



Sidewinder

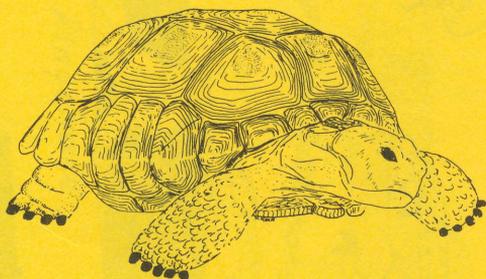
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AMPHIBIANS AND REPTILES

OF JOSHUA TREE NATIONAL MONUMENT

Text by Jerry Moore

Drawings by Vic Koch



Desert Tortoise

JOSHUA TREE NATIONAL MONUMENT

Joshua Tree National Monument is one of the areas administered by the National Park Service, a bureau of the U.S. Department of the Interior. The Monument was established to preserve the richness and variety of the resources of this desert area. Preservation extends to all natural, archaeological and historic objects, so that visitors today and for generations to come may enjoy this desert in its natural state.

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*Joshua Tree
National Monument*

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Chuckwalla

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a non-profit organization pledged to aid in the preservation and interpretation of the scenic and scientific features of the Monument.

INTRODUCTION

Reptiles and amphibians are among the most interesting and unusual animals found in our deserts. Many superstitions and misconceptions have resulted from a lack of knowledge of them; most are rarely seen because of their shy nature and habits. These, like all plants and animals, are protected within Joshua Tree National Monument. If you observe and do not disturb them or their habitats, they will remain for others to enjoy.

The measurements mentioned in the descriptions and accounts refer to: amphibians and lizards—snout to vent length excluding tail; turtles—shell length, front to rear; snakes—total length including tail.

AMPHIBIANS

Amphibians are animals that spend part of their lives on land and part in the water. "Frog" is the name given to all tailless amphibians and "toads" are frogs that are most active on dry land some distance from water.

RED-SPOTTED TOAD — *Bufo punctatus* (1½"-3") has rusty or buff-colored warts commonly set in small black splotches giving it a spotted appearance; is primarily found in rocky canyons or gullies with springs or seeps; burrows into moist ground to withstand brief periods of drought.

CALIFORNIA TREEFROG — *Hyla californiae* (1"-2") is gray with dark blotches and usually no eyestripe; frequents palm oases, springs and intermittent stream courses; call is a duck-like quack.

REPTILES

Modern reptiles have descended from ancestral forms that were the dominant animals on the Earth 65 million years ago. Only five groups of reptiles survive today and only the snakes and lizards appear to be thriving. They are the most successful groups of animals to adapt to desert environments. Mammals and birds descended from earlier extinct forms of reptiles.

DESERT TORTOISE — *Gopherus agassizi* (6"-14½") has a high, rounded shell with pronounced growth rings which increase with age but are not a reliable age indicator; lives in a group burrow during winter hibernation and an individual one during summer to escape extreme temperatures; can drink up to 41% of its body weight in one drink, storing the water in its urinary bladder.

BANDED GECKO — *Coleonyx variegatus* (2½"-3") is pink, cream or yellowish-colored with brown crossbands on its body and tail, bands may be broken to form spots; differs from

other geckos in lacking foot pads and having ordinary eyelids.

ZEBRA-TAILED LIZARD — *Callisaurus draconoides* (2½"-3½") is light-colored with two longitudinal rows of dark spots on its back that give way to dark bands on the tail; is fast, maneuverable, often runs on its hindlegs curling its tail forward to act as counterbalance; common in sandy areas.

COLLARED LIZARD — *Crotaphytus collaris* (3"-4½") is darkish with two black bars encircling the shoulder area; male exposes orange-yellow throat color in mating displays; is agile, swift-footed and an excellent jumper; prefers rocky areas; feeds on small snakes, other lizards and insects.

LEOPARD LIZARD — *Crotaphytus wislizenii* (3½"-5") is grayish with large dusky spots and whitish crossbars; can lighten or darken in color to blend in with background; is swift, agile and extremely wary; will bite if aroused or captured; found in sandy or gravelly soil of brushy desert areas; feeds on insects and other lizards and is occasionally cannibalistic.

DESERT IGUANA — *Dipsosaurus dorsalis* (4"-5") also known as "desert crested lizard"; is grayish with a barred or network pattern of brown to reddish-brown; has a small head, rounded body and a tail almost twice the body length; is active during daytime; feeds on plants and will climb to obtain food; plugs its burrow at night as protection against nocturnal snakes.

COAST HORNED LIZARD — *Phrynosoma coronatum* (2¼"-4") also known as "horny toad"; color generally is close to predominant color of surrounding soil; has two prominent "horns" at the back of the head, projecting spines on the back and two rows of projecting fringe spines along the side of the body; burrows to cover body for protection from heat and predators; will attack and bite when frightened.

DESERT HORNED LIZARD — *Phrynosoma platyrhinos* (2¾"-4") is desert counterpart of coast horned lizard but is lighter in color; has relatively short "horns" and spines with one row of projecting fringe spines along side of body; is most common around dunes or washes; feeds on insects.

When excited, either horned lizard may harmlessly squirt blood from a broken vessel in its eye.

CHUCKWALLA — *Sauromalus obesus* (5½"-8") is dark-bodied; often seen basking in the morning sun in rocky areas; will seek narrow crevices when alarmed and inflate its lungs to wedge itself tightly; the meat was eaten by Indians.

DESERT SPINY LIZARD — *Sceloporus magister* (3½"-5½") is stocky, has large pointed scales; is usually light-colored and marked by a wedge-shaped pattern on each side of neck; is active, agile and unusually wary; feeds on insects and other lizards; is one of the most common lizards of the High and Low Deserts.

WESTERN FENCE LIZARD — *Sceloporus occidentalis* (2¼"-3½") is darkish, usually marked with blotches of black arranged in two rows down back; prominent blue patch on throat and belly is exposed by male in mating or territorial displays; found in a great variety of habitats, except where extremely arid.

MOJAVE FRINGE-TOED LIZARD — *Uma scoparia* (2¾"-4½") is light-colored with conspicuous black spot on each side of the belly; toes are fringed with projecting pointed scales that aid in running on loose sand; has been clocked at 23 mph and can dive and "swim" into the sand using its hind feet together with body action.

LONG-TAILED BRUSH LIZARD — *Urosaurus graciosus* (1⅞"-2¼") is gray but capable of marked color change; both sexes may have reddish-orange to yellow throats; is slim-bodied with a tail often more than twice as long as head and body; lies on branches of shrubs or trees and eats insects and plants.

SIDE-BLOTCHED LIZARD — *Uta stansburiana* (1½"-2½") is brown with a blue or black blotch on side of chest; back is often speckled or blotched; active during day; feeds on insects; is most common lizard species in the Monument.

DESERT NIGHT LIZARD — *Xantusia vigilis* (1½"-1¾") is olive, gray or dark brown with small dark spots; is secretive, found chiefly beneath fallen Joshua tree branches; feeds on insects.

GILBERT'S SKINK — *Eumeces gilberti* (2½"-4½") is olive to olive-brown with light and dark stripe on back which varies with age and locality; tail is often 1½-2 times head-body length and may become brick-red or orange with age; feeds on insects and spiders; not found in extremely arid areas.

WESTERN WHIPTAIL — *Cnemidophorus tigris* (2⅞"-4") is gray to brown with black spots, bars or network; tail is often 2½ times head-body length; is fast, agile; feeds on insects, spiders, scorpions and on rare occasions is cannibalistic.

Most lizards have moveable eyelids, external limbs and external ear openings while most snakes do not; however, there are exceptions in both groups.

WESTERN BLIND SNAKE, WORM SNAKE — *Leptotyphlops humilis* (9"-16") named for its resemblance to an earthworm; is slim with blunt head and tail; is brown to flesh-colored on back, cream or pink on underside; prefers habitats with soil moisture; feeds on soft-bodied insects and ant larvae.

ROSY BOA — *Lichamur trivirgata* (24"-42") is heavy-bodied with smooth, shiny scales; is gray, beige or rosy-colored; prefers oases

or intermittent streams, although it does not require permanent water; is nocturnal; feeds on small mammals and birds, killing them by constriction.

GLOSSY SNAKE — *Arizona elegans* (30"-54") is sometimes called the "faded snake" because it resembles a bleached or faded gopher snake; is excellent burrower and is found in sandy or loamy soil; is primarily nocturnal; feeds on small mammals, lizards and snakes.

WESTERN SHOVEL-NOSED SNAKE — *Chionactis occipitalis* (10"-17") is whitish with alternating dark brown to black crossbands and orange to red saddles on back; prefers sandy areas where it uses its shovel-shaped snout to "swim" through the sand; feeds on small insects, spiders and scorpions.

NIGHT SNAKE — *Hypsiglena torquata* (12"-26") is gray or beige with dark gray or brown spots and usually a pair of dark brown blotches on neck; is nocturnal; feeds on frogs and lizards, killing them by injecting venom through enlarged grooved teeth at back of jaw. The bite is not known to be dangerous to humans.

COMMON KING SNAKE — *Lampropeltis getulus* (30"-82") is shiny, smooth-scaled with alternating black and white or yellow rings; kills by constriction and feeds on small mammals, frogs, birds and their eggs and snakes, including rattlers; appears to be immune to rattlesnake venom as are many other snakes; will vibrate tail, hiss and strike viciously when frightened or bothered; found over most of the Monument.

COACHWHIP, RED RACER — *Masticophis flagellum* (36"-72") has slender body and tail, scales on tail give appearance of braided whip; is variably colored, generally tan, gray or pink with black crossbars on neck. Western folklore had coachwhips viciously attacking and whipping people, usually by wrapping their bodies around the victim's legs and thrashing them soundly with their tails. Actually coachwhips have never been known to use their tails in offense or defense.

STRIPED RACER — *Masticophis lateralis* (30"-60") is plain black or dark brown with lighter tones toward tail and conspicuous yellow stripe on each side from back of head to vent; is fast-moving and a good climber; often can be seen foraging with head held high off the ground; feeds on small mammals, frogs, lizards and other snakes.

SPOTTED LEAF-NOSED SNAKE *Phyllorhynchus decurtatus* (12"-20") has a blunt snout formed by a much enlarged rostral (nose) scale; is pale, blotched; is secretive and nocturnal; is found in sandy, gravelly areas; uses nose in burrowing; feeds on small lizards, preferring banded geckos and their eggs.

GOPHER (BULL-BLOW-) SNAKE — *Pituophis melanoleucus* (36"-100") is large yellow or cream-colored with black, brown or reddish-brown blotches on body and tail; often mistaken for a rattlesnake because of black markings; active

in daytime except for summer months; feeds on rodents, rabbits, small lizards and birds; found almost everywhere.

LONG-NOSED SNAKE — *Rhinocheilus lecontei* (20"-40") is slim, gradually tapered; is speckled with black saddle markings fringed with white, pink or red markings between black, white or cream-colored on underside; found in desert brush or scrublands at twilight or night; feeds on small mammals, lizards and their eggs, and insects.

WESTERN PATCH-NOSED SNAKE — *Salvadora hexalepis* (24"-48") has large patch-like rostral scale which can be used to pry into crevices and under rocks; has broad yellow or beige dark-bordered stripe down back, is gray to brown otherwise; found in brushy desert, creosote and Joshua tree habitats; is swift moving and active during daytime; feeds on small mammals and lizards.

WESTERN BLACK-HEADED SNAKE — *Tantilla planiceps* (7"-15") has black head for 1½-3 scale rows back of nose with a narrow whitish neck band, is brown to gray otherwise, is active at night and dusk; is secretive in habit and is found among rocks and scattered brush; eats worms, slugs and ground-dwelling insects.

CALIFORNIA LYRE SNAKE — *Trimorphodon vandenburghi* (24"-43") also known as "cat-eyed snake"; is light brown, buff or gray with a row of hexagonal-shaped dark brown blotches, usually 28-43 in number; has lyre or V-shaped mark on head; frequents massive rock-piles, preying upon small mammals, lizards and bats; immobilizes prey with venom injected by enlarged grooved teeth at back of jaw or by constriction. A painful, but not serious wound would be produced in a human if the snake was allowed to chew. The venom is thought to be blood-destroying.

RATTLESNAKES

Rattlesnakes have excited the imagination of Americans since the time of first settlement. The myths and folklore concerning rattlesnakes have arisen through repetition of exaggerations, inaccurate field observations and tall tales. Most folklore is harmless and entertaining; however, there are many dangerous myths regarding the treatment of snakebite, from drinking whiskey to eating portions of the snake that made the bite. Correct first aid and proper treatment should be known to anyone venturing into an area where venomous snakes are found. The best treatment is getting to a hospital or medical help as soon as possible. Proper identification of the specific kind of rattlesnake is essential, as type and potency of venom varies.

WESTERN DIAMONDBACK RATTLE-SNAKE — *Crotalus atrox* (30"-89") also known as "coontail rattler," it is the largest western species; has brown diamond-shaped or hexagonal markings on its back and black and white rings on the tail; is most active at night or dusk; feeds on rodents, rabbits, birds and lizards; is perhaps

the most dangerous rattlesnake because of its size, boldness and potency of venom.

Cowboys used to coil horsehair rope around bedrolls to discourage rattlesnakes, but they can and will cross horsehair rope.

SIDEWINDER, HORNED RATTLESNAKE — *Crotalus cerastes* (17"-31") is cream, tan, pink or gray without a conspicuous pattern; has modified scales above the eyes which form "horns"; can move with agility and surprising speed sideways with its body moving in an S-shaped curve; found in predominantly shady areas and often seen coiled near the base of a creosote bush.

Rattlesnakes do not always rattle a warning before striking. They can swim and can bite under water.

SPECKLED (MITCHELL'S) RATTLE-SNAKE — *Crotalus mitchelli* (24"-52") is light-colored with salt-and-pepper speckling on body, darker rings on tail and vague hexagonal, hourglass or diamond markings; prefers rocky and sandy areas and is active at night; feeds on small mammals and lizards; is alert, nervous and very dangerous when cornered.

Rattlesnake venom dries rapidly outside venom glands and soon loses its potency when exposed to air.

MOJAVE RATTLESNAKE — *Crotalus scutulatus* (24"-51") has well defined diamond or hexagonal markings on back, is dark green to brown overall; has prominent white or yellow stripe from behind eye to behind corner of mouth; found mainly in High Desert and lower mountain slopes; is very dangerous because venom is both a hemotoxin and a neurotoxin.

Rattlesnakes will not bite to kill themselves or to avoid capture. They are resistant to their venom and any bite made would probably be accidental.

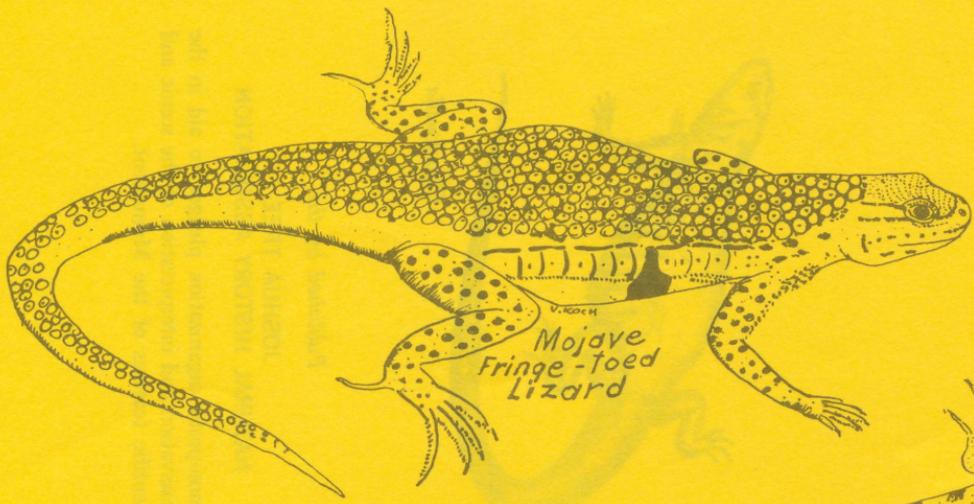
WESTERN RATTLESNAKE — *Crotalus viridis* (15"-62") is blotched with light stripe behind eye extending to corner of mouth, blotches give way to crossbands on tail; found in High Desert around rocky outcrops and ledges; feeds on small mammals and amphibians.

Rattlesnake venom is used in making antivenins for treatments of snakebites and is also used in blood coagulants in treatment of hemophilia.

RED DIAMOND RATTLESNAKE — *Crotalus ruber* (30"-65") is the tan, pink or reddish relative of the western diamondback; found in rocky brushland of mountains and hillsides; is mild-tempered; is relatively less dangerous because of a less potent venom.

Snakes "smell" by picking up particles on the ground or in the air with their tongues, and bringing these particles into their mouth where a sensitive organ distinguishes smells and scents.

No snake is known to feed solely on plants. Some snakes have been known to feed on "carrion", or dead animal matter.



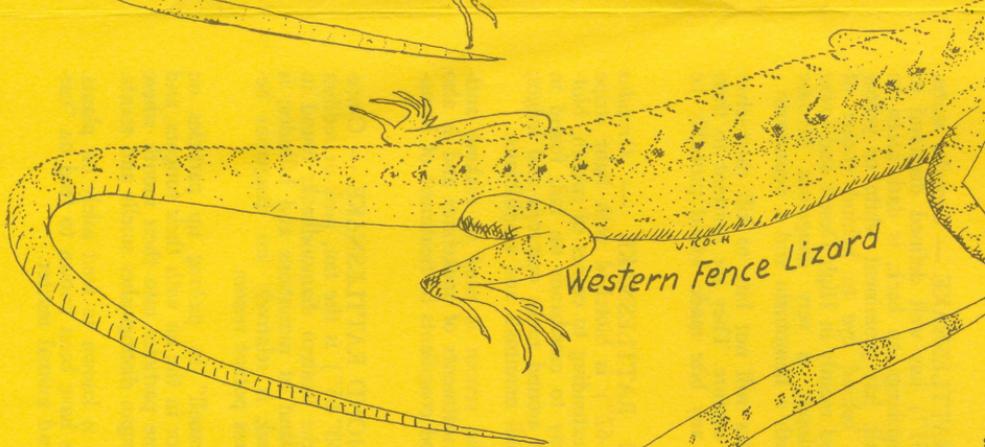
Mojave Fringe-toed Lizard



Desert Night Lizard



Collared Lizard



Western Fence Lizard



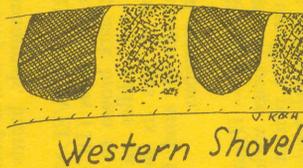
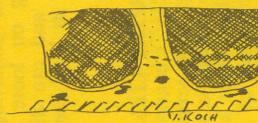
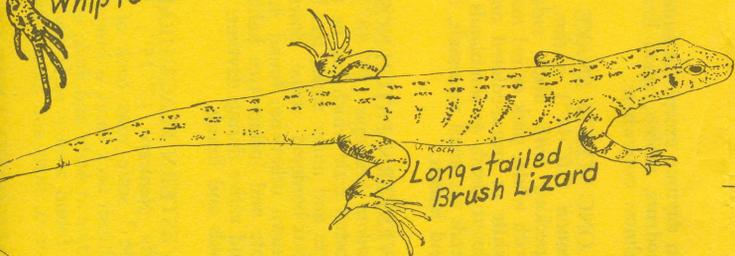
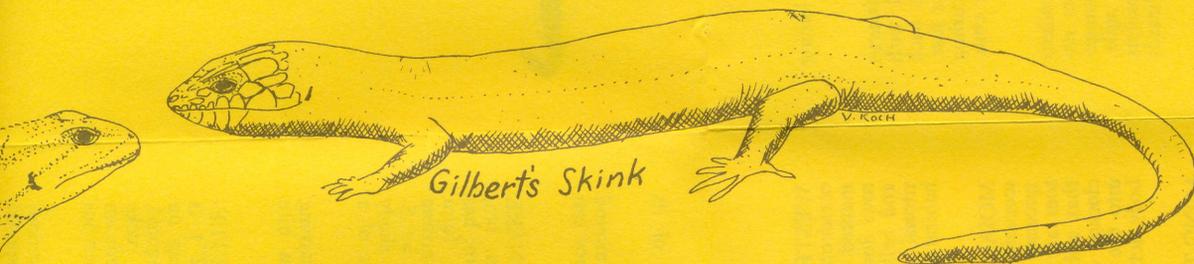
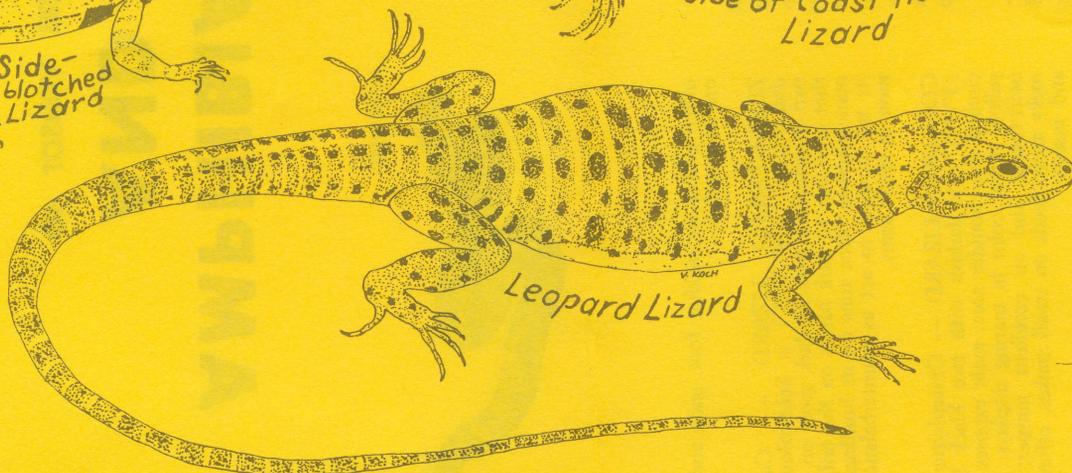
Banded Gecko

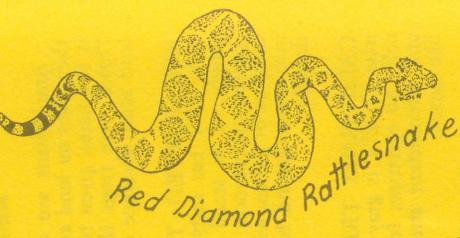


California Tree Frog

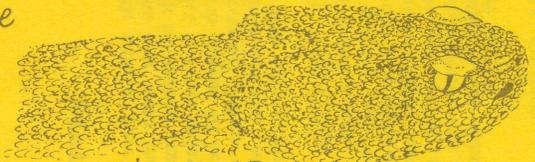


Red-spotted Toad





Red Diamond Rattlesnake



Red Diamond Rattlesnake



Speckled Rattlesnake



Mojave Rattle Snake



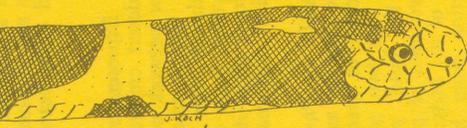
Mojave Rattlesnake



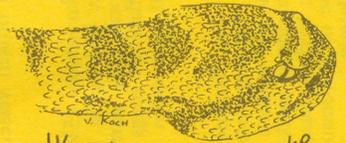
Speckled Rattlesnake



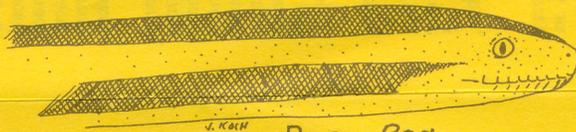
Western Rattlesnake



Sonoran Kingsnake



Western Rattlesnake



Rosy Boa



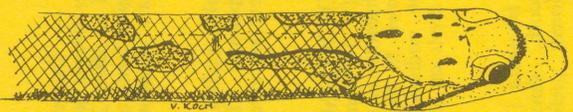
California Lyre Snake



Spotted Leaf-nosed Snake



Long-nosed Snake



Glossy Snake



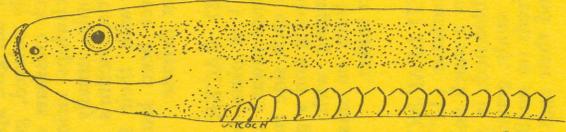
Western Blind Snake



Night Snake



L-nosed Snake



Western Patch-nosed Snake



Striped Racer



Western Black-headed Snake