



Sonoran Gopher Snake

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SCIENTIFIC NAME: *Pituophis catenifer affinis*. From Greek *pity* meaning pine and *ophis* meaning serpent, a literal translation of this snake's common name in the eastern United States, where it is known as the pine snake; *catenifer* from Latin *catena* meaning a chain and *fer* meaning to bear, in reference to the chainlike pattern along the snake's back; *affinis*, also Latin, meaning neighboring, perhaps in reference to its occurrence relative to another closely related subspecies.

DESCRIPTION: One of Arizona's longest snakes, occasionally reaching 90 inches in total length, more commonly 36 to 72 inches. Relatively short tailed and slender bodied, with brown to reddish-brown blotches or saddles

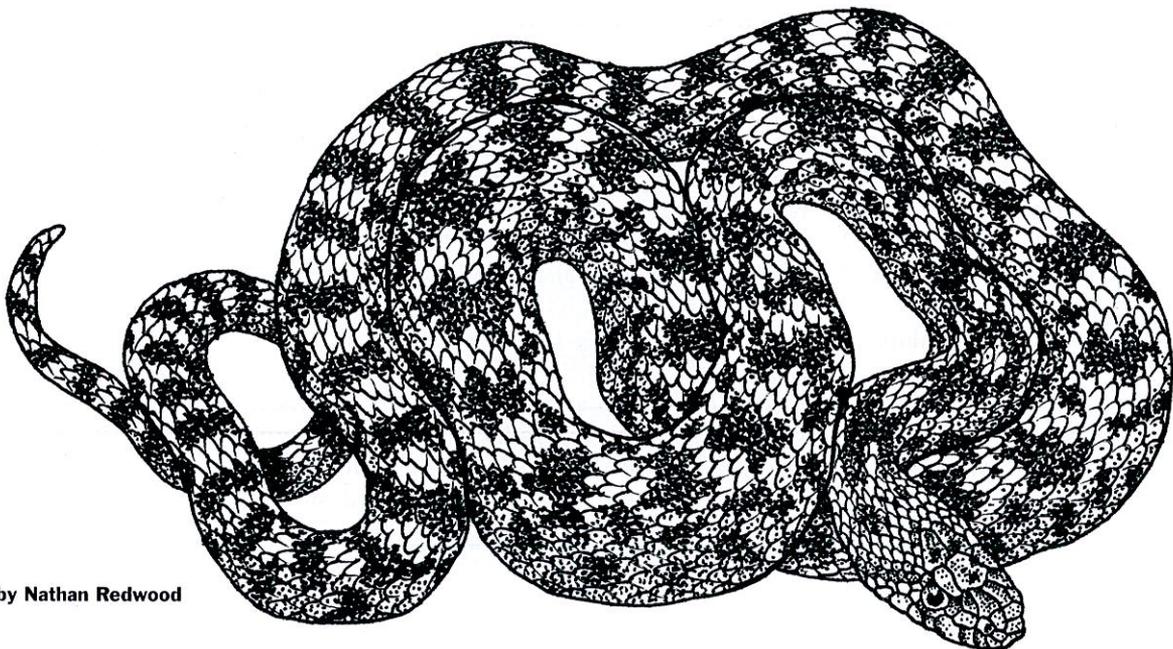
against cream- to straw-colored background. Pattern more contrasting around head and tail region. Usually a dark band extending from eye to angle of jaw. Head only slightly distinguishable from neck. Eyes with round pupils, unlike some rattlesnakes (with which often confused), which have broad triangular head, slender neck, and elliptical pupils. Belly white to yellowish with black spotting. Little difference in juvenal and adult patterning. Dorsal scales keeled.

DISTRIBUTION: This wide-ranging species consists of six recognized subspecies and occurs over most of the western United States and northern half of Mexico. Our subspecies, the Sonoran gopher snake, occurs

nearly throughout Arizona and ranges to extreme south-central Colorado, western New Mexico, extreme southeastern California, and south to central Mexico.

HABITAT: A habitat generalist. Found from low deserts to high-elevation montane environments. Commonly associated with desert scrublands and grasslands and pinyon-juniper communities. Often found near human activity, including dwellings and cultivated fields, probably due to increased density of rodents. Inhabits burrows of other animals.

BIOLOGY: Primarily diurnal (daytime active). Nocturnal activity increases in summer. Preys predominately on small rodents, occasionally on birds and their eggs. Lizards also eaten,



Art by Nathan Redwood

usually by younger snakes. Subdues prey by constriction. Breeding occurs in late spring, eggs are laid in midsummer, and neonates (hatchlings) appear in early fall.

The most notable behavior of these snakes is a belligerent defense response. When distressed, gopher snakes hiss loudly, flatten their head, strike with abandon, and vibrate their tail, creating a rattlesnake-like spectacle (actually, once in hand, gopher snakes are usually quite docile). This behavior and a superficial resemblance to some rattlesnakes has spawned many myths and led to persecution of this species. One tall tale involves a cross-breed of these two kinds of snakes resulting in a monstrous serpent, the "bull rattler," capable of inflicting death by envenomation (biting) or by squeezing its unfortunate victim to death. In reality, these unrelated snakes cannot successfully interbreed. On the other hand, the similarities have long served science as an example of Batesian Mimicry in which the harmless "mimic" avoids predation through its resemblance to a venomous "model." Recently, scientists have speculated another evolutionary process is at work in which both snakes have evolved independently (termed convergence) to blend in with their environment (cryptic patterning), and the behavioral mimicry is secondarily derived and most pronounced in areas where both species occur in the same habitat (termed sympatry).

STATUS: Due to its nearly continuous occurrence throughout its entire range, this subspecies has no special state or federal management status.

MANAGEMENT NEEDS: Although doing well throughout its range, this snake is often killed by people in a case of mistaken identity or misinformation and would benefit from increased education as to its beneficial qualities. Gopher snakes prey on disease-carrying rodents around human habitations (as do several other snakes, including rattlesnakes) and hence may help to control diseases such as plague and hantavirus. This alone, not to mention its striking appearance, warrants respect and appreciation of our large serpentine neighbor.

The head of the Sonoran gopher snake is only slightly distinguishable from its neck, and its eyes have round pupils, unlike some rattlesnakes (with which it is often confused), which have a broad triangular head, slender neck, and elliptical eyes.



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Rattlesnake