

Catalogue of American Amphibians and Reptiles.

LEE, JULIAN C. 1976. *Xantusia henshawi*.*Xantusia henshawi* Stejneger
Granite night lizard

Xantusia henshawi Stejneger, 1893:467. Type-locality, "Witch Creek, San Diego County, California." Holotype, U. S. Nat. Mus. 20339, collected in May 1893 by H. W. Henshaw (Holotype not seen by author).

Zablepsis henshawi: Cope, 1895a:758. See NOMENCLATURAL HISTORY.

Xantusia picta Cope, 1895c:859. Type-locality, "Tejon Pass, California," probably in error, corrected by Van Denburgh (1916:14) to Poway, San Diego County, California. Holotype, Acad. Natur. Sci. Philadelphia 12881 (Malnate, 1971), probably collected by Dr. Frank E. Blaisdell (see NOMENCLATURAL HISTORY).

• CONTENT. Two subspecies are recognized: *henshawi* and *bolsonae*.

• DEFINITION. A medium-sized xantusiid (males reach 65 mm., females 70 mm. snout-vent length), with the head and body dorsoventrally flattened. The venter bears 14 longitudinal rows of rectangular scales, and the pupil is vertically elliptical. Femoral pores are present in both sexes, but are rudimentary in females.

• DESCRIPTIONS. The original description was brief, for Stejneger intended to publish subsequently a full description. Van Denburgh (1895) published the first detailed description, which he later repeated (Van Denburgh, 1922). Other general descriptions are those of Smith (1946), Stebbins (1954, 1966), and Lee (1975).

• ILLUSTRATIONS. Black and white drawings were presented by Stebbins (1954, 1966). Black and white photographs were given by Van Denburgh (1922), Wright and Wright (1931), Smith (1946), Shaw (1950), Webb (1970), and Lee (1975). Atsatt (1939) gave photographs illustrating diurnal and nocturnal color phases. Leviton (1971), and Gans (1975) published color photographs. Cope (1900), and Lee (1975) presented line drawings of scutellation and femoral pores, respectively. Savage (1963) illustrated the pectoral girdle. Bezy (1972) presented a photograph of the chromosomes ($2n = 40$). Stewart and Daniel (1975) published an electron micrograph of the parietal scale.

• DISTRIBUTION. *Xantusia henshawi* occupies arid and sub-arid habitats on both coastal and desert slopes of the San Jacinto and Santa Rosa Mountains, Riverside County, California, through the Laguna Mountains, San Diego County, California, into the San Pedro Martir Mountains, Baja California del Norte, Mexico. The northernmost locality is 1.6 km. S Cabazon, Riverside County, California (Glaser, 1970), and the southernmost is Arroyo Encantada, Baja California (California Acad. Sci. 57294-57296). The altitudinal range is from 130 to 2,250 m. A disjunct population (*bolsonae*) occurs in eastern Durango, Mexico (Webb, 1970). Local distribution is governed in part by the presence of suitable rock crevices formed by the weathering of granitic (*henshawi*) or andesitic (*bolsonae*) boulders. Webb (1970) published photographs of the habitat of *bolsonae*, and Lee (1975) included photographs of typical *henshawi* habitat.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. The most recent comprehensive work is that of Lee (1975) who discussed the ecology of this species and summarized distributional data. Much of the earlier literature was reviewed by Van Denburgh (1922), and Smith (1946). Mautz and Case (1974) reported on activity and oxygen consumption cycles, and Lee (1974) studied diel activity. Bezy (1972) published on karyology, Guttman (1971) presented electrophoretic data on hemoglobins, and Webb (1970) summarized variation in scutellation. Brattstrom (1965) reported on thermal biology. Brattstrom (1952) studied food habits, and Brattstrom (1951) and Shaw (1949) published information on reproduction. Klauber (1926, 1931, 1939) presented field observations and distributional data, and additional locality records were published by Murray (1955), and Glaser (1970). Atsatt (1925) published observations on captive lizards, and on color change (Atsatt, 1939).

• NOMENCLATURAL HISTORY. Cope (1895a) proposed *Zablepsis* as a monotypic genus for *Xantusia henshawi* Stejneger. Van Denburgh (1895) questioned this arrangement, and sub-

sequently (Van Denburgh, 1922) placed *Zablepsis henshawi* in the synonymy of *X. henshawi* Stejneger. Cope (1895b) described, but failed to name a supposedly new species of *Xantusia*. In a later publication (Cope, 1895c) he corrected the oversight, and named *Xantusia picta*. Van Denburgh (1916) synonymized *picta* with *X. henshawi*, and traced the complicated history of the type-specimen.

• ETYMOLOGY. The specific epithet honors H. W. Henshaw. According to Webb (1970), "The name *bolsonae* refers to the geographic position of this race in a southern outlier of the Bolson de Mapimi."

1. *Xantusia henshawi henshawi* Stejneger

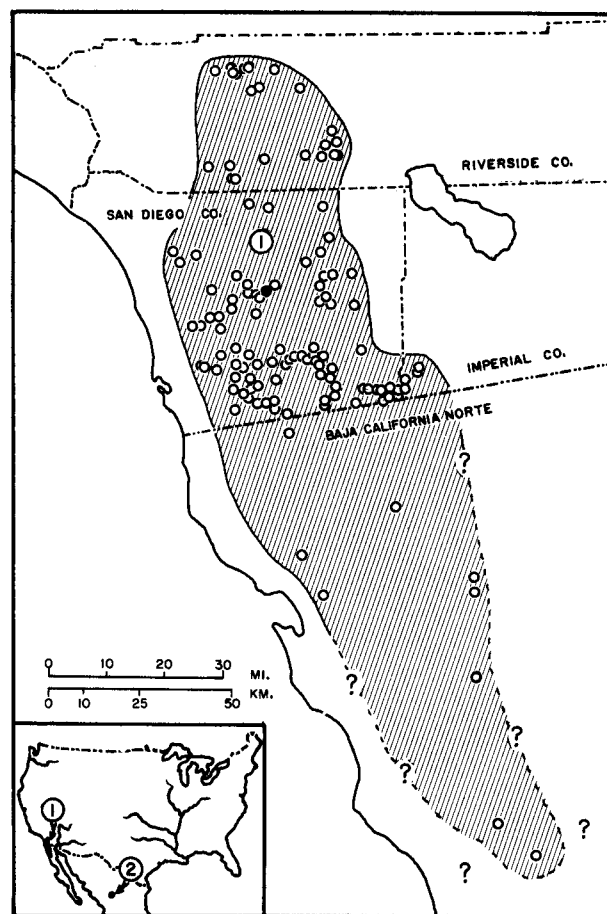
Xantusia henshawi Stejneger, 1893:467. See species account.

Xantusia henshawi henshawi: Webb, 1970:2. First use of trinomial.

• DEFINITION AND DIAGNOSIS. The mean snout-vent length in males is 56 mm., and in females 62 mm. Distinct post-orbital stripes are usually absent, and the dorsal color pattern undergoes daily rhythmic changes: by day the lizards are dark gray or black with fine yellowish reticulations, and at night the yellowish network expands, and the lizards become pale gray with smaller dark spots. *Xantusia h. henshawi* also differs from *X. h. bolsonae* in possessing more longitudinal rows of dorsal granules (mean 63), usually six supralabials, more femoral pores (mean 11), a wider head in relation to body length, and in apparently attaining larger size.

2. *Xantusia henshawi bolsonae* Webb

Xantusia henshawi bolsonae Webb, 1970:1. Type-locality, "6-6.5 road miles NE Pedriceña on Mexican Highway 40, at an elevation of 4400 feet, Durango, Mexico." Holotype, Los Angeles County Mus. Natur. Hist. 55956, collected 24-25



MAP. Solid circle and locality 2 (inset map) indicate type-localities. Question marks indicate doubtful distributional limits.

August, 1969 by Robert G. Webb and Robert M. Kinniburgh (holotype not seen by author).

• DEFINITION AND DIAGNOSIS. The maximum snout-vent length among the 10 known specimens is 57 mm. Distinct post-orbital stripes are invariably present, and the dorsal pattern consists of relatively small, irregular dark blotches. *Xantusia h. bolsonae* also differs from *X. h. henshawi* in possessing fewer longitudinal rows of dorsal granules (mean 50), usually seven supralabials, fewer femoral pores (mean seven), and a relatively narrow head.

• REMARKS. *Xantusia henshawi bolsonae* is known only from the type-locality. Webb (1970) discussed the relationships of the two subspecies.

LITERATURE CITED

- Atsatt, Sarah R. 1925. Observations on living *Xantusia henshawi*. *Copeia* (146):71-72.
- 1939. Color changes as controlled by temperature and light in the lizards of the desert regions of southern California. *Univ. California Los Angeles Publ. Biol. Sci.* 1(11):237-276.
- Bezy, Robert L. 1972. Karyotypic variation and evolution of the lizards of the family Xantusiidae. *Los Angeles County Mus. Contrib. Sci.* (227):1-29.
- Brattstrom, Bayard H. 1951. The number of young of *Xantusia*. *Herpetologica* 7(3):143-144.
- 1952. Food of the night lizards, genus *Xantusia*. *Copeia* 1952(3):168-172.
- 1965. Body temperatures of reptiles. *Amer. Midland Natur.* 73(2):376-422.
- Cope, Edward D. 1895a. The genera of Xantusiidae. *Amer. Natur.* 29(344):757-758.
- 1895b. A new *Xantusia*. *Ibid.* 29(345):859-860.
- 1895c. On the species of *Uma* and *Xantusia*. *Ibid.* 29(346):938-939.
- 1900. The crocodylians, lizards and snakes of North America. *Ann. Rept. U. S. Nat. Mus. for 1898*:153-1270.
- Gans, Carl. 1975. *Reptiles of the world*. Bantam Books, New York. 159 p.
- Glaser, H. S. Robert. 1970. The distribution of amphibians and reptiles in Riverside County, California. *Riverside Mus. Natur. Hist. Ser.* (1):1-40.
- Guttman, Sheldon I. 1971. An electrophoretic analysis of the hemoglobins of Old and New World lizards. *J. Herpetol.* 5(1-2):11-16.
- Klauber, Laurence M. 1926. Field notes on *Xantusia henshawi*. *Copeia* (152):115-117.
- 1931. A new species of *Xantusia* from Arizona, with a synopsis of the genus. *Trans. San Diego Soc. Natur. Hist.* 7(1):1-16.
- 1939. Studies of reptile life in the arid southwest. *Bull. Zool. Soc. San Diego* (14):1-100.
- Lee, Julian C. 1974. The diel activity cycle of the lizard, *Xantusia henshawi*. *Copeia* 1974(4):934-940.
- 1975. The autecology of *Xantusia henshawi henshawi* (Sauria: Xantusiidae). *Trans. San Diego Soc. Natur. Hist.* 17(19):259-278.
- Leviton, Alan E. 1971. *Reptiles and amphibians of North America*. Doubleday and Company, New York. 250 p.
- Malnate, Edmond V. 1971. A catalog of primary types in the herpetological collections of the Academy of Natural Sciences, Philadelphia (ANSP). *Proc. Acad. Natur. Sci. Philadelphia* 123(9):345-375.
- Mautz, William J., and Ted J. Case. 1974. A diurnal activity cycle in the granite night lizard, *Xantusia henshawi*. *Copeia* 1974(1):243-251.
- Murray, Keith F. 1955. Herpetological collections from Baja California. *Herpetologica* 11(1):33-48.
- Savage, Jay M. 1963. Studies on the lizard family Xantusiidae IV. The genera. *Los Angeles County Mus. Contrib. Sci.* (71):1-38.
- Shaw, Charles E. 1949. Notes on broods of two xantusiids. *Herpetologica* 5(2):23-26.
- 1950. The lizards of San Diego County with descriptions and key. *Bull. Zool. Soc. San Diego* (25):1-63.
- Smith, Hobart M. 1946. *Handbook of lizards: Lizards of the United States and of Canada*. Comstock Publ. Co., Ithaca, New York. xxi + 557 p.
- Stebbins, Robert C. 1954. *Amphibians and reptiles of western North America*. McGraw-Hill Co., New York. xiv + 557 p.
- 1966. A field guide to western reptiles and amphibians. Houghton Mifflin Co., Boston. xiv + 279 p.
- Stejneger, Leonhard. 1893. Diagnosis of a new Californian lizard. *Proc. U. S. Nat. Mus.* 16(944):467.
- Stewart, Glenn R., and Ronald S. Daniel. 1975. Microornamentation of lizard scales: some variations and taxonomic conclusions. *Herpetologica* 31(1):117-130.
- Van Denburgh, John. 1895. The species of the genus *Xantusia*. *Proc. California Acad. Sci.* 2nd Ser. 5:523-534.
- 1916. On the probable origin of the type specimen of Cope's *Xantusia picta*. *Copeia* (27):14-15.
- 1922. The reptiles of western North America, Vol. 1. *Occas. Pap. California Acad. Sci.* 10:1-611.
- Webb, Robert G. 1970. Another new night lizard (*Xantusia*) from Durango, Mexico. *Los Angeles County Mus. Contrib. Sci.* (194):1-10.
- Wright, Albert H., and Anna A. Wright. 1931. Some Stejneger species photographs from life. *Copeia* 1931(3):84-85.

JULIAN C. LEE, MUSEUM OF NATURAL HISTORY, UNIVERSITY OF KANSAS, LAWRENCE, KANSAS 66045.

Primary editor for this account, C. J. McCoy.

Published 5 November 1976 by the SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES.