



A new species of insular pitviper of the genus *Cryptelytrops* (Squamata: Viperidae) from southern Vietnam

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Abstract

We describe a new species of pitviper *Cryptelytrops honsonensis* sp. nov. from Hon Son Island in Rach Gia Bay, Kien Giang Province of southern Vietnam based on it having unique aspects of scalation, body proportions, and color pattern. It is similar to *C. venustus* in morphology and color pattern and the putative close relationship between these species would corroborate a biogeographical link across southern Indochina seen in a number of other taxa. The presence of this newly discovered insular endemic in Rach Gia Bay and other insular endemics of Rach Gia Bay addressed herein, underscores the understudied nature of these islands and the need for their continued conservation.

Key words: *Cryptelytrops honsonensis*, *C. venustus*, Hon Son, Rach Gia Bay, Vietnam, Indochina

Introduction

Pitvipers of the genus *Trimeresurus sensu lato* are generally nocturnal, terrestrial or arboreal species that inhabit a wide variety of environments ranging from meadows to plantations, open bushy areas and, secondary lowland forests to primary cloud forests (Malkmus *et al.* 2002; Vogel 2006). It is the largest group of Asian pitvipers and its 45 or so species collectively range from northern India in the west, eastward through the majority of East Asia to Taiwan and the Ryukyu Archipelago, Japan; and southward through the Philippines, Thailand, West Malaysia, Borneo, and the other major islands of the Sunda Shelf (Sumatra, Java, Sulawesi and some smaller islands extending east to Pulau Kisar; Gumprecht *et al.* 2004; Malkmus *et al.* 2002; Manthey & Grossmann 1997; Vogel 2006).

In a combined molecular and morphological phylogeny, Malhotra & Thorpe (2004a) found the monophyletic *Trimeresurus sensu lato* to contain five major clades which they assigned to eight genera. One of these genera, *Cryptelytrops*, contains at least 12 species that collectively range from northern India, Bangladesh and the Andaman and Nicobar islands, across Indochina through southern China, Myanmar, Thailand, Cambodia, Laos, and Vietnam. From here the group extends southward through the Malay Peninsula to Sumatra and eastward across Wallace's Line through many of the Lesser Sunda islands to as far Pulau Kisar (Gumprecht *et al.* 2004). Orlov *et al.* (2003) reported *Trimeresurus* cf. *kanburiensis* from central Vietnam. Their recognition of this species as *T. kanburiensis* would place it in the genus *Cryptelytrops* (*sensu* Malhotra & Thorpe 2004a). Later, Orlov *et al.* (2004) described this population as the new species, *T. truongsongensis*, concluding that it could not be aligned with any of the genera constructed by Malhotra & Thorpe (2004a). In contradiction to this conclusion, however they noted character state similarities, including the derived condition of the Type 1