

Predation of Malayan rock gecko by Wagler's pit-viper

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Subjects: Malayan rock gecko, *Cnemaspis peninsularis* (Reptilia: Squamata: Gekkonidae);
Wagler's pit-viper, *Tropidolaemus wagleri* (Reptilia: Squamata: Viperidae).

Subjects identified by: Law Ing Sind.

Location, date and time: Singapore Island, Bukit Timah Nature Reserve, along the main road; 28 October 2019; between 1200 and 1230 hrs.

Habitat: Primary hill dipterocarp forest, next to metaled road.

Observers: Law Ing Sind, Rachel Lee and Louise Neo.

Observation: At 1206 hrs, the observers noticed a swift motion which is presumed to be the point in time where the pit-viper struck the gecko. The prey struggled in the snake's jaws but stopped moving at 1214 hrs, presumably having succumbed to the venom (Fig. 1). The viper moved and repositioned the gecko in its jaws and at 1221 hrs, began swallowing the prey from the head (Fig. 2 & 3). By 1230 hrs, the entire gecko was swallowed. The observers were able to time the duration of the entire event from strike to full consumption, which took 23 minutes and 36 seconds in total. The snake, apparently a male based on the small white spots on its dorsum, was about 30 cm in total length. The gecko was estimated to be around 9 cm in total length.

Remarks: Wagler's pit-vipers are not uncommonly encountered in the Bukit Timah and Central Nature Reserves, but they are usually inactive (personal observations). This species is believed to be nocturnally active (see Baker & Lim, 2012: 120), but the featured event, which occurred at noon, shows that activity is not restricted to night time.

The Wagler's pit viper feeds on small vertebrates (see Baker & Lim, 2012: 120), and is known to prey on rodents and birds (see Das, 2010: 310), but these relatively large prey may be confined to adult females. The considerably smaller males and juveniles probably rely more



Fig. 1. Wagler's pit-viper with Malayan rock gecko limp in its jaws, presumably having succumbed to the venom injected into its body by the snake's fangs. Photograph by Law Ing Sind

on smaller animals such as lizards (as shown by the featured event). This implies that the sexual dimorphism in this species contributes to the partitioning of the types of prey, such that the adult males are not directly competing with the adult females for food. This is also an apparently rare record of a predation event involving the Wagler's pit-viper in the wild, and may be the first to record *Cnemaspis peninsularis* as a prey item.



Fig. 2. Viper swallowing the prey head first. Fig. 3. Viper having nearly consumed most of the gecko's torso.

Photographs by Law Ing Sind

References:

- Baker N & Lim K (2012) Wild Animals of Singapore. A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes. Updated edition. Nature Society (Singapore) and Draco Publishing and Distribution Pte. Ltd. 180 pp.
- Das I (2010) A Field Guide to the Reptiles of South-east Asia. New Holland Publishers (UK) Ltd. 376 pp.