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Biodiversity Record: Encounter between twin-barred gliding snake and Wagler's pit-viper

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Subjects: Twin-barred gliding snake, *Chrysopelea pelias* (Reptilia: Squamata: Colubridae); Wagler's pit-viper, *Tropidolaemus wagleri* (Reptilia: Squamata: Viperidae).

Subjects identified by: Ivan Neo.

Location, date and time: Singapore Island, Hindhede Nature Park, along boardwalk; 10 June 2022; 1205 hrs.

Habitat: Edge of primary hill dipterocarp forest, next to entrance of wooden boardwalk.

Observers: Ivan Neo and Ting Wai Kit.

Observation: Since 1130 hrs, a female Wagler's pit-viper of about 70 cm total length was noted resting motionless on a branch and some leaves of a large fern about 100 cm off the forest floor. At 1205 hrs, a twin-barred gliding snake of about 75 cm total length was observed on the fern basking in a small patch of sunlight with its head held upwards. It was about 30 cm away from the viper (Fig. 1). At 1210 hrs, as the clouds blocked the sun, the gliding snake proceeded to move deeper into the vegetation, passing within 5 cm of the viper (Fig. 2). Despite such close proximity, both snakes appeared unbothered by each other's presence. The viper had kept totally still when the gliding snake was slithering past. A video of this encounter, recorded by Ivan Neo, can be viewed at https://youtu.be/wKzwHtL_ieY.

Remarks: This observation is interesting because it is not common to see snakes of different species in close proximity to each other. That the gliding snake did not make any obvious effort to avoid the much larger viper suggests that it was either not aware that the viper was close by, or that it was fully aware of the viper but did not view it as a threat. The gliding snake has large eyes and it seems most likely that it had seen the viper. It is also possible for the gliding snake to be aware of the viper's presence by scent.

Wagler's pit-vipers are known to eat birds and small mammals (Das, 2021) which they hunt by ambush. The smaller males and juveniles do eat other herpetofauna, such as lizards (see Law, 2020). However, there appears to be no record of this species eating snakes. It is possible that the gliding snake recognised the viper as a non-threat. Another likely explanation could be that Wagler's pit-vipers are largely nocturnal, and are more alert, and thus much more likely to react to another animal in its immediate vicinity at night. It is possible for the same situation to elicit different behaviours at different times of the day.

In Singapore, both Wagler's pit-viper and twin-barred gliding snake occur mainly in the forested areas of the Bukit Timah and Central Catchment Nature Reserves (see Baker & Lim, 2012).

Literature cited:

Baker N & Lim KKP (2012) Wild Animals of Singapore. A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes. Updated edition. Draco Publishing and Distribution Pte. Ltd. and Nature Society (Singapore), 180 pp.

Das I (2021) A Naturalist's Guide to the Snakes of Southeast Asia. 3rd edition. John Beaufoy Publishing, United Kingdom, 176 pp.

Law IS (2020) Predation of Malayan rock gecko by Wagler's pit-viper. Singapore Biodiversity Records, 2020: 47-48.



Fig. 1. Top view of the twin-barred gliding snake basking in a patch of sunlight on the left, while the Wagler's pit-viper rests nearby on a branch on the right. The gliding snake would move onto the rachis of the frond next to the viper's head. (Photograph by: Ivan Neo)



Fig. 2. Twin-barred gliding snake slithering along the rachis of the fern frond, passing in an unhurried manner within 5 cm of the pitviper's head. The pit-viper stayed motionless throughout this intimate encounter. (Photograph by: Ting Wai Kit)