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FIRST RECORD OF SCOLIOSIS IN THE WESTERN MARBLED WHIPTAIL, *ASPIDOSCELIS MARMORATUS* (BAIRD & GIRARD, 1852)

PRIMER REGISTRO DE ESCOLIOSIS EN EL HUICO MARMOREO, *ASPIDOSCELIS MARMORATUS* (BAIRD & GIRARD, 1852)

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Resumen.– Reportamos el prime caso de escoliosis caudal en un macho adulto de *Aspidoscelis marmoratus* del extremo oeste de Texas, en el norte del Desierto Chihuahuense. Este registro representa el segundo taxón en el género *Aspidoscelis* donde esta condición ha sido documentada.

Palabras clave.– *Aspidoscelis*, Desierto Chihuahuense, escoliosis, Squamata.

Abstract.– We report the first case of caudal scoliosis in an adult male of *Aspidoscelis marmoratus* from far west Texas, in the northern Chihuahuan Desert. This record represents the second taxon in the genus Aspidoscelis where this condition has been documented.

Key words.– *Aspidoscelis*, Chihuahuan Desert, scoliosis, Squamata.

Tail malformations such as supernumerary tails have been documented in lizards of the genus *Aspidoscelis* (Bateman & Chung-MacCoubrey, 2013; Cordes & Walker, 2013; Heyborne et al., 2019; Trauth et al., 2014); however, less frequent are accounts regarding tails with scoliosis (lateral curves of the spine). Herein, we report caudal scoliosis on the Western Marbled Whiptail, *Aspidoscelis marmoratus*, a species commonly found in diverse habitats of the Chihuahuan Desert such as desert scrub, arroyos, alluvial flats, and distributed from southern New Mexico and western Texas to northern Mexico (Behler & King, 1979; Mata-Silva et al., 2010). This observation occurred at a site deployed with a set of 50 pit-fall traps surrounding the headquarters of The University of Texas at El Paso's (UTEP) Indio Mountains Research Station (30.782778° N, 105.015278° W; WGS 84), 1,233 m a.s.l.), in Hudspeth County, Texas. The landscape at the site is characterized by conglomerate rocky slopes and alluvial fans containing vegetation typical of Chihuahuan Desert scrub (Mata-Silva et al., 2013).

On 26 June 2021, a male *A. marmoratus* fell in one of the pit-fall traps (ID: 1-4) established as part of a long-term mark-recapture study. Upon closer examination, we noticed that the regenerated portion of its tail had obvious symptoms of scoliosis (Fig. 1). The lizard (marked as 3-11) had a snout-vent length (SVL) of 86 mm, a tail length (TL) of 130 mm (regenerated portion = 65 mm), and a mass of 19.6 g.

The lizard was captured again on 10 July 2021, in the same pit-fall trap. This time, the individual had a SVL of 88 mm, a TL of 135 mm (regenerated portion = 70 mm), and a mass of 20.6 g. After being processed, we released the lizard at the site of capture. Based on the adult age of the individual, it can be assumed that this condition likely does not impact survival. However, the latter aspect remains poorly understood. Even though this project has been taking place for almost two decades, and several cases of bifurcated tails have been observed in this species (VMS pers. observ.), this is the first time that a case of scoliosis has been noticed in an individual (out of 988) of this population. So far, there is only one report of caudal scoliosis in the genus *Aspidoscelis*, particularly in an individual of *A. tigris* from Grand Canyon National Park, Arizona (Heyborne, 2021). Consequently, our observation herein represents the

Figura 1. Cola de un macho adulto de Huico Marmoreo (*Aspidocelis marmoratus*) con signos de escoliosis en Indio Mountains Research Station, Hudspeth Co., Texas.
Figure 1. Tail of an adult male specimen of the Western Marbled Whiptail (*Aspidocelis marmoratus*) exhibiting signs of scoliosis at Indio Mountains Research Station, Hudspeth Co., Texas.

first published documentation of scoliosis for *A. marmoratus*, and the second taxon in the genus Aspidoscelis exhibiting this condition. Scoliosis in reptiles can result from injury, calcium deficiency, malnutrition, or birth defect. This condition seems to be relatively common in captive animals (Doneley et al., 2018).

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