

“HERPS”

GRAND CANYON - COLORADO RIVER SNAKES

Geoffery C. Carpenter, PhD, is an Adjunct Professor at the University of Oklahoma Biological Station, where he teaches Field Herpetology and is responsible for the monitoring of local HERP populations. He is also a Full Professor at the Southwest Acupuncture College in New Mexico, where he teaches General Biology to Doctoral students of Oriental Medicine. Geoff earned his Bachelor's degree in Zoology at the University of Oklahoma, his Master's in Zoology and Physiology at the University of Wyoming, and his Doctorate in Biology at New Mexico State University. Geoff is President of Southwestern Biomes, Inc., an environmental and biological consulting company that conducts field survey/monitoring projects in New Mexico, Utah, and Arizona, and he is Associate Editor (Reptiles) of *The Southwestern Naturalist*.

Geoff's passion (some guides have described it as an obsession!) is Herpetology -- reptiles and amphibians -- and he has been monitoring and studying them in the Grand Canyon since 2001. He is presently gathering data about snake sightings to determine their spatial distribution within the canyon and to acquire new distribution records for some of the canyon's less common snakes. In particular, Geoff is interested in the range margin that separates Grand Canyon Rattlesnakes (above National Canyon) from Speckled Rattlesnakes and in getting upstream records of Black-tailed Rattlesnakes. Geoff is gathering data for a book; *"Amphibians and Reptiles of the Grand Canyon Region"* and is hoping to acquire quality photos of the Grand Canyon's "herpetofaunal denizens" for publication. Your sightings, and possibly your pictures, can be part of this project.

WILDLIFE CENSUS DATA SHEET: SNAKES

Mail Log Sheet to:

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The most commonly observed snakes in the canyon are rattlesnakes, which are often heard before they are seen. Several other harmless snake species are also frequently encountered in the canyon.

If you spot a Snake: Look at these photos. If the Snake you spotted is shown, please record the requested information on the Log Sheet. For location, NAMED canyons/creeks/trails are great, or use River Mile and Left or Right (looking downstream). Estimate the length.

If you spot a snake that is NOT shown here, and you get a photo, record as UNKNOWN. Geoff will contact you for a copy of the photo.

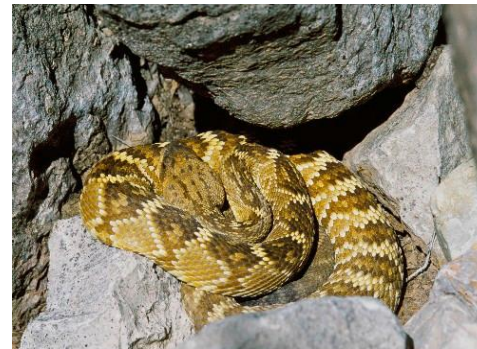
Grand Canyon Rattlesnake (*Crotalus oreganus abyssus*)—Common in upper reaches of the canyon-- from Lee's Ferry to Tuckup—“pinks” vary a great deal in color (see below). Pattern can be faint or distinct, but always consists of blotches rather than bands. Usually, distinct stripes on the side of the face, the tail is banded and the tip, before the rattle, is distinctly black. — VENOMOUS!



Speckled Rattlesnake (*Crotalus mitchelli*)—common in lower canyon, mile 160 and beyond, and found as high up as Havasu Canyon. Color varies from very light to pink, and pattern typically banded and rarely blotched. Lacks distinct face stripe the tip of the tail is not distinctly black-- VENOMOUS!



Black-tailed Rattlesnake (*Crotalus molossus*) –relatively uncommon in the canyon, may be encountered from Tuckup westward in corridor. The end of the tail is jet black, some green coloration and a distinct pattern of darker bands (blotch-like) that are bordered by light-colored scales-- VENOMOUS!



California Kingsnake (*Lampropeltus getula*)—Kingsnakes may eat other snakes, even their own species. California kingsnakes in the canyon have a distinct pattern of light and dark bands.



Gophersnake (*Pituophis catnifer*) large-bodied snake with dark brown blotches on cream-colored background. An abundant species throughout the west, gopher snakes are seldom seen in the river corridor.



Whipsnakes (*Coluber*) These thin-bodied, big-eyed diurnal predators are very fast moving. The striped whipsnake (*C. taeniatus*; LEFT) is striped while the red racer (*C. flagellum*; RIGHT) a subspecies of the coachwhip is often a brilliant red color.



Western Patch-nosed Snake (*Salvadora hexalepis*)—a smallish snake with beige and gray stripes and a large patch-shaped scale at the tip of the nose. These are diurnal predators that eat lizards and arthropods.



NOTES: