

DENDRELAPHIS HAASI (REPTILIA: SQUAMATA: COLUBRIDAE), A NEW SNAKE RECORD FOR SINGAPORE

Kelvin K. P. Lim^{1*} and Loong Fah Cheong²

¹Raffles Museum of Biodiversity Research, Department of Biological Sciences,
National University of Singapore, 6 Science Drive 2, Singapore 117546, Republic of Singapore

²Department of Electrical and Computer Engineering, National University of Singapore,
4 Engineering Drive 3, Singapore 117576, Republic of Singapore

(*Corresponding author: dbslimkp@nus.edu.sg)

INTRODUCTION

Bronzebacks (genus *Dendrelaphis*) are a group of slender, largely diurnal, fast-moving, arboreal snakes that occur throughout South and Southeast Asia, and Australasia. They belong to the family Colubridae, and are not known to be venomous (Manthey & Grossmann, 1997: 336). Five species have been recorded from Singapore, i.e., the painted bronzeback, *Dendrelaphis pictus* (Gmelin); the striped bronzeback, *Dendrelaphis caudolineatus* (Gray); the Kopstein's or red-necked bronzeback, *Dendrelaphis kopsteini* Vogel & van Rooijen; the elegant bronzeback, *Dendrelaphis formosus* (Boie); and the blue bronzeback, *Dendrelaphis cyanochloris* (Wall) (see Baker & Lim, 2008: 99–101).

This article documents the occurrence of a 6th species of *Dendrelaphis* in Singapore. Haas' bronzeback, *Dendrelaphis haasi* was described recently from Pulau Nias off the north-western coast of Sumatra by van Rooijen & Vogel (2008). The species is found in lowland rainforests of Peninsular Malaysia (including Pulau Tioman), Sumatra (including Pulau Nias, the Mentawi Islands, Pulau Belitung), Borneo, and Java (Das, 2010: 275; van Rooijen & Vogel, 2008: 111–112). Although previously unrecorded from Singapore, its presence there is confirmed with two preserved specimens in the Zoological Reference Collection (ZRC), Raffles Museum of Biodiversity Research at the National University of Singapore (RMBR), and recent photographs of two live examples from the Central Catchment Nature Reserve.

Haas' bronzeback has a very slender body and a large head that is distinct from the neck. Its eyes are relatively small compared to its congeners. Dorsally, it is olive-brown with a narrow black post-ocular stripe that covers the ventral part of the lower temporal region and ends at the rear of the jaw, or extends onto the neck region, followed by a series of oblique black bars on the sides of the neck. A pale, cream, ventro-lateral stripe without black borders is present on the sides of the body. The venter is pale yellow or green. This species is known to attain a maximum total length of 94.5 cm. Scale characters: single loreal; single anterior temporal; one preocular; 1–2 postocular; 8–9 supralabials, the 5th and 6th touching the eye; 9–11 infralabials; 15 dorsal scale rows at midbody, those along mid-dorsal row greatly enlarged; 161 to 173 ventrals; 126–153 subcaudals, all divided; anal shield divided (Das, 2010: 275; van Rooijen & Vogel, 2008: 108).

RECORDS

One ethanol-preserved specimen at the RMBR: 77.7 cm in total length (48 cm in snout-vent length), catalogue number ZRC 2.3744, collected in Singapore and presented to the Raffles Museum by Mr. Lee Kit Soon in Apr.1935 (Fig. 1).

One ethanol-preserved specimen at the RMBR: 82 cm in total length (51 cm in snout-vent length), catalogue number ZRC 2.3760, collected in Singapore by an unknown person before 1940.

One example of between 0.5 and 1 m in total length, photographed on 11 Mar.2009, along the boardwalk at the Lower Peirce Reservoir, Central Catchment Nature Reserve, at between 6.24 and 6.25 pm, by Tan Kok Hui, and Mark Chua. First observed on a fern, the snake then crawled up a tree trunk and disappeared from view. Photographs examined, but not available for publication.

One example, estimated to be about 1 m in total length, photographed at the Upper Seletar Reservoir Park, Central Catchment Nature Reserve, by Cheong Loong Fah, and Cheong Yi Wei on the morning of 16 Oct.2010 (Figs. 2, 3). It was found in freshwater swamp forest habitat, along a stream outside the entrance of Nee Soon Range I. The snake was observed sliding along a leaf stalk of a large rattan palm.



Figure 1. *Dendrelaphis haasi*, ZRC 2.3744, 77.7 cm TL.



Figure 2. Anterior body of *Dendrelaphis haasi* at Upper Seletar Reservoir on 16 October 2010, photographed by Cheong Loong Fah. Specimen about 1 m in total length.



Figure 3. Anterior body of *Dendrelaphis haasi* at Upper Seletar Reservoir Park on 16 October 2010, photographed by Cheong Loong Fah. Specimen about 1 m in total length, leaf stalk width about 1.5 cm.



Figure 4. *Dendrelaphis pictus* of about 1 m total length from Portsdown Road, Singapore, photographed by Nick Baker. Note the broader black postocular stripe, comparatively smaller vertebral scales, and more distinct cream ventro-lateral stripe with black margins.

DISCUSSION

Haas' bronzeback, *Dendrelaphis haasi* was described by van Rooijen & Vogel (van Rooijen & Vogel, 2008). It is distinguished from its congeners in Southeast Asia by the combination of the following characters: cream ventro-lateral

stripe on the body; relatively small eye; enlarged scales along mid-dorsum; narrow, black, postocular stripe that breaks up into a series of blotches on the side of the neck.

This species was formerly confused with *Dendrelaphis pictus* (Gmelin), the common painted bronzeback (Fig. 4). In fact, both the RMBR specimens (ZRC 2.3744 and ZRC 2.3760) had been misidentified as *Dendrelaphis pictus*. Although similar in appearance, both species can readily be told apart based on good photographs and in the field, by their colour pattern (compare Figs. 1–3 with Fig. 4). *Dendrelaphis haasi* has broader vertebral scales, a faint cream ventro-lateral stripe and a narrow black postocular stripe that covers less than half of the temporal region and becomes broken into blotches on the side of the neck. *Dendrelaphis pictus* has narrower vertebral scales that are more or less of equal size to the first row of dorsal scales, a bright and distinct cream ventro-lateral stripe bordered with black, and a broad black postocular stripe that covers more than half of the temporal region and continues onto the neck (see van Rooijen & Vogel, 2008: 113). *Dendrelaphis pictus* also tends to be larger, attaining 1.25 m in total length (see Das, 2010: 276).

Local records of *Dendrelaphis haasi* with detailed locality information (viz., the two photographed examples) imply that this species in Singapore is rare, and a forest dweller. In contrast, *Dendrelaphis pictus* seems to prefer more exposed habitats like forest edges and gardens, and would thus appear to be significantly more common. The feeding and breeding habits of *Dendrelaphis haasi* has not yet been observed, but it is expected to be similar to its congeners which feed largely on small lizards and frogs, and lay clutches of eggs in crevices on trees (Baker & Lim, 2008: 99–101).

ACKNOWLEDGEMENTS

We thank Tan Kok Hui and Mark Chua for bringing to our attention their photographs of *Dendrelaphis haasi*, to Cheong Yi Wei for company in the field, and to Nick Baker for kind permission to use his photograph of *Dendrelaphis pictus*.

LITERATURE CITED

- Baker, N. & K. K. P. Lim, 2008. *Wild Animals of Singapore: A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes*. Draco Publishing and Distribution Pte. Ltd. and Nature Society (Singapore). 180 pp.
- Das, I., 2010. *A Field Guide to the Reptiles of South-east Asia*. New Holland Publishers (UK) Ltd, London. 376 pp.
- Manthey, U. & W. Grossmann, 1997. *Amphibien & Reptilien Südostasiens*. Natur und Tier — Verlag, Berlin, Germany. 512 pp.
- Van Rooijen, J. & G. Vogel, 2008. Contributions to a review of the *Dendrelaphis pictus* complex (Serpentes: Colubridae) — 1. Description of a sympatric species. *Amphibia-Reptilia*, **29**(1): 101–115.