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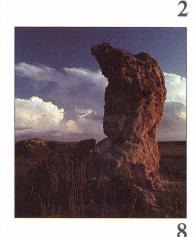
Editor Mike Miller Associate Editor J. Mark Shoup Illustrator Dana Eastes Photographer Mike Blair Staff Writers Rob Manes Marty Burke Bob Mathews Marty Burke Bob Mathews Marc Murrell Editorial Assistant Bev Aldrich Circulation

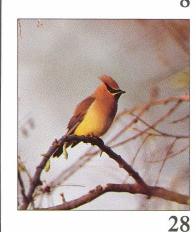
Barbara Theurer

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About the Covers: Front A male cardinal pauses on an icy limb on its way to the feeder. Mike Blair shot the scene with a 400mm lens, f/3.5 @ 1/125. Back: A bald eagle spreads its 6-foot wingspan as it soars over a Kansas reservoir. Blair stopped the action with a 600mm lens, f/ 5.6 @1/500.

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

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The Non-residents Are Coming, The Non-residents Are Coming . . .

re we really going to be smothered in non-resident deer hunters if we make a small percentage of our permits available to them? Will wealthy out-ofstaters or outfitters lease our prime hunting spots? Will resident hunters miss a chance to hunt deer because of non-residents?

These are just a few of the questions that come up whenever the volatile issue of non-resident deer hunting is discussed. All were worth asking initially, and all deserved an answer. Unfortunately, some of the answers will be pure speculation until non-resident deer hunting becomes reality.

Human nature is such that our first reaction is "How will it affect me?" But there are other questions, questions with far-reaching consequences, that must be addressed. Since we receive federal funds and hunt on federal lands, could a federal court decide we'll have non-resident deer hunting? Could that court decision also specify how many permits we'll allow and where? How would opinions change if Kansas hunters were ineligible to hunt big game in Colorado or Missouri? There has been talk of these bans. In fact, Iowa recently passed legislation prohibiting Kansans from deer hunting in their state since we don't allow Iowans.

I wish I could guarantee that your hunting spot won't be leased by an outfitter or nonresident hunter. I can't. But there's no guarantee that leasing won't affect you, with or without non-resident deer hunting. Five percent of the permits certainly won't bring in enough nonresidents to smother us. In fact, I'll predict that most of us won't even notice.

Guides and outfitters support non-resident deer hunting. They see non-residents standing in line at the borders to hunt deer here. I think there's another question we can ask: Will non-residents be happy when they discover there's not a Boone and Crockett-sized deer hiding behind every tree? There's no doubt that some local economies and some guides will make money from non-resident deer hunting. But I'll go out on a limb and say that, for most, it will be a short business boom. Kansas deer hunting is larger than life to hunters from out-of-state. It's the forbidden fruit. There's no doubt that our herd has some fine trophy animals, but non-residents talk as if they'll come here and take a big buck easily. It won't happen. I know too many skilled resident hunters who spend countless hours scouting and hunting and still don't take a trophy-sized buck. Oh, they see the sign of truly big bucks, but knowing a big buck's there and actually getting a shot are two entirely different things. I'm not sure non-



Dana Eastes illustration

residents will be willing pay high dollar for guides and leases once they see the reality of Kansas hunting.

Will you stand less of a chance to get a permit as a result of non-residents? That's one of the things we want to prevent. Although the proposal for issuing non-resident deer permits had not been ironed out when this was written, department officials are working on a plan that will maintain the integrity of our management program and allow residents the same opportunities they've enjoyed in the past. Resident hunters won't see fewer deer permits allotted and won't compete with non-residents in drawings.

Kansas is the only state in the U.S. that doesn't allow non-resident deer hunting. It's time to change that, before someone decides to change it for us. Department officials want to ensure that it is as painless as possible for residents.

mike mill





by Pat Silovsky education coordinator, Milford Nature Center

photos by Mike Blair

The 500-600 bald eagles that winter in Kansas provide us with a glimpse of this beautiful and inspirational bird.

lthough familiar to us as our national emblem, most Americans have never seen a wild bald eagle. This is due, in part, to the fact that for the last 200 years, the bald eagle has not been treated well by the country which adopted it. As a result, the bald eagle is listed as endangered in 43 of the lower 48 states and threatened in the remaining five. Unbelievably, until 1940, thousands of eagles were shot each year, and government bounties were paid for a pair of eagle feet. In Alaska, bounties were paid until 1953.

Today's outlook for eagles is much brighter than it was 20 years ago. Through protection of both the eagle and its habitat, restrictions of certain pesticides and captive breeding programs, eagle numbers have increased from about 3,000 birds in 1976 to now more than 10,000 birds in the lower 48 states. For Kansans, this has resulted in opportunities to view these magnificent birds right here at home.

Kansas is home to an estimated 500-600 eagles during the winter. Most of these eagles have spent the nesting season (April-July) in the Great Lake states and Canada. They migrate south to Kansas and other Midwestern states when lakes and rivers in the North freeze, and they can no longer catch fish, their primary food. The first eagles seen in



Bald eagles have always wintered in Kansas, roosting and hunting along the larger rivers. Today, federal reservoirs also attract growing numbers of eagles that spend the winter here.

Kansas usually arrive in early November. Migrating eagles tend to move south along rivers and stop where there is open water. They often gather in large numbers at these spots and can be seen roosting and feeding together.

Reservoirs in Kansas provide ideal wintering spots since open water can usually be found below a dam. The flooded timber in reservoirs also provides ideal perches for the eagles from which to hunt, roost and feed. Eagles, however, have wintered in Kansas since before these reservoirs were dammed. Rivers have always provided wintering areas for eagles, and before settlers arrived, many eagles lived on the prairie and fed mostly on buffalo carrion.

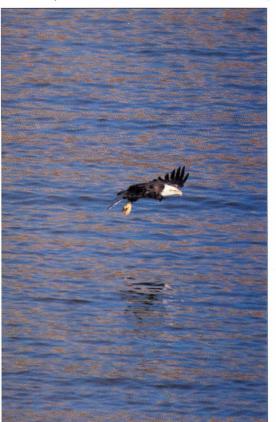
It is this habit of feeding on dead animals and the eagle's other habit of stealing fish from ospreys that lead Ben Franklin to scoff at the eagle as the American symbol. He objected, saying the bald eagle was "a bird of bad moral character" which didn't "get his living honestly." Despite Franklin's objections (he preferred the wild turkey), the bald eagle was a splendid choice as our national emblem. It is truly an American bird as it is the only species of eagle unique to our continent.

The bald eagle's scientific name is *Haliaeetus leucocephalus* which translates as the white-headed sea eagle. Several other species of sea eagles occur worldwide. Bald eagles are not really bald at all. The original meaning of the word bald is white, not bare. The white head and tail of the bald eagle is a characteristic of an adult bird. They do not mature until 4 or 5 years old.

It can be very difficult to distinguish between immature bald eagles and golden eagles (Aquila chrysaetos), the other eagle found in Kansas. Both are dark in color when seen soaring at a distance. Adult golden eagles differ in having a golden nape and crown and no white areas in the plumage. Young bald eagles usually have a white spot on the underwing coverts and can have white on the belly. Young golden eagles, also dark in color, have a white patch at the base of the tail while young bald eagles do not. With the help of a field guide and some practice, it is possible to distinguish between these two eagles.



Eagles are known to steal fish from ospreys, but they are quite capable of catching their own. They may dive from high altitudes at 100 mph and snatch fish from the water, or they might lazily drift down and pluck out an unsuspecting fish.









Eagles don't get their namesake white head until they're 4 or 5 years old. The immature, above left, shows white areas, often on the wing coverts and belly, that distinguish it from a golden eagle. A young golden eagle may have a white patch at the base of the tail.

Another clue used to identify these birds is where they live. Although both species use the same roosts in western and central Kansas, bald eagles search for food along waterways and golden eagles do most of their hunting in open prairie for rabbits and small mammals. Golden eagles are rare in eastern Kansas.

Eagles are large, strong birds with sharp, curved beaks and strong, hooked talons (claws) for capturing prey. They are predators that help keep the natural world in balance. The diet of the bald eagle consists mostly of fish-about a pound per day. Specialized bumps on the eagle's toes help it hold on to slippery fish. Crippled or sick waterfowl and carrion are very important food sources in the winter. They are not capable of lifting or carrying large objects as sometimes credited. No bird of prey can lift more than its own weight, and eagles have difficulty moving objects just half their weight.

Declines in eagle populations were caused by the contamination of fish with the pesticide DDT. Used extensively in the 1950s and 1960s, DDT washed into rivers and other waters where it was absorbed by fish. Eating contaminated fish caused DDT levels to build in eagles and resulted in reproduction problems. Affected birds produced very thinshelled eggs, most of which broke during incubation. Banning the use of DDT in the U.S. in 1972 may have saved the bald eagle.

As powerful as they are, eagles aren't as big as people think. A typical adult eagle weighs between 8 and 15 pounds, about the size of the average house cat. Eagles, like all birds, have many lightweight adaptations for flying. Feathers, for example, weigh almost nothing. A bald eagle has more than 7,000 feathers, but all together they weigh less than $1^{1/2}$ pounds. Hollow bones also make birds light. The skeleton of a bald eagle weighs just a little more than half a pound. Incredible as it may seem, the wings weigh less than 2 pounds, yet an adult bald eagle may have a wingspan $6^{1/2}$ feet to nearly 8 feet. Pound for pound, an eagle wing is stronger than an airplane's.

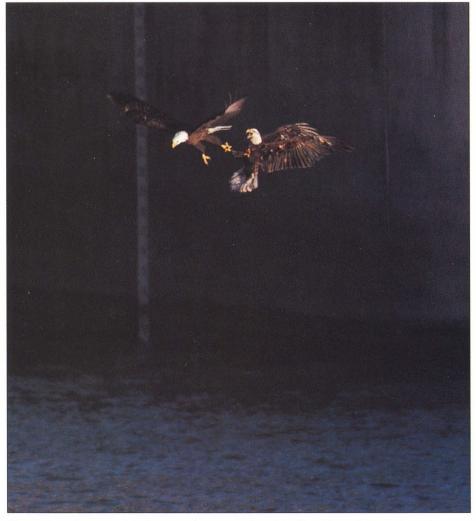
Eagles have extremely keen eyesight that focuses on small objects



Federal reservoirs are great places to eagle watch in late winter. When lakes freeze, the outlet spillways usually provide open water where wintering birds can fish.



Concentrations of waterfowl also attract wintering eagles. Although fish and carrion are usual diet items, bald eagles can be efficient predators and are adept at picking out vulnerable individuals from a large flock of waterfowl.



The patient observer might be treated to a stunning sight like this mid-air confrontation over a northeast Kansas reservoir. Eagle Days are popular events at several state reservoirs.

from long distances. From 500 feet in the air, a bald eagle can spot a fish a mile away and swoop to catch it at 100 mph. Eagles, however, don't always swoop down on their prey at great speeds. Sometimes they may spread their wings and quietly drop out of the sky. They usually catch fish by flying low over the water and grabbing fish that are swimming close to the surface. Bald eagles may plunge into the water to catch fish or harass other fishing birds such as ospreys into dropping fish they've just caught.

To see an eagle in the wild is truly an inspiring sight. Their grace and power make them one of the last symbols of American wilderness. If you have not seen eagles in the wild, check out our Kansas reservoirs this winter. Milford typically harbors 30-35 wintering eagles each year, and John Redmond Reservoir may have as many as 100 eagles during the winter. Many other state reservoirs and rivers are ideal eagle watching sites. You'll most often find eagles near large concentrations of ducks and geese. Several Wildlife and Parks offices sponsor eagle days, providing visitors a chance to see captive birds on display and then tour the reservoir to see wild birds. The Milford Nature Center will host this year's Eagle Day Jan. 16-17. The sight of a magnificent bald eagle is one you'll never forget.



The Ancient Mystery of Big Basin

by Mark Shoup associate editor

photos by Mike Blair



Any segment of land the moon, for example can be interesting of itself, but its greater significance must always lie in the life that sustains it.—James Mitchner

This is a fantastic story, as incredible as any ever told, as strange as science fiction. It's a mysterious, surprising history of an ancient land called Kansas, specifically, a small portion in the southwest region of this land. Twelve miles west and three miles north of a town called Ashland, a mile-wide hole was somehow drilled into the high plains. To unravel this mystery, we must move outward from this region—in time and space—and look briefly at the forces that would shape this unusual place.

The detectives in this mystery are scientists. Their magnifying lenses reveal the shards of evidence that uncover our story. Under these lenses, the lines of time are estimated and the sequence of events unravelled, however loosely.

We begin not at the beginning, but much, much later, 550 million years ago, for although events before that time were dramatic, they little involve the "greater significance" of our segment of land, which is the creation of a place rich with life, past and present.

In this ancient time, our segment of land had been an ocean for millions of years already. Jellyfish floated above the place that would be called Ashland. Sponges attached themselves to the ocean floor, somewhere near a future Main Street, and worms, seas lilies, snails, and trilobytes—tiny horseshoe crabs combed the bottom in search of food. Algae and other primitive, moss-like plants were the only vegetation.

For 85 million years, these tiny creatures lived and died, building a thick series of limestone deposits on the ocean floor. The seas retreated, and sand beaches piled on top of the limestone for another 40 million



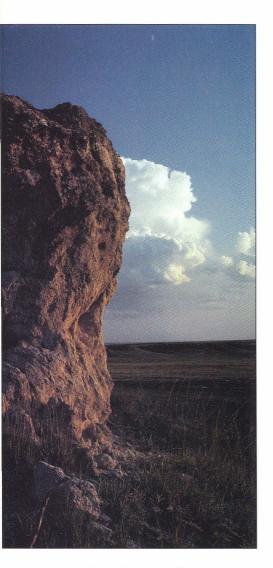
years. When the ocean rose again, it brought with it many new creatures, including a lamprey-like animal that might be considered the first fish. The ocean was deeper now, and coral added more limestone to the ocean floor.

About 420 million years ago, something critical to the future of this place happened. The ocean floor was uplifted by violent forces deep within the earth, and shallow water areas developed. In these shallows, the first complex plants developed, with the beginnings of roots and stems. In the distant future, this simple development would eventually become the single most important element of a landscape that would be called "grassland."

Thirty-five million years later, the ocean once again dominated the region, but in the shallows, at the water's edge, life was developing at a rapid pace. True vascular plantswith roots, stems, and leaves—grew to astonishing dimensions. Horsetails and club mosses 20 feet tall lived on the shores. Cockroaches and spiders crept among the leaves in a forest of giant ferns bigger still than the club mosses.

Three hundred and eighty-five million years ago, a lungfish rose from the ocean floor for a breath of air. Suddenly, without warning, a shark ripped it from the surface.

As developing plants and animals expended their short lives, more limestone was deposited on the ocean floor until—about 340 million years ago—the land emerged from the sea. Far to the west, huge mountains forced their way up from the land's surface. From these mountains, great rivers poured over our newly emerged land, depositing sandstone and shale. At the edges of these rivers, brackish estuaries fingered in from the receding ocean.



Starfish and sand dollars were left behind as the land dried, and—some 300 million years ago—terrestrial life became briefly dominant.

It was an eerie scene by any standard. Club mosses grew 60 feet tall. Ferns towered into the sky. Terrestrial life had come into its own, and nature seemed bent on an experiment that would last for another 250 million years. The rule, it seemed, was that bigger is better. Still, not all life followed this rule. Small amphibians pursued the cockroaches and spiders, and a new creature entered the scene—a reptile. It was only a small bug-eater, but in time, its kind would join the grand experiment.

The terrestrial experiment, however, would be delayed, at least in this region. The oceans returned. For the next 50 million years, the sea would flood the area, recede, and flood it again. Each time the seas Big Basin's unique landscape has served as a landmark for plains travelers. The spring waters also quenched many parched mouths.

evaporated, great layers of salt and anhydrite were deposited. (Much later, these deposits would be critical to development of our mysterious hole.) With each recession of water, newer, bigger, more sophisticated reptiles—some with striking dorsal sailfins and fierce teeth—immigrated, then disappeared from the area, leaving little trace of their appearance. Wind and water eroded the land more quickly than life could lay down its record.

About 200 million years ago, the terrestrial experiment unfolded with renewed intensity. For a long period—perhaps 80 million years—the oceans came and went. Tiny shrewlike animals with hair and warm blood cowered beneath pine cones as mighty reptiles prowled the forests. A feathered creature flew through the trees, safely out of harm's way.

Then, about 140 million years ago, the seas rose again and remained over our region for the better part of the next 75 million years. While the giant reptiles dominated other regions, our seas were rich with fish and awesome marine cousins to the giant land reptiles.

During the end of this time, a terrifying long-necked serpent swam several hundred feet above Ashland. (One day, it would be called a plesiosaur.) Sixty feet long, its neck bore more than half that length. Its head was small but fierce, a box of daggerlike teeth. As it cruised the surface propelled by four long flippers, it stretched its head up and behind, both wary and aware.

Perhaps ten miles north of Ashland, this strange creature dipped its great neck deep into the water, chasing a school of small fish. Suddenly, a huge head—ten times the size of the plesiosaur's—charged from behind, propelled by a massive crocodilian body. It was over in an instant. The hapless plesiosaur's head was nearly torn off, and as it writhed and fell through the water, its enemy (later called a mosasaur) ripped pieces of flesh, then let its prey sink. The plesiosaur came to rest in an underwater canyon, another deposit to the growing layers of shale created by other life come and gone millions of years previous.

About 63 million years ago, perhaps ten million years after the death of the plesiosaur, the land rose again, and the seas drained. In spite of its size, the small, warm-blooded animal had survived the ages. As the seas retreated for the final time (in our history), these animals and many new but similar forms moved back into our region.

For reasons unknown, these vulnerable, warm-blooded creatures thrived as the great reptiles disappeared from the earth.

This was another time of great changes in the landscape. The mountains to the west, which had eroded to almost nothing by now, once again rose out of the earth, their granite peaks reaching into the clouds. The great deposits of sand and silt left by the last great ocean were cut and carved by rivers and floods from these mountains, leaving little record of this time.

Then, 15 million years ago, the mountains uplifted again in a slow but violent action that would continue through known time. From 10 million years ago until about 2 mil-



This collared lizard is a miniature reminder of larger reptilian inhabitants that roamed here long ago.



Bison are also a smaller version of their ancient predecessors that once roamed the Big Basin region. Today, the area's bison herd provides a flashback of the sight early Americans might have enjoyed. About 100 bison graze at Big Basin.

lion years ago—through two great thrusts of the western mountains that would be called the Rockies—great deposits of sand, gravel and silt were carried to our region by wind and river. Over time, these sediments often cemented together. Our detectives would call these deposits the Ogalalla Formation.

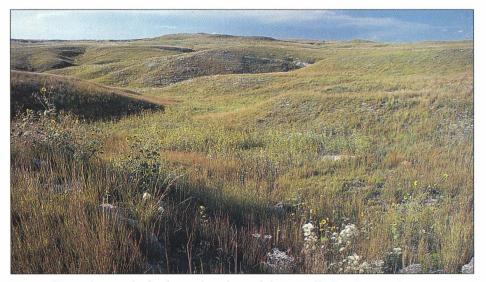
By 2 million years ago, these deposits had built the great plains of the area that would, in the tiniest fraction of our story, be called Clark County, Kansas, USA.

But we get ahead of our story. Near the end of this long period of deposition, almost 15 million years ago, a landscape vaguely familiar emerged. Streams carved canyons in the areas as forests gave way to a new plant form—grass. Millions of years of silt and mineral deposits had created a soil so rich that grass in turn became a rich source of nourishment for a variety of new and amazing life forms.

Rhinoceros, mammoth, camel, peccary, horse, and giant sloth

roamed the area and fed the appetites of predators such as sabertoothed cat, bone-crushing dog, and wolf.

New animals came, and the climate became drier. By two million years ago, the forests had yielded completely, and our land—and all surrounding land for hundreds of miles—was a vast sea of rippling grass. Giant beaver weighing 350 pounds, stag-moose, elk, musk ox,



Over millions of years, the landscape has changed dramatically, but the most important result of these events, at least to the wild inhabitants, is the native grass that covers the land. Today the Big Basin prairie looks much like it did 200 years ago.

and mammoth thrived. But another grazer emerged that would define the area almost as clearly as the bluestem and gramma grass.

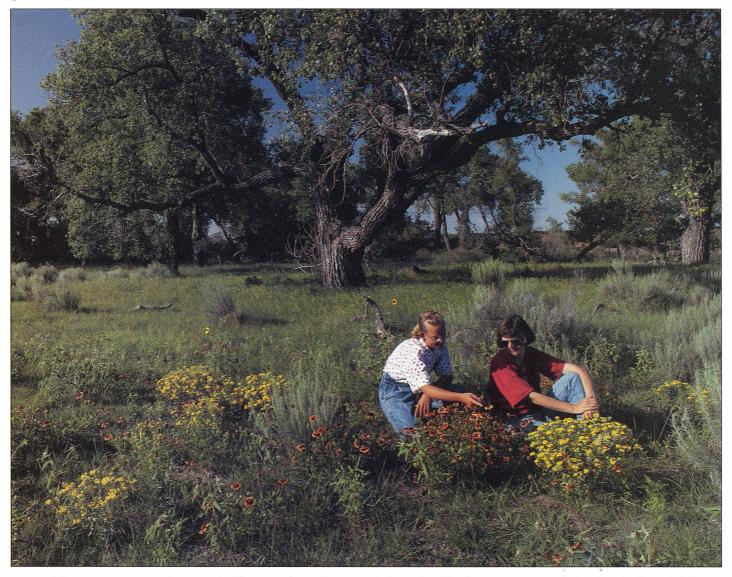
At this time, ice covered much of the earth, sucking water from the oceans of the world and drawing them down as much as 200 feet. When this happened, a huge land bridge connected two great continents. Many species crossed this bridge and made their way into our land, including a massive wooly creature standing eight feet tall at the shoulder. It was the bison.

The glaciers that created this land bridge would melt and return several times over the next two million years, providing opportunities for other species to migrate to our region. About 40,000 years ago, the most fantastic—and most dangerous—of all reached this continent. It walked on two legs and carried the tools of a hunter in search of the migrating bison. He was, of course, man, and his effect on our region would be more dramatic in a few short years than millions of years of nature's previous work.

By 25,000 years ago, man had made his way to our region, and the giant bison had become extinct, making way for a smaller cousin weighing only 1,000 to 2,000 pounds. For the purposes of grooming and controlling parasites, bison would wallow in bare dirt, creating huge depressions in the earth. In the fall rut, bison bulls would pound down cottonwood trees and further excavate these depressions as they wallowed in their own urine, prepared to battle for mating rights.

About this same time, other species began to disappear. The rhinoceros had been long gone, but man saw giant sloths, mastodon, and mammoth in the region. Inexplicably, these were soon gone, perhaps victims of this new plains hunter, perhaps victims of their own sluggish reproduction.

Bison remained and thrived in herds of millions. They were the primary source of food for our hunters although their primitive spears, which required a very close kill, made the bison dangerous prey. But man had two other weapons like none other on earth—intellect and fire. Eventually, these two weapons would give man the advantage over



Most of the area's cottonwood trees probably grew after settlers arrived, but today, the thriving trees provide inviting shade and shelter.



A spring in the basin is an oasis in the otherwise arid prairie. Travelers named the spring St. Jacob's Well, and it still provides visitors with a refreshing respite. bison and help shape the nature of the plains.

How fire hunting technique was developed, no one knows for sure, but its use could be tied to an event that created the most extraordinary physical feature of our region, if we create a character and a little fiction to enhance the work of our detectives.

About 9,000 years ago, a small band of nomads were camped 15 miles west and north of Ashland. For months, they had been following the buffalo herds, killing one here and one there with spears and spear throwers (later called atlatis), occasionally losing a hunter in the process. It had not been good fall for hunting, and winter was not far off.

One night, Moon Raven, a young tribal chief, went off by himself to pray. If something did not happen soon, many of his people would perish in the harsh plains winter. All through the night he prayed, asking his god for a sign that might help his people. About three hours before dawn, dazed from lack of sleep, Moon Raven felt the earth move. The harsh sounds of rock scraping rock and air squeezed from earth pierced the clear night.

Awestruck, Moon Raven could not move. Not 100 yards in front of him, the earth was sinking. In less than three hours, a great bowl—at least one mile across and 100 feet deep sank into the flat plain. After hours of praying, Moon Raven watched the earth literally collapse in front of him. It must have been an omen.

With joy and trembling, Moon Raven rushed back to his awakening tribe. The people left their breakfast fires and gathered round as their chief excitedly told his story. God had given him a sign. Fire would save the tribe.

The entire tribe packed up and moved north across the plains. Within five miles, they found a small herd of bison, perhaps 300, grazing absently. The group circled north of the herd and made their presence known to the animals a safe distance away, just far enough to move the herd south without spooking them. As the bison moved south, the bulk of the tribe set up camp while a dozen hunters followed the herd at a distance. By afternoon, the animals were grazing in the warm autumn sun about one-half mile from the great hole.

The hunters fanned out in a wide semi-circle behind the bison and simultaneously set the thick prairie grass on fire. The air quickly filled with smoke rising hundreds of feet up. Fifty-foot flames danced toward the bison, which charged in panic toward the gaping sink.

It was all over in an hour. One hundred and fifty bison lay dead or dying at the bottom of the basin. The rest had veered off at the last minute. The flames crept around and across the basin and scorched a path 30 miles long until the fire died, days later, along the river future men would call Cimarron.

It would be a good winter for Moon Raven's tribe.

Such fires—burning millions of acres each year—would serve nature as well as man. It would hold back the invasion of trees and help create the largest pasture in the world, stretching from the Rockies to the Mississippi and from the Canadian forests to the Gulf of Mexico. Ironically, such fires may also have contributed to the end for slower or less adaptable species such as the mammoth and the saber-tooth cat.

Our detectives have a different explanation for the presence of the gigantic basin, which is, of course, the central feature of our region and our story. Perhaps 1,000 years before Moon Raven and his people hunted the bison, a fault slipped west of the basin in Meade County, near Crooked Creek. This fault allowed rain and fresh artesian water to flow directly into the ground as deep as 1,000 feet. The water flowed east and south until it found an exit in the gradually sloping landscape.

Upon exit, the water was briny, meaning that salt and other minerals



The pillar of stone reminds us of the violent forces that shaped the landscape, as mysterious today as they probably were to the ancient peoples who might have witnessed the changes.

(laid down some 250 million years earlier when the seas drove those earliest reptiles from the area) were being removed. At a certain point when the underlying beds of salt became so eroded that they could not support the weight of the overlaying sandstone, shale, and siltstone, the land collapsed, creating not one, but two basins. (Little Basin lies just east of Big Basin and contains a sink within a sink called St. Jacob's well.)

A pinnacle of white rock rises mysteriously up from the middle of the basin. The top 15 feet of this pinnacle is part of the Ogallala Formation that, for some reason, did not sink. The base of the pinnacle is Kiowa shale, laid down some 70 million years ago.

Some scientists doing recent work in the area believe this did, indeed, happen literally overnight. In fact, a small sink dropped about 200 yards east of St. Jacob's well in 1944. Our detectives refer to Moon Raven's sign from his god as interstratal karst.

Of course, a few modern dramas are associated with the area, all of them tied to our ancient history.

In 1897, Prof. G. N. Gould, a former Ashland High School principal, made a significant discovery. As the Clark County Clipper from that year records, Prof. Gould "made a trip up the canyon north of town where he found some valuable specimens of petrified vertebrae of a large serpent long extinct." The "serpent" was named *Plesiosaurus mudgel*.

In 1924, crocodiles and other finds were made by the Kansas Geological Survey in northern Clark County. In 1936, Mrs. Jack Swayze, a Clark County rancher's wife, found the skull of a rhinoceros in a canyon not far from their farmhouse.

But the significance of this place, and Big Basin Prairie Preserve in particular, is much more profound than fossil digs (which are not on the preserve). The preserve and sur-



From observation walks, visitors can view the sink, which is 100 feet deep and a mile across. It is estimated that the basin formed 9,000 years ago. A smaller sink formed in 1944, providing us with a clue as to how the Big Basin formed.



The waterholes are great places to see wildlife in the summer. Here a night hawk swoops in for a drink on a warm July evening. Seventy bird species frequent the area.



A pronghorn doe trots through Big Basin. Although once common, only remnant pronghorn herds remain in the region.

rounding areas have left a legacy for modern man that stretches back "Almost before God said, 'Let there be light,'" as area manager Mark Goldsberry puts it. It is the history of events that created this land, and everything it has become since man's arrival. The Big Basin is an unusual landscape and a dramatic reminder of the changing and fragile nature of our earth.

Recognizing this special importance, The Nature Conservancy bought the basins and surrounding area, a total of 1,818 acres, in 1972. In 1974, the Kansas Fish and Game Commission (now Department of Wildlife and Parks) purchased the area as a nature preserve. In 1978, it was designated a National Natural Landmark.

Today, the area looks much like it did 5,000 years ago. Although no hunting is allowed, it is still a nature lover's wonder. One hundred bison graze the area, helping maintain a natural balance between animal and plant life. The giant sloth and sabertooth cat are gone, but mule deer, pronghorn, coyote, eagle, bluebird, jackrabbit and many other species can be seen. These include more than two dozen reptile, 65 mammal, and 70 bird species. The grass is rich and the terrain rugged. Limited vehicle access helps keep the area natural, and the avid hiker or primitive camper (no fires allowed) can step through creek and canyon to another time.

While Big Basin has plenty of written history associated with it, particularly about St. Jacob's Well, it is the natural history that makes it rich. The life sustains the land in a dynamic relationship as dramatic as the landscape itself. As Goldsberry says, "This is the country I like. It's an ecosystem that works." Big Basin Prairie Preserve will "work" for another 1,000 millennium, or more. That's a fitting end to our story, through which man is but a brief traveller.



Sporting Optics: Which One Is For You?

USHNEL

A R N

text and photos by Mike Blair staff photographer, Pratt

Binoculars can be an important tool in the outdoors. Here's how to choose the pair that's right for you.

Wildlife & Parks

For

S omething about the clump of buttonbush didn't look right. Sunlight, twigs and shadows created a confusing mosaic in the thicket, but a small, light-colored spot didn't seem to fit. Was it a deer? I watched a few moments from 75 yards away, and finally dismissed the spot as glare from a limb. Then I remembered the borrowed pair of 7 \times 35 binoculars in my pack, so, I gave them a try. The enhanced view was startling.

Now the bush appeared to be only 10 yards away, and the unusual spot of color suddenly became the throat patch of a white-tailed buck. The deer's head was pointing skyward, partially hidden by limbs as it chewed on twigs above. The deer's shoulder was hidden by tall bluestem grass, exposing only its neck. Through the binoculars, I could see a 10-point rack among the profusion of twigs. It was an excellent stalking opportunity.

This episode, years ago, convinced me of the value of binoculars, and I now never stillhunt without them. But their use also opened the door to a whole new way of watching wildlife. Binoculars make the difference between seeing and identifying, especially with birds. They also permit discovery of subtle behaviors that the naked eye often misses. To me binoculars are as essential for field work as a pair of boots.

Whatever your outdoor pursuit, chances are that binoculars will provide you with worthwhile benefits,



Binocular shoppers face not only a confusing array of brands and types to choose from, but also a size dilemma: compact or full-size? Price is also a tough decision.

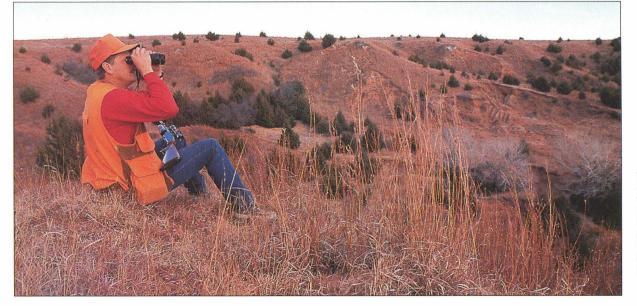
too. A bike ride, a boat ride or a stroll down a nature trail often provide interesting glimpses of wildlife. Simply carrying binoculars may increase your awareness of the surroundings, as they provide an instant magnifying glass on whatever you see and remind you to look.

Binocular sales have skyrocketed in recent years as wildlife watching has become more popular. In turn, the number of binocular products has kept pace, until a current purchase may follow a confusing trail through many models, prices and foreign and domestic brand names.

There are several American sport-

ing optics companies, though all their binoculars are produced on contract outside the U.S.A. A number of European companies also vie for a share of the American binocular market, as does Japan. Competition is keen, and the resulting choices range from optics that are fair to superb. Price varies greatly, but in general, you get what you pay for.

A basic knowledge of binoculars is helpful when considering a purchase. First, there are two general types: porro prisms and roof prisms. Prisms are the elements which bend light in binocular tubes to create a longer focal length and increase the power of



Quality binoculars can make deer hunters much more efficient at finding game. Pick the best quality optics you can afford.

a binocular.

Conventional binoculars have a porro prism design, so that each tube contains a "dogleg" with offsetting prisms. This places the objective (front) lenses farther apart than the eyepieces. Porros are heavier and bulkier than roof prism models, but they tend to be less expensive since their design allows excellent optical quality with less stringent manufacturing requirements.

Roof prism binoculars have straight tubes, and are more compact and lightweight than porros of equal magnification. But this type binocular demands that prisms be stacked in-line with extreme accuracy. The best have excellent optics, but are expensive. Some roof prisms weigh only ounces and easily fit in a shirt pocket.

Binoculars are always labeled with a set of numbers such as 10×50 . The first number is the magnifying power of the binocular (in this case 10 power). The second number denotes the diameter of the objective lens in millimeters.

It may seem logical to buy the most powerful binoculars available, to get the closest look at a given subject. However, several considerations are important. Powerful binoculars are more difficult to hand-hold for a steady image. It is generally agreed that a 10 \times binocular is probably the limit for even an experienced user. Casual users may find the steadiness of a 7 \times or 8 \times more satisfactory.

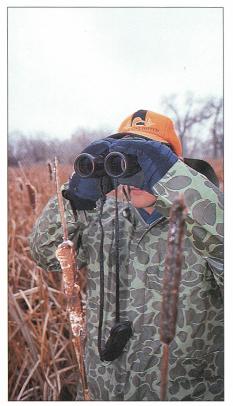
Also, high-powered binoculars have a reduced field of view. Birders almost universally want extra magnification, but may lose fleeting opportunities when a flitting bird can't be found in the narrow viewing area. Lower powers allow easier tracking when subjects are flying or running through undergrowth. An $8 \times$ binocular with a spotting scope may be the ideal birding combination.

Binocular power also relates to image brightness. The index for a binocular's relative brightness (amount of light gathered for the eye) is obtained by dividing the diameter of the objective lens by the magnification, and squaring the result.

Practically speaking, in average daylight, the higher the binocular power for a given objective lens diameter, the weaker the image brightness. For example, using the above



Two general types of binoculars are built; the roof prism, left, and the poro prism, right. Good roof prisms are lighter and compact but more expensive.



Hunters must also consider weatherproof qualities and twilight factors in the optics they purchase.

formula, 10×50 binoculars produce an image brightness of only 25, while a less powerful 7×50 pair has a relative brightness of about 51. In good light, the less powerful binocular provides a more vibrant image—better color and more detail.

But to complicate matters, the more powerful binocular yields a better twilight factor. Twilight factor relates to low-light performance at dawn or dusk, or under heavy forest shade. Greater magnification helps in low light by making objects appear larger, thus stimulating more lightsensitive cells on the retinas of the eyes.

Twilight factor is calculated by multiplying magnification by the objective lens diameter, and then obtaining the square root of the product. Using the previous example for comparison, the twilight factor of 10×50 binoculars is 22.4 while 7×50 s rate only 18.7.

Purpose dictates which index is more important. For general birding and wildlife watching, I prefer greater relative brightness. But for serious deer scouting and pre-season trophy evaluation, the increased twi-



The diopter adjustment allows for differences in the viewer's eyes. It's a good idea to tape the setting in place to avoid adjustment every time you look.

light factor is more helpful.

Part of the binocular's efficiency depends on light transmission. Optical coatings help transmission by reducing the amount of light lost by reflection from the lenses. Buy only binoculars with fully coated optics.

Modern binoculars employ three kinds of focusing systems: center focus, which uses a central knob or focus bar to adjust both eyepieces at once; permanent focus, which relies partly on the inherent focusing abilities of the user's eyes; and individual focus, where each eyepiece adjusts independently.

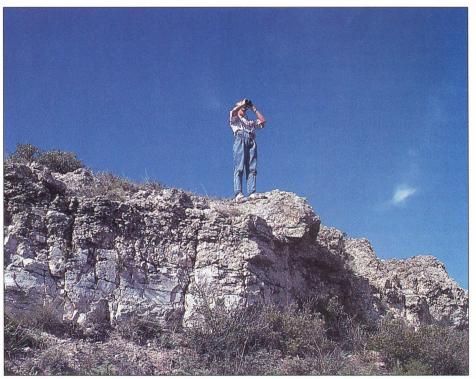
Center focusing binoculars are fast and easy to use in a variety of conditions. They focus on close objects, and to some degree allow selective zone focus when scanning heavy timber for deer. They have a separate diopter adjustment on one evepiece to correct for vision differences in the user's eves. Unfortunately, the diopter ring is easy to move in many models, forcing a regular resetting of the diopter adjustments. This can be stopped by taping the diopter ring permanently into position. More expensive binoculars may have clickstop diopter settings which cannot be accidentally changed.

Permanent focus binoculars are good choices for those with normal eyesight. However, there are no adjustments for nearsightedness, farsightedness or vision differences between eyes. Permanent focus models are extremely fast for many viewing situations (good for wildlife viewing from a car), but they don't allow close focusing. This is a critical consideration for birding and wildlife applications.

Individual focus binoculars accommodate for vision differences between the user's eyes, but they are slow to use. Each eyepiece must be adjusted separately. Once focused, they function in a similar way to permanent focus models, except for close-in work where each eyepiece must be refocused. Birds and animals may not stay in one place long enough to allow this.

Long eye relief in binoculars is important to those wearing eyeglasses. Binoculars have rubber eyecups that roll down for eyeglass wearers. If the eye relief is too short for a particular style of glasses, the binoculars will not yield a full field of view. Individual factors affect eye relief, so binoculars should be tested and compared in the store (with eyeglasses on) before purchase.

Outdoorsmen planning to use binoculars in all weather conditions should buy waterproof models. These are different from "water resistant"



Binoculars can make any outdoor trip more interesting. Birdwatchers, hikers and hunters can all enjoy the benefits of quality optics.

binoculars, which are marginally sealed against moisture and dust. Waterproof binoculars cost more, but can be used in heavy downpours without fear. I've ruined more than one pair of cheap binoculars while caught in a sudden rainstorm.

Wide angle binoculars offer no advantage to the birder or hunting enthusiast, who is generally concerned with a specific point in a scene. Wide angles are bulkier and heavier than conventional binoculars, adding weight without benefit.

Zoom binoculars are available from some companies, but I don't recommend them. Theoretically, you find the subject at low power, such as $6 \times$ and zoom the image to a higher power, such as $15 \times$. Unfortunately, the image brightness is badly degraded at higher powers, and not uncommonly, the focus goes soft through the zoom range. Finally, binoculars come in an assortment of colors and finishes. For hard outdoor use, rubber armoring helps protect against bumps and deadens handling noise. Cheaper models have textured finishes. Colored models are available, but black or camouflage are most suitable for work involving wildlife.

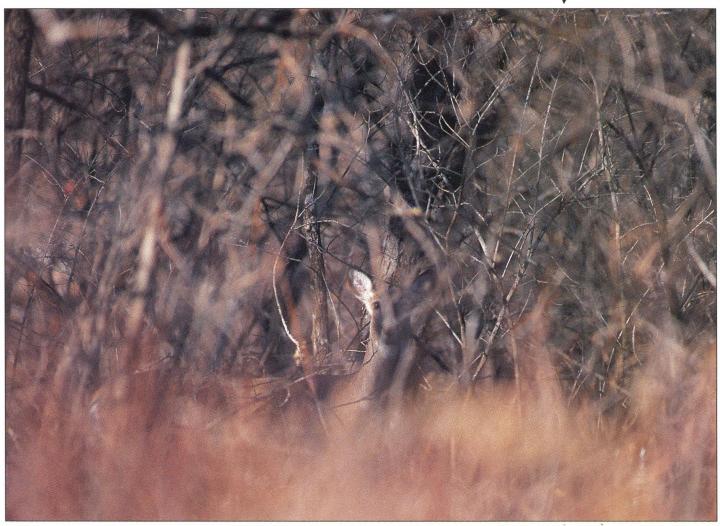
Price is often the most difficult part of a purchase decision. Binoculars range from around \$20 to \$1,000 or more. Depending on how much you intend to use them, expensive binoculars may well be worth it.

The most serious problem with cheap binoculars is their tendency to lose perfect collimation between the tubes. When this happens, each eye sees a slightly different image, causing eyestrain and eventual headaches. If you buy cheap binoculars, you can expect this problem. In contrast, high-priced models are engineered to stay true for a lifetime.

Field tests reveal striking differences in sharpness and color accuracy between expensive and inexpensive binoculars. The difference may also be reflected in water- and dustproofing, rubber armoring and other valuable features.

Buy the best binoculars you can afford, and you'll be glad you did. Cheap binoculars are a short-term investment; more expensive models return greater service. Always buy reputable brand names. If you're conservative, the safest bets are 7×35 porros, time-honored and perfected.

Whatever your fancy, you can be confident that careful shopping will turn up many excellent choices, ranging from mini-binoculars to giant models. And your purchase will open a whole new way of seeing the outdoors.



The naked eye might only see a faint patch of white, but the magnified view through binoculars reveals a much more detailed picture.

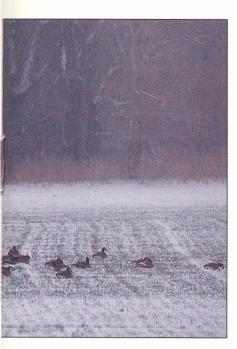
yallery by Mike Blair

Winter Waterfowl



Above: 400mm lens, f/3.5 @ 1/250. Left: 400mm lens, f/3.5 @ 1/125. Above right: 600mm lens, f/11 @ 1/500. Below right: 400mm lens, f/8 @ 1/250.











"Sallery

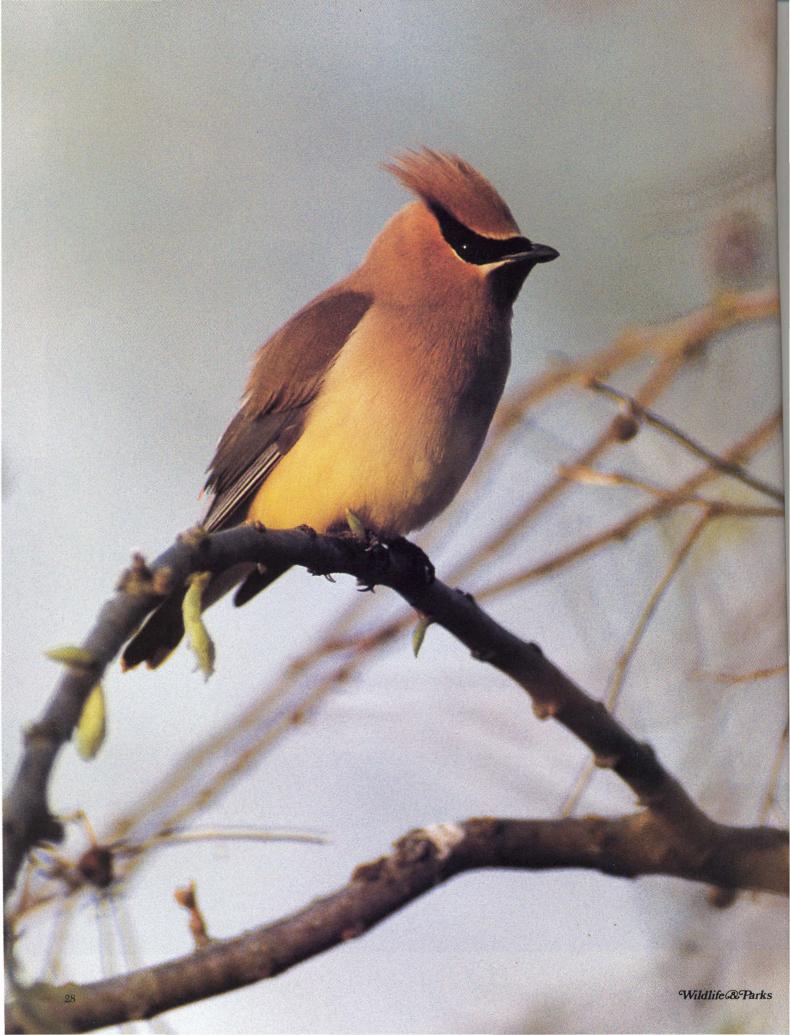
Left: 600mm lens, f/ 5.6 @ 1/500. Below left: 55mm lens, f/2.8 @1/15. Right: 600mm lens, f/5.6 @ 1/500. Below right: 600mm lens, f/5.6 @ 1/500.



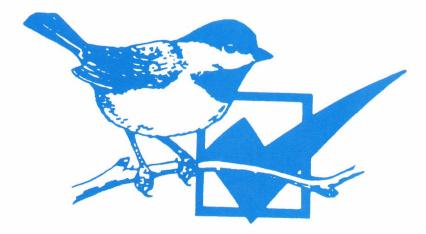








Chickadee Checkoff:



A Proud Tradition

by Ken Brunson nongame program coordinator, Pratt

photos by Mike Blair

A faithful group of donors have kept the Checkoff alive, but more money is needed to complete future programs.

For a dozen years, the Chickadee Checkoff Program has provided Kansans with a convenient way to contribute to wildlife projects. Look on the K-40s short form or K-40 long form of your state income tax forms, and you will see the familiar little chickadee on lines 12 and 25 respectively. The chickadee logo reminds donors that money given by checking this box is dedicated to projects that serve wildlife not hunted. In other words, if you're interested in helping eagles, song-

birds, threatened and endangered species, turtles, lizards, butterflies or even colorful little fish called darters, among others, you can through Chickadee Checkoff.

In 1981 Kansas became the third state in the nation to initiate a tax checkoff program, following Colorado and Oregon. Getting the checkoff line on the tax form was accomplished with assistance from the Kansas Nongame Wildlife Advisory Council, which is composed of representatives from 13 different state conservation organizations.

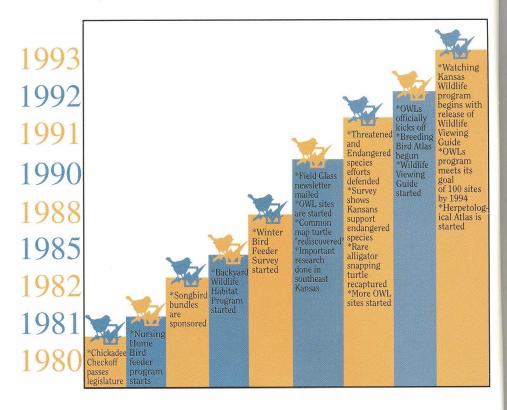
Yearly contributions to the Checkoff program have averaged \$150,000, providing an impressive \$1.8 million for wildlife programs. However, spread out over more than a decade, the budget has strictly limited the number of wildlife projects that could be funded. In spite of these limitations, the program has accomplished some amazing things.

One of the continuing projects, and maybe one of the most needed, is the funding of wildlife status surveys. Protecting and managing threatened and endangered species is one of the department's most important tasks. The department administers a permit system that assesses the impact development projects may have on critical habitat. Chickadee Checkoff has funded dozens of population status surveys of species listed as threatened and endangered or those on the Species In Need of Conservation list that may be affected by such development.

One of the Checkoff's flagship projects is the reintroduction of the golden eagle in Russell County. Overseen by Maure Weigel of the Prairie Raptor Project, the restoration effort has released 13 young golden eagles near the upper end of Wilson Reservoir since 1989. The goal is to establish a pair of nesting eagles in Russell County. The majestic birds nested throughout western Kansas historically, and a few pairs still nest in other parts of the state. With the help of projects like this, golden eagles will continue their comeback from a dangerously low population a few years ago.

Another Checkoff success is the Nursing Home Bird Feeder program started a few years ago. More than 250 care homes have been provided with bird feeders and seed, much to the pleasure of the residents.

Since 1985, the Checkoff has spon-



sored the Backyard Habitat Improvement Program, which provides information and assistance to people who want to develop wildlife habitat in their own backyards. The program then recognizes those who complete habitat projects.

The Winter Bird Feeder Survey is another Checkoff program that requires public cooperation. Since 1988



The Checkoff program has helped pay for golden eagle restoration efforts. The hack tower above houses the young eagles as they learn to fly and become accustomed to their new surroundings. Food is provided even after the birds leave the tower.

about 1,000 avid birdwatchers from all across Kansas have participated each January. Keeping a log of the species and numbers of birds seen at their feeders, they provide valuable information about winter bird populations.

Least tern research and habitat work has been a major effort of the Chickadee Checkoff. Listed on both the state and national threatened species lists, this small water bird concerns biologists. As a result of projects sponsored by Chickadee Checkoff, effective ways to improve nesting success have been discovered.

Even though checkoff funds have not increased, the department has managed to initiate some new and exciting programs. The old Kansas Nongame Newsletter was dressed up in 1989 and renamed The Field Glass. Mailed twice a year, this illustrated publication highlights Checkoff projects and features wildlife viewing opportunities. The newsletter is free upon request.

Surveys have shown that a vast majority of Kansans enjoy and appreciate wildlife viewing opportunities. In response to this growing popularity, the Checkoff has funded the development of a wildlife viewing guide. The book is being published by the

Gene Brehm photo

University Press of Kansas and will be available next summer for less than \$10. It highlights the best places to go in Kansas to watch deer, ospreys, eagles, elk, buffalo and hundreds of other kinds of wildlife. The book will help you be more efficient in watching wildlife and, most importantly, it will uncover some of the hidden information that make Kansas wildlife one of the country's best kept secrets.

In 1992, the checkoff started compiling the Kansas Breeding Bird Atlas. Many other states have been involved in "bird atlasing" for a number of years, and we are anxious to get our own bird atlas started. Through eager volunteersim, so prevalent in wildlife conservation work, the department has used Checkoff funds as seed money to involve more than 100 birders across the state. These people survey blocks of land and determine which bird species are nesting within those boundaries. This kind of information will be valuable to all kinds of environmental and population review surveys. It's a lot of fun, too!

One of the most exciting programs the Checkoff has been able to initiate has been the Outdoor Wildlife Learning Sites (OWLS) program. OWLS gives schools the opportunity to develop outdoor learning labora-



The least tern is on the Threatened and Endangered list. Checkoff programs have helped improve mesting success of terns nesting in Kansas.

tories right on their school yards. With the help of many other organizations and agencies, the Checkoff is able to promote interest in the program by offering grants of up to \$2,000.

Shifting existing Checkoff funds has allowed some of these new efforts without an increased budget. However, there is an urgent need to upgrade some of the older projects, and



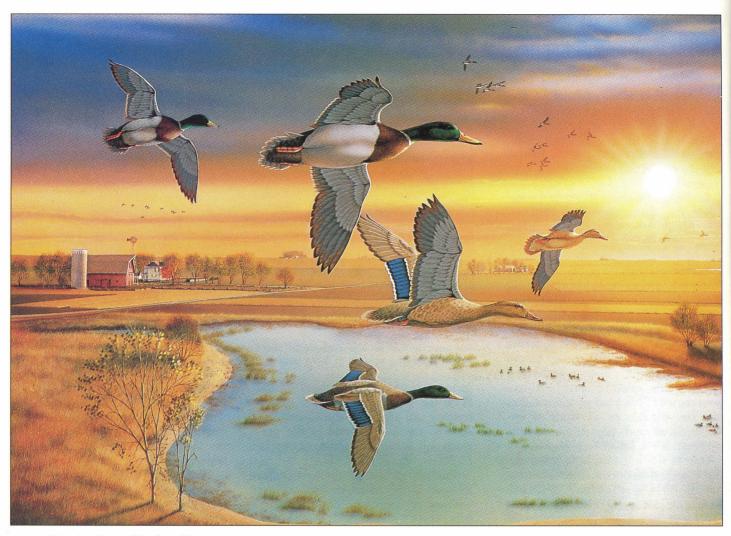
The nursing home bird feeder program has provided feeders and bird seed to dozens of care homes across the state, delighting the residents and probably the local birds. Many home residents are very involved in birdwatching and even making their own feeders.

there is a desperate need for additional funds needed to continue the OWLS and threatened and endangered species projects. The department continues to solicit donations from corporate and private benefactors.

The weight of the program, however, is carried by the 20,000 faithful Chickadee Checkoff contributors. Their average \$7 contribution has kept the Checkoff alive. It is disappointing, though, to turn down excellent habitat and research proposals because of insufficient funds. In 1990-1991, the Checkoff could only afford to fund 10 percent of the project proposals submitted.

New projects and threatened and endangered species protection efforts are priorities that require more money. That is why an aggressive plan was initiated last year to raise the level of contributions from the current average of about \$170,000 per year to \$250,000 per year. That may sound optimistic, but it would only require current donors to increase their donations by one-third. In spite of our promotions, the Checkoff total barely held steady in 1991. However, we are optimistically looking toward this year's tax returns, and to the rest of this decade.

There is so much to do, and every dollar helps. Make your own mark for the Chickadee Checkoff, and help us reach our goal in 1993.



"Evening Retreat" by Jerry Thomas

Playa Lake Print To Help Joint Venture

"Evening Retreat," by Jerry Thomas, is both a painting and a project cosponsored by Thomas and the Department of Wildlife and Parks to improve awareness of wetland conservation efforts. Last fall, Thomas gave the department 500 prints of this panoramic scene of a southwestern Kansas playa lake. Our agency then gave 100 prints to each of the other states in the Playa Lake Joint Venture to be used for wetland promotions or enhancements. Joint Venture states include Colorado, Kansas, New Mexico, Oklahoma and Texas.

The Playa Lake Joint Venture is an international effort by federal and state agencies, private conservation organizations, corporations and individuals joining together to restore waterfowl and other migratory bird populations by protecting vital playa wetland habitat. Thomas' contribution shows that private individuals care about wetlands and are both willing and capable of promoting their benefits.

In Kansas, the playa lake prints will be used as a Wetland Conservation Award. These prints will be awarded to individuals or corporations who have shown significant achievements in conserving or enhancing our wetland resources. Awards will be available in all counties in Kansas. Thomas has asked that other states use the prints for awards or use the proceeds from their sale to foster wetland conservation projects.

Originally from Scott City, Thomas currently lives and works in Manhattan and has provided artwork for other natural resource projects. He is the winner of the 1992 Kansas Waterfowl Habitat Stamp Contest and the 1992 U.S. Fish and Wildlife Corporate Stewardship Award, and he has also been named the 1992-92 National Ducks Unlimited Guest Artist, the 1991-92 State Ducks Unlimited Sponsor Artist, the Waterfowl USA 1992 National Ticket Artist, and the 1992 Waterfowl USA Golden Waterfowl Artist.

Wetlands supply important economic, ecological and social values. Interest in conserving wetlands is increasing. The Wetland Conservation Award will be an excellent incentive for people to conserve wetland habitat. Landowners who want to conserve or enhance wetlands should contact their local Wildlife and Parks representative for details. --Charlie Lee, agricultural liaison, Manhattan

WILD CURRENTS

letters

Edited by Mark Shoup

BABY HUNTER ED? Editor:

As a master hunter education instructor, I am disappointed that Tyler Lauer was issued a lifetime license. I am positive he has not yet completed a hunter education course. Is this no longer a requirement?

> Byron L. McNickle Stafford

Dear Mr. McNickle,

Thanks for your question regarding the lifetime license issued Tyler Lauer, as discussed in the Nov./Dec. issue of Kansas Wildlife and Parks magazine (Page 34). It's a natural question because Kansas law requires anyone born on or after July 1, 1957, to have a hunter education certificate in order to purchase a hunting license.

However, the same law (K.S.A. 32-920) states that "A person may purchase for another... a lifetime hunting license without the license recipient first having been issued a certificate of completion of an approved hunter education course." The law also states that the department must pass a regulation establishing guidelines for such purchases, which it has.

This regulation (K.A.R. 115-9-3) affirms that anyone can buy a lifetime hunting license for any Kansas resident born on or after July 1, 1957, without the recipient's first having completed the hunter education course. The regulation goes on to state that such licenses will be issued "with a notice that the lifetime license is not valid until the recipient has been issued a certificate of completion of an approved hunter education course."

This restriction emphasizes the central point of the law, which states that "no person born on or after July 1, 1957, shall hunt in this state on land other than such person's own unless the person has been issued a certificate of completion of an approved hunter education course."

The point of the law, of course, is to promote the tradition of hunting by allowing purchases such as Roger Lauer's. What better way to introduce your grandchild (or child or friend) to hunting values and the outdoors?

Your question is a good one, but you need not fear that Tyler Lauer, or anyone else born on or after July 1, 1957, will hunt without a hunter education certificate. That is still a requirement. --Shoup

WHAT IS HABITAT?

Editor:

You people do a good job with KANSAS WILDLIFE AND PARKS magazine. Among the best is the "Wild Currents" section. It helps me to understand the vast scope of emotions and points of view you have to contend with, and you always represent the wild things well.

I have a small farm in southeastern Kansas, near Ft. Scott, and I want desperately to understand the word "habitat." It's thrown around a lot but not clearly. I do know deer need it; quail need it; and I know it isn't the same for either. If I knew what habitat was, I'd plant some.

My preferred species are whitetail deer and turkeys. I'm not so much interested in what they need during hunting season as I am during the time they have young to care for and what a buck needs when he's pushing up antlers.

I would like to see one article per issue on habitat. My farm is there for the wild things. The only thing I ask of those who hunt on it is for them to respect nature.

Long live the Kansas Department of Wildlife and Parks!

> Rick McKay Kansas City

Dear Mr. McKay:

Thanks for the vote of confidence and for the question on habitat. I guess every discipline has its jargon, and disciples tend to "throw around" what to them are everyday terms without explanation.

You do have a hint of what we are talking about when "habitat" is used in reference to wildlife -- it's often something that grows. Essentially, habitat is all the elements that make up the environment in which an animal or plant lives. The most basic of these elements are cover, food, shelter and water.

For white-tailed deer and turkey, the requirements are much the same. Timber and water are the most critical elements. Nut-producing trees and/or crops such as corn, milo and soybeans also help attract these species. Turkeys eat insects in the summer, so they are particularly attracted to crops or weed patches at this time. Tall grass can offer excellent cover.

Variety is the key. Plenty of "edge" -places where one kind of habitat meets another, such as timber next to grass, grass next to weeds, weeds next to crops -- will also attract many species of wildlife.

If you would like to know more specifics about the habitat needs on your property, contact your local Wildlife and Parks wildlife biologist. Not only can he give you technical assistance and advice, he can also help you with cost-sharing plans to make planting "habitat" easier. --Shoup

DANGEROUS PHOTO?

Editor:

I recently received my issue of KANSAS WILDLIFE AND PARKS magazine and was taken aback at a photograph included in the article, "Canada Geese Return to Marais des Cygnes: Part 2," by Karl Karrow and Barry Allen (Page 8). I believe the photo was taken by Mike Blair.

The photo is on Page 14 and shows a [goose] hunter taking aim and about to shoot at some Canada geese. In the background are a farm house and outbuildings normally found in the rural community. I could not believe such a photo was allowed in a magazine sponsored by the organization that has preached hunter safety for so many years. True, the small notation below indicates the background appears much closer than it is, but it's the message the photo passes on.

I have been a hunter safety instructor in the past and am currently working at becoming a qualified instructor again. This type of photo would never be allowed in any of my presentations. I have found in my past years of teaching and working with people that very seldom do people ever read the fine print below a picture. Further, even if the home and outbuildings are one-half mile away, its still too close to be really safe. I would advise all my students that this is a no-win situation, for both the hunter and the landowner. I would not take such a chance.

Robert Beckham Fredonia

Dear Mr. Beckham:

The hunters in the scene were absolutely safe. In fact, the angle of shooting was such that they really weren't shooting toward the buildings. In addition, the telephoto lens greatly distorts the distance. Our photographer (a life-long hunter) never even considered it a problem until we got the slides back and I asked him about it.

I am also a hunter education instructor, and I was concerned about the image. I had hoped the cutline would explain the situation. I don't think the photo condones unsafe hunting, but I apologize if that's your perception.

Please be assured that the hunters were not taking any chances, regardless of how it appears. --*Miller*

LET US IN

Many of my listeners are upland game bird hunters, and Kansas is one of their favorite states.

I have hunted Kansas for many years and would dearly love to see the day when your whitetail season would be available to nonresidents.

> Marty Malin Austin, Texas

PASS THE BUCK

Editor:

Just a note to let you know I do enjoy KANSAS WILDLIFE AND PARKS magazine and encourage you to keep up the good work.

Could you also reply to me concerning when it might be a possibility for a bowhunter to get a buck permit and a gun hunter to get a buck permit without going through the leftover gun drawing? Deer hunting is the only hunting I can do since my disability. (I have a crossbow permit.) I was one of those who didn't draw a leftover permit, so I cannot harvest a buck with my bow.

Please don't mistake this as a trophy hunter's request because it is not. But when you are restricted as to what you can shoot, it just seems to take a lot of the excitement out of the hunt.

I love the outdoors and would hunt deer because it is wonderful to be one with nature, if only for a little while, regardless if I did get a buck tag or not.

> Jim White Winfield

Dear Mr. White,

It is my understanding that you drew a regular firearms permit in the initial drawing, but were unsuccessful in the leftover drawing. I can empathize with you because that has happened to me several times. In fact, there were no leftover buck permits in my primary hunting unit this year.

If I understand you correctly, you would like to know if there are any plans to allow those who draw a permit in the regular firearms drawing to purchase a statewide archery permit. I foresee no such plans in the near future. --*Shoup*

SHOOTER SYMPATHY

Editor:

I enjoyed Mike Miller's article in the Sept./ Oct. issue of KANSAS WILDLIFE AND PARKS magazine (Page 45). Mike, don't feel bad about your bad shooting because I've got the same habits.

I started pheasant hunting in 1946 and made it every year for 25 years. In 1971, I had a heart attack and spent quite some time in the Dodge City hospital before I was able to return home. I missed several years before I was able to hunt again, and then it was as an innocent bystander. I was a very poor shot, and what birds I did get were by accident, you might say. But the trips and getting to see a lot of boys that were good shots were very enjoyable.

The picture on the back cover of that issue is my son, Ron Clark. I bought Ron his first

.410 shotgun at age 10. I now have it, but Ron has quite a number of guns and really works at his hunting. His wife bought him a blond Lab for his birthday three years ago. I hate to brag on my boy's dog, but she is about perfect on any game.

I enjoy the magazine very much, and although I can't hunt anymore, I love to read about what you boys are doing. Thank you. Keep up the good work.

> J. F. Clark Coffeyville

MEET HERE!

Editor:

Why can't we get a Wildlife and Parks Commission meeting in Wichita? I saw last fall that a meeting had been held in Pratt so the Wildlife and Parks could be there. Also, they will allow out of state hunters the same as the people here in Kansas.

It just goes to say as many of us have thought for a long time: it is just all one big political game. The people with the money get what they want and the peons get what's left, if anything.

Also, the game wardens [conservation officers] use state-owned boats to do their duck hunting.

> Glen E. Stoskopf Wichita

Dear Mr. Stoskopf:

I will try to answer your questions as directly as possible. First, commission meetings are held all over Kansas, and representatives of the Department of Wildlife and Parks attend each one, no matter how far they have to travel. Our last meeting in Wichita was in July of 1991. Some future meetings will likely be held in Wichita again.

Our nonresident deer hunting proposal would hardly allow nonresidents the same opportunities as Kansans. For a complete answer to your concern on this issue, see "Nonresident Deer Update" on Page 36 of this issue.

It is totally against agency policy for department employees to hunt with agency equipment or vehicles. To be caught doing so could cost them their jobs. If you have proof of such activity, please contact our Law Enforcement Division. --Shoup

law

ROBO CLONE

Region 5 conservation officers Dennis Knuth and Bill Ramshaw completed a brand new mechanical remote-controlled decoy deer last fall. With the retirement of Harry I, they now have two robotic and two stationary decoys in their region.

In addition, a remote-controlled flat wagon was built last year. This wagon runs on an angle-iron track and is used with a turkey decoy. It is also adaptable for use with the robotic deer, using a longer track to make the deer walk.

Region 5 officers have had excellent success using the decoy to nab road hunters although people tend to look them over more than they used to. Because of this, some movement in the decoy deer is helpful. --Dennis Knuth, conservation officer, Independence

THE TIME JUGGLER

About 7:20 p.m., on Sept. 4, 1992, a Salina man found double trouble in trying to evade the law by purchasing two hunting licenses.

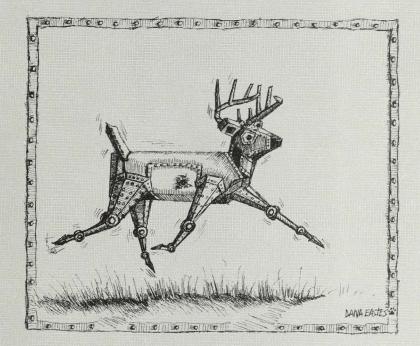
The man was dove hunting with a friend when they were checked by conservation officer Greg Salisbury, Salina. The man did not have a hunting license, but he told Salibury that he had purchased one that morning at Gibson's and left it on his dresser at home. Unfortunately, the man had no plug in his gun, and neither man had permission to hunt the property they were on.

Salisbury issued tickets for "no plug in shotgun while hunting migratory birds" and "hunting without a license." He then told the man he would meet him at his residence so he could check his license, but when Salisbury got there, the man was not at home. Salisbury then went to the Gibson's store and asked the sporting goods clerk for the resident hunting license records. She told him that at 8:25 p.m. a man had asked her to backtime a license he was purchasing, but she refused. Salisbury got the number of the license -- it had been purchased by the man he was investigating -- and returned to his suspect's house.

It was 9:20 p.m. when Salisbury found the man at home, but the man produced a license with a different number and the time of 10:10 a.m. on it, purchased from Wal-Mart. When asked about the Gibson's license, the man said that he had gotten nervous when he couldn't find his license, so he went to Gibson's and bought another one.

The next day, Salisbury went to the Wal-Mart and found the man's license receipt out of sequence in the license record book. Additionally, the tape receipt did not have the time and date on it. Apparently, someone at this store was willing to help the man with his scheme, but Salisbury wasn't fooled.

Double expense and trouble turned to quadruple headaches for the man who tried to juggle time: the judge fined him \$50 for unplugged shotgun, \$50 for no hunting license, \$150 for misrepresentation on a license and \$39 court costs. --*Shoup*



TERRORIST TERMS

Congress has given militant animal rights advocates something to ponder when considering whether to engage in terrorist acts, according to the Wildlife Management's "Outdoor News" bulletin.

The House and Senate passed and the President signed a bill last year providing for a jail term of one year to life for stealing, damaging or causing the loss of any property (including animals and records) used by animal enterprises.

The new law is designed to protect operations such as research facilities, zoos, aquariums, circuses and rodeos from animal rights terrorists. To be covered under the law's provisions, offenses must result in at least \$10,000 in physical damages and involve the use of interstate commerce, such as federal highways or other forms of interstate transportation. *--Missouri Department of Conservation*

BRANDED!

Marked by the dubious distinction of being the first individual in Tennessee history to have his hunting, fishing and trapping privileges revoked for life, poacher Van Jewell was found guilty in Benton County General Sessions Court in the summer of 1992.

Jewell was arrested with four others and charged with poaching in a Tennessee Wildlife Resources Agency undercover operation. Jewell received the most severe punishment of the five because he was a repeat offender, having been previously arrested and convicted for a big game violation.

In addition to permanently revoking his hunting, fishing and trapping privileges, Judge John Derington ordered Jewell to spend 10 days in the Benton County Jail; remain on probation for 11 months, 29 days; pay more than \$2,000 in fines and court costs; and relinquish his rifle, which was declared contraband. Jewell was found guilty of hunting at night with a light, hunting from a motor vehicle, shooting from a public road, illegally possessing and transporting whitetailed deer and selling deer. --*Tennessee Wildlife*

issues

NONRESIDENT DEER UPDATE

The Department of Wildlife and Parks is proposing legislation similar to a bill considered in 1990 that would have allocated up to 5 percent of regular firearms and archery permits for general nonresident deer hunters, in addition to the number of resident permits authorized.

The original bill was amended to allow only 2 percent of the regular season firearms permits and 1 percent of archery season permits for nonresidents. In addition, the law limited those permits to "doe only" permits. Due to the difficulty in distinguishing a doe from a button buck, the law was unworkable as passed, so no "doe-only" permits were issued.

At their October meeting, Kansas Wildlife and Parks commissioners voted unanimously to support legislation allowing general nonresident deer hunting in Kansas. The commission supported the proposal to allow up to 5 percent of the regular firearms and statewide archery permits to be available to general nonresidents. These nonresident permits would be in addition to the number allocated for Kansas residents. A \$5, nonrefundable application fee is also proposed for nonresident applications. The existing fee for a nonresident deer permit is \$200.

Although the original bill was supported by most Kansas conservation and hunting organizations and many individuals, it still met with a small but vocal opposition. The primary opposition was from those who believe that it is not fair to allow nonresidents to hunt when some residents still don't get the permit they want.

"We understand this argument, but under the terms of our deer management plan, we can accommodate both resident and nonresident deer hunting," explains Ted Ensley, Wildlife and Parks secretary. "Currently, we have a number of deer management units where 'any deer' and 'buck only' permits are left over after the regular firearms permit drawing. These are the areas where we can allow nonresident permits without affecting resident hunting opportunity."

Kansas is the only state with a deer season that does not allow general nonresidents to hunt. Iowa was the most recent state to allow nonresident deer hunting, and in so doing, the Iowa Department of Natural Resources (DNR) banned Kansas hunters from their annual deer season. The Iowa deer application reads. "Deer license applications will not be accepted from residents of Kansas or any other state... that does not allow Iowa residents to purchase a nonresident deer license. "

Several other states have voiced a similar

PLAYA LAKE DEDICATION

On Nov. 17, federal, state and private dignitaries met southwest of Dodge City to dedicate the first playa lake purchased by the Kansas Department of Wildlife and Parks under the North American Waterfowl Management Plan. The dedication began at the Wild Turkey Playa Tuesday morning under cloudy skies and a fierce north wind that kept the initial ceremony short.

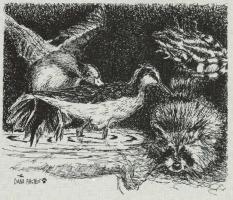
At a luncheon in Dodge City, however, an original artwork by Jerry Thomas, featuring a panorama of a playa lake, was unveiled. Thomas is the winner of the 1992 Kansas Waterfowl Habitat Stamp contest, and he has donated all 500 limited addition prints of the painting to the Playa Lakes Joint Venture. Sale of the print will benefit future

prints will benefit future playa lake projects.

Speakers included Mike Hayden, assistant secretary of the U.S. Interior Department, and David Wesley, Ph.D., director of operations for the Southern Regional Office of Ducks Unlimited, among others. Each speaker praised efforts to protect wetlands, particularly joint ventures such as this in which government and concern but have not yet taken any action. Because Kansas receives federal funds contingent on the fact that the agency's programs are nondiscriminatory, Wildlife and Parks officials are concerned that a court test could force the state to allow nonresident deer hunters or forfeit more than \$2.5 million in federal funds. --Shoup

the private sector work hand in hand.

The Wild Turkey Playa is a 50-acre seasonal wetland, but the property purchased includes surrounding land making a total of 157 acres. Wildlife and Parks intends to manage the area principally for migrating waterfowl and shorebirds. This will include planting or cultivating native plants for seed eating species. Water pumped from an irrigation well will supplement natural inflows.



Playas are circular depressions that usually have no external drainage; consequently, they act as catch basins when it rains or snows. Little water seeps into the ground because of impervious clay soils in the basin bottoms. Playas vary in size from less than one acre to several hundred acres, but most in Kansas are less than 10 acres. Because they trap and hold water after intense rainfall, playas create important habitat for many wildlife species. However, since early settlement, the number of these shallow wetlands has been severely reduced by drainage and soil erosion. Each remaining playa is a virtual oasis for migrating birds.

The area surrounding the Wild Turkey Playa will be managed for use by waterfowl and other wildlife, such as pheasants, quail and deer.

Native grass will be planted around the basin, and native grass and shrubs will be planted on the steeper slopes to control erosion. Some small food plots of row crops or small grains will also be planted for wildlife.

To hold waterfowl on the area, public access will not be allowed on the property

during peak migration periods. Public access for some activities, such as hunting, will be allowed by special posted notice at other times of the year.

For more information on the area, contact the Kansas Department of Wildlife and Parks Region 3 Office, 808 McArtor Rd., Dodge City, KS 67801, (316) 227-8609.. --Shoup

STAMPS FOR WETLANDS

America's wetlands are among our most valuable natural resources, providing critical habitat for waterfowl and literally hundreds of other marshland species. Unfortunately, millions

of acres are lost each ment and drainage.

ment and drainage. Since 1934, the ing and Conservation role in acquiring and and marshes needed tory waterfowl and just \$15, you can bethe future of America's other birds and animent will provide such you, and for your children.



Migratory Bird Hunt-Stamp has played a key restoring the wetlands for survival by migramany other species. For come an "investor" in ducks, geese and many mals. No other investvaluable dividends for

year through develop-

Duck stamps are still available at your local post office and at many sporting goods stores nationwide. [Kansas state waterfowl habitat stamps are also still available from Wildlife and Parks offices and license vendors.] --*National Shooting Sports Foundation*

CAPTAIN PLANET TO THE RESCUE

Last summer, I attended a conference where, in one presentation, live footage of a "canned hunt" was shown. A man was standing in an open, grassy field dressed in sport shirt and slacks. He held a high-powered rifle, and 50 yards away, another man released a tiger from a cage in the back of a pickup. The "hunter" shot the tiger, then walked cautiously up to it, nudged it with his rifle, and proudly placed one foot on the "conquered" animal.

(The conference, by the way, was conducted by and about hunters, and the film was intended to demonstrate one kind of behavior the hunting community does not condone.)

Early last November, this subject was brought to my attention again through a children's television show called "Captain Planet." As I puttered around the house, something on the screen caught my eye: several men were standing in a tree house shooting down at a rhinoceros.

Curious about the message in the program, I turned the TV up and sat down with my boy to watch. To say the least, I was pleasantly surprised. I subsequently contacted the show's producer, Dan Gottlieb, at the Turner Broadcasting System in Atlanta and was able to obtain a copy of the episode for a closer review.

"Captain Planet" is a superhero series with a twist: the heroes battle villains who would destroy the planet through environmental pollution and exploitation of natural resources. In the premise for the series, Gaia, the spirit of the earth (and the voice of Whoopi Goldberg), can no longer withstand the pollution and destruction of Earth's natural resources. To combat these problems, she gives power rings to five young people: Kwame, from Africa, can move the earth; Wheeler, from North America, has the power of fire; Linka, from Eastern Europe, has the power of wind; Gi, from Asia, has the power of water; and Ma-Ti, from South America, has the power of heart.

Whenever these young heroes cannot overcome one of the series' reappearing villains, they combine their powers to summon Captain Planet, a superhero akin to Superman.

In the episode I refer to, entitled "Canned Hunt," the Planeteers are at a carnival when they notice a man knocking down every target at the shooting gallery. They approach him with compliments on his shooting, to which he replies, "Thanks. I get plenty of practice hunting big game."

At this point, Linka is totally turned off. The hunter, named Trevor, makes some simple but logical arguments for hunting, but Linka is not swayed, even after Kwame adds, "The world works in a complicated system of checks and balances. Regulated hunting can play an important part in this balance."

Linka's only reply is, "Nothing will change my mind about hunting."

The Planeteers secretly follow Trevor to a preserve for what he thinks is a guided hunt. Unbeknownst to Trevor, the "hunt" is a canned hunt business run by series villain, Hogish Greedly. Greedly drives tame and disabled

HOPE FOR MADTOM

In the July/Aug. issue of KANSAS WILD-LIFE AND PARKS (Page 36), we ran an article from River Crossings, which indicated that the Neosho madtom (a species of small catfish) had been extirpated from the Spring River in Kansas. This report was the result of the most recent scientific surveys of the Spring River in far southeastern Kansas, Missouri and Oklahoma.

However, last November, I received a call from Vernon Tabor, one of the scientists involved in the on-going madtom research. According to Tabor, a 15-mile survey of the Spring River in Kansas and Missouri in late October revealed one population of madtoms in Kansas.

"We were really encouraged to find them," said Tabor, "because I didn't think we would." Tabor said that four madtoms were found at one site, which is good news for the species. Researchers will continue to survey the madtom population in this area, and hopefully more of these rare fish will be found. --Shoup

animals in front of a treehouse for his customers to shoot.

Greedly also captures the Planeteers and Captain Planet, but Trevor -- who is referred to throughout as a real hunter -- rescues the eco-heroes and helps them shut down Greedly.

At the end of the show, Linka relents, apologizing to Trevor for misreading him.

"I guess it's not hunting that's bad," she says, "just some of the hunters." Because the primary spokesman against canned hunts is a real hunter, the connection between hunters and conservation is made inextricably clear, something rarely explained on children's television.

Hats off to Gottlieb and Ted Turner, who is given credit for the show's original concept. I have since seen several episodes of "Captain Planet" and found them to be excellent environmental awareness programs for kids. They are well conceived and written and feature voice performances by such notable artists as Ed Asner, Ed Begley, Jr., Lavar Burton, Don McLean, Lou Rawls and Elizabeth Taylor.

Best of all -- at least from my son's point of view -- the stories are entertaining and the characters attractive. Now Captain Planet is one of his favorite characters to role-play. Unfortunately, he always makes me play Hogish Greedly.--Shoup

hunting

UPLAND OPENER DOWN

The opening weekend of Kansas pheasant season, Nov. 14-15, saw the usual crowd of resident and nonresident bird hunters, but it didn't see the usual number of birds. The state's four pheasant hunting regions all reported lower than normal pheasant harvest although hunting was "spotty" everywhere, with some hunters finding good numbers of birds while many found the going hard.

In Region 1 -- northwestern Kansas -- a hunter check station in Wallace County reported 37 licenses checked and 57 birds taken. "Most officers checking people in the field were saying [the success rate was] about one-half bird per hunter," said regional law enforcement supervisor Jerry Bump. Bump confirmed the "spotty" forecast the Department of Wildlife and Parks issued earlier this fall. The good news, however, seems to be that most of the hunters were having a good time. "There were very few landowner complaints, and those hunters we checked all seemed to be in good humor," Bump added.

Bump acknowledged that numerous uncut milo fields could be one factor keeping pheasant harvest low although bird numbers are clearly down, as well.

According to Region 2 Law Enforcement supervisor Glen Hurst, northeast Kansas also yielded approximately one-half bird per hunter. "This is more quail than pheasant country," added Hurst, "and quail hunters did pretty well." No check stations were conducted in this region.

Check station reports from Region 3 -- southwestern Kansas -- mirrored the other regions. "We ran a check station south of Minneola," said Jim Kellenberger, Region 3's law enforcement supervisor, "and it was down. We checked 90 vehicles and 226 licenses and found 280 pheasants." That makes for 1.28 birds per hunter for two days. "Normally, the average for



us is 1 1/2 to 1 3/4 birds per hunter on opening day."

Region 4 -southcentral Kansas -- reported much of the same although no check station was conducted. "Reports from officers in the field indicate it wasn't too good," says regional law enforcement supervisor Bob Thomas. "There was so much milo left uncut, and I think that's the reason. But quail hunting is good."

This is not to say there are no pheasants in Kansas this year, and the season runs through Jan. 31. Some hunters prefer this time of year because of the possibility of snow and the lack of competition. Still, it may take more work than usual to find the birds. Snow could limit cover enough to aid hunters, but it won't be a banner season for Kansas pheasant hunters. --Shoup

LATE WINTER RABBITS

By late February or early March, many Kansas outdoorsmen have cleaned their guns and dusted off their fishing equipment. After all, the hunting season is over, right? Wrong. Cottontail rabbits, the most popular game animal in the United States, are still legal quarry, and late winter may be the best time to hunt them.

While cottontails are quite popular game in eastern states, they are largely overlooked in Kansas, even though they are excellent table fare. There is no shortage of cottontails in the Sunflower State, either. This adaptable little rabbit is plentiful in every county in Kansas although concentrations are higher the farther east one goes. Cottontails live in a variety of habitat, from grassy fields to woods — anywhere there is cover. Thickets and brush piles are essential rabbit habitat because they provide the cover necessary to escape predators.

Those hunters who take advantage of winter rabbits employ a variety of techniques. The most commonly used equipment is the .22-caliber rifle or light shotgun, 20-gauge or lighter. However, many hunters enjoy the challenge offered by hunting rabbits with light handguns or bows. A low-power scope mounted on a .22 rifle or pistol is ideal for sitting shots, but iron sights are best for moving rabbits. Archers may find that hunting late-winter rabbits is one of the best ways to hone big game hunting skills.

Bow hunters are successful slowly stalking the edges of dense cover, just after a latewinter snowstorm. Spotting rabbits before they bolt is a challenge and offers good shooting opportunity. A growing number of Kansans use beagles, which are born to hunt rabbits. When these small hounds pick up a rabbit's scent, they howl and follow the trail in hot pursuit. Once flushed from cover, a rabbit will usually circle back to its original lair.

One thing hunters, especially young hunters, should remember when stalking rabbits is to respect cover. Jumping on brush piles and other cover may flush rabbits, but it is dangerous when carrying a gun, and it destroys important habitat for rabbits and other wildlife. Leave such cover undisturbed.

Hunting winter rabbits can put excellent meat on the table and provide exercise and

UNDER CURRENTS

recreation for the house bound. Best of all, it's available to almost anyone. Across Kansas, nearly everyone is within after-work driving distance of public land with rabbits; and rabbit season runs year-round. The daily bag limit is 10. For more information, obtain a copy of the "Kansas Hunting and Furharvesting Regulations Summary" from a local sporting goods vendor or Wildlife and Parks office. — Shoup

HANDICAPPED HUNTS

For several years, the Kansas Department of Wildlife and Parks has offered hunting permits to physically disabled people. These permits, called "disability permits," are available to anyone who is "unable to walk or able to walk only with the aid of orthopedic devices." They allow the holder to hunt from a vehicle as long as he or she is otherwise in compliance with state laws and regulations.

Last fall, the department expanded this program to provide special access on certain areas usually closed to vehicles. The cornerstone of the program is a "special vehicle access permit." With this permit, persons who also hold a disability permit will be allowed vehicle access for hunting or other specified recreation (such as birdwatching) in specially designated areas. Vehicles may be restricted to established roads, or they may be subject to other restrictions, and designated areas may be seasonally open or closed, depending on area management needs.

"Our goal is to provide as many opportunities as possible for outdoor recreation," says Rob Manes, Parks and Public Lands staff supervisor for Wildlife and Parks. "As much as is possible, we want to provide these opportunities to everyone."

The new program is in effect for the 1992-93 upland bird hunting seasons, which run through Jan. 31. For more information, contact a local Wildlife and Parks unit office. --*Shoup*

JANUARY DEER ORANGE

The special January deer season runs Jan. 11-24 in an area that includes all of Chautauqua County and portions of Cowley, Elk, Greenwood, Montgomery and Wilson counties.

This is also the heart of Kansas quail country, so upland game bird hunters should be aware that deer hunters will be out during this time. Hunter orange is highly recommended. --Shoup Bird Dog Ducks Fowl Play

by Mark Shoup



Wayne Miller farms out by Burdett, and he loves to hunt. Like most farmers, Miller is unpretentious, but he's proud of his dogs -- all five of them. One dog in particular, however, has captured Miller's affections over the years. His name is Elrod, and at one time Miller thought Elrod could do just about anything but sing the blues.

"He's 13 1/2 years old now and kind of lost his marbles," says Miller wistfully, "but he still knows how to eat. In his younger days, d a decent bird dog too."

he was a real character, and a decent bird dog, too." Of course, it's easy for a hunter to love his dog. Convincing buddies of the dog's worth is a

different matter, especially a dog like Elrod, whose beginnings were, well, humble.

No blueblood, Elrod was an accident -- the product of a pointer owner who just underestimated a Brittany's climbing skills.

"Elrod's mamma wasn't much to look at," Miller admits, "kind of sway-backed and potbellied, and Elrod wasn't too pretty either, even when he was young. But that was part of his charm."

One day when Elrod was a young dog, he had the opportunity to display his charm with unusual flair.

Miller and Dave Van Meter were drinking coffee one morning over at Joe Sauer's farm when Sauer's son came in the kitchen all excited. A flock of mallards had landed in a nearby draw that was filled with irrigation tailwater. Duck season was on, and they all had their shotguns, so they decided to see if they could bag a few ducks for supper.

Apparently, the mallards weren't too smart because these guys are not exactly your small sneaky types, especially Van Meter, who is 6' 3'' and weighs about 270. Anyway, this group of offensive linemen slipped right up on top of those mallards and dropped four or five in one quick rise. A couple birds landed on dry ground, but the others fell on a layer of skim ice that covered the draw. Van Meter was about to wade out and fetch those birds when Miller stopped him.

"Don't do that," Miller said. "I've got old Elrod up in the truck. He'll get 'em for us."

Although not anxious to break ice or sink in the mud, Van Meter was still doubtful. "That old hound dog even know what a duck is, Wayne?" Van Meter groused.

Too proud to be indignant, Miller's answer was confidant: "Elrod'll retrieve anything. Throw an old glove out there and he'll fetch it. Why, I've got him where he'll bring a quail back to you and you tap on your leg, and he'll just put that quail right in your hand."

Ignoring Van Meter's skepticism, Miller went to the truck and returned with Elrod at his side. Miller commanded, "Fetch Elrod!" And sure enough, Elrod headed for the water. About the time he got belly deep to that thin ice, however, Elrod got the blues and returned to shore. Undaunted, Miller took one of the ducks on the bank, threw it out near the others, and again commanded, "Fetch, Elrod!"

Elrod didn't budge. Farmers and hunters are both inventive and stubborn, so a farmer/hunter may have an extra dose of both, especially when his dog isn't doing what he knows darn good and well he can do. Miller took the second duck from the bank and tore some feathers from the breast, thinking that the smell of flesh might arouse the dog's interest. This time, he threw the duck about 20 yards down the bank, on dry ground.

Now Elrod would show he was no ordinary mutt of questionable lineage. He ran right to that duck, took one sniff, stuck his nose in the air, and heisted his leg, firing a stream of derision usually reserved for hubcaps and fireplugs. He then walked away indignantly, nose still in the air.

Miller stood scratching his head and deadpanned, "You like your birds a little gamey, don't you, Dave?"

fishing

WILSON STRIPERS

Striped bass are certainly controversial among fishermen, who either love them or hate them. Some anglers fear that stripers will reduce other game fish numbers because a few reservoirs outside Kansas lost some game fish in years just following striper introduction. However, subsequent studies revealed that severe winters, not striper introduction, were to blame.

In fact, biologists now feel that striped bass prey on larger gizzard shad, causing a shift in the size of the shad population and

more small shad. This shift could be beneficial to other game fish species.

Nevertheless, during the 1980s, several petitions were circulated to ban stripers from Wilson Reservoir, home of the state's best striper fishery. Public meetings were held in three different years to defend striper stocking. At the same time, other fishermen demanded more striper stocking.

Now, the controversy has died down, and

striped bass are fulfilling the purpose of the stocking -- to provide a trophy fishing experience in Kansas waters.

In 1974, the Kansas Fish and Game Commission (now Department of Wildlife and Parks), in conjunction with Ft. Hays State University, began a sonar tracking study on stripers at Wilson Reservoir. In 1982, information on stripers was again analyzed, and it was determined that their movements were predictable. As a result of this study, combined with more sophisticated angling techniques, fishermen began to catch more stripers, and interest in the fish increased.

Today, striped bass in Wilson Reservoir are doing quite well, and anglers are enjoying some excellent fishing. A 1986 creel census revealed that 16.5 percent of fishing pressure at Wilson came from striper anglers. And these anglers are dedicated to preserving the resource: they voluntarily release 96 percent of stripers shorter than 15 inches and 80 percent of those shorter than 21 inches.

According to bait shop trophy certificates and interviews with guides near Wilson, many 20-pound fish and at least 10 fish more than 30 pounds were caught in 1991. The last two state record stripers were taken from Wilson. The current record of 43.5 pounds was taken by Chester Nily, Sylvan Grove, in 1988.

Wildlife and Parks biologists will continue to monitor striper populations at Wilson Reservoir, not only for the health of that species but to protect existing populations of ment of Conservation and hatched and raised at the Milford Fish Hatchery.

"The purpose of this project is two-fold," says Doug Nygren, fisheries management liaison for Wildlife and Parks. "We hope to restore paddlefish to their former range to ensure the future of the species and, at the same time, create a unique fishing opportunity for Kansas anglers."

The U.S. Fish and Wildlife Service stocked an additional 19,000 fish in the Kaw, raising the total stocking to more than 30,000.

These unique, prehistoric-looking fish formerly inhabited the Arkansas River but haven't

been found there since the early 1970s. Their original range was reduced due to habitat alterations, destruction of spawning areas, dams, pollution and dewatering of streams.

Paddlefish are unique in many ways. Aside from the huge "paddle" they have on the end of their snout, they also have few bones in their body and a skeleton made of cartilage. They feed exclusively on zooplankton, small microscopic

naturally reproducing game fish such as walleye and white bass. --Shoup

PADDLEFISH UPDATE

A project by the Kansas Department of Wildlife and Parks, the Oklahoma Department of Wildlife Conservation, and the U.S. Fish and Wildlife Service may have paddlefish swimming Kansas rivers once again. Last May, paddlefish were stocked in Tuttle Creek Reservoir (in northeastern Kansas) and in Kaw Reservoir (in northcentral Oklahoma). Now another chapter in the Kansas paddlefish saga is being written.

On July 22 and 23, when the Kansas Department of Wildlife and Parks again stocked more than 12,000 paddlefish 10 to 14 inches long in Kaw Reservoir. Paddlefish eggs were obtained from the Missouri Departorganisms in the water. Paddlefish may live more than 20 years and commonly grow to more than 100 pounds.

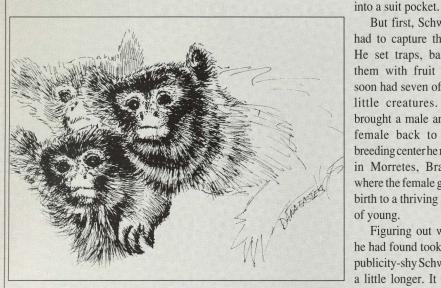
Biologists and anglers will keep their fingers crossed because the results of these efforts may not be evident for five or six years. At that time, paddlefish should be sexually mature and begin their annual spawning run from Kaw Reservoir into the Arkansas River and its tributaries.

Paddlefish have been known to travel as far as 100 miles in this migration and will spawn on gravel bars during periods of high water in March and April. Likely congregation areas for these reintroduced fish would be below the Tunnel Mill Dam on the Walnut River in Winfield or below the Oxford Dam on the Arkansas River. During periods of extremely high water, the fish may even reach the Lincoln Street Dam in Wichita. --Murrell

nature

NEW PRIMATE DISCOVERED

Marco Schwarz had heard the rumors, so when the Swiss biologist made a trip to the central Amazon in 1985, he kept an eye out for the "something unusual" he had heard about. On April 15, walking near a tributary of the Amazon called the Rio Maues, he saw them: two groups of tiny pink-faced marmosets, a kind of monkey, with the wide-set eyes and broad nose of a koala and subtly striped fur. At 8 inches long and 13 ounces in weight, they were small enough to slip



But first, Schwarz had to capture them. He set traps, baited them with fruit and soon had seven of the little creatures. He brought a male and a female back to the breeding center he runs in Morretes, Brazil, where the female gave birth to a thriving pair of young.

Figuring out what he had found took the publicity-shy Schwarz a little longer. It was only last year that a

visitor noticed the young monkeys and their single mother (the male had died), snapped a photo and sent it to primatologist Russell Mittermeier, president of the Washington, D.C.-based Conservation International.

"I said, 'Oops, we've got a new species here," says Mittermeier. He was right. He went down to Schwarz's center to check, and last [October] the little critters were officially introduced to the world with an announcement of the find in a Brazilian scientific journal. Callithrix mauesi became the 244th member of the primate order, and thus the newest member of the family of man.

Scientists don't yet know very much about the diminutive marmoset's social habits, but if it's like the five other known marmosets, it eats fruit and insects, gouges trees to suck their carbohydrate-rich gum and has a tail that is basically useless except as decoration. The Maues area has not been as badly hit by development as other parts of the Amazon rain forest, so Mittermeier doubts the species is at imminent risk of extinction.

That the new species eluded science until now "is a symbol of our level of ignorance" of even well-studied groups of creatures such as primates, to say nothing of the diversity of life on earth, says Mittermeier. There are anywhere between 10 million and 100 million plant and animal species in the world, but science knows about only 1.4 million. --Sharon Beg, Newsweek

BUSY BEETLES

Dung beetles are of the order Coleoptera; the "coleo" means sheath, and the "ptera" means wings. They are of the family Scarabaeidae and may be found in or near carrion, manure, rotting logs and fungi. These critters are scavengers, which means they are responsible for cleaning the out-of-doors. Ecologically speaking, it is a very important role; by eating dead flora and fauna, they return precious nutrients to the soil.

Dung beetles may be black or green. They

are about the length of your thumbnail and about as wide, too. They are but one of about 300,000 different kinds of beetles. If you think that's impressive, invite one of every species of flora and fauna to your home. One out of five would be a beetle.

Like all beetles, the adult dung beetle is well protected by a hard exoskeleton. Its hard front wings fold over the back and protect the more delicate rear wings. The dung beetles move through a complete metamorphosis: egg, larva, pupa and adult.

Some dung beetles dig a hole, get dung, roll it into a ball, roll the ball into the hole and then lay eggs in the dung. The green scarab beetle does this, but it also kneads the dung before depositing the eggs. --Laura Grey, Martha Lafite Thompson Nature Sanctuary

LAKE SCOTT: NATURAL MAGIC

Pure magic. It's the only way to explain the combination of natural and human history, watchable wildlife, and quality fishing found at Lake Scott State Park, just south of Oakley.

Fed by natural springs, the lake is a reliable oasis in the arid western portion of Kansas. This may explain the attraction people have for the area, an attraction that dates back more than three centuries.

Remnants of historic human occupation can still be found. The Taos Indians migrated here in the 1600s and built what is today the northernmost pueblo in the U.S. -- El Cuartelejo. Around 1700, the Picurie tribe followed the Taos, and in 1717, a white trading post was established. The settlement then fell into disuse and was forgotten for a time. In the late 1800s, the Steele family recognized the area's beauty, and a new settlement grew.

Since El Cuartelejo's designation as a National Historic Landmark in the 1960s, the site has been restored. The Steele home -- now a museum of settler life -- and the Pueblo ruins offer a stroll through centuries of history: a Native American structure, a settler homestead, and a popular recreation spot for outdoor enthusiasts.

The small, deep fishing lake is surrounded by shade trees. Largemouth bass, channel catfish and bluegill attract anglers. In fall, rainbow trout stockings also add to angling pleasure. Wildlife watchers find wood ducks, bluebirds, great blue herons and other challenging species. Those who wish to fully enjoy all the area has to offer can stay overnight at one of the more than 60 utilityequipped sites.

A visit to Lake Scott State Park is a trip to remember. For more information, contact the Kansas Department of Wildlife and Parks, Lake Scott State Park, (316) 872-2061, or contact the Region 3 Office, (316) 227-8609. --Chris Havel, wildlife information representative, Hays

notes

NEW COMMISSIONERS

On Nov. 20, Gov. Joan Finney announced the appointment of two new members to the Kansas Wildlife and Parks Commission, as well as a new vice-chairman for the commission.

Peg Ann Ranney, Dodge City, will succeed Kathy George. Ranney is a past honorary director of the Grand National Quail Hunt and has been a member of the Oklahoma Wildlife Association and the Great River Outdoor Writers' Association. In 1975, she won the Outstanding Service Award from the Oklahoma Department of Wildlife. Ranney's term will expire June 30, 1996.

J. Alan Ward, Topeka, was appointed to fill the position left vacant when former commissioner Ted Ensley was appointed secretary of the Department of Wildlife and Parks. Ward is one of the pioneers of Quail Unlimited in Kansas, having started the state's first QU chapter in 1983. He was also the first state chairman for QU. Currently, Ward serves on the QU State Council and is one of five members of the QU Board of National Directors. He is also a member of Ducks Unlimited, the National Wild Turkey Federation, the American Brittany Club, the Kaw Valley Shot-to-Retrieve Club, Pheasants Forever and the Kansas Wildlife Federation. Ward will serve a term to expire June 30, 1993.

George L. Hinch, Elkhart, has served on the commission since July 1991 and will now fill the position of vice chairman, which Ensley previously held. Hinch has served as chairman and member of the Morton County Soil Conservation Board and as a member of the Morton County Extension Council. His term as vice-chairman of the commission expires July 1, 1995. -- Shoup

ART SHOW FEB. 26-28

The 21st Annual National Wildlife Art Show and Sale will be held Friday, Feb. 26 through Sunday, Feb. 28, 1993, at the Doubletree Hotel in Overland Park, according to show director Richard Woody. Admission is \$6 at the door and is tax deductible. Those under 16 will be admitted free. All proceeds will be used to promote wildlife conservation.

The nationally-acclaimed show attracts art and nature lovers and conservationists from across the country and features the artwork of more than 60 of America's most well-known wildlife artists. Original paintings, bronze sculptures, wood carving and other original works will be priced from \$10 to \$5,000. Limitied-edition prints will sell for \$5 to \$250.

"Think of any animal," says Woody, "and it's probably on display and for sale in art form, including wildlife scenes, landscapes and protraits."

A special preview party will be held from 6:30 p.m. to 10 p.m. on Feb. 26 at the Doubletree, \$20 in advance. For more information and preview party tickets, phone (913) 888-NWAS, P.O. Box 7728, Shawnee Mission, KS 66207.--Shoup

NEW BOAT COORDINATOR

The Kansas Department of Wildlife and Parks has hired Cheryl Miller as the new boating education coordinator. Miller has worked for the department for three years as a conservation worker at Sand Hills State Park, near Hutchinson. She has degrees in criminal justice and recreation and has worked as a nature interpreter and law enforcement officer for the National Park Service.

Miller will work out of the department's Region 2 Office in Topeka. Her primary duties will involve on boating safety, operation and regulations; service to state and national boating organizations; improvement of existing facilities and plans for future facilities.

Wildlife and Parks hopes that increasing public awareness of boating safety will result in a reduction of accidents. To this end, the agency offers a free correspondence course on boating basics. All boat operators are encouraged to complete this course. In addition, some insurance carriers offer reduced insurance premiums upon successful completion of this U.S. Coast Guardapproved course. --Shoup

CONSERVATION CHAMP

The conservation community was saddened last Oct. 20, when former Wildlife and Parks Commission Chairman Ron Hopkins died of a heart attack. He was 56. Hopkins served 11 years on the commission, one of the longest terms in its history, going back to the days of the Kansas Fish and Game Commission.

Hopkins survived many changes in the department, including a reorganization under former Gov. Mike Hayden, which elevated the conservation agency to cabinet-level status. Well respected among agency professionals and commissioners alike, Hopkins will be sorely missed.

"He was a unique individual," says Gary Caplinger, a former commissioner who served with Hopkins from 1981-86. "He never knew a stranger, and everyone who worked with him knew he would listen."

While Hopkins was outgoing, accessible and concerned with public opinion, he could always be counted on to do what was best for the natural resources of Kansas.

"His greatest attribute was that he was a real thinker," Caplinger adds. "He looked at the whole picture. He wanted to see things for himself and talk to those who were doing the agency's work."

Among Hopkins' accomplishments as a commissioner were his efforts to establish the Kansas Waterfowl Habitat Stamp (the Duck Stamp) and to bring commission meetings to many communities.

"He was a strong believer in taking meetings to the people," says Caplinger, "even to small towns. He was just a good communicator, and he looked for information from all over the state."

Hopkins, who owned an insurance agency and Fish and Ski Marine in Wichita, was an avid bass fisherman. It was perhaps through this avocation that he best expressed the traits of concern for individuals and natural resources for which he will best be remembered.

Says Caplinger, "He was great to fish with because he enjoyed seeing someone else catch fish as much or more than catching them himself. He was a good friend."

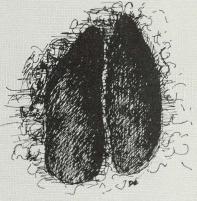
A memorial fund has been established in Hopkins' name through the Department of Wildlife and Parks' Wildtrust program. All donations will be used for work at Cheyenne Bottoms Wildlife Area, near Great Bend. Donations and inquires should be set to Wildtrust Coordinator, Kansas Department of Wildlife and Parks, Office of the Secretary, 900 Jackson, Suite 502, Topeka, KS 66612-1220. --Shoup

nature's notebook

Brown-tailed deer?

Anyone who has seen a white-tailed deer for the first time probably wondered why it wasn't named a brown-tailed deer. The large rectangular-shaped tail is dark brown on the outside, but when the deer is alarmed, the tail is raised high in the air. The underside of the tail is white as snow and is kind of like a flag that warns other deer that danger is near.

> A male deer is called a buck. Bucks have bony growths on their heads called antlers. Even though the antlers are hard as bone, they fall off each February or March, and the bucks grow them all over again every year. As a buck gets older, the antlers get larger.



White-tailed deer hoof print

The white-tailed deer's sensitive hearing helps it avoid any danger, but the deer's best defense is its nose. Deer have an unbelievable sense of smell. Imagine being able to smell your friends from three blocks away! A deer's nose is that sensitive.

A female deer is called a doe. Does don't have antlers. Sometime in May or June, young deer, called fawns, are born. Most of the time, does have twin fawns, but it's not unusual for a doe to have triplets! After a fawn is born, the doe will leave it hidden while she feeds. The fawn will lie without moving to avoid any danger. If you ever find a fawn that looks alone, leave it there; the mother is nearby.

by Mike Miller

HIGH GROUND

Outdoor Therapy

S everal years ago on a duck hunt with two good friends, I discovered an idea that had been in front of my face for years. Just before sunrise, we were hunkered in a pit blind in a sandy cornfield. The tailwater pit in front of us was littered with a few dozen decoys, and the gray-blue sky was beginning to fill with ducks. As we watched before it was light enough to shoot, we were engrossed in waterfowl; pintails, mallards, teal, wigeon, shovelers and gadwall. But the finale was a large flight of several hundred mallards that gathered high above our little pit, then followed an invisible spiral staircase down to the water. The sight and sound of that duck tornado is with me still today, but it was a friend's statement that brought home the idea.

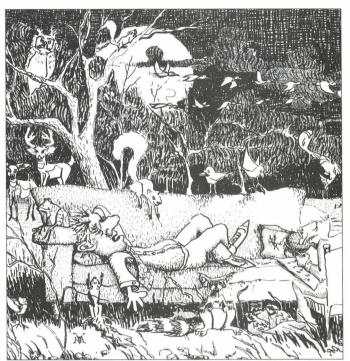
"My soul really needed that," he said with a contented look as the last of the mallards splashed down. We were hunting, but none thought to shoot. All we'd done was absorb the scene. And he was right, we were cleansed of problems, stress and whatever else ailed us. I realized, right then and there, we were on to something.

Everyone has problems. Granted, some folks have problems with dire consequences, but each person's problems are relative to that person's life. These problems along with the every-day struggle to make a buck, pay the bills and do what's right, create stress. Perhaps more than all the problems and conflicts, stress is the real threat. Each of us deals with stress in our own way. Some are successful. Some are not.

Let's face it, if it wasn't for stress, psychiatrists, psychoanalysts and therapists would be driving Yugos instead of Mercedes. But, luckily for them, there's plenty of stress to go around, and lots of us need help handling it.

I'll admit, stress isn't a big factor in my life. Some might say that's because I don't deal with many really heavy problems, but I think it's because I've discovered the best therapy available. No, I'm not selling my services as a therapist, although \$40 or \$50 an hour for sessions doesn't sound too bad. No, as I realized in the duck blind that morning, perfect therapy is right outside your door. It's outside all of our doors here in Kansas. It's cheap, effective, and it eases stress and improves your outlook on life. The answer to your problems is learning to enjoy the outdoors.

It's a well-known fact that stress is relieved when you do something that takes your mind off your problems. For me it's hunting and fishing. When I'm fishing or hunting, my mind is completely immersed in the activity



at hand. Nothing else comes to thought. I don't have to catch fish or have constant action. The surroundings and peace I find while I'm out are enough. And my thoughts never return to the problems at hand until the hunt or trip is over.

Hike, sail, birdwatch, whatever, as long you're outdoors and far removed from your environment of stress. If I can sit on a lake in a boat for a day, or merely spend the first three hours of daylight in a treestand, my mind can be eased. I am intense about my hunting and fishing, but I'm also relaxed. There are no deadlines, no mandates, no politics; just a deer or a squirrel or a covey of quail scurrying under my tree.

So, no more complaining about stress, and no more \$50-per-hour therapy bills. Get outside; better yet, get out of town. Visit a state park, state fishing lake, wildlife area or a friend's farm. Get out of the car, sit on a rock, climb a tree, hunt or fish. Do whatever you like, but never allow a thought about the things that cause you stress to enter your mind. You'll be healthier, happier and, like my friend pointed out several years ago, your soul will be content.

