KANSAS Wildlife & Parks

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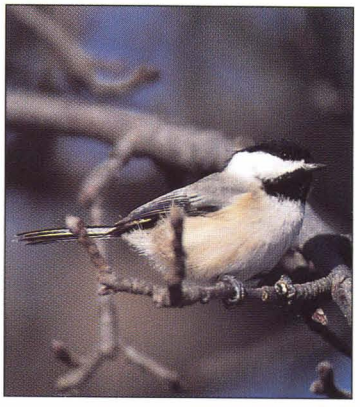

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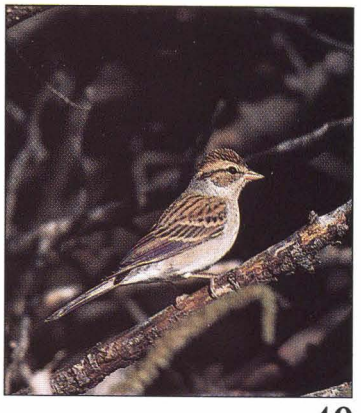

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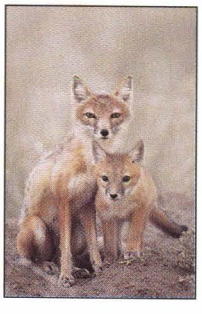


About the Covers

Front: A parent swift fox pauses with a youngster at its Wallace County den. For more about the amazing comeback of this once rare animal, see Page 2. Photo by Mike Blair, 400mm lens, f/5.6, @ 1/125 sec.. **Back cover:** A variety of sparrows make their home in Kansas. Mike Blair photographed this chipping sparrow with a 600mm lens, f/5.6, @ 1/500 sec.

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

Equal opportunity to participate in and benefit from programs described herein is available to all individuals without regard to race, color, national origin, sex, age or handicap. Complaints of discrimination should be sent to Office of the Secretary, Kansas Department of Wildlife and Parks, 900 Jackson St., Suite 502, Topeka, KS 66612.

THE BUCK STOPS HERE

A Good Cause

"At least the money goes to a good cause." How many times have you heard those words? I've said them more than a few times when big game permits went unfilled. It seemed to justify the cost of the permit when no meat filled my freezer. Or when, in the last several years, I've purchased state and federal duck stamps with no real plans for hunting ducks. Other outdoor interests have got in the way of duck hunting. But . . . "the money goes to a good cause."

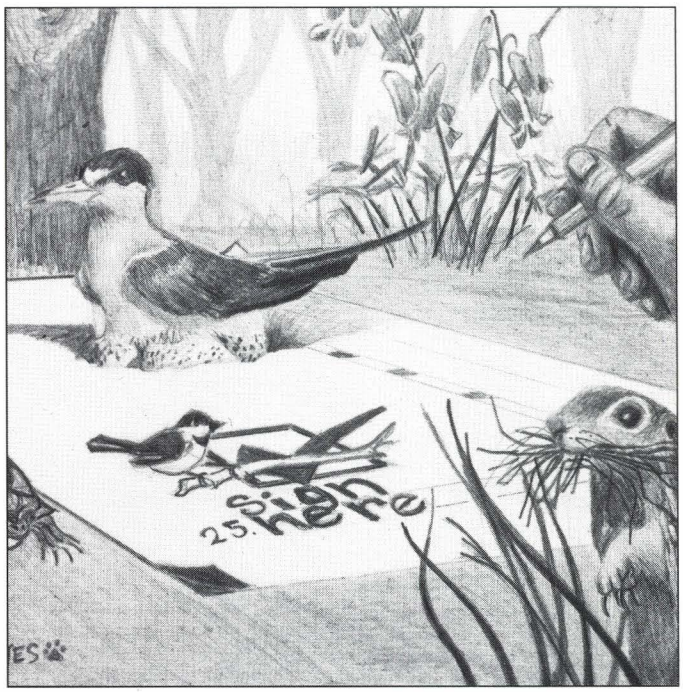
And it does. But buying licenses, permits and stamps isn't really all that noble. First of all, it's required, not voluntary. And secondly, whether my game bag is heavy or empty, I've received some very valuable privileges as a result of buying those licenses. The time spent in the field and experiences gathered are perhaps worth far more than all the permits and licenses I've purchased put together. The money does go to a worthy cause, but I also expected hunting privileges and opportunities in return. I also expected my money to be used for wildlife management programs, habitat improvement and law enforcement.

Noble money is that which is given voluntarily and sincerely. Take Chickadee Checkoff for example. The program relies on donations to fund a wide variety of wildlife programs including golden eagle restoration, threatened and endangered species research, least tern nesting projects, Cheyenne Bottoms restoration, bird feeder surveys and other nongame wildlife projects. Noble individuals contribute by checking a box on their state income tax forms. It's easy, worthy and it makes you feel good. But . . . is it really without some kind of return?

Maybe looking at licenses and permits differently will change our perspective. Marketers have broken outdoor people down into two groups: consumptive users (hunters) and nonconsumptive users (non-hunters). Those who hunt want their license dollars going to hunting programs and game animal projects. Those who don't hunt don't want to support hunters and their programs. Besides, the nonconsumptive users argue, we don't take anything out of the wild, we merely observe.

Perhaps we shouldn't look at a hunting license or permit as a type of restitution for an animal removed, but rather as a type of rent or insurance to maintain the wildlife and wild areas.

The shorebirds that birdwatchers love to see face the same problems as game animals: shrinking habitat, pollution and development. Why shouldn't someone who derives great joy from a particular species (whether it be hunting or watching), be willing to pay to make sure that species is around tomorrow. It's when we consider what the license and permit money actually pays for that we realize lines can't be drawn so clearly between consumptive and nonconsumptive. We all contribute to the real threats on our wildlife. We should all help fight those threats.



Dana Eastes illustration

That's where the Chickadee Checkoff Program comes in. It allows a person, who may not want to buy a hunting license, to contribute money that directly benefits wildlife species that aren't hunted. But all species should be equally important, and you can hardly benefit one species without helping another. Again, our imagined divisional lines are cloudy. So it doesn't really matter where your interests are, if you enjoy wildlife and want your children to enjoy wildlife, contributing to Chickadee Checkoff is one small way to make a difference. Make a check for wildlife and check the box on your state income tax form.

Mike Miller

Return Of The Swiftest Fox

by Lloyd B. Fox
furbearer biologist
Emporia

photos by Mike Blair

Without fanfare or notice, the swift fox has returned from the brink of extinction. Now relatively common, this fascinating little fox again speeds across the western Kansas prairies.

Kansas (especially western Kansas): Dull, drab and flat; the land spreads from horizon to horizon as we hurry westward on I-70. From Hays west there is the constant moan from the back seat, "Can we see the Rockies yet?" Dad's foot gains a pound and the speed limit is exceeded by another 5 mph. But it doesn't have to be that way. There are some relatively interesting characters that inhabit the western prairie, and they're waiting for those who'll look. One of those unique prairie inhabitants is the swift fox.

Get off that concrete and asphalt alley and show your kids the shortgrass prairie. There are some places lacking in tourist traps where you can get the feel of what it was like for early settlers to travel across the Great Plains. And some of the native wildlife still remains. Western Kansas and eastern Colorado are two of only a few places on earth where swift fox can be seen consistently. Some people take a whole vacation just to add another bird species to their life list. Others travel to Alaska or Africa, hire a guide and ride for hours to see wildlife. With a little effort and some advice from local people, you can probably see what was 40 years ago, one of the rarest mammals in North America.

Foxes, that marvelous collection of canids that exists worldwide with the exception of southeast Asia and Australia, have fueled the imagination of man for centuries. In an age where superlatives seem necessary, what is so special about swift fox? They are small, weighing about 5½ pounds and standing about 12 inches at the shoulders, but not as small as the fennec fox of northern Africa and the Arabian Peninsulas which weighs a mere 3⅓ pounds. Swift fox match the hues of dry prairie grasses, however, other foxes exceed the swift in camouflage. Arctic fox can be white or bluish-gray and their color changes to match the season. Gray fox have a coloration that allows them to almost disappear among the leaves and shadows of the forest. Swift fox have keen senses. However, it is doubtful that their hearing is superior to the bat-eared fox of Africa, or that their sense of smell is equal to that of the simien fox of Ethiopia, or that their visual acuity matches that of the colpeo fox of the Andes. When it comes to problem solving, few people would place the swift fox in the same league as the red fox. Even their adaptations to grasslands are not unique. Azara's fox in the pampas of South America, cape fox in the veldt of southern Africa and corsac fox in the Asian steppe have also adapted to dry plains.

It is when you see the swift fox run that you know you are watching the true master. Sure they are fast—faster than a coyote for short distances. But speed is not the quality that will impress you. Swift fox do for mammalian running what monarch butterflies do for flight. The ground drifts by, directions are changed in a flash, and, most importantly, the fox runs with so much bounce and ease that it appears to be without any expenditure of energy.

Naming this attractive prairie fox had a colorful history in both popular and scientific literature. Earnest Thompson Seton wrote that an Indian name for swift fox translated to "lousy thing," referring to the heavy infestation of fleas and ticks common to the species. Pioneers called them prairie fox, prairie swift, swift kits, prairie kits, northern kits, little yellow fox, fast fox, and burrowing fox. It has been suggested that the term "kit" was used because their size was similar to that of a cat or kitten. To indicate the ease with which they could be trapped and poisoned, some people even saddled them with the handle "fool's fox."

Early naturalists like Audubon, Bachman and Merriam settled on the scientific name of *Vulpes velox* (velox being Latin for fast and vulpes meaning fox), and they distinguished this fox from the similar kit fox to the south and west named *Vulpes macrotis*. This community of North American arid-land foxes was further divided into ten subspecies. However, the science of mammalogy has gained many improved techniques in recent years. Computers now allow multivariate statistics to be preformed in the flash of an eye, and electrophoresis allows scientists to evaluate genetic differences between populations. Armed with these new tools, graduate student Jerry Dragoo, under the direction of Dr. Jerry R. Choate at Fort Hays University, recently revised the taxonomy. Their findings suggest that the community

Forty years ago, the swift fox may have been one of the rarest mammals in North America. Today, the speedy fox is common in western Kansas and is holding its own or increasing its numbers.

Speed is what most observers notice first about the swift fox. With amazing grace and ease, the small fox runs effortlessly across the prairie, changing directions in the blink of an eye. The ability to run fast is a necessary adaptation for survival on a short-grass prairie. With little cover to hide in, the fox relies on sheer speed to catch its prey.

of arid-land foxes should be classified into only one species with two subspecies.

Ecologists fancy the terms "distribution and abundance" to describe the locations where a species occurs and the densities of the animals within those areas. Man is the dominating factor in this ebb and flow. The historic range of the swift fox extended from Alberta, Canada to Texas and from western Minnesota to western Montana. Trappers and early settlers remarked about the large number of little foxes seen on the Great Plains. When R. M. Wright wrote of his pioneer days in southwest Kansas, he mentioned millions of prairie dogs and then stated, "and next in number to them was the little swift fox."

Swift fox fur is considered of low quality, therefore the species was never commercially pursued with zeal. However, they were common and easy to take. Records from the American Fur Company indicate that 10,614 pelts were taken between 1835 and 1838. The Hudson's Bay Company acquired 117,025 swift fox pelts between 1853 and 1877. Robert Morris Peck and his two companions spent the winter of 1860-1861 poisoning predators near Walnut Creek in Rush County. They enumerated their kill as including 750 wolves, 250 coyotes and several bales (approximately 2,000 pelts) of the little yellow fox worth 25 cents each.

By 1900 the swift fox distribution and abundance had shrunk. This was particularly true in the northern plains. No sightings of swift fox were made in North Dakota between 1915 to 1970, or in South Dakota between 1914 and 1966, or in Nebraska between 1901 and 1953. The last confirmed sighting in Canada was in 1938. The situation in Kansas was also bleak. In 1875, M.V.B. Knox had classified the species as rare. In 1915 Remington Kellogg mentioned that the species had become scarce in the state, but otherwise provided little documentation on the species in his voluminous works on the mammals of Kansas. By 1952 when Cockrum wrote the first edition of the field guide, *Mammals of Kansas*, he went so far as to express the professional opinion that the swift fox was extinct in Kansas.

Then slowly, with little fan fare,

Called "fool's fox" by some early settlers, the swift fox was vulnerable to trapping and poisoning efforts directed at wolves and coyotes. The swift's fur is not valuable commercially, so it was never the target of trappers.

no special interest lobbyists or bureaucratic rhetoric, the swift fox began to recover. In January 1955, a swift fox was shot in Gove County. That same year, specimens were collected in Morton and Stafford counties. The events were documented with enthusiasm by Edwin Martin and George Sternberg of Fort Hays State College. Between 1950 and 1966 researchers Janes and Gier at Kansas State University were able to list 17 specimens and nine reliable sightings in Kansas.

Dr. Victor Van Ballenberghe, of South Dakota State University, and Leonard McDaniel, of the U.S. Fish and Wildlife Service, championed the cause of the swift fox recovery and began enumerating their occurrences. A federal trapper caught a swift fox in western South Dakota in 1963, and another was caught in 1965. A swift fox was hit by a vehicle in the Sand Hills of Nebraska in 1966. In December 1970, a male and female swift fox were trapped in South Dakota and another specimen was collected in North Dakota. In 1974 a swift fox was trapped about 30 miles northeast of Pierre, South Dakota. The event encouraged Dr. Van Ballenberghe to write: "This record from eastern South Dakota was nearly as valuable scientifically as the discovery of the black-footed ferret in South Dakota. The swift fox may indeed have been as rare in South Dakota over the last 60 years as the ferret, but less well known to the public."

By 1981 when Ed Bogges and Neil Johnson made their presentation on the status of swift fox in Kansas at a symposium of swift fox managers and researchers, the recovery of the species had been nothing short of amazing. Vehicle-killed swift fox were so common on the roads of western Kansas that they went unrecorded. Boggess and Johnson surveyed state conservation officers who estimated that between 100 and 400 swift fox were being captured each year in traps set for coyotes.

Johnson made compelling arguments in 1982 for reestablishing a harvest season on swift fox. The Fish and Game Commissioners agreed with the season, and the agency also provided funds for a graduate student to study foxes in the state. That fall, Fort Hays State University graduate student Dave Zumbaugh and Department personnel Diana Holloran and myself scoured the countryside collecting foxes from hunters, trappers and fur buyers. We collected 101 red fox, three gray fox and 215 swift fox. Since 1982 there has been a season on swift fox. I have continued the survey of Department personnel, and in 1986, I expanded a 10 week roadside survey to include their observations (primarily vehicle killed animals) on swift fox. The results are promising. The harvest has varied from 300 to 1,200 animals a year with the highest occurring during the 1986-1987 season. The harvest appears to be incidental to trapping for coyotes. In 1989, 17 swift fox were seen by Department personnel during the 10 week survey, the highest rate of observation. The swift fox is back, increasing in some locations and holding strong elsewhere.

The swift fox's recovery was as poorly documented as was the demise of the species 50-75 years before. It was not that science failed, but rather that science was not applied, and society failed to provide the necessary emphasis and support. Today we can only speculate about the remarkable recovery. Soil bank days reduced the acreage under tillage and may have had an impact. The most likely factor seems to be

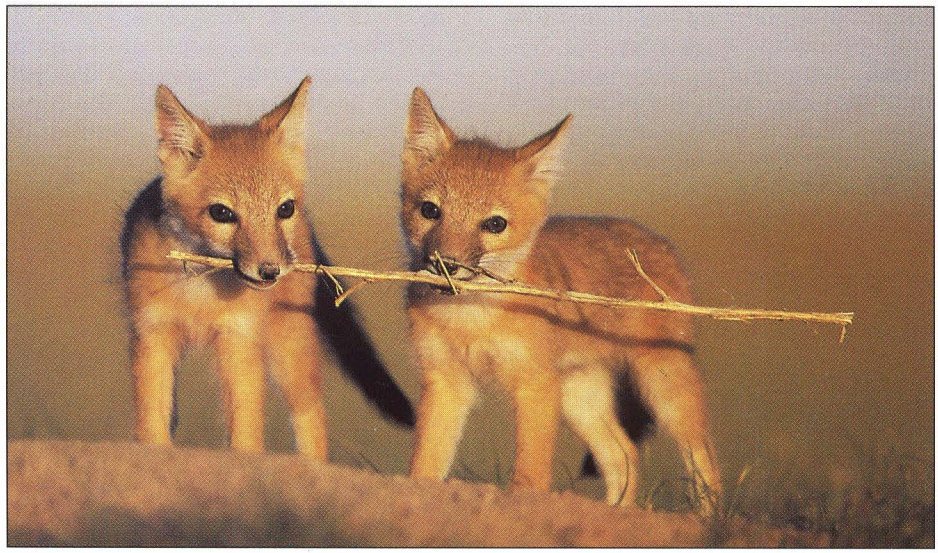
a decline in the widespread use of strychnine-poisoned meat baits used primarily to kill wolves and coyotes.

From a swift fox's perspective, 1080 (sodium fluoroacetate) was probably a better choice for coyote control programs than strychnine. Harold Egoscue of the Smithsonian institution studied kit fox for more than 20 years. During one of his studies, he found no impact on a kit fox population where 1080 station and "coyote getters" were used. The key appears to be that 1080 tended to be used in more selective and restrictive manners than strychnine. However, canids are particularly susceptible to 1080 poisoning. Numerous examples exist of them being killed in a secondary manner as a result of eating rodents which were poisoned with treated grain. The evidence is not conclusive that the use of 1080 was beneficial to swift fox. That issue was tabled in 1972 when 1080 was banned in predator control programs on public lands. The impacts of sodbuster legislation and the Conservation Reserve Program (CRP) remain to be evaluated. It's safe to say that programs that promote the integrity of shortgrass prairies will be helpful. Management plans that selectively keep coyote numbers within certain limits without negatively impacting swift fox will also help.

Swift fox form pairs that may stay together for a couple of years. Occasionally a second female may join in the family duties. Mating takes place in January or February, and 51 days later (March to May), four or five whelps are born.

Life expectancy of swift fox is short. Captive animals have lived more than 10 years, but in the wild, few make it past five years. Only 10 of the 298 swift fox that Dave Zumbaugh examined were more than 4 years old, while young of the year made up 63 percent of the fall population. Predators of swift fox include the golden eagle, badger, bobcat, domestic dog and coyote. The coyote, due to its numbers and behavior, is the most important wild predator. Circumstantial evidence is strong that swift fox and coyote populations are inversely related. Restoration programs in the northern Great Plains have been hampered by the impact of coyotes.

With little documentation and almost no help, the swift fox staged its own comeback through the 1960s and 1970s. Factors involved in the remarkable recovery include the decline in use of strychnine and the return of grasslands through the soil bank program.

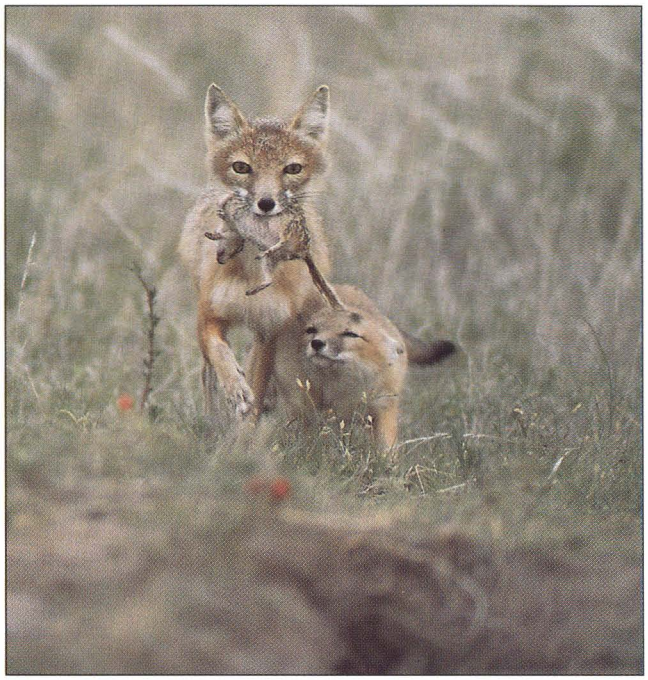


Swift fox pups are usually born March to May, and an average litter includes four or five whelps. Life expectancy is short, with few wild individuals making it past five years.

The activities of man also weigh on swift fox populations. It is easy to document direct mortality caused by hunting and trapping, but the indirect activities may have an even greater impact. Poisoning programs aimed at rodents and coyotes, vehicle-killed animals and habitat loss through cultivation all have an impact. Breaking up the shortgrass prairie into progressively smaller parcels forces the remaining swift fox into marginal habitat and exposes them to greater risk. Merely being in the area with man's companion pets may increase the risk of swift fox being exposed to deadly viruses such as canine distemper.

Today there is no published information on swift fox population dynamics. A study underway in southeast Colorado by Darrel Covell and Dr. Oren Rongstad of the University of Wisconsin should add considerably to our knowledge of dispersal and survival of swift fox. So far they have placed radio collars on 92 animals. Information from studies

A parent fox brings a thirteen-lined ground squirrel to the burrow and is greeted by a hungry pup. Swift fox depend upon an extensive burrow system year-round. Dens may have six entrances and two or more chambers with connecting tunnels. Within a fox's home range, there may be as many as 24 different dens. **Below:** An adult swift fox glides across the shortgrass pastures it calls home.



of kit fox in Utah showed that emigration and mortality accounted for a loss of nearly half of the resident adult population each year.

One of the unique aspects of swift fox is that they use dens year-round. Seton called them the most subterranean member of our native foxes. The dens are extensive, often having six entrances, two or more chambers and an interconnecting tunnel system three feet below the surface. The den area may be 30 feet or more in extent. Within the home range of the swift fox, there may be as many as 24 different dens. As many as 10 dens may be found within a couple of acres of the natal den site.

Ground dens serve a number of functions, including escape from predators, cover for raising young and a place to avoid the harshness of the western Kansas weather. Our aridland foxes are not well adapted to heat. Their body temperature will rise to lethal levels if they are exposed to temperatures in excess of 95 degrees for prolonged periods.

Swift fox are generally active at night, however, little information has been compiled about their movements. A study in Colorado estimated their home range to be from 212 to 519 acres, while one in Nebraska found the average home range to be 6.7 square miles. Swift fox in Colorado did not show territorial behavior. Adjacent kit fox family groups have been observed to share hunting areas. The dispersal movements of swift fox may be large. In one restoration project, a swift fox traveled 126 miles.

With the exception of the bat-eared fox of Africa, which specializes on termites, all foxes have a similar feeding behavior. They are opportunistic predators that feed on a variety of small mammals, birds, reptiles, insects and carrion. Combination and proportion of diet items seems to be regulated by availability. We examined the stomachs of 140 swift fox and found 24 different food items. No diet differences were detected between males and females or between young and adult animals. By weight, 65 percent of stomach content was comprised of mammals, and half of that was from rabbits and jack-

rabbits. Our study was conducted in the winter and therefore does not represent the range of the diet throughout the year. During the warmer months insects, especially grasshoppers, appear to be important. One of my most memorable encounters with a swift fox occurred one October. I had captured a fox and taken a blood sample. When I released the animal, I was surprised by its nonchalant behavior towards me. I picked up my camera and began following it on foot. At one point, the fox started hunting like a bird dog getting into a covey of quail. Suddenly, a large grasshopper flew from the buffalo grass, and the fox reared on its hind legs and caught the insect in flight. It was a sight I'll never forget.

Swift fox inhabit the shortgrass and mixed grass prairie, generally in areas with gently rolling topography. The buffalo grass, blue grama vegetation would make it easy to establish a golf course. Just poke 18 holes in the ground. It would be my kind of course, too: no tree obstacles allowed. The swift fox's apparent dislike for trees may have contributed to the slight genetic differences between swift fox and kit fox. Until about 4,000 years ago, the area of New Mexico that separates the two species was a shrub forest rather than the grassland it is today. It is believed that this forest served as the barrier between the two populations, thus allowing moderate genetic divergences.

Research and management on the swift fox is improving every day. Restoration projects have been initiated in numerous states and Canadian provinces. Captive breeding procedures have been perfected and captive populations are being managed to preserve genetic diversity of the species. Field studies are under way, however, many aspects of swift fox management remain unresolved. We need a cost effective method to monitor swift fox numbers, and procedures need to be developed to successfully transplant the species into suitable habitat. Public support of swift fox management is also needed. Currently, few people use our swift fox resource in a nonconsumptive manner, but the opportunities are there. The species can be observed at dens or can be attracted to viewing range with calls. With proper precautions to avoid disturbing animals at critical times, there is a wealth of aesthetic pleasure awaiting us in the prairies of western Kansas.

Fool may the appropriate species name, but the human race will the foolish species if we allow our land use practices, consumptive zeal or predator control policies to drive these magnificent creatures into another period of scarcity. The swift fox should have won our respect by staging its own recovery. As this unique fox continues to reclaim portions of its original range, we have learned that not only can we live with this species but it brightens our lives. The next time you're going down I-70 with thoughts of improving your previous time record to Denver, take a break instead. Watch the sun rise over the shortgrass prairie and let the swift fox show you what fast travel is all about.

Life On The Prairie

It's easy to adopt a fanciful view of wildlife. Humans live in a world of comforts, where danger is minimal. Forgetting nature's way, they may assume that animals can lead happy, harmonious lives apart from interference from Man. But field observations quickly dispel such notions. A day at a swift fox den is a case in point.

Early one morning, as I prepared to photograph a fox family in a buffalo grass pasture, a 13-lined ground squirrel popped from its burrow a short distance away. I carefully moved into position 25 feet from the squirrel's burrow and soon filmed the entire family as it began the day.

It was a wonderful scene: cool, still air of a summer morning punctuated by the clear whistles of a meadowlark; the frisky young squirrels drinking in life under the tutelage of watchful parents; abundant food and

Occasionally, one finds a wild animal that is especially tolerant of a photographer. Mike Blair worked several swift fox dens in Wallace County, but the female at this site allowed him to work in open view just yards away, while she continued her normal activities. The following rare sequence of photos resulted.

easy living.

I watched the squirrels with fascination, taken by their warm interactions. For minutes, the prairie was idyllic, and it belonged to them. But momentary serenity wouldn't change two facts: ground squirrels were the primary food of swift fox; and a den of swift fox lived just 90 feet away.

Disaster was inevitable, and it happened like this.

In late afternoon, the adult male fox, that had been napping in a ground depression, raised its head and spotted the feeding ground squirrels 60 feet away. Eyes barely protruding above ground level, the fox gauged the strike for 20 minutes without the faintest movement.

Periodically, a young squirrel would venture 10 feet from the safety of its burrow, only to rejoin its family instantly at some supposed danger. To me, a surprise attack by the fox seemed impossible over the long, open distance that separated predator and prey. But an amazing thing happened.

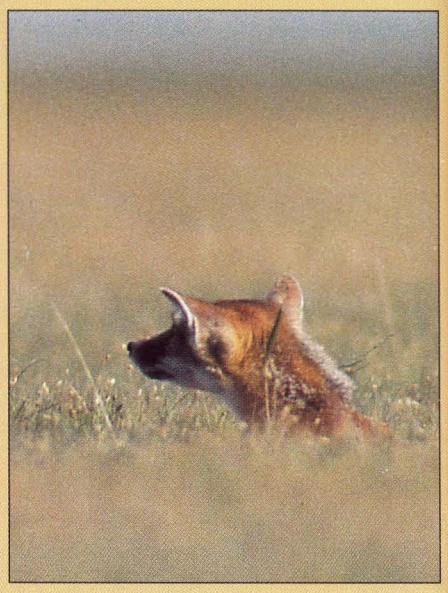
Suddenly, the fox broke into a slinking run that became a blinding sprint toward the prey. Too late, the ground squirrels dove for cover, and incredibly, the fox caught *two* with flashing jaws in the instant before they reached home.

There was another surprise. The adult female fox, watching the episode from the den entrance, instantly attacked her mate, chasing him for more than 500 yards before passing from my sight. The pair zigzagged in frantic fashion, as if the female thought the male might keep the prey for himself.

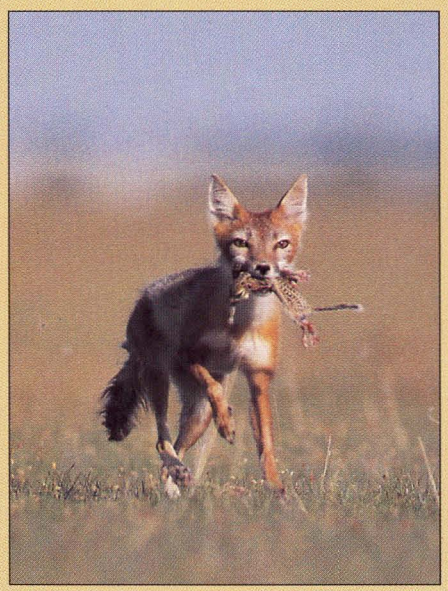
Several minutes later, she returned at a lope with both victims, transferring them to a kit that ran to meet her. Instantly, the young fox plunged the booty down its burrow for an undisturbed meal, while the adult lay down to rest.

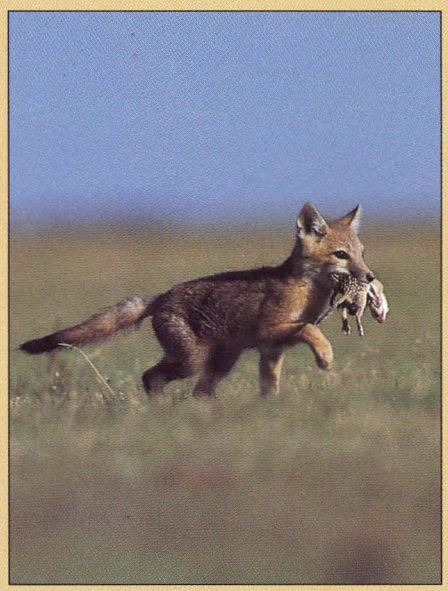
The day ended as it began, meadowlarks singing, the grasses golden under the sun. A placid family portrait of morning was shattered by the reality of a hunting fox in the afternoon. Still, all seemed well on the prairie.

Nature was always life and death. And in spite of what Man may wish or think, it always will be.—Mike Blair



The family of thirteen-lined ground squirrels were photographed near their burrow just 90 feet from the swift fox den. The male fox watched the squirrels for nearly 20 minutes without twitching a muscle. With no stalking cover, the fox made a blinding dash and caught two of the squirrels in one fell swoop. Curiously, the female fox took immediate chase of her mate and shortly delivered the two prey back to a pup at the den.





center section

Edited by Mark Shoup

LETTERS

ETHICS, LAW, ETC.

Editor:

As far as I'm concerned, if God made something better than bowhunting for whitetails, He kept it for Himself; and a damp night on a river bank fishing for flatheads is time well spent. Hunting and fishing are very special to me, as I'm sure they are to many of your readers.

That's why ethical hunting is our responsibility to future generations. We sportsmen and women must awaken beginning hunters and unethical "hunters" to the challenge of an ethical hunt. Good hunting ethics are contagious. If we spread the fair-chase sentiment and obey all game laws, we can make a difference.

We can also help our state conservation officers who are very helpful people themselves. A conservation officer once let me bowhunt from his treestand. That is going "above and beyond the call of duty." This, and the limited numbers of conservation officers, is why I have a bumper sticker on my truck that reads, "I am a Kansas Sportsman, and I will call Wildlife and Parks' Operation Game Thief: 1-800-228-4263.

David M. Sommers
Manhattan

WANTON WASTE?

Editor:

I am writing about the fish waste when you drain Tuttle Creek Reservoir. When you last did this, there were thousands of fish disposed of in a big heap in your dumping grounds. When I inquired about this, I was told they were trash fish. Is a fifteen-inch channel cat or a small crappie considered trash. They were there.

Surely there is a better way, like putting them in a pond, river or back in the lake. You built the Milford Fish Hatchery to hatch and raise baby fish, and as far as I've seen it's a total failure. Yet, you consider these small bass, channels and crappie trash.

Another waste of your department are the Christmas trees you encouraged the people in and around Manhattan to bring out to the river pond last Christmas (1989), so you could make crappie beds. Well, our efforts were in vain because the trees are still up on the bank in a pile and doing no one any good.

Clarissa Springer
Manhattan

Dear Ms. Springer:

Corps of Engineers impoundments have regularly scheduled inspections to assess the maintenance needs of outlet structures. All water and fish are removed from the stilling basin to allow this inspection.

The Tuttle Creek stilling basin has traditionally held a large quantity of fish following the water draw-down. In 1990, we flushed the majority of fish from the basin prior to shutdown of the gates. The bulk of the fish removed was shad, buffalo and drum. Most sportfish were hand sorted and trucked to lakes for stocking.

Approximately two tons of channel cat more than 10 inches long were sorted and stocked from the basin that day. The rest of the fish were subject to public salvage. Unfortunately, we did miss some fish in excess of 10 inches, but sorting through the large numbers of fish is an enormous task.

Of those fish wasted, approximately 60 percent were shad, 30 percent were buffalo, 9 percent were gar and one percent were channel catfish less than six inches long. The Corps requests our assistance in this operation. Without our help, the fish loss would probably be much greater.

The recycled Christmas tree project has been a tremendous success at Tuttle Creek in recent years. In 1990, more than 3,000 trees were collected and placed in the water with the help of individuals, the City of Manhattan, Riley County, Riley County Fish and Game Association, K-State students and fishing clubs. Fifty to 60 trees were left over, but will be placed in the near future. *--Chuck Bever, fisheries biologist, Manhattan*

"FIRE" PHOTO QUERY

Editor:

In the July/August issue of KANSAS WILDLIFE AND PARKS, you had an article called, "Fire in the Sky" (Page 8). On Page 12, you had a picture of a windmill by lightning. Is it a painting or a photo? I totally respect Mike Blair's photography, but I'm convinced it's a painting. Mr. Blair is an amazing photographer.

Helena Rieber
Neola, Iowa

Dear Ms. Rieber:

You are not the only one who showed special interest in the windmill photo. The picture is a photograph, taken with a 55mm lens and Kodachrome 64 film. It was shot at approximately midnight.

The unusual effect of the photo was produced by a time exposure. On a dark night, setting a camera's shutter on "bulb" allows the film to record any source of light indefinitely. Streaks of lightning are perfect because they last only a split-second, intermingled with

darkness. This allows multiple lightning strikes to be recorded over several minutes without fear of overexposure, as would quickly happen in daylight.

In this photograph, the small lightning streaks in the background were recorded first, and the relative brightness of the background caused the windmill vane to be recorded as a silhouette. Then the wind shifted slightly, the windmill vane changed positions, and a tremendous lightning flash occurred just above me, lighting the scene to daylight proportions. Then I manually closed the shutter. --*Mike Blair*

"ONE-SHOT" COMPLAINT

Editor:

Let me begin by expressing my appreciation at being allowed, as a nonresident, the opportunity to hunt turkey in your state. My four hunts have been successful and rewarding.

I am concerned, however, about the special "Governor's One-Shot Hunt," which I read about in the July/August issue (Page 23) of your fine magazine. There are two reasons for my concern: 1) The taking of a fine game animal such as a spring gobbler should not be demeaned by contests that establish nothing other than who was in the right spot. The true worth of a turkey hunter is not measured by the size or number of kills but by his or her approach and attitude toward the sport. 2) It is hard enough to make a clean kill, but to depend on one shot could drastically increase crippling and lost birds. Even under 30 yards, gobblers can be knocked flat, only to regain their senses and try to escape. Without a backup shot, the odds of retrieving such a bird are poor.

Karl Althage
Columbia, Missouri

Dear Mr. Althage:

I understand your concern over the "one-shot" hunting event, but I'm afraid the title is a bit misleading. Participants are not encouraged to use only one shot, but to hold off for a sure, clean kill. It is the skill in calling a gobbler to close range and making a good shot that is emphasized rather than the use of only one shot. Certainly the most desirable shot would be much closer than 30 yards. I believe this requires the kind of proper "attitude and approach" you mention. --*Miller*

SMOKY REVERIE

Editor:

In your Sept./Oct. issue, I read the "River Of Life," by Rob Manes (Page 10).

In the late 1930s and early 1940s, I lived in southwest Ellsworth County and fished the Smoky many times. At that time, it flowed a wonderful stream of beautiful clear water with a clean gravel and sand bottom. What a delight it was to catch those beautiful channel catfish with slender bodies, developed from fighting the strong flow of water. I fished mostly the area from the bridge south of Wilson down to the site of old Fort Harker.

In 1943, I was transferred to Stafford County and greatly enjoyed fishing Rattlesnake Creek, so-named because of its many bends. Sleek channel cats as large as five and six pounds and bullheads around two pounds were plentiful. This fast-flowing stream also had a sand and gravel bottom.

The Rattlesnake is now practically dry, and friends still living in Stafford County tell me it has been ruined. The Smoky, the Pawnee, the Arkansas and the Rattlesnake are mostly dry stream beds now. The underground water supply is now lowered to a dangerous point. How many more beautiful streams will be affected? What a disaster it is that the beauties of nature that God has given us are being destroyed.

J. M. Johnson
El Dorado

JUNK MAIL RETORT

Editor:

In reference to your article in the Sept./Oct. issue called "Junk Mail Blues (Page 20) [which suggests] that junk mail kills trees, it's time to come back to reality. As a letter carrier, I feel that the Kansas Department of Wildlife and Parks could use more constructive journalism for filler space.

The Hutchinson News and The Wichita Eagle and the rest of the newspaper industry shouldn't throw stones when they live in glass houses. Currently, newspapers are killing billions of trees annually, but this is not the major issue. The issue is where the profits of the newspaper industry are going and whether they are supporting recycling. Newsprint, unlike "bulk business mail" (or "junk mail," as some people call it), is perfect for recycling. Yet, locally some newspapers use a dismal 5 percent recycled paper. The paper giants of the industry could support more newsprint mills within their region of the country. It makes financial sense and could save trees.

Mr. Shoup told me at the state fair that even KANSAS WILDLIFE AND PARKS is not printed on recycled paper because the quality of paper isn't available. I'd buy the magazine if the print paper was of less quality.

The post office is a major competitor of newspapers for advertising. However, it's time both parties stop bickering and start working for recycling and a safe environment. We are all in this together.

Rocky Kollmeyer
Wichita

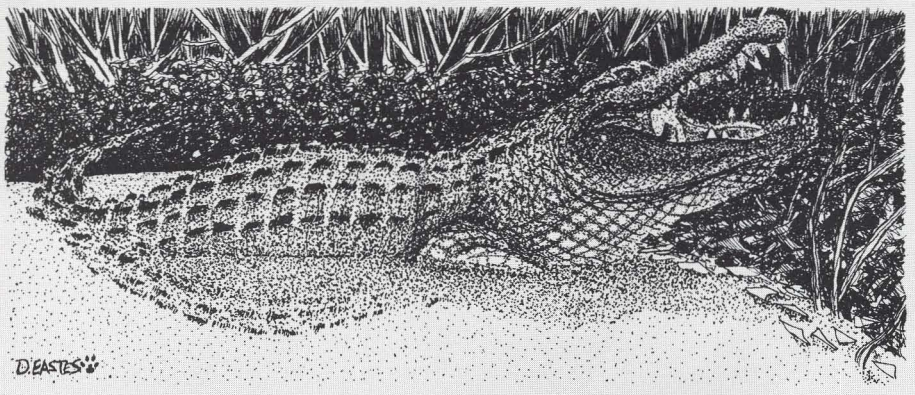
Dear Mr. Kollmeyer:

I understand your concern over wasted newsprint, and your point that more newsprint mills are needed is a good one. However, there are a couple of points I would like to make. First, while I cannot state exact figures, I do know that there is a great deal of newspaper recycling. I think it's safe to say that very little "junk mail" is recycled.

Second, newspapers are products that people choose to purchase, and in fact, need in order to keep abreast of issues that concern them. "Junk mail" is unsolicited and in most cases is unwanted.

As your letter correctly states, you, as a letter carrier, have a vested interest in the traffic in "bulk business mail." However, as you also correctly point out, we are all in this together. Perhaps its time we began putting environmental concerns on an equal footing with personal interests. --*Shoup*

LAW



GATOR RAID

Telling someone that you had seen alligators in Kansas might be akin to telling them you had seen a pink elephant. At least, that's the way one rural Fort Scott family must have felt when they called on local conservation officer Doug Whiteaker to rid their farm pond of the wayward reptiles.

Whiteaker received the call on Sept. 9 and dutifully went to check it out. When he arrived at the pond in question, he did, indeed, see four of the dangerous-looking beasts patrolling the waters. The pond owner believed that the gators had escaped from a neighbor's pond, so Whiteaker went next door to ask some questions. The man who supposedly owned the alligators was not home, but his wife was, and she told Whiteaker that her husband had obtained the animals from a Louisiana man in Poteau, Ok., while working a construction job. The suspect had brought them to Kansas and put them in his pond. Unfortunately, they escaped to the neighbor's pond.

Using the authority of a new Kansas regulation that requires all exotic wildlife (not native to Kansas) to be confined at all times, Whiteaker seized the gators. They were later identified as native North American alligators, protected by the Endangered Species Act.

Whiteaker then contacted U.S. Fish and Wildlife special investigator Case Vendell and Oklahoma game protector D.E. Belcher. Belcher and Vendell conducted an extensive, but unsuccessful search for the supplier of the alligators. Vendell did, however, obtain a confession from the Kansas man, who later pleaded guilty to violation of the Endangered Species Act. He was fined $500 in federal court in Wichita.

On Oct. 6, Whiteaker flew the alligators back to Louisiana where they were released into the wild.

It is illegal to sell or possess North American alligators as pets, but they can be raised on licensed game farms in Louisiana. However, officials there say that illegal traffic in alligators is an increasing problem. Often times, wild alligators are illegally taken and "laundered" through game farms. Alligator hides sell for $55-$65 a running foot. --*Shoup*

NOODLIN' PARTY

On June 30, 1990, an anonymous caller, using the Operation Game Thief hotline number (1-800-228-4263), gave the time and place for a handfishing party to occur on Mill Creek in Wabaunsee County. Conservation officer Rick Campbell, Wamego, was notified to answer the call, and when he arrived, the party was in full swing.

Grandma, grandpa, sons, daughters, grandchildren and friends were all enjoying the hot afternoon in the creek. As the party made its way upstream, the men worked around rocks and under ledges, taking fish by hand.

Not only is this illegal, it can be particularly damaging to some fish populations. Late June is usually the spawning period for catfish and the time when they seek holes or cuts in river banks to deposit eggs. Catfish are most vulnerable to handfishing during this spawning period.

Tired of just being an observer, officer Campbell crashed the party, an unexpected guest, indeed. He joined the group just as they were making their way back to their pickups, where he seized more than fifty pounds of catfish. An Overland Park man, three Alma men and a man from Minnesota gave their written agreement to appear in court. Campbell cited the five for taking or attempting to take fish by an illegal method, i.e. handfishing.

Their later appearance in Wabaunsee County District Court was no party. Each man was fined $200 plus $32 court costs, a total penalty of $1,160 -- one expensive shindig. --*Shoup*

WYOMING SCAM

In what has been termed the single largest fine in the history of the Wyoming Game and Fish Department, an Arkansas banker and a farmer friend from nearby Missouri have been assessed fines and restitution totalling nearly $57,000 for a license fraud scheme spanning nearly two decades.

The two were convicted of eight counts of violating the Lacy Act, which deals with interstate transportation of illegally taken wildlife. In addition to the fines, the men face three years of supervised probation and are not allowed to hunt or possess firearms anywhere in the U.S. -- *Wyoming Game and Fish news release*

CRAPPIE LAW

Effective January 1, 1991, some new laws concerning crappie fishing went into effect.

A daily creel limit of 50 crappie (black, white or in combination) per calendar day has been established for all waters in Kansas.

In addition, a 10-inch crappie length limit is in effect at Melvern, Perry and Pomona reservoirs. All crappie less than ten inches caught in these reservoirs must be returned to the water immediately. -- *Shoup*

ISSUES

ESQUIRE HITS HUNTERS

When *Esquire* magazine published one of the most vicious and opinionated attacks ever on hunting and hunters in its October issue, unwittingly one of J.C. Penny's advertisements was positioned side-by-side with the story. Penney's had the company of AT&T, Gallo, Johnson & Johnson and Sharp, who were all next to the story.

The [subtitle] of the story, which was entitled "The Killing Game," set the tone of the whole article. It said, "Why the American Hunter Is Blood-thirsty, Piggish and Grossly Incompetent."

Here [are some examples from the *Esquire* article]:

--"But hunters are piggy. They just can't seem to help it. They're overequipped ... insatiable, malevolent and vain. They maim and mutilate and despoil. And for the most part, they're inept. Grossly inept... Camouflage toilet paper is a must for the modern hunter along with his Bronco and his beer."

--"Hunters get mad. They get restless and want to fire! They want to use those assault rifles and see foamy blood on the ferns."

--"Poorly placed shots are frequent, and injured animals are seldom tracked because most hunters never learned how to track. The majority of hunters will shoot at anything with four legs during deer season and anything with wings during the duck season."

--"Sportsman's conservation' is a contradiction in terms (We protect things now so that we can kill them later) and is broadly interpreted (Don't kill them all, just kill most of them). A hunter is a conservationist in the same way a farmer or a rancher is: He is not."

--"What you've got is a bunch of guys driving over the plains, up the mountains, and through the woods with their stupid tag that cost them a couple of bucks and immense coolers full of beer and body parts."

--"Sport hunting is immoral; it should be made illegal. Hunters are persecutors of nature who should be prosecuted."

Are you going to let this vile attack go unchallenged? Write to the companies involved. Address your letters to the chief executive officer at these companies:

H. Cotler Company
10 West 33rd St.
New York, NY 10001

JC Penny Company
Box 659000
Dallas, TX 75265

Hearst Corporation
959 8th Ave.
New York, NY 10019

American Telephone and Telegraph Company
550 Madison Ave.
New York, NY 10022

E & J Gallo Winery
Box 1130
Modesto, CA 95353

Sharp Electronics
Sharp Plaza
Mahwah, NJ 07430

Johnson & Johnson
1 Johnson & Johnson Plaza
New Brunswick, NJ 08933
--Outdoor Life

AUDUBON DEFENDS

Anti-hunting rhetoric reached fever pitch with the above-mentioned article in *Esquire*. The appearance of such a senseless diatribe in one the nation's most popular magazines may lead one to the conclusion that animal rights groups have taken over the mainstream media. There is, however, reason to think otherwise.

While *Esquire* may respond to the trendy dictates of fashion and pseudo-intellectual fluff, dedicated conservation magazines are featuring logical, even-tempered articles on the subject of hunting. *Audubon* is perhaps the most respected and widely read of such magazines, and while their readership may be comprised of but a few hunters, the publication should be read and respected by hunter and nonhunter alike.

The November issue of *Audubon* contains two articles on hunting -- one an introspective, philosophical piece called "Taking a Life" written by Mike Gaddis,

himself obviously a hunter, and another by Richard Conniff, entitled "Fuzzy Wuzzy Thinking About Animal Rights." The Conniff article is the best I have ever read on the subject. It is a thoughtful, intelligent, balanced look at the psychology of both hunter and anti-hunter, and at the ecological ramifications of this most complicated of human activities.

Hats off to *Audubon* for the courage and insight to feature this important work, especially at a time when many conservation organizations have become "gun shy" when it comes to the subject of hunting. --*Shoup*

OZONE HOLE OPENS

A gaping hole in Earth's protective ozone layer has again opened over Antarctica, and scientists report that the depletion of ozone there seemed to be nearly as severe as it was in the worst previous years, 1987 and 1989.

This is the first time a severe Antarctic ozone hole has developed in two successive years, according to the National Oceanic and Atmospheric Adminstration and the National Aeronautics and Space Administration.

Scientists worry about such holes because they imply increasing health hazards throughout the world. Ordinarily, a layer of ozone in the stratosphere prevents a dangerous form of ultraviolet radiation emitted by the sun from reaching the Earth.

But in recent years, synthetic chemicals called chlorofluorocarbons [and hydrochlorofluorocarbons] released into the air by various human activities have reached the stratosphere where they break apart and destroy ozone. As a result, increasing amounts of dangerous radiation reach the ground, prompting fears of an epidemic of skin cancer and cataracts, and damage to crops, notably soybeans.

The exact geographic extent and overall depletion of ozone in this year's hole have not yet been determined, but David Hofmann, an aeronomist at the University of Wisconsin, said balloon-borne instruments have found no ozone at all in a layer of atmosphere between 9.3 and 10.8 miles above the Antarctic continent. Above this level, some ozone appears to remain, he said.

Aeronomists are not yet sure whether this trace of high-altitude ozone extends over the whole continent. --*New York Times News Service*

GULF CRISIS

On August 3, 1990 -- just one day after Iraq invaded Kuwait -- Sen. Frank Murkowski (Alaska) attached an amendment to the Defense Authorization bill that would require the President to target the Arctic National Wildlife Refuge, located in northeastern Alaska, and other protected areas for oil exploration and recovery. The defense bill was passed the same day.

The refuge, the largest and most pristine wilderness in the U. S., has been compared in its majesty to Africa's Serengeti.

By achieving a 40-miles-per-gallon fuel efficiency average for new cars by the year 2000, as called for in Sen. Richard Bryan's (Nevada) proposed Motor Vehicle Fuel Efficiency Act, congress could save us at least 15 billion barrels of oil in 30 years. That is five times greater than the Interior Department's hoped-for production from the Arctic Refuge.

In addition, it would take seven to 15 years to get oil from the refuge to the market. --*Audubon Activist*

FAMILY AFFAIR

Ten members of the E. B. Shawver II family of Wichita were in attendance when Ducks Unlimited (DU) dedicated a Montana waterfowl habitat enhancement project in their honor Sept. 10 at the Medicine Lake National Wildlife Refuge (NWR).

Long-time supporters of DU, the Shawver family generously provided $154,500 toward the development of the 1,440-acre Katy's Lake project in northeastern Montana's Sheridan County. The Medicine Lake NWR is an important waterfowl production site, as well as a major stopover site for migrating waterfowl.

Medicine Lake NWR, established in 1935, sprawls over more than 31,000 acres. Waterfowl production on the site was limited, however, due to the lack of secure upland nesting sites and an intrusion of carp from Lake Creek. The carp commonly uprooted aquatic vegetation and increased water turbidity, causing declines in invertebrate populations vital to the diets of waterfowl.

Working in cooperation with the U. S. Fish and Wildlife Service, DU constructed a 1.7-acre earthen nesting island in Katy's Lake, providing improved production habitat in a portion of the refuge lacking natural islands. In addition, an existing water-control structure was replaced in order to better manage water flow, and a fish barrier was erected to prevent carp from entering the lake. This year, waterfowl nesting success on the island was 97 percent.

Members of the Shawver family (DU Life Sponsors and Heritage Sponsors) contributing to the development of this wildlife habitat project include Mrs. E.B. (Virginia) Shawver II, of Augusta; David and Judy (Shawver) Tillemans and son, Grant Edward, of Walden, Colo.; Martin B. and Helen Shawver and daughter, Sally Elizabeth, of Douglass; John and Molly Shawver, of Wichita; and Stella "Sally" Shawver, also of Wichita.

E.B. Shawver serves on DU's Development Committee, is DU's major gifts chairman for Kansas and is also a state trustee and national delegate. Virginia Shawver is the Kansas state ladies committee coordinator. --*Duck Call*

IOWA LIMITS ATRAZINE

The State of Iowa recently put limits on the use of atrazine, a commonly used agricultural herbicide. To date, California is the only other state to put restrictions on the chemical.

Among other restrictions, this new law will classify atrazine as a restricted-use farm chemical, meaning supplies and sales will be registered with the state to monitor use, and its application will be limited to individuals and commercial applicators who have been certified by the state. The certification process includes instruction and stringent written tests. It also sets a 3-pounds-per-acre maximum allowable rate of use, 25 percent lower than the manufacturer's recommendation. The rate is lowered to 1 1/2 pounds per acre where there are surface water and sink hole problems.

Failure to comply could cost applicators their state certificates. Fines as much as $100 and 30 days in jail could also be imposed. --*Rural Papers*

FISHING

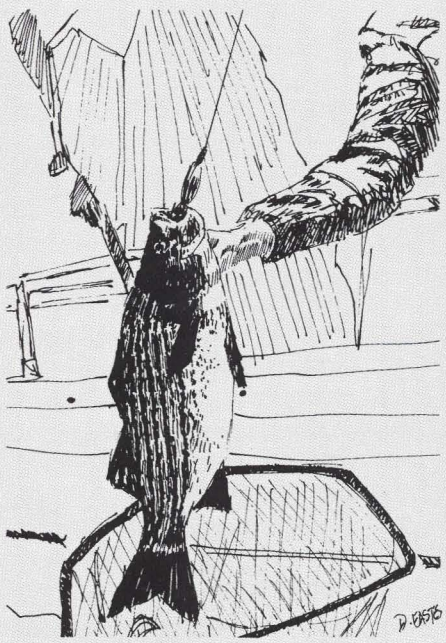
KANSAS SURF FISHING

If you told someone that you were going surf fishing in Kansas, they would probably wonder if you had been dipping into the leftover holiday sauces. Either that or they would claim you were lost and should be about 1,500 miles either east or west. Although it's not commonly known, Kansas offers some incredible surf fishing at various times of the year. Cheney reservoir, located 30 miles west of Wichita, is one spot that offers productive surf fishing opportunities for striped bass.

Kirk Ellis of Wichita is an avid Kansas striped bass surf fisherman. "Most people use the traditional surf poles that are 9, 10, and even 15 feet long," Ellis says. "Everyone has their own personal preference for equipment, but most people use a 4-, 6- or 8-ounce terminal sinker with two hooks from 2/0 to 4/0 spaced about 18 inches apart," he adds.

Shad caught using a cast net are used for bait either whole or cut into small chunks. Surf fisherman can cast from the shore for stripers or wade into the lake and cast, a method that may be more productive.

Any points of land on the lake are good bets for surf fishing, but areas near Andale Beach, Wichita Point and Red Bluffs Island are some of the more popular areas for surf fishing. Surf fishing can yield nice catches year-round, but it's better in fall and winter when stripers move into shallow areas of the lake looking for food. There is a creel limit of two striped bass per day at Cheney.



Striped bass are saltwater natives that have adapted to land-locked freshwater reservoirs. They are often confused with white bass, although they are more streamlined, have distinct lengthwise stripes, and have two rows of teeth on their tongues, as opposed to the white bass' single row. The current state record is 43 pounds, 8 ounces. The world freshwater record is 60 pounds, 8 ounces.

Cheney reservoir has a good reputation for catches of nice striped bass at various times of the year. "Many fishermen don't realize that Cheney has a very good population of striped bass," says Gordon Schneider, fisheries biologist with the Department of Wildlife and Parks. "Fall netting results showed a lot of fish in the 5- to 6-pound range." --*Marc Murrell*

SHARPEN HOOKS

Losing a fish because of a dull hook is one of the cardinal sins of angling. Dull hooks, second only to human error, are the reason most fish are lost.

With the number of easy-to-use hook sharpening devices available today, there is no excuse for dull hooks. A small Arkansas hardstone serves as a suitable hook sharpener. It takes less than a minute to put a needle-sharp point on most hooks. --*Humminbird release*

FALL TROUT

Each fall, the Kansas Department of Wildlife and Parks gives Kansas anglers the chance to catch fish seldom found in Kansas. Rainbow trout, usually associated with clear, cold, flowing mountain streams are stocked in lakes and ponds around the state.

Trout are cold-water species. Due to high Kansas water temperatures, they cannot survive our hot summers. They also require larger amounts of dissolved oxygen than some of our native Kansas species, so they are only stocked in cool weather.

Trout are obtained from Utah and Colorado in exchange for species such as channel catfish that are produced in Kansas hatcheries. Trout are usually stocked in October, when the water temperature drops to a level the fish can tolerate. Most of the fish are caught in a period of several weeks. However, some may survive into the spring and may be caught throughout the winter.

Most people fish for trout with salmon eggs or small spinners or jigs. Trout are tremendous fighters and a challenge on light tackle. A valid Kansas fishing license is required to fish for trout, and there is a creel limit of five fish per day. The following areas have been stocked with trout: Cedar Bluff Stilling basin, Scott State Fishing Lake, Cimarron Grasslands, Dodge City-Lake Charles, Mined Land Wildlife Area, Wichita-Zoo Park ponds, Wichita-Watson Park, Wichita-K.D.O.T East Lake, Wichita-Chisholm Creek Park Pond, Hutchinson-Carey Park Pond, Kanopolis seep stream, Webster stilling basin, and Tuttle Creek seep stream. --*Marc Murrell*

"DO-NOTHIN' FISHING

A popular method for catching bass in Dixie is a system called "Do-Nothin" fishing. For years a closely guarded southern secret, it has recently proven an effective method across the country.

A small, colorful plastic worm with two exposed hooks is rigged on a 4-foot length of monofilament leader, then tied to a bronze swivel. Behind the swivel is placed a 1/4-ounce bullet sinker and a fluorescent plastic bead. Generally, this unorthodox worm rig is fished with a bait casting reel and six-and-one-half- to seven-foot "Trigger Stick."

The important thing to remember is to always keep the sinker bumping something. The sound and commotion caused by the heavy sinker making contact seems to be the element that triggers a strike.

Add different colored tails to your worms by heating the ends of both worm and tail and fusing them together. --*Tracker Fishin' Tips*

Chickadee Checkoff

Mike Blair photo

Helping Kansas Wildlife Since 1981

In 1980, the Chickadee Checkoff was approved by the Kansas Legislature. Therefore, Kansas became the third state to allow its citizens to make donations through their tax returns specifically for nongame wildlife. Since 1981 was the first year the checkoff was included on individual income tax forms, 1991 marks the 10-year anniversary. So, with ten years under our belt, just how does the Chickadee Checkoff stack up? What has the money been used for? What does the future hold?

Actually, direct efforts towards nongame wildlife began prior to the Chickadee Checkoff. The Kansas Legislature passed the Nongame and Endangered Species Conservation Act in 1975. This law gave the Kansas Fish and Game Commission responsibility for an additional 24,600 species of nongame wildlife along with requiring special attention to 45 species considered threatened or endangered in Kansas. Revised in 1985, there are now 46 species on this list. Since hunters, anglers and trappers had provided nearly all the funds for wildlife conservation through the years, former Department of Wildlife and Parks programs generally centered on aspects of sport fish and wildlife management. These programs not only enhanced game animal populations but also provided considerable habitat and information benefits for all wildlife. However, before the Chickadee Checkoff, there was no formal program with specific funding for wildlife other than for game species such as bobwhite quail, large-mouth bass and Rio Grande turkey. Therefore, the Chickadee Checkoff was needed to fund projects specifically for nongame wildlife such as songbirds, golden eagles, lizards or grasshopper mice.

The Kansas Nongame Wildlife Advisory Council (KNWAC) was formed as an advisory group to the Kansas Department of Wildlife and Parks in developing policies and direction for the nongame program. Formed primarily from organizations playing key roles in the adoption of the Checkoff, the Council was made up of representatives of Kansas Farm Bureau, Kansas Academy of Science, Kansas Ornithological Society, Kansas Audubon Council, Kansas Wildflower Society, Kansas Wildlife Federation, Kansas Biological Survey, Kansas Advisory Council on Environmental Education and Kansas Chapter of the Wildlife Society. In 1989, KNWAC was expanded to include representatives of Kansas Chapter of the American Fisheries Society, Kansas Herpetological Society, Kansas Recreation and Park Association and a representative from the Kansas Department of Wildlife and Parks.

Mike Blair photo

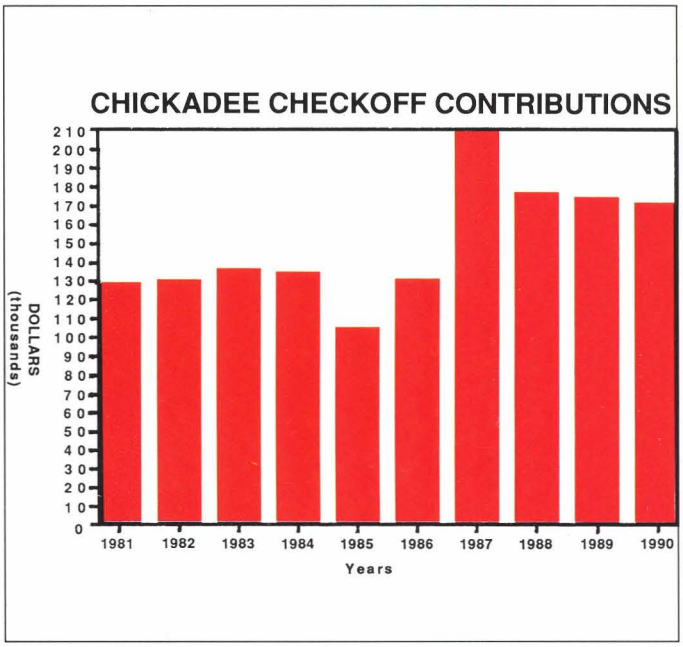
Chickadee Checkoff was established to provide funds for nongame wildlife. But the habitat work and research sponsored by the program has benefitted all wildlife.

Through its 10-year history, the Chickadee Checkoff has provided $1.5 million for wildlife projects. This means that the average donations per year have totaled about $150,000. The trend in the checkoff donation rate appears stable with the totals from 1988 through 1990 about the same. However, those sums were well below the peak year in 1987 when there was over $200,000 dollars contributed. The mean number of contributors has remained fairly steady at a little over 21,000 but this represents only about 2% of the taxpayers. A few people are actually carrying the main load for the nongame program and their average contribution has been around $7. Many thanks to these generous and kind individuals and to the Kansas Department of Revenue which processes all of these donations. Through these efforts, Chickadee Checkoff will continue to support traditional nongame projects as well as new ones.

Public surveys indicate that Kansans and people across the country are very interested in wildlife watching. In fact, from 1980 to 1985, the participation rate for nonconsumptive wildlife activities increased 20 percent to include 75 percent of U.S. adults. Fifty-seven percent of Kansans age 16 or older participate in wildlife observation according to a 1990 Wildlife and Parks survey. According to the Kansas segment of the 1985 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, expenditures related to non-consumptive wildlife pursuits ($69 million) approach the total estimated amount spent for hunting in the state ($75 million).

Coinciding with this dramatic increase in wildlife watching is the increasing urbanization of the Kansas population. The 1980 census showed that about two-thirds of all Kansans live in urban areas. To address this growing number of urbanites and their affinity to wildlife observation, the Department is making more intensive efforts to develop and improve urban wildlife and nongame programs.

Combined with Chickadee Checkoff, emphasis on nature appreciation projects in our various parks and public lands and new funding sources, the mission of the Kansas Department of Wildlife and Parks to address all wildlife species will magnify tremendously in the years ahead.



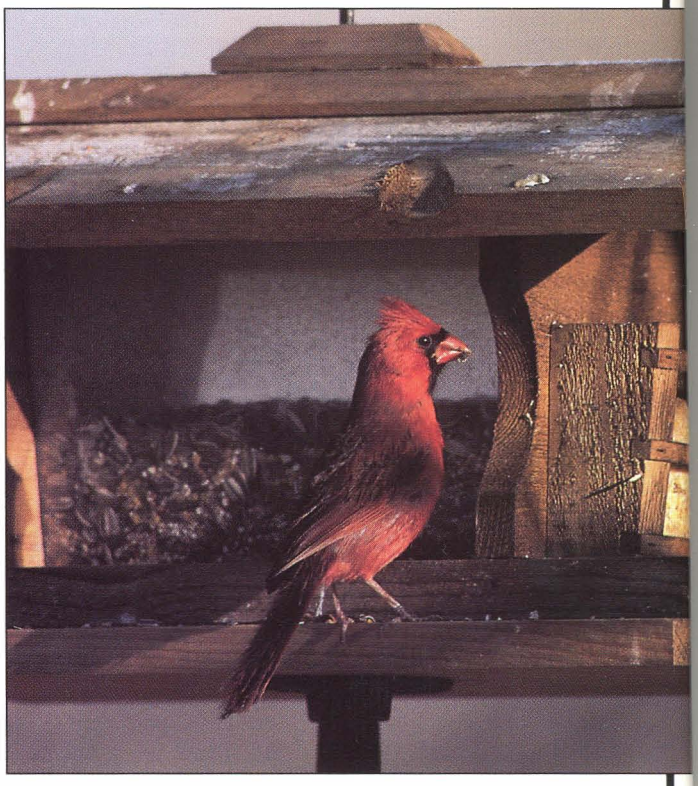
Since 1981, contributors have donated nearly $1.5 million for wildlife in Kansas. Contributions are made by checking the box on state income tax forms and specifying the amount.

Backyard Habitat Improvement Program

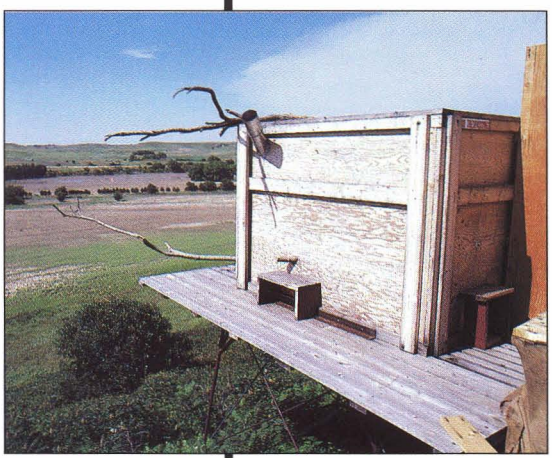
In 1985, the Chickadee Checkoff helped prompt the development of the Backyard Habitat Improvement Program. Through informational booklets, workshops and one-on-one communication, this program has helped a multitude of wildlife enthusiasts improve their yards and homesites for wildlife. There is also a special certification program available to specially recognize those individuals. The thrust of this program is to help homeowners enhance wildlife habitat near their homes. Most of the time, this is simply planting shrub-type bushes such as aromatic sumac, cotoneaster and honeysuckle. The Chickadee Checkoff has helped subsidize the "Songbird Bundle" program offered by Kansas State and Extension Forestry, reducing the cost of the bundles. Each bundle consists of 10 trees and shrubs specially selected to attract songbirds.

There are also a number of informational leaflets available to help homeowers learn about birdfeeders, bat houses, birdbaths, bird houses, bluebirds, butterflies, squirrels and hummingbirds. These are all provided along with technical advice, if requested, to enhance backyards for wildlife. The Department also provides tips on how to deal with nuisance wildlife.

Mike Blair photos



In 1985, Chickadee Checkoff began sponsoring a Backyard Habitat Improvement Program. The idea encouraged homeowners to plant certain shrubs and bushes around their homes that would benefit wildlife. Chickadee Checkoff helped defray the cost of the songbird bundles offered by the Kansas State and Extension Forestry.

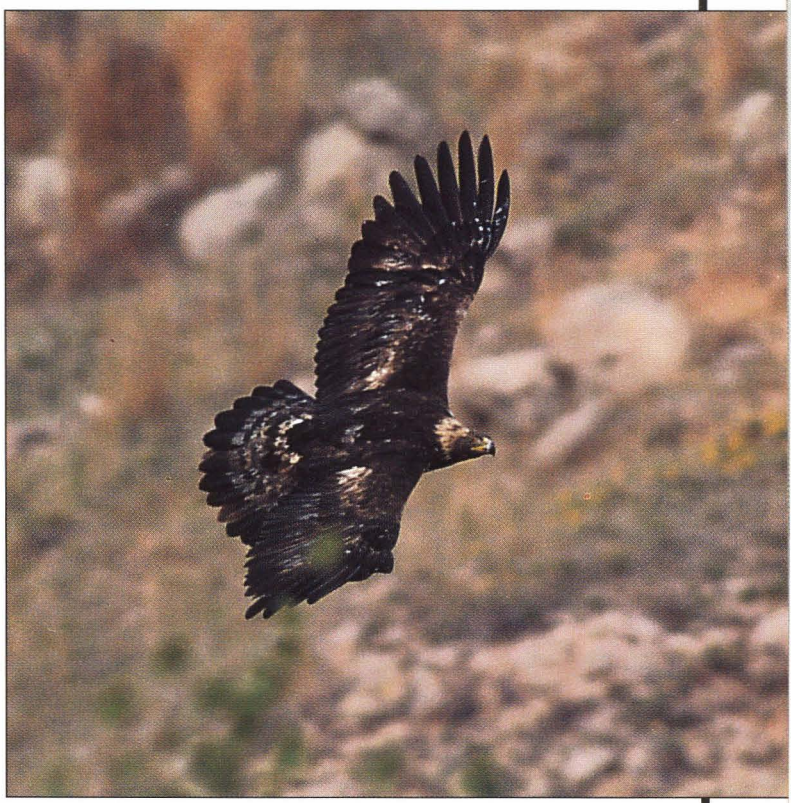


Golden Eagles

Reintroduction of native species is one area of primary concern. The Chickadee Checkoff Program has helped fund a golden eagle restoration project for several years. The first area of attention has been the grasslands surrounding Wilson Reservoir in Russell County. Maure Weigle of the Prairie Raptor Project, in Brookeville, has directed the eagle restoration efforts.

The project involves taking young eagles, received from zoos, and raising them in a hacking tower. The hacking tower is a platform structure designed to mimic nesting conditions for raptors. The young birds are confined to the platform and fed and cared for without being exposed to humans. The idea is to raise them as naturally as possible without true eagle parents. When they are old enough to leave the nest, the doors are opened. Food is still brought to the hack tower and the birds rely on it as they learn to hunt for themselves.

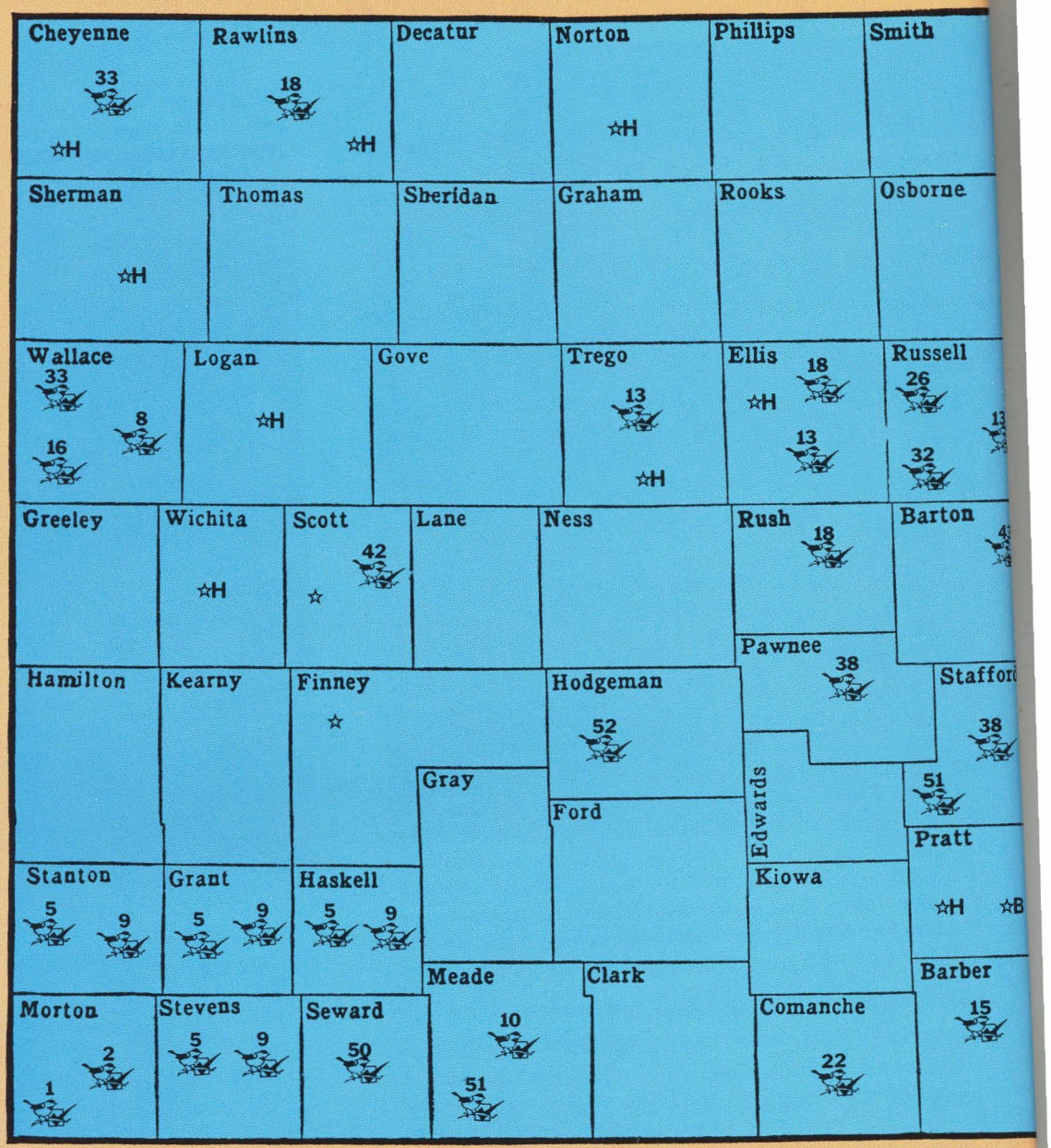
In 1990, six eaglets were successfully hacked (released) from the tower in July. Radio transmitters on several of the birds allow biologists to track the eagles' movements. Hopefully, the birds will return to the general area to nest when they mature. The project's goal is to establish three pairs of nesting eagles in this region of the Smoky Hills.



Mike Blair photos

Chickadee Checkoff has helped fund several reintroduction programs, most notably that of the golden eagle. Young eagles have been raised and released near Wilson Reservoir.

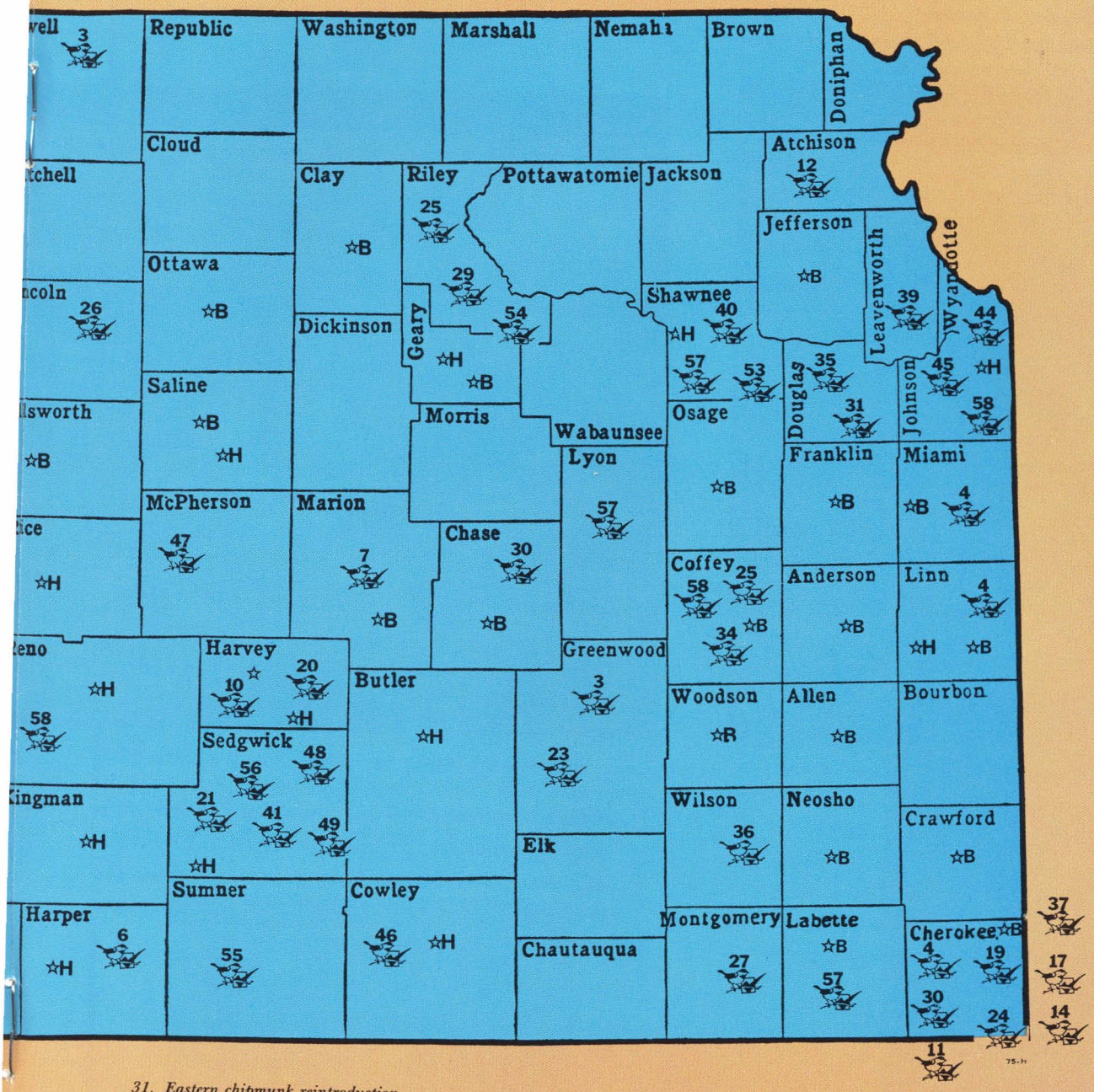
Chickadee Checkoff



1. *Bird Census*
2. *Nongame wildlife population study*
3. *Game habitat management study*
4. *Amphibian population study*
5. *Bird survey*
6. *Distribution of Strecker's chorus frog*
7. *Evaluation of wildlife plantings*
8. *Mountain plover reintroduction*
9. *Summer bird survey*
10. *Swallow-tailed kite reintroduction*
11. *Cave Salamander and pickerel frog study*
12. *Endangered snail population study*
13. *Fishes of Big Creek study*
14. *Spring River field survey*
15. *Status of red spotted toad*
16. *Survey of mountain plover reintroductions*
17. *Assessment of unionid mussel beds*
18. *Black-tailed prairie dog management study*
19. *Northern spring peeper study*
20. *Population and habitat assessment of snakes and lizards*
21. *Urban nest-box study*
22. *Bird and mammal survey*
23. *Effect of logging on passerine populations*
24. *Investigation of the green frog*
25. *Lead shot analysis in bald eagle pellets*
26. *Small mammal survey*
27. *Alligator snapping turtle radio tracking study*
28. *Barn owl habitat study*
29. *Breeding strategies of two passerines*
30. *Distribution of two species of fish*

Wildlife & Parks

In Kansas



31. *Eastern chipmunk reintroduction*
32. *Golden eagle reintroduction*
33. *Stream fishes reintroduction*
34. *Topeka shiner ecology*
35. *Northern crawfish frog population study*
36. *Bird Survey*
37. *Gray bait critical habitat study*
38. *Windbreaks as bird breeding habitat evaluation*
39. *Amphibian and reptile survey*
40. *Prime wildlife habitat evaluation*
41. *Winter behavioral study of urban crows*
42. *Scott Riffle beetle study*
43. *Cheyenne Bottoms shorebird nesting area*
44. *Urban wildlife habitat assessment*
45. *Prairie Center natural area purchase*
46. *Slate Creek Salt Marsh purchase assistance*
47. *McPherson wetland area acquisition*
48. *Great horned owl inventory*
49. *Egret-heron rookery study*
50. *Red fox squirrel transplanting*
51. *Least tern and plover studies and habitat development*
52. *Bird surveys*
53. *McClennan Nature Area habitat development*
54. *Wildlife habitat assessments*
55. *Water bird survey*
56. *Wichita crow study*
57. *Eastern chipmunk reintroductions*
58. *Eagle Days-wintering bald eagle viewing programs*

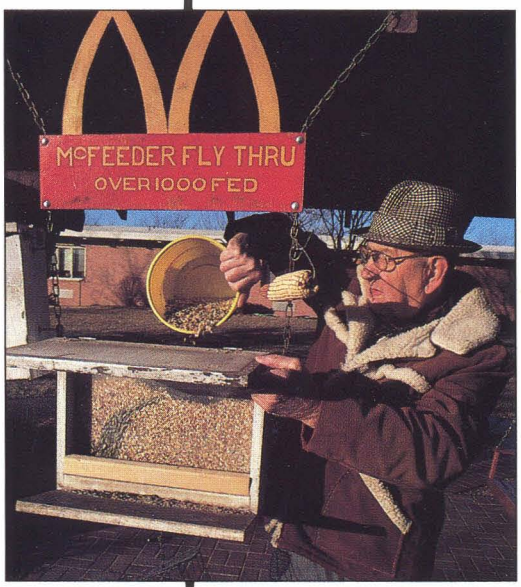
Nursing Home Bird Feeder Program

Since 1981, the Chickadee Checkoff Program has sponsored a project that provides nursing homes with bird feeders, seed and informational literature about song birds. Surveys have shown that in participating homes, more than half of the residents watch birds at the feeders. Time spent watching birds ranged from 15 minutes to five hours each day. Nursing home administrators believe that not only do the residents enjoy the birds, but the program has a positive influence on resident moral and provides therapeutic benefits.

Birdwatching is not the only activity that results from the program. Residents at some homes gather each morning to identify birds at their feeder, keeping track of the different species that visit. At other participating facilities, residents are active in keeping the feeders filled and even make new feeders and repair old ones.

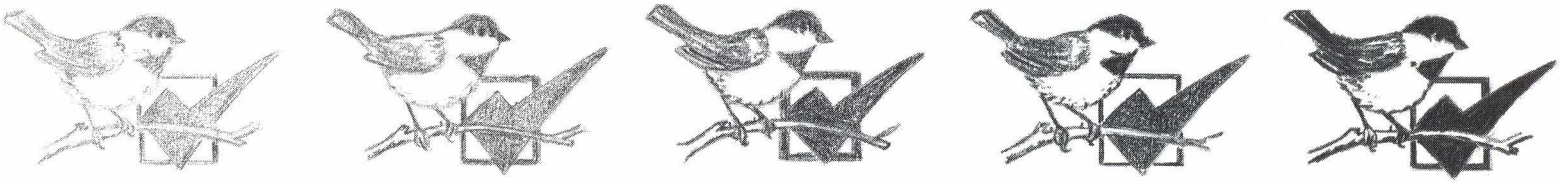
The interest in nature spawned by birdwatching is contagious, and some homes have even expanded upon that interest taking field trips to state parks. One home even has its own nature trail.

Birdwatchers have long known the calming pleasure they receive from watching birds. Now, thanks to the Chickadee Checkoff Program, care home residents across the state are also enjoying the pleasures of birdwatching.



Mike Blair photos

Chickadee Checkoff has provided feeders, feed and information to care homes in a bird feeding program. Participating homes believe the birds and the associated activities have positive therapeutic benefits to home residents.

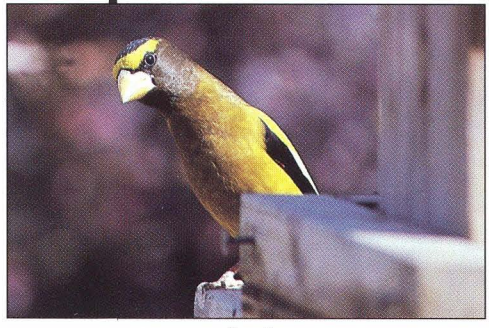


Mike Blair photo

house finch

Winter Bird Feeder Survey

The Kansas Winter Bird Feeder Survey was initiated in January of 1988 and has continued for three years. Averaging about 1,000 participants, these avid birders fill out forms and provide both useful and interesting information about birdfeeding in Kansas. The surveys indicate that most Kansas bird feeders use sunflower seeds for their primary food of choice. Many also used mixed seeds. At least one survey form is normally received from more than 80 Kansas counties. As expected, the large urban areas contribute the most with several hundred observers participating in the larger cities. House sparrows are the most commonly seen bird. However, there is a marked increase in the number of nesting and wintering house finches in Kansas, and these native birds are out-competing the less desirable, introduced sparrows. Juncos, pine siskins and cardinals usually come next in total numbers reported. The 1990 census resulted in 83 species being reported and a total of nearly 50,000 birds. This has been a very popular project supported by the Chickadee Checkoff and the Kansas Ornithological Society. It is expected to continue and grow.



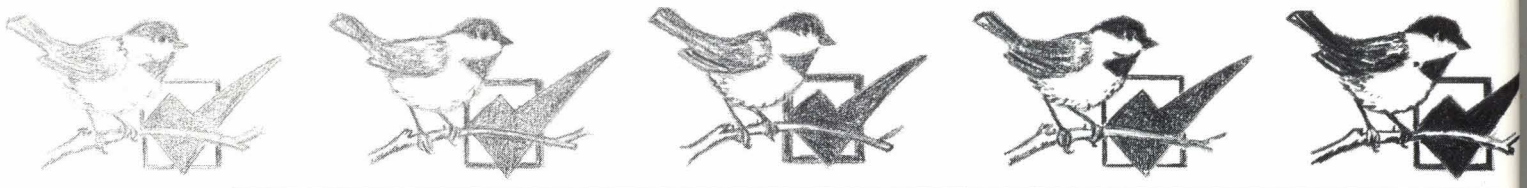
Gene Brehm photo

evening grosbeak

Mike Blair photo

American goldfinch

In 1988, the Winter Birdfeeder Survey was initiated. Participants keep track of species and numbers visiting their feeder and report the results. At least one survey form is usually received from 80 Kansas counties.



Threatened and Endangered Species

In 1975, the Nongame and Endangered Species Act defined an endangered species as any species of wildlife whose continued existence as a viable component of the state's wild fauna is determined to be in jeopardy. A threatened species is one which is likely to become endangered within the foreseeable future. That bill also charged the Department of Wildlife and Parks with conserving and managing these species.

Threatened and endangered species management involves making determinations on whether any species known to occur in Kansas is threatened or endangered because of changes in habitat or range, overutilization, disease or predation, regulatory mechanisms, or other manmade or natural factors. The Department must also establish rules, regulations and programs necessary for the conservation of these species.

The Department's Environmental Services Section protects critical habitats for listed species. Nearly 2,000 projects are reviewed each year to determine their impact on threatened and endangered species and habitat. Chickadee Checkoff has helped by funding many status surveys.

At present, Kansas lists 17 endangered and 29 threatened species. Endangered species include two mammals, six birds, four fishes, three amphibians and two invertebrates. Nine of these species are also listed on the national endangered species list. Threatened species include one mammal, three birds, seven fishes, eight amphibians, nine reptiles and one invertebrate. Two of these species are on the national threatened list.

To reach the Department's goal of improving listed species' status to the point that they can be removed from the lists, two objectives have been set: 1) To gather information and monitor the status and distribution of endangered and threatened species and the ecosystem they inhabit. 2) To develop and implement recovery and management plans for endangered and threatened species.

Funding for studies to achieve this goal comes from two sources. A state/federal cooperative funding agreement for projects on federally listed species and Chickadee Checkoff. Projects include monitoring whooping crane migration; observation of winter roosting/feeding areas of bald eagles; surveying rivers and streams to determine distribution trends in populations and habitat utilized by endangered and threatened amphibians, reptiles, fish and mussels; wetland surveys; habitat development for interior least terns and snowy plover; a study of prairie dog towns in Kansas in conjunction with the black-footed ferret program; and study on the gray bat in southeast Kansas.

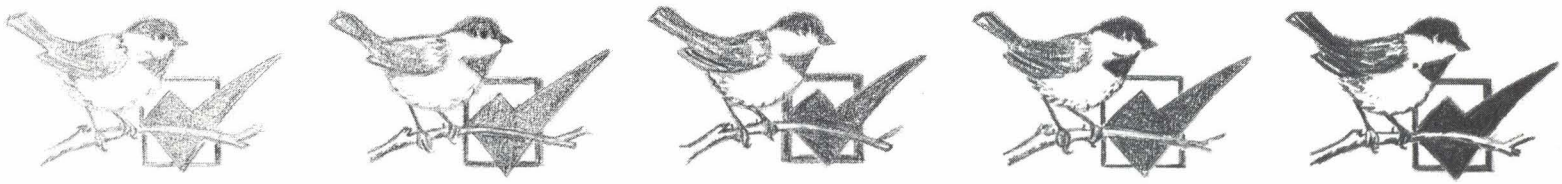
These studies and others like them are important for the future of our threatened and endangered species. We need to learn more about status, distribution and requirements of listed species so that we can identify and protect critical habitats.

least tern

Mike Blair photos

eastern hognose snake

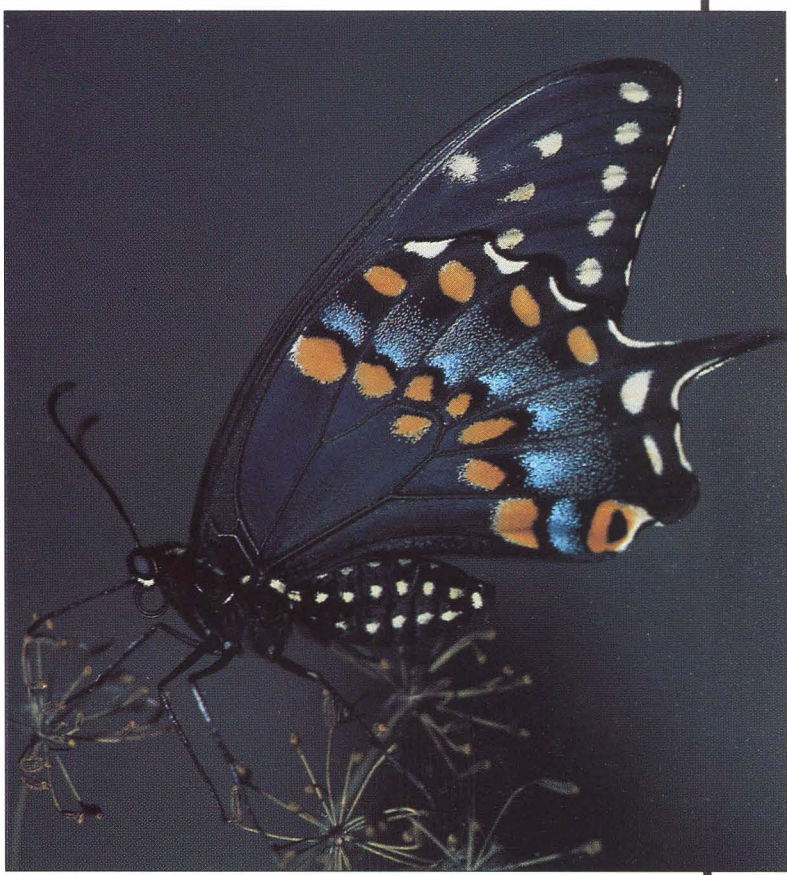
Threatened and endangered species are of primary concern to Chickadee Checkoff. The program has funded status surveys and research projects of threatened and endangered species.



The Future of Chickadee Checkoff

We have seen some dramatic changes in Kansas since 1980. The decade has been witness to the combining of the Kansas Park Authority and the Kansas Fish and Game Commission. It is certain the new Kansas Department of Wildlife and Parks will be at the forefront of some of its own recommended changes, some of which will affect the Chickadee Checkoff. Many of them will certainly affect how all wildlife are tended to in Kansas. Many states have seen their own Checkoffs reduced in stature by competing causes on the tax forms. Others have implemented additional means to generate millions of new dollars for wildlife. In the years to come, Kansas too will experience some revelations with new funding sources and lesser dependence on the Checkoff as a way to enhance nongame programs. In fact the word nongame will be going by the wayside. Poorly understood and somewhat exclusionary, the word "nongame" will slowly be replaced by more appropriate descriptors such as just "wildlife" or "watchable wildlife."

In fact, the Kansas future will see a marked increase in efforts to make wildlife viewing easy and educational. Kansas has much to offer the wildlife watcher. More than 400 species of birds live or migrate through the state. Situated in the Central Flyway, Kansas has some of the best shorebird viewing opportunities in the nation. With Cheyenne Bottoms and Quivira National Wildlife Refuge in the center of the state, we will see an ever increasing influx of birders and more nonchalant wildlife enthusiasts. Kansas is also home to some of the finest white-tailed deer in the country. Wildlife watching programs will focus on opportunities to view not only conspicuous species like deer, ducks and shorebirds, but attention will also be given to wildflower, butterfly and general nature appre-



Mike Blair photo

black swallowtail

Chickadee Checkoff is only part of the solution and the future of Kansas wildlife will depend on the development of alternative funding sources.

ciation. Nothing will be left out. Kansas is a midwestern wildlife mecca, and we are on the portal of a large window of viewing opportunities. People want to see wildlife, and they will be impressed by what the "Sunflower State" has to offer.

Some of the new programs waiting at the doorstep of the Department include a schoolyard wildlife habitat program. Assisted by Chickadee Checkoff, the thrust of this new effort will be providing the means for schools to create outdoor environmental and wildlife learning areas on or near their school grounds. The goal will be to increase students' appreciation and knowledge of wildlife and its relationship to habitat requirements.

Other projects will deal with continued reintroduction efforts of sensitive species with emphasis on threatened and endangered animals.

The Chickadee Checkoff, along with other sources will continue to fund additional research and management projects. There are many pressing problems waiting to be studied for wildlife conservation needs. We are seeing continued problems from pollution and habitat alteration. There are still many informational needs for sensitive species. Amphibian and reptile population trends do not look good. Wetlands are still dwindling even in the face of some major restoration and acquisition efforts. Conserving and maintaining the biodiversity of the Kansas landscape is critically important. Chickadee Checkoff will continue to help out and will be drastically needed in the absence of an alternative funding mechanism. Do your part. Make a check for wildlife. Mark the checkoff box on your state income tax form.

Mike Blair photo

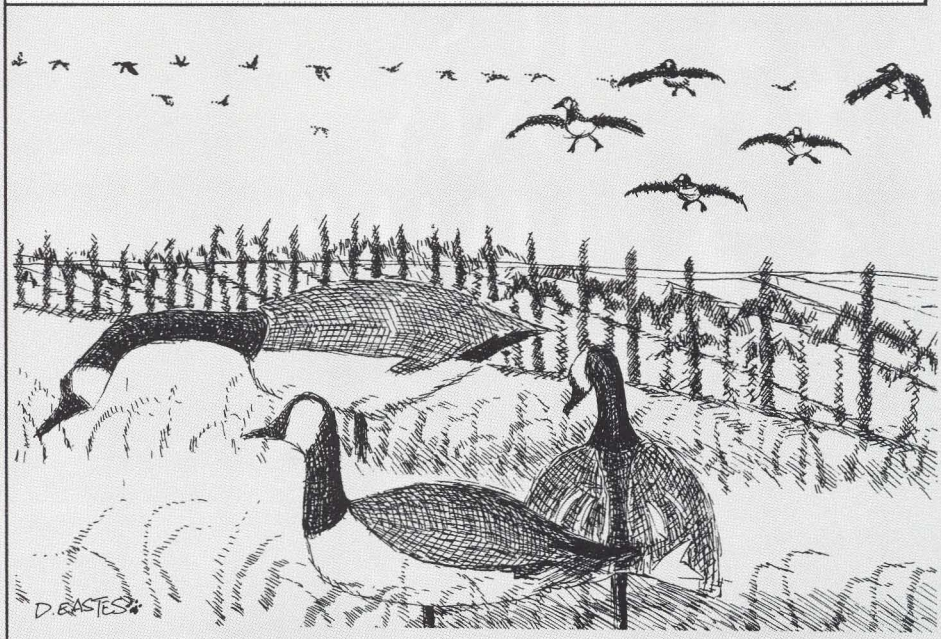
gray treefrog

Future Chickadee Checkoff projects will include a schoolyard wildlife habitat program, continued reintroduction efforts and various studies and surveys. Threatened and endangered species and amphibian population studies will be areas of emphasis.

Gene Brehm photo

gray myotis

HUNTING



JANUARY GEESE

With the recent concern over diminishing duck populations, more and more waterfowl hunters are turning to goose hunting. The severe droughts and habitat destruction that have hurt duck numbers in many parts of the country have had little effect on overall goose populations. In fact, geese are becoming agricultural pests in many areas. Many state and federal refuges reach their winter carrying capacity, so city parks that rarely had geese in the past are now holding large flocks.

Finding a place to hunt is not as difficult as many hunters think. Geese are creatures of habit, so look for areas near traditional flyways. Each morning they fly out to feed, sometimes using the same areas for weeks at a time. Find these "restaurants" by asking conservation officers and local residents. Then it's a matter of knocking on doors before the hunting day.

There are few events in the great outdoors more thrilling than decoying a large flight of geese into the blocks. With the proper setup, a little well-done calling and plenty of geese in the area, a goose hunt is not that tough.

The rule of thumb with decoys is the more you use, the better. This is especially true in hunting geese. Some hunters may use one or two hundred, but less will work if your area is not too heavily hunted. In some areas, hunters can get by with as few as a couple dozen. Decoys are expensive, but get the best and most you can afford.

One of the most often asked questions about decoys is "How do I arrange my decoys?" One of the easiest and most successful is a basic "U" formation. Place the decoys in the shape of a large "U" with the top pointed into the wind. If the wind changes, change the spread. The decoys should be about five or six feet apart. The blind should be at the bottom of the "U" and doesn't have to be elaborate. The key is to wear good camouflage and not move.

Geese also respond to calls readily. Practice on a good call is important. Tapes are available at sporting goods stores to aid in training. The biggest mistake made by beginners is calling too much. Keep calling to a minimum.

Geese are a lot larger than some waterfowlers think. A big Canada goose can weigh over twelve pounds, whereas a mallard drake will weigh about two-and-one-half pounds. Larger shotguns and shot sizes are preferable. Twelve- or 10-gauge shotguns choked modified are the choice of most successful hunters. BBs are the most common shotshells, but duplex 2s x BBs are often considered good loads by experienced hunters. Size T is recommended for geese at long range. Remember that all waterfowl hunting in Kansas requires the use of steel shot.

Waterfowl hunting, by its very nature, is done in some of the worst weather imaginable. Dressing properly can mean the difference between a good time spent afield or a disaster. Not only does the clothing need a realistic camouflage pattern, it has to be comfortable, weatherproof and warm.

A Federal Migratory Bird Hunting Stamp and a Kansas Waterfowl Habitat Stamp are required. Dark goose season runs through January 20. Light goose season runs through Feb. 17 in Unit One and through Feb. 3 in Unit Two. It is essential that hunters check the 1990 Kansas Hunting and Furharvesting Guide for bag limits and other details.

When chevrons of geese fill the autumn sky on their way south, it has special meaning to waterfowl hunters. With proper care and respect, this resource will continue to provide thrills and excitement for generations to come. -- *Remington news release*

HANDICAPPED HUNTS

What would you do if you were no longer physically capable of enjoying your favorite outdoor sport? Every fall, wheelchair-bound Kansans are faced with the prospect of watching their able-bodied friends go hunting. They are forced to stay at home because there are no facilities to accommodate their specialized needs.

Employees at El Dorado State Park have taken steps to remedy this problem. A blind especially designed for wheelchair-bound hunters was installed last fall in time for the 1990-91 waterfowl seasons.

Since little information on handicapped blind construction exists, park workers were forced to design the blind themselves. Fortunately, they were able to solicit input from Charles Lewis and Cliff McGee, two avid hunters who are wheelchair bound. Easy access, safety

and comfort were primary concerns. A nearby paved parking area and an abandoned road provided access. After picking the proper spot, workers built a blind large enough to accommodate two wheelchair hunters and their equipment, as well as a guest who can help with placing decoys or retrieving downed birds.

Poor circulation makes wheelchair-bound hunters extremely vulnerable to the cold. To solve this problem, the Coleman Company of Wichita supplied two catalytic heaters for the blind.

During the fall duck seasons, this program proved to be very popular with everyone involved. Wheelchair hunters who participated appreciated the opportunity to hunt on public land in facilities designed for their needs. Volunteers were excited about their opportunity to make new friends and help others enjoy the outdoors. *--Alan Stark, field supervisor, El Dorado State Park*

BOATING HUNTERS

While boating is not an activity usually associated with hunting in Kansas, many hunters, especially waterfowlers, use boats to hunt. Cold water and heavy, burdensome clothing can be a dangerous combination if certain precautions are not taken. The following tips are from the Arkansas Game and Fish Commission.

--Pay attention to weather conditions. Winter storms can create hazardous waves, even on small bodies of water.

--Don't wear hip boots or waders in a boat while travelling to or from the hunting area. Instead, wear low-top boots or street shoes that can easily be kicked off, and change into wade gear only after you've reached your hunting destination.

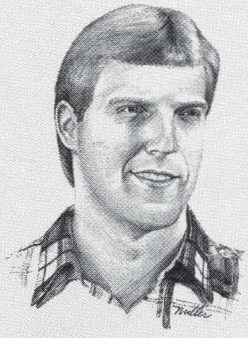
--Wear an approved personal flotation device when the boat is in motion.

--In case your clothing should get wet, carry an extra set of dry clothing sealed in a waterproof container.

--Be cautious when running at high speeds or outside marked channels. Winter flooding often results in floating debris such as logs, and hitting one of these can cause a boat to flip or sink.

Above all, remember that cold winter water is dangerous. Treat it with caution, respect and preparation. *--Shoup*

FOR WHAT IT'S WORTH



IT'S ONLY LITTER

by Rob Manes

I slowed my pickup almost to a stop, held the door open, leaned out and looked down as the dusty August road gravel rolled past. I saw the first can just as the last breath of air-conditioned cool escaped from the cab. Pressing on the brake pedal, I pulled the door shut momentarily against the dust. Then I opened the door and stepped down to the road, grabbed the first one and sent it to a crash landing in the truck bed.

"Who does this sort of brainless crap?" I wondered out loud. "Wish I could catch somebody doing it . . . just once."

I picked up another silvery aluminum can and tossed it with the first one. Two more cans glared at me 15 feet down the road, where the 12-pack box also lay, still unflattened. It went in the truck too, an impressive work of art, all metallic silver and blue, with super sharp graphics and a luring mountain scene. Beads of sweat appeared on my upper lip and forehead.

"At least the idiots didn't throw them in my front yard," I conceded. Five more cans rattled into the truck. "Was it their parents? Were *they* ignorant, amoral or just plain bad people?"

Probably not. Vacuum-skull disease seems to strike in spite of good parenting. Three more cans, and I got back in the truck and idled toward the house.

The cans were scattered across the truck bed, and I had to climb in to retrieve them. Again, the heat and mild frustration made me think of the sons-of-sub-humans who pitched the empty carcasses of their road party into the Kansas countryside. More sweat. I threw the lovely 12-pack carton in my trash can and stashed the aluminum for recycling.

Litter is no great environmental threat, but it seems like my state has more than its share of folks who can't get their travel trash home. A character in an Edward Abbey book suggested that *all* aluminum cans should be tossed in road ditches. The man-made veins could then be mined by future generations. Some people must have decided to create roadside repositories for all manner of resources -- paper, glass, rubber, plastic, you name it. Maybe it's a good idea.

So these cans in my road don't really hurt anything. It concerns me, though, because it reflects a mentality that is without environmental awareness or ethic.

How do people learn such asinine behavior? Is it genetic after all? Or is it acquired, like a disease of the central nervous system? Was this trash tosser stupid or callous? Is he a product of errant upbringing, or was he simply born without cerebral matter and left in a liquor store sack on the animal shelter steps? Does he know anything of non-point source pollution, global warming, ground water poisoning, critical habitat and such matters? I doubt it.

And a more important question: Does this earth of ours have a chance as long as his kind can drive, buy beer, marry and vote?

NATURE

WOODCOCKS & WOODS

New conservation measures to restore declining American woodcock populations were announced in November by the U.S. Fish and Wildlife Service (USFWS), the U.S. Forest Service (USFS) and the Ruffed Grouse Society (RGS).

All three groups will work to provide more information to private landowners on how to manage their woodlands for wildlife. Habitat management techniques for woodcock also benefit other species that prefer young forests, such as grouse, deer, turkey, rabbits and many songbirds.

A shorebird that has evolved to live in the woods, the woodcock is truly a wonder of nature. To adapt to its wooded habitat, the woodcock's eyes have migrated far back in its head, enabling it to see a full 360 degrees; in the evolutionary process, its brain curiously turned upside down. The woodcock also evolved short, rounded wings, so it can fly through dense cover. Its long, flexible bill enables it to probe for earthworms in soft soil.

The woodcock's habit of remaining motionless, camouflaged by its mottled-brown plumage, makes it popular with hunters who use bird dogs. Because of their spectacular courtship flights, woodcock are also favorites of birdwatchers. In springtime at dusk or dawn -- or all night when the moon is full -- the male woodcock finds a clearing known as a "singing ground" and launches into spiraling flight, rising 200 to 300 feet before plummeting in a zigzag to the ground. It follows this ritual by wooing the female with a display on the ground.

Woodcock breed mostly in northern states and Canada, although some breed in more southerly woods and even in eastern Kansas. In fall, they migrate as individuals, awaiting the arrival of weather fronts with favorable winds. They cannot fly long distances. Woodcock winter along the Atlantic coastal plain and in southern bottomland hardwood swamps, the largest number wintering in Louisiana.

Their migration and wintering habitats are threatened by urban and recreational development and the conversion of bottomland hardwood swamps to agriculture. *--Department of Interior release*

WILDLIFE TRIVIA

1. What is the name of the sensory mechanism located on the roof of the mouth of snakes and lizards?
2. How many muscles does a caterpillar have?
3. What bird lays its eggs in other species' nests?
4. What term describes animals active during twilight hours?
5. What fish species is the largest member of the minnow family?
6. What lizard looks like a snake?
7. What two ticks transmit Rocky Mountain spotted fever?
8. What is Kansas' smallest duck?

Answers:

1. Jacobson's organ.
2. 4,000.
3. Brown-headed cowbird.
4. Crepuscular.
5. Carp.
6. Western slender glass lizard.
7. Lone star and dog ticks.
8. Green-winged teal.

--Oklahoma Department of Conservation release

TYPES OF TALLGRASS

Five types of upland tallgrass prairie communities have been identified in Kansas. **Northeastern tallgrass prairie** occurs on loess (fine-textured, wind-blown sediment) soils in the Glaciated Region of northeastern Kansas, an area roughly bounded by the Kansas River to the south and the Big Blue River to the west. Due to their deep, productive soils, nearly all of these prairies have been plowed. This is the rarest of the five tallgrass types in Kansas.

Southeastern tallgrass prairie occurs in the Osage Cuestas of southeastern Kansas, with some also appearing in the Cross Timbers oak woodlands of the Chautauqua Hills. Many of the best examples are privately-owned hay meadows in leading hay-producing counties. Some tracts exceed 640 acres, and outstanding populations of several globally rare animals and plants occur on these prairies, including the prairie mole cricket, Mead's milkweed and western prairie fringed orchid.

Flint Hills tallgrass prairie is found in the Flint Hills region -- a north-south band of rolling hills extending from Washington County south into Osage County, Ok. The shallow rocky soils of the Flint Hills are an impediment to plowing.

Ranchers generally understand the importance of careful management of these prairies, and prescribed burning is used routinely to renew rangeland. The Flint Hills contain the largest remaining unbroken tract of tallgrass prairie in the world. Two Nature Conservancy preserves in Kansas protect examples of this natural community: Konza Prairie and Flint Hills Prairie.

Dakota Hills tallgrass prairie occurs in the eastern Smoky Hills of northcentral Kansas. Plants that grow on these prairies tend to be more drought tolerant than their tallgrass relatives to the east. Uplands around Kanopolis Reservoir offer an excellent place to see this prairie type.

Scattered throughout eastern and southcentral Kansas is **Claypan tallgrass prairie.** It is characterized by a dense, silty-clay subsoil layer below a loamy surface layer. This claypan, which is very hard when dry and firm when moist, results in considerable water runoff during thunderstorms and restricts the depth of plant roots. These soil conditions favor plants adapted to changeable, often dry environment. No large area of Claypan prairie is protected in Kansas. *--Kansas Nature Conservancy newsletter*

NOTES

NONGAME NOTES

Projects recently completed

--Backyard habitat demos

Three areas on Department of Wildlife and Parks lands have been planted to provide examples of what backyards developed for wildlife could look like. These sites are near our offices at El Dorado State Park, Sand Hills State Park (near Hutchinson) and the Milford Conservation Education Center at the Milford Fish Hatchery.

--Shawnee goes natural

Chickadee Checkoff funds helped to re-establish native prairie along the new roadside of the Shawnee Expressway in Kansas City.

--Natural history trail

Checkoff funds went to help re-establish native prairie grasses and wildflowers in Shawnee County and an interpretive trail on the grounds of the Kansas Museum of History in Topeka.

Other events

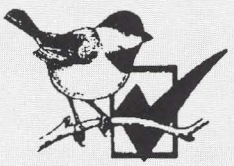
--1991 Bird Feeder Survey

The Kansas Winter Bird Feeder survey is Jan. 10-13. Area Audubon Christmas Bird Counts have also been conducted this winter.

Checkoff update

The most recent report of the Chickadee Checkoff performance for the 1989 tax year shows donations totalling $157,114 from 20,017 contributors. This is a little lower than 1988's total but above the ten-year average of about $150,000.

Over the ten-year history of the Chickadee Checkoff, more than $1.5 million dollars have been donated for wildlife in Kansas. *--The Field Glass*



INTERSTATE TRAIL

When *Backpacker* magazine first announced the ambitious project back in June, 1990, the new American Discovery Trail was to come across northern Colorado and follow the great Platte River route across southern Nebraska. The trail, sponsored by the magazine and the American Hiking Society and a number of industries, is to stretch from the Pacific to the Atlantic, connecting San Francisco and Washington, D.C. It will be designed to connect and supplement the three existing north-south trails along the Appalachians, the Rockies and the Sierra Nevadas.

Now the Coleman Company, one of the three sponsors, has taken the lead in bringing the trail across Kansas instead of Nebraska. On Sept. 6, they called together a formidable committee for a meeting in Topeka. The group included Secretary Robert Meinen of the Kansas Department of Wildlife and Parks, Vice-President Charles McIlwaine of Coleman, representatives of the Prairie Packers, the Sierra Club, the Kansas Trails Council, the Rails-to-Trails Coalition of Kansas, the Kansas Department of Transportation, the Johnson County Parks District, the State Historical Society and the Kansas Canoe Association.

The group began to make plans for assisting the study team, which has already moved across California and Nevada. The team rendezvoused with other trail leaders at the National Hikers Conference in Estes Park, Colo., in mid-October. *--Kansas Trails Council*

BELL GEOGRAPHIC

The National Geographic Society was founded in 1890 by Alexander Graham Bell. The Society's Explorers' Hall holds a permanent exhibit that tells the story of a hundred years of adventure and discovery. It also contains the world's largest free-standing globe. *--DU Legislative News*

STREAM VIDEO

A new 28-minute video about the Izaak Walton League of America's (IWLA) Save Our Streams (SOS) program can help citizens across the U.S. solve waterway pollution problems by becoming active stream monitors.

Funded by grants from Phillips Petroleum Company and America's Clean Water Foundation, the video teaches volunteers how to detect and test for pollution. The SOS biological monitoring technique is a simple, fun and scientific way for citizens to recognize and alleviate stream pollution problems. SOS monitoring techniques are currently used by thousands of volunteers across the U.S. to keep watch on America's waters.

The video is available for $15 from IWLA. To obtain a free video brochure or to order a copy of the video, write to SOS video, Izaak Walton League of America, 1401 Wilson Blvd., Level B, Arlington, Va., 22209. Enclose advance payment for the video, made payable to the IWLA. *--IWLA release*

SONGBIRD SEEDLINGS

A bundle of 20 tree and shrub seedlings offered through the Kansas Conservation Tree Planting Program means an affordable way to enhance your backyard wildlife habitat. These plants were selected for their contribution to wildlife habitat, and are suitable for any yard, regardless of size.

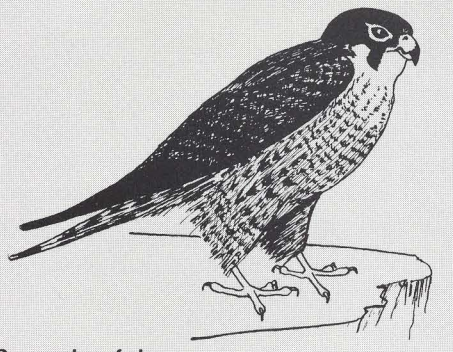
The bundles, called Songbird Bundles, are a cooperative project between the Kansas Department of Wildlife and Parks and the Kansas State Forestry Division. Cost of the bundles is partially financed by contributions to the Chickadee Checkoff Fund. The bundles cost $12 each and contain five midwest crab, three redcedar, three autumn olive, five Peking cotoneaster and four Nanking cherry.

Other varieties of tree and shrub seedlings are available through the Kansas Conservation Tree Planting Program. For additional information and an application form, contact your county extension office, the Department of Wildlife and Parks, the Soil Conservation Service or the Kansas State Forestry Division, 2610 Claflin Road, Manhattan, KS 66502. *-Shoup*

NATURES NOTEBOOK

by Mark Shoup

ENDANGERED SPECIES



Peregrine falcon

The peregrine falcon is one of nine Kansas bird species that are on the Kansas and U. S. Government "Lists of Endangered and Threatened Species." There are 45 Kansas animal species on these lists, as well as a number of plants. Animals and plants on these lists are protected. It is illegal to kill them or to destroy the places where they live, called their habitats.

Species are placed on the list because there are so few of them left on Earth that they are either in danger of becoming extinct or because they are close to becoming endangered.

Throughout Earth's history, species have become extinct naturally. This is rare and usually occurs over a period of thousands of years. However, because of dramatic changes in our environment made by man, hundreds of species have become extinct in recent years. Some scientists estimate that a new species becomes extinct each day because of man's activities, such as destruction of tropical rain forests in South America and Asia. Three of the more well-known extinct birds in this country are the Carolina parakeet, the Labrador duck and the passenger pigeon.

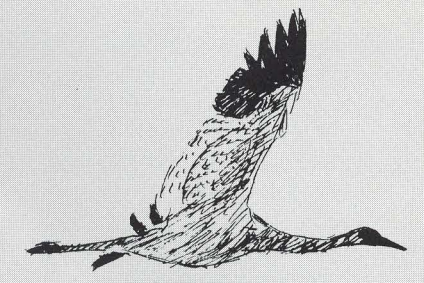
Market hunting was the cause of a few extinctions, but the most common cause of extinctions has been destruction of wildlife habitat. The expansion of cities, industries, and farms are the primary causes of habitat destruction.

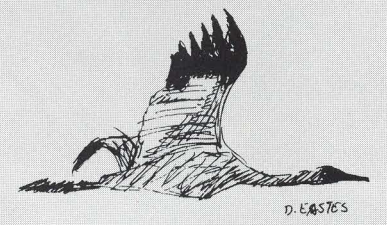
Contrary to some popular misconceptions, no species currently hunted by man is endangered or threatened. In fact, no species has ever become endangered or threatened by modern, regulated hunting.

The peregrine falcon is different from some endangered species. It has been endangered by the use of the pesticide DDT. DDT caused the eggshells of peregrines and some other birds to become so weak that the eggs could not develop. It is now illegal to use DDT in the U.S., but we still make it and sell it to South American countries to use. Since the banning of DDT, the peregrine has been making a slight comeback although it remains endangered.

Also called the "duck hawk," the peregrine is the swiftest of all birds of prey. It can dive at speeds up to 180 miles per hour. Its speed and agility allows it to prey on other birds. Because of this, peregrine falcons were prized by falconry hunters for generations. The peregrine is also the mascot for the U. S. Air Force Academy.

Black-footed ferret





Whooping crane

The peregrine has displayed a most remarkable ability to adapt in recent years. Its natural habitat is high cliffs in open country. However, peregrines have recently made homes in cities across the country. They make their nests on ledges high atop skyscrapers. From here, they have a ready supply of prey -- pigeons. Pigeons have become pests in many cities, so city dwellers are usually happy to see these beautiful, swift birds of prey.

QUIZ

1) What is the primary reason most species become extinct? a) pesticides, b) old age, c) hunting, d) habitat destruction.

2) Species never become extinct naturally. True or false?

3) Modern, regulated hunting has caused some species to be placed on the Endangered and Threatened Species List. True or false?

4) Which of the following is **not** an extinct species that once lived in the U.S.? a) Labrador duck, b) Carolina parakeet, c) dodo bird, d) passenger pigeon.

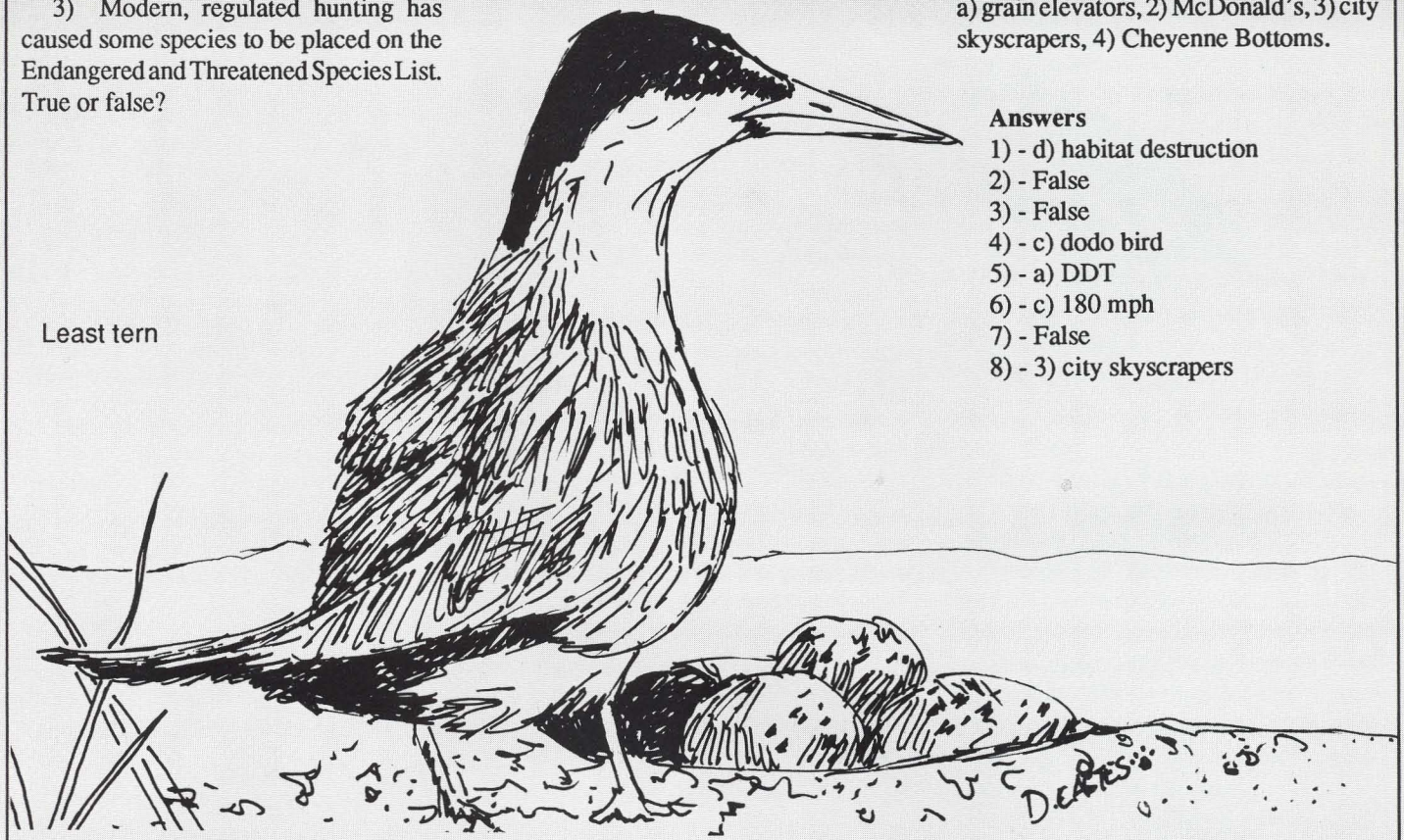
5) What caused the peregrine falcon to become endangered? a) DDT, b) lack of pigeons to eat, c) air pollution, d) habitat destruction.

6) The peregrine is the fastest bird of prey. How fast can it fly? a) 60 mph, b) 120 mph, c) 180 mph, d) 240 mph.

7) DDT is no longer used as a pesticide. True or false?

8) In recent years, the peregrine has found a place to call home. Where is this? a) grain elevators, 2) McDonald's, 3) city skyscrapers, 4) Cheyenne Bottoms.

Answers
1) - d) habitat destruction
2) - False
3) - False
4) - c) dodo bird
5) - a) DDT
6) - c) 180 mph
7) - False
8) - 3) city skyscrapers



Least tern

KANSAS THREATENED & ENDANGERED SPECIES

Birds:	
Bald eagle	(E)
Whooping crane	(E)
Peregrine falcon	(E)
Least tern	(E)
Black-capped vireo	(E)
Eskimo curlew	(E)
Piping plover	(T)
Snowy plover	(T)
White-faced ibis	(T)
Mammals:	
Black-footed ferret	(E)
Gray myotis(bat)	(E)
Eastern spotted skunk	(T)
Amphibians:	
Cave salamander	(E)
Graybelly salamander	(E)
Grotto salamander	(E)
Central newt	(T)
Dark-sided salamander	(T)
Eastern narrowmouth toad	(T)
Green frog	(T)
Northern crawfish frog	(T)
Northern spring peeper	(T)
Strecker's chorus frog	(T)
Western green toad	(T)
Fish:	
Arkansas River shiner	(E)
Pallid sturgeon	(E)
Sicklefin chub	(E)
Speckled chub	(E)
Arkansas darter	(T)
Chestnut lamprey	(T)
Flathead chub	(T)
Hornyhead chub	(T)
Neosho madtom	(T)
Redspot chub	(T)
Silverband shiner	(T)
Reptiles:	
Broadhead skink	(T)
Checkered garter snake	(T)
Eastern hognose snake	(T)
New Mexico blind snake	(T)
Northern redbelly snake	(T)
Texas longnose snake	(T)
Texas night snake	(T)
Western earth snake	(T)
Invertebrates:	
Flat floater(mussel)	(E)
Slender walker(snail)	(E)
Scott Riffle beetle	(T)

Kansas Cattin'

text and photos by Mike Blair
staff photographer

Elusive and wary, bobcats are challenging quarry. Hunters listen to baying hounds and follow through barely penetrable cover cats prefer.

Gene Brehm photo

The race was hot, and it was close.

Bruce Holt, of La Cygne, and I half ran, half slid down the timbered hillside and took positions among boulders of a rocky gully. The bawling of bluetick hounds rang through the trees, and any minute we expected our quarry to pass us on the way to a large metal culvert leading under the road and into heavy timber beyond. A long day of hunting hung in the balances . . .

We were running bobcats with dogs, an unusual but profitable sport in Kansas. The lack of snow made spotting the animals difficult, but several days of heavy fog had put the cats on the move and created good scenting conditions for the hounds.

Bobcats are common throughout much of the state but are often believed to be rare because of their elusive habits. Adults weigh from 10-40 pounds, but even a 25-pound cat is considered large. The average lifespan is 10-12 years in the wild.

Our hunt had begun at daybreak in a large, rock-rimmed hollow choked with timber. Such places are ideal for bobcats, since they combine excellent rodent populations with hollow trees and recessed ledges used by the cats for dens. Prior scouting had shown the area crisscrossed with cat tracks.

Bobcats leave little sign to indicate their presence, since they cover their kills and droppings with leaves. However, their tracks, often seen in mud along streams and game trails, provide a sure clue. The tracks are notably round in outline, differing from the triangular shape of coyote tracks. Also, where coyote and fox tracks typically show heavy claw marks on level ground, bobcat tracks do not, since their claws are normally retracted.

The canyon was quiet as Bruce and I took positions along the rock bluffs, while his brother Larry released the dogs a half-mile away. For a long while, only the rattling of oak leaves and wind through the cedars broke the silence. Then the bell-like notes of a baying hound wafted through the trees.

With growing intensity, the dogs unraveled a scent trail, sticking close

to a small stream in the canyon's bottom. A six-point white-tailed buck loped by us, far ahead of them.

"I'll guarantee you they're not on his trail," Bruce laughed. "Sometimes hounds will get into the bad habit of running jumped deer, but these won't. I train my dogs by penning them with a big billy goat for several weeks. After he rolls them a few times, they won't mess with deer."

Thirty minutes later, the dogs passed by us, moving steadily but still cold-trailing their quarry. We sneaked down the hill to meet Larry, who was following quietly behind them.

"I'm afraid they're on a coon," Larry said, studying the creek bank for tracks. "These dogs only run coons and cats, and if they hit a coon track made last night, they'll waste a bunch of time following it to the den tree. Let's give them a little longer, just in case."

Larry climbed the hill to catch up with the circling hounds, while Bruce and I continued along the trail. Sure enough, at a shallow riffle in the stream, the handlike prints of a raccoon clearly printed the mud where the dogs had crossed.

"We need to hit a cat," Bruce said, immediately striking toward the truck. "That coon will be in a hollow tree during the daytime. Besides, when you figure a bobcat's pelt might bring $75, and a coon will bring less than $20, we need to be running cats today."

We picked up Larry and called the hounds, then headed for a patch of timber near an old cemetery where the dogs had lost a bobcat a few days earlier. Releasing the hounds, we stood and listened for them to strike a trail.

"We ought to get this one," Larry said. "If they hit him, he'll eventually run to a metal tube through the road and try to get away like he did last time. He's no kitten — he's not likely to tree. He'll run all day, like that one did Friday, unless we can put some pressure on him."

The two Holts relived the Friday adventure, when a big cat had eluded them in a large area of brush and timber. They explained that bobcats are much harder to tree and pin than coons, since they might run through

Bobcats are plentiful but rarely seen. Tracks are often the only visible sign.

the treetops and return to the ground, costing the dogs valuable time in continuing the trail.

The dogs began to bawl in the distant woods, and again, Larry struck out after them. Bruce and I drove around the mile section and set up in a hedgerow that looked like a logical escape route.

Experience had proven this a successful hunting technique between the two men. Carrying a shotgun loaded with No. 4 shot, Bruce often guarded escape routes ahead of the dogs, while Larry carried a .22 magnum in case the cat should tree. Shots were aimed to render a instant kill, with as little damage to the pelt as possible.

As the dogs broke over the hill, Bruce motioned for silence. "Keep an eye out now. The cat will be about a minute ahead of them. If it sees or hears us, we'll never spot it."

Though the baying drew close, the sounds turned away and diminished up a distant draw. For an hour, the cat circled in the thick timber. Then the race faded from hearing.

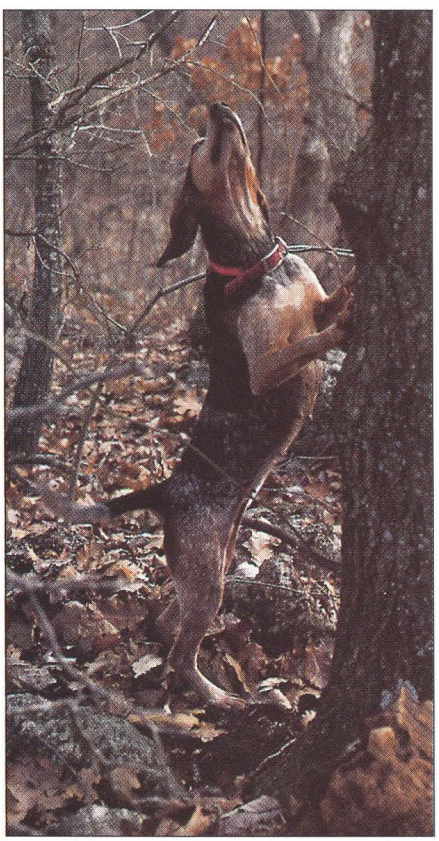
"Lets head for the tube," Bruce said moving toward the truck at a run.

Minutes later, we stopped on the road at the suspected crossing, and heard the dogs headed our way. Moving quickly, we dropped into the rocky gully, but found we were too late. Only 50 yards away, the dogs turned and started another direction.

While one man follows the dogs, another sits quietly along a logical escape route. Bobcats are tougher to tree than raccoons and often outsmart and elude dogs.

"The cat must have seen us." Bruce figured. "But at least we got it turned before it crossed the road."

Somewhere behind the dogs, Larry was still on the track. Now the cat was effectively cornered in a small triangular area, and our odds were increasing. We sat and waited.



The Holt brothers prefer to hunt just after a two-inch snow and don't hesitate to hunt in frigid weather. On this day, they were lucky and the big cat treed.

Ten minutes later, a weird yodeling in the timber signalled us to move in. "Either Larry's got him treed, or he fell and turned his ankle," Bruce grinned.

We reached the large cedar, where the hunter and five dogs held the cat at bay. A single shot from the .22 ended the chase.

It was 2:30 in the afternoon, and the dogs were worn out from a week of constant hunting. The brothers agreed that the day's running was over, and were happy to have caught a cat that eluded them before. Though they have taken as many as four bobcats in a day, many all-day races wind up empty-handed.

For best bobcat hunting, the Holts like a two-inch snow and cold weather. "Snow offers two big advantages," says Larry. "First, it tells you if a cat is there. You can walk through a brush patch, and if you don't see tracks, you don't waste time turning the dogs loose."

"But just as important, against a white backdrop, you can see a bobcat sneaking through the cover. Without snow, even when the dogs are running them well, you often miss cats that pass within gun range."

Clear, cold weather after a winter storm puts bobcats on the hunt for food, making it a good time to strike a trail with dogs. The Holts typically hunt in bitter weather, once loading the dogs at 22 below zero for a day of hunting.

As for habitat, dense, brushy areas are choice hunting sites; the more difficult to walk through, the better. Since a bobcat's range is large (18-28 square miles for an adult male; 5-12 square miles for an adult female), there is never a guarantee you'll find a cat at a given location. Dogs may be released at a number of sites without striking a fresh trail.

Brushy areas containing dozer piles and log jams near big timber are best bets to find a bobcat. The Holts recommend entering such places quietly as possible, and climbing a tree or dozer pile to offer the best possible vantage. Since cats are sharp-eyed, motionless waiting is essential. Cats eluding dogs tend to stay in a relatively small area. But discovery of human presence often drives a bobcat miles across country.

When trailing, cats tend to run a lot faster than a raccoon, and they'll travel farther. The Holts run bobcats during the day, when raccoons stay holed up, so they don't waste time on the trail of the wrong quarry.

But Larry believes that coon hunters sometimes encounter bobcats at night without ever knowing it. "Sometimes a smart coon will mark a tree and keep going, but usually the coon will be where the dogs are chopping. A bobcat often jumps from tree to tree, and can really confuse the dogs. If the dogs are barking hot and suddenly stop, you better watch. The cat will be in some tree nearby, usually well-hidden. This is especially true for old, smart cats."

The Holts advise setting up at likely travel ways to watch for running bobcats. Rock fences, or any brushy fencelines are natural runways. Lanes or natural trails through thick timber are also good choices.

"The cat will usually be some distance ahead of the dogs, so you have to stay alert," Bruce says. "They often appear within a few yards, and there is little time to shoot."

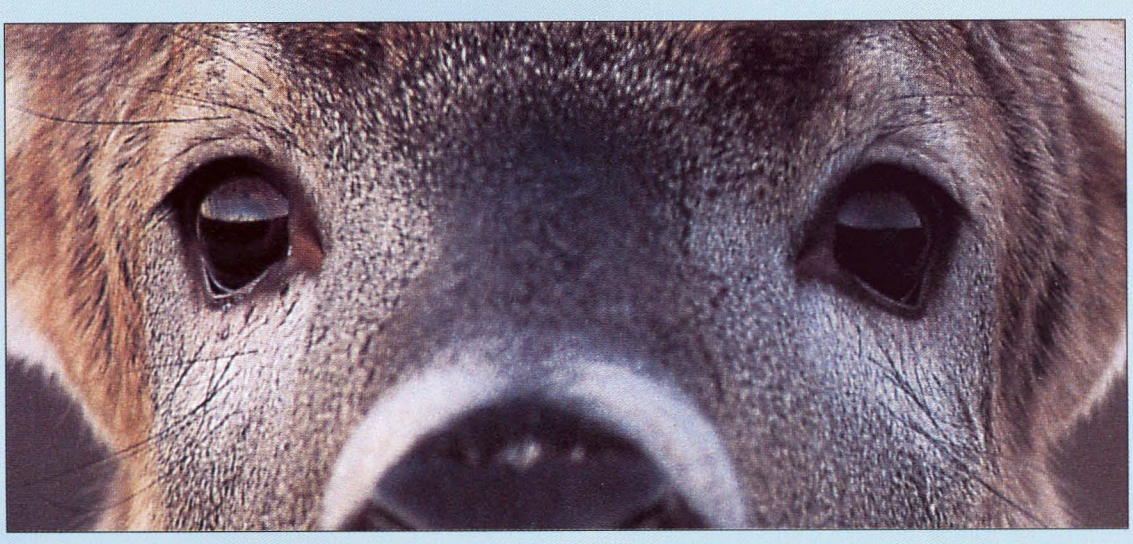
Kansans may hunt bobcats from noon Nov. 21 through midnight Jan. 31, 1991. The two most common hunting methods are with hounds or predator calling. A furharvester's license is required, and all bobcat pelts must be tagged within 48 hours following closure of legal hunting season.

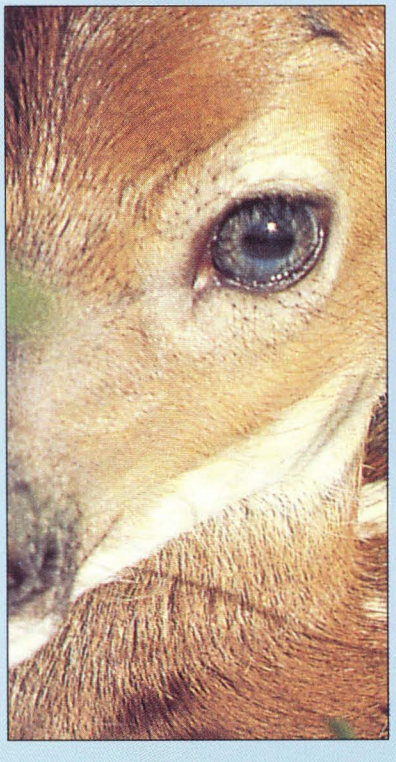
Gallery

Nature's Eye

by Mike Blair

The eyes of nature are complex and fascinating. They are tools of survival, helping predators find food, and prey to escape. Innocent in youth, they drink in the world, learning its ways. **Opposite page:** Autumn horsefly; 50mm lens on bellows, f/22, @ 1/60 sec. **left:** Great horned owl, 55mm micro lens, f/11, @ 1/125 sec. **right:** Adolescent girl, 105mm micro lens, f/16, @ 1/60 sec. **center:** White-tailed buck, 400mm lens, f/3.5, @ 1/15 sec. **lower right:** Swift fox kit, 600mm lens, f/5.6, @ 1/500 sec. **lower left:** white-tailed fawn, 50mm lens, f/16, @ 1/60 sec.





Will The Real Sparrow Please Stand Up

by **Kevin Becker**
conservation worker
Pratt Fish Hatchery

photos by Mike Blair

The English sparrow, pictured above, is what most people envision when sparrows are mentioned, but it is actually a weaver finch introduced from Europe. There are 26 species of true sparrows that frequent Kansas.

Years ago, when I first took an interest in birdwatching, I considered sparrows dingy-brown, obnoxious pests with no distinct coloration except for the male's black bib. Unfortunately, most people see the house sparrow as the sole representative of all sparrows. Actually, the house sparrow, or English sparrow, isn't a sparrow at all but a member of the weaver finch family.

Two species of weaver finches inhabit the U.S.—the house sparrow and the Eurasian tree sparrow. Both are aliens. In 1853, the house sparrow was introduced around Brooklyn, New York. This small weaver finch, native to eastern Europe, was introduced in several other locations and by 1940 ranged throughout the U.S. Originally released to control insects, the house sparrow was soon labeled a nuisance, as fast growing populations began preying on agricultural crops and competing with native song birds. Today, the house sparrow thrives in close proximity with man, in both rural and urban areas.

In 1870, the Eurasian tree sparrow was introduced in St. Louis, Mo. The species was forced into rural areas and suburbs outside the city when the more aggressive house sparrow moved in to the region in 1875. Today, the Eurasian tree sparrow is found within a 85-mile radius of St. Louis.

True sparrows are small, brown-colored birds, often decorated with colorful streaks and short conical beaks. Sparrows primarily eat seeds but will consume insects. There are approximately 26 species of sparrows known to frequent Kansas, each having its own specific habitat preference. Feather patterns on the head and breast must be closely observed to distinguish species.

The Harris' sparrow is a common winter visitor to Kansas, commonly seen at backyard feeders. It prefers shrubbery, hedgerows and open woodlands. The largest of true sparrows, the Harris' is easily identified by a black crown, black or blotched bib, streaked sides and pink beak.

The fox sparrow is named for its

tawny red plumage, although other color variations exist. In western states, the fox sparrow may be chocolate or gray. This sparrow can be distinguished by its dark breast spot and heavily streaked underbelly. Measuring 7 inches from head to tail, the fox sparrow is nearly as large as the Harris', and it prefers dense undergrowth and coniferous thickets.

Another sparrow donning a central breast spot is the song sparrow. Commonly found around dense riparian habitat and other brushy, moist areas through the winter, this secretive sparrow has a heavily streaked breast and striped face. In flight, the song sparrow is noted by a peculiar pumping motion in its comparatively long tail.

The Lincoln's sparrow scratches the ground for seeds and insects by kicking back with both feet. Rarely seen far above the ground, the Lincoln's sparrow prefers thickets and dense tangles near streams. By scattering food on the ground, this sparrow, with its buffy breast band peppered with delicate streaks, white belly, buff eye ring and gray face, can be attracted to backyard feeders.

Similar in appearance to the Lincoln's and song sparrow, the swamp sparrow is distinguished by its reddish cap, gray eye stripe, white throat and gray belly. During migrations, it can be seen around marshes and slow moving streams in the eastern half of Kansas. However, it may infrequently visit the state during the winter.

Perhaps the most commonly seen sparrow in the state is the tree sparrow. Arriving here in October, they are often observed along roadsides and woodlots in large flocks. Their diet is comprised of weed and grass seeds. Tree sparrows are characterized by their rufous cap, gray head and plain, gray breast with a dark spot in the middle.

My favorite sparrow is probably the lark sparrow, not only because of its beauty, but its companionship on the golf course. This sparrow is also common in city parks, fields and along roadsides. Keys to identification are distinct black, white and chestnut facial markings, rounded, white-tipped tail and dark breast spot.

The vesper sparrow also has white outer tail feathers like the lark sparrow, but its tail is notched rather than rounded. Other prominent markings include its gray-brown body, white belly and eye ring. The vesper sparrow is a common summer resident of western Kansas, usually found in dry pastures, fields and meadows. The word vesper denotes its habit of singing during the late evening hours.

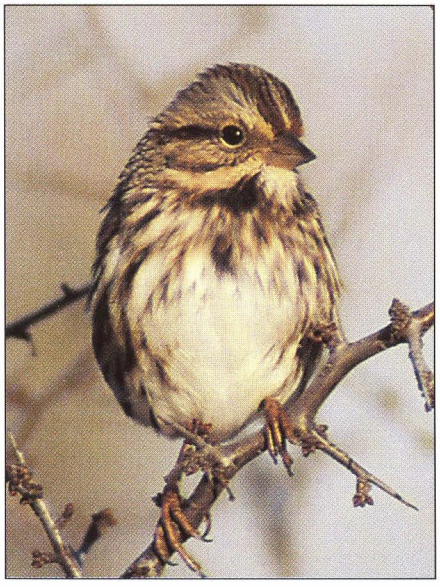
Savannah sparrows inhabit the state's shortgrass prairie during the fall and spring. When disturbed, they scurry on the ground until flight is necessary, usually landing in cover nearby. These sparrows are recognized by their yellow eyebrow, heavily streaked breast and stubby, notched tail.

As its name implies, the chipping sparrow spurts off a melodious song of uniformly pitched *chips*. A spring immigrant to Kansas, this sparrow favors lawns and grassy woodlands. Look for this sparrow's bright, rusty cap, white eyebrow and black line through its eye.

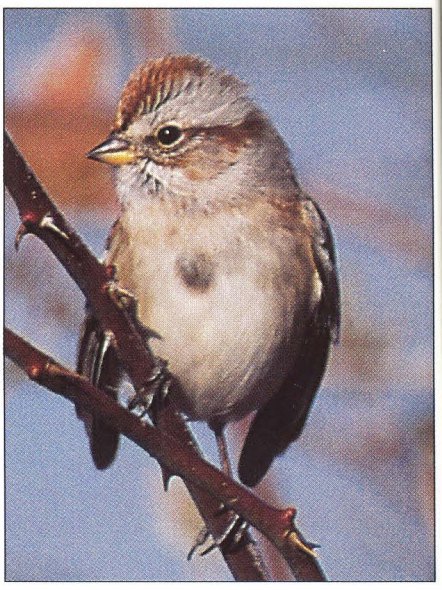
The buzzing sound of the clay-colored sparrow sounds a lot like an insect. Often seen in the open brushlands in the midwest region of the state, this sparrow resembles the chipping sparrow but has more of a

Harris

Lincoln's

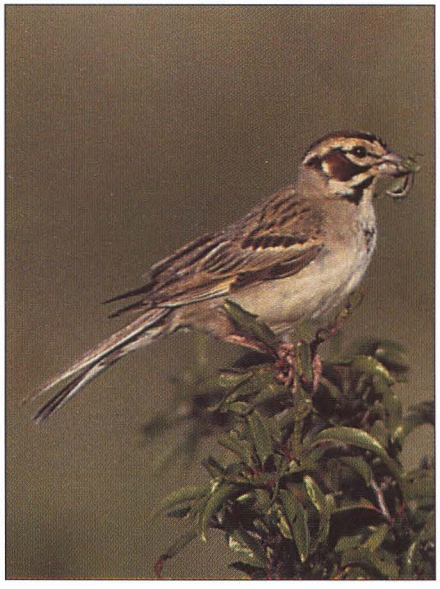


Song



Tree

White-crowned



Lark

Grasshopper

buff-brown appearance. Its brown-capped head has a pale center stripe outlined with black streaks.

The Brewer's sparrow resembles the clay-colored sparrow but doesn't have the lighter stripe through its crown or contrasting facial patterns. Also singing a buzzing type call, this sparrow is indigenous to the state's sagebrush country during summer.

Field sparrows are regular occupants of weedy fencerows and borders of abandoned fields. Often seen perched atop fenceposts or tall weeds, their call is a melody of well-defined whistles. Identification keys are its pink beak, unstreaked rusty cap and white eye ring.

Unlike many sparrows, the Cassin's sparrow has a peculiar habit of singing while in flight. Its dive-bombing or dipping flight pattern is also unique. It is a ground dwelling sparrow common to the arid grasslands of southwestern Kansas. This sparrow may be recognized by its plain breast, grayish-brown back and exquisitely streaked crown.

Grasshopper sparrows live in weedy fields, grasslands and hayfields. They build their nests on the ground near clumps of vegetation. With their rapid wingbeat, they elude predators by flying a short distance then disappearing into the shelter of brush or grass. These sparrows are noted for their insect-like song, mimicking that of a grasshopper. Their features include a flat head, short, stubby tail and yellow line between their eye and beak.

The Henslow's sparrow can be distinguished from the grasshopper sparrow by its olive head and streaked breast. It is common on the grasslands of northeastern Kansas where it frequently nests. This secretive sparrow can be heard singing a short series of *se-licks* while perched on the ground or below the tops of vegetation.

When fleeing from danger, the sage sparrow is noted for running low to the ground with its long black tail cocked high. This sparrow dwells on the sandsage prairie of western Kansas during the winter months. It is identified by its gray head and white eye stripes above and below its cheek patch. Other characteristics include a gray back, white underbelly, and dark breast spot. Another clue to identification is the sage sparrow's habit of twitching its tail while perched.

Native to the southwestern deserts, the black-throated sparrow is a very rare visitor to Kansas. In the Midwest, this sparrow may occupy grasslands mixed with yucca, cactus and mesquite during the breeding season. Comparable to the sage sparrow, it can be identified by its triangular black bib and black mask.

The Bachman's sparrow is another rare transient to Kansas, with less than five recorded sightings. This large sparrow is found in pine woods with dense undergrowth. The Bachman's has a reddish back, dark upper jaw and light lower jaw.

A lucky winter birdwatcher might catch a glimpse of the LeConte's sparrow near damp grasslands and marshes in southeastern Kansas. This sparrow is seldom flushed, usually running mouselike on the ground when threatened. A white center crown line, orange breast and orange eyebrows are distinguishing characteristics.

The sharp-tailed sparrow can be distinguished from the similar LeConte's sparrow by its gray center crown line, orange face and gray ear patches. Uncommon in Kansas ex-

cept during migration, this shy sparrow prefers marshy habitat.

An orange crown stripe sets the Baird's sparrow apart from the LeConte's and sharp-tailed sparrows. Fine dark streaks are evenly spaced on its buff colored necklace. The Baird's sparrow is an uncommon migrant to our state's grasslands.

White-crowned sparrows are relatively large sparrows abundant statewide around thickets, hedgerows, open woodlands and fencerows. Displaying an upright posture, these sparrows can be identified by their black and white striped crown, pale throat patch, pink or yellow beak and gray belly. Because they eat a variety of seeds, white crowns can easily be attracted to winter feeders.

Told from the white-crowned sparrow by its conspicuous white throat and yellow spot in front of its eye, the white-throated sparrow may be seen in dense underbrush of eastern Kansas. One may interpret the lyrics of its whistling song as "Old Sam Peabody, Peabody, Peabody."

The golden-crowned sparrow is indigenous to the west coast. Resembling the white-crowned sparrow, except for its gold cap, it is probably the rarest of all Kansas sparrows. If birdwatchers are lucky enough to see this species, it would more than likely be among a flock of white-crowned sparrows, which it often congregates with during migration.

Another rare visitor is the rufous-crowned sparrow. Preferring arid regions of southwestern United States, this sparrow infrequently ventures to the grassy hillsides of southern Kansas. Field marks to look for are a dark red crown, white eye ring, black whisker stripes and gray underparts.

Of the 26 species mentioned, none remind me of the house sparrow which many people despise. With a little patience and help from a field guide, one can learn to distinguish this diverse group of birds. Just remember, each sparrow possesses some type of identifiable characteristic such as preferred habitat, appearance or behavior.

Le Conte's

Field

Chipping

HIGH GROUND

by Marc Murrell

A Predator With A Conscience

"Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. That is to say, you cannot love game and hate predators . . . the land is one organism."

Aldo Leopold

While reading an article that condemned bowhunting, I found it hard to understand the author's emotional reasoning. It was stated that hunting was cruel, inhumane and stressful on the prey being hunted. I wondered if the author had ever observed a natural ecosystem. Predator/prey conflicts occur every day, and it's not always pretty.

Man is a predator and has been for thousands of years. Prehistoric hunting tools consisted of spears, clubs and bows and arrows. Hunting parties were large, and prey would be stalked and circled until they were close enough for the kill. Even with primitive tools, prehistoric man was capable of efficiently harvesting prey for food, pleasure and survival.

Modern human predators have the benefit of technology. Guns with scopes capable of taking game several hundred yards away were invented. Innovation brought us the compound bow with the ability to shoot aluminum arrows 250 feet per second. Hunting tools have been modified to the point that we can now harvest game for food, pleasure and survival much more efficiently than prehistoric man.

But what happens when the shot from gun or bow is off the mark, and the result is not fatal? It happens with all predators. So how does man compare to predators such as lions, bears, snakes, hawks or songbirds?

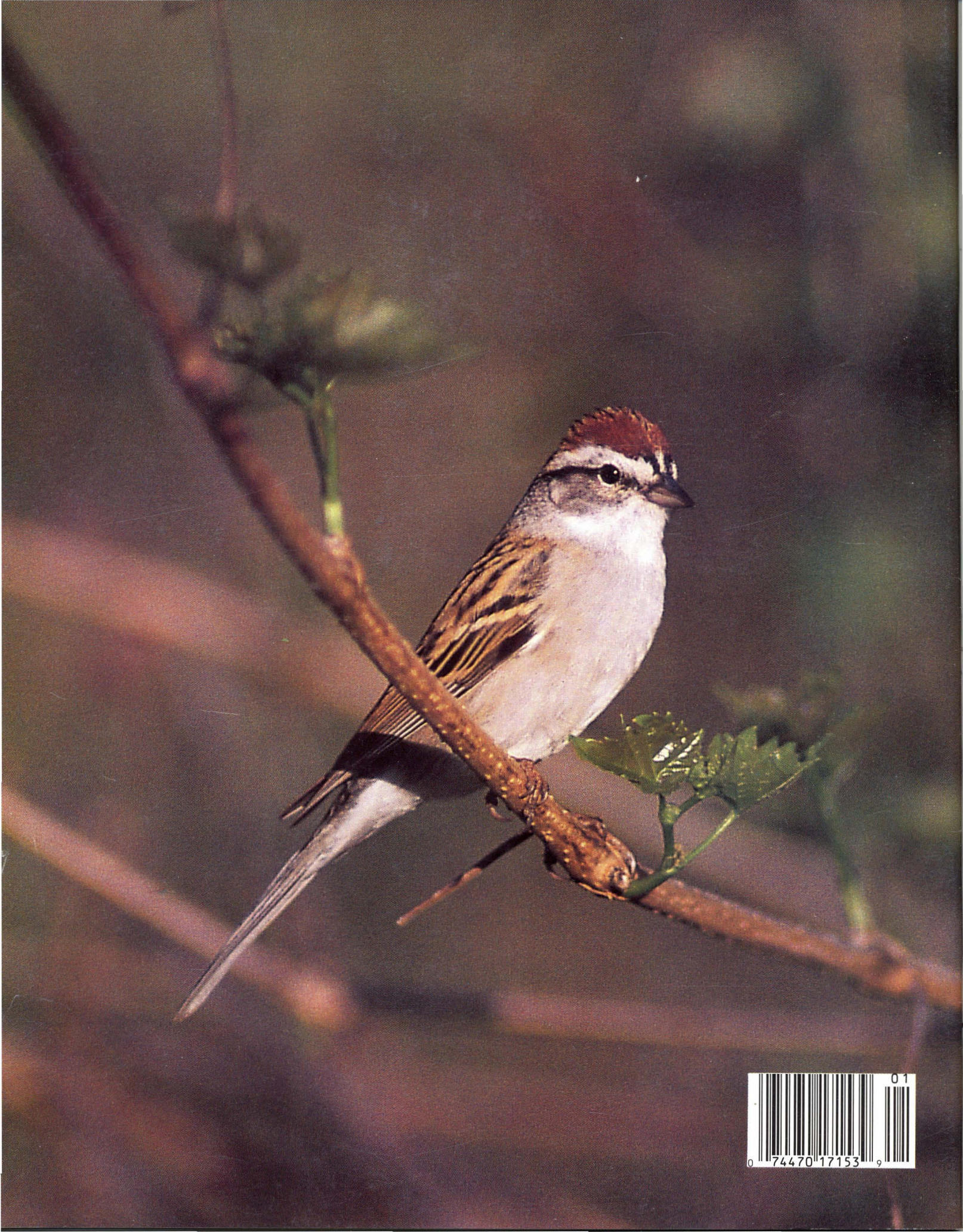
"Natural" predators miss on occasion as well. Mountain lions lying in wait for deer sometimes miss. The deer, depending on the nearness of the miss, may recover in a day or it may eventually weaken and die. The mountain lion feels no apparent remorse and moves on to find another prey.

A robin searching the ground for worms sometimes misses. Many times the worm is ripped apart with half left in the ground. The robin feels no remorse and moves on to find another meal.

"Natural" predators do not worry about suffering. The natural world is one of survival. Bears grab fish from streams, carry them to shore and begin tearing flesh from the bones before the fish is dead. A pack of wolves may chase a moose calf for hours before bringing it down, then begin eating it before it is dead. It's not a matter of cruelty but rather one of survival. That's how nature works.

Herein lies the difference between man and "natural predators." Man does have a conscience, one that requires every effort to make a quick, clean kill. If the prey is not killed cleanly, every effort is then made to recover it. The gut-wrenching feeling of wounding and losing an animal is not soon forgotten.

Other than these emotional feelings, man is not different from "natural" predators. Predators (including man) are a fact of life in the wild kingdom, and they play a vital role in the food chain. Without predators, the chain is incomplete and the result is not only gruesome, but inevitably the demise of the ecosystem.



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