

NARROW-HEADED GARTERSNAKE
(Thamnophis rufipunctatus)

STATUS: Threatened

SPECIES DESCRIPTION: The narrow-headed gartersnake is a small to medium-sized gartersnake with a maximum total length of 34 inches. Its eyes are set high on its unusually elongated head, and it lacks striping on its back and sides which distinguishes its appearance from sympatric gartersnake species. The base color is usually tan or grey-brown with conspicuous brown, black or reddish spots that become indistinct towards the posterior. The scalation of the narrow-headed gartersnake is keeled, with 19 scale rows at mid-body.

NATURAL HISTORY: This species is strongly associated with clear, rocky streams using predominantly pool and riffle habitat that includes cobbles and boulders but has also been observed using lake shoreline habitat in New Mexico. Narrow-headed gartersnakes occur at elevations from 2,300 – 8,000-feet in four types of biotic communities: Petran Montane Conifer Forest, Great Basin Conifer Woodland, Interior Chaparral, and the Arizona Upland subdivision of Sonoran Desertscrub.

The narrow-headed gartersnake is surface-active between March and November. It is presumed to be cold-tolerant based on its natural history and foraging behavior that often involves time spent in clear, high elevation, cold streams. It has been found active in air temperatures ranging from 52-89°F and water temperatures ranging from 54-72°F.

Narrow-headed gartersnakes specialize on fish as their primary prey item. Native fishes preyed upon include Sonora and desert suckers, speckled dace, and roundtail, headwater, and Gila chub. Narrow-headed gartersnakes also prey on native and nonnative trout. Unlike most species of gartersnakes that actively crawl about in search of prey, narrow-headed gartersnakes are ambush predators that often anchor to stream cobbles and wait for passing fish.

Sexual maturity occurs at 2.5 years of age in males and at 2 years of age in females, which are ovoviviparous (eggs develop and hatch within the oviduct of the female). Female narrow-headed gartersnakes breed annually and give birth to 4-17 offspring from late July into early August (perhaps earlier at lower elevations).

HISTORICAL RANGE: Perennial drainages across the Mogollon Rim from northern and eastern Arizona, southeast into southwestern New Mexico.

CURRENT RANGE: The narrow-headed gartersnake may still persist in the Upper Gila River subbasin, the Middle Gila River subbasin, the San Francisco River subbasin, the Salt River subbasin, the Tonto Creek subbasin; and the Verde River subbasin. Existing information suggests that 76 percent of narrow-headed gartersnake populations occur at low densities and are likely not viable.

REASONS FOR DECLINE: Harmful nonnative species (bullfrogs, predatory, warm water fish, brown trout, and crayfish) are the most significant threat to the narrow-headed gartersnake by competing with and preying upon both the gartersnake and its native prey species. Destruction and modification of habitat and effects from wildfire on their prey base are also serious threats.

NOTES: The narrow-headed gartersnake is a Tier 1b Species of Greatest Conservation Need for the Arizona Game and Fish Department and is considered a State Threatened Species by the New Mexico Department of Game and Fish.