

Catalogue of American Amphibians and Reptiles.

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

***Sceloporus exsul* Dixon, Ketchersid, and Lieb**
Queretaran Desert Spiny Lizard

Sceloporus sp: Dixon, Ketchersid, and Lieb 1972a: 228.

Sceloporus exsul Dixon, Ketchersid, and Lieb 1972b: 307. Type-locality, "Peña Blanca, 1420 m, Querétaro, México." Holotype, Texas Cooperative Wildlife Collection (TCWC) 32376, an adult male, collected by C.A. Ketchersid, 14 June 1970 (examined by GMF).

Sceloporus exul: Méndez-de la Cruz, Villagrán-Santa Cruz, and Andrews 1998:522. *Lapsus*.

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

• **DEFINITION.** *Sceloporus exsul* is a medium-sized species of *Sceloporus* (maximum SVL 63 mm) with a sharply defined, broad dorsolateral light line, 1–1.5 scale rows wide. The dorsolateral lines enclose a uniformly dark brown dorsum (in males), usually 6 scale rows wide (or 5 plus two half scale rows); two paravertebral rows of small dark spots bordering dorsolateral light line medially are more prominent in females. No ventral markings are present in either sex. The original description is based on a series of 4 juveniles, a subadult female and one adult male, the holotype (Dixon et al. 1972b). Six additional adult specimens differ slightly from the type series (Ferguson 1982, Smith and Flores-Villela 1994). Variation is reported herein for 5 females and 3 males consisting of 6 additional adult specimens, the adult holotype and the subadult paratype, with the type series range discrepancies noted in brackets: dorsals 30–34 [35] (mean = 32); scales around body [32] 37–39 (mean = 37.5); bilateral femoral pores 23–30 (mean = 27.1); interfemoral pore scales 8–10 (mean = 8.3). Head scales are essentially normal: supraoculars 4–4, large (much as in *S. cautus* and *S. olivaceus*, but unlike *S. undulatus*), separated from median head scales and superciliaries by one row of scales; two canthals on each side. Enlarged postanal scales are present in males. The species is oviparous.

• **DESCRIPTIONS.** Descriptions are in Dixon et al. (1972b), Ferguson (1982), and Köhler and Heimes (2002).

• **ILLUSTRATIONS.** Black-and-white dorsal and ventral views of the holotype are in Dixon et al. (1972b). Male and female dorsal views of three specimens are in Ferguson (1982). Sites and Haiduk (1979) provided a black-and-white photograph of the karyotype.

• **DISTRIBUTION.** *Sceloporus exsul* is recorded at altitudes of 1280–1420 m in the semiarid valley of the



Figure 1. *Sceloporus exsul*, dorsal view of adult female, UTEP 7557, 1 km NE Peña Blanca, Querétaro, 1310 m. Photograph by George M. Ferguson.

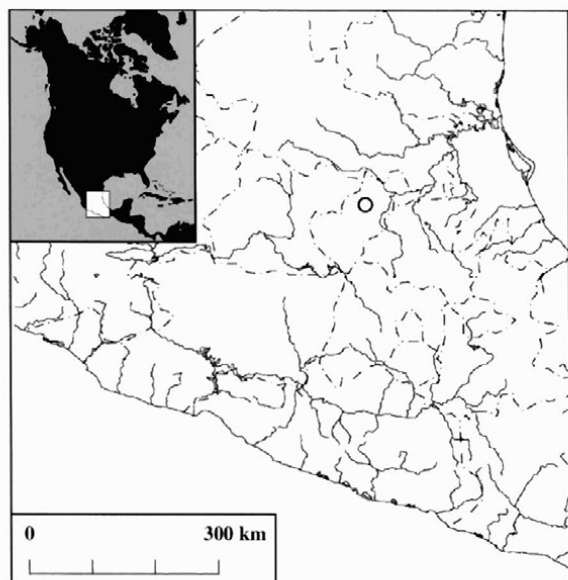
Río Extorraz in the vicinity (1.6 km N to 4 km S near hwy 120) of Peña Blanca, Querétaro. The species is probably restricted to that valley. It is associated with desertscrub vegetation and is primarily terrestrial.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** References in the literature include: **anatomy** (Larsen and Tanner 1974); **conservation** (CCNNPA 2000, SEDESOL 1994); **distribution and zoogeography** (Ferguson 1982, Flores Villela 1991, 1993, Flores Villela and Gérez 1988, 1994, Morafka 1977, and Smith and Flores Villela 1994); **general works** (Köhler and Heimes 2002); **karyology** (Reed et al. 1990, Sites and Haiduk 1979, and Sites et al. 1992); **phylogeny and systematics** (Dean 1984, Dixon et al. 1972b, Ferguson 1982, Leaché and Reeder 2002, Sites et al. 1992, Smith et al. 1992, Wiens 1999, and Wiens and Reeder 1997); **reproduction** (Guillette et al. 1980, and Méndez-de la Cruz et al. 1998). The species occurs in the followings **checklists, keys and similar compendia**: Bell et al. 2003, Flores Villela et al. 1995, Frank and Ramus 1995, Hutchins et al. 2003, Liner 1994, Smith and Smith 1976, 1993, and Sokolov 1988.

• **ETYMOLOGY.** The name *exsul* is Latin for "banished" or "exiled," applied in reference to the isolation of the species at the extreme southern periphery of the geographic distribution of its species group, some 110 km S and 215 km S, respectively, of its nearest relatives, *S. cautus* and *S. olivaceus*.

• **REMARKS.** Group allocation for this species has been controversial. It was originally, and subsequently by Wiens and Reeder (1997), referred to the *undulatus* group, later to the *horridus* group by Sites et al. (1992), *spinosus* group by Ferguson (1982), Smith et al. (1992) and Smith and Flores Villela (1994), and *olivaceus* group by Bell et al. (2003). The latter three groups are not conflicting; the *olivaceus* group is a part of the *spinosus* group, and the latter a part of the *horridus* group. When Wiens and Reeder (1997) established the *olivaceus* group, it was considered mon-



MAP. Distribution of *Sceloporus exsul*. The single symbol represents the type-locality and the other localities only a few kilometers away where the species has been taken.

otypic. Ferguson (1982:69), however, showed that "considerable [diagnostic] morphological overlap exists between *S. cautus* and *S. olivaceus*, and especially between *S. olivaceus* and *S. exsul*." Ferguson et al. (2003) summarized the morphological overlap of *S. cautus* and *S. olivaceus*, two close relatives of *S. exsul*. There is no diagnostic morphological overlap between these species and *S. undulatus* or *S. belli*, both members of the *undulatus* group with ranges adjacent to those of *S. cautus* and *S. olivaceus*. The latter two, with *S. exsul*, form a closely knit group morphologically. *Sceloporus exsul* is categorically distinct in pattern from the other members of the group, but the other two are quite similar.

It is likely that *S. exsul* arrived at its present sanctuary up a branch of the Río Pánuco, the lowland valleys of which are widely occupied by *S. olivaceus*, although not as far south at present as the Río Motezuma, of which the Río Extorraz, where *S. exsul* occurs, is a branch.

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