



Rediscovery of the enigmatic blind snake genus *Xenotyphlops* in northern Madagascar, with description of a new species (Serpentes: Typhlopidae)

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Abstract

After more than a century the rare blind snake genus *Xenotyphlops* Wallach & Ineich (1996) has been rediscovered in Madagascar, with the collection of a specimen from the arid northern part of the country. This represents only the third known *Xenotyphlops* specimen and establishes the first precise locality for the genus. As it differs from *Xenotyphlops grandidieri* (Mocquard) in several external and numerous internal features, it is here described as a new species.

Key words: *Xenotyphlops*, Typhlopidae, *X. grandidieri*, new species, Madagascar, viscera

Introduction

In the beginning of the twentieth century, the French herpetologist François Mocquard (1905) described a most unusual typhlopoid, named *Typhlops grandidieri*, based upon two specimens with the vague type locality of “Madagascar.” This bizarre scolecophidian has been known solely from the type specimens for more than 100 years (Guibé, 1958; Blanc, 1971; Brygoo, 1983, 1987; McDiarmid et al., 1999). Wallach & Ineich (1996) erected the genus *Xenotyphlops* to reflect the distinctness of this blind snake, which shared some peculiar characteristics typical of the Leptotyphlopidae (e.g., single enlarged anal shield, absence of a tracheal lung, cranially positioned heart with long heart-liver gap, heavily vascularized, unicameral right lung lacking avascular terminal portion, and type G bronchial foramina). However, the majority of characters corroborated its inclusion within the Typhlopidae (e.g., dentigerous maxilla and edentulous dentary, 20 midbody scale rows, costal/vertebral ratio greater than 1.0, a single pelvic element, left liver lobe forming anterior extension, and unipartite liver). On the other hand, some further characters suggested a relationship to the *Rhinotyphlops* (= *Letheobia* fide Broadley & Wallach, 2000; Wallach, 2005) *simoni* and/or *R. caecus* species groups, such as the lack of visible eye, reduction of most head shields, T-0 supralabial imbrication pattern, corneal cutting edge on rostral, inferiorly located nostrils, elongated body with uniform diameter throughout, and absence of scale row reduction, pigmentation and apical spine. Additionally, a unique scolecophidian feature was described: soft, flexible cephalic papillae on the rostral shield (Wallach & Ineich, 1996: Fig. 1).

Guibé (1958) and Wallach & Ineich (1996) illustrated the species but it remained the only Malagasy typhlopoid for which no specific locality was available (Werner, 1921; Hahn, 1980; Glaw & Vences, 1994; McDiarmid et al., 1999). The obscure phylogenetic position and the geographic vagueness of its provenance made this typhlopoid highly enigmatic. Due to this, the discovery of an individual clearly belonging to the