

REDISCOVERY OF DUMERIL'S MONITOR, *VARANUS DUMERILII* (VARANIDAE) IN SINGAPORE

D. L. Yong^{1*}, S. D. Fam² and J. J. Ng³

¹Blk 209, Bukit Batok St 21, #03-188, Singapore 650209

²Blk 50, Teban Gardens Rd, #04-576, Singapore 600050

³Blk 36, Toh Tuck Rd #08-05 Singapore 596714

(*Corresponding author: zoothera@yahoo.com)

INTRODUCTION

Dumeril's monitor *Varanus dumerilii* (Schlegel) is a distinctly marked, medium-sized lizard that is both arboreal and aquatic (Krebs, 1979). It inhabits lowland evergreen and mangrove forests of Sundaic Southeast Asia (Cox et al., 1998), and is known from the Malay Peninsula, Sumatra and Borneo, including the islands of Bangka, Belitung (Biliton) and the Riau Archipelago (Bennett, 1995; Böhme, 2003). The habits of wild *Varanus dumerilii* are poorly known and this is attributed to either its genuine rarity or its elusive habits (Bennett & Lim, 1995). However, the species is fairly well-known in the pet trade and has been successfully bred in captivity (Bennett, 1995; Bayless & Aller, 2004).

The presence of the Dumeril's monitor in Singapore was based on a specimen reported by Hungarian zoologist G. J. Fejervary in 1935 (Bennett, 1995) and was also listed by Lim & Lim (1992). There were no other records since then, and the species was believed to be extinct in Singapore (Bennett, 1995; Fost et al., 1996).

DETAILS OF SIGHTING

On the 18 January 2008, between 2245 hours to 2250 hours, a monitor lizard of about 1–1.5 m in length was observed foraging in an area of the Nee Soon Swamp Forest (1°24'N 103°48'E), in the Central Catchment Nature Reserve. This area contains the last extensive stand of freshwater swamp forest habitat left on Singapore Island, and is known to be of great conservation significance for many plant species and freshwater fauna (Turner et al., 1996). The individual was filmed with a video camera (Fig. 1) while it was apparently foraging in the open swampy environment. It appeared to be shy and actively tried to avoid the torch beams shone on it by heading for the cover of vegetation. The specimen was not restrained or collected.

Despite the poor quality of the images obtained, the body markings on the animal were quite evident. There were four broad dark grey saddles with pale mottling on the dorsum and separated by narrow grey bars. There was also a dark stripe behind the eye and conspicuous markings on the neck region. Although it is not clear in the images, we also noted that the nostril is closer to the eye than to the snout. These features are characteristic of *Varanus dumerilii* (see Bennett, 1995).

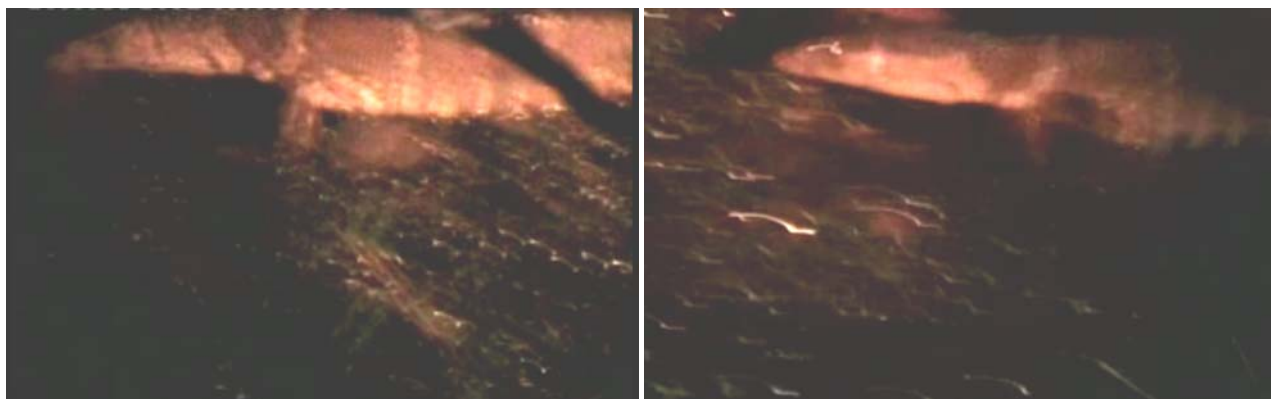


Fig. 1. Video stills of *Varanus dumerilii* recorded at the Nee Soon Swamp Forest.

This observation constitutes the first record of the Dumeril's monitor in Singapore in 75 years. It suggests that the species is still extant and also implies that a small population may persist in the Central Catchment Nature Reserve forests. While it is not impossible that this individual is an escapee from the pet trade owing to the known presence of Dumeril's monitor in the pet trade (Bennett, 1995), we believe that this is a wild individual because of its occurrence in a suitable habitat where it would be typically found, being both arboreal and aquatic. Furthermore, Nee Soon Swamp Forest is rather isolated from human access and its possibly nocturnal habits could have resulted in it being overlooked in daytime surveys. It is also possible that individuals in Singapore could have been confused with well-marked individuals of the much more common Malayan water monitor, *Varanus salvator*, which is widespread in a number of habitats and is also aquatic (Baker & Lim, 2008). However, the latter species can be distinguished from Dumeril's monitor by the absence of distinct light-coloured thin bands over the back of its neck and torso, and the position of the nostril near the tip of the snout. Further surveys should be conducted in the Nee Soon Swamp Forest to inventory the remaining population and study the ecology of the Dumeril's monitor for more effective conservation.

ACKNOWLEDGEMENTS

We thank Daniel Bennett for helping us confirm the lizard's identity, and the National Parks Board, Singapore, for granting us permission to access to the Central Catchment Nature Reserve for night fieldwork. We also thank Kelvin Lim Kok Peng for commenting on an earlier draft of the manuscript.

LITERATURE CITED

- Baker, N & K. K. P. Lim, (eds.), 2008. *Wild Animals of Singapore: A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes*. Draco Publishing and Nature Society (Singapore), Singapore. 180 pp.
- Bayless, M. K. & B. Aller, 2004. Dumeril's monitor lizard (*Varanus dumerilii*) *Reptiles* **12**(3): 42–46.
- Bennett, D., 1995. Dumeril's monitor lizard (*Varanus dumerilii*). *Reptilian* **3**: 35–37.
- Bennett, D. & B. L. Lim, 1995. A note on the distribution of *Varanus dumerilii* and *V. rudicollis* in Peninsular Malaysia. *Malayan Nature Journal* **49**(2): 113–116.
- Böhme, W., 2003. Checklist of the living monitors of the world (family Varanidae). *Zoologische Verhandelingen Leiden* 341: 4–43.
- Cox, M. J., P. P. van Dijk, J. Nabhitabhata & K. Thirakhupt., 1998. *A Photographic Guide to the Snakes and Other Reptiles of Peninsular Malaysia, Singapore and Thailand*. New Holland Publishers, London. 144 pp.
- Fost, M., S. Frankel & B. Johnson, (compilers), 1996. *Taxon Management Account. Dumeril's monitor: Varanus dumerilii*. Atlanta Zoo, Atlanta. http://www.roughneckmonitors.com/dum_fost_taxon_management.pdf. (Accessed 27 Aug.2008).
- Krebs, U., 1979. *Varanus dumerilii*, a specialized crab eater? *Salamandra* **15**(3): 146–157.
- Lim, K. K. P. & F. L. K. Lim, 1992. *A Guide to the Amphibians and Reptiles of Singapore*. Singapore Science Centre, Singapore. 160 pp.
- Turner, I. M., C. M. Boo, Y. K. Wong, P. T. Chew & Ali bin Ibrahim, 1996. Freshwater swamp forest in Singapore, with particular reference to that found around the Nee Soon Firing Ranges. *Gardens' Bulletin Singapore* **48**(1): 129–157.