

Catalogue of American Amphibians and Reptiles.

Ferguson, G.M., H.M. Smith, E.A. Liner, and D. Chiszar. 2006. *Sceloporus cautus*.

***Sceloporus cautus* Smith**
Wary Spiny Lizard
Lagartija espinosa llanera

Sceloporus cautus Smith 1938:2. Type-locality, "30 miles north of El Salado (San Luis Potosí), Coahuila, México." Holotype, Field Museum of Natural History (FMNH) 32008, an adult male, collected 21 August 1932 by E.H Taylor and H.M. Smith.

• **CONTENT.** No subspecies are recognized.

• **DEFINITION.** *Sceloporus cautus* is a moderately large species of *Sceloporus*; average adult size (in 30 largest of each sex) 72.4 mm SVL in males, 76.8 mm in females, maximum 88 and 89 mm respectively. It is a nondescript species, without any conspicuously distinctive features. From a sample of 97 males and 91 females, Ferguson (1982) recorded dorsals 33–41 (mean = 37); total femoral pores 20–31 (mean = 25); interfemoral pore scales 8–14. Head scales normal (usually parietals 1–1, frontoparietals 1–1 and in medial contact, frontal divided, prefrontals usually 1–1 (1–2 or 2–2 in <25%) and frequently separated, frontonasals 3, supraoculars 5, rarely 6, separated from median head scales by a single row of small scales and from superciliaries by a complete and an incomplete row of small scales; canthals 2–2; preoculars usually 1–1, occasionally 1–2 or 2–2; loreals usually 1–1, occasionally 1–2 or 2–2; subnasal usually separated from postrostral; postmentals 1–1, in contact.

Two postocular dark lines are usually (83%) fused in the temporal region. Dorsolateral light lines are diffuse, dim, and interrupted to various degrees by nar-

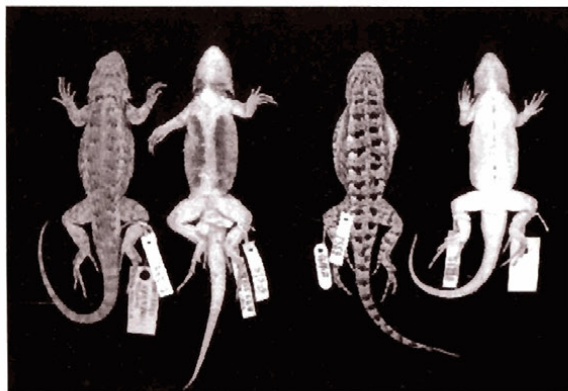


Figure 1. *Sceloporus cautus*, dorsal and ventral views of males (left) and females (right). Left to right, LACM 66179, 22 km S Agua Nueva, Coahuila, 1950 m; TCWC 57292, 38 km W Cedral, San Luis Potosí, 1900 m; UTEP 7559, 7 km E jct NL hwy 60 and 68, on hwy 60, Nuevo León, 1600 m; TCWC 54318, 18 km E San Roberto jct, NL hwy 60, Nuevo León, 2075 m. Photograph by George M. Ferguson.

row extensions from two paravertebral series of large, irregular dark spots. Bilateral black or dark-bordered blue abdominal semeions extend from near the axilla to near the groin in males, none in females; a pair of blue semeions appear posteriorly on the throat of both sexes, widely separated (mean = 5 scales), usually black-bordered in males, the border rarely in contact, and then by only one pair of scales. Limbs and tail are narrowly dark-barred. Enlarged postanal scales are present in males. The species is oviparous.

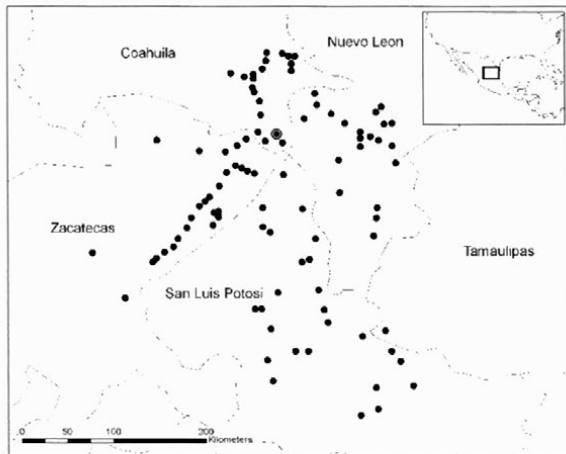
• **DIAGNOSIS.** A member of the large-bodied, large-scaled division of *Sceloporus* (*clarkii*, *edwardtaylori*, *formosus*, *lundelli*, *magister*, *spinus* and *torquatus* groups), but differing from them in the combination of the following characteristics: absence of a black dorsal collar or shoulder bars; no supraoculars in broad contact with median head scales; total femoral pores 20 or more; dorsals 33 or more; and paired gular semeions present in both sexes.

The species is most easily confused with the dichopatric taxon *S. undulatus*, the parapatric (probably narrowly sympatric) *S. edbelli* and the narrowly dichopatric (or nearly parapatric) *S. olivaceus*. The latter species occurs east of the Sierra Madre Oriental in the same latitudinal range as *S. cautus*, which occurs to the west of the Sierra; the two species are separated by less than 8 air km in at least one canyon corridor. *S. cautus* almost always has 34 or more (97.9%) dorsals and 6–7 (98.4%) scale rows between the dorsolateral light lines, corresponding numbers for *S. olivaceus* are <35 (97.4%) and 4–5 (96.7%), respectively. The gular semeions in males of the latter species are much more reduced than in the former, tiny and never dark-bordered; they are absent in females of *S. olivaceus*, almost always present in female *S. cautus*. Males of *S. olivaceus* have narrower abdominal semeions than *S. cautus*, and they are rarely black-bordered. They never reach the groin, and are shorter than in *S. cautus*. *S. olivaceus* is arboreal whereas *S. cautus* is essentially terrestrial.

Sceloporus cautus differs from *S. undulatus* and *S. edbelli* by usually having 8–14 interfemoral pore scales (vs. 4–7, 96.5%), usually 28 or fewer (98.4%) total femoral pores (vs. usually 29 or more [99.1%]), the two postocular dark lines fused in the temporal region (83% vs. 0%), and the abdominal semeion black borders seldom reach the groin (vs. usually). *S. undulatus* also differs from *S. cautus* in having brighter dorsolateral light lines.

• **DESCRIPTIONS.** Significant descriptions are in Smith (1938, 1939), Ferguson (1982, a thorough monograph), Ferguson et al. (2003), and Köhler and Heimes (2002).

• **ILLUSTRATIONS.** Ferguson (1982) provided black-and-white photographs in an unpublished dissertation, including dorsal and ventral views of the holotype. Wiens and Reeder (1997) provided a black-



Map. Distribution of *Sceloporus cautus*. The circled dot indicates the type-locality; solid dots indicate other sites of collection. Map courtesy of Blake Matejowsky.

and-white drawing of the male semeion. Burstein et al. (1974) provided photomicrographs of the dorsal scale surface. Cole (1972) illustrated the karyotype.

• **DISTRIBUTION.** *Sceloporus cautus* is recorded at altitudes of 1000–2200 m in the northeastern Mexican Plateau, west from the western edge of the Sierra Madre Occidental, barely entering Tamaulipas, south from southeastern Coahuila and central Nuevo León, north from southern San Luis Potosí and east from the northern half of Zacatecas. Although its distributional range encompasses pine woodland and desert grassland, *S. cautus* is primarily associated with desertscrub vegetation, seeking shelter in yucas and subterranean rodent burrows as well as in rupesrian habitats.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** References in the literature include: **anatomy and morphology** (Burstein et al. 1974, Etheridge 1964, Larsen and Tanner 1974); **behavior** (Bussjaeger 1971, Carpenter 1978, 1986, Ferguson 1977, Martins 1993); **checklists and similar compendia** (Bell et al. 2003, Flores Villela 1993, Frank and Ramus 1995, Kluge 1984, Köhler and Heimes 2002, Liner 1994, Marx 1958, Peters 1952, Smith and Smith 1976, 1993, Smith and Taylor 1950a, Smith et al. 1964, Sokolov 1988, Taylor 1944, Treviño Saldaña 1980); **biogeography and distribution** (Aseff-Martínez 1967, Dean 1984, Dixon et al. 1972, Domínguez et al. 1977, Ferguson 1982, Ferguson et al. 2003, Flores Villela 1991, 1993, Flores Villela et al. 1991, Fugler 1953, Liner 1966, 1992, Maldonado Koerdell 1953, Morafka 1977a, Smith 1938, 1939, Smith and Taylor 1950b, Taylor 1949, Treviño Saldaña 1978); **conservation** (Flores Villela and Gérez Fernández 1988, 1994); **immunology** (Wyles and Gorman 1978); **karyology** (Cole 1972, 1983, Gilboa 1975, Reed et al. 1990, Sites et al. 1992, and Sites and Haiduk 1979); **keys** (Ferguson 1982, Ferguson et al. 2003, Flores Villela et al. 1995,

and Smith and Taylor 1950b); **phylogeny and systematics** (Bell et al. 2003, Dean 1984, Ferguson 1982, Ferguson et al. 2003, 2006, Hall 1973, Harmon et al. 2003, Larsen and Tanner 1975, Leaché and Reeder 2002, Morafka 1977b, Sites et al. 1992, Smith 1938, 1939, Smith et al. 1991, 1992, 1995, Wiens 1993, 1999, 2000, Wiens and Reeder 1997); **reproduction** (Fitch 1970; Guillette et al. 1980; Méndez-de la Cruz et al. 1998).

• **ETYMOLOGY.** The word *cautus* is a Latin adjective meaning “wary” or “cautious”, thought to be descriptive of the behavior of this species. However, long experience with the species in the field suggests it is less wary than most other species of *Sceloporus* (GMF pers. obs.).

• **REMARKS.** Individuals of this species have frequently been misidentified as *S. undulatus*, *S. spinosus*, or *S. olivaceus*. Ferguson (1982) corrects some of these errors. This species has been placed in various species groups, reflecting its generalized character: the *undulatus* group by Smith (1939; Morafka 1977b:199 suggested that *S. cautus* is a subspecies of *S. undulatus*, although earlier [p. 107] he had regarded them as sibling species); *spinosus* group by Larsen and Tanner (1975); *horridus* group by Hall (1973) and Sites et al. (1992); *olivaceus* group by Bell et al. (2003). The *horridus* group combined parts of the *undulatus* and *spinosus* groups of Smith (1939). The *olivaceus* group was proposed as monotypic by Wiens and Reeder (1997), and the very close similarity of *S. olivaceus* and *S. cautus* was the basis for inclusion of the latter species in the *olivaceus* group by Bell et al. (2003). The two species are so closely similar that they have been suggested as subspecies of each other (Hall 1973:17). There is now little question that they belong in the same group. Ferguson et al. (2003) summarized the morphological overlap between the two species.

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