

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

**Animal Abstract**

**Element Code:** ARACJ02011

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Aspidoscelis stictogrammus*  
**COMMON NAME:** Giant Spotted Whiptail; Canyon Spotted Whiptail  
**SYNONYMS:** *Aspidoscelis stictogramma*; *Aspidoscelis burti stictogrammus*;  
*Cnemidophorus sacki stictogrammus*; *Cnemidophorus burti stictogrammus*  
**FAMILY:** Sauria: Teiidae

**AUTHOR, PLACE OF PUBLICATION:** W.L. Burger (1950), Chicago Acad. Sci., Nat. Hist. Misc. (65):1-9.

**TYPE LOCALITY:** Yank's Spring, 6 miles southeast of Ruby, Santa Cruz County, Arizona.

**TYPE SPECIMEN:** The holotype, USNM 132456, is a female collected on August 17, 1948 by M.M. Hensley and W.L. Burger.

**TAXONOMIC UNIQUENESS:** Some 25 species in the genus *Cnemidophorus*. Reeder et al. (2002) examined phylogenetic relationships of the whiptail lizards of the genus *Cnemidophorus* based on a combined analysis of mitochondrial DNA, morphology, and allozymes. They determined that *Cnemidophorus* in the traditional sense is paraphyletic and thus in need of nomenclatural revision. Rather than subsume all cnemidophorine species (including *Kentropyx*) in a single large genus (*Ameiva*), they proposed a split that placed the North American "*Cnemidophorus*" clade in the monophyletic genus *Aspidoscelis*. Under this arrangement, South American taxa remain in the genus *Cnemidophorus*. The taxonomy of whiptail lizards has been confused and remains problematic (Wright 1993, 1996; Duellman and Zweifel 1962).

Based on differences in body size, scutellation, and color patterns, Walker and Cordes (2011) inferred that *A. stictogrammus* is a separate species from *A. burti* (de Quieroz and Reeder in Crother 2012). *A. burti* is now restricted to Mexico.

**DESCRIPTION:** At the species level, this is a long slender lizard with total lengths averaging between 27.0-45.1 cm (11-17.75 in), while lengths from snout to vent are 8.9-14.0 cm (3.5 - 5.5 in). Back scales are small and granular; 85-115 dorsal granules. Eight lengthwise rows of large, smooth rectangular scales, can be found on a uniform gray to white belly. Dorsum is blue-gray to gray-green with profuse pale spotting. Six to 7 light stripes are found on adults and juveniles, except large adult males, where they are faded or absent. Vertebral (middorsal) stripe may be present or absent. Head and neck are reddish, sometimes over entire back. Supraorbital semicircles are normal, extending toward the snout, to or near

the front end of the frontoparietal. Abruptly enlarged postantibrachials and scales on gular fold. Tail is brown in adults, and orange in young.

In the subspecies *C. b. stictogrammus*, “the adults reach a much larger size than the Red-backed Whiptail (*C. b. xanthonotus*). Large light spots, red usually confined to head and neck. Young have a bright orange to reddish tail. Dorsal granules number 100 or more, while granules around the midbody range from 98-115” (Stebbins 1985).

**AIDS TO IDENTIFICATION:** The Giant Spotted Whiptail (*A. stictogrammus*) is larger than the Redback Whiptail, and has large light spots, and red on head and neck only. The Giant Spotted Whiptail has 100 or more dorsal granules. The Chihuahuan Spotted Whiptail (*C. exsanguis*) is smaller at 4.4-20.0 cm (1.75-4.0 in), with brown or reddish brown dark fields, and cream to pale yellow spotting. The Sonoran Spotted Whiptail (*C. sonorae*) has dark fields of blackish, brown to reddish, with spots of white, pale tan, or dull yellow. They also have a tail that is usually dull orange-tan, often grading to an olive color toward the tip.

**ILLUSTRATIONS:** Color photo (Behler and King 1979: plate 416)  
Color photos (Degenhardt, Painter and Price 1996: plates 60A and 60B)  
Color drawing (Stebbins 1966: plate 29)  
Color drawing (Stebbins 1985: plate 34)

**TOTAL RANGE:** Southeastern Arizona including Santa Catalina, Santa Rita, Baboquivari, and Pajarito Mountains; vicinity of Oracle, Pinal County, and Mineral Hot Springs, Cochise County. Guadalupe Canyon in extreme southwest New Mexico; and northern Sonora, Mexico (Stebbins 1985).

**RANGE WITHIN ARIZONA:** Southeastern Arizona including Mineral Hot Springs, Cochise County, and Santa Catalina, Santa Rita, Baboquivari, and Pajarito Mountains, vicinity of Oracle, Pinal County (Stebbins 1985).

## **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** This lizard is diurnal, and extremely wary and difficult to approach. They emerge from hibernation in April or May depending on climatic conditions (Goldberg 1987b). They undergo a distinct ontogenetic change in color pattern as it matures. Longitudinal strips change to light colored spots (Degenhardt et al. 1996).

**REPRODUCTION:** *A. stictogrammus* has bisexual reproduction (Goldberg 1987a; Moritz et al. 1989; Degenhardt et al. 1996). A clutch of 1-4 eggs is laid in the summer; females may produce more than one clutch in a reproductive season (Goldberg 1987a; Degenhardt et al. 1996).

**FOOD HABITS:** Diet consists mainly of insects and arachnids (spiders) (Paulissen and Walker 1996).

**HABITAT:** Inhabits mountain canyons, arroyos, and mesas in arid and semi-arid regions, entering lowland desert along stream courses. Found in dense shrubby vegetation, often among rocks near permanent and intermittent streams (Stebbins 1985). Open areas of bunch grass within these riparian habitats are also occupied (Degenhardt et. al. 1996).

**ELEVATION:** Near sea level to around 1370 m (4,500 ft) (Stebbins 1985).

**PLANT COMMUNITY:** Occurs in riparian habitat dominated by sycamore, cottonwood, ash, and various grasses and forbs (Degenhardt et al. 1996).

**POPULATION TRENDS:** Unknown but thought to be stable. Can be locally abundant.

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** SC (USDI, FWS 1996)  
[C2 USDI, FWS 1994]

**STATE STATUS:** 2 (AZGFD, AWCS 2022)  
[1B (AGFD SWAP 2012)]

**OTHER STATUS:** Forest Service Sensitive (USDA, FS Region  
3 1999, 2013)  
[Bureau of Land Management Sensitive  
(USDI, BLM AZ 2000, 2005)]

**MANAGEMENT FACTORS:** Limited distribution.

**PROTECTIVE MEASURES TAKEN:** The Arizona Game and Fish Department limits collection of species to 20 per day (AGFD 2001).

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

**LAND MANAGEMENT/OWNERSHIP:** Forest Service (Coronado National Forest), Bureau of Land Management, State, and Private.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

- AGFD. 2001. Arizona reptile and amphibian regulations 2001. Arizona Game and Fish Department, Phoenix.
- 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. Pp. 554-555.
- Burger, W.L. 1950. New, revived, and reallocated names for North American whiptail lizards, genus *Cnemidophorus*. Chicago Acad. Sci. Nat. Hist. Mus. 65:1-9.
- Degenhardt, W.G., C.W. Painter and A.H. Price. 1996. Amphibians and Reptiles of New Mexico. Univ. New Mexico Press, Albuquerque. Pp. 205-206.
- Duellman, W.E., and R.G. Zweifel. 1962. A synopsis of the lizards of the sexlineatus group (genus *Cnemidophorus*). Bull. Amer. Mus. Nat. Hist. 123(3):155-210.
- Goldberg, S.R. 1987a. Larval cestodes (Mesocestoides sp.) In the giant spotted whiptail, *Cnemidophorus burti stictogrammus*. Journal of Herpetology 21(4):337.
- Goldberg, S.R. 1987b. Reproductive cycle of the giant spotted whiptail, *Cnemidophorus burti stictogrammus*, in Arizona. Southwestern Naturalist 32(4):510-511.
- Mortiz, C.G., J.W. Wright, and W.M. Brown. 1989. Mitochondrial-DNA analyses and the origin and relative age of parthogenetic lizards (genus *Cnemidophorus*). III. *C. velox* and *C. exsanguis*. Evolution 43(5):958-968.
- Paulissen, M.A., and J.M. Walker. 1996. *Cnemidophorus burti stictogrammus* (Giant spotted whiptail). Diet. Herpetological Review 27(4):200-201.
- Reeder, T. W., C. J. Cole, and H. C. Dessauer. 2002. Phylogenetic relationships of whiptail lizards of the genus *Cnemidophorus* (Squamata: Teiidae): a test of monophyly, reevaluation of karyotypic evolution, and review of hybrid origins. American Museum Novitates (3365):1-61.
- Stebbins, R.C. 1966. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston. Pp.127.
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton Mifflin Company, Boston. Pp.153.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- USDA, Forest Service Region 3. 2013. Regional Forester's Sensitive Species List.
- USDI, Bureau of Land Management. 2000. Arizona BLM Sensitive Species List. Instruction Memorandum No. AZ-2000-018.
- USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.
- USDI, Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidates Review for Listing as Endangered or Threatened Species; Proposed Rule. Federal Register 59(219):58993.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants: Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species. Federal Register 61(40):7596-7613.
- Walker, J.M., and J.E. Cordes. 2011. Taxonomic implications of color pattern and meristic variation in *Aspidoscelis burti burti*, a Mexican whiptail lizard. Herpetological Review 42(1):33-39.
- Wright, J.W. 1993. Evolution of the lizards of the genus *Cnemidophorus*. pp. 27-81. In J.W. Wright and L.J. Vitt (Eds.) Biology of Whiptail Lizards (genus *Cnemidophorus*). Oklahoma Mus. Hist., Norman.
- Wright, J.W. 1996. The North American deserts and species diversity in the lizards of the genus *Cnemidophorus*. In Brown, P.R. and J.R. Wright (Eds.) Herpetology of the North American deserts: proceedings of a symposium. Southwestern Herpetologists Society, Van Nuys, CA. pp. 255-271.

**OTHER REFERENCES:**

- Duellman and Lowe 1953. Nat. Hist. Mus. 120:1-8.
- Lowe, C.H. 1956. A new species and a subspecies of whiptailed lizards (genus *Cnemidophorus*) of the inland southwest. Bull. Chicago Acad. Sci. 10(9):137-150.
- Lowe, C.H. 1964. Amphibians and reptiles. The vertebrates of Arizona, University of Arizona Press, Tucson. Pp.165.
- Price, A.H. 1983. Annotated bibliography of the genus *Cnemidophorus* in New Mexico. Smithsonian Herp. Info. Serv. 58:1-92.
- Stebbins, R.C. 1954. Amphibians and reptiles of western North America. McGraw-Hill Book Company, Inc. New York. Pp.289-290.
- Taylor, E.H. 1936 [1938]. Notes on the herpetological fauna of the Mexican state of Sonora. Univ. Kansas Sci. Bull. 25(16):357383.
- Vance, T. 1978. A field key to the whiptail lizards, Part I: the whiptails of the United States. Bull. Maryland Herp. Soc. 14(1):1-9(CR-filed in *C. inornatus arizonae*)

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**ADDITIONAL INFORMATION:**

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