

KANSAS FISH & GAME



Sept.-Oct., 1977

Single Copy 50 Cents

Featuring
Bats
Prairie Elk
Sighting-in
Medalist Murdock

*Harts
Cover
photo*

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Vol. 34, No. 5

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KANSAS FISH & GAME is an official bi-monthly publication of the Kansas Forestry, Fish and Game Commission, Box 1028, Pratt, Kansas 67124. Effective July 1, 1976, the magazine will be available on a paid subscription basis. Subscription rates are \$3.00 for one year, \$5.00 for two years and \$7.00 for three years. Articles in the magazine may be reprinted without permission provided proper credit is given. Second class postage paid at Topeka, Kansas, and additional mailing offices.

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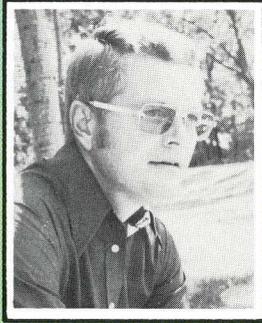
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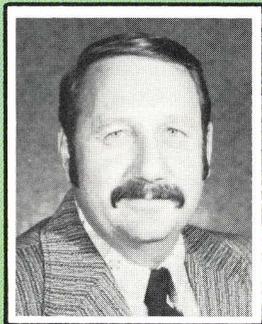
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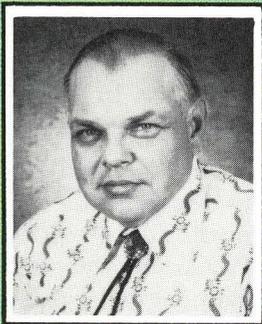
Editorial PREVIEW



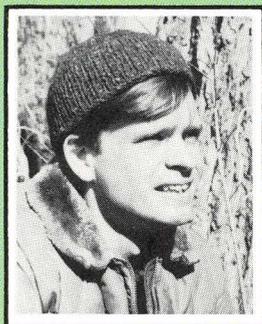
Anderson



Hlavachick



Valyer



Madson

We're coming up on what may be the best two months of the year for enjoying Kansas wildlife. After a summer of brood-rearing and hunting for shade, critters are getting ready to move—the bluewings are heading up the flight from Canada, and closer to home, the doves and dickeybirds are grouping up and looking south. This fall restlessness is a sign that we haven't taken all the wildness out of the Midwest yet.

Our first article takes a look at a remnant of younger days in Kansas, the prairie elk. Kent Stucky, a frequent visitor of the Maxwell Game Preserve, has supplied some excellent elk transparencies to illustrate the observations of two 19th century Kansas plainsmen. The Kansas they describe doesn't bear much resemblance to modern country. It's hard to believe that only a hundred years separate us from those times.

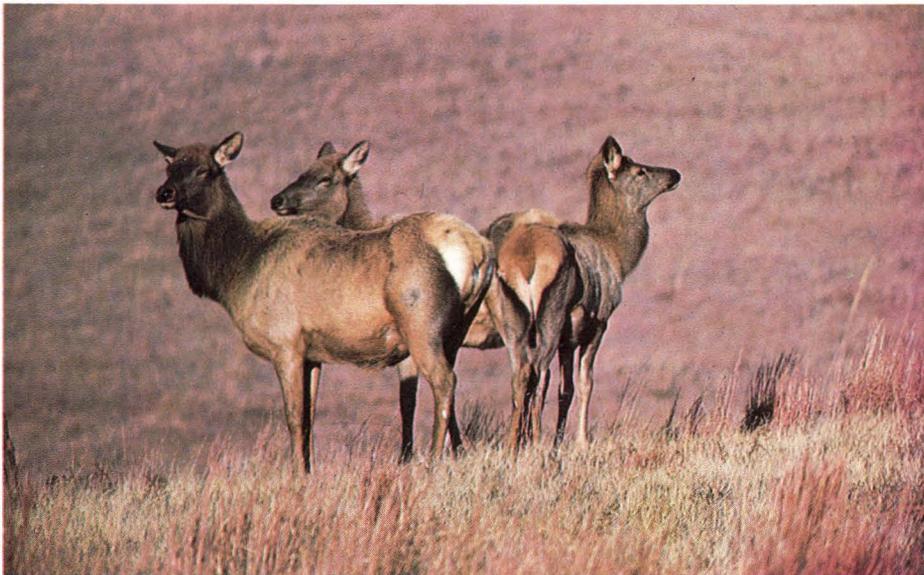
Staff writer George Anderson has researched another Kansas wildlife profile. His subject this issue the bat, one of the most unloved, misunderstood mammals in the state. The facts Anderson has turned up may not change the way you feel about bats, but at least you'll know a little better what makes them tick. Leonard Lee Rue's pictures of red and little brown bats show why he's known as one of the best wildlife photographers in the country.

Fish and Game biologist Bill Hlavachick is next with a how-to article on sighting in. Bill is a native of Colorado where good shooting and an accurate rifle are vital for a successful deer hunt. The average shot at a deer in Kansas probably isn't nearly as long as most Colorado chances, but Colorado or Kansas, a rifle that hasn't been sighted in can mean a miss or, even worse, a crippling shot. Accurate shooting is the subject of our next article, too. We've interviewed Margaret Murdock, Olympic smallbore medalist, on the sport of target rifle shooting. Her comments reveal the difficulty of the sport and give an inside look at the Olympics as well. We've also put together a short piece on the tools of the competitive shooter. It's too bad that recent anti-gun sentiment has blunted public interest in target shooting—it's an absorbing, challenging sport. This article will give you a taste of it.

George Valyer considers a new and increasingly popular piece of outdoor equipment in his article "C.B. and the Sportsman". The article is a balanced look at the pros and cons of citizen's band. This is George's last article as a member of the staff of KANSAS FISH AND GAME. He retired recently. Says he wants to find out how long it takes to wear out an Ambassadeur 5000 casting reel.

Our last piece covers the scraps of advice the bowhunting expert seldom bothers to mention. It's good reading for the beginning bowhunter.

—Chris Madson.



Prairie



The thought of a seven-point bull elk tending his harem of cows just naturally brings to mind a scene in the Rocky Mountain high country, but the elk wasn't always just a high country critter. In 1891, a Wichita old-timer, J.R. Meade, wrote about how it used to be on the Kansas prairie:

"In 1859 to 64, the eastern range of the elk in Kansas would be a line drawn north and south through El Dorado, Butler County. All country west of that in Kansas was ranged over by them and I presume occasionally east of that line. . . .

"Elk followed the timbered creeks, probably for the browse they seemed to prefer. For instance, a herd would cross the Solomon River coming from the north. . . . Cross the divide to, say, the head of Spillman's Creek; follow it down to its mouth. Then follow the valley of the Saline River down a few miles, feeding as they went, to the big ford at the narrows where Lincoln now stands; cross there and feed along up Elkhorn Creek to the head of Alum Creek and follow that down to the Smoky Hill River, and from there went I do not know where. . . . I only saw the large herds of 'a thousand more or less' in summer or fall. But old bulls were found in the broken hills between Saline and Solomon Rivers all winter. . . . The elk



ELK

Photography by Kent Stucky

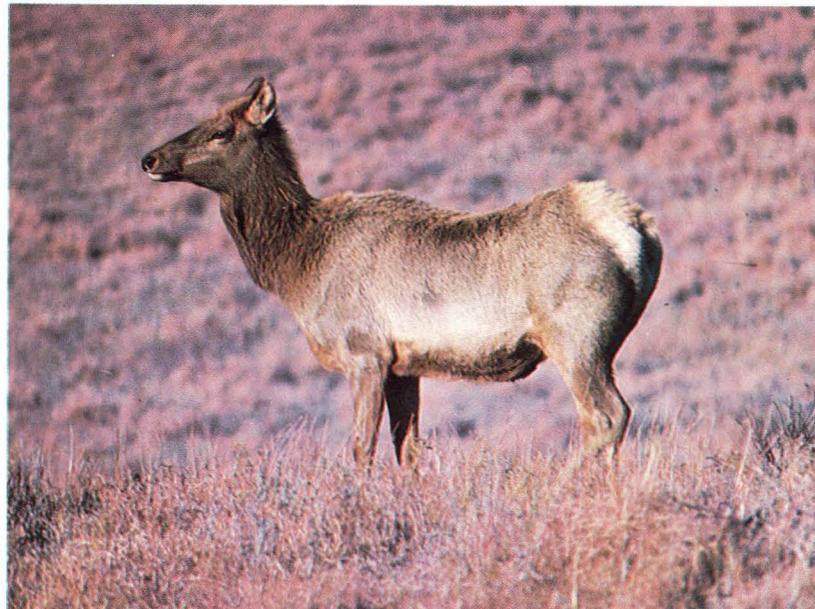
preferred broken country with timbered canyons and streams and were not plentiful in the level treeless country adjacent to the Arkansas River. . . . Elk were much more numerous north of the Smoky Hill River than south of it. . . .

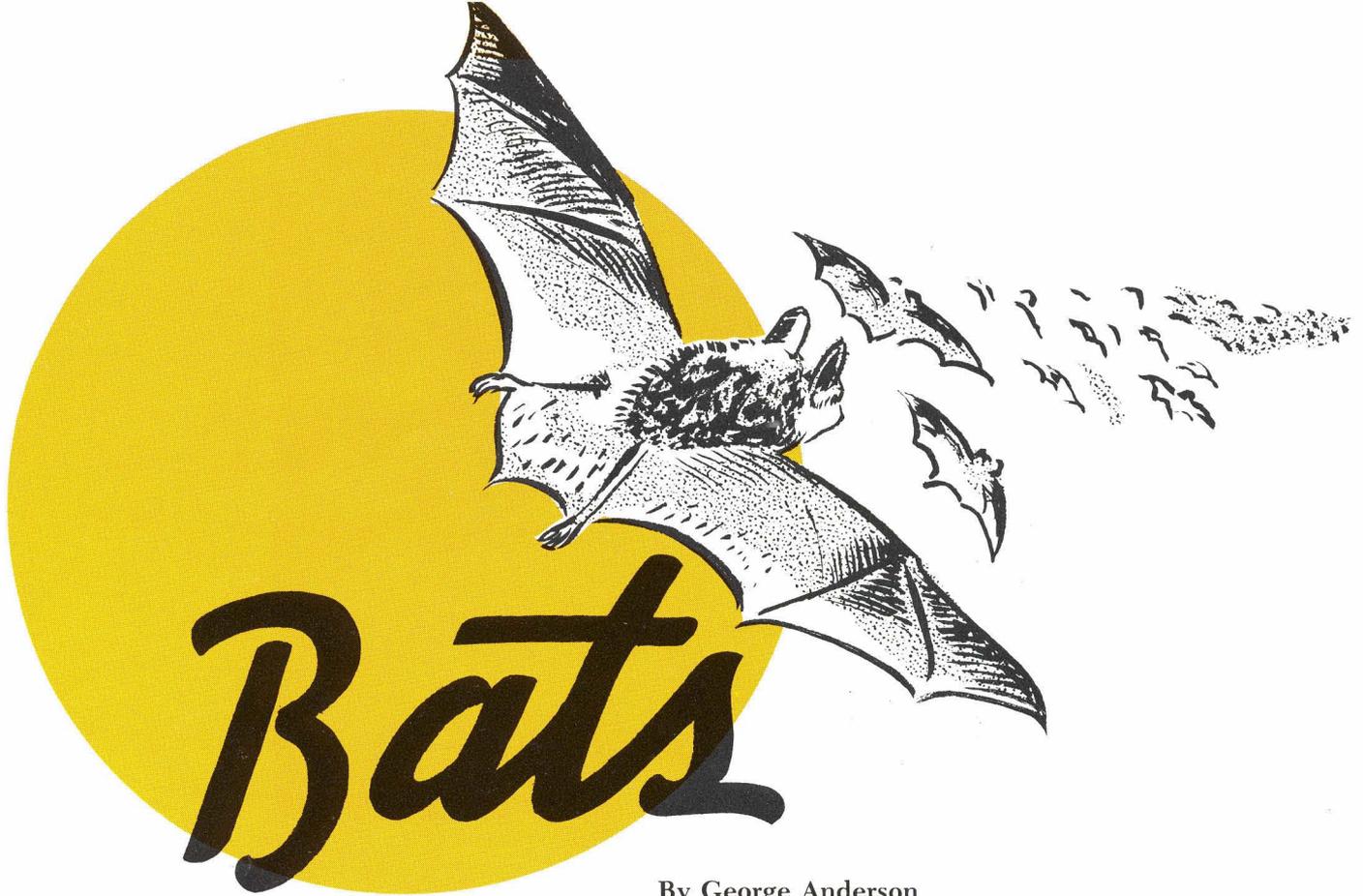
“I have seen a thousand more or less in one drove. . . . I have killed elk on the Solomon, Saline, Smoky Hill, and Arkansas Rivers and their tributaries. . . . Have seen fifty to a hundred in a drove in the Indian Territory just over the line ten miles below Kiowa, Barber County. Have known them killed in Butler County, Kansas on the Walnut River.”

J. A. Allen, an early biologist working on the plains, made this report from Fort Hays in 1871: “Elk more or less common near the streams, especially on Paradise Creek, and occur as far east at least as Fort Harker Ellsworth County.” (Both quotations from Olaus Murie, *The Elk of North America*.)

Originally, elk were found almost everywhere in the U.S., but their eastern limit receded as the frontier moved west from the Atlantic. In Kansas, the transition from elk to agriculture had occurred by 1890.

Today, the only elk you’re likely to find in the state are behind fences, like these bulls, part of a herd of 47 on the 2000-acre Maxwell Game Preserve in McPherson County.





By George Anderson

SURROUNDED by tales of the supernatural, the bat has long been a maligned animal.

Be honest! Most of you think of bats as creatures of hell, playmates of ghouls, ghost, witches and “things that go bump in the night.”

It has long been an accepted fact that repetition is the best teacher. If you tell someone something enough times they'll start believing it and therein lies the human fear of bats.

Very few of us haven't spent a Saturday night at the local movie house watching the exploits of that suave, devil-may-care character from the old country—“Count Dracula”.

The Count, with his late-night antics, fanged teeth, black cape and coffin-bed, has probably brought more discredit to bats than anything else. Thanks to Mr. Dracula and the “vampire image”, all bats are characterized as blood-sucking vampires.

While there are bats that suck blood, the majority eat bugs so unless you're a bug, you don't have to worry about the bat.

Vampire bats do exist but not in the United States, and they're not anything like their mythical counterpart. Vampires are found in Central and South America where they prey mainly on cattle. They will attach themselves to the cattle at night and draw blood from them. The cattle are rarely killed or die from vampires unless the bat was infected by some disease such as rabies. Any warm-blooded animal can contact rabies so persons handling bats should guard against bites.

According to Desmond Morris in his book, *The*

Mammals, there are 981 species of bats alive today, making this order second in size only to the rodents. The distribution is virtually world-wide; only the polar regions are completely batless.

The largest members of the bat family are the fruit-eating bats that inhabit the same area as the vampires. These large bats can cause damage to orchards where they forage. Unlike bats found in Kansas, fruit bats have good vision and fly in weak light.

Bats found in Kansas are insectivorous, smaller, have poor eye sight but can fly in total darkness. This is accomplished by their excellent echo-sounding system which we'll go into a little later.

Bats are the only mammals capable of sustained flight. They constitute the order Chiroptera which comes from two Greek words and means “winged hand”, referring to the winged limbs common to this group. Looking at the wing of a bat you'll discover they are more like arms with the fingers spread wide open. Covering this framework are two layers of skin with a hooklike thumb sticking out. The bare skin cape wing extends back along the bats body and the feet trail behind.

Are bats capable fliers? Without question they're one of the best. They can swoop, glide, dive and hover in quest of their favorite insect food. Even though they seem to be hunting on silent wind, they are actually “yelling”. This “yelling” cannot be detected by the human ear because the frequency range is too high.

Humans can hear sounds ranging from 20 hertz to about 20,000 hertz. A hertz is described as one vibra-

tion per second. Most frequencies used by bats fall between 20,000 hertz and 130,000 hertz. In other words bats guide their flight and locate insects by what is called echolocation or sonar.

Writing in *Wyoming Wildlife*, Douglas M. Crowe, described the bats' sonar as a call that is repeated at regular intervals, the principle being that sound travels out until it hits an object and then bounces back. The interval between the time the sound was emitted and the time it returns allows the animals to determine the direction and distance of the object encountered. This is how the bat avoids obstacles and locates prey in total darkness.

So sensitive is this sonar system that bats can tell the difference between rough and smooth surfaces as well as distinguish wires as small as .007 inches in diameter. Interestingly enough, some insect prey species have developed the ability to detect this sonar and fly evasive patterns; others actually emit sounds that "jam" the bats location frequencies. These evasive tactics notwithstanding, bats are amazingly efficient insect predators. In a controlled experiment, one individual was able to capture and consume 175 mosquitoes in 15 minutes.

When you combine the bats' flying ability with their

unique radar system you have a real "aerial bug-buster".

According to Dennis Falth writing in *Montana Outdoors*, scientists examining bat flight behavior with high speed photo equipment, have revealed many secrets of these sojourners of the night. The casual flick of a wing tip has purpose. A bat may actually reach out with its "fingers" and pluck a night-flying moth from the air. The moth is then transferred to the uropatagium (that portion of the flight membrane stretched between the hind legs), from which it is eaten. If the prey is large, the bat may alight momentarily to eat it. Smaller items are usually consumed while flying. Some bats consume their prey entirely, while others reject the head, wings and legs.

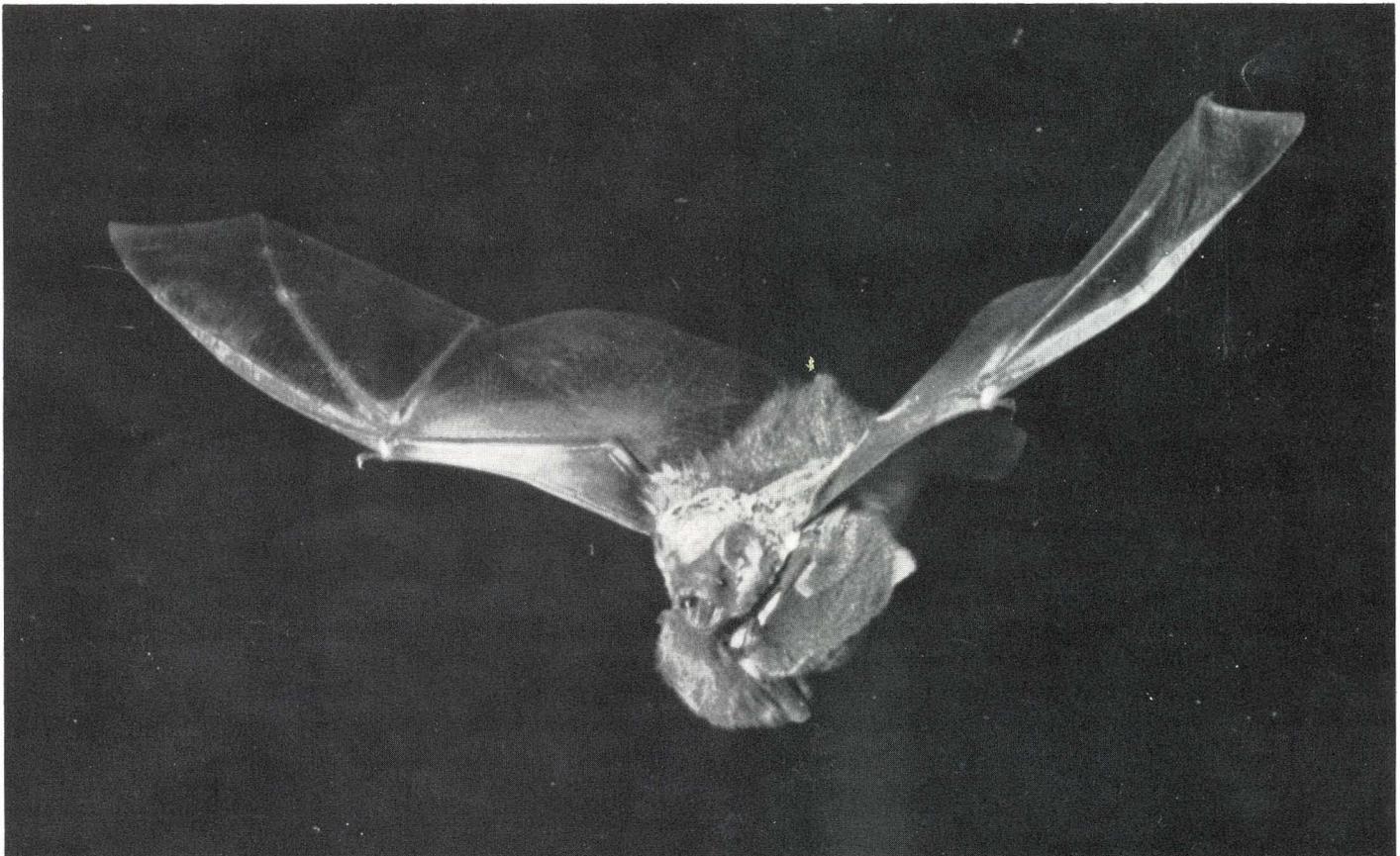
Bats sometimes capture insects in mid-air by using the uropatagium. They simply form a pouch out of this membrane and scoop the bug up like a centerfielder making a diving catch on a well-hit ball.

How effective could one bat colony be in controlling insects? In 1969 a biologist calculated that the bat population of a cave in Arizona consumed 40 tons of bugs in a single night.

Just think how much bug spray it would take to kill 80,000 pounds of insects.

A female red bat moving her four young to a new roosting site.

Photo by Leonard Lee Rue





Church steeples, caves, and old attics are favorite bat haunts, but they may settle in abandoned mines, under the eaves of houses, or in city sewage systems as well.

A study conducted in southcentral Kansas by Thomas H. Kuntz of Boston University confirms the valuable role bats play in consuming insects. Kuntz conducted the study over a period of 5 years determined that an estimated population of 50,000 bats of one species in a two-county area consumed more than 16 tons of insects during a season. Significant evidence of bats' importance to man as natural predators of insects harmful to agricultural crops.

In 1967, a publication from the University of Kansas

Museum of Natural History entitled *The Distributional Status of Bats in Kansas* listed 15 species of bats occurring in Kansas. Of this number, the big brown bat is the most abundant and widespread of Kansas bats.

Other species of bats known to occur in Kansas include: gray, Keen's, small-footed, little brown, cave, silver-haired, eastern pipistrelle, red, hoary, evening, long-eared, pallid, Brazilian free-tailed and big free-tailed bats.

The known species of bats in Kansas were compiled during the late 1960's based on a study of 1,646 specimens. During this time approximately 8,000 bats of eight different species were banded with numbered aluminum bands on the forearm.

In May of 1971, this writer had his first experience with a banded bat.

I was like most folks, I didn't give bats much thought one way or the other. I was sure however they were mean, nasty little critters that were best left alone.

This particular bat was found on the Alvin Billinger farm south of Collyer in northwest Kansas. The bat was dead when found and was wearing an aluminum band.

At the time, I was a game protector stationed in northwest Kansas and was notified of the band recovery. The bat had been taken to the Trego County Courthouse and left with Judge David Rhoades for me to pick up. The only comment Judge Rhoades had when I arrived was "Isn't anything sacred to you people? You'll band anything that will hold still."

After trading a few more insults with Dave, I removed the band and sent it to the U.S. Fish and Wildlife Service in Washington, D.C. The tiny band was one of theirs and bore the number 7-03124. It proved to be an unusual band recovery.

I was later notified by the Fish and Wildlife Service that the bat was a Mexican free-tailed bat and was a female. She had been banded by Dr. Philip Leitner on August 10, 1970 in Osceola Cave, White Pine County, Nevada.

But 7-03124 had made an unusual journey in 9 months. From the caves of Nevada to the high plains of western Kansas.

Like Dave Rhoades and myself, you might have been surprised to learn that there was a bat banding program.

Like waterfowl banding, a great deal of information has been learned about the habits of bats through banding efforts. Since the program's inception in 1932, more than 500,000 numbered metal bands have been affixed to bats of various species. From these banding returns, the USFWS learns about migration patterns, homing tendencies, sex ratios, breeding habits, growth rates and longevity of bats.

The program has disclosed some interesting facts about bats. For instance, scientists now know that some bats winter in caves while others migrate

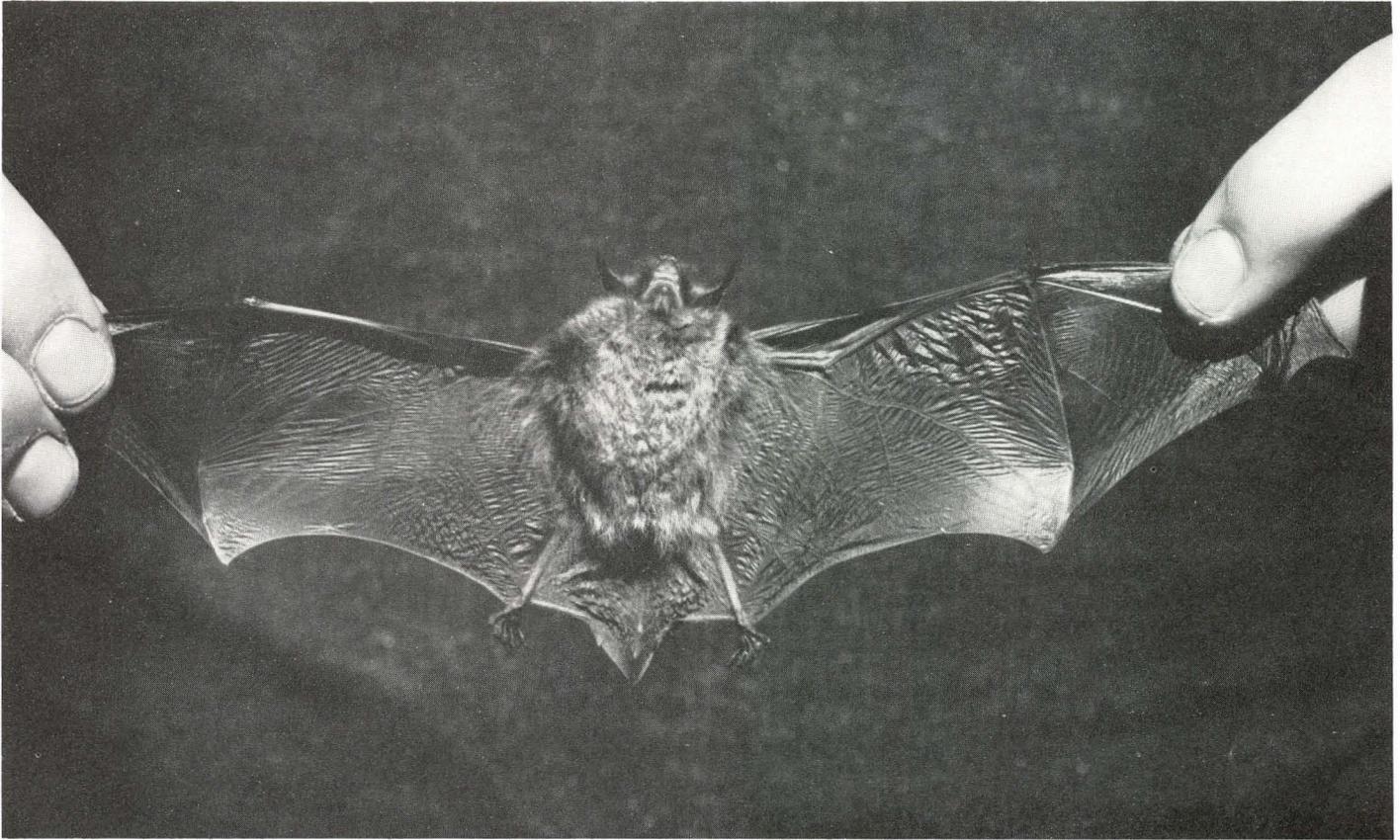


Photo by Leonard Lee Rue

The "winged hands" of the little brown bat. The bat often uses its wings like a fielder's glove, snatching bugs out of the air on the fly.

hundreds of miles south each year. Bats banded during summer in southwestern states have been recovered in Mexico, one of them 810 miles south of its summer quarters in the U.S.

Another discovery is the age to which bats live. Ten-year-old little brown bats are not uncommon and the oldest yet recorded is one which was recaptured 21 years after the original banding.

Like any program, the success depends on the reporting of recovered bands such as the Nevada bat at Collyer, Kansas. Bats bearing bands should not be killed but released at the point of capture after the number on the band has been carefully read and other pertinent information recorded. This data should be turned over to a local game protector or any fish and game employees.

In a recent article in *Outdoor Oklahoma*, entitled *Oklahoma's Underground*, writer Chris Wille wrote an interesting note on the Mexican free-tailed bat.

"The famous dusk flights of bats from Carlsbad Caverns are of this species," Wille said. "This is the bat that was conscripted during World War II for bomb carrying experiments and the species that produces the huge piles of bat guano that are mined for use in making gun-powder and fertilizer."

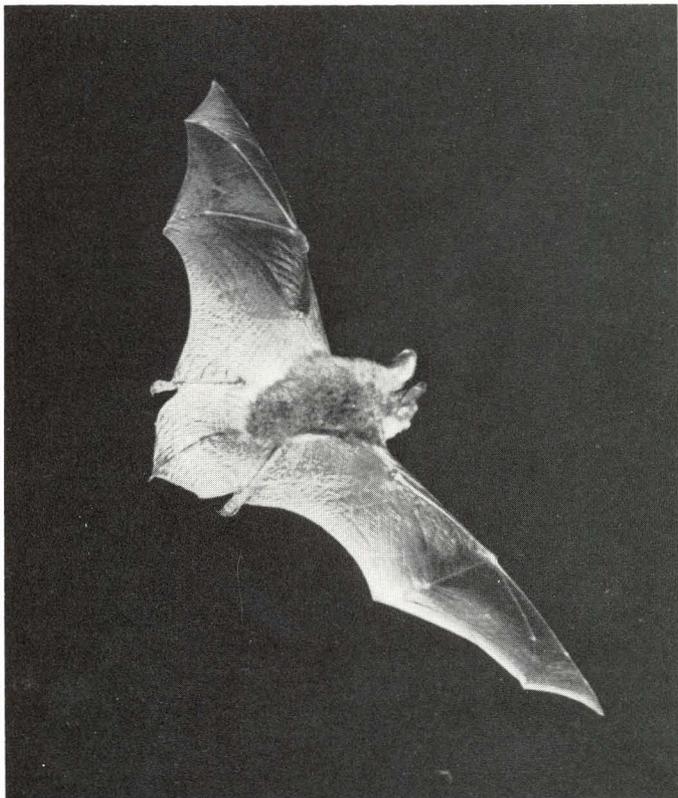
Thomas F. Cravens writing in the *Missouri Conservationist*, says that bats are said to have helped the country win the War of 1812. Dirt enriched by bat droppings, or guano, was used in the production of

gun powder. Since the British naval blockade was quite effective in cutting off gun powder imported from France, a good case can be made for the role of bats in the history of our country.

In spite of the fact that bats have few natural enemies, their numbers continue to decline. Disease takes a few and a few are caught by cats, snakes, owls and hawks but that number is small. The dominant reasons for the decline are humans and pesticides.

Both are familiar problems in our modern society. Bats cannot or will not tolerate any disturbances in their caves or other areas where the colony resides. As the human population increases and unused land disappears, new areas of recreation are being found to fill idle time. In recent years the sport of spelunking or cave exploring has become very popular in part of the country.

Intrusion into the subterranean habitat of the bat can cause several serious problems. Many bat species have only one young per year and human intrusion can cause abandonment of the young, or the female may drop her new-born to the floor of the cave. Continued harassment can cause a large portion of the colony to move to a less desirable roost.



Spelunking is a valid and popular sport, but just as hunters are responsible for their conduct in the field, the spelunker is responsible for his activities in his underground world.

Not all bats roost in the dark caves safe from the human eye. Some are found in attics, holes in trees, loose siding on barns and even in bushes. All too often they are killed because of the so-called "vampire image" which we have already discussed. Uninformed people believing in "Old Wives Tales".

"First, and possibly the most important factor accounting for the massive reduction in bat populations, is the use of chlorinated hydrocarbon insecticides," says Thomas F. Cravens, writing in the *Missouri Conservationist*. "The residues of these chemicals are long lasting and build up in the bodies of insect eaters and are passed on into whatever eats them. It's a long chain from green leaves to insects to insect predators and on up the line, with the accumulation and potency of the poison increasing at every step.

If we fail to focus attention on some of these factors causing the decline of bats, we may very well shorten the list of known bat species in the world.

With the hundreds of species of bats listed in the world today, it's hard to believe they could be in danger. But many are. The leaf-nosed Bat is already extinct.

A recent list of endangered species issued by the Department of the Interior includes three species of bats. The Hawaiian hoary bat, Indiana bat and, effective April of 1976, the gray bat.

The gray bat is of particular interest to Kansas as we have known populations of them. Most are found in extreme southeast Kansas with some recordings in southcentral counties.

"Endangered", as it applies to wildlife, defines any species which is in danger of extinction throughout all or a significant portion of its range. The Kansas gray bat at this writing will be added to the purposed Kansas endangered species list that already contains 15 wildlife species.

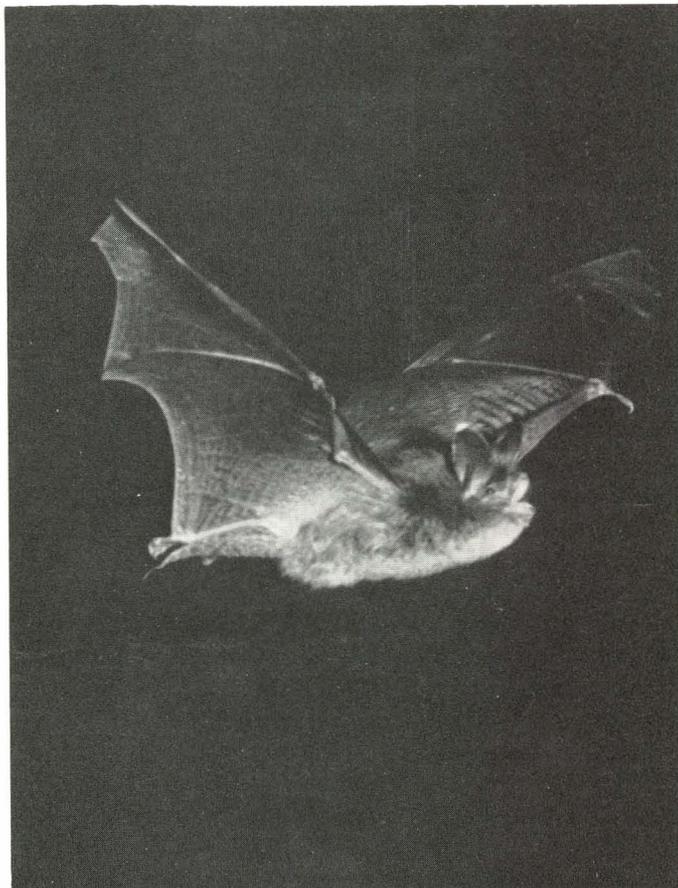
A dramatic example of the dwindling populations of bats in some parts of the country comes from Carlsbad Caverns. The mass of bats that once swarmed out of these caverns was estimated in 1937 to number 9 million. By 1962 the population was down to 250,000 and the latest estimates put their numbers at 200,000.

Today, most bat species in Kansas are probably secure. The areas they inhabit are generally not available to the public. Even if they were, most folks are not inclined to go on a bat hunting expedition. Hopefully it will stay this way.

While this article is by no means a complete study of this intriguing mammal I hope it might start breaking down some of the fear barriers that plague the bat.

The time is long past that we recognize the bat for what it is—an important link in the wildlife community that assists in maintaining the balance . . . "silently by night."

Photo by Leonard Lee Rue



SIGHTING - IN

for VENISON

**You may have
only one chance
this season—
is your rifle ready for it?**



By Bill Hlavachick

THERE ARE many preseason items that must be taken care of before you head out for that deer hunt this fall, but the most basic of all is sighting in your rifle. Deer hunting, in fact most hunting, is a combination of luck and skill, but you can tip the odds in your favor by making sure that your gun is as accurate as it was intended to be. Sighting in isn't as difficult as some would believe, but its importance can't be overemphasized.

First, have you picked up your gun since it was put away after last fall's hunt? If not, you have already let lady luck play more than her share in your 1977 hunt.

Getting the rifle out of the case, fitting it to your shoulder, and dry firing it several times during the summer will pay dividends in the fall. You will be more comfortable on the stock and able to see a perfect image in the scope without moving your head back and forth. Dry firing (squeezing the trigger with the gun empty) will teach you to squeeze and keep you from

jerking the trigger when you get a buck in your sights. It also helps you get used to your rifle's trigger pull.

By itself, dry firing isn't enough. Sometime before the season, you have to get out on the range or some other safe place that is away from people, livestock and buildings and begin the process of sighting in. Bring along the ammunition you intend to use while hunting. You cannot zero in with 100 grain bullets, then go after a deer with 150 grain bullets and still expect good accuracy from your rifle.

Before you start to shoot, remove the bolt, place the rifle in a solid position so that the bullseye can be seen through the bore, then look through the sight. If the crosshairs or other type of sight are not centered on the "bull", you will need to bring them in by moving the proper dials or other adjustments in the proper direction. This is called bore sighting and is a very important step in zeroing in the gun.

Always zero in from the prone position or, even better, from a bench rest. A sandbag, duffel bag, or some other soft, stable rest should be used to support

Photo by Stiebben



Because a tight group is the only way to tell where a rifle is shooting, it's a good idea to fire from a rest to reduce shooter error.

the gun while firing. Use good targets with well defined "bulls" and numbered concentric rings. Attach this target to a cardboard or wooden backing and set it up against some backstop that will keep the bullets from ricocheting. Sand or dirt ledges will do nicely. Arrange the rifle rest, ammunition close at hand, and fire three rounds at 25 yards. This group should be on

the target and give you a starting point from which to adjust your sights. If your bore sighting adjustments were accurate, you should have hit fairly close to the bull on this initial volley.

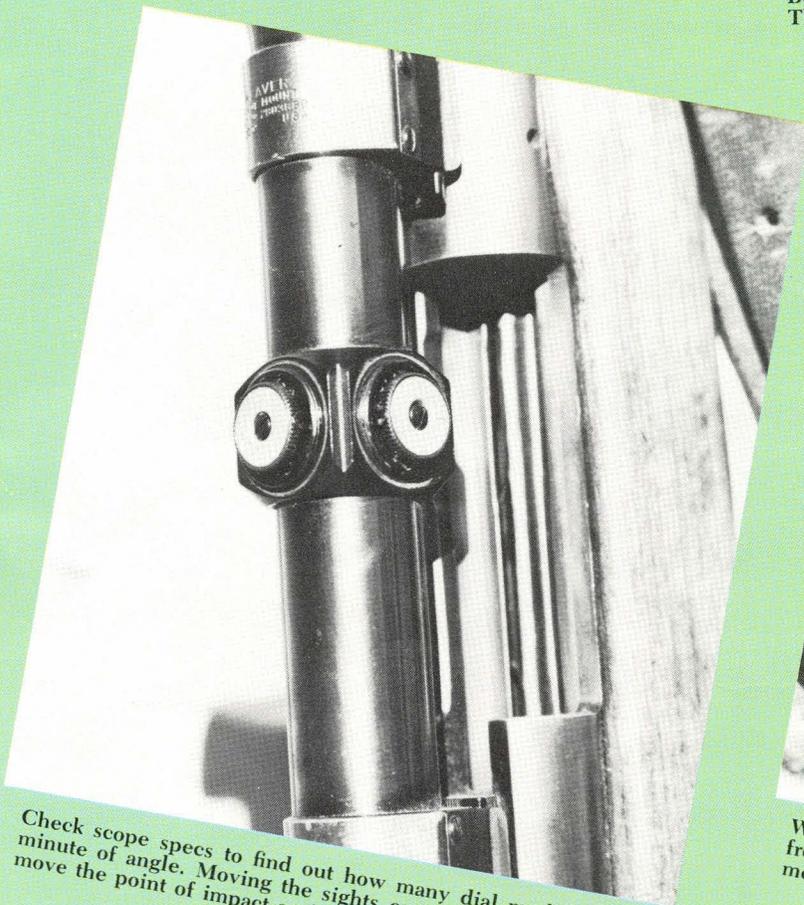
Now move back to the distance you want your rifle sighted in for. Just because you have an elephant gun, don't feel that you have to sight in at the maximum

effective range of your weapon. Try to determine the average range you can expect and zero in at that distance. A good friend of mine once worked up a .308 Norma that would hit pretty accurately for what seemed to be three-quarters of a mile, then missed a good bighorn ram from 200 yards—the shot was just too close for the sighting-in he'd done.

Once the bullet leaves the muzzle, its path is anything but straight. Take as an example a .30-06 with a scope mounted an inch and a half above the bore. The rifle is sighted in to hit dead on at 200 yards with a 180 grain slug coming out of the muzzle at 2700 feet per second. The bullet will hit one inch high at 50 yards, two and a half inches high at 100 yards, and two inches high at 150 yards. It will hit exactly where it's aimed at two ranges, 200 yards and 25 yards. This is because the bullet rises when it leaves the barrel, crosses the sight line at 25 yards, and falls back through the sight line at 200 yards. At first glance, it would seem that if this rifle-cartridge combination is hitting the point of aim at 25 yards, it should hit the point of aim at 200 yards. With the rifle and ballistics described above, this is usually the case, but you should never assume it to be true. You have zeroed the rifle at 25 yards, but any



Bore sighting a rifle. The barrel is lined up with a nearby target. Then the rifle is held steady while the sights are adjusted.



Check scope specs to find out how many dial marks make a minute of angle. Moving the sights one minute of angle will move the point of impact an inch at 100 yards.



With open sights, windage is corrected by tapping the front sight from one side to the other with a brass pin (to avoid marking the metal).

sighting-in error you have made at close range will be magnified at 200 yards and may cause a miss. Move back to 200 yards and fire a few rounds to make sure. If you're not centered, adjust the sight and fire a few more until your group is centered.

As a rule, a rifle should be sighted in at the farthest possible range that won't cause a mid-range miss. Remember that an adult buck will measure 18 to 20 inches from the top of the back to the brisket. Obviously, if you're holding dead center on a buck, a 9 inch error either way will cause a miss. If your sighting-in range is too short, you're likely to make that 9-inch error by shooting low. If you sight in at extreme ranges, you may shoot over the animal. Sighting in at 250 yards with a .30'06 and 180 grain bullets should give killing hits from 150 to 300 yards when the hold is on the center of the target.

One last note now that your rifle is hitting where you point it. Fire a few rounds from a normal hunting position and see where you're hitting. Sights have a way of looking different from different positions, so practice from your normal field position.

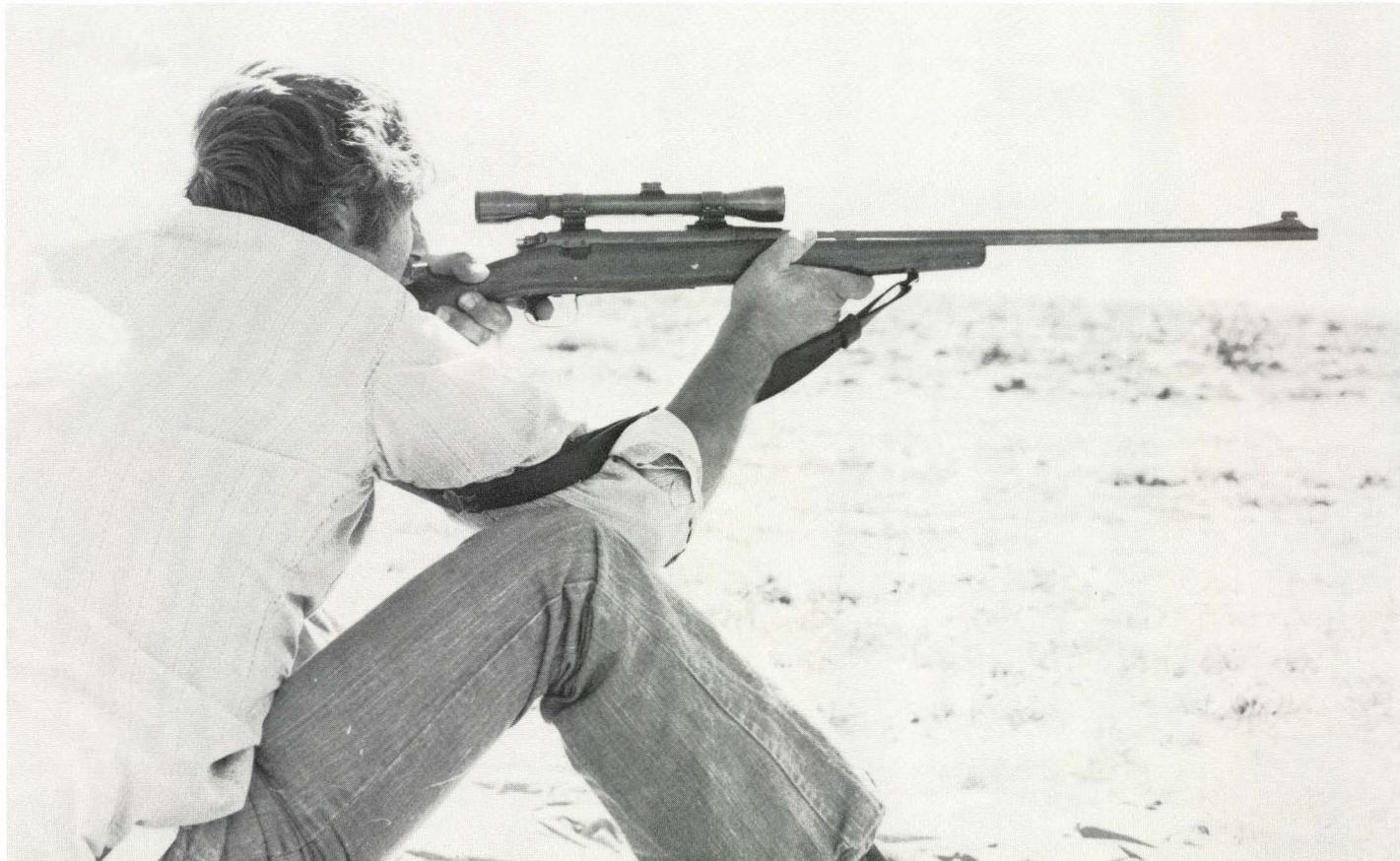
Come December and the deer season, you and your rifle will be tuned fine and ready for your big chance—a chance that you have improved because you took a little time to *zero in*.

Once the rifle is hitting from the bench, try it out from positions you'll use while hunting.



Open sight elevation is corrected by raising or lowering the rear sight.

Photo by Stiebhen



The shooter has fired three groups, adjusting his sights after every group to move the shots into the 10-ring. His last shot, a flyer to the left, is something he should correct with practice before the season starts.



Photo by Leonard Lee Rue

Topeka's *Sharpshooter*

Courtesy of the National Rifle Association.

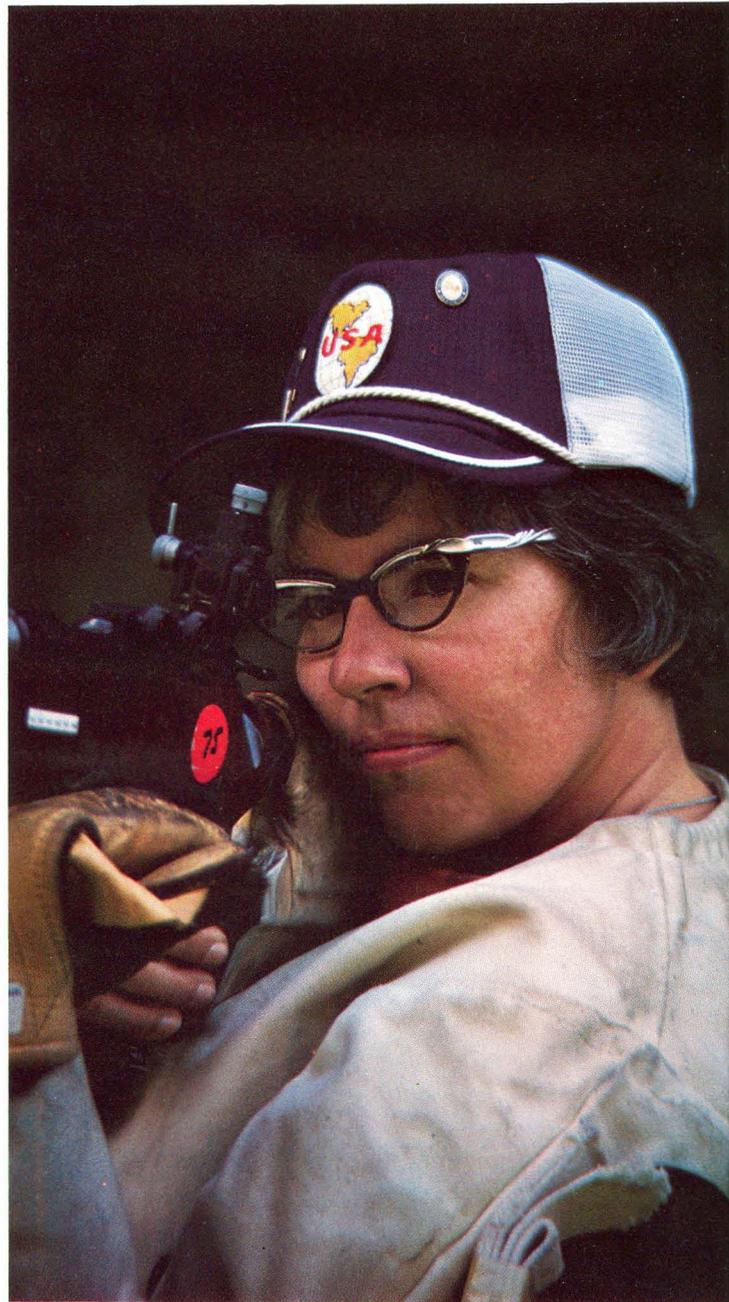
Margaret Murdock

By Chris Madson

TO HEAR THEM TALK, I'd have to conclude that hunters as a group are the finest marksmen in the world. At one time or another at sportsmen's clubs or out on the back porch, I've heard about the running squirrels shot through the eye at a hundred yards, the 600-yard kills on running antelope and 800-yard shots on bighorn sheep. In most company, I'd find reports of such shooting a little hard to believe, but the men who tell me most of these tales are friends, gentlemen of integrity and pillars of the local community, men who would no more lie about their shooting than they would abandon their wives and children to make the opening day of deer season. If pressed, any one of these men would lay false modesty aside and admit that he probably is the best shot in the state. Asking one of them for a demonstration, though, is a little like asking him to show a losing poker hand—it just isn't done.

Every hunter, no matter how fond he is of stretching the truth about his shooting, knows that there is a major difference between great shooting on a hunt and great shooting on a rifle range. On a hunt, there's no one to score the misses. Any disagreement about a rifleman's ability can be settled without argument when he fires for record on the range. The holes in the paper never lie.

With the brag and exaggeration of the hunter removed, a rifle match becomes a coldly precise affair. In order to win, the shooter must counteract all his natural





1977-78

SPORTSMAN'S CALENDAR



SEASON	OPENING DATE	CLOSING DATE	BAG LIMIT	POSS. LIMIT
Rabbit, Cottontail	Season Open Year Around		10	20
Rabbit, Jack	Season Open Year Around		No bag or possession limit	
Squirrel	June 1	December 31	5	10
Bullfrog	July 1	September 30	8	No possession limit
Furbearer (running)	August 15	October 15	May not be killed	
Furbearer (hunting)	December 1	January 31, 1978	No bag or possession limit	
Furbearer (trapping)	December 1	January 31, 1978	No bag or possession limit	
Beaver (trapping)	January 1, 1978	January 31, 1978	No bag or possession limit	
Mourning Dove	September 1	October 30	10	20
Teal Duck	September 10	September 18	4	8
Rail, Sora & Virginia	September 10	November 18	25	25
Snipe, Common	September 10	December 11	8	16
Antelope (Archery)	October 1	October 5	Special Permit Required.	
Antelope (Firearms)	October 8	October 10	Special Permit Required.	
Woodcock	October 8	December 11	5	10
Geese (Total for all species)	-----		5	5
Canada and/or White-Front	October 15	December 25	1 of each	2 Canadas or 2 White-Fronts or 1 of each
Snow	October 22	January 15, 1978	5	5
Ross	October 22	January 15, 1978	1	1
Ducks (East of US 283)	October 22 December 24	December 4 January 3, 1978	100 points	Two days limit
Ducks (West of US 283)	October 22 December 24	December 4 January 22, 1978	100 points	Two days limit
Pheasant	November 5	January 8, 1978	3	9
Quail (West of US 81 & North of I-70)	November 5 November 12	January 15, 1978 January 15, 1978	8 8	24 24
Prairie Chicken (East of US 81)	November 12	December 18	2	6
Prairie Chicken (West of US 81 & South of US 54 & East of US 169)	November 12	December 4	2	6
Deer (Archery)	October 1 December 17	November 30 December 31	Special Permit Required.	
Deer (Firearms)	December 3	December 11	Special Permit Required.	

GAME PROTECTOR
GETS HIS MAN--TWICE

TOPEKA--A persistent state game protector played out a hunch and Shawnee County District Court responded with a \$300 fine, \$40 costs, for a Wakarusa man who back-dated his hunting license.

Gary R. McPherson, 28, Wakarusa, was first brought to court last January by Bill Burlew, game protector of the Fish and Game Commission in Shawnee County. McPherson pleaded guilty and was fined \$50 plus \$40 costs for spotlighting at night and related offenses. A charge of not having a hunting license was dismissed at that time when McPherson produced his in court.

Not satisfied, Burlew found the receipt of the license sold to McPherson from one of the local license vendors. The date on the receipt was after the date McPherson was first charged. Burlew recently brought him back to court with the additional evidence.

The district judge obviously not appreciating the deception, fined McPherson on two counts--the \$300 and \$40 costs on back-dating, and \$10 for not having a valid hunting license. McPherson was sentenced 10 days in the county jail but paroled.

###

KANSAS FISH & GAME, A GREAT CHRISTMAS GIFT!

Now is the time! If you'll have a wildlife enthusiast on your Christmas list in December, now is the time to send for his subscription to KANSAS FISH AND GAME magazine. The coming issues of KANSAS FISH AND GAME will feature wildlife information, color photographs, and art reproductions that will interest any outdoorsman, whether he's a hunter, fisherman, birdwatcher, or just a person who enjoys untamed corners of the Kansas prairie.

Subscriptions in by November 30 will begin receiving KANSAS FISH AND GAME in January. Send the names and mailing addresses of the people you would like to receive the magazine along with \$3.00 for each year's subscription, \$5.00 for a two-year subscription, or \$7.00 for three-year subscriptions to KANSAS FISH AND GAME magazine, Rural Route 2, Box 54A, Pratt, Kansas, 67124

Give a relative or friend a piece of wild Kansas, KANSAS FISH AND GAME magazine.

###

KANSAS TROPHY DEER WINS NATIONAL AWARD

PRATT--The second and third best sets of whitetail antlers in the nation for the last three years came from Kansas deer.

The Boone and Crockett Club, a national conservation and big game hunter's organization, compiles figures to rate the size and quality of big game trophies in North America.

The second place winner in the typical whitetail category was Dennis Finger, a Netawaka resident, who took his buck in Nemaha County in 1974. The buck scored 198 2/8 points, the largest typical whitetail recorded in Kansas and the ninth largest on the all-time North American list.

The third place winner in the typical category, Michael Young of Cedarville, killed his buck in Chautauqua County in 1973. The buck scored 198 4/8, the second largest typical buck ever taken in Kansas and twentieth on the North American list.

Ten of the 392 typical whitetails on Boone and Crockett's all-time list come from Kansas, an excellent record considering Kansas' small deer herd and the fact that the deer season was closed until 1964. According to Fish and Game biologist Bill Hlavachick, "The size and number of trophy racks taken in Kansas since the reopening of the season are one indication that our deer herd is healthy and that our management programs are on the right track."

-cm-



Dennis Finger's Trophy Buck

COMMISSIONER BRINGS GAVEL

PRATT--Dr. Jerome Sayler, recently elected chairman of the Fish and Game Commission, has brought in his own ceremonial gavel to preside over Commission business. The gavel's head is the horn of a bull buffalo; the handle was made from elk antler.

The gavel was reportedly made by Nohocum Jake, Chief of Inhalation Therapy at the Central Kansas Medical Center, Great Bend, Kansas. Nohocum's directions for operation of the gavel were conveyed to Chairman Sayler through an interpreter; "If blunt end of gavel fails to maintain order, apply pointed end repeatedly to scalp of opposition."

Dr. Sayler was heard to comment, "Thanks, Nohocum."





NEW STATE RECORD BLUE CATFISH

PRATT--Big bait, big fish. That's the saying, and Tony Fornelli of rural LaCygne proved that it's true by catching a new state record blue catfish on a trotline baited with carp. The new record fish was $47\frac{1}{2}$ inches long, and a girth of $28\frac{1}{2}$ inches and weighed 45 pounds, 2 ounces. Fornelli took the big cat out of the Marais des Cygnes River on the morning of July 18.

The LaCygne bluecat shatters the previous record of 33 pounds 12 ounces held by Gordon Chappel and Harold Hunsinger of Lawrence who caught their fish on a goldfish-baited bank line in the Kansas River.

Fornelli is no stranger to the art of landing record fish. In addition to this new blue catfish record he holds the state record for drum--28 pounds 2 ounces--also taken on a trotline.

###

COMMISSION SETS FURBEARER REGULATIONS

PRATT--Increased demand for furs over the past three years has resulted in a shortening of the 1977-78 Kansas furbearer seasons.

According to Lee Queal, Chief of the Kansas Fish and Game Commission's Game Division, the trapping season for mink, muskrat, opossum, raccoon, striped skunk, weasel, red and gray foxes, badger, and bobcat will extend from Dec. 1, 1977 through Jan. 31, 1978, a reduction of 11 days compared to last year's season. Hunting season for badger, bobcat, raccoon, opossum, red and gray foxes has been cut by 21 days. It will run the same period as the trapping season. Beaver season has been trimmed by 15 days and will be Jan. 1 to Jan. 31, 1978

"The pressure on the furbearers due to high fur prices has forced the Commission to take this action," Queal said. "Last year, Kansas sportsmen purchased 10,870 trapping licenses compared to 2,154 just six years ago."

The 1977 running season for fox, raccoon, and opossum is Aug. 15 to Oct. 15. This is 30 days shorter than the 1976 season.

Because of the spotted skunk's increasing rarity, it has joined the swift fox, and black-footed ferret on the state's list of protected furbearers. The population decline is due to reduction in overall wildlife habitat.

The Commission dropped the ban on use of Conibear 330 traps in dry land sets. The Commission believed the 1976 regulation restricting this trap to water sets was unnecessary. The Commission banned use of traps with serrated or toothed jaws and limited the possession of raw furs by trappers and hunters to a period 30 days after season closing.

###

CHANGE OF ADDRESS NOTICE

KANSAS FISH & GAME has a new computerized magazine subscription process which starts with the July-August 1976 issue.

If you move or have a change of address, but want to continue receiving KANSAS FISH & GAME, it is imperative that we have the address label from your July-August 1976 issue or from later issues.

Address labels from issues prior to the July-August, 1976 can not be processed. Simply cut the address label from your July-August issue, attach it to the form below and send it too:

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Pratt, Kansas 67124

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FIRM, TITLE, BOX NUMBER (Leave blank if not applicable)	<input type="text"/>		
STREET OR ROUTE	<input type="text"/>		
CITY	<input type="text"/>		
STATE	<input type="text"/>		ZIP CODE <input type="text"/>

reactions to competitive pressure and maintain an unflappable calm as he pulls the trigger. How does he achieve this machine-like consistency?

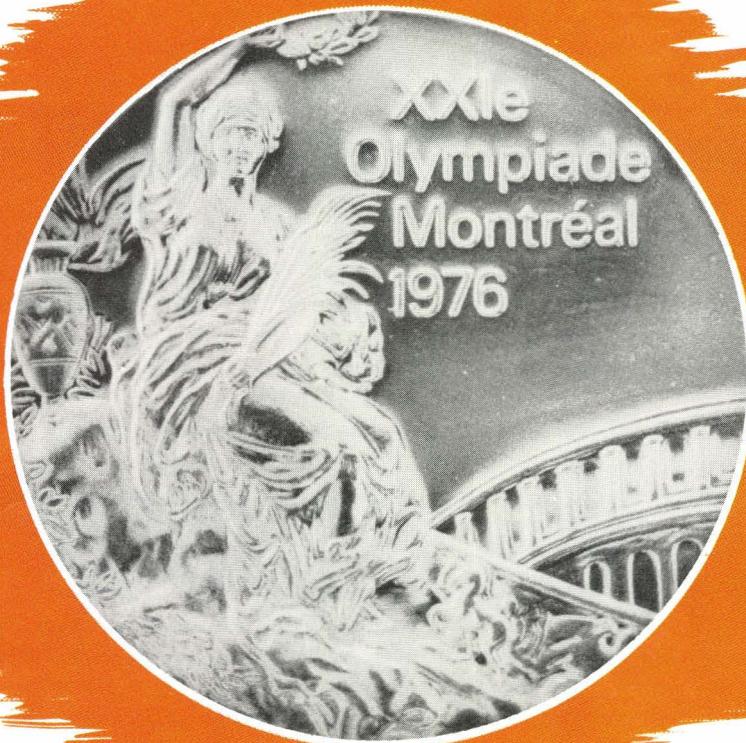
According to Margaret Murdock, Olympic sharpshooter from Topeka, it's fairly simple. Shoot. A lot. When she's in training, Margaret fires about 250 rounds a day which, she says, "is about all most shooters can take". At that rate, she wears out a .22 rifle barrel in about a year. The term "worn out" takes on a little different meaning here. A casual shooter couldn't wear out a .22 barrel in five lifetimes. As convenient as it is to blame a bad shot on worn equipment, most riflemen have to admit that their shots usually go astray because they have flinched, jerked the trigger, held a poor sight picture, or committed one of the other deadly sins against good marksmanship. When Margaret's groups start to loosen up, though, the cause is generally an erosion of the rifling so imperceptible that a normal plinker would never notice it. The blame lies with the machine for a change, not with the human. (After years of being corrected by computers, I find that comforting.)

Margaret's relationship with the rifle is so delicate that minor changes in her pulse rate can make a difference in her shooting. The faster heart beat brought on by hot weather may be enough to lower her scores.

Even food has an effect. According to Ms. Murdock, few serious shooters eat breakfast or lunch on the day of a practice or match; the change in pulse caused by full stomach puts a tremor in the hand.

With a dozen sources of error to overcome, a match shooter may take years to perfect his form. Most riflemen continue to improve until their late thirties, learning a little more about proper technique with each year of competition. Unfortunately, there aren't many people who appreciate the skill it takes to consistently cut the ten ring of a target. As a result, news coverage of international rifle events is nearly nonexistent. American victories in the last four Olympic rifle matches have added key gold medals to sagging U.S. totals, but in spite of these successes, our best international shooters are virtually unknown outside their sport.

Murdock is one of these unknowns. She is just finishing her nursing degree, headed for advanced training in anesthesiology, and it takes some close questioning to find out that she also holds the current world's record in 50-meter standing position smallbore for men or women, that she has been a member of six world-record holding smallbore teams including the current world record squad, that she is the only shooter, man or woman, to win gold medals in the position rifle matches of two Pan American Games,



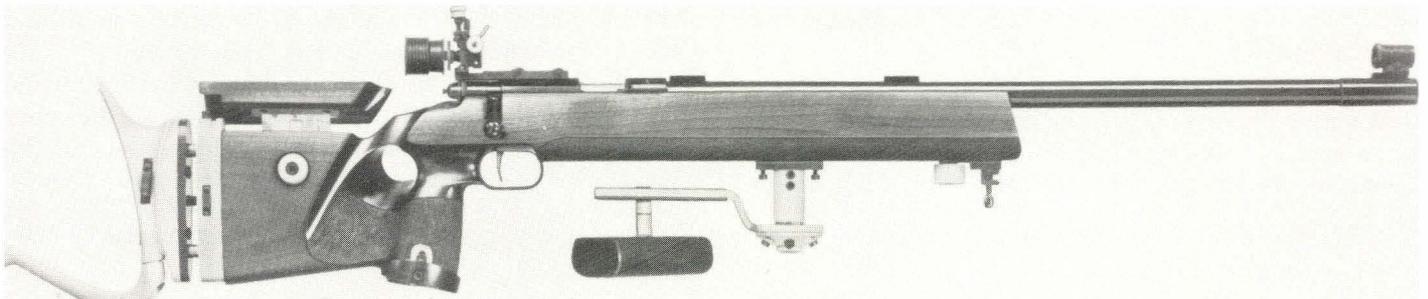
and that she tied for the gold medal at the Montreal Olympics. She's a warm, unassuming gal, genuine and honest, and as if by accident, one of the best rifle shots in the world.

She came by her shooting ability honestly. Her dad was a Camp Perry rifleman and an enthusiastic shooter. He helped run the Topeka junior rifle program for years and started Margaret and her sister at an early age. There must have been something special about that early training; it became the foundation of Margaret's rifle career and prompted her sister to take up competitive shooting as well.

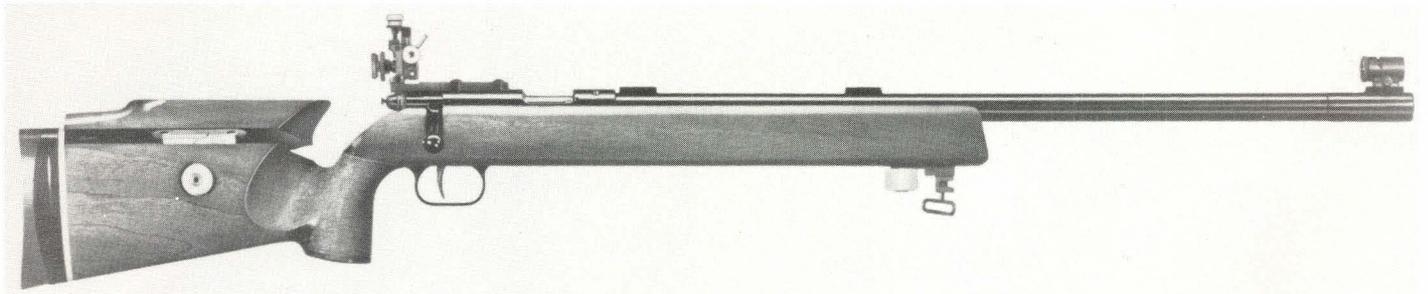
By the time Margaret finished high school, she had decided that her college had to have one thing—rifle team. She picked Kansas State and took a bachelor's degree in chemistry there while she honed her shooting. During her four years with the Kansas State rifle team, she gradually became aware of other high level rifle competitions beyond the Camp Perry National Matches, international meets like the World Rifle Championships and the Pan Am Games. She also had her first real contact with military rifle training during those years; the K.S.U. team shot against the Fort Riley squad a number of times.



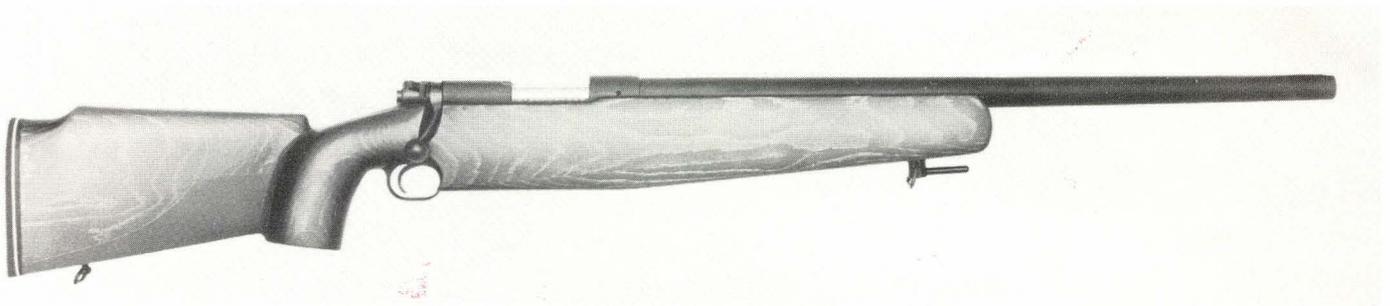
Photos courtesy of Savage Arms, Westfield, Mass. and Winchester Arms, New Haven, Conn.



Anschutz Model 1413



Anschutz Model 1411



Winchester Model 70 Internat'l. Army Match

It didn't take Margaret long to realize the advantage of military support to a world class rifleman. To shoot with the best, she needed close to \$6000 worth of equipment, all custom fitted. During serious training, she would be firing over \$100 worth of specially manufactured English ammunition a week. Then there were the traveling expenses. Studies have shown that the cost of a year's top flight competitive rifle shooting, ignoring the shooter's lost time and wages, is about \$10,000. Little wonder that the overwhelming majority of great international rifle and pistol shots have come out of the military.

Bearing these expenses in mind, Margaret took the logical step after college and joined the Army to continue her shooting. She was sent to Fort Benning, Georgia, site of the Army's marksmanship school and rifle team training center. Getting on the Army's rifle team is a little more complicated than just volunteering for it. The Army picks what it feels to be the best candidates and gives them a year or so at Fort Benning to get their shooting up to international standards. If the candidate succeeds, he spends most of the rest of his tour on the rifle range practicing and teaching. If he fails, he's assigned somewhere else.



THE TOOLS

In .22 rifles as in all other tools, form follows function. When the function is sniping a fox squirrel and the marksman is a fourteen-year-old boy, the form is light and simple, a bolt action or pump with open sights and a tube fed magazine. When the function is beating the world's best riflemen in an Olympic match, the form gets a little more complicated.

Competition .22s generally fall into two categories, prone and position rifles, depending on their accessories and the kind of shooting they are designed for. The prone rifle is the simpler of the two; except for the heavier barrel and slight differences in the stock and trigger design, it's not much different than a normal sport rifle. The weight and trigger regulations that have been placed on prone rifle equipment reflect the American style of competition—a long-standing preoccupation with prone shooting and an unwillingness to allow too much modification in a competition rifle.

Through the 30's and 40's while American riflemen were competing in their own prone matches, the Europeans were developing position shooting into a fine art. Since the kneeling and standing positions are much shakier than the prone, the Europeans loosened their rifle weight restrictions so that the shooter could add more equipment and improve his performance. The result was the position rifle, the ultimate in smallbore equipment. The position rifle looks more like a precision lathe than a shootin' iron. It has a handstop and hanging palm rest on the forestock, a hooked buttplate extension that fits under the shooter's armpit to keep the butt in the right position, an adjustable cheekpiece, adjustable buttplate, and a thumbhole stock to give the shooter better control of the trigger. The trigger on the position rifle, unlike the American prone rifle trigger, can legally be adjusted until it fires with just a few ounces of pressure. You don't just shoulder one of these rifles; you put it on like a Sunday suit.

Prices for such firearms range from about \$400 for match rifles to over \$700 for a free rifle, and for the top-flight rifleman, the initial cost is just the beginning. Margaret Murdock's barrels are made by a custom gunsmith in Phoenix and her trigger assemblies are often hand-made prototypes supplied by Deiter Anschutz of West Germany. The trigger assemblies alone may be worth \$1500 apiece.

The ammunition fed into these rifles usually comes from the Eley Company of England. At \$3.00 a box (6¢ a round), Eley's Tenex ammo is the best that money can buy, but it won't perform any better than cut-rate hardware store ammo if it's mishandled. More than one match shooter has driven to a meet with his ammunition in the trunk or next to the rear window only to find out the hard way that extreme heat can ruin precision cartridges.

When the shooter uses all this precision equipment, he pads himself with a heavy shooting jacket to make sure his own tremor doesn't blow his groups. The leather shooting coats used by first-rank shooters cost more than \$100, and the shooters break them in like good boots, dreading the time when the old coat falls apart and they're forced to start with a new one. In addition to the coats, most marksmen use shooting gloves, kneeling pads, and special ground cloths to guard against the slip or waver that would throw a shot off.

The cost of all this equipment seems a little high, but it indicates the keenness of competition in most rifle matches. When the match is won by a hair's breadth, and it often is, the hair's breadth of accuracy gained with the right equipment may be worth the money.

Courtesy of the National Rifle Association.



Courtesy of the National Rifle Association.



There was never much doubt about Margaret's status; she spent the next six years as an Army rifle team member and instructor shooting periodically in Europe, the Soviet Union, Canada, and Mexico as well as the United States. To many American shooters, Camp Perry is the ultimate test of skill; to Margaret, it was just another match. She shot there eight times between 1958 and 1975.

In 1966, she asked for a chance to make the open team for the World Championships in Germany. Up until that time, open rifle teams around the world had been exclusively male. The officials saw no reason to turn her down but reminded her that she had to rank in the top four at the end of the trials in order to make the team. They were surprised and a little concerned when she made the squad. Any reservations they might have had faded when the American open team with Margaret on board won the competition with a new world

record score. After the open events, Margaret went on to win a gold and silver medal in the women's competition as well. She breached the all-male ranks of open rifle meets again in 1967 when she became the first woman to shoot in the open matches at the Pan Am Games. The U.S. took the gold in that competition, too.

In June, 1976, Margaret headed for Phoenix to try out for the Olympic rifle team. U.S. shooters dominate the Olympics so consistently that the challenge of earning a berth on the team is often a greater test than the Games themselves. She won her spot on the squad, but when she looks back on the events that followed, she comments: "It was a great experience, but I wonder whether I would be able to go through it again."

The situation in Montreal seemed designed to test the patience, rather than the skill, of the competitors. The rifle ranges were thirty miles from the athletes' dorms, and the shooters weren't allowed to drive out to practice on their own because of the tight security imposed in the aftermath of the Munich incident. Every morning, the team was loaded on a school bus at 6:30, driven to the range, and left there until 5:00, even though a full round of practice seldom lasted past noon. Their equipment cases were locked up every night and had to be X-rayed every morning before they left for the range.

The range had suffered from the hurry-up construction in the months before the Games. The Canadians had decided on their own to eliminate the premier event of the rifle competition, the 300-meter match because of the cost of the longer range. Wind breaks along the firing line, a vital part of any top-flight range, weren't installed until the day before the shooting match started and then only after protests from all the teams. Officials had felt that the breaks would cut off the breeze through the spectator area. The breaks were particularly important to the American shooters who generally take their biggest lead in the off-hand rounds where wind on the shooter can cause the most trouble.

The Olympics are known for their pressure, but it's particularly hard for an athlete to maintain his composure when the facilities and practice arrangements he depends on are less than perfect. Looking back on the disorganization that surrounded the Montreal match, Margaret remembers a comment made by Jack Writer, another world-record holding rifleman, at the Phoenix trails: "the Olympic match is the world's biggest clutch shoot; it's the shooter that keeps his cool the best that wins the gold."

With wind breaks finally installed, "the world's biggest clutch shoot" got underway. Margaret's event, the smallbore three-position match, consisted of 120 shots fired from the prone, kneeling and off-hand positions.

Competition for the lead was rough, but when the targets were scored, Margaret had high round with an 1162 out of a possible 1200. Her teammate Lanny Bassham, had an 1161. After the scores were posted, both shooters went over their targets carefully. Lanny found one hole he thought had been underscored and requested a rescore. Margaret also asked for a ruling on one of her targets. The judges retired for a three-hour conference.

Smallbore targets are scored with a .22 caliber plug which is inserted into questionable holes to open them up to their full diameter. If the edge of the hole touches the outside of a scoring ring, the shot is given that higher score. Obviously, the plug should only be used once on any hole because it tends to enlarge the opening and increases the possibility of a higher score. International rules recognize this possibility and state that targets cannot be replugged.

In spite of the rules, the officials at the range replugged Bassham's target and awarded him the disputed point. Margaret's appeal was denied. As a result, there was a tie for the gold. When the medals were awarded, Murdock and Bassham shared the winner's position on the platform. Later, however, the judges went back to the rules they had ignored earlier and broke the tie by comparing the shooter's scores on the last ten shots. The gold went to Bassham.

No one will ever know for sure what role politics played in these decisions. There was and is no feud between Murdock and Bassham; they've been teammates for years. The judges' maneuvering, though, seems a little strange. It's hard to forget that Margaret was the first woman to break into open world rifle competition. Conservative and influential members of the International Shooting Union did not take kindly to that intrusion.

The events surrounding last year's Olympics don't seem to bother Margaret much now. When asked about the dispute, she observed that "in the long run, the fact that Lanny and I shared the winner's platform was the best thing that could have happened. It drew more attention to rifle competition than we've ever had before. It had to help the sport." She's certainly right, and in any case, those shots have been fired; nothing can bring them back.

In the long run, a dispute over a single shot in a single match is pointless. Margaret Murdock has built her record one careful shot at a time over ten years of international match shooting. That is one of the advantages of target shooting—Margaret's reputation as a shooter will never depend on anyone's opinion, her own or an Olympic judge's. She has fired for record, and among real riflemen, that record will speak for itself.



and the Sportsman

By George Valyer

“THE WOODS is full of bears just east of Kingman,” came the voice from the radio speaker on the dash. “They may have a portable chicken coop over there.”

Back came the reply, “Ten four, good buddy. I’ll park this eighteen wheeler and have some mud. It might cost me some green stamps if I don’t. I might have a fat load.”

Photo by Stiebhen



Now in case you don't know what is going on, I'll explain that you are listening to a conversation between two truck drivers via C B radio. The first fellow is saying that there are a lot of highway patrolmen just east of Kingman and they may be manning a portable weighing station for trucks. The other driver replies that he gets the message and will park his semi-trailer truck for a cup of coffee since he might be fined for an overweight load.

Such a conversation, although illegal in some states, is not prohibited in Kansas. It might not be strictly above board, but it is not contrary to Sunflower State law for truck drivers to use C B to warn fellow truckers of speed traps, weight stations and patrolling lawmen.

C B radio has bloomed like the flowers in May during the past ten years and estimates predict even greater popularity during the next ten years. Forty years ago, a car radio (broadcast receiver) was considered a luxury item and a majority of autos on the road then were not equipped with one. Today, an automobile without such a receiver is a rarity.

C B radio with its two-way communicating ability is mostly a matter of an add-on accessory on today's cars but some manufacturers are seeing the handwriting on the wall. Tomorrow's automobile will probably come equipped with a C B transceiver, either as standard equipment or as a factory installed accessory. Let's face it, mobile two-way communication is becoming more and more important as time goes by and C B is becoming a very popular answer to the problems of motoring, boating, ranching or what-have-you.

Many of Kansas' half million hunters, fishermen and boaters are already equipped with C B rigs in their boats, pickups, autos and four-wheel-drive vehicles. Even more of them are contemplating acquisition of such a communications tool in the near future since the advent of the new channels (now totaling 40). Even with the older 23-channel rigs, a sportsman can reach most of the persons who will be most able to be of assistance to him.

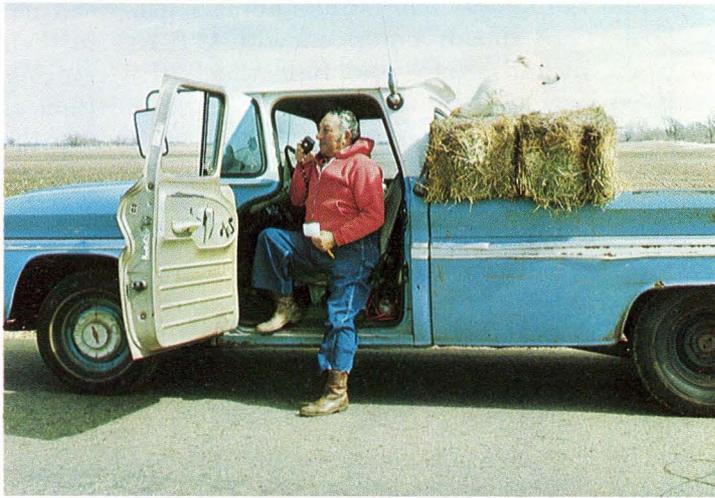
The most important channels for anyone who is driving to a fishing lake or hunting area are 9, 11, 15, and 19. Channel 9 is reserved by regulation for emergencies and motoring assistance. Since most sheriff's departments and police monitor channel 9, any emergency you might encounter can be reported promptly on this channel provided you are within range of the law enforcement office. Even if you are out of range of "official ears" other motorists or individuals within hearing may be tuned to channel 9 and be ready to offer assistance.

Channel 11 is reserved for calling another station, either base or mobile. Once you have reached the desired station, you arrange to meet on a mutually agreeable channel to continue your conversation, thus leaving channel 11 for others who may wish to use it for calling purposes.

Channels 15 and 19 are those generally used by over-the-road truck drivers who, of necessity, keep advised of road conditions ahead. If the roads are icy up ahead, chances are that some trucker will advise another of the danger. If an accident has blocked the

C.B. can mean quick rescue for a boater in trouble.





highway, chances are that you can hear about it on one of the trucker channels. Has a blizzard or torrential rain temporarily closed a highway? Monitoring channel 19 or 15 will probably advise you of that fact before you get there.

If, despite the presence of a C B in your vehicle, you happen to get caught in a dangerous blizzard or flash flood, your C B can probably get you help. Channel 9 is your best bet for emergency situations but, if you can't raise someone there, try all the others. In most situations, someone will be listening on some channel.

Actually, the biggest benefit of C B for any sportsman is that he can obtain help in an emergency. Other transmissions may be convenient or helpful but the knowledge that you can reach someone if you really need help is calming to the nerves in a tight situation.

Some hunters I have known in the past utilize their C B to talk to farmers to obtain permission to hunt. This works well provided that the hunter has established contact with the farmer previously. Most ranchers and landowners like to be contacted in person prior to the hunting season and hunting arrangements can be made at that time. However, last minute arrangements the day of the hunt can be made quickly with a C B. Many farmers and ranchers over the state now utilize Citizen's Band in their farming operations, and in many cases they can be contacted even in the fields if you find out in advance what channel they use.

If you are using a C B rig in your boat, it is a good idea to check in at the marina before using the lake for the first time. Most marinas have C B equipment and will be glad to tell you what channel to call them on. At present, there is no channel which has been designated for marine use but, with the expansion of C B to more channels, such a channel may be designated in the future.

Coyote hunters who use dogs to run down their quarry make extensive use of C B channels. When two or more dog wagons are working together with radio contact, they are an efficient and nearly sure means of eliminating any coyote that happens to be spotted by any member of the party. Many sportsmen and conservationists consider this method of coyote hunting to be completely unsportsmanlike and a significant threat to a balanced wildlife population. However, in sheep and poultry country, to a farmer and rancher who is suffering losses to this wild member of the canine family, the end seems to justify the means.

Unfortunately, there are always those who abuse a good thing when they have it and C B radio is no exception. Game protectors are familiar with the fact that known violators use Citizens Band to elude officers who are attempting to catch them with incriminating evidence. A notable case was one that happened in southeast Kansas where a deer poacher was able to elude the local game protector consistently, regardless

of how carefully the warden set his trap. The violator eventually was taken into custody after a friendly C B operator informed the game protector that the poacher was receiving tips via C B radio as to his location. The game protector had a C B installed in his patrol vehicle and was able to keep ahead of the violator's moves.

An important law to remember is that it is illegal to use C B radio in connection with any activity which is contrary to any federal, state or local law. Kansas law states that it is illegal to locate or hunt any wild animals or birds from an airplane during the legal open season for firearms deer hunting. This law is designed to discourage unsportsmanlike conduct on the part of deer hunters who might be disposed to use aerial surveillance as a substitute for an honest, sportsmanlike hunting effort.

Many law enforcement vehicles, including sheriff's cars, highway patrol, local police and game protectors, are now equipped with Citizens Band radios and it is much easier now to get a line on any illegal activity. Truck drivers are quick to report a drunk driver since an inebriated motorist poses a potential threat to his means of making a living as well as his life. Although not so serious an offense, a game law violation poses a threat to the concerned sportsman through the poacher's illegal activities and most sportsmen and landowners will use any means at hand to help eliminate the violator from his midst. C B is one way the average sportsman can really be of service in helping control any illegal activity in his local community. The local game protector can be reached through the sheriff's office and it is a simple matter to contact him directly or have the message relayed by telephone. The game protector can't do the job all alone. He needs the help of all thinking hunters and fishermen if the conservation battle is to be won.

If you are seriously contemplating the acquisition of a C B rig for your vehicle or home, there are certain laws and regulations you should know and abide by. First of all, a Federal Communications Commission license for your unit must be obtained before you can go on the air. Nearly all dealers who sell Citizens Band transceivers are able to supply you with an application blank which you will need to obtain a license. Be sure to fill out your application carefully. You should also be aware that profane or obscene language is prohibited from the airwaves and you must use plain language when transmitting; no hidden codes are legal. You may use accepted "10-signals" provided a copy of them is maintained at your transceiver site.

Another point to remember is that Citizens Band is limited to contacts within 150 miles. Certain atmo-

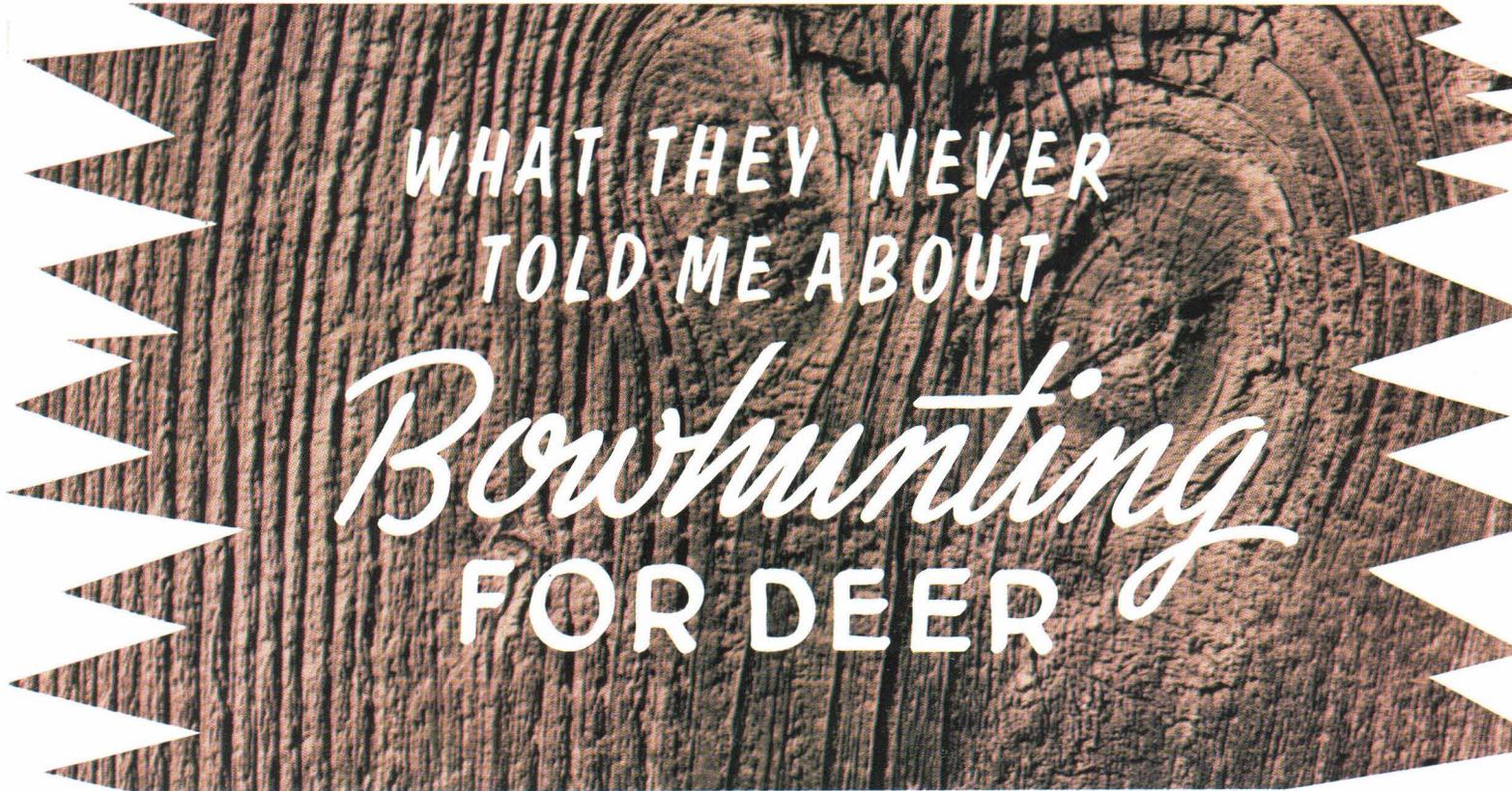
spheric conditions may make it possible to talk to stations at a greater distance at times. This is known as "skip" but talking to far-away stations during these conditions is strictly prohibited. To get the full story on this and other regulations, it is recommended that you obtain a copy of the booklet "All About C B Two-Way Radio." This book is available at Radio Shack stores. Other similar books are available from other electronic outlets throughout the state and nation.

How far will a C B radio reach? Well, barring the previously mentioned skip conditions, you can expect a mobile station (in a vehicle) to be dependable from 10 to 20 miles depending on terrain. A base station at home, with its higher antenna, can probably reach up to 25 miles in ideal conditions. In general, the higher you are above the surrounding countryside, the greater your range. However, there are legal limitations as to how high you can place your base station antenna.

Low power walkie talkies with 100 milliwatt power or less may be used without a license. The range of these small units is generally one-half mile or less and have limited usefulness in outdoor activities. However, some waterfowl hunters use them to talk to their buddies in adjacent duck blinds. These small walkie talkies operate on the same channels or frequencies as regular licensed C B rigs and may be used in conjunction with them. They are probably most useful to construction personnel but you may want to consider them if you have a specialized use requiring portability. Portable transceivers which have more than 100 milliwatt power must be licensed like any other citizens band transmitter.

OK. There you have it—a brief introduction to citizens band radio and some of the ways in which it can be used. But, before I close out this article, one word of caution is in order. Before you get too hepped up about C B, you should be aware of the fact that this modern gadget may have an adverse effect on your enjoyment of the outdoors. To many hunters and fishermen, the electronic miracles of easy communication often detract from the Isaac Walton and Daniel Boone image of the real naturalist. Some fishermen and hunters relish most the idea that their sports get them away from the jangle of telephones and the jumble of other noises which go along with today's living. There is one salvation. Even if you own a C B radio, you can always turn the switch off.

If you do decide that a C B's safety and convenience is for you, resolve that you will use it in a proper and legal way. Anything else will make a mockery of today's conservation efforts.



WHAT THEY NEVER
TOLD ME ABOUT

Bowhunting FOR DEER

By Chris Madson

IT WAS that special kind of leaf noise, the long, drawnout rustle of big feet, that turned my head. I peered over the oak limb on my left into the brush about thirty feet away. There were three, a six-point buck and two does browsing their way through heavy cover down to the edge of the corn field. The buck stepped up to the trunk of a shagbark hickory, his shoulder in the shooting lane I knew was there. I checked to make sure my arrow was on the string, drew down on him and let fly. The two does bolted, but the buck took three or four steps, then stopped. Even with the twang of the string and the arrow in his chest, he hadn't located his attacker.

As I watched, he took a couple of wobbly steps, then collapsed. While I sat in the tree waiting to make sure of the kill, I looked back over the two years of hunting that had finally resulted in my first bow-killed deer. He'd been too long coming.

Since that first buck, I've looked down the shaft at my fair share of whitetails. I've caught old mossy-tined bucks absolutely flat-footed, and I've pulled stunts that flushed Guernsey cows out of the next forty. I've gleaned plenty of advice from magazine articles and

veteran bowhunters, much of which has turned out to be true. The trouble is that the veterans always seem to leave out key information. This may be because the successful bowhunter doesn't feel any burning desire to help his own competition. I think it's more likely that he overlooks some of the things he does unconsciously in the deer woods.

A good example of this sort of incomplete advice is the stock answer to the question, "Where do I hunt?" Drop this one on an experienced hunter, and he'll bend your ear about deer sign for about as long as you care to listen. If you're buying the beer, he may never stop. The scrapes, rubs, tracks, and trails he will tell you about are always sure evidence that deer are moving through an area, but finding deer sign doesn't guarantee a shot.

A good friend of mine has a bowhunting spot on a forty-acre tract that's been bought by a neighboring town as a dump site. About two-thirds of the place is covered with goldenrod and brome grass; the rest is scrub oak. In the fall, the ground under those oaks is torn up with buck scrapes. You'd think the deer spent at least twenty-four hours a day pawing the place up.

Not so. After two seasons, Terry has found that it's a waste of time to hunt there in the evening. Morning, though, is another matter, and Terry's got a freezer full of venison to prove it. I've seen other places like this dump. The deer are there at one time of day and not at any other.

Once in a while, you'll find a spot that's hip deep in deer sign where you never see deer. I hunted a place like that for most of my first season. I was on the stand most mornings and evenings for three months before I saw my first deer, an eight-point buck that stepped into view forty-five minutes after the day's shooting had

closed. Whitetails are usually on the prowl until nearly midnight, and the tracks they leave in the dark don't look a bit different than the ones they make during the day. Of course, it's always a good idea to investigate cover that has plenty of deer sign, but don't spend a season waiting in a spot that deer are using after dark.

This advice can be particularly hard to follow when you've stumbled on a real, sure-fire buck run. The buck run is the trail you've heard about dozens of times in sporting goods shops or bars—"three feet wide and a foot deep", "like a bridle path", or "it looked like somebody was clearing a right-of-way for an inter-





state". A deer trail like this can be misleading. During the day, deer often use faint traces through the woods. They may even abandon the trails altogether. Heavily used trails may be nighttime thoroughfares, easily followed by moonlight when the whitetails retire from feeding areas to late-night resting places. If you see deer on heavily used trails during hunting hours, go get 'em, but remember that a deep, dusty trail doesn't necessarily mean venison on the table.

Once you've found a place where you and a white-tail are likely to meet, you're still faced with the fairly sizeable problem of getting him within bowshot. The old gray-haired hunter who put me down on my first deer stand told me that it would be best if I didn't blink or breathe for at least four hours. The least movement was sure to spook the deer, he said. In my first years of bowhunting, I followed the old man's advice and never moved a muscle. Even now, I'm not saying he was wrong . . . but he wasn't 100 percent right either.

The whitetail *is* intimately in tune with his environment. It doesn't usually take many out-of-place sounds or movements to put him on his guard. But if the whitetail were as tautly alert as many hunters would have you believe, he'd starve to death in a month. Sooner or later, deer have to let their guard down to browse, move, and sleep. Most of the deer I have seen during bow season were moving at a leisurely pace, alert but not tense with constant suspicion.

During a squirrel hunt last December, I met a doe and fawn in a thicket of prickly ash. I had been moving slowly but not very quietly over a couple of inches of lightly crusted snow, stalking a gray squirrel along a deer trail. My stalk flushed the squirrel before I could get within rifleshoot, but when I looked across the slope, I saw the deer no more than fifteen yards away. I watched the two for nearly five minutes, then tried to flush them as quietly as possible to avoid spooking any more squirrels. It took half a minute of energetic arm waving to get the doe's attention! Earlier last year, I walked into a similar situation with a group of four deer. I was standing in the open facing the four as they approached to within twenty feet. When the lead doe finally saw me, she led the other three around me and continued nonchalantly on her way.

The whitetail is nobody's fool, but these experiences lead me to believe that a hunter doesn't have to lock himself into a state of *rigor mortis* on a deer stand. The important thing is to see him before he sees you, and you're not likely to do that unless you move your head and eyes constantly. After all, a buck at the far range of your vision is going to have as much trouble seeing you as you have seeing him, assuming that your face is well camouflaged with a net or grease paint.

It wasn't long after I learned to keep my eyes moving that I stumbled on another problem in the way I watched for deer. My eyes have always been balky tools; they always tend to focus where I can see the

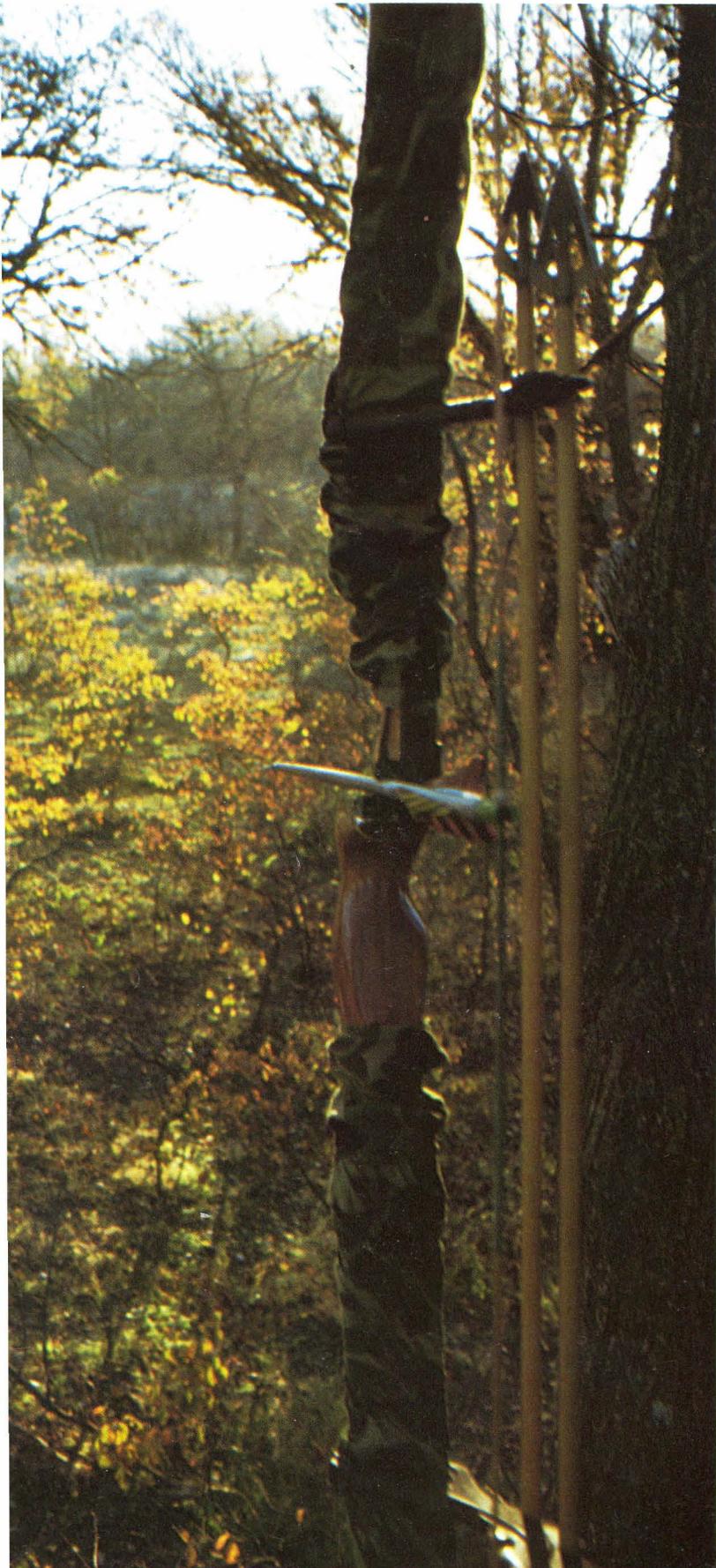
best, on those open areas under big oaks, the clear lanes through the cover. Often I find myself staring at the ground right in front of my stand as if I expected a Pope and Young buck to materialize there. I have to fight this tendency constantly. I've found that it pays to watch for the first flicker of movement as far out in the brush as you can see. Keep in mind that a whitetail generally moves from one patch of dense brush to another during the day. It is this penchant for stepping suddenly out of concealing brush that makes him seem to appear out of nowhere. If the deer manages to get

within twenty or thirty feet of your stand without being seen, you'll find that it's tough to turn, draw, and release without spooking him. This is less likely to happen if you keep your eyes on the brush rather than the open ground.

You'll probably see an incoming deer a lot sooner if you hunt from a tree stand. Of course, all sorts of advantages are claimed for the tree stand. It's been widely observed that deer seldom look up and seem to have trouble catching the scent of a hunter in a tree. As one of many hunters who have been spotted in trees by

Photo by Stiebhen





You've found the spot and set up on a tree stand—now the waiting starts.

approaching whitetails, I'm not so sure about these claims. When a deer is back from a tree thirty-five yards or so, he doesn't have to look up very far to see a man in the first crotch. If the tree is downhill from the white-tail, he may not look up at all. And I can't believe that being twelve feet up in a tree keeps a hunter's scent above a deer, especially if there is a breeze.

The one thing a tree stand does for sure is get the hunter up where he can see. A stand ten feet off the ground may tack seventy-five or a hundred yards onto a hunter's range of vision. Your angle is better in a tree; you can look down into heavy cover instead of trying to peer through it. You're in an excellent position to catch the deer's first movement as he comes toward you. That one movement may be all you see for awhile. That's alright. It gives you a chance to shift into a better position and get your bow up without being seen. Once you're in position, freeze. If you have to move, wait until the deer's head is behind a tree.

From there on, the advantages are all with you. A whitetail taken completely by surprise may not bolt when shot. If he stops within reasonable bow range, take another shot. Two arrows in the animal quicken the kill and may make trailing easier.

There is one other thing a bowhunter must have—patience. Every bowhunting expert pays lip service to the virtue, but no one I know of has ever really defined it. Waiting on a deer stand is not like waiting for a bus; the hunter must not distract himself to make time pass. He has to concentrate, always reminding himself that the buck may be just ready to step into view. This is a hard lesson to learn, but when the hunter finally grasps it, he will find that time has nothing to do with the hunt. Watches, schedules, traffic, work drain out of his mind. The land comes to life in front of him in a way it never will for the casual observer.

Man is not a hunter until he learns patience. As he invests more time in the hunt, he gains a more complete understanding of the land. Eventually, this new understanding will give him a chance for a deer. It will do something else as well. It will blur the distinction in his mind between the artificial in man and the natural. In quiet moments, the hunter will find himself wondering what has gone on in the woods while he has been away. After the season when his mind wanders back to the land and last year's kill is only one of his memories, the man will know that he has hunted well. And is there anything more important for a hunter to know?





Take a lesson from A GOOD DOG

It was an old red bone hound that first showed me how to really hunt. His name was Strike, and he didn't have the approval of the AKC, but he did know the game and played it well. I was thirteen or so, just old enough to keep up when the hound barked "tree" and we went to find him. It was the November half moon, and the old hound man and I stood at the edge of a corn field with our ears cocked, staring out over the tops of the trees in the Missouri breaks. We had already listened to four good races and treed three coons, and Ray was beginning to think about the tongue lashing he was going to take from his wife, a decent woman with a decent disapproval of coon hunting. Ray was listening for the dog, and now and again he would blow for him on the short horn he carried. With the last echo, we heard Strike open up down the hollow, almost in the bottoms. And then silence. Ray blew again. The mist was beginning to float up out of the trees, and we had to go. Ray laid down his hunting coat.

"Well, he's struck trail again. We'll pick him up in the mornin'."

I'd never heard of leaving a hunting dog out in the woods twenty miles from home, but Ray said it was alright; Strike would quit when the coons did and come back to the coat.

"A hound just don't know quit, son. If the coons 're willin', he'll hunt all night. That's the way I'd do myself, if the old woman'd leave a blanket out for me."

When we came back the next morning, Strike was there, curled up nose to tail on the coat. He tried to get up when we got out of the car. He was footsore and arthritic; his rheumatism was acting up after a night on the ground, and he held his hindparts as if it hurt to wag his tail.

In the years since that hunt, I've learned that old Strike wasn't all that unusual; he hunted the way any good field dog will. The interesting thing about a dog like Strike is that there's usually a man following him that hunts the same way—hellbent and flat out from sunrise to sundown. A good dog's enthusiasm is infectious. He cherishes a guarded optimism that sets an example for his master. Somewhere soon, maybe in the next covert, there's going to be game. A real hunter, dog or man, runs on imagination. Remember how it was when the last bird jumped? Well, it's going to happen again pretty quick . . . maybe right there in that clump of brush. Maintaining that level of expectation is tough, maybe tougher than enduring the cold, fatigue, and hunger that generally plague a hunter. There are times when he just doesn't care enough to keep watching, and once in a while, he may be lucky enough to stumble onto some game during one of these inattentive times. But he can feel the difference, the tautness, when he is really hunting.

I've heard hunters make all sorts of excuses to explain why they keep hunting dogs; the dogs find more birds, lose fewer cripples, and are fun to watch. The reasons are believable, but they lack something. A dog is more than a tool that makes hunting efficient; he focuses the hunter's imagination and instincts on the chase. This focus, more than any game bagged, is the heart of a good hunt.

