



## Two Xanthic Spotted Brown Tropes, *Tropidophis pardalis* (Squamata, Tropidophiidae), in Havana, Western Cuba

Javier Torres<sup>1</sup>, Ruben Marrero<sup>2</sup>, Orlando J. Torres<sup>1</sup>, and Víctor M. Ramírez<sup>3</sup>

<sup>1</sup>Departamento de Biología Animal y Humana, Facultad de Biología, Universidad de la Habana, CP 10400, La Habana, Cuba (javiertorres@fbio.uh.cu)

<sup>2</sup>División de Zoología de Vertebrados, Instituto de Ecología y Sistemática, Calabazar, Boyeros, La Habana, CP 11900, Cuba

<sup>3</sup>Facultad de Biología (student), Universidad de la Habana, CP 10400, La Habana, Cuba

The Spotted Brown Trope (*Tropidophis pardalis*) is one of 16 Cuban species of *Tropidophis*; all are endemic (Henderson and Powell 2009). It has a wide, albeit discontinuous, distribution and is most frequently found in western

Cuba (Schwartz and Henderson 1991, Rodríguez et al. 2013). It is a small, relatively common, nocturnally active, ground-dwelling snake found in a wide variety of habitats (Schwartz and Henderson 1991). Its secretive behavior is enhanced by



**Figure 1.** *Tropidophis pardalis*. (A) Typical morph (adult in light phase); insert showing ventral pattern. (B) Typical morph (immature in dark phase). (C) Cinnamon morph (adult in transition phase). (D) Xanthic morph (adult); insert showing ventral pattern. Photographs by Javier Torres (A–B) and Ruben Marrero (C–D).

**Table 1.** Comparison of xanthic and non-xanthic *Tropidophis pardalis* morphs. All characters refer to color traits except when specified. Most of these traits are evident in Fig. 1. The order in which elements appear in multi-state cases is not indicative of frequency. N = number of specimens examined.

Character	Xanthic Morphs N = 2	Non-xanthic Morphs N = 28
Tongue (except tip)	red	brown to black
Tongue tip	rosy	white
Post-nasal band	reddish	brown
Iris	gray	gray, brown
Pupil	red	black
Presence of ocular bar	no	yes
Presence of occipital spots or neck band	no	yes, no
Dorsal ground color	whitish to yellowish	gray to brown, reddish
Longitudinal stripes	reddish	orange, reddish
Dorsolateral spots	yellow	brown to black
Ventral spots	pale brown	dark brown, black
Tail	orange	light brown, yellow, orange
Contrast between body and tail	slight	high

cryptic dorsal coloration, which is characterized by irregular black spots sometimes combining to form crossbands on a cinnamon to dark brown background. The venter has two rows of spots on a white to beige background. The tail tip can be yellow, orange, or light brown (Fig. 1A–C).

Herein we report the discovery of two xanthic individuals. On 5 October 2012 at 1030 h, we found an adult female *T. pardalis* (MFP 12503<sup>1</sup>) under a flat stone in a residential backyard (23.07755°N, -82.44001°W; datum: NAD27) at Marianao, La Habana, Cuba. Nine months later (7 June 2013 at 1530 h), we found another xanthic adult (Fig. 1D) at the same locality, also under a rock, but approximately 10 m from the first snake. We compared xanthic and non-xanthic morphs (Table 1) using photographs of 30 live snakes from La Habana (23 + 2 xanthic), Artemisa (2), Pinar del Río (1), Cienfuegos (1), and Sancti Spiritus (1).

Like other tropidophiids that change cyclically from light to dark phases (Rehak 1987, Hedges et al. 1989), *T. pardalis* exhibits a physiological circadian pattern (Fig. 1). However, neither xanthic individual exhibited different color phases, probably attributable to the near absence of melanin (Fig. 1D), the pigment responsible for the dark phase (Hedges et al. 1989).

Conspicuous coloration patterns generally are unfavorable for concealment, although nocturnal activity may have contributed to the survival of these individuals. The close proximity of the two xanthic snakes and their very similar sizes suggest that they were siblings, especially since xanthism appears to be very rare in *T. pardalis*.

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<sup>1</sup> MFP is the acronym for the Museum of Natural History “Felipe Poey” at the Faculty of Biology, University of Havana, Cuba.