

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

**Animal Abstract**

**Element Code:** ARACF02010

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Callisaurus draconoides*

**COMMON NAME:** Zebra-tailed Lizard, Zebratail Lizard

**SYNONYMS:**

**FAMILY:** Phrynosomatidae

**AUTHOR, PLACE OF PUBLICATION:** Blainville, Henri Marie Ducrotay de 1835. Description de quelques espèces de reptiles de la Californie précédée de l'analyse d'un système général d'erpétologie et d'amphibiologie. Nouv. Ann. Mus. Hist. Nat. Paris 4: 233-296

**TYPE LOCALITY:** "Collected from "New Mexico" by Dr. S. W. Woodhouse during the exploration of the Zuni and Colorado Rivers, sometime during 1851.

**TYPE SPECIMEN:** HT: MNHN-RA 0812

**TAXONOMIC UNIQUENESS:** The genus *Callisaurus* is monotypic.

There are nine recognized subspecies of *C. draconoides* (Degenhardt et al. 1996), as of 2021, two of which are found in Arizona, including *C. d. rhodostictus* (Mojave Zebra-tailed Lizard, western AZ) and *C. d. ventralis* (Arizona Zebra-tailed Lizard, south central and southeastern AZ). Recent molecular phylogeographic studies shed some preliminary light on the relationships and status of the three U.S. subspecies of *C. draconoides* (Crother 2017). Based on mtDNA, Lindell et al. (2005) found that both *C. d. myurus* and *C. d. ventralis* are nested within *C. d. rhodostictus*, *C. d. ventralis* deeply so; however, both *C. d. myurus* and *C. d. ventralis* were represented by small samples, and there were large geographic gaps between these samples and those representing *C. d. rhodostictus*. Blaine (2008) found that samples representing *C. d. rhodostictus* and *C. d. myurus* formed a mtDNA haplotype clade, as did those representing *C. d. ventralis*, but he had few samples from Baja California and none from the Mexican mainland. Based on genome-wide SNP data, Gottscho (2015) inferred that *C. d. rhodostictus* is distinct from more southerly subspecies endemic to Baja California (Crother 2017).

**DESCRIPTION:** *C. draconoides* are an average to medium-sized lizard with a flattened tail, long, slender limbs and a lean body built for speed. Snout-vent lengths average between 2.5-4.0 in (6.4-10.2 cm). The body is yellow-tan with two dark side bars extending up from the belly. The upper surfaces of the body are marked with numerous cream spots or flecks; a series of small gray-brown spots runs down the middle of the back, becoming bands on the tail. The back of each thigh is marked with a dark distinct horizontal line. Dark tail bands become black ventrally, where they starkly contrast the white background. The side bars on males extend onto the belly

where they are surrounded by blue patches. Bars are faint or absent on females, and the belly lacks blue patches. During the breeding season, males may also form a bright red patch on the underside of their neck. External ear openings and the forward position of side bars distinguish it from the similar Greater Earless Lizard (*Cophosaurus texanus*). The scales of this lizard are granular; the dorsal scales are small and the ventral scales are larger, with all grading into each other laterally; the throat has 2 folds. (Behler & King 1979[1992]; Brennan 2006; Brennan & Holycross 2006; Degenhardt et al. 1996; eNature.com 2005).

**AIDS TO IDENTIFICATION:** Similar to Greater earless lizard (*C. texanus*) and Common Lesser earless lizard (*Holbrookia maculata*), however both lack ear openings and the latter species lacks black bars on the underside of the tail. In the Side-blotched lizard (*Uta stansburiana*), the upper labials do not overlap, and it has only one dark blue or black mark on the side of the body just behind the front legs. (Degenhardt et al. 1996).

#### **ILLUSTRATIONS:**

Color photo (Brennan and Holycross 2006: Page 63)

Color photo (Gerald & Buff Corsi 2005: <http://www.enature.com/fieldguides>)

Color illustration (Stebbins 2003: Plate 28)

Color photo (Behler and King 1979(1992 reprint): Plate 362)

**TOTAL RANGE:** The Zebra-tailed Lizard is found from northwestern Nevada and extreme southwestern Utah through southeastern California, Arizona, and extreme southwestern New Mexico to southern Sinaloa and tip of Baja California, including islas Magdalena and Santa Margarita and several islands in the Gulf of California (Grismer 2002, Stebbins 2003).

**RANGE WITHIN ARIZONA:** Southern and western areas of the state below the Mogollon Rim, including Cochise, Gila, Graham, La Paz, Maricopa, Mohave, Pinal, Pima, Santa Cruz, Yavapai, and Yuma counties. (Brennan & Holycross 2006; UAMNH 2006).

#### **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** *C. draconoides* is a terrestrial lizard that is almost exclusively diurnal, but sometimes is encountered asleep on the surface on warm nights. The species is inactive in cold temperatures during the fall and winter. It is known to effortlessly bury itself in loose sediment (Stebbins 2003). It prefers small grain substrate such as sand or gravel and although most of its time is spent stationary, it does have the ability to move very quickly and is often seen in nature running bipedally (Irschick 2002). This species is considered the fastest of the lizards in the desert. In response to a threat (e.g. predators) they are known to bend and wag their tail slowly over their back before scuttling off, exposing the “zebra” markings under the tail. Innate territorial displays exhibited by both males and females include leg flexion (push-ups), head bobs, and lateral compression of the body (Degenhardt et al. 1996; Brennan 2006). Lizards of the Phrynosomatid group have small home range sizes, usually less than 0.5 ha (often much less) and rarely more than 1 ha (NatureServe 2006).

**REPRODUCTION:** Mating occurs in the spring typically around April or May, with clutches laid during the summer months from May to August. One or more clutches of 1-15 eggs may be laid with the average being 4-5 eggs. Clutch size, which averages about 4 in Arizona for the species (NatureServe 2006), may be significantly correlated with body size (Behler and King 1979; Degenhardt et al. 1996; Brennan and Holycross 2006). Multiple clutches are produced per year, with more in the south than in the north (Smith et al. 1987). Eggs are laid probably underground or under rocks. The incubation period for the species is 30-32 days, and as is the case for many reptile species, the eggs gain water during incubation and die if the soil/nest in which they are laid is too dry. (Degenhardt et al. 1996). Hatchlings appear from July through November. Individuals sexually mature as yearlings (Smith et al. 1987, in NatureServe 2006). During breeding, males often develop a splash of bright red on the underside of their neck, while females develop breeding colors of their own, a rarity in reptiles (www.wildherps.com 2006).

**FOOD HABITS:** *C. draconoides* are opportunistic feeders consuming such prey items as grasshoppers, bees, wasps, and caterpillars, as well as spiders, smaller lizards, and occasionally flowers. They sit and wait for prey items to wander within close proximity. (Behler and King 1979; Degenhardt et al. 1996; Brennan 2006; Brennan and Holycross 2006).

**HABITAT:** This lizard is usually found in sparsely vegetated desert areas on open sandy washes, dunes (e.g., Vizcaino Desert), floodplains, beaches, or desert pavement (Grismer 2002, Stebbins 2003); at higher elevations, it sometimes occurs on rocky, relatively shady, leaf-litter substrates (Grismer 2002). Eggs are laid probably underground or under rocks.

**ELEVATION:** 0 – 5,000 feet (0 - 1,520 meters) (Stebbins 2003).

**PLANT COMMUNITY:** Flatlands within Sonoran and Chihuahuan Desertscrub. It is associated with open ground within *Prosopis-Acacia* or *Larrea tridentata* vegetation communities. In New Mexico, dominant plant species include: *Flourensia cernua* (American tarwort), *Gutierrezia sarothrae* (broom snakeweed), *Larrea tridentata* (creosote bush), *Prosopis glandulosa* (honey mesquite), and *Zinnia acerosa* (desert zinnia). (Degenhardt et al. 1996).

**POPULATION TRENDS:** The species *C. draconoides* is regularly occurring in Arizona and present year-round. According to NatureServe (2021), the total adult population size for the species is unknown but probably exceeds 100,000. “This species is represented by a large number of viable occurrences that are well distributed throughout the range” (NatureServe 2021).

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** None  
**OTHER STATUS:** None

**MANAGEMENT FACTORS:** No major threats have been identified. Locally, the species has been detrimentally affected by habitat destruction and degradation as a result of conversion of land to human uses (e.g., agriculture, residential and commercial development) (NatureServe 2021).

**PROTECTIVE MEASURES TAKEN:** None

**SUGGESTED PROJECTS:** None

**LAND MANAGEMENT/OWNERSHIP:** BIA – Tohono O’Odham Nation; FWS Cabeza Prieta and Buenos Aires National Wildlife Refuges; NPS – Organ Pipe Cactus National Monument and Saguaro National Park; Tucson Mountain Park; State Land Department; Private. May occur on BLM and USFS Lands.

## **SOURCES OF FURTHER INFORMATION**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

Meaning of the Scientific Name:

*Callisaurus*: Greek *kalos* beautiful and *saurus* lizard.

*draconoides*: Greek *draco* dragon and *-eidos* similarity to a – the species of true dragons.

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