

NORTHERN MEXICAN GARTERSNAKE
(Thamnophis eques megalops)

STATUS: Threatened

SPECIES DESCRIPTION: The northern Mexican gartersnake reaches a maximum known length of 44 inches. It ranges in background color from olive to olive-brown to olive-gray. Three stripes run the length of the body with a yellow stripe down the back that darkens toward the tail. A portion of the lateral stripe occurring on the fourth scale row distinguishes *T. eques* from other gartersnake species. Paired black spots extend along the dorsolateral fields. A light-colored crescent extends behind the corners of the mouth.

NATURAL HISTORY: This species occurs up to about 8,500 feet in elevation, but is most frequently found between 3,000 and 5,000 ft in the United States. The northern Mexican gartersnake is found in both lotic and lentic habitats that include cienegas and stock tanks (in southern Arizona), as well as river habitat that includes pools and backwaters. It forages along the banks of waterbodies feeding primarily upon native fish and adult and larval leopard frogs. It may also supplement its diet with earthworms and leeches and vertebrates such as lizards, small rodents, salamanders, treefrogs, and toads. In some populations, adult northern Mexican gartersnakes will prey upon juvenile nonnative bullfrogs and/or bullfrog tadpoles where they co-occur.

Sexual maturity in male northern Mexican gartersnakes occurs at two years, and in two to three years in females. The species mates in April and May in their northern distribution, gives live birth to between seven and 38 neonates (average is 13.6) in July and August, and may only reproduce every other year.

HISTORICAL RANGE: The northern Mexican gartersnakes' historical distribution in the U.S. included all major watersheds in Arizona, in addition to the upper Gila and San Francisco headwater streams in western Grant and Hidalgo counties in New Mexico. Within Mexico, northern Mexican gartersnakes historically occurred within the Sierra Madre Occidental and the Mexican Plateau in the Mexican states of Sonora, Chihuahua, Durango, Coahuila, Zacatecas, Guanajuato, Nayarit, Hidalgo, Jalisco, San Luis Potosí, Aguascalientes, Tlaxacala, Puebla, México, Veracruz, and Querétaro, comprising approximately 85 percent of the total rangewide distribution of the subspecies.

CURRENT RANGE: The northern Mexican gartersnake still occurs in Gila River and perhaps Mule Creek in New Mexico. In Arizona, it may occur in the Bill Williams River, Agua Fria River, the Upper Salt River subbasin, Tonto Creek, the Verde River subbasin, the Upper Santa Cruz River subbasin, Redrock Canyon, the Buenos Aires National Wildlife Refuge, the Cienega Creek subbasin, the San Pedro River subbasin, the Babocomari River subbasin, and the San Bernardino National Wildlife Refuge. We estimate that 83 percent of the northern Mexican gartersnake's populations in the United States occur at low densities and are likely not viable. Its current distribution in Mexico is uncertain.

REASONS FOR DECLINE: Harmful nonnative species (bullfrogs, predatory, warm water sportfish, and crayfish) are the most significant threat to the northern Mexican gartersnake by competing with and preying upon both the gartersnake itself and its native prey species causing both direct mortality and starvation within populations. Other threats such as the destruction and modification of habitat and genetic effects from fragmentation of populations affect the species.

NOTES: The northern Mexican gartersnake is a Tier 1b Species of Greatest Conservation Need for the Arizona Game and Fish Department, is considered a State Endangered Species by the New Mexico Department of Game and Fish, and is listed as Threatened by the Republic of Mexico.

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