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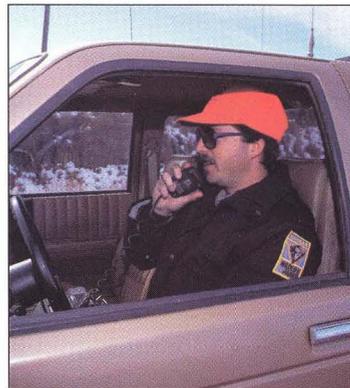
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About the Covers

Front: Flaps and gear down, a wigeon drake lands in front of Mike Blair's January photo blind. Blair used a 600mm lens set at f/5.6, @ 1/500 to freeze the action. **Back cover:** A white-tailed buck brings a moment of majesty to the November woods. Mike Blair rattled the deer to his 400mm lens, then photographed the buck at f/11, @ 1/125.

THE BUCK STOPS HERE

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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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Inherited Advantage

It's nearly 10 years since Grandad died, but I miss him most each November. I was 12 when Dad bought me a 20 gauge shotgun and we started pheasant hunting. I had always been mysteriously drawn to hunting, even though I spent my first 11 years living in large city suburbs. When we moved to a small town in southcentral Kansas, pheasant hunting was a natural fall pastime. Dad and I hunted nearly every weekend that first season, and even though I never shot a bird, I awoke each Saturday morning excited as a six-month-old Brittany puppy on its first hunt.

Grandad had retired to Colorado, but he was born and raised here and knew the Kansas land and wildlife. He came to visit during my second pheasant season, and I'll never forget it. Grandad taught me about hunting and about pheasants. To this day, I never pass a fence row or tree belt without craning my neck to look along the back side. "That's a good place to see pheasants," he said. Those were precious times; a young boy and his grandfather driving to another field on a cold winter day. Grandad would point to an old farmstead and remember who used to live there, and, more often than not, he would have some humorous story about the man he knew. Or he would tell me stories I enjoyed even more about my Dad and him farming the land or working cattle.

Grandad told of great flocks of ducks and geese that he and Archy Neelly hunted; or how the land had changed and how farming had changed since the 1950s. Suddenly, Grandad would point to the ditch to show me a hiding rooster. I'd look and look, but rarely saw the bird. "Just get out and walk along the ditch towards that old fence post," he'd say patiently.

I remember coming home from school one afternoon and Grandad thought we'd have time for a short hunt. We drove to a strip of milo stubble. I wasn't optimistic about just the two of us getting birds up in the stubble. I had always hunted these fields with larger groups, and even then, the birds would often run out the sides or ends. But Grandad said that we could start at either end and walk toward each other. That way the birds would be confused and flush between us. And sure enough, it worked. I shot one of my first pheasants that evening. I was watching Grandad walk toward me, making sure I knew where he was and where it would be safe to shoot, when a rooster flushed nearly at my feet. Flustered, I threw my gun to my shoulder, and the butt plate slipped

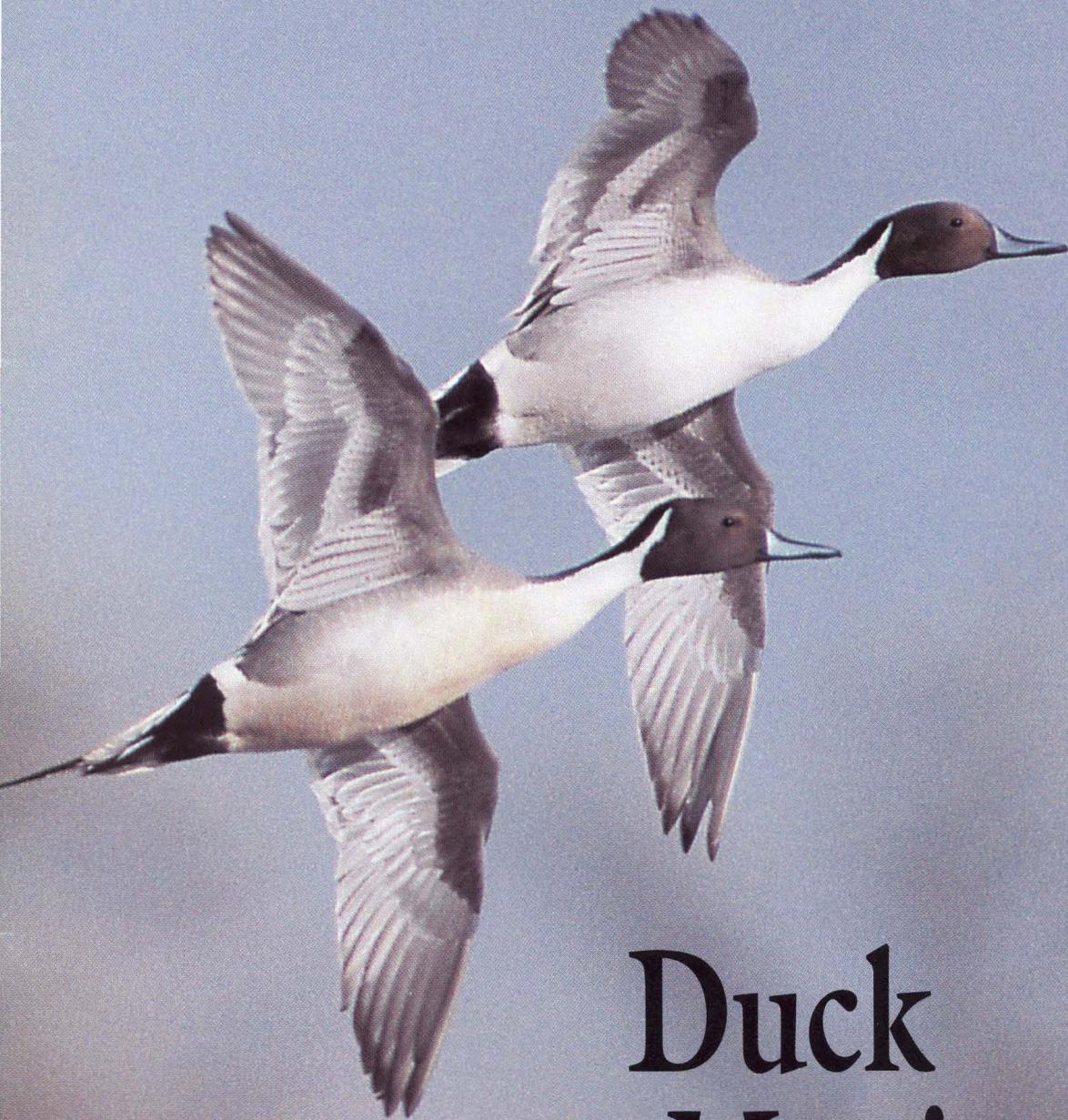


clear above my arm. I pulled it back down and shot quickly, but missed. Grandad just smiled and kept walking. In ten more steps, another rooster flushed and swung around to fly behind me. I whirled on the bird, fired and cleanly dropped it. I was ecstatic. Grandad came up grinning and telling me what a tough shot that was, that he rarely made that shot because it was so hard. I beamed. I remember it like it was yesterday.

I would have hunted with or without Grandad. But having a grandfather like mine gave me an advantage over those less fortunate. Not only did he teach me about hunting and the outdoors, but the time he spent with me gave me a solid base of enjoyable experiences that I've built on. To me, hunting is synonymous with pleasure and spending time with family or good friends. Each time I'm in the field, Grandad's influence affects me. I guess realizing that made me see just how important passing on the heritage of hunting is. Without my father's and grandfather's influence, hunting may have been merely a passing hobby. But with the strong positive guidance I received, hunting and the outdoors are and always will be major factors in my life.

Mike Miller
Editor





Duck Magic

text and photos by Mike Blair
staff photographer

Pintail



Shoveler

There, at the heart of man's yearning for adventure, lies a kinship with ducks. Any waterfowler understands it — the reason to wait for hours in freezing rain, listening through sleet on cattails for the sound of wings, while a civil world sits by the fire.

Or, in another season, to maintain a lonely marsh-watch for the birds of spring, ducks in handsome colors too restless to linger in the face of withering northern fronts. Never mind mosquitoes and deer flies; spring flights never wait for the timid.



Redhead



Mallard



Green-winged teal

For too soon, ducks are gone, carried on strong wings. Wings are the essence of flight, and flight, of travel. Where men wish to go, ducks go; far to the north to escape the summer's heat; back to the south when the steel of winter is forged.

Riding the wind, ducks move at will, unbound by earth, unquenched by schedule. Men see it and dream.

I dream. I watch these creatures, climbing and sliding through halls of air, wondering what they know. I muse the thrill of unseen current through pinions, the gravities of rapid descent. The splash of the takeoff, and the tiring strokes of the climb.

Flight. Fifteen wingbeats per second that yield escape from earth and climate and speak of seasons. There is wildness in it.

I envy them, ducks in flight. To go along would quell certain wishes, but it shall never be. For now, to see and admire is sufficient . . .



Mallard



Pintail



Wood duck

The sound of wind on wing is vitality itself, breaking the dull spell of an empty sky. The scene has come alive. Ducks are descending, air rushing through wingtips as they spin to earth and water.

Water erupts as ducks take wing; vaulting dabblers shower the air, while running divers leave trails of miniature geysers.



Green-winged teal



Wigeon

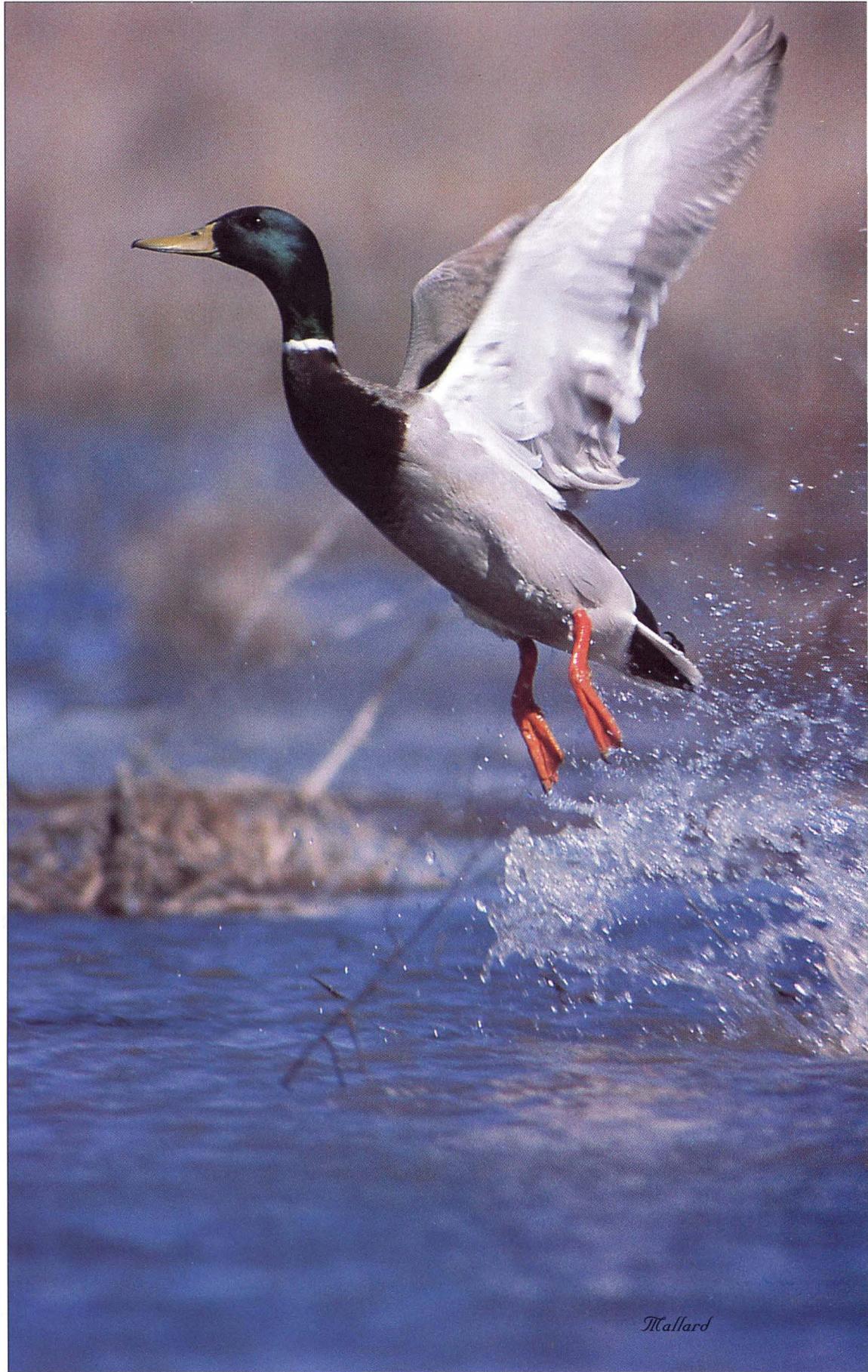
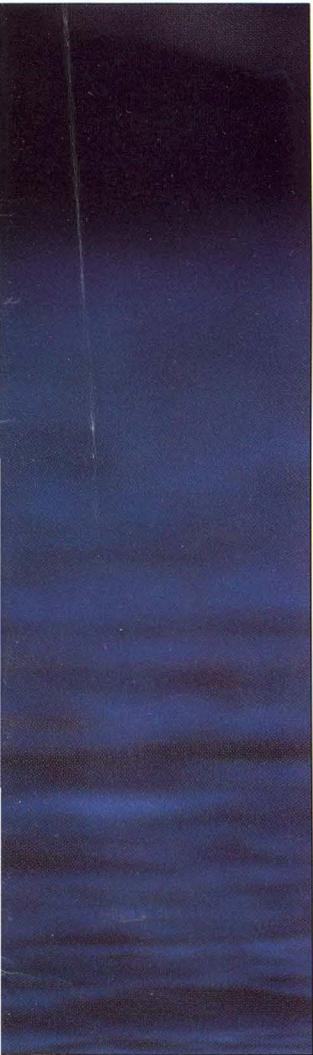


Bufflehead



Common merganser

It's a lovely thing, this hurtling of ducks in shifting formation. One senses their control, the pleasure they must feel battling the resistance of the air, as a man might feel balancing and bracing against the forces of a fast turn on water skis.



Mallard



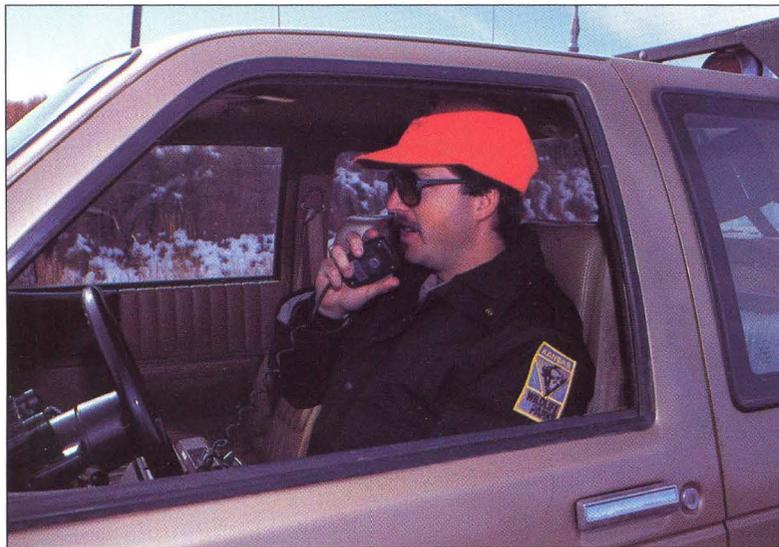


Mallard

Who Needs Dick Tracy?

by Mark Shoup
associate editor

photos by Mike Blair



Conservation officers must constantly find and develop new enforcement techniques to keep up with poachers. But being a CO entails much more than merely law enforcement.

You're driving the roads at night, 50 miles from nowhere, thinking perhaps you might get the chance to put a little meat in the freezer. You round a curve in the rocky dirt road and catch the reflection of eyes 100 yards in the field ahead. Carefully pulling to a stop, you cut the engine, slip your rifle out the window and turn your spotlight to the field. There it is, a beautiful 10-point buck. He's in your scope. Perfect, you think, but you wait a moment just to be sure. The deer

turns its head away from the light, then back. In the clear, you think, and squeeze off a round. The buck doesn't move. Missed! you think. Still in the clear, you think. Wrong, on both counts.

You've walked a half mile in the dark and sat in the bushes beside the low water dam for two hours. You haven't seen a soul, and it's a pitch black night, no moon at all. You rig a 12/0 treble hook two feet above a two-ounce weight and begin casting your surf rig. It won't be long before

you hook a big flathead, and you're in the clear. Wrong, at least on the second count.

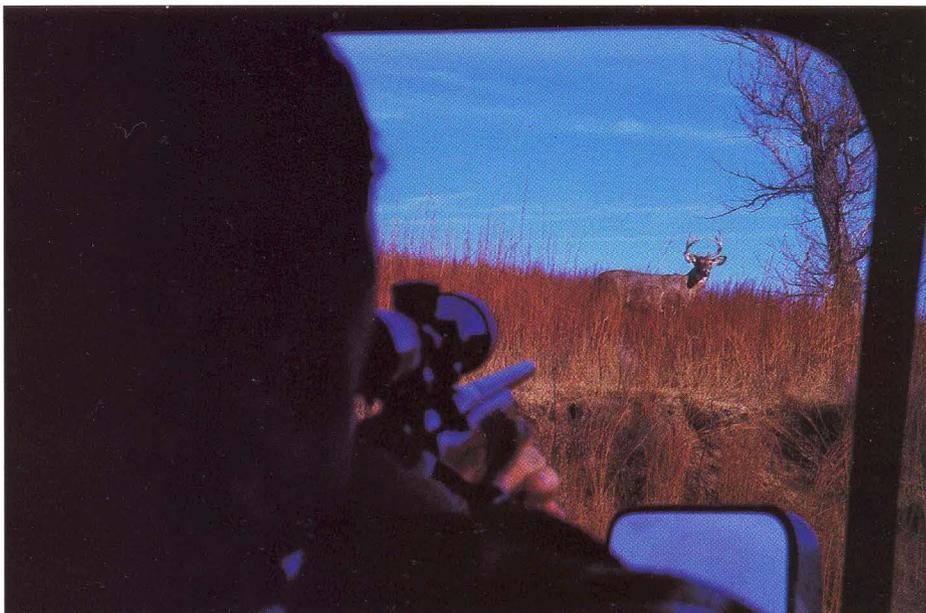
You don't make a habit of breaking wildlife laws, but it's the last hour of the last day of deer firearms season. Yours is an antlerless-only permit, and all you've seen are bucks. Suddenly, a spike buck is standing in a clearing 50 yards away. You can't miss. Without thinking, you raise the rifle, drop the crosshairs just behind its shoulders and squeeze. The buck drops. Now you begin to panic. You

hurry to the animal, dress it out as fast as you can and drag it to your pickup. What to do. There is no one on this lonely road. Quickly, you cut off the deer's head and hide it under a thicket. You load your meat and take off. As luck would have it, you get home without incident. You unload the carcass and hang it in your garage. Next morning, you wake up slowly. In the clear, you think. Wrong.

These scenarios are hypothetical, of course. I use the second person, "you," to get into the mind of the poacher and away from what he doesn't know about modern wildlife law enforcement techniques. The first situation demonstrates a combination of tools now in use and ones soon to be acquired. The Department currently uses decoy deer, but they don't move and their eyes don't reflect. In this hypothetical case, however, the prey has caught the predator. What this poacher didn't know was that his target was a robotized decoy with reflective eyes, eyes indistinguishable from a live animal's in a spotlight. Its movements were electronically controlled by a Kansas Department of Wildlife and Parks conservation officer (CO) in the trees not far away.

In the second situation, our snagger friend's every move was watched by a CO 150 yards away. He had a clear view of the violator as he waited in the bushes, tied his rig and pulled in his first 30-pounder. The CO had one of the Department's new night scopes, which allow the viewer to see clearly, even on the darkest of nights. (According to Richard Harrold, special operations officer for the Department, "The night scope with a video camera is really going to be a turnaround for us. It can help with theft in parks, snagging and poaching.")

The third scenario is even more unusual. Our hunter-turned-poacher may hear a knock on his door the following morning. He is confronted by a conservation officer who says that a quail hunter's dog has found a spike buck's head in the same area where a local landowner had seen the man's pickup parked the day before. The CO asks if the man did any deer hunting this year. The man says that, yes, he even killed a nice doe yes-



Is it a real buck, or is it the decoy deer? More poachers should ask themselves that question this year as the decoy deer program is expanded to curb road hunting, trespassing and shooting from a vehicle.

terday. When asked to show the deer, the man leads the CO to the garage where his kill is tagged with his "antlerless only" permit. Still suspicious, the CO asks if he can inspect the deer more closely. The man can hardly say no. The CO cuts the pelvic bone from the deer and tells the man the bad news—the deer is a buck. The CO issues a citation.

These scenarios demonstrate just a few of the tools at the disposal of modern game wardens or, as they are called in Kansas, conservation officers. The tools are comprised of both hardware and training. One of the most effective pieces of hardware is the decoy deer.

According to Jeff Gayer, acting training officer for the Department's Law Enforcement Division, "Decoy programs are really taking off across the U.S. and Canada."

Conservation officer Tracy Galvin, Wilmore, says that the decoy deer has "been so effective people are starting to look for it." For this reason, reflective eyes and robotic features will be integral to the decoy's future.

"We'll be getting more creative as the poachers get wise," adds Gayer. In addition, the decoy deer will be used any time during the year. Poachers know no seasons, so neither will the decoys.

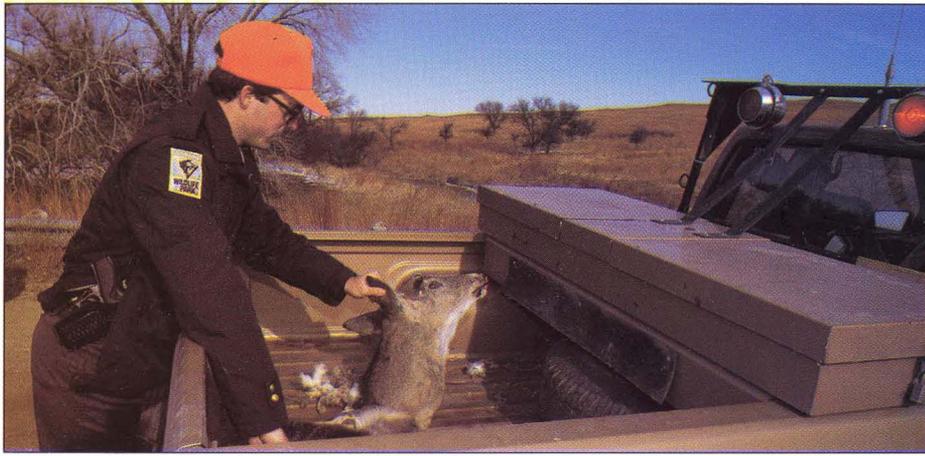
Deer are not the only species for

which decoys are employed. Turkey and pheasant decoys have been found to be effective in snatching poachers who like to shoot from the road.

Space age technology has been helping the conservation officer do his job for a number of years. In addition to exotic tools such as the night scope, more common aids such as the four-wheel drive vehicle and the all-terrain vehicle have helped COs get to places previously inaccessible. Spotting scopes have been quite useful during daylight hours. Bullet-proof vests and updated weapons have helped provide the kind of protection necessary when confronting armed violators miles from anywhere.

Law Enforcement also hopes to acquire sophisticated electronic surveillance equipment to assist in future efforts. Among these are tracking devices, light detectors and seismometers. With the aid of a court order, a tracking device could be used to keep tabs on that particularly elusive suspect. Light detectors are being used effectively in national forests to detect spotlighters and alert rangers who might not be nearby. Seismometers can be used to alert conservation officers of traffic in an area where there should be none.

While all these high-tech gadgets give COs a tremendous boost in their efforts, perhaps the most exciting de-



New technology allows conservation officers to make solid cases in violations that were previously difficult to prove.

developments in recent years have been in the field of forensic pathology—the ability to glean information from a carcass, carcass parts or blood. Richard Harrold says that “we do the same thing in a poaching case as is done on a homicide case.” Often times, that’s where forensics comes in. Through a combination of training and tools, COs can often determine the sex, species, cause of death and even time of death of an animal.

One such tool is the tried and true litmus paper test, which can detect lead in meat and can usually distinguish a bow kill from a rifle kill. Another is the shock stimulus test. This involves attaching a probe to the muscle of the animal on one end of a wire and attaching the other end to an electrical source, such as a spark plug. The resulting muscle spasms can then be measured to determine the time of death within 15 to 20 minutes. The one limiting factor in this technique is that the test is usually only accurate within four to five hours after death.

A more recent and sophisticated forensics tool is the Ouchterlony test (pronounced Ok’terloni). With this test, COs can take a blood or tissue sample and identify the species of animal from which it came. The test can be performed quickly at any of the five Department regional offices throughout the state. It is particularly useful in a case where a suspect has blood in the back of his pickup. In such cases, it is easy for the suspect to claim that the blood is that of a cow, pig or any other livestock species. Human blood can also be identified.

According to Tracy Galvin, who is certified to run the tests for the southwest region, the best thing about these tests is that they keep COs from having to spend time in court. “When presented with the physical evidence the Ouchterlony test provides, suspects usually admit to the violation rather than going through the trouble of a court case,” Galvin says. “These tests are great. The more tools we have, the better. They just help make our cases stronger.”

The Nebraska Fish and Game Commission has developed a number of new forensics techniques that are available to Kansas conservation officers. One such tool is a breastbone identification kit. These kits include plastic reproductions of various bird breastbones. With the kit, the CO can make an inspection to determine what species of bird is in a suspect’s freezer and, in some cases, whether it is male or a female.

The U.S. Fish and Wildlife Service has recently opened a facility in Oregon that should also help Kansas conservation officers with their cases. Called the National Fish and Wildlife Forensics Laboratory, it is designed to aid state, federal and international wildlife law enforcement efforts. The lab is able to analyze carcasses, tissue and blood, and they are doing research, as well. One development effort is called DNA fingerprinting. Officials hope that, in the near future, cells from an animal can be analyzed to determine such things as sex, whether a deer is a whitetail or a mule deer, and the geographic origin of the animal. They are even

doing extensive research that they hope will help them determine one individual animal from another, much like is done with human fingerprinting.

Of course, more than technology is needed in the battle against wildlife crime. Gayer puts it succinctly: “The interesting thing about all these technological developments is that it still takes time and people to do the job.” Manpower is the one area where the Division of Law Enforcement is lacking. Currently, 73 conservation officers patrol the 105 counties in the state. “We could easily put 30 people to work right now, but funding is the problem,” Gayer adds.

One reason that manpower is a problem is that COs do much more than handle hunting and fishing violations. One officer may cover three counties and still be responsible for inspecting pet shops, patrolling state parks and dealing with a myriad of other issues. The list includes animal damage control, environmental issues, game breeder and fur dealer inspection, boating violations, threatened and endangered species violations, controlled shooting area enforcement, commercial poaching, animal rehabilitation, hunter and boater education, fishing clinics and emergency backup to other law enforcement agencies. With the new law requiring the licensing of guides, inspection of their operations will be added to the list.

While COs may be wearing many hats, they wear them well. The outdoor education programs they conduct around the state help hundreds of kids gain a greater understanding and appreciation for nature. Kansas sportsmen also depend upon them to protect the resource they so enjoy. Conservation officers are important links between the public and nature throughout the state.

That link bonds both ways, as far as Jeff Gayer is concerned. All this talk about new technology and tools is interesting and important, but to him, the public is the most important tool the CO has. “People tell you what’s going on, and public awareness of conservation problems is growing.”

So is public awareness of the role conservation officers play in natural resource conservation.



center section

Edited by Mark Shoup



LETTERS

WINGSHOT APOLOGY

Editor:

A good friend and I were hunting pheasants in western Osborne county last season. As I approached the edge of a sunflower patch, a bird flushed, about twenty feet in front of me. At first, the drab color suggested a hen pheasant. When the bird was about twenty yards away, it set it's wings in a momentary glide. At this point, I was sure it was a prairie chicken because the tail was too short for a hen pheasant. I shouldered my gun and dropped the bird about forty yards away.

As I neared the bird, I thought it looked different from the chickens I had bagged in Jackson and Wabaunsee counties. The first thing that really caught my eye as I picked it up was the purple, rather than orange, air sac. I first thought it to be a lesser prairie chicken, because I had never seen one. I now know it was a sharp-tailed grouse.

I have always stressed positive identification of all game before bagging, and I could not believe this had happened to me. Although I realize one bird will not make or break restocking efforts, I still feel I have somehow prolonged the attempt to re-establish this admirable Kansas native.

I would like to apologize to the Department and all other sportsmen in our great state.

No name, please.

Dear No Name:

We ordinarily do not print anonymous letters, but in this case it seems appropriate. As your experience shows, even seasoned hunters can misidentify birds at first glance.

I appreciate your feelings of remorse as demonstrated by the fact this incident apparently gnawed at you for some time

-- your letter was postmarked August 6. Perhaps your experience can serve as a warning to us all: when dealing with wildlife, always err on the side of caution.

--Shoup

PUBLIC TREASURE

Editor:

The job your Department has done in the last 10 years in improving the deer populations in public hunting areas is unbelievable! Public hunting in Kansas is the best in the world!

I started hunting Kansas deer in 1984. Since then, I have bagged deer with a total of 42 points. All of my deer have been taken from public hunting areas, out of the same one-mile section, using only two different stands.

People who say that there are no deer on public hunting areas are either looking in the wrong spot or don't know what they are doing.

Thanks for the great job!

Michael O. Genn
Wichita

CATFISH FEVER

Editor:

Thank you for your article on catfishing in Kansas streams (July/August, Page 40). I have a few questions about catfishing in our rivers.

I particularly need information concerning finding the fish in different weather and water conditions. Do most of the fish live against the banks, or do they live in deep water and only travel to the shallows to feed? In other words, should I be fishing mostly in deep water year-round? If so, how deep, and do fish feed much while in

deep water?

Also, please consider producing instructional videotapes or booklets on different phases of hunting and fishing, and make them available for sale to the public. I think that many of us would hunt and fish more if we had the knowledge to be more successful.

Richard Council
Independence

Dear Mr. Council:

Concerning the second part of your letter, budget restrictions currently prevent us from producing the kind of instructional tapes you are looking for. I agree that they could be quite valuable.

Much can be learned about hunting through the numerous hunter education courses the Department supervises each year. In addition, fishing clinics are conducted by Department personnel throughout the state. Check with your local Department office for details.

Concerning catfish habits, I defer to fisheries management supervisor Jim Beam:

"In Kansas streams, adult channel catfish typically spend the daylight hours in deeper pools near structure -- submerged logs, drop-offs or other cover. At night, when the fish are most active, they move to areas where food can most readily be found, often times riffles and shallow areas where they take most of their food off the bottom. However, channel catfish are very opportunistic, taking a wide variety of food whenever and wherever easily obtained. Runoff from heavy rains can trigger a feeding frenzy any time of day or night.

"Being cold-blooded, fish undergo a reduction in metabolism and the related need for food during the winter months. Again, this period of inactivity is spent in the deeper holes near structure. Despite the cold, baits placed conveniently close to fish can produce good catches of

channel cat during that time of year." -
-Shoup

HUNT MORTALITY

Editor:

I'm writing regarding the open season on quail and pheasants. The season is too long, especially for quail. The hunters kill about everything that moves, and there are few birds left at the end of the season.

The gun and hunter lobbyists are strong and get their way on most matters. Can your Department help in this matter? If not, to whom should I write?

Adrian Haug
Seneca

Dear Mr. Haug:

Although upland bird hunting seasons are standardized, biologists compile a great deal of new information each year. Population estimates are gathered through rural mail carrier counts conducted four times a year. Seven hundred mail carriers travel thousands of back roads and record the birds they observe. Biologists also survey bird hunters each year to learn when and how often they hunt and how successful their hunting has been.

Field biologists' brood count observations, weather data, cover and food supply were considered before the biologists recommended season dates and bag limits to the appointed Wildlife and Parks Commission. The Commission considered public comment before setting the season regulations.

Based on passed experience, shortening season dates would not increase the number of birds. For example, in the early 1980s, quail numbers in the northcentral part of the state were devastated by harsh weather and poor nesting conditions. The season dates were not changed, but few hunters actually hunted quail in this portion of the state. Now, after several years of good weather, quail have rebounded to higher than average numbers. Last year, Kansas hunters harvested more quail than anywhere in the U.S. This year, quail numbers are as high or higher in most regions of the state. --Mike Miller

MYSTERY SOLVED

Editor:

The mounds described by Steve Doyle in the July/August issue (Page 17) were created by the western harvester ant, which occurs in the western two-thirds of Kansas. The ants would have been hibernating during pheasant season.

Their conical mounds shed rain, and storage of seeds (which they eat) above ground level helps to prevent germination. The nest cone and the surrounding areas is kept free of vegetation.

Stephan C. White
Baldwin

COLLECTION QUIZ

Editor:

This is in reference to the article "Bird Brain Quiz" in the July/August issue of KANSAS WILDLIFE AND PARKS (Page 15), one question in particular: Q: Is it illegal to collect abandoned bird nests? A: It is illegal to collect any nest, abandoned or otherwise, unless a permit has been obtained from the U.S. Fish and Wildlife Service AND the state wildlife authority.

As a child, it was educational for me to find an abandoned bird nest and study it. Sometimes nests were taken to school as a "show and tell" item, and it was always of great interest to the other children. It never occurred to me that it might be illegal, and I am sure my parents would not have allowed it. Even now that I am a senior citizen, abandoned bird nests are very interesting to me.

Maybe the key word in your answer is "collect," but I would like to have some more information. I do not want to promote anything illegal.

Mrs. Chloris C. Chapman
Wichita

Dear Mrs. Chapman:

For a number of years, laws have been passed that are designed to discourage illegal trade in wildlife. Many people will pay for wildlife items, such as deer antlers, bird feathers and even bird nests.

Of course, we have all found feathers and nests lying on the ground, but a wildlife law enforcement officer has no

way of telling whether such nests or feathers have been innocently picked up or whether they have been taken from the living animals. Thus, the law requires a permit to possess such items, for educational or scientific purposes. -
-Shoup

RIVER OF LIFE

Editor:

I am writing about "River of Life", which appeared in the Sept./Oct. issue of KANSAS WILDLIFE AND PARKS. The story was very good. I followed the writer step by step across the state and learned about places along the Smoky Hill I didn't know were there. My compliments to the author.

Doyle Mayse
Larned

ROMANIAN RESPONSE

Editor:

I just got my Sept./Oct. issue of KANSAS WILDLIFE AND PARKS. I was reading the "Center Section" and found something I had to write you about.

In the "Letters" section was a comment from a Romanian reader. Did Dan Popa get his free issues? If not, may I have his complete address so I can send him my old issues?

Anthony Sinatra
Kansas City

Dear Mr. Sinatra:

Thank you for your concern. The letter from Mr. Popa has generated enough interest in our office to warm the heart of any die-hard cynic. Barb Theurer, our circulation manager, and I have received numerous letters and phone calls from readers offering to pay for subscriptions for Mr. Popa, some of them offering to pay for several years.

Most Americans sometimes forget how lucky we are. Accounts such as Mr. Popa's tend to wake us up.

I am proud of the way our readers have responded to Mr. Popa's request, and yes, we did make an exception for him. Dan Popa of Romania will continue his struggle to overcome years of dictatorship in his country. Hopefully, KANSAS WILDLIFE AND PARKS will help ease the transition. --Shoup



THE LAW

of Wildlife and Parks. --*Topeka Capital Journal*



HINDSIGHT BARGAIN

Last April, conservation officer Bill Tillman, Leon, help a young fisherman learn the value of a dollar properly spent.

Tillman had received a number of complaints about snagging below the El Dorado Reservoir Dam. The reports had mentioned that snaggers were hooking the fish in the outlet, then walking them downstream to darker areas to pull them in. One evening, he approach the area from the dark side around midnight. He had just settled into some tall weeds when he noticed two fishermen pulling something from the water. Unfortunately, one of the men noticed, and recognized, Tillman and called to him in a voice loud enough to wake the dead, something to the effect of "Hey, Officer Tillman, whatta ya doin' out here at this time of the day?"

Needless to say, his cover was blown. Undeterred, Tillman decided to check some licenses. As luck would have it, his first check was a young man without a license. Tillman issued the man a ticket for failure to produce a license and ordered him to bring his license to him the next day.

When the young man brought his license in the next day, Tillman smelled a rat. The license looked brand new and was dated just 24 hours earlier. Tillman took the license information and sent the man on his way. He then went to the vendor to double-check the information. As it turned

out, there was a 24-hour discrepancy between the date on the vendor's book copy of the license and the cash register receipt. The vendor admitted that he had, at the young man's request, back-dated the license.

The vendor was given a warning. The young man was cited for fishing without a license and altering a license. He was fined \$100 for the first offense and \$250 for the second, in addition to \$92 court costs.

When he met Tillman outside the courtroom, the young man said with dismay, "I should have bought a combination hunting/fishing lifetime license. It would have been cheaper!" As the saying goes, hindsight is 20/20. --*Shoup*

EIGHT IS ENOUGH

Two undercover agents from the Department's Special Operations Unit helped bring charges against eight hunters who were arrested Aug. 28 and charged with hunting deer illegally in Doniphan County.

Richard Harrold, chief of special operations, said the two agents infiltrated the group "six months prior to the hunt," which took place last December.

Seven of the hunters were from the Atchison area, the other from Wichita.

"We'd been receiving complaints about this group for three or four years," said Harrold. "We sent a couple people in. They went on a hunt with the group and observed various illegal practices."

Harrold said the charges included using CB radios to give locations of deer, using a vehicle to pursue deer, transferring deer tags and shooting deer from a vehicle.

"We received a lot of positive feedback from this operation," said Harrold. "We intend to make arrests like this periodically. Hopefully it will demonstrate to others that poaching won't go unnoticed."

The Special Operations Unit was formed in 1987 and consists of a several undercover agents from the Law Enforcement Division of the Kansas Department

POACHERS' FEAST

On Dec. 5, 1989, I received a phone call from a concerned sportsman. "They are butchering deer at the local bar, and I don't think the deer are tagged," the caller said.

I headed for Concordia, and after recruiting the help of the Concordia Police Dept., entered the bar and asked the owner about the deer. He showed a deer that was being butchered in the back room. When I asked him where the tag for the deer was, the bar owner explained that the deer was donated by another man to be used for a wild game feed. The owner was sure the man had completed all the paperwork and had a tag for the deer.

After further investigation, I found three more deer in the walk-in cooler at the bar, all donated by the same man, a local farmer. When the man was contacted the next day, he did, indeed, have tags for four deer -- one of his own and three more from three other men. Unfortunately, the tags had never been on the deer.

The owner of the bar was charged with four counts of possession of illegal deer, and the farmer was charged with four counts of possession of untagged deer and one count of failing to tag his deer immediately. The three other men were charged with failure to tag their deer immediately and misrepresentation to purchase a landowner/tenant deer permit.

After numerous delays, rescheduled court dates and some plea bargaining, the bar owner pleaded guilty to possession of illegal deer and was fined \$250 plus \$32 court costs. He was also ordered to pay storage and processing fees for all four deer.

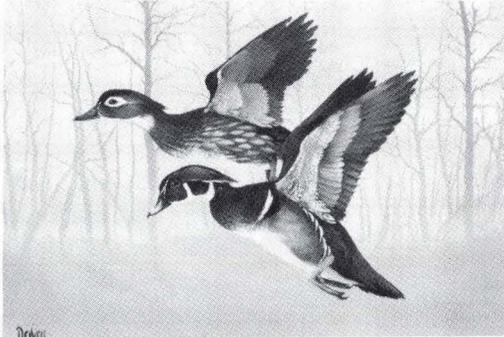
The other four men also pleaded guilty to charges. One man was fined \$500 plus court costs and lost his hunting privileges for one year for possession of untagged deer. The other three were fined \$300 plus court costs and lost their hunting privileges for failing to tag their deer.

The deer meat went to needy families. The poachers went hungry. All in all, a pretty expensive "feast." --*Kevin Couillard, conservation officer, Aurora*



ISSUES

DUCKS STAMPS FOR ALL 1990 Kansas Waterfowl Habitat Stamp



Wood Ducks, by Wes Dewey, Petrolia, Ks.

They're for everyone concerned with wetlands and the hundreds of species of wildlife wetlands support. Yes, duck numbers are down, and anyone who cares about ducks -- whether duck hunter or not -- can help by purchasing a duck stamp. But such a purchase can also help whooping cranes, least terns and a wide variety of shorebirds and mammals. Money collected from duck stamp sales helps protect wetlands -- the ever-diminishing habitat upon which these species depend.

Purchase of a federal stamp helps protect habitat for these migratory species throughout their flyways. Purchase of a state stamp helps protect wetlands in Kansas.
--Shoup

PIT FINE

The Union Pacific Railroad was fined \$5,000 in August after pleading guilty to killing 87 migratory birds in a Hoisington sludge pit that was used to collect overflow diesel fuel. The birds, which included ducks, doves and shorebirds, were killed when they flew into the uncovered pit last year.

U.S. Attorney Lee Thompson said the railroad has since covered the 100-foot-by-250-foot diesel fuel pit. Federal law requires companies to cover open pits or face criminal prosecution.

In addition to levying the fines, U.S. Magistrate John Wooley ordered Union Pacific to pay \$870 in restitution to the Kansas Department of Wildlife and Parks.
Associated Press

NOTE: According to the Wildlife Management Institute, studies initiated in 1987 revealed that an estimated 225,000 waterfowl were killed each year in 5,649 open oil pits in eastern New Mexico alone. The report states that at least 100,000 waterfowl were killed in the Playa Lakes

region, exceeding the 92,000 birds taken by legal hunting in the same area last year.
--Shoup

FARMERS POLLED

According to a recent survey by the American Farmland Trust (AFT), there is a sharp split between the attitudes of farmers and farm lobbying groups when it comes to conservation issues. The survey reveals that, in contrast to the positions of national farm organizations, individual farmers evidently support changing current farm policy by including more conservation provisions in Department of Agriculture programs.

Much debate has taken place recently over alleged farmer resistance to conservation provisions in the 1990 Farm Bill, including reduced chemical and fertilizer use.

AFT surveyed 1,000 farmers in 100 counties in 22 states. A summary of the survey's results concluded that "farm organizations fighting the bill's environmental provisions during committee de-

liberations are not accurately representing farmers' views."

AFT points to the survey as strong evidence that farmers are more supportive of environmentally sound farming than their Washington lobbyists admit. Noting that farmers are willing to reduce water pollution, control soil erosion, and protect wetlands, AFT criticized the House and the Senate ag bills as too timid.

"The bills fail to provide the strong and comprehensive environmental protection expected by farmers and nonfarmers alike," the survey concluded. "Most farmers understand that our livelihood and the nation's future are at stake. Yet we cannot ignore the environmental consequences of using poor conservation practices. All of us have too much to lose."

More information on the survey is available from AFT's national office, 1920 N Street, NW, Suite 400, Washington, DC 20036. --*Wildlife Management Institute*

KS WETLANDS MAPPED

Wetlands in portions of fourteen north-eastern Kansas counties will be surveyed by the U.S. Fish and Wildlife Service for inclusion in the agency's National Wetlands Inventory Program. The mapping task is a continuation of the Service's National Wetlands Inventory Project initiated in 1974 to generate scientific information on the characteristics and extent of the nation's wetlands. Information gathered is used to foster wise management of wetlands and provide data for making quick and accurate decisions to ensure wetlands receive proper consideration and protection.

Thus far, the National Wetlands Inventory has mapped 65 percent of the United States but only 22 percent of Kansas.

Wetlands are essential breeding, rearing and feeding areas for many species of fish and wildlife, particularly waterfowl. They also provide significant public benefits through flood protection, water pollution control, subterranean water recharge and recreation. Since this nation's settlement, over 54 percent of our original 215 million acres of wetlands have been destroyed. A Fish and Wildlife Service study estimates that wetlands are currently being lost at a rate of 458,000 acres per year.

The inventory will begin this October. Draft review maps should be available for

review by October 1991. For further information or to request copies of review maps, contact the U.S. Fish and Wildlife Service, Regional Wetlands Inventory Coordinator, P.O. 25486, DFC, Denver, CO 80225. --U.S. Fish and Wildlife Service

NONGAME ACT

Want to help nongame wildlife nationally? Please write your Congressional representatives asking for them to appropriate the \$5 million authorized in 1980 for the Fish and Wildlife Conservation Act. Also, please ask them to find permanent funding for the Act.

This act was originally designed to help with nongame projects nationwide, but Congress has never established a funding procedure for the Act. --Ken Brunsen, nongame coordinator

404 WETLAND WATCH

Administered by the U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA), the Section 404 permit program regulates the dumping of solid materials into water bodies, including wetlands. While it does not prohibit dumping, it is designed to minimize adverse impacts to wetlands, lakes and rivers. Anyone intending to dump dredged or fill materials into these water bodies must apply for a permit from the Corps.

Both the Corps and the EPA emphasize that the most effective way citizens can participate in the Section 404 permit program is to organize a wetlands watch group. Working on a county or regional level, a wetlands watch group can identify wetlands in its target area and document the environmental benefits they provide (such as wildlife habitat, flood control, groundwater recharge). You can monitor activities and report potential Section 404 violations to the Corps and EPA; you can also monitor permit compliance in the field. Get on the Corps' mailing list for public notices of 404 permit applications and the list of permits issued. Use this to monitor wetland activities in your area, so you can comment on permit applications and testify at public hearings.

For more detailed information, contact your local Corps or EPA office, or write for two handbooks: *Wetlands and Water Quality: a citizens handbook on how to*

review and comment on Section 404 permits, Lake Michigan Federation, 59 East VanBuren, Suite 2215, Chicago IL 60605; or *A Citizen's Guide to Protecting Wetlands*, the National Wildlife Federation, 1400 16th Street, NW, Washington, DC 20036-2266. --Kathleen Rude, *Ducks Unlimited* magazine

"ANTI" FASHION

A line of boys' clothes that carry an anti-hunting message is being yanked from the shelves at J.C. Penny Co. Inc.'s 1,300 stores, the company said. Penny bought the "Environmental Protection Department" line of clothing from a New York company, H. Cotler Co.

A card attached to each shirt in the line shows a sketch of a bird hunter aiming a shotgun over which a large red "X" has been marked. Under that are the words, "Absolutely No Hunting of Wild and Free Animals While Wearing This Garment." A similar message is stitched into an inside panel of the garment.

Pants have a larger card with the message, "Wild life protected by man surround the world with pure thoughts." --*Topeka Capital Journal*

BREATHE EASY

Critics decry the anticipated \$40-billion annual cost of the 1990 Clean Air Act Amendments, but pollution isn't cheap, either, especially for the 121 million Americans who live in areas that fail to meet national air quality standards. According to *The Health Cost of Air Pollution*, a new study by the American Lung Association, air pollution costs Americans \$40-50 billion per year in medical care and produces 120,000 premature deaths. [This is not to mention the effect on rising insur-

ance rates.] Jim Cannon, author of the study, says, "If you make an effort to compare apples only with apples -- the cost of vehicle emission control, for instance, with the health costs of uncontrolled emissions -- you can conclude that the Clean Air Act is for free. It doesn't eliminate wealth; it redistributes it."

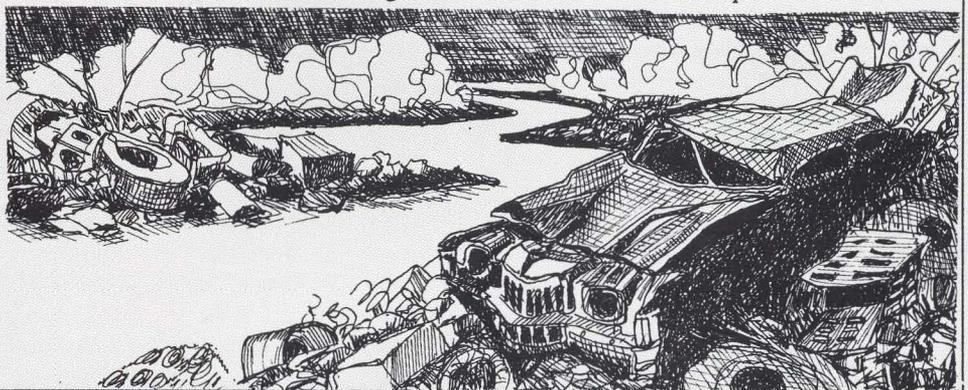
The Senate version of the 1990 Clean Air Act Amendments includes language that encourages the Administrator of EPA to investigate greenways as a nonpolluting transportation alternative. Rural greenways are important because, according to Senator Jeffords (R-VT), a cosponsor of the amendment, "proper planning in advance of human congestion is an important element in ensuring that these areas do not become smog zones." --*Common Ground*

ENVIRONMENTALITY: 1925

If you are dismayed by pollution of Kansas waters in the 1990s, keep in mind that we've been at the business of polluting for a long time. Consider this excerpt from a 1925 pamphlet from the Kansas Fish and Game Department, written by J. B. Doze who was the "warden," or director, of the Department.

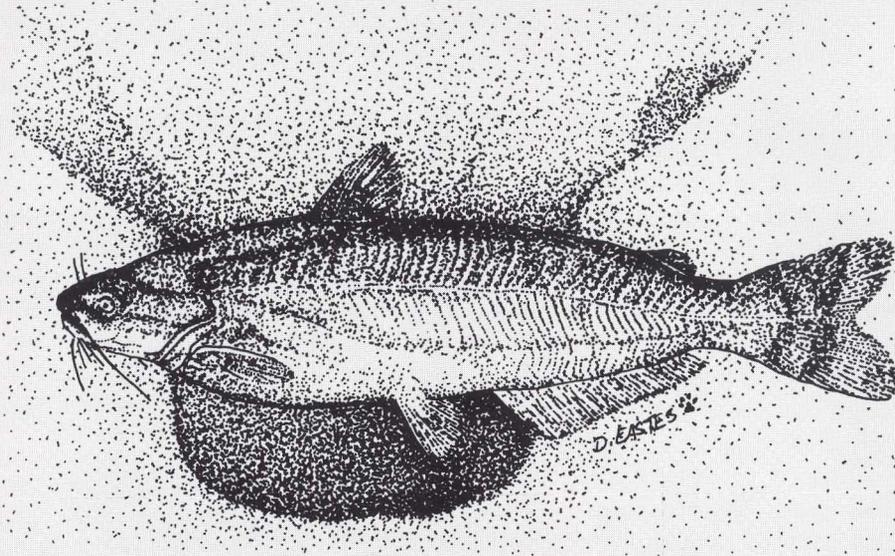
"So much filth has been dumped into Kansas streams that it is remarkable how the fish live through it. Many streams have been ruined. It is too late to object, but it is never too late to set about to remedy these conditions. Everyone in Kansas is a bit to blame. Pollution comes not only from factories, cities and oil wells, but from barnyards, cow lots, hogpens, chicken yards and from fields cultivated down to the water's edge. Kansas should begin to correct these conditions."

The title of Doze's pamphlet was simply, "Fish and Game: Let's Leave Some for the Kids." --*Shoup*





FISHING



WHITE CATFISH?

Do white catfish occur in Kansas? The answer is no. Only blue, channel, flathead and bullhead catfish can be found in Kansas waters. White catfish are native to the Atlantic coastal states, but have been widely introduced outside their native range.

Sometimes Kansas anglers catch fish they think are white catfish. However, these fish are actually blue catfish exhibiting a light color thought to be associated with water turbidity. There are several distinctions between the two species. White catfish are much smaller than blue cats. The largest white catfish ever caught weighed less than 16 pounds, whereas blue catfish are known to reach 150 pounds. A more accurate method of distinguishing the two is counting the rays of the anal fin -- the fin on the underside of the fish behind the anus. Blue catfish have 30 or more rays on the anal fin, while white catfish have only 19 to 23 anal fin rays.

Channel catfish, close relatives of the blue catfish, normally have bluish gray to greenish yellow sides with dark spots. However, adult male channel cats sport a dark blue or gray cast and develop thickened lips and head muscles during the breeding season. For this reason, they are often mistaken for blue catfish or, under certain circumstances, white catfish. The

channel cat also differs in that its top weight is seldom over 50 pounds, the world record being 58 pounds. Channel catfish have 24 to 29 rays on the anal fin, as opposed to the 30 or more of the blue catfish and the 19 to 23 of the white. --in part, *Oklahoma Department of Wildlife Conservation release*

CLEAN WATER ANGLERS

Anglers for Clean Water (ACW), representing more than 7 million recreational anglers, recently asked ten of the nation's foremost experts in the field of water quality to help develop a better understanding of the major issues and problems confronting water quality, and to seek solutions to those problems. Their initial meeting -- the Living Waters Symposium --- was held May 18-19 in Montgomery, Ala.

Ten spinoff white papers on the problems facing America's fishing waters will be available to the scientific community later this year. Results will be available -- in layman's language -- to the general public this winter when ACW reports on them in a special "Living Waters" section in *Bassmaster*, *Southern Outdoors*, *Southern Saltwater* and *Fishing Tackle Retailer* magazines.

The group labeled three concerns as major problems: 1) enforcement of exist-

ing pollution laws and reauthorization of the Clean Water Act; 2) nonpoint source pollution; and 3) over-fertilization of our lakes and rivers.

Also, the 1972 Clean Water Act comes up for reauthorization in 1991. "Some corporations and municipalities, stung by the Act's provisions, are expected to try hard to dilute the legislation, or to kill it," according to an ACW news release.

Another problem highlighted at the symposium is the lack of any water-quality standards in many states. As one panelist said, "If there are no water-quality standards, there are no violations of water-quality standards; therefore, there can be no improvements in water quality."

Nonpoint source pollution is a phrase that cropped up frequently in the discussions. The source of 76 percent of America's water-quality problems is nonpoint source pollution -- any pollution from an unregulated source, such as storm drainage in municipalities or pesticide and herbicide runoff from farms. Even too much of a good thing is turning out to be a bad thing as many of our lakes suffer from over-fertilization. Half the lakes assessed by the various states have an exceptionally high nutrient content. These nutrients deprive the water of oxygen essential to the survival of many species of sportfish. Eutrophication of lakes has increased by 10 percent since 1986, panelists said.

America's anglers -- 65 million of them support a \$30-billion-dollar-a-year industry -- could be a powerful force in any potential cleanup. Anglers for Clean Water is a 20-year-old nonprofit arm of Bass Anglers' Association of America (B.A.S.S.). --*Anglers for Clean Water*





HUNTING



QUAIL COUNTRY

During the past decade, Kansas has consistently been among the top three states in bobwhite quail harvest. In 1989, as in many of those years, we were the best in the nation. In fact, Kansas almost always ranks tops in hunting days and quail harvest.

There are many reasons for this. Kansas is blessed with a rich diversity of terrain and land uses. Much of the land has not been converted to cropland. Abundant grasslands provide excellent quail habitat. Hedgerows, shelterbelts and woodlands are also abundant throughout the state. This makes for the most stable population of bobwhites in the United States. It also provides a diversity of hunting experiences all within relatively close proximity. The hunter can virtually pick the type of quail hunt most desired -- from long-ranging hunts in the grasslands of the Flint Hills to shorter-ranging hunts in croplands to the close-up crosstember hunts that resemble ruffed grouse or woodcock hunts.

The general rule of thumb is that Kansas quail hunting is better in the eastern third of the state and gets weaker the further west you travel. Public and private lands in the eastern one-third of the state provide the very best quail hunting, but excellent quail trips can be had in many areas of Kansas. Central Kansas has the advantage of offering the hunter a mixed

bag of quail and pheasant hunting (not to mention that the eastern two-thirds of the state offers unequaled prairie chicken hunting).

Last year was an excellent year for quail hunting in Kansas, and it is expected to remain good this season. The southeast, northeast and southcentral regions typically provide the best quail hunting in the state. The northcentral region can offer some good quail hunts, as well.

In addition, Kansas has a long season, so hunters can pick and choose when they want to hunt. The season runs Nov. 10-Jan. 31 in the eastern two-thirds of the state and Nov. 17-Jan. 31 in the west. The daily bag limit is eight, with a possession limit of 24 on or after the third day. --*Shoup*

DUCK STAMP

When Wes Dewey was nine, he spent a year recovering from rheumatic fever in his parents' Chanute home. During that time, they provided him with art supplies so that, in his words, he could "paint what I knew and loved most -- the animals, birds, woods and streams." Little did they know at the time that this early exposure would lead to a career.

Last year, Dewey's painting of wood ducks in flight was chosen for the 1990 Kansas Waterfowl Habitat Stamp/Print. The stamp must be purchased by all Kan-

sas waterfowl hunters, but other conservationists and collectors will also purchase the stamps and the prints.

Revenues from sale of state duck stamps, and prints of the stamp, supplement other, more traditional funding for waterfowl habitat conservation, such as federal duck stamp revenue and donations from private organizations. Unlike these other sources, however, the Kansas Waterfowl Habitat Stamp program enhances important waterfowl habitat within the state, and funds for these projects are matched by Ducks Unlimited's Matching Aid to Restore States Habitat (MARSH) program.

According to Lee Queal, western Kansas regional director for Ducks Unlimited, support for waterfowl is more important now than ever.

"Recent years have shown a steady decline in waterfowl numbers, particularly ducks," says Queal. "This is largely due to loss of prairie wetland breeding habitat. Because Kansas lies in the middle of the Central Flyway, this should be of great concern to all Kansans who care about the myriad of wildlife dependent upon prairie wetlands."

Queal adds that this is more than a special-interest effort by and for hunters. "Hunters and non-hunters alike appreciate our wetlands and the irreplaceable wildlife species which they support. It's essential that we all translate this appreciation into action. A duck stamp purchase can buy us much more than a beautiful stamp. It can buy our waterfowl a future."

The 1989 Kansas Waterfowl Habitat Stamp is available to the general public for \$3.25. Stamps can be purchased from Kansas Department of Wildlife and Parks offices, county clerks, and hunting and fishing license vendors. Prints of the original painting can be purchased through local Ducks Unlimited chapters and from Petersen Prints, 6725 Sunset Blvd., Los Angeles, CA 90028. --*Shoup*

WE LIKE IKE

Although it is not widely known, President Dwight Eisenhower was an avid upland bird hunter, and he raised gamebirds for release on his Gettysburg farm. He was also a trap and skeet shooter.

Among the activities held at the Eisen-

hower National Historic Site in Gettysburg, Penn., this year to commemorate the centennial birthday of the soldier-statesman was the opening of Ike's private trap and skeet ranges as a public exhibit.

"Opening the Eisenhower shooting range as a public exhibit shows a facet of Ike that most people are not aware of," said Vickie Greenlee, Shoot Co-Chairman for the Pennsylvania Federation of Sportsmen's Clubs. Now, thousands of youngsters, many of whom have not been exposed to the shooting sports, will learn of the joy that hunting and shooting brought to one of America's greatest heros."

The National Park Service restored the Eisenhower ranges, which are located just a short walk from the farmhouse the General and his wife Mamie shared after his retirement from the military. --*National Shooting Sports Foundation*

HI-TECH SHOT

Eley Hawk, an English cartridge manufacturing firm, has developed a new cartridge that contains an environmentally neutral tungsten/polymer shot, rather than lead or steel shot.

The new shot promises to have ballistics similar to lead shot without being harmful to waterfowl or other environmentally sensitive organisms. It also will be usable in older shotguns unable to accommodate steel shot because of tight choke constrictions on thin-barrelled construction.

Tungsten has been combined in a powdered form with a plastic polymer to form pellets that are ballistically identical to lead. These pellets also will deform like lead, which will protect shotgun barrels from damage. However, Eley Hawk claims the pellets "will resume their original shape when the compressing forces are removed." What this means is that tighter, shorter -- and more lethal -- shot strings are expected.

In addition to the non-toxic shot, Eley Hawk will be incorporating a biodegradable shot shell and shot wad in the new "green" cartridge. The new shells are now available on the English market.

Unfortunately, the new shells likely will be more expensive than currently available shot shells. --*Wildlife Management Institute*



FOR WHAT IT'S WORTH

BOWHUNTING THE MIND'S EYE

by Mark Shoup

My wife can understand archery practice, but bowhunting eludes her. As the season draws near, she becomes impatient.

"How can you stand to just sit for so long?" she asks. "What do you do?"

When I'm gone, and friends or family ask where I am, she stars blankly out the window or at the book in her lap. Without looking up, she answers calmly, "He's sitting in a tree."

Not "deer hunting" or something sarcastic like "playing the 'mighty hunter'." Just "sitting in a tree," like so much fool's bait.

I try to explain what I do. I describe the joys of eavesdropping on a variety of wildlife. These stories hold momentary fascination, but you have to be there to appreciate turkeys, coons, coyotes, squirrels and birds close-up in the wild.

So I try the intellectual approach. "I visualize," I say.

After a moment's silence, "You what?" "I visualize. It's a Zen concept." Now I have her attention. "You aspire to accomplish something, a feat that requires great mental and physical prowess. Practice alone cannot prepare you because the experience will be spontaneous. So you visualize. You create every possible scenario over and over in your mind. In this way, you gain experience and practice at the same time. I've taken hundreds of huge bucks with this technique."

After another moment's silence, "All in your mind, right?"

"Well, yes, but that mental activity prepares me for any situation that might arise."

"I'm still confused," she sighs. "My husband spends all this time in the woods, and now I find out he's just seeing things."

My wife is prone to exaggeration.

A month ago, Logan, my 2 1/2-year-old son, accompanied me to the bow range. To me, each target was a big buck appearing suddenly out of nowhere. Although Logan stood dutifully behind me at each target station, he did not share my vision. He loves the outdoors, but he's already much like his mother. He likes giving me advice.

"We need this stick, Daddy," was one

of his favorites. Or "Look at these big ants," as he stuck his finger down a swarming field-ant hole.

"Thank God they don't bite," I muttered as I dragged him to the last station.

Now it's late October, and I'm sitting in a tree. For several days, I've noticed rut activity in the area. Nothing has come within bow range, but I'm prepared. I'm visualizing, but memory interferes. I'm visualizing the bow range. Artificial target, cardboard deer.

Thwack! My arrow sticks in mid-air just above a deer's back.

Okay, so visualizing doesn't always work. It's not for the weak of heart.

Forget visualizing, I tell myself. Concentrate on the real scene. Suddenly, a ten-point buck appears broadside, 20 yards in front of me on the trail. I breathe deeply and draw my bow. Left arm straight and steady. Right forefinger knocked in the corner of my mouth. Pick a single point. Follow through. Be the arrow.

A voice in the back of my mind says, "That's a big bumblebee, Daddy."

Release.

I flinch and everything goes slow motion. I am mentally trying to retrieve the arrow, but it flies straight and true, slowly, just above the deer's back. The buck crouches to spring, then slowly dissolves into the brush. The arrow slides through air, past the spot where the deer had been, and bounces off an osage orange tree with a "Thhhwaaakk!!!" Pieces of broadhead tumble end over end in all directions.

Two hours after dark, I drag myself home on this, my tenth trip. It's early in the season. "See anything, Honey?" my wife asks cheerfully.

Without a word, I shuffle off to the fridge. Logan chases me into the kitchen. I rip a huge bite from a cold cheeseburger and lean against the door frame, chewing fiercely. Logan wrestles my leg, looking for some affection, some roughhousing.

"Just visualizing, huh?" she calls from the front room.

"You know, Honey," I begin thoughtfully, looking down at Logan. "I think I'm hearing voices."



NATURE

BOTTOMS UPDATE

The following are two major efforts currently underway at Cheyenne Bottoms Wildlife Area.

Least tern nesting

The site selected for the development of a least tern/shorebird nesting area was the old goose pen area on the west end of Pool 5. The 96-acre tract was divided into four small ponds. An inlet canal was constructed to bring water from the primary inlet canal and deliver it to the center of the project. At this point, the water can be sent into any of the four ponds. Within each of the ponds, islands were constructed to provide nesting sites that are relatively secure from predation because they are surrounded by moats. Because least terns and other shorebirds prefer to nest on sand or gravel where no vegetation is established, the islands will be top-dressed with gravel.

Waterfowl nesting research

In 1989, the Department created a biologist position for Cheyenne Bottoms Wildlife Area. The primary duty of this individual is to conduct scientific research on the area to provide information on specific management questions.

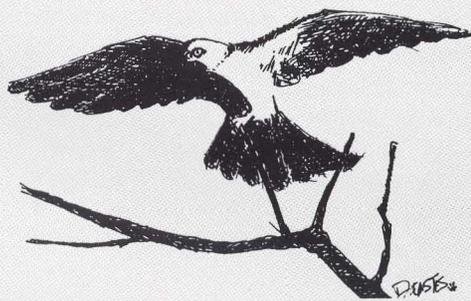
In September 1989, Helen Hands was hired to fill the biologist position. Helen received her M.S. Degree in Wildlife Management from the University of Missouri, Columbia.

Her initial major project was the determination of duck nest site selection on the area. This information will help guide management of the area to maximize duck production.

Nest searching began in May. A total of three searches were conducted. The search is conducted using a 200 foot length of chain strung between two tractors. This chain is then dragged across the grass and flushes laying and incubating hens from the nest. Once located, measurements are taken of the vegetation at the nest site; eggs are counted; length of incubation is determined; and location of the nest is marked. The nests are visited periodically to determine their fate. Information gained will

not only assist in vegetation management but also provide information on predation rates and the effects of varying water levels on duck production.

For the entire spring, a total of 156 nests were located. Blue-winged teal was the most common nester, accounting for 108 of the nests. Mallards were the next most common nester with 26, followed by shovelers with 15, and gadwall with 7. Simple nest success results show that Cheyenne Bottoms nesting ducks are doing well. Approximately 45 percent of the nests located were successful. Studies from the prairie pothole region (the primary duck producing region of North America) found simple nest success ranged from 10 percent to 40 percent. Further analysis of the data will be needed to tell why Cheyenne Bottoms birds are so successful.. --Karl Grover, manager, Cheyenne Bottoms Wildlife Area



TENNESSEE KITES

In the world of wildlife management, one area's dilemma sometimes becomes another's delight. Such is the case with Kansas, Tennessee and the Mississippi kite. Since 1980, the Kansas Department of Wildlife and Parks has shipped about 135 Mississippi kites to Tennessee. Once plentiful throughout the southern part of the country along the gulf states, this sleek-winged raptor's population declined earlier this century.

However, as shelterbelts have increased throughout the central great plains, populations of this small hawk have soared.

Kites use shelterbelts, as well as trees in many Kansas towns for nesting.

Unafraid of humans and buildings, they have a particular affinity for urban areas. Sometimes their nests are not very high in trees. When this happens close to a house during nesting season -- mid-June through mid-August -- they may become aggressive. However, as soon as the young birds leave the nest, the adults stop "diving" at intruders, including humans.

According to Ken Brunson, nongame coordinator for the Department of Wildlife and Parks, people being bothered by the adult birds can follow some fairly simple steps to protect themselves, and the problem will usually subside.

"If you find you can't avoid crossing through kite territory prior to the young being fledged, you should make sure that you wear a hat of some kind to prevent the diving bird from actually reaching your scalp," says Brunson. "Also, you can wave your arms to keep the bird at safe distance during the dive. If that doesn't work, a broom extended toward the bird is all that is needed. Above all, you should remember that these adults are merely trying to protect their young," Brunson adds. "They have no intentions beyond trying to scare you away as a perceived threat. A kite's dive is usually a bluff."

In rare cases, it is necessary to remove the young and the nest so that the adults quit harassing intruders. In this event, the Kansas Department of Wildlife and Parks makes arrangements for the young birds to be kept by licensed wildlife rehabilitators until they can be shipped by airplane to Tennessee. There, through cooperation with the Tennessee Wildlife Resources Agency and the Memphis Zoo, the young birds are slowly weaned of artificial feeding and released into the wild. The idea is that they will come attached to the place where they learned to fly and will return the next summer from South America to nest in Tennessee, even though they originally were hatched in Kansas.

The Mississippi kite is on Tennessee's endangered species list for several reasons. However, with the continued transfer of Mississippi kites from areas in Kansas where they sometimes pose problems, the kites may soon reestablish themselves and be taken off the list in Tennessee. --Shoup



NOTES

HABITAT AWARDS

Kansas Bankers Association (KBA) and the Kansas Department of Wildlife and Parks (KDWP) have been sponsoring a Wildlife Habitat Conservation Award since 1980. Provisions are made for one award per county per year, and recipients are chosen for significant improvements in overall wildlife habitat quality, quantity, maintenance and enhancements on the entire farm.

Wildlife habitat improvements in grazing and haying practices, field borders, food plots, tillage practices, waterways, crop rotation, winter cover, nesting cover, brood rearing cover and pond enhancements are considered. Selection is made by local KDWP district biologists, local KBA bankers and one of the following agencies on a rotating basis: SCS District Conservationist, County Extension Agent or Chairman of ASCS Committee.

Attractive metal signs and certificates have been provided by KBA, and this year Quail Unlimited (QU) has agreed to donate and present a framed wildlife art print to the award winners. These prints are from a painting by Jerry Thomas, Manhattan. Kansas QU chapters also provide funds for the purchase of habitat materials and equipment needed for the planting of trees, shrubs and native grass.

The goal of the award program is to publicly recognize those individuals who have made significant improvements in wildlife habitat. KDWP is thankful for the generous support of the program from Kansas Bankers' Association and Quail Unlimited.

The following is a list of recipients by county: **Bourbon**, Jim and Margaret Good; **Cheyenne**, Mr. & Mrs. Keith Kankenbring; **Clark**, Phil Harden; **Cowley**, E.B. and Virginia Shawver and Kenneth McCune; **Douglas**, John McGraw; **Elk**, C. Brad Linder; **Ford**, Gerhard Gerdes; **Franklin**, Robert B. Anderson; **Graham**, Gail Hofstetter; **Greenwood**, Jack Lindamood; **Harper**, Dr. Richard Steckley; **Harvey**, Jim Kaufman; **Labette**, Fredrick W. Closs,

Jr.; **Lane**, Marvin Pinkston; **Linn**, Mr. & Mrs. H.A. Taylor; **Logan**, Logan County Commission; **Lyon**, Terry Jones; **Marion**, Ernest & Lila Harris; **McPherson**, Bob Whelpley; **Meade**, Spencer Wiens; **Miami**, Robert Creason; **Morton**, Cimarron Sportsmen's Club; **Reno**, Mark & Kathie Rogers; **Rice**, Roy Barber; **Rooks**, Clifford Roy; **Saline**, Francis Vidricksen; **Shawnee**, Ken Corbet; **Stevens**, Rome Farms; **Sumner**, Charles Gay; **Wabaunsee**, Keith (Bing) Miller; **Woodson**, Jeff & Jill Pierpoint; and **Wyandotte**, Craig & Jamie Wolfe. --*Charlie Lee, agricultural liaison, KDWP*

RIVER REGISTER

Kansans involved in river and stream conservation will probably be interested in getting a copy of the new 1990 River Conservation Directory.

The directory includes nearly 1,000 entries giving key contact persons, addresses, telephone numbers and purpose of virtually every public and private organization that has an interest in preserving America's rivers. It was published by the National Park Service and the National Association for State River Conservation Programs.

Copies are available for \$6. Request document #024-005-01058-1 by writing to Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325. For Mastercard or Visa orders, phone (202) 783-3238. --*Oklahoma Dept. of Wildlife Conservation*

CHRISTMAS BUCKLES

Kansas Department of Wildlife and Parks has a few of the 1990 limited-issue belt buckles still on sale, and they'd make a great Christmas gift for that outdoor lover in your life. The new buckles feature a white-tailed buck in a natural setting.

A few of the landmark 1989 belt buckles are also left, and these are available for \$10, including shipping, handling and tax.

All buckles will be sold to the general public on a first-come-first-serve basis.

The 1990 belt buckles cost \$14, including shipping, handling and tax. Send check, money order or Mastercard/Visa number with order to Belt Buckles, Kansas Department of Wildlife and Parks, RR2, Box 54A, Pratt, KS 67124. Credit card orders can also be made by telephone, (316) 672-5911. Expiration date and telephone number must be included with credit card orders. --*Shoup*

LIFETIME LICENSE

Anyone who has spent considerable time fishing or hunting may have found themselves heading for their favorite pond or field only to realize they hadn't yet bought a license. A cure for this problem is a lifetime license -- hunting, fishing or combination. Not only is this license convenient, it is also thrifty. Buying a lifetime license fixes your license cost at current prices. It also makes the holder a "resident" of Kansas for life, no matter where he or she lives, for purposes of hunting and fishing. This includes the privilege of hunting all big game in Kansas.

The only requirement for the license is that the recipient be a current Kansas resident. The license entitles the holder to resident hunting and fishing privileges, but does not cover such costs as big game permits, waterfowl stamps and hatchery fees.

Best yet, the licenses can now be purchased with Mastercard or Visa, or paid off in quarterly installments spread over two years with a small finance charge. Prices are as follows:

Lifetime fishing: \$200 (\$30 per quarter for two years = \$240)

Lifetime hunting: \$200 (\$30 per quarter for two years = \$240)

Combination: \$400 (\$55 per quarter for two years = \$440)

Folks have also given lifetime licenses as gifts for special occasions, including Christmas, birthdays and births. This legacy lives on through the years in both convenience and economic value. For more information, contact the Kansas Department of Wildlife and Parks, RR2, Box 54A, Pratt, KS 67124, phone (316) 672-5911. --*Mike Theurer, Chief, Division of Administration*

NATURE'S NOTEBOOK

by Roland Stein Wildlife Education Coordinator

Bird Feeders



In recent years, more and more people are discovering the simple joy of feeding birds. Ironically, as this public interest in feeding birds grows, more and more habitat for birds is being lost. Because of lost habitat, it becomes even more important for people to help supply food for birds during the fall-winter months.

Where to put the bird feeder? You need to place your feeder where there is shelter -- places where birds can remove themselves from the wind, rain, snow and their natural enemies. Shelter can include natural trees, shrubs, thickets, brush, evergreens and the remains of old garden. It is best to have several feeders of various types in your area. Larger feeders are generally better than smaller ones. They can accommodate more birds, reduce territorial disputes and need not be refilled as often.

What to feed the birds? A variety of food should be offered to birds. If you include most of the following in your feeders, the birds will receive the vitamins, proteins, fats, carbohydrates and minerals that will enable them to survive the cold months. You will also attract a greater variety of birds to the feeder. Once you start

feeding birds, you must continue to do so until the natural foods, such as insects, fruits and grains become available again.

Yellow Corn: Crushed or cracked - supplies vitamin A and carbohydrates.

Millet, Sorghum and Wheat: Energy produces vitamins and carbohydrates.

Peanuts or Peanut Butter: For protein. Too much peanut butter ingested at one time can suffocate some birds. Peanut butter should be mixed with suet (animal fat) using a one-to-one ratio.

Sunflower and Sunflower Seeds: High in protein.

Bread: For salt.

Grit and Crushed Eggshells: For calcium and phosphorus.

A good seed mixture should include sunflower seeds in larger quantities than other seeds. It is the favorite of many birds. Watch out for some commercial mixes; they can be too high in millet and cracked corn.

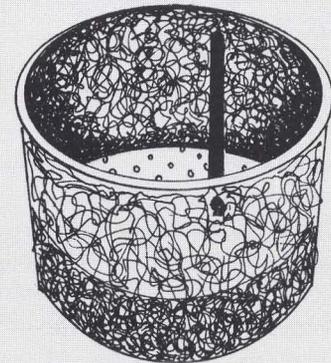
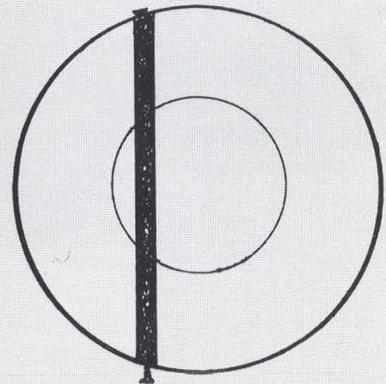
Here are some simple bird feeders you can construct from commonly discarded household items. Caution: children constructing these feeders should always be under adult supervision.

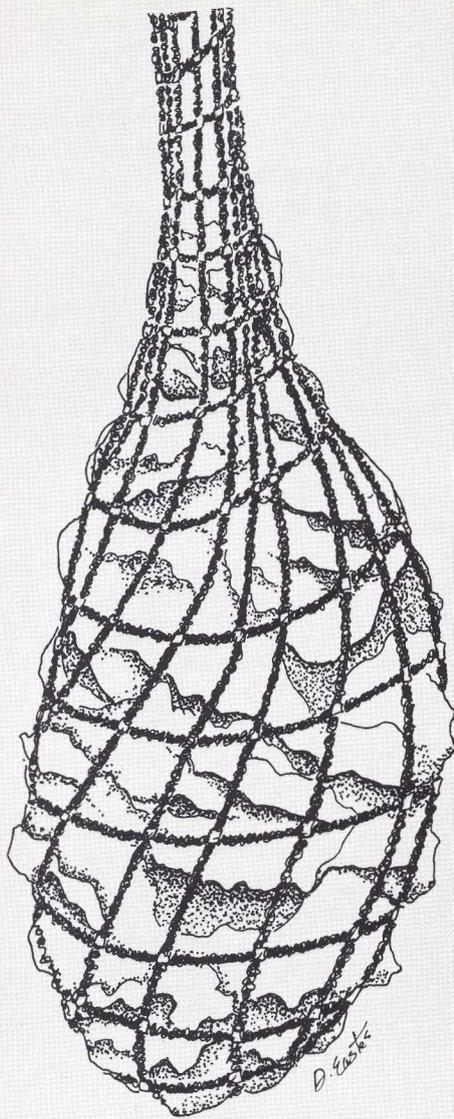
GRUB TUBS

Margarine or Butter Tubs

Larger tubs work best. Measure the distance across one-third of the tub. Cut a section of a dowel rod (one-fourth inch) the same length.

Attach the dowel rod inside the tub (about one-half inch down from the top) with screws. This simple feeder can be attached to most anything -- trees, a window sill, or bird houses.



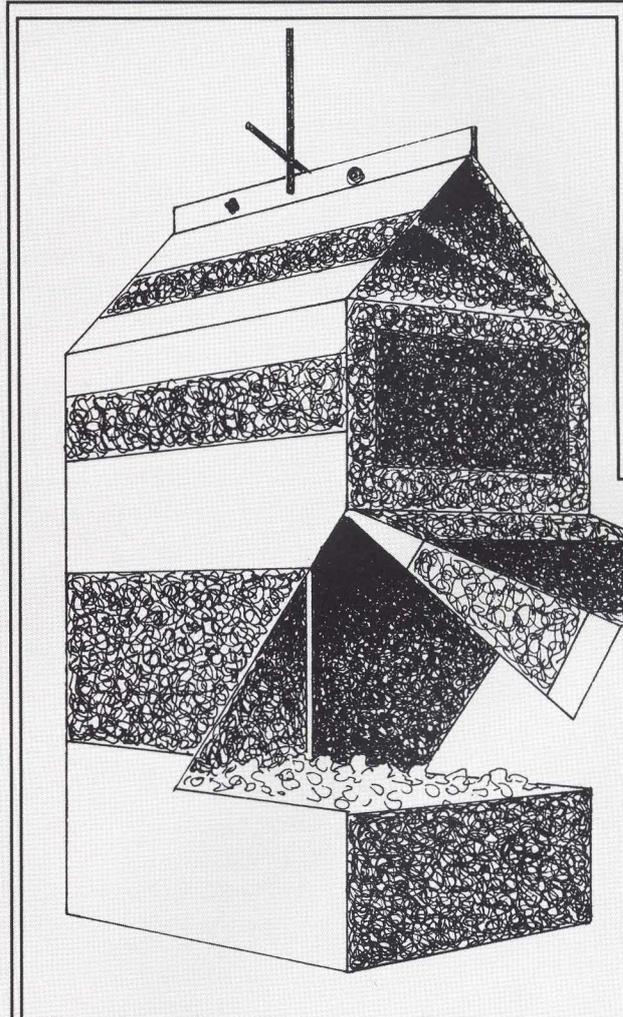
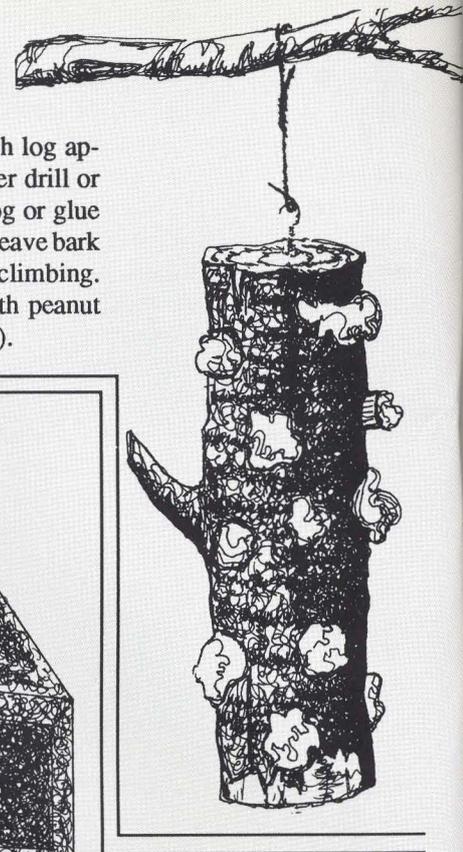


SUET SACK

Place suet (animal fat) into the sack and hang from a branch or attach to a tree. Plastic mesh bags from onion, garlic and orange sacks work the best.

LARD LOG

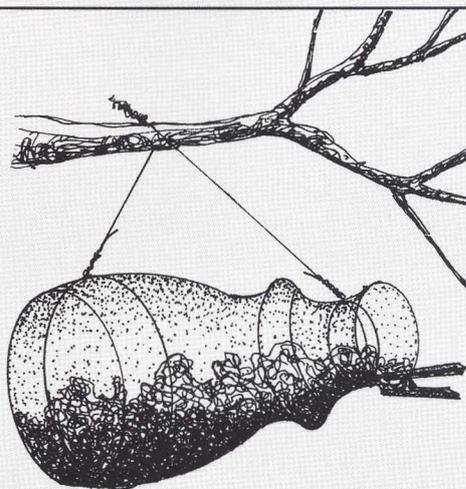
Obtain a three- to four-inch log approximately two feet long. Either drill or chisel one-inch holes into the log or glue plastic bottle caps onto the log. Leave bark on so that birds can grip while climbing. Holes or caps can be filled with peanut butter and suet (one to one ratio).



GENEROUS JAR

Fruit Juice Jar

Obtain a half-gallon fruit juice jar. Cut four-foot length of soft wire. Fasten one end around the neck of the jar. Use a pliers to twist the wire tightly around the neck. Use the other end of the wire to wrap around the other end of the jar. Shape the hanger so the front of the jar tilts up slightly. Snap a clothespin to the lip of the jar for a perch. Fill with sunflower seeds and hang from a tree branch or roof overhang within viewing distance of your window.



MIGHTY MILKER

Half-gallon Milk Carton

Two inches from the bottom, cut across one side of carton. Then, cut half-way through the carton on both sides of the original cut. From here, cut an angled slice back to a point six inches above the original cut. Make this cut on both sides. You now have a flap to lift and hook with a paper clip or wire. Staple top shut. Small holes in bottom will allow water to drain. Hang with a wire from branch or other handy spot.

Wildlife Art Series

1990 Print and Stamp—Sixth Edition



“Partners—The Kansas Pheasant”

by Jo Boswell Lumpkin

The Series

Since 1984 the Kansas Wildlife Art Series has promoted Kansas wildlife and recognized the talent of Kansas wildlife artists. The series is an annual sale of limited edition, signed and numbered art prints and stamps depicting Kansas wildlife. Each print in the series is reproduced from an original painting by a noted Kansas artist. Phillipsburg artist Jo Boswell Lumpkin has been selected as the 1990 Wildlife Art Series winner. Lumpkin's paintings have been accepted into many juried shows including the Kansas Centennial Exhibit, Kansas Southwestern Bell Cover finalist's show, Kansas City Ducks Unlimited National Wildlife Art Show and the St. Louis Zoo Wildlife Walk.

The Print

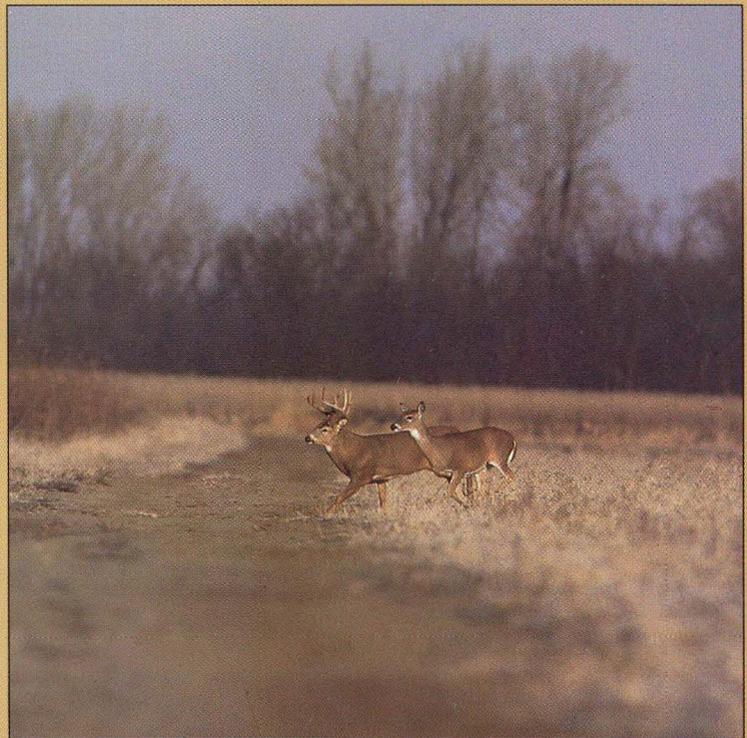
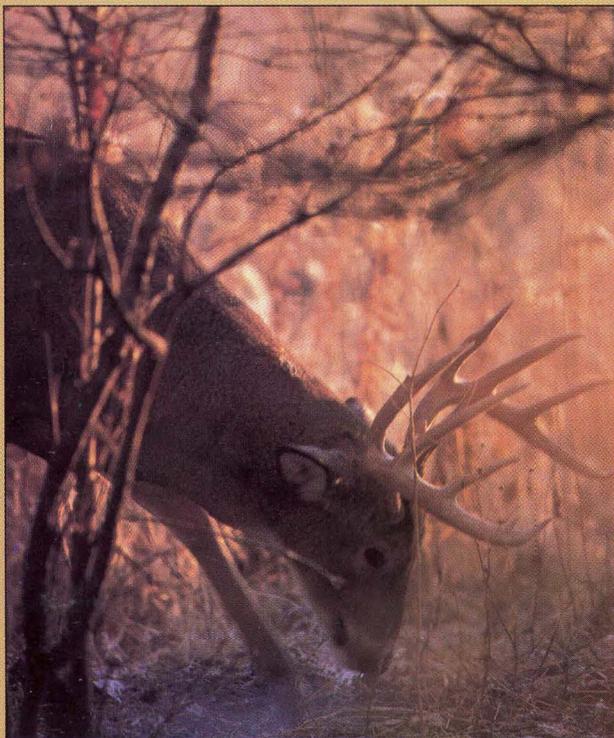
The painting is printed in full color on rag paper stock. Image size is 20⁵/₈ inches by 14³/₄ inches. Each print will be individually presented in a protective portfolio complete with artist's biography and information about the Art Series. The limited edition prints, signed and numbered, sell for \$100 each. Unsigned stamps are available for \$10 each. For more information contact Mary Lou McPhail, Department of Commerce, Travel and Tourism Division, 400 W. 8th St., 5th Floor, Topeka, KS 66603-3957, or call (913) 296-7091.

gallery

by Mike Blair



It's early November and someone's hit the switch that turns on deer. It's commonly called the rut. Bucks are on the move now, scent marking territory and putting down the calling card scrapes. The normally shy and secretive big bucks are now bold and uncautious. They search day and night for a receptive doe, then aggressively pursue the doe and fend off challenging bucks. It's not uncommon for a mature buck to lose more than 20 percent of its body weight during the rut, and some older bucks may not survive. But the drive to perpetuate the species is a powerful one. To those who hunt and observe deer, the rut is a time of awe, beauty and mystery. **Opposite:** 400mm lens, f/11, @ 1/125. **Right:** 600mm lens, f/4, @ 1/125. **Below left:** 400mm lens, f/3.5, @ 1/30. **Below right:** 600mm lens, f/8, @ 1/250.



Portrait Of A Deer Hunt

text and photos by Mike Blair
staff photographer



Trading his bow for a high-powered rifle, the hunter pursued a deer hunting dream: to take a Boone and Crockett white-tailed buck.

Marty Hoskinson was tired. Tired of the heat and dust of an unseasonably warm December, and tired of concentrating on a careful stalk for the past six hours. Just one more finger of timber, and the several miles of grassland draws that comprised his hunting area would be finished for another day.

It was the fourth day of the 1989 rifle deer season, and each had found the hunter in the same routine: out of camp before sunrise, glassing the feed fields for a trophy buck; still-hunting quietly through endless terrain during midday; and setting up again on evening wheat fields stitched with deer tracks.

The hard work was taking its toll. But in spite of the fatigue, Hoskinson had reason to be hopeful as he entered the last draw. Half a mile away over a grassy ridge, a series of tremendous rubs and scrapes attested to a super deer that lived in the vicinity. Earlier, on a quail hunt, his brother had jumped the giant white-tail from a small but nearly impenetrable thicket that lay just ahead.

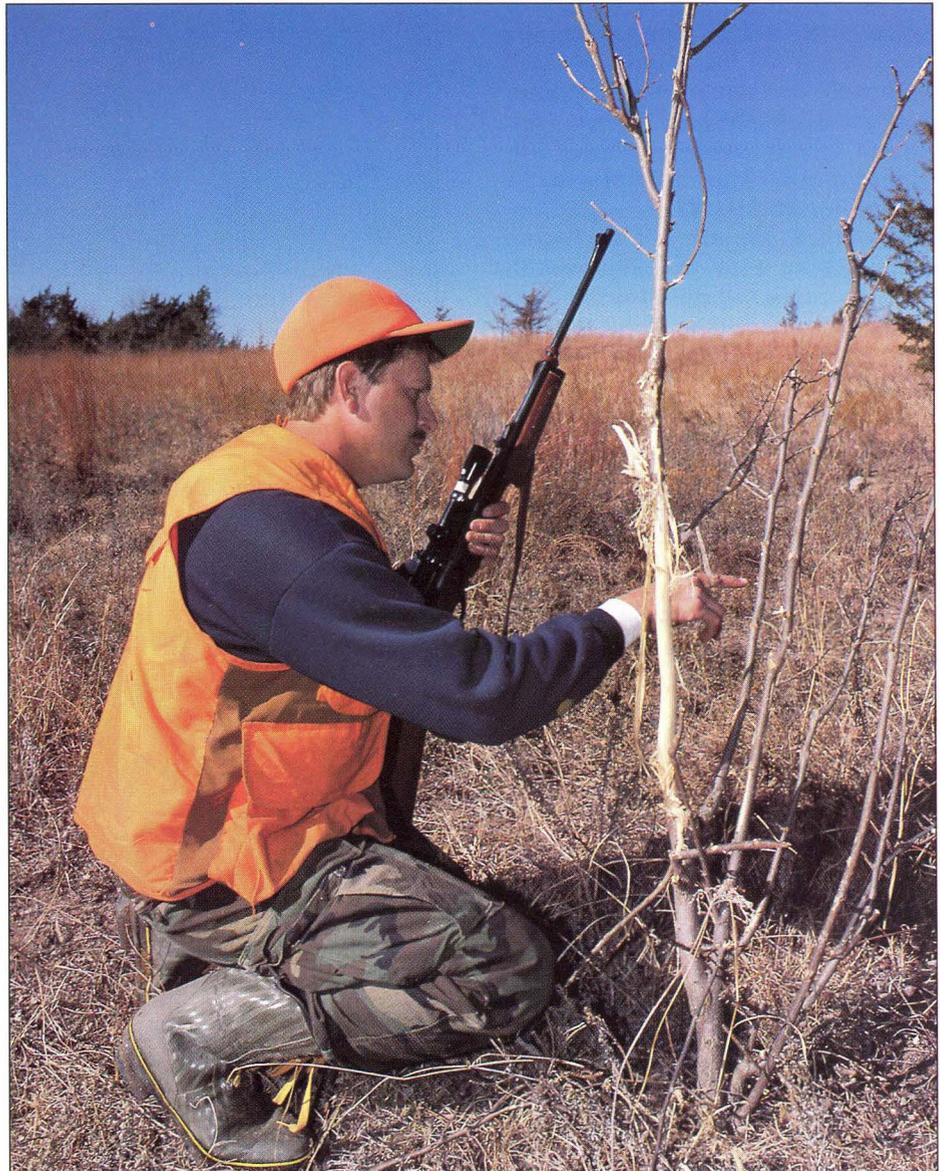
No large tracks were evident in the adjacent wheat field, and the presumed bedding site didn't contain large rubs. But still, the buck had been here . . .

Hoskinson shook away the doubts and concentrated on his work. This type of hunting marked a complete change from nearly two decades of bowhunting experience. During that time he had tagged 13 deer, some of them admirable trophies.

But when a restrictive work schedule promised to limit his bowhunting time in 1989, the Haven artist and sign painter decided to up his odds on a lifetime dream—taking a Boone and Crockett white-tailed buck.

So, for the first time in his deer hunting career, he swapped his bow for a .270 cal. rifle, sighted in at 300 yards, and began seriously scouting a remote, Barber County quail lease that promised possible success. When he drew a firearms permit for the southern Kansas unit, everything was set for the hunt.

Long distance scouting wasn't easy. Though fall turkey and upland bird seasons provided opportunities to visit the lease and observe deer sign, the hundred miles between the



Although scouting was difficult because of the distance between home and the hunting area, Hoskinson was confident that big bucks were there. Tell-tale signs such as rubs told him he was in the right area.

hunting site and Hoskinson's home made it hard to maintain the degree of contact the former bowhunter was used to.

But by the time firearms deer season arrived, he had gained adequate knowledge of deer travel patterns to be optimistic. Thanks to his brother, he also knew for sure of a huge 12-pointer that lived there.

What Hoskinson hadn't counted on, as hunting season opened, was warm, dry weather that virtually eliminated the daytime movements of rut-tired bucks. Though nights were chilly, the days quickly warmed to sweat-drenching temperatures. Miniature dust storms were kicked

up with each footstep in bone-dry wheatfields. Hunting conditions were in sharp contrast to a hoped-for snowstorm.

For a day, Hoskinson slowly still-hunted his lease without seeing so much as a doe. Chance encounters with other hunters confirmed that deer weren't moving anywhere. Hoskinson visited several adjacent ranchers and gained permission to hunt on their lands, giving him access to thousands of additional acres. But even with the abundance of good habitat, no deer were found.

The hunter was persistent. Scouting even as he hunted, it was evident that big bucks were present though

unseen. The only way to find them was on foot, and his bowhunting experience served him well.

Though the range of his weapon was greatly increased, Hoskinson used a favorite archer's strategy in hopes of surprising a trophy buck: looping his backtrack.

It worked like this. With a prevailing north wind, the hunter zig-zagged along a major east-west draw, using a screen of cover wherever possible to hide him. Each north-south pocket of cover was worked for its length into the wind. But rather than cut across open country to the next pocket in logical fashion, the hunter backtracked his route to the main east-west draw, moved forward to the next pocket and repeated the process.

There are many wasted steps in this kind of hunting, and it makes for a tiring day. But it offers distinct advantages over a more casual route



Hunting strictly on foot, Hoskinson left camp early each morning and glassed feed fields. Through the day, he slowly stillhunted the timbered draws that fingered through his hunting area. Evening found him again watching likely feeding areas.

through cover.

First, backtracking allows each pocket of cover to screen the hunter from deer bedded in adjacent pockets. Cutting across open country to save time often warns deer of danger. More importantly, though, backtracking ensures that a hunter never cuts upwind of a bedded deer, the most common reason that big bucks escape undetected.

It was good strategy, but it took a while to pay off. Pausing only to wait near feed fields at appropriate times, Hoskinson walked for three days without seeing deer. Then, on the fourth morning, the sight of a trophy buck quickly turned to disappointment.

"I guess I'm too used to bowhunting," he said, recounting the episode. "I'd been walking the brushy draws that led up into pastures, when I finally saw the buck and several does about 375 yards away. Due to lots of practice, I'm confident of shots out to 400 yards, but I didn't even think

about shooting until it was too late. The buck just walked away."

The day wore on as before, the hunter often pausing on high points to check his surroundings with binoculars, before resuming the methodical hunt. Finally, only one small draw was left—the one his brother had seen the 12-pointer in.

"I've got to admit, I'd really about given up on seeing the buck," Hoskinson said. "I'd been through this same place several times during the past few days, and now there was only about 50 yards of cover left. After walking all day, I was pretty discouraged."

As he neared the end of the trees, however, his careful tactics paid off. Moving into a brisk, 25 mph north wind, he surprised the big 12-pointer he had hoped to find, and it bolted into the open and started to circle back to the thicket.

"The buck ran behind a terrace, and all I could see was that big rack and the top of its back. I fired one

shot at 25 yards, and then it turned and ran straight away across a wheat field. My third shot dropped it at 270 yards."

The buck, which the hunter estimated to weigh 300 pounds, had a 12-point, typical rack with a 23-inch inside spread. Though the gross score measured $183\frac{1}{8}$ inches, deductions dropped the net score to $168\frac{2}{8}$, just shy of the 170-inch minimum of the Boone and Crockett record book.

Even so, it's the biggest buck Hoskinson has seen in his years of deer hunting and makes a beautiful addition to the mounted geese and ducks that serve as reference in his Central Flyway Wildlife Art Studio.

As a final and unique tribute to this memorable hunt, the wildlife artist has painted his buck in the actual Barber County setting where it was taken. And whether or not his exciting story is known, Hoskinson's painting embodies the dreams of white-tail hunters everywhere. 



Martin Hoskinson painting





Wildlife Environmental Exposure Deterrents

by Tommie Berger
*district fisheries biologist
Dodge City*

photos by Mike Blair

Most of us have a “clean-it-up” attitude when it comes to weeds, but the right weeds in the right places can be beneficial and even critical to the survival of Kansas wildlife.

In western Kansas pheasant country, where do you go in January when the snow is a foot deep to find a rooster pheasant? In eastern Kansas quail country, where will you find quail during midday in the fall? What do doves have most of in their crops during a normal September day? Where do you see more white-tailed deer every year? What kinds of seeds do you find in your seed mixture for your winter bird feeding station?

If the first thing that pops into your mind is weeds, you are on the right track. The correct answers are weed patch, weedy field borders, weed seeds, weedy wheat stubble and weed/grass seed. To many Kansans, the mere mention of *weeds* strikes

fear in their hearts and causes them to get out their mowers, chemicals or matches. The word weed is a four-letter word, and to many it is associated with the more common four-letter swear words.

But to wildlife, weeds are food, cover, nesting habitat and indicators of water sources. To wildlife, weeds are not only their living room but kitchen and bedroom as well. To wildlife, weeds are essential.

Is there a conflict here? Are weeds good or bad? That seems to be a matter of opinion, even a subject of controversy. Weeds in a crop field, in a backyard garden or in a pretty green lawn are bad. But weeds in odd areas, fence lines, draws and around old farmsteads are good.

Webster defines weed (wēd) n. as “A plant considered undesirable, unattractive or troublesome, especially one growing where it is not wanted in cultivated ground.” A secondary definition says, “something useless, detrimental or worthless.”

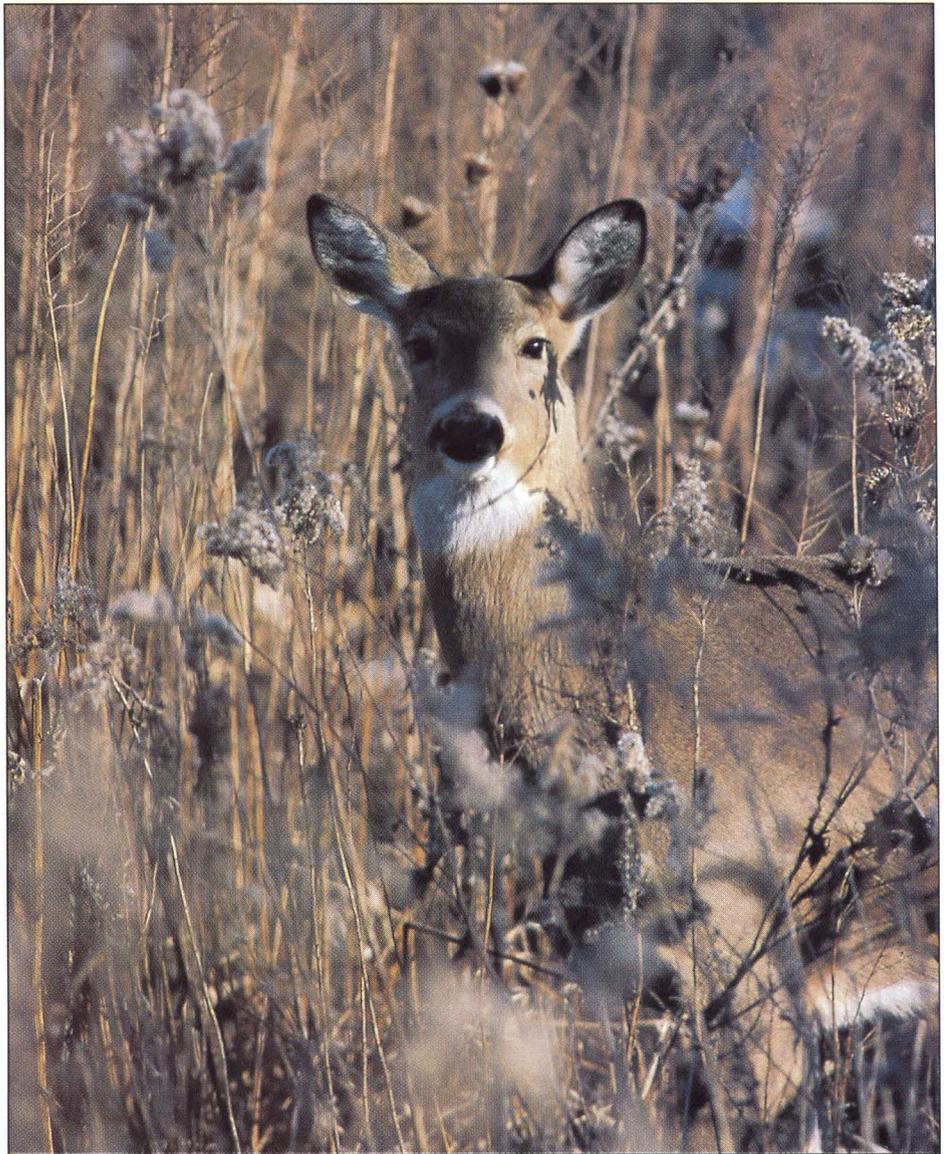
Berger defines weed (wēd) n. as “Wildlife Environmental Exposure Deterrents” or “A plant considered desirable, attractive or useful by wildlife species including game animals, game birds, nongame animals and even rodents and insects.” So, I guess whether a weed is good or bad depends on who you ask.

Many wildlife biologists would simply like to change the name. Instead of weeds, which has a negative connotation, they would like the plants to be called forbs. Webster defines forbs (forb) n. “Any herbaceous plant other than a grass, especially one growing in a field or meadow.” Unfortunately, changing our word usage will not likely change the attitudes toward these plants.

Kansas is an agricultural state. For more than a century farmers have fought a harsh environment to produce certain desirable plants as cash crops. Forbs, as beneficial as they may be, are instantly weeds when they grow in competition with cash crops. Farmers cannot afford to allow this competition and so, the battle begins.

Somewhere a proper perspective has been lost. When a weed is not growing in a cash crop, it is not necessarily a bad plant. Yet, many of us cringe at the sight of a weedy waste area or field margin. We have a “clean-it-up” philosophy. We fear that our neighbors and friends will think we are poor farmers if we have a weedy place. This attitude limits the potential of wildlife populations in Kansas. It is critical to educate the general public that weeds in some circumstances can be beautiful and beneficial. That is the goal of this article.

Weeds can benefit the farmer, protecting crops from insects by forming barriers around farm fields. Weeds can take the place of more detrimental vegetation such as cheat grass or bindweed. Weeds can mellow the soil, hold snow and retain soil moisture, prevent soil erosion and even filter pollutants from runoff. Weeds



White-tailed deer seem to be as at home in a heavy weed patch as in a more typical woodlot. Weeds provide cover and food for all wildlife, especially nongame birds.

can even be beneficial to livestock as some are high in protein value and palatable at certain times of the season, prolonging range nutrition.

Sure, there are bad weeds. In many overgrazed pastures, even the good weeds are gone because the cattle have eliminated them. What's left are cockleburs, bull nettles, jimsonweed, goathead, grass sandburs and others that even the wildlife don't like. These weeds are indicators of poor land management—weeds that are trying to tell us something.

What weeds are beneficial to wildlife? I've queried wildlife biologists throughout the state to get their ideas of beneficial weeds in various regions.

In the northeast, Lawrence biologist Mike McFadden listed ragweeds, annual sunflowers, Johnson grass, multiflora rose, tickclovers (*Desmodium*), hedge trees (Osage orange) and red cedar as the most beneficial weeds.

In the southeast, Mound City biologist Tom Swan chose ragweeds, foxtails, sunflowers and tickclovers.

Glen Elder biologist Ron Ruthstrom listed sunflowers, giant and western ragweed, partridge pea, pigweed, Illinois bundleflower, kochia (fireweed) and lespedeza as the most beneficial weeds in the northcentral and northwest regions of the state.

Biologist Carroll Lange, stationed at Winfield in the southcentral re-

gion, listed giant, common and western ragweed, annual sunflowers, Korean lespedeza, marehail, Illinois bundleflower and pigweed.

And Charlie Swank, stationed at Cheyenne Bottoms, chose kochia, western and giant ragweed, annual sunflowers, pigweed, Russian thistle (tumble weeds), Maximilian sunflower and crotons as beneficial weeds in the southwest.

There is a significant climate change from west to east. The eastern portion of the state receives more rain, is more humid and is covered with denser vegetation. The crop fields are smaller, there is more timber, more pastureland and the region supports a more diverse population of weeds. The arid west has larger crop fields and fewer weed species. But there are similarities. Near the top of the weed lists statewide were ragweeds and sunflowers. They are certainly adaptable to varied climatic conditions, and they are pretty darned important to game birds.

Ragweeds are common in pastures, lowland flood plains along streams and around old farmsteads. They are high in energy value and favorites of quail, pheasant and mourning doves. Annual sunflowers are common along roadsides and field borders and probably feed more nongame birds and rodents than game birds.

The tickclovers produce the little seeds that we call stick-tights. These weed seeds are important to upland game birds and songbirds because they stay on the plant and provide valuable food late into the winter. Foxtail grass provides food as well as cover.

Several of the plants on the north-east's list are really weeds—noxious by definition: Johnson grass and multiflora rose. These two are invaders or opportunist plants that invade areas of poor land management or frequent flooding. They are common in low-level flood plains, road ditches, overgrazed pastures and old road right-of-ways. Although they do provide some food value, the cover they provide throughout the year is their real importance. We certainly don't recommend intentional planting or managing for these species, but locate these plants and you'll probably locate wildlife.

McFadden also mentioned that



Kochia



Western ragweed



Giant ragweed



Foxtail

some trees are considered weeds, noting the hedge tree and the red cedar. Osage orange trees, better known as hedge, were commonly planted from 1930 to 1950 to provide living fences, fence posts and to slow wind erosion. Unfortunately, today Kansans are bulldozing them out faster than it took to put them in. Hedge trees have spread into pastures, road ditches and along the edges of riparian areas to provide not only late winter food for squirrels and game birds but good cover year-round.

Red cedars are perhaps the most valuable winter cover for game birds, some game animals and many nongame birds statewide. They too are invaders, the seeds spread by birds, and a menace to many ranchers in southcentral and western Kansas. Fire can be used to control cedars but isn't used as much in modern range management in these regions. I know of several dense stands of cedars in Clark and Comanche counties that I guarantee will hold white-tailed deer, turkey or both on any given day in the fall. Shelterbelts in western and central Kansas would be pretty ineffective without red cedar, both for agriculture and wildlife.

In northcentral and western Kansas, the most beneficial wildlife habitat is wheat stubble and the weeds that grow in it. The quality and quantity of habitat depends on how the stubble is managed after harvest. If it is worked continuously, it will have little value. If weeds are left to grow, it becomes excellent habitat. Weeds associated with wheat stubble are sunflowers, kochia, pigweeds and Russian thistle. I remember when I moved to the southwest in the early 1980s, I hunted pheasants exclusively in weedy wheat stubble.

Along with weedy wheat stubble, weeds around hog lots, feedyards, old homesteads and along shelterbelts are the backbone of pheasant and rabbit cover in the western part of the state. These weeds include sunflowers, ragweeds, kochia, foxtail grasses and others.

Ruthstrom also pointed out that there are misunderstandings about weeds in pastures. Native forbs (remember the herbaceous plant other than grass, especially one growing in a field or meadow) and legumes are



The winter cover provided by weeds is obvious, but summer cover allowing successful brood rearing is equally important. The weeds not only provide shelter from weather and predators, but the insects attracted to the weeds are the mainstay of the chicks' diet.

supposed to be in a grass pasture. Forbs and legumes, such as sunflowers, ragweeds, goldenrods, partridge pea, Illinois bundleflower and lespedezas are beneficial to both livestock and wild ungulates, like deer. They are high in protein and palatable at different times of the year. They provide diversity in a grass community by creating open canopy and bare ground needed by upland birds and nongame birds during nesting and brood rearing seasons. They also provide a very critical insect habitat, which is important to young prairie chickens, pheasants and quail. Forbs in grasslands are essential for good wildlife populations. Well managed native grass stands should include forbs.

In the last several years, Kansans have restored several million acres of farm land to native grass through the Conservation Reserve Program (CRP). Properly managed, this grassland can be beneficial to wildlife. However, United States Department of Agriculture philosophy is that mowing of CRP is necessary, even mandatory to control weeds. But in many instances, mowing may be de-

trimental to stands of native grasses in the second and third years. We certainly don't want weeds to take over our grass in CRP, but grass without some weed diversity might as well be a golf course green. From a wildlife standpoint, the less mowing of CRP, the better. Burning grasslands is the recommended method of maintaining not only vigorous grasses but forbs as well. The earlier in the year the burning takes place, the better the forb production.

The effects of range management and agriculture's influence on upland birds is illustrated by the severe declines in pheasant populations following the Soil Bank program of the 1950s. Farming practices have become increasingly cleaner and less weed tolerant, for several reasons. First, the economics of agriculture have become intense. The buying power of a bushel of wheat is only one-fifth today what it was in 1950. Farms that survived were forced to operate on more land, and that land has been used more intensively. Randy Rodgers, our pheasant biologist, once made a comment, "A pheasant's need for agriculture is in

a way like a man's need for water. If the bird doesn't get enough, it dies of thirst. If it gets too much, it drowns."

Another major factor is the arrival of two wheat diseases known as soil born and wheat streak mosaic. Wheat streak mosaic, in particular, affects the prime pheasant habitat in the western half of Kansas. The viral disease can be harbored in volunteer wheat that grows in summer fallow ground. Prior to the arrival of this disease, many farmers left ground idle from harvest in June until the following spring. These fallow fields would become overgrown with weeds and were the core habitat for pheasants in Kansas. Today, many farmers feel forced to work stubble patches containing volunteer wheat in late summer to reduce the risk of the virus spreading to neighboring wheat fields.

Lange is in an area of the state that is primarily grassland. He feels that many weeds and forbs are more valuable for the insects they provide than for the actual seed/food value. Weeds such as Korean lespedeza, marehail and Illinois bundleflower

seem to attract a diversity of insects which quail and prairie chickens need during brood rearing. The high protein value of insects to growing birds is very important during summer months. Ragweeds, sunflowers and pigweeds are the seed producers for winter food.

Can we manage with weeds? Wildlife populations on farm lands are affected by the principal crop, characteristics of fields, the extent of chemical use and the condition of idle land. By making a few concessions, a farmer can blend good wildlife habitat with his crop production. Weeds make it easy because they'll grow whether you manage for them or not.

Most wildlife prefer to use the zone between two different types of habitat much more than the inside of either. This is known as the edge effect. The edge harbors a mixture of plants from adjoining areas along with weeds. Field borders can be important if they are left unmowed and unsprayed. Low, wet areas in fields can be left in weeds to benefit wildlife, too.

Idle areas or areas where soil erosion is a problem should be left in some type of permanent cover. At times, weeds are as good or better than grass. Some of these areas can even be fertilized to encourage weed seeds and insects. Some form of disturbance, whether it be discing, mowing or burning, can be used periodically to encourage beneficial weeds or to reduce brush growth.

Fencerows should be left intact, especially hedgerows and shelterbelts. These and field corners can be managed for fruiting plants such as plums, elderberries, black berries and others. The sides of fencerows and other odd areas are good places for discing treatments or for planted wildlife cover and food crops.

Agricultural chemicals pose a difficult challenge. Insecticides aren't only harmful to wildlife, but also destroy the food source of brooding game birds. Some of these chemicals have proven to be directly toxic to wildlife. They may not kill birds outright, but they can make them sick and easier to catch by predators or adversely affect reproduction and chick survival.

Herbicides, of course, are de-



Wheat stubble left idle through the summer and winter is the most important pheasant cover in the western half of the state. Weeds associated with fallow wheat stubble include kochia, sunflowers, pigweeds and Russian thistle.

signed to kill weeds. Many are used by county weed departments to spray road ditches. Killing weeds and grass is basically reducing wildlife habitat and will in turn reduce wildlife numbers. Sportsmen and wildlife professionals would certainly like to see less spraying of herbicides and insecticides statewide. A good practice is to avoid treating field borders and road ditches that are extremely valuable to our wildlife populations, especially in the west.

Fire is a good basic management tool, but if used at the wrong time, it can be devastating to wildlife. Burning road ditches in fall and winter destroys immeasurable acres of wildlife cover when it's needed most. Burning late in the spring destroys many nests of ground nesting birds. Learning to burn at the correct time can make a grassland manager a wildlife manager as well. April through May is the best time to burn in Kansas.

Managing crop residues is an important practice in farming today. It is a known fact that crop residues act as mulch and hold water on the up-

lands and in the soil. There is some controversy as to whether weeds help with this moisture retention or suck moisture from the ground. Some feel the shading effect, the soil aeration value, the catching of snow and the cover provided for wildlife are positive benefits. Others want every blade of green eliminated from fields. Repeatedly working the soil tends to dry it out. The type of management makes a big difference to wildlife. For instance, undercutting wheat stubble is much preferred over discing for winter pheasant cover. Contour farming and crop rotation all can be done in ways that benefit wildlife.

We've looked at weeds from just about every angle and hopefully changed the way people look at weeds. It won't be easy to change attitudes from total eradication of weeds to one of preserving them, or even managing for them, but it could be a tremendous value to wildlife. Don't think of weed as a four-letter word, but rather as Wildlife Environmental Exposure Deterrent. ♡

The Tradition Of The Muzzleloader

by Charlie Swank
district wildlife biologist
Great Bend

photos by Mike Blair



Shooting a muzzleloading rifle is a step back in time and rewarding. Muzzleloaders may seem complicated to the centerfire shooter, but basics are really simple.

The buckskin-clad hunter moved silently along the tree-lined river bed. He spotted his quarry and slowly cocked the hammer on his 50 cal. muzzleloader. When the buckhorn sights settled on the large buck, he held his breath and squeezed the trigger. There was a thunderous boom, and his target was instantly obscured by a thick cloud of white smoke. To many, this sounds like a story about a mountain man in the early 1800s, but in reality, it's about modern-day Kansas and muzzleloader hunting.

The use of muzzleloaders has increased in recent years, and with Kansas' special muzzleloader season (held in late September), continued popularity is assured. The attraction of the primitive weapon is the greater challenge. Muzzleloader hunters are limited to shots just over 100 yards or closer. Generally, one shot is all you're going to get because of the slow reloading process. And muzzleloader hunting is a tie with our American ancestors who fed themselves and their families with these wonderful firearms.

Muzzleloader hunting requires more involvement from the hunter. He must be thoroughly familiar with the gun, know about powder types, patches, lubricants and loading and cleaning procedures. To the hunter who has traditionally hunted with a centerfire rifle, muzzleloaders probably seem complicated. However, once the basics are learned, the use of these old-time guns is easy.

To begin, the hunter needs to choose the type of muzzleloader he wants. The two most common types are the flintlock and percussion rifles. The flintlock uses an ignition system that has a piece of flint attached to the gun's hammer. When the trigger is pulled, the flint will scrape on a part of the lock called the frizzen. This creates sparks that ignite priming powder, which throws fire into a vent hole in the side of the barrel. The main charge then burns, and the bullet is sent toward its target.

The percussion system is very similar to the flintlock. Instead of the flint and frizzen causing a spark, a percussion cap is struck by the hammer. The cap explodes and sends fire through the vent and into the main powder

charge. Since the percussion rifle is the most popular and best for the beginning muzzleloading hunter, this article will focus on the percussion.

There are many types of percussion rifles on the market. The most common are the hawken replicas. Although they don't appeal to purists, they account for more deer in Kansas than any other model. There are also several types of modern muzzleloaders that look more like a bolt action high-powered rifle than a black powder gun. The favorites of buckskinners are the long and mountain rifles made in the same manner they were more than a century ago. The hunter should choose whichever style of rifle suits his fancy and fits his pocket book. Quality muzzleloaders can cost anywhere from \$200 for the popular hawken-style to more than \$500 for custom made long rifles.

The caliber of your rifle is more important than the style. For legal deer hunting in Kansas, a muzzleloader must be .45 caliber or greater. Because the muzzleloader ball or bullet travels much slower than a centerfire bullet and delivers less shock power, a larger caliber, such as a .50 is recommended for deer. If elk hunting is planned, a .54 caliber is best.

The next decision to make is what style of bullet to use. This is important because the amount of rifling twist in the barrel will determine which bullet is most accurate. Generally, barrels with faster twists (one turn in 20-50 inches) shoot the maxi-ball type (conical) bullets best. Slower twists (one turn in 60 inches) will shoot only round balls accurately. The heavier maxi-balls penetrate better and are easier to load, but they do generate more recoil and usually aren't as accurate as round balls.

There is only one more decision that needs to be made before you can start shooting your rifle—which type of powder to use. There are two choices: black powder and Pyrodex. Black powder ignites easily but leaves large amounts of residue in the barrel and is more hygroscopic (absorbs moisture from air). On the other hand, Pyrodex is more difficult to ignite but usually burns a little cleaner and is somewhat less hygroscopic. Black powder may be harder to find. Due to rigid storage requirements, many retailers choose not to stock this material on their shelves. Pyrodex is very easy to legally store, and almost any sporting goods outlet will have a plentiful supply.

Black powder is available in several granulations. FFG (commonly called "double F") is a very good choice for .45 to .58 caliber, while FFFG ("triple F") is used in smaller caliber rifles. Triple F can be used in larger rifles but only with a reduced charge.

Pyrodex is available in four different grades. The only Pyrodex grade designed for use in percussion muzzleloading rifles is RS. It should also be noted that Pyrodex cannot be used in flintlock rifles.

Having made your choice, the correct amount of powder must be used to have an accurate and safe shot. Be sure to read your owner's manual and do not exceed the recommended loads.

You are now ready to load your new muzzleloader. The first thing to do is make sure there is no oil or grease in the barrel or chamber. This could contaminate the powder charge and cause a misfire or hangfire (a hangfire occurs when the powder burns slowly at first and the rifle doesn't fire for a second or two after the trigger is pulled). After



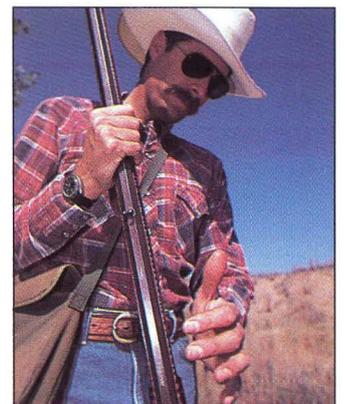
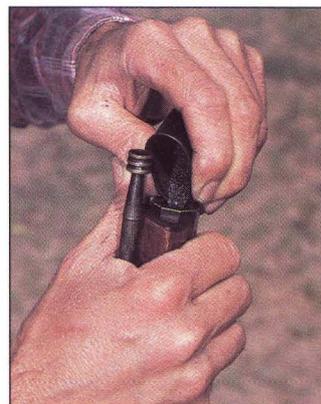
Gene Brehm photo

Necessities for basic muzzleloading include the rifle, powder flask, patches for round balls, graduated powder measure, caps and bullets (either round ball or conical).

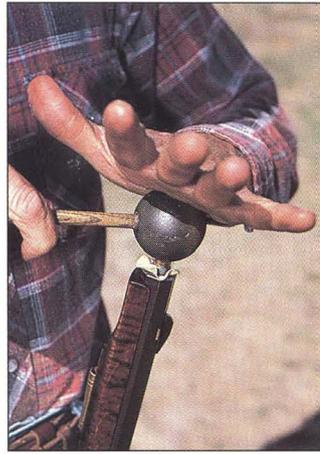
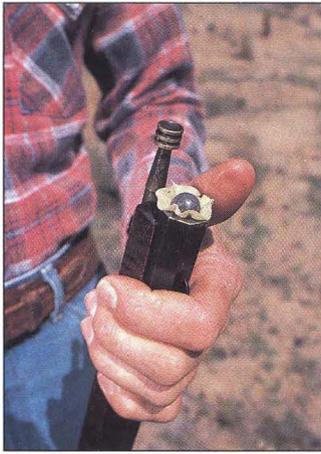
removing all oil from the barrel, snap several percussion caps on the nipple before loading. This will clear away any oil that may have accumulated in the nipple port or vent.

This rifle is now ready to be charged. With the hammer at half-cock, pour a premeasured powder charge down the barrel. It is important to never pour powder directly from a flask, can or powder horn. It's possible that a spark from a previous shot could ignite the charge and explode the powder container in your hand. Use a graduated powder measure or container with premeasured charge. I use plastic 35mm film containers. They are not only water proof, but the canister lip can be squeezed together to form a pouring spout. Once the powder is down the barrel, rap the rifle stock with the heel of your hand to settle the powder into the chamber.

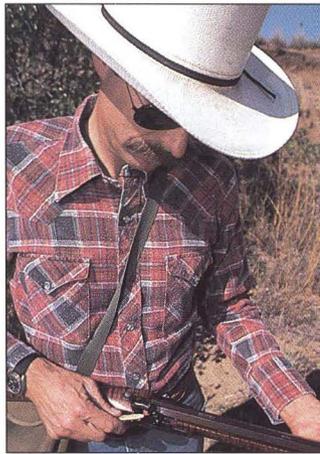
Now you're ready to seat the ball or bullet. You must first lubricate the grooves on maxi-ball type bullets. The flat base of the conical bullet is then started into the barrel with thumb pressure. Next a bullet starter is used to push the maxi-ball several inches down the barrel. The ram rod is then inserted and the bullet is pushed down and firmly seated on top of the powder charge.



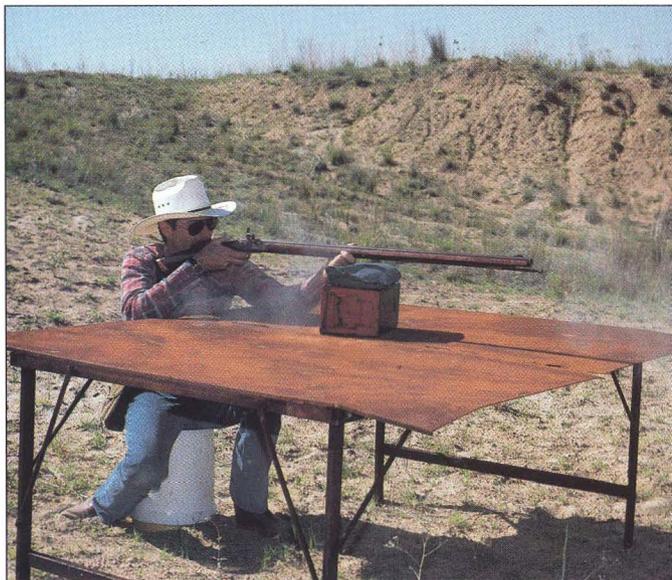
Pour a premeasured powder charge from a container, never from a flask. Rap the side of the rifle a few times to make sure powder settles in the chamber.



Center the round ball on a pre-lubed patch on the barrel. Use the short end of the ball starter to push the ball flush with the muzzle. Then push ball several inches further down the barrel with the longer rod, and finally, seat the ball on powder with the ram rod.



A mark made on the ramrod when the ball is firmly seated will provide a reference in future loadings. Press a cap on the nipple, cock hammer and you're ready to shoot.



Sight your muzzleloader in with a bench rest so you know exactly where it shoots. Then practice from a variety of positions you might use in the field.

Loading a round ball is a little more complicated. First, the ball must be centered on a piece of lubed patch cloth. There are several different brands of pre-cut and pre-lubed patches on the market. Pick one that is thick enough to make the ball fit tightly in your barrel. Place the stubby end of the bullet starter on the ball and apply pressure until the ball is flush with the muzzle. Now, reverse the bullet starter and place the longer rod on the ball. Give the starter a hard rap with the heel of your hand to push the ball several inches down the barrel. The ram rod can now be used to seat the ball on top of the powder.

It is important to make sure the bullet or ball is seated firmly on top of the powder. If there is a space between the bullet and powder when the rifle is fired, the bullet would act as an obstruction and may cause the barrel to burst or rupture. It's a good idea to have a reference mark on your ram rod flush with the muzzle when a bullet is firmly seated.

The rifle is now ready to prime and shoot. With the rifle pointed in a safe direction, press a percussion cap all the way down on the nipple, pull the hammer to full cock, aim and fire.

All muzzleloaders must be cleaned soon after shooting. The more shots that are fired, the more residue will build up and the tougher it will be to clean. Excess residue will also destroy accuracy and make bullet seating difficult. As soon as you arrive home after shooting, start the cleaning process. The method that works best is to use boiling water and liquid dishwashing soap.

If your gun has a hooked breech, remove the barrel from the stock and remove the nipple. Fill a bucket with boiling water and add a squirt of liquid soap. Submerge the breech in the water and run a tight fitting wet patch down the barrel on the end of the cleaning rod. Start pumping the rod up and down to draw the water into the barrel. This will flush the residue out through the nipple hole. Once the barrel is clean, rinse with boiling water, wipe off excess and set to dry. It's important to use boiling water because it heats the barrel and causes much of the water left on the metal to evaporate quickly. Wipe the exterior metal parts of the gun with a wet patch then coat with a moisture displacing lubricant such as WD-40. When the barrel has dried, make sure all the moisture is out by running a WD-40 coated patch through it. Then coat it with a good quality oil or gun grease.

If your muzzleloader doesn't have a hooked breech, a short length of rubber tubing can be attached to the nipple. The end of the tubing is dropped in the bucket of water, and the same method described is used.

When hunting with a muzzleloader, there will be several accessories and supplies you'll need to carry at all times. Extra powder, caps, patches and bullets are a must along with a bullet puller, nipple wrench, cleaning jag and bullet starter. These can be carried in pockets of your hunting coat, fanny pack, or in a small cloth or leather bag slung over your shoulder.

The key to being a good shot with your muzzleloader is practice. Practice shooting blackpowder can be fun year-round and will prepare you for the big buck in the fall. Remember you only have one shot and you want to be ready. 



A Christmas Tree

Maybe it was the wispy cirrus clouds promising a snowfall that set the mood. Or the ringing bells at downtown stores, or the chill of the air that told us. But somehow, in a quiet way, it was suddenly Christmas.

"Daddy, can we get a Christmas tree?" It was Jennie who said it, eyes dancing with all the expectations of a 5-year-old. It was a question that begged asking. Now that it had been, we would wait no longer.

Even the aroma of a baking pheasant was temporarily forgotten. The trimmings, the sauces, the planned schedule for dinner—all were set aside. Tonight, a Christmas tree would stand in the window. It was decided.

Amid the confusion of finding coats and tying shoes, the four of us set off for the distant fields where cedars grew. These were wild trees which fed the birds and tempered the wind. Among them we would find our prize.

By invitation we searched. Months earlier, a man who owned a woodland had thought of the children and asked us to come where cottonwoods lined the creek and guarded the young cedars in the winter. "You'll need a tree," he said. "I've got plenty for the taking."

So the creek with the cedars is where we went.

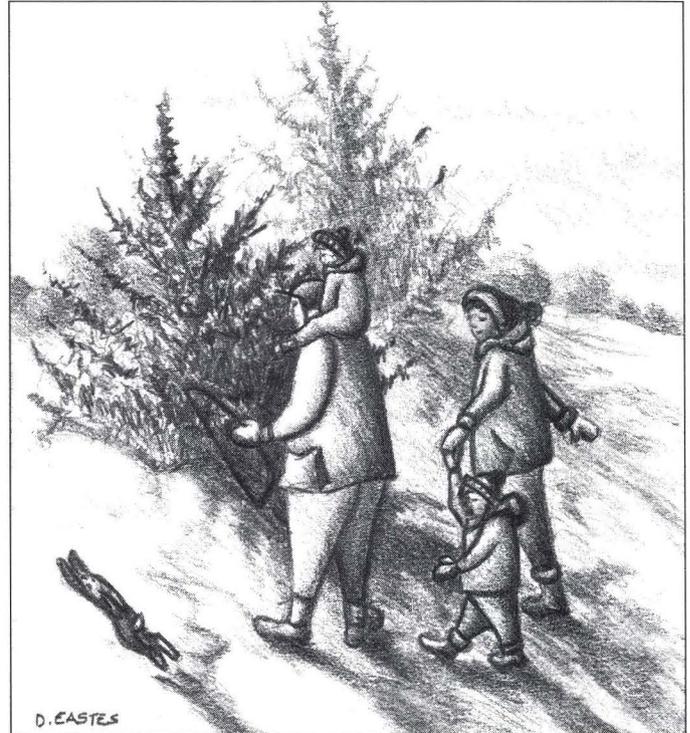
The late afternoon smelled of musty leaves and evergreens, through chilly air that stung the nostrils and turned ears red beneath stocking caps. But the cold is hardly noticed when searching for a Christmas tree.

There were dozens of choices. Some had large holes where branches were missing, and these were quickly dismissed. But others were of near-perfect form, requiring much comparison over the acres of prospects. Getting the right tree was important.

Once, a cottontail burst from its form at the base of a cedar. "Mommy, look! There goes a rabbit!" Jennie said, recovering from her surprise. Kaycie, our two-year-old riding atop my shoulders, simply pointed and said, "Bun-rab."

"He lives here," I told them. "The trees are his home."

The passing seasons were recorded all around us. For youngsters with many questions, an abandoned bird nest was a lesson in life. Why some trees were big and others



Dana Eastes illustration

little, had to be explained. Crows returning home in the afternoon sky were an evidence of migration. There was much to talk about as we searched.

Finally, the choice was between two trees. Both were tall and straight, full of boughs. We looked at them carefully, and chose the smaller. In a moment, it was severed.

From the stump, we counted seven rings—seven years this tree had grown. Now it would be a special part of our lives, representing the most important holiday of the year. Crowned with an angel, it would remind us of God's great gift to Man on a Christmas long ago.

In the gathering dusk, with the smell of cedar strong in the air and a tree in tow, our family shared the excitement of another yule season newly born. With a lighted tree in the window, it would truly be Christmas.



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