



Revision of the diagnostic characters of *Opisthotropis maculosa* Stuart and Chuaynkern, 2007 with notes on its distribution and variation, and a key to the genus *Opisthotropis* (Squamata: Natricidae)

JIAN-HUAN YANG¹, YING-YONG WANG¹, BING ZHANG¹,
MICHAEL WAI-NENG LAU² & WEN-HAO CHOU^{3,4,5}

¹School of Life Sciences, Sun Yat-sen University, 135 Xingangxi Road, Guangzhou 510275, P. R. China.

E-mail: wangyy@mail.sysu.edu.cn

²Kadoorie Farm and Botanic Garden, Lam Kam Road, Tai Po, New Territories, Hong Kong SAR, P. R. China

³Department of Zoology, National Museum of Natural Science, Taichung 404, Taiwan, ROC

⁴Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ROC

⁵Corresponding author. E-mail: whchou@mail.nmns.edu.tw

Abstract

Opisthotropis maculosa was described based on a single specimen collected from northeastern Thailand in 2007. We collected three specimens from Guangxi and Guangdong, China. These additional specimens provide the first information on morphological variation in this species, including sex-related differences. Based on the new information, we revise the diagnostic characteristics of this species and provide a key to the currently recognized species of *Opisthotropis*.

Key word: China, diagnosis, herpetology, morphology, sexual dimorphism, snakes

Introduction

The oriental snakes of the genus *Opisthotropis* (Günther 1872), currently containing ca. 20 species, are distributed across southern China and mainland Southeast Asia extending to Sumatra (Indonesia), the Philippines and northward to the Ryukyu Archipelago of Japan (Zhao & Adler 1993; Orlov *et al.* 2000; Stuart 2006; Stuart & Chuaynkern 2007; Murphy *et al.* 2008; Ziegler *et al.* 2008). Fascinatingly, most of the species are known only from very few specimens or described based on single specimens (see Stuart & Chuaynkern 2007 and Ziegler *et al.* 2008 for examples and references). These natricid snakes, normally inhabiting hill streams and nearby terrestrial habitats, have been known to forage on juvenile crabs (Ota, 2004), and earthworms, fishes, tadpoles, frogs, and shrimps (as reviewed by Ziegler *et al.* 2008). Probably due to their secretive nocturnal lives in stream habitats, the diversity of this genus is likely still not fully revealed, and two species were described in the last few years when field efforts were enhanced (Stuart & Chuaynkern 2007; Ziegler *et al.* 2008).

In 2004, Kadoorie Farm and Botanic Garden (KFBG 2004) reported an unidentified species of *Opisthotropis* from a hill stream in Dawuling Nature Reserve (collected in July 2002), western Guangdong Province, China and noted it was probably an undescribed species. In July 2009, while conducting a survey of amphibians and reptiles in southern Guangxi Zhuang Autonomous Region, China, we collected two adult natricid specimens in riparian habitats of subtropical forests. The morphological characters of these three specimens agreed with Smith's (1943) definition of the genus *Opisthotropis*. We identified these three specimens as *O. maculosa*, a species described originally from Thailand, based on the combination of the following characters: all scales smooth; 15 dorsal scale rows; glossy black dorsum with single yellow spot on each scale (Stuart & Chuaynkern 2007). The three specimens, two males and one female, represent not only the second to fourth known reports of the species but also a new record for China.