

# Some Common Reptiles

By E. LAURENCE PALMER

ORDINARILY, our common reptiles are either liked tremendously or much despised by those who have any interest in Nature. As with many things, they are liked best by those who know them best.

The major groups of reptiles include the turtles, the snakes and the lizards. Members of each group are here pictured and described. A general consideration of the reptiles as a group is given at the end of this article.

## The Turtles

IT is difficult to generalize safely on these interesting animals. One widely-used book for children says that they are harmless—yet an alligator snapper, of our southern states, with one snap of powerful sharp-edged jaws, can remove one's finger, and the soft-shelled turtle can inflict a serious bite.

The impression is widely prevalent that all turtles live to great ages. This is undoubtedly true of some of the larger species, and there is reliable evidence that some of the smaller kinds reach at least forty years.

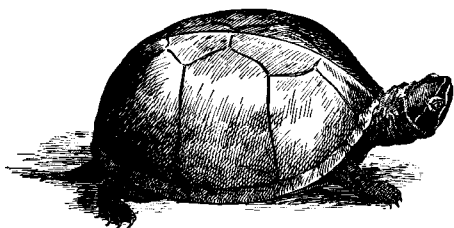
According to one ancient myth, the earth was supported by four elephants that stood on the back of a giant tortoise, which moved slowly and steadily about, causing the apparent movement of the heavens above. Today, in China, sacred turtles are fed by superstitious persons, who believe they are buying favors with the gods.

In literature, turtles have found a place for themselves. Gilbert White in his *Natural History of Selborne* made one turtle famous by recording its activities in his garden. Dallas Lore Sharp made another immortal by writing "Turtle Eggs for Agassiz". And Raymond Ditmars has published many interesting accounts of turtles he has

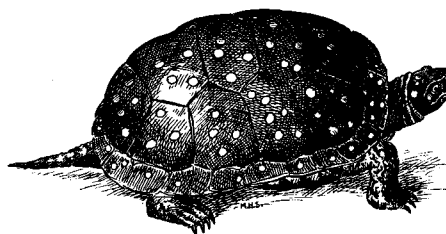
known. In imaginative literature turtles are used to represent many traits, from stolid conservatism and canny intelligence to recklessness and dumb buffoonery. The way Br'er Terrapin won his freedom from his enemy, by insisting that he be thrown anywhere but in the water, credits the animal with intelligence belied by many of its real acts. Yet no one can question the instinct with which turtles hide their eggs in territory unknown to them most of the year.

In fable, the hare and the tortoise figure prominently, but few fictitious turtles have won more friends in recent years than the turtle in Walt Disney's "Snow White and the Seven Dwarfs". We all hope that the live turtle that posed for the part in that picture—and who is reputed still to be wandering about the Disney Studio—may live a long and a happy life.

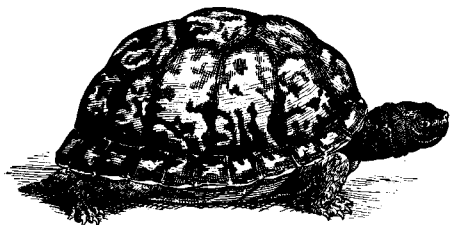
The oldest known turtles of the earth are found in the Upper Triassic beds and looked not much unlike our present-day alligator snapper. While the modern leatherback turtle may reach a length of six feet, in Cretaceous times the inland seas of America boasted turtles twice as long and weighing more than three tons.



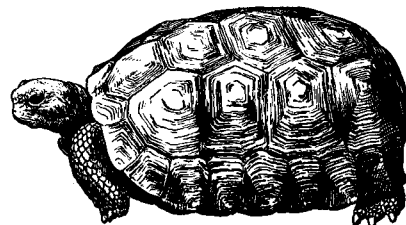
MUSK  
TURTLE



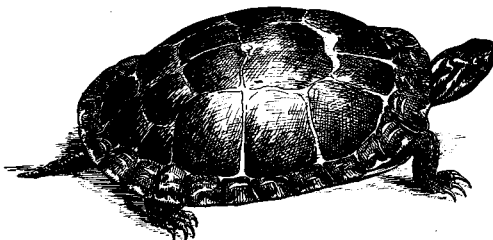
SPOTTED  
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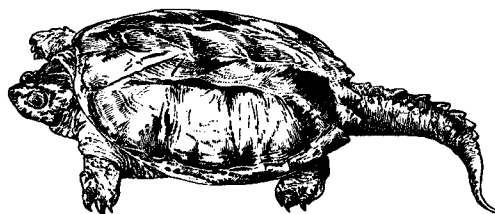
BOX  
TURTLE



DESERT  
TORTOISE



PAINTED  
TURTLE



SNAPPING  
TURTLE

# The Snakes

**M**ORE people get their impressions of snakes from folk-lore and superstitions than from Nature facts, or from the snakes themselves. The result is unfortunate for the snakes, and, in some cases, for ourselves.

Virgil wrote, *Latet anguis in herba*, and ever since snakes in the grass have boded ill. Even in *Genesis*, where the goodness of the world is portrayed, the poor serpent gets what may have been unfair publicity and blame.

Whether we study the snakes of Medusa's head, or those of our backyard, we will have a dynamic experience, and we will always find doubting Thomases who will question the conclusions we may reach about snakes through our own experiences. "Seeing snakes" is not normally considered a happy experience, but some writers have been kindly in their treatment of the animals. One who wrote that "words" were "like a cloud of winged snakes" may not have thought of them in an unkindly way, and Shakespeare expressed some sympathy for them when he said something was as "comfortless as frozen water to a starved snake".

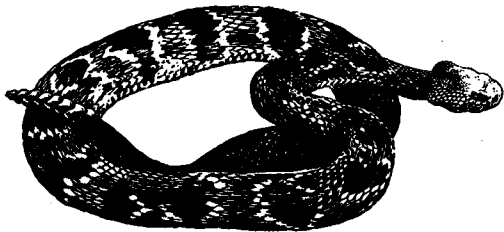
Kipling, through his *Jungle Books*, gave many of us an attitude towards many forms of wild life, and in them he was fair to snakes. The kindly python who helped Mowgli, and the villainous cobra, and Rikki-tiki-tavi, give this group of reptiles an even break.

There are probably few groups of animals on which it is more dangerous to generalize than on snakes, and

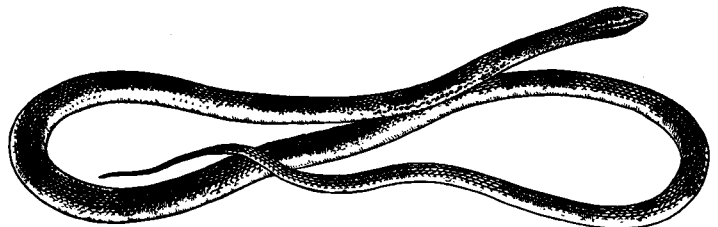
there are few on which more generalizations are made. Either we are for them, or we are "agin 'em".

In the half dozen snakes listed here the rattlesnake has been chosen as representative of the genuinely poisonous species. Contrasting with it is the valuable king snake, which may destroy the rattler. Among the innocuous species, there appear representatives of the toad-eating hog-nosed snake and the earthworm-toad-eating garter snake, whose food is more valuable to us alive than dead. Similarly, the water snake likes to eat the things we like to have live. On the other hand, the gentle green snake, which can be a "snake in the grass" more effectively than almost any other species, is exceptionally valuable as an insect destroyer. It should be plain from this that any attempt to generalize on snakes, and say that they are good or bad, would be hopeless; and any practice aimed at crushing all snakes under the heel lacks intelligence, which we pride ourselves on having.

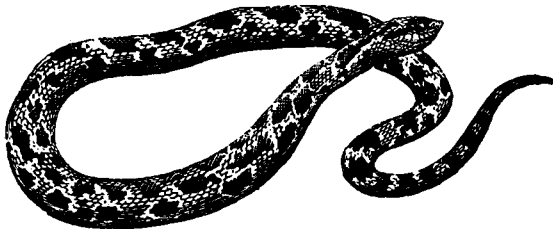
As in most other systematic groups of animals we find representatives of snakes living in different kinds of habitats. The trees, grasslands, dry sands and waterways—each has its appropriately modified snake species. The living snakes of our time include some 2000 species. Some—like the sea snakes of the Indian Ocean—may never come to land. Most snakes, however, have been inhabitants of the land. Because of this, there have been relatively few fossil snakes discovered. The earlier of these appear in late Cretaceous time.



RATTLESNAKE



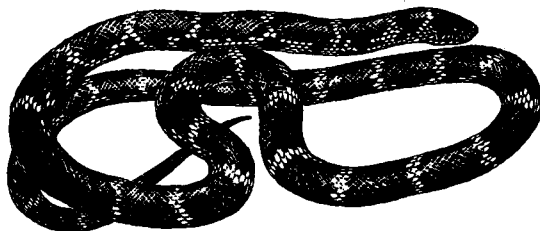
SMOOTH GREEN SNAKE



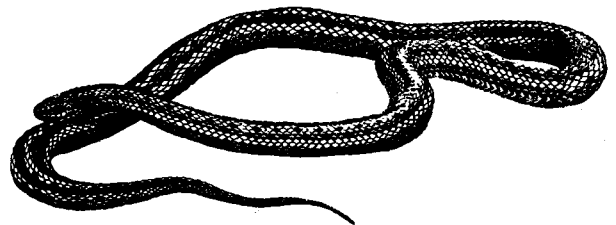
HOG-NOSED SNAKE



WATER SNAKE



KING SNAKE



GARTER SNAKE

<b>SNAPPING TURTLE</b> <i>Chelydra serpentina</i>	<b>MUSK TURTLE STINK POT</b> <i>Kinosternon odoratum</i>	<b>HOG-NOSED SNAKE PUFFING ADDER SPREADING ADDER</b> <i>Heterodon contortrix</i>	<b>SMOOTH GREEN SNAKE</b> <i>Liopeltis vernalis</i>	<b>GARTER SNAKE</b> <i>Thamnophis sirtalis sirtalis</i>
<p>Length, extended, to 3 feet; an average animal has upper shell about 1 foot long and 8-inch lower shell. Under parts not well protected by shell. Back, with three broken ridges of coarse scales with a border row, giving notched outline at rear.</p>	<p>Upper shell, 4 inches long by 3 wide and 1 7/8 high; lower shell, shorter and, in adult, with hind portion hinged. Tail of females, 7/8 inch long; of males, 1/2 inch. Backs high, dull brown, notched at rear and narrow.</p>	<p>Length, to 3 feet. Scales, keeled and in 25 rows. Head of a 2-foot snake, 1 inch wide by 1 1/4 long. General appearance, stocky. Brown or red with about 28 dark patches between head and tail; belly, yellow, blotched on edges with black. Snout upturned. Not poisonous.</p>	<p>Length, to 20 inches. Scales, smooth, in 15 rows, pale green, those beneath being lighter. Anal plate, divided. Tail, about 1/3 the length. Stouter than the keeled-scaled green snake, which is also yellowish instead of whitish beneath. Scales, distinctly shiny.</p>	<p>Length, to 36 inches. Usually with stripes. A central light-colored stripe down the back is bordered on each side by a dark stripe. Sides, usually darker and under parts lighter. Females, often larger than males. Head, distinct. Scales, ridged and in this species in 19 rows.</p>
<p>In lakes and other waterways, usually where the water is relatively quiet, and the bottom is mud-covered.</p>	<p>In lakes and slow, mud-bottomed streams of fresh water; apparently may live indefinitely without leaving water, except to lay eggs.</p>	<p>Dry sandy places such as gardens and roadsides, particularly in the open, where they may lie in the sun.</p>	<p>Common in range in the grass and shrubbery, or under stones, favoring open places rather than woods.</p>	<p>Common in meadows and grasses, under stones or in rock piles and, at some seasons of the year, in balls.</p>
<p>Eastern North America from southern Canada to the Gulf of Mexico and west to the Rocky Mountains. Western tributaries of Mississippi followed to sources. South to Ecuador.</p>	<p>Eastern and southern United States from Canada south, and west to western Missouri and southern Texas.</p>	<p>Eastern states from Massachusetts to Florida and west to Texas and Minnesota, with related species extending range west and south through Arizona into Mexico.</p>	<p>Southern Canada through the eastern and middle states and south to Florida, Texas and New Mexico. Several East Asian and one American species.</p>	<p>Eastern United States and Canada north to about the 50th degree of latitude and west to Minnesota, Wisconsin and Missouri, with other species extending range.</p>
<p>Class Reptilia. Order Testudinata. Family Chelydridae. Females leave water in early summer to lay eggs back from shore in holes dug in loose soil. Eggs, 24 to about 40, spherical, 7/8 inch in diameter, white, with thin, parchment-like, hard shells, usually buried about 5 1/2 inches in soil. Incubation about 90 days.</p>	<p>Class Reptilia. Order Testudinata. Family Kinosternidae. Eggs, laid June or July on land in nests in groups of from 3 to 7; each, blunt-ended, smooth, glaze-surfaced, thick-shelled and nearly twice as long as thick; young, like adult but with ridged backs; olive and black in color. Independent from the first.</p>	<p>Class Reptilia. Order Squamata. Sub-order Serpentes. Family Colubridae. About 2 dozen, white, leathery, at first elongate but later spherical eggs, laid in early summer in clusters that stick together and absorb moisture and increase in size about 1/3 during incubation.</p>	<p>Class Reptilia. Order Squamata. Sub-order Serpentes. Family Colubridae. Eggs, 4 to 12, laid in July or August, usually stuck together in twos under warm stones, long, covered with thin, easily indented, parchment-like shells. Hatched by warmth of sun. Newly-hatched young about 5 inches long, dark olive and unusually active.</p>	<p>Class Reptilia. Order Squamata. Sub-order Serpentes. Family Colubridae. Mate in early spring or summer. Young born alive in mid-summer, 10 to 50 in a litter. Young resemble adults except in size; quickly begin to lead independent lives.</p>
<p>Food, animal matter, usually living, captured by vicious rapid dartings of head and snapping of hard, strong, sharp-edged jaws that may cut off a finger. Slow movement deceiving since heads may strike most unexpectedly. May lie submerged with just heads above the bottom ooze for a long time.</p>	<p>Food, live or dead animal matter such as fish, tadpoles and insects caught prowling around the bottom. Protection by aggressive disposition, hiding, offensive strong odor and shell, which may be closed somewhat by hinge. Well-developed appetite.</p>	<p>Food, essentially toads and frogs, the lighter individuals having been noticed by Ditmars to eat toads and refuse frogs. Food, swallowed whole and held by teeth in base of jaws. Protection by escape, by coloration and by habit of feigning death, even to extent of repeatedly turning over on back when disturbed.</p>	<p>Food, largely small animals; spiders and insects, particularly smooth caterpillars, grasshoppers and crickets, all of which are captured and held by the mouth alone. Food killed by being swallowed. Protection almost solely through color, since these snakes rarely fight back or resent interference from anything. Do not eat frogs or salamanders.</p>	<p>Food, essentially earthworms, frogs, toads and some insects, and, since most of these are useful, the value of these snakes may well be questioned. Food caught in mouth and crushed by jaws or pounded on the ground, but not crushed by constriction with the body. Jaws permit eating unusually large animals. Frogs and toads swallowed head first.</p>
<p>Mainly diurnal, but rarely, if ever, leaves water for sunning. Seeks food both night and day. Normally hibernates in deep water, where they may remain more or less active.</p>	<p>Active mostly from April to September during day or night. Do some sunning on logs in early season.</p>	<p>Favor sunshine. Hibernates during the winter months. Sensitive to disturbance, and puff the bodies, flatten the heads and hiss when annoyed.</p>	<p>Not poisonous, and not provided with teeth that could tear human flesh. Active only during the summer months.</p>	<p>Give off highly offensive odor, which may be a protection and may be means of keeping groups together. Undoubtedly have a sense of smell. In winter, coil together in numbers. Emerge early.</p>
<p>Undesirable in ponds where fish or waterfowl are being raised. Flesh makes excellent food in soups, and animals may serve as useful scavengers of waterways. Too dangerous to be considered as pets.</p>	<p>Probably undesirable except as scavengers and doubtfully valuable otherwise. Rather dangerous and offensive pets. Easily caught and not infrequently take hooks of fishermen.</p>	<p>Not a useful species because of habit of eating more useful toads and frogs, but make interesting, perfectly harmless pets and thrive well in captivity if fed sufficiently.</p>	<p>A most useful species. Make excellent pets and are entirely harmless and yet are frequently killed by persons who, in so doing, show their ignorance regarding the animals and of the rôle they play.</p>	<p>Not a desirable species economically, probably, but make interesting pets and are never poisonous, although individuals may, if disturbed, bite viciously though harmlessly. May tear skin with jaws but do nothing more.</p>

NAME	WATER SNAKE <i>Natrix sipedon sipedon</i>	KING SNAKE CHAIN SNAKE THUNDER SNAKE <i>Lampropeltis getulus</i>	TIMBER RATTLE-SNAKE BLACK RATTLE-SNAKE <i>Crotalus horridus</i>	ALLIGATOR <i>Alligator mississippiensis</i>
DESCRIPTION	Length, to 3½ feet, tail being 8 inches. Light brown, with dark brown spots and bands across back; dark blotches on back alternating with similar areas on sides; sometimes uniformly brown. Color more brilliant after skin is shed. Scales, <i>ridged</i> .	Length, to 6 feet, about ¼ being tail. Scales, smooth, in 21 to 25 rows. Black, usually with white or yellow, narrow cross-bands which may fork on sides and join one another. Bands separated by from 5 to 10 scales. Abdomen, black with yellow blotches.	Length, to 3½ feet, or rarely, 5½ feet. Head, broad-diamond-shaped, with scales over top. Scales, in 23 to 25 rows, keeled. Pair of poison fangs on upper jaw. Color, yellow-brown with irregular cross-bands yellow with black spots. Tail, black in adult.	Length, to 14 or 15 feet, ½ being tail. Weight, to 500 pounds. May mature at 9 feet. Snout broad, not pointed like those of crocodiles, and do not show the 4th teeth as do the crocodiles. Teeth, 19 or 20 on each side of each jaw. Skin roughened and leathery.
HABITAT	In or near fresh water along lakes or in streams where food may be abundant.	On the ground in meadows and brushland, but more particularly in wooded areas.	Relatively common locally on exposed rocky ledges and undisturbed timber land that is not too wet.	In swamps and pools in the warmer parts of the country, but do not enter salt water as do the American crocodiles.
RANGE	Northern and northeastern United States and into southern Canada, being more common north of Kansas and North Carolina.	Southern New England to Florida, being more common in the south Atlantic States and west to the Mississippi, with related species westward.	Maine to Georgia and west to the Great Plains, with related species extending the range westward. Generally local, and common only in few places.	Rivers and swamps of the lowlands of the Carolinas, Georgia and Florida west to Louisiana, Mississippi and to the Rio Grande in Texas. North to Rodney, Mississippi.
CLASSIFICATION AND LIFE HISTORY	Class Reptilia. Order Squamata. Sub-order Serpentes. Family Colubridae. Young, born alive in late summer, in litters of from 16 to 44, become independent soon after being born. The families quickly break up.	Class Reptilia. Order Squamata. Sub-order Serpentes. Family Colubridae. Eggs, 10 to 24, laid in early summer on the ground or buried under trash and requiring from 5 to 6 weeks to complete incubation. Young shift for selves from the first.	Class Reptilia. Order Squamata. Sub-order Serpentes. Family Crotalidae. Young to the number of 7 to 12 born alive in September, each bearing a single button on end of tail. Skin shed once before first winter hibernation, starting the rattle, which increases one rattle every time skin is shed; possibly 2 to 3 a year.	Class Reptilia. Order Loricata. Family Crocodylidae. Mating males bellow and emit strong musk scent. Females lay 30 to 40 or more eggs in nests of decaying plants, which aids in hatching. Mother protects nest. Eggs, like long hen's eggs. Young, when hatched, 8 inches long, and weigh 1½ ounces. At 4 years, 5½ feet, 50 pounds.
FOOD AND BEHAVIOR	Food, largely fish, frogs and other aquatic life captured and eaten alive. Prey caught in mouth and not crushed by constriction of the body; may be bigger around than normal diameter of the snake. Protection by escape, by aggressive attitude, and inconspicuous appearance. Generally a nervous species.	Food, mostly rodents and snakes, all of which are captured and first killed by constriction and then eaten whole, unless they are too large. Apparently willing to fight most snakes, although do not go out of way to attack the larger ones. May easily kill snakes larger than they are themselves.	Food, essentially rabbits, mice, birds and squirrels; not charmed but paralyzed by poison, which is inserted when snakes strike. Rattles serve to warn other animals but not to charm them. Can strike only about ½ the length; tendency to strike varies greatly with conditions. Fangs shed each 3 months but renewed.	Food, animals, which are captured in jaws or knocked down by tails. Can move heads and tails sideways with great speed and force. Prey may be held under water to drown and then brought to surface and swallowed whole above the water. 10-foot alligators can swallow ducks whole. May make booming noises when capturing prey.
REACTIONS TO HEAT, LIGHT AND DISTURBANCE	Excellent sense of smell and of touch. Can remain submerged in water for considerable time. Active night or day but more at night.	Non-poisonous and immune to the poison of the poisonous snakes, which frequently bite them in combat. Emit a musky odor when disturbed and hiss warning.	Favor warm, sunny rocks. Poison affects the blood and may best be removed by suction devices, or counteracted by anti-venom serums. Potassium permanganate useful.	Animals cannot survive low temperatures. May hibernate and aestivate 2, 3 or more months each year.
USE TO MAN AND ROLE IN NATURE	Probably not of use to man's interests since they destroy useful fish and frogs. Not poisonous, although may inflict unpleasant tearing of the skin since they strike violently.	Highly valuable as destroyers of rodents and of snakes that may be dangerous or be of little use. Make good pets because of docile nature once they have become accustomed to handling.	Useful animals as destroyers of mice and rabbits, but dangerous because of their bites, which only rarely occur. If one is bitten, circulation of poisoned blood should be stopped by any means known. Whiskey not helpful.	Hide valuable as a leather source, but the supply has been unwisely exhausted. Enemies of ducks and other useful water animals, but do not harm man normally and avoid him whenever possible. Should be protected from extermination.