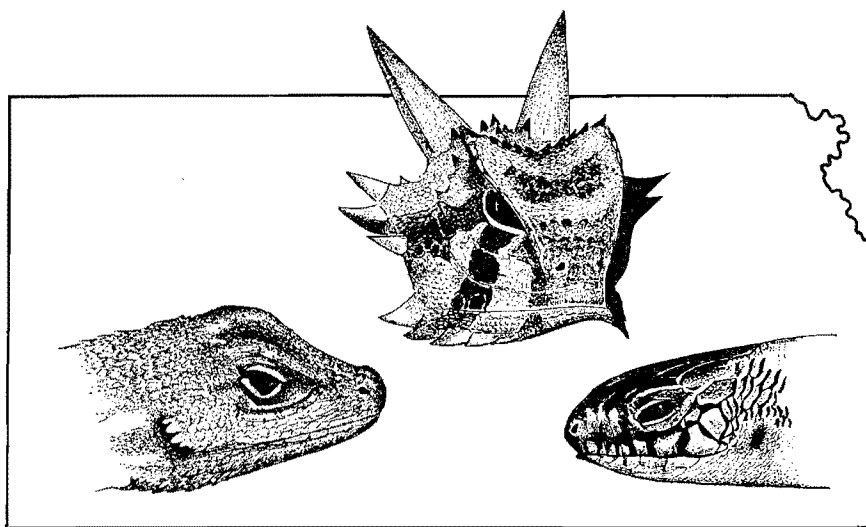


LIZARDS IN KANSAS

By

Robert F. Clarke



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Lizards In Kansas

By

Robert F. Clarke

This booklet has been written to provide an introduction to the lizards of the state: to aid in the identification of the various kinds of lizards, to present a minimum of natural history data about each form, and to give some selected references for those who wish to secure more information. The animals covered in this booklet form an insignificant part of our fauna, but are inoffensive, wonderfully interesting creatures. A fact which a person will discover if he will spend a little time reading about them and observing their behavior.

WHAT IS A LIZARD?

Lizards belong to the animal class Reptilia, which also includes snakes, turtles, crocodiles, and the New Zealand Tuatara. They possess a backbone and are covered with scales. Eggs are laid on land and possess a shell and special membranes for the embryo. The young emerge as small replicas of the parents and do not undergo a completely different change of body form as part of their life cycle. For those that have legs, claws are present on the toes. These are some of the characteristics which serve to distinguish the reptiles from other vertebrate animals.

In Kansas, the only reptiles are lizards, snakes, and turtles. Since everyone is familiar with the turtle's general shape, only the lizards and snakes may be confused. None of the snakes have limbs with feet, nor have moveable eyelids or ear openings. Only one Kansas lizard (Glass Lizard) does not have limbs, but it does have eyelids and ear openings. Only one Kansas lizard (Earless Lizard) lacks an external ear opening, but it has eyelids and limbs.

KINDS OF LIZARDS

The range in variation of lizards is great. In size, they extend from tiny forms only a few inches in total length to the great Komodo Dragon, which may exceed ten feet in length. From blind, limbless, burrowing lizards, the other extreme extends to large, long-legged tree dwellers, with excellent vision, and to active forms that run on their hind legs. From smooth, shiny, polished kinds, the range extends to short, squat, extremely spiny, horned lizards. Lack of legs is not an unusual feature of lizards, for many kinds over the world either have limbs that are reduced in size or are not present at all. The reduction in limbs is associated with burrowing habits. As with the legless lizards, the form of the lizard is a reflection of the adaptations that have been made by the species so that it has been able to exist in the habitat and the mode of life that we find it today.

WHERE LIZARDS OCCUR

Lizards, as with other reptiles, must depend upon the external environment as a source of heat for their bodies. Therefore, lizards are not found in the arctic or antarctic regions, although they are found as far north as southern Canada and in Sweden. The number of kinds of lizards increases with approach to the tropics. Lizards may be found in forests and in deserts, and some often enter fresh water and are good swimmers. Except for one large iguana on the Galapagos Islands which feeds on algae not far from shore, no lizard is found in the marine environment.

HOW LIZARDS LIVE

Most lizards are insectivorous, feeding on many small insects, spiders, and other invertebrates. Some are mostly plant eaters, such as the large iguanas and some of our desert types. Other lizards feed on lizards, eggs, or small birds and rodents. Most lizards feed upon a variety of food materials, but some kinds are specific in their preference.

Most lizards lay eggs, placing these in nests under the soil, in rotten logs, or other secretive place, where the eggs are cared for no longer by the parents. There are exceptions to this, however, for example, the Kansas skinks, which tend the eggs in the nest. Some female lizards retain the eggs within their bodies until the young are hatched, so that they give birth to living young. The Short-horned Lizard and certain Spiny Lizards are examples of this.

The defense of territories by males and the courtship of females is accompanied by changes in color and form between males and females in many kinds of lizards, the males usually having characteristic colors and markings which are displayed to the other lizard. The color and pattern may change on an individual in a short time, as with the African Chameleon or the Anole, or it may be exhibited with a change in shape of the lizard, for example, the expanded dewlap of the Anole or the compressed sides of the Fence Lizard. Usually one male is able to bluff another male away from his territory, but sometimes fights do occur.

Many lizards have the ability to lose part of the tail. This is a protective mechanism of the lizard, for if a predator were to grasp the tail of a lizard, it could be detached from the rest of the body, and while the predator was occupied subduing the squirming tail, the rest of the lizard could escape, later growing a new tail. The new section of tail can be told from the other part because the scales covering it are not the same. Sometimes the tail is not completely detached, but the injury stimulates new growth at the

site, with the result that lizards are found with forked tails.

References to books which provide much more information on lizards will be found on page 16. For Kansas reptiles there is no better book than the excellent handbook by Dr. Hobart Smith referred to there.

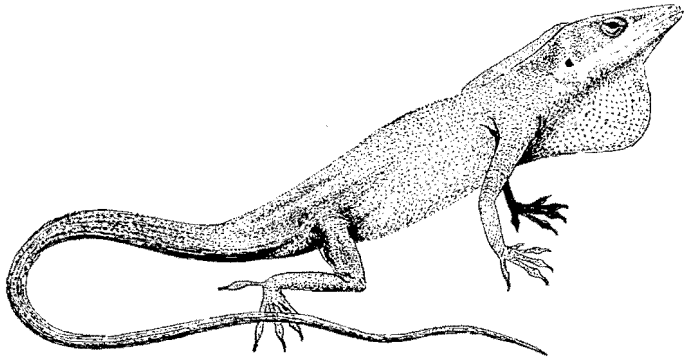
KANSAS LIZARDS

There are fourteen species of lizards in Kansas, which represent four families: *Iguanidae* (pp. 5-9) This family is almost entirely New World. The species are extremely diverse in size, shape, and habits. The scales may be granular or large and rough, but never smooth and shiny. These lizards spend most of their time in the open, rather than in concealment. Males usually differ from females in the possession of gaudy color patches and patterns. Head-nods and pushups form a characteristic part of the display behavior of this family.

Anguidae (p. 10) Found in the Old World as well as in the Americas. Many of the members of this family are legless, and the legged forms have rather short legs. There is a characteristic deep fold along the side of the body. Scales are plate-like in rows and are usually smooth and shiny.

Teiidae (p. 11) These lizards are found only in the New World, mostly in South America. Only one genus reaches the United States. The dorsal scales are granular, but the ventral scales are large and platelike, and are arranged in eight rows across the belly. Most of these lizards are colorful, usually with a striped pattern. They are terrestrial and often seen in the open, where they escape by quick movements and considerable speed.

Scincidae (pp. 12-15) Skinks are world-wide in distribution. The family is characterized by possessing smooth, polished scales and small legs. These lizards are secretive and seldom seen in the open.



GREEN ANOLE (*Anolis carolinensis*)

Family *Iguanidae*

Other names: American Chameleon

RANGE: U.S.: Southeastern United States, south of a line from North Carolina to southeastern Oklahoma; east of a line from southeastern Oklahoma to the mid-Gulf coast of Texas. Many species of anoles are found in the West Indies, Mexico, Central and South America.

Kansas: Kansas is not within the natural range of the Anole, but a group liberated in Kansas City, Kansas, several years ago has successfully become established, apparently. Another introduction is reported from the vicinity of Leavenworth.

DESCRIPTION: *Size:* small; snout-vent length up to 2½ inches. The tail may be two times this length.

Color and pattern: Usually uniform light green or brown. Some individuals exhibit a white wavy mid-dorsal line. The lips, chin, and underside of body are white. Males expand a pink "fan" or "dewlap" under the throat when displaying. Displaying males may also show a large dark spot behind the eye. This is the lizard which is commonly sold at fairs and circuses as a pet, usually with a collar and a chain.

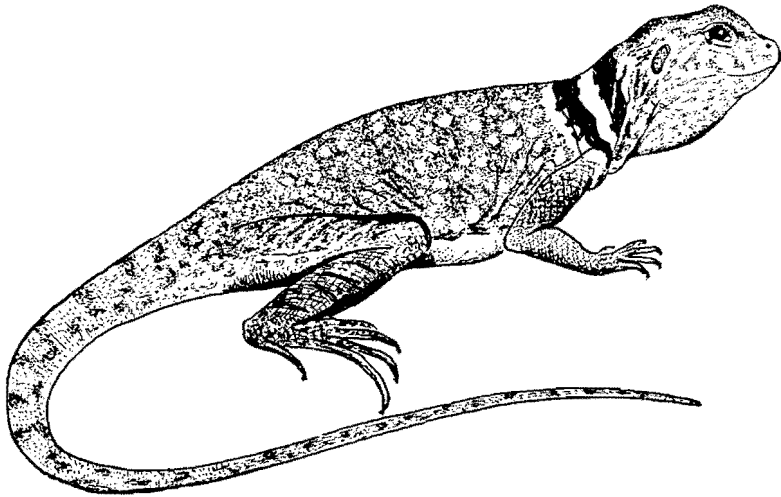
RECOGNITION: The long head and tail, granular scales, uniform color (green or brown), and the strangely expanded toes serve to distinguish this lizard from all others in Kansas.

HABITAT: The Anole is arboreal. It spends most of its time above the ground, in bushes, trees, vines, fences and on houses. It lives closely with man and may be found around many homes in the South.

HABITS: Two habits are characteristic. One is the pronounced rapid color change exhibited by this lizard. When alert and warm the lizard is light green, but it is brown when cool or when ill or defeated by another male. A common story is that the lizard will change to match any background. This is not true. The other habit is the display behavior of the male. Whether toward another male or female, the challenging male will nod his head up and down in a characteristic pattern. During this, he will swell out the throat fan and then withdraw it. This may be done several times. If he is challenging a male, he may also show a large dark area behind the eye and a raised ridge may appear on the back of the head and along the top of the neck. As with many lizards, the tail is quite fragile and may be dropped by the lizard. Therefore, many Anoles are seen with regenerated tails.

Food is made up of insects. A foolish idea that many persons have is that this lizard will live in captivity on a diet of sugar water. It should be fed flies, small spiders, and any small insect. Most anoles will drink water from a dish but all prefer water presented like dew (in drops).

Mating occurs in spring, with two eggs laid in June. The eggs hatch in six to eight weeks.



COLLARED LIZARD (*Crotaphytus collaris*)

Family *Iguanidae*

Other names: Mountain Boomer

RANGE: U.S.: Southwestern U.S.A., from Missouri west through Nevada, south through Texas, New Mexico, and Arizona, into northern Mexico.

Kansas: Central Kansas and southeastern half. Not found in northeastern one-fifth nor the northwestern one-fourth of the state.

DESCRIPTION: *Size:* Large; snout-vent length up to 5 inches. Tail may be two times this length.

Color and pattern: Males are highly colored, with greenish legs and ground color, upon which are several dark transverse lines. Blue spots are present, as well as white and orange markings. Throat is orange. Females are duller in color, with dorsal color gray, with transverse bands and spots. Both males and females possess two black collars around the neck, bordered with white. The young are quite highly colored and patterned, with much yellow in the ground color. Females with eggs show red spots on the sides of the body. The tail is not as easily detached in the Collared Lizard as it is in many other lizards.

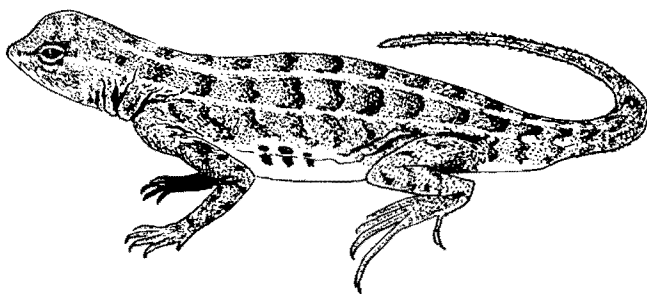
RECOGNITION: The general build, strong body and legs, large head, and long tail, plus the two black collars are characteristic of this species.

HABITAT: Always associated with rocky regions, usually in open areas. Quite abundant in the prairie canyons of central Kansas, where the lizards are found on or under the numerous limestone rocks.

HABITS: The Collared Lizard spends most of its time lying in the sun upon some raised rock, where the lizard has a good view of the surrounding area. They are alert, and move under the rock when disturbed. They are also curious and may be approached closely, if the person moves slowly and does not come directly toward the lizard. When captured, these lizards are capable of delivering a painful bite, but after handling, become good pets. When escaping, they run at high speed, often running on the hind legs with the body balanced by the long tail.

Food usually consists of grasshoppers but other insects, and even smaller lizards may be taken.

The nest is tunneled under a rock, where eight to a dozen eggs are laid. They are not attended by the parent. Young are hatched in late summer.



EARLESS LIZARD (*Holbrookia maculata*)

Family Iguanidae

RANGE: U.S.: The Earless Lizards are southwestern, reaching their eastern-most distribution in Kansas. They occur from southern South Dakota southwest through central Arizona and western Mexico, with the eastern limits in the U.S. from central Texas northward to east-central Kansas.

Kansas: Western two-thirds of the state, with an eastward arm that reaches to Emporia.

DESCRIPTION: *Size:* small; snout-vent length up to 2½ inches. The tail length is about the same.

Color and pattern: Brown or gray-brown, with whitish underside. Pattern of 7 to 10 paired dark blotches occurs on either side of a light mid-dorsal line. These blotches are joined to other blotches lower on sides. Between the two rows of blotches there appears a stripe on each side of body. There may be some scattered light speckling over body. Two or three black bars are arranged on the lower side about midway between the front and hind legs. Females that contain eggs have a reddish wash over the body, a fading of body pattern, and a yellowish cast to the sides of the head.

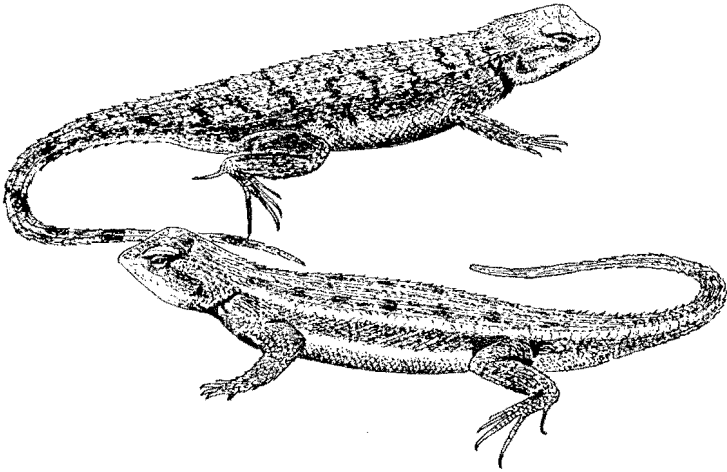
RECOGNITION: The pattern is not too different from the Prairie Lizard, but *Holbrookia* has no external ear opening and has the black lateral bars; both characteristics are distinctive.

HABITAT: It occurs on loose soil or sand in open areas. When it occurs in grasslands, it will be found in open areas where the grass is scarce. Earless Lizards are abundant in the sand dunes of central Kansas, where this type of habitat appears to be optimum. Usually they are found near that part of the sand dune where there is some vegetative cover, such as scant grass, rather than out on the bare sand.

HABITS: These lizards are always found on the ground, where they blend in remarkably. Usually they are first noticed when they make short dashes when disturbed. They retire for the night by burrowing into the substrate rather than seeking shelter in rodent burrows or under objects. They may be found in the open through most of the day, except midday in the hot summer, but may not emerge if the day is cool or cloudy. When pursued, it may become tired and burrow into the sand by the "shimmy" technique.

Food consists of insects and spiders.

Nests are dug into the substrate in the open, and about six eggs are laid, usually in early summer.



FENCE LIZARD (*Sceloporus undulatus hyacinthinus*)

PRAIRIE LIZARD (*Sceloporus undulatus garmani*)

Family *Iguanidae*

Other names: Swift, Spiny Lizard, Rough-scaled Lizard, Pine Lizard

RANGE: U.S.: All of U.S. south of a line from Pennsylvania to Nevada.

Kansas: There are two subspecies in Kansas: the *Prairie Lizard* occurs in the western two-thirds of the state; and the *Fence Lizard* occurs only in the eastern tier of counties.

DESCRIPTION: *Size:* Small; snout-vent length may be a little over 2 inches; tail about one and one-half times that length.

Color and patterns: General color is gray or gray-brown, with a number of dark wavy cross bars, which are light-edged at the rear. A black blotch is in front of the shoulder. Pattern of the *Prairie Lizard* is more of two light stripes lengthwise on sides. Males have extensive blue patches on undersides and under chin.

RECOGNITION: The scales of these lizards are rough and sharp-pointed. The only lizard that might be confused with it is the *Earless Lizard*, but the ear opening of *Sceloporus* is apparent.

The two subspecies can be separated on the basis of pattern; the *Prairie Lizard* being distinctly striped and with less extensive blue areas on the males.

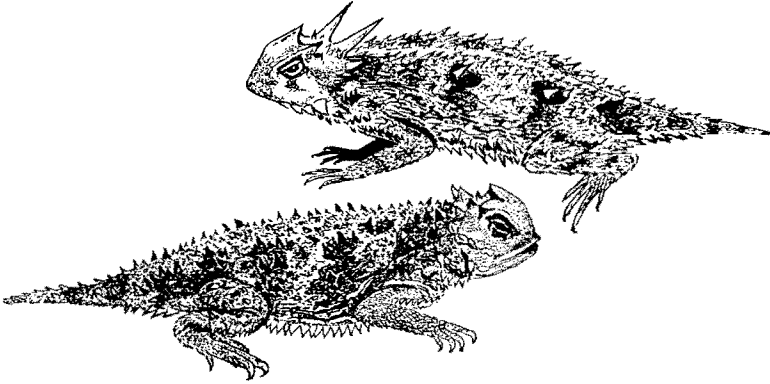
HABITAT: The *Fence Lizard* occurs on trees, fences, wood piles, and sides of rustic buildings. Particularly, it is found on pine trees, where its coloration is remarkably similar to the bark.

The *Prairie Lizard* is found on the ground almost entirely, often in completely open areas. It is quite common on the sand dunes in central Kansas. Often specimens captured in sandy areas are very light in color, almost matching the sand.

HABITS: *Fence Lizards* forage on raised objects, where they are active, alert creatures. When closely approached, they dart to the opposite side of the tree from the intruder, and may climb high in the tree, if disturbed. These lizards are territorial and put on a great display of "push ups" and show of colored areas when one male enters the territory of another. The tail is easily detached in these lizards. Therefore, careful handling is required to ensure a complete specimen. They are hardy lizards and do well in captivity if provided with the proper essentials. They are particularly good for demonstrating display behavior, as the males continue aggressive display, even in a terrarium.

Food consists entirely of insects and other invertebrates.

Nests are dug into the soil and six to ten eggs may be laid. The young hatch in late summer.



TEXAS HORNED LIZARD (*Phrynosoma cornutum*)

SHORT-HORNED LIZARD (*Phrynosoma douglassi*)

Family *Iguanidae*

Other names: Horned Toad, Horned Frog

RANGE: U.S.: Texas Horned Lizards are found from South Dakota south into Mexico; southwest into Arizona. Short-horned Lizards occur in the mountainous parts of the West, where they usually occur at higher elevations than other horned lizards.

Kansas: Texas Horned Lizard occurs over all the state, except in northwest and northeast corners. Short-horned Lizard occurs in northwest one-fourth of the state. Smith (1956) suggests that the Short-horned Lizard may not occur in Kansas at all and that the few records are in error.

DESCRIPTION: *Size:* Medium; may get up to somewhat over four inches snout-vent; tail is less than one-third that length.

Color and pattern: Light gray with yellowish or reddish cast. Dark brown spots surround enlarged spines. These large spots are light-edged. There is a white middorsal line. The under-side is white. The color may vary according to the type of soil on which the lizards are found. Very pale lizards are found in sandy areas, reddish colored ones in red soils, and dark lizards among vegetation on black soils. An individual may appear darker if cool and lighter if warm, also.

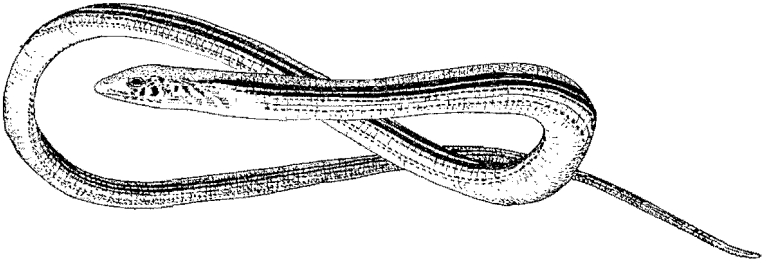
RECOGNITION: The flattened body with spines on body and head are easily recognizable. The Texas and Short-horned Lizards may be told apart because of the long "horns" of the Texas. Also, only the Texas Horned Lizard has two rows of enlarged scales along the edge of the abdomen; all others have a single row.

HABITAT: Always found in open areas, but may be among rocks, in grass, or in bare spots. It seldom climbs onto objects. Prefers loose soils.

HABITS: The Horned Lizards are usually found alone, on the ground, where they are active during daylight. On cloudy days they may not emerge. They burrow into the soil for retreat. They try to escape by remaining motionless, or occasionally running, but they cannot flee rapidly. Occasional individuals may squirt blood from the eye when handled. Horned Lizards tilt the back toward an adversary, and it is difficult to place one of these lizards on its back.

Food consists of small insects, but ants make up the major portion of those taken. It is difficult to maintain Horned Lizards in captivity, for they do not feed well, even if provided with an abundance of insects.

Over 25 eggs may be laid at a time. The nest is dug into the soil in the open. Short-horned Lizards give birth to living young, sometimes over two dozen.



GLASS LIZARD (*Ophisaurus attenuatus*)

Family *Anguidae*

Other names: Glass Snake, Joint Snake

RANGE: U.S.: Southeastern U.S., from the southern Great Lakes region to the Atlantic coast, westward into Nebraska and east of a line from south-central Nebraska to extreme southern Texas. *Kansas:* Eastern two-thirds of the state, with records much more numerous in the eastern one-third.

DESCRIPTION: *Size:* Large, snout-vent length up to 10 inches; tail about twice this length.

Color and Pattern: Brown, light on dorsal areas (may be gray), darker on sides, becoming light on lower sides and white underneath. The dark stripes which run the length of the body and tail contrast with the lighter ground color to give a striking pattern. The lizard is highly polished. There are a group of dark spots on the sides of the head, followed on the neck by several diagonal dark lines. These lizards appear "stiff" when handled; rather than supple as a snake. Although they must be handled carefully, they adapt well to captivity and will do well on mealworms and assorted insects.

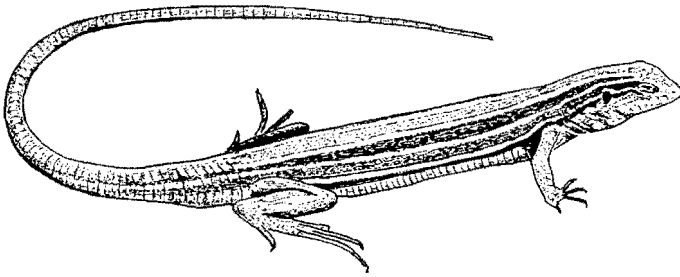
RECOGNITION: This is the only legless lizard in Kansas. It can be told from any of the snakes by the possession of ear openings and eye lids. A deep fold is present along the side and runs the length of the body.

HABITAT: Grassy fields near wooded areas are preferred, usually where rocks and ledges are available. May be found under any sort of ground cover.

HABITS: The Glass Lizard has given rise to much folk lore. The most prevalent story is that in which the "snake" is encountered and is beaten with a stick or other available object. The "snake" shatters into several pieces, which later crawl together and unite to form a whole "snake" again! Actually, these lizards are fragile, and the tail makes up two-thirds of the total length. As with many other lizards, the tail may become detached in a number of places, but the parts never rejoin. Eventually, a new tail may be grown. This lizard is secretive and alert, therefore it is not often seen. May be found under any sort of ground cover. May be in open more after rains. They are quick in their movements and difficult to capture once they are in weeds and grass.

Food consists of insects, small lizards, snakes, and eggs.

Females remain with the eggs, which may number up to one and one-half dozen. Nests are dug under some surface cover.



SIX-LINED RACERUNNER (*Cnemidophorus sexlineatus*)

Family *Teiidae*

RANGE: *U.S.:* Entire southeastern U.S., south of a line from southern South Dakota to Maryland and east of a line from southeastern Wyoming to south-central Texas.

Kansas: All of the state.

DESCRIPTION: *Size:* medium, snout-vent length up to 5 inches; tail over twice this length.

Color and pattern: A brown central area on back, bordered on each side by a black area upon which are three well-defined yellow stripes. The undersurface is white; may be blue in males. Legs and head are greenish-brown. "The tail is composed of "rings" of scales which are characteristic. The belly scales appear to form a "ventral shield" of one piece, which may project up over the side of the lizard a way, if the lizard has had nothing to eat for some time. This lizard has very long hind legs and toes.

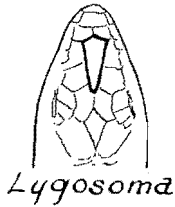
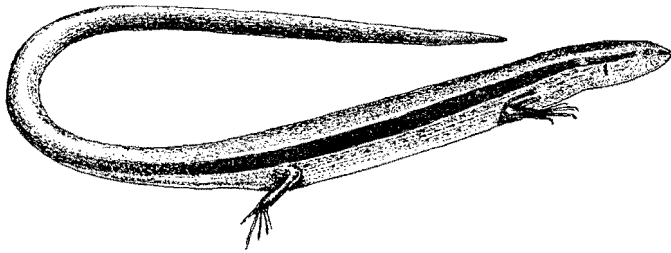
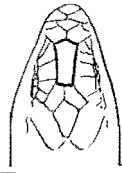
RECOGNITION: The dorsal scales are granular, but the belly scales are large plates arranged in rows. Only this lizard in Kansas has the six-lined pattern of yellow stripes.

HABITAT: Dry, open areas seem to be preferred by the Racerunner, where it can be found along dusty or sandy roads, railroad rights-of-way, and other cleared spots. It may be found in grassy areas among rocks and on the shores of lakes. Although it may be found in forested areas, it is usually close to large open spots among the trees.

HABITS: The Racerunner is alert and active, wandering widely during the warmest parts of the day. The habit of dashing ahead of a person along a road, instead of into the adjacent vegetation, has given it the common name. These lizards are swift runners and are difficult to capture by hand. Under suitable conditions, Racerunners construct burrows in which they find shelter, but often they utilize rocks and other ground cover. The tail is easily detached in this lizard and is often lost by rough handling or by improper capture. These are highly active lizards and will die in captivity, if not provided with an abundance of food.

Food is mostly insects, but they will feed on almost any animal they can overpower.

Nests are dug as burrows or placed under some surface object. Six eggs are usually laid, which hatch in mid-summer.

*Lygosoma**Eumeces*GROUND SKINK (*Lygosoma laterale*)Family *Scincidae*

Other names: Little Brown Skink

RANGE: U.S.: Southeastern U. S. from Nebraska eastward to the Atlantic and southward through eastern half of Texas.

Kansas: Found only in the eastern one-fourth of the state.

DESCRIPTION: *Size*: Small, snout-vent length up to two inches; tail about one and one-half times this length.

Color and pattern: Brown, light on dorsal surface, with dark band extending along side, back from eye. Gray on lower side with many small dots which tend to form fine lines. There may be a very narrow light line where dark band and dorsal color meet. There is a transparent disc in the lower eyelid through which the lizard can see when the eyelids are closed.

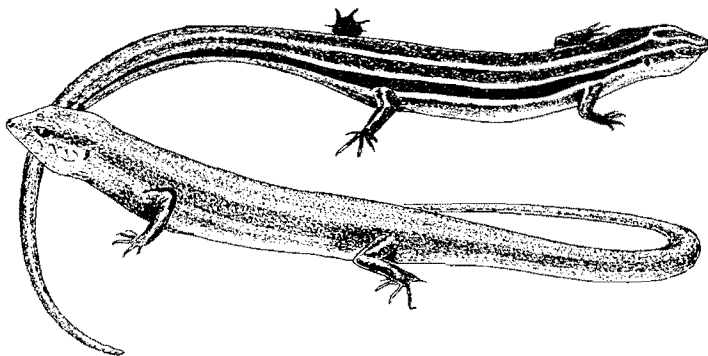
RECOGNITION: All of the skinks have smooth, polished scales and legs which are small in proportion to their bodies. The frontal scale will distinguish the Ground Skink from the other skinks. This is the large scale on top of the head between the eyes. In the Ground Skink, this scale is almost triangular, with the point toward the back of the head. The other skinks belong to a different genus, *Eumeces*, in which the frontal scale is almost as wide at its posterior end as at its anterior end.

HABITAT: The Ground Skink is a ground-dweller, seldom climbing. Most often it is found in the litter of leaves at the base of trees. Although found in deciduous forests, it is most frequently encountered in those with numerous oak trees. It is seldom found in open grassy areas.

HABITS: These little lizards are diurnal but very secretive. They indicate their presence usually by the noise they make in the dried leaves at the base of a tree, as they attempt to escape from sight into the litter. The tiny legs are often dragged along, or may make ineffective strokes, as the lizard moves along snake-like through the leaf debris.

Food consists of insects and other arthropods.

About three eggs are laid in early summer in a rotten log or in the soil under leaf litter.



FIVE-LINED SKINK (*Eumeces fasciatus*)

BROAD-HEADED SKINK (*Eumeces laticeps*)

Family *Scincidae*

RANGE: *U.S.:* The Five-lined Skink is found in eastern U.S.A. from Great Lakes region eastward; southward through south-eastern Nebraska to eastern Kansas and eastern Texas. The Broad-headed Skink has a similar distribution, except does not occur north of a line from central Missouri to Maryland.

Kansas: The Five-lined Skink is found in the eastern one-third of the state; the Broad-headed Skink only along the Missouri line.

DESCRIPTION: *Size:* Five-lined Skink's size is medium, snout-vent length up to 3 inches; tail is not quite twice that length. Broad-headed Skink is large, snout-vent length of males up to 5 inches.

Color and pattern: A pattern of five longitudinal light lines is present in all but adult males, consisting of a mid-dorsal line which forks into two on the top of the head; and two lines on each side. Ground color varies from black in the juveniles (which have a blue tail) to light brown in adults. Males may have red jaws during breeding season. Males also tend to lose the light stripes and appear to be brown with a darker broad stripe on the side. Both of these skinks are alike in coloration and pattern.

RECOGNITION: Five well-defined light stripes should distinguish these skinks from other skinks in Kansas, which have only four or none. Males may be told from the other skinks because of lack of two white stripes on each side (Coal Skink and Prairie Skink) or size (over 2 inches snout-vent) larger than Ground Skink.

Five-lined Skinks have two large scales, one above the other, in front of the ear opening. These are small, single, or lacking in the Broad-headed Skink. Also, the scale row on underside of tail of the Broad-headed Skink is wide (more narrow in Five-lined Skink).

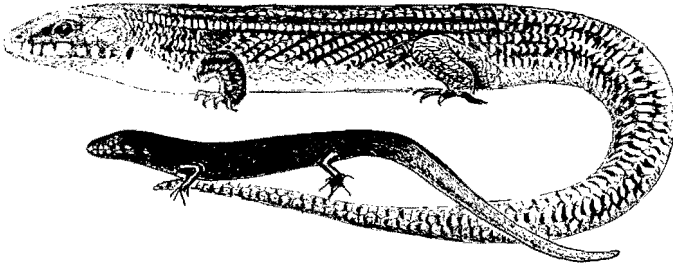
HABITAT: The Broad-headed Skink is restricted to woodlands, where it lives on the ground and up in the trees.

The Five-lined Skink is usually found in woodlands or shaded areas, usually on the ground. It may be found in grassy fields where rocks or other materials form protective cover.

HABITS: The tree climbing behavior of the Broad-headed Skink is well known. These not only go up trees when disturbed, but also may spend a great deal of their time above the ground. Five-lined Skinks remain close to the ground most of the time, on, or around, logs, wood piles and rocks. They are secretive and are most often seen when some piece of ground cover is overturned. The tail is easily detached in this species.

Food consists of insects for the most part, but any small prey may be taken.

Nests are dug under some object. Numbers of eggs vary from 2 or 3 to over a dozen. The female remains in attendance with the eggs, which hatch in late summer.



GREAT PLAINS SKINK (*Eumeces obsoletus*)

Family *Scincidae*

Other names: Gray Skink, Sonoran Skink

RANGE: U. S.: Nebraska southward into Mexico, westward into central Arizona.

Kansas: All of the state, but less common in northwest one-fourth.

DESCRIPTION: *Size:* Large, snout-vent length about 5 inches; tail about one and one-half times that length.

Color and pattern: Adult: Light gray with each scale dark-edged. This gives a "salt and pepper" pattern to the lizard. Underside is white. A yellow wash may appear on sides and occasionally red spots. Young: New born and small juveniles are shiny black with a brilliant blue tail. Several yellow or white spots appear on the lips and head. The young of the Great Plains Skink were thought for many years to be the adults of a different species of skink. This was because of the extreme difference in coloration between the young and the adult.

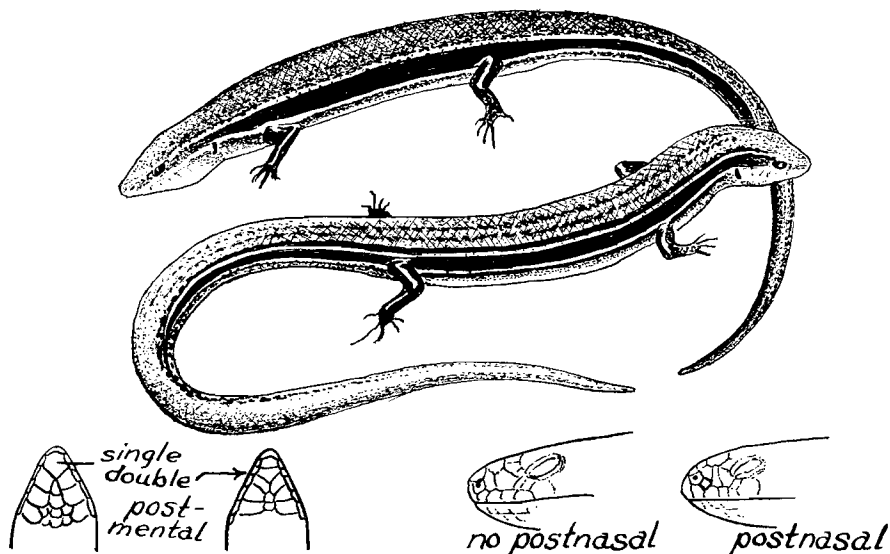
RECOGNITION: The short legs and smooth polished scales indicate that it is a skink. The pattern of young or adult is different from any other lizard in the state. In addition, scale rows on the sides slant upward in this species, but are parallel with the dorsal scales in the other skinks.

HABITAT: This large skink is found on grassy prairie hillsides where it finds protection among rocks. It may be found in forested areas, but usually not far from open clearings. Rocks appear to be necessary for its habitat, but it may be found under trash and occasionally under logs.

HABITS: Not often seen moving about in the open, this lizard is secretive, although it moves about a great deal. It is diurnal. These are large lizards with strong pointed jaws. When it bites, it holds a pinch of flesh with the point of the jaws and twists its body about, causing a painful, but harmless injury. Often, this bite is deep enough to draw blood. Its pugnacious attitude makes it undesirable to handle. The tail is broken easily. Many of these skinks are found with regenerated tails, which may indicate their surly nature, since it is known that they often fight.

Food is mostly insects.

Nests are dug beneath rocks and females remain with the eggs, which may number from eight to sixteen. Young are hatched in late summer.



COAL SKINK (*Eumeces anthracinus*)

PRAIRIE SKINK (*Eumeces septentrionalis*)

Family Scincidae

RANGE: U. S.: The Coal Skink is found only in a few localities in the states to the east and south of Kansas.

The Prairie Skink occurs in a narrow band through eastern Kansas from Canada into south-central Texas.

Kansas: The Coal Skink has been recorded from only a few Kansas counties along the east edge of the state and in the south-east corner.

The Prairie Skink occurs in the eastern one-half of the state.

DESCRIPTION: *Size:* Small to medium, snout-vent length from two and one-half to three inches. Tail up to twice as long, but often about one and one-half times as long.

Color and pattern: Adults: Light gray or brown ground color with a dark stripe on each side. This stripe is bordered on each side by a narrow white line and a narrow dark line. No light mid-dorsal stripe, but in many of the Prairie Skinks there is a double row of dark spots which form a dorsal line with a light center. Young: Black with blue tail; four white lines.

RECOGNITION: Short legs and polished smooth scales indicate that these are skinks. Only these two in Kansas have the very dark lateral stripe with two thin white lines on each side of the body. The Coal Skink has a single post-mental scale and the Prairie Skink has two. (These scales are just behind the chin scale on the underside of the jaw and reach from one lip scale to the lip scale on the other side.) Neither of these lizards has a post-nasal scale (a scale just behind the nostril no bigger than scale containing the nostril). A post-nasal scale is present on the Five-lined and Broad-headed Skinks.

HABITAT: Coal Skinks are usually found on wooded hillsides, usually near water. They are found under rocks or logs.

Prairie Skinks most frequently are found in open areas, particularly in rocky places on grassy prairie hills.

HABITS: Both of these lizards are secretive and are usually discovered when their cover is dislodged. They are ground dwellers and are not found in trees.

Food consists almost entirely of insects and other arthropods.

Nests are dug under logs or rocks, six to ten eggs are laid, and the female guards the nest.

KEEPING LIZARDS IN THE CLASSROOM

Lizards make pets that are easy to care for and provide a source of interest if they are given a proper place to live and a few essential facts noted. Make a screen wire and wood cage with one side of glass, the top supplied with a screen cover. Be certain that there are no holes or cracks present, for lizards can get out of tiny openings. Place a dish for water in the sand covering the bottom of the cage. Place a few sticks and rocks for lizards to climb upon and crawl beneath. Put the cage in a spot where sun can enter through the screen. Do not allow the cage to get too hot or have it positioned so that the lizard cannot get out of the sun. In winter, it may be necessary to warm the cage with a light bulb. Lizards will not feed until their body temperature reaches a certain point. Place the correct food items needed by the particular species into the cage frequently. It is probably better to use local species of lizards, but other kinds can be purchased. Only a few lizards should be kept together. Usually two or three of one kind are better than two or three different kinds together. Sometimes certain lizards eat other lizards and often eat their own young.

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This is the last issue of *The Kansas School Naturalist* for the 1964-1965 school year. The next issue will be that of October, 1965. Since *The Naturalist* is mailed second class it will not be forwarded. If you plan to move to a new address and you still wish to receive each issue you must notify us of a change of address. Just send a post card with your name, 1965-1966 address, and old address to the editor.

The text and drawings of this issue of *The Naturalist* were prepared by Dr. Robert Clarke, Associate Professor of Biology at the Kansas State Teachers College.

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