

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM****Animal Abstract**Element Code: ARADB35130Data Sensitivity: No **CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

NAME: *Tantilla yaquia*
COMMON NAME: Yaqui Black-headed Snake
SYNONYMS: *Tantilla planiceps yaquia*
FAMILY: Serpentes:Colubridae

AUTHOR, PUBLICATION: H.M. Smith (1942). A resume of Mexican snakes of the genus *Tantilla*. Zoologica (New York) 27:33-42.

TYPE LOCALITY: Guasaremos, Rio Mayo, Chihuahua, Mexico.

TYPE SPECIMEN: Harvard MCZ 43274. H.S. Gentry. August 1936.

TAXONOMIC UNIQUENESS: About 45 species and subspecies in genus, from southern U.S. to South America; *T. yaquia* is monotypic.

DESCRIPTION: A small (up to 325 mm or 13" in total length), gray or tan snake with a dark gray head cap. The posterior edge of the head cap is bordered by a thin white or cream collar. The head cap extends well back (usually 2 to 4 small scales) behind the parietal furrow (central seam between rear-most large head scales). The dark head coloration wraps down the sides of the neck behind and below the corner of the mouth. A white patch marks each cheek behind the eye. The belly is cream anteriorly grading to light pink or orange posteriorly. The scales are smooth and the small head is barely distinct from the neck. There are enlarged, grooved teeth in the rear upper jaw (Brennan 2016).

AIDS TO IDENTIFICATION: The Yaqui Black-headed Snake is most similar to other *Tantilla* in Arizona (*T. hobartsmithi*, *T. nigriceps*, and *T. wilcoxi*). The large, white cheek patch is a distinctive character that is absent or not as well developed in other Arizona *Tantilla*. Minute dark spots present on the dorsal scales of Smith's Black-headed Snake and the Chihuahuan Black-headed Snake (*T. wilcoxi*) are absent or very small and very few in the Yaqui Black-headed Snake. In the Chihuahuan Black-headed Snake, the light-colored neck collar is in contact with the parietals and is bordered posteriorly by a dark band or a distinct row of spots. The dark head cap does not extend below the angle of the mouth in Smith's Black-headed Snake, and furthermore, the light collar is commonly absent (in ten of 51 specimens from Pima County, Cole and Hardy 1981), and when present is thin and often faint. The Plain's Black-headed Snake lacks the light neck collar and the posterior margin of the dark head cap tapers to a point or is convex (sometimes irregularly so) at mid-dorsum. The Ring-necked Snake (*Diadophis punctatus*) is superficially similar to the Yaqui Black-headed Snake, but it has loreal scales (may be missing on one side – *Tantilla* lacks loreal scales) and

dark spots on the ventral scales. A color phase of the Western Groundsnake (*Sonora semiannulata*) frequently found in and near Phoenix and the Verde Valley (well north of the range of *T. yaquia*) resembles *Tantilla*, but that species also has loreal scales (Rorabaugh 2016).

ILLUSTRATIONS:

Black and white drawing (Stebbins 1966: plates 31, 35)

Color Photos: <http://www.reptilesfaz.org/Snakes-Subpages/h-t-yaquia.html>.

Color Photo: <http://iamnm.com/12-yaqui-black-headed-snake/>.

TOTAL RANGE: Southeastern Arizona and extreme southwestern New Mexico, south to eastern Sonora, extreme western Chihuahua, Sinaloa to Nayarit, Mexico.

RANGE WITHIN ARIZONA: Southeast corner of state, Cochise and Santa Cruz Counties. Known from the Canelo Hills and the Pajarito, Atascosa, Santa Rita, Mule, Chiricahua, Swisshelm, Pedregosa, and Peloncillo mountains.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: This secretive, nocturnal ground-dweller spends most of its time burrowed under rocks, logs, and leaf litter. It is occasionally encountered on the surface on moist nights. Most near-surface activity seems to occur under cover on moist spring days. It hibernates during the cold months of late fall and winter (Brennan 2016). In Arizona, the Yaqui Black-headed Snake has been collected from March-October, with the greatest number encountered in April and August. Activity is extended in southern Sonora, where snakes may be found year round. It is frequently characterized as fossorial, but occasionally encountered surface active at night or at dusk. B.R. Tomberlin (in Degenhardt et al 1996) reported finding them occasionally on paved roads after dark near Portal, Arizona during the summer months. They are also taken in pitfall traps, indicating surface activity (Rorabaugh 2016).

McDiarmid (1968) found a Yaqui Black-headed Snake in the stomach of a Tarahumara frog (*Lithobates tarahumarae*) collected in Alamo Canyon, Santa Cruz County, Arizona.

REPRODUCTION: Stebbins (2003) suggests 1-4 eggs are probably laid in late spring and summer.

FOOD HABITS: The diet of the Yaqui Black-headed Snake has not been investigated; however, authors have speculated that it eats invertebrates, particularly elongated forms such as centipedes and millipedes, and soft-bodied spiders, insect larvae, and other arthropods (Degenhardt et al. 1996, Ernst and Ernst 2003).

HABITAT: Madrean Evergreen Woodland and Semidesert Grassland communities. It is usually found in rocky, wooded canyons and on neighboring slopes (Brennan 2016). In Arizona, the Yaqui Black-headed Snake is primarily a species of oak woodlands in rolling to rugged terrain. However, the species occurs sparingly into semi-desert grasslands,

Chihuahuan desertscrub, and pine-oak woodland in Arizona. In Mexico, it also occurs in foothills and coastal thornscrub, tropical deciduous forest, and marginally into Sonoran desertscrub (Sierra El Aguaje, Sonora). Many Arizona localities are in rocky canyons with intermittent or permanent streams, but whether that represents a habitat preference or a collector bias is unknown (Rorabaugh 2016).

ELEVATION: Generally above 3,300 to about 6,000 feet (1,007-1830m) in Arizona (Brennan 2016). Range-wide, from near sea level to about 6,000 feet.

PLANT COMMUNITY: Madrean Evergreen Woodland and Semidesert Grassland communities, especially oak woodlands.

POPULATION TRENDS: Unknown in Arizona. There are 10 known collection sites scattered throughout the SE corner of the State. There is no data on population size or trend. NatureServe considers the species to be imperiled in Arizona. Range-wide (into Mexico) *T. yaquia* is considered apparently secure, with more than several dozen collection sites and a population estimated to be several thousand to probably over 10,000 individuals. The short-term trend is noted as relatively stable with no known major threats.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: 2 (AZGFD, AWCS 2022)
 [1B (AGFD SWAP 2012)]
OTHER STATUS: ANHP Peripheral Mexican
 Forest Service Sensitive (USDA FS Region
 3, 2013)

MANAGEMENT FACTORS: Given this species' fairly broad geographic range over a variety of biotic communities, it is probably fairly safe from most anticipated assaults to it and its habitat. It is vulnerable locally to activities such as hard rock mining (e.g. for copper and gold) that eliminate its habitat, and on a broader scale to the effects of climate change and the spread of non-native plants, which could alter fire regimes and patterns and severity of drought, with potentially adverse effects to Yaqui Black-headed Snake populations (Rorabaugh 2016).

PROTECTIVE MEASURES TAKEN: The majority of known collection sites are on Forest Service lands; the Forest Service considers this to be a Sensitive species.

SUGGESTED PROJECTS: Distribution, habitat, population and life history studies.

LAND MANAGEMENT/OWNERSHIP: The majority of collection sites are on USDA Forest Service lands (Coronado National Forest); there are other collections from Fort Bowie National Monument, a USFWS National Wildlife Refuge, and some private land holdings.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
- Arizona Game and Fish Department. 2022. Arizona Wildlife Conservation Strategy: 2022-2032. Arizona Game and Fish Department, Phoenix, Arizona. 378 pages.
- Behler, J.L. and F.W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York. P.663.
- Brennan, T.C. In: <http://www.reptilesfaz.org/Snakes-Subpages/h-t-yaquia.html>, accessed 7/14/2016.
- Cole, C. J., and L. M. Hardy. 1981. Systematics of North American colubrid snakes related to *Tantilla planiceps* (Blainville). Bull. Am. Mus. Nat. Hist. 171:199-284.
- Degenhardt, W. G., C. W. Painter, and A. H. Price. 1996. Amphibians and reptiles of New Mexico. University of New Mexico Press, Albuquerque. xix + 431 pp.
- Ernst, C. H., and E. M. Ernst. 2003. Snakes of the United States and Canada. Smithsonian Books, Washington, D.C.
- Fowlie, J.A., M.D. 1965. The snakes of Arizona. Azul Quinta Press, Fallbrook, California. P.118.
- Goldberg, S.R., and C.R. Bursley. 2004. Oligacanthorhynchid Acanthocephalan Cystacanthus in the Yaqui Blackhead Snake, *Tantilla yaquia* (Serpentes: Colubridae) from Arizona. Journal of the Arizona-Nevada Academy of Science 37(2):83-84.
- McCoy, C.J. 1964. The snake *Tantilla yaquia* in Arizona: an addition to the fauna of the United States. Copeia 1:216-217.
- McDiarmid, R.W. 1977. *Tantilla yaquia*. Cat. Am. Amph. Rep. 198.1-198.2.
- NatureServe Explorer, accessed 7/15/2016, <https://explorer.natureserve.org/>
- Rorabaugh, Jim. Chihuahuan Black-headed Snake, *Tantilla wilcoxi*. Tucson Herpetological Society, accessed 7/14/2016, <https://tucsonherpsociety.org/inhabitants/chihuahuan-black-headed-snake/>. Also published in Sonoran Herpetologist 2013 26(4):77-79.
- Rorabaugh, Jim. Chihuahuan Black-headed Snake, *Tantilla yaquia*. Tucson Herpetological Society, accessed 7/15/2016, <https://tucsonherpsociety.org/inhabitants/yaqui-black-headed-snake/>. Also published in Sonoran Herpetologist 2013 26(3):6.
- Shaw, C.E. and S. Campbell. 1974. Snakes of the American West. Alfred A. Knopf. P.166.
- Smith, H.M. 1942. A resume of Mexican snakes of the genus *Tantilla*. Zoologica (New York) 27:33-42.
- Stebbins, R.C. 1954. Amphibians and reptiles of western North America. McGraw-Hill Book Company, Inc., New York. Pp.180-181.
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton Mifflin Company, Boston.
- Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians, third edition. Houghton Mifflin Company, Boston, Massachusetts.
- Tanner, W.W. 1966. A re-evaluation of the genus *Tantilla* in the southwestern United States and northwestern Mexico. Herpetologica 22(2):134-153.

USDA, Forest Service Region 3. 2013. Regional Forester's List of Sensitive Animals.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

T.R. Van Devender, Arizona Sonoran Desert Museum, Tucson.
C.J. Cole, Curator Emeritus, American Mus. Nat. Hist., New York
Tom Jones, Arizona Game and Fish Department, Phoenix, AZ

ADDITIONAL INFORMATION: Venom is delivered to prey via enlarged, grooved teeth in the rear upper jaw (not considered to be dangerous to humans), Brennan 2016.

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