

**ATTEMPTED PREDATION ON A DOG-TOOTHED CAT SNAKE, *BOIGA CYNODON*
BY A BLACK SPITTING COBRA, *NAJA SUMATRANA* IN SINGAPORE
(REPTILIA: SQUAMATA)**

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INTRODUCTION

The black spitting cobra or Sumatran spitting cobra, *Naja sumatrana* Müller (family Elapidae) is a venomous snake with a wide Southeast Asian distribution. It occurs in South Thailand, Peninsular Malaysia, Singapore, Borneo, Sumatra, Bangka, Belitung, Riau-Lingga Archipelago, and the Philippines (David & Vogel, 1996; Manthey & Grossmann, 1997; Das, 2010). Its documented diet includes amphibians, fish, lizards, rodents, birds, and other small vertebrate prey (Cox et al., 1998; Das, 2006; Das, 2010; Lim, 1956; Manthey & Grossmann, 1997). Although some of its Asian congeners such as *Naja atra*, *Naja kaouthia*, *Naja naja*, and *Naja sputatrix* are known to feed on other snakes (Daniel, 2002; Das, 2002; Das, 2010; Karsen et al., 1986; Smith, 1943), we could find only one publication that mentions *Naja sumatrana* doing so (David & Vogel, 1996). Here, we present further evidence of the black spitting cobra feeding on a snake. In the Central Nature Reserve, Singapore, a *Naja sumatrana* was recently observed in the act of devouring a dog-toothed cat snake, *Boiga cynodon* (Boie) (family Colubridae).



Fig. 1. The envenomated dog-toothed cat snake, *Boiga cynodon* that had been targeted as prey by an adult black spitting cobra, *Naja sumatrana* on the morning of 9 Mar.2010 (ca. 0950 hours), off Rifle Range Road. (Photograph by: Mishak Shunari).

OBSERVATIONS

On the morning of 9 Mar.2010 (ca. 0950 hours), an adult black spitting cobra of about 1.5 m (total length) was encountered by National Parks Board (NParks) contract staff members conducting routine maintenance duties at the edge of Nangka Car Park, off Rifle Range Road. It was in the process of swallowing an adult dog-toothed cat snake and had already surpassed the neck region. However, when approached for a closer inspection, the cobra may have been startled and inadvertently regurgitated its prey. After the cobra slowly slithered away from the scene, the lifeless body of the dog-toothed cat snake (Fig. 1) was retrieved for subsequent examination and measurements at the Bukit Timah Nature Reserve.

When fully stretched, the cat snake measured a total length of 233 cm; its tail length was 50 cm (Fig. 2). It seemed healthy, with firm muscles, smooth scales and without visible ectoparasites (e.g., ticks). Successful eversion of a pair of hemipenes confirmed it to be a male (Fig. 3). The specimen was then preserved and deposited at the Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research (RMBR), National University of Singapore, under the catalogue number ZRC.2.6872.

Owing to the apparent healthy condition of the victim, it is believed that the cobra had it subdued through its venomous bites. The back-fanged and mildly venomous dog-toothed cat snake is the largest of the four species of the genus *Boiga* Fitzinger in Singapore. It is known to attain a maximum length of 2.7 m, and is largely arboreal and nocturnal in habits (Baker & Lim, 2008; Leong et al., 2009).

This present sighting is evidence that snakes are included in the varied diet of *Naja sumatrana*. In contrast, the diet of its sympatric and much larger relative, the king cobra, *Ophiophagus hannah* (Cantor) is distinctly limited. The latter feeds primarily on snakes, as well as monitor lizards (family Varanidae). In Singapore, both cobra species are present in forested and scrub areas (Baker & Lim, 2008).

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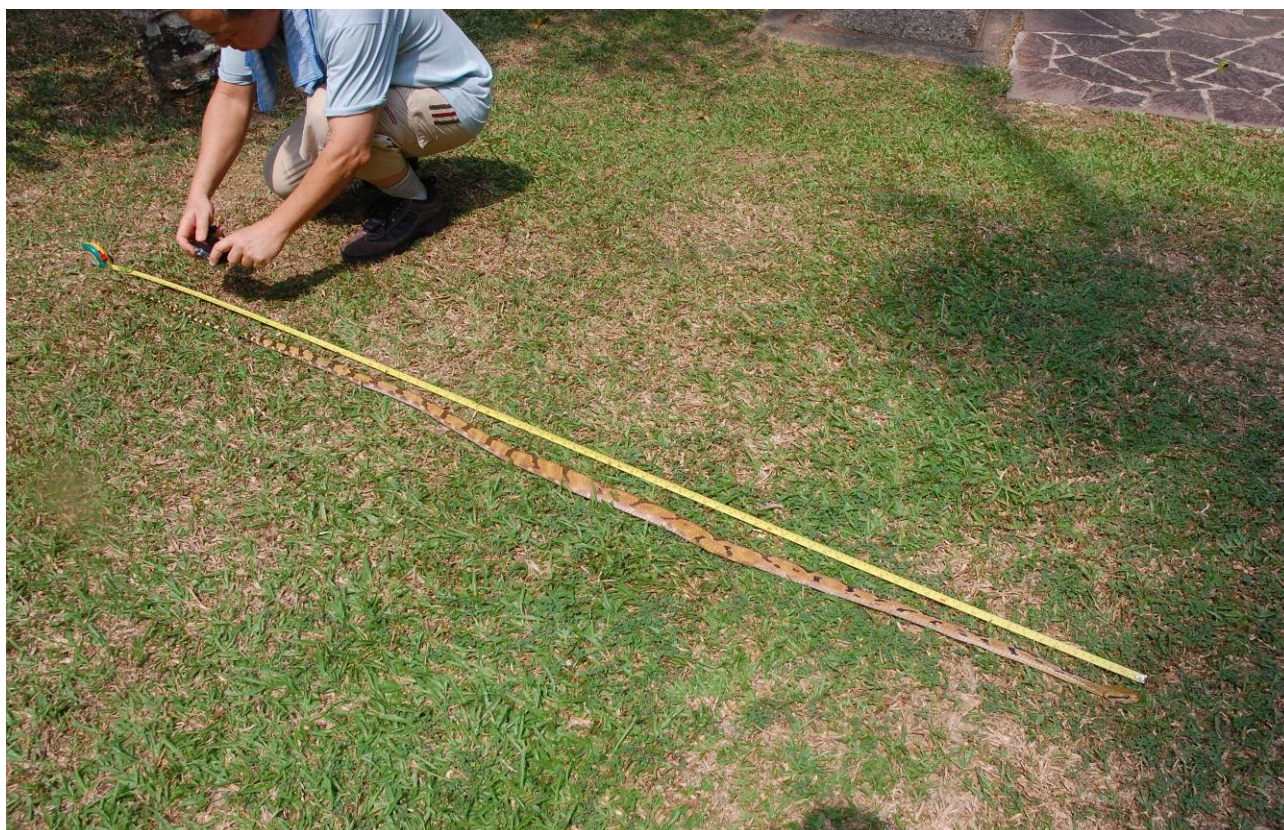


Fig. 2. The total length of the adult dog-toothed cat snake was measured to be 233 cm, including a tail length of 50 cm. The specimen was subsequently preserved and catalogued as ZRC.2.6872. (Photograph by: Mishak Shunari).



Fig. 3. Ventral close-up of genital area of the male dog-toothed cat snake, to highlight freshly everted hemipenes. Body width at anal scale = 1.8 cm. (Photograph by: Mishak Shunari).

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