



Fact Zone

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Great Basin Rattlesnake (*Crotalus oreganus lutosus* aka *Crotalus viridis lutosus*)

Fact Sheet

Accurate naming of the Great Basin Rattlesnakes as individuals is fraught with difficulty as it is an unfinished study and controversial. The type species, *Crotalus oreganus*, has a series of subspecies accorded, and the confusion in taxonomic naming shown above where it appears that *Crotalus oreganus lutosus* and *Crotalus viridis lutosus* are interchangeable is an illustration of the problem. Use of features such as pattern and coloration to distinguish one species from another is unreliable. The following information can therefore be applied to most members of the species of *Crotalus* that inhabit the Great Basin.

Description: *C.v. lutosus* is a heavy-bodied, venomous subspecies of pitviper of the species *Crotalus oreganus*. Adult snakes can reach a maximum of 4 feet in length, but rarely more than 3 feet, males being larger than females. A variable background color reflects the areas they occupy: buff, pale grey, light brown, olive brown or yellowish-brown is overlaid with 32 to 49 irregular dark brown to black blotches, wider than they are long, with pale centers and borders. A row of indistinct blotches run along the sides from head to tail, becoming more pronounced towards the tail where they merge with the dorsal markings and form cross-bands. The scales are keeled, the head is broad and triangular and the eyes have vertical cat-like pupils.

Habitat: The range of The Great Basin includes most of Idaho, Utah, Arizona, California, Oregon the north rim of the Grand Canyon and the whole of Nevada. Great Basin rattlers inhabit inhospitable arid and barren open desert, grassy plains, valley floors, rocky hillsides and summits, foothills, open regions and alfalfa fields, and can be found sunning themselves on rocks and boulders.

Diet: Small mammals including ground squirrels, mice, rats, rabbits, birds, lizards, other snakes, frogs and insects. Prey is located when a change in temperature is detected by the heat-sensing pits on the sides of the head that enable the snake to accurately strike its warm-blooded target even in complete darkness. The rattler strikes its prey and withdraws immediately to allow its toxic venom to take effect. Venom is rapidly delivered via the hollow fangs that unfold from the roof of the mouth; penetration of the victim's flesh causes pressure to be exerted on the venom glands located in the roof of the mouth that then release venom in an involuntary action. The fangs are shed several times in a season – they can be lost while embedded in prey and can even be swallowed with the prey. When one fang is lost it is soon replaced with a mature fang that has been developing in the fang sheath in the roof of the mouth. During the replacement period the remaining fang continues to be functional. Rattlers hunt at night and hide during the digestive process which lasts a few days. As a consequence, a larger numbers of snakes can be seen in the spring and fall migrations when they are traveling to and from their denning sites.



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Reproduction: The breeding season spans 2 months in the spring when snakes emerge from hibernation. Fertilized eggs are carried for about 90 days. Female rattlers are ovoviviparous – the eggs develop and hatch inside the female so that young snakes are born, while the soft 'egg shells' are retained. Newborn snakes are 6 to 8 inches long, are born with a single rattle or button, fangs and venom, and are capable of striking within minutes of birth. An average brood is 5 to 12 young but twice as many can be produced between August and September. Many newborn snakes fail in their first year, either dying of hunger or being eaten by animals and birds. The average lifespan of a rattler in captivity is 20 to 30 years, however in the wild this is reduced due to predation, disease or death by accident.

Behavior: Rattlers are at their most active in spring when they emerge from hibernation and seek food. Depending on their location, they can be active for about 10 months of the year in warmer southern regions, to less than 5 months in the north of their range and at higher elevations. Depending on the availability of suitable denning sites, rattlers may hibernate alone or in small numbers. If denning sites are at a premium they can hibernate in their hundreds. Dens must be deep enough such that variations in outside temperature do not affect the interior, or the snakes might emerge too early and find themselves vulnerable to a sudden drop. In common with all snakes, rattlers shed their skin several times in a season, and at each molt a new rattle segment is added to the tail. However, rattles can break off the tails of older snakes and, as several segments are added in a season, the number of rattles is not an indication of a snake's age. The number of rattles rarely exceeds 8 even in mature animals. While being dangerous predators themselves, rattlesnakes form part of the diet of kingsnakes who are immune to the venom of many pitvipers. Other predators of the rattler are roadrunners, pigs, hawks, eagles and, of course, humans. These snakes are well camouflaged and hide from predators, generally only striking a human as a last resort. Rattlers initially try to escape, and when threatened will coil and rattle their tails in an attempt to frighten off their enemies. There are no conservation issues relating to this snake species.