



# An Observation of Mating Behavior in the Horrible Spiny Lizard, *Sceloporus horridus* Wiegmann 1834

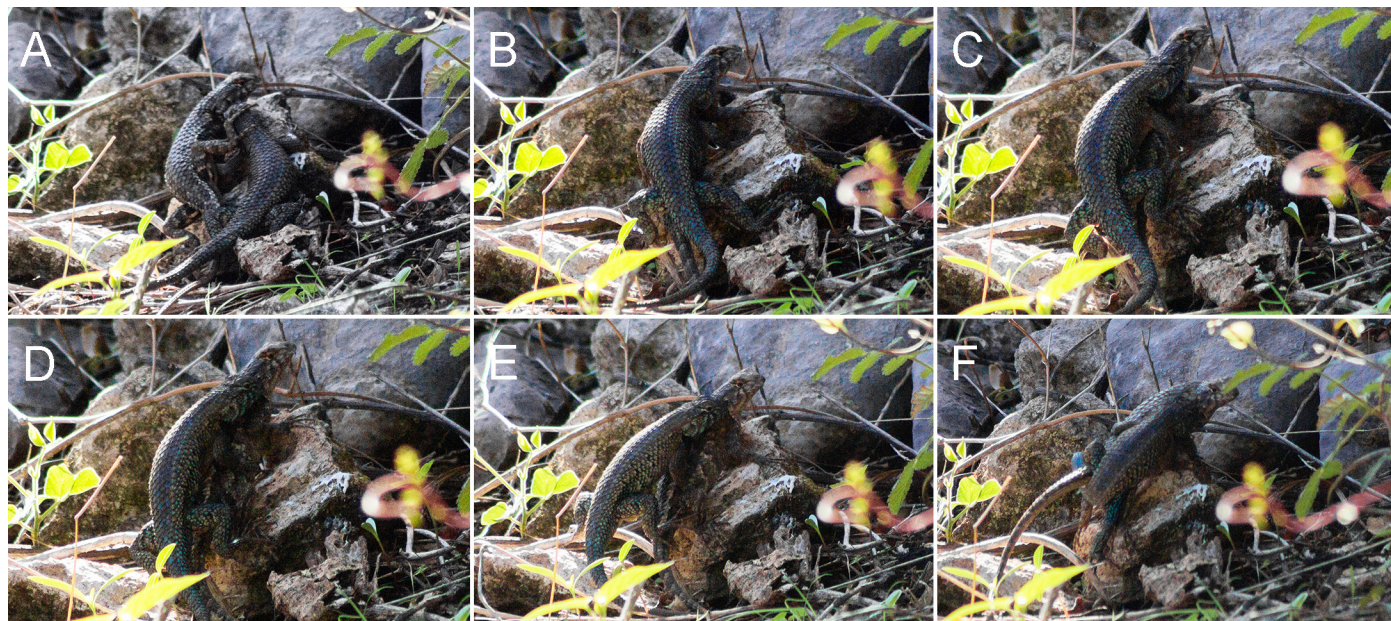
Luis Enrique Galeana-Barrera, Aaron García-Rosales, and Matias Martínez-Coronel

Department of Biology, Universidad Autónoma Metropolitana-Iztapalapa, Av. San Rafael Atlixco 186, Col. Purísima, Iztapalapa, C.P. 09340, Mexico, D.F., Mexico (luis.enrique.galeana98@gmail.com [corresponding author], <https://orcid.org/0009-0007-8536-6093>; aarongarcia23@gmail.com, <https://orcid.org/0000-0001-5671-9186>; marti17@hotmail.com, <https://orcid.org/0000-0002-4245-9309>)

Although they are as complex as those of other faunal groups, many aspects of reptilian behavior are poorly studied (Font 2002; Font et al. 2010). For example, in the genus *Sceloporus*, few studies address mating behavior (Carpenter 1962; Crisp 1964; Greenberg 1977; Davis 1980; Abell 1998; Carbajal-Márquez et al. 2013; García-Rosales et al. 2021a, 2021b). The Horrible Spiny Lizard (*Sceloporus horridus*) is a Mexican endemic with a distribution in the Mexican Pacific Plain from Nayarit, Aguascalientes, and Jalisco to Guerrero, penetrating the Balsas Basin in Morelos, southern Puebla, and central Oaxaca (Castro-Franco et al. 2017; Uetz et al. 2023), where it inhabits tropical and subtropical low deciduous and oak forests at elevations of 0–2,300 m asl (Valencia-Limón et al. 2014; Castro-Franco et al. 2017; Palacios-Aguilar and

Flores-Villela 2018). Sexual dimorphism, reproductive cycles (Valdéz-González and Ramírez-Bautista 2002; Valencia-Limón et al. 2014), and some courtship patterns have been described (Martínez 2023), but no previous publications have addressed mating behavior of the species.

We made the observations described herein in an agricultural zone, south of Iguala de la Independencia, Guerrero, Mexico (18.32222, -99.52788). The agricultural fields in the area are bordered by rock walls averaging 1.5 m in height and on which lizards frequently bask, vegetation consisted of White Cazahuate (*Ipomoea arborescens*) trees and grasses, and paths between agricultural plots averaged about 4 m in width. At 0908 h on 13 July 2023, we observed a *S. horridus* chasing another on a road, and we continued to watch them at a



**Figure 1.** Mating behaviors recorded in the Horrible Spiny Lizard (*Sceloporus horridus*) include mating bites (A–D), tail-folding (E), and intromission (F). Photographs by Luis Enrique Galeana-Barrera.

distance of 2–3 m. We identified the species based on other individuals captured previously and by using the taxonomic keys of Köhler and Heimes (2002) and the description of Smith (1939).

We recorded four mating behaviors, which occurred during a 40-second period (Fig. 1). Classification and descriptions of behaviors follow those of Ferguson (1970), Greenberg (1977), and García-Rosales et al. (2021a). Courtship involved pursuit (3–4 sec), with the male following the female until they were side-by-side. Mating began with mating bites (~14 sec) by means of which the male grasped the female's nape or back while he attempted to mount her. At the same time, although being immobilized by the male, the female tried to push the male away with her right hindleg while he used both forelimbs to hold her in place. Tail-folding (~6 sec) involved the male arching the posterior part of his body while attempting to push aside the female's tail with his right hindleg as he tried to align his cloaca with that of the female. Intromission or actual copulation (~8 sec) occurred when the male inserted a hemipenis into the female's cloaca while wagging his tail (possibly indicating ejaculatory lunges). Mating was concluded when the male uncoupled and moved away from the female with his back arched (~8 sec). The female subsequently ran away from the male with him moving off in the same direction.

The mating behaviors we observed in *S. horridus* were similar to those recorded for congeners such as *S. undulatus* and *S. cyanogenys*, suggesting that mating is a conservative behavior in the genus *Sceloporus* (Carpenter 1962; Crisp 1964; Greenberg 1977; Martín and Bateson 2007; Leaché 2010; García-Rosales et al. 2021a). Also, notable was the timing of the event. Valencia-Limón et al. (2014) noted that maximum male reproductive activity occurs from April through June before declining in July, suggesting that the behavior we observed occurred near the end of the mating season.

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