

## Arboreality in blindsnakes (Typhlopidae) and threadsnakes (Leptotyphlopidae) from Hispaniola

Miguel A. Landestoy T. 

Instituto de Investigaciones Botánicas y Zoológicas, Universidad Autónoma de Santo Domingo, República Dominicana.  
E-mail: hispanioland@gmail.com

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Scolecophidian snakes, which include the blind and thread snakes (Miralles *et al.* 2018), usually have fossorial or ground-dwelling life styles, although some are known to climb rocks or vegetation. Das and Wallach (1998) reviewed cases of arboreality in this group, and additional records have been published since (Bazzano 2007; Murphy *et al.* 2016; Harrington *et al.* 2018; Kraus 2017; Repp 2019; de Fraga and de Carvalho 2022).

The natural history of these snakes on Caribbean islands is poorly known. Henderson and Powell (2009) compiled natural history information on Caribbean herpetofauna in which definite climbing behavior is mentioned only for three species of Typhlopidae. According to the current zoogeographical definition of the Caribbean region (Hedges *et al.* 2019), records of arboreality in scolecophidian species can be expanded. The new addition is for the leptotyphlopoid *Epictia tenella* (Klauber), which was recorded 1.5 m high in a tangle of lianas lying against a trunk (Murphy *et al.* 2016). For Typhlopidae, *Antillytyphlops catapontus* (Thomas) was found climbing into big carton nests of termites (Lazell 2006), *A. richardii* (Duméril and Bibron) was found 1.5 m high in a tree (*Metopium toxiferum*; Tolson and Campbell 1989), and *Typhlops lumbricalis* Linnaeus was found 1 m above the ground in a rotting petiole base still attached to a fan palm (Schwartz and Henderson 1991). Arboreal or climbing behavior in scolecophidian snakes occurs when the snakes follow chemical cues left by their prey, which consist usually of ants and termites (Gehlbach *et al.* 1971; Webb and Shine 1992).

Here, I report observations of scolecophidian snakes from Hispaniola that were actively exposed on plants or found within epiphytes in trees. Additionally, I include one observation on the diurnal activity of a leptotyphlopoid snake. These records appear to be the first for any Hispaniolan scolecophidian. Specimens were collected and deposited in the Museo Nacional de Historia Natural Eugenio de Jesus Marcano (MNHNSD) of Santo Domingo, Dominican Republic.

**Typhlopidae.** *Typhlops sulcatus* Cope. Specimen MNHNSD 23.3978, collected at Loma Las Trincheras, Paso Sena (18.07595 -71.73335 WGS84), 4 km N Pedernales, 2 August 2020, climbing down in an almost vertical orientation from a fairly tall *Phyllostylon rhamnoides* tree; spotted when at 3 m high, it continued moving towards the base of the tree until it was reachable by hand and captured. In this same locality, on the night of 4 November 2022, at 2033 h, a *Typhlops sp.* (likely the same species but not collected) was observed at 1.5 m high crawling along a horizontally bent trunk of *Guaicum sanctum* before sliding into a cavity (Fig. 1).

Specimen MNHNSD 23.3979 was collected at Cayo Pei (17.731023 -71.375617), Laguna de Oviedo, Pedernales, 24 May 2021. The snake was found during daytime in an epiphytic bromeliad (*Tillandsia utriculata*) that was about 1.5 m high on a mangrove tree (*Conocarpus erectus*) that had a proximate total height of 2.5 m. The tree was at the edge of the small key (~23 m<sup>2</sup>). The neighboring key, Cayo de las Iguanas is approximately 60 m away and the water in the lake is hypersaline.

**Leptotyphlopidae.** *Mitophis pyrites* (Thomas). Specimen MNHNSD 23.3980 was collected at Paso Sena (18.09017 -71.73896; water treatment plant), Pedernales, on 16 October 2021. At around 1800 h, it was seen ex-



**Figure 1.** Uncollected *Typhlops* sp. found crawling 1.5 m high in the bent stem of a tree before entering a cavity. Photo taken by the author using a mobile phone, at Paso Sena, Pedernales, Dominican Republic.

posed and crawling in a nearly vertical fashion in the root system of a coconut tree, about 30 cm in height to the base of the stem. The surface was still moist from a recent rain shower. The present record constitutes the first for any Hispaniolan leptotyphlopoid being active during the daytime. Other records in the region are those of Barbour (1914) and Dunn and Saxe (1950) that report diurnal activity in *Epictia magnamaculata* (Taylor) at Swan and Providencia islands, respectively.

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