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Biodiversity Record: Predation of reticulated python by king cobra at Sungei Buloh

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Subjects: King cobra, Ophiophagus hannah (Reptilia: Squamata: Elapidae); Reticulated python, Malayopython reticulatus (Reptilia: Squamata: Pythonidae); Malayan water monitor, Varanus salvator (Reptilia: Squamata: Varanidae).

Subjects identified by: Ananthanarayanan Sankar, Drima Chakraborty, Ingg Thong Law, Sean Yap and Jonathan Tan.

Location, date and time: Singapore Island, Sungei Buloh Wetland Reserve; 22 June 2021, 1230–1845 hrs.

Habitat: Mangrove forest and adjacent mudflat.

Observers: Spencer Yau, Drima Chakraborty, Mithu Chakraborty, Law Ingg Thong, Sankar Ananthanarayanan, Jonathan Tan, Sean Yap, Veron Pwa and Jimmy Wong.

Observation: At 1230 hrs, a king cobra of around 2.5 m total length was observed in the open crawling on the mudflat (Fig. 1). It came upon a reticulated python, estimated to be around 1.5 m in total length, in the water and bit the python. Thereafter, at around 1245 hrs, the king cobra moved away while the python emerged from the water and crawled towards the vegetation. A wound, possibly caused by the king cobra's bite, could be seen at the mid-section of the python (Fig. 2).

Around 115 minutes after the bite, the python became immobilised and appeared to be dead by 1400 hrs. Before that, the python seemed to be in respiratory distress. It was gaping its mouth (Fig. 3) and whipping its head and neck about. A large tick (possibly a species of *Amblyomma* sp.) could be seen on the right side of the python's head at the corner of its mouth (Fig. 4). The king cobra was seen again at 1345 hrs before it retreated to a grassy knoll about 50 m away.



Fig. 1. Dorso-lateral view of the king cobra on the mudflat. (Photograph by: Drima Chakraborty).



Fig. 2. Mid-section of the reticulated python with wound (indicated by arrow) potentially inflicted by the king cobra. (Photograph by: Spencer Yau).



Fig. 3. Python with gaping mouth, possibly a reaction to the effects of the bites. (Photograph by: Drima Chakraborty).



Fig. 4. A large tick (indicated by arrow) on the right side of the python's head. (Photograph by: Spencer Yau).

At around 1700 hrs, a large Malayan water monitor of about 1.5 m total length swam towards the python. The lizard was observed constantly flicking its tongue. While swimming past the python, it stopped, came out of the water, and moved slowly towards the snake. Although it was apparent that the lizard had seen the python, it did not approach further and instead moved some distance past it. At this point (1715 hrs), the king cobra swam out of its hiding spot and rapidly approached the monitor (Fig. 5). When they were about 3 m apart, both monitor and king cobra exhibited what appeared to be antagonistic behaviour towards each other. The king cobra raised its head slightly while the monitor elevated its body and threatened to lash its tail. Shortly after, the monitor began to move away from the area, while the king cobra proceeded to further scout the surrounding area.

At 1745 hrs, the king cobra approached the apparently dead python and began to consume it, starting with the python's head (Figs. 6, 7). By 1825 hrs, the python was completely swallowed (Fig. 8). The process of ingestion took approximately 45 minutes. Thereafter, the king cobra moved slowly away into a patch of mangroves nearby, and disappeared from the observers' view by 1845 hrs.



Fig. 5. A water monitor (arrowed above) and king cobra (arrowed below) encountering each other. (Screen-grab from video by: Jonathan Tan).



Fig. 6. King cobra eating the reticulated python, starting with the prey's head. (Photograph by: Jimmy Wong).

NATURE IN SINGAPORE 2021



Fig. 7. King cobra swallowing the rest of the python. (Photograph by: Law Ingg Thong).



Fig. 8. King cobra moving off after the entire python was consumed. (Photograph by: Jimmy Wong).

Remarks: In the wild, king cobras are known to prey almost exclusively on snakes and large lizards (Das, 2010: 317). There have been several published records of king cobras preying on snakes and monitor lizards in Singapore (e.g., Lim et al., 2011; Ambede, 2015; Kurniawan et al., 2018; Sankar & Harrick, 2019; Tay, 2019; Tan, 2021). In a similar predation event, Ambede (2015) noted that the king cobra left the area only to eventually return some time later, presumably allowing its envenomed prey to expire before feeding on it.

The interaction of the water monitor and the king cobra is interesting. In not making a direct approach at the python, the lizard seemed cautiously aware that the python was not a free meal. The emergence of the king cobra and its confrontation with the passing monitor lizard implies that the king cobra was keeping an eye on its dying prey and protecting it from being stolen by opportunistic competitors.

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