



Two new species of *Rhinophis* Hemprich (Serpentes: Uropeltidae) from Sri Lanka

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Abstract

Two new species of uropeltid (shieldtail) snake are described from Sri Lanka; *Rhinophis lineatus* **sp. nov.** from Harasbedda, near Ragala, and *Rhinophis zigzag* **sp. nov.** from Bibilegama, near Passara. The new species are distinguished from congeners in morphometric and meristic external characters, and in having very distinctive colour patterns. Scale-row reduction data are presented for the two new species; this is a new development for uropeltid systematics, and its potential utility is highlighted. The nature of the overlap between the two anal scales is also highlighted as a potentially useful character. The two new species were included in previous phylogenetic analyses of allozyme and albumin immunological data, but their phylogenetic relationships are not yet well resolved.

Key words: Alethinophidia, India, shieldtail, snake, systematics, taxonomy

Introduction

Rhinophis Hemprich, 1820 comprises about 13 nominal species of burrowing uropeltid snake endemic to the Western Ghats region of peninsular India and, mostly, Sri Lanka (e.g., McDiarmid *et al.*, 1999; Wickramasinghe *et al.*, 2009). The taxonomy of uropeltids (*sensu* McDiarmid *et al.*, 1999) has been fairly stable over the last century, but probably due in large part to lack of attention rather than prior completion of a well-founded framework (Gower *et al.*, 2008). Recently, Wickramasinghe *et al.* (2009) described a new species of *Rhinophis* from Sri Lanka and suggested that the uropeltid fauna of that country remained under-studied and incompletely known. Here we describe two additional new species.

Material and methods

The new species described here were first identified from specimens deposited in the collection of the Wildlife Heritage Trust of Sri Lanka (WHT), now transferred to the Department of National Museums, Colombo, Sri Lanka (= Colombo National Museum of Sri Lanka: NMSL). We were aware that similar material from the same localities had been collected previously by Carl Gans and some of his Sri Lankan colleagues, and so we also examined relevant specimens from Gans's collections deposited in the California Academy of Sciences, San Francisco, USA (CAS). Relevant type and comparative material was examined in NMSL and the Natural History Museum, London, UK.

Total length was measured to the nearest 1 mm using a ruler or tape measure. Circumference was measured to the nearest 1 mm using a piece of thread and a ruler. All other measures were taken under stereo dissecting microscopes with vernier calipers to 0.1 mm. Ventral scale counts include all midventral scales between the mental and anal scales, following Gower & Ablett (2006). Dorsal scale-row reduction formulae are based on Dowling (1951; see Appendix). Selected specimens were sexed by observing oviducts and/or ova for females and epididymis and/