ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract **Element Code:** ARADB19050
Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Lampropeltis triangulum*
COMMON NAME: Milksnake
SYNONYMS: *Coluber triangulum*; *Coluber doliatus* Linnaeus, 1766; *Lampropeltis doliata* (Linnaeus 1766)
FAMILY: Serpentes: Colubridae

AUTHOR, PUBLICATION: *Coluber triangulum* Lacépède, 1788: 86, 331. *Lampropeltis triangular* Cope, 1861a: 256. *Lampropeltis triangulum triangulum* Stejneger and Barbour, 1917: 89.

TYPE LOCALITY: The type locality "America," was restricted to the vicinity of New York City by Schmidt (1953).

TYPE SPECIMEN: Holotype for species is unknown. Holotype for subspecies *taylori*: BYU 10533, collected 24 May 1951 by Wilmer W. Tanner. Holotype for subspecies *celaenops*: USNM 22375, H.B. Lane, date unknown.

TAXONOMIC UNIQUENESS: A dozen or so species in the genus from Canada to Ecuador. Nine subspecies in *L. triangulum*, only *taylori* confirmed for Arizona, *celaenops* probably occurs in southeast Arizona (1 locality for Cochise County). It was proposed by Collins (1991) that the subspecies *taylori* be recognized as a distinct species but presented no supporting data (see also Dowling 1993 in NatureServe 2002). *Taylori* intergrades with two adjacent subspecies and does not appear to be a distinct entity (Williams 1988, Roth and Smith 1990). (NatureServe 2002). *L. t. taylori* intergrades with *L. t. celaenops* in the southwestern corner of Colorado and probably in adjacent northwestern New Mexico.

DESCRIPTION: A non-venomous small to medium sized snake with lengths of 14 to 26 inches (36-66 cm). Stebbins (1966) reports total length of 16-18 inches (41-46 cm). The color pattern consists of red saddles separated by black and white (yellow) bands. The black bands get wider and frequently bridge the red saddles at the mid-line of the back. One southern Arizona animal was found to have several connected black bands "bridging" the red. The white bands also become wider middorsally. The red scales often have black edging. The underside is predominately black and white, however, the red saddles may or may not continue onto the belly in northern Arizona animals. One animal from Arizona was found to have an almost entirely black underside. The nose is black, but sometimes has mottled white

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accents. The scales are smooth and in 21 rows at midbody. The anal plate is single, subcaudals divided, and ventrals range from 179-194.

AIDS TO IDENTIFICATION: *Lampropeltis pyromelana* (Sonora mountain kingsnake) has a white snout, usually more white annuli (43-80+), and more than 210 ventrals. *Rhinocheilus lecontei* (long-nosed snake) usually has white spots in the black bands and subcaudals are undivided (a few may be divided). *Micruroides euryxanthus* (Arizona Coral snake) has a more regular and distinct banding pattern with the red bands, rather than the black bands, bordered by white or yellow. (Degenhardt et al. 1996).

ILLUSTRATIONS: Color drawing (Stebbins 1966: plate 31)
Color photo (Behler and King 1979: plates 597, 600, 613-615)
B&W drawings of ssp. *taylori* (K. Williams, 1978: fig. 30, 31)
B&W drawings of ssp. *celaenops* (K. Williams, 1978: fig. 32, 33)
Color photos from northern Arizona (Tom Brennan 2001 & 2002, http://www.reptilesofaz.com/h-l-t-taylori.html)
Color photos from southern Arizona (Tom Brennan 2002, http://www.reptilesofaz.com/h-l-triangulum.html)
Color photo of *L.t. taylori* (http://www.xmission.com/~hoglezoo/reptiles/milksnk.htm)
Color photo (http://www.nps.gov/wica/Milk%20Snake.htm)
Color photo (J.T. Collins, http://www.enature.com/fieldguide/)
Color photo (Hammerson, http://coloherp.org/geo/species/spelatr.php)

TOTAL RANGE: *Lampropeltis triangulum* ranges from southeastern Canada through the United States, south into northwestern South America, and from the Atlantic coast to central Montana and Utah. In Arizona, it ranges from northeast to north central part of the state (*L.t. taylori*), and southeastern part if state (probably *L.t. celaenops*).

RANGE WITHIN ARIZONA: Northeast, north central, and southeastern Arizona. Known from the vicinity of St. Johns and several localities on the Petrified Forest National Park, Apache County; San Bernardino Valley, Cochise County (*L.t. celaenops*?); Aubrey Valley, Canyon Diablo, Fredonia, Kanab Creek, and Mogollon Plateau, Coconino County; Petrified Forest National Park, Navajo County; Aubrey Valley, Yavapai County. Per Williams (1978), "Yarrow (1875) listed two specimens (of *L.t. celaenops*) from Fort Apache, Arizona; however, these records have not been verified and may be *Lampropeltis pyromelana*."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: *Lampropeltis triangulum* is shy and retiring, but may void feces or deliberately bite when caught. They are active day or night, but mostly are nocturnal, especially in hot weather, spending most of its time underground. In New Mexico, annual activity extends from at least March to October (Degenhardt et al. 1996). They may estivate during hot dry

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periods in some areas, and are inactive during cold months in northern areas. Rather than basking in the open, sun heated retreats are usually used in thermoregulation (Degenhardt et al. 1996). They commonly use burrows for hibernating, and rocks, boards, logs and other surface objects for daytime retreats. In a study conducted in Kansas, the estimated home range size was about 20 hectares (DeGraaf and Rudis 1983 *in* NatureServe 2002).

Predators include raccoons, foxes, skunks, and coyotes. When it feels threatened, it will vibrate its tail sounding much like a rattlesnake. This could get itself killed by humans who may mistake it for a venomous rattlesnake. Its coloration is similar to the venomous copperhead or the coral snake, which could also mean death for the snake when encountered by humans who can't tell the difference.

REPRODUCTION: In June to July, they lay a clutch of 2-17 eggs (larger clutch sizes in northern populations). Eggs are laid under surface cover such as soil or sawdust piles. Eggs hatch in about 6-9 weeks, in August or September. In Kansas, *L. triangulum* became sexually mature in their 3rd or 4th year (Degraaf and Rudis 1983 *in* NatureServe 2002).

FOOD HABITS: Lizards, small snakes, and rodents make up the largest part of the diet. Milksnakes may also consume lizards, reptile eggs, birds and their eggs, and occasionally insects and worms. They may constrict prey, but usually just hold prey long enough to swallow it whole.

HABITAT: In Arizona, open, flat, and undulating open grassland, grassland scrub, desert grassland, and sagebrush desert. Other reptiles often found with milksnakes and with approximately similar habitat preferences are *Pituophis melanoleucus* (gopher snake), *Sceloporus undulates* (Eastern fence lizard), and *Eumeces* spp. (Degenhardt et al. 1996).

ELEVATION: 3,840 – 5,780 ft (1171-1763 m) in Arizona.

PLANT COMMUNITY: In Arizona, they have been found in a plains grassland community (typical of prairie dog towns), and with snakeweed (*Gutierrezia*), rabbitbrush (*Chrysothamnus*), ring muhley (*Muhlenbergia torreyi*), and other grass species. The have also been found in Colorado plateau grassland east of Flagstaff, and in sand sagebrush (*Artemisia filifolia*)-shortgrass prairie in the Petrified Forest National Park. In southern Arizona, it was found to inhabit tobosa (*Hilaria mutica*) grassland with no scrub invasion.

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None

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OTHER STATUS: Group 4 (NNFWD, NESL 2000)
Determined Threatened in Mexico (Proyecto de Norma Oficial Mexicana 2000)

MANAGEMENT FACTORS: None

PROTECTIVE MEASURES TAKEN: None

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

LAND MANAGEMENT/OWNERSHIP: BIA – Hopi Reservation; NPS – Petrified Forest National Park; USFS – Kaibab National Forest; State Land Department; Private.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

T.R. Van Devender – Arizona-Sonora Desert Museum, Tucson, Arizona.

ADDITIONAL INFORMATION:

"Milk snakes are so called because of the fallacious old belief that they suckled milk from cows. Their presence in rodent-rich barns and the sometimes poor milk production of a cow seem proof enough to many persons." (Degenhardt et al. 1996).

Because of their resemblance to coral snakes, many milksnakes are killed.

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