

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Animal Abstract**

**Element Code:** ARADB05012

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Chionactis occipitalis klauberi*

**COMMON NAME:** Tucson Shovel-nosed Snake

**SYNONYMS:**

**FAMILY:** Colubridae

**AUTHOR, PLACE OF PUBLICATION:** Stickel, 1941.

**TYPE LOCALITY:**

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** One of four subspecies in the species *Chionactis occipitalis*, and the most eastern subspecies in this species.

**DESCRIPTION:** This snake has a cream colored whitish or yellowish body with approximately 21 or more black or brown bands across the back, that are saddle like but may encircle the body. Between these bands are black or brown smaller bands. The snout is flattened and shaped somewhat like a shovel. The lower jaw is deeply inset and the upper jaw (snout) does not jut below the lower jaw. The scales are smooth, in 15 rows and the anal plate is divided. The hatchlings are about 4 inches (10 cm) and the adults are 10-17 inches (25-42 cm).

**AIDS TO IDENTIFICATION:** This snake is distinguished from the other subspecies by black or brown secondary bands between the primary bands and usually fewer than 152 ventral scales in males and fewer than 160 in females.

**ILLUSTRATIONS:** Color photo (Brennan *in* <http://www.brennanart.com/h-c-o-klauberi.html>).  
Color picture (Behler, 1972: pl. 612)  
Color picture of species (Behler, 1972: pl. 604)

**TOTAL RANGE:** South central Arizona, in Pima and Pinal counties.

**RANGE WITHIN ARIZONA:** See "Total Range."

## **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Highly adapted to burrowing with its small shovel-shaped head, valved nostrils, flattened belly and smooth scales. It is nocturnal, and forages for insects, centipedes and scorpions which it often stalks from beneath the surface of the sand or loose soil. It has a natural resistance to scorpion stings. This snake requires approximately 5 acres for a home range. It has no known corridor or migratory needs but potential barriers may include highways, major roads and streams. This species moves by a swimming, sideways swaying motion under or on the surface of sand or loose soil. It usually rests by day under a creosote bush although it may occasionally be found under surface objects such as boards. It roams above and below the ground surface at night, but will flee from bright light such as a lantern or flashlight and away from disturbance. It typically explores an area of some 10 or 15 square feet next to the bush and may climb the bush in search of food or when frightened. If approached by a collector, the snake may flee in a more-or-less direct route to another bush or climb the nearest bush. The males are found to engage in contact with each other.

**REPRODUCTION:** They lay 2-4 eggs in the summer.

**FOOD HABITS:** It is nocturnal, it forages for insects, centipedes, spiders, buried moth pupae and scorpions which it often stalks from beneath the surface of the sand or loose soil. It has a natural resistance to scorpion stings. In captivity, this species was observed to eat crickets, scorpions, coleopteran and lepidopteran larvae, silverfish, termites, immature grasshoppers, small native cockroaches, spiders and earwigs. Food animals accepted ranged from 4-32mm in length; hard-bodied prey such as beetles is not preferred. Feeding behavior of captive snakes was observed by Glass (1972). Snakes subdued prey by one of two means: striking and grasping with the mouth, or looping the anterior third of the body in a single loop over the prey and pressing it against the substrate, then seizing the prey with the mouth. Missing was common when striking was used, but not when looping was used.

**HABITAT:** They can be found in arid deserts with sandy washes, dunes and rocky hillsides. They prefer areas with scattered mesquite-creosote bush.

**ELEVATION:** For the species it is 0-4,700 feet (0-1450 m).

**PLANT COMMUNITY:** Unknown

**POPULATION TRENDS:** Unknown

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None

**STATE STATUS:** None

**OTHER STATUS:**

Bureau of Land Management Sensitive  
(USDI, BLM AZ 2005, 2008)

**MANAGEMENT FACTORS:** Loss of habitat to agricultural and urban development is likely to continue to threaten this species in portions of its range. Off-road vehicle activities will adversely affect this species. Road building is likely to have destroyed and fragmented habitat. Increased traffic increases road kills. This subspecies has suffered significant losses of habitat due to agricultural development in the Avra Valley. It may also be impacted by highway traffic within its habitat, and by scientific and commercial collecting.

**PROTECTIVE MEASURES TAKEN:** Pima County will allow no net unmitigated loss or fragmentation of habitat for this species in reserve system areas. Pima County will protect the existing habitats, as delineated within the priority conservation areas, which are in the reserve system from all potentially detrimental activities until they have been surveyed for this species. Where this species is found, any development plans will require consideration of, and commitment to, appropriate mitigation for this species.

**SUGGESTED PROJECTS:** Further research is needed to determine its current distribution and abundance.

**LAND MANAGEMENT/OWNERSHIP:****SOURCES OF FURTHER INFORMATION****REFERENCES:**

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- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: June 12, 2002).
- Pima County Board of Supervisors. 2000. Priority Vulnerable species: Data Compilation and Synthesis, Sonoran Desert Conservation Plan.
- USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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**ADDITIONAL INFORMATION:**

**Revised:** 2002-08-5 (AMS)

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Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.