

Biodiversity Record: Predation of dog-faced water snake and shore pit-viper by king cobra

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Subjects: King cobra, *Ophiophagus hannah* (Reptilia: Squamata: Elapidae);
Dog-faced water snake, *Cerberus schneiderii* (Reptilia: Squamata: Homalopsidae);
Shore pit-viper, *Trimeresurus purpureomaculatus* (Reptilia: Squamata: Viperidae).

Subjects identified by: Koh Ke Han.

Location, date and time: Singapore Island, Sungei Buloh Wetland Reserve; 16 August 2021; 1130–1400 hrs.

Habitat: Mangrove mudflat.

Observers: Koh Ke Han and Ilan Chanani-Parikh.

Observation: At around 1130 hrs, a king cobra of around 2 m total length was observed foraging on the mudflats. It came upon a dog-faced water snake, bit the latter's body, and held on while the water snake struggled frantically in its attempt to break free (Fig. 1). About 30 minutes later, the water snake stopped moving and was consumed whole by the king cobra. Having realigned its jaws (Fig. 2) after the meal, the cobra then crawled along the same stretch of mudflat for about 30 minutes before proceeding to climb to higher terrain, then crossing a trail (Fig. 3). There was a juvenile shore pit-viper on a wooden railing bordering the trail (Fig. 4) just 1.5 m away from the cobra. The cobra appeared to have seen the viper but seemed to ignore it. It could have been deterred by the presence of some people near the viper.

The king cobra made its way down to the mudflats on the other side of the trail and continued foraging. After about one hour, it started to climb up into the trees (Fig. 5). About 5–10 minutes after it began climbing, the cobra became extremely alert and suddenly darted towards a branch where an adult shore pit-viper was resting. Sensing danger, the viper dropped about 3 m onto the mud below. Seeing this, the king cobra immediately proceeded to descend towards the viper. This viper was significantly larger than the juvenile on the wooden railing that the cobra had ignored, but it was still dwarfed by the cobra (Fig. 6). The cobra then bit and held on to the viper by its neck as the viper struggled (Figs. 7, 8). It died after about 30 minutes and was consumed.



Fig. 1. King cobra biting and holding on to the dog-faced water snake. (Photograph by: Koh Ke Han).



Fig. 2. King cobra realigning its jaws after consuming the dog-faced water snake. (Photograph by: Koh Ke Han).



Fig. 3. King cobra crossing the trail. (Photograph by: Koh Ke Han).



Fig. 4. Juvenile shore pit-viper on the railing, ignored by the king cobra. (Photograph by: Koh Ke Han).



Fig. 5. King cobra climbing up the trees. (Photograph by: Koh Ke Han).



Fig. 6. King cobra alongside the shore pit-viper after the latter fell from the branch. (Photograph by: Koh Ke Han).



Fig. 7. King cobra biting the shore pit-viper's neck. (Photograph by: Koh Ke Han).



Fig. 8. King cobra holding on to the shore pit-viper by its neck. (Photograph by: Koh Ke Han).

Remarks: Coincidentally, there is a news article on Mothership.sg (Tan, 2021) reporting a somewhat identical event that occurred a month and a half earlier, also at the Sungei Buloh Wetland Reserve. On 1 July 2021, J. K. Daryl Tan photographed a king cobra tugging a dog-faced water snake out of its burrow and swallowing it in 15 minutes. Shortly after, it caught and ate a juvenile shore pit-viper (Tan, 2021). That report adds the shore pit-viper (*Trimeresurus purpureomaculatus*) to the known prey species of wild king cobras in Singapore, which earlier consisted of the reticulated python, *Malayopython reticulatus* (see Ambede, 2015; Sankar et al., 2021); gold-ringed cat snake, *Boiga melanota* (see Lim et al., 2011, as *Boiga dendrophila*); dog-faced water snake, *Cerberus schneiderii* (see Tay, 2019);

clouded monitor, *Varanus nebulosus* (see Kurniawan et al., 2018); and possibly its conspecific (see Sankar & Harrick, 2019). The earlier report and this featured observation show that king cobras in the wild may consume more than one snake in a day.

Literature cited:

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