



A new species of pitviper of the genus *Protobothrops* from China (Squamata: Viperidae)

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Abstract

A new species of pitviper, *Protobothrops maolanensis* **sp. nov.** is described from the forested karst region in Maolan National Nature Reserve, Guizhou, China based on scalation, body proportions and color pattern. Data on the natural history of the new species are provided and a new key to the currently recognized species of *Protobothrops* is given. The new discovery and other recent findings suggest that further research is desirable in the karst regions in southern China and adjacent Vietnam, Laos and Myanmar.

Key words: Crotalinae, karst region, *Protobothrops maolanensis* **sp. nov.**, snake, taxonomy, *Trimeresurus* sensu lato

Introduction

The Old World pitvipers of the genus *Trimeresurus* sensu lato are the most speciose group of Asian venomous snakes. They are widely distributed from northern peninsular India (Western Ghats) and Sri Lanka eastward to Taiwan, Japan (Ryukyu Archipelago) and the Philippines. They are recorded from the southern provinces of China southward through Indochina and the islands of the Sunda Shelf. The past ten years have witnessed the description of several new species of *Trimeresurus* sensu lato. Currently the group contains more than 50 species (Orlov *et al.*, 2002; Gumprecht *et al.*, 2004; Ziegler *et al.*, 2000; David *et al.*, 2002; Sanders *et al.*, 2004; Grismer *et al.*, 2006, 2008; Orlov *et al.*, 2009).

The taxonomy and phylogeny of *Trimeresurus* sensu lato is fairly well resolved. Several genera are now recognized on the basis of morphological and molecular analyses (Malhotra and Thorpe, 2004). Currently, ten genera are recognized: *Trimeresurus* Lacépède 1804, *Parias* Gray 1849, *Cryptelytrops* Cope 1860, *Peltopelorus* Günther 1864, *Viridovipera* Malhotra and Thorpe 2004, *Garthius* Malhotra and Thorpe 2004, *Popeia* Malhotra and Thorpe 2004, *Himalayophis* Malhotra and Thorpe 2004, *Protobothrops* Hoge and Romano-Hoge 1983, and *Ovophis* Burger in Hoge and Romano-Hoge (Malhotra & Thorpe, 2004; Guo *et al.*, 2007; Malhotra *et al.*, 2010). The genus *Protobothrops* contains 13 species and subspecies as follows: *P. elegans* (Gray, 1849), *P. flavoviridis* (Hallowell, 1861), *P. sieversorum* (Ziegler, Herrmann, David, Orlov and Pauwels, 2000), *P. tokarensis* (Nagai, 1928), *P. trungkhanhensis* Orlov, Ryabov and Nguyen 2009, *P. jerdoni jerdoni* (Günther, 1875), *P. j. bourreti* (Klemmer, 1963), *P. j. xanthomelas* (Günther, 1889), *P. cornutus* (Smith, 1930), *P. kaulbacki* (Smith, 1940), *P. mangshanensis* (Zhao, 1990), *P. mucrosquamatus* (Cantor, 1939) and *P. xiangchengensis* (Zhao, Jiang and Huang, 1979). These species inhabit the central and northern regions of Indochina, eastern India, southern China, including Taiwan and Hainan, and the Ryukyu Archipelago of Japan. The latter six species occur in China (Zhao & Adler, 1993; Zhao *et al.*, 1998; David & Ineich, 1999; Gumprecht *et al.*, 2004; Guo *et al.*, 2006, 2007, 2009; Zhao, 2006; David *et al.*, 2008; Orlov *et al.*, 2002, 2009). Monophyly of the genus *Protobothrops* has been corroborated by morphological and molecular studies, resulting in the synonymy of two genera, *Zhaoermia* Gumprecht and Tillack, 2004 and *Triceratolepidophis*