

KANSAS

Wildlife & Parks

JANUARY/FEBRUARY 1989

\$2.25



GOVERNOR
Mike Hayden

COMMISSIONERS

Gerald W. Tomanek, Chairman
Hays

Edward B. Anderson
Elkhart

William A. Anderson Jr.
Fairway

Dr. William R. Browning
Madison

Kathy Brown George
Junction City

Ronald Hopkins
Wichita

Ronald A. Vine
Topeka

ADMINISTRATION

Secretary

Robert L. Meinen

Ass't. Secretary/Operations

W. Alan Wentz

Chief of Administrative Services

Mike Theurer

Chief of Education

& Public Affairs

Mike Cox

Chief of Fisheries & Wildlife

Joe Kramer

Chief of Parks & Public Lands

W. Todd Graeff

Chief of Law Enforcement

Omar Stavlo

MAGAZINE STAFF

Editor

Paul G. Koenig

Associate Editor

Mike Miller

Illustrator

Patti Murphy

Photographer

Mike Blair

Staff Writers

Rob Manes

Mary Kay Spanbauer

Joyce Harmon Depenbusch

Bob Mathews

Editorial Assistant

Bev Aldrich

Circulation

Barbara Theurer

KANSAS WILDLIFE & PARKS (ISSN 0898-6975) is published bimonthly by the Kansas Department of Wildlife and Parks, RR 2, Box 54A, Pratt, KS 67124 (316) 672-5911. Subscription rates: one year \$8; two years \$15; and three years \$21.

Articles in the magazine may be reprinted with permission. Second-class postage paid at Wichita, Kan., and additional mailing offices. POSTMASTER: Send address changes to Kansas Department of Wildlife and Parks, RR 2, Box 54A, Pratt, KS, 67124.

Postal I.D. Number: ISSN 0898-6975.



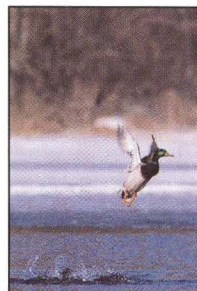
2



29



42



About The Covers

Front: A mallard drake leaves its snowy sanctuary on the way to afternoon feed. Mike Blair used a 600mm lens set at f/5.6, and a shutter speed of 1/500 to freeze the action.

Back: A pair of wood ducks seeks shelter from the bite of a late winter wind after ice-out. Mike Blair captured the moment with a 400mm lens set at f/8. Shutter speed was 1/125.

THE BUCK STOPS HERE

Whatever It Takes

1

DUCKS

A 15-page photoessay on the ducks of Kansas. text and photographs by Mike Blair

2

the center section

edited by Mike Miller

17

Fred The Frog

Fred the who? Fred the Frog! Fred is the only black-and-white bullfrog known in Kansas. What's more, the mottled marvel is a celeb frog. by Larry Zuckerman

29

Outdoor Recreation In Kansas

The Department of Wildlife and Parks is planning a bold three-part program that will promote, protect and enhance Kansas' natural resources. by John Herron

30

Chickadee Checkoff Photo Contest Winners

35

Chickadee Checkoff At Work

The Department's urban nongame biologist provides a brief rundown of how your Checkoff money was spent in 1988. by Charles Nilon

36

A Tale Of Two Squirrels

Two species of tree squirrels are found in Kansas: the fox squirrel and the gray squirrel. A look at where they live and what makes them tick. By John L. Koprowski

38

Gallery

by Mike Blair

42

Our New Logo

Introducing the Department's new logo.

44

HIGH GROUND

Ducks On The Pond by Mike Blair

45

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

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



Whatever It Takes

Staff photographer Mike Blair knows what *cold* is. Below-freezing, it's-crazy-to-be-out-there *cold*. But if you want to photograph ducks, as Mike has done magnificently for the 15-page photospread that begins on Page 2, then that's where you've got to be. Out in the cold. On days like the one he experienced photographing redheads on Quivira National Wildlife Refuge.

"It was getting up toward spring," Blair recounts, "but we had a wind chill factor of about 35 below zero. I was wearing chest waders and sitting waist-deep in water on a submerged stool."

The waves were white capping, spray was freezing on his clothes and camera and the only reason the pothole hadn't done likewise was because of the constant coming and going of redheads. Says Blair of the constant barrage:

"It's unforgettable to see waves of redheads in formation screaming into the wind and hitting the water. They'd stay for five minutes, leave, then come back again."

If you want to photograph ducks, you've got to do whatever it takes, be wherever the ducks are, handle whatever curves Mother Nature throws at you. Although uncomfortable, cold days yield the finest film and the fastest action.

You've got to come prepared, too. That means a lot of equipment. Like about 10 pounds of camouflage material, 30 pounds of camera and tripod, 40-50 rolls of film plus backup equipment stuffed into a camera bag. And if you're toting a dozen decoys, tack on another 12 pounds.

Blair took most of the photographs in this issue with an f/4 600mm lens. The rest were taken with a 400mm. Granted, a 600mm gets you close to your subjects, but for sharp images Blair had to be shooting frames well within shotgun distance — about 10 yards for on-the-water shots, 25 yards or less for flying shots.

So the game plan is to set up a blind with a front-room view of a landing zone. And when a duck lands, it goes something like this:

"A duck comes in and hits the water," says Blair. "He takes a drink, sticks his head up, and the first thing he sees is the glass of the lens. It's like a giant eye staring out of the camouflage, nearly the size of a pie pan. It always spooks him. Often the ducks take flight at once, but if you're lucky, they just swim out of range and soon get used to it. Eventually, that allows good behavioral shots on the water, and live decoys attract other flights."

Blair's quest for quality duck spots took him to potholes, sloughs and marshes in Reno, Sedgwick, Rice, Pratt, Barton, Shawnee, Stafford, Kingman and Lyon counties. Most of the photos shown in this issue were taken during January, February and March. Film was Kodachrome 64,



Patti Murphy illustration

and most action shots were made at an exposure of f/5.6 at 1/500 of a second.

When he gets to his location, Blair sets up where the odds are stacked in his favor. Even then, Blair says, he'll get his swing and rhythm down "and it's still a turkey shoot. You ride the motor drive and hope you're on."

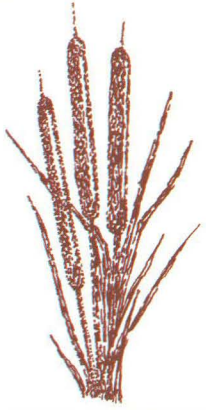
Enchanted with waterfowl, Blair hopes this photo essay moves readers — hunters and non-hunters alike — to buy duck stamps for wetland habitat restoration. Dwindling duck populations have been identified as a national conservation crisis.

* * * * *

New subscription rates for KANSAS WILDLIFE & PARKS magazine are effective with this issue. A one-year subscription, for example, now costs \$8.

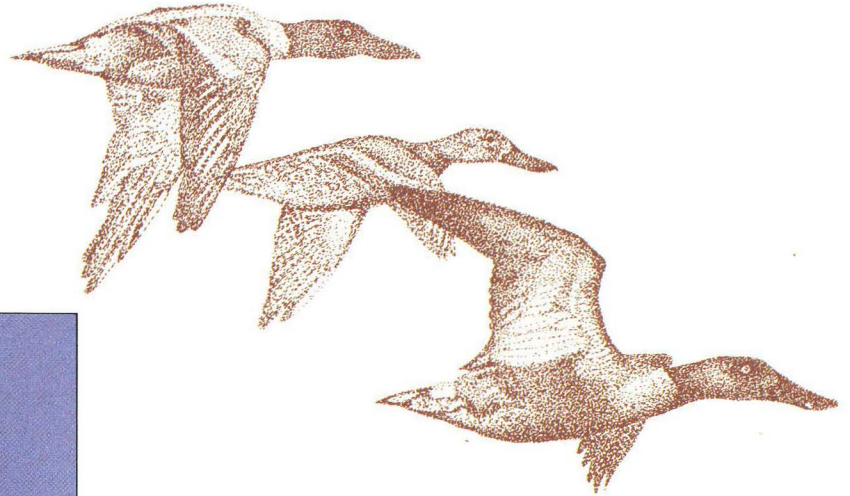
Paul

Paul G. Koenig
Editor



DUCKS





text and photos
by Mike Blair
Staff Photographer

The silent stroke of an ancient clock whose pendulum swings between the equinoxes stirs them, rallies them to their journeys. In their passage is the echo of places far away, a mystery of migration, a changing of the seasons.

You'll see them, fresh from Wyoming or Texas, in the vestiges of wilderness fugitive to the '80s. Not large areas, or perforce remote, but in places where the wind blows clean, where the cordgrass rustles.

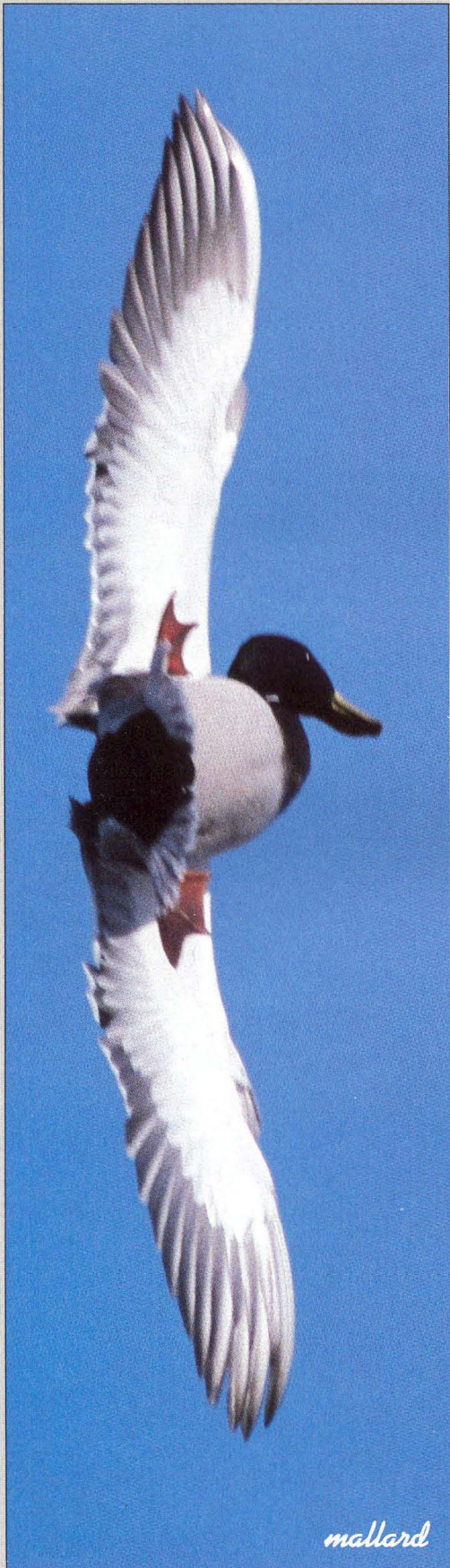
Places like Mr. Johnson's slough or the upper end of the city lake. Cattail ponds or hidden springs. Duck places . . .

Long live Quivira and Cheyenne Bottoms, Indian haunts where the echo of wild wings invites each new flight to rest in the habitude of winged ancestry!

Long live Marais des Cygnes, where flooded timber lifts its craggy arms to welcome the sky riders, pouring from dark clouds in search of refuge.

Long live the Ninnescah and Arkansas and cousin rivers that feed and guide the birds across their Kansas passage.

And long live God's wondrous travelers:
Ducks . . .



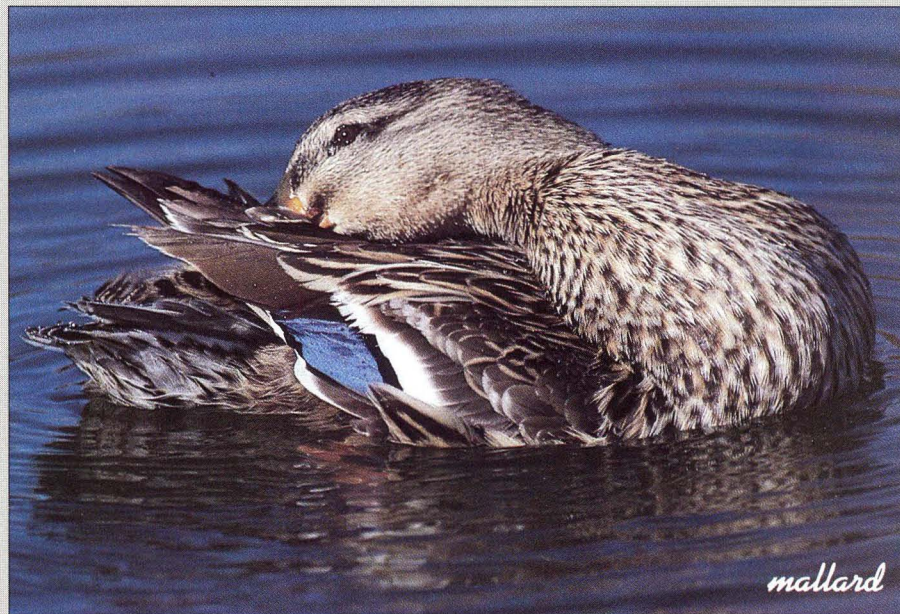
mallard



wigeon



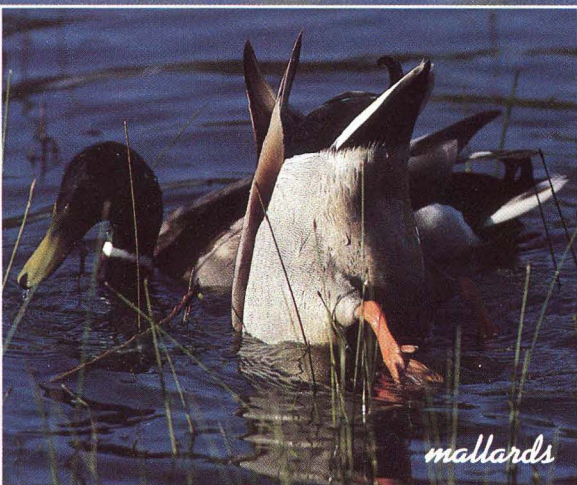
cinnamon teal



mallard



blue-winged teal

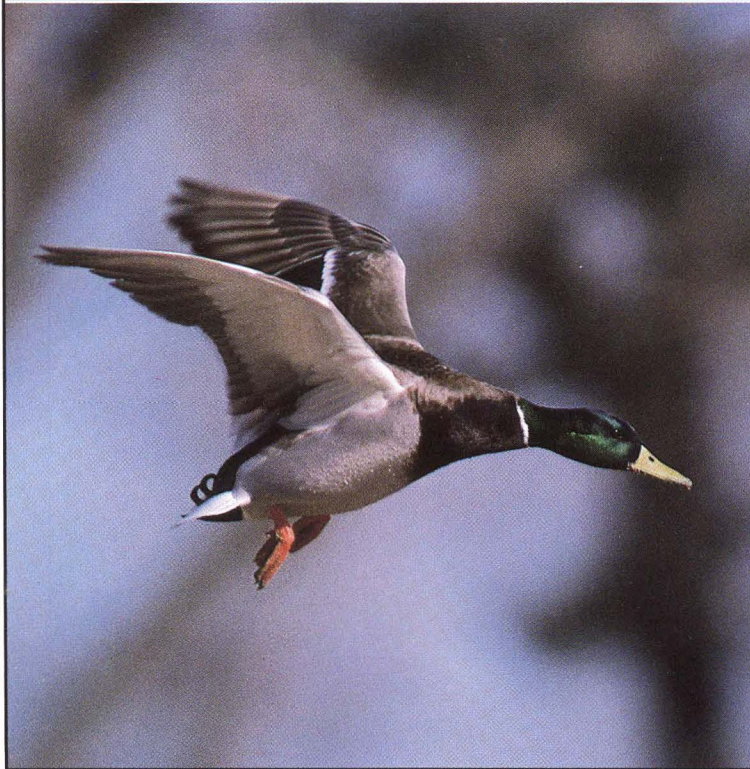
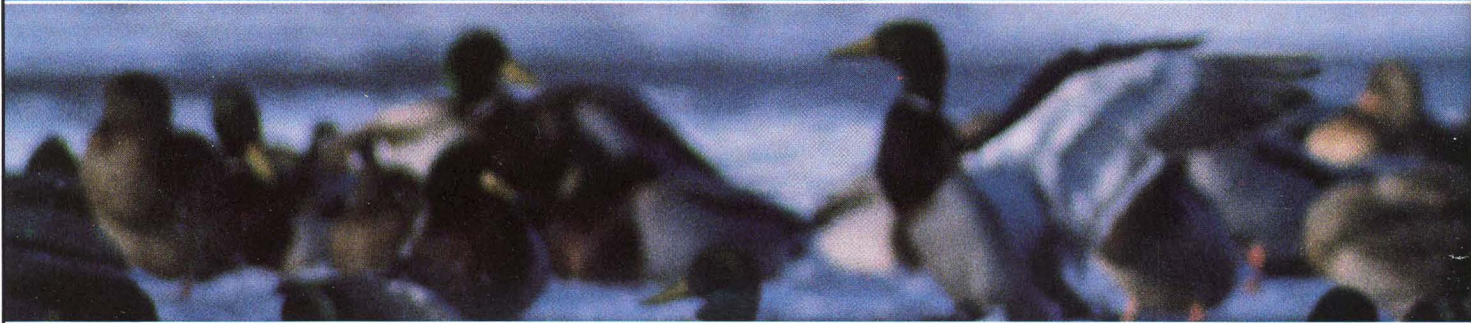


mallards



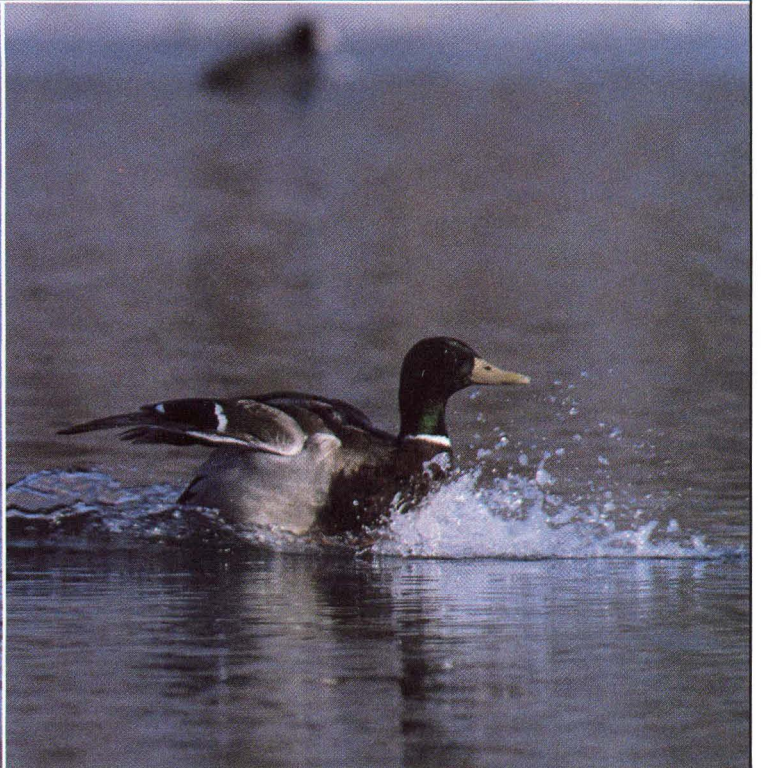
redheads

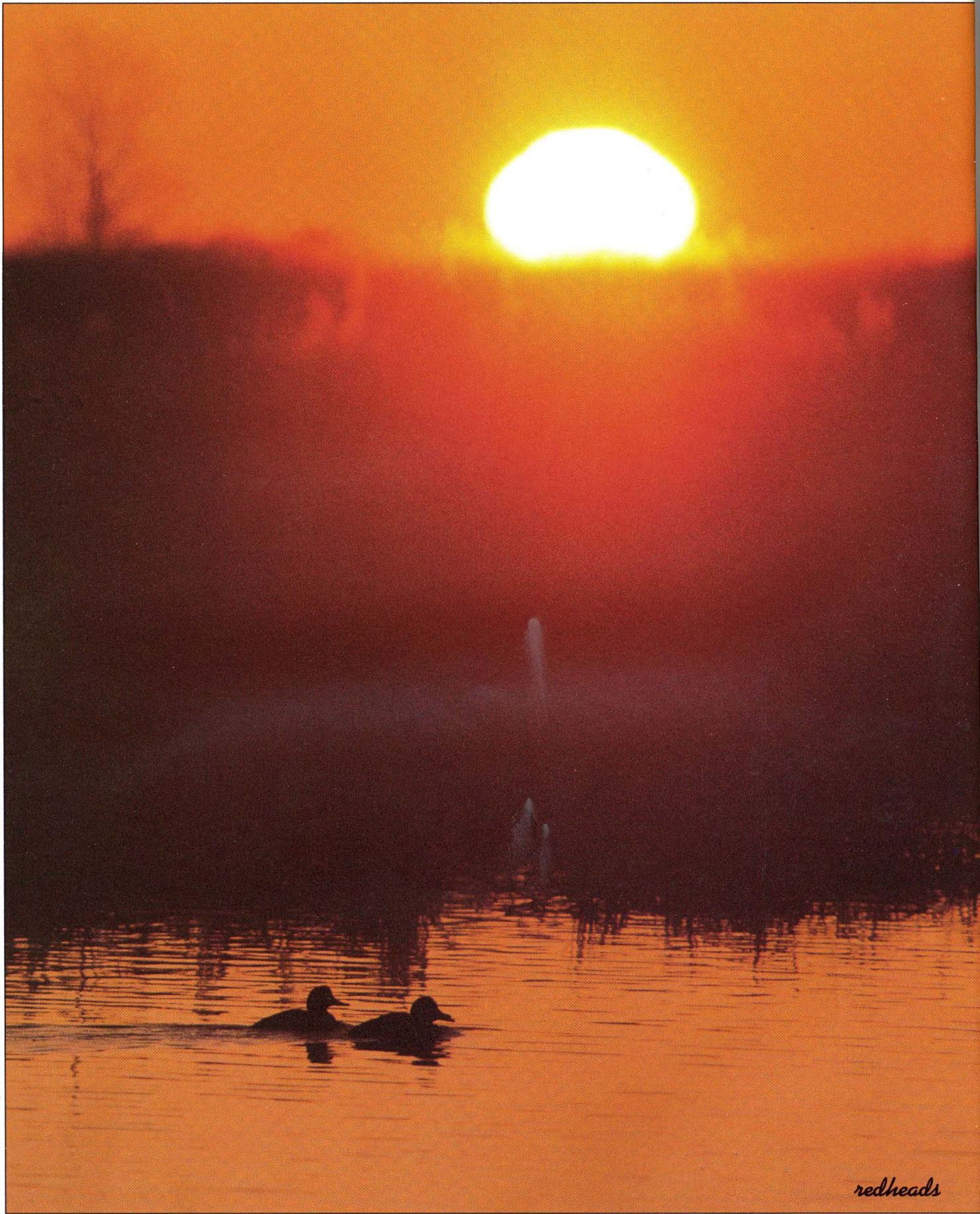






mallards





redheads

DUCKS

A cloud of droplets trails southward as the first bluewings bid farewell to Canadian homes. Inexorably, hardier kin follow as the sun recedes. The flyway darkens with moving ducks, though not in former numbers. Still, their whistling wings are magic to the earthbound.

To lift strong wings and meet the clouds, to float in the shade of a dappled pond or fight the sting of a blowing snow — these are the ways of ducks.



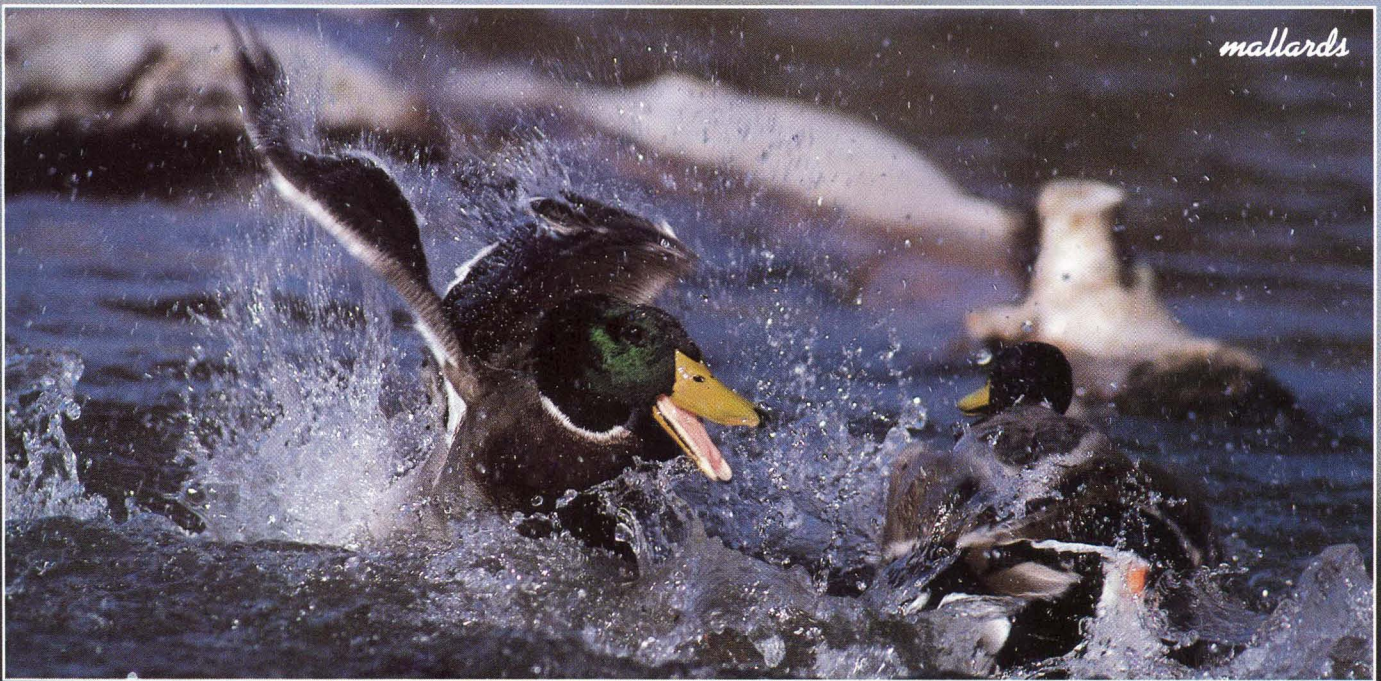
mallard



pintails and green-winged teal

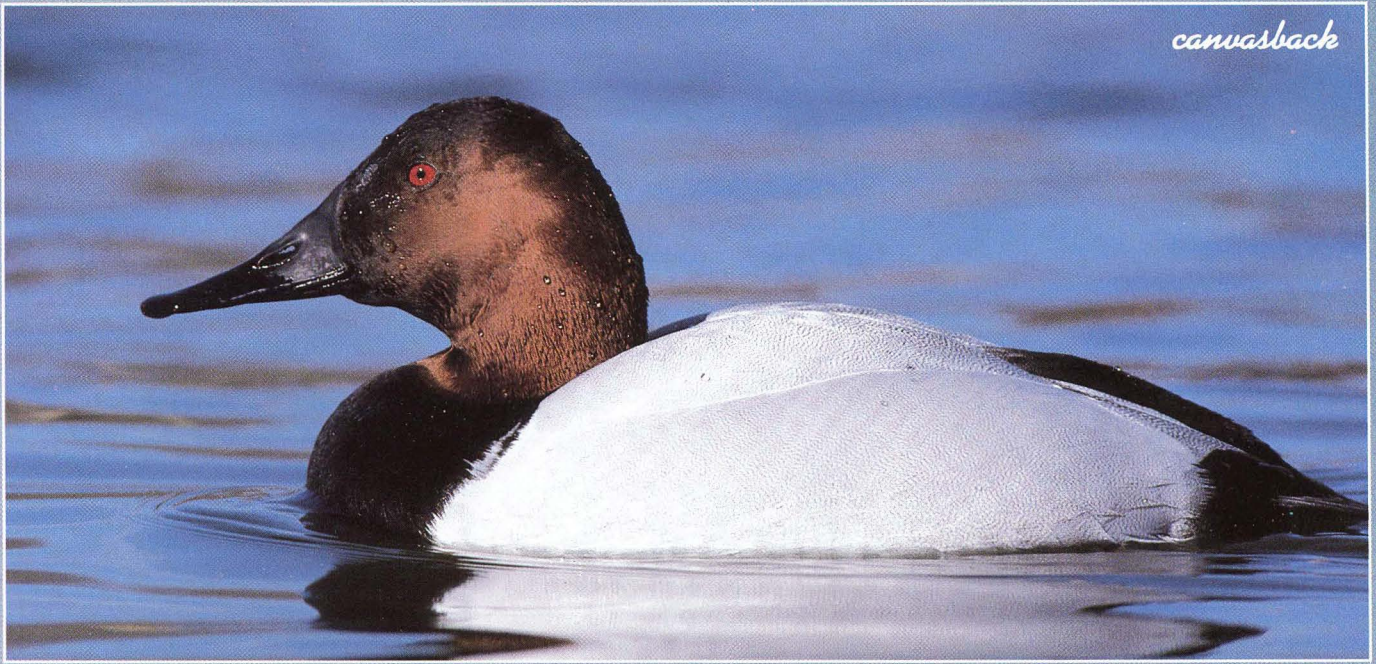


green-winged teal



mallards

canvasback



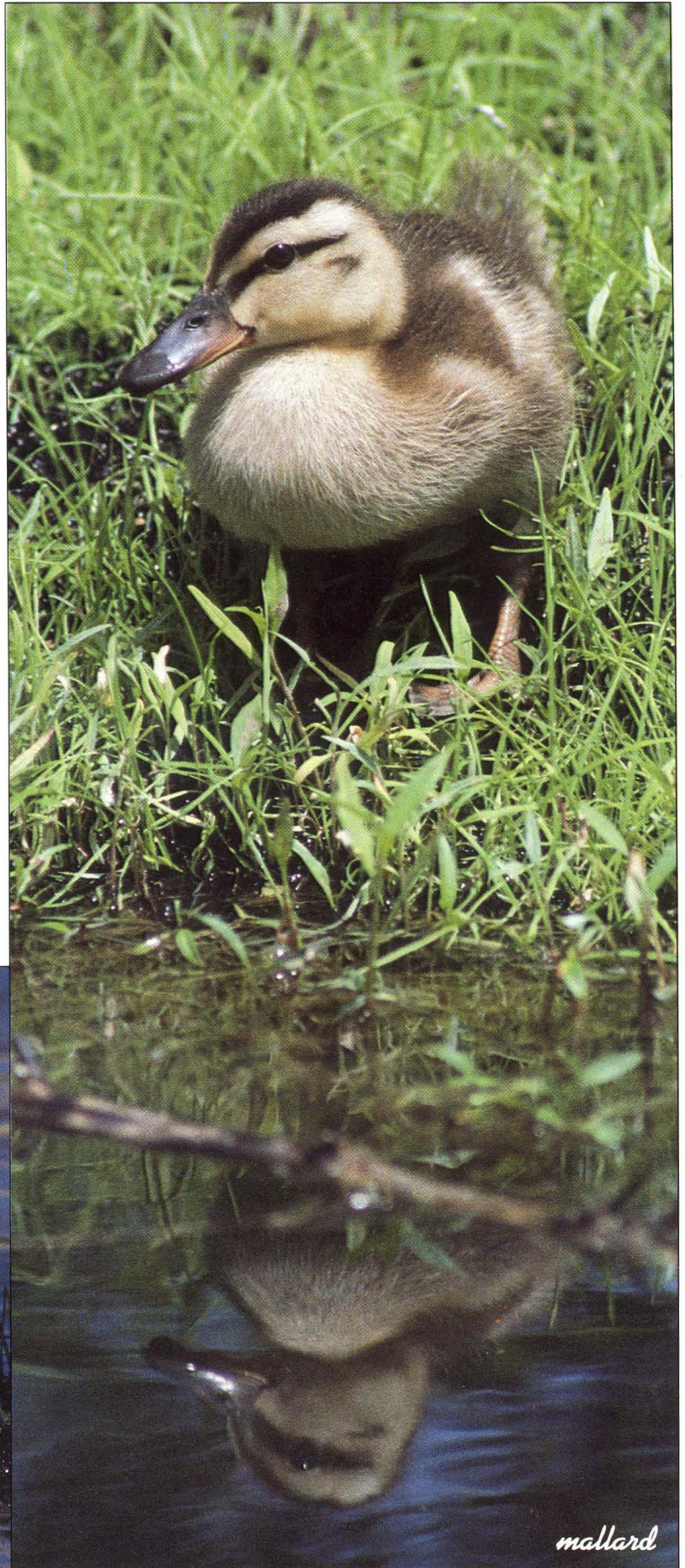
mallard



DUCKS

The sun's finest image gleams in a duck's eye, often twain: A diamond reflection from the sky and another from the water. Look deep — you'll see its living energy and sense some vast connection between star and bird too deep for understanding.

Where wind meets wing, there is a potent sound, a rending that bespeaks the freedom of flight and causes men to dream. I listen as it tears the sky, tracing the paths of wild ducks descending to join their resting kin. And I wonder . . .

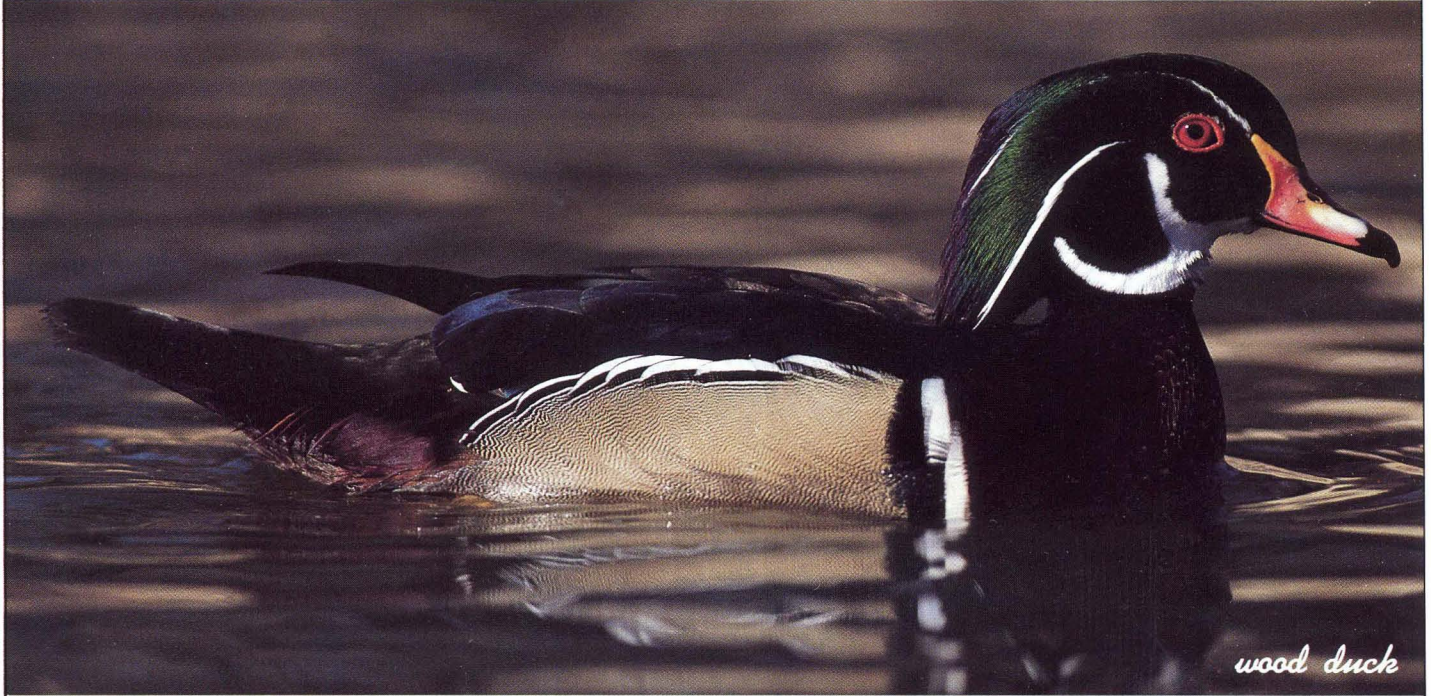


mallard

mallard



hooded merganser



wood duck



shovelers

the center section

Edited by Mike Miller

LETTERS

NEW ZEALAND READER

Editor:

It appears that I am the only recipient of your fine magazine in New Zealand. No, I am not an American but a proud New Zealander, and I am also very proud of your fair country and its people.

In 1984, my wife and I brought our two daughters to America for a six-month touring vacation. We really fell in love with your country, its people and its wildlife. You see, New Zealand has a totally different set of animals. We have NO snakes, not even in zoos. There are no turtles, squirrels, gophers, prairie dogs, skunks, raccoons or porcupines. In fact, most of our wildlife has been introduced.

While we were in America, we stayed with friends in Sawyer, Kan. I had the occasion to read several issues of your magazine. I really enjoyed the magazine and had our friends scratching about finding past issues for me to read. My American friends then bought us a subscription to your magazine. I received the first issue about a week after we returned home. I was absolutely wrapped (delighted) and have taken great pleasure in the magazine ever since.

Ian Douglas
Wakefield, New Zealand

CONCERN FOR DEER

Editor:

I often wonder how the number of deer permits issued each year is determined. Are road kills, poached deer and natural deaths taken into account?

I often hear of bowhunters wounding deer and not finding them and also of the increasing amount of deer poached.

I personally don't favor bowhunting and absolutely look down on those who poach deer!

Chuck Atkinson
Coffeyville

Dear Mr. Atkinson:

Deer management in Kansas is a complicated process. Our biologists gather valuable information, including hunter harvest, roadkills, incidental kills, poaching, hunter success rates, habitat conditions and age data before they set the season regulations. It would be much easier to standardize the season dates and sell permits over the counter, but we probably would not have the quality of deer hunting we now have. Hunters fill out extensive report cards after each season, and this along with periodical landowner surveys are all taken into account when allocating permits.

As for your comment regarding bowhunters wounding deer, you should know that wounding is more a result of the hunter than of the weapon used. If you hunt deer with a rifle, you have just as much responsibility as a bowhunter to become proficient with that weapon and only take shots within your capability. There are those hunters who may take a 500-yard shot with a rifle when they are only capable of shooting 200 yards just as there are bowhunters who may take a 40-yard shot when their accurate range is only 25 yards. Hunter ethics

and skills are much more important than the particular bow or firearm used. *Miller*

PLEASE RENEW

Editor:

Just a quick note saying I enjoy your magazine very much. I find the articles informative and interesting to read. As a conservation agent in your neighboring state of Missouri, I especially like to read the section titled "The Law." Please renew my subscription for another year.

Scott B. Burger
Anderson, Mo.

STIFFER FINES

Editor:

I was saddened and greatly appalled after reading your article "Poachers Stung" (Page 19) in the September/October issue. It is inconceivable to me that these outlaws, after profiting thousands of dollars from their illegal poaching practices, are merely facing fines up to \$1,000 and only possible jail sentences. This is ludicrous.

Although I highly commend the bravery and efforts required to apprehend these poachers, the time, money and risk taken by undercover officers is not justified by the ridiculously low fines. I believe the consequences for such illegal and grotesque practices should be increased substantially. There needs to be a definite incentive to curb poachers' ruthless assault on our wildlife.

Katie Ohle
Overland Park

TEAL MEMORIES

Editor:

I enjoyed your magazine very much. I particularly relished the article by Ken Brunson in the September/October issue, "A Real Teal Deal." The article certainly brought to mind pleasant memories.

James L. Dendy
Baton Rouge, La.

DISAPPOINTED HUNTER

Editor:

I was surprised to find no complaints about the 1988 deer season opener in the September/October issue of the magazine. Therefore, I will express the disappointment that I and several other hunters feel.

Why is the 1988 deer season opening on a Wednesday instead of a Saturday? I understand the need for a longer season, since the deer population in Kansas continues to grow, but why wasn't the season extended after Sunday, Dec. 11? That would have enabled those of us who must work during the week to have the same advantage as those who will be able to be out there on Wednesday. Hunting early mornings and late evenings is out of the question since I live 150 miles from my hunting area. Although deer numbers are increasing, opening day is still very important.

Terre J. Carter
Overland Park

Dear Mr. Carter:

There were two reasons for opening the deer season on a Wednesday. One was, as you said, to lengthen the season. The other, however, is just as important, but for an entirely different reason. As you said, most hunters would prefer to be out opening day, so that's when the largest number of hunters are in the field. Department officials have found that by opening the season midweek,

they can spread out the hunting pressure. This lessens the impact of hunting on landowners and theoretically makes the opener safer. It also gives the landowners who can hunt during the week a chance to hunt before the crowds arrive. It may also improve hunters' ability to get hunting permission later in the week. This type of opening day has worked well with the spring turkey season. *Miller*

FIRST STATE PARK?

Editor:

In reference to the article by J. Mark Shoup, "Kanopolis State Park," in the September/October issue, I question Kanopolis being Kansas' first state park.

The "Being Biennial No. 2" of the Kansas Forestry, Fish and Game Commission printed in 1928 includes reports of several state parks: Scott County State Park, Meade County State Park, Crawford County State Park, Neosho County State Park and Ottawa County State Park.

I look forward to reading the next issue of your excellent magazine.

Robert Larrabee
Liberal

Dear Mr. Larrabee:

Kanopolis State Park was the first state park officially operated by the Kansas Park and Resources Authority. The areas you mentioned were owned and operated by the Kansas Forestry, Fish and Game Commission in 1928. Scott, Meade and Crawford county state parks were eventually turned over to the Park and Resources Authority in the 1960s. The other areas are state fishing lakes.

As you probably know, we are now one agency. Gov. Mike Hayden merged the Kansas Fish and Game Commission (formerly the Kansas Forestry, Fish and Game Commission) with the Kansas Park and Resources Authority in 1987. All of the areas mentioned are under the responsibility of the Kansas Department of Wildlife and Parks. *Miller*

FOR THE RECORD

In the updated Kansas deer record chart that appeared in the November/December issue, we incorrectly listed Mike Shull's 1986 bow-kill deer under both whitetail and muley headings. Only the muley listing is correct.

In November 1986, Mike Shull of Dighton killed a non-typical muley buck that measured 220 7/8 points. Shull took the big buck in Gove County.

* * *

We'd also like to right another wrong that found its way into the November/December issue. On Page 13 of that issue, Byron Walker's response to the second question also was inadvertently laid down over most of his response to the first question. The opening question as it appeared and Byron Walker's response as it should have appeared are as follows:

KW&P: You worked on this area for a few months before you entered the service in 1942. So most of your area management began in 1946, after you returned from the war. What were those early years like?

WALKER: Well, the whole idea was trying to improve it for people's use. We tried to find volunteer trees because we didn't have any kind of budget to just go out and buy trees. Even the first picnic benches I made were out of old telephone poles. I was trying to plant exotic trees to make the area a little fancier and really didn't have any money to do it.

In fact, that year we took a trip with the kids — the first camping trip I ever took. We bought a tent and everything. We went down through Missouri, Arkansas and Oklahoma and stayed at the state parks. Instead of trying to plant exotic trees there, they planted or used the best trees that were growing there naturally. You know, like oaks. Some of those oak trees were little old shrub oaks, but yet they kept them trimmed up and it made neat shade. And a neat-looking area for camping. So I decided that cottonwoods would do the same on this area. That's one reason we started planting more cottonwoods.

* * *

KANSAS WILDLIFE & PARKS
regrets the errors. *Koenig*

THE LAW

the 1982-1983 season. *Rob Manes, wildlife education coordinator*

NEW YORK SCAM

A Brooklyn, N.Y., man has paid a high price himself after charging a customer \$10 for a hunter-training course. New York City conservation police investigated a complaint about a \$10 hunter education course and arrested a volunteer trainer on charges of issuing at least 502 fraudulent hunter-education certificates.

The man was charged with 54 counts of offering a false instrument for filing and two counts of issuing a false certificate (a felony). Because of his advanced age and lack of a criminal record, he was allowed to plead guilty to a reduced charge. He paid a \$250 fine plus court costs, and his hunter-training certification was taken away.

More than 4,000 volunteers train about 100,000 hunters in New York state each year. The volunteers are bound by law not to charge any fees for the course. The Brooklyn man was charging between \$10 and \$100 per certificate, often not teaching the hunter at all. *Izaak Walton League*

OPENER OVERVIEW

"The average pheasant hunter we checked took about two birds home," reported Jim Kellenberger, Department of Wildlife and Parks regional law enforcement supervisor in the southwest. Kellenberger, whose area contains some of Kansas' best pheasant hunting territory, had 15 officers working the 28-county region on Nov. 12 and 13. He, like law enforcement personnel in other regions, conducted road check stations Sunday afternoon to sample hunters traveling home.

At a Stafford County check station, 178 hunters' vehicles were stopped. Most of the hunters checked were found to be complying with the law, but 12 were ticketed, and 13 received warning tickets.

"With very few exceptions, the hunters were cheerful and courteous," Kellenberger

said. "Most of them were appreciative of the fact that we were looking out for their wildlife resources . . . even a Texan who had to put up a \$200 bond and forfeit several pheasants.

"One guy had four hens, pretty as you please, with legs still attached and everything. I guess he really didn't know any better, but he does now, I'll guarantee you.

"Another fellow had a limit of roosters, except one of them was a hen. It even had one leg still attached. I think I believed him when he said one of his buddies must have put the bird in as a joke. I hope the prankster will help him pay the fine. But even that guy wasn't really upset about the whole deal," Kellenberger said.

Most citations were issued for transporting pheasants illegally, generally with no means of sex identification, and for lack of hunter-education certificates.

"We try to be as courteous and un-disruptive as possible when we're checking hunters," Kellenberger added, "and most of them do us the same favor. Generally, we don't slow them down for more than two or three minutes at a road check station. It's very important that hunters and conservation officers continue to work together for their common interests."

Wildlife and Parks officers were busy in other parts of Kansas during the pheasant and quail opener (quail season opened a week later in far western Kansas), but hunter success wasn't quite as good elsewhere. At a Marion County check station, officers found the average hunter bagged 1.5 pheasants. Similar success rates were observed at stations in Sherman, Clark and Marshall counties. Warm, windy weather and abundant cover are blamed for an unexpectedly low success rate.

Many hunters said they saw many more pheasants than they were able to bag as the warm weather made birds prone to flush wild. Reports of quail numbers were also encouraging, with some hunters saying they saw more bobwhites than they'd seen since

POACHERS HIT HARD

Two Independence men and a Sycamore man were sentenced for charges filed after a year-long undercover operation that culminated last June. The sentences were handed out in Montgomery County District Court in October. An Independence woman was also sentenced for her part in the poaching.

All four individuals were arrested on June 29 and charged in connection with the undercover operation.

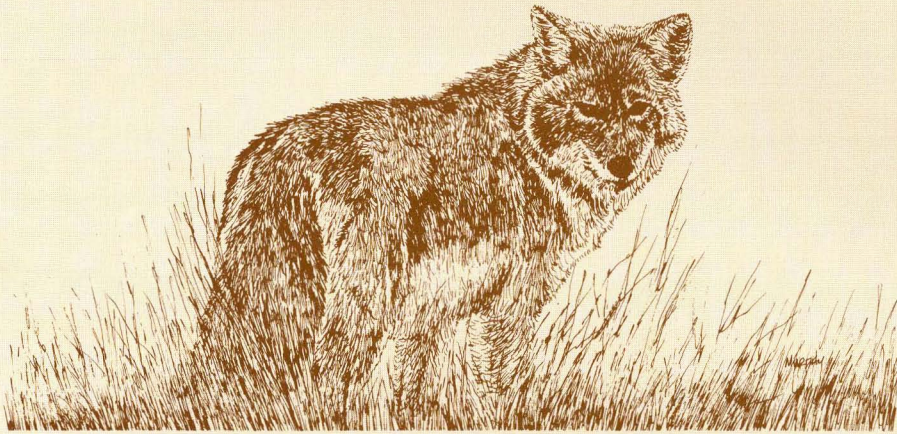
The Sycamore man pleaded guilty to illegal possession of a deer, hunting deer out of season and hunting deer after sunset. He was fined \$2,400 plus court costs and sentenced to 180 days in jail. He'll spend 30 days in jail on weekends, with the remainder of the sentence suspended. The man was placed on probation for two years, and his privilege to hunt was suspended for two years. He was also ordered to pay \$100 restitution to the Wildtrust Fund, and the rifle was ordered sold with proceeds being applied to the fine. All other charges filed in June were dropped.

An Independence man pleaded guilty to hunting deer out of season, illegal sale of deer and illegal possession of a deer. He was fined \$2,400 and sentenced to 90 days in jail. The jail sentences were suspended, and he was placed on two year's probation. He, too, lost his privilege to hunt for two years, and his rifle is to be sold with proceeds applied to the fine. He also paid \$100 restitution to the Wildtrust Fund.

The third man, also from Independence, pleaded guilty to illegal possession of a deer and illegal sale of a deer. He was fined \$1,400 plus court costs and ordered to pay \$100 to the Wildtrust Fund. He was also sentenced to 30 days in jail, although the sentence was suspended. The man was placed on probation for one year and lost his hunting privileges for one year.

The Independence woman pleaded guilty to aiding and abetting the hunting of deer with a vehicle, and was fined \$250 plus court costs. *The Independence Reporter*

HUNTING



COYOTE CALLING

Reports from Department field personnel and archery deer hunters indicate a large coyote population in Kansas this year. To a small but dedicated group of hunters, this is good news. Those hunters are the predator callers, and January and February are prime months to be out calling coyotes.

The predator call actually imitates the sound of a distressed rabbit. The trick is to fool the coyote into rifle range, which is not always easy. It's true that once in a while, a coyote caller will have a coyote nearly run over him, but those cases are rare. Coyotes have extremely fine-tuned senses and are constantly on the lookout for danger.

The first step in coyote calling is to become efficient with the predator call. The call takes more wind than skill and can be mastered easily. The basic call is a series of high-pitched squeals that lasts for several minutes. If you've never heard a rabbit distress call, an instructional tape will be a big help.

More important than your calling skills is the area you pick to set up and call from. Look for large pasture draws, weedy farm field draws or large grown-over stubblefields. Try to set up downwind from the thickest cover. On calm days the call will carry hundreds of yards, but on windy days, you'll need to be closer to the cover.

Pick a spot to sit where you can see over

a large area, and always have some sort of cover at your back such as a tree trunk, thicket or cedar tree. Coyotes have good eyesight and will pick you out if your silhouette is visible.

After you've set up, ready your rifle so that only minimal movement is required to get it to your shoulder. Camouflage clothing will let you get away with a little more movement. Blow several series of calls, wait for about 15 minutes, then move to another area. But always give one last look around before you stand to leave. And be sure to check behind you. Coyotes will often sneak around a hunter to get downwind. If the coyote picked up your scent, it's already gone, but if it hasn't smelled you, you might still get a shot.

Most hunters prefer a fast, flat-shooting rifle for coyotes. The varmit calibers with smaller bullets are sufficient and will do less pelt damage than the bigger cartridges.

Coyote calling is an exciting way to spend a late-winter day, and the pelts are usually prime this time of year. A hunting license is required to hunt coyotes, although no license is required to sell the pelts. There is no closed season on coyotes. They may not be hunted with the aid of an artificial light. *Miller*

LATE-SEASON HUNTS

The pheasant season, along with Kansas' other upland bird seasons, closes Jan.

31. Much of the early-season excitement is gone and so are the hunters. Hunting pheasants in January is not only productive, it's often lonely.

Most pheasant hunters hunt the first few weeks of November, and there's usually quite a few that will hunt through the Christmas holidays. But in January, the dedicated bird hunter will have much of the good pheasant hunting ground to himself. And getting permission to hunt on private land is often easy after the crowds of November are gone.

January is a good time for a single hunter and his dog or just a pair of hunters to work small spots of cover. The birds will often congregate in the small pockets of heavy cover when the January cold sets in. And a single hunter or small group will more easily sneak up on hunter-wise birds that often flush wildly when big, noisy groups approach.

Snow can be a big help to January hunters. With snow on the ground, the birds will be a little more predictable, roosting in the thick cover and feeding in late morning and early afternoon. The trick is to catch the birds in the thick stuff, and remember, if it's calm, approach quietly. These birds have seen hunters and will often flush or run at the sound of a car door slamming. Tracks left in the snow will also give you an idea of which cover spots the birds prefer. *Miller*

NEW PROGRAM

The National Muzzle Loading Rifle Association has established a new program called the Longhunter Society. The program recognizes trophy-class North American big-game animals taken with a muzzleloading firearm.

A committee has been selected to administer the program. Trophy scoring will follow procedures established by the Boone and Crockett Club. A book of muzzleloading big-game records is being established by The Longhunter Society. For more information contact: Amy Davies, The Longhunter Society, P.O. Box 67, Friendship, IN 47021. *The National Muzzle Loading Rifle Association*

FIND DEER NOW

Now is the time to scout deer. It can be as easy as driving the backroads through likely looking habitat. The deer will spend considerable time feeding in crop fields this time of year and be much more visible. You might find out where a big buck lives, and you'll have plenty of time to find out who owns the property and ask permission to hunt. January scouting can be an effective way of finding a deer hunting hotspot for next season. *Miller*

FAIR CHASE

The Pope and Young Club's Board of Directors has announced two additions to its Rules of Fair Chase Statement. One change eliminates certain electronic devices and the other change limits the maximum let-off (relaxation) weights for compound bows.

Hunters entering trophy-class game in the Pope and Young records must submit a signed statement attesting that the animal was legally taken in compliance with the Club's rules of fair chase. Following are the additions to the Pope and Young Fair Chase Affidavit, which becomes effective with the 1989-1990 recording period:

The term "Fair Chase" shall not include the taking of animals under the following conditions:

*Use of a compound bow to which any electronic device is attached.

*Use of a compound bow having a let-off of greater than 65 percent.

"The Pope and Young Club membership is becoming increasingly concerned over certain technological advances in bowhunting," explained G. Fred Asbell, club president. "Some devices, we feel, place bowhunting — and trophy hunting in particular — in jeopardy."

The Pope and Young Club was founded in 1957 to record the finest big-game bowhunting trophies on the North American continent. The Club, a scientific and non-profit organization with several thousand members, encourages quality hunting and sound conservation practices.

Pope and Young Club

FOR WHAT IT'S WORTH SOMETHING TO LOOK FORWARD TO



by Mike Miller, associate editor

We Kansans are lucky. I decided this one spring afternoon while I was at college. It was a perfect day — brilliant blue sky, calm and 70 degrees. On the walk to class, a roommate remarked how nice it would be to live where the weather was like this year-round. "Yeah, that would be great," I said without thinking.

But I thought about the statement later, and I disagreed to myself. I like those perfect spring days as much as anybody, but how boring it would be if the weather or seasons never changed.

When you grow up enjoying outdoor sports, as I did, weather and the seasons become an integral part of your life. The weather and seasons dictated what you did outside.

The Kansas weather is best suited to the utility player. A person who specializes in one activity will spend a great portion of the year waiting. But for the person who enjoys a variety of outdoor pursuits, Kansas is perfect. Just when you tire of one activity and season, the season changes and you must gear up for new weather and a different set of outdoor sports. I find myself anticipating and looking forward to each season change much like a child anticipates Christmas.

I've heard numerous complaints about Kansas summers. The hot, dry weather coupled with the furnacelike winds are commonplace. But I also like to think of sitting on a farm pond on a dark summer night, listening to my Jitterbug gurgle across the water. It's also in the grips of summer when you'll find the white bass tearing up the water's surface after gizzard shad on

Kansas reservoirs. Summer is good, but along in August, I'm ready for something different.

September arrives, and although fall hasn't officially begun, the dove season opens. The warm days and cool nights are a pleasant change from August. The blue-winged teal splash down from Canada and looking skyward, long Vs of sandhill cranes sail south. When fall finally comes, it's decked in brilliant colors. The crisp air tickles my hunting instincts, and I think about bird seasons and deer hunting.

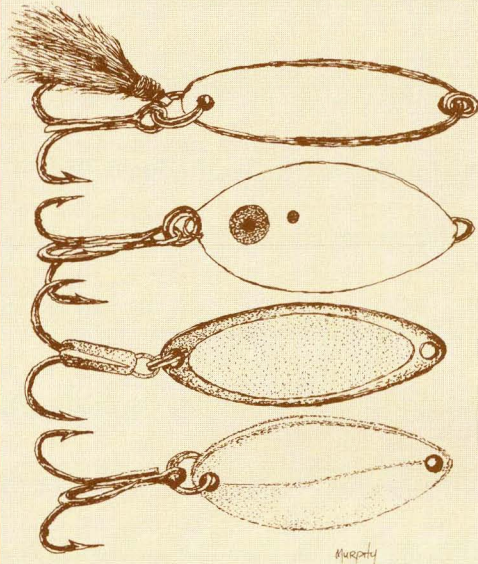
Some Kansans will flee south at the coming of winter. But there's so much to do before winter sets in. In October the bow season opens and the waterfowl arrive. I've always looked forward to the first frost and to seeing prairie chickens glide into a feed field. The Kansas countryside changes from greens and yellows to rich browns and tans, signaling the coming of the pheasant and quail seasons. I look forward to seeing my breath as I step into a stubblefield where pheasants would hide.

Then there's the first snow. After the long, hot summer, the first snow is always refreshing. And even in January when the cold days and long nights seem unending, I think of sitting on a frozen lake dabbling a lure into the icy depths. But we Kansans are lucky. Just when we tire of snow, a warm late-winter day arrives and melts it away.

I grow tired of fighting the cold and I look forward to spring perhaps more than any other season. There's relief in the warm spring sun, and there's life in the naked branches of trees and cold brown earth. Pheasants strut boldly about and cranes pass overhead again. In spring I think of turkey hunting, crappie and white bass fishing and just getting out and soaking up the sun.

Then almost without notice, the days grow longer and warmer, and spring turns to summer. It's been said that if you don't like the weather in Kansas, wait 20 minutes and it will change. But that change keeps us from becoming stagnant and always gives us something to look forward to.

FISHING



ICEFISHING LURES

Most fishing tackle dealers in Kansas don't stock much in the way of icefishing lures. You would find a much wider selection in northern states where icefishing is more common. The problem in Kansas is that the icefishing season is usually short, sometimes nonexistent. It doesn't pay to keep a large selection of icefishing lures in stock. But you can still find some good lures in Kansas.

Regular crappie jigs work fine, but Kansas fishermen have found that jiggging spoons are more effective. The all-time favorite has to be the Kastmaster spoon. But almost any jiggging spoon will work. The idea is to imitate a dying shad that's fluttering up off the lake bottom, then settling back down.

One important consideration is to use a lure that's heavy enough to keep your line tight. If there's any slack in your line, you won't feel many of the light strikes. A three-eighths- or one-half-ounce spoon on 8-pound line is usually sufficient. You may use lighter lures with lighter line, but always be sure you can feel the lure.

The lead slab spoons have also proven effective, and most will catch fish. Color may be a more important consideration than the shape or type of spoon. It's a good idea to have silver, gold, copper, white, yellow and chartreuse spoons in your tackle box.

Depending on light conditions, snow cover and water clarity, one color may work best. Keep trying different colors and types of spoons until you find one that works. *Miller*

BIG WIPER

A 20-pound, 11-ounce, white bass/striped bass hybrid, or wiper, was caught from Greers Ferry Lake in Arkansas. The previous state-record wiper weighed 19 pounds, 4 ounces.

The Arkansas record was caught on Nov. 9 by Bill Brown of Shirley, Ark. Brown was fishing with baitcasting equipment spooled with 14-pound line when the 32-inch wiper hit a topwater lure.

The Kansas record wiper weighed 14.88 pounds and was caught in November 1987. Whether Kansas wipers will reach the 20-pound mark is anybody's guess, but it's exciting to think about. The Missouri state-record wiper is also near 20 pounds. Best bets for big Kansas wipers are Norton, Marion, Kanopolis and John Redmond reservoirs. *Miller*

ICEFISHING FACTS

Did you know this?

*Icefishermen are often more successful than fishermen in the spring, summer and fall. Creel surveys show that winter catch rates are often the highest of the year.

*Cold water temperatures stress and kill many gizzard shad, which is the primary food for white bass, striped bass and walleye. And when the shad are dead and dying from cold-water stress, sportfish actively feed on them.

*A former state-record striped bass weighing 35 pounds, 12 ounces was caught by an icefisherman at Cheney Reservoir in 1985.

*Specialized equipment is not needed

to icefish. Many Kansas fishermen simply use the same spinning gear they used in the summer. A shorter rod is handier around the ice hole, but it is not mandatory.

*Four inches of ice is a minimum requirement before you should venture out. It usually takes three to four days of frigid temperatures to make safe ice.

*A small piece of carpet to rest between your feet and the ice will keep your feet warmer.

*The cold water will weaken monofilament fishing lines. It's a good idea to fish with at least 8-pound test line, especially if the lake holds striped bass.

*Avoid snow-covered ice after a day or two of warm weather. The melting snow will drip down to the ice and give it a honeycomb appearance, weakening it considerably.

*A small gaff, made with a short piece of broom handle and a large trotline hook, will help you land large fish.

*When the lake first freezes, the fish will usually be in the upper end of the lake in shallow water. But later in the winter, when the fishing pressure increases, the fish will move to deeper water near the creek channels.

*Drinking alcohol actually reduces your body's ability to keep warm. It's much better to drink hot chocolate or soup to keep warm. *Miller*

TOPO MAPS

Winter is a time when many fishermen scan their outdoor catalogs looking for new fishing gear while wishing spring was here. It's also a good time to order and study good topography maps of your favorite lakes.

Many of the mail-order tackle dealers have an assortment of topo maps for lakes all over the country. You might also contact a local blueprint or map printing firm. Order maps of several lakes you like to fish.

Now pick a cold winter day or evening and sip a cup of coffee while you study the maps. It will help you become familiar with the lake-bottom depths, creek channels, brushpiles and other structure. You might find a dropoff or submerged farmstead that could be a hotspot next spring.

Miller

ISSUES

FIRE STUDIED

The U.S. Fish and Wildlife Service announced it will study the effects of last summer's fires on the greater Yellowstone's ecosystem. Biologists, who began the study in October, will be sampling water from high-elevation lakes in Montana's Gallatin and Custer national forests and Wyoming's Shoshone National Forest. The water will be tested to determine the effects smoke, ash and other airborne contaminants had on the water quality and aquatic life.

Experts have theorized that some of the small, isolated lakes — many of which are at elevations above 10,000 feet — could show an increase in acidity from contaminants such as oxides of nitrogen, particulates and other material carried by the smoke.

A preliminary report on the study's findings should be completed in April, the final report in May. *U.S. Fish and Wildlife Service*

WETLAND CRP

The Soil Conservation Service has announced a Feb. 6-24, 1989, signup period to enroll cropped wetlands into the Conservation Reserve Program. Any cropland identified as wetland or farmed wetland under the 1985 Food Security Act (FSA) that has been cropped any two crop years from 1981 through 1985 may be bid into the program. Enrolled acres must be re-established in natural vegetation to improve surface water and groundwater quality.

Any field, of which 30 percent is wetland or farmed wetland, will be eligible. In addition, established fields less than nine acres or redefined fields of six to nine acres (six acres is the minimum) having wetland or farmed wetland are eligible.

Due to inconsistent yields and tillage problems associated with wet and flood-prone soils, the continued farming of wetlands puts an economic stress on farmers. Just as importantly, it diminishes the public

values of the wetlands as areas for timber production, flood water storage, groundwater recharge, water-quality improvement and for waterfowl habitat.

For more information contact your local Soil Conservation Service office. *United States Department of Agriculture*

NEW CHIEFS NAMED

Two new Kansas Department of Wildlife and Parks division chiefs were appointed last fall. Joe Kramer, who was the regional wildlife supervisor in Dodge City, was named chief of the Wildlife and Fisheries Division. William Todd Graeff, formerly from Boise, Idaho, was named chief of the Parks and Public Lands Division.

The two positions were opened when the structure of the new agency was developed. The former Fisheries Division and Wildlife Division were combined and a Parks and Public Lands Division was created. Secretary Robert L. Meinen and Assistant Secretary W. Alan Wentz announced that the chief positions would be selected after an extensive search.

Kramer has been with the Department since 1977. He has worked as a maintenance conservation worker, area wildlife manager and since 1980 was the regional wildlife supervisor in southwest Kansas.

"Being from Great Bend and growing up around Cheyenne Bottoms, I developed a deep appreciation for natural resources early on," Kramer said. "I feel my 12 years of working in the field as a wildlife biologist and wildlife supervisor and my involvement with numerous conservation organizations will give me insight in my new position. I'm looking forward to the challenges of working from the administrative end."

Graeff has worked in the parks and recreation field since 1976. Most recently, he served as a resource staff specialist and executive assistant to the Director of the Idaho Department of Parks and Recrea-

tion. Graeff earned a Bachelor of Arts degree in English from Otterbien College in Ohio and a Masters degree in Natural Resources from Ohio State University.

"This position will be extremely challenging and rewarding," Graeff said. "The Department of Wildlife and Parks is poised to make some rapid moves forward, and I'm excited to be a part of that."

Kramer took his position in Pratt Oct. 31, and Graeff came on board at the Pratt office Dec. 12. *Miller*

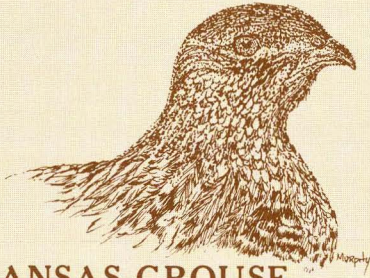
COMMISSION ACTION

The Kansas Department of Wildlife and Parks commissioners covered an extensive agenda at their November meeting in Hays. Several length and creel limits were changed or established, and the 1989 spring turkey season was set.

The commissioners accepted staff recommendations to reduce the statewide daily creel limits on walleye, sauger, saugeye and trout. The walleye, sauger and saugeye limit was reduced from eight to five, as was the trout limit. The Commission renewed a 12- to 18-inch slot-length limit for black bass at Big Hill Reservoir; renewed an 18-inch minimum length limit for walleye at Lovewell Reservoir; established 18-inch minimum length limits for largemouth bass at Clinton, Hillsdale and El Dorado reservoirs; established a 12- to 15-inch slot-length limit for black bass at Goodman and Scott state fishing lakes; established a 15-inch minimum length limit on black bass at Sherman Wildlife Area Pits, Cedar Bluff Stilling Basin, Webster Reservoir, Kirwin Reservoir, Hain and Cowley state fishing lakes and Tuttle Creek Reservoir; and removed all length limits at Rooks State Fishing Lake.

The Commission also established the 1989 spring turkey season. The season is slated to open April 19 and last through May 7. The application period for the special permits is Jan. 9-27. Permit numbers were increased in all but one unit. In addition to Unit 5, Units 1 and 3 were allotted an unlimited number of permits. Turkey hunters will have more hunting opportunities than ever with more permits available and a week longer season. *Miller*

NATURE



KANSAS GROUSE

Thanks to the Kansas City Chapter of the Safari Club International, the ruffed grouse reintroduction program is in its sixth year. Several hundred ruffed grouse have been released at eight sites in eastern Kansas. To date, the Safari Club has donated more than \$35,000 and has committed another \$5,500 for 1989, which will be the final year for releases.

In 1988, 85 grouse were released at three sites. The wild grouse have been trapped in Wisconsin each year, and according to agreement, a percentage of the trapped birds are given back to the state for other trades.

It may take several years before drumming grouse are common in the Kansas woods, but they have a start. So far, things look encouraging as drumming grouse have been observed near release sites and several broods of young grouse have been seen. *Miller*

TURKEY FEDERATION

Over the past nine years the Kansas Chapter of the National Wild Turkey Federation (NWTF) has made some significant contributions to the Kansas turkey program.

The NWTF has provided money, manpower and materials for the trapping and transplanting program, which is still ongoing. The list of contributions includes blasting wire for rocket charges to propel rocket nets, new rocket net boxes, new trap nets, wages for part-time help enabling the program to work more trap sites, new rockets for rocket nets, portable blinds, detonators, a laser printer, manpower to sort hunter report cards, used lowband radios

and funding for turkey research at Pittsburg State University.

In addition, the NWTF recently signed a Memorandum of Understanding with the Department. Included in the agreement was a Wild Turkey Super Fund, which the NWTF will maintain to handle the administration of funds for use in state turkey projects. One such example will be using the Fund to purchase turkey transport boxes. *Terry Funk, turkey project leader*

BACKYARD HABITAT

Would you like to see more birds and other wildlife in your backyard? All you have to do is provide good wildlife habitat. And to make that easy, the Kansas State University Extension Service's Department of Forestry is offering songbird bundles at great prices. For less than 50 cents per seedling, you can get ideal songbird habitat to plant in your yard, thanks to the Extension Service's 1989 public tree distribution program.

The Kansas Department of Wildlife and Parks Chickadee Checkoff Nongame Wildlife Program partially finances the program. The Checkoff allows Kansas taxpayers to check a box on their income tax forms and make a contribution to nongame wildlife.

Each bundle contains three Eastern red cedar seedlings, five fragrant sumac seedlings, four choke cherry seedlings, three autumn olive seedlings and five Peking cotoneaster seedlings. Order forms are available from your local Extension agent. Customers agree at the time of purchase to plant all trees and shrubs for conservation purposes only. *Cooperative Extension Service, Department of Forestry, Kansas State University*

QU NOTES

Quail Unlimited (QU) is a conservation organization with chapters nationwide. Kansas now has 31 state QU chapters, mak-

ing it the largest and most active QU state organization. Here is a listing of Kansas QU's recent accomplishments:

*For the sixth year in a row, Kansas QU chapters have raised more money for conservation than any other state. During 1987, Kansas chapters raised \$142,000, 80 percent of which goes directly to upland gamebird habitat improvement in Kansas.

*Kansas QU's 5,000 members makes it the largest state QU organization in the U.S.

*Nearly every Kansas chapter has been involved in receiving and distributing grain sorghum and corn seed for planting in food and cover plots. In 1987, Kansas chapters received and distributed enough seed from the Garst Seed Company to plant 20,000 acres. In 1988, the state group expanded the program, receiving more than 260 tons of seed from Garst and Pioneer seed companies. The seed was provided free to landowners. Kansas QU estimates that 70,000 acres were planted to food and cover plots by hundreds of participating landowners.

*Kansas chapters purchased more than 9,000 trees and shrubs for shelterbelt plantings in 1987 with many thousands more purchased and planted in 1988. In addition, the chapters have purchased several tree planters, which were used by private landowners to plant more than 50,000 trees and shrubs in 1987 and 1988.

*In order to encourage eastern Kansas landowners to plant native grasses on their Conservation Reserve Program (CRP) acres, state chapters have purchased or assisted in purchasing 10 grass seed drills. Also, chapters have underwritten a portion of the cost of native grass and forb seed planted on hundreds of acres of CRP and non-CRP land. The Cowley County chapter even purchased an old but serviceable combine, which was used to harvest wild stands of native grass seed. More than \$6,000 worth of seed was harvested and made available to southeast Kansas landowners.

*Kansas QU chapters have purchased more than 30 root plows in recent years. The tree-saving plows are available to landowners free or at a minimal fee.

For more information about Quail Unlimited in your area contact: Roger Wells, Quail Unlimited, Inc., P.O. Box 26, Americus, KS 66835. *Miller*

NOTES

KWF HONORS

The Kansas Wildlife Federation (KWF) named **Gov. Mike Hayden** the 1988 Conservationist of the Year at the organization's annual banquet on Oct. 29. Each year, KWF honors outstanding natural resource conservationists at the annual meeting.

Hayden, who holds two natural resource degrees, is an avid outdoorsman and staunch conservationist. As governor, one of Hayden's projects was to combine the Kansas Fish and Game Commission and the Kansas Park and Resources Authority into a cabinet-level agency. Through Hayden's 1988 budget recommendations and support, the new Department received significant budget increases.

Hayden was instrumental in building support within the National Governor's Association (NGA) for a resolution to establish a national trust fund. This would provide secure funding for Land and Water Conservation Fund programs. The resolution passed at the summer NGA meeting.

Gov. Hayden has made a commitment to protection of our environment and to wise management of our natural resources, hallmarks of his administration. Hayden is the first governor in Kansas history to establish a staff liaison, who deals with environmental and natural resource issues.

Leonard Jirak of New Strawn was named Wildlife Conservationist of the Year. Jirak has been a district fisheries biologist for the Kansas Department of Wildlife and Parks since 1973. He has been a leader in fisheries management and was the first to plan and implement fall drawdowns on small lakes. He vigorously pursues all management options on lakes in his district. Jirak has also been a strong voice for wildlife. He regularly assists with turkey trapping, Wildlife Habitat Improvement Programs, goose restoration and hunter and furharvester education.

Carl Melgren of Bloom was named Land and Soil Conservationist of the Year. Melgren owns 880 acres of rangeland and

cropland and farms another 1,620 acres for other owners in southwest Kansas. His memories and experiences during the dry 1930s are probably responsible for his deep appreciation of land and soil conservation. Melgren was appointed to the Clark County Conservation District Board in 1948 and was a continuous member of that board for 33 years. During that time, Melgren's farm practices reflected a variety of conservation techniques. Melgren began reseeding cropland back to grass more than 10 years ago, long before the Conservation Reserve Program (CRP). He currently has five CRP contracts for a total of 290 acres going back to native grass.

Robert Thompson of Phillipsburg was named Youth Conservationist of the Year. He is the 14-year-old son of Rick and Renee Thompson. Thompson became active in conservation while working on 4-H projects. An active member of the Phillips County Deer Creek 4-H Club, Thompson spent 169 hours to set up and maintain a 1½-acre wildlife habitat area. The area included grass for nesting, plum bushes, brushpiles and cedar trees for cover, and sunflowers and vines provide a food source. An old bathtub was buried to provide water, and the area was fenced to protect the habitat.

Randy Clark of Buhler was named Forest Conservationist of the Year. Clark is a wildlife biologist for the Kansas Department of Wildlife and Parks. Through the Department's Wildlife Habitat Improvement Program, Clark has been responsible for planting 131,145 trees and shrubs on 165 farms in Kingman, Reno, McPherson and Rice counties. Clark designed an innovative and well-planned program in the four-county area to assist landowners with tree planting. This required effort and leadership to mesh state, federal and county organizations together for such a program.

The Johnson County Parks and Recreation District was named Conservation Organization of the Year. The organization developed the Streamway Park System to preserve natural habitats in an area where urban sprawl is rampant.

The Streamway Park System provides natural resources and outdoor recreation for the county's growing population. The plan is designed to protect existing natural park resources from overcrowding and conserve the natural flood plain from encroachment by development. It represents a long-term commitment to natural resource by the citizens of Johnson County.

Steve Price of Stockton was named Water Conservationist of the Year. Price is a fisheries biologist with the Kansas Department of Wildlife and Parks in an area of western Kansas where streams and lakes have been dewatered at an alarming rate. Price began an intensive study of the water and reservoir situation in 1981. A simulated model was developed for each lake to project surface acreage based on trends. His projections showed that with continued irrigation, all four lakes would be in serious jeopardy by the year 2000. Price then began to convince sportsmen and irrigation districts that there was a better way to use the reservoirs by designating fish, wildlife and recreation rather than irrigation, as a primary use of the lake. As the lake levels fluctuated, Price aggressively managed the habitat and fisheries to minimize the negative effects. In 1986, Price presented a paper titled "Impacts of Irrigation on Webster Reservoir," which included dollar figures and benefits of recreation versus irrigation. That paper, along with Price's efforts, laid the groundwork for a recent negotiation that allows the State of Kansas to purchase the majority of water storage rights at Cedar Bluff Reservoir for recreation. This action may set a precedent for other western Kansas reservoirs.

William A. McGowan of Kansas City was named the Conservation Educator of the Year. McGowan has worked as a park ranger and nature interpreter, gaining the experience necessary for his present supervisory role with the Johnson County Parks and Recreation District. McGowan began developing an interpretive outdoor recreation program for Johnson County in the early 1980s. Through McGowan's leadership, the park district's interpretive program has grown tremendously. More than 18,000 people participated in the program in 1987, most of them children.

Gary Hardesty of Belle Plaine and **Tony Santille** of Wichita were named the Outdoor Skills Instructors of the Year. The two hunter education instructors teach the bird identification section of the Kansas Hunter Education Program. Each has been an instructor for several years. They teach at the Lake Afton Hunter Safety Clinic, which certifies 700 to 1,000 students each year. They bring to class mounted examples of waterfowl, and upland birds to help students learn identification. In the last three years, Hardesty and Santille have taught more classes than any other instructors in the Sedgwick County area. *Miller*

CHEYENNE NEWS

There's good news for the Cheyenne Bottoms Wildlife Area. On Oct. 19, the area was officially listed as a wetland of international importance. The Kansas Department of Wildlife and Parks petitioned the U.S. Fish and Wildlife Service last spring, asking that the Bottoms be submitted to the Convention on Wetlands of International Importance. The Convention consists of 52 countries that have entered into a treaty making wetland conservation an international goal. When the Convention's standing committee met in Switzerland last October, Cheyenne Bottoms was officially listed.

Cheyenne Bottoms has long been one of the most important wetlands in the Central Flyway, but as wetlands have been lost, it has become one of the most important ecosystems in the western hemisphere. Cheyenne Bottoms is unique because of the number and variety of waterfowl and shorebirds it attracts. It is also critical habitat for several threatened and endangered species including the least tern, whooping crane and bald eagle.

Other good news at Cheyenne Bottoms included the arrival of a specialized amphibious backhoe. Gov. Mike Hayden spoke at the dedication ceremony for the backhoe on Nov. 3. Hayden pledged his support for restoration of the area and applauded the efforts of Ducks Unlimited (DU), the Chickadee Checkoff Nongame Program contributors and the sportsmen of

Kansas, without whose help the backhoe could not have been purchased.

The \$227,000-backhoe had been unaffordable until DU contributed \$94,000. The Chickadee Checkoff Program chipped in \$50,000, and the balance came from the Department's fee fund, which consists of license and permit monies.

The amphibious backhoe is mounted on pontoons allowing operators to work in wet, muddy areas where conventional heavy equipment would become hopelessly mired. The backhoe will be used to remove silt from canals, pools and water-control structures so that available water can be managed more efficiently.

Acquiring the backhoe is just the first step in the area's restoration. Wildlife and Parks Secretary Robert L. Meinen has made management of the area one of the Department's top priorities. Additional personnel have been transferred to the area to handle the increased workload, engineering and biological surveys have been completed, and a long-term management plan has been drafted. The Department will also continue to enlist the help of state and national conservation organizations such as DU, the Kansas Wildlife Federation and the Kansas Audubon Society. These organizations have been invaluable in increasing public awareness about the Bottoms and helping to raise funds for the restoration. *Miller*

WILDLIFE ART SHOW

The Overland Park Convention Center will be the site of the 17th Annual National Wildlife Art Show, March 10, 11 and 12. Seventy of the nation's finest wildlife artists will have work on display.

The featured artist for the 1989 show is John Bald of Davenport, Iowa. Bald created the limited edition "Print of the Year" entitled "Second Harvest." The print is available only through the National Wildlife Art Show.

A special preview party will be held on the evening of March 9, allowing patrons to view and purchase art before the show opens on Friday. Hundreds of paintings, sculptures, carvings and prints will be on display, and all work is for sale.

The show is sponsored by the Greater Kansas City Committee of Ducks

Unlimited and will benefit North American waterfowl. The Convention Center is located at 6800 W. 115th St., Overland Park. Show hours are 11 a.m.-10 p.m. on March 10, 10 a.m.-9 p.m. on March 11 and 10 a.m.-5 p.m. on March 12. *Miller*

GROUP NAMES

When *International Wildlife* magazine announced to its readers a contest to name groups of animals, they received hundreds of innovative names. Names like: a pinch of crabs, a synod of cardinals or a dash of cheetahs. *International Wildlife* magazine is a bimonthly publication of the National Wildlife Federation.

Other humorous and original entries included:

- an "outfield" of flycatchers
- a "fleet" of frigatebirds
- a "choir" of hummingbirds
- an "addiction" of juncos
- a "bosom" of titmice
- a "stretch" of mussels

And finally, a dozen people suggested names for a bunch of turkeys. The editors' favorites? How about an "officeful" or a "congress". *National Wildlife Federation*

CHECKOFF WINNERS

An amateur wildlife photographer from Wichita dominated the 1988 Chickadee Checkoff Photography Contest. David Birmingham placed first with his slide of a mockingbird, and another of Birmingham's entries, featuring an upland sandpiper, was chosen for second place. Bob Gress of Wichita placed third with his entry of a cedar waxwing.

The winning photograph will be used to promote the Chickadee Checkoff program for the upcoming tax season. Birmingham received \$100 for his first place photo and \$50 for his second. Gress won \$25. There was no limit to the number of different species each photographer could enter, but they were limited to no more than six slides of a single species. Only Kodachrome color slides of nongame (a species that is not hunted or trapped) animals, birds, reptiles, amphibians, fish or invertebrates native to Kansas were eligible. *Miller*

NATURE'S NOTEBOOK

by Joyce Harmon Depenbusch, Wildlife Education Coordinator

WINTER SURVIVAL



What happens to the animals that don't **migrate** to warmer climates when winter arrives?

Those that remain here for the winter must **adapt** to the shorter days, longer nights and colder temperatures. Some animals do this by building up their body's fat supplies, then **hibernating**, or going into a deep sleep. Their body functions slow down so that they can survive the winter. Ground squirrels, for example, go from 187 breaths per minute to about three during hibernation. Their body temperature falls from 106 degrees to 37, and their heart rate drops from 350 beats per minute to five. Other **warm-blooded** animals that are true hibernators include woodchucks, bats, jumping mice and poorwills (the only hibernating Kansas bird). They hibernate in burrows, nests or caves where the air temperature is warmer.

Most **cold-blooded** animals (animals whose body temperature matches the surrounding temperature) hibernate. All amphibians and reptiles hibernate. Many, such as frogs, toads, salamanders and turtles burrow, in the mud. Some kinds of rattlesnakes congregate together in a den to hibernate. Snails, spiders and other invertebrates also hibernate.

Insects generally hibernate in the eggs, larvae, pupae or nymph stage, although the red admiral butterfly hibernates in the adult stage. Hibernating insects may be found in galls, under bark, in logs and crevices. Ladybugs take shelter from winter's cold by gathering together in large clusters.

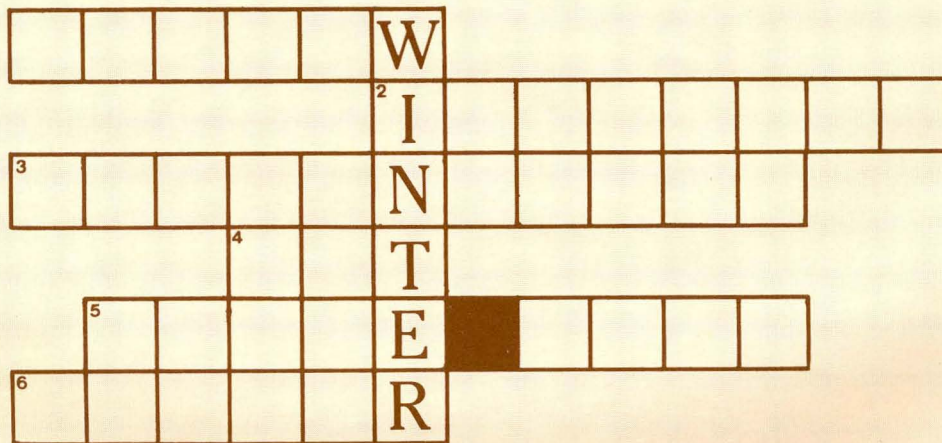
Mammals, such as the badger, skunk, raccoon and opossum are not true hibernators. They sleep during cold periods, but their body temperature remains high.

Staying active is another winter survival technique. Like hibernators, many of these animals prepare for winter by building up layers of fat on their bodies. They also adapt to winter by eating different foods. Birds that ate insects all summer may eat seeds in winter. Plant eaters change from eating tender leaves to twigs or bark. However, some species store food. Squirrels store nuts; beavers store twigs and branches; fox bury rabbits; moles **cache**, or store, paralyzed worms; and pikas store piles of dried grass.

Other species **insulate** themselves from the cold air. Deer grow a thick winter coat that has long, hollow hairs. Air is trapped between the hairs keeping the body heat in and the cold out. Muskrats, beavers and otters have dense underfur that keeps cold water away from their skin. Birds fluff out their feathers and tuck their bills under their feathers to keep warm. Ducks and geese have soft down undercoats. Bobwhite quail clump together in a **covey** to stay warm.

Another adaptation that ducks and gulls have is a **heat exchange circulatory system** that keeps their feet from freezing while standing on ice or swimming in cold water. The blood vessels near the skin's surface constrict (become smaller) reducing the amount of blood needed to nourish the tissue in the foot. The circulatory system sends warm blood down to the feet and warms the cold blood returning from the feet.

Shivering is another way birds and mammals make extra heat. The goose bumps on your body when you're cold is your body's way of keeping you warm.



WINTER REVIEW

Answer the questions listed below to solve the crossword puzzle above.

- 1) Some animals, such as frogs, toads and turtles, _____ in the mud during winter.
- 2) To help survive the cold temperatures of winter many animals _____ their bodies with a thick coat of fur, thick underfur, or by fluffing their feathers.
- 3) Animals such as bats, spiders and some butterflies spend winter in a deep sleep with a slow metabolism called _____.
- 4) Adding layers of _____ to their bodies is one way animals prepare for winter.
- 5) Squirrels, pikas, beavers and other animals _____ before winter arrives.
- 6) Many mammals and birds _____ to make extra heat.

Answers: 1)Burrow 2)Insulate 3)Hibernation 4)Fat 5)Store Food 6)Shiver

FRED

The Frog

by Larry Zuckerman
*Aquatic Ecologist
Pratt*



Suzanne L. and Joseph T. Collins photo

Fred the Frog, believed to be 4-5 years old, is doing well in the KU Animal Care Unit.

What's black and white and read all over? Fred the frog. People all over the country from Portland, Maine, to Albuquerque, N.M., have read about the high-contrast frog phenom from Graham County.

But maybe you haven't heard about the mottled marvel collected July 1 by Mr. M. Lauber, a western Kansas bullfrog hunter. Bullfrogs are the largest frogs found in the Sunflower State and are one of 91 species of salamanders, frogs, toads, lizards, turtles and snakes that make up the herpetofauna of Kansas. The state frogging season runs from July 1 through Oct. 31, and the daily limit is eight.

I first met Fred in Emporia while he was in transit from Fort Hays to Lawrence. He was still an anonymous amphibian then. No agents, no reporters, just a black-and-white bullfrog. A black-and-white bullfrog! Yep, Fred is the only black-and-white bullfrog known in Kansas and possibly the world. Fred is estimated to be 4-5 years old. A bullfrog's normal lifespan is 5-7 years in the wild, but they can live up to 12 years in captivity.

What does it mean to be black and white in a world of green bullfrogs? We can only speculate. In nature, unusual color patterns of animals can occur by chance but are rarely seen and even less likely to reproduce successfully. An all-white, or albino, bullfrog could occur, but would it

survive? Probably not, since an all-white bullfrog would certainly stick out of its natural green and brown habitat and would be easy prey for a hungry great blue heron or other predator. An all-black bullfrog may be able to avoid predators, but what about the hot western Kansas sun? Bullfrogs, as with other amphibians, can't regulate their internal body heat. They are cold-blooded (poikilotherms). An all-black, or melanistic, bullfrog would probably die from the high summer temperatures.

So where does this leave Fred? He's neither solid black nor white but rather a camouflaged pattern. Maybe predators and summer heat would not be threats, but could Fred find a mate? Would a green female bullfrog recognize Fred as a male bullfrog or would she think he was another kind of frog? If Fred could find a willing mate, would their tadpoles be black-and-white or green or even some combination of pigments? We really don't know. It's possible that Fred's camouflage coloration was caused by the environment. Late mating by his parents or unusually warm temperatures during his development could have affected his skin color.

Rumor has it Fred was sold off to a rich sheik or was preserved and placed in the amphibian and reptile collection at the KU Museum of Natural History in Lawrence. The university geneticists would love to analyze Fred's genetic makeup and

learn what causes his unique pigment pattern. But electrophoresis requires grinding up his liver and other tissues. No . . . don't worry, be happy! Fred is alive and doing quite nicely in his executive suite in the Animal Care Unit at the University of Kansas. That's the word from Fred's mentor, Joe Collins, herpetologist and editor at the Museum of Natural History. Collins, Fred's unofficial agent, says the celeb frog made a rare appearance at the 1988 Kansas Herpetological Society annual meeting, where he provided a rare photo opportunity.

Fred has had lots of nicknames including the "Calico Frog," the "Holstein Frog" and "Camofrog." After his capture, Mr. Lauber turned Fred over to local wildlife conservation officer Phil Kirkland, who in turn gave him to Terry Funk, the state's antelope and turkey project leader. Terry shipped Fred from Hays to Emporia. From Emporia, Marvin Schwilling, the nongame project leader, shipped Fred to Joe Collins at KU. At the KU Museum, Tamara Wallace, a Wichita student, named the frog Fred on his arrival July 18. "Fred was a unique frog. I'd never seen one like him before," she said. "My little brother is unique, too, so I named the frog after him," Tamara said. Collins says Fred has beaten the odds by staying alive as long as he has. To paraphrase another famous frog, Kermit, it's not easy being black and white. W&P



Outdoor Recreation In Kansas: A Plan For The 21st Century

The Department of Wildlife and Parks is planning a bold three-part program that will promote, protect and enhance Kansas' natural resources.

by John Herron
*Special Assistant-Operations
Pratt*

Imagine the following scenes:

A Salina man has hunted pheasants off and on for the past 20 years. This year, he's not sure if he'll be hunting. His work schedule is demanding, and he doesn't want to spend too much time away from his family. He only has time to spend a few days hunting this year, but it always takes a day or two to get permission from landowners. And while there are public hunting areas nearby, he'd rather be out on his own. It's a tossup whether he'll make the effort to hunt at all this year.

* There's a beautiful set of buttes in Comanche County. Gypsum crystals glisten at the base of the rugged red cliffs. The local landowners have taken care of the area, and even with the cattle they graze, there are many tall clumps of little bluestem grass. Missouri evening primrose, catclaw sensitive briar and false wild indigo flowers dot the landscape. The land is a prime example of the prairie native to the Gyp Hills. But aside from folks driving the nearby highway and the landowner's family, very few people ever get a chance to see the area.



MURPHY

These two scenes summarize a host of major concerns the Department must address over the next several years. These concerns summarized in the Department's new strategic plan are:

- * Long-term trends indicate a loss of many of Kansas' unique natural areas.
- * The quantity and quality of wildlife habitat is deteriorating throughout the state due to competing and more intensive land and water use.
- * Increasing demand for diversified outdoor recreational opportunities is exceeding supply.
- * The outdoor recreational needs of Kansans are changing.

Possibly the most serious concern to the conservationists has been our inability to answer a simple question: "Isn't there something you can do that will assure areas like this are protected and available for the future?"

The Department of Wildlife and Parks should have several answers to that question in 1989. The Department is developing several programs that will improve the agency's ability to acquire and protect the state's natural heritage and work with landowners who have prime wildlife habitat or natural areas. These programs will provide the organization *and the funding* for a combination of approaches keyed to the specific needs of landowners, users and the land itself.

Historically, the one hard fact we've always faced is that nothing comes for free. Any commitment or plan needs cold cash — something that's in short supply among state agencies.

The public's demand for services and the costs for improving and protecting habitats and wildlife areas are skyrocketing. Last year, the state parks had almost 4.5 million visitors, all on fewer than 33,000 acres of land. That's nearly 136 visitors for each acre of land — actually more when one realizes that more than half the park acres are undeveloped. The Department's traditional revenue sources are declining. Fishing license sales have dropped 23 percent since they peaked in 1969, and hunting license sales have dropped 15 percent in the same period. Park fees provide less than half the income needed to run the state parks. The remaining funds come from general tax revenue.

Yet in spite of a bleak funding situation, the Department of Wildlife and Parks wants to improve the public's opportunity for a quality outdoor experience. Both Secretary Robert Meinen and Assistant Secretary Alan Wentz have stated: "Our first and foremost important service is the protection and enhancement of the state's natural resources. The second type of service is to provide for public use of those natural resources."

The need for additional public lands is very real. The Department owns about 98,000 acres of land and water and manages another 175,000 acres owned by the Corps of Engineers, the Bureau of Reclamation or other public and private entities. In short, the Department directly manages fewer than 300,000 acres; less than one-half percent of the state's total land area.

Without additional land in public ownership, some natural areas could be lost forever. Many Kansans will have

no nearby state parks or wildlife areas to visit while other areas will degrade through overuse. In the same way that an acre of land can only grow so much wheat, a state park or wildlife area can only support so many visitors before the natural recuperative powers of the land are lost.

As Gov. Mike Hayden pointed out in the November/December issue of KANSAS WILDLIFE & PARKS: "The challenge we face is to allow more recreational access to land without infringing on the right of private landowners. In most cases, this can be accomplished with a combined program of leasing, easements, acquisition of land and water and improved landowner relations."

With these challenges in mind, the Department is planning a three-part approach — three different programs that should promote, protect and enhance Kansas' natural resources without requiring the Department to cut spending elsewhere.



Mike Blair photo

Under the Department's proposed outdoor recreational access program, hiking trails such as this one would be established to provide more recreational opportunities for Kansans.



Tom Swan photo

The Kansas Department of Wildlife and Parks plans to work with private landowners who have prime wildlife habitat or natural areas. Here two Department employees plant native grass on private property.

HABITAT DEVELOPMENT ACCOUNT

It's a little known but ironic fact that over the past several years many landowners have offered to sell land to the Department. In 1988 we were offered many thousands of acres, ranging from small wetlands to entire ranches that the owner wanted us to protect in perpetuity. Clearly, the Department could never buy all the parcels offered. With our current budget, we're fortunate if we have enough funds to buy an odd quarter section or two every few years.

To overcome these problems, the Department plans to create a Habitat Development Account funded through interest earned from the hunting and fishing licenses. At present, the Department doesn't receive any of the interest earned by its license or Fish and Game Fee Fund Account. Kansas is one of the few states where the interest on this account is diverted to the state treasury. This costs the Department more than \$500,000 a year. Under newly proposed federal rules, state fish and wildlife agencies *must* receive all interest income coming from fee funds. Establishing a Habitat Development Account would put this money to the best possible use.

The Habitat Development Account will give the Department the resources and flexibility to purchase and develop about 1,000 to 2,000 acres a year, maybe more. This sounds like a lot of land, but even at this rate it will take us more than 40 years to double the amount of land we own. Acquisition is the best alternative where the Department plans to build major facilities such as roads, parking areas, boat ramps, bathroom facilities, fences and signs. We can only justify these types of expenditures on land it will control for many years to come.

RECREATIONAL ACCESS PROGRAM

While land purchase gives the Department the greatest amount of freedom for management, it's also very expensive. The acres of land affected in the short-term will be few. If our strategies for resource protection and public use are going to succeed, the agency must implement its plans on a larger scale. Along these lines, we have worked closely with the Kansas State Board of Agriculture in considering alternatives to buying land. The Recreational Access Program is the result.

Under the Recreational Access plan, the Department of Wildlife and Parks would lease certain lands from landowners, paying them for access rights or for protection of certain natural areas. People who want to use these lands would have to buy a permit that would allow them access on all access program lands in Kansas.

Through the program, the public gains access to more than 600,000 additional acres in Kansas, acres that should provide great benefits to the state and to its wildlife. The program will allow us to protect and manage a variety of habitat types in cooperation with landowners. The Department, for example, could pay for leases or easements to lands for public hunting, for canoeing and fishing along 25 miles of stream, for marsh protection or possibly to set up a Flint Hills hiking trail.

The program would be cost-effective and provide the additional acres needed for these activities. The program would be self-sufficient. Related costs for leasing, administration, enforcement and education would come from the sale of access permits. Anyone using program lands would have to purchase a special access permit from the Department or any license vendor. Those hunters, anglers

and outdoor users who chose not to use these parcels won't have to buy permits.

In addition, the access program will provide direct economic incentives to landowners willing to work with the Department in promoting wildlife and at the same time remove landowner liability concerns. As lessee, the Department would handle all damage and liability claims related to public access.

There are still many details being considered under the access program. Under one variation, groups of landowners who lease lands to the Department could form Community Wildlife Associations. An association could have its own special access permit sold by the Department and other license vendors. The permit would only allow access within a single association. Each association would be able to help manage, publicize and administer the access program within a certain area.

The association concept also would allow communities and chambers of commerce to get involved in promoting outdoor recreation. The Department would use the income generated through the sale of association permits to lease lands in each district. In addition, a portion of the income would be returned to the association to help pay for advertising, habitat development or any other special services (such as detailed area maps) the association may provide.

The program would contain more than leases and easements. The Department would increase its educational efforts so that landowners and recreationists better appreciate the delicate balance between private lands and public resources, in addition to understanding the rights and responsibilities of both groups. We would also back up our "good words" with increased staffing of biologists and conservation officers. These personnel would work with landowners in improving wildlife habitat, handling complaints and ensuring that the system works smoothly.

GUIDING AND OUTFITTING

Providing additional acres isn't the only way to improve outdoor recreation in Kansas. The Department would also like to work more closely with people who provide services to outdoor users. In cooperation with the Kansas State Board of Agriculture, we have been looking for other opportunities to get landowners involved in wildlife management. One proposal would allow our Department to establish procedures and rules for certifying guides and outfitters in Kansas.

These procedures would better allow individuals to charge for services to hunters, fishermen, canoeists and other outdoor users. A big-game outfitter, for example, would be able to supply hunters with room and board, a place to hunt, transportation and guiding services. The certification process would establish standards for guides and outfitters, protecting both the guiding businesses and the customers. Certification would provide the Department with valuable information on public needs.

We have also discussed making special hunting and fishing permits available to people who use guides and outfitters. One proposal would allow hunters who use an outfitter to apply for special big-game permits, which would be available to both residents and non-residents.



The sign is familiar, but the Department's proposed access plan should make for fewer of these signs in the future and increased opportunity for Kansas sportsmen to enjoy the outdoors.

SUMMARY

All three activities — land acquisition, leasing, and guiding and outfitting — are designed to improve the quality of life for Kansans who enjoy the outdoors. All three represent the Department's renewed commitment to serving Kansans, providing them the opportunity to experience the outdoors while also preserving and enhancing the natural environment.

These programs should provide a variety of benefits including:

- * Increased protection of natural areas.
- * Improved wildlife habitat on both public and private lands.
- * Additional income opportunities for landowners.
- * Greater public access at no additional cost to the Department.
- * Better understanding about the value of wildlife.
- * Increased tourism and economic benefits.
- * Less crowding on many public areas.

We know there is public support for these ambitious plans. Statistics show that there are more than 350,000 hunters and fishermen in the state and at least another 350,000 people who actively pursue other forms of wildlife-related recreation (birdwatching, hiking, canoeing and nature photography).

These outdoor enthusiasts represent more than one-fourth of the state's population. While there may be parts of each plan that some people may not like or want changed, we hope the public will support the Department's direction and broad plan.

The proposals discussed here will begin to take shape over the coming months and years in the form of concept papers, plans, legislation and regulations. We welcome your thoughts and suggestions and hope you'll work with us in promoting greater public opportunity for protecting and experiencing Kansas' outdoors.

W&P

Wichita's David Birmingham took first place in the 1988 Checkoff Photo Contest with this photo of a mockingbird.



David Birmingham photo

Chickadee Checkoff Photo Contest Winners

David Birmingham also captured second-place honors with this shot of an upland sandpiper (below). Bob Gress of Wichita took third place with his photograph of a cedar waxwing (at right).



David Birmingham photo



Bob Gress photo

Windbreaks as Breeding Bird Habitat

Many landowners know that windbreaks provide important habitat for pheasants and other game species. But the importance of these areas to nongame birds is unknown. Ted Cable, a professor at Kansas State University, is studying how birds use windbreaks throughout Kansas. His results will be used to develop guidelines for Wildlife and Parks land managers as well as management information that will be distributed to landowners through the Wildlife Habitat Improvement Program (WHIP).

Gray Myotis Foraging Habitat

The gray myotis, or gray bat, is an endangered species that roosts in the storm sewer system beneath Pittsburg. Jan Decher, a graduate student at Ft. Hays State University, studied the bat's feeding areas. We'll use this information to update a critical habitat map.

Status and Distribution of Neosho Madtom

Natural Science Research Associates also conducted a study of the Neosho madtom in the Neosho River system. The researchers, sampling locations from Morris County to Cherokee County, looked for populations of this threatened species. The information will update distribution records and define critical sections of the river.

Winter Eagle Survey

Each winter the Nongame Program coordinates bald eagle counts at Flint Hills National Wildlife Refuge, Quivira National Wildlife Refuge, Cheyenne Bottoms Wildlife Area, Glen Elder Reservoir, Clinton Reservoir and Perry Reservoir. These surveys provide information on the use of wintering areas in Kansas and help in identifying critical wintering habitats.

MANAGEMENT PROJECTS

Cheyenne Bottoms Restoration

The Department of Wildlife and Parks used \$50,000 from the Nongame Program's balance to help purchase an amphibious backhoe for use at Cheyenne Bottoms Wildlife Area. The backhoe will be used to clear silt from the system of dikes that controls water levels. Controlling water levels allows the management staff to improve habitat conditions for shorebirds.

Golden Eagle Restoration at Wilson Wildlife Area

Wildlife and Parks biologists and the Smoky Hills Audubon Society used nongame funds to support the second year of the golden eagle restoration project. This project, described in the January/February 1988 issue of KANSAS WILDLIFE & PARKS, is designed to establish a breeding population of golden eagles in and around Wilson Wildlife Area in Russell County. Chickadee Checkoff funds help pay for the costs of capturing young birds in Wyoming and releasing them in Russell County.

URBAN PROJECTS

Land-Use Change and Wildlife Habitat in Wyandotte County

Wyandotte County is changing rapidly. New housing developments, landfills and race tracks alter habitat for wildlife species. Wildlife and Parks and the University of Kansas are working together to identify the types of land-use changes that have the greatest impact on habitat for five different species. County officials will use this information when making planning and zoning decisions.

Prime Wildlife Habitats in Shawnee County

The Topeka-Shawnee County Metropolitan Planning Agency has identified seven areas in Shawnee County that provide important wildlife habitat. Wildlife and Parks is studying these areas to determine the suitability of each area for five different species. This information will help the planning agency staff recommend a development policy that will preserve the habitat quality of these areas.

Garden City Parks Management

The Garden City Parks and Recreation Department is using nongame funds to develop a nature trail at the Lee Richardson Zoo and a wildlife habitat area at Fennup Park. These projects will provide Garden City residents with opportunities to see a variety of wildlife species close to their homes — opportunities that are increasingly rare in one of the state's fastest-growing urban areas. W&P

How To Contribute To The Chickadee Checkoff

Kansans can support the conservation of nongame species by making a contribution to the Nongame Wildlife Improvement Program through the Chickadee Checkoff. Simply enter the amount you wish to donate on Line 25 of your Kansas Individual Income Tax Form (Line 10 on the short form). This line is marked with the Chickadee Checkoff logo. Your tax-deductible donation will either reduce your refund or increase the amount you owe. Your contribution supports the research, management and information-education activities of the Department's Nongame Program.

If you contribute \$20 or more to the Checkoff, you are eligible for a free one-year subscription (or renewal of your current subscription) to KANSAS WILDLIFE & PARKS magazine. Subscription forms will be mailed to eligible taxpayers in August 1989.

A good way to remember to contribute to the 1989 Checkoff is to pick up a free copy of the northern mockingbird photo (shown on Page 35) that won the 1988 Chickadee Checkoff Photo Contest. This photo, taken by Wichita's David Birmingham, is available at all Wildlife and Parks offices and at tax preparers' offices throughout the state.



Fox squirrels (above left) and gray squirrels (above right) are found in Kansas, although the gray is limited to the state's eastern third.

A TALE OF TWO SQUIRRELS

Two species of tree squirrels are found in Kansas: the fox squirrel and the gray squirrel. A look at where they live and what makes them tick.

by John L. Koprowski
Lawrence

photos by Mike Blair

Kuk-kuk-kuk comes the bark of an annoyed female fox squirrel startled while burying her winter store of acorns. She'll soon return to the annual task of hiding the fall nut crop just beneath the surface and out of sight of competitors such as deer, turkeys and bluejays. These acorns, walnuts and hickories provide a high-quality winter food.

The sight of squirrels busily digging on the forest floor or in one's fading garden is a Kansas autumn tradition. For Kansas tree squirrels, however, the fall is a crucial

time. Since they don't hibernate, squirrels must fatten themselves on nuts in addition to stockpiling for winter. The fat provides energy and insulation from the cold and windy Kansas winter and will be lost gradually through the spring.

Two species of tree squirrels (not counting the secretive, nocturnal flying squirrels) are found in Kansas: the fox squirrel and the gray squirrel. Tree squirrels belong to the genus *Sciurus* (which is Greek for "shade tail"). Some scientists even refer to *Sciurus* as living fossils, since

evidence suggests these species have changed little in the past 35 million year.

The fox squirrel is found throughout Kansas. This large (nearly 2 pounds) orange-brown squirrel is frequently referred to as "red squirrel" by Kansans. The nickname is actually a misnomer; the true red squirrels of the northern and mountainous areas of North America are only distant relatives. The fox squirrel is comfortable in more sparsely forested creek beds and osage orange fencerows common throughout the state. In fact, due to these habitat preferences the fox squirrel's range is extending westward into Colorado, Montana and Idaho and northward to the Canadian prairie provinces.

Although Kansas has some of the largest gray squirrels in North America, the gray squirrel is only three-fourths the size of the fox squirrel. Kansas lies on the western edge of the gray squirrel's range; the species is restricted to the eastern third of the state. The gray squirrel appears to prefer densely wooded areas common in the eastern river drainages and is frequently found in cities.

Tree squirrels are renown for their remarkable ability to leap and maneuver among the smallest tree branches. While extremely talented in their arboreal antics, squirrels do occasionally miss during a jump but quickly right themselves in mid-air much like a cat.

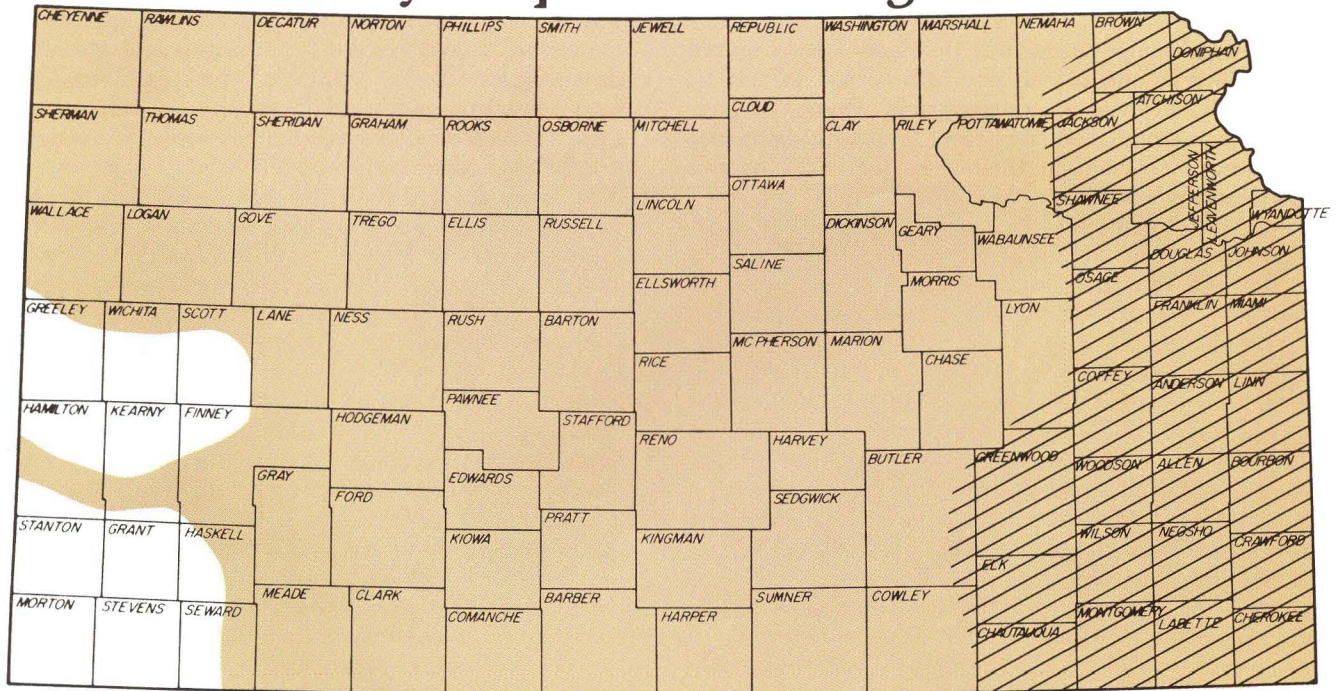
Squirrels depend heavily on trees for food, nuts, seeds, fruits and buds. In addition, squirrels eat row crops, insects and garden plants.

Squirrels also nest in the trees and use two types of nests. Leaf nests are constructed in limb forks and consist of a ball of leaves and twigs lined with shredded bark and grass. These nests are common in the summer and require constant rebuilding as they are dismantled by the harsh Kansas breezes. Fox squirrels seem to use these nests more than gray squirrels and will even raise young in them.

The second nest type is the more permanent den cavity. These cavities are formed within trees by rotting, breaking or by hammering from a woodpecker's bill. Squirrels will help speed the process by gnawing. Den cavities provide a more dependable buffer from inclement weather and protection from predators.

Activities vary with season and weather conditions. During fall, squirrels are typically active throughout the day with a slight decrease in mid-day. Sparse summer fur is replaced by a plush new winter pelage. Activity is greatest during this season and is focused on burying and eating nuts. Winter activity levels are low, although activity peaks in the warmth of the mid-day sun when squirrels, using their sense of smell, recover buried nuts. Spring brings warming temperatures and increased activity as squirrels feed on developing buds of elm, hackberry and cottonwood. The winter coat is lost as the season progresses. By summer, activity peaks during early morning and again by midafternoon. Activity is mainly in the trees as squirrels feed on ripening fruits such as mulberry

Fox & Gray Squirrel Range In Kansas



■ Fox Squirrel

▨ Gray Squirrel

Editor's Note: The author would like to hear from you if you've spotted gray squirrels in counties on the western edge of the species' range (see map). The gray squirrel's range in Kansas is not well known, so your information is valuable. Write John Koprowski at the Department of Systematics and Ecology, University of Kansas, Lawrence, KS 66045.

Patti Murphy map



Squirrels are known for their remarkable ability to leap and maneuver among the smallest of tree branches.

in late May and June and later ripening hickories, walnuts and acorns.

Extremes in temperature and precipitation do curtail activity. Wind is one of the few factors that influences activity levels, probably because strong winds can penetrate the squirrel's thick fur coat. Squirrels, however, are prepared to remain in their dens for a day or two when conditions are not to their liking.

Two major breeding peaks are usually apparent in squirrel populations. The first breeding season begins in late December and continues until February. Females are in heat on only one day during this period, and males actively pursue females from dawn to dusk in spectacular mating chases. Males are apparently attracted to the female's den by scent; during the breeding season, males slowly follow and sniff females. Males compete loudly and viciously among each other to gain access to the female, but she will fend off some dominant males. More than a dozen males may chase the female but no more than a few will succeed in mating.

Although capable of producing two litters in a year, few females do so. The juveniles are born after a 44-day gestation period. They are only 2 inches long and are blind and hairless. Males do not remain with the female after mating, and she must nurse the litter of 2-4 young for about 10 weeks. One poor gray squirrel female in North Carolina had a record eight youngsters to nurse. Eyes begin to open at five weeks, and juveniles begin exploring outside the nest at about seven weeks. Weaning takes place at about 10 weeks.

These seasons of birth are well-timed with the environment. For spring-born juveniles, the few remaining buried nuts of winter are replaced by a superabundance of high-quality tree buds right outside the nest. The summer-born squirrels benefit immensely from an abundant ripening nut crop. The juveniles frequently play-wrestle with each other. Should no sibling be available, a twig or leaf makes a nice wrestling partner. Juveniles may leave their birthplace any time after weaning. Some juveniles, however, may remain with their mother for more than a year. Maturity is reached at about one year, although many individuals will not reproduce immediately. Squirrels have lived more than 20 years in captivity, but record longevity in the wild is only about 13 years.

Fox squirrels and gray squirrels do not defend exclusive territories. Ranges often overlap as squirrels feed at trees that produce good crops. The exception is the nursing female, who will vigorously defend a nest of newborns. More than one person researching squirrels has met the wrath of a perturbed mother squirrel. Last spring a curious 8-week-old fox squirrel approached me as I stood motionless on a Lawrence sidewalk. The mother squirrel quickly ran to the juvenile, now only 5 feet from me, and retrieved him by the neck. She then proceeded to chatter and stamp her feet while angrily approaching me within a few steps and then nervously retreating. Not quite the same as a charging bull elephant but her message was clear, and I hastily continued on my walk.

How much area does a single squirrel cover? Home ranges vary due to seasonality of foods, mating activity and habitat quality. Male home ranges are generally larger than females, possibly due to mate searching. Fox squirrels use larger areas than the smaller gray squirrels. Home ranges are 2-30 acres for fox squirrels and generally less than 4 acres for gray squirrels. The small woodlots common in urban and rural landscapes usually have more squirrels with smaller home ranges while more continuous woodlands and sparsely-wooded habitats have lower numbers of squirrels with larger home ranges.

Some populations undergo a substantial turnover in autumn commonly known as the "fall shuffle." Many juveniles and young adults disperse during this period of plentiful food. Some individuals have moved as far as 25 miles, but squirrels usually have a strong homing instinct. Experiments show that animals released more than a mile from their home frequently return within a few days.

Fox squirrels and gray squirrels will frequently feed in large groups in or beneath a productive tree. There are usually few interactions between individuals, and as many as 10 squirrels of a single species will pack into a den cavity during fall and winter. When hostilities do erupt, they're usually settled by a threatening chatter or a short chase. Several studies have shown the same individual consistently dominates over another with few reversals in the pecking order. Males are usually dominant over females and older squirrels dominate younger members of the population, but a mother squirrel has few rivals. When conflicts do escalate, the fights are usually short wrestling matches sometimes resulting in torn ears, bites on the haunches and missing tails.

A popular myth among hunters is that some young or

subordinate males are castrated by dominant males. The basis for such stories is the presence of some males without externally obvious testes. These observations are a normal occurrence in the male's annual breeding cycle. During the fall, when squirrels are most commonly hunted (the season in Kansas is June 1 to Dec. 31), many males are sexually dysfunctional due to normal hormonal rhythms, and the testicles are withdrawn into the body. At least some dysfunctional males can be found in a population throughout the year.

Fox squirrels and gray squirrels seem to be such gentle and peaceful animals as they leap through the trees or crouch on a window sill. For this reason many people think that a squirrel would make a fine household pet. Drs. Fred Barkalow and Monica Shorten, who devoted most of their lives to researching squirrels, probably said it best in the book *The World of the Gray Squirrel*. "If you can ignore having your furniture chewed to bits, the draperies shredded and droppings scattered willy-nilly about the house, the gray squirrel is the pet for you." Remember that squirrels are wild animals and, unlike cats and dogs, have not had undesirable characteristics removed through centuries of selective breeding. That's one of the reasons that it's against the law to have wildlife as house pets. Squirrels need large open areas in which to roam and usually do poorly when confined.

Many Kansans still find it hard to leave an apparently abandoned juvenile alone in the wild, but there are good reasons to do so. More likely than not the mother is somewhere nearby, probably hiding from you! Just because you can't see her doesn't mean she isn't around; squirrels have survived for 35 million years because of their ability to avoid stealthy predators such as the bobcat, fox, coyote, hawk and owl. A clumsy human with two big feet presents little challenge. Attempting to "rescue" a young squirrel may even result in a showdown between

you and a 1- to 2-pound package of muscle and fur with 10 sharp half-inch claws and four well-honed incisors.

Since young squirrels are weaned soon after they leave the nest, they are generally capable of fending for themselves if their eyes are open and they can hop around. I've seen 8-week-olds hopping somewhat ungracefully hundreds of yards from their den. Leave them in the wild where they have a better chance of surviving.

So you can't keep a squirrel as a pet but say you still like these cute critters? How can you come to their aid? If squirrels are in your neighborhood, a backyard feeder stocked with peanuts will soon draw them in. Why not try a bird feeder with a birdseed mix, including Kansas sunflower seeds or cracked corn, which will attract squirrels and a pleasant array of bird species? And never feed squirrels by hand. Squirrels are excitable and are known to bite the hand that feeds or scamper up the leg of the "feeder" when startled. Also, rabies has been found (although rarely), in both fox squirrels and gray squirrels. So save your heart a few beats and use a feeder.

Both fox squirrels and gray squirrels furnish hours of recreation to millions of photographers, nature-watchers and sportsmen. They can also be great sources of civic pride. Marysville, Kan. for example, is known as the home of the black squirrel, while Olney, Ill., is known for its albino squirrels. W&P

John Koprowski is a graduate student in the Department of Systematics & Ecology at the University of Kansas (KU) in Lawrence. His interest in tree squirrels started as an undergraduate at the Ohio State University. He began researching squirrels while doing master's degree work with the Cooperative Wildlife Research Laboratory at the Southern Illinois University. Koprowski is studying at KU for his Ph.D. in Biology.

Although black squirrels may be found throughout the state, Marysville, Kan., seems to have more than its fair share. The town, located in Marshall County, is known as the home of the black squirrel.



Gallery

by Mike Blair

Protective coloration may include "eyespot" that resemble an owl's eyes. When threatened by a bird, the polyphemus moth flashes the markings of its hind wings to confuse and discourage the predator. Shot with 50mm, f/11, 1/125.



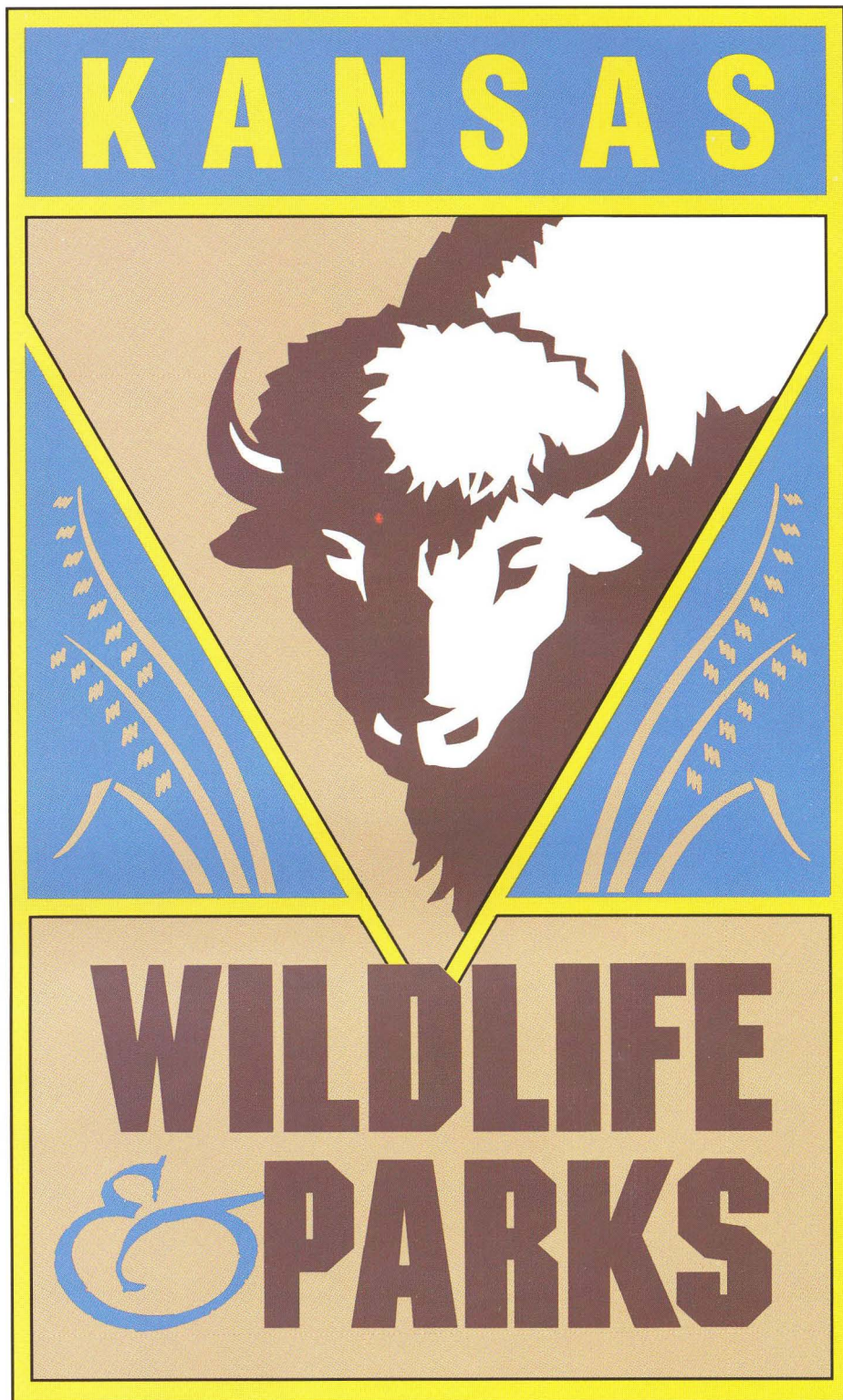


Camouflage is a common form of insect protection. Some insects, such as the walkingstick (above left), naturally resemble their preferred habitats. Shot with 105mm, *f*/22, 1/60. Others, such as the looper (above right), attach to themselves bits of natural materials by means of a sticky silk. Shot with 105mm, *f*/22, 1/60.



Insects have many ways of protecting themselves from enemies. Some, such as the monarch butterfly, simply taste bad and are thus avoided by birds. The monarch caterpillar (above left) has a bitter taste that results from its food plant — the milkweed. Shot with 50mm, *f*/22, 1/60. Some harmless insects enjoy protection by resembling others with known defenses. This robber fly has no stinger but looks enough like a bumblebee to discourage predators. This type of protection is called Batesian mimicry. Shot with 105mm, *f*/22, 1/60.

OUR NEW LOGO



On Sept. 30, 1988, the Commission was presented with the Department's new logo, which was developed by a committee of Department employees. The committee agreed that the new logo was both distinctive and representative of Kansas. The logo features a buffalo bordered by sideoats gramma grass.

Logo committee members were: Mary Jane Pfannenstiel of Hays; Ed Alvis of Melvern; Bill Burlew of Topeka; Kathy Brown George, a commissioner from Junction City; Bill Anderson, a commissioner from Fairway, B.J. Brighton of the Kansas Wildlife Federation; Laura Kelly of the Kansas Parks & Recreation Association and Mike Cox, the Department's Education and Public Affairs Chief. Kuhn & Wittenborn (K&W), a design firm based in Kansas City, Mo., designed the logo at no charge to the Department. Special thanks to K&W's Reneé Brobst and staff illustrator Patti Murphy for their graphic work.

Kansans will begin seeing the new logo on Department uniforms and vehicles early in 1989.



by Mike Blair

Ducks On The Pond



Patti Murphy illustration

At the junction of earth and sky, where quiet water ringed by cattails lies silver and willows stitch a starlit canopy to the pond, I meet the resting travelers. Peacefully we share the space under truce of spring. Today there will be no gunfire or thought of it.

At the crossroads of night and day we meet, awakening to each other's presence in step to a brightening sky. My quiet form does not disturb the visitors, busy as they are with dining and romance. I will do no thing to violate their fragile acceptance.

At the fusing of winter and spring, the young day pours sunshine on a chilly breeze, dousing its jealous plans. The morning is fresh and full of promise. The pond ripples now, lapping at the southern shore and advising the guests of another day of rest. Only when the wind blows north will they travel on.

Where wind meets wing, there is a potent sound, a rending that bespeaks the freedom of flight and causes men to dream. I listen as it tears the sky, tracing the paths of wild ducks descending to join their resting kin. And I wonder . . .

The pond is a temporary home, and nearby stubble invites traffic like a supermarket at five. All day, comings and goings reveal the ways of diverse species, animals

whose thoughts are focused northward.

Dressed in handsome colors, the drakes swim among the paddling waterfowl like schoolboys circulating the dance floor for prospective partners. The pond is ringed with ducks, and there's a party atmosphere; divers dive and dabblers dabble. Beak to beak, dancers bob through courtship steps while others splash or flap their wings. The surface is alive with life.

A half-dozen dialects tell the story. Quacks, whistles and barks project upward, inviting all passersby to the festival. From here and there in the sky they come, eager to enjoy.

Mallards, wigeons, pintails and greenwings sort through ducks to find their own kind. Mergansers vanish beneath the waves, to reappear elsewhere with fish in their bills.

Ringnecks ride the chop like corks, staying close to their friends, the redheads. Bluebills and canvasbacks mingle with their diving cousins, occasionally submerging to browse aquatic weeds.

Tomorrow they may be gone.

But for what I've seen today, I'll look with hope to their future return. And someday, at the junctions of earth and sky, day and night, fall and winter, wind and wing, we'll meet again.

W&P



01
10-
67214
74470 17153