.

The red-tailed hawk and American kestrel are used by the apprentice falconer as much for their tolerance and adaptability as their usefulness in falconry. The accomplished falconer will likely opt for a true falcon such as the prairie falcon or one of the shorter winged accipiters such as the Cooper's hawk. A red-tailed hawk will hunt mainly rodents as it does in the wild, although cottontail rabbits may be taken. The American kestrel is a true falcon and a fierce hunter, but its small size limits its ability to take game. It is more likely to pursue a sparrow or even a gras-

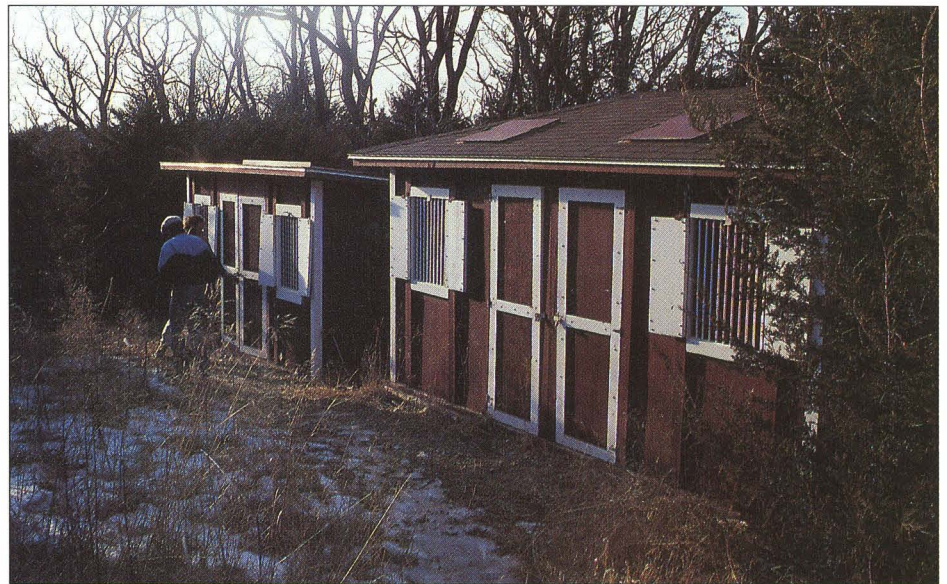
shopper. Still, both species are valid hunting hawks and provide essential experience for the novice falconer.

In contrast to the kestrel, the larger accipiters will attack anything up to their own size when hungry. Accipiters are slender hawks with short, rounded wings and long tails and generally hunt from a perch. They include the sharp-shinned hawk, Cooper's hawk, and goshawk. Their relatively short wings allow

them to pursue their quarry through brush and thick timber. The sharp-shinned and Cooper's hunt mainly birds while the larger goshawk will also take mammals up to the size of jackrabbits. In keeping with their natural habit of hunting from a perch, most accipiters hunt from the falconer's gloved fist. They may also be trained to follow the falconer by flying from tree to tree when hunting in thick cover. Accipiters are the sprinters of the hawk world, catching prey with short bursts of speed. They will wait for the falconer to flush the game and then the chase is on.

To the purist, the true form of the sport involves the use of one of the larger falcons. The peregrine falcon has been a favorite for centuries, but this species was decimated by pesticide use and is protected as an endangered species. Other falcons used for hunting include: the merlin or pigeon hawk, the prairie falcon, and the magnificent gyrfalcon. The gyrfalcon is a big hawk with a wingspread of over four feet. Nesting in the arctic, gyrfalcons seldom venture into the United States except as a rare visitor. Although they are superb hunters, gyrfalcons are not often used by falconers due to their limited availability.

The classic hunting hawk for many falconers is the peregrine falcon. A dazzling aerial performer, the peregrine is perhaps the world's greatest



The building where the falconer's bird is kept is called the mew. Rigid requirements must be met before a falconer is permitted to keep a bird.



Since wild redtails naturally hunt rodents and rabbits, cottontails are the most commonly sought after game by falconers and their redtail partners.

hunting hawk. As a protected species, peregrine falcons may not be taken from the wild. The few peregrines that are used by falconers are bred in captivity. At present this source is very limited, but may become the primary source of birds used in falconry. Peregrines hunt from tremendous heights and soar above the falconer ready for the quarry to appear. This behavior is referred to as "waiting on" where the bird relies on the falconer to flush the prey. They attack on the wing, making a high speed dive or "stoop" at speeds of up to 120 mph.

The prairie falcon requires another classic falconry technique. While the peregrine will instinctively "wait on" the falconer, the prairie must be taught to hunt with humans. The prairie falcon is an open country bird of the west and has been less affected by the pesticide problems. Still, they are protected as a threatened species and are available only from captive sources. In nature, prairie falcons are more ground oriented than other falcons which typically take prey on the wing. Prairies will survey their domain from a rock outcropping, lone tree or utility pole. Once prey is spotted, they make a long, high speed dive culminating with the hawk whipping in at weed-top level. The sound produced by these low altitude passes has been compared to that of ripping cloth. Prairie falcons tend to be aggressive, excitable birds

and require considerable effort to train.


Todd Johnson reports limited success in hunting with his red-tailed hawk. A few cottontail rabbits made up last season's take. Although Todd feels he is fortunate to have a large area adjacent to his home to fly his hawk, thick cover on most of the area reduces his bird's hunting efficiency. Ideally, he would walk the area and try to flush rabbits for the bird to pursue. "The problem with the area is that the rabbits are able to escape without leaving overhead cover," Johnson explains. He states that his hawk will often focus intently on what might be a prey animal only to lose interest. Never seeing the quarry himself, Johnson speculates that the hawk is unable to get a clear path to the prey.

Still, Johnson says he derives considerable enjoyment from flying his hawk and witnessing an occasional success. "A person would get pretty hungry trying to live on what a hawk can catch," he says. Johnson feels, however, that the hunt is part of the overall discipline of falconry and looks forward to more. Johnson hopes to try some other areas with more game and cover better suited to the hunting style of a red-tailed hawk.

In order to practice falconry in Kansas, a person must be at least 14 years old, have the approved indoor and outdoor holding facilities, and pass a written examination. The exam

covers the biology, diseases and handling of raptors along with laws and regulations. Permits are available for apprentice, general and master level falconers. Apprentice permits are issued to beginning falconers under the sponsorship of a general or master level falconer. An apprentice may progress to the general level at age 18 with two years of experience, and after a total of five years of experience, a falconer may apply for a master level permit. Each level of permit allows possession of specific number and species of birds. Annual permit fees are \$100.50 for apprentice, \$200.50 for general, and \$300.50 for master. There is a fee of \$50 for the apprentice examination. Issuance of the state permit is made concurrently with a federal permit from the U.S. Fish and Wildlife Service which costs \$25. Although permit fees may seem high, revenues are used to offset the costs of facility inspections, review of required reports, and permit compliance checks.

Aside from the financial commitment, falconry is not an activity that should be entered into without serious consideration of the responsibilities involved. The amount of time that it takes to train a hawk for falconry can not be overstated. After capturing his hawk, Todd Johnson took a vacation to work with the bird. The entire first hunting season was taken up in training the hawk. Even with the initial training completed, he still works with his hawk one or two hours a day, in addition to time spent maintaining a food supply, recording weights and preparing required reports. He emphasizes that these responsibilities should not be taken lightly. Even after hunting seasons close, the bird still must be fed and worked with on a daily basis. Johnson estimates that it costs nearly \$1 a day to feed his hawk. He says, "Only people who are really serious about hawks should have one."

Even with the time and expense of maintaining a hunting hawk, Johnson is quick to point out that the sheer pleasure of watching his bird fly and hunt outweighs the other considerations. In hunting seasons to come, Todd Johnson and future falconers will be able to pursue the "Sport of Kings" under the Kansas sky. 



Prairie Barbed Trout

by Mark Shoup
associate editor

photos by Mike Blair



*Catfish got whiskers
And a sweet little grin
But you never can tell
Where a catfish has been.*

—Danny O'Keefe



So begin the lines to the song, “Catfish,” playing lightly on the maligned reputation of this common sportfish. Whence comes such infamy? Perhaps the reputation betrays a failure to appreciate beauty, in its more subtle expression. I know it’s hard to believe, but some folks think the catfish is ugly. They look at those cute little whiskers and see alien antennae. To them, the sharp dorsal and lateral fins are not amazing natural defense mechanisms, but sinister weapons. In the muscled, sleek body, they only see slime.

Catfish have gotten a bad rap for many years. Referring to bullheads, Henry David Thoreau once wrote, “The horned pout will take any kind

of bait, from an angleworm to a piece of tomato can.” Even Kansas Fish and Game Department Warden J. B. Doze, feeling the need to elevate the catfish’s status, entitled his 1925 pamphlet on propagating channel catfish, *Barbed Trout of Kansas*.

Some of my relatives from back East will ask, “You mean you’d really eat one of those slimy things?”

“In a New York minute,” I reply.

For some people, looks are everything, but much of the catfish’s bad reputation probably comes from two sources: adaptability and diet.

Bullheads can live in turbid, nutrient-rich water that would kill most other species. The black bullhead is the last to succumb to a Kansas High

Plains drought, often surviving in nothing more than a foot-deep mud puddle. For some reason, mankind usually detests such tenacity in prey. After all, what angler would prefer a hearty bullhead to a delicate rainbow trout? Who would rather eat crow than quail?

If the bullhead’s murky habitat were not enough to tarnish the catfish’s reputation, catfish diet is. While flatheads seldom eat anything but live prey, channel catfish and bullheads are scavengers. The variety of “stink” baits on the market attest to the unrefined taste of these species.

A tainted appetite, however, does not mean tainted meat. Channel cats

have delicious white meat, and bullhead meat is excellent, provided they aren't taken from a green mud puddle. In fact, channels are widely sought by anglers throughout the United States, and channel catfish farming has become big business. Those who have tried it will testify that flathead meat is a culinary delight.

"Okay," you say. You're convinced. You'd like to try your hand at catfishing. If you catch a few, you'll fire up the old skillet and give them a try.

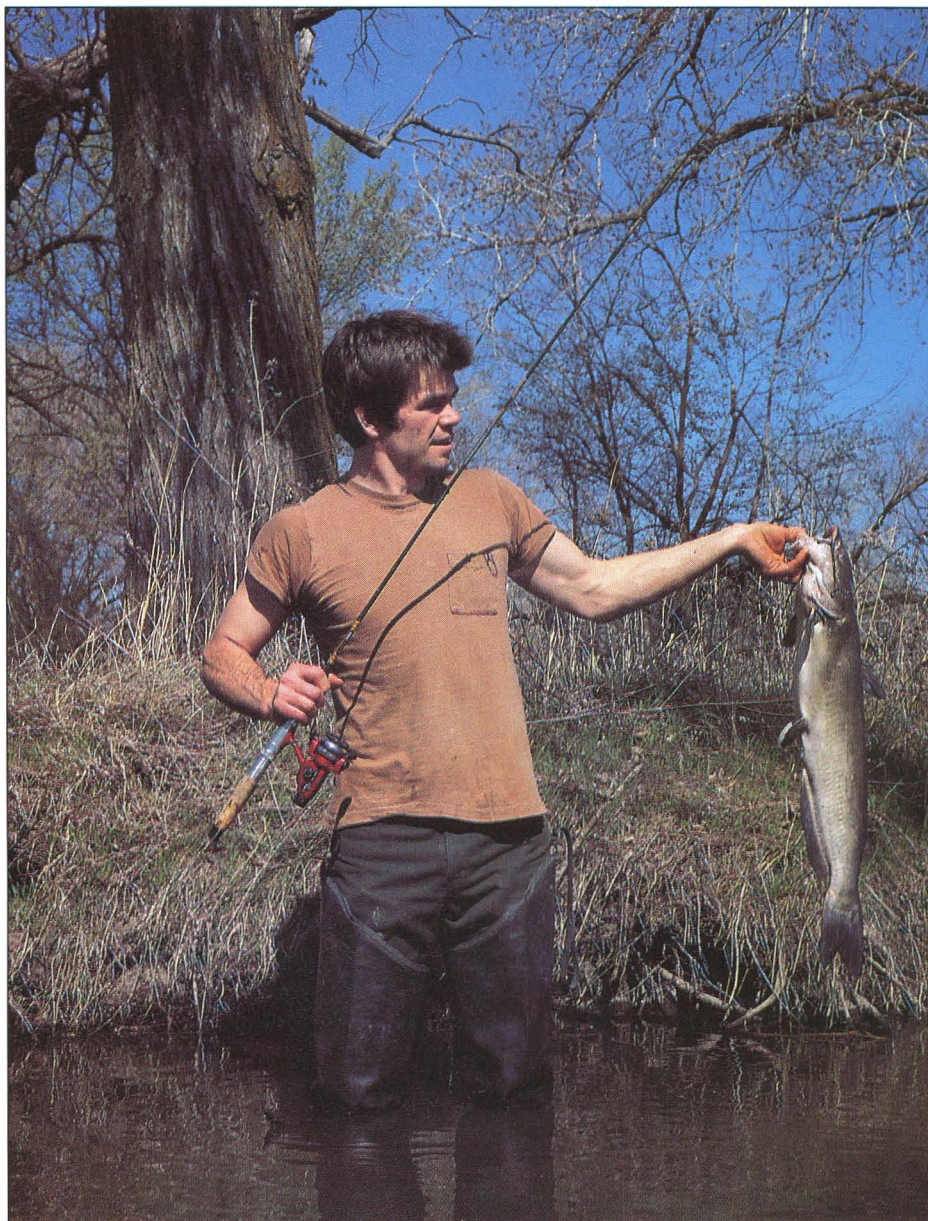
Most of my experience with catfish has been in western Kansas, chiefly in prairie streams. When fishing prairie streams, anglers can expect to catch mostly channel cat, a few flatheads, depending on the stream, and an occasional bullhead, particularly if the waters are slightly stagnant. When I fish, I'd rather catch a flathead than anything although channels are my goal. Flatheads are a bonus. To me, they are the most beautiful fish in the state.

Aesthetics aside, let's go fishing.

There are many methods for catfishing streams, but these can be divided into two general techniques: pole and setline. Most folks fish with a pole, whether cane pole, casting rod or fly rod.

The first task is to find a flowing stream. That can be tricky on the Kansas plains these days. The only public stream in the western two-thirds of the state is the Arkansas, and it's essentially dry as far east as Great Bend. There are, however, spring-fed streams and portions of streams in the plains that are still viable fishing waters. Generally speaking, the farther west you go, the lower the possibility of stream flow. In northcentral Kansas, the Saline, the Smoky Hill, the North and South Fork Solomon, and the Republican rivers offer good water but become intermittent in the western portions of the state. Prairie Dog and Sappa creeks in the northwest have some pools and intermittent flow.

In westcentral Kansas, the Pawnee River is spring-fed in some places. In southcentral Kansas, stream flows are generally much better than in other parts of the plains. The North and South Fork Ninnescah and Chikaskia rivers have good, clean stream flow



Many Kansas streams harbor excellent populations of catfish. It requires only basic equipment and some smelly bait to enjoy the whiskered favorite.

in most areas. Red Hills streams such as Bluff, Elm and Mule creeks and the Medicine River flow year-round. The Cimarron River has good flow in Clark, Comanche, Meade and Seward counties.

All Great Plains streams in Kansas, except the Arkansas, require landowner permission to be fished. Take the time to knock on a few landowners' doors, and you shouldn't have trouble finding a fishing hole. Catching the fish may be a more difficult task.

If you are pole fishing, choose whatever equipment you are comfortable with. Even a cane pole can

be useful, but rod and reel will give you much more flexibility. Bait fishermen have several options. Minnows, sunfish, crayfish, and worms are all good live baits and will attract flatheads as well as channels. Chicken livers, shad sides and prepared "stink" baits are very good channel cat baits although livers may be difficult to keep on the hook in running water.

Depending on how adventurous you are, any monofilament line from 6- to 12-pound test will work well in most prairie streams. Lighter line, of course, requires greater fishing skill when fighting large fish. Anglers of

my caliber prefer 10-pound test.

Hook size will vary, but No. 3/0 to No. 5/0 hooks are the rule of thumb, depending on bait size. Treble hooks sizes No. 6 to No. 2 work well for most prepared baits. Slide a quarter-ounce egg sinker on your line and make a stop (a small split shot works well) about 18 inches from the hook. Although I seldom use one, some anglers feel more comfortable using a swivel for a stop.

For slow-moving water, a bobber can be used to keep the bait moving.

Once you've chosen your rig and your bait, it's time to read the river. With the exception of the Pawnee, most prairie streams are sandy-bottomed and are characterized by a series of wide, shallow stretches interrupted by narrow cuts and turns. These cuts and turns are often caused by brush piles and vegetation, creating deep holes and ideal catfish habitat. During the day, both channels and flatheads can be found in these holes.

Wading is the best method. Walk upstream looking for holes. Skirt around deep holes and cast your line above the hole. Let your bait float under brush or into the hole before locking your reel. Wait a few minutes, occasionally raising your rod tip and letting the bait drift back, then try again. If nothing happens in five or 10 minutes, move on. Given the right day, this method can net you a stringer full of fish. The key is to avoid disturbing holes before you have fished them. If you are using a



Channel cat is No. 1 at most state and community fishing lakes, too. And they can get big. The state record channel weighed 33 pounds.

bobber, make sure the bait is close to the bottom.

Another method is to locate a log jam or tree root cluster that has created a channel below it. Cast upstream of the obstruction and let your bait drift around it, down the channel and into the next hole. Without moving, you can cover a lot of stream this way.

Fly rod fishermen also enjoy prairie

stream catfishing. Using sponge-bait in a coffee can strapped to the waist, this method adds an extra dimension to the sport and gives the angler the ability to drop bait into difficult-to-reach spots without getting too close to the fish's hideout. (See *KANSAS WILDLIFE AND PARKS*, July/August 1990, Page 40.)

Some anglers prefer to use artificial baits, but they often overlook them



A great way to beat the heat; wade a prairie stream and dabble stink bait in the deeper holes. As a rule; stink bait catches channel cats, but live bait is required for the larger flathead catfish. Try worms, frogs, crawfish or sunfish.



While the catfish's unsavory eating habits are legendary, the white flesh is fine on any table.

when fishing for catfish. In streams, a weighted spinner or jig with pork rind attached can be very productive. Plastic worms and minnow-type plugs are also good baits. Allow the lure to drift into a hole, then reel it back slowly, keeping it close to the bottom. Flatheads will congregate around riprap on reservoir dams and causeways. Crankbaits slowly bounced along the rocks can be deadly in late summer.

With these methods, fish morning and evening, avoiding the heat of the day when fish are less active.

For the night owl, setlines offer an exciting way to fish prairie streams. A perfect compliment to any camping trip, running lines often puts fresh fish on the breakfast plate.

Little equipment is needed for setting lines. Fifty-pound test braided nylon line will serve for any prairie stream. Tie on a swivel just big enough to accommodate the line. About 18 inches from the swivel, tie a No. 5/0 hook. To this, tie four or five feet of line, slide on a $\frac{3}{8}$ -ounce bullet sinker and tie a 3-inch loop in the end. It's always best to use more line than you think is necessary. Extra line can always be tucked away on a limb, but it's difficult to add line once you're in the stream.

To keep your lines straight, push the hooks into one edge of an old styrofoam cooler lid and wrap them neatly around it.

Two methods can be used for setting the lines. You can depend on mother nature and look for branches

overhanging likely-looking holes, or you can make poles to stick into the bank wherever you think it looks good. One-quarter- or three-eighths-inch steel rods work well for this. If you've already got them made up, you can save a lot of time and frustration once you're setting lines.

Choose spots for setlines with much the same strategy used for pole fishing, with one exception. When setting lines, you are going to be fishing at night. Don't overlook shallow water because catfish move out of holes at night to feed. In the stretches between holes, pick a spot on the deep-water side of the channel and set a line 10 yards above each hole. Just below holes can also be productive. Although setting lines directly in holes at night can yield good catches, it's not necessary. Shallow, still water on either side of a hole can be the hottest spot.

Trotlines are also a good complement to any setline operation. Each fisherman is allowed eight setlines and one trotline, so you might want to take advantage of this option, if your stream is wide enough. The trotline can be stretched just about anywhere between two setlines, preferably when you have at least 50 yards between the sets. (Remember: All setlines and trotlines must be tagged with the owner's name and address.)

The best bait I have found for this kind of fishing is green sunfish. Hooked just below the dorsal fin, sunfish will stay lively all night. Both

flatheads and channel cats will strike them readily. Crawfish, small carp and large minnows work well, too, but it's important that your bait stay fresh. Sandpits, small ponds and lakes are good places to catch sunfish (often mistakenly called perch).

Check your lines at least once during the night. Three times is ideal because you never know when the fish will bite. (Of course, the number of checks per night decreases exponentially with the age of the angler.) If possible, try to drag yourself out of the sleeping bag if a thunderstorm is brewing. Before a storm is absolutely the best time to check lines—provided you complete your check before lightning gets too close!


At this point, you can just about feel the weight of your stringer, right? But what are you going to do with all those fish? Here's what I do.

Skin and fillet the fish, then cut it into one-inch chunks and soak in cold water. Pour three inches of peanut oil into a deep cast-iron skillet and put over fire or stove on high.

Mix two parts flour to one part corn meal in a paper bag. Add salt, pepper and garlic to taste, and just a dash or two of paprika. Shake the bag until the ingredients are well-mixed. (When camping, prepare the dry batter ahead of time.) Beat two eggs in a bowl and blend with three cups of milk. The oil is ready when it will instantly crisp a pinch of your batter mix. Dip fish chunks in the egg and milk, then roll them in batter mix and pop in hot oil. Cook until crispy brown. If your oil is really hot, this should take five to eight minutes per skilletfull.

Serve with fried potatoes and sliced, fresh vegetables.

There are many other ways to prepare catfish, but this is guaranteed to please, especially around a campfire in the morning.

Although many avid catfishermen prowl the state, the bewhiskered "barbed trout" may be the most overlooked resource in Kansas waters. Prairie streams are equally overlooked today, but count them among the greatest natural treasures on the continent. The serenity of live water against prairie stirs the imagination. For the avid catfish angler, it also incites fishing fever. 

center section

Edited by Mark Shoup

LETTERS

HAPPY HUNTER

Small game coordinator Kevin Church received the following letter last February, describing a Wisconsin hunter's impressions of Kansas bird hunting:

Dear Dr. Church:

It was an "honest" hunt. My son-in-law and I, very ably assisted by our Brittany, spent the first two and one-half days of the hot and dusty season opener pursuing your wild birds over vast ranges of well-fenced grass and croplands on Glen Elder Wildlife Area. This was a different scenario than the wooded swamps and largely planted pheasants found in southeastern Wisconsin public hunting areas. To bring your running ringnecks into range, I was forced to revert to tactics learned during several years of hunting pheasants in Nebraska in the early 1960s.

Arriving after dark on Friday, we set up our camper in the parking area of the Carr Creek boat launch where we were told it was a long-standing tradition for our group -- retired military men -- to meet, camp and hunt each year. We were able to hunt without driving from the camping area, and although we did not have the success of the old-timers who know the area, we were quite pleased with the number of birds worked and the hunting environment available. Our biggest surprise the first morning was when our dog flushed a large turkey from a grassy hillside. In all, we flushed four of the big birds that morning.

We had departed West Bend in a snowstorm and arrived prepared for everything from snowy and cold to wet and windy. It took a bit of adjustment, even for this old meteorologist, to hunt in the 70-degree afternoon heat and dust. I was amazed at the ability of our Brittany to work pheasants and quail between swings

by the lake to cool off and get a drink. We found birds in all types of cover, and the dog successfully worked in each, on one occasion pointing a hen while tip-toeing through sand burrs.

I was pleased to find Glen Elder a well-managed, challenging landscape that certainly made the hunters honest. Hunting pressure varied from light to moderate, and we were told by the old-timers that the bird population was up considerably from the previous year. We would have liked to have taken home a few more birds in our cooler than the four ringnecks and one quail we brought north, but that will come with experience and practice. We are looking forward to the 1991 opening in Kansas.

Kenneth G. Bauer, Ph.D.
Cedarburg, Wisconsin

SIMPLE GIFT

Editor:

I am enclosing a check for a two-year subscription to KANSAS WILDLIFE AND PARKS as a birthday gift for our Iowa son-in-law, who is an avid fisherman and hunter. He requested this gift, which indicates his approval of your magazine.

We think the photography by Mike Blair is marvelous, and the articles are interesting and especially informative. And it does make gift-giving simple.

Hermie Nelson
Augusta

BREEDER DEFENDS

Editor:

Being a game breeder and working as a guide on a licensed controlled shooting area, it was with great interest that I read

Randy Rodgers' article concerning stocking game birds (KANSAS WILDLIFE AND PARKS, May/June 1991, Page 37). Even though I would agree with the main text of the article, that stocking pen raised game birds is not the best management tool for increasing the wild population, I must take exception to some of his comments concerning game bird breeders and pen raised game birds.

He wrote that game breeders stretch the truth out of a desire to sell birds for increasing wild populations. I doubt many, if any, knowledgeable breeders sell any birds for this purpose. We know it takes special management skills and extra effort to make this kind of program work, and not enough birds can be marketed to generate any profit.

In speaking of genetics, Mr. Rodgers said most farms select stock for ease of handling and maximum egg production. Modern game breeders select flight birds with good feathers and coloration for breeding stock. They want wild birds, not ease in handling. His quote that shooting put-and-take birds requires only the skills of an executioner would come as a shock to the many veteran sportsmen I've seen watching as a pen raised ringneck flew off unharmed.

In short, I feel Mr. Rodgers would be well served to visit a modern game bird operation. Breeders no longer are doing things as were done 60 years ago. I would welcome the opportunity to discuss game bird breeding and spend a day hunting on a controlled shooting area with Mr. Rodgers. I would like to see if we can't repair some of the damage done to a fast-growing industry by his article.

Don Montgomery
Tipton

Dear Mr. Montgomery:

As pointed out early in the article, the subject at hand was supplemental stocking of pen-reared birds in an ef-

fort to augment or "bring back" a diminished wild population. The scientific evidence against supplemental stocking is overwhelming.

The article did not deal with put-and-take shooting, such as is practiced on your preserve, except in the final two paragraphs where such shooting is touched on from a philosophical perspective.

My primary concerns with game breeding are twofold. First, it has been the experience in certain states, as well as in Europe, that when emphasis on pen-rearing gamebirds increases, funding and efforts directed at producing wildlife through habitat diminishes. This concerns me deeply. Artificial rearing does nothing to convey to the hunter the vital connection between healthy land and abundant wildlife. Second, game breeders commonly sell gamebirds to well-meaning individuals who believe that by releasing them they are helping the wild population. Each year, I receive calls from people who have purchased birds for this purpose. I doubt there are many breeders who will tell such persons that most of the birds stocked will be dead within a relatively short time.

I cannot deny that there seems to be an increasing demand for put-and-take shooting here in Kansas and elsewhere, and I am confident that you make every effort to create a positive recreational experience for your clients. It is, of course, up to the individual to decide if they wish to participate in a put-and-take shoot. But the ethics of such shooting will remain controversial. --Randy Rodgers, wildlife research biologist, Hays

KUDOS

Editor:

I want to tell you and your staff what a fine job you are doing and what a fine magazine you are publishing. It sure has come a long way since I started taking it. Your photographer has to be the greatest. The pictures alone are worth the price of the magazine. It all makes for good reading. The articles are straightforward, and that I like. I know I have broadened my knowledge through your articles on wild-

life and habitat. Keep up the good work.

Ralph McKenzie
Pittsburg

VEILED PREJUDICE

Editor:

Having been a lifelong sportsman, my interests are first for conservation of our natural resources and wildlife, and secondly for harvesting, in some fashion, these resources.

As I grow older, I find myself less willing to kill any animal, including pheasant and quail. I grew up quail hunting in southeast Kansas. I do understand the theory of normal winter kill, starvation and freezing with birds and deer as well, and the advantages of a hunting harvest.

However, the article entitled "Kansas Cattin'" in the January/February issue of KANSAS WILDLIFE AND PARKS (Page 35) was certainly one to stir up emotions. In all honesty, this may relate to my dislike for the fringe elements. Those more radical members of Ducks Unlimited and National Rifle Association and like organizations, who I term as rednecks, killers and poachers.

The bobcat is a beautiful animal as is the mountain lion, the eagle and some other animals we have considered endangered. One who enjoys chasing a cat up a tree and shooting it with a shotgun should be classified as a "redneck."

My fancies have turned toward fly fishing and bass fishing. Catch and release. I feel that this is the way that I can enjoy the outdoors and wildlife without harming either. Perhaps more sportsmen could limit their hunting to harvestable mammals or birds. Or, begin to enjoy some catch and release fishing. But, on second thought, why would I want these rednecks tramping up and down the trout streams killing everything in sight.

H. C. Palmer, M.D.
Liberal

Dear Dr. Palmer:

Your letter about the bobcat hunting article stirring emotions also stirred emotions in me. I'm disappointed that you so prematurely and inaccurately judged the hunters in the story.

Also, the bobcat is far from being

considered endangered in Kansas. Where suitable habitat exists, bobcats are plentiful. The fact is that we have a regulated season on bobcats. All bobcats taken must be tagged, and the harvest is very closely monitored.

If, as you state, bobcat hunting was as easy as "chasing a bobcat up a tree and shooting it with a shotgun," I wouldn't have printed the story. But bobcat hunting requires preparation, scouting and trained dogs, and is frankly a lot of hard work. More often than not, the bobcat eludes the dogs, and the hunters do not kill anything.

Lastly, I would caution you about your "noble" attitude. I assume you have drawn a line in that your outdoor pursuits are acceptable and those who do not stand on your side of the line are rednecks. Animal rights accounts describe fishing as one of the most cruel pursuits; the animal is hooked in the mouth with a sharp, barbed hook and played to exhaustion. And catch-and-release fishing is the worst because, instead of killing the fish for consumption, the angler releases it so he might hook and torture the animal again.

I release all of the bass and most of the trout I catch, and I understand your feelings concerning fishing. I do not hunt bobcats with dogs, but I do support those who choose to, as long as they do it legally and conduct themselves ethically. When we begin to separate and criticize within the ranks of hunters and fishermen, we weaken our cause. If we outlawed bobcat hunting, why wouldn't catch-and-release fishing be next? --Miller

RABBIT RETURN

Editor:

Our Marion bicycling group has been amazed at the number of jackrabbits we have seen lately. It is common to see three or four on each ride.

Jackrabbits are making a comeback in Marion County.

Alex H. Case
Marion

LAW

HAWK POACHERS

Last December, conservation officer Doug Whiteaker, Fort Scott, received a call from an angry landowner who had witnessed a red-tailed hawk being shot by someone driving by his place. The landowner told Whiteaker that the hawk was still alive, but wounded, so he went to pick it up.

While Whiteaker and the landowner were picking up the hawk, an odd thing happened. The vehicle involved in the shooting returned to the scene of the crime. Naturally, Whiteaker stopped the vehicle and read the two people their rights. This was enough to extract a confession to the shooting from one individual and confession from the other of aiding in the crime.

Both poachers stated that they had come back to get the hawk in order to destroy the evidence because they knew the landowner had seen them.

Why commit such a senseless crime? The pair said they were just riding around shooting things for the fun of it.

Charges of hunting with the aid of a motor vehicle, taking protected migratory birds and assisting in illegal hunting activity were filed in Bourbon County, and the two were fined \$250 apiece. Unfortunately, the hawk died. --*Shoup*

LAW BRIEFS

Sludge Alert

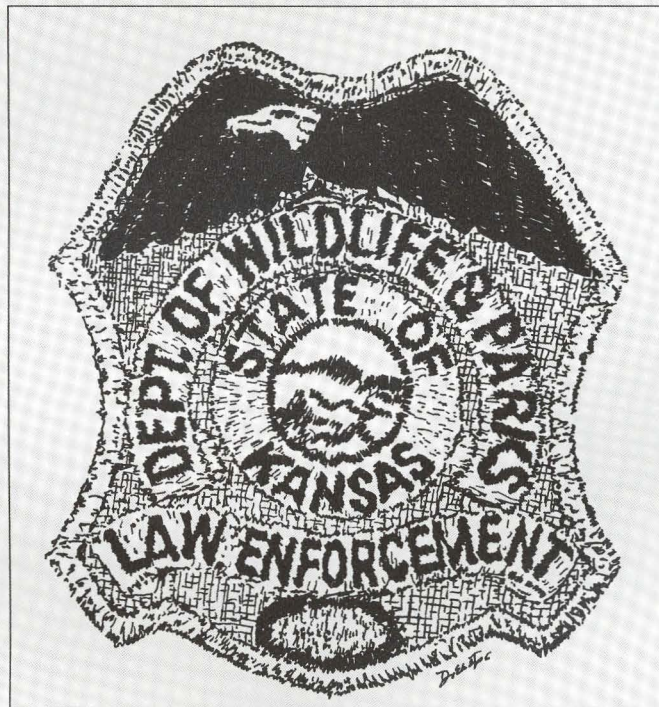
Conservation officers statewide have located sludge pits and investigated sludge-related deaths of migratory waterfowl and shorebirds. Anywhere oil is pumped out of the ground, stored or refined is a likely spot to find sludge ponds. These ponds usually have a thin layer of water on top of thick, oily sludge.

Waterfowl and wading birds are attracted to the water and trapped by the sludge as the oily substance coats their

feathers and makes them unable to fly. These birds either starve, die of exposure or make easy prey for predators. If you know of a sludge pond, make sure your local wildlife biologist knows about it.

Drowning month

June saw a rash of near drownings and drownings in Kansas. Conservation officer Dick Duling, Quenemo, helped rescue a near-drowning victim at Melvern



Reservoir. At Glen Elder Reservoir in northcentral Kansas, conservation officer Shane Cathey and park manager Kurt Reed, both of Glen Elder, rescued some boaters after their boat sank. At Elk City Reservoir, conservation officer Dennis Knuth, Independence, reported that a boat sank and a man and woman and their three children, ages 4, 7 and 9, were rescued by onlookers.

Conservation officer Harley McDaniel, Columbus, reported a drowning victim recovered approximately two miles downstream of Oswego Dam on the Neosho River. Duling and Conservation officer Johnny Ray, Ottawa, assisted in the search for drowning victims on the

Marais des Cygnes River below Miller's Dam on the east end of Pomona Reservoir.

These scenes are far too common throughout the state. Please be safe on Kansas waters the remainder of this boating season. Planning and thoughtful preparation can prevent most water accidents. And always wear your life jacket.

Breeder inspections

Kansas conservation officers must inspect more than 300 game breeder facilities to ensure that they are clean and adequately spaced to allow animals to stay healthy. Game breeders raise and sell pheasants, quail, rabbits, raccoons, coyotes, foxes and other animals. They are required to obtain a permit (valid July 1 through June 30 the following year) from the Department of Wildlife and Parks. Guidelines set by the Department of Health and Environment are used to determine whether a game breeder's permit will be issued, and it is up to the conservation officer to inspect and recommend or disapprove permits.

Fish traps

This summer, southeast Kansas conservation officers received a number of complaints of people using fish traps to illegally take fish in rivers. If you see any fish traps or observe anyone taking fish by hand or snagging, contact your local conservation officer or

call OPERATION GAME THIEF 1-800-228-4263. Taking fish by illegal means exploits the resource and diminishes harvest chances of law-abiding anglers.

Mussel thieves nabbed

Conservation officers Bill Ramshaw, Sedan, and Dennis Knuth, Independence, checked some mussel "harvesters" on the Verdigris River last June. They were doing well and had several hundred pounds of mussels, which are sold and used to make implants for the production of artificial pearls. Unfortunately, these lucky mussel hunters didn't have the required harvesting permit. They were cited and lost their catch of mussels. --*Kevin Couillard, conservation officer, Aurora*

ISSUES

FUNDS AT RISK?

The U. S. Department of the Interior recently announced that states received \$354 million in fiscal year 1991 for fish and wildlife restoration programs. The money comes from funds generated through the Federal Aid in Wildlife Restoration Act (Pittman-Robertson, or PR), signed in 1937, and the Federal Aid in Sport Fish Restoration Act (Dingell-Johnson, or DJ), signed in 1950.

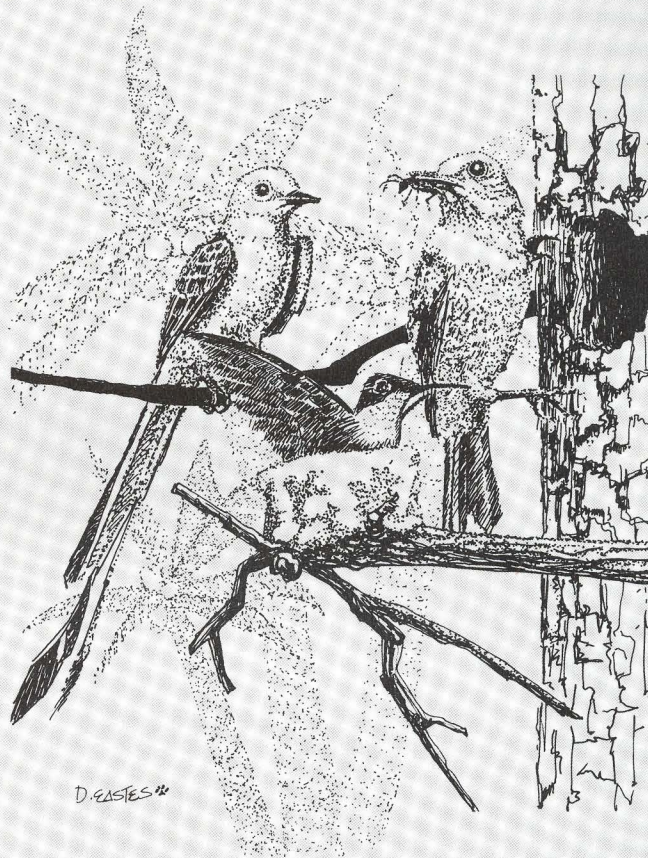
PR-DJ funded programs are financed by hunters, anglers and boaters through federal excise taxes on sporting equipment such as firearms, ammunition, and fishing tackle; import taxes on fishing tackle and pleasure boats; and a percentage of motorboat fuel taxes. The two programs have collectively raised more than \$2.5 billion, all earmarked for state fish and wildlife programs such as land acquisition, habitat improvement, research and education.

Kansas wildlife programs will also benefit from this year's apportionments. Of the \$5.5 million targeted for the Sunflower State, \$2.6 million will aid wildlife conservation projects, and \$2.9 million will enhance sport fish restoration projects.

However, PR-DJ funds targeted for Kansas may be in danger. In May 1989, the U. S. Fish and Wildlife Service (USFWS) ruled that all interest, dividends or other income from "general or special licenses, permits, stamps, tags, access and recreation fees . . . imposed by the state to hunt or fish" must be given to the state's fish or wildlife agency. States that do not comply by May 17, 1992, would jeopardize future federal aid. The ruling could increase state fish and wildlife budgets considerably, if they comply, but in Kansas, these interest monies currently go to the general treasury.

Money from PR-DJ funds has made possible numerous community lake

projects across the state, as well as Wildlife Habitat Improvement Program (WHIP) projects administered by the Department of Wildlife and Parks. Wildlife research projects funded by PR-DJ include a recent Wildlife and Parks crappie study, release and tracking of ante-



lope in the Flint Hills and elk in the Cimarron Grasslands, and turkey release and tracking. Boat ramps and fish cleaning stations also use PR-DJ.

In addition, PR-DJ funds help raise fish at Wildlife and Parks hatcheries and help the Department acquire land, such as the 1990 Concannon Lake purchase in Finney County.

PR-DJ funds have also help specifically enhance nongame programs in Kansas, as well. Nongame habitat and population surveys, creation of backyard habitat, habitat demonstration projects and numerous prairie restoration projects have all been aided by these funds.

The Department is currently awaiting

word whether the Fish and Wildlife Service's ruling -- that states must return license fee fund interest to their state wildlife agencies -- will remain in effect under the new regulations the Service is about to publish. If so, the Department plans to request the necessary legislation to return license fee fund interest to the agency. --*Shoup*

TROPICAL KANSAS BIRDS

When Kansas weather turns cold, many birds migrate to warmer climates. Hummingbirds, bluebirds, scissortail flycatchers and other birds head for the tropics of Central and northern South America.

The tropics are tremendously important to birds. Only 6 percent of Earth's land mass is contained there, but its habitat supports more than **half of all the world's bird species**. Scissortails and numerous other birds that reside in Kansas during summer depend on this region of the western hemisphere in winter.

The tropics, however, are undergoing dramatic changes. Current estimates indicate 40,000 square miles of tropical forest are being altered or destroyed annually -- an area the size of Virginia.

Explosive population growth in the tropics has led to a destructive cycle of "slash and burn" agriculture, the primary cause of forest destruction. Population growth creates a need for more jobs and more resources. Other destructive influences include increasing demands for tropical hardwoods and agricultural products such as coffee, sugar, beef and fruit.

More than half of the 650 bird species that inhabit the United States during summer migrate to the tropics in winter. -- *from Oklahoma Department of Wildlife Conservation*

WELCOME WOMEN

That women are generally excluded from hunting, through intention or over-

sight, is a long-overlooked injustice. Few human activities are more satisfying than hunting, yet girls are usually left out of such activities. Consequently, they never develop an appreciation for hunting, or for the myriad of lessons to be learned from hunting.

Contrary to popular belief, there is nothing inherent in hunting that excludes women. According to some studies, women have better endurance and concentration abilities than men. Women can certainly learn as quickly as men and are every bit as capable of appreciating the more subtle aspects of the hunt.

Frances Hamerstrom is a University of Wisconsin professor and a protege of the famous naturalist Aldo Leopold. Hamerstrom provides insight into an experienced woman's view of hunting. "Hunting is a long, fascinating road leading to moments of ecstasy," she says. "There is an alertness, a type of concentration throughout a hunt, that demands an openness to the total environment. I don't know of any endeavor that has such a wide spread of demands and satisfactions as hunting."

With the high number of single women raising families these days, perhaps it's high time we men began encouraging women to participate in the sport -- for them, and for the next generation. --*Shoup*

ENVIRONMENTALITY

"The one process ongoing in the 1980s that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us." --*Dr. Dwight R. Platt, biology professor at Bethel College, quoting Harvard biologist E.O. Wilson, before the Kansas Legislature*

MASKED BANDIT RETURNS

The black-footed ferret was officially listed as an endangered species in 1967. By the mid-1970s, it was feared either extinct or, if populations existed, they were so small that natural disasters or disease would eventually eliminate them.

The discovery of a group of black-footed ferrets on a ranch near Meeteetse, Wyoming, in 1981 offered a ray of hope for the species. Over the next few years,

research provided new information about the lifestyle of this secretive mammal, but a 1985 outbreak of canine distemper killed nearly all of the ferrets. The remaining 18 were taken into captivity between 1985 and 1987, launching a successful captive breeding program.

This fall, state and federal agencies, in cooperation with private landowners and conservation groups, are planning to reintroduce black-footed ferrets to the wild, beginning in Wyoming. Reintroduction in other states will follow, while ferrets will also be maintained at several zoos and other facilities around the country.

The first releases are planned on public land and will be experimental. Mortality rates may be high during the early stages, as researchers look for the best ways to return ferrets to their native habitats.

Initially, food will be provided for the released ferrets. As they adjust to their new surroundings and learn to hunt on their own, supplemental feeding will be reduced, then eliminated. Over-winter survival and breeding next spring will be measures of long-term success.

National recovery goals call for establishment of at least 10 free-ranging populations, spread over the widest possible area, with 30 or more breeding adults in each. By the year 2010, biologists hope to have 1,500 ferrets in the wild.

Reintroduction plans are tailored for each area to be compatible with existing land uses such as agriculture, livestock grazing, energy production, hunting and other recreation. As management plans are prepared for each area, they will be open to local and national public review, comment and modification. --*Wyoming Game and Fish Department*

CHLORDANE CREEKS

For many years, the pesticide chlordane was once the standard treatment for termites in homes. It has also been used as a grain bin fumigant. This summer, reports from Kansas City, Topeka and Wichita documented chlordane pollution in some Kansas streams. The Kansas Department of Health and Environment warned against eating fish from these waters. Signs along a 16-mile stretch of the Kansas River near Kansas City stated,

"Warning: Certain fish from this river are not fit to eat."

High levels of chlordane, now banned by the EPA, have been found in fish samples taken from waters across the state. Chlordane is a known carcinogen, and the Environmental Protection Agency (EPA) will not allow commercial sale of fish containing more than .3 milligrams of chlordane per kilogram. A 1989 study showed levels of chlordane in fish from Cowskin Creek in Wichita contained 1.4 milligrams per kilogram (mg/kg). Other fish samples were taken from the Cottonwood River near Emporia -- .7 mg/kg; Cow Creek near Pittsburg -- .96 mg/kg; the Kansas River near Holliday, in Johnson County -- .69 mg/kg; and Antioch Park Lake South in Shawnee County -- 1.4 mg/kg. Previous studies have shown high levels of chlordane in fish taken from the Arkansas River in Wichita.

Chlordane stores in the fat of animals that ingest it. In turn, animals (including humans) that eat those animals will have increasingly higher concentrations of the chemical in their fat. This process is called biological magnification. Buildup of the pesticide DDT in this manner led to the decline of bald eagles in the late 1960s and 1970s.

While many anglers in these highly populated areas are concerned about the warnings, many still fish. But there are ways to reduce the risk of ingesting chlordane if the fish are eaten. The trick is in the cleaning. After the fish have been skinned and filleted, all remaining fat should be trimmed away. This is particularly important when cleaning big catfish, which tend to have large fat deposits.

After the fish have been properly cleaned, they should be broiled or baked, not fried. This way, any remaining fat may drip away from the meat as it is cooked.

Under no circumstances should pregnant and nursing women eat fish from these waters because ingestion of chlordane could cause subtle developmental problems in fetuses and infants.

While no one can state with absolute authority that fish from these waters is safe to eat, the risks can be reduced significantly if the proper precautions are taken. --*Shoup*

FISHING

ELECTRIC FILLETING

Have you ever asked yourself how in the world you can fillet a fish with an electric knife? It takes practice, just like learning to use a regular knife, but if you get proficient, it can speed up your fish cleaning chores.

Although it takes electricity, which you won't find at most lakes, streams or ponds, 12-volt models that power off boat or auto batteries are available.

There are two types of electric knives on the market. One has a straight handle with a trigger on the bottom side operated by the fore finger. The second type has a large moon-shaped handle and allows for better leverage on the blade. This may work better for filleting. Models with the thumb button on top will tend to give you a bit of a shock if you get your hand wet.

Remember: Be careful when handling electrical appliances on or near water or with wet hands.

If you get good with the electric knife, you'll never go back to the conventional method. It's quick and easy, and you sure don't waste much meat. --*Tommie Berger, fisheries biologist, Dodge City*

COMMERCIAL FISHING

Commercial fishing on the Missouri River is not a subject that generates state-wide interest. However, there have been several regulatory changes this year that concern Kansans who live near the "Mighty Mo."

Kansas cooperates with several Missouri River states in management of the commercial fisheries on the river. Our regulations were set in coordination with the other states, and their regulations have been reviewed by the Kansas Department of Wildlife and Parks.

Changes include the following:

--On and after Jan. 1, 1992, trot and set lines and jug and block lines will not be legal means of taking fish for commercial purposes.

--Paddlefish and shovel-nosed sturgeon cannot be taken for commercial

purposes.

--On and after Jan. 1, 1992, channel, blue and flathead catfish cannot be taken for commercial purposes. All states along the Missouri are expected to have the same prohibition by July 1, 1992.

--On and after Jan. 1, 1992, all lines, nets and seines are to have an identification tag attached. The tags will be supplied by the Department and cost commercial fishermen \$5 per tag. --*Darrell Montei, legislative liaison*

MASTER MONTHS

Ever wonder when the biggest fish in Kansas are caught. Here's a list of top three big-catch months for 1990 Master Angler Awards, divided by species.

Channel catfish

July	4
May	3
August	2

Crappie

April	25
May	9
June	3

Flathead catfish

June	12
May	7
Aug. & Sept.	3 ea.

Largemouth bass

May	6
March	5
June	4
Smallmouth bass	
June	5
April	4
July & Aug.	3 ea.

Striped bass

June	5
July	2
Jan, April, May, Aug., Oct, Nov	1 ea.

Walleye

May	6
Apr. & Mar.	5 ea.
June	2

White bass

April	3
June	2
July	1

Wiper

May	26
April	15
June	8

RECORD BOOK

The 1991 edition of *World Freshwater Fish Records*, published by the National Freshwater Fishing hall of Fame, is now available. Records are listed in four divisions: rod and reel, fly fishing, cane pole and ice fishing.

To obtain a copy of the book, write the National Fishing Hall of Fame, Box 33, Hall of Fame Drive, Hayward, WI 54843, or phone (715) 634-4440. --*National Freshwater Fishing Hall of Fame*



DANA BASTES

HUNTING

DOVE DIP TIPS

Finding doves is not the most difficult part of bringing home a bag limit. By some estimates, hunters spend as many as seven shells for each bird taken. This amounts to over four boxes of shells for every bag limit.

However, a number of things can be done to improve your average, or create a greater challenge if you are one of those rare dead-eye dove shots. First of all, think about your shooting technique. Shoot clay targets several times to give yourself the chance to analyze your form. Is your cheek down tightly against the stock? Are both eyes open? Is your gun pressed firmly against your shoulder? Is your left arm (if you are right-handed) steady but relaxed, so you can swing smoothly on a bird and follow through without jerking? If the answer to any of these questions is "No," work on the problem area. Your entire body should be steady, but relaxed, never tense, when you are shooting. One true test of this is whether or not you flinch when you fire. If you are uncertain, ask a friend to watch you shoot.

Perhaps the most important element of shooting form is more subjective than mechanics. It's concentration. Doves usually give you plenty of time to set up because you can see them coming from a distance. This is both an advantage and a disadvantage. It is an advantage in that you know the direction, distance and approximate speed of the bird before you raise your gun. It is a disadvantage because you have time to out-think yourself. Try to block out all internal dialogue and just concentrate on the bird. Don't raise the gun too soon, or you might make too many corrections in your stance and grip. However, give yourself enough time to focus your concentration on body, gun and bird, as if they were all parts of a whole.

No matter which direction the bird is flying, swing the gun smoothly to it, press the trigger (don't jerk), and follow through

-- all in one smooth, continuous motion.

--Shoup

EIDER STAMP

The 1991-1992 Federal Duck Stamp is now on sale, featuring a pair of king eiders by Vermont artist Nancy Howe, the first woman to win the duck stamp contest. This year's stamp will sell for \$15, up \$2.50 from recent years. Congress authorized the price increase as part of the Emergency Wetlands Resources Act of 1986 to provide funds to acquire and protect wetlands.

Since the Duck Stamp Program began in 1934, more than 4 million acres of waterfowl habitat have been preserved using Duck Stamp money. Many national wildlife refuges have been paid for entirely through the sale of duck stamps.

The U.S. Fish and Wildlife Service, which sponsors the Federal Duck Stamp Contest each year, has also announced rules for next year's contest. In May 1991, regulations were adopted to ensure that all species of North American waterfowl eventually appear on the stamp.

Five species have been picked for entry in next year's contest: Barrow's goldeneye, black scoter, red-breasted merganser, spectacled eider and surf scoter.

The contest opened July 1, and all entries must be received by Sept. 15, 1991. Information and entry forms can be obtained from the Federal Duck Stamp Office, U.S. Fish and Wildlife Service, Suite 2058, Department of the Interior, 1849 C Street, NW, Washington, DC 20240, telephone (202) 208-4354. --Shoup

AMAZING ARCHER

Perhaps the greatest archer of all time was Howard Hill. Hill, who was part Native American, made his own bows and travelled coast to coast conducting shooting exhibitions in the 1930s and 1940s. For these shows, he used an 85-pound longbow called "White Eagle," but during an African adventure when he took a lion, a leopard, an elephant and a cape buffalo, he used a 115-pound longbow named "Grandma." A champion tournament archer, Hill also hunted shark, crocodile and bear with a bow.

It is for his trick shooting in the 1938 Erroll Flynn classic *The Adventures of Robin Hood* that Hill is best remembered. In the search for an archer for the film,



director William Keighley conducted a tournament with 50 of the best archers of the time. When the field had been narrowed to six, Keighley handed each remaining contestant six arrows, commanding that they be shot in rapid succession at a target. When Hill's turn came, he took seven more arrows from the director, put all 13 on his bow and fired them simultaneously. Nine hit the bull's eye and the other four were close.

Needless to say, he got the job.

Hill made many amazing shots during the filming of *Robin Hood*. Doubling for Flynn in the famous tournament scene, Hill split an arrow at 100 paces -- with a longbow on the first try. He shot a mace out of Basil Rathbone's hand and made numerous shots at moving targets.

He and Flynn became good friends. Under Hill's tutelage, Flynn quickly became a skilled archer himself, and actually slipped away and bagged a bobcat during the movie's filming. --*Shoup*

FALCONRY FUTURE

In 1989, Kansas opened the state to the ancient art of falconry. That first year, one apprentice and one general permit were issued. The following year, two permits were issued, one new general and one apprentice renewal.

Through May of this year, four permits had been issued, one new apprentice, one apprentice upgrade, one general renewal and one new resident general.

While these figures may not indicate a movement, they do indicate a continued and increasing interest in this fascinating sport. In addition, the American Falconry Association plans to hold its annual convention in Kansas this November.

To date, red-tailed and Harris' hawks and peregrine/gyrfalcon and peregrine/prairie falcon hybrids have been used.

For more information on falconry permits in Kansas, contact the Department's Pratt office, Division of Fisheries and Wildlife. --*Shoup*

DUTCH DUCK

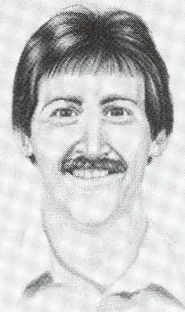
Decoy comes from the Dutch *de kooi*, meaning "the cage," a waterfowl trap used in Europe since the 17th Century. The traps used live ducks to lure wild ones into the trap. --*Shoup*

FOR WHAT IT'S WORTH

A TIME TO SOW

by Steve Leggans

hunter
education
coordinator



I saw a bumper sticker awhile back that read, "Take your kids hunting instead of hunting your kids." The sentiment may be oversimplified, but there is a seed of truth in it.

The truth is, we spend far too little time with our kids. Think about it. Plot a week of your kids' time and see what they do and how much a part of it you are. There's a good chance that only a very small part of the week's 168 hours find you and your kids together for what we commonly label "quality time." Our hours are consumed with work and rest. Theirs are consumed with pre-school, day care, baseball, soccer, television, Nintendo. Quality time is hard to find, or to make room for.

We might argue what is quality time, but I doubt that we differ much about its effect. The special times we spend with our kids provide opportunities to pass on lessons for life. The seeds of stewardship, conservation and appreciation for the natural world that we sow in our children are our true legacy to them. It is their adult behaviors, driven by the attitudes they develop during childhood, that will shape the world they live in and leave for their children.

All of this places a heavy burden on adults. I find myself torn between the things I have grown accustomed to (cheap gas, two cars, central air conditioning, pre-packaged foods, the luxuries of life) and the environmental price we pay for it all. I find myself evaluating how the world's needs and the survival of future generations hang in the balance of what we do now. I see a need to build values

which turn a conservation attitude into a conservation act.

We have long worked to teach people about conservation, to obey the laws, to get involved when possible, to do what they could, and to support efforts to legislate conservation. Aldo Leopold's concern was that our approach to conservation defines no right or wrong, focuses no responsibility, calls for no sacrifice, and is satisfied with no real change in values. He may have been right. For some of us, a conservation ethic is more something to appreciate than to act upon. But we may need to sacrifice some of today's luxury for tomorrow's air and water.

I have found opportunity to teach some of these lessons while sitting in a duck blind with my nine-year-old, listening to the hum of mallards' wings cutting a tight spiral toward our decoys, or pressed against the dining room window with my six-year-old, watching a squabble at the birdfeeder between a couple of blue jays and a squirrel making a pig of himself. Some of our best times together have involved the outdoors and wild things. All of these times weave their way into the fabric of our values and provide us with a connection to the rest of the living world.

Time spent with kids is time spent planting seeds of awareness and appreciation. These are times to focus on what quality of life means, how all creatures have a part to play, and how our choices define the nature of our stewardship.

We need to teach our children that the transition from excessive consumption to conservation begins with them. This is a lesson we adults must demonstrate to our offspring, for they surely will duplicate our behavior in spite of our words.

If time to teach lessons about life and the inter-relationships we have with all life on earth is not part of your week, stop. Think about what you are giving the next generation. Will we leave them a healthy world, sense enough to care for it and appreciation for their place in the scheme of things? Take time. Make time. Plant seeds for their future. Do something "wild" with your kids today because someday your time for sowing will be gone.

NATURE



WEB WEAVERS

There are many kinds of web-building spiders, and each builds a different kind of trap.

Tangled-web weavers spin the simplest, a shapeless jumble of threads called cobwebs. The black widow is a cobweb weaver. Triangle spiders spin triangular webs, and when an insect hits the web, the spider shakes it, tangling up the insect. An ogre-faced spider, or "net thrower," spins a small rectangular net and throws it over the prey.

Sheet-web weavers spin flat sheets of silk between blades of grass or tree branches. When an insect hits the net, it bounces into the sheet, and the spider pulls the insect through the webbing.

Orb weavers build the most beautiful and complicated of all webs. These round webs are found in open areas. Threads of dry silk extend from the center like spokes of a wheel. Coiling lines of sticky silk connect the spokes and serve as the insect trap. The spider may lie in wait in the center of the web or at the side for prey to

become tangled in the web. Due to the viscous nature of the spiral lines, many orb weavers spin a new web every night. It only takes them about an hour. --*Becky Hagan, Martha Lafite Thompson Nature Sanctuary Newsletter*

CHIPMUNK FACTS

Last spring, eastern chipmunks were reintroduced to some of their natural woodland habitat near Elk City State Park. Here are some facts about this interesting little mammal:

Eastern chipmunks can carry six white oak acorns or 35 whole sunflower seeds in the cheek pouch. They don't like peanut butter, but they may store as many as 900 acorns per day. At the end of the winter, they often have enough food left to last another 11 months.

Some easterns hibernate, but others do not. There is no correlation between weather and hibernation. Those that do not hibernate have a higher survival rate.

They do not breed in captivity.

They defend a core area near their burrow, and always plug the den's hole at night. When chasing intruding chipmunks from their area, they often chase until they are out of their territory, then comically reverse themselves and become the chased.

Eastern chipmunks breed twice each year, usually in March and July, and have a 31-day gestation period. About 42 days after birth, the young emerge from the burrow. Females mature in three and one-half months, males in nine to 12 months. Juveniles have well-defined, dark stripes under their eyes, pointed heads and prominent ears. Once they leave home, the young disperse to a surrounding 30-acre area.

The eastern chipmunk's chipping call becomes more frequent during dispersal of the young, in mid-May and early fall.

Although their hearing is exceptional, their senses of sight and smell are less developed. --*Shoup*

COOL SWEAT

Animals adjust to heat in many ways. Perspiration cools when moisture released from sweat glands evaporates on the skin.

Most mammals' fur is too dense and heavy for efficient evaporative cooling from the entire body. Some have sweat glands on the soles of their feet or between their toes. Some bats have sweat glands on their faces. Other mammals adjust to heat by panting, which evaporates moisture from the lungs.

Cold-blooded animals also employ evaporative cooling. Box turtles froth at the mouth and nose, and spiny softshell turtles evaporate water through their shells.

Birds evaporate water from their respiratory systems by pumping their throat muscles to rapidly bring in air.

Some animals release body heat through blood carried to the skin's surface. For example, internal heat is given off from a jackrabbit's ears by blood flow to many tiny capillaries. Snakes also rely on blood flow to reduce heat.

Of course, many animals beat the heat by getting out of it, either by seeking shade (under or above ground) or by nocturnal activity. --*Oklahoma Department of Wildlife Conservation*

NOTES

CLUB INFO REQUESTED

If you or someone you know is an officer in a sportsman's club, boating club or other outdoor organization, Kansas Department of Wildlife and Parks Secretary Jack Lacey wants to hear from you.

In an effort to better identify the Department's constituents, the Secretary seeks essential information on all outdoor groups in the state. Of particular interest are organization name, address, officers, agenda and special activities.

Groups are asked to send information to Kansas Department of Wildlife and Parks, Office of the Secretary, Attention: Group Information, 900 Jackson St., Suite 502, Topeka, KS 66612-1220. --Shoup

STRANGE BEDFELLOWS

On Kansas Wildlife Heritage Day last March 12, I represented the Kansas Herpetological Society at our reptile and amphibian display table in the Capitol Rotunda. Among other things, our display included live snakes and



salamanders. Reaction to our display was predictably mixed. Younger visitors seemed less fearful than their teachers and parents, clearly demonstrating that the fear of snakes is learned rather than

instinctive.

As everyone eagerly awaited the proclamation of Kansas Wildlife Heritage Day, I was invited upstairs to meet with the Governor and present her with a copy of the new *Reptiles and Amphibians of the Cimarron National Grasslands*, by Joe and Suzanne Collins. I was also asked to bring an ornate box turtle. Unfortunately, we had no turtles. After further discussion, we decided to bring Snake, a 6 1/2-foot bull snake, to meet the Governor. Snake had been handled by hundreds of people without an incident.

When I reached the Governor's office, I took Snake out of his cooler, and we posed for several photos with the Governor. (She wanted some guarantees before holding Snake.) The Governor's staff and other visitors crowded in the doorway to watch this historic moment. Two classes of Kansas students crowded in an ante-room, trying to see what the commotion was about. Then with a grin, Governor Finney became the first woman governor of Kansas to be photographed

holding a large, live snake. She grabbed Snake from me, and the shutter clicked several times. Then she walked into the crowd of students and shouted, "Your Governor isn't afraid!"

Thus, the real lesson for Kansas Wildlife Heritage Day was shared with the Governor, her staff and a group of eager students.

Later, Capitol Security evicted us and our display before the celebration's finale, supposedly at the behest of an out-

raged and frightened senator. If only they had known about Snake's high-placed friend. --Larry Zuckerman, president, Kansas Herpetological Society

SLITHY TOVES

An exhibit in the Kansas University Kenneth Spencer Research Library is devoted to books about reptiles and amphibians and has been arranged in celebration of the publication last April of Peterson's *A Field Guide to Reptiles and Amphibians of Eastern and Central North America*, 3rd edition, by Roger Conant and KU zoologist Joseph T. Collins.

The exhibit's title, "Slithy Toves," is taken from *Through the Looking Glass*, where Lewis Carroll tells us that "slithy" means "lithe and slimy," while "toves" are "something like badgers . . . something like lizards -- and . . . something like corkscrews."

On display are illustrated herpetological books from the Spencer collections dating from 1588 to 1878 and showing herps from around the world. A few volumes feature herps as symbols.

The exhibit will continue until the end of September. --Kansas Herpetological Society Newsletter

CORRECTION

In the May/June issue of KANSAS WILDLIFE AND PARKS (Page 20), an article entitled "Political Write" listed Kansas senators and representatives and their addresses. Bob Whiteaker was listed incorrectly as the representative for District 5. Dick Nichols, 805 N. Main, P.O. Box 1321, McPherson 67460, should have been listed.

My apologies to Mr. Whiteaker, Rep. Nichols and our readers for any inconvenience this may have caused. --Shoup

SANDHILLS HELPERS

Last spring, Dick Steiner of Hutchinson received a Wildtrust print in recognition of his volunteer work at Sand Hills State Park (SHSP), northeast of the city. Dick spent five months caring for 150 young trees in the park's backyard wildlife area.

SHSP received a second shot in the arm last spring when the Kansas Trails Council donated \$100 to help fund trail signs in the park. --Shoup

NATURE'S NOTEBOOK

by Dana Eastes

Scissor-tailed Flycatcher

Muscivora forficata

The scissor-tailed flycatcher is a beautiful and unusual bird, truly a gem among the many songbirds that make Kansas their summer home. Maybe you've seen this Kansas treasure sitting on a fence along a highway or country road? It's also known as the Texan bird of paradise and swallow-tailed flycatcher, but never should be mistaken for the Edward Scissorhands flycatcher.

Because it opens and shuts its 9-inch tail like a pair of scissors when it flies, scissor tail is an appropriate name for this flycatcher. No other North American song bird, except the fork-tailed flycatcher, has such a proportionately long tail.

The scissor-tailed flycatcher spends its summer in the Great Plains, from Texas to Kansas and winters in the southern half of Florida, Mexico, Panama and sometimes wanders into southern California and Arizona. It can also be seen as far north as Canada.

Perching for hours on a fence post or limb of a tree along the roadside, this flycatcher darts into the air to catch bees and wasps, or drops to ground to catch grasshoppers,

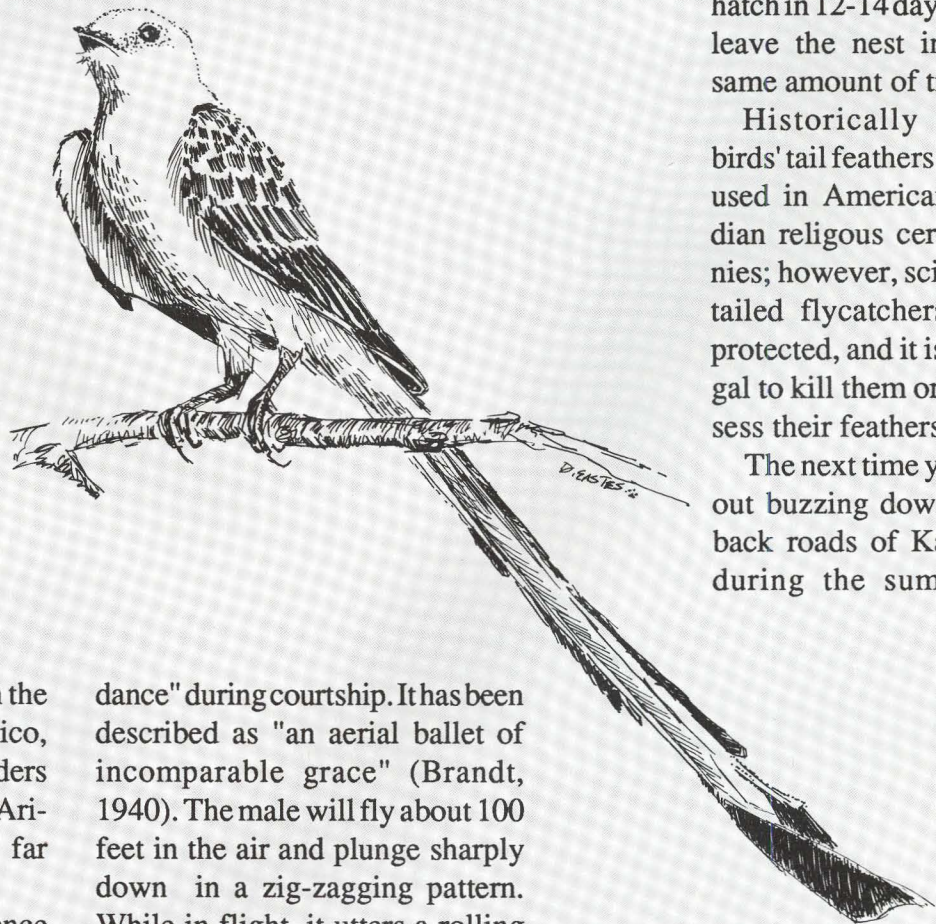
crickets, caterpillars, spiders and an occasional dragonfly. It also eats small fruits, berries, and seeds.

The male scissor-tailed flycatcher does the famous "sky

ersaults. This sky dance continues throughout courtship and often until the eggs are hatched. The female lays as many as five eggs between April and July. The eggs are cream white, blotched with brown. The young hatch in 12-14 days and leave the nest in the same amount of time.

Historically the birds' tail feathers were used in American Indian religious ceremonies; however, scissor-tailed flycatchers are protected, and it is illegal to kill them or possess their feathers.

The next time you're out buzzing down the back roads of Kansas during the summer,



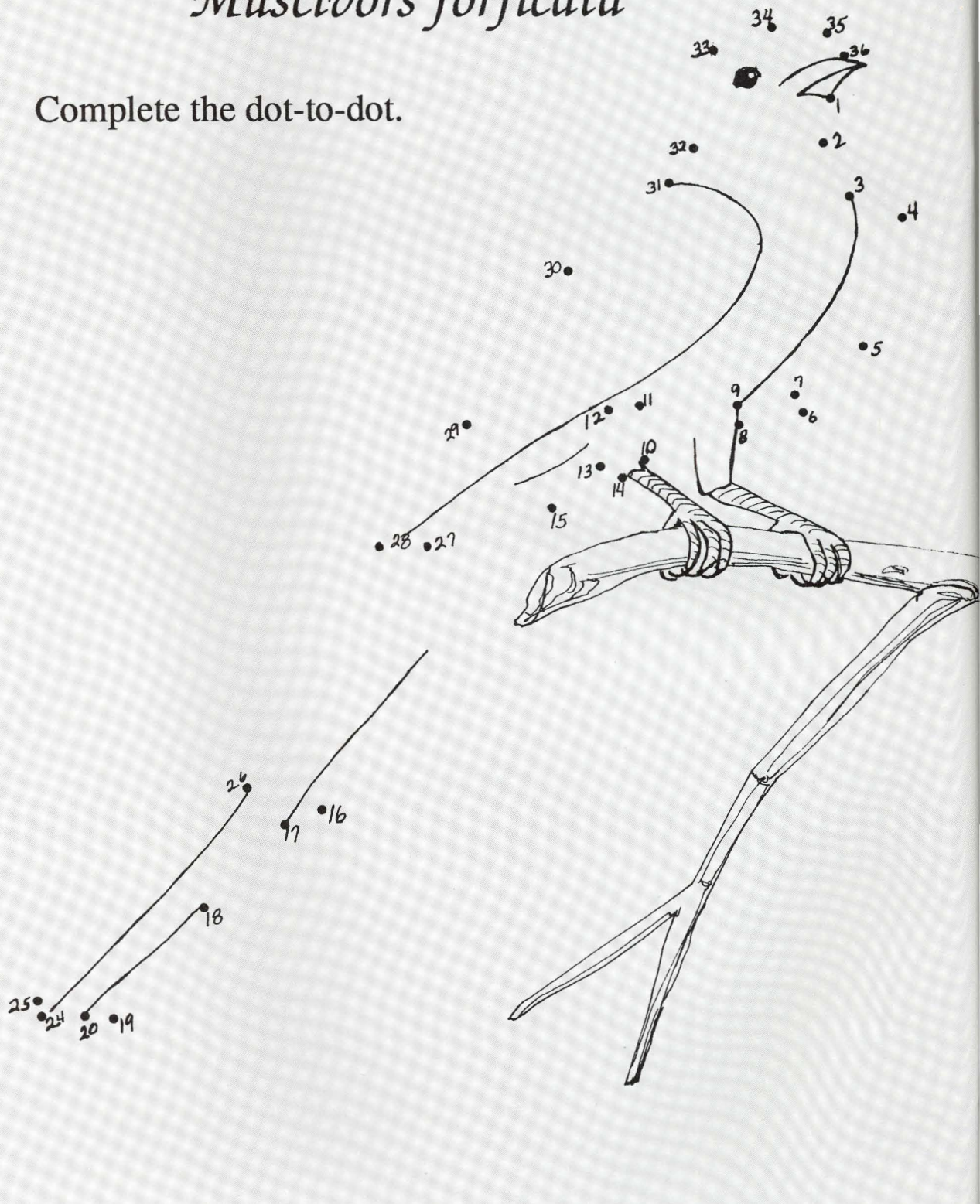
dance" during courtship. It has been described as "an aerial ballet of incomparable grace" (Brandt, 1940). The male will fly about 100 feet in the air and plunge sharply down in a zig-zagging pattern. While in flight, it utters a rolling cackle, like rapid, high-pitched hand clapping, then rises straight up in air and topples over backward in two or three reverse som-

slow down. You might catch a glimpse of this graceful and elegant creature called the scissor-tailed flycatcher.

SCISSOR-TAILED FLYCATCHER

Muscivora forficata

Complete the dot-to-dot.





Gallery

by Mike Blair

Previous: Oak leaf, 105mm lens, f/11 @ 1/125 **Right:** Ninnescah River, 55mm lens, f/16 @ 1/30 **Far right:** Doe on Turkey Creek, 600mm lens, f/5.6 @ 1/250 **Far right below:** White oak leaves, 105mm lens, f/8 @ 1/125 **Below:** Barber County sumac, 24mm lens, f/22 @ 1/30.







Stillhunting: The Toughest Challenge

text and photos by Mike Blair
staff photographer



Few hunters have the skill and patience to stillhunt successfully, but the author's buck pictured at right is one of his most memorable.



The oak ridge held my last hope for a chance at Crookedfoot. Three times during the 1971 archery deer season, the 14-point whitetail had passed my treestand without offering a shot. Now I gambled the last few hours of the season that the deer with the twisted hoof would come here to feed on acorns. In a steady drizzle, I made my final bid, stillhunting.

Less than 30 minutes of shooting time remained as I leaned against a tree in the rain-soaked woods. It was an unusual day for the end of December, warm and pattering. Lulled by the sounds, I reminisced experiences of the past three months. I considered the drenching, three-hour stalk that finally brought me to this secret place. Nearly defeated, I watched the light grow dim.

Then suddenly, he was there.

The huge buck appeared from behind a tree, slowly feeding just 35 yards away. He quartered over a slight rise, providing a perfect final stalk in the noiseless leaves. Shaking with excitement, I rushed up the incline and prepared to shoot . . . the woods erupted with deer.

For an instant, the massive antlers of Crookedfoot were framed in the fork of a tree as he stared at me across 20 yards. Then he was gone, and darkness crashed to earth like a heavy weight. It was a lesson in carelessness I've never forgotten.

Since that thrilling moment, stillhunting has held a special fascination for me; the quest to arrow a buck at ground level, on the deer's own terms. When stillhunting, a hunter moves, makes noise and deals with tattletale winds. Deer are keenly

aware of their immediate surroundings, and they're hard to get close to. A successful stillhunt is the pinnacle of deer hunting accomplishment.

Stillhunting is a confusing term, since it implies being still. It actually employs a studied travel through cover. It is not a hike with a weapon. Neither is it spot-and-stalk hunting, though stalking may be part of the final process. It could be considered a moving stand, since it involves more time spent watching than moving. Even so, mobility is its key advantage.

Rate of travel varies with local conditions. In average timber, 100 yards per hour is a normal pace. The hunter takes a few careful steps and watches for several minutes before moving on. Perspective changes with each step, and it's not unusual for a seemingly vacant woodland to suddenly produce a deer at point-blank range. It's important to concentrate and never give up.

Years ago, a bowhunting friend of mine spent nearly a day sneaking through the woodlot home of a big buck. After hours of tedious work, he was nearly back to his truck. In the last 50 yards of cover, he gave up and started walking out. The buck jumped from its bed just seconds later.

Many factors affect stillhunting success. Deer population, weather, ground cover and hunter experience all are important elements. Deer have time and knowledge of surroundings on their side. Stillhunting is a low-odds proposition, so, depending on available hunting time and your stalking skills, it's wise to be satisfied with any good opportu-

nity. If you're serious about taking big bucks, archery stillhunting may not be the choice method.

But it is always exciting. One morning last fall, I stillhunted through creekbottom timber, moving slowly upwind along a deer trail. Trails often provide the easiest routes for stillhunters, since they skirt the heaviest cover and provide quite walking. Soon, I spotted a 10-point buck coming my way and carefully moved 30 yards to a point of interception. When the buck walked behind a cottonwood, I came to full draw and followed the deer as it stepped into the open 18 yards away. The sight pin was steady behind its shoulder, but I didn't shoot since I was hunting a particular buck. Even so, it was a thrilling moment, and a deer I could be proud of. That experience meant more than a dozen bucks I later passed from a treestand.

As with all deer hunting, stillhunting requires a thorough knowledge of the hunting area. Scout to find preferred feeding areas, trails and bedding grounds, and relate these to prevailing wind directions and thermal patterns. Choose stillhunting routes that place you in the most productive zones *while deer are moving*. The reason is simple. You must see deer before they see you. When deer are preoccupied with feeding, travelling or rutting, their attentions are distracted. At the same time, they are in motion and are easier to see. The time for stillhunting is when deer are on the move.

Yet many hunters take a stand during the morning and evening periods, then stillhunt during midday when deer are bedded. Bucks often choose bedding sites that afford a commanding view of surroundings, are protected by thermals and are approachable only through thick, noisy cover. Additionally, bedded bucks are hard to see in timber. In typical fall weather, hunting bedded deer is a poor idea.

Windstorms are an exception. When winds exceeding 30 mph rock the timber, deer seek sheltered canyons. The wind covers hunter noise, and the tremendous woodland motion conceals hunter movement. Scenting conditions are also difficult for deer; providing another hunter advantage. Even so, seeing bedded



Stillhunting not only requires the hunter to learn patience and stealth, but also the ability to see deer. Did you spot the doe in the left-center of this photograph? Look for parts of deer rather than the whole body.

deer requires a particularly sharp eye. Bucks tend to nestle against brushpiles, vines or downed limbs that form a strong triangle above the bed. Search these locations carefully with binoculars for ear tips or antlers.

The hardest part of stillhunting is learning to see deer. Even moving deer can be hard to spot in shadows. Seldom is a whole animal noticed; instead, there is some small aberration in the scene — a patch of brown hide, the horizontal line of a deer's back, or the tilt of an antler. Binoculars are invaluable in confirming out-of-place details among trees and vegetation. The key to seeing deer is patience and concentration.

The flip side of seeing deer is avoiding being seen. This is easy to do once you spot an animal and can monitor its actions. Move while a deer is feeding or looking away, and freeze when it checks its surroundings. But be careful to use slow, fluid movements, since deer are good at detecting peripheral motion.

Once a quarry is spotted, be wary of unseen deer. *Always* scan carefully for additional animals, since they invariably ruin your plans. A doe is typically in the company of other deer, and bucks may travel together as well. During the rut, beware of a standing buck; usually, a doe is bed-

ded nearby. Watch the animal carefully during the final stalk, and it may show you the other deer by occasionally looking in their direction.

Knowing deer body language is a critical part of stillhunting. The attitude of a sighted animal often dictates your next move. Relaxed deer swivel their ears in various directions, listening to woodland sounds. If a deer cocks an ear backwards frequently, it's probably keeping track of an unseen deer behind it. But when a deer cups both ears toward a sound, it is alerted to possible danger.

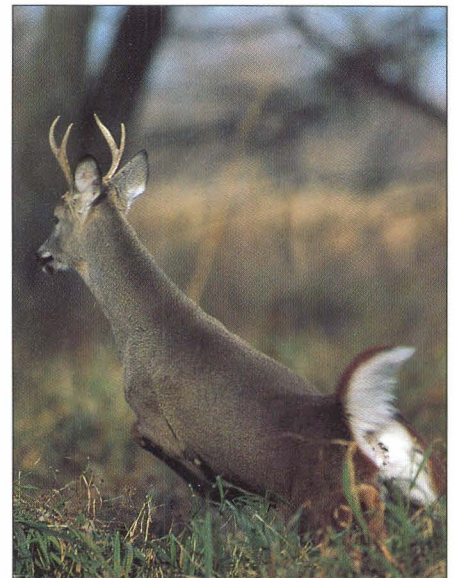
An unalarmed, feeding deer usually signals its next move by switching its tail. Stop moving when you see this, because the deer will raise its head to look for danger as it walks.

Tail positions can be telling as well. If a small buck holds its tail clamped against its legs, there is likely a larger buck nearby. Dominant bucks usually carry their tails at half-mast in the presence of other bucks. If a doe consistently wags its tail at half-mast, it is in estrus and may lure a buck at any time. Watch for behavior that signals another deer is trailing.

Alarmed deer give characteristic signs, including hoof-stamping and head-bobbing. If a deer stamps its

front hoof while staring your direction, it's signalling possible trouble to other deer and trying to solicit your further movement. Often it will drop its head to feign disinterest, before jerking upright to try to catch you in motion. Stand perfectly still during these behaviors.

If the deer throws its head back and cocks its ears backward, the jig is up. It will probably turn away for



Hurry, snap a twig or forget the wind direction and you'll be treated to this sight.



Wait until the deer's head is down and its attention diverted before you move. The deer's body language often forecasts its next movement.

several nervous steps before breaking into a full run. It's decision time. If you have a good shot, it's now or never. If the shot's not there, don't force it.

Camouflage clothing is a must for the stillhunter. Choose a bold, contrasting camo pattern that breaks your outline. Many patterns disappear at a distance in dim light, becoming a dark suit of clothes. These are fine for treestand hunting, but are poor choices for stillhunting.

Human skin shines in the woods, so always wear face and hand camo. Face paint or burnt cork can do the job, but require cleanup. Face masks are an easier solution. However, be sure to practice shooting with them, since the eyeholes may interfere with your normal sight picture.

Use concealment as well as camouflage when stillhunting. Stay near cover and move from tree to tree. In semi-open areas, plan your route so the sun is behind you from the animal's perspective. Don't cross woodland openings where your body shape will be identifiable. And don't walk along ridges or field edges where you'll be skylighted against an

open background.

Deer have excellent eyesight for motion but don't resolve well on a stationary object. Their eyes are packed with rods that are sensitive to movement, especially in dim light. Move in slow, fluid motions that do not attract attention, and try to avoid contortionist situations you might be forced to stay in if you're spotted. They can be painful.

One fall, I spotted a *big* 10-point chasing a forklhorn around a creek-bottom. Knowing this probably meant a doe was nearby, I took advantage of the deer's preoccupation and ran down a fenceline to within 60 yards of the deer. The big buck stopped and quartered my direction, while the smaller deer headed into the brush.

I duck-walked 20 yards closer down a slight depression, keeping my bow ready. Suddenly, he caught my movement and went on full alert. As usual, I was pinned in an uncomfortable position and couldn't move without detection. So, I waited until pure agony set in. Finally, the deer turned away and walked behind a cedar tree. I started under the fence,

spooked a bedded doe, and blew another reasonably good chance. But patience had won out.

Deer see lateral motion better than head-on motion. Because of this, move directly at your quarry. A few years ago on a rainy afternoon, I sneaked up on a bedded doe. She was 50 yards away, lying broadside and facing me in an open woodland. A few trees provided cover, but nearly all the stalk was within her view. By moving very slowly and directly at the deer, I got within 10 yards before raising my bow. The stalk took me directly through two thickets of skunkbrush. Had I stepped sideways to go around them, the doe would certainly have seen me, for its eyes never turned away.

Best stillhunting conditions occur after a rain, when the ground is soaked. A soft snow is also good, though muffled footsteps can be heard as the snow packs under foot. Windy conditions also help cover a hunter's noise.

Dry leaves and twigs can be troublesome. In fact, they often dictate other hunting methods. But during the rutting frenzy, it's amazing how oblivious deer can be to the sounds of a hunter. Choose the quietest routes possible, such as dry creekbeds or rocky areas, and stay close to travelways. This will bring deer to you. And keep an eye on the squirrels — if they ignore you, so will the deer.

You can be surprisingly quiet on dry leaves by rolling your foot downward, rather than stepping flat-footed. Place your toe into the leaves, and gradually lower your foot until it supports your weight. If you feel a stick as you step down, reverse the weight and move your foot to another spot. The sound of a popping stick will attract immediate attention.

If you break a stick while stillhunting, simply wait awhile before moving again. Animals quickly relax if the sound is not repeated. If your quarry is in sight when you break a twig, watch its reaction and move again only when relaxed activity resumes. As stated before, *be patient*.

How patient? I ran an interesting experiment late one summer while bowhunting jackrabbits in a Christmas tree plantation. (Small game hunts are excellent practice for still-

hunting deer.) As I worked through the cover, I jumped a muley buck. Knowing the deer would stop to see what spooked it, I ran at once to one side and hid in the trees.

As expected, the deer soon turned and studied its backtrail while I began a stalk. When only 25 yards separated us among the pines, I suddenly popped a stick. The buck jerked its head my way, and I could see the top of a velvet antler turned my direction.

I punched the timer on my watch and waited unseen. Twenty-one minutes passed before the antler dropped from sight! The buck was satisfied that danger had passed and slowly walked off. Five minutes later, I went through the motions of drawing an arrow as the deer fed in the open only 20 yards away.

If you scare a deer while stillhunting, don't give up. Sometimes you can loop ahead of the same animal and get another chance. White-tailed deer tend to circle away from danger,

sticking to the same contours in hill country, or the same cover type in flat ground. Make the right guess with your stillhunting techniques, and it's possible to fill your tag.


My largest buck fell to this routine several years ago in a tremendous windstorm. I started stillhunting at 1 p.m. in a series of bedding draws and soon spotted six does. Passing the does unseen, I continued to the last patch of cover.

Suddenly a 10-pointer burst from its bed and disappeared around the mouth of the draw. Realizing he might try to circle behind me, I cut across to the head of an adjacent draw, making no effort to be quiet in the gale. As I dropped into the timber and looked out from behind a tree, the buck charged into the open, watching its backtrail. I nocked an arrow as he continued toward me, and killed the deer with a 12-yard shot.

Archery stillhunters impose the sport's greatest challenge, and should

be realistic in their expectations. Due to the difficulty of stalking deer, hunters should be proficient shooters to a range of 40 yards. Hunting sights and rangefinders are valuable aids in judging tricky field conditions. But nothing can take the place of constant shooting practice in field and woodland.

The challenge of stillhunting requires responsible hunting ethics. Avoid risky shooting situations. A long stalk gone awry doesn't deserve a shot at a fleeing or out-of-range deer. Accept many failures and keep trying.

Honestly, most bucks elude me when I'm on foot. But the deer I've taken this way are by far most memorable. Stillhunting teaches much about deer and woodsmanship. And even in failure, it provides some of hunting's most exciting moments. 



The stillhunter must be satisfied with close encounters because more often than not, the quarry will slip away. But just getting close is exciting while hunting on the deer's own level, and success is a thrilling bonus.

Natural Heat

by Leonard K. Gould
forestry specialist, utilization and marketing
Kansas State University

photos by Mike Blair



Firewood is an available, renewable resource, but responsible harvest is necessary to provide efficient fuel and prevent habitat damage.

Breezes are cooler now; there's a distinct chill in the air. Leaves fall steadily to the ground, and autumn has arrived. Outdoor activities require additional clothing, and a fire in the fireplace is the order of the evening.

Most people are drawn to a wood fire whether for warmth, charm or nostalgia. In the practical sense, many are burning wood to ward off high fuel costs. Whatever the reason, firewood is an important winter commodity in Kansas. But many factors should be considered before buying or cutting a wood fuel supply.

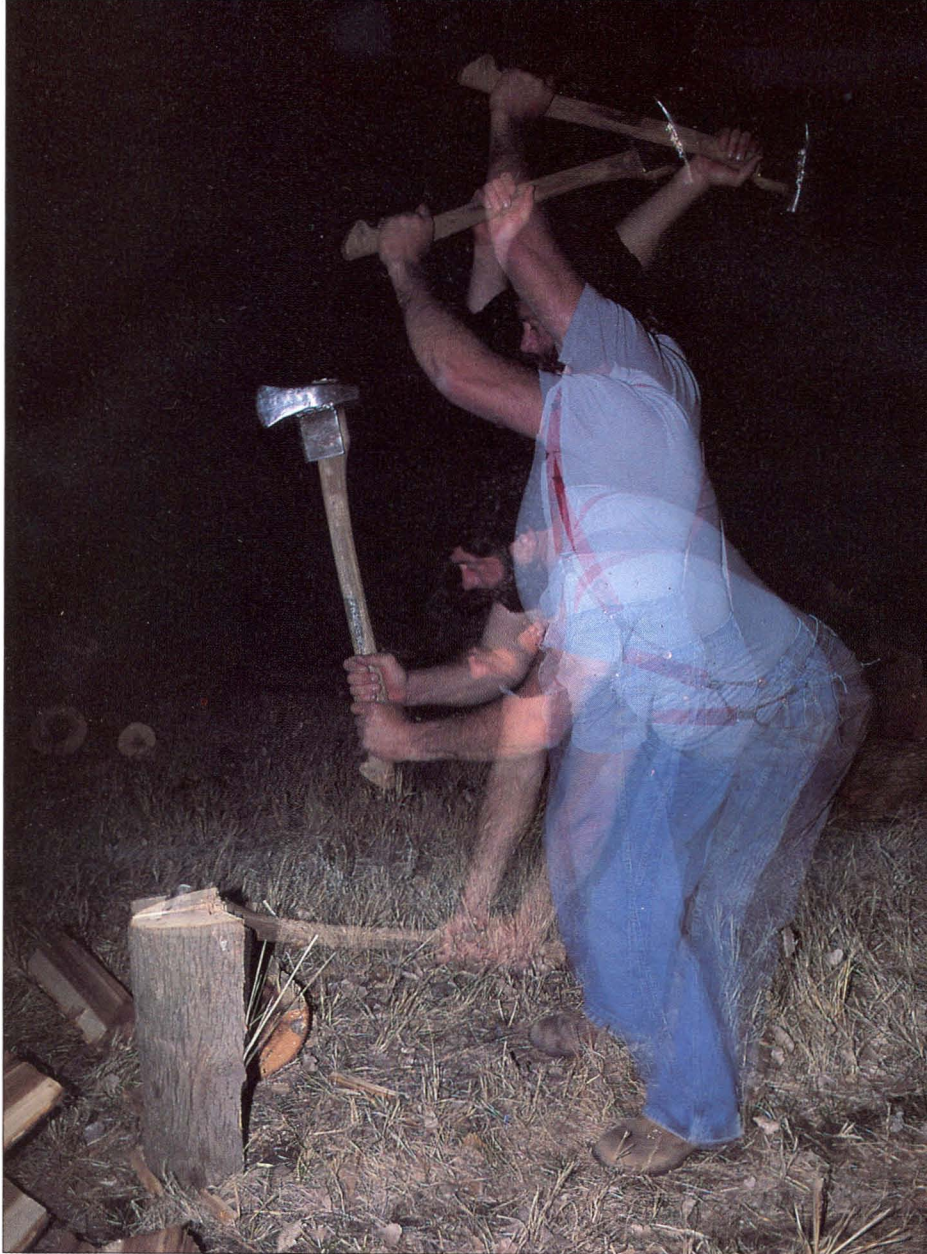
Many types of Kansas trees can supply firewood. Any wood will burn, but the dense, air-dried hardwoods provide the greatest amount of heat. Dense hardwoods are better fuels because they burn slower and contain more usable Btus (British Thermal Units—a standard measurement of heat output) per volume than lighter, less dense hardwoods. These poorer woods burn quickly and leave excessive ash in the firebox.

Kansas' best firewoods include Osage orange (hedge), black locust, hickories, oaks, honeylocust, mulberry and sugar maple. These are all dense, heavy woods. Next best are ash, walnut, Kentucky coffeetree, hackberry, elms and sycamore — rated moderately dense. Least dense and poorest hardwoods include soft maple, catalpa, cottonwood, willow and boxelder.

Softwoods such as pines and red-cedar make poor firewoods due to the high pitch content of the wood. Because of their resins, these woods burn incompletely and cause rapid creosote-tar formation in the flue. This dangerous condition leading to chimney fires should be avoided by burning only well-seasoned hardwoods and periodically inspecting the flue system.

Though relative wood densities are important when choosing firewood species, a mixture of densities can be helpful in building a fire. Lighter woods like ash, elms or even cottonwood split easily and make good kindling. They readily catch fire, and build heat needed to burn the denser, longer-burning firewoods.

Therefore, keep and use light woods to start a small fire in the firebox, and allow it to burn brightly for



Cutting fuel wood is difficult but satisfying work. You can increase the fruits of your labor by selecting efficiently burning woods. Avoid wet soft woods.

15 or 20 minutes. Then stoke the fire with larger pieces of dense hardwoods for the main fuel source.

Besides the inherent densities of different firewoods, fuel value also depends on moisture content. Too much moisture in wood greatly reduces its fuel value. The amount of water in wood is expressed as a percentage of the weight of the wood when it is oven-dry (20 percent moisture).

Some wood species have as much or more water weight when green as the wood itself weighs when oven dry. Green cottonwood, for instance, has up to 140 percent moisture content by weight, meaning it is more water than wood. By comparison,

fresh-cut green ash has only about 55 percent moisture — a far better choice for firewood if drying time is limited. Usually, air drying wood to 20 percent moisture content requires up to nine months and makes wood acceptable for firewood use.

Using green wood for fuel is a bad idea for several reasons. First, it provides only a portion of the potential heat value of the wood. Combustion is incomplete, since most of the heat generated is needed to drive off the water in the wood. This process requires a great deal of energy, and heat from a green fire does not warm the stove or room.

Since combustion is incomplete and the fire is cool, the second prob-

lem of green wood is expressed. Impurities in smoke are deposited in the chimney or stove pipe, causing creosote-tar formation.

Burning dry wood, on the other hand, provides an excellent heat source and can actually help maintain a clean flue system. Analyzing the stages of a dry wood fire shows why this is true.

As the fire starts, temperatures rise to 500 degrees Fahrenheit and a chemical breakdown of wood begins. Volatile matter is vaporized, and these vapors contain roughly half the heat value of the wood. When the fire temperature climbs to 1,100 degrees, these vapors burn. This high temperature must be maintained for maximum efficiency of wood combustion. Following the release of volatile gases, the remaining material is charcoal. Charcoal burns at temperatures exceeding 1,100 degrees.

At these high temperatures, all the heat value of the wood is released (though much of it may be lost up the chimney, depending on the choice and efficiency of your wood burning system). Because combustion is complete, there is little problem with impurities settling out as creosote-tar. Therefore, the value of using dense woods which can maintain high temperatures for extended periods is obvious.

If you plan to buy firewood, be familiar with its terms of measurement. The common measurement used in Kansas is the standard cord. This is a stack of firewood measuring 4 feet wide by four feet long by eight feet tall and contains approximately 80 cubic feet of solid wood.

Confusion arises because many sellers sell by the rick or pickup load. These are imprecise measurements and make it difficult to know exactly what you're paying for.

A rick, or face cord, is always less than a standard cord. How much less depends on the length of the firewood pieces. A face cord of 12-inch pieces (4 feet by 1 foot by 8 feet) would equal only one-fourth of a standard cord. If the firewood pieces are 24 inches long, the face cord would equal one-half a standard cord.

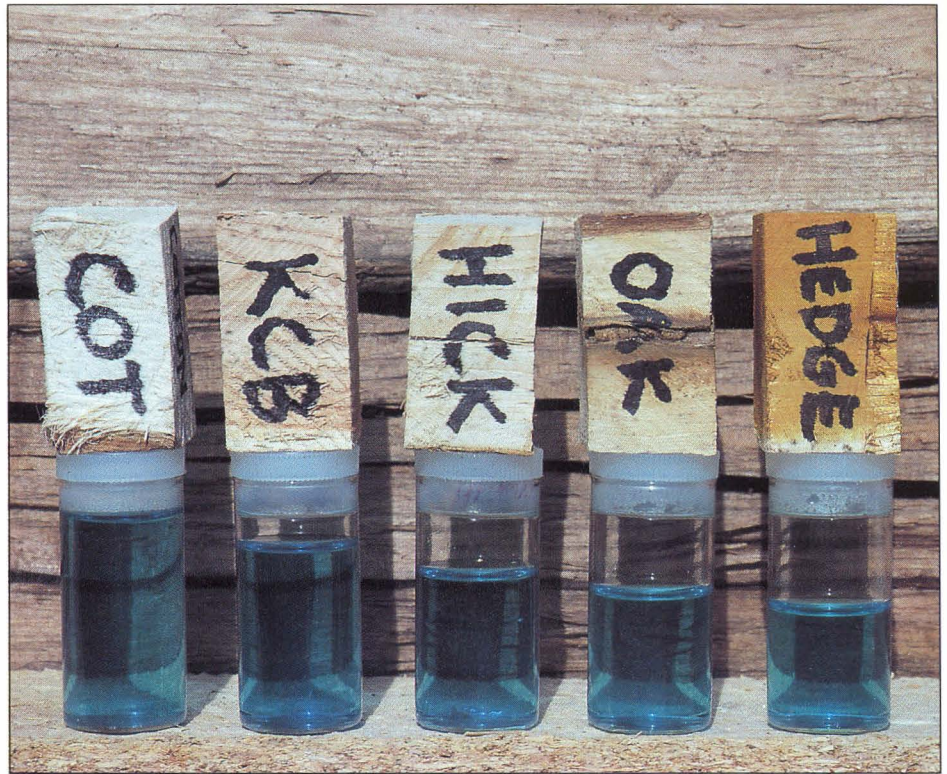
It's almost always best to buy firewood by the standard cord. If the standard cord costs \$120, and a rick of 18-inch pieces costs \$60, you lose

\$15 by purchasing the rick. If you buy the cord, you can check it by measurement, but a rick has no standard by which to check.

If you plan to cut your own firewood, a source will be needed. Almost all Kansas woodlands are privately owned, so that availability of fuelwood depends on getting permission from the landowners. Some wood may be available from public lands, landfills and city tree managers. County extension offices may know of local timber sales or thinnings which provide excellent fuelwood.

Before cutting trees for firewood, consider their potential for growth. Poorly formed, low quality trees are best, since they compete for space with better trees that might someday be logged. Selecting poor trees provides full firewood benefits while improving the woodland resource.

Any firewood cutting can and should include wildlife considerations. Often, firewood thinnings benefit wildlife by stimulating understory growth for browse, nesting habitat and escape cover.



The moisture content of green wood varies. These small, oven-dried woodblocks each yielded the amount of water contained in the corresponding vials. If this water is not removed by air drying, which takes about nine months, heat value is greatly reduced.



Firewood is sold by the cord or rick. A cord is a standard measurement—4 feet by 4 feet by 8 feet. A rick is not a standard measurement, though it is often assumed to be about half a cord. Be careful to get what you pay for.

When blocks of timber are to be harvested for firewood, remember that trees provide dens and food for many kinds of animals. Birds and mammals rely on natural cavities in trees, and at least three den trees (containing visible holes or cavities) should be left in each acre harvested.

Dead trees provide ready-dry wood, and many can be taken for firewood without damaging wildlife habitat. However, a whole complex of insects-birds-predators depends on dead standing trees, so, leave some standing in a firewood thinning.

Leave 20-foot buffer strips of natural timber along all waterways, creeks and pools. This helps prevent erosion from denuded areas uphill, and provides cover at watering sites. Additionally, fish habitat will be maintained by the buffers.

Be conscious of mast production by

trees in a firewood stand. Bearing mulberry trees provide easy energy for nesting birds in spring and summer. Oaks or hackberries provide important food sources through fall and winter. Leave enough mast trees to support nearby wildlife.

Where possible, leave the best of the following species for future timber: black walnut, pecan, bur oak, green ash and hackberry. These are Kansas' common commercial timber trees.

Finally, after cutting firewood, pile limbs into brushpiles to provide shelter for small animals. This improves the wildlife value of a harvested area.

Usually, wood cut one year should be held until the next winter to allow proper drying time. But there is a trick that helps speed the drying time of firewood, if the cutter is willing to work in the heat. After trees are fully

leafed-out in early summer, cutting them during hot, dry periods allows the wilting foliage to work as a pumping system. The dying leaves place tremendous vacuum on water stored in the tree's wood, helping to dry it out. Then during cooler evenings of late summer, the trees can be revisited and bucked into firewood.

Firewood is plentiful in Kansas and fills a necessary need. Whether purchased or cut, it brings warmth to the winter season — warmth to your home and to your life. Used wisely, it benefits wildlife and the entire timber resource.

Editor's note: A number of extension bulletins regarding firewood and wood burning systems are available. Contact your county extension office, or write State and Extension Forestry, Kansas State University, 2610 Claflin Rd., Manhattan, KS 66502. ♡



Consider both woodland and wildlife conservation when harvesting fuel wood. Leave enough mast trees, den trees and dead trees for wildlife, and avoid cutting valuable hardwoods. It's also a good idea to pile limbs into brush piles for small game cover.



Wingshooting Made Easy (almost)

by Gene Brehm
videographer, Pratt

photos by Mike Blair

The swing through method of wingshooting takes much of the guesswork out of leading a moving target and is much easier for beginning shooters to learn.

Every hunter can remember their first successful wingshot. I certainly remember mine. We humans tend to remember those moments of total amazement. I knew it could be done, I had watched my father and two older brothers demonstrate successful wingshooting for years. My father and oldest brother had won their classes at the Kansas State Trap Shoot just months before my eventful day. But the human mind needs experiences of it's own to work on; to build the confidence necessary for success.

My first day of hunting with a shotgun must be considered a banner day. I carried a single-shot .410, a gun that would challenge my skills today. My first opportunity came on a mallard duck flushed from our farm pond. My father and two older brothers crawled with me to the pond's edge. Before we got too close, I received those crucial last minute

instructions.

“Remember, the ducks will be climbing off of the water, so shoot above them!” We edged to the crest of the pond’s dam and a pair of mallards flushed. I can actually remember the scene. At my gun’s report, a duck folded. One of my brothers retrieved the bird as I danced around on the pond’s dam. A rush of confidence overcame me. My first attempt at wing shooting, and I had been successful! My boasting was surely unbearable.

My father, having been through this with two sons before, was quick with a cure. He called it quail hunting. A short drive to the Red Hills and the four of us were soon wading through sandhill plum thickets and little bluestem grass. I did lots of shooting, and coaching came from all sides. “You’ve got to lead them!”

“Don’t shoot so fast! Take time to aim.”

“Now you’re taking too much time, that bird was out of range before you shot!”

By the time we started our swing back toward the pickup truck, I was totally confused and very worn out. If I hadn’t been two boxes of shells lighter, I would have needed a rest stop. I was thinking about specializ-

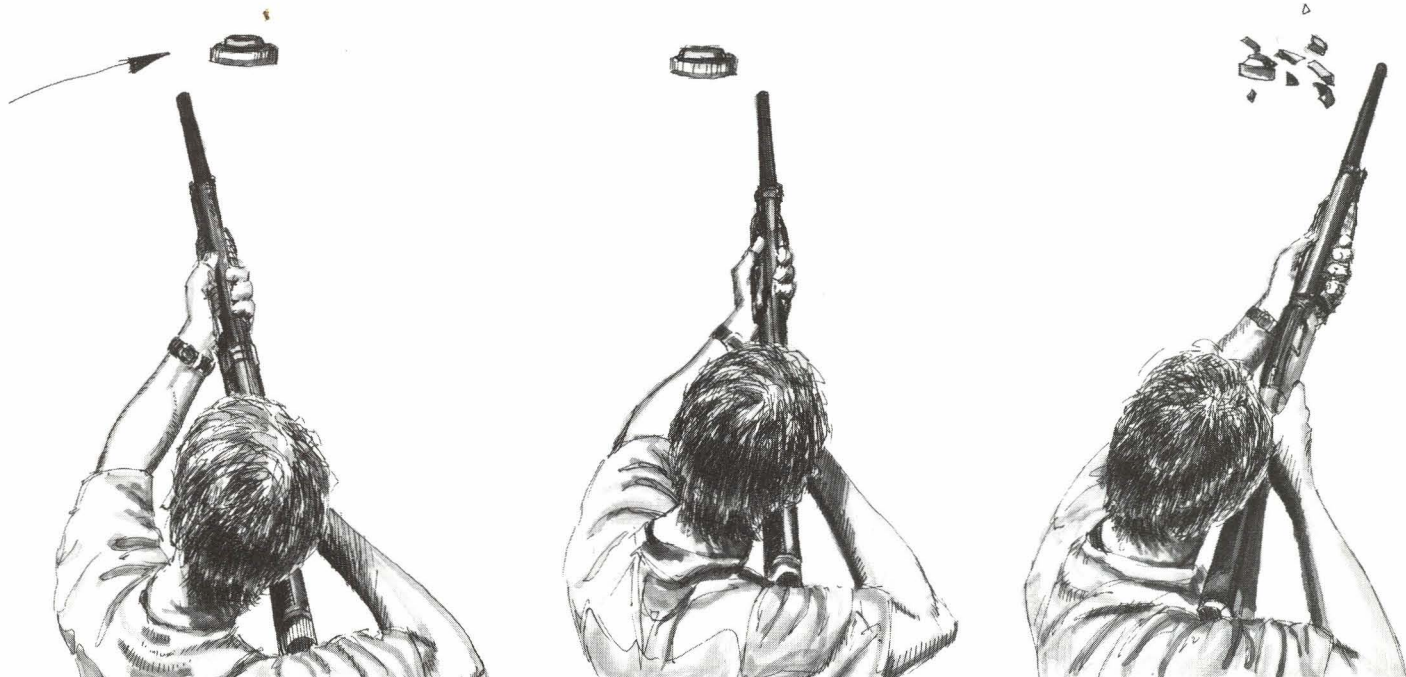
ing in duck hunting when a covey flushed 50 yards to my right. A single male bobwhite crossed in front of me and I swung on the bird. I mentally calculated the necessary lead, and when the gun’s barrel seemed about right, I pressed the trigger. The bird dropped. There was no celebration dance. I’d learned that lesson, yet I was certainly pleased.

It should be elementary to even beginning shooters that to hit a moving target, a gunner must fire at a zone ahead of the target. It takes time for the shot to get to the target. The flying target will travel some distance in the air before the shot arrives. Because of this fact, the shooter must fire at a spot in front of the target. Doing this consistently is the art of wingshooting.

Today, I realize that the technique used on my first quail was poor. In fact, most of the birds I shot over the next two decades were bagged with a less than desirable technique, known as *sustained lead*. Imagine a dove crossing in front of you at 25 yards. With the sustained lead method, you raise the shotgun and swing the barrel in front of the dove. If the desired lead is 4 to 5 feet, you swing with the bird trying to maintain that lead for several seconds and

then pull the trigger.

Certainly, sustained lead is the most common method of shooting among self-taught or non-professionally taught shooters. And although the method often works, it is not the best for beginners. The method now taught by professional wingshooting instructors is called the *swing through method*. A shooter trying to harvest that same dove would wait to shoulder the gun until the bird was within range. When the gun was shouldered, the line of sight down the gun barrel should be behind the bird. In one fluid motion, the gun is swung smoothly, catching and passing the bird. The moment the shooter realizes the barrel is passing the bird, the trigger is pulled (not squeezed, or jerked). As long as the swing continues at the same speed after the shot, the shot will be accurate. This method is much easier for beginning shooters to learn. Since the gun is being swung faster than the dove is flying (remember, you started behind the dove and had to swing past it), the momentum of the swing automatically establishes a lead. A moment of time actually passes from when the brain realizes that the bird is being passed and the trigger is pulled. This moment is usu-



START BARREL BEHIND TARGET.

SWING THROUGH AND PRESS TRIGGER AS TARGET IS PASSED.

CONTINUE SWING AFTER THE SHOT.

ally enough to establish the necessary lead. With practice, shooters will learn to pass distant targets more than close targets.

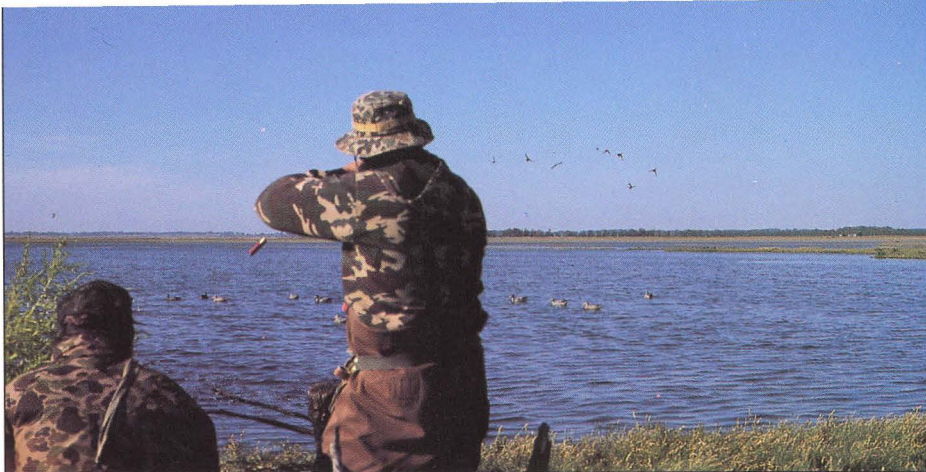
The greatest advantage of this method of wing shooting is that it is easily learned by beginning shooters. All National Rifle Association certified instructors teach this method. The consensus is that beginning shooters don't need to deal with the concept of lead when using the swing through technique. As long as the swing is not stopped or slowed, lead is a guaranteed result.

There are other important elements to teaching basic wingshooting, especially for youngsters. Foremost, the gun must fit the shooter. At the shooting clinics I have attended, the greatest obstacle most young shooters must overcome is a shotgun too large for them to handle. Since a shotgun can be expensive, parents often try to purchase a gun the youth can grow into. I think this is a grave mistake. A parent would never make a little leaguer learn to hit with a big leaguer's bat. The same is true with shotguns and wingshooting.

Look for a used gun that fits properly or can be modified to fit and is light enough for the child to handle. If a used gun isn't available, borrow one or find a way to finance a new shotgun. A 20-gauge is ideal for most youngster, although some may be able to handle a 12-gauge. A .410-gauge, with its small pattern is frustrating to learn with and not advised.

Barrel length and choke should also be considered. Most new shotguns come with several screw-in chokes. If the gun does not have this option, choose a model with an improved cylinder choke. This wide-patterning choke is excellent for quail and dove hunting. When a tighter pattern is desired, simply change to steel shot. The new steel shot loads shoot a much tighter pattern than do traditional lead loads and perform superbly when fired from improved cylinder barrels. Barrel length should not exceed 26 inches.

One final factor should be considered before a gun is purchased. Determine the child's master, or dominant eye. We all have one eye that tends to dominate the other. It is crucial that a shooter looks down



Learning the swing through method will make you a better wingshot. The key is proper technique and practice, practice and more practice.


the barrel with his or her master eye. Right-handed people are not necessarily right-eyed. Determining the master eye is simple. Go outside and pick out an object on the horizon. A tree or power pole will work fine. Face squarely toward the selected object and hold one hand at arm's length. Both eyes should be wide open. Line the thumb up (as if it were a rifle sight) with the selected object on the horizon. Now close your left eye. If your thumb is still lined up with the object, your right eye is dominant. If your thumb seemed to jump to the left, your left eye is dominant.

Once the master eye is determined, the youth should always shoot from the shoulder corresponding to that eye. Unlike aiming a rifle, both eyes are kept open when shooting a shotgun. This allows better peripheral vision and is safer.

Wingshooting takes practice. Any of the clay target sports help train the mind and body for the reactions necessary to be a consistent shooter. The relatively new sport called sporting clays may be the very best practice for hunting. Skeet comes in a close second. With a young shooter trying to develop confidence, shooting over a portable trap is a great way to learn. This type of practice can be done in the presence of only the parent or coach without competition. Without the fear of failure in front of others, the child will learn more quickly and is more easily coached. Parents should remember not to expect too much. Patience is always rewarded when working with young people. However, you must be firm about teaching the swing through method and on instructing

the child to shoot using his or her master eye.

Certain field shots can be particularly troublesome for young shooters. Even experienced pheasant hunters have been victims of the "blocker's overhead shot". This shot comes while blocking the end of a field as others walk it. A rooster flushes several hundred yards away and flies at top speed toward the blocker. As everyone watches, the blocker usually empties his gun and misses the incoming, overhead shot. This total humiliation can be avoided by using the swing through method. Simply wait until the pheasant is within range, nearing a ten o'clock angle. Then quickly shoulder your shotgun so the bird can be seen above the barrel. In a continuation of that same motion, swing quickly, catching and covering the bird with your barrel at an eleven o'clock angle. As the barrel covers the bird from sight, pull the trigger while continuing the swing. If you do not slow or stop your swing as the trigger is pulled, a proper lead should be established. Your fellow hunters will be amazed. Common sense and experience will teach a shooter to delay the trigger just an instant on longer shots, allowing for more lead.

Kansas is a great place to apply the art of wingshooting. No other state offers a better variety of upland bird hunting opportunities. Start preparation before the bird seasons this year. Get a box of clay targets and practice the swing through method. Or better yet, visit the local gun club or sporting clays range and get some instruction from a professional. You'll be glad you did when opening day arrives. 



by Mike Blair

A King James Deer Hunt

Editor's Note: The King James style of writing, best known in its biblical usage, is considered one of the most beautiful forms of the English language. For fun, photographer Mike Blair describes his typical deer hunt in this style.

And it came to pass in those days, while the leaves were yet on the trees and the new moon was in the heavens, that a certain man name E'-kim the Nasnak took up his weapon and prepared himself for a long journey.

For he remembered the scriptures concerning Isaac, how he said, "Take therefore thy bow and thy quiver, and go to the field, and take me some venison."

And on the morning of the third day, while it was yet dark, he made haste to go to a place he had chosen, and there did await the coming of day.

And while he yet waited, behold, a light came out of the darkness, and a chief officer of the king required of him, saying, "What doest thou with thy weapon, waiting as a fowler for an unwitting bird?"

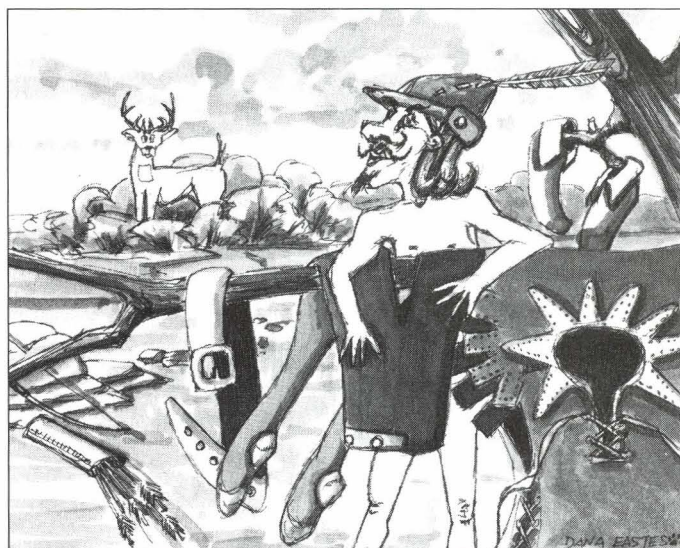
And the Nasnak answered, "By authority of the king do I this thing, to wait on the hart: that there might be meat in mine house." And seeing the king's seal, the officer held his peace and continued on.

But the thing troubled E'-kim, for he reasoned his quarry was made wise by virtue of the meeting. Therefore moved he yet to another place, where his hand could move in secret, that he might have meat.

Now as he went he came to a certain brook, and passed over upon a log. And while he was yet in the middle, the log broke in sunder, and the water came up about his loins. And an evil thought befell him, and he shouted a mighty shout. Yet in all his weapons remained dry.

And it came to pass as he dried himself he was naked before the Lord. And he laid his bow and quiver upon a rock, and went a short way off to dry his garment. And as he girded himself, behold, a hart appeared in a nearby thicket. Yet his weapon out of his hand, and the hart escapeth. And so the Nasnak was wroth.

And by and by, as the day grew long and E'-kim hungered, he gathered the firstfruits of wild persimmons and



Dana Eastes illustration

sat to rest. And as he did eat, he was sore displeased, for the fruit of the trees became as bitter herbs in his mouth.

And he stopped by the brook to drink, but was unable, for the water was muddy. And again he was sore displeased.

And the countenance of the Nasnak was changed by the fruit that became bitter, and the log that broke in sunder, and the hart that escapeth. And he took a vow that no hart, whether great or small, would pass his arrows in safety; thus was his countenance changed.

And he climbed a sycamore and waited in secret, along the brook were the hart abideth. But they, being warned of a peculiar odor, departed by a different way.

And thus did E'-kim remain an hungered.



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