



A new species of Temple Pitviper (*Tropidolaemus* Wagler, 1830) from Sulawesi, Indonesia (Squamata: Viperidae: Crotalinae)

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Abstract

The Asian Temple Pitviper *Tropidolaemus wagleri* is a widespread polytypic species complex with a complicated taxonomic history, a lengthy species synonymy list, and a geographic distribution encompassing Vietnam, Thailand, Malaysia, Singapore, Brunei, portions of Indonesia, and the Philippines. As a prelude to a comprehensive review of this species complex, we describe a new species of Temple Pitviper based on five historic museum specimens from the Indonesian island of Sulawesi. The new species can be distinguished from sympatric members of the *Tropidolaemus subannulatus* complex and other congeners on the basis of its conspicuous color pattern and scalation characters. Available collecting data suggest that the new species has a wide distribution in rainforests and lower montane wet forests of Sulawesi Utara and Sulawesi Tengah provinces.

Key words: Reptilia, Squamata, Viperidae, Crotalinae, *Tropidolaemus*, *Tropidolaemus laticinctus* sp. nov., *Tropidolaemus subannulatus*, *Tropidolaemus wagleri*, Indonesia, morphological characters, pitviper, snake, Southeast Asia, Sulawesi, venomous

Introduction

The genus *Tropidolaemus* Wagler, 1830 currently comprises two species of pitvipers from mainland and insular Asia (McDiarmid et al. 1999; Gumprecht et al. 2004). These small to medium-sized (about 35–100 cm total length) snakes are arboreal ambush predators with remarkable morphological features (Burger 1971; Hoge & Romano-Hoge 1983). Their venom contains neurotoxins called waglerins which are unique among snake venom toxins (Molles & Taylor 2002). Snakes of this genus are used in ceremonial contexts and traditionally displayed in a Buddhist temple in Pulau Pinang, Malaysia (Manthey & Grossmann 1997), and consequently often referred to as Temple Pitvipers, or Wagler's Pitvipers.

After a long period of inclusion in the complex genus *Trimeresurus* (sensu lato), *Tropidolaemus* was resurrected from synonymy and regarded as a subgenus of the latter by Brattstrom (1964) based on anatomical and external characters. On the basis of morphological characteristics Burger (1971) considered *Tropidolaemus* to be a distinct genus. This view was widely adopted in the literature (e.g., Hoge & Romano-Hoge 1981, 1983; McDiarmid et al. 1999; Orlov et al. 2002; Gumprecht et al. 2004), and further supported by molecular studies (Kraus et al. 1996; Malhotra & Thorpe 2000; Parkinson 1999; Parkinson et al. 2002; Vidal & Lecoindre 1998), which identified *Tropidolaemus* as an ancient lineage of Old World pitvipers without close relationships to the various genera now recognized from within the *Trimeresurus* complex (Malhotra & Thorpe 2004;