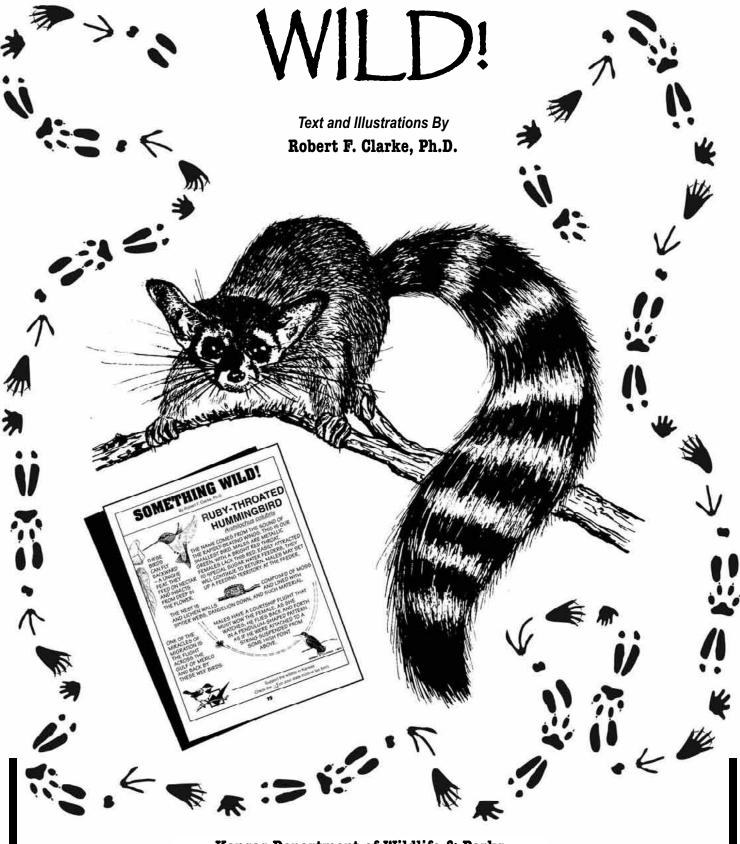
# SOMETHING >. WILDI



Kansas Department of Wildlife & Parks

#### A Wildlife Education Guide

This comprehensive program was originally developed, written, designed, and illustrated by Robert F. Clarke, Ph.D..

The editorial revisions and updating were provided by
Roland Stein, Shelby Stevens,
Mark Shoup, Mike Miller and Bob Mathews.
Layout revisions -Dana Eastes

This educational material is provided free of charge to educators in the state of Kansas to promote an awareness and appreciation of Kansas' wildlife to Kansas children.

Funded by hunting and fishing license fees and the Nongame Wildlife Tax Check-Off Program.

#### For information on other education resources contact

Kansas Dept. of Wildlife and Parks 512 SE 25th Avenue Pratt, Kansas 67124-8174 (620) 672-5911

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### Primary Resources

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Chaplin Nature Center US 166 Box 216 Arkansas City, KS 67005 620-442-4133

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Environmental Education Curriculum
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Grassland Heritage Foundation PO BOX 394 Shawnee Mission, KS 66201 913-262-3506

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Fick Fossil & History Museum 700 W Third St. Oakley, KS 67748 785-672-4839

Kansas Academy of Science 1930 Constant Ave. Campus WEST Lawrence, KS 66047 785-864-2700

KS Association for Conservation & Environmental Education
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Manhattan, KS 66502
785-537-7050

Kansas Association of Conservation Districts RT 1 BOX 102 Summerfield, KS 66541-9801 785-244-6590

KS Bass Chapter Federation 816 Capitol View Dr. Topeka, KS 66617 785-264-1364

Kansas Biological Survey Foley Hall 2041 Constant Ave. Lawrence, KS 66047-2906 785-864-7725

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Kansas Herpetological Society Museum of Natural History University of Kansas Lawrence, KS 66045 785-864-4540

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Kansas State Conservation Commission 109 SW Ninth ST SU 500 Topeka, KS 66612-1299 785-296-3600

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KS State Department of Health and Environment LSOB 900 SW Jackson 9th Floor Topeka, KS 66612-1290 785-296-1500

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Kansas State Extension Forestry Kansas State University 2610 Claflin Rd. Manhattan, KS 66502 785-537-7050

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Sedgwick Co. Dept. of Environmental

Resources

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Wichita, KS 67212 316-942-2212 Ext. 213 **Soil Conservation Services** 

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Zoo Education Program Topeka Zoological Park 635 SW Gage Blvd. Topeka, KS 66606-2066

785-272-5821

U.S. Fish & Wildlife Service Kansas Field Office

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785-539-3474

Wildcare

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Wildwood Outdoor Education Center

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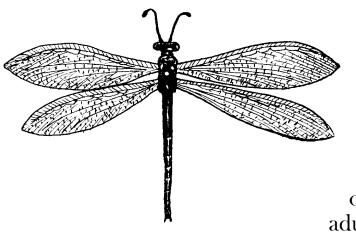
RT 1 BOX 14 Strong City, KS 66869 620-273-8494

### Table of Contents

Insects	Fish
Ant Lion	Fathead Minnow43
Black and Yellow Garden Spider 2	Plains Killifish 44
Cicada Killer 3	Blackstripe Topminnow44
Colorado Potato Beetle4	Longnose Gar45
Dobson Fly 5	Mosquitofish46
Dragon Fly 6	Orange-Throat Darter 47
Fireflies	Orangespotted Sunfish
Green Cicada 8	Red Shiner
Monarch Butterfly 9	Stonecat
Praying Mantis10	Stoneroller
Tiger Beetle11	Topeka Shiner
Tiger Swallowtail	Arkansas Darter52
White Lined Sphinx	Arkandad Bartor
Zebra Swallowtail14	Birds
A 1. 21. 2	Avocet53
Amphibians	Bald Eagle54
Central Newt15	Barn Swallow55
Cricket Frog	Black-Capped Chickadee
Gray Treefrog	Blue Jay57
Grotto Salamander	Brown Creeper58
Mudpuppy19	Brown-Headed Cowbird
Plains Leopard Frog20	
Plains Spadefoot	Burrowing Owl
Rocky Mountain Toad	Cattle Egret
Tiger Salamander23	Cedar Waxwing
Western Chorus Frog24	Chimney Swift
Western Chorus Frog24	Common Nighthawk
	Double-Crested Cormorant
Reptiles	Ferruginous Hawk
Alligator Snapping Turtle 25	Goldfinch
Collared Lizard	Great Blue Heron
Copperhead	House Sparrow70
Eastern Fence Lizard 28	House Wren
Five-Lined Skink	Little (Least) Tern72
Massasauga30	Loggerhead Shrike
Milk Snake	Long-Billed Curlew
Northern Water Snake32	Northern Harrier75
Ornate Box Turtle	Northern Junco
Prairie Rattlesnake34	Northern Oriole77
Prairie Kingsnake	
Red-Eared Slider	Osprey
Slender Glass Snake	Peregrine Falcon
	Pied-Billed Grebe80
Spiny Softshell	Ruby-Throated Hummingbird 81
Texas Horned Lizard	Scissor-Tailed Flycatcher 82
Texas Night Snake	Tufted Titmouse83
Western Hognose Snake41	Turkey Vulture
Western Painted Turtle 42	Whistling Swan85

White Pelican86
Willet 87
Wilson's Phalarope 88
Yellow-Bellied Sapsucker89
Yellow-Headed Blackbird 90
Mammals
Armadillo
Eastern Chipmunk92
Eastern Mole93
Eastern Woodrat 94
Flying Squirrel 95
Ord's Kangaroo Rat96
Least Weasel97
Red Bat98
Ringtail
River Otter
Short-Tailed Shrew
Thirteen-Lined Ground Squirrel 102
Woodchuck





### **ANT LIONS**

Family Myrmeleontidae

Pew people are aware of this predaceous beast of the insect world. The small adults resemble damsel flies.

They are slow fliers with thin, transparent wings and are attracted to light. Most people pay little attention to them. It is the larval stage that is unique. This one-inch creature constructs conical pits in sand or loose dirt as traps for insects, especially

ants. The victim

falls down the steep sides, being drawn deeper into the pit as it struggles to free itself. The ant larva, at the bottom of the pit, soon has its next



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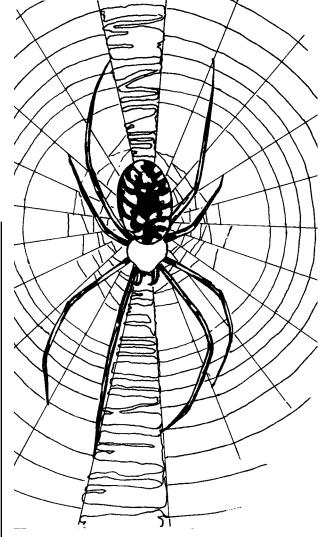
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meal.

### **BLACK AND** YELLOW GARDEN SPIDER

Argiope aurantia

This large, brightly marked spider generally builds it webs in weedy spots, such as gardens. The spider hangs down in the center of the web, waiting for the prev to blunder into the sticky webbing. Grasshoppers are the most common prey, but they feed upon a large variety of insects. They are also known as the "writing spider" because of the



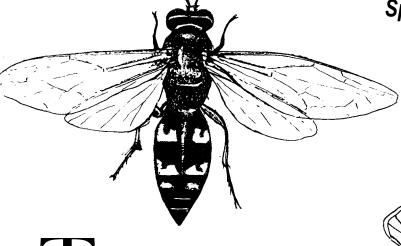
irregular line of thick, white weaving above and below the center of the web. These lines make the web visible to birds. preventing them from flying into the web and destroying it.

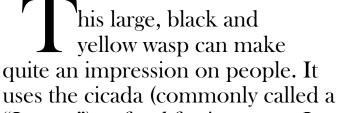




#### CICADA KILLER

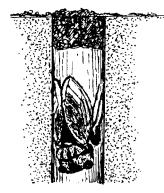
Sphecius speciosus





"Locust") as food for its young. It seeks out the cicada and paralyzes it with its stinger. The wasp flies with its victim to its burrow, into which it inserts the cicada. An egg is laid on the cicada,

and the opening is closed. The hatched cicada killer larva now uses the cicada as food to start its new life.





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#### COLORADO POTATO BEETLE

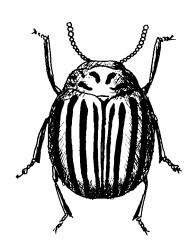
Leptinotarsa decemlineatas



This yellow and black, striped beetle is an all too familiar farm and garden pest, but it was not always so.

Originally, it was a resident of the Rocky Mountain

foothills and fed on native prickly buffalo bur. The encounter of the beetle with the potato started when the early settlers began planting potatoes (a close relative to the buffalo spur) in the beetle's territory. The beetle found the





potato to its liking. It has since spread to the east coast and to Europe.

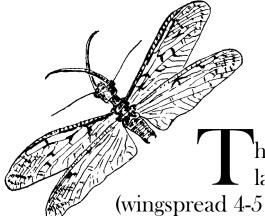
Adults winter over in the soil, emerging in warmer weather to lay their eggs on potato plants. The orange, black-spotted larva feeds on the leaves of tomatoes, and eggplants.

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By Robert F. Clarke, Ph.D.

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large

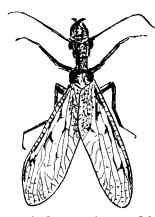


inches), fierce appearing insects are rather common, but are unfamiliar to many in their adult form. Dobson flies are likely to be found along wooded creeks and rivers. In the summer evenings, they are attracted to light. Their sudden presence can startle campers and night-time fisherman. The adults are easily distinguished;

the male has extremely large mandibles, whereas the females are

### **DOBSON FLY**

Corydalis cornuta



smaller.

Their eggs are laid in the water, and hatch into a large, segmented larvae called "hellgrammites."

eight pairs of hairy looking gills, one pair for each segment. Hellgrammites are found in the stony riffles of streams and are highly desired as fish bait.



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#### DRAGONFLY

**Order Odonata** 



ragonflies are well named. looking very much like dragons. The

adult form can be found where ever flying insects congregate. Species can be identified by the patterns on their lacy wings. One

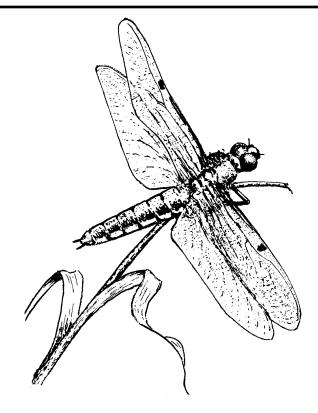
of the most

familiar dragonflies in

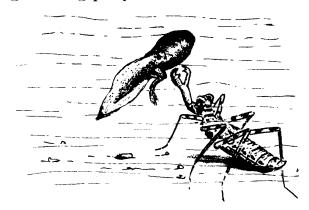
Kansas is the ten

spot, found around

most ponds in the state. After the female's eggs have been fertilized, she dips to the surface of the water to deposit them. The eggs hatch into aquatic nymphs, which undergo a series of growth stages before emerging as adults.

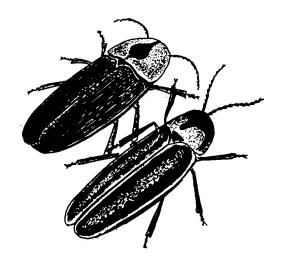


The nymph has an under-slung jaw that can be shot forward for grabbing prey.



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#### FIREFLIES

Family Lampyridae

large number of beetles are able to produce flashes of cold light. We call them fireflies or lightning

bugs. The light is produced by luciferin contained in certain abdominal segments. Each species has its own unique series of flashes. This code is recognized and responded to by the opposite sex of the same

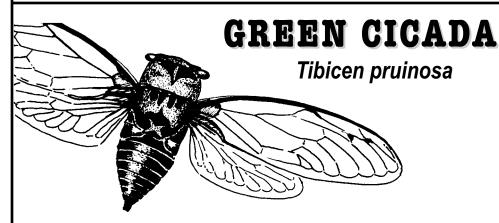
species. In some species only the male has the ability to fly. Flightless females are known as glow worms. Their larvae live in the ground and decaying logs. They are called wireworms. Fireflies occur around the world. For centuries. captive ones have been used in

rituals and as ornaments by various groups of people. It is safe to say most children have gazed at a jar filled with fireflies in the dark of their bedroom.



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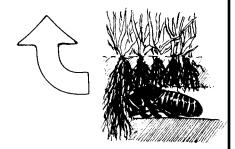


sound of summer everyone is familiar with is the harmonious trill of the cicada. It is produced by vibrating membranes located iust above the hind legs of the male. The first several years of a cicada's life is spent underground as a nymph, feeding on

sap from the roots of trees. Upon emerging from the ground, it sheds its skin for the last time and loses its ability to feed. It will mate, lay eggs, and soon thereafter dies. Damage to fruit and shade trees may result from eggs laid in their twigs. The most common and largest of the cicadas is the green cicada.







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#### MONARCH BUTTERFLY

Danaus plexippus



he monarch butterfly is one of the best known and most

abundant butterflies in Kansas. Monarch caterpillars dine exclusively on milkweeds, some which contain a poison affecting vertebrate animals, such as birds, but not invertebrates. One species of plant is so attractive to monarchs it is



When the caterpillar becomes an adult butterfly, this poison is still contained in its body. Upon eating a monarch, a bird becomes ill and will avoid eating monarchs. Each year, monarchs engage in an incredible migration. They travel thousands of miles, battling wind, storms, and predators.

The viceroy, which resembles the



monarch, is protected by its resemblance to the monarch. Although its body contains no poison, predators will avoid it because they believe it will taste as bad as a monarch. You

can identify a vicerov from the monarch by the black line on the rear portion

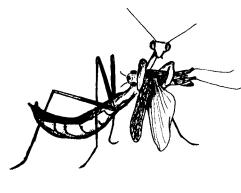


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#### PRAYING MANTIS

Stagmomantis carolina



The Carolina mantis is the common green or gray mantis seen in Kansas. They can reach a length of 2

inches. They receive their name from the way they hold their front legs, as though in prayer. Mantises lay their eggs in a foamy liquid that dries to a hard. paper-like consistency. The egg case is generally deposited on a twig, but can be found almost

anywhere. It resembles a loaf of bread in color and shape.

Despite their fierce looks, mantises are not harmful to people. They are avid predators on other insects. Their front legs are wonderfully





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#### TIGER BEETLE

Family cicindelidae

hese shiny, metallic, longlegged insects are often seen running on country roads or sandy paths. The thirty species found in Kansas are distinguished by their wing

covers and color patterns. Other insects make

up most of their diet. The larvae live in round burrows, 1/16 inch in diameter and several inches deep. Its large head and formable jaws are in wait at the top of the burrow for any insect or spider that's close enough to grab.

You can catch the larvae by dropping a straw into the burrow.

When it twitches, quickly pull it out.

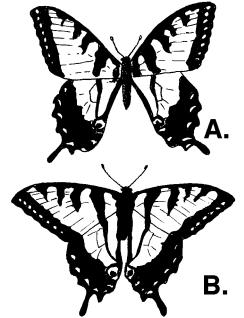




#### TIGER SWALLOWTAIL

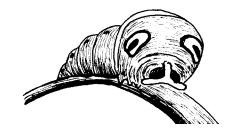
Papilio glaucus

The wingspread on this beautiful yellow and black butterfly is more than four inches. Females are darker than males. It is hard to see and understand the markings forming the large, protective

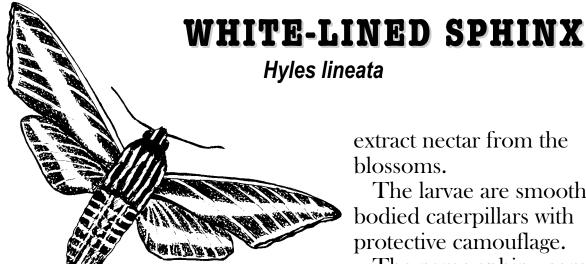




eye pattern (B) because most butterflies are mounted and illustrated with their wings spread as in drawing (A). Their caterpillars are green with an enlarged, white-banded front end that bears a pair of large eye spots. This giant, eye-spotted head will, hopefully frighten predators away.



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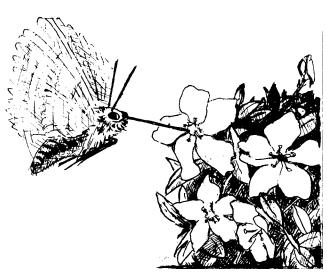


extract nectar from the blossoms.

The larvae are smoothbodied caterpillars with protective camouflage.

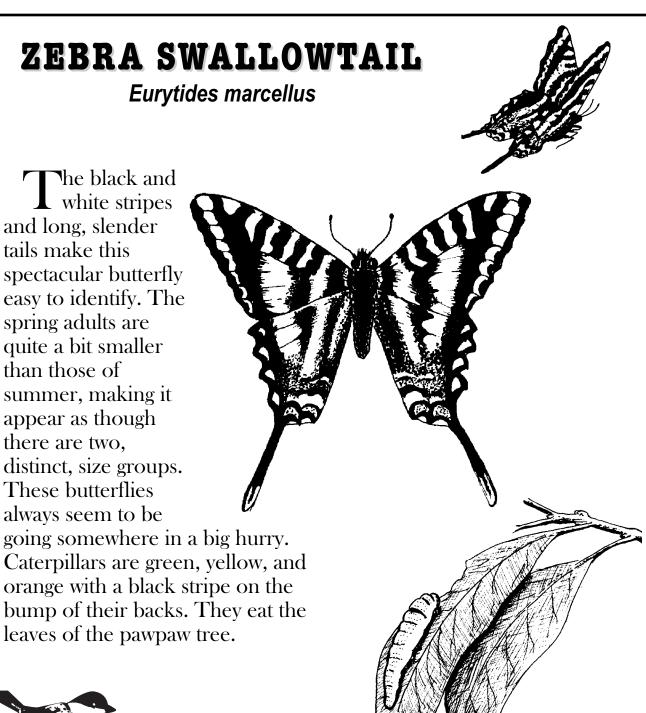
The name sphinx comes from the larva's resting or danger posture, the front of the body held erect and still, resembling the mythical sphinx of Egypt.

common moth has a wing spread of 2 to 3 inches. Moths of this family are also known as hawk or hummingbird moths. They can be seen at dusk hovering over open flowers in gardens, uncoiling their long tongues to



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#### CENTRAL NEWT

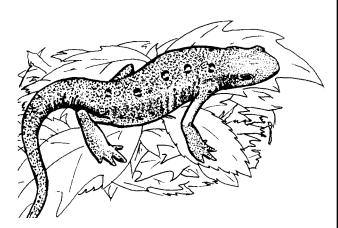
Notophthalmus viridescens

These small, aquatic salamanders are endangered in Kansas, due to the rapid changes

in their marginal habitats. They require shallow, woodland ponds with abundant aquatic vegetation that are devoid of fish. Their eggs are laid in water and hatch into gilled larvae. During the transformation to adulthood, the larvae lose their gills and

occurring

leave their aquatic environment. The young adults have a rough skin that is orange-red in color. Upon reaching maturity, they return to the water to spend the rest of their adult life as aquatic, air breathing organisms. During this phase they are smooth skinned; green above, yellow below, and covered with many black spots. They make an interesting aquarium animal.



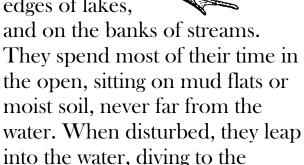
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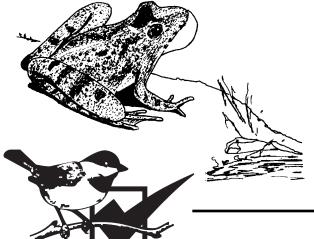
#### CRICKET FROG

Acris crepitans

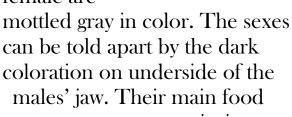
Tricket frogs have been found in almost every county in Kansas.

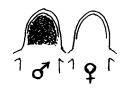
These frogs are abundant around farm ponds, along the edges of lakes,





bottom. Both the male and female are





source is tiny insects, mostly flies. Their common name comes from their

cricket-like call; a series of "chikchik-chiks" that, at times, seem endless. They will call from both the shoreline and the water.

Tadpoles are tiny and black in color.



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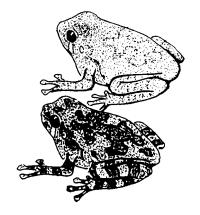
#### GRAY TREEFROG

Hyla versicolor

ue to their **U**requirement s for shade trees and moisture, Grav treefrogs are only found in the eastern part of Kansas. They are often found around houses and other buildings. These charming, little frogs, with big eyes and sticky toe pads, will spend sunny days huddled up in the shade. Their short, trilling song is very distinctive.



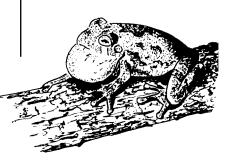
They often call when the humidity is high, giving rise to the idea they can predict the coming of storms. The color patterns can



range from almost white, with faint markings, to being quite dark with very distinct



patterns, depending on weather, temperature and mood. Tadpoles are high-finned and colorful, with gold, red and orange in their body patterns.



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By Robert F. Clarke, Ph.D.

#### GROTTO SALAMANDER

Typhlotriton spealaeus



The Grotto salamander occurs in the southeast corner of Kansas known as the Ozark Uplift. The adults spend their lives in the perpetual darkness of limestone caves streams.

pollution. Not a great deal is known about its life history. We do know its larvae live in streams just outside of caves. Larvae have skin pigment and functional eyes. When mature, they

move into the cold blackness of the cave, losing both their eyesight and coloration; becoming the "white ghosts" of the cave.

Its existence is being threatened by building construction and water



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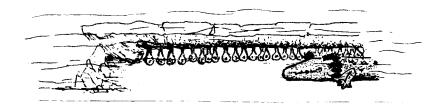
### MUDPUPPY

Necturus maculosus

salamander, sometimes called a "Water Dog" is found in the streams of the eastern third of Kansas. It is thoroughly aquatic, using three red, feathery gills on each side of the back of the head for respiration. Mudpuppies may exceed a foot in length. They eat a variety of small

aquatic animals. It is the only salamander in Kansas with four toes on each rear foot. Females may lay as many as 150 eggs at a time. They are

the eggs.
Mudpuppies are
sometimes caught on
fishing lines. Some
people believe they
are poisonous, which
is far from the truth.



placed, requiring considerable acrobatics on the part of the female, on the roof of submerged cavities, such as rocky ledges or logs. Sometimes the female will guard



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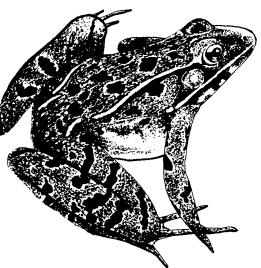
#### PLAINS LEOPARD FROG

Rana blari

lso known as the grass frog or striped frog, this is one of the most abundant and widespread of the Kansas' amphibians. The vellow-striped folds on its back and the large, dark blotches on a green to brown medium sized body distinguishes the leopard frog from most other Kansas frogs.

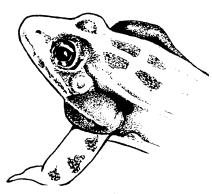
The call comes from internal vocal sacs that swell out just

behind its head. The call is a low chuckling sound; similar to what is produced



when one drags a finger over a taut balloon.

Males will begin calling, for breeding purposes, in March. Females will lay eggs

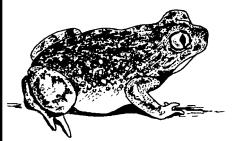


in large, floating masses, containing up to 5,000 eggs.

The eggs hatch in five to twenty-five days with the resulting tadpole changing into a frog after three months.



ROBERT F. CLARKE 1983



#### PLAINS SPADEFOOT

Spea bombifrons

The spadefoot toad is found throughout Kansas except for the southeast portion of the state. It spends most of the day in

loose sand burrows scattered across the prairies and floodplains of Kansas. When frightened, the spadefoot has the power to magically disappear. It is the shuffling of its hind

legs in the loose sand which quickly causes the toad to vanish.

It is more common than its

secretive nature might indicate.

The name "spadefoot" comes from a large, black structure on

> the hind foot used for digging. These amphibians breed in the heavy rains of spring and summer. At these rain created pools, the male will call in choruses for the attention of the female.





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By Robert F. Clarke, Ph.D.

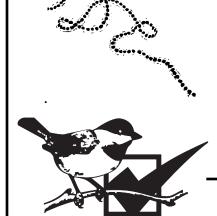


### ROCKY MOUNTAIN TOAD

Bufo woodhousii

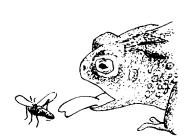
These abundant amphibians, also known as garden toads, are found in a variety of habitats throughout Kansas. They can be found far from water due to





which prevents them from drying out. Toads are generally nocturnal (active at night), but can be seen during the daytime on cloudy, cooler days. The toad's tongue is hinged at the front of the mouth and can be flipped out to capture prev. Their diet consists of insects, making them beneficial to gardeners. They do not cause warts, but can secrete a poison that can irritate the linings of the mouth and eyes. Males call along the edges of wetlands to attract females. Their vocal sac swells like a

balloon, resonating their call, and acts like a beacon to interested females. The call of the toad is a short "scream." Unlike the egg clusters of frogs, toads lay eggs encased in a transparent, long strand membrane. The larval (tadpole) stage is short because eggs are usually laid in temporary wetlands, such as ditches or flooded fields. The toads emerging from these waters are very tiny.



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#### TIGER SALAMANDER

After the eggs are laid,

water and spend most

tiny larvae can be

the adults leave the

underground. The

Ambystoma tigrinum

stems.

of the time

salamander species are scarce in Kansas, the tiger salamander is the only one found over the entire state; justifying its selection as the state amphibian. In late winter, adults find small ponds and cattle tanks in which to breed. The egg cluster, containing forty to fifty eggs, is attached to underwater debris, such as twigs and

distinguished from those of frogs and toads by their external gills and four legs. The larvae will lose their gills and tail fin during the two

months it requires for their transformation into adults.

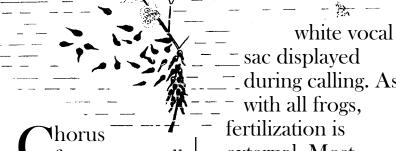
Occasionally, larvae can't make the transformation and grows into a very large larva,

call an "Axolotls". Although they are capable of breeding, they remain in a permanent larvae stage.

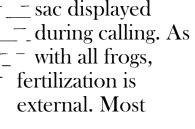
ROBERT F. CLARKE 1983

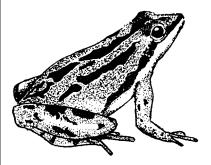
#### **WESTERN CHORUS FROG**





√frogs are small (1 and 1/2 inches)and often only seen during spring breeding. Males move, early in spring, to flooded fields or ditches to begin calling for females. The female is attracted by the call and finds the calling male by sighting the shining





Kansans are familiar with their tinkling call from roadside ditches, but seldom see the frog producing the sound.

The transparent egg masses are

attached to underwater twigs. They hatch into tiny, black, clustering tadpoles after two weeks. Two months later, the tadpoles change into little frogs. Two other chorus frogs are found in southern Kansas; the larger Strecker's chorus frog and the spotted chorus frog.

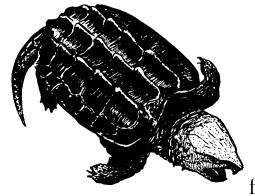


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#### ALLIGATOR SNAPPING TURTLE

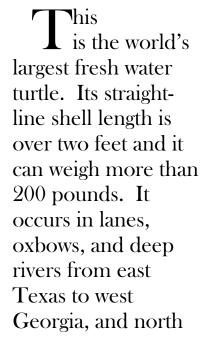
Macrochelys temminckii

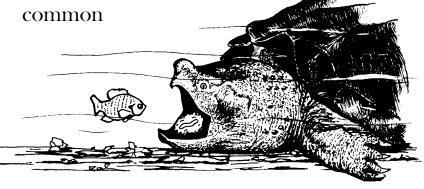


to Indiana. In Kansas it is very rare,

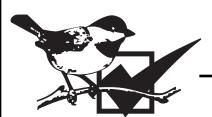
found only in the southeast quarter of the state. Three prominent ridges and a long, hooked beak differentiate this turtle from the

snapper. Alligator snappers will lure fish within reach of their jaws with a fleshy, wriggling, worm like tongue.





POBERT F. CLARKE



ROBERT F. CLARKE 1983

### COLLARED LIZARD

Crotaphytus collaris

**T**ollared lizards ✓are the largest and most colorful of the Kansas lizards. Their body coloration includes blue. green, and orange, along with a bold black and white collar, from which they receive their name. Males are more colorful than females. Collared lizards occur across the state wherever

there is suitable habitat, such as rock guarries and open, rocky ravines.

They spend most of their time on top of large rocks that offer a good view of the terrain.

The collared lizard has powerful jaw muscles, which are useful for capturing and eating their favorite food grasshoppers. When escaping from predators, this lizard will often run only on its back legs, using its tail for balance.

> Baby collared lizards hatch from eggs from mid to late summer and are strikingly marked.

> > ROBERT F. CLARKE 1983



By Robert F. Clarke, Ph.D.

#### COPPERHEAD

Agkistrodon contortrix

Despite
the fierce
and aggressive look
in this drawing,
copperheads are
rather mildmannered snakes.
They prefer to lie
still when
approached,
depending on their
protective color
pattern, which
blends perfectly into
the leaf litter that
covers their rocky,

wooded
habitat, to keep
them from
being seen.
The top of
the head is
copper
colored, while the
body is a light
brown with chestnut
bands. These bands
are narrow through
the mid-back of the
snake and wider on
the lower sides.

poison from these fangs paralyzes the snake's prey. The female gives live birth to two to ten young in August or September.

In Kansas, copperheads are found mainly east of the Flint Hills.

The fangs are two hollow teeth that can unfold from the front of the upper jaw. The

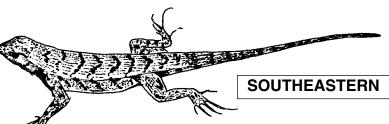
ROBERT F. CLARKE 1983



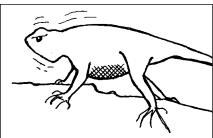
#### EASTERN FENCE LIZARD

Sceloporus undulatus

Two subspecies of this lizard occur in Kansas - one in the extreme southeast corner of the state and the other in the western half of the state. Their habitat includes brush and trees in the east and dry areas in the west. They feed upon a variety of



designed to attract females. Like



many lizards, they have

the ability to lose a portion of their tail to an attacking

predator. The lost portion

will regenerate, but will

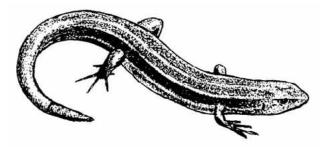
WESTERN

small insects during daylight. The territorial males display their blue belly patches in a characteristic bobbing or

pushing behavior look different in appearance from the original tail.

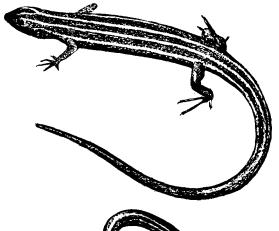


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### FIVE-LINED SKINK

Eumeces fasciatus



lined skink is the most common and is found under or around rocks and logs in the eastern third of the state. The

five body stripes are present in the young

and

the

scaled, short-legged several species occur in Kansas. The five-

female, but the adult males lose the center one on their midback. The males also have broad, dark

brown stripes on each side of their bodies, and red cheeks during the mating season.

Young skinks have a brilliant blue tail, which may attract predators. The tail breaks off with the slightest pull, leaving the predator with a mouth full of tail as the skink skips off to safety. After a short time a new tail will reappear.



7 kinks

Delong to a

group of smooth-

lizards of which

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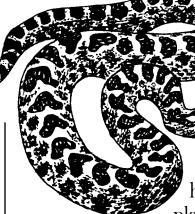
By Robert F. Clarke, Ph.D.

**MASSASAUGA** 

Sistrurus catenatus

These small rattlesnakes are rather common in their rocky, grassland habitat. They occur throughout Kansas except for the northwest quarter of the state. They are the only poisonous snake found in some counties. They are frequently found under hay bales and around reservoirs and wetlands. Their rattling sounds like a grasshopper or bee and can be difficult to hear. They are small snakes, seldom longer than two feet. There are two groups of rattlesnakes:

"pygmy", and "large"based on general body size. Representatives of each group may be larger or smaller than the other. Most species of the pygmy rattler

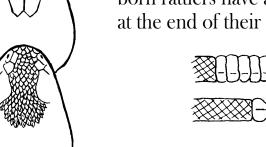


(including the

Massasauga)
have large, paired
plates on top of

their heads. The large rattlers (Crotalus) have the top of their heads covered with small scales. Massasaugas give live birth to eight to nine young in August or September. The number of segments of the rattle does not

indicate the snake's age; one segment is normally added at each skin shedding. Newly born rattlers have a "button" at the end of their tail.

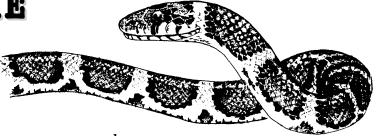




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#### **MILK SNAKE**

Lampropeltis triangulum

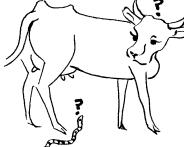


Ithough this spectacular red, vellow, and black snake is fairly common in rocky areas throughout the state, it is so secretive that most people have never seen one. "Milk snake" is a misnomer; it never feeds on milk. It is a member of the Kingsnake

snake (not found in Kansas). Their color bands are similar, but the adjacent colors are different in their arrangement. Just remember this old saving: "Red and vellow can kill a fellow - red and black, venom lacks."



family. The milk snake is commonly confused with the poisonous Coral



Milk snakes are harmless and mainly feed upon small rodents.

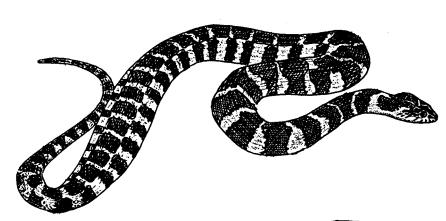


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#### **NORTHERN WATER SNAKE**

Nerodia sipedon

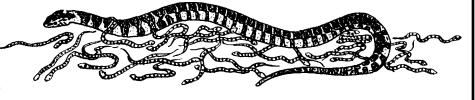
There are several species of water snakes in Kansas, all of which are often misidentified as the poisonous cottonmouth. This snake is not venomous as indicated by its round eye pupil. The poisonous snakes in Kansas have "cat eyes" or elliptical pupils. Northern water snakes are found mainly in the



eastern threequarters of Kansas, around the riffles and rocky areas of their aquatic habitats. These snakes have a bad temperament and will bite when handled. They also can give off a very foul odor. Northern water

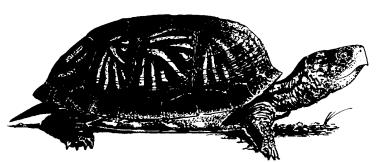


snakes give birth to live young, as many as forty, from August through October.



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By Robert F. Clarke, Ph.D.



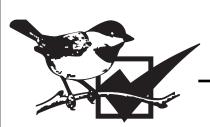
# ORNATE BOX TURTLE

Terrapene ornata

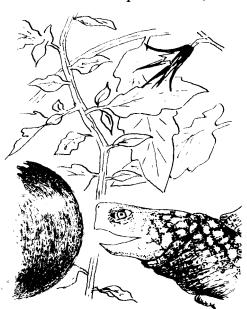
his is the most abundant and recognizable dry land turtle in the state. It shares the southeast fifth of the state with a



close relative, the three-toe turtle. The yellow strips on both the upper shell (carapace) and the lower shell (plastron) identify

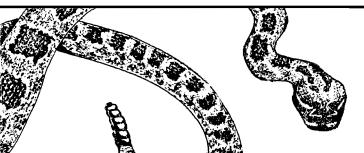


this species.
Although not aquatic, it can swim and will spend hot,



summer days half submerged in shallow pools. This turtle can be easily tamed and trained to come to a given spot at the same time each day to be fed. A unique hinge arrangement allows the lower shell to close firmly against the upper shell, protecting the turtle against predators, such as coyotes and dogs. Ornate box turtles feed upon both animals (grasshopper and beetles) and plants. They can become a nuisance in gardens because they love cantaloupe and do not mind taking triangular bites out of a ripe tomato.

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### WESTERN RATTLESNAKE

Crotalus viridis

**CAUTION:POISONOUS SNAKE** 

western half of the state, this snake can reach a length of five feet, but three feet is more the norm. The color of the snake can be from green to a brownish gray, with a pattern of light-edged dark blotches down the back and lighter, alternating blotches along the sides. Kansas poisonous snakes are members of the group called

pit vipers, and have a heat-sensitive pit that lies between the nostril and the eve. This pit is used to sense warmblooded prey. No non-poisonous



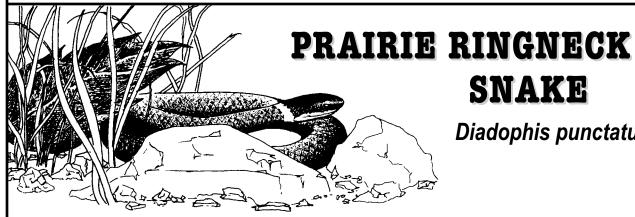
snake has such a facial pit. Also note the elliptical pupil of the eye; another indication the snake is poisonous. The rattle is made from a horn like material, a



unique structure among snakes. The cross-section drawing below shows how the segments are loosely put together. One segment is added every time the skin is shed. This will vary in frequency, depending on the time of the year and the health of the snake. Aging a snake is not possible by counting the number of segments in its rattle. Also, segments can wear or break off.

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Diadophis punctatus

**SNAKE** 

attractive, little snake seldom reaches more than fifteen inches long. Although it is rather common,





most people have never seen one because of its secretive life under rocks, logs, and other cover. Ringneck snakes are slate-gray on the back with a black-spotted, yellow belly. The neck gives the snake its name. This snake is harmless and feeds mainly on a variety of invertebrates, as

well as small snakes. The underside of the



tail is a vivid red. In times of danger, the tail is coiled with the underside turned upwards. This is used as a deterrent to predators.

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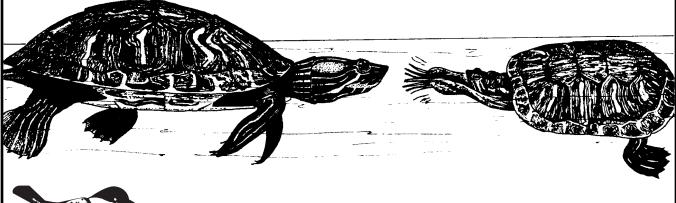
#### RED-EARED SLIDER

Trachemys scripta

Red-eared sliders are common in rivers, ponds and wetlands in all accept the northwest fourth of Kansas. Females are larger than the males. When courting, the male swims backwards in front of the female and extend his forelegs towards her. With his extra long claws close to the female's nose,

he waves them rapidly, as if to hypnotize her. The plastron (undershell) is marked with dark blotches or circles (one to each plate) on a yellowish background. Do not paint the carapace (upper shell) of baby turtles. It prevents shell growth and can kill them.

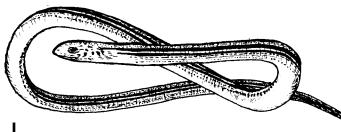






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### SLENDER GLASS LIZARD

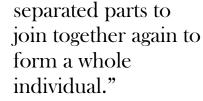
Ophisaurus attenuatus

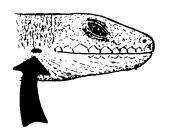
The glass lizard is often called the "glass snake" because it lacks legs. Like many other lizards, it has the ability to break off a

broken into numerous pieces. An "old wives' tale" states, "when the danger has passed, the head end gives a signal, causing the The presence of an ear opening is evidence that this animal is a lizard and not a snake. Snakes do not have ear openings. Glass



part of its tail when attacked by a predator. Because the slender glass lizard's tail is about 2/3 the length of its body, it can be





lizards are found in the grassy areas of the eastern half of Kansas, where they primarily feed on insects. A slender glass lizard can attain a length of three feet.



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#### SPINY SOFTSHELL

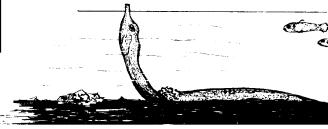
Opalone spiniferas

The name comes from their soft, pliable, leathery shell. There is a series of bumps

> or spines on the front edge of the shell. The shell's shape and color resembles a pancake. Often,

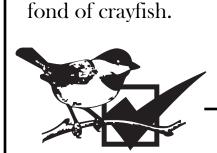
softshells lie half buried in mud or sand in shallow water. With their long neck they can extend their snout above the surface for a breath of air.

Be very aware of their extremely long neck and strong, sharp jaws. These turtles can give one a very nasty bite.



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These fairly large turtles are

They prefer soft bottom rivers

some lakes. They often can be

observed basking on the bank

near the water's edge. Spiny softshells eat a variety of food

items and are particularly

distributed over most of the state.

and streams, but can be found in

#### TEXAS HORNED LIZARD

#### Phrynosoma cornutum

main food is made

up of insects.

Torned lizards are often called horned "toads" or horned "frogs." Both names are incorrect, for this animal is a reptile, belonging to the same lizard family as collared lizards, fence lizards and the large, green iguanas. Their

especially ants. The camouflaging colors, patterns and shape of this lizard make it difficult to see in its open, gravelly habitat. The female Texas horned lizards. after mating, can lay up to twentythree to thirtyseven eggs. During a rare occurrence, when the lizard is under great

body can reach a point where blood is expelled from its eves in a fine mist of droplets. There is no evidence that this activity would deter a predator from attacking it. Although Horned lizards are quite docile, they are extremely difficult to maintain in captivity.





stress, the blood pressure in its

By Robert F. Clarke, Ph.D.

#### **NIGHT SNAKE**

Hypsiglena Torquata



not on the threatened or endangered species list, these snakes are of special concern because of their low

These small snakes (16 inches) occur in the Red Hills area along the Oklahoma border. They are found in canyons under rocks. Very little is known about their natural history, other than once a year they lay two to six eggs. Although

numbers and restricted range. Night snakes have enlarged teeth in the rear of the upper jaw and their saliva may have a toxic effect on their prey, mainly lizards. There is no evidence that they are a threat to humans.

Their elliptical pupil indicates a nocturnal existence.



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### WESTERN **HOGNOSE SNAKE**

Heterodon nasicus

The name comes from the upturned snout, which helps this snake in pursuing its favorite prey - toads; usually hidden when the hognose is most active. When detected, the toad will inflate itself with air to avoid being eaten, but the hognose has a pair of extra long teeth in the rear of its jaw

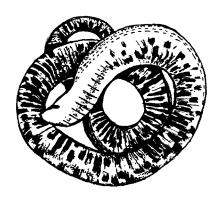
that can puncture the toad. When startled, this harmless snake can act like a Cobra, spreading its "hood" and striking with a closed

mouth. If this bluff fails, the snake curls upside down and plays dead. The hognose prefers a habitat with soft and



sandy soils. Many people believe the hognose is poisonous, and that even its breath is venomous. One look at its rounded pupils tells you it is



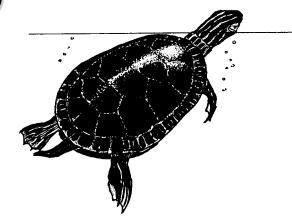


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### **WESTERN PAINTED** TURTLE

Chrysemys picta

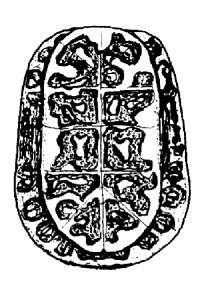




very common turtle in Kansas ponds, lakes, and slow moving streams and rivers. they are often seen basking on logs. Because their shell lacks height, they are sometimes mistaken for softshell turtles. Painted turtles are

so named because of the red and black pattern on the plastron (lower shell). These turtles are omnivores. eating plants and living as well as dead animals. Males are smaller than females and have long claws on their front legs. A pretty pattern of yellow stripes is found on their face and neck. Western

painted turtles hibernate under the mud in winter.



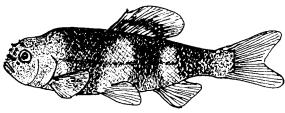




By Robert F. Clarke, Ph.D.

#### FATHEAD MINNOW

Pimephales promelas



look. It acquires a fatty bulge,

The fathead minnow is common

throughout the state.

It is three inches long, greenish in color, with a faint, dark stripe along the side and sometimes across the dorsal fin. It is extremely hardy. The male, during late spring mating season, takes on a very different

just behind the head, on its back. The body patterns consist of wide, dark and light bands. A number of "nuptial tubercles," used in courtship, develop on the

Fatheads are a favorite forage fish (food) for larger fish.

They are often raised and stocked in ponds as food for game fish.



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front of the

head.

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#### KILLIFISH

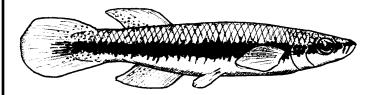
illfishes are found in the United States inland freshwaters and along the coasts in brackish or salt water. There are many species; most are small with flashy color patters. The two species in Kansas are about three inches in length.



#### PLAINS KILLIFISH

Fundulus zebrinus

This fish is found, sometimes in large numbers, throughout the western half of Kansas. It is very tolerant of saline and alkaline water, and may even prefer it. In some western waters, it may be the only species present.



#### BLACKSTRIPE TOPMINNOW

#### Fundulus notatus

n inhabitant of small, clear streams in the southeast quarter of the state, it is often found in groups at the water's surface. A prominent, pale spot on top of its head helps to identify this species. Blackstripes are very good aguarium fish.



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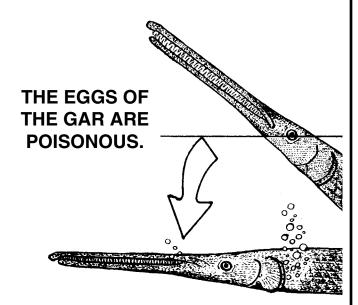
#### LONGNOSE GAR

Lepisosteus osseus

ars survive wh

e primitive, long bodied fish with an armor of hard scales. The scales have been used as jewelry. The longnose gar is an inhabitant of most rivers and creeks in the eastern half of the state. They can reach a length of five feet and weigh more than 30 pounds. The snout is lined with many sharp teeth, enabling them to feed on other fish. Gars have a functional lung as well as gills. They can gulp air from above the water's surface and burr it

out, retaining the
oxygen in the air.
This helps them to
survive when the oxygen
content of the water becomes
low.

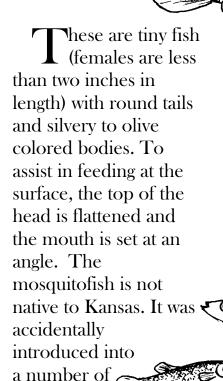




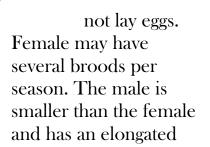
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### MOSQUITOFISH

Gambusia Affinis



the state. The colder weather of northern Kansas will be a limiting factor for expanding its range. These fish are livebearers, the only Kansas fish that does



anal fin which is used in breeding.

"Mosquitofish" is

an

appropriate name for these tiny fish, for they feed upon mosquitoes avidly when they are present. These fish have been stocked into many aquatic habitats as a mosquito control measure. Large fish will feed upon these tiny fish, often making restocking a necessity.



systems in the southern

and eastern quarters of

stream and

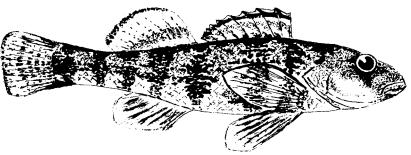
rivers

ROBERT F. CLARKE 1983

By Robert F. Clarke, Ph.D.

#### ORANGE-THROAT DARTER

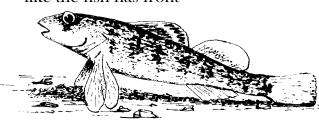
Etheostoma spectabile



One of the most beautiful fishes of Kansas, but rarely seen because of its small size of two inches or less.

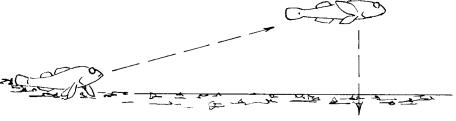
The breeding male exhibits a rainbow of colors; blue, red, and orange. They occur over much of Kansas, in the riffles of small streams, but are most abundant over the eastern third of the state. Darters spend much of their time on the bottom of streams. They use their pectoral and pelvic fins as front supports and their tail

as the rear member of the tripod. This behavior makes it appear like the fish has front

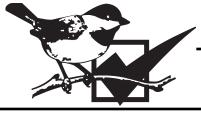


legs. To successfully live in an aquarium, they require well aerated water with a temperature below 70 degrees F. and live food. The males are very territorial during the breeding season and will not allow other males to enter their claimed space. Darters obtained their name from their movement; suddenly

darting upward and forward and slowly floating back to the bottom.



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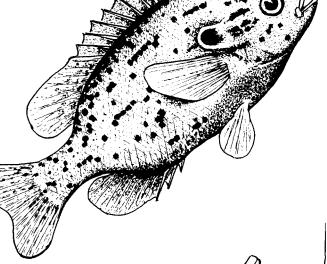


### **ORANGESPOTTED** SUNFISH

Lepomis humilis

Tts tolerance for water I fluctuations and bottom types accounts for the orangespotted sunfish being one of the most abundant sunfish in Kansas. The male is very colorful in the breeding season with its orange head, breast and fins. Square, red spots, sometimes in short row, are also scattered on its

sides. A distinguishing feature of the orangespotted sunfish is its long ear flap (the operculum extension) with its black center and wide, white margin. Their food consists almost entirely of insects. Orangespotted sunfish are not considered large enough (maximum size about four



inches), by most anglers, to be a game fish. Most often they

are caught on bait intended for other fish. They do serve as a forage fish for other game species, such as largemouth bass and catfish.



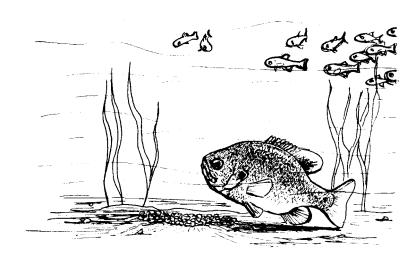
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#### RED SHINER

Cyprinella lutrensis

These small, silvery minnows are widespread and abundant throughout Kansas. They serve as a forage fish for many predator fish. During the mating season, the male becomes silveryblue with bright red-colored fins and tail. Eggs are often laid in the nest of other fish.

Shiners may congregate above a nest of green sunfish. They dart down to deposit their eggs in the nest when the male is distracted from the nest site. Young shiners can also become food for the newly hatched green sunfish.

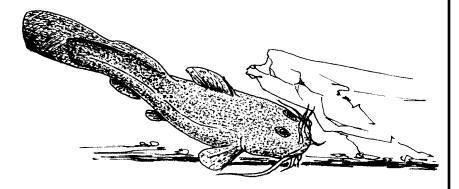




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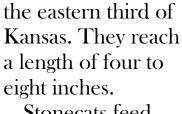
#### **STONECAT**

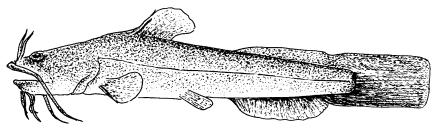
Noturus flavus



tonecats are Small catfish that are often mistaken for bullheads. They can

the tail. The bullhead has a separate dorsal fin

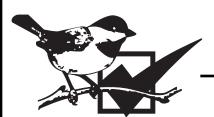




be distinguished from bullheads by their fatty, dorsal fin which is attached to

and tail. These fish are fairly common in the rocky bottoms of the larger streams of

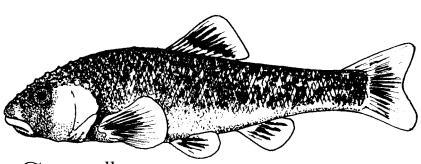
Stonecats feed upon invertebrates found along the bottom of streams and ponds. Their very sensitive whiskers aid in the detection of food.



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#### STONEROLLER

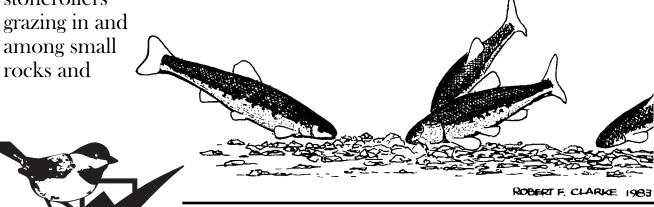
Campostoma anomalum



stone, often flashing their white undersides. gives them their common name.

**C** tonerollers Occur over the entire state, but are more abundant in the eastern half. They prefer small streams with clean water and gravel riffles. These small minnows (maximum seven inches) are herbivores, feeding on algae and bottom plant material. The habit of groups of stonerollers

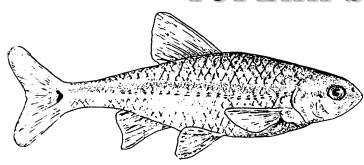
Breeding males are distinguished by the dark blotches in their brightly colored fins. They also acquire a number of bumps on their head known as "Nuptial Tubercles." They serve as an important forage food for other fish.



By Robert F. Clarke, Ph.D.

There are state and national lists of plant and animal species which recognize the precarious status of these populations. Without public awareness and intervention, these species will become extinct. Such species are grouped into either Threatened or Endangered (the latter the more serious). Two "threatened" Kansas fishes are present here; both are small minnow types.

#### **TOPEKA SHINER**



#### Notropis topeka

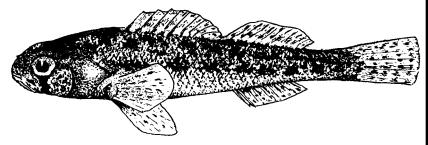
Once widely distributed throughout Kansas, these small, silvery fish are now restricted to the northeastern quarter of the state. They prefer clear, permanent pools in the upper reaches of streams.

Breeding males show a red line in their fins. Spawning is from late June to August. The breeding male closely resembles the more common sand shiner.

#### ARKANSAS DARTER

#### Etheostoma cragini

These fish are restricted to the sandy, bottom springs in tributaries of the Arkansas River. Darters are named



for their sudden forward and upward movements. They feed on a variety of insects.



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By Robert F. Clarke, Ph.D

#### AVOCET

#### Recurvirostra americana

along
with their
size make
them a favorite
among
birdwatchers.
These long,
blue-gray
legged waders,
with their

with their peculiar long, upturned bill are easy to identify in wetlands, such as Cheyenne

Bottoms. They are gregarious, often seen in large flocks, swinging their long bill side to side through the water. They will readily use their displeased voice when disturbed. Breeding birds will have a tan head and neck.

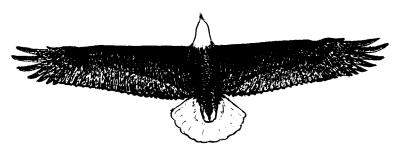
A vocets
are common
over the western half
of the United States.
They are among the
most striking of our
wading birds. Their
attractive black and
white pattern and
graceful carriage,

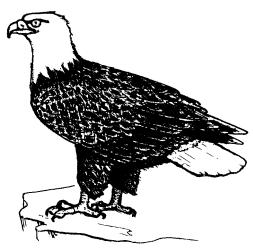


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#### BALD EAGLE

Haliaeetus leucocephalus





The bald eagle is only found in North America. The widespread use of DDT, and habitat destruction combined to making this once common

bird a rare sight. Federal protection and a public awareness program have contributed to the restoration of the bald eagle over much of its former range. Adult eagles can

be easily identified by their white head and tail feathers. Food consists of fish. carrion, and occasionally small mammals. The great seal of the United States, featuring the

bald eagle, has remained unchanged since its adoption in 1782. Eagles, unlike vultures, use straight, flat wings to soar.





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#### BARN SWALLOW

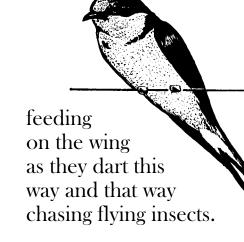
Hirundo rustica

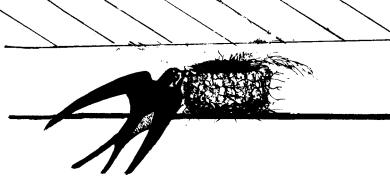
ike number of other birds.

the barn swallows have given up their former life style in order to live more closely with man. Barn swallows now build their mud nests on beams in barns, sheds, or front porches. The nests are often lined with feathers from other birds, especially poultry.

Their long, forked tail, metallic blue back and wings, and rusty colored throat help to identify this lovely bird.

Swallows are very graceful flyers, often



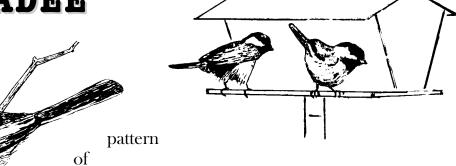




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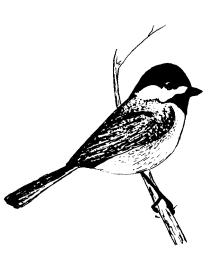
### **BLACK-CAPPED** CHICKADEE

Parus atricapillus



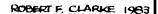
his handsome black and white patterned fellow is common visitor to winter bird feeders. Its constant "Chick-A-Dee-Dee" call is a familiar sound in woodlands and parks. It is no wonder this bird was chosen as the symbol for the Kansas Department of Wildlife and Parks nongame wildlife program. The strikingly bold

this charming little bird makes it easy to identify. If you like acrobats, the chickadee can supply you with plenty of acrobatic moves. It never stops moving and is continuously changing its position as it feeds.



The lack of white on the wings of the Carolina chickadee will help you to identify it from the more common black-

capped chickadee.



seeds,

although

it will

#### **BLUE JAY**

Cyanocitta cristata

ne of our more familiar birds, this noisy fellow has been known to harass other birds, cats, dogs, and even humans. It has a melodious bell like call along with the familiar "pump handle" and "thiefthief-thief" calls.

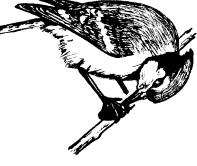
The blue jay belongs to the same family as the crow, raven and magpie, and shares many traits with them, including nest robbing.

Although generally unwanted at bird feeders because of its bullish behavior, its antics can be highly entertaining.

Its food consists the covering with rapid woodpecker-like strikes mostly of nuts, acorns, and of the bill.

feed on insects. mice, eggs, carrion and most anything available.

When removing the hard covering of a seed, the jay will hold the seed between a stationary object, such as a limb, and its toes, breaking off



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#### **BROWN CREEPER**

Certhia americana

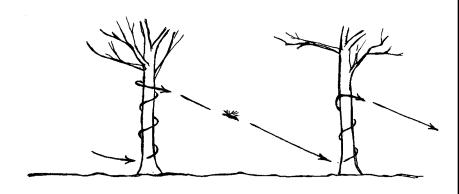


rather common visitor to Kansas in winter, this small, brown bird likes to work up and down tree trunks in its search for insect and larva hidden in the cracks of the bark.

Its stiff tail feathers serve as both a prop and balance devise. Its fournoted, sweet song is only heard on its breeding grounds.

The flight pattern of this bird is one of its most noticeable characteristics. It ascends up a tree in a spiral pattern until it is one half to two thirds to the top; at this point it flies to the base of another tree and starts the whole process over again.





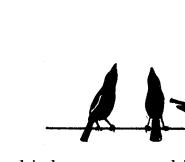


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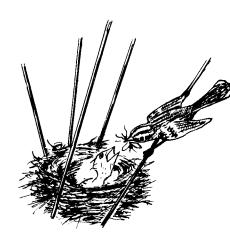
# BROWN-HEADED COWBIRD

Molothrus ater



Cowbirds are abundant in Kansas, especially around feedlots and farms. The name comes from their association with cattle. They feed on the insects that are displaced by the movement of cattle. As an insect eater,

cowbirds are very beneficial. However, cowbirds will lay their eggs in the nest of the other



birds. The adoptive parents hatch and raise the intruder at the expense of their own brood. A characteristic pose of the cowbird, when perched, is to have its bill pointed almost straight up.



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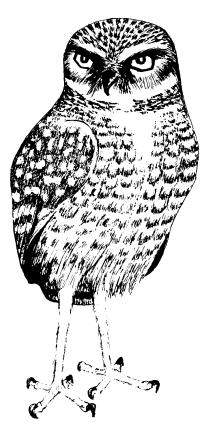
By Robert F. Clarke, Ph.D

#### **BURROWING OWL**

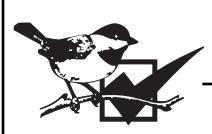
Athene cunicularia

These small, long legged, sandycolored owls are mainly terrestrial, living in the burrows of various mammals, especially prairie dogs. They can excavate their own burrow in the right soil conditions. Their greatest enemy is the poison man uses to eradicate prairie dogs. When prairie dog colonies are eliminated. so are burrowing owls. Their populations have been declining in recent vears. Burrowing owls are also found in South America. Prairie dogs do not occur in South

America, so the owls use the burrows of the viscacha, a rodent which is an ecological equivalent of the prairie dog. When excited, these owls will frequently bob and bow up and down in or near their burrows. They also can imitate the warning rattle of a rattlesnake. Burrowing owls will feed on almost anything they can catch; including insects, lizards, birds and small snakes and mammals. Burrowing owls rank second. behind the barn owl, in their economic

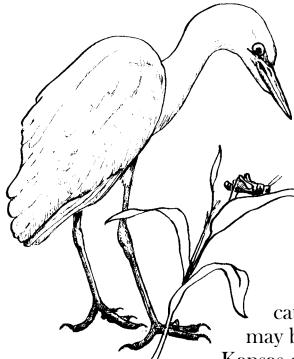


importance to man. Six to twelve eggs are laid in the burrow in early spring. The newly hatched young stay very close to the burrow's entrance while the parents hunt for food.





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#### CATTLE EGRET

**Bubulcus** ibis

been moving north ever since. Today,

cattle egrets may be seen in

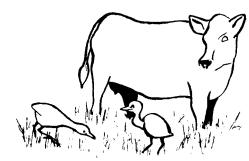
Kansas during the warmer parts of the year.

barnvards.

Insects are the mainstay of their

diet. Egrets are seen near cattle because they feed on the insects that are disturbed because of the movement of the cattle.

They are small white herons and may be seen among cattle in pastures and



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In films of Africa,

you have seen white

birds around large

animals; sometimes

standing on the back

of a rhino. Several

birds got across the

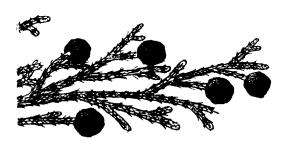
America. They have

Atlantic to South

years ago, these

#### CEDAR WAXWING

Bombycilla cedrorum

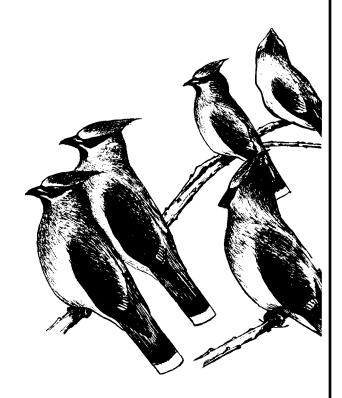


This sleek bird, having the **1** appearance of being made out of plastic, is commonly seen in Kansas during late fall and winter. It is easily identified by its reddishbrown

color, black mask and crest, and yellow tipped tail band.

A very gregarious bird, the waxwing is almost always found in flocks. It is attracted to evergreen trees and shrubs. The purple fruit of the cedar tree is a staple in the bird's

diet. The term "waxwing" comes from the odd red, waxv secretions at the tips of the secondary wing feathers.





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nce, these small birds nested in hollow trees. Now chimneys provide a handier site. The nest is made of small sticks, held together and attached to the wall

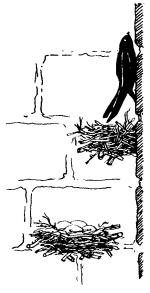
Chimney swifts are colonial birds: a considerable number of birds may roost in the same chimney. An interesting sight is

of the chimney by sticky saliva.

to watch, at

dusk, swifts funneling down a chimney to roost. The spines on the tail of the chimney swift assist in holding the bird to their vertical perch. Their main food is flying

insects.



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By Robert F. Clarke, Ph.D.

#### **COMMON NIGHTHAWK**

**Chordeiles minor** 



uring summer months, in the early evening hours, look overhead and vou might see nighthawks. Look for a bird with long, pointed wings with a white wing stripes. Nighthawks belong to a group of birds known as "goatsuckers." They are closely related to the poorwill, whippoorwill,

and chuckwill's widow.

Unlike their relatives

above, all named for

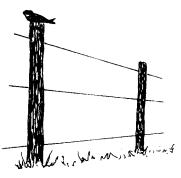
their distant call, the nighthawk's call is only a nasally "PEEENT."

Their tiny beak hides an amazingly large mouth. Sensitive bristles, at the base of the upper beak, aid in creating a very effective insect trap. Although their flight may appear erratic, they are just changing course to capture flying insects. An interesting aerial display, by the male, is to dive straight down towards the ground and pull out at the last second. The quick change in direction causes the wind to rush over the wings, creating a

loud, startling roar.
Nighthawks sleep most
of the day, resting
lengthwise on limbs or
on the top of fence
posts. They construct no
nest; instead, they place

the eggs directly
upon the ground. In
cities, they often
nest on the flat,
graveled roofs of
buildings. Adults will
perform an "injured
bird" act to lure
predators away from the
nest.





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#### DOUBLED-CRESTED CORMORANT

Phalacrocorax auritus

dark-colored aquatic bird is commonly seen around large reservoirs. When in flight, it appears to have a kink in its outstretched

neck. On water, the bird has a very low profile; often only the head is visible. The cormorants can dive to great depths to feed upon fish. In

Japan, it is used to catch fish. The fisherman secures the neck of the bird so it can't swallow the caught fish. This allows him to reel the bird in along with its catch. Unlike ducks, the cormorant does not have special glands to water-proof its feathers. It must air dry its feathers and is often seen holding its wings out to dry.





### **FERRUGINOUS** HAWK

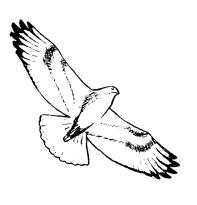
Buteo regalis

**7**estern Kansas

has habitat suitable for this splendid hawk.

This grassland bird nests in a variety of locations; on the ground, among plies of rock, atop of haystack and on cliffs. This is a large bird, sometimes mistaken for an eagle, with a dark, reddish coloring above and white underneath. When hunting for

rodents, the ferruginous hawk does not hover like its closely related rough-legged hawk. It also has feathers all the way to the beginning of its toes.





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#### FRANKLIN'S GULL

Larus pipixcan

re there gulls in Kansas? Yes, there are several species of gulls and one of the most common is the Franklin's gull. It is an

inland gull which is omnivorous and eats most anything available. They are often seen in fields following farmers working their land; looking for the worms and insects being turned up.

Colonies of floating nests are built among reeds and other aquatic plants. Adults appear to have had their head dipped in an inkwell. First-

year birds have darker wings than the adults and lack the completely black head. They also

have a black strip that runs across their tail.



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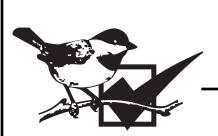
#### GOLDFINCH

Carduelis tristis

"Wild Canary" is one of the common names attached to this small, yellow and black patterned bird. The white on the wings and tail



shows up when the bird is in flight. The bright-vellow bird is the male. He displays his eye catching coat during the breeding season and into summer.

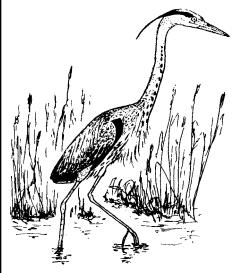


Later, these bright vellow feathers are replaced by the fuller greenish one associated with the female.

This bird is easily attracted to backyard bird feeders. It eats a variety of weed seeds, but seems to prefer the black seed of the thistle. The thistle seed and special

finch feeder can be purchased at most hardware stores. Goldfinches bob up and down in their flight patterns; acting like they are hesitant about where they are going.

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Tncorrectly called Lcranes by many people, these large, shore-wading birds differ from cranes in a number of ways. Herons fly with their necks folded; while cranes have theirs extended in flight. Their wings are also in an arched position in flight, while the wings of cranes form a more flat surface.

These bluish-gray colored birds are often seen standing in roadside ponds or flying overhead

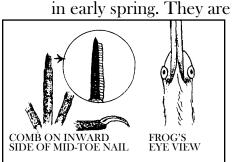


#### GREAT BLUE HERON

Ardea herodias

with a very slow wing beat. They mainly feed on frogs and fish. Their eves are slanted downward, to help view what is below them without having to tilt their head. On the middle toe is a unique comb-like structure

which



also colonial nesters. These colonies are often

> located in sycamore or cottonwood trees, with as many as 20-30 huge nests at a single location. Upon returning to the nest, mated pairs greet each other with much bill clacking and

helps in the grooming of their feathers.

Herons are migratory, coming back to Kansas

fancy posturing.

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#### **HOUSE SPARROW**

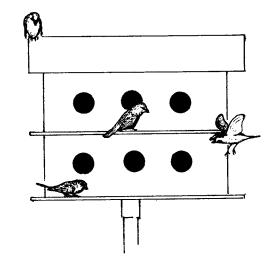
Passer domesticus

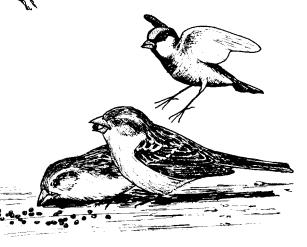
This European bird was first introduced in Brooklyn, New York in 1851. Today, this sparrow is common sight throughout the United States.

It has a strong association with man and is seldom found far from human habitation. The house sparrow prefers to nest in cavities of all sorts, especially birdhouses. It has a jump on other migratory

birds for nesting sights since it stays through the winter in most areas and is ready to mate on any

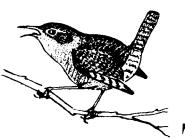
warm day.







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#### **HOUSE WREN**

Troglodytes aedon

The house wren is

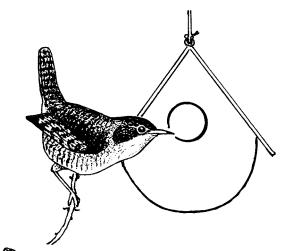
found over the entire state of Kansas. This pert little fellow will establish its right to your back vard as his exclusive territory. Its arrival is often proclaimed as a sure sign of spring. The male will establish several nesting sites from which the female will make the final choice.

It is a great garden bird, noted for diligently inspecting plants for insects. Many people

make great efforts to attract. these birds, but there is no telling what will

be chosen as a nesting site. It could be a hollow gourd, a tin

> can or an expensive,



highly ornamented birdhouse.

Wrens seem to sing constantly; perhaps because they have a different song for territory defense, mating and nesting.



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By Robert F. Clarke, Ph.D.

#### LEAST TERN

Sturna antillarum

This once abundant bird of the coasts has experienced a sharp decline because of man's intrusion into its

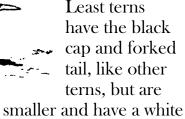
water, diving straight down upon sighting a fish. This behavior is different from gulls, which do not make such spectacular, head-first

dives.

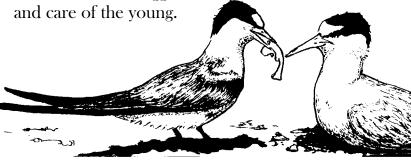
Least terns have the black tail, like other terns, but are

forehead.

Courtship bonds are strengthened through the male's gift of fish to the female. This will



continue through the incubation of the eggs



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Support the wildlife in Kansas. Check the on your state income tax form.

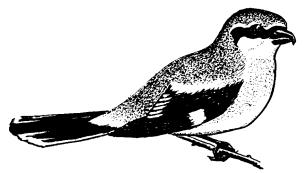


habitat, especially its nesting sites. Inland, the tern uses the sandbars of broad rivers and salt flats for its nesting colonies. Two or three eggs are laid in open, shallow depressions in the soil and will incubate in about three weeks.

Tiny fish make up the bulk of its diet. The tern will hover above the



By Robert F. Clarke, Ph.D.



### LOGGERHEAD SHRIKE

Lanius Iudovicianus

hrikes are **Common** in Kansas and can be seen in open areas on top of fence lines, telephone wires and brushy trees. They feed on a variety of animal life: large invertebrates, small mammals, song birds, and small reptiles. They show a considerable amount of white in flight. The black "robber mask" is a good identifying characteristic.

Shrikes can be confused with mockingbirds. They share a similar gray and

black color patterning and both display white in their wings and tail.

Their flight patterns are quite different. Shrikes



fly with a very rapid wing beat with an undulating flight pattern and often close to the ground. Mocking birds fly straight and with a slower wing beat.

The shrike's habit of hanging their food from sharp objects has given

them
the
common
name of
"Butcher
Bird." It is
not unusual
to see a grasshopper or
small bird stuck on a
barbed wired fence or

barbed wired fence or impaled on a thorn. This aids the shrike in holding his food items while he eats. The shrike also has perching feet and not the talons of the bids of prey.



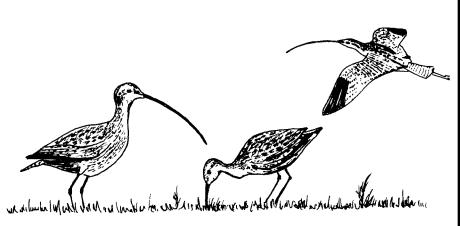
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#### LONG-BILLED CURLEW

Numenius americanus

Curlews are brown birds with long, downward curved bills. This unusually long bill, in such a large bird, makes identification easy. Curlews are commonly found on mudflats in moist meadows where they utilize their long bill to probe the soil for food. They will also feed on grasshoppers and other surface insects.

It once was feared the longbilled curlew was facing extinction, but it is presently making a comeback.





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#### NORTHERN HARRIER

Circus cyaneus

common hawk is also known as the marsh hawk. The name "harrier" describes its habit of coursing back and forth over a field like a hunting dog. They feed mainly on the small rodents in

Two other features aid in the recognition of this species: a white rump patch and the habit of gliding with the wing ends higher than the body.

prairies and overgrown fields.

The female and young are dark brown, whereas the adult male is light blue-gray with black wing tips.





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#### NORTHERN JUNCO

Junco Hyemalis

This is a slate-colored bird with a black hood and white bell and beak. It is only a winter resident in Kansas, spending the nesting season further north. The juncos is normally a woodland bird, but in winter it is found in hedge rows, and yards, where it

The flashing of the outer, white tail feathers is very noticeable in flight.

moves about with

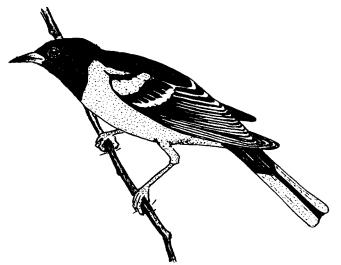
quick, hop like kicks.







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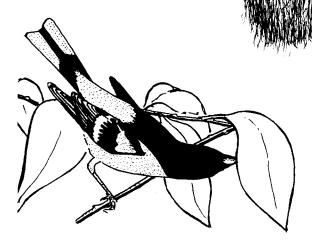
### NORTHERN ORIOLE

Icterus galbula

This is one of Kansas' prettiest birds. Most people identify this bird by its vellow-orange and black coloring pattern and its sharp whistle call. It eats caterpillars and other insects found in backyard trees and orchids.

The nest is not usually seen until the leaves have fallen. Then the dangling summer home is plainly seen.





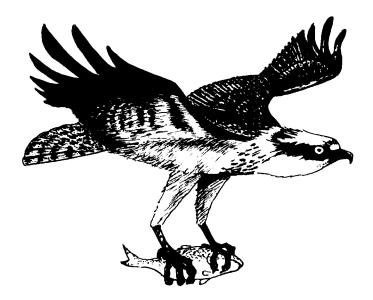
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#### **OSPREY**

Pandion haliaetus



Cometimes called Ifish hawks, ospreys are found along coastal areas, inland lakes and ponds. Recognition is easy; the bent wings are marked with black on top and with a brown pattern below. Most of the bird's underside is white; as is the head, except for its black mask. They have a wing span of up to six feet. Osprey's feet, with their rough calluses



and long talons, are specially designed for catching fish.

Ospreys will dive for fish from a considerable height: plunging and catching the fish with its talons. In the air, the fish is usually carried head first.

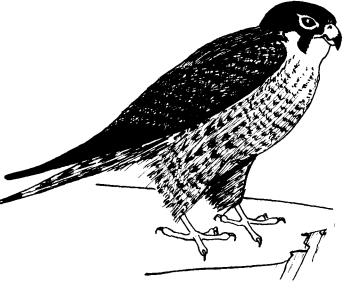
Their nests are huge structures of sticks, often situated on the tops of

trees or telephone poles. Ospreys use the same nest year after year, increasing its bulk with each new laver. Small birds of various kinds often build their nests in the sides of the osprey's nest.





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### PEREGRINE **FALCON**

Falco peregrinus

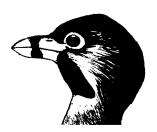
This medium sized falcon has long been a prized bird for falconry (hunting game with birds). Also called the duck hawk, the peregrine is the swiftest and most deadly of our birds of prey, especially on ducks. Because of the peregrine's hunting ability and stately beauty, the U.S. Air Force Academy has made it their mascot and official insignia.

For years the peregrine has been on the endangered species list. It has made a remarkable comeback, largely due to its reintroduction into metropolitan areas. The tops of tall buildings offer ideal nesting sites and the abundant pigeons provide an excellent food source.

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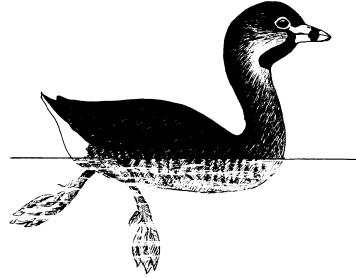
### PIED-BILLED GREBE

Podilymbus podiceps



This bird is a **L** common sight on ponds, sloughs and marshes. The grebe is totally aquatic and one of the best of the swimming birds. Its feet are not webbed like that of a duck. Its lobed toes, along with its light body, make the grebe an excellent swimmer. The grebes will



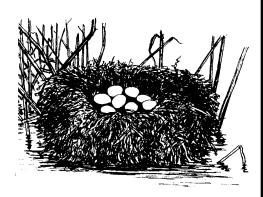


often swim with only its head above the water. It has a habit of suddenly disappearing beneath the surface and reappearing a good distance away.

This small, dark bird is quite solitary, but will associate with ducks.

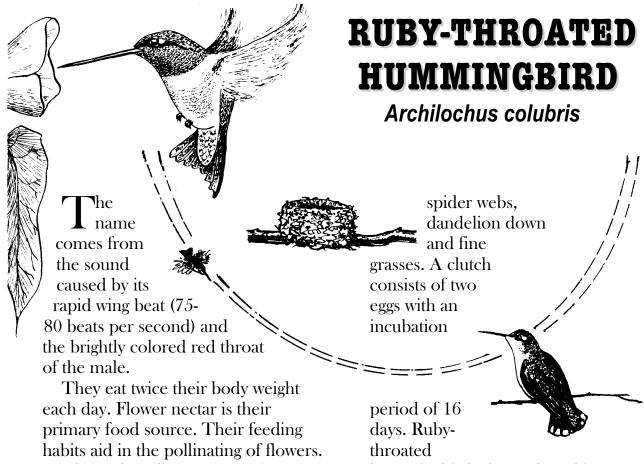
The grebe's nest is a large mass of floating plant materials

anchored to plants. The eggs are covered with wet debris when not being incubated. The heat from the decaying plant matter keeps the eggs warm.



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The male utilizes a very unique courtship flight to attach the female. He flies back and forth in a pendulum shaped pattern as if he was attached to a string. Hummingbirds are also the only birds which can fly backwards.

Their nest is constructed from moss and lichens and is lined with

hummingbirds do not breed in Kansas.

The Ruby-throated hummingbird's migration flight is over 2,500 miles. It includes a non-stop stretch over 600 miles across the Gulf of Mexico. They migrate through Kansas and are seen more frequently in fall than spring.



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### SCISSOR-TAILED **FLYCATCHER**

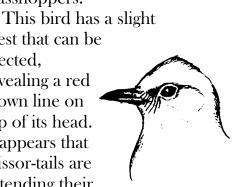
Tyrannus forficata

The flycatcher is one of Kansas most handsome birds. The peach colored patches on its side and under the wing add to the striking black and white body pattern. The long tail of the male easily allows one to identify it from the female. Scissor-tails are great aerial acrobats: diving about displacing their long, flowing tail feathers.

These birds are fearless; often attacking large hawks and crows and driving them from their vicinity.

Almost their entire diet is insects, most of which are captured in the air. A series of bristles around the corners of its mouth aids in the capturing of flying insects. Scissortails also take a large number of beetles and grasshoppers.

crest that can be erected. revealing a red crown line on top of its head. It appears that scissor-tails are extending their range northward.

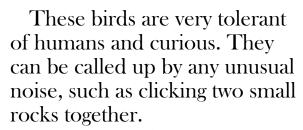




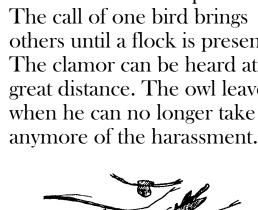
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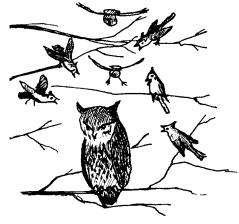
### TUFTED TITMOUSE

Parus bicolor

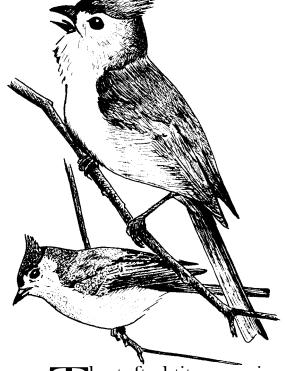


Harassing owls seems to be one of their favorite pastimes. The call of one bird brings others until a flock is present. The clamor can be heard at a great distance. The owl leaves when he can no longer take





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The tufted titmouse is a familiar sight at bird feeders and in wooded areas during Kansas' winter months. The titmouse is recognized by its gray dress, jaunty crest and its dark eyes in the center of its light colored cheeks. Their call is a clear and loud whistle, "Peter, Peter," that is repeated often.



#### TURKEY VULTURE

Cathartes aura

To most people, vultures (commonly called "buzzards") symbolize death and repulsive eating habits. They do feed upon carrion (dead animals). but one must admire them for what they do best - flying. The next time you see a vulture,

How often does it flap its wings? They can ride the warm updrafts, like few birds can, as they search the earth below for their next meal. They are the garbage crews of nature.

observe it for a while.

In Kansas, vultures migrate south for the winter. On

> returning, they will



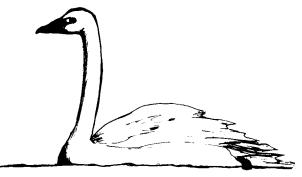


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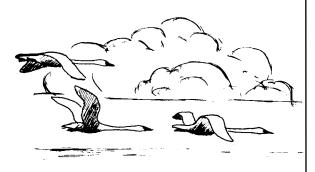
lay their eggs in hollow

trees, rocky caves and

deserted barns. No nest is



nce common in Kansas, these magnificent birds are now rare winter visitors to our lakes and marshlands.



Because these birds are so large and aggressive, they have few predators. Birds of prey may take a few young ones, but the number is insignificant. Their remote breeding ground, in

#### **TUNDRA SWAN**

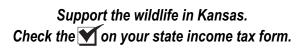
Cygnus columbianus

northern Canada, also helps to ensure their stable population (about 150,000). Disease and severe weather are probably the leading causes of tundra swan mortality.

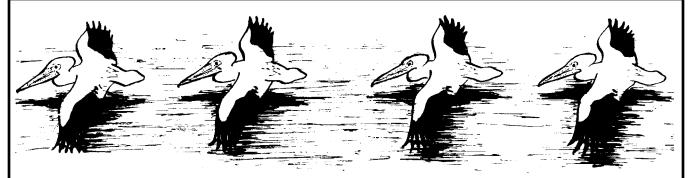
Wild swans have black bills and hold their necks erect, not curved like domestic swans. Unlike geese, swans have a neck that equals or exceeds the length of their bodies. A swan's wingspread can reach seven feet.



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#### WHITE PELICAN

Pelecanus erythrorhyncos

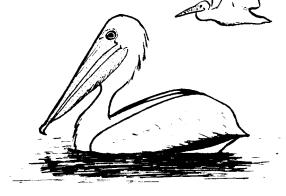
These very large, white birds are extremely graceful in flight. Pelicans often fly in a long, single-file line, skimming the water. You can see them performing, like synchronized dancers, near and above good size lakes and reservoirs.

Rather than dive

for fish from the air, several pelicans will feed on the surface by swimming in a converging semicircle, concentrating on the fish for

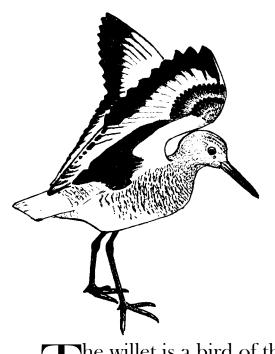
easier pickings.

Their breeding areas are flat islands in lakes of the northwestern region of the United States.



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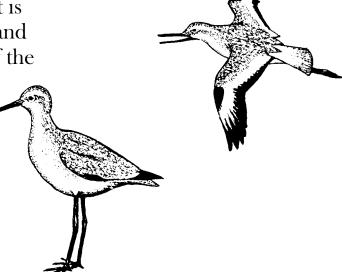
#### WILLET Catoptrophorus semipalmatus

in flight, the beautifully characteristic black and white wing pattern is evident.

Willets are not as timid as other shore birds and are approachable. It is one of our noisiest birds and always appears to be screaming about something.

The willet is a bird of the beach, often seen at the edge of the surf. Inland, it is found around reservoirs and open salt flats. It is one of the largest members of the sandpiper family. Its heavy bill is used to probe for invertebrates.

It is a rather drab, gray colored bird, but

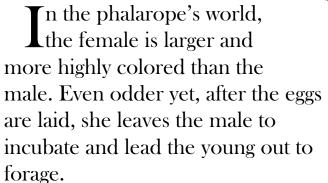




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### WILSON'S **PHALAROPE**

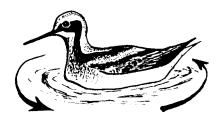
Phalaropes tricolor



Phalaropes are shorebirds and are found, in small groups, around the shallow water of ponds, lakes, and reservoirs. They feed by spinning the water and stirring up the bottom mud along with the invertebrate populations upon which they feed.

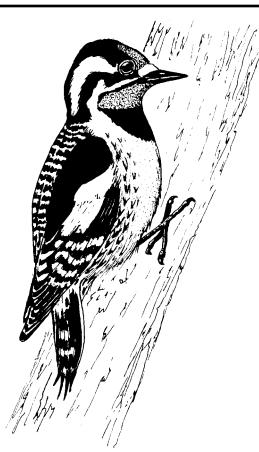
The southern edge of its nesting range lies in western Kansas.







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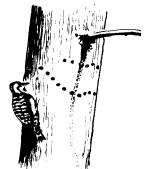


ne of the smaller woodpeckers. this beautiful black and white bird can be identified by the long white stripe on its wing and its mottled back. The male has a red forehead and throat. The

### YELLOW-BELLIED SAPSUCKER

Sphyrapicus varius

female's throat is white. It has two toes pointing forward and two pointing backwards, allowing it to maintain a better grip on the bard of trees. The stiff tail feathers are also used



as a brace.

Unlike other woodpeckers, more than fifty percent of its diet

consists of plant material: sap and sapwood, with some fruit.

Sapsuckers are migrants and are only winter residents in Kansas. They nest further to the north.

Sapsuckers drill holes of very orderly spaced rows in sap trees. Other birds are attracted to these holes, which provide them with sap and insects to eat. Because the sapsucker can drill many holes deep enough to reach the sap wood, causing sap to flow, it can be detrimental to young trees.



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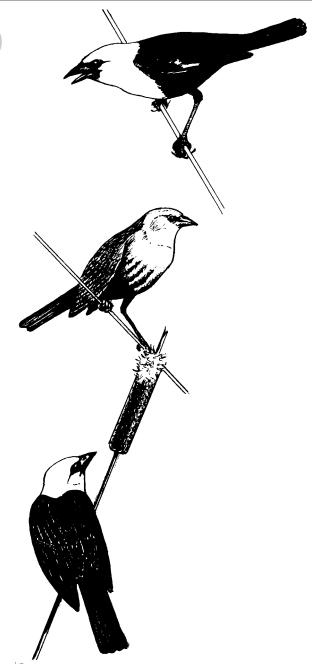
### YELLOW-HEADED BLACKBIRD

Xanthocephalus xanthocephalus

The male, with its vellow head and shiny black body, is one of the most striking of the blackbirds.

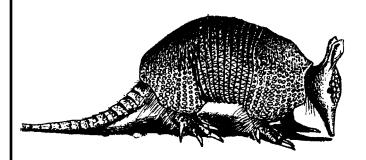
The female has to settle for a duller brown body pattern. Its kinship to the redwing blackbird is evident with the patches on its wings. However, on the yellowheads, these patches are white and more visible in flight.

Yellow heads are abundant in central Kansas and can be seen in large flocks in cattail marshes, their favorite nesting site.





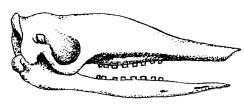
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#### ARMADILLO

Dasypus novemcinctus

The armadillo has extended its range northward into Kansas. It is normally found in woodlands, where it digs burrows, foraging on insects



and other invertebrates. Armadillos belong to an order of mammals that includes sloths and



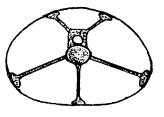
anteaters. Unlike the above toothless animals, the armadillos do have peg-like teeth. The armadillo is encased in armor. Note the struts used to

support the armor plating in its tail. When threatened. it rolls into a ball, exposing just the hard armor shell

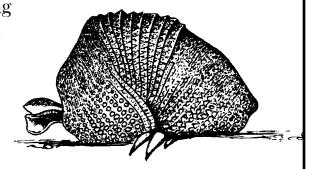
and protecting its vulnerable legs, head, and under parts. Armadillos

always give

birth to identical quadruplets.







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#### EASTERN CHIPMUNK

Tamias striatus

native of the eastern deciduous forest, the eastern chipmunk can occasionally be found among the rocky ledges in the eastern woods of Kansas. They are the only chipmunk in eastern United States. compared to the numerous species located west of Kansas. Being diurnal (active during the daytime) they are exposed to a large number of predators,

including domestic cats. An effort to reintroduce them to the more western parts of their range in Kansas has not been successful. Their food includes nuts,

is often stored in underground chambers. These chambers also serve as the nesting site for the four to five young born in April or May. Chipmunks are curious animals and will spend considerable time watching ongoing activities from their

favorite lookout points.





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berries, seeds and

invertebrates found

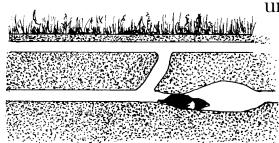
on the forest floor. Food

#### **EASTERN MOLE**

Scalopus aquaticus







occur across Kansas, but are rarely seen in the western half of the state. Most of their life is spent constructing tunnel systems. Their adaptations for living

underground include large paws, strong claws on short arms, and hair that lies flat on the body in any direction (handy for backing up in tunnels). They do have eyes, but very poor vision.

The tunnel system consists of two types; burrows just beneath the surface, which are very noticeable, and a series of

deeper tunnels which contain the nest.

A special bone on the underside of each front foot aids in digging.

Their food consists almost entirely of earthworms and larvae of insects.



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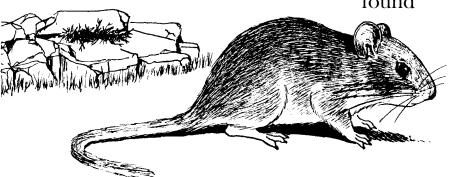


#### EASTERN WOODRAT

#### Neotoma floridana

one taken. What in reality happens is their priorities change, and they drop what they had for their newly,

found



found in the crevices of rocks, cactus piles, hedge rows, and at the base of branches just off the ground, are built of sticks, grasses, and other assorted materials.

Each rat has its own den. The male and female only socialize at mating time.

Toodrats, found statewide, are well known for collecting all sorts of objects. Legend has it they will leave a gift in exchange for the

treasure. It is said they prefer shiny objects, but the contents of their nest reveals they do collect many nonshiny items.

Their nest,



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### FLYING SQUIRREL

Glaucomys volans





Being forest dwellers, flying squirrels are only found in the eastern portion of seldom seen.

The best time to view them is at late dusk. They are a small

the state. Because they are nocturnal (only active at night), they are

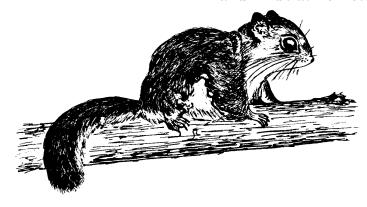
squirrel, only ten inches in length.

These squirrels have very thick, soft fur. The loose skin, along the edge of their body, is folded at rest. This loose body skin is attached at

the feet. When the legs are spread and the tail flattened, a large planning surface is formed, allowing the squirrel to glide from tree to tree. This unique feature is not found in any other mammal in Kansas.

Their large, luminous eyes, used to capture any light available, makes them quite appealing.

Flying squirrels utilize the holes in tree trunks and limbs as homes.

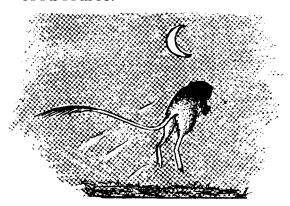


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### Ord's KANGAROO RAT

Dipodomys ordii

Rangaroo rats are found in the sandy soils of western Kansas. Their locomotion is similar to that of a kangaroo, using their long, strong hind legs for propulsion and the tail for balance. Seeds are their main food source.



The ability to conserve water is an adaptation for their existence in arid habitats. There are records of kangaroo rats never directly taking water. Instead,

they recycle their body water and



obtain moisture from the food they eat.

Kangaroo rats are nocturnal. They spend the day sleeping in their burrows, which are sealed to keep predators out and humidity in. Their burrows are often along roadsides from which these ghostlike

creatures emerge and bounce along in front of the vehicle headlights.

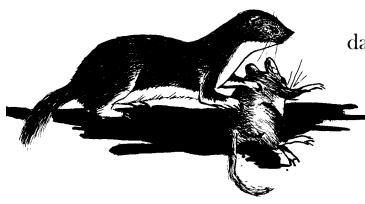






#### LEAST WEASEL

Mustela nivalis



This tiny carnivore is less than eight inches in length. It is not common in Kansas (occurring only in grasslands of the northeast through the north-central sections of the state). Presently, it appears to be extending its range southward. Small rodents make up the bulk of its diet. They require, on a

daily basis, one-half of their body weight in food. In winter, their toast color changes to a pure white, providing a perfect camouflage suit. Other weasels, which change to white in winter, retain the black on the tip of their tail.







#### RED BAT

Lasiurus borealis



ed bats are common in Kansas, often seen in the light of street lamps feeding on insects. They are tree dwellers and must migrate to avoid the harsh

conditions of winter.

Although they can have fleas, mites. and other parasites, their incidence of rabies in red bats is no greater than in

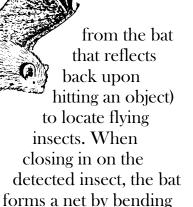


mammal.

Superstitions and "wives' tales" about bats, such as the notion that bats can become tangled in your hair, or that they are blind, are untrue.

Bats use a unique system called

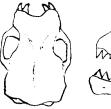
echolocation (high pitched sounds omitted



the tail inward and scooping its wings.

One to four pups are born between May or June. They spend most of their early life clinging to their mother until they are ready to fly. It is difficult to distinguish the young, which are embedded in their mother's fur. Sometimes this extra weight causes the group to fall to the ground, and the female is unable to regain flight.

Bats lack front teeth, but are well supplied with others.





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#### RINGTAIL

Bassariscus astutus



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#### RIVER OTTER

Lutra canadensis

nce found

along the major rivers of Kansas, river otters have been gone from the state (an exception maybe along the Missouri River in the Northeast section of the state) for over a century. Recent attempts to reestablish offers in Kansas have had limited success.

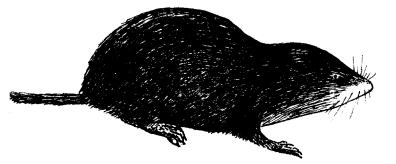


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#### SHORT-TAILED SHREW

#### Blarina carolinensis



tail

Chort-tailed shrews Tare the largest shrew found in Kansas. They are abundant in the eastern half of Kansas. Their hair is silky, and

black or silvery in color.

They are often confused with mice and voles. Unlike mice and voles, they have very small eyes and barely visible ears.

Although shrews, as a group, are the smallest of all mammals (the short-

of the most vicious and fearless hunters of the forest. Part of this is due to their extremely high metabolism

shrew is only four inches

in length), they are one

rate, and to the fact that they do not

Shrews are food for hawks, owls, and snakes.

Their skull shows exceptionally large incisor teeth, indicating their predatory nature. Shrews can also secrete a poison through their saliva which can kill a mouse in five minutes or less. Their large incisors aid in exposing their victim to this poison.

hibernate. They must eat almost constantly or starve to death. Insects make up most their diet. but a shrew will kill small rodents larger than itself.



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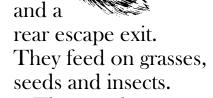


THIRTEEN-LINED GROUND SQUIRREL

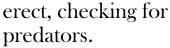
Spermophilus tridecemlineatus



hese small ground squirrels are found in open, short, grasses across Kansas, including yards, golf courses, and cemeteries. Their home is an underground tunnel, consisting of a hidden entrance



These rodents are active during the day in warm months, but must hibernate in winter.



Although they appear to be social animals, the ground squirrel is essentially solitary, often having squabbles over disputed territorial claims.



Their striped pattern helps them to blend with the grass when they stand



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#### WOODCHUCK

Marmota monax

Toodchucks, often called groundhogs, are found in the eastern fourth of the state in dry soils near the edge of woodlands, or on the rocky outcrops of grasslands. They live in extensive tunnels with one or more entrance and escape routes. Woodchucks are herbivores, feeding on grasses, wild, green plants and cultivated crops. A variety of

larger predators prey on woodchucks, including coyotes, foxes, bobcats, hawks, and owls. They hibernate during

winter and have gained fame as forecasters of the arrival of spring according to the visibility, or lack of same, of their shadow. This is a myth.





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Equal opportunity to participate in and benefit from programs described herein is available to all individuals without regard to race, color, national origin, sex, religion, age or handicap. Complaints of discrimination should be sent to Office of the Secretary, Kansas Department of Wildlife and Parks, 1020 S Kansas Ave. Suite 200, Topeka, KS 66612-1327 01/06