

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract

Element Code: ARACK01060

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Xantusia bezyi*
COMMON NAME: Bezy's Night Lizard
SYNONYMS:
FAMILY: Xantusiidae

AUTHOR, PLACE OF PUBLICATION: Papenfuss, Theodore J., J. Robert Macey and James A. Schulte II. A new lizard species in the genus *Xantusia* from Arizona. 2001. Scientific Papers, Natural History Museum, The University of Kansas, No. 23:1-9. October 12, 2001.

TYPE LOCALITY: USA, Arizona, Maricopa County, 5.6 km S (by Highway 87) of Sunflower, elev. 948 meters. 33° 49.48' N, 111° 28.55' W, T6N, R9E, Sec 31, NE ¼.

TYPE SPECIMEN: Museum of Vertebrate Zoology: MVZ 232604 (holotype). T. J. Papenfuss (s/n). November 3, 2000. Note: 10 paratypes also at MVZ (Papenfuss et al 2001).

TAXONOMIC UNIQUENESS: NatureServe (2018) lists eight species of *Xantusia*. Three species are found in Arizona. *X. arizonae* and *X. bezyi* are only found within the State, while *X. virgilis* is also found in California, Nevada and Utah). The other five species are all California endemics. Genetic studies have confirmed that those occurring in Arizona are distinct species (Bezy 2005).

DESCRIPTION: A small (up to 60 mm or 2.4" from snout to vent) lizard with soft skin and a broad, somewhat flattened head. Its markings consist of dark blotches, spots, or speckles on a yellow to light olive background. The scales on the upper surface of the body are small and granular and a fold of skin runs along each lower side. The scales of the belly and tail are larger and rectangular. The scales on top of the head are large, smooth, and plate-like. The eyes are lidless, pupils are vertically elliptical, and the irises are orange or reddish brown (Brennan 2008).

AIDS TO IDENTIFICATION: *Xantusia* found east of the Verde River are *X. bezyi* (Bezy 2005). They are found in and around crevices in exfoliating granite boulders. The dorsal blotches are larger in *X. bezyi* than in *X. arizonae*, and contain 3-28 granular scales verses the 4-12 for the latter species, and there is a proportionately greater distance from the anterior margin of the eye to the tip of the snout in *X. bezyi* (Papenfuss et al 2001 includes diagrams and photos illustrating these diagnostic traits). *X. bezyi* differs from *X. virgilis* by its larger size, mottled coloration, more than 41 rows of dorsal granular scales and more than 26 lamellae under the fourth toe (Papenfuss et al 2001). Some populations of *X. virgilis* found in western

Arizona seem to be associated with yuccas rather than the granite habitat preferred by both *X. arizonae* and *X. bezyi*.

ILLUSTRATIONS:

Photos: <http://www.reptilesfaz.org/Lizards-Subpages/h-x-bezyi.html>

Photos: <http://www.californiaherps.com/noncal/southwest/swlizards/pages/x.bezyi.html>

TOTAL RANGE: Endemic to central Arizona.

RANGE WITHIN ARIZONA: Small chain of mountain ranges (Mazatzal to Galiuros) on either side of the Maricopa-Pinal-Gila county borders, between Yavapai and Graham counties. All populations east of the Verde River are *X. bezyi* (Bezy 2005).

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: The majority of this lizard's life is spent within the shelter of rock crevices. It thermo-regulates by basking near the sun-warmed edge of the crevice and under sun-warmed rocks, and rarely ventures away from shelter during daylight hours (Brennan 2008).

REPRODUCTION: Live bearing. Mating probably takes place in spring. A brood of about 3 young is probably born in summer (Brennan 2008).

FOOD HABITS: Feeds on ants, flies, beetles, a variety of other insects, and spiders (Brennan 2008).

HABITAT: Rugged, rocky slopes and boulder fields within the Arizona Upland Sonoran Desertscrub, Semi-desert Grassland and Interior Chaparral communities provide habitat for this lizard. Patches of Great Basin Conifer Woodland also occur within its range. This crevice-dweller frequents large outcroppings and large boulder clusters and is occasionally encountered in and under plant debris such as dead *Dasyvirion* (Brennan 2008, Bezy 2005). This species is often found under exfoliating rock in granite outcrops (Papenfuss et al. 2001).

ELEVATION: 2400 – 5800 feet (730 – 1770 m). Brennan 2008.

PLANT COMMUNITY: Arizona Upland Sonoran Desertscrub (Saguaro-Paloverde Association), through the Semi-desert Grassland to the Interior Chaparral. Patches of Great Basin Conifer Woodland also occur within its range (Bezy 2005).

POPULATION TRENDS: Unknown. There are seven known collection sites in Arizona, but the last collection was a decade ago. IUCN (2018) considers the long-term and short-term trends to be “presumably relatively stable.” This judgement is probably derived because the rocky habitat is not well suited to other uses, and almost all the collections are on Forest Service lands.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: 2 (AZGFD, AWCS 2022)
[1B (AGFD SWAP 2012)]
OTHER STATUS: Forest Service Sensitive (USDA, FS Region
3, 2013)
IUCN Red List: Least Concern (IUCN 2018)

MANAGEMENT FACTORS: No specific management was recommended. IUCN (2018) states that current threats are unknown, but the species is probably not very threatened because its rocky habitat is not readily convertible to destructive human uses.

PROTECTIVE MEASURES TAKEN: *Xantusia bezyi* is listed as a 1B species by the Arizona Game and Fish Department and as a Sensitive Species by the USDA Forest Service. AGFD regulation R12-4-303-E prohibits the use of manual or powered jacking or prying devices to take reptiles or amphibians, and this prohibition provides an important measure of protection for *Xantusia* in the State. The majority of known collections are within Tonto National Forest lands (and Tonto National Monument), and another is within the Nature Conservancy's Aravaipa Canyon Preserve. This land stewardship provides some measure of additional protection.

SUGGESTED PROJECTS: Since the last known collection was made in 2008, another survey at known sites and in other areas that appear to be suitable habitat would serve to better define the status of this Sensitive species.

LAND MANAGEMENT/OWNERSHIP: Five of the seven known sites are on USDA Forest Service lands (Tonto NF and Tonto National Monument), one is within The Nature Conservancy's Aravaipa Canyon Preserve, and the last is on USDI Bureau of Land Management land.

SOURCES OF FURTHER INFORMATION**LITERATURE CITATIONS:**

- 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.
- Bezy, Robert L. 2005. The Night Lizards (*Xantusia*) of Arizona. *Sonoran Herpetologist* 18(2) 2005.

- Brennan, Thomas C. 2008. <http://www.reptilesfaz.org/Lizards-Subpages/h-x-bezyi.html>, Bezy's Night Lizard, *Xantusia bezyi*, accessed September 19, 2018.
- IUCN. 2018. Red List of Threatened Species: *Xantusia bezyi*. Accessed: September 20, 2018. <http://www.iucnredlist.org/details/64362/0>.
- NatureServe. 2018. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <https://explorer.natureserve.org/> (Accessed: September 20, 2018).
- Papenfuss, Theodore J., J. Robert Macey and James A. Schulte II. A new lizard species in the genus *Xantusia* from Arizona. 2001. Scientific Papers, Natural History Museum, The University of Kansas, No. 23:1-9. October 12, 2001.
- USDA, Forest Service Region 3. 2013. Regional Forester's Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Robert L. Bezy, Natural History Museum of Los Angeles County, Los Angeles, CA.

ADDITIONAL INFORMATION: The species is named for Robert L. Bezy.

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