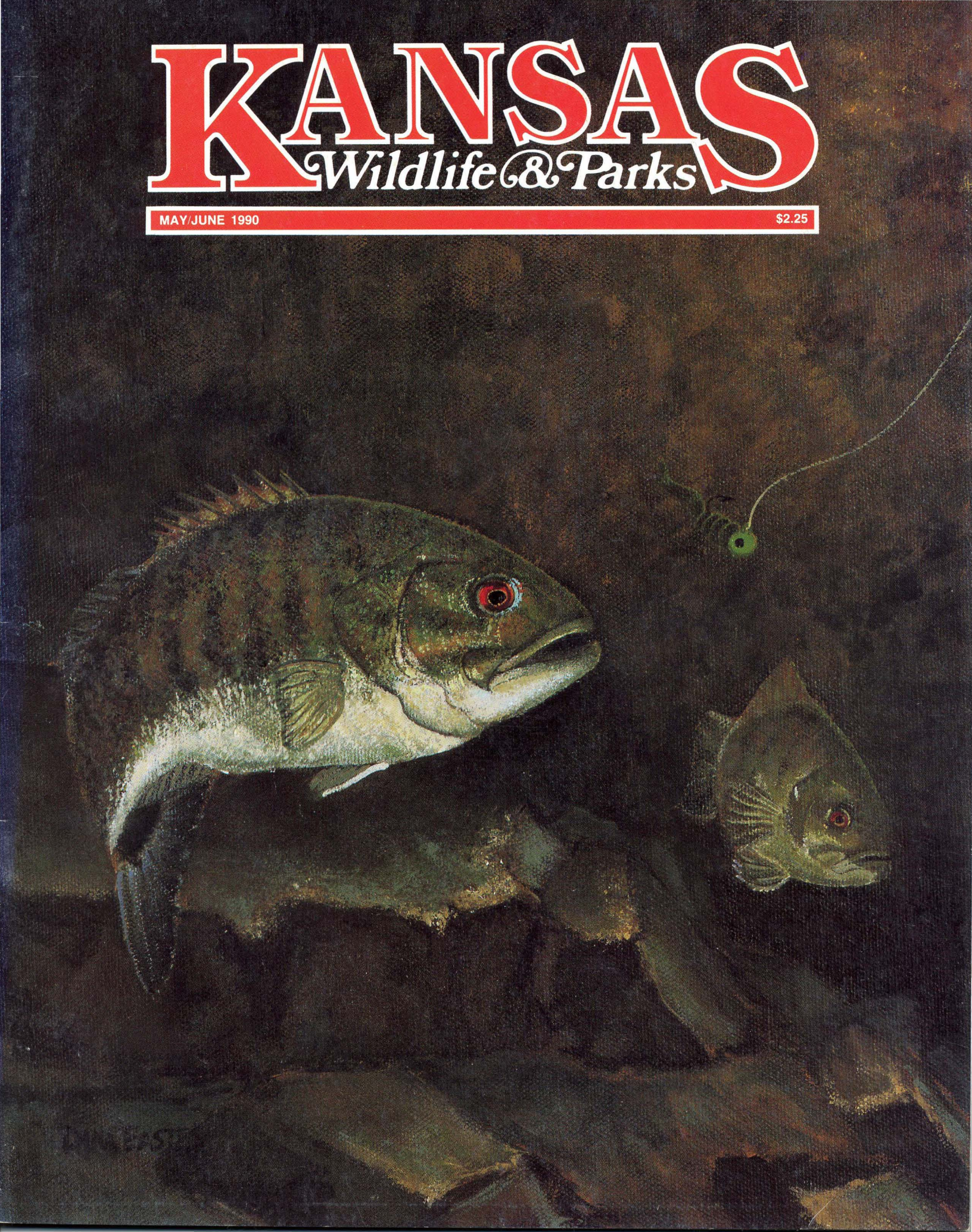
KANSAS Wildlife & Parks

MAY/JUNE 1990 $2.25



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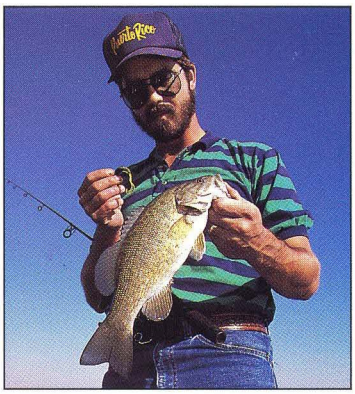

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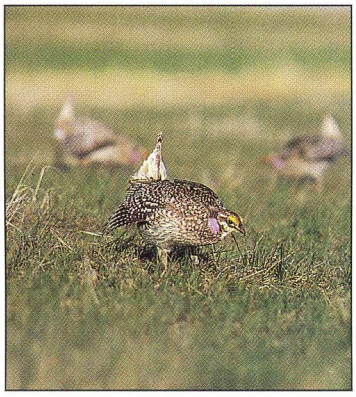

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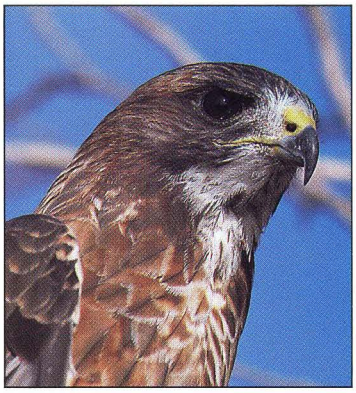

38

About the Covers

Front: Staff illustrator Dana Eastes painted this scene of a smallmouth bass about to engulf a lucky fisherman's lure. Acrylic on canvas. **Back cover:** Butterfly milkweed hosts winged visitors on a beautiful spring day. Mike Blair captured the scene at Maxwell Game Refuge. 55mm lens, f/ 9.5 @ 1/125.

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

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THE BUCK STOPS HERE

It's All In A Name

Last winter I read a letter to the editor in a major Kansas newspaper because the title mentioned hunters. I'm a hunter, and I'm proud of my hunting heritage and privilege. I was offended and angered by the letter to say the least.

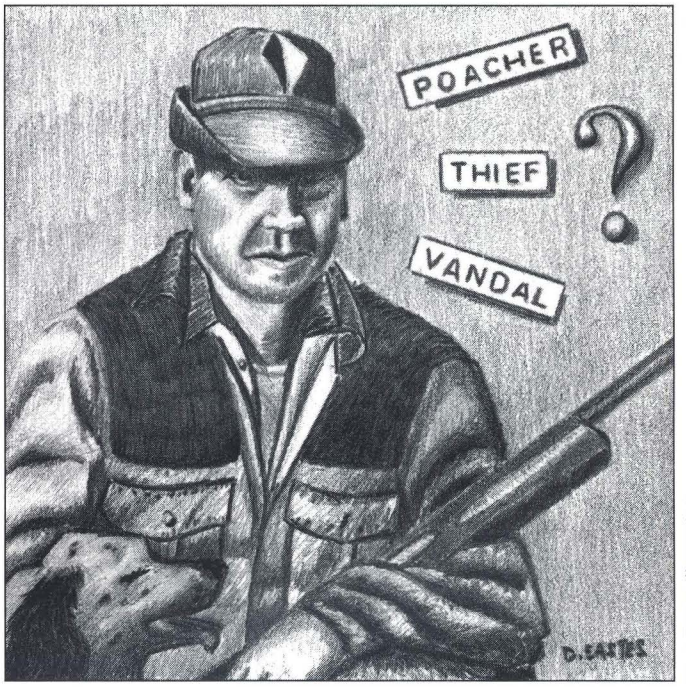
The rural resident had found the family dog, killed by a rifle bullet. I would have been equally upset if someone had shot my dog, and I sympathized with the author, but I couldn't excuse the rash accusation of hunters. The writer assumed a hunter had killed the dog for lack of anything else to shoot. The dog was 1/2 mile from the house, the victim of a "hunter" who had "some new bullets" that needed to be shot. Hunters would never again be welcome on the family's land.

I also read an article in the same newspaper about a golden eagle that had been crippled by an unscrupulous "hunter." What angered me as much as the senseless shooting was the headline that labeled the shooter as a hunter.

If a farmer robbed a bank, would the banker be justified in closing his doors to farmers? It's ludicrous. And I don't think the resulting headline would read: "Farmer Robs Bank." When he robbed the bank, he became a thief and criminal. If the man who shot the dog was a school teacher, would all teachers be banned from the family farm?

A person who shoots holes in a road sign may have hunted. He might also have raised cattle for a living. But when he shot the road sign, he was neither hunting nor raising cattle, he was committing an act of vandalism. While there are many different degrees of dedication, a hunter is a person who loves the outdoors and chooses to fill his role as a predator in nature's scheme. The hunter pays hundreds of dollars in license, permit and habitat stamp fees as well as excise taxes on sporting arms and ammunition each year. A hunter abides by wildlife regulations because they are in place to protect the resource he loves. A man who shoots an eagle is not hunting when he commits the crime, he is poaching.

The letter writer's dog could have been shot by a disgruntled neighbor tired of it running loose. The eagle may have been shot by any vandal with a gun, or by a poacher wanting eagle feathers to sell on the black market. It's also possible that the persons who committed these crimes hunted. Within the group of Americans who hunt there are those who break laws, just as within any group.



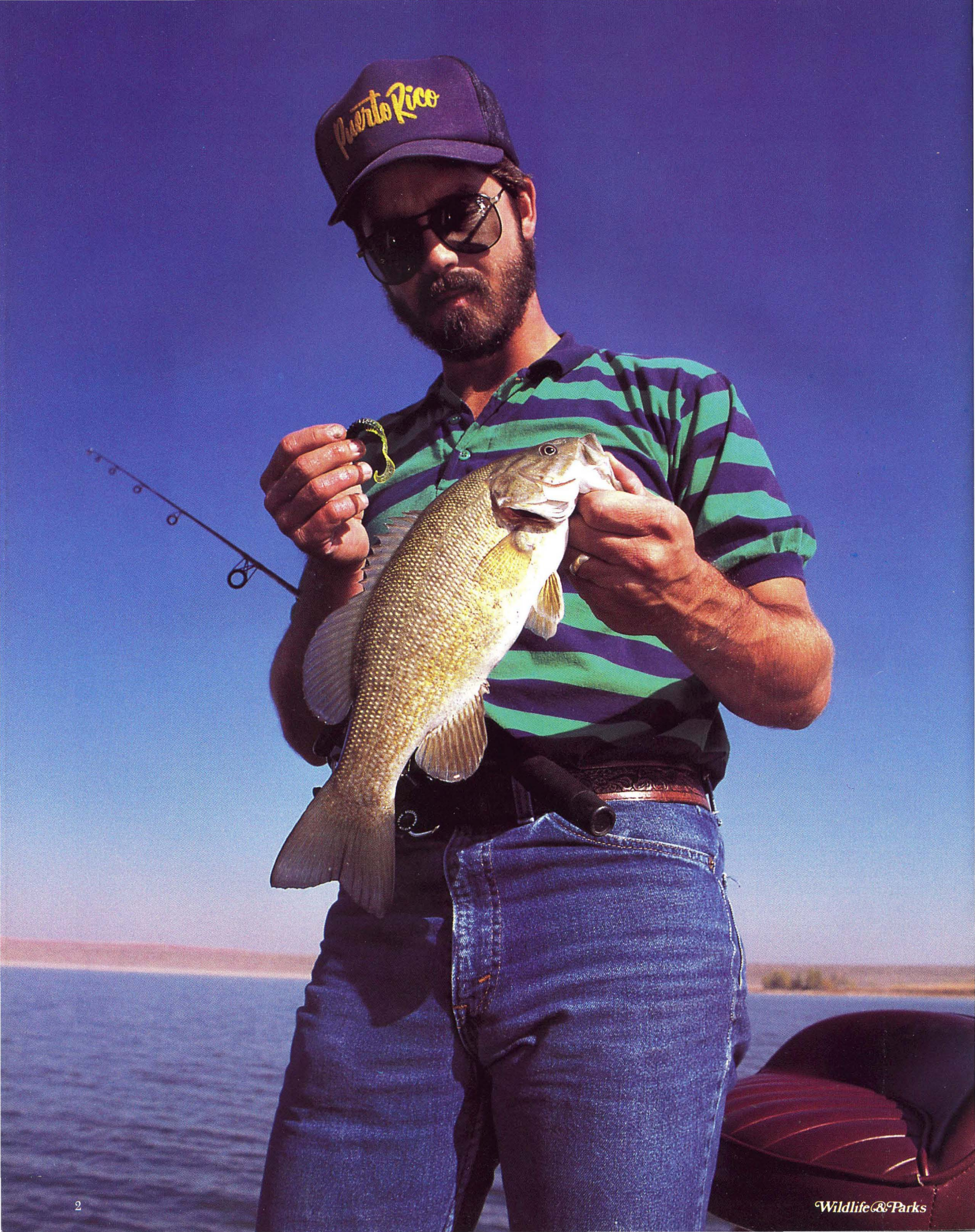
Dana Eastes illustration

But the majority of American hunters would do nothing to jeopardize their hunting privilege. It's much too precious to throw away through some stupid act of crime or vandalism.

Nonhunters and, especially, antihunters love to lump all of us who hunt into one big bloodthirsty, trigger-happy group. It's convenient. It's also wrong. But we are the ones who must take responsibility for our image. Don't allow someone to accuse hunters of these crimes. Refer to the suspects as they really are: poachers, vandals, thieves and criminals.

As a whole, hunters have contributed more money to wildlife management and habitat restoration than all other groups put together. Hunters demanded regulated hunting and paid for enforcement. Most hunters are caring, conscientious people, just like any other group. Point that out next time someone blasts hunters for the unthinking act of some idiot.

Mike Miller
Editor


Puerto Rico

Smallmouth Bass:

Mean, Lean, Fightin' Machines

by Mike Miller
editor
photos by Mike Blair

Fishermen dream of catching smallmouth bass in Canada's clear, rock strewn lakes. Now that dream can come true much closer to home. In fact, a short drive to Wilson Reservoir will provide you with top-notch smallmouth fishing.

It was a perfect May morning for fishing, one of those all too rare days when the wind was barely perceptible. The calm conditions allowed me to easily cast an eighth-ounce jig tipped with a rubber grub for my favorite fish: the smallmouth bass. I cast the dark green jig toward a rocky point jutting out from the bank. The point's shallow ridge was visible several feet under the clear water. I let the grub sink and watched the line, keeping out as much slack as possible. Just before the grub hit bottom, I pumped the rod in two quick jerks and let the grub settle again.

It sank only a foot when I saw the line jump and felt a tap through the rod. I quickly set the hook and watched my line surge toward the surface. In less than two seconds, the 1-pound smallmouth was airborne. The fish hit the water, only to explode again, this time tossing my jig back at me. I wasn't disappointed since there were plenty more smallmouths, and I would have released the fish anyway. With renewed optimism, I quickly cast the jig back toward the point.

If I told that story 10 years ago, you'd probably only beleive the part about a calm day in Kansas being rare. But the story is true, and it didn't happen on a lake in Minnesota or Canada. It happened in 1989 on Wilson Reservoir, and it wasn't a fluke. Many more smallmouths were caught that day, one measuring 18 inches. The bronze bass have thrived in the Sunflower State, and it couldn't have happened to a better fish.

Perhaps as much as any species, smallmouth bass inspired the phrase: "Pound for pound, the hardest fighting fish that swims." They may not exhibit the long, drag-testing runs of a striper or the sudden power of a 10-pound flathead, but smallmouths have a nasty disposition when hooked and commonly take to the air to dislodge the lure. However, their most notable fighting quality is tenacity: they never give up, stubbornly resisting any force of control until the hook is removed and the fish is released.

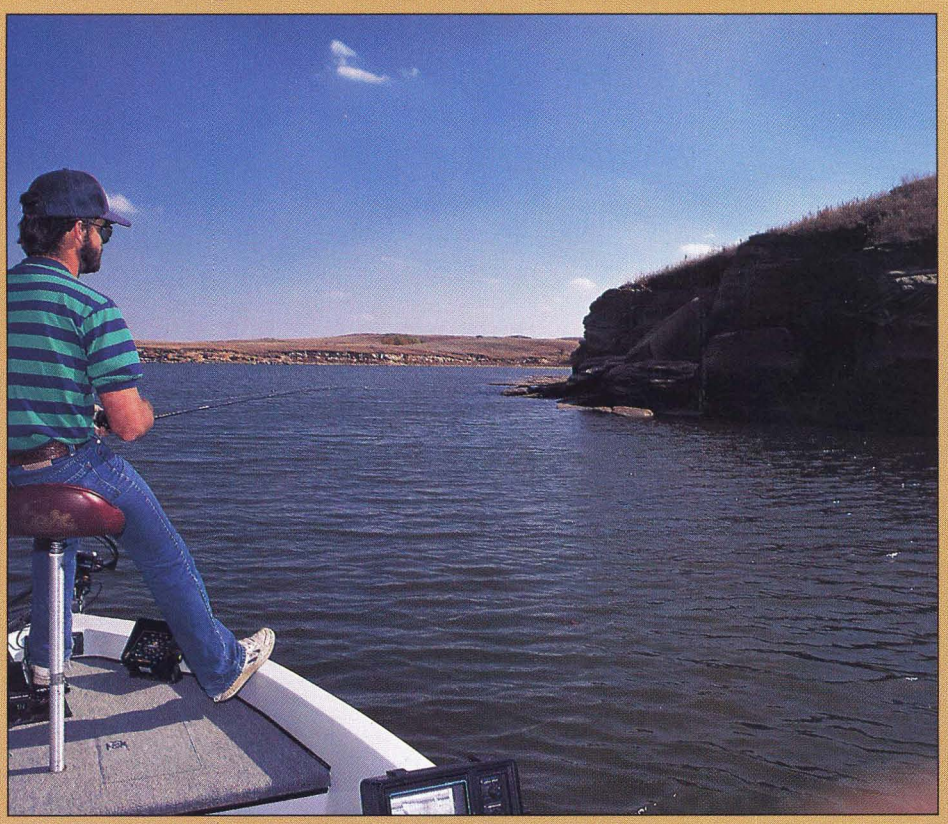
One of the first smallmouths I caught came from El Dorado Reservoir. I was fishing a rock point that had yielded many 13-inch largemouth bass on a previous trip. The lake was still young and there were few 15-inch largemouths. When that first smallmouth slammed my crankbait, I swore to my partner that I'd finally hooked a keeper largemouth. I was amazed when I finally worked the fish to the boat and saw it was a smallmouth barely 11 inches long. We caught many more of the 11-inch tigers that day, and I've been a smallmouth fan ever since.

The smallmouth bass belongs to a group of fish commonly called black bass, which includes largemouth bass and Kentucky or spotted bass. Native only to a few streams in southeast Kansas, the smallmouth has been introduced to several of the state's reservoirs. These include Wilson, Milford, El Dorado, Big Hill, Glen Elder, and several state and community fishing lakes.

The smallmouth bass prefers clear water and usually inhabits rocky structure rather than the weedy, shallow-water home of the largemouth. Because of this habitat preference, two Kansas lakes stand out for smallmouth bass fishing: Wilson and Milford. Both have an abundance of clear water and rocky shoreline.

Wilson Reservoir may be the best smallmouth lake in the state as it yielded some huge smallmouths by Kansas standards in recent years. In the fall of 1988, Wilson produced the current state record, a 5.56-pound monster, and several other fish that equalled or topped the 5-pound mark.

According to Wilson Reservoir fisheries biologist Bruce Zamrzla, 22,000 smallmouth fingerlings were first stocked in Wilson in 1978 and 120,000 followed the next year. Subsequent stockings were made, and by 1982, Zamrzla documented the lake's first naturally spawned smallmouths. In the following years, Wilson fishermen saw an abundance of smallmouth bass, most under 12 inches long. The lake provided ideal spawning habitat and feeding conditions, and the fish flourished. But smallmouths received light fishing pressure because most were under the 15-inch minimum length limit, and because Wilson offers excellent white



A rock point, such as the one pictured here, is an ideal place to cast for smallmouths. The best points create shallow shelves that suddenly drop off into deep water.

bass, walleye and striped bass fishing.

Many of the smallmouths caught at Wilson were caught during local bass club tournaments. Club records show the trend of population growth. In 1980, club tournaments reported catching 60 smallmouths; in 1985, 680 smallmouths were caught; and in 1987, 976 smallmouths were recorded. A 1986 creel survey of all Wilson anglers recorded 14,190 smallmouths caught, 14,000 of which were released.

Wilson smallmouths suffered one setback as a result of the high water endured through 1987. Flooded shoreline vegetation provided ideal largemouth bass habitat. An enormous largemouth spawn resulted, and consequently, these fish competed with smallmouths in the same habitat. Zamrzla's surveys show that young smallmouths, living in the shallow coves with largemouths, fared poorly. Some may have even starved to death. Zamrzla learned that young smallmouths have relatively small home areas, and even when largemouths depleted the available food, the smallmouths stayed. He did find, however, that the larger smallmouths, taken from deep water, were healthy and robust.

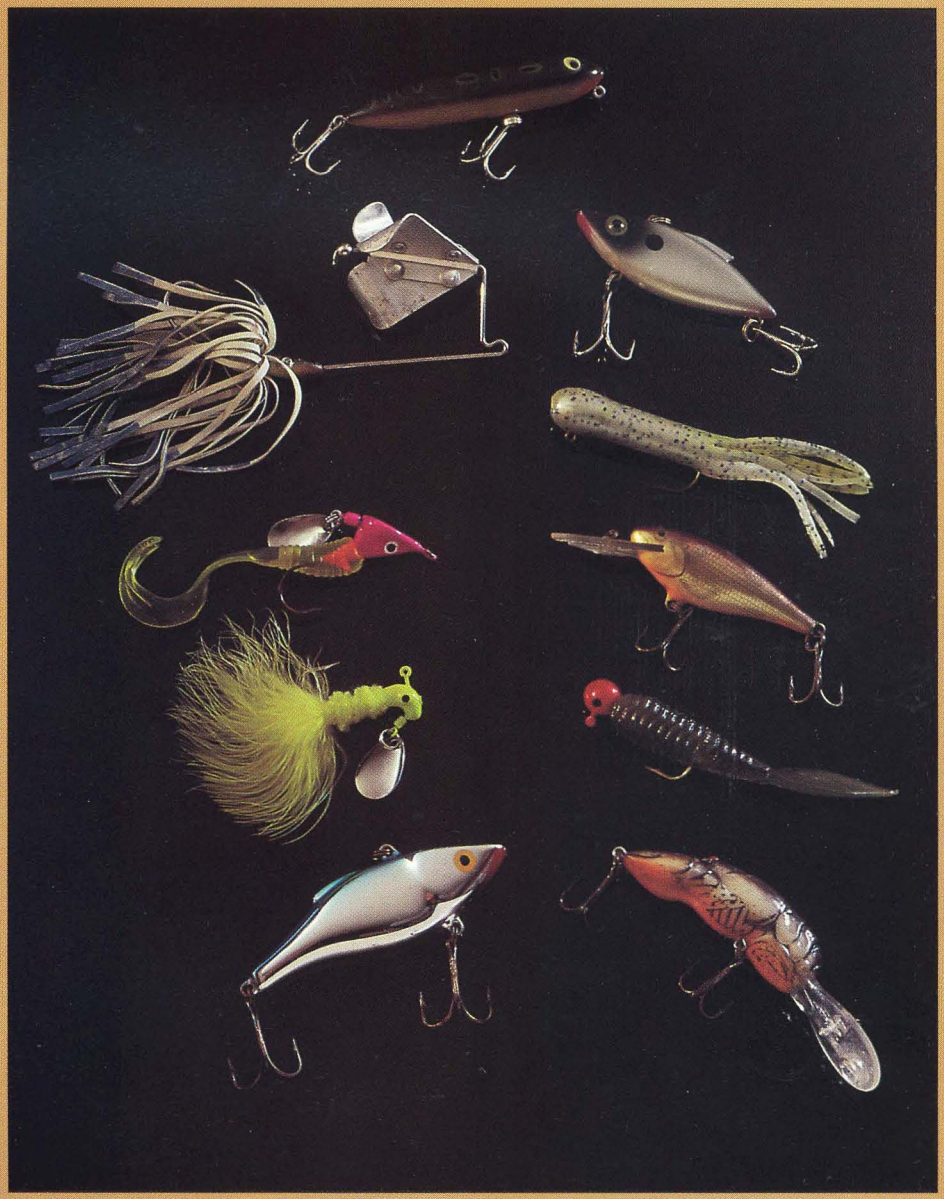
Zamrzla theorizes that habitat preference and feeding habits change as smallmouths mature. The smaller fish are broad-based feeders, utilizing a variety of aquatic insects, minnows, and crayfish. The larger fish prefer shad.

This change in habitat and food preference has also been documented by fishermen. In the last two years, many of the bigger smallmouths have been caught by walleye fishermen drifting nightcrawler-tipped rigs over deep-water ridges and breaks. And other big smallmouths, including the state record, were caught by striper fishermen using live shad in deep water, or trolling large crankbaits along river channels.

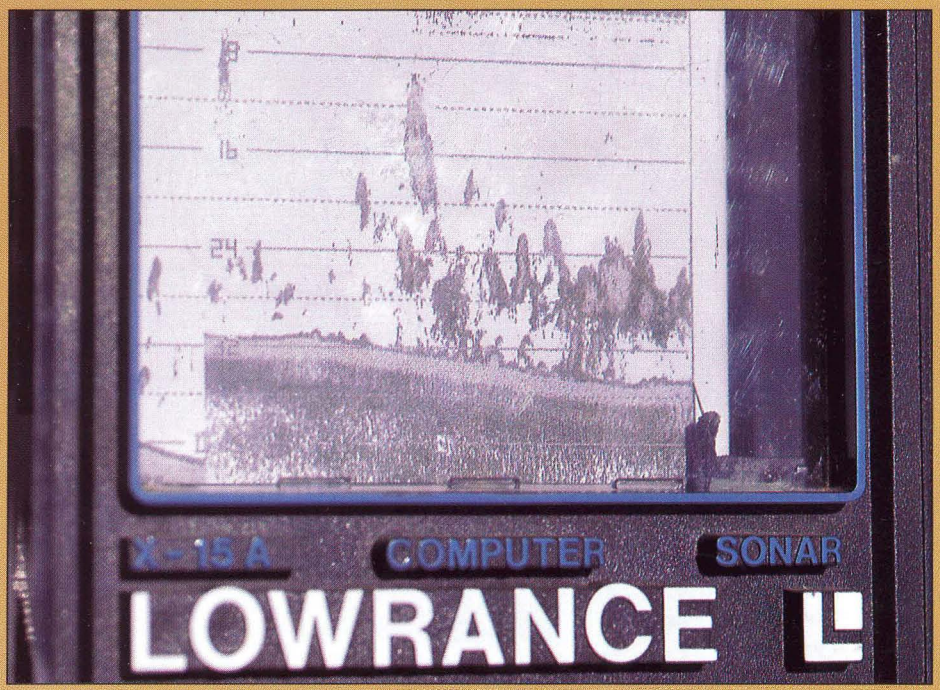
All things considered, Zamrzla believes Wilson's smallmouth population is in "very good" shape. In the fall of 1989, he collected population samples with a shocker boat. During one evening, running along a portion of the lake dam, nearly 100 smallmouths were raised in 40 minutes. That's an excellent catch rate anywhere. Zamrzla is optimistic about the smallmouth fishing at Wilson because he believes that not only are there good numbers of fish, there is now a mature population of big fish.

It has taken time for this fishery to develop because smallmouth bass grow more slowly than other Kansas fish. A one-year-old smallmouth in Wilson is 3.3 inches long. At two years the fish is 7.5 inches long; at three it reaches 10.4; at four years the fish is 12.8 inches; and at five years the fish will measure 14.9 inches. Largemouths commonly reach 15 inches in three years. Zamrzla has compared this growth rate with that of other U.S. smallmouth waters and found it to be right in the middle. It's faster than growth rates of famous northern smallmouth waters, but slower than those of the South. Considering the growth rates and the time when smallmouths became established in the lake, it is likely that the near future will produce many more five-year-old and older fish. Zamrzla believes that the big smallmouths caught in the past year were common fish, not fast-growing flukes.

Anyone who's caught a small-



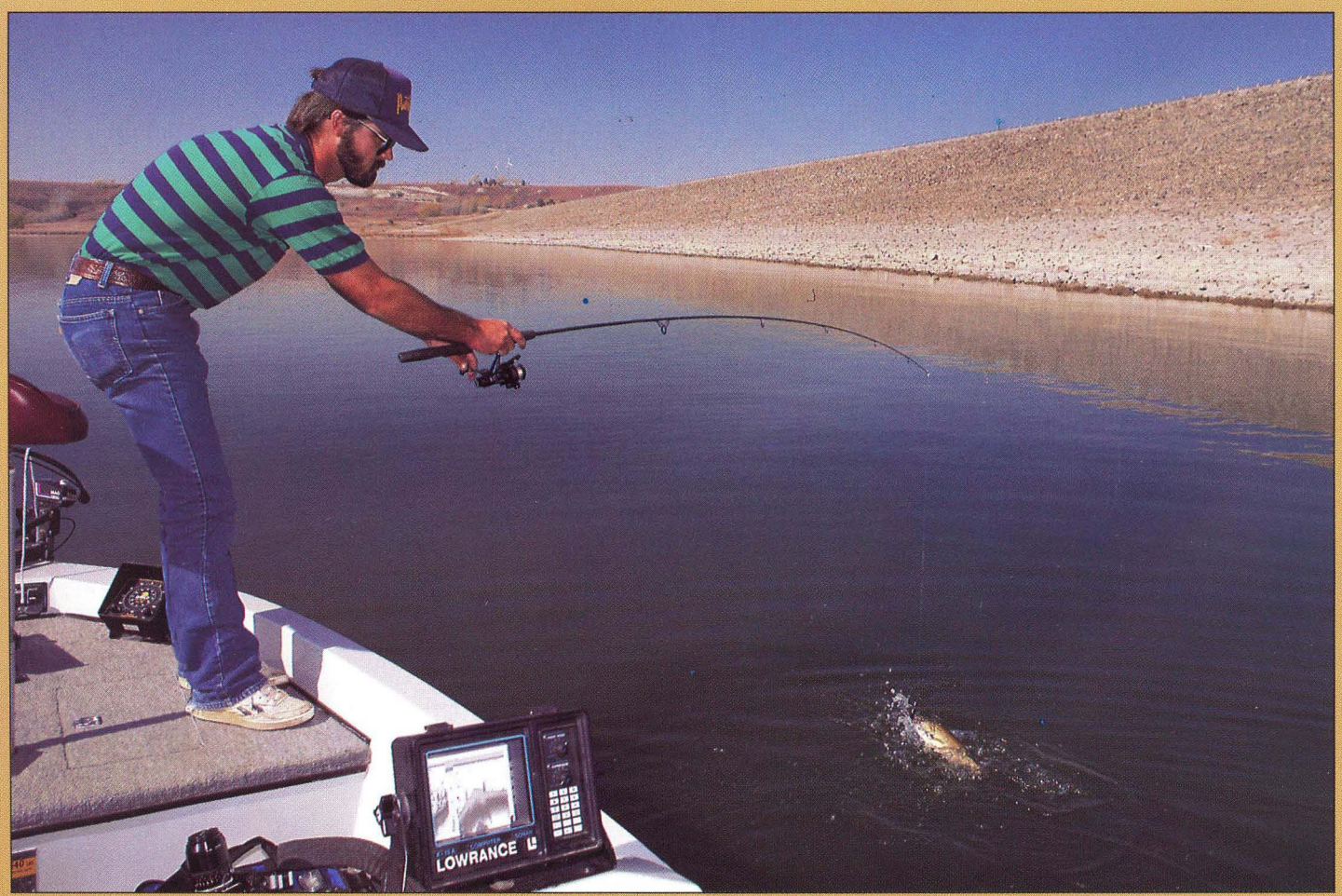
Favorite smallmouth lures include: **clockwise from top,** topwater plug, rattling crankbait, tube jig, deep-running crankbait, flat-tailed jig, deep-running crawdad crankbait, shad crankbait, spinner jig, curly-tailed jig and buzz bait.



In early summer, smallmouths will leave the shallow shoreline cover and congregate on deep-water structure. A paper graph can help locate fish and underwater structure.

mouth, even a little one, can just imagine how hard a 4 or 5 pounder would fight. So, let's talk about catching them. Good smallmouth fishing gets underway sometime in mid-April. The fish haven't yet moved into shallow water to spawn but are feeding aggressively. The key is finding the right habitat. Wilson has an abundance of preferred rocky shoreline, and most of it holds small fish. Finding bigger fish takes more work. Zamrzla consistently locates fish by looking for rocky shoreline with small coves. He then searches the cove for good rock structure and the feeder creek channel. Following the creek channel out of the cove, he fishes along the edges. The best areas will have sharp drop-offs with deep water near by. Deep-running crankbaits like the Rebel Crawdad or Shad Rap are good, as are dark green, chartreuse and white rubber grubs.

In May, the fish will move into



Rip-rap along dams, boat ramps and fishing piers is excellent smallmouth bass habitat. This scrappy fish hit a tube jig along the dam at Wilson. A reel with a smooth drag is essential when fishing with light tackle. Even small fish are amazingly powerful.

shallow water, preparing for the spawn. Rocky points with a shallow shelf that drops off into deep water are good places then. I'll start casting to the shoreline on either side of the point and work the boat around the tip of the point. Cast to the shallow water along the point's ridge and bring the bait back into deeper water. The fish will hold in deeper water, periodically returning to the shelf to feed. When smallmouths are shallow and feeding, crankbaits, jigs and even buzz baits will work. If the fish are holding off the edge, I like to fish the jig because I can let it sink down along the drop-off.

In June, smallmouths seek structure in deeper water. Zamrzla looks for early summer fish on isolated structure and casts deep-running crankbaits. If the crankbaits won't reach the fish, he switches to an eighth- or quarter-ounce dressed jig.

In July and August, small fish are easily caught along the face of the dam on crankbaits, but bigger fish are most active late in the evening or early in the morning. Topwater fishing can be exciting on calm evenings. This is also a great time to get the fly rod out and cast small popping bugs.

In September smallmouth bass will move back up to the points and fishing tactics are similar to those in May. Many of the biggest smallmouths are taken in October, often by striper fishermen. The fish have now returned to rocky structure along the creek channels or on isolated humps and rocks. Again, deep-running crankbaits, jigs and live bait (particularly shad), will produce fish.

Wilson Reservoir's best smallmouth structure will be found where a rocky shoreline quickly drops into deep water; in small coves with creek channels running out to the main lake; on rip-rap along the dam, boat ramps and piers; and isolated rock piles or submerged islands in deep water.

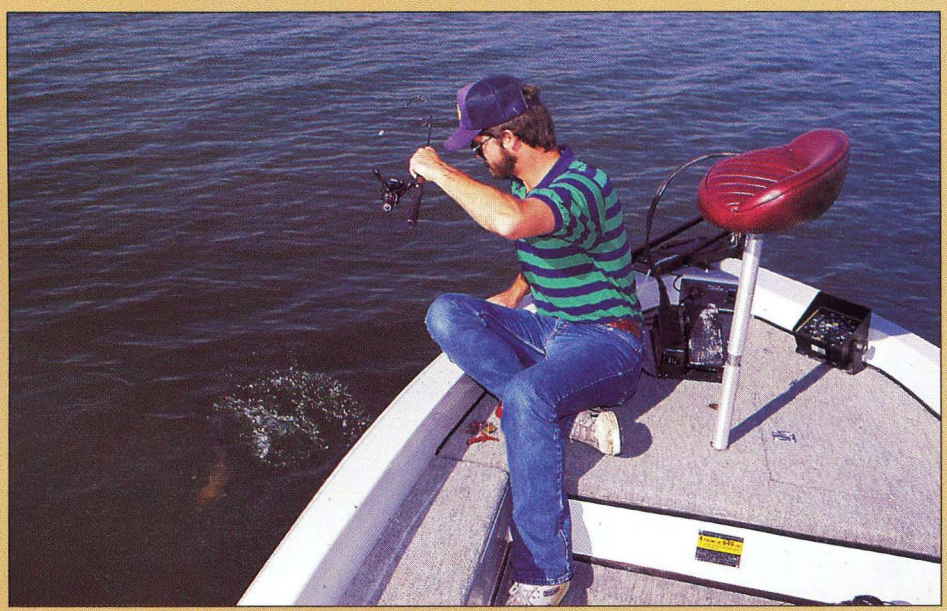
The most productive smallmouth lures are crawdad crankbaits, rattling shad imitators, rubber-bodied jigs (imitating either a crawdad or shad) and topwater baits such as buzz baits or plugs. But don't limit yourself. Spinnerbaits and 4-inch plastic worms will catch smallmouths as will a variety of other lures. Experiment with lures and presentations. The key is fishing the proper depth and structure and imitating the natural bait that fish are feeding on at the time.

Live baits can be deadly on smallmouths, but extra care must be taken or the result will literally be deadly. Fish will take a live bait deeper into their gullet, and if the fisherman is slow to set the hook, or lets the fish run with the bait intentionally, the hook wound may be fatal. All smallmouths less than 15 inches must be released, and many fishermen voluntarily release keeper-sized fish.

When using live bait, remember that it isn't necessary to let the fish "take" the bait. Set the hook as soon as you feel a bump. If a fish is hooked in the gullet or near the gills, never rip the hook out. It's best to cut the line and let the fish's body fluids decompose the hook. Take care when releasing all smallmouths. Their fighting nature makes them difficult to handle, but try not to bang them against the boat or let them flop on the boat floor. Grab the fish by the lower lip and remove the hooks as quickly as possible. It's also a good idea to crimp the barbs on your hooks when catch-and-release fishing. Barbless hooks make releasing fish much easier for you and the fish.

Smallmouth bass fishing is a blast, especially with light tackle. Few fish hit a lure as hard as the smallmouth and none in Kansas fight as hard or jump as much. For optimum fishing enjoyment, I'd recommend using a 6-foot, medium action spinning outfit. And make sure your reel has a quality drag because even small fish will test it. Light line, such as 6-pound test, is ideal, but you'll have to check it for nicks and retie your knots frequently. For fishing deep water, you may want a heavier outfit to handle the deep-running crankbaits. Try a 5 1/2-foot, medium action casting rod and 8- or 10-pound test line on a bait casting reel. With this outfit, you can also throw a 3/8-ounce jig-and-pig combination (try a brown jig with orange pork frog). The jig-and-pig won't catch as many fish as other lures, but the fish you catch will definitely be bigger.

The smallmouth bass is here to stay. Healthy populations have been established in several reservoirs, and now there is the real possibility of catching trophy-sized fish. Besides Wilson, other smallmouth hotspots are Milford and El Dorado reservoirs. Check the regulation brochure before you go. A 15-inch minimum length limit is in effect for smallmouths at most waters. But there's no such thing as a small smallmouth. And even though you may have to release them, the bronze battlers are a joy to catch.



Just when you think the fight is over and reach to land the fish, it will make another furious dive for the bottom. Smallmouth bass never give up the fight.

Nature's Poetry In Color

by Ken Brunson
urban/nongame program coordinator
photos by Mike Blair

"To see the world in a grain of sand,
and heaven in a wildflower,
hold infinity in the palm of your
hand, and eternity in an hour."
William Blake

To an indifferent eye, a wildflower may be just a weed that dares to grow in the path of a mower. To most eyes, it probably goes unnoticed. But to the naturalist, it is a portal to nature's poetry—a vivid masterpiece sculpted through a million years of trial and error.

You can find your own personal "heaven in a wildflower." It's not a pleasure reserved for the botanist. Wildflower books are helpful but not necessary to unlock a storehouse of wild secrets. Wildflowers are as accessible as your back door.

Recreation experts advise us to spend more time outdoors. They say that modern society has severed us from our natural relationship with Earth. This separation manifests itself in a broad assortment of environmental ills brought on by our ignorance. Could it be that something as sedate as a wildflower can heighten the understanding of our surroundings and even ourselves? If not alone, certainly wildflowers are part of the prescription.

Much introspection can be gained through the study and appreciation of wildflowers. Smell the subtle fragrance of Arkansas rose, or feel the folding leaflets of Catsclaw Sensitivebriar, stimulated by a teasing finger. You may gain more appreciation of yourself if you can smell, feel and see the beauty of nature's artistry in a wildflower.

A wealth of literature can tell you about the uses and dangers of these native plants. Many wildflowers possess intriguing medicinal properties. Others provide food from nutritious tubers and berries or pleasant teas perked from delicate leaves and petals.

So what's in a wildflower, that prima dona of the world of green? It's an artwork fashioned yearly by some plants or once every other year by others. Many mysteries await the

catclaw sensitivebriar

A wintry woods conceals surprise
as first warm April days arrive
hastening thaw of snow and ice
to reveal some new refreshing life;
Hidden beneath an oaken forest
midst leaves and soil now freshly wet
a flash of yellow so perfectly set
atop this little violet.

Arkansas rose

dogtooth violet

inquisitive; mysteries of color, smell and winged visitors; of time, space and competitive plant riddles; and mysteries that can only be revealed by slowing down and learning to appreciate the world of wildflowers. Their world of change . . . of beauty . . . your world.

Hope springs forth eternal. Or is it "Spring is hope eternal." One thing is for sure, spring is the opening act of a spectacular wildflower show. They seem barely able to wait until the first balmy sunshine prods their spectral explosion. Through the year, we are treated to an ever changing kaleidoscope as one species after another goes through its reproduction routine.

Summer is the best time to appreciate wildflowers. Evening primroses, Indian blanket, Indian paintbrush and blue wildindigo add to the leafy rainbow for one who is willing to find a quiet early morning to scan the prairie. Walk in a dew-laden meadow at dawn and watch nature unfold as flowers open to meet pollen gatherers. Breathe deep for you don't want to miss the varied fragrance. Feel the softness of the petals. Look closely . . . you could miss the intricate design in the throat of a lavender penstamon.

Flowers in the fall? Sure! You'll still see some of the composites such as Indian blanket blooming in early fall, along with many of the evening primroses, but there's a whole new exhibit to enjoy. The asters are just some of the late bloomers. You'll find dotted gayfeather, downy gentian and a beautiful leavenworth eryngo. One of the real treats of autumn is the tenpetal mentzelia found only in the western half of the state.

Wildflowers are quite "in" so you shouldn't feel any tinges of embarrassment if you should ask a friend to stop along the road to get a closer look. In fact, the Kansas Wildflower

Indian blanket (rosering gaillardia)

Must you always come to play
'round my grand floral display
in these blustery torrid summer days
fluttering by but not stay?
I doubt it minds such gourmet feast
by fragile bugs on gossamer wings
this brilliant bush of prairie seed
this crimson clad butterfly milkweed.

butterfly milkweed

blue wildindigo

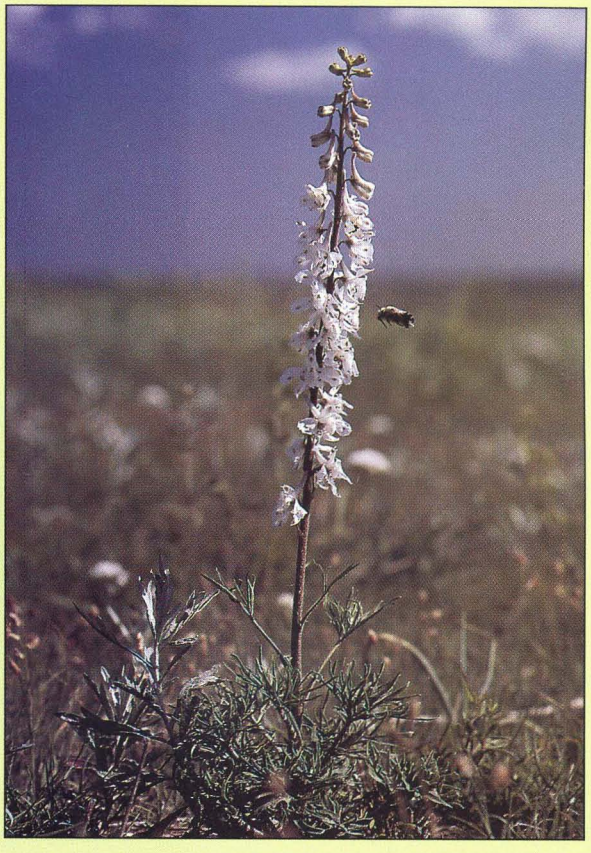
Indian paintbrush

Society is very active and is enjoying a growing membership. Last fall, the Kansas Association of Garden Clubs held a well-attended session on wildflowers at their fall board meeting. In addition, the Kansas Wildlife Federation is working with the Kansas Department of Transportation for more native wildflower plantings along roadsides. Many towns and cities are landscaping odd areas and parks with wildflowers for not only the visual delights but also because of low maintenance costs. Other reasons for this rejuvenated interest in native plants is that some people seem to be following their instincts. They crave that which is natural for reasons other than just logistics or economics. It is a craving satisfied by those who refresh themselves by occasionally slowing to "read" a wildflower. You can take part in the nature revival, too. But first, you have to stop and smell the roses—the wild roses that is.

dotted gayfeather

evening primrose

plains larkspur



Who should know that you exist
and who would think they could resist
your panicle of small florets
and blue rays dappled in autumn mist?
The season seems to spiral faster
towards a first hard frost disaster
for showy flowers that cannot last or
is this too late for winsome asters?

cardinalflower

barrel cactus

Dutchman's breeches

A Piece Of The Rock

by Bill Duckett

photos by Mike Blair

Rock climbing is not a pursuit generally associated with the prairie, but these three Kansans have found many climbing challenges throughout the state.

Twenty-five feet above the ground, Tod Palmer had his hands full. Clinging to the vertical sandstone face by toes and fingertips, he inched his way toward the lip of the cliff. Suddenly, a fist-sized handhold broke loose from the soft rock, throwing the climber off balance and nearly causing a fall. Even with the safety of the climbing rope, there was an instant of fear. But grabbing another handhold, he was able to catch himself and eventually make it over the top to safety.

Say the word Kansas and your first thought is rock climbing. Right? Believe it or not, there are places to climb in our state with the quality and difficulty to challenge even the experienced climber. And the areas are as diverse as found anywhere, from the sandstone monoliths of postrock country in the west, to the Ozark hills of the east.

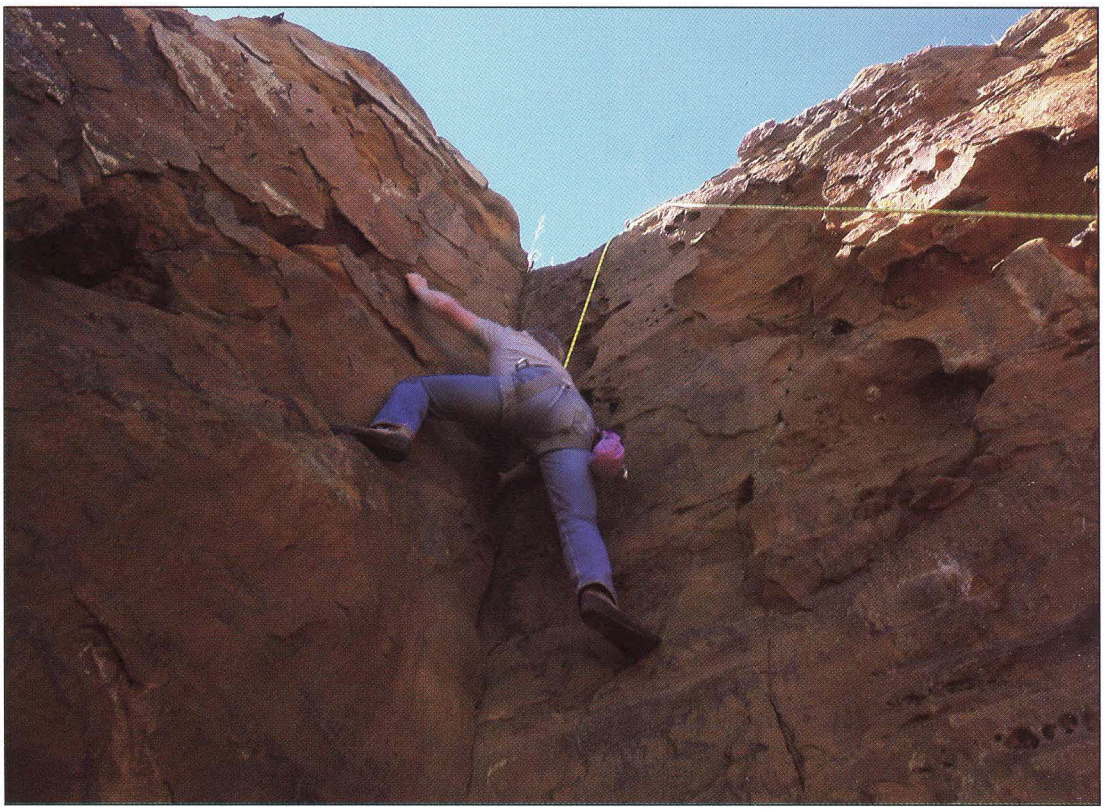
It was a beautiful fall afternoon when Mike Blackburn, Tod Palmer and I traveled to Horse Thief Canyon near Kanopolis Reservoir in search of a rocky challenge. After a short hike among beaver-dammed streams and cottonwood stands we found the red sandstone bluff rising 35-50 feet straight up. Thirty-five feet may not sound that high from the ground, but when the rock hold broke off in Palmer's hand, his eyes achieved saucer proportion.

The rope is always there to keep us from falling. It is our link to safety and sanity. With proper equipment and instruction, rock climbing is statistically safer than the ride to the climbing site. Most of the equipment required for safe climbing can be purchased at backpacking and climbing shops.

Protecting the climber from falling is called *belaying*. The type we usually use is called *top-roping*. This method anchors the safety rope on top of the outcrop and uses *carabiners*, or aluminum snap-links, to rig a pulley system that allows the rope to be taken up as the climber ascends. A lost handhold or foothold usually results in a fall of just a few inches.

Another method of protection is called *lead climbing*. As the rock is scaled, the climber places appropriately sized aluminum wedges, called *chocks*, into cracks in the rock. The rope is clipped to the chocks. In this method, the climber will fall only the distance between chocks.

Safety is a number one consideration and is directly related to the quality of equipment and the climbers' skill



Learn to climb through a climbing class or experienced climber. Rock climbing is statistically safer than a car ride, but proper equipment, skill and knowledge is necessary to prevent mishaps.

skill and knowledge. Smart climbers protect themselves by following some basic rules: Get qualified instruction from a class, school or experienced climber. Use only equipment approved for climbing, not items purchased from a general hardware store. Learn to tie climbing knots and use the right one for the job. Back up your gear; if one carabiner is good, two are better. Don't climb any higher without a rope than you are willing to jump or fall. Take care of your rope. It should be used only for climbing. Be sure your rope is long enough for both ends to reach the ground when rappeling. Practice belaying a few feet off the ground so you know what to expect if you fall. Always maintain three points of contact with the rock when climbing (i.e. two hands, one foot; or two feet, one hand). And always let someone know where you're climbing and when you expect to be back.

Climbing is a great alternative way to enjoy the outdoors. And climbers develop a deep appreciation for our natural resources. Climbing clubs have organized clean-up days at popular climbing areas, picking up trash and cleaning graffiti from rocks. We make it a habit to pack out all of our trash plus someone else's. It all comes down to common sense and respect for the land.

I have been climbing since I was 15 years old. I was introduced to the sport by a dedicated climber who hammered *pitons* in his bedroom walls and slept in a hammock. My obsession with climbing has taken me down many dusty back roads, eyeing the horizon for that elusive, undiscovered cliff. I have climbed rock formations in Kansas, Oklahoma, Missouri and Colorado. If you think you might be interested in this exciting sport, contact: Backwoods, 221 N. Main, Wichita, KS 67202, or Mountain High, Inc., 8118 E. Douglas, Wichita, KS 67208.

center section

Edited by Mark Shoup

LETTERS

RESOURCE ACCESS

Editor:

Your proposed policy of encouraging hunting-for-pay disturbs me very much. I grew up in Texas, where much of the deer hunting was available only to those who could afford leases.

Closer to home, a friend of mine recently travelled to western Kansas for his annual pheasant hunting trip, only to find that many of the landowners whose land he usually hunts had sold exclusive pheasant-hunting rights to a local service club. The club was then charging hunters $150 each for the weekend.

I am very opposed to the concept of hunt-for-pay, even though I am a landowner and could benefit from it. Perhaps the central issue here is whether or not there actually is a shortage of hunting opportunities. In my area of the state, there are plenty of opportunities for responsible hunters.

Richard Council
Independence

TENNESSEE HUNTER

Editor:

Just wanted to let you know how much I enjoy my yearly trip to Kansas. We usually make the trip on the week before Thanksgiving and hunt quail and pheasant around Concordia. The area is wonderful and the hunting is great. But the people are the best part of my trip.

I am always impressed by the way we are treated by most local landowners. We have become acquainted with many over the years, but there are always people we just meet who will allow us to hunt on their property. This is a special trust, and I am hopeful the great majority of hunters will not abuse it.

Thanks for the good job you do with the magazine and the Department does with game management.

Bob Shelton
Chattanooga, Tenn.

NATURE FAMILY

Editor:

My dear husband, who passed away in 1988, was a hunter and a fisherman. I really miss him. We always went hunting and fishing together. We hunted geese, ducks, quail and pheasant. We loved the outdoors. We were bird watchers, too. Tom always identified the bluebirds, woodpeckers and other birds when we were fishing at the lakes.

Kansas is a great outdoor state. I think Governor Hayden is doing a fine job for our state, and Sen. Dole has done well with the assistance of matching funds for major projects.

Mrs. T. H. Lehning
Topeka

MILITARY LICENSES

Editor:

I am writing to express my dismay with the Department of Wildlife and Parks and the state of Kansas for no longer allowing active duty military personnel with permanent residence in Kansas to hunt and fish without a license while home on leave. Our son came home at Christmas to discover that to participate in his favorite pastime, he had to obtain a hunting license for a mere 10 days.

I regret that we cannot afford free hunting and fishing for the people of our great state who have chosen to help protect and defend our country. The average length of leave time military personnel have each year is 30 days, and it appears to me that we are pretty greedy in asking them to buy a license for a few days of hunting or fishing.

Mrs. Carol Jean Garlow
Concordia

Dear Mrs. Garlow:

I certainly agree that all Americans owe a debt of gratitude to the men and women who serve in our armed forces. This same respect, however, should be shown the men and women who help protect and manage our natural resources. As you well know, the work these people do is largely funded by the sale of hunting and fishing licenses. Cuts in these funds could hurt the very resource your son so much enjoys.

You are not the first to raise this concern, of course. What I find puzzling about this debate is that people willingly spend ten dollars on a movie and snacks or a junk-food meal for two -- certainly short-lived pleasures -- but they complain about spending ten dollars for several days of quality entertainment in the field. *--Shoup*

DEER EAR NOTCHES

Editor:

Over the many years I've bowhunted, I've noticed that quite a few of the deer I've taken have had slits or notches in their ears. Some were on the top of the ear, and others were on the bottom. Other hunters I've talked to have noticed the same thing.

I've heard reasons all the way from barbed wire fences to bucks fighting, which

makes more sense. Have you heard of this before?

Don Urbanek
Ellsworth

Dear Mr. Urbanek:

Scars on the heads and faces of bucks are common, and this is not surprising. Fighting during rut is probably the most common cause of these scars, which could easily include notches in the animals' ears. The next most likely cause is the violent raking of trees and brush also associated with rut.

Bucks could possibly cut an ear going through a fence, but they usually jump fences. *--Shoup*

STOCK PHEASANTS

Editor:

Kansas has long had a huntable population of pheasants. However, the southeast corner of the state has very few, if any. I live near Westphalia and along with a few of my fellow sportsmen have been trying to establish a local population.

One problem we have been facing is the that the only birds we have access to are pen-raised birds. We have requested that the Department of Wildlife and Parks trap some wild birds and release them in our area. All our requests were met with excuses such as "the birds won't survive because they aren't suited to the environment," or "it has been tried before and didn't succeed."

I would like to respond by saying that our environment is very suitable for quail and prairie chickens, so why not pheasants? Also, our part of the state is much different now than when other attempts were made. I believe, along with hundreds of other hunters in our area, that another attempt should be made.

Mike Spencer
Westphalia

Dear Mr. Spencer:

I appreciate your interest in establishing pheasants in southeast Kansas and am aware that this interest is shared by others. As you noted, past efforts to establish pheasants in southeast Kansas have failed. Southeastern counties were among those stocked when pheasants were first released in Kansas in 1906. As recently as 1977 and 1978, a major privately operated effort to establish pheasants was undertaken in the southeast, without success. Smaller efforts have failed as well.

We must ask ourselves why pheasants have not naturally expanded into southeast Kansas if the environment, as you suggest, is suitable for them. Virtually nothing suggests that pheasants have been able to adapt to the southeast.

Admittedly, we don't fully understand why pheasants have failed in the southeast. I addressed this question in a previous KANSAS WILDLIFE AND PARKS magazine article (Sept./Oct., 1981, Page 4). There are probably multiple reasons. What is certain is that it is wrong to conclude that the conditions are right for pheasants simply on the basis that quail and prairie chickens do well in an area. All species have their own set of environmental requirements and limitations. This is why there have never been sharp-tailed grouse in southeastern Kansas although the sharp-tailed is similar to the prairie chicken, more so, in fact, than the pheasant. *--Randy Rodgers, region 1 research biologist*

MORE MOWER MOANS

Editor:

I have followed with interest the letters in the Center Section that have expounded on the questionable virtues of being a "mow-less" society (Page 26, Sept./Oct. and Page 17, Nov./Dec.).

I take sharp exception to the philosophy that both Mr. Manes and Mr. Zimmerman embrace regarding unmowed areas in state parks and their reasons given for justifying such policies. The idea that unmowed areas provide aesthetically pleasing sites for tent campers is a matter of personal opinion and hardly justification for the unkempt and sloppy appearance of public facilities supported by the taxpayers of Kansas.

I have no quarrel with a minimum maintenance policy for lands designated as public hunting or conservation areas, but a reduction of 50 percent in mowing of areas designated for camping is objectionable. Areas overgrown with brush, bluestem and other grasses are fire hazards in dry summer months. If those individuals who enjoy the regression to the primitive form of life are really serious about conservation, then why exempt special interests groups which farm intensively and overgraze private land? In my opinion, each one of us has a personal and moral responsibility to the conservation effort, rather than the philosophy of "I'll do what suits me and let the government worry about the rest."

In the Flint Hills, bluestem and other grasses are abundant. Growth without restriction often reaches four to five feet. The increasing number of deer and wildlife drawn to these unmowed areas near highways are a serious safety problem for the motoring public.

F. Glenn Phinney
Marion

Dear Mr. Phinney:

The planned reduction in mowing in no way threatens to eliminate the manicured areas that some modern campers enjoy. The fact remains, however, that past practices of widespread mowing have provided recreational experiences desired by only a portion of potential park users. Few opportunities for those who prefer wild camping areas have been provided in Kansas. As a result, people who really want to get away from it all when they camp have either stayed home in frustration or visited other state's parks. As you so accurately state, the appeal of park grooming is strictly a matter of personal taste.

Mowing is not, however, a method of preventing deer-vehicle collisions. It may be true that a total cessation of grass cutting on highway shoulders would eventually allow taller woody vegetation to grow. That would predictably draw more deer near roadways and make them less visible to motorists. A single annual mowing of the immediate roadside area seems a sensible tactic for preventing this. -- *Manes*

THE LAW

BOARDER POACHERS

On January 30, conservation officer Doug Whiteaker met Missouri conservation agent Bill Campbell on the Missouri/Kansas border near Arcadia, Ks. Campbell and Bourbon County deputy Dan Dickey had just arrested three suspected spotlighters.

The suspects had already admitted to poaching deer along the border for some time and to recently taking one of these deer across the state line from Missouri to an Arcadia resident.

After arresting the spotlighters, Whiteaker and Campbell went to the residence of the Arcadia recipient of the poached deer. At first, the Kansas man denied possession of any deer, but when confronted with the statements of the poachers, he confessed and handed over the deer.

The Kansas man later pled guilty to a federal Lacy Act violation and was fined $400 by the U.S. District Court in Wichita. *--Doug Whiteaker, conservation officer, Fort Scott*

POTT SPOTTERS

Two Manhattan men and one rural Wamego man must have thought it was a perfect night to spotlight deer, this cold and misty 29th of December, until one shot alerted a Pottawatomie County landowner to the team of poachers.

After hearing the shot, the landowner phoned the county sheriff. At 11 p.m., sheriff's officer Ted Brown stopped the spotlighters, who had killed two adult white-tailed does with a .222 cal. rifle. Each man was charged with taking deer without a valid permit, using an unlawful caliber rifle, taking deer with the aid of a motor vehicle and using an artificial light.

In January, the trio pled guilty to all three counts. Each man was ordered to pay $700 in fines, and their hunting privileges were revoked for one year. The rifle was also forfeited. *--Rick Campbell, conservation officer, Wamego*

CRIME LAB

The U. S. Fish and Wildlife Service has christened a $3.5 million National Fish and Wildlife Forensics Laboratory -- unofficially dubbed the Scotland Yard of wildlife crime -- to aid state, federal and international wildlife law enforcement efforts.

The four-acre lab, housed on the campus of Southern Oregon State College in Ashland, Oregon, will also serve as the federal government's central repository for items recovered -- including bald and golden eagle carcasses -- after successful prosecution of wildlife criminals. -- *Audubon Activist*

BOLD BROCHURE

Imagine someone bold enough to advertise publicly the illegal wares he had for sale. Perhaps a nice brochure would attract attention.

Such is the case with one northeast Kansas fresh fish "business." The enterprise distributed a flyer, complete with business hours and phone numbers, boasting that "We Carry Only The Freshest Fish! Our Prices Are Right!" The flyer also offered catering services. In addition to eight different species of fish, freshly dressed turtles and coons were advertised. According to the flyer, there could be "No Order Too Large or Too Small."

Unfortunately for the two Kansas City men operating the "business," the brochure attracted a bit too much attention. Officials of the Department of Wildlife and Parks read the brochure and became interested. As it turned out, neither of the men was licensed to trade in wildlife, although they had been buying and selling for some time. Such licenses are restricted to furharvesters and commercial fishermen.

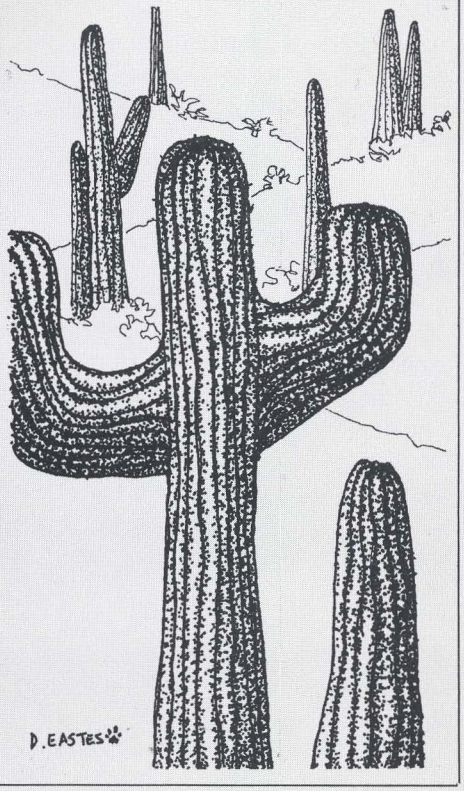
The two men face possible fines of $7,500 on 13 charges. *--Shoup*

CACTUS POACHERS

In the culmination of a four-year undercover investigation based in Arizona, federal agents have charged 21 people with felony collection and trafficking in saguaro cactus. The individuals were arrested in January and charged with illegally collecting the stately saguaro cacti for resale to nurseries, collectors and residential property owners. Healthy plants can sell for $50 a foot plus an additional $100 per arm, and crested plants can sell for as much as $15,000.

The saguaro cactus is the state plant of Arizona. Found mainly in the Sonoran Desert in southern Arizona, saguaros are known for their enormous size -- they can grow 40 feet tall and weigh six or seven tons. The arms, which branch from the main body of the cacti, are unique features of this cactus. Rare crested saguaros have broad, fan-shaped branches across the top. There are probably no more than 200 crested plants left in the wild. Saguaros grow very slowly, perhaps only an inch in the first year. They do not begin to reproduce until they are 50 to 75 years old. Large plants may be 150 to 175 years old.

The rare saguaros are protected under Arizona's native plant law and under the federal Lacy Act. *--Shoup*



ISSUES

GRASS = TERRACE

On many farms, installation of terraces and waterways has been scheduled for highly erodible land. Even with federal cost-sharing, terracing is very expensive. There is, however, good news for Kansas farmers looking to cut costs and maintain efficiency while complying with Soil Conservation Service (SCS) regulations.

The SCS will now allow the planting of grass buffer strips as an inexpensive alternative to terracing. Grass, when seeded in contour strips and in small gullies, can be as effective in stopping soil erosion as terraces and will provide many additional advantages.

The most obvious advantage of grass buffer strips is that they cost less. Terraces can cost anywhere from $100 to $800 per acre, but contour grass strips can be installed for as little as $5 to $10 per acre. These buffer strips would average 15 to 20 feet across and could be laid out in a system which matches the farmer's machinery, thereby allowing parallel farming and the elimination of point rows.

Although buffer strips will take up some area in the field, the grassed area can be counted as permanent set-aside acreage.

Grass buffer strips are also easy to maintain. To ensure a vigorous stand, strips can be burned in April of every third year. (It's best to burn only every third strip in any one year.) If the strips aren't counted as set-aside, they can be hayed in mid-July.

There are several other advantages to grass buffer strips that terraces can't provide. While grass strips will be laid out mainly to stop water erosion, they will also provide significant protection against wind erosion. The filtering ability and biological activity of the grass will also help prevent agricultural chemicals from running into streams, thereby safeguarding our water quality.

Wildlife will benefit, too. Grass strips will greatly increase the edge between cover types, areas critical to many types of wildlife. Because of its productive nature and tolerance of certain agricultural chemicals, switchgrass is the favored grass species for buffer strips. Switchgrass is also excellent for wildlife and is particularly preferred by pheasants. Its ability to stand up to wind and snow make switchgrass good winter cover and nesting cover.

Wildlife organizations like Quail Unlimited and Pheasants Forever are considering purchasing grass seed for farmers installing buffer strips. County Conservation Districts and the Kansas Department of Wildlife and Parks also have grass drills available at little or no cost to the farmer. These factors stand to make grass buffer strips an even better bargain.

Low installation cost, good erosion control, ease of maintenance, set-aside eligibility, benefits to wildlife and water quality: there are many advantages to grass buffer strips that make them an attractive conservation alternative for many farmers.

Contact your SCS office for more information. *-Shoup; Dennis Brinkman, SCS; Randy Rodgers, Region 1 research biologist*

BACKYARD TOXINS

Suburban homeowners and commercial landscapers now spread more pesticides and fertilizers *per acre* than U. S. farmers apply to cropland. Few of these chemicals have been adequately tested for safety; of those that have been, several have caused cancer in laboratory animals.

There are, however, alternatives. Nontoxic products are available at many garden centers, and others can be ordered by mail. Single copies of a booklet, "Suppliers of Beneficial Organisms in North America," are available free from California Department of Food and Agriculture, Biological Control Services Program, 3288 Meadowview Road, Sacramento, CA 95832.

Gardening and lawn care procedures such as mulching, hand weeding, recycling of grass and planting for wildlife can also help reduce backyard toxins and control pests at the same time. For information on planting for wildlife, write Backyard Wildlife Habitat Program, National Wildlife Federation, 1400 16th Street NW, Washington, DC 20036.

The Kansas Department of Wildlife and Parks and the Kansas State Extension Service also have wildlife planting programs. For more information, contact your local representative of these agencies. *-Shoup*

POPULATION = POLLUTION

Most conservationists now agree that the single greatest cause of environmental problems in the world is overpopulation.

This is just as true in the United States as it is in Third World countries. In countries like India, for example, populations rise faster than food supplies; overpopulation is simply a matter of too many stomachs and not enough resources. In the U. S., overpopulation manifests itself in the overuse of resources. Because our population consumes the most natural resources per capita of any country in the world, we are not only rapidly using up our country, we are poisoning our environment.

With this in mind, it interesting to note that the United States has the highest growth rate of any industrialized country: our population increases by 3,000,000 per year. *-Shoup*

MOUNTAIN RANGE SALE

Believed to be the largest private land acquisition in conservation history, the 502-square-mile Gray Ranch in southwest New Mexico was recently purchased by the Nature Conservancy. Encompassing 90 percent of the Animas Mountain range, the property harbors a greater diversity of mammalian wildlife than any existing national park or wildlife refuge in the continental United States.

The ranch is especially important from a biological viewpoint, providing habitat for almost 100 plant and animal species considered endangered, threatened, rare or sensitive. The site also includes hundreds of unexcavated sites of the pre-Columbian Casa Grandes culture, which lived in the area from 1100-1400 A.D.

While working with both public and private conservation interests, the Nature Conservancy will protect the area's most vulnerable habitats and use controlled grazing as a management tool.

Since 1951, the Conservancy has protected over 4 million acres of ecologically sensitive land in the U.S. The Gray Ranch is the organization's largest purchase to date. *-Shoup*

BOTTLE UP LITTER

More than 110 million beer and soft drink containers are sold each year in the United States, constituting between and 6 percent and 11 percent of all solid waste. Rep. Paul Henry (R-Mich.) and Sen Mark O. Hatfield (R-Ore.) have introduced national bottle legislation that would require a minimum refundable deposit of five cents on all beer and soda containers. The House bill (HR 586) boasts a total of 94 cosponsors; the Senate version (S 932) has gained six.

The beverage industry's lobbying efforts have reportedly persuaded 10 members of Congress to withdraw their sponsorship of these bills.

Nine states have similar laws that have proven successful, largely because there is an economic incentive to return containers for recycling.

The national deposit bills are expected to be attached to legislation reauthorizing the 1976 Resource Conservation and Recovery Act, which Congress is currently considering. The new legislation would include sections on solid waste reduction and recycling of bottles and other waste products.

For a cleaner America, write your representatives and senators. Urge them to cosponsor national bottle deposit legislation. *-Audubon Activist*

FARMING INFO

Farmers seeking to reduce chemical use and convert to low-input, sustainable agriculture can get information by calling the toll-free number of the Appropriate Technology Transfer for Rural Areas program (ATTRA). The National Center for Appropriate Technology operates ATTRA under a grant from the U.S. Department of Agriculture Extension Service.

ATTRA's phone line is staffed by technical specialists who have access to agricultural information from across the nation. They will respond to inquiries with a detailed letter, copies of related articles, and a list of potential resource persons in your area. Call 1-800-346-9140. *--Shoup*

HEALTH WATCH

The health of the earth is of increasing concern to Kansans and all U. S. citizens, but sometimes it's hard to know whether the patient is better or worse than in previous years. While there is no definitive answer to this question, there is both good news and bad news for environmental progress. First, the bad news.

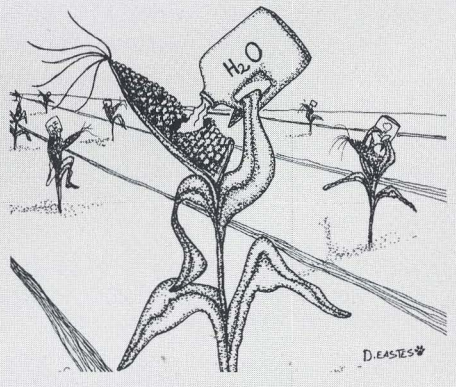
--World population rose from 3.72 billion in 1970 to 5.32 billion in 1990.
--The number of species on the threatened and endangered list rose from 92 in 1970 to 539 in 1989.
--The population of breeding mallards in North America dropped from 10 million in 1970 to 6 million in 1989.
--Total world carbon emissions from burning fossil fuels rose from 3,934 million metric tons in 1970 to 5,225 million metric tons in 1986.
--Of every federal dollar spent, the amount directed toward natural resources and the environment in 1976 was 1.5 cents. In 1978, it was 3 cents. In 1989? 1.5 cents. And some congressmen are concerned about reductions <u>in increases</u> for defense spending.

There is, however, some good news:
--The number of wildlife refuges in the U. S. increased from 331 in 1970 to 452 in 1989.
--The number of whooping cranes in existence increased from 71 in 1970 to 217 in 1989.
--The estimated number of U. S. wetland acres lost in 1970 was 500,000. A loss of 300,000 acres is projected for 1990. (This can be seen as either good or bad .)
--The parts per million of DDT in human fatty tissue dropped from 8 in 1970 to 2 in 1983.
--The number of pronghorns in North America rose from 386,000 in 1964 to over 1 million in 1983.

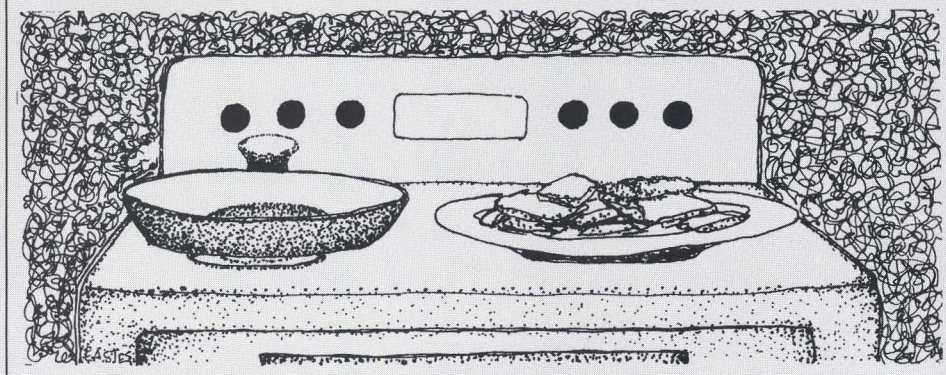
Twenty-seven million metric tons of sulfur dioxides were emitted into America's air in 1970. In 1985, this figure was 21 million metric tons. Good or bad? You decide. *-Shoup*

GUZZLIN' CROP

The water used to grow 150 acres of irrigated corn in western Kansas can supply a town of 2,000 for a year. *--Wichita Eagle*



FISHING



MMM-MMM GOOD

Now that the spring crappie season is drawing to a close, anglers might find themselves with a little free time. It's time to cook some of those scrappy slabs you tricked into hitting your favorite chartreuse jig. Everyone has their favorite recipe, but here's one that's hard to beat for being quick, easy and incredibly delicious.

SAVORY SPECKLES

8-12 boneless crappie fillets
3 cups crushed saltine crackers
2 teaspoons black pepper
1 teaspoon Lowrey's seasoning salt
2 eggs
1/2 cup vegetable oil

Cut large fillets into serving-size pieces. Beat the eggs in a bowl and add the fillet pieces. Combine the crackers, pepper and seasoning salt and mix thoroughly. Place the fillet pieces into the cracker mixture and coat entirely. Fry the fish in the oil on medium heat (about 350 degrees) for about two minutes on each side or until golden brown. Place fried fillets on paper towels to absorb excess oil. Serve with french fries, cole slaw or your favorite side dish. Serves approximately four people.

This recipe is also good for other types of fish, as well as morel mushrooms. *--Murrell*

WORM 'N HOOK

Bass fishermen agree that one of their most productive lures is a plastic worm. However, matching the hook size to worm size can make this favorite even more effective.

A smaller hook, provided it is sharp, will penetrate a bass' jaw much better than a large hook. Thus, try to get by with as small a hook as possible.

For 4- and 6-inch worms, a number 1 or 1/0 hook is best. For 7- to 9-inch worms, a 2/0 or 3/0 hook matches well. For the extra large plastic worms or snakes, a 4/0 hook is recommended. No matter what length worm, make sure the hook's throat -- the gap between the point and the shaft -- is large enough to pass through the worm body and penetrate the fish's mouth.

The smaller hook also allows more natural action for the tail of the lure. -- *Humminbird release*

ANGLER YEAGER

For the second year in a row, retired Air Force General Chuck Yeager will serve as chairman of National Fishing Week (NFW), June 4-10.

Says Yeager, "One of the big problems today is that parents aren't getting close enough with their kids. By taking kids fishing, you get very close to them, and you get to see a lot of wildlife and beautiful scenery."

If you fish like Yeager, you also get a lot of exercise. At 67, he annually makes a rigorous two-week backpack trip into the High Sierras in pursuit of golden trout.

NFW is celebrated throughout the country to increase public awareness of the joys of recreational fishing and conservation of our fishery resources. Fishing clinics, workshops and derbies will be held by fishing organizations, service organizations, and state and federal agencies.

In Kansas, Free Fishing and Park Entrance Days on June 2-3 will set the stage for National Fishing Week. *--Shoup*

ANGLER ETHICS

1. Keep only the fish needed.
2. Do not pollute, properly dispose of trash.
3. Sharpen angling and boating skills.
4. Observe angling and boating safety regulations
5. Respect other anglers' rights.
6. Respect property owners' rights
7. Pass on knowledge and angling skills.
8. Support local conservation efforts.
9. Never stock fish or plants into public water.
10. Promote the sport of angling.

--Future 21

FISH AGE

Fisheries biologists can age fish by counting growth rings on otoliths, disc-shaped structures found at the base of a fish's skull.

Until a few years ago, counting growth rings on scales was the most widely used method for aging fish. Biologists counted annuli, marks dividing the area between the closely spaced rings formed during slow growth in late fall and winter and widely spaced rings formed during rapid spring and summer growth. These rings resemble tree rings. However, this method can be inaccurate if the fish quit feeding because of environmental stress, or if they are able to feed year-round. Although lost scales will grow back, new scales will not contain the growth rings from years previous to the scale's regeneration.

Thus, the more modern method of counting growth rings on otoliths is much more accurate. Using microscopes, biologists can also measure the distance between rings to determine the rate of fish

growth. The information gleaned from such measurements helps determine the health of the fish population and is invaluable in making fish management decisions. --*Oklahoma Department of Wildlife Conservation release*

DAMNED RIVERS

According to a mid-1980s survey conducted by the Kansas Department of Wildlife and Parks, streams are the second most favored fishing waters among the state's anglers. Pond fishing was the top preference. A similar survey, however, conducted in the early 1980s showed streams to be the most popular fishing waters. Perhaps Kansas anglers are forgetting the unique solitude and quality of stream fishing because their opportunities to enjoy free flowing waters are slipping away.

Impounded waters provide many diverse recreation opportunities, and certainly serve larger numbers of Kansans. But the dams that create lakes of all sizes are tombstones to the once pristine streams and valleys that lie under lake bed sediments. Nationally, more than 600,000 stream miles have been inundated by reservoir projects, and few Kansas stream drainages are unbridled by dams. In addition to large federal reservoir projects, many small dams on private lands also interrupt the meandering of tributaries.

About 8,000 US stream miles are protected as Wild and Scenic Rivers; but for every preserved mile, seventy-five miles have been drowned by dam projects. The lack of stream fishing opportunities is compounded in western Kansas, where overuse of ground and surface water is leaving many rivers and creeks choking in their own dust.

Kansas still offers fine stream fishing for such species as spotted bass, channel catfish, white bass, flathead catfish and others. The natural scenery and solitude of river fishing is unmatched by any other sort of angling. Kansas anglers should explore this opportunity, and should support protection of the states remaining wild waters. --*Manes*

FOR WHAT IT'S WORTH

WHERE'S THE PARK?

by Todd Graeff

My lawyer friend MacGregor and I went for a hike at Sandhills State Park last weekend. Sandhills is one of my favorite places in Kansas, so as you might expect, I soon fell into a reverie of calling bobwhites, circling hawks, budding plum thickets and blossoming wildflowers. I had forgotten Mac until he asked, "Where's this park we were going to see?"

Mac had been ungrateful for a number of quality trips I had taken him on over the years, but this was too much.

"Follow me," I said, and I lead him to the top of the highest of the sandhills.

"Look at that," I said and grandly swung an arm over the view. "Sandhills in the first bloom of spring, a few eastern redcedars, and down by the wetlands are cottonwoods with new leaves. If we're quiet for a minute or two, we'll hear quail. It doesn't get much better than this."

I had him now.

"It's pretty, no denying that, but where's the park you promised?" he asked accusingly.

"Park?" I thundered. "Park? You want to know where the park is, you nitwit? You want to know..."

"I want to know where the park is," Mac said quietly and reasonably. "You said we were going to a park, and there's no need to get insulting just because I'm holding you to your promise."

"This *is* the park!" I roared in frustration. "What do you think it is, a shopping center?"

"It's not a shopping center," Mac said in his maddeningly reasonable tone of voice, "but it's certainly not a park, either."

I was stunned.

"There's no swimming pool and not even a lake with a beach, and I haven't seen any rides or playground equipment," he said. "I haven't seen a picnic shelter or a place to rent paddle boats or a tennis court or a ballfield. How can you call this a park?"

"Mac, this is a natural park; you know, a wild area."

"In that case, where is the campground and the trading post? If I can buy the kids a souvenir, at least I'll be able to salvage something out of the day."

"Yellowstone is a park, Mac, and most of it is in its natural condition. Gates of the Arctic is a park, and there's nothing there but mountains and grizzly bears and caribou and wolves. I've seen lots of state parks that didn't have campgrounds and trading posts."

Mac looked out over the rolling hills. "You haven't even mowed any grass."

"All parks don't have to be the same, Mac."

"There's nothing here but grass and trees. Maybe some ticks and snakes," he added, picking at his socks.

"This is one of the best parks in Kansas."

"You lied to me, and now you're trying to wiggle out of it."

I knew, now, that I needed a plan of attack. I decided that I would start with the part about parks being one of the most basic statements of American democracy. Then, I'd slide into how the American spirit was doomed in a world without a frontier. From there, it was only a hop, skip and jump to how wild, natural parks could save the American spirit by preserving a vestige of wildness.

Unfortunately, I was never able to deliver the attack. Mac said that some rides might improve the sandhills, and he got mad and left when I made a comment about lawyers chasing ambulances.

He told me I'd better stop stereotyping.

HUNTING

STUCK BUCKS

In early December, conservation officer Verle Warner received a call concerning two whitetail bucks which were literally locked in combat. Their antlers had become locked together during a typical rut battle. A local pheasant hunter had spotted the two deer in northeastern Harvey County.

Although not uncommon, such instances usually go unnoticed, and the animals die of starvation or injury. In this case, the story had a much happier ending.

Warner arrived on the scene about 1:30 p.m. The two deer appeared to be in good shape, struggling fiercely to free themselves. Warner, two deputies from the Harvey County Sheriff's office, the hunter and another curious observer watched the pair battle for about 30 minutes. Finally, one deer flipped the other completely off its feet. As the bested deer flew to the ground, the conqueror was thrown by its enemy's dead weight.

The five men then pounced upon the hapless pair and held them down with brute force while Warner sawed off portions of each deer's antlers. Then the men jumped free, and the deer high-tailed it for the woods, apparently in no mood for continued combat. --*Shoup*

SUMMER SQUIRRELS

For many Kansas hunters, June 1 marks the traditional opening of hunting season. They eagerly anticipate these mild weather, summer morning hunts.

This year's squirrel season keeps the tradition alive, opening June 1 and running through the end of the year. Although squirrel hunters are active throughout the season, the early-season hunt holds special attraction for many hunters.

Most hunters use .22 rifles and hunt fruit-bearing mulberry trees in June. Squirrels can also be found foraging on mushrooms, ash and maple seeds, and even the ends of new branches this time of year. It is a good rule of thumb for squirrel hunters to use their ears as much as their eyes. Leaves make spotting squirrels difficult in summer, but they can often be located by the sound of their munching.

Still-hunting is the best technique. Move quietly through the trees, then wait in one spot for eight to 10 minutes. Try to position yourself in cover with a good view of a large fruit- or nut-bearing tree. Chances are, you will hear squirrels, or they will climb into range while foraging. If you hear one eating or rustling in the trees, try to spot it before moving. It can be closer or farther away than it seems, and you don't want to risk exposing yourself.

Use the cover of another tree to move into position for your target, then slip around the trunk and use it for a rest. Avoid shooting offhand, if possible.

If nothing appears, move on and repeat the process.

Both fox and grey squirrels can be found in Kansas. The daily bag limit is five squirrels. The possession limit is 10. --*Shoup*

RABBIT LIVERS

At one time, tularemia generally led to grave consequences in infected humans. Even today, tularemia is nothing to sneeze at. It can kill, but when diagnosed early, it's consequences are little worse than a cold. It is a bacterial disease recorded in more than 80 species of mammals, including man.

Recent research has shown that, while rabbits are a potential source of infection to humans, the threat is not so severe as once believed.

According to a 1981 Missouri study, rabbits accounted for 13 percent of tularemia cases in man. Ticks caused twice as many cases, and flies, lice, fleas, other insects and contaminated drinking water were other vectors.

The good advice to "wait until the first hard freeze before hunting rabbits" is based on nothing more than the removal of ticks (which infect rabbits) from the environment by cold weather. The thinking is, any infected rabbit at this time will be dead in a matter of days, with no more vectors to transmit the disease until spring. Therefore, rabbits supposedly do not carry tularemia during winter.

Still, many hunters take rabbits yearround without problem, but it always pays to check for tularemia. Any animal which appears sick should be avoided. If a cottontail seems especially unwary, stumbles when it runs or is caught by beagles, it is best left untouched.

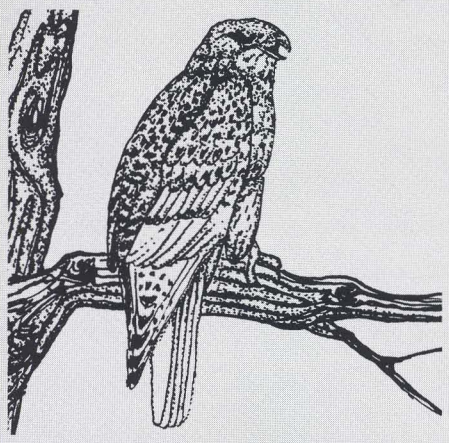
During cleaning, the liver should be studied in good light. A healthy cottontail liver is dark reddish-purple without discoloration or spotting. When tularemia is present, the liver appears swollen and has numerous tiny white specks.

Since tularemia is transmitted from rabbits to man through breaks in the skin, handling the animals poses the most serious risk. Tularemia is present on fur, internal organs, body fluids and discharges of the infected animal. While cleaning, bacteria enter the human body though cuts, scratches or abrasions on the hands.

Rubber gloves can safeguard against infection. Once cooked, the danger of infection from eating meat is remote.

Chances of infection with tularemia from rabbits are very slim, but some discretion is advised. If contact with an infected animal is suspected, or if chills and fever, plus swollen lymph glands develop within several days of handling a rabbit, contact your doctor at once. --*Blair*

NATURE



GYRFALCON VISIT

In early March, one of the state's rarest bird sightings occurred when a grey phase gyrfalcon was spotted at Cheyenne Bottoms, near Great Bend. Forty birdwatchers from six states came to see this bird, the largest of all falcons. Most sightings were in the southern part of the Bottoms, often near highway 56. The bird was seen on the ground, on dirt mounds and hunting in the area. Several birdwatchers saw the falcon strike a drake mallard in flight, but the mallard apparently survived the attack.

Officials suspect the gyrfalcon may have been at Cheyenne Bottoms for one or two weeks, but soon left for its Arctic nesting grounds.

The gyrfalcon can be mistaken for a prairie falcon, and there are several prairie falcons in the area. It's name comes from the Latin "sacred falcon" because it was revered as an excellent falconer's bird. Approximately 5,000 of these birds can be found in North America, but their primary territory is northern Canada. They seldom venture as far south as the United States. --*Shoup*

BIRD TRIVIA

Just for fun, test your knowledge of a few facts and myths about birds. These questions have been borrowed from the Birding Trivia Game, published by Quail Inc.

1. How long is the windpipe of a whooping crane?

2. What species of bird did Alexander Wilson see in 1808 in a flock that numbered an estimated two and one-half billion?

3. Do birds have bladders?

4. Which thrush "carries the sky on its back and the sun on its breast"?

5. Do all birds have feathers?

6. What kind of meadowlark shoots, passes and dribbles?

7. What well-know bird painter felt that his day wasn't complete unless he shot 100 birds or more?

8. What is a female swan called?

9. Do birds enjoy having ants crawl on them?

10. What is the colored wing patch on ducks called?

1. Five feet in an adult. 2. Passenger pigeon. 3. No (except for the ostrich). 4. Eastern bluebird. 5. Yes. 6. Meadowlark Lemon of the Harlem Globe Trotters. 7. John James Audubon 8. A pen. 9. Yes, it seems to help with lice infestations. 10. Speculum. --*The Naturalist's Notebook*

PLAYA DEFINED

Playa lakes are shallow lakes and ponds scattered across the Southern Great Plains.

More than 25,000 playa lakes are located in the Texas panhandle, northeastern New Mexico, the Oklahoma panhandle, southeastern Colorado and southwestern Kansas. Kansas ranks second only to Texas in number of playas.

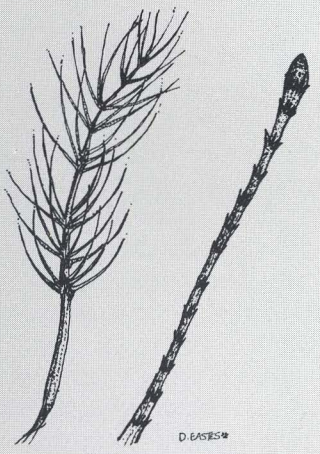
Playa lakes are unique because they are located in semi-arid regions where water accumulates in wind-formed depressions. Although many of the playas seldom hold permanent water, they catch and hold runoff. Their soil is nearly watertight and can turn basins from dried mudflats to brimming lakes overnight. Moist-soil plants grow rapidly when water is present, and dormant invertebrate larvae can explode in a frenzy of new life. These invertebrates are important waterfowl food.

While most playas are small, some are more than 600 acres. They often provide the only remaining wetland habitat within the intensively cultivated Great Plains -- habitat essential to resident and migratory wildlife. --*Shoup*

OLD ROCKS

Samples of granite rocks collected in Canada's Northwest Territories have been determined to be 3.96 billion years old, making them the oldest rocks yet found on earth.

The earth is believed to be 4.5 billion years old. --*The New York Times*



SCOUR POWER

Outdoorsmen in a pinch sometimes yank the herb *Equisetum hyemale* from its marshy habitat and add it to the camp pot. No, they don't choose this species of horsetail to enhance the flavor of simmering soup or stew. The hollow-stemmed plant, which is heavily impregnated with silica, is put into action after the meal. The plant's "Brillo pad" qualities make it a natural for cleaning up messy pots and pans and has earned it the nickname, "scouring rush."

Horsetails belong to a family of ancient plants that once shared the earth with dinosaurs. During the Carboniferous period 345 million years ago, horsetails, along with giant club mosses, dominated the warm, swampy forests that covered most of North America. They were among the first plants to grow on land, and made wetlands their home tens of millions of years before waterfowl existed. --*Ducks Unlimited*

NOTES

THIRTY-YEAR EMPLOYEES

Six Department of Wildlife and Parks employees are being honored in 1990 for thirty years of service to the agency.

Bev Aldrich is the secretary for Education and Public Affairs in Pratt. Robert Commings is a maintenance repair technician at Fall River and Toronto state parks. Rose Ewing is an administrative officer in Pratt. Bill Hanzlick is a wildlife parks specialist in Topeka. Ben Streeter is a regional wildlife parks supervisor in Topeka. Joe Youngers is a maintenance repair technician in Pratt. --*Shoup*

MARSH MONEY

Over the past five years, the Kansas Department of Wildlife and Parks has received commitments of nearly $350,000 in funding from Ducks Unlimited (DU) through the MARSH Program. MARSH funds are distributed to states annually based on DU fund-raising in each state.

As of last fall , the Department had completed $153,000 of work using MARSH funds: $9,088 -- marsh improvements at Jamestown Wildlife Area (WA); $15,000 -- miscellaneous wetland enhancements; $21,434 -- purchase of additional land at Jamestown WA; $32,725 -- purchase of additional land at Texas Lake WA; $51,422 -- purchase of additional land at Neosho WA; and $23,529 -- purchase of wetlands in the McPherson area.

In addition, the Department has budgeted an additional $132,000 of MARSH funds for continued wetland enhancements. -*Shoup*

FREE PARK DAYS

Many folks plan their summer vacations around bargains and events at public areas throughout the state, and with spring coming to a close, those plans are taking shape. One of the greatest bargains in the state is coming June 2-3. It's the Kansas Free Fishing and Park Entrance Days. For two days, campers, boaters and fishermen will have free access to the 24 state parks in Kansas. (Overnight camping is not included.) To ice the cake, both the casual fisherman and the late license buyer will have a weekend of grace during which they will be able to fish without a license.

This a great way for family and friends to kick off the summer. Kansas has one of the most diverse systems of reservoirs and waterways in the country, so this is also an opportunity to check out that lake or stream you've always wondered about. The variety of sport fish is wide, too, with largemouth, smallmouth and spotted bass, striped bass, crappies, walleye, bluegill, white bass, wipers, and channel and flathead catfish all to choose from.

This is a big event for individual parks, as well. Each park has planned contests and activities designed to entertain kids of all ages.

Summertime is almost here, time to relax a bit. Kansas Free Fishing and Park Days is a great way to celebrate that spirit. -*Shoup*

HIGHWAY ADOPTION

In January, the Riley County Fish and Game Association applied to the Kansas Department of Transportation (KDOT) to adopt a three-mile section of a highway, including parts of K-113 and US-24. The club agrees to clean up the area two or three times a year. In return, KDOT will post a sign at each end of the club's section recognizing their contribution.

Other groups are adopting streams, highways, forests lakes and other areas as a way of continuing the spirit of Earth Day. -*Shoup*

WETLANDS WANTED

The U. S. Department of the Interior, Fish and Wildlife Service is offering to restore, enhance or create wetlands on selected private lands at no expense to landowners. They are looking for drained wetlands and bottomland timbers. Land may also include crops, grass or other timber. The landowner keeps all rights except those leased.

For more information, call Jim Minnerath at the Flint Hills National Wildlife Refuge, (316) 392-5553. --*U.S. Fish and Wildlife Service*

WILDLIFE THREADS

The Department of Wildlife and Parks is offering "It's Wild In Kansas" T-shirts and hats for sale. T-shirts have a beautiful strutting turkey backed by a blaze sunrise on blue fabric. The hats feature a coyote howling at the moon. 1989 Wildlife and Parks belt buckles and Kansas Deer Classic T-shirts, featuring a trophy buck on tan fabric, are also available.

T-shirts are available in adult sizes S, M, L, and XL and cost $7 plus $1 postage and handling. (Deer Classic shirts are available only in XL.) Youth sizes include 2-4, 6-8, 10-12, and 14-16 and cost $6 plus 50 cents postage and handling.

Hats are available in blue, brown and tan and cost $5 plus $1.50 postage and handling. Belt buckles are $10, including postage and handling.

Send orders to Kansas Department of Wildlife and Parks, Attn: Barb Theurer, RR 2, Box 54A, Pratt, KS 67124, or call (316) 672-5911. Mastercard and Visa accepted. -- *Shoup*

PRECIOUS DUCK STAMP

The first Migratory Bird Hunting Stamp ever sold, worth $1 in 1934, was recently purchased by a Tennessee collector for an undisclosed six-figure amount.

The valuable stamp was purchased in 1934 by its designer, J. N. "Ding" Darling, who signed his name across its face. The stamp's new owner is Jeannette Rudy of Nashville, Tennessee, who has insured it for $300,000. -*Shoup*

NATURE'S NOTEBOOK

by Joyce Harmon Depenbusch, Wildlife Education Coordinator

BISON

The American Bison, more commonly called the buffalo, has been the Kansas State Animal since 1955.

In the early 1800s, millions of bison lived in the North American Prairie. In Kansas, hundreds of thousands of bison were found in the Flint Hills and Smoky Hill River areas. In 1871, one herd in south west Kansas was estimated to have over four million bison.

The demand by homesteaders for the land, the attempt to reduce Indian tribes who depended on bison for food and clothing, as well as commercial hunting of bison for their meat, hides, and bones eliminated free-roaming bison herds.

Today, only small herds can be seen across the state, mostly on Wildlife & Parks lands.

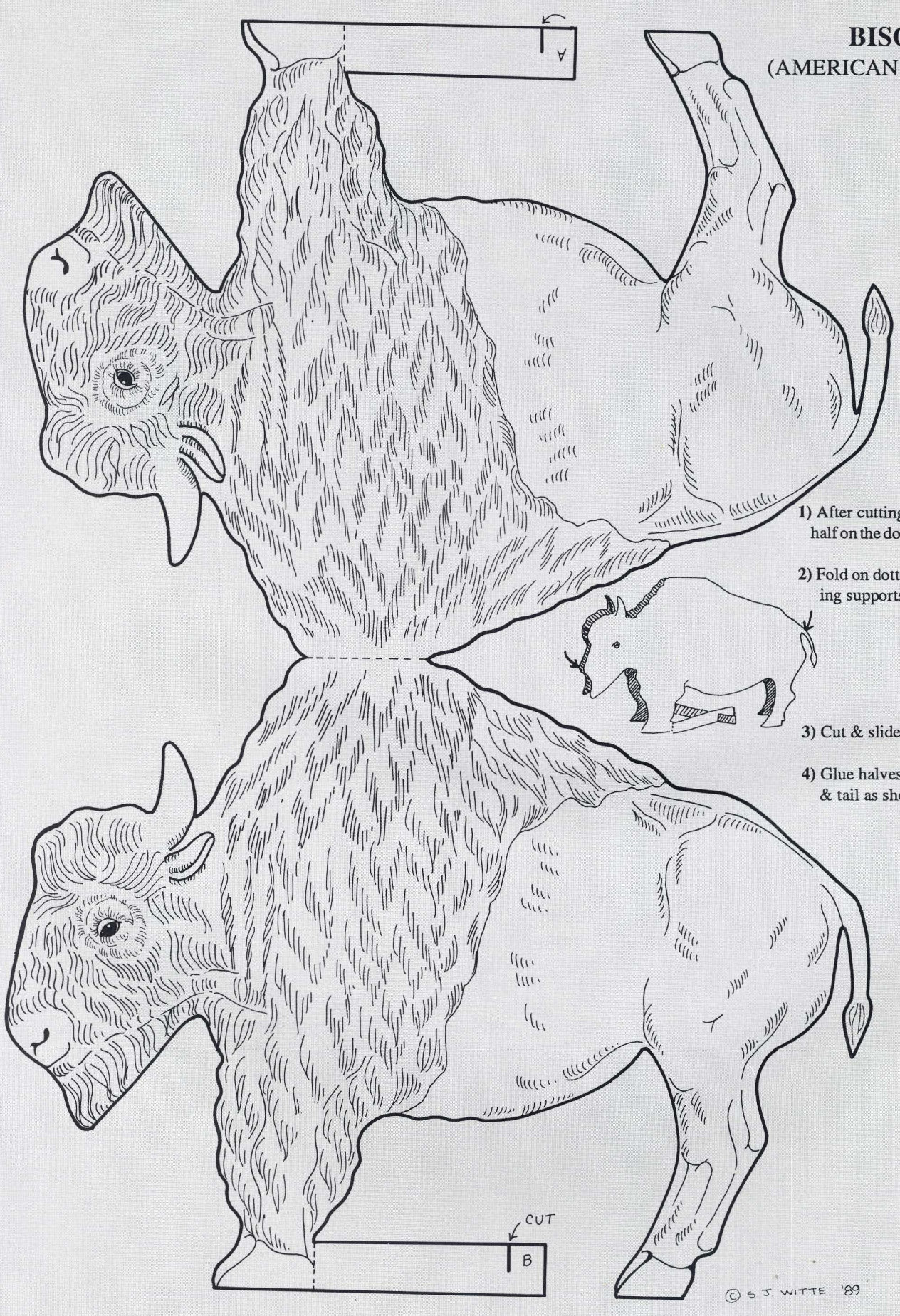
The adult bison is dark brown to almost black. Bison calves are generally born in late April or May. Calves stay with their mothers throughout their first winter.

Bison are herbivores, or plant eaters. They live in herds, or groups. Bison cows, calves, yearlings, and two-year-old calves make up the herd. The bulls stay near the herd in small groups or alone. Adult male bison weigh between 900 and 2000 pounds.

Build your own model by following these directions:

1) trace or make duplicate copies of the models.
2) color the models with crayon or marker.
3) reinforce the back of the model with construction paper if necessary.
4) fold on all dotted lines, cut on solid lines.
5) use glue to assemble.

BISON
(AMERICAN BUFFALO)



1) After cutting, fold bison in half on the dotted line on the hump.

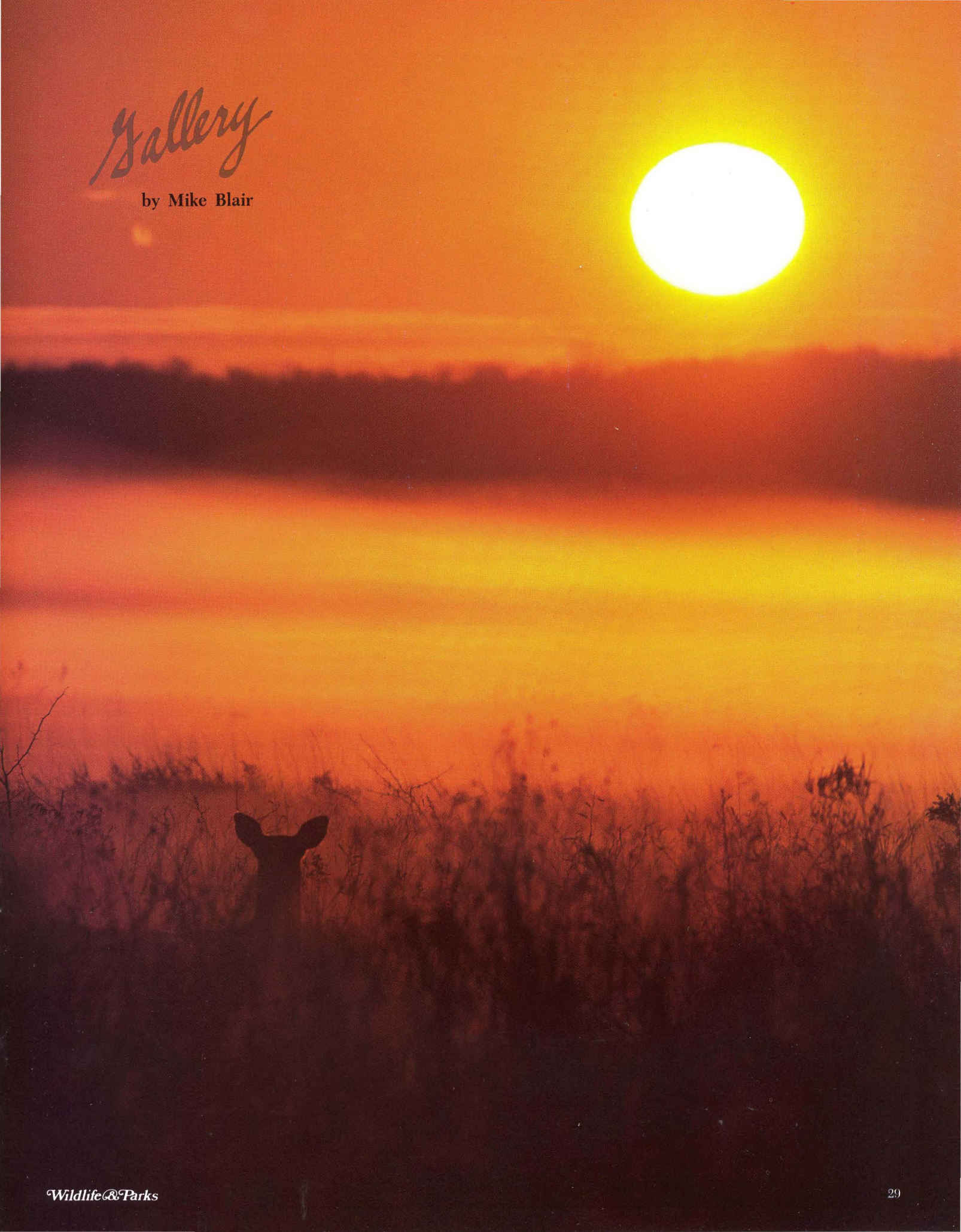
2) Fold on dotted lines on the standing supports on the front feet.

3) Cut & slide slot 'A' into 'B'.

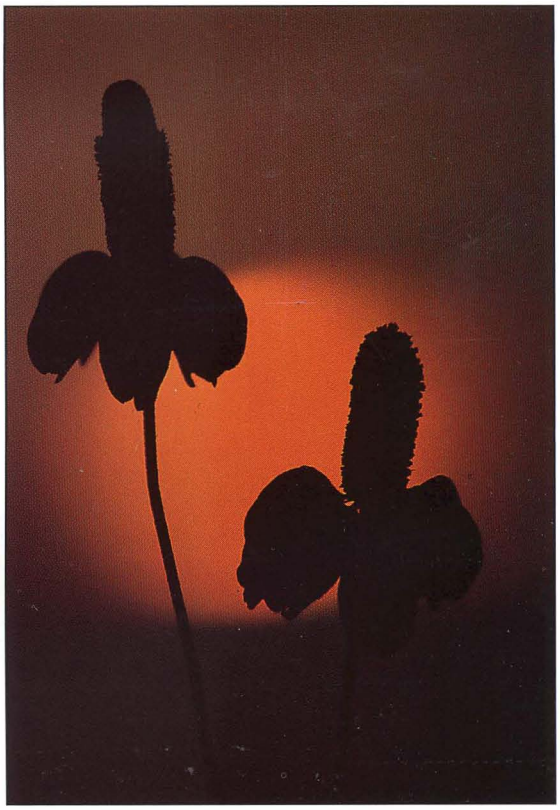
4) Glue halves together at the nose & tail as shown by the arrows.

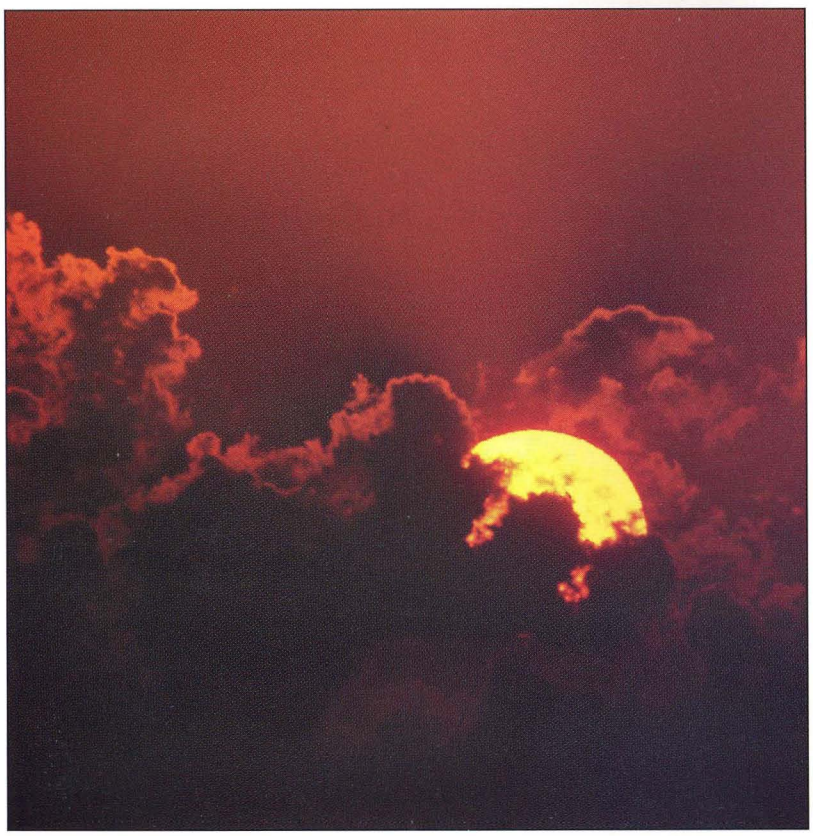
Gallery

by Mike Blair

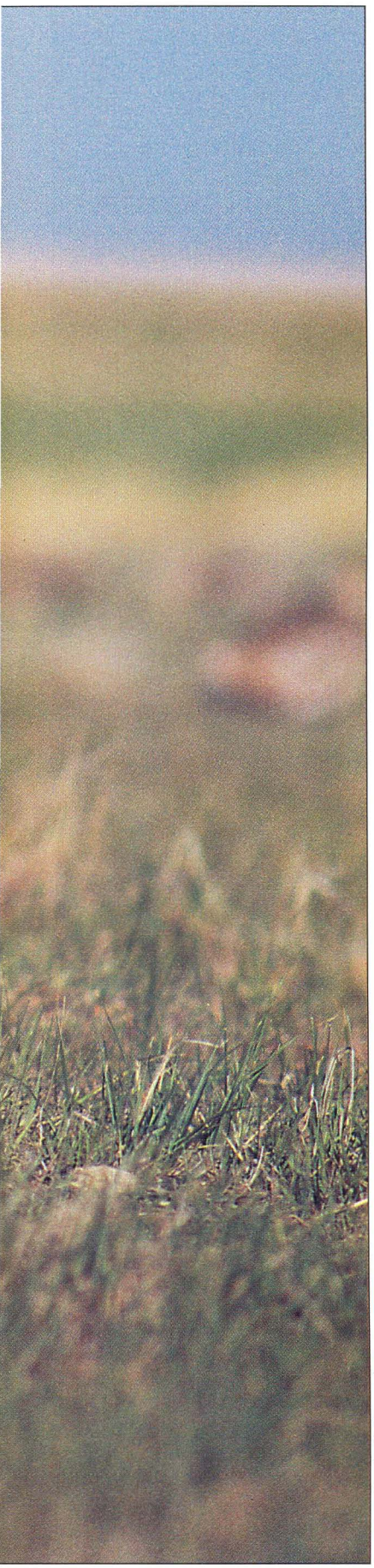


The dawn of a new day or the twilight of one past is often a visual feast of color. Lasting only precious minutes, the play of light on clouds and landscape lasts only in memory or on film. Photographer Mike Blair captured these images all across the state. **Previous page:** 400mm lens, f/11 @ 1/250. **left:** 400mm lens, f/3.5 @ 1/125. **below left:** 55mm lens, f/8 @ 1/250. **below right:** 200 micro on bellows, f/4 @ 1/1,000.





above: 400mm lens, f/3.5 @ 1/30. **below left:** 600mm lens, f/16 @ 1/500. **below right:** 400mm lens, f/5.6 @ 1/500.



Randy Rodgers photo

Homecoming Dance

by Randy Rodgers
wildlife research biologist

Historical evidence suggests that sharp-tailed grouse were once more numerous than prairie chickens in northwest Kansas, but both disappeared after the drought of the 1930s. Now, with our help, sharptails are dancing again on the Kansas prairie.

A perfect morning it wasn't. The sky was hung with low clouds, but the occasional glimmer of starlight that peeked through told me things might be okay. At least the just-below-freezing temperature was right. It was early May and I had risen from my warm bed at an unholy hour to drive into the prairie and check on my birds.

Of course, they weren't really "my" birds, especially now that they were back in the wild . . . no one really owns a wild creature. But as I sat in the blind waiting for dawn and the first chuckle or hoot that would signal their return, I couldn't help thinking back on all the effort that made these sharp-tailed grouse special for me.

Prompted by the spectacular comeback of the greater prairie chicken in northcentral and northwest Kansas during the 1970s, it was proposed in 1980 that we evaluate the possibility of restoring sharp-tailed grouse to parts of their original Kansas range. After all, historical evidence shows that sharptails may have been more abundant in northwest Kansas than prairie chickens. The ongoing improvement in grazing practices and

Poor range management and drought destroyed the sharptail's habitat in Kansas more than 50 years ago. It has taken the grassland 40 years to recover after grazing practices and land stewardship improved. This scene shows ideal sharp-tailed grouse country today.

the resultant increased vitality of rangelands that made the prairie chicken comeback possible, might also benefit sharptails. The evaluation seemed to confirm that idea.

But, if greaters had come back on their own, why hadn't the sharptails? The reason was determined more than a half-century ago. Poor range management had caused a deterioration in the health of the prairie and with it, a decline in numbers of all our prairie grouse. This was especially true in the more arid parts of Kansas.

Both greater prairie chickens and sharp-tailed grouse hung on, but the worst was yet to come. The combination of horrendous land management and severe drought in the 1930s spelled disaster for both species. The greaters weathered those impoverished years in the Flint Hills of east-central Kansas, but the range of the sharptail, a more northern species, receded completely from Kansas to strongholds in Nebraska and the Dakotas.

It took about 40 years for our grasslands to recover enough to allow chickens to expand their range northwestward. In doing so, they followed rangeland corridors that are present along many of Kansas' west-to-east flowing streams. No such corridors exist for sharptails to migrate south. They would have to leap over extensive areas of cropland, which seemed unlikely. If we wanted sharptails, we'd have to go get them.

That realization brought a new challenge. It was clear that restoring sharptails would not be a simple matter of trapping birds, hauling them to Kansas and dumping them out. Almost all previous attempts at transplanting prairie grouse in North America had been failures. Biologists repeatedly found that initial survival of the transplanted birds was acceptable, but they scattered so far and in so many directions on release that cohesive groups seldom formed and they gradually disappeared.

Sharptails, like other prairie grouse, are relatively gregarious birds with social behavior that revolves around the communal mating grounds or leks. Lek locations tend to be traditional, learned by juveniles in their first year. Without existing social tradition at new release sites, prairie grouse generally dispersed.

When wild North Dakota sharptails became available in 1982, we were forced to scramble to find a way to minimize the dispersion that doomed other prairie grouse releases. It was at that point I decided to use the sharptail's own behavior as my primary tool in the release.

The traditional mating grounds are powerful magnets to these birds in the spring. The theory was to duplicate the lek environment at the release site and gently release the birds onto the artificial lek. We

hoped we could hold the birds close to the release site long enough that they would adapt to their new surroundings and form a socially viable unit.

The concept seemed sound, but working out a technique to pull it off would not prove easy. Many hours were spent hand-painting decoys that looked like displaying sharptails. A cassette recording of lek sounds was also prepared.

But the 1982 release effort turned out to be a learning experience. We knew a large release would improve the chances for success, and sharptails can be caught in large numbers under the right winter conditions. Still, the birds' sexual hormonal levels are low in winter, and it was uncertain whether they could be significantly influenced by an artificial lek at that time. We tried to compromise between the best trapping time (January) and what we thought would be the best release time (March). However, the late February compromise proved less than ideal. Most grouse dispersed.

Other shortcomings became apparent. While we had a good recording of sharptail lek sounds, we had no means of playing the sounds every morning and evening without someone literally camping on the release site. Manpower is always short and potential problems with human disturbance caused us to settle for playing the sounds only the morning of the release. And a scheme involving anesthesia of the birds was unsatisfactory for a gentle release.

Lack of snow meant poor trapping conditions in North Dakota and only a few sharptails were obtained in 1983 and 1984. But our experience with those birds helped solve some of the problems we encountered in 1982. We learned that it was possible to bridge the gap between the time the birds were trapped and the best time to release by holding them in special outdoor pens; an obvious solution, you might think. However, the general consensus before we tried it was that the skittish birds would not hold well. There were problems, but none proved intractable.

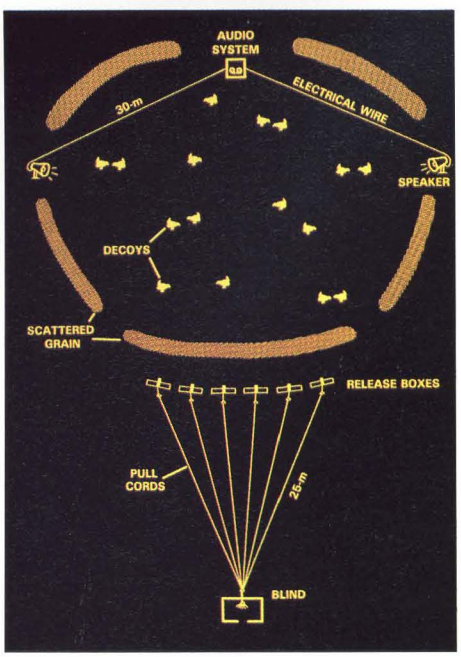
By 1985, we had a functional gentle release system which used special boxes that could be opened

Randy Rodgers photo

These wild birds, in a trap in South Dakota, have taken the first step in becoming Kansans. Kept in holdings pens until March, these birds were released in Osborne County.

remotely from a blind. Most important, though, was the acquisition of a custom-made audio system that would automatically play the lek sounds at the right times for up to two weeks without servicing. That system made it possible to maintain an audible beacon which we hoped would draw the grouse back to the release site daily while still allowing them to become familiar with the new area.

A new trapping arrangement in



Randy Rodgers photo

This computer diagram shows the release site Rodgers designed through trial and error.

Nebraska netted 105 grouse to add to the 66 birds we received from North Dakota in February 1985. Despite a few more learning experiences gained from holding that many birds, we were ready for our first real attempt at establishing sharptails that spring.

I remember that 1985 release well. Neither I nor district wildlife biologist Leonard Hopper, who was in the blind with me, knew what to expect. No one had ever done this before. By sunrise, the audio system had been blaring for 30 minutes, and I was tense as I slowly pulled the cord to open the first release box.

Nothing . . . had the birds died during the overnight stay in the boxes? Was the door open? It had to be. After a short eternity, the first grouse cautiously emerged. Then another, and others followed. The release box had apparently worked, preventing an unwanted flush. The birds milled around, looking over their new situation . . . we watched.

One of the cocks momentarily started dancing among the decoys. "Leonard! Did you see that?" I said ecstatically. I was anxious to release the remainder of the grouse.

Once all the boxes were opened, freeing 49 birds, six or seven males were dancing. One bird was even charging and smacking head-first into one of the decoys, evidently attempt-

Success! These sharptails are cautiously emerging from release boxes. Early releases had failed because the grouse flushed wildly and never established a common breeding territory.

Mike Blair photos

To make the released birds feel at home, Rodgers set out hand-painted decoys of dancing grouse. These, along with the audio recording of lek sounds, kept the grouse in the area long enough to begin breeding behavior.

ing to show its dominance. It was a good thing the decoy could spin on its stake, or the grouse might have acquired a major headache. But the dancing was short-lived, and most birds slowly filtered into the surrounding grass. We repeated the same experience three more times in the next week, releasing all of the grouse. After that, it was a wait-and-see situation.

Two weeks later, I returned to service the audio system. There were no birds in sight, as expected at midday. I began looking for evidence that grouse were using the site. I found a few droppings, but not a lot. Maybe the droppings were only those left at the release. My disappointment was compounded by the condition of some of the decoys. Meticulously applied paint was chipping off.

But wait a minute! Why was the paint only chipping around the head and neck? And what had caused the bare spots around several decoys? My suspicions were joyfully confirmed the next morning as I watched from the blind as about 20 males danced, some sparring with each other, and some with the decoys. I would happily accept that kind of paint chipping.

In the spring of 1986, we confirmed our success. The sharptails had set up a dancing ground, not at the exact site of the artificial lek, but only 300 yards to the north. That was close enough.

Since that initial success, further improvements have been made in the technique. Flashy new decoys, made more durable with fiberglass resin, decorate the new release sites. And improvements in smaller details, like the best way to arrange the birds in release boxes and how to gradually wean them from the artificial stimulation, made the limited dancing observed in 1985 seem almost lethargic.

Now, my expectations were higher. Waiting there in the darkness, my thoughts drifted back to mid-March. Gerry Tomanek, Wildlife and Parks commissioner, and I had a perfect morning for a release. We had been treated to the experience of scores of sandhill cranes rising out of the valley. Some emerged from the dawn haze to pass not 20

feet over our hilltop blind.

At sunrise, it was time to put into motion the carefully-laid plans that had been distilled from earlier failures and successes. By the time the last release box was opened, virtually all of the cocks were dancing. Even two hours later, with the audio system turned off, the dancing continued.

Those results from just seven weeks earlier took some of the suspense out of my current pre-dawn vigil. I knew the sharptails were coming back. I knew they were using the exact site of the release. And I knew that, like the 1988 release, these birds would be back the next spring to the exact site I chose for them. What I didn't know was exactly how many were using this lek.

The first muffled hoot reached my ears, but the light was still too faint to see. More birds came in. Tail rattling and foot stamping were added to the building music of hoots and chuckles. The birds seemed undaunted by the brief sprinkles that patted the hilltop, and when the sun finally broke through the clouds, it momentarily bathed the birds in dawn's amber light.

The grouse went crazy. Squabbles and displays, more animated than I've ever seen on prairie chicken leks, ensued. Two cocks were flailing each other with such ferocity and persistence that I feared I might witness a death. One finally backed off. The other charged headlong across the hilltop to face off with a different cock.

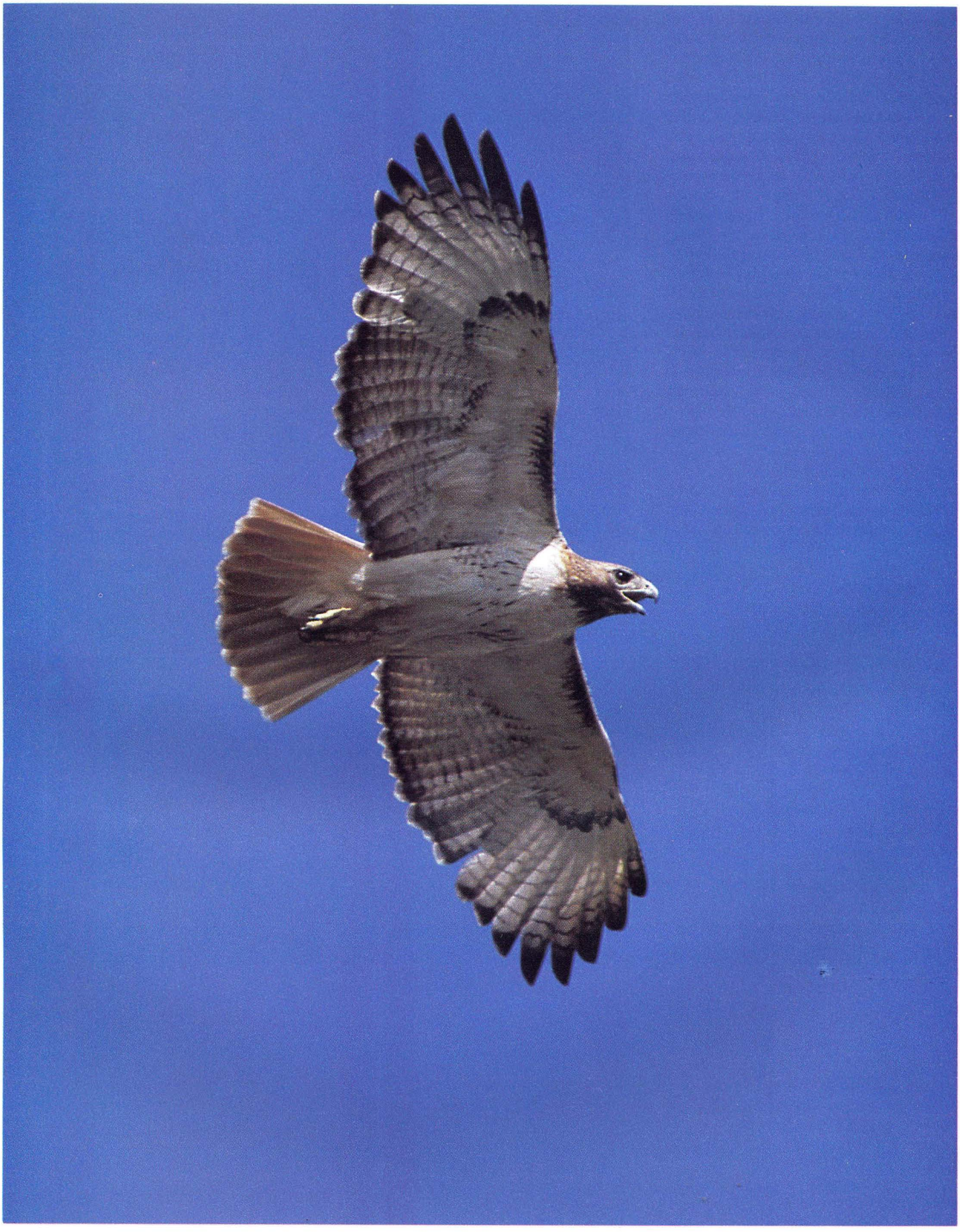
The sharptail choreography became more lackluster as the morning progressed. I had seen seventeen cocks on this dancing ground. But birds continued to appear and disappear among the surrounding tufts of tall dropseed and little bluestem, leaving me to wonder if there were more. Dancing had all but ceased by 8 a.m., except for two cocks—each hellbent on establishing dominance over the other.

Just as I was preparing to sneak away, satisfied that what I had seen meant a successful release, a hen appeared. Male sharptails materialized like ghosts, almost out of nowhere. The display was intense and culminated in a mating, the first I had ever witnessed with sharptails. After ruffling her feathers, the hen exited. So, too, did the cocks, melting away into the encircling grass. But the hen reappeared on a lone hay bale. Atop her perch, she patiently surveyed the valley.

What was going through that sharptail brain? Watching her, it was easy to imagine. Where to nest, perhaps? Where, in this now familiar landscape, would she have the best chance to foster a new generation? A generation that would continue the primal dance that had been absent for so long from this homeland.

Quickly adapting to their new surroundings, two cocks fiercely fight to establish a dancing territory. After more than a half-century of absence, the sharptail has finally been returned to northwest Kansas.

Randy Rodgers photo



Iron Talons, Hunter's Eye

J. Mark Shoup
associate editor
photos by Mike Blair

Killing hawks was once thought to be a conservation effort. Today, we know that hawks and falcons are valuable rodent predators and essential within the ecosystem. Amazing physical abilities make them truly fascinating to watch and study.

Two redtails ride the wind, circling each other in rising turns above the Kansas prairie. For the moment, they seem oblivious to the earth, the screaming "kree-e-e" a freedom cry, a celebration of sky.

This is, indeed, a celebration. It is the courtship flight of the red-tailed hawk. From earth, they may be specks of wing drifting peacefully in open sky. Then the pace quickens. A thousand feet above ground, the smaller male climbs higher than the female. The male drops rapidly toward its mate. Just before contact, she rolls on her back and extends her claws to him in mock combat. Momentarily, they lock talons, then tumble and roll, separate and spiral downward, coming together, breaking apart, swirling in controlled abandon toward the earth.

For a moment, this control seems to slip. Wings and tail feathers flutter in the wind like shreds of cloth. Then, at the last moment, they catch themselves and swoop above the prairie toward their nest, high in a cottonwood tree, where they will mate. In all of this, they have honored the invisible boundaries of their territory, about an earthly square mile.

The red-tailed hawk, although perhaps the best known, is only one of many Kansas hawks. For many Kansans, hawks are majestic symbols of the open spaces. For others, they are enemies, the thieves of game and livestock. Whichever your view, the majesty cannot be denied. For beauty, grace, power and phenomenal physical adaptation to the environment, the hawk family is unsurpassed.

The story of hawks is incomplete without a discussion of eyesight, perhaps their most amazing physical adaptation. Because hawks have the most powerful vision of any creature, the term "hawk-eyed" is synonymous with keen eyesight. The red-tailed hawk, for example, may soar 900 feet above a grassy field in search of mice. There are several factors which contribute to this incredible vision.

The hawk has very large eyes in comparison to its head. A large hawk's eyes may be as big as a man's. Hawks have both binocular vision—the ability to see straight ahead with both eyes—and monocular vision—the ability to see independently with each eye. Because the hawk's eyes are placed close to the front of the head, it has the widest range of binocular vision of all birds except owls. Hawks also recognize objects much more quickly than most other vertebrates.

Using its incredibly sharp vision, the ferruginous hawk hunts for prey high above a field. The ferruginous is dichromatic, meaning it has two color phases, a dark and a light. This is the light phase.

The real secret to the hawk's fantastic vision, however, lies in the numbers and distribution of parts in the eye's retina. Hawks' eyes contain more rods and cones—the receptor cells which form images on the retina and transmit them to the brain—than most other species. These parts are more tightly packed, and the hawks retina is often twice as thick as that of other vertebrates. The effect is that dense concentrations of rods and cones cast a larger image on the retina.

In the retina's area of greatest visual acuity—the *area centralis*—is a depression called the fovea. This depression magnifies images. Many animals have a fovea in each eye, but hawks have two in each eye. The human fovea has about 200,000 visual cells per square millimeter. Buteo hawks have about 1,000,000. This accounts for their amazing accuracy in perception of objects at a distance. If a man had hawk vision, he could read a newspaper a block away.

Identification of some hawk species can be difficult, and one feature that often confuses birdwatchers is color phase. Some hawks, such as ferruginous, red-tailed and Swainson's, are dichromatic. That is, they have two phases, a dark and a light. Other species may be polychromatic, having several different phases. This can make positive identification difficult.

Unlike the name suggests, color phase has nothing to do with age, time of year or sex of the bird. Color phase is an inherited, permanent marking of individuals within a species. This makes it very different from seasonal dimorphism—a change in plumage in response to dramatic seasonal changes—displayed by such species as ptarmigans, which turn white in winter. Color phases are more akin to differences in hair or skin color in humans.

There are a number of hawks and their near relatives in Kansas, but many people tend to group all hawk-like raptors together. In fact, there are four families of birds in the order *Falconiformes:* vultures *(Cathartidae);* kites, hawks and eagles *(Accipitridae);* ospreys *(Pandionidae);* and caracaras and falcons *(Falconidae).*

Falcons in Kansas are sometimes mistaken for hawks. Falcons are distinguished from hawks by their relatively large heads; long, pointed,

swallow-like wings; and long tails. One common Kansas falcon is the kestrel, a tiny raptor slightly larger than a robin and often seen perched on power lines throughout the state. Another is the prairie falcon, a sandy-colored cousin to the endangered peregrine falcon.

Hawks are members of the family *Accipitridae*, which is further divided into the genera of kites, accipiters, harriers, buteos and eagles. Kites, while in the same family as hawks, are separated into several genera that distinguish them from other hawks. Mississippi kites are common summer residents in Kansas. They are seen frequently in towns, suspended above treetops as if tied to some invisible mobile. They are mainly bug-eaters and are distinguished by their slender, falcon-like wings and bodies, long tails, and ashen-grey color.

Of the five groups of *Accipitridae*, only three are generally considered true hawks: accipiters, harriers and buteos. All have tremendous eyesight, strength and flying abilities. Hawks prey on a variety of animals, from birds and small mammals to snakes, lizards, frogs, toads and insects.

Accipiters feed mainly on birds, but often take small mammals as well. They are generally identified by their slender bodies, small heads, long tails, and short, rounded wings. They fly with short, rapid wingbeats interrupted by short glides. They are most often seen darting through woodlands.

This young Cooper's hawk perches among a web of branches it could easily maneuver through in pursuit of prey. The Cooper's prefers woodland habitat and preys on small birds.

The Cooper's hawk and the sharp-shinned hawk are the most prevalent accipiters in Kansas. The Cooper's is a woodland species slightly smaller than a crow. It is marked with striking blue-grey upper parts contrasted by mottled rust and white breast and glaring red eyes. The Cooper's hawk is often noticed as a swift, low flash through the woods. This agile flyer can pounce on its prey or pursue it through the air. It is a fierce predator of birds and will also eat small mammals. Although widely known as the "chicken hawk," it would have a difficult struggle with any bird as large as most barnyard poultry.

Cooper's hawks are winter transients in Kansas, mostly in the eastern half of the state, although they have been identified in most counties. Females weigh about 20 ounces, males about 13.

The tiny sharp-shinned hawk is the smallest American accipiter. Females average 7 ounces, males 3½ ounces. They are 10-14 inches long with a 20- to 27-inch wingspan. The much larger female is sometimes mistaken for a Cooper's hawk. Its markings are similar, except the tail is square or slightly forked, as opposed to the rounded tail of the Cooper's. Its habits and habitat are so similar to the Cooper's that they compete for territory. In fact, the Cooper's hawk will not tolerate sharpshins in its range.

Sharp-shinned hawks are also bird hawks, and they are frequently known to pluck their prey before eating it. In Kansas, they are most common in April and October as they migrate to northern nesting areas and wintering grounds to the south.

Harriers are medium-sized hawks with long, slim, rounded wings and long tail. In flight, they glide swiftly

A sharp-shinned hawk plucks a freshly caught meadowlark. The sharpshin is very similar to, but smaller than, the Cooper's hawk. It also prefers woodlands and preys on birds.

a few feet above ground, holding their wings slightly above horizontal.

The only North American harrier is the northern harrier, commonly known as the marsh hawk. This bird is a common transient and winter resident in Kansas. It is frequently seen patrolling low over pastures, draws and wetlands. Pheasant hunters sometimes roust them out of thick grass. Females weigh about 17 ounces and males average 13. This mostly brown hawk is distinguished by the conspicuous white rump patch above its tail. Males are usually pale gray, and females are brown with a light buff underside.

Marsh hawk nests consist of a platform of dry sticks, weeds and grass mounted on high ground or in a bush surrounded by water. Occasionally, nests in alfalfa fields are destroyed by swathers.

The marsh hawk rarely perches more than a few feet off the ground, and kills by making short pounces on its victims. Rodents and ground-nesting birds are its favorite quarry, but reptiles and insects are included in the marsh hawk's diet.

Marsh hawks also have spectacular courtship displays, similar to redtails, with the male often performing complete loops and tumbling through the air.

Buteos are the largest hawks, weighing from 2-4 pounds. They have broad, rounded wings; thick bodies; and broad, fanned tails. They are soaring, lone hunters that generally circle overhead and drop on prey in a steep dive. This habit of soaring helps distinguish them from other hawks. Although several species of buteos can be found in Kansas, the most common are the ferruginous, the rough-legged, the Swainson's and the red-tailed.

Ferruginous hawks (once called the ferruginous red-tailed) occur year round in Kansas, mostly in the western half of the state. The densest nesting area is along the canyons of the Smoky Hill River from Gove County west. Unlike most other hawks, ferruginous hawks usually nest on bluffs and cliffs rather than in trees.

The ferruginous hawk has two phases, a dark and a light. Because it is so large (almost as large as the redtail), a dark-phase bird may be mistaken for an eagle.

This male northern harrier glides low over the prairie in search of ground nesting birds and rodents. Commonly called marsh hawks, the females are dark brown with buff underside.

Like most buteos, the ferruginous will soar, but it spends a great deal of time sitting on low perches or on the ground. It will hunt from the air or from a perch. It will also wait on high ground for prairie dogs or ground squirrels to move into the open.

A common winter resident of Kansas, the rough-legged hawk can be easily distinguished by its leg feathers, which extend all the way down to its toes. It hovers more than other buteos, searching for its most frequent meal, mice. A white patch at the base of the tail is the only consistent marking on the rough-legged, although it often shows white at the base of its flight feathers. This bird is polychromatic; it can be almost black, very light or any intermediate color.

The rough-legged hawk breeds in

This white phase rough-legged hawk is a common winter resident in Kansas. Roughlegs can often be seen hovering as they search grasslands for mice, their most frequent meal.

northern Canada and can be seen in Kansas from early October through late April.

The Swainson's hawk is one of the most commonly seen hawks in the state. Nearly the size and shape of the redtail, its wings are more pointed and slightly narrower. Its distinguishing feature is a wide chestnut-brown band across its chest, contrasting its white throat and pale belly.

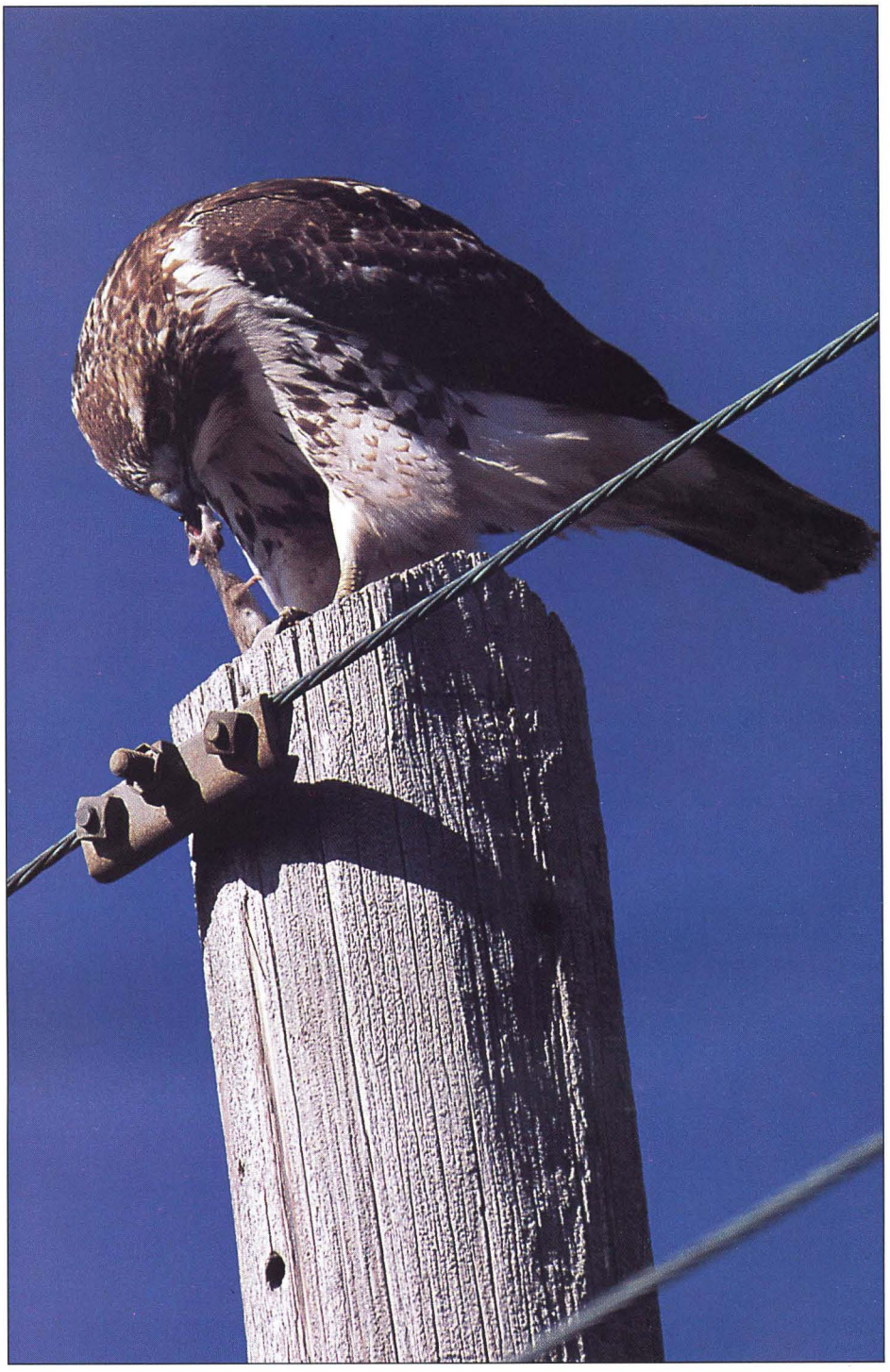
Although found statewide, the Swainson's prefers open spaces. It usually hunts from a perch on a fencepost, utility pole or knoll. Flocks of Swainson's sometimes soar above tractors working ground. Large groups can be seen on the ground catching grasshoppers, crickets or small mammals uprooted from their dens by a farmer's disc. (Over one hundred grasshoppers have been found in the crop and stomach of a single Swainson's.) The Swainson's has also been known to attack swarms of bats at twilight.

Nests are made of large sticks lined with inner bark and finished with grass and fresh green leaves. They are often located in lone trees, 15-40 feet up, so that the incubating birds can see in all directions. Unlike the reclusive redtail, the Swainson's hawk readily nests along busy highways.

Swainson's hawks can be seen in spring, migrating in large flocks from their southern wintering grounds. They are the longest migrators of all hawks, flying as far south as Argentina.

The largest, best known and most widely distributed hawk in North America is the red-tailed hawk. It has a wingspan as wide as 58 inches and females can weigh nearly four pounds. Most folks who spend any time driving Kansas roads are familiar with this magnificent raptor, which likes to perch on utility poles. Its broad, rust-red tail is a dead giveaway. (The Harlan's hawk was once

The Swainson's hawk, above right, is common in Kansas. They are often seen soaring above a tractor discing a field, preying on uprooted mice and rodents. Unlike most hawks and falcons which are reclusive, the Swainson's will readily nest near human activity such as this nest near a busy highway.



Enjoying its meal on a utility pole, this red-tailed hawk exhibits its value to man as a rodent control expert. The redtail is a large soaring hawk familiar to most Kansans because it is commonly seen perching and hunting along state highways.

considered a separate species but is now recognized as a population of red-tailed hawks with a variety of color phases ranging from light to dark.)

Redtails can be found in the state year-round although some may winter to the south. They nest in Kansas, and many remain close to their nesting range during winter. They mate for life and usually return to the same nest year after year. Nests can be 2-3 feet in diameter, 15-70 feet up a tree near the junction of a large branch and the trunk. Red-tailed hawks have been observed diving on dead branches of trees and breaking them off for nest-building material.

The redtail hunts while soaring or hovering, or from a perch. It commonly follows a tractor or combine to capture flushed prey. It will eat anything from cattle egrets to grasshoppers, but its main diet consists of small rodents, mostly rats and mice. A redtail can easily eat four to seven mice per day. When hunting from several hundred feet in the air, it can dive as fast as 120 miles per hour.

Aside from man, perhaps the only enemy of the red-tailed hawk is the great horned owl, which can fly through the night on silent wing and literally rip the big hawk's head off as it roosts.

Man is indeed, the most dangerous enemy of all hawks. At times, they have been systematically shot, poisoned and trapped. They have also been victims of pesticides that, when ingested, weaken the birds' eggshells.

Much maligned throughout American history, hawks have often been looked upon as evil-spirited killers whose primary function is to slaughter game, chickens, lambs and songbirds. It is now known, however, that hawks and other raptors play an important role in maintaining a healthy balance of animal populations in ecosystems around the world—a balance necessary to prevent widespread overpopulation, disease and starvation.

This function directly benefits man. Hawks are the most important predators in controlling the rapid reproductive rates of mice, rats and other rodents. They are also essential for the control of insect populations, which thrive in the large crop fields created by modern fencerow-to-fencerow farming.

In recent years, hawks have gradually been given more of the respect they deserve. By federal regulation, it is illegal to kill any hawk in the United States. This is good news for hawks, good news for the species whose populations they keep in check, good news for farmers and good news for all who enjoy the wonder of these remarkable creatures.

HIGH GROUND

by Dr. Bill Browning
commissioner

Once A River

Once there was a river. In those early days they named it the Verdigris. It ran down out of its grass-hilled beginnings to wind among gleaming white gravel bars and banks of scoured red and green clay and slate, beneath bluestemmed bottoms. With cloudburst-inspired frequency, it rose chocolate from its banks to litter the flood plain with humus, renew its unobstructed channel and sweep clean the depths to their limestone beds. Quickly, it dropped back into its old course. In a day it ran clear across stone-strewn riffles into blue-green holes.

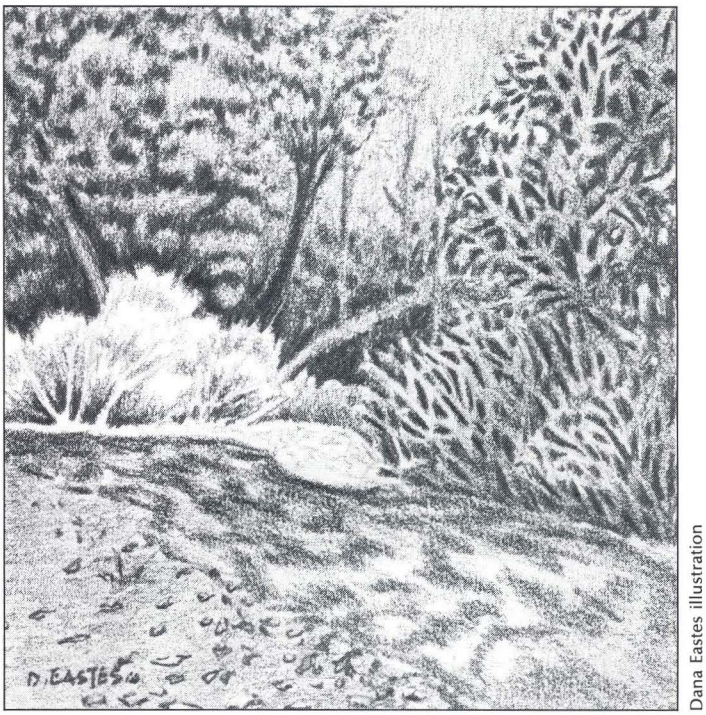
Once there was a river. The Indians warned the whites of the river's venturesome habits, but in defiance of this reputation came towns that crowded against the stream banks and everywhere the plow broke the prairie's tight hold on the eon silt.

Once there was a river. And its stubborness in the face of this scornful "progress" spawned disasters by human reckoning, lives lost and crops washed away. An end came to the bewildered river—from a multitude of smallish lakes built to choke its spasms of excess and to protect the creations of an imaginative race whose conflagration of procreation demanded ever greater fruits of a now land-locked and poisoned soil.

Once there was a river. Now a stinking sewer for 40 watershed lakes, its corpse gives little hint of past glories. The gravel bars are gone, replaced by mud. The clear depths are gone, replaced by mud. The polished clay and slate banks (for which the French named the river) are gone, layered with mud. Oaks, luckless enough to have sprouted too near the bank, topple into the stream bed, their roots unable to hold in the structureless slime.

Once there was a river. A farmer, marveled to me about it last week. How lucky we are, he said, not to have lost the crop during the August cloudburst. The farmer, as he has always done, dumps all of his household and farm generated trash on his river bank, so that the next rise will carry it "away."

Once there was a river. Actually there are several left in this state where the devices of men do not yet hold sway. Most run down out of the Flint Hills, their beauty,



Dana Eastes illustration

if you patiently await the right interval after the most recent flood, is the equal of any Colorado or Missouri trout stream. And if it's a swim you need, the temperature is more likely acceptable and hundreds of miles closer to home.

Once there was a river. But now every drainage has its watershed committee and comprehensive water plan. The core of this plan is to dam and control every stream in the state, to maximize our race's utilization of water. The realization of this plan awaits only continued funding. Soon every stream will be like the Verdigris where it runs its ruined course at the bottom of the hill below my house.

Once there was a river.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