

Biodiversity Record: Painted mock-viper at Nee Soon swamp-forest

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Subject: Painted mock-viper, *Psammodynastes pictus* (Reptilia: Squamata: Psammodynastidae).

Subject identified by: Tan Robbin.

Location, date and time: Singapore Island, Nee Soon swamp-forest; 11 June 2024; around 1449 hrs.

Habitat: Freshwater swamp-forest.

Observers: Tan Robbin, Yin Xin Yi, Spencer Heng, Yun Ye Ho and Yi He Lim.



Fig. 1. In-situ dorsal view of the subject on leaf litter at the edge of a stream (Photograph by: Yin Xin Yi). Fig. 2. Lateral view of the subject as it climbed the vegetation overhanging the stream (Photograph by: Tan Robbin).

Observation: One example with an estimated length of 25 cm was observed curled up against a pile of leaf litter surrounded by a freshwater stream (Fig. 1). Eleven minutes later, it had moved to a lone branch above the flowing stream, adeptly maneuvering upwards and downwards (Fig. 2). The subject was observed for a further 20 minutes, where it then adjusted its position to angle its head down towards the freshwater stream, presumably on the lookout for prey (Fig. 3).

Remarks: This sighting represents the first report of *Psammodynastes pictus* in Singapore after 9 years, with the last record being in 2015, and also from within the Nee Soon swamp-forest (Figueroa et al., 2023). The species is locally regarded as nationally ‘critically endangered’ (Thomas et al., 2024). All recent observations of this species have been made within the Nee Soon swamp-forest, highlighting the importance of conserving this remaining patch of intact freshwater swamp-forest in Singapore.

Mock-vipers (family Psammodynastidae) derive their common name from their superficial resemblance to true vipers (family Viperidae), in particular their angular head shape. These snakes are believed to imitate true vipers by displaying a pair of large fangs at the front of their mouth when threatened (Das et al., 2024). Unlike true vipers, they are rear-fanged snakes with weak venom intended for small freshwater prey. *Psammodynastes pictus* is known to feed on small fish and shrimps by waiting in ambush over forest streams (see Baker & Lim, 2012), a hunting behaviour which is supported by the present observation.

Acknowledgement: This sighting was recorded during a survey (NParks permit NP/RP21-124) for the National Parks Board in one of the research plots established in the Nee Soon catchment (Chong et al., 2021), now part of NParks' Long-Term Forest Ecological Monitoring project (Er et al., 2023).

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Fig. 3. The mock-viper adopted an ambush position facing the stream after 20 minutes of movement (Photograph by: Tan Robbin).