

Desert Tortoise

Gopherus agassizii

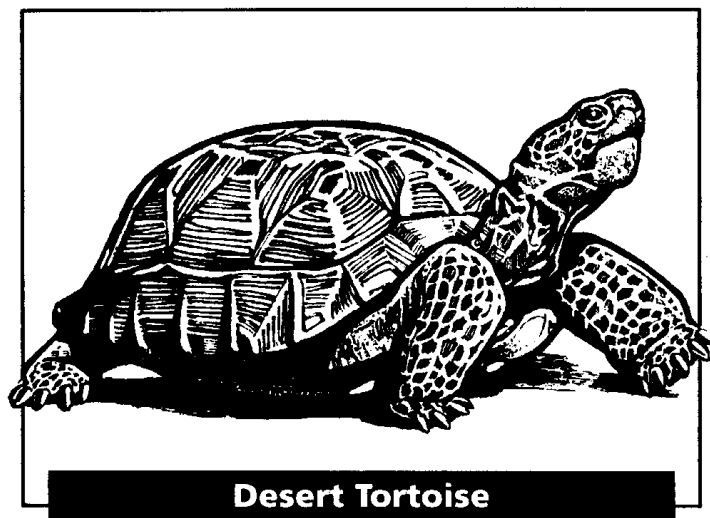
The Desert Tortoise is a fairly large land-dwelling species of turtle. It can reach up to 15 inches in shell length, and has a domed, oval carapace (upper shell) covered with shields that usually have conspicuous growth lines. Carapace color is generally brown, gray, or horn-colored without any distinctive pattern, and the plastron (bottom shell) is yellowish or brownish. The heavy front legs are covered with large, conical scales, and when drawn in to the shell they completely cover the head and the front opening of the shell. The hind limbs are stocky and elephantine. The tail is short.

The desert tortoise is found from southern Nevada and extreme southwestern Utah southward through southeastern California and southwestern Arizona to northern Sinaloa, Mexico. It is also found on Tiburón Island in the Sea of Cortez (Gulf of California).

Desert Tortoises are completely terrestrial (living on land). They occur in desert and semi-desert habitats: creosote bush flats and hillsides of saguaro and palo verde to up into juniper woodland; in Mexico into thornscrub and the lower reaches of evergreen oak and juniper woodlands. They live where there is firm but not hard ground for burrowing, rocky overhangs, or exposed, eroded caliche layers in the sides of washes and arroyos, for shelter.

Desert Tortoises are vegetarians, eating a variety of grasses, herbs, and cacti. They are active in the spring when many annuals and grasses have sprouted, and again in the summer monsoon season. One to 12 (often 4 to 6) eggs are laid in late spring to mid-summer, buried in sand or soft soil where the temperature and moisture levels are right for incubation, often near the mouths of the adult female's sheltering burrow. The female does not take care of her eggs or young. Hatchlings emerge from 100 to 120 days after egg-laying, but they may not come out into the environment until the following spring.

Desert Tortoises are protected by law in every state they occur in. In addition, the Mohave Desert population is listed by the federal government as Threatened under the Endangered Species Act.



Desert Box Turtle

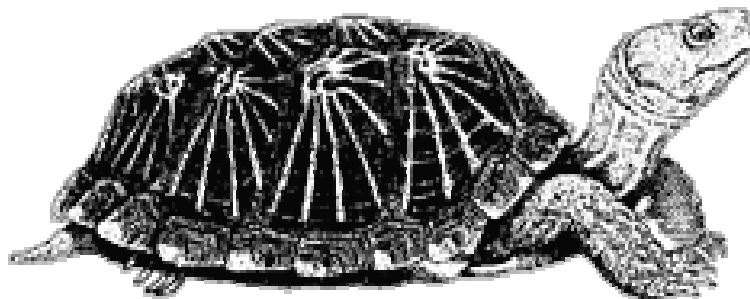
Terrapene ornate luteola

The Desert Box Turtle is a largely terrestrial turtle that does not, however, shun water. It grows to about 5 or more inches in carapace (upper shell) length. The carapace is highly domed, and is usually marked with lines or strings of markings radiating from the center of each scute (shell scale) toward the edges; these markings are black or dark brown on a background color of yellow or horn color. Similar markings may be found on the plastron (bottom shell). Markings become faded with age and may eventually be lost. Often older turtles are plain yellow or straw-colored.

The plastron is hinged and can be drawn up tightly against the carapace, completely enclosing the turtle in its shell (and accounting for the “box” in its common name).

Although called a “desert” box turtle, it is primarily a prairie or grassland species, also occurring in open woodland and the thornscrub of the Arizona Uplands. Box turtles are omnivorous, eating both plants and animals. Their diet consists of insects (grasshoppers, beetles, crickets, caterpillars) and other invertebrates such as earthworms; reptile eggs; carrion (dead animals); berries, melons, cactus fruits and pads, tender shoots, and leaves. In cattle pastures they will burrow into the “cow pies” in search of beetles and other insects. The activity of these turtles is stimulated by rainfall, and they will often soak in puddles or small ponds when the opportunity arises.

Box turtles lay 2 to 8 eggs in the period from May to August. The eggs hatch about 70 days after being laid. As in most other reptiles, the baby turtles are on their own; there is no parental care.



Tiger Salamander

Ambystoma tigrinum

The Tiger Salamander is an amphibian; it has no scales or claws, and must live where it can find sufficient moisture to keep from desiccating (drying out). Its eggs are laid in water and the larvae must live in water and breathe through gills. They metamorphosize (transform) into adults that breathe using lungs and to some extent through their skin (which is another reason it must be kept moist), As adults they are no longer restricted to open water, but they still must live in moist situations.

Tiger salamanders are large (to 10 inches or more in length) stocky salamanders with small, protruding eyes and a broad, rounded snout. Their color varies greatly depending upon where they are found and their age. They may have stripes, spots, bars or reticulations (net-like patterns) of black or dusky on a yellowish, greenish or grayish background, or they may be plain greenish or olive with faint markings.

Tiger salamanders are found throughout much of North America, from the east to west coasts and from southern Canada to northern Mexico. It is the only salamander found in Arizona, where it ranges from desert scrubland to grasslands, oak and juniper woodlands, to mountain meadows and forests. It usually frequents the quiet water of ponds, reservoirs, lakes, temporary rain pools, stock ponds or water troughs. Adults spend most of their time underground in the burrows of prairie dogs, ground squirrels, gophers, and other burrowing animals. Spring and summer rainfalls spur its activity and breeding, and adults will migrate at night or during overcast or rainy days from their underground retreats to bodies of water. Young eat aquatic insects, worms, and other invertebrates, or some may be cannibalistic and eat their own kind as well as tadpoles of frogs and toads. Adult tiger salamanders eat a variety of insects (beetles, grasshoppers, crickets, caterpillars), earthworms, spiders, and other invertebrates, and may occasionally eat small snakes or lizards.

Tiger salamander larvae, often called “water dogs,” have been sold for many years as living fish bait, and have been transported to many areas by fishermen where they did not originally occur. The result of this activity is that there are populations of tiger salamanders in many ponds and reservoirs where they were not found before. In some cases this has created competition with other native species and “pollution” of the gene pool of resident tiger salamander populations.



Chuckwalla

Sauromalus sp.

Chuckwallas are large, heavy-bodied, small-scaled lizards. Three fairly common species occur within the Sonoran Desert Region (two other species have been described, each endemic [originated and found nowhere else] on islands in the Gulf of California).

The Common Chuckwalla, *Sauromalus obesus*, grows up to 14 or more inches long (including its tail), and is a large, flat, often dark-colored lizard (although adult males may have red backs and whitish tails) with loose folds of skin on the neck and sides. The skin on the back is covered with small granular scales, and the tail has a broad base and a blunt tip. It is found throughout the California desert, southern Nevada and southwestern Utah, south through Baja California to La Paz, and south-central Arizona to Guaymas, Sonora, Mexico. It is found on Tiburón Island and San Marcos, Danzante, Santa Cruz, San Diego, San Francisco, San José, Partida Sur, and Espiritu Santo Islands in the Gulf.

The Spiny Chuckwalla, *Sauromalus hispidus*, grows to more than 25 inches long. The limbs, tail and neck are very spinose, and it is a uniform dark brown or black above. It is found on Isla Ángel de la Guarda, most islands in Bahía de los Angeles, Isla San Lorenzo Norte, and Isla San Lorenzo Sur.

The San Esteban Island Chuckwalla, *Sauromalus varius*, also grows to more than 25 inches in length. It is light orange to cream brown with large, irregular charcoal blotches. It is endemic (originated and found nowhere else) on Isla San Esteban, although it has been introduced to a satellite island (Roca Lobos of Isla Salsipuedes).

Chuckwallas frequent rocky outcrops, dry canyons and washes. They are largely vegetarians, eating a variety of flowers, leaves, cactus fruits, berries, and succulent stems, although they occasionally eat some insects, too. When threatened, chuckwallas will retreat into rock crevices and inflate their bodies with air, wedging themselves into their retreat. Eggs (5 to 16) are laid in June to perhaps August. Sometimes a female may skip a year or two in egg-laying.



Gopher Snake

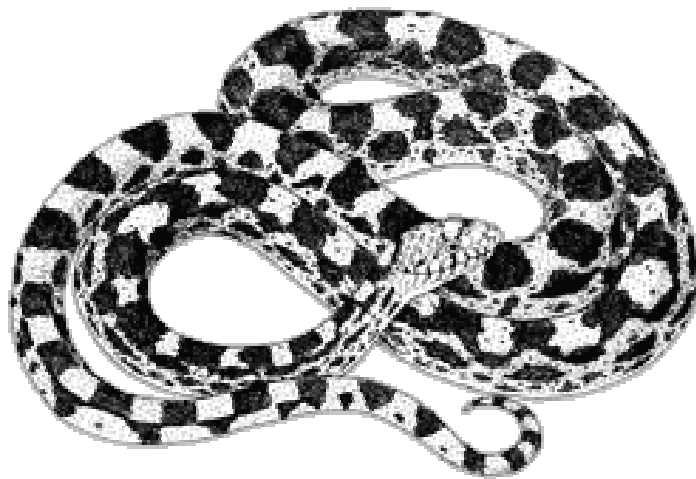
Pituophis catenifer

The Gopher Snake is a large snake, growing to 9 feet long in some parts of its range, although 4 to 6 feet is common. It is found from the Pacific Coast east to Indiana, from southern Canada to Central Mexico, on the Baja California Peninsula, and on islands off the coast of southern California as well as islands in the Gulf of California. It occurs in a variety of habitats from sea level to over 9,000 feet in elevation. In general it is a yellowish or cream-colored snake with black, brown, or reddish brown blotches, usually more widely spaced on the tail than on the body, and smaller secondary blotches on the sides. It is called Bullsnake by many people.

Gopher snakes are carnivores and eat a large variety of small mammals (rodents, rabbits, moles), birds and their eggs and nestlings, and occasionally lizards and insects. It kills its prey by constriction, looping its body around the prey and tightening its grip until the animal dies of suffocation and heart failure. When it is disturbed, a Gopher Snake may flatten its head, hiss loudly, and vibrate its tail. This behavior has sometimes caused it to be mistaken for a rattlesnake and killed.

Gopher snakes lay one or two clutches of 2 to 14 eggs, in burrows rotting logs, or other places where the temperature and humidity will facilitate the incubation. Eggs hatch 52 to 85 days later, and the young snakes are on their own; there is no parental care of eggs or hatchlings. At about 12 inches in length, the newly-hatched young are already big enough to capture and eat lizards, insects, and baby mice.

Gopher snakes are recognized throughout their range as beneficial predators upon rodent (rat, mouse, and vole) pests to crops and gardens. Even a small snake can eat 8 baby mice in a week, and an adult can consume similar numbers of larger animals. It is the smart farmer or rancher who protects the Gopher Snake on his land, for he or she knows that it is saving them huge amounts of money in pest-control costs.



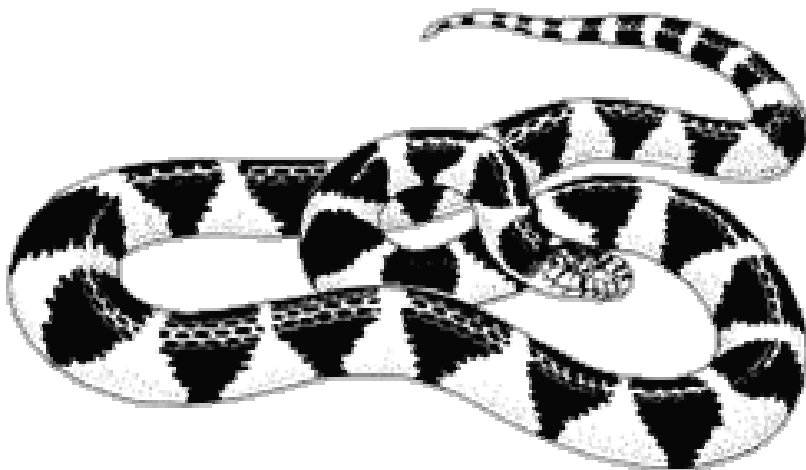
Common Kingsnake

Lampropeltis getula

As its name implies, the Common Kingsnake is indeed common throughout much of the United States and into Mexico. Found from coast to coast and from New Jersey to Florida in the east, Oregon to Baja California in the west, and to northern and mid Mexico in the south, it occurs in a variety of colors and patterns throughout this large range. In the Southwest its generally consists of alternating rings of plain black or brown to dark brown and white or yellow, with the pale bands broadening toward the belly. The light bands may give way to various amounts of light speckling on a dark background, and some individuals are entirely speckled. In southern Arizona, one form is entirely black with no light coloration, and in southern California and Baja California individuals with a light dorsal stripe, entire or broken, may be found.

The Common Kingsnake is capable of growing to lengths of 85 inches, although commonly specimens will range from 36 to 60 inches. The snake has smooth, shiny scales (the name *Lampropeltis* means “shining skin”). Found in nearly every habitat from sea level to over 7,000 feet, the kingsnake is equally diverse in its eating habits. All snakes are carnivorous, and the Common Kingsnake eats other snakes (including rattlesnakes), lizards, small turtles, reptile eggs, frogs, birds and their eggs, and small mammals. Their ease of recognition and reputation for eating rattlesnakes has afforded them a popularity among many people that most other snakes do not enjoy.

The Common Kingsnake lays clutches of 2 to 24 (usually 6 to 12) eggs in the period from May to August. These hatch 47 to 85 days later. As is the case with most snakes, there is no parental care of either eggs or newly-hatched young.



Sinaloan Milk Snake

Lampropeltis triangulum sinaloae

The Sinaloan Milk Snake is a variety of the Milk Snake, *Lampropeltis triangulum*, that is found in many varieties of colors and patterns from most of the United States east of the Rockies (and a few to the west), most of Mexico, all of Central America, and northern South America. The Sinaloan subspecies (geographic race) is found from the southwestern corner of Sonora southward through the coastal plain and foothills of Sinaloa to near the southern border of Nayarit, and up the Rio Fuerte into southwestern Chihuahua, Mexico.

Growing to about 48 inches long, the Sinaloan Milk Snake is a serpent of remarkable beauty. It has a black head and snout with varying amounts of white speckling on the snout. It has narrow white, cream or yellowish bands (of black-tipped scales) bordered on both sides by narrow black bands, interspersed with these are wide red bands, about three times as wide as the black-white-black ring combinations. All of the rings completely encircle the body. This subspecies was described in 1978, and because of its spectacular colors has become a favorite with herpetoculturists, people who breed and raise snakes in captivity.

Milk snakes, a kind of kingsnake, have similar breeding and egg-laying habits. Like most other snakes, the female Sinaloan Milk Snake will find a place with suitable temperature and humidity to lay her eggs, but will otherwise have no interaction either with the eggs or young. Milk snakes feed on lizards, other snakes, birds and bird eggs, frogs, and small mammals. Like all other snakes they are predators and carnivores, and play important roles in the ecosystem and the “balance of nature.”

