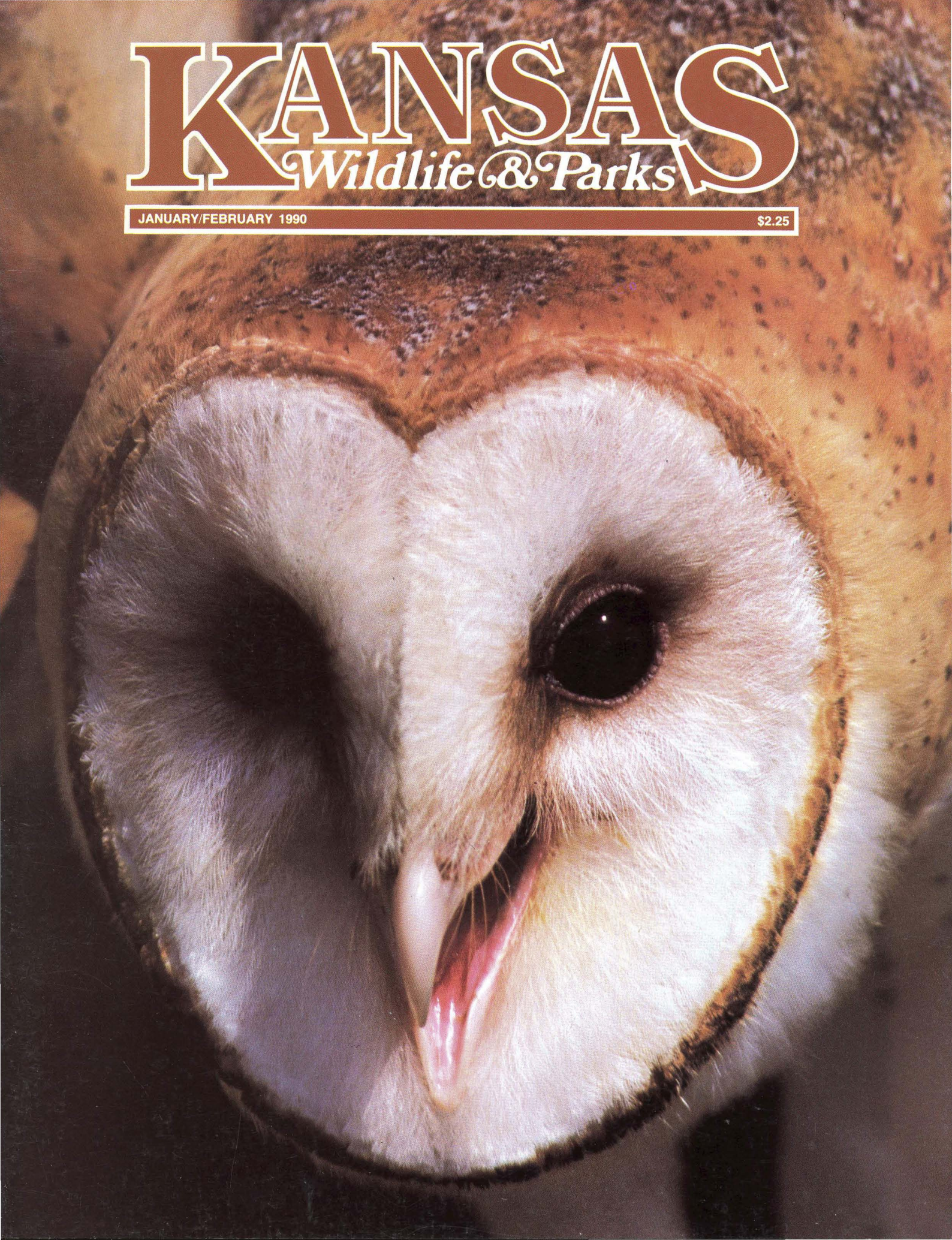


# KANSAS

*Wildlife & Parks*

JANUARY/FEBRUARY 1990

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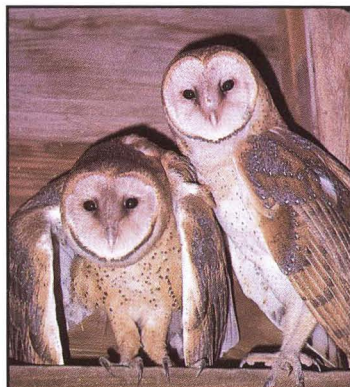
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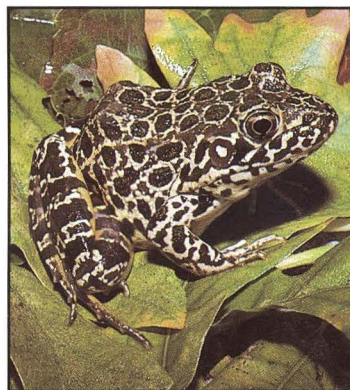
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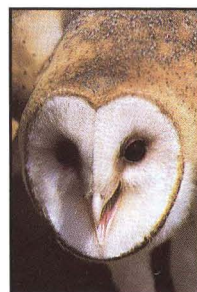
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**About the Covers**

**Front:** A barn owl hisses against intrusion at the Prairie Raptor Rehabilitation Center near Tescott. Mike Blair photographed the scene with a 400mm lens and extension tube, @ f/9.5, 1/125. **Back cover:** A bobwhite quail huddles against the cold following a December ice-storm. Mike Blair photographed the scene with a 600mm lens, f/8, @ 1/125.

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

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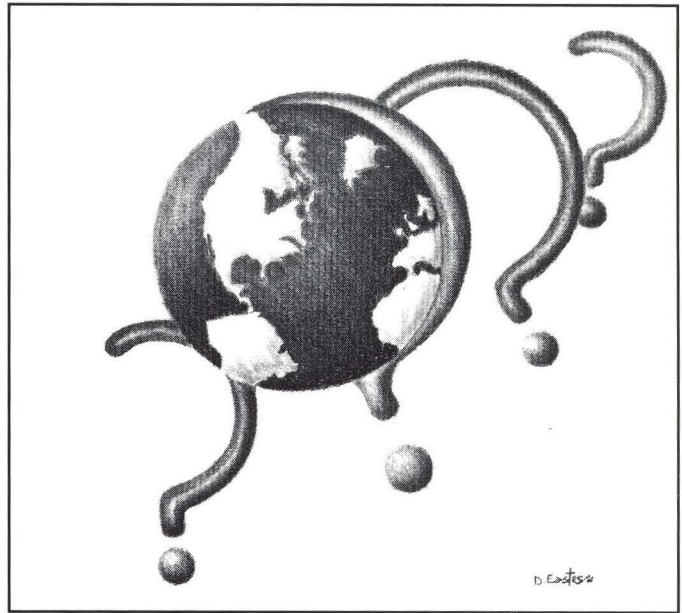
# 1990: Decade Of The Environment

**W**e Americans have always been dreamers. And perhaps Kansans have fit that mold as well as any. We dreamt of a good life on the prairies; of prosperous farm land, bountiful wildlife and rich natural resources. That dream was realized by our forefathers and is still being realized today. But take a moment and dream of the future. Dream of life for your children, your grandchildren, and your grandchildren's children. Dream of the ideal.

Ideally, our children will enjoy clean air and water. They'll witness flocks of ducks landing at Cheyenne Bottoms; they will see white-tailed and mule deer, turkeys and golden eagles. Our children will be able to walk along a tree-lined stream and wade its flowing waters. I hope my children can watch the sun set behind a rolling grassland of waving big and little bluestem grass, switch grass and Indian grass. I've spent most of my life enjoying such things, and it's only right that future generations have the same. But it won't just happen.

At the National Wildlife Federation's 53rd Annual Meeting last March, President Jay D. Hair and delegates proclaimed the 1990s decade of the environment. The environment has gathered much attention in the last five years. In fact, polls show that during the 1980s, American people believed that protecting the environment was a major issue. We have many problems to deal with such as global warming, nuclear waste, chemical pollution, loss of wildlife habitat and more. It's refreshing to see these issues on the news. Not that these problems will be solved because they are now media issues, but at least the public is made aware.

What will happen in the 1990s? What if news stories about the environment suddenly fall from fashion? Will the American people forget? I hope not. The battle hasn't even begun. Concerned individuals and conservation groups must work harder than ever now. In Kansas we have our own environmental problems to solve as well as the national threats. Our streams are in danger of drying up, ground water is being contaminated, wildlife habitat is being developed and chemical pollution is threatening. Environmental threats may not be as visible



Dana Eastes illustration

here as in more populous regions, but they are here and must be addressed.

Let's not let the momentum of environmental awareness die in the 1990s. Keep it alive with involvement and concern. April 22, 1990 is the 20th anniversary of Earth Day. You can get involved by recycling waste, conserving water and voicing concern when environmental issues come up. April is also Kansas Wildlife Heritage Month. Conservation organizations in the state will conduct events to foster awareness and appreciation for one of our state's most precious natural resources: wildlife.

Our environment may be at a crossroads. The action we take through the next decade will ultimately decide what kind of world we pass on to future generations. Help make the dream come true.

**Mike Miller**  
Editor



# *Bird of The Night*



The barn owl spends its days in dark, sheltered roosts and hunts in the dark of night, so it may surprise you to learn that barn owls live nearby, maybe in your own barn. Author Mike Blair spent countless summer nights photographing a barn owl family and learning more about this fascinating bird.

text and photos by Mike Blair  
staff photographer

**T**he world of barn owls is one of darkness.

Like vampires dressed in formal white, barn owls shun sunlight. By day they wait in motionless sleep, hidden in gloomy chambers. But when night spreads its lightless cover, they emerge to resume their quest for blood.

Man is a creature of the day, and may dread such different habits. But barn owls are important to Kansas, for like other raptors, they check the populations of potentially harmful rodents. Adapted to darkness, barn owls are efficient guardians of the night.

Barn owls are unique among owls, both in appearance and habit. Adults are white with a monkeylike face. They have brown eyes, rather than

yellow ones more typical of the owl family. Their strange appearance and use of old buildings are the source of many haunted house tales. The clatter of owl feet on a wooden roof, the owl's screeching call and its soundless, ghostlike flight might explain many ghost sightings.

They are excellent hunters, with one bird equal to seven cats in catching mice. Their vision is excellent day and night. But it is their remarkable asymmetric hearing that allows them to strike prey in total darkness. Ears are offset vertically on a barn owl's head, so it hears the same sound from slightly different angles. This provides audio depth perception and allows accurate gauging of strikes even when the owl can't see.

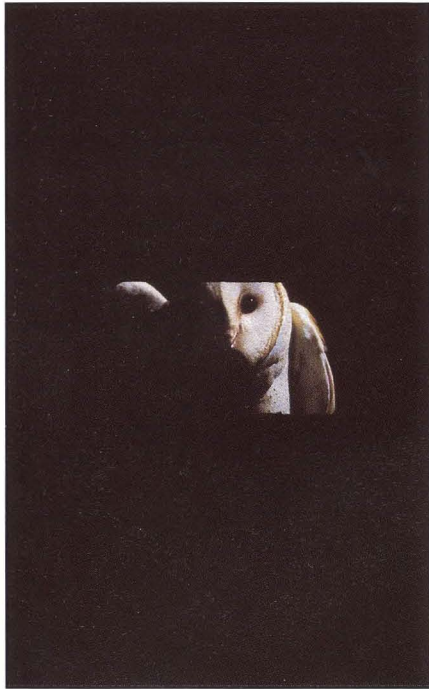
Hunting efficiently is a must, since barn owls raise large families and may produce more than one brood



Flying by night, a barn owl is an excellent hunter equal to seven cats in catching mice.



During the day barn owls retreat to dark, gloomy roosts, usually old barns or abandoned houses. The barn owl pair the author photographed actually roosted a mile from the nest, which was secure in a wooden granary.



See a ghost? Because of eerie nighttime appearances, barn owls might be the source of ghost stories.

per year. Five or six eggs per nest is common, but there may be as many as 11.

Young barn owls are an odd assortment due to their staggered hatching schedule. Most birds lay a full clutch of eggs before starting incubation so that all hatch at once. But barn owls incubate from the start, laying a single egg every two days until the clutch is complete. Hatching occurs in similar progression, creating a two-week age spread. This poses no problem unless food is scarce; then the oldest owlet may kill and eat the youngest.

Nestlings have voracious appetites and typically consume 100 rodents apiece before fledging. This keeps adult barn owls busy, as a large nest may require 1,000 feedings during a nine-week period.

Last summer, I observed a nest of barn owls in a wooden granary in

Barber County. From June through August, I spent many nights photographing the seven owlets. Starting when the last chick hatched, the vigils continued until fledging occurred.

Whether by plan or accident, the granary afforded excellent protection for the nest. A small hole in the roof served as the only entrance, excluding all predators. The building was warm and dry. The crude nest was situated in a bin corner on the dry concrete floor.

As the nestlings grew, they had ample room to practice flight in the granary. Even so, they could not escape through the hole in the roof until they were expert fliers. Hunting lessons were also convenient, since the granary was teeming with mice. Normally, parent barn owls spend daylight hours with their young, should they need to defend them. But the nest site was so secure



Barn owl young are an odd assortment. Instead of waiting to incubate when the clutch is complete, barn owls incubate as eggs are laid. This results in a two-week age spread among the young in an average brood.

that the adults roosted a mile away in a larger barn. This unique situation allowed me to prepare for nightly photography without disturbing the adults.

The barn owl nest was fascinating, though filthy and smelling of dead flesh. It was usually dark before the first parent arrived with a thud on the wooden shingles. This signal was instantly greeted with shrieks and hisses, as owlets strained for feeding position. Momentarily, a rodent dangled through the ceiling, and then the adult squeezed through. A few wingbeats later, the parent dropped its prey and returned to work. Between the squabbling of the young and the flight of the adult, a cloud of dust from crushed owl pellets mushroomed throughout the granary



Each night at the granary began the same: just after dark a thud was heard on the roof and then an adult owl dangled prey through the entrance hole.



**Opposite page:** A parent owl squeezes through the small opening and swoops down to the nestlings. **Above:** The owls brought kangaroo rats, cotton rats, voles, mice, and on rare occasions, a bird. On calm nights, the owls exhibited deadly hunting skills bringing prey every 15 minutes. Efficient hunting is necessary since a brood might require 1,000 feedings in a nine-week period.





Unable to feed itself, a newly hatched owlet is assisted by a parent. Older nestlings swallow small prey whole. The feeding routine was always the same: young birds huddled in a corner until a parent approached, when the owlets jockeyed for position. The young emitted loud slurping hisses when hungry, which could be heard at least 100 yards away from the granary. In the last photo, the young are just days away from fledging. On the opposite page, two young owls have flown to the rafters in the granary. With the small entrance hole in the roof, the young had to be expert fliers before they could leave their protected home.



with each feeding.

Owlets expressed their hunger with loud, slurping hisses chorused every few seconds. One still night, I went outside to see how far the sound carried and was surprised to hear them from 100 yards away. Given their keen hearing, parent owls could hear much further.

At dusk each night, the young called incessantly for food. But after several hours of frequent feedings, the calls gradually subsided. By 1 a.m., the owlets were usually full

and often slept for several hours. Begging and feeding then resumed toward dawn.

Windy nights made hunting poor, but calm, cool nights allowed the owls to exhibit their deadly skills, and they returned with prey every 10 to 15 minutes. Prey included kangaroo rats, cotton rats, voles, mice and rarely, birds. All prey I observed were delivered dead, though in a previous nest I photographed, prey were sometimes only paralyzed.

Barn owls are disappearing

through much of their range, due to the removal of preferred nesting and roosting sites. As barns, abandoned houses, old city buildings and even old timber are removed, the owls lose needed habitat.

Currently, barn owls are not on the Kansas Threatened and Endangered Species List, as they are in some states. They seem to be holding their own, and that's good news for Kansas. In spite of their unusual ways, barn owls are a beneficial and fascinating part of Kansas wildlife. ♡







# Parks And Public Lands: Places To Be Young In

by **Rob Manes**  
*wildlife and parks program specialist*  
Pratt

photos by **Mike Blair**

The Parks and Public Land Division manages more than 400,000 acres of land for public recreation. Under new direction, the division has set out to provide diverse and quality outdoor recreation for a wide range of users.

**K**ansas was paradise—Eden to its native people and early European invaders. Its sweet springs, gentle autumns, and the generous yield of its soil and bountiful wildlife must have compensated for the suffering its tortuous summers and winters inflicted. Early white men's accounts of the pre-tractor prairie tell of vistas gentle, inviting and truly lovely.

Modern Kansans are often hard-pressed to find escapes from their harsh technojungles. The industrial revolution, the steam engine and high-carbon steel have allowed man to carve his natural surroundings until only minute vestiges of wild places remain.

When the Kansas Fish and Game Commission and Park and Resources Authority were wed by Governor Mike Hayden's 1987 reorganization order, it placed 400,000-plus acres under the new Department of Wildlife and Parks' management. The Department's approach to managing these lands contains components of both former agencies' philosophies, but is revitalized by a new perspective and the combined talents and expertise of a new personnel combination.

The Department is seeking ways to provide diverse and quality experiences for its constituents. It is also striving to attract new ranks of hunters, anglers, campers and other

outdoor enthusiasts. Many people who avoided Kansas parks or wildlife areas in the past did so because the type or, perhaps more often the quality, of experience they sought was only available elsewhere. The Department's Parks and Public Lands Division is charged with luring those people back.

More than any other branch of the Department, the Parks and Public Lands Division personifies the combined agencies—both in people who

staff it and the lands and waters it manages. The professionals responsible for managing these resources reflect a blend of former park and wildlife managers, as well as new people with new insights.

The Department's new head land manager, Parks and Public Lands Division chief Todd Graeff, is optimistic. He sums up his bright outlook regarding the people who work for him and the resources they manage:

"One of the things that struck me

when I first came to work in Kansas was the quality of its people. They've proven to be among the most conscientious, hard-working folks I've ever encountered. The people in this agency—from both sides of the reorganization—are top-notch pros, people who get the job done. From what I've been able to observe, the same is true of the Department's other divisions.

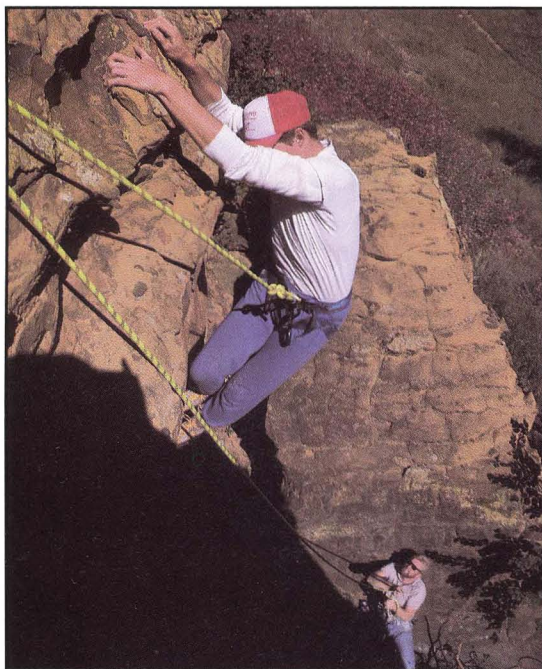
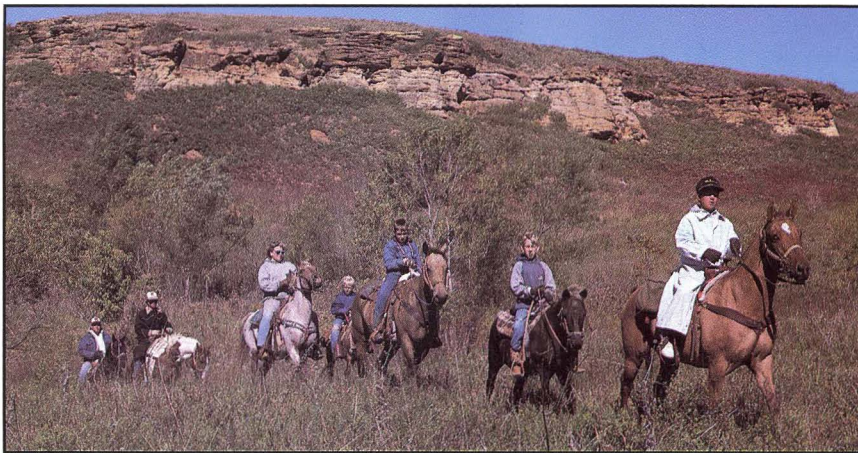
"We want to provide Kansans with better facilities and more opportun-



Public land users will see a new emphasis on natural areas, less mowed areas and enjoy more interpretive nature trails such as this one on the scenic Sandhills State Park near Hutchinson. Public lands will be managed to offer a variety of quality experiences.



While existing public land opportunities will still be available, the new plan includes areas for primitive camping, equestrian trails, hiking and learning more about Kansas natural resources. Wildlife and Parks wants to lure new people to the public lands and offer each interest group quality experiences.



ities to know the true natural Kansas. People will soon begin to see fewer areas under intensive management, but the areas that we do manage for intensive use will be better developed and maintained.

"I don't want to give the impression that we're going to change everything. We're not going to abandon our existing friends, but we hope to serve them better and attract new ones."

The Department inherited both problems and opportunities with its properties. The majority of those acres are actually owned by the U.S. Army Corps of Engineers and licensed to the State. Most of the problems and liabilities are attributable to insufficient budgeting and lack of planning. So, these two items are top priorities.

Many vandalism problems, at state fishing lakes for example, can be linked to poor development and maintenance of restrooms, picnic areas and other facilities. People who would have used these properties responsibly and helped to police others using them have simply stayed away.

State parks on the other hand, were generally adequately maintained, but they too have served a narrow range of users. Many of the intensively managed park areas provided little or no opportunity for enjoyment of the state's natural flora and fauna. Wildlife habitat was lost to intensive mowing programs and large domestic grass lawns.

Serving a diverse group of users presents many challenges. Shooters want shooting ranges, trail riders want equestrian trails, hikers want hiking trails, naturalists want nature trails, wilderness campers and hikers want unaltered lands, boaters want better access facilities, anglers want better fishing, and hunters are desperate for more places to go afield.

The state's parks, fishing lakes, wildlife areas and other public properties will begin to show change, but only after a thorough planning process. Planning will have a bottom-up orientation, allowing field personnel and constituents to drive the system. New plans will be holistic in nature, considering aesthetics as well as convenience, wildlife as well as people, and environmental integrity as well as accepted management practices.



Intensively managed areas will still be maintained for those who enjoy the public campground, but camping areas will provide more privacy between sites.



Wildlife and environmental integrity will be considered in development on public lands. Land users will enjoy more opportunities to view wildlife in natural settings such as this young night hawk.



Each property will have its own custom-tailored plan, addressing the needs of its unique assets, limitations, users and potential users. One of the key considerations in plan development will be diversity of management practices and land uses.

Camping facilities will provide more privacy between sites, and tent campers will find more areas to enjoy the outdoors in undeveloped solitude. Parks will feature more native prairie. Many of the Department's facilities will offer true get-away-from-it-all opportunities, in wilderness-like surroundings. Hunters, anglers, campers, bird watchers, and others who want to get out of their cars and walk far away from man-made "improvements" will find more escapes.

The state's parks and wildlife areas will begin to reflect an emphasis on education, with outdoor "classrooms" on many properties. Nature trails

will be developed, featuring interpretive signing to help visitors understand their environment. And summer nights in Kansas parks will offer both peaceful solitude and educational presentations by naturalists hired specifically to inform and entertain park users. Some large properties will also receive more formal education centers.


Department properties will reflect an emphasis on quality in every facet of use. On some areas, top-notch specialty hunts will be provided by allowing a limited number of hunters on certain days.

The Parks and Public Lands management philosophy also recognizes the importance of youth in the future of wildlife management. Special youth hunts for deer, dove and other species may be offered in certain areas, and some public lands will feature ponds specifically managed for youngsters' angling success.

Major events, such as concerts and field trials, will be better managed to reduce user conflicts and provide better services to the people involved.

Many of these prophecies are already being fulfilled. The Department has, in the last 18 months, purchased 2,400 acres, mainly associated with wetlands. The new acres include expansions of Jamestown, Texas Lake and Neosho wildlife areas. Other new facilities feature top-quality wildlife habitat in Sumner, Pratt, McPherson, and Finney counties.

Aldo Leopold summed the importance of such lands: ". . . I am thankful that I shall never be young without wild places to be young in. Of what avail are forty freedoms without a blank spot on the map?"

Leopold's is a vision to be reflected in Kansas' precious public land resources. 



# What's New At Cheyenne Bottoms

by Karl Grover

*field supervisor*

*Cheyenne Bottoms Wildlife Area*

**W**hat's happening at Cheyenne Bottoms Wildlife Area? Since the last article appeared ("Cheyenne Bottoms: Jewel of the Prairie" Page 29, July/August 1988), a lot has taken place. With this installment of the continuing story, we'll update you on the progress the Department is making toward improving the area.

The amphibious backhoe (purchased in Sept. 1988) has performed well. Its first task has been to clean out the borrow ditches that parallel the dikes. Removing silt from these ditches will allow for faster and more efficient movement of water from one pool to another. The backhoe has also been used to clean silt from around the water control structures. This, too, should improve water movement. As a result of this activity, visitors might notice that rip-rap, which was placed at the foot of the dikes is now along the roads. This is temporary, and once the dikes are dry, the rip-rap will be replaced along the foot of the dikes and the shoulders reseeded to native grasses.

Another major project is the development of the old goose-pen area in Pool 5. This 96-acre diked tract is going to be divided into four small ponds. Within each pond, nesting islands will be constructed. The islands will provide nesting habitat for interior least terns, avocets and other shorebirds and possibly Canada geese. Since these pools will be flooded, the islands will be relatively secure from predators, increasing the production of the birds using them. The islands will be top dressed with either fine sand or gravel. The different substrates will diversify the islands so they will be suitable to a wider variety of nesting birds. Some of the gravel is being removed from the area's diversion dam on the Arkansas River. Sand had built up in front of the dam and impeded water flow to the inlet canal. Removing the sand will improve water delivery and, at the same time, meet at least part of the demand for nesting island substrate material. This work is funded through the U.S. Fish and Wildlife Service's Section 6 Threatened and Endangered Species fund and the Service's Nongame Wildlife Fund. Further funding is requested from the Kansas Department of Wildlife and Parks Chickadee Checkoff Program.

The most significant work to be done at the Bottoms, in terms of dollars spent, is in the process of beginning. A comprehensive hydrologic/engineering study to determine alternative designs and/or construction of dikes, as well as a review of the current water delivery system is scheduled to begin this year. This study will make recommendations on the feasibility of engineering alternatives to accomplish biological requirements that will be

spelled out in the area's management plan. Once the study's completed, the necessary permits for conducting wetland alterations will be obtained. With these permits in hand, the Department will then begin moving dirt to implement the recommended actions. The end result will be a wildlife area with improved water handling capabilities and better able to withstand dry periods such as the one we experienced in 1988-1989. Funding for this major effort is coming from the \$1.6 million appropriated by the State Legislature and a matching amount from the federal government. Sen. Dole introduced legislation for the matching funds, specifically designed to improve habitat for threatened and endangered species such as the whooping crane, bald eagle and interior least tern.

Another positive development is the addition of a full-time wildlife biologist. Helen Hands was hired in September 1989. Hands received a master's degree in fisheries and wildlife from the University of Missouri. She has a strong background in nongame birds, especially shorebirds and waterfowl. Her responsibilities will be limited to the wildlife area, and include identifying the specific habitats utilized by nesting ducks, evaluating cattail control efforts, monitoring the success of the nesting islands, developing a program to monitor the success of nesting ducks and geese and developing a study to determine the effects of water level management on vegetation in the area. All of these efforts are needed to effectively manage the area for wildlife, but in the past, manpower shortages have prevented detailed scientific work.

Another project which should be completed by the spring of 1990 is an auto-tour. The auto-tour will allow visitors to drive through the area guided by interpretive signs posted at points of interest. This project is being funded with contributions from the Kansas Audubon Council and will contribute to the educational value of the area. The Department is also planning the construction of an education center on the southeast corner of the area, along U.S. Highway 156. This project will not be in place for several years, but when completed, it will provide a public facility that will illustrate why Cheyenne Bottoms and other wetlands are so valuable to our world.

As you can see, the wildlife area will be going through some changes. We will also be expanding our knowledge about requirements of the wildlife using the area. As wetlands continue to be destroyed all across North America, these efforts are essential to increasing waterbird numbers. ♡



# center section

Edited by Mark Shoup



## LETTERS

### KANSAS FERRETS?

Editor:

This letter is in regards to the article on black-footed ferrets in the Sept./Oct. issue of KANSAS WILDLIFE AND PARKS (Pg. 40).

About eight or nine years ago I saw what appeared to be a black-footed ferret hop across the road in front of me. I was turning off the Quivera Road onto Highway 281 just after dark. I was only going two or three miles per hour and viewed it from about 15 yards.

I remember coming home and telling people about it, but nobody would believe me.

In my mind, the animal pictured on Page 42 is the same animal I saw.

Vic Dearmore  
Great Bend

Dear Mr. Dearmore:

There are many biologists convinced that this ghost-like creature still haunts the prairie, so don't feel bad about your family's reaction. -Shoup

### FLYING SNAKE

Editor:

A drive west of Oak Hill, in Ottawa County, proved to be quite an exciting event on Saturday afternoon, Sept. 2.

While breaking over a knoll in the road, my son-in-law noticed a hawk in the north ditch. The hawk took to the air with a large snake in its talons. I suddenly realized, and evidently the hawk realized, that it could not gain enough altitude to miss my pickup. It dropped the snake,

which hit the driver's side rear-view mirror with a thud. We turned around, but the snake must have been thrown into the ditch.

But for a smear of blood on the mirror and windshield, there was no damage, except to our nerves. It's always good to see nature at work, but it's quite a thrill to see a snake flying toward you.

I certainly enjoy "our" magazine and use it and the reference center materials in my fifth grade classroom often. Thanks for the excellent reading.

John McConnell  
Condordia

### LOVE THE "HUNT"

**NOTE: The following is one reader's description of his outdoor experience on Sept. 16, 1989.**

Editor:

It was time for early teal season again, but the hunters weren't there this year. Duck numbers are at an all-time low, so cancelling the early teal season just made sense.

Then why did I get up this day at 5:30 a.m. and head for Cheyenne Bottoms? Habit, I guess. I had been telling myself that there was a lot of rain and that I ought to check things out. Boy, am I glad I did.

The sky was just turning a tinge of red when I pulled onto the road that goes between pools Four and One. Ducks, mostly teal, were flying towards the refuge. I guess they had been feeding and were going back to Pool One to rest. The early morning sunrise was beautiful. The marsh was alive and looking much better

than last year. Pool Two had been planted to some type of feed and had shallow water in it. The ducks were everywhere, swimming around and feeding in large numbers.

Ducks filled the air. I could hear several mallards calling back and forth.

While the Bottoms still could use a lot more water, it has come a long way from last year. There is hope for the future, so please buy those duck stamps.

Jim Lamia  
Salina

### GERMAN RULES

Editor:

I have been a lifelong resident of Kansas (23 years) and have been actively hunting since the fall of 1979.

Since July of 1987, I have been living in Rohrbach, West Germany. In the fall of 1987, I received my German hunting license. That was after a mandatory three-week course that included identification of most species of wildlife in Germany by their German names. I had to study various other topics concerning game and conservation of all wildlife. Also included was a shooting test with rifle and shotgun.

I had to pass both written and shooting tests to receive a license. The course I took is specifically designed for Americans and is much shorter than the one-year hunting course Germans must attend.

The basic hunting license costs \$47 plus \$39 for insurance. There are no free public hunting areas in Germany. Hunting areas are called reviers, and they cost anywhere from two to ten thousand German marks (approximately \$1,000 to \$5,000) to lease, with at least nine years obligation.

If you are not hunting by private invitation, you must pay a guide. Then all you pay for is the chance to shoot an

animal and claim the trophy. Trophy and conservation costs vary from \$52 for a yearling wild pig to \$4,200 for a large mouflon ram. It also costs an additional \$5-\$11 dollars a kilogram if you wish to keep the meat.

So to all you K-Mart hunters who constantly complain about license and permit fees, be thankful every time get to squeeze the trigger or release an arrow. There are hunters world-wide who would gladly pay resident or nonresident fees to hunt in America.

SPC Clinton K. Brown II  
Rohrbach, FRG

## STAND CORRECTED

Editor:

I was interested to read about the Rails-to-Trails Landon Trail in the September/October issue of KANSAS WILDLIFE AND PARKS. I have several comments on the article: 1) the proposed trail would run through Shawnee and Douglas counties, and these counties are not in the Flint Hills, as the article erroneously states; 2) the proposed trail would run through the Clinton Wildlife Area, which is open year-round to public hunting; and 3) no public agency has adopted the Landon Trail project because there is very little local support among affected landowners in the Berryton area for it.

Martha Hagedorn-Krass  
Berryton

Dear Ms. Hagedorn-Krass:

I stand corrected on the Flint Hills slip. The proposed trail project is on the northern edge of the Osage Questas region of Kansas. The westernmost point of the project is approximately 20 miles east of the Flint Hills. However, the trail would pass through Shawnee and Osage counties, not Shawnee and Douglas.

Although a small portion of the trail would run through Clinton Wildlife Area, hikers currently use many public hunting areas throughout the

state. Under the proposal, this trail could connect to an existing trail system at Clinton.

According to organizers of the project, considerable support has been generated in both Shawnee and Osage counties, and some work in preparation for the trail has begun. -Shoup

## LONGHUNTER

Editor:

I would like to thank the Kansas Department of Wildlife and Parks, our Wildlife and Parks Commissioners and Dave Baldwin of Russell (our liaison for the Kansas Muzzleloader Association) for getting our first muzzleloading deer season. Dave has put in many long hours on the road and on the phone to help get this long-awaited season.

On the first draw, 1,911 out of 2,255 available permits were issued. The remaining 344 permits were issued in the leftover drawing on Sept. 11. All of these went on the first day.

About 40 percent of the hunters that I have talked to had success hunting in September. One nice buck taken north of Hays could possibly go into the record books of The Longhunter Society. In my view, these facts support the setup of a separate season.

The new season is a step in the right direction, with safety as the main consideration. The techniques employed reflect those used over 150 years ago. Because most muzzleloading hunters sit in blinds or stalk their game, they are in danger from long-range rifle fire during the regular firearms season.

Stan Hamel  
Hays

## OPEN DEER SEASON?

Editor:

I would like to say what a fine magazine you have and that I enjoy reading it very much. As a nonresident who spent time in the service in Kansas, I enjoyed the many hunting and fishing opportunities that the state has to offer. Also, I enjoyed the company of many residents

of Kansas during these outings and to this day cherish their friendship.

It is a real shame that the people of Kansas feel the way they do about nonresidents hunting deer. It would be interesting to find out how many of these Kansas deer hunters hunt deer in other states and feel it is their right to do so. How would they feel if all the other states would follow the lead of Kansas and not allow others to hunt deer in their states?

With all the talk of a healthy and dynamic deer population and multiple hunting permits offered to residents, it's a shame that the residents of Kansas don't want to share their hunting opportunities with others.

You say it took Kansas 25 years to get the deer population to where it is today. Well, let's hope that it doesn't take another 25 years to share this opportunity and friendship with others.

Michael J. Drewnowski  
Franklin, Pa.

## HAPPY READER

Editor:

I really enjoy our KANSAS WILDLIFE AND PARKS magazine. I pass them on to my brother who is a farmer in Phillips County, and he makes them available to the hunters who lease and stay with him in the Kirwin Dam area.

Bill Elliott  
Abilene

## KEEP IT COMING!

Editor:

I have noticed that you have gone up on the price of your magazine. It is still a good buy, and I would like to renew subscriptions for myself and all my grandchildren.

It is my opinion that KANSAS WILDLIFE AND PARKS is the best thing they can be reading during their early years. I like it, too.

Gene Sheffler  
Pretty Prairie



# THE LAW

## CO SAVES LIFE

All Kansas Department of Wildlife and Parks conservation officers (COs) are trained in Cardio-Pulmonary Resuscitation (CPR), but Hutchinson CO Jeff Gayer is a former CPR instructor for the American Red Cross and a former certified emergency medical technician. On Sept. 7, he had occasion to put this expertise to good use.

While moonlighting as a security officer at a local supermarket, Gayer was alerted that a customer was in trouble.

Gayer found Dr. John Blank, a retired medical doctor, unconscious on the floor, the victim of a heart attack. While another supermarket employee called the Emergency Medical Service (EMS), Gayer kept Dr. Blank's airway open. Just before the EMS crew arrived, Blank's heart stopped, and Gayer applied chest compression to revive the heartbeat.

His efforts kept Blank's heart beating manually until the EMS crew could begin their work. For fifteen minutes, Gayer and the EMS crew continued to apply chest compression and used a resuscitation bag to help Blank breathe until he could be transported to the hospital.

The EMS crew, hospital personnel and Dr. Blank's family all credit Jeff Gayer with saving the life of Dr. Blank, who is now recovering from the heart attack. -*Shoup*

## OUT OF BOUNDS

Professional golfer Tom Watson is one of 26 people cited by the U.S. Fish and Wildlife Service for illegally hunting mourning doves over a baited field.

The group was hunting doves Sept. 1, the opening day of the 1989 season, in a privately leased field adjacent to a wildlife area in suburban Lee's Summit, Mo. According to the citations, the field was "heavily baited with wheat, which had

been scattered on a cut cornfield."

No one in the group of hunters was accused of placing the bait in the field, but the citation said that using a baited field to hunt doves is a violation of the federal Migratory Bird Treaty Act.

Thomas M. Larson, assistant U.S. attorney, said the law provides a \$150 fine for each dove killed illegally.

Watson, who lives in the Kansas City area when he is not on the golf tour, faces a maximum fine of \$650. His brother-in-law, Kansas City lawyer Charles E. Rubin, also faces a maximum fine of \$650. -*Associated Press*

## CHEMICAL CRACKDOWN

In an effort to reduce the unnecessary loss of thousands of migratory birds, the U. S. Fish and Wildlife Service has begun gathering evidence that could lead to criminal prosecution for violations on oil field and chemical open pits in Oklahoma, Texas and New Mexico.

Michael Spear, regional director for the Service, said that any company with open-topped storage tanks or pits causing the death of migratory birds will be prosecuted for criminal violation of the Migratory Bird Treaty Act.

"In light of the record low duck popu-

lations in recent years, waterfowl mortality due to oil contamination is a significant factor that can no longer be ignored," Spear said.

Severe bird losses due to oil and chemical pits have been documented in the playa lakes region of eastern New Mexico, northwest Texas and western Oklahoma. Surveys indicate at least 100,000 waterfowl are killed each year in the playa lakes area due to polluted open pits and tanks, exceeding the 92,000 waterfowl taken legally by hunters last year in the same area.

Pits containing oil or oil byproducts are hazardous to birds because they appear to be fresh water. Birds, particularly waterfowl and shorebirds, are lured into the pits thinking they are good areas to feed, drink and rest.

Service law enforcement agents have documented hawks, owls, waterfowl, shorebirds, herons, roadrunners, kingfishers, sparrows, meadowlarks, songbirds, deer, opossum, porcupine and rabbits killed in the pits and tanks in the playa lakes region.

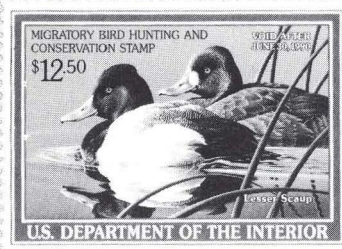
Wildlife officials indicate that pits and tanks can economically be made safe for wildlife by being covered with 1-inch mesh plastic netting or chicken wire that prevents the birds from landing on the oil or chemicals. Many of the pits are no longer needed and should be filled in.

Spear said violations in the near future could cost some oil companies. Penalties for individuals are \$5,000 and/or 6-month imprisonment. Corporations can face \$10,000 fines for each violation. -*Oklahoma Department of Wildlife Conservation*





# HUNTING



## NEVER TOO LATE

So you didn't hunt waterfowl this year, but you wish you had purchased a duck stamp. Well, it's not too late to buy a stamp, and the birds still need your help.

Despite increased snow and rainfall last winter and spring, many critical wetlands have not recovered. Who knows what waterfowl and shorebirds will face this coming spring as they head toward traditional nesting grounds in the prairie wetlands?

Your local post office has Migratory Bird Hunting and Conservation Stamps on sale through June. The Kansas Department of Wildlife and Parks Pratt office will sell the Kansas Waterfowl Habitat Stamp as collectors' items until they are gone. -Shoup

## FROSTBITTEN!

Anyone who is active during the bitterly cold winter months in Kansas should be aware of a potentially serious condition called frostbite. Frostbite, the freezing of body tissue, occurs most frequently on exposed areas of the body. Fingers, toes, ears, cheeks and nose are usually the targets of frostbite.

People involved in ice fishing, hunting, trapping, camping, and other activities where they might be exposed to wind and low temperatures, may become victims of frostbite. Frostbite can occur whenever the ambient (outside) temperature falls below 32 degrees Fahrenheit. Heat is lost gradually from the interior of the body to the skin, to the layer of insulat-

ing air surrounding the skin, and finally to the ambient cold air. High velocity wind blowing away the insulating air cover and wet skin both increase the speed with which heat is lost.

Conditions that encourage heat loss are 1) the intake of alcohol, causing capillary dilation and dissipation of heat; 2) wet clothing, permitting outward heat conduction; 3) exposed flesh; 4) fever, which radiates heat; 5) injury with blood loss; and 6) overexertion, which drains unreplaceable calories and heat.

Frostbite is identified by the knowledge that a person has been exposed to freezing temperatures and a change of color in the affected area. The skin may first become reddish and then turn a shiny white or grayish yellow. The affected area may be extremely cold, painful or numb.

In treating frostbite, the victim should be moved indoors as quickly as possible. Contrary to popular belief, rubbing the frostbitten area with snow or the hand can be extremely harmful. The vigorous contact could cause further tissue damage.

Clothing covering the frostbitten area should be removed and the affected area steadily warmed. Warming can be accomplished by immersing the limb in warm water for short periods. Wrapping the affected parts in warm blankets can also restore warmth. Handle the area gently and never apply hot water or place the frostbitten part near a hot stove. Excessive heat may cause further tissue damage because the skin has no feeling during this period.

Blisters may form during the warming process and should not be disturbed. Once the part is rewarmed, the affected areas should be exercised, if possible, to preserve joint motion.

The prevention of frostbite is relatively simple. Dress according to the weather. Clothing in freezing weather should be dry, layered and warm, with loose hand and footwear. Tight, restrictive clothing should be avoided. Exposed flesh should be protected from the wind.

Face masks, stocking hats, hoods and earmuffs are beneficial in cold conditions.

An individual must remain alert during cold outings and avoid the use of alcohol, tobacco, coffee or other drugs which restrict the flow of tissue-warming blood, and which inhibit mental and physical abilities. The result of frostbite can vary from minor irritation to disasters requiring amputation. Use common sense when out in the cold and avoid this potentially serious problem. -Murrell

## GRIN AND BEAR IT

The big story for the week of Oct. 8 in Region 5 was the black bear (bare?) investigation in the wilds of Bourbon County. Super sleuth Tom (Claws) Glick confirmed a sighting of *Ursus americana* reported by a treed archery hunter.

Hair, scat and tracks led to the positive identification.

Now what do we do? Tom suggests that the Department's big game coordinator, Keith Sexson, will have more to do in the future. Let's hope the bear doesn't hurt our expanding cougar population. —Tom Swan, Region 2 District Wildlife Biologist



## GUN STORAGE

The hunting season has closed and most of your post-season chores are completed; but have you forgotten one of your most important hunting tools? Off-season care of your firearm is just as important as the care given when it is in use.

The first thing to do for storage of a firearm is to clean it. First, make sure the

firearm is unloaded, then disassemble as far as you are capable. (If you are unsure about this, contact your local gunsmith or the manufacturer of your firearm.) When this is accomplished, use a good grade of solvent — such as Hoppe's #9 or G-96 Gunslinger — and an old toothbrush to degrease and wash all the parts.

Next, air dry or wipe these parts dry and lightly oil them with lightweight gun oil or machine oil. Special attention should be given to the barrel. The barrel should be thoroughly scrubbed with a bronze or nylon bristle brush and solvent, then dried with clean patches and lightly oiled. The firearm should then be reassembled and the exterior wiped with a lightly oiled rag.

Now that you have the gun cleaned and prepared for storage, there are some other things to be considered. Since liquids migrate downward, guns should be stored with the muzzle down. This will keep oil from seeping into the stock area and promoting rot. If possible, avoid storing your firearm in its carrying case. However, if you must use the carrying case for extended periods, use a case that can "breathe," such as a flannel blanket case. If the case cannot breathe, it may draw moisture and cause the firearm to rust.

Finally, store all firearms under lock and key and in a different location from ammunition. —*Jim Kellenberger, Region 3 Law Enforcement Supervisor*

## FOR WHAT IT'S WORTH

Great thinkers, New Year blues  
by Mark Shoup



I'm in a melancholy mood this January, the post-holiday, post-birthday, al-

most post-hunting month. Perhaps passing from months spent in the wild world through months of celebration have done it. Perhaps it's the prospect of being driven inside until March. Right now, however, I'm blaming it on something else. The words of John Donne come to mind:

"No man is an island...any man's death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee."

I used to feel as Donne must have felt when he wrote these famous lines. Suffering and death, disastrous accidents, wars and starvation used to move me deeply, but I have somehow become calloused to these things. I think most of us have. Our population grows exponentially, as does our appetite for natural resources. Our planet cannot suffer the demands of either indefinitely. I see these things and know that no disaster can stop our warring with the earth.

I haven't lost my compassion for people, but somewhere in the last twenty years I have lost my compassion for my species. This is a sad thing. In my work, this loss ironically reveals itself in the ways we use the term "wildlife."

Use of the word is second nature. Although we might not say it, most of us see wildlife as all the diverse species which for some reason choose to live outside the dominion of man. They have not yet been tamed. We sometimes wonder what value these untamed species have. One answer can be found in the words of Chief Seattle, leader of the Suquamish tribe of the Puget Sound:

"What is man without the beasts? If all the beasts were gone, men would die from great loneliness of spirit, for whatever happens to the beasts also happens to the man."

It is the history of modern man to bring under submission all that does not yield to our conquering impulses. However, now that we have conquered most of the planet, and the last wild encampments

— the deep, foreboding rain forests of South America and Indonesia — are rapidly succumbing to the ax and the torch, it has become trendy to "love" wildlife. Some extol the beauty of nature, deploring the loss of wild places and species for aesthetic reasons. Others tout the economic benefit of wildlife.

But all of us — whether conqueror, curator, or businessman — miss an essential point in thinking about "wildlife." It is the point that both John Donne and Chief Seattle, in different but equally eloquent manners, were trying to make. We cannot categorize life; if there is "wildlife," there must be some other kind of life. Is it tame? Like the streets of Harlem or East L.A? Like Wall Street on Black Monday?

We do, however, come by our thinking about wildlife honestly. Consider the words of John Louis O'Sullivan:

"Our manifest destiny is to overspread the continent allotted by Providence for the free development of our yearly multiplying millions."

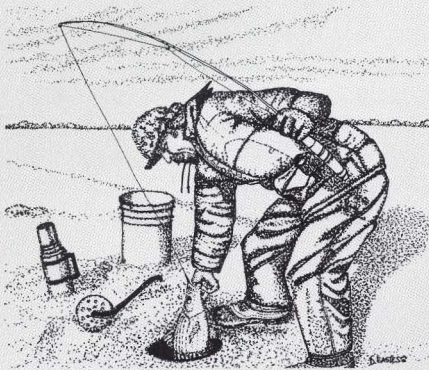
It is difficult to underestimate the impact these lines have had on our thinking about wildlife, but to suggest that there is wildlife "out there," separate from our own lives, is to suggest that, however sad its loss might be, we can do without it. We can go on — to conquer outer space, to create art which will fill our hearts and souls, to discover new and profitable enterprises.

In reality, there is no wildlife; or, we are all wildlife. This thought is nothing new: each species is an important component of a precision machine. To destroy one is to destroy a part of the whole. The more components that are missing, the more likely the machine will cease to function.

The mechanical analogy may seem cold, but it is accurate. Put the thoughts of Donne and Chief Seattle together and apply them to the modern world. As oceans, rivers and aquifers become more polluted; as forest and prairies make way for overpopulation and progress; as another species is lost each day, ask not for whom the bell tolls.



# FISHING



## WINTER WHITES

My wife thinks I'm crazy. She doesn't understand why I get so excited when the temperature falls below zero. If it stays that way for several days, I start fidgeting around the house, organizing my fishing gear, sharpening hooks and auger blades, all while grinning ear to ear. All she can think about, as the furnace kicks on again, are the cold mornings when the car won't start, stinging winds and just plain misery. All I can think about are 2-pound white bass bending my ice rod double.

Big white bass have a warming effect on me. I don't seem to feel the wind chill if the whites are hitting, and hit they will when the first ice arrives on Kansas lakes. In fact, Kansans can enjoy phenomenal ice fishing on some of the larger reservoirs if the weather provides good ice.

Getting good ice is the first hurdle. Usually, a big cold front will blast in from the north and keep the temperatures below zero for several days, and that's all it takes. But be careful. Wait for 4 inches of ice or more, and don't go out when large areas of open water are still visible. Wait for an extended period of subzero temperatures before you go, and then make some test holes to check the thickness and strength of the ice.

As a rule, start fishing in the upper third of the lake. Look for water 6-15 feet deep near the inlet channel. To start out with, you might look for concentrations of

fishermen, and fish near them. However, several days of heavy fishing pressure will move fish out of the area. Don't be afraid to try a new spot.

I learned that lesson last year at Glen Elder Reservoir. Fishermen had been gathering along a bend of the Solomon River channel for several days. The fishing had been great there early, but it had slowed considerably by the time we arrived. We stuck it out for several hours, convinced that the fish would move in. Finally, we decided to move up the river and try a new area. As soon as our slab spoons were 8 feet deep, we all had strikes.

We had moved over an undisturbed school of big whites. For 45 minutes we caught 2-pound fish nearly as fast as we could, and we soon collected a crowd. The added fishing pressure soon caused the fish to move out. But for those 45 minutes, we enjoyed some of the best white bass fishing I've ever experienced, summer or winter.

As the icefishing season progresses, the fish will usually move to deeper water, usually along the same creek or river channels. During midseason, fishing may be best in 20-25 feet of water. The fish often move back to the shallow upper end just before the thaw.

The best lures are jiggling spoons or slabs such as Kastmasters or local favorites such as Spencer Spoons or Joe's Slabs. Best colors are silver, gold, white and chartreuse. A short, sensitive pole equipped with a spinning reel and 8- to 12-pound test line is ideal. Bring along a stool or bucket to sit on, and a small sled is great for lugging gear across the ice. Ice cleats will make walking smooth ice much more comfortable.

The best reservoirs for winter whites have traditionally been Glen Elder and Cheney. Fishermen have also enjoyed good success catching stripers, crappie and walleye. And there's no reason that other large reservoirs won't provide outstanding ice fishing when ice conditions allow. -Miller

## XMAS STRUCTURE

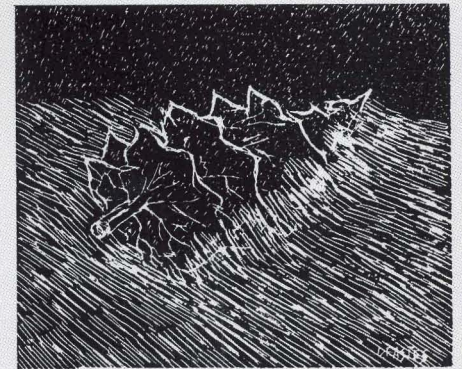
Everyone loves a Christmas tree, but one of the saddest times of the year is when we take it down and toss it out for the garbage man. Stripped of all but a few paltry strands of tinsel, it serves a lonely reminder of the cold January ahead.

This year, however, you can turn this melancholy sight into an investment in spring.

Many state lakes and reservoirs collect Christmas trees for use as fish habitat. Trees provide vital forage and cover structure for many species.

Anyone interested in donating a tree for one of the state lakes should contact their local sportsman's club or the district fisheries biologist at their favorite lake.

Private pond owners can also use Christmas trees for structure. Just weigh the trees down and sink them in the deepest parts of the pond. -Shoup



## CHARGE, THEN STORE

A little care and maintenance keeps your marine battery strong and healthy. Charge the battery fully before storing it for the winter. Keep the terminals clean and corrosion free. Scrape the connectors to assure good contact.

Batteries can be removed from the boat and stored on a concrete surface without damage or loss of power.

Always connect the alligator clips of the charger to the battery posts before plugging into the 110-volt outlet. Always connect the red clip to the plus, or positive, post and the black to the minus, or negative, post. Batteries should be charged every 30-60 days during storage.

Tap water may be added to non-maintenance-free batteries. -Humminbird Release

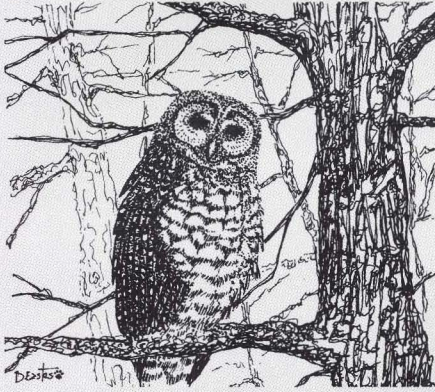




# ISSUES

## OWL SHOOTOUT

Conservationists and timber interests continue to duke it out over the spotted owl. A final agreement settling the contentious old-growth vs. logging battle has eluded lawmakers who seem to be trying to pacify the situation by pouring millions of dollars into owl research and inventories.



The northern spotted owl inhabits old-growth forests of the Pacific Northwest. The U. S. Forest Service manages about 67 percent of all owl habitat. Other owl habitat is controlled by the National Park Service's Bureau of Land Management, state agencies and private landowners. -*Wildlife Management Institute*

## WINDBREAKS = \$\$\$

Windbreaks are important to Kansas not only because of their benefits to agriculture but because they attract hunters who add millions of dollars to the state's economy.

This is the conclusion of two Kansas Agricultural Experiment Station researchers who recently studied the value of windbreaks in Kansas. Philip Cook, a researcher in the Forestry Department at Kansas State University, states that "Windbreaks are beneficial to Kansas agriculture because they help prevent wind erosion, protect crops and provide shelter for livestock, but they also are an important environment for wildlife."

Cook and researcher Ted Cable sur-

veyed 842 Kansas hunters about where they liked to hunt, how often they used windbreaks for hunting and what kind of wildlife they hunted in windbreaks. They evaluated how much money hunters would be willing to spend for such expenses as gasoline, food and lodging on trips to their favorite windbreaks.

The researchers placed the value of windbreak hunting sites at \$21.6 million.

According to the study, 81 percent of Kansas hunters spend time hunting in windbreaks, and those hunters spend an average of 41 percent of their time in windbreaks. Quail, pheasant and deer are the species most frequently hunted.

Since the late 1950s, Kansas windbreaks have suffered continued deterioration and destruction. -*Shoup*

## PLUG THE DRAIN

A recent report to Congress by the Secretary of the Interior reveals that while some federal programs are intended to protect wetlands, others do just the opposite by encouraging conversion and development of these areas. The report, entitled *The Impact of Federal Programs on Wetlands, Volume I*, states that many federal programs cause economic inefficiency, add to the federal deficit and are environmentally unsound. Two prime culprits of this are agricultural subsidies and water management projects (flood control, drainage and irrigation).

Since the turn of the century, federal agencies (U. S. Army Corps of Engineers, U. S. Bureau of Reclamation and the Soil Conservation Service) have been altering the nation's waterways in order to improve navigation, convert wetlands, provide flood control and supply irrigation water. In the process, they have contributed to the destruction of wetlands in several ways, according to the Interior report. First, wetlands are often drained or filled during project construction. Second, these water management efforts provide

incentives to farmers to convert wetlands by increasing the profitability and reducing the risk of farming.

These water projects have been paid for almost entirely by federal taxpayers.

The Corps has 92 projects in the Mississippi Valley and numerous others in the prairies that have been authorized by Congress but have yet to receive funding. The wetlands destruction these new efforts will cause has not been calculated.

For many years, the federal government has helped farmers with programs to support and stabilize farm income and crop prices and to maintain consistent supplies of certain crops. These programs generally make drainage of wetlands profitable and, therefore, contribute to their conversion, the Interior report states. The influence of federal subsidies on wetland destruction has been particularly strong in the prairie pothole region.

The Swampbuster provision of the 1985 Food Security Act attempts to counteract this incentive to drain by denying all farm program benefits to those farmers who drain wetlands and plant an annual crop on them. While certainly a step in the right direction, Swampbuster is limited in its effectiveness and needs to be strengthened, according to the report. The statute does not provide sanctions for merely draining wetlands. The sanctions are only for planting annual crops on a drained wetland, and then only for that year. If in the next year the farmer does not plant on the converted wetland, he will again become eligible for farm benefits despite his destruction the year before. -*Kathleen Rude, Ducks Unlimited*

## FINGER IN DIKE

The U. S. Army Corps of Engineers is reportedly withdrawing a \$100 million West Tennessee Tributaries (WTT) flood-control project because of persistent environmental disputes. The project, authorized in 1948, called for dredging and straightening 220 miles of the Forked Deer and Obion rivers, and would have destroyed more than 90,000 acres of valuable wetlands.

Two years ago, the Tennessee De-

partment of Health and Environment had denied the Corps a permit needed to dredge a critical 7-mile stretch of the WTT project. Governor Ned McWherter and conservationists supported the decision based on the potential environmental damage it could cause.

In a June 1989 memo, the Memphis District Engineer indicated to state officials that the Corps would no longer pursue any appeals. The memo stated that "the Corps of Engineers is out of the West Tennessee Tributaries project." However, unless the WTT project is deauthorized by Congress, the channelization scheme could be resurrected. -*Wildlife Management Institute*

## FUTURE SHOP

Several square miles of oil slick drifting ashore in Alaska...hundreds of acres of tropical rain forest slashed every week...18 billion disposable diapers buried in landfill sites every year.

As one lonely consumer, what can you do against environmental enormities like these, except hide your head under the blanket and hope they go away?

In fact, the individual can do quite a bit. Being a benign consumer comes down to two basics: think about what you buy, and think about how you get rid of it.

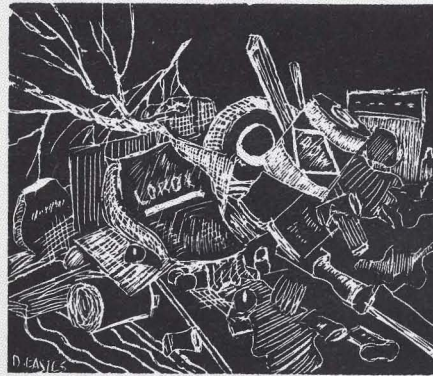
Responsible shopping includes being sensitive to the environmental impacts of buying fresh fruit wrapped in styrofoam and clear plastic, laundry detergent packaged in plastic jugs instead of cardboard boxes, cleaning products that contain toxic materials, or lawn care services that use chemical fertilizers and pesticides to give you that perfect lawn.

We may think that groundwater, soil and air pollution are caused primarily by industry, but what each of us does in our everyday lives also contributes significantly to pollution. We often assume that our relatively modest use of materials doesn't mean much — a few ounces of solvent poured down the drain, an oil pan swirled out and dumped on the driveway, a styrofoam cup used for that morning cup of coffee — but it adds up over time.

By selecting products carefully, you can make a difference. Few of the choices

are clear-cut. Being a benign consumer is a delicate balancing act. Social considerations such as jobs or even your own desire for convenience can't be left out of the equation entirely.

However, the market is ultimately consumer-driven — what we buy is what we get. The benign consumer can help make sure that what we get in the long term is a cleaner environment. -*Environmental Education in Wisconsin*



## VULCAN MAKES LIST

The Vulcan Chemicals plant in Wichita ranks 16th in the nation in amounts of toxic chemicals released into the environment in 1987, and six other plants in Kansas are among the top 500 in hazardous chemical emissions, according to a report by the National Wildlife Federation.

The other six companies ranked as follows: Racon Inc., Wichita, 43rd; Pittsburgh Aluminum Inc., Pittsburg, 92nd; Farmland Industries Inc., Lawrence, 325th; Boeing Military Airplanes, Wichita, 378th; Texaco Refining and Marketing, El Dorado, 460th; and PQ Corp., Kansas City, Ks., 464th. -*Associated Press*

## BOTTOMS WATER

Cheyenne Bottoms is supposed to receive 20,000 acre-feet of water annually from the Wet Walnut Creek, but stream flow has been inconsequential for years, severely limiting the amount of water available to the bottoms. Until recently, however, little data had been analyzed to shed light on the complex interactions of stream flow, dam building, irrigation and other hydrological features. Such data have

been needed to determine whether the Cheyenne Bottoms water right has been infringed upon or impaired.

Recently, the Soil Conservation Service completed a biological assessment of its dam building program in the Wet Walnut Basin. Computer models strongly suggested that impairment of surface water rights may be occurring, primarily from groundwater mining in the basin. With this evidence available — along with concurring studies by the Kansas Geological Survey — the Secretary of the Kansas Department of Wildlife and Parks informed the Chief Engineer of the State Board of Agriculture that accumulated evidence indicates impairment may be occurring. The Secretary requested that areas affecting the Cheyenne Bottoms water right from the Wet Walnut be declared an "intensive groundwater use control area." Such designation could authorize the Department of Agriculture to restrict withdrawals from the creekbed and its surrounding aquifer.

Kansas water law is similar to that of many western states and is driven by the "first in time, first in right" philosophy. Currently the Board of Agriculture is beginning the process of collecting information concerning the area's water rights and hydrology. Few other appropriated water rights in the Wet Walnut are senior to the Bottoms' right. The Department of Wildlife and Parks is committed to protection of its Cheyenne Bottom water right.

In all likelihood, it will be late fall of 1990 before any actions are determined and finalized by the Board of Agriculture. -*Bill Layher, ESS*





# NATURE



## SWIFT NOT KIT

The term "kit fox" has caused considerable confusion and debate among Kansas wildlife watchers over the years. Some folks think the term is a misnomer because all young foxes are called kits; therefore, the thinking goes, there can be no such fox in Kansas. Others think that there is a species of fox in the state called the kit fox.

The fact is, neither of these ideas is correct, but both contain elements of truth.

There are no kit foxes in Kansas, although there is such a species. There are many kinds (or subspecies) of kit foxes. The San Joaquin kit fox is on the List of Endangered and Threatened Wildlife. It lives in California and, perhaps, parts of Arizona.

A close relative of the kit fox, the swift fox, is plentiful in the western third of Kansas — high plains habitat best suited for this greyhound of the fox world. The swift fox is a very small fox, standing just 12 inches at the shoulder. It has a long bushy tail and coloration much like a coyote. Although it is hunted and trapped in Kansas, there are many more swift foxes in the state today than there were 30 or 40 years ago.

Generally, there are not large numbers of foxes in Kansas because they have to compete with coyotes for habitat. Coyotes kill red and grey foxes easily, although the swift fox usually has a better

chance of getting away from coyotes. -  
*Shoup*

## WINTER HAWK

Migratory birds that spend their winters in Kansas often keep summer homes in strange and distant lands.

Take the rough-legged hawk. Fairly common in Kansas during the winter, especially in the west, the rough-legged raises its young on the barren tundra of northern Alaska and Canada. While Kansas might offer plenty of rodents for the birds to eat, its numbers fluctuate according to lemming populations in the arctic. The more lemmings, the more eggs a rough-legged is likely to lay.

The rough-legged is a large, soaring hawk — or "buteo." Its colors vary from bird to bird. Some are totally black, and some have light-colored heads. In the field, it can be distinguished by its black belly and long tail, which is white at the base and dark at the tip. Other identification clues are the hawk's tendencies to frequently hover and to balance on slender twigs at the tops of trees. -*Wichita Eagle*

## RUMORS RUN AMUCK

Everybody has heard a rumor at one time or another that they later learned to be untrue. Unfortunately, a rumor circulated in northcentral Kansas just before the opening of pheasant season was not

only untrue, but caused widespread and undue concern.

The rumor indicated that the reason pheasant numbers were down was because of disease, specifically, coccidiosis. Coccidia are single-celled organisms that exist in the intestinal tracts of almost all birds, domestic and wild. These protozoans are never a problem in wild, widely dispersed populations such as pheasants.

On game farms, however, coccidia can become a problem. When birds are abnormally crowded together, the organisms are easily spread by feces contamination of the food and water supplies. The captive birds can then become ill due to damage to the intestinal tract lining.

In the wild, however, pheasants do not ingest enough coccidia organisms to cause a problem because the birds are widely dispersed. Also, coccidia are not very resistant to drought or heat and, thus, probably were even less abundant in the environment in the last two years. It is unlikely that coccidiosis could be even a minor problem among wild pheasants. Further, it's totally implausible for coccidiosis to be responsible for major fluctuations in pheasant populations.

Our pheasants are down because of drought damage to pheasant habitat, especially green wheat. Other factors played a role, but the drought and its spinoff effects are the reasons our pheasant did so poorly. In those few areas of the state where drought effects were minimal, pheasants are doing well.

The coccidiosis rumor may have started innocently enough — perhaps someone's misinterpretation of a problem on a game farm — but the rumor's rapid spread resulted from the failure of concerned people to bother with verifying the facts before they passed the rumor along. -*Randy Rodgers, KDWP Wildlife Research Biologist, Hays*

**THINK  
EARTH DAY  
APRIL 22, 1990**



# NOTES

## STATE RECYCLING

A pilot paper recycling program for state agencies in the Topeka Capitol Complex begins this fall. The new program is expected to pay for itself, but the primary benefits will be environmental.

Making paper from recycled pulp uses as much as 74 percent less energy and 58 percent less water than making paper from virgin fiber. Paper made from recycled pulp generates 74 percent less air pollution and 35 percent less water pollution than paper made from trees.

Agencies in the Landon and Docking State Office Buildings are scheduled to kick off the recycling effort in September. If all goes well, more state agencies will be added. All state employees currently involved in independent, work-related recycling programs will be required to join the state's recycling program.

For more information, contact Ann Colgan, Director, Division of Facilities Management for the State of Kansas (913) 296-3011. -*Shoup*

## PR-DJ MONEY

Kansas wildlife programs will reap considerable benefit from this year's apportionments funds generated through the Federal Aid in Wildlife Restoration Act (Pittman-Robertson, or PR), signed in 1937, and the Federal Aid in Sport Fish Restoration Act (Dingell-Johnson, or DJ), signed in 1950. Of the nearly \$2 million targeted for our state, \$1.7 million will aid wildlife restoration and \$250,000 will enhance hunter education.

These programs are financed by hunters and anglers through federal excise taxes on sporting equipment such as firearms, ammunition and fishing tackle; import taxes on fishing tackle and pleasure boats; and a percentage of motorboat fuel taxes.

Distribution of wildlife restoration funds to the states is based on land area

and the number of hunting license holders in each state. Sport fish restoration funds are made available according to the land and water area and the number of fishing license holders in each state. -*Shoup*

## TRICKING FISH

The Museum of Natural History at Kansas University has featured an exhibit entitled "Tricking Fish — How and Why Lures Work" since Sept. 30. It's not too late to catch the exhibit, which ends Jan. 28.

"Tricking Fish" unravels the mystery of what makes fish bite and not bite by putting the angler inside the fish's fins. Fishing begins with an understanding of what fish sense — what they see, hear, feel, taste and smell — and how they use those senses to stalk prey and find other food.

The exhibit uses images and objects to show how fish adapt to a world full of predators. It is on loan from the Bell Museum of Natural History at the University of Minnesota. -*Shoup*

## ART SHOW

The 18th Annual National Wildlife Art Show and Sale will be held March 1-2, 1990, at the Doubletree Hotel in Overland Park. Sponsored by the Greater Kansas City Committee of Ducks Unlimited, this year's show features the work of Sylvania, Ohio, artist Harold Roe.

Roe is the 1987 winner of the Ohio Wetlands Habitat Stamp Contest. In 1985, he was selected the National Ducks Unlimited Artist of the Year. He has also won "Best of Show" awards at the National Wildlife Art Show for the past three years.

Joining Roe in the show will be 60 of the finest wildlife artists in the nation. Hundreds of paintings, prints, sculptures and carvings will be on sale.

Proceeds from the sale will help Ducks Unlimited's efforts to restore and main-

tain wetlands. -*Shoup*

## FEEDER SURVEY

The 1990 winter bird feeder survey will be conducted Jan. 18 through Jan. 21. This will be the third year for the event in Kansas.

The project involves keeping track of numbers and kinds of birds that frequent participants' bird feeders for two consecutive days during the survey. Information from the feeder survey will help determine population trends, but its primary benefit is as a communication vehicle for Kansas birders.

Anyone interested in participating can write to the Division of Fisheries and Wildlife, Kansas Department of Wildlife and Parks, RR 2, Box 54A, Pratt, KS 67124. People who participated in last year's survey will automatically receive information and forms for the 1990 census. -*Ken Brunson, Urban Wildlife Coordinator*

## SEEDLING ASSISTANCE

Planting a bundle of 20 tree and shrub seedlings offered through the Kansas Conservation Tree Planting Program is a good way to enhance your backyard wildlife habitat. These plants 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 \$10 each. They contain three redcedar, four caragana, five Peking cotoneaster, five fragrant sumac and three autumn olive.

Additional kinds of tree and shrub seedlings are available for use in conservation plantings 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. -*William L. Loucks, Tree Planting Program Leader*

# NATURE'S NOTEBOOK

by Joyce Harmon Depenbusch, Wildlife Education Coordinator

## STATE BIRD

### Western Meadowlark

*Sturnella neglecta*

Kansas school children selected the Western Meadowlark as the state bird on Kansas Day, 1919. The Kansas State Legislature made the election official in 1937.

The state bird's typical habitat is open fields, meadows and prairie. They make saucer-shaped nests from grass, and lay three to seven spotted eggs.

The meadowlark's bright yellow breast with black "V" identify it from other prairie birds. When in flight, more typically seen is the white patch on either side of a short, wide tail of this brown bird. When walking, the western meadowlark nervously flicks its tail open and shut. Several short, rapid wingbeats alternate with short periods of flight.

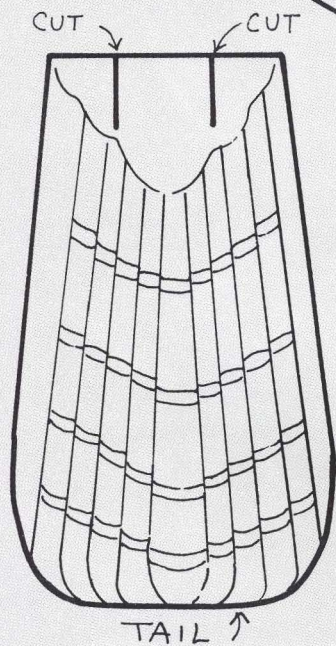
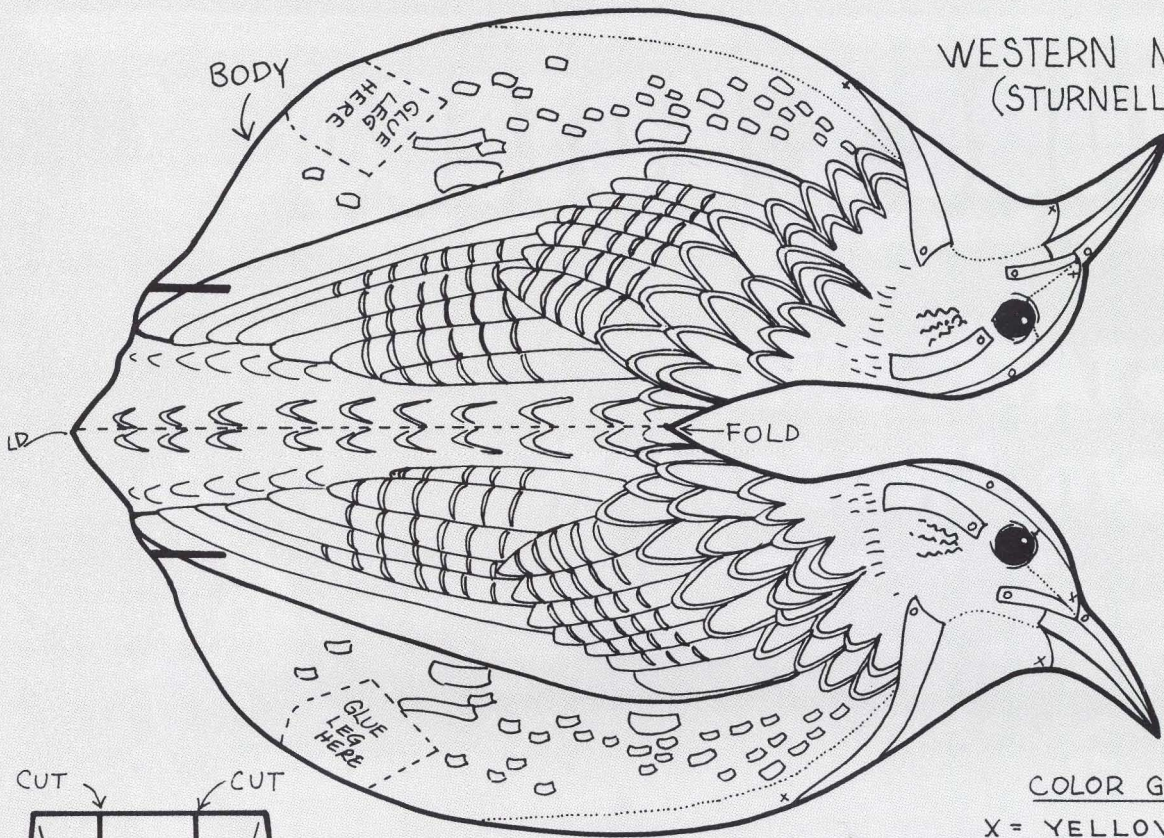
The song of the western meadowlark has seven to ten notes, is flute-like, gurgling and double-noted.



Make your own three-dimensional model of a meadowlark  
by following the directions below.

- 1) Trace or make duplicate copies of the models.
- 2) Color the models with crayon or marker.
- 3) Reinforce the back of the model with construction paper if necessary.
- 4) Fold on all dotted lines, cut on solid lines.
- 5) Use glue to assemble.

# WESTERN MEADOWLARK (STURNELLA NEGLECTA)



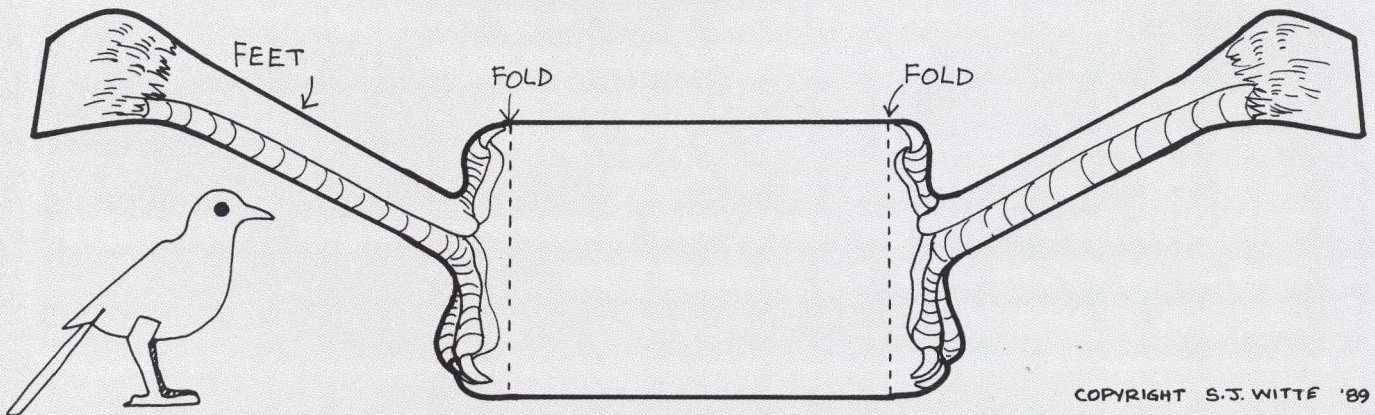
1. AFTER COLORING & CUTTING OUT ALL PIECES, FOLD BODY IN HALF ON DOTTED LINE.
  2. CUT SLITS IN TAIL & TAIL SECTION OF THE BODY.
  3. SLIDE TAIL SLITS INTO BODY SLITS & GLUE IN PLACE ... CAREFULLY.
  4. FOLD LEGS ON DOTTED LINE. GLUE ONTO THE BODY WHERE INDICATED.
- \*NOTE.... THE TAIL HELPS THE M. LARK TO STAND.

## COLOR GUIDE

X = YELLOW  
O = BLACK

∪ ← 'V' OUTLINE IS WHITE  
'V' INSIDE IS DK. BROWN  
∩ ← STRIPES ON THE WINGS/TAIL ARE BLACK  
◻ ◻ ← SPOTS ARE BLACK & DK. BROWN

BREAST IS WHITE  
BEAK IS BLACK ON TOP & DK. GRAY BELOW  
ALL ELSE IS BEIGE (VERY LIGHT BROWN)  
FEET CAN BE LT. YELLOW OR BEIGE



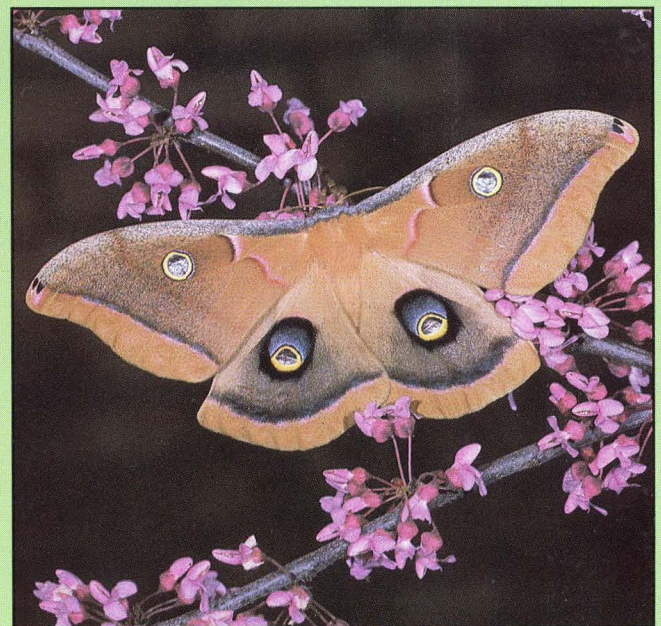
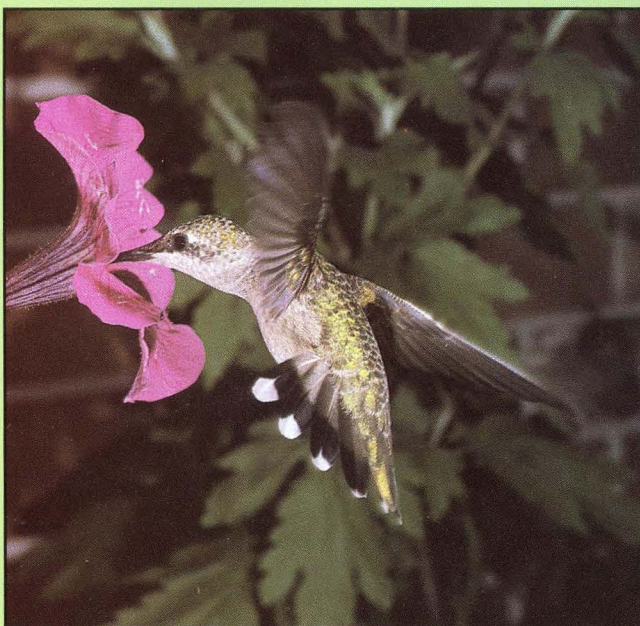
COPYRIGHT S.J. WITTE '89

# 1990 Chickadee Checkoff Photo Contest Winners



The annual Chickadee Checkoff Photo Contest draws entries from across the state. The entrants are allowed to enter as many slides as they wish, but only six of each species. The photographs must be of nongame wildlife, including insects, amphibians and reptiles.

**Left:** This year's winning photograph is a northern crawfish frog taken by Suzanne L. and Joseph T. Collins of Lawrence. **Below left:** Second place went to Joe Dickey of Protection for his image of a female ruby-throated hummingbird. **Below right:** The third place photo of a polyphemus moth was taken by Bob Gress of Wichita. For more information about the 1991 photo contest, or if you are interested in getting a print of this year's first place photo, contact the Kansas Department of Wildlife and Parks office in Pratt.





# Chickadee Checkoff and Wildlife

by **Ken Brunson**  
*wildlife biologist*  
Pratt

1991 will mark the 10th anniversary of the Chickadee Checkoff Program. Initiated in 1980, the Chickadee Checkoff allowed taxpayers (paying in 1981) to donate to the Nongame Wildlife Improvement Program (NWIP). Since 1981, the NWIP has funded hundreds of wildlife-related projects in Kansas. These include life requirement studies of Kansas threatened and endangered species, many habitat improvement projects and species reintroduction programs.

Ongoing, statewide activities sponsored by the program include the winter bald eagle survey, the Kansas Backyard Wildlife Habitat Certification Program, the Kansas Winter Bird Feeder Survey and the Bluebird Nest Box Program. Species reintroduction programs paid for by the Chickadee Checkoff include mountain plovers in western Kansas, eastern chipmunks in the western portion of their traditional range and golden eagles in Russell County.

Chickadee Checkoff donations have also been used for habitat improvement at Cheyenne Bottoms Wildlife Area in Barton County. Because this natural but modified wetland is critically important to shorebirds and hundreds of other birds and wildlife species, it has garnered much attention. Since most of the wildlife recreation at the Bottoms is from uses other than hunting, the NWIP has

stepped in to help out. Over the past two years, more than \$100,000 has been spent to improve wildlife conditions there.

Wildlife biologists also spend time assessing wildlife habitat quality so that good habitat can be protected and conserved. Chickadee Checkoff funds have supported programs designed to protect and enhance critical wildlife habitat in urban areas. Studies have been initiated in Shawnee and Wyandotte counties to evaluate and document critical habitat.

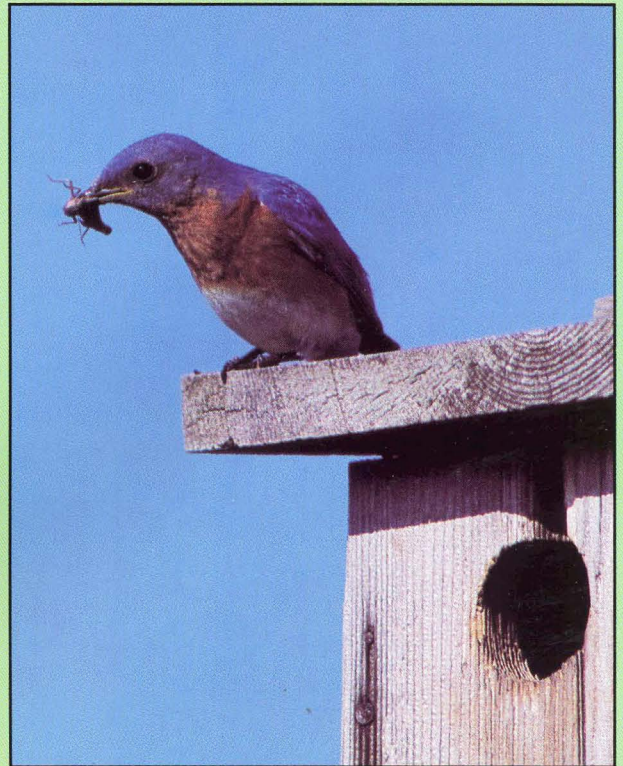
All of these programs are designed to not only address the needs of the wildlife, but also the needs of the people who enjoy these animals.

Anyone can contribute to the Kansas Nongame Wildlife Improvement Program by donating directly or by using the Chickadee Checkoff box on their 1989 individual state income tax form. Look for line 12 on the short form or line 25 on the long form. Those who contribute \$20 or more are eligible for a free one-year subscription to KANSAS WILDLIFE & PARKS magazine. To obtain a free print of the northern crawfish frog (shown on Page 29) check with your tax preparer or at any Kansas Department of Wildlife and Parks office. Remember to do your part — JUMP to help Kansas nongame wildlife.






Chickadee Checkoff donations fund a variety of wildlife programs including the reintroduction of golden eagles, creating nesting habitat for the threatened interior least tern and the Bluebird Nest Box Program.



Mike Blair photos



# gallery

by Mike Blair

## *Fall Softly, Snow.*

*Bring your whiteness to the winter season. Cover the trees and rocks, 'till cold water flows black among the hills, and the signs of passing animals are written on the land.*

*Blow gently, snow. Consummate January's promise, washing the dreary grays with your brightness and giving purpose to the cold. Touch our memories, and bring again the wonder and security of your soft, clean blanket.*

*Cling lightly, snow. Etch nature's edges with cotton linings, 'till all the life applauds your handiwork. Spoon your mounds onto frozen berries, and line woodland trails with downy softness. Call wild creatures to your gala debut.*

*Rest deeply, snow. Bring your magic to late afternoon, and usher in the darkness with promise for a glorious daybreak. Fulfill your role as winter's crowning achievement.*

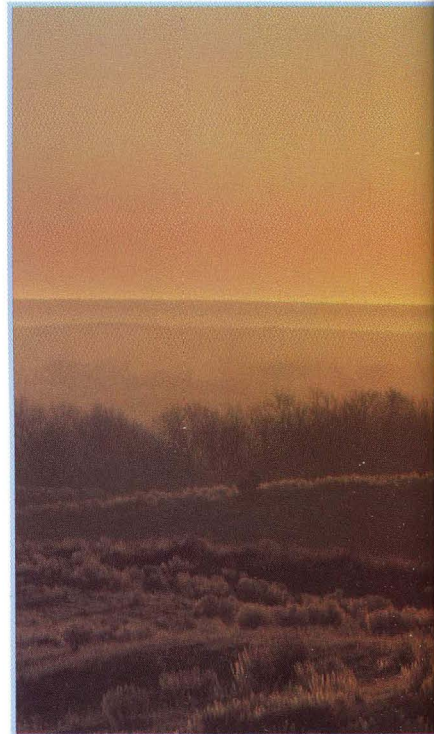
*Fall softly, snow.*

*Mike Blair*



**Opposite:** Snow capped thistle, 105mm lens, f/11, @ 1/125. **Left:** Deer in snow, 400mm lens, f/3.5, @ 1/60. **Below:** Coyote tracks, 400mm lens, f/11, @ 1/250.





**Left:** Snowy lane, 24mm lens, f/22, @ 1/60. **Below:** Geese in snow, 400mm lens, f/3.5, @ 1/60.





**Above:** Frosty sunrise, 55mm, f/11, @ 1/60. **Below left:** Ice on weeds, 105mm lens, f/11, @ 1/125. **Below right:** Snow on berries, 50mm lens, f/2.8, @ 1/30.



Mike Blair photo

# Homegrown Eagles!



Mike Blair photo

by Michael A. Watkins  
*wildlife biologist, U.S. Army Corps of Engineers  
Kansas City District*

**Last spring wildlife biologists noticed a pair of bald eagles building a nest at Clinton Lake. To the biologists' surprise and delight, the pair raised two healthy young, the first documented in Kansas.**

It was a brisk Sunday morning for mid-July. Unseasonably cool temperatures combined with a thin layer of fog and brought a chill to the early-morning air. I slipped into my parka and started down the short trail leading to Clinton Lake. It was 5:45 a.m. The moon and stars seemed etched into the twilight sky while purple and orange hues were beginning to paint the eastern horizon.

Halfway down the trail I met Mike Lockhart and Dan Mulhern, wildlife biologists with the U.S. Fish and Wildlife Service. With headlamps strapped across their foreheads, they looked more like coal miners than biologists setting traps for bald eagles. They had already been hard at it for two hours.

"Well, how did things go?" I asked.

"What can I say," Lockhart replied. "It's the start of another typical eagle trapping day. We only had time to place one set of traps."

"Did you use the decoy?" I asked.

"Yes," Lockhart responded enthusiastically. "She is tethered at the end of the trap set. With any luck at all, we should do some good today."

The decoy was a live, mature, female bald eagle that Lockhart had brought with him from Colorado. Lockhart is an expert on birds of prey, or raptors, and had traveled to Lawrence hoping to trap and band two young bald eagles that had fledged from a nest at Clinton Lake.

During a quick reconnaissance of the lake Friday afternoon, Lockhart chose several potential trapping sites which were not visible from the eagles' normal roosting area. Early Saturday morning after boating to the trap sites, we quickly discovered the locations were either too steep or had too much vegetation. With morning rapidly advancing, Lockhart chose an alternate site but only had time to arrange one set of traps. We watched our trap site for 10 hours, but our first trapping day was unsuccessful. "This is the type of luck and results you come to expect on a typical eagle trapping day," Lockhart stated (a phrase he often uses when things aren't going according to plan).

Eagles have historically migrated



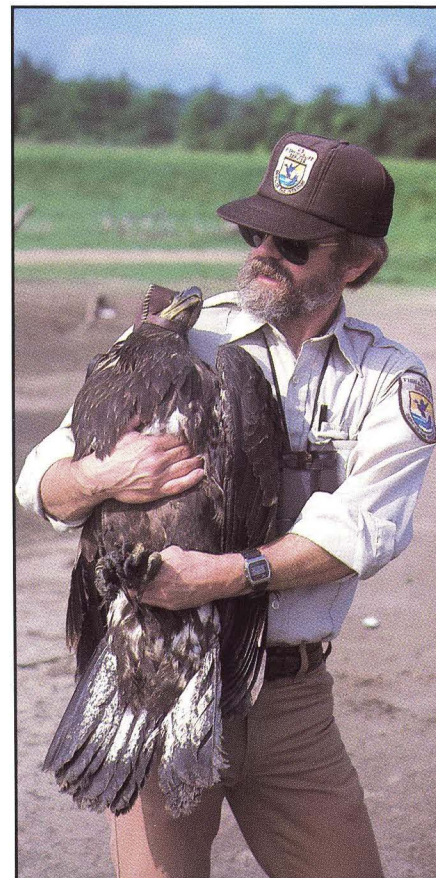
Mike Watkins photo

After hours of waiting, one of the young Clinton eagles stepped into a trap. After flapping its wings several times, the bird spread its wings and laid flat against the ground. Biologists quickly freed the bird and took it back to the banding site.

through Kansas, often stopping to winter at larger reservoirs and along major rivers. But this was the first documented case of bald eagles successfully nesting and rearing young in the state. It stirred the interest of conservation agencies and the general public. As soon as the pair of eagles initiated nesting behavior in early spring, the Kansas Department of Wildlife and Parks, the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service cooperated to develop a plan for protecting these avian pioneers.

The nest was constructed in flooded timber on the Rock Creek arm of Clinton Lake. Since human activity in the area might disrupt the nesting eagles, a restricted zone was created around the nest site. The Corps of Engineers placed buoys prohibiting boat access along the entire perimeter. The buoys were placed a minimum of 250 yards from the nest tree at intervals of about 150 feet. Special signs prohibiting entry were posted within the restricted zone by the Corps.

Informational signs and maps depicting the restricted area were posted around the lake. And notices were posted on bulletin boards in park areas to inform visitors about federal laws protecting eagles and



Mike Watkins photo

The bird was held upside down and the wings were folded back against the body to prevent injury. A hood over the eyes acted as a blindfold and calmed the bird for the banding procedure.



other endangered species. Press releases and radio and television interviews also helped get the word out about the nesting eagles and what was being done to protect them.

An observation area was designated along the shoreline 300 yards to the north of the nest site where people could view the eagles and develop an appreciation for the significant event. Barricades were installed to limit vehicle access, thus reducing disturbance of the nesting pair. Corps rangers monitored the nest site daily and kept records of the eagles' activities.

In mid-April, one of the adult eagles disappeared, raising concerns that the nest might be abandoned. Then, on May 7, observers caught a glimpse of not one, but two young eagles in the nest. The remaining parent eagle had successfully hatched the two eggs. A first for the state of

Kansas!

After the eagles hatched, fears abounded as to whether the remaining parent could provide the quantity of food necessary for the growing young. Artificial feeding platforms were considered, but it was decided that the eagles would have to make it on their own as in any other natural setting. These fears were soon laid to rest, and the young eaglets fledged in mid-July.

Biologists from the cooperating agencies hoped to band the eagles in order to gather information about their migrations and behavior. This was our mission as we assembled at Clinton Lake that July morning.

As we eagerly waited sunrise on our second trapping day, we were joined by Dave Rhoades, Corps park manager at Clinton Lake. Rhoades had helped coordinate activities of the three agencies responsible for protecting the eagles since they ar-

rived at the lake in mid-March. The remainder of the banding team was comprised of Ronel Finley, George Allen and Don Haley, all with the U.S. Fish and Wildlife Service.

The sun had just peeked over the horizon when we finally located the adult eagle and one of the juveniles through the mist. Both birds were perched in trees within the restricted zone to the south. The other juvenile eagle was nowhere to be seen, which caused some anxiety among banding team members as we scanned the lake.

As the fog lifted, we got our first glimpse of the decoy bird about one-half mile to the west. She was vigorously ripping off and devouring strips of flesh from one of the bait fish left for her. Fish comprise a major portion of the bald eagle's diet. Consequently, they prefer habitat around large bodies of water and along major rivers where good fish-



Mike Watkins photo

In a 30-minute process, the young Kansas native was banded, blood was taken for tests, it was weighed and photographs were taken of the wing and tail feathers for future identification. Biologists hope to learn more about these eagles as a result of the banding.

ing opportunities exist.

Three specially modified traps were set near the decoy eagle and baited with dead carp. The modifications ensure that the eagles would be caught by the feet or toes and not injured.

Then, to our surprise, the missing juvenile eagle was located only 10 feet from the decoy bird. It was immediately joined by its sibling, and both juveniles began exhibiting food-begging displays typical of hungry young eagles. The parent, angered by the attention her young were displaying toward the "step mother," left its perch and flew directly toward the trap site. The quiet of the morning was abruptly shattered by the screech of the parent eagle's sharp territorial cries. The parent swooped past the decoy, talons outstretched, and landed on a stump just 50 feet from the trap site. From this vantage point it maintained watch over its young and the intruder.

The decoy was not at all interested in sharing her meal with the young eagles. With outstretched wings, she fended off the unwelcome visitors, aggressively protecting her breakfast. Eventually the young eagles found other bait fish and began to eat. Now, the anxiety began to build among team members. After what seemed like an eternity, one of the traps sprang shut on a young eagle. The trapped bird let out several distress calls and flapped its wings three or four times in a futile attempt to free itself. But its struggles quickly subsided and the trapped bird spread its wings and laid flat against the ground, just as Lockhart predicted. The bird remained motionless as several crew members made their way to the site.

Lockhart quickly freed the eagle. The bird gave little resistance except for a few wing flaps. When Lockhart held the bird upside down by the feet, the bird relaxed completely. Folding the bird's wings against its body to prevent injury, he then held the bird upright and placed a hood over its head. The hood acted as a blindfold and had a soothing effect on the young eagle.

Then suddenly, the tethered decoy eagle pulled loose and bolted down the shoreline, half running and half flying. With Lockhart in hot pur-



Mike Watkins photo

One of the first Kansas-reared bald eagles is released after banding. Its sibling was caught and banded a short time later. Both seemed unaffected by the banding process.

suit of the escaped bird, mud was flying everywhere. The crew spent several anxious moments as Lockhart worked feverishly to recapture the decoy bird. He returned to the group, decoy in tow and seemed amazingly calm. "It's just part of a typical eagle trapping day," he explained.

We carried the young eagle and the recaptured decoy back to the banding site. The young eagle was weighed, a blood sample was taken along with numerous measurements, and the bird's wing and tail feathers were photographed for future record. Purple and silver leg bands were attached and the eagle was released. The entire process took less than 30 minutes.

We all thought the day's trapping activities were over. Because of the disturbance at the trap site, the entire team was confident the remaining young eagle would be leery of the area. Besides, the decoy had been removed and only two of the three traps were still set.

To our amazement, the other juvenile returned to the trap site and began feeding. Forty-five minutes later, the banded juvenile joined its sibling and began feeding on the bait. Concern grew that we might catch the banded bird a second time. But this turned out to be our lucky day as the unbanded eagle was caught in one of the traps. This wouldn't be a "typical eagle trapping

day" after all.

The banding operation was repeated flawlessly, and the second eagle was soon released. Using body measurements, we determined that both young birds were males and in good health. The largest of the two weighed 8 pounds, 15 ounces and had a wing span of 6 feet, 9 inches.

The number of bald eagles has increased significantly since the species was placed on the original federal endangered species list on March 11, 1967. Large numbers of bald eagles have historically nested in the northern United States and Canada. In recent years, however, eagles have also begun to nest in central and southern states. There are many theories as to why, but most biologists feel it is a combination of factors including improved habitat such as the development of large reservoirs, a reduction in the use of toxic pesticides, the enactment of federal legislation to protect eagles, and a simple increase in the eagle population.

As late as mid-September, the three eagles were observed at Clinton Lake. Apparently, the operation did not adversely impact the native Kansans. Eagles commonly use the same nest site for several years. No one can predict whether the eagles will return to Clinton Lake, but judging from the first pair's success, it appears the area could serve as a continual nest site for this national symbol. ♡



# Fire To Preserve The Prairie

by Jess F. Crockford  
*state range conservationist  
Soil Conservation Service*

photos by Mike Blair

The Kansas prairies evolved with fire, but modern man has reduced and controlled fires on today's prairie. However, when properly used, fire is an economical and environmentally sound grassland management tool.

**P**rairie fire! The thought of a raging, windswept prairie fire puts fear in everyone's heart. Flame-tinted night skies, the smell of grass-fueled smoke and blackened prairie earth are bleak reminders that fire is part of the process of keeping the prairie healthy.

Without fire, the Great Plains prairie ecosystem, covering most of Kansas, would not have evolved as we know it. Man and lightning were the chief sources of prairie fires. As primitive man came on the scene, fire became more common. Man must have known and controlled fire (tended it) long before he learned to make it. It is thought he conserved it much the same way culturally primitive aborigines do today. At first there was more thought given to preserving than extinguishing fire, and primitive man often left camp fires smoldering to preserve them.

Deliberate fires were much more frequent in historical literature than

lightning-set fires. Native Americans started many prairie fires for a variety of reasons. Their hunter-gatherer lifestyle was greatly aided by fire. They used fire to attract buffalo and other game to certain areas by removing the old, dead plant material and improving forage. Fire was also used to drive game. Fire increased man's ability to procure food, shelter and clothing. Burning in ceremonies and burning in primitive warfare was also practiced, as was burning for defense (scorched earth). Only civilized societies have undertaken fire control.

Fire has played an important role in the evolutionary process of today's Kansas prairie. Often used improperly in the past and obviously not a cure-all for every grassland problem, burning is an effective, practical grassland management tool. Misused fire can be a major destroyer of natural resources and a threat to life and property. However, burning can

benefit land users and the resource base when properly planned and executed.

Fire is the oldest known practice used by man to manipulate vegetation on grasslands and helps shape the course of plant succession on the prairie ecosystem. Grass favors fire because it produces a continuous mat of annual tops. Once this has dried, as it does at the close of each growing season, it becomes highly combustible. The climate of this region also favors fire due to the dry, windy conditions that prevail in early spring.

Fire played a major role in protecting the grassland environment from major encroachments of shrubs and trees. The border between the hardwood forest region and prairie may have shifted back and forth hundreds of miles over the centuries as the effects of periodic drought and fire pushed the grasslands east only to be reclaimed by trees during wet years.



Fire is a sound, economical management tool for grasslands. It can be used to control weeds, undesirable cool-season grasses and small trees. Prairie grasses evolved with fire, and when properly used, fire can benefit the land user and the resource base.

Lightning-set fires were common during periods when fuel and moisture were right for combustion. In their journals, early explorers wrote of large expanses of burned prairie. Normally fire occurs when the dead grass tops are dry. The spring winds sweep the fire along so quickly that it only removes the old growth and does not heat up the soil. Evolved under fire, prairie grasses have developed to keep their major vegetative reproduction organs on or below the soil's surface, protecting them from intense heat. Grasses have the ability to draw upon stored food reserves to quickly send up new shoots after a fire. Prairie fires are not as damaging as we traditionally think.

Pioneers and early explorers on the Great Plains lived in fear of wildfires during dormant and dry seasons. The vast expanse of highly flammable vegetation was essentially unbroken then. Once fire started, it would burn for miles until it encountered a natural barrier such as a river or creek. As civilization advanced, settlers plowed fields and built roads which provided additional fire breaks. Wildfires are still common across the remaining grasslands, but the devastation has been reduced due to the many limiting barriers. Landowners are also using prescribed burns to reduce potential wildfire hazards by removing excess litter build up. Accumulated plant residues are burned during the spring when the intensity of the fire can be predicted and controlled.

On any site, fire can provide one or more benefits to the grassland. It is effective in removing the old growth that hinders light penetration and new plant development. It releases nutrients to enrich the soil and cycle back through the growing plants. It can control invader plants that degrade the natural plant community, and fire invigorates the native species. Remember, our prairies developed with fire being a part of the natural ecology. They are accustomed to being burned and actually thrive on it. Without fire some native grasslands are rapidly colonized by woody species. This is evident in areas of eastern Kansas where fire has been suppressed on some native pastures.



Fire removes old-growth litter that hinders light penetration and new plant development. It also releases nutrients back to the soil to recycle through the growing plants.

The key to using fire properly is timing. The effects on the grassland will change dramatically depending upon when the burn occurs. If burned in late spring after deciduous trees, shrubs and perennial weeds begin to leaf out, the tops of these plants will be killed. Resprouting of these plants requires further withdrawal of already depleted root reserves. By burning two to three years in a row, many weakened plants will be killed. Buckbrush, honey locust, Osage orange and ironweed are examples of plants which may be controlled in this fashion. Red cedar is a non-sprouting species that can usually be controlled with one burn. Tree species can only be controlled effectively with fire when they are small.

Large amounts of invading cool-season grasses in native prairie are undesirable. These cool-season grasses compete directly with the native warm-season grasses for nutrients, moisture and sunlight. Late-spring burning can reduce cool-season grass numbers since they are actively growing at that time and have little food reserves left for regrowth.

Many true prairie grass species are invigorated by fire when properly burned. This seems to be especially true of big bluestem, Indian grass and switchgrass. The vigor and competitiveness of these and other warm-season grasses is increased when burning occurs just after they have started growing in April and May.

Historically large tracts of Kansas' remaining tall grass prairie has been burned prior to the grazing season. For years the purpose given for burning has been stated in a variety of ways including weed and brush control, insect control and the elimination of patchy grazing. Although all of these are true, the underlying reason is economics. Livestock owners can make more money on burned pastures in tall grass regions than they can on unburned pastures. Grazing animals gain better on burned pastures. This response is apparently due to the availability of higher quality forage in early spring. Whatever the reason, fire is the main ecological factor contributing to the maintenance of the tall grass prairies of Kansas today.

Since fire has always been a part of the prairie environment, most prairie wildlife species evolved with fire and its effects. Some wildlife species are tolerant of fire and others even benefit from it. The effect that favors wildlife most is an increase in warm-season grasses and native forbs that provide cover and food. Another is litter removal which improves access to insects and increases mobility and survival of birds and small mammals. Fire suppression on woody plant species also favors game birds such as prairie chickens. And the subsequent resprouting of woody species after a fire benefits browsing wildlife such as deer. Certain bird species do rely on the old grass litter for nesting. Ideally, pastures should be burned in rotation, so that not all are burned the same year. This would provide good forage and cover on the newly burned pastures as well as the nesting cover and diverse plant species on the unburned portion.

Fire, or more properly, prescribed burning is gaining momentum. Many agencies, including the Soil Conservation Service, the U.S. Fish and Wildlife Service, Kansas Department of Wildlife and Parks and the Kansas Cooperative Extension Service are

promoting its use as a management tool to manipulate the prairie ecosystem. For years burning was used by private landowners to accomplish management objectives. It was not until recently that many agencies recognized the environmental value of well-planned and executed burns.

Prescribed burning will probably become a more prevalent management practice as a result of the almost 3 million acres enrolled in the Conservation Reserve Program. These acres are leased to the United States Department of Agriculture for 10 years. The landowner must establish a permanent vegetative cover on the land to protect it from erosion and provide for future uses. This vegetation cannot be hayed or grazed during this time period. More than 90 percent of these acres have been seeded to native grasses. The nonuse requirement presents an interesting obstacle to the proper development of planted stands. Nonuse causes an excessive thatch buildup that can mulch out many desirable plants. By using prescribed burning, mulch is removed and the grasses are stimulated to grow and spread. By managing these acres properly during establishment and throughout the 10-year program, the landowner will

have a well-established, well-developed, economically useful resource at the end of the program.

There is no doubt that grasslands can be managed in different ways. Fire is but one tool available. Other grassland management options include grazing, mowing, haying, fertilization, herbicides, interseeding and total renovation with reseeded. Mother Nature managed vast areas of grasslands for centuries using only fire, grazing and climate as her major tools. Due to the influences of modern man, nature's impact is lessened. Gradually, man has begun to see his impacts on native rangelands, and he has recognized that suppressing wildfires and excessive grazing abuse have contributed to the deterioration of this marvelous resource.

Today, prescribed burning is a cost-effective and environmentally sound tool for managing native prairies and planted warm-season grasses. When fire is properly applied, the productivity of these perennial grasses and forbs may be maintained or even increased, undesirable plants can be controlled, wildfire hazard reduced and wildlife and domestic livestock benefits. ♡



Prescribed burning will probably become more prevalent as a result of the almost 3 million acres enrolled in the Conservation Reserve Program. The reseeded grassland cannot be grazed or hayed for 10 years, so fire will be a logical management tool.



## The Outdoor Fashion Scene

Thomas R. Marshal once said that what this country really needs is a good 5-cent cigar. Sorry, Tom—that's not stylish these days. What it needs now is a good pair of hunting pants.

Since the fashion industry latched on to camouflage and drove the price of this necessity to 5th Avenue status, there has been a marked trend for the general public to dress in casual garb befitting an American safari.

It wouldn't be fair to sportsmen, if it weren't for a curious fetish among designers for the faded, worn-out look. Now higher clothing costs are offset by the knowledge that at no time in the future will an item become too shabby to wear. Buyers are even paying extra for their new clothes to look abused.

It probably has something to do with a primal need to appear rugged and work-worn. A \$45-pair of stone washed jeans makes its wearer look wily to the ways of the washer and conjures images of activities involving good honest dirt. In these jeans, a debutante majoring in nails and makeup can leave the impression she hauls hay. It's a rip-off.

But honest hunting pants—never-wash-'em, swamp wading, snag-threaded hunting pants—can be the envy of the mall crowd, for a fraction of the cost.

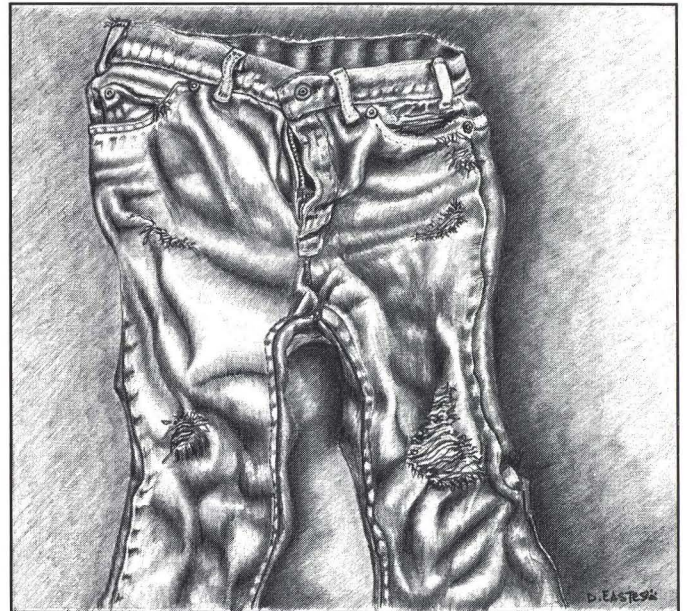
Think of it. Hunting britches go beyond faded. For the price of a few good adventures, you add marks of distinction that make these pants *awesome*.

Start with a pair of real blue jeans, the ones that still have color. Buy them an inch too long, so you can walk on the cuffs and fray them out.

During September and October, wade through dew-drenched grass for half a mile each morning, and while the pants are still soaked, crawl 100 yards down a sandy riverbank to look for wild turkeys. Sand packed into wet denim has a wonderfully abrasive effect, yielding worn-out knees in no time.

Color can be added by wallering in grass and weeds. Diving for a blind and sliding across green vegetation permanently sets grass stains that leave artificial weathering methods behind in heel dust.

Slog through stinky, muddy creeks to speed the de-



Dana Eastes illustration

terioration of lower pant legs. Slimy black gumbo eats pants like Jane Fonda eats yogurt.

Numerous passes over barbed wire fences add character to jeans, as do close calls with chain saws. Shinnying trees and sitting for days on rough tree limbs waiting for deer also yield notable results.

If you're into bare skin, try separating a pack of fighting coon hounds. This usually creates distinctive marks on your hunting britches and may lead to lively conversations at the mall.

By Christmas, your hunting pants will be such a sight you may choose to use them for a gift to your fashion-conscious mother-in-law. Stand them in the corner next to the tree, first spraying with air freshener. She'll be the envy of the Christmas party with her \$100 pants, and you'll feel like Santa when she hands you a one-way ticket to the North Pole. ♡

