

Biodiversity Record: A blind forest scorpion, *Heterometrus longimanus*, at Upper Seletar

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Subject: Asian forest scorpion, *Heterometrus longimanus* (Arachnida: Chelicerata: Scorpiones: Scorpionidae).

Subject identified by: Ivan Neo.

Location, date and time: Singapore Island, Upper Seletar Reservoir Park; Mandai Track 7; 9 August 2022; around 2317 hrs.

Habitat: Tarmac road, at the edge of secondary forest.

Observers: Ivan Neo, Ting Wai Kit and Lee Ming De Samuel.

Observation: One example (Figs. 1–4) of about 10 cm was observed occasionally crawling along the tarmac. The scorpion exhibited ultra-violet fluorescence when illuminated by black light (Fig. 3). Seemingly undisturbed by the observers' presence, it remained still for about 15 minutes, twitching slightly when footsteps were made nearby, before crawling into a crevice in one of the roadside drain openings. When the photographs were examined later, it was noted that this individual did not have median eyes (Fig. 4).

Remarks: The species identity of the subject is tentative. *Heterometrus longimanus* is said to be uncommon in Singapore and restricted to the nature reserves (Court & Wang, 2011), which conforms to the locality of this sighting. However, the authors are not aware of records of scorpions without median eyes (Figs. 4 & 5). It cannot be confirmed if this is a congenital defect or the result of a past injury. That this individual was able to develop to a large size implies that median eyes are not crucial for hunting prey. As it seemed sensitive to the vibrations of the observers' footsteps, it is perhaps this that had enable it to thrive.



Fig. 1. Lateral view of the subject. (Photograph by: Ivan Neo)

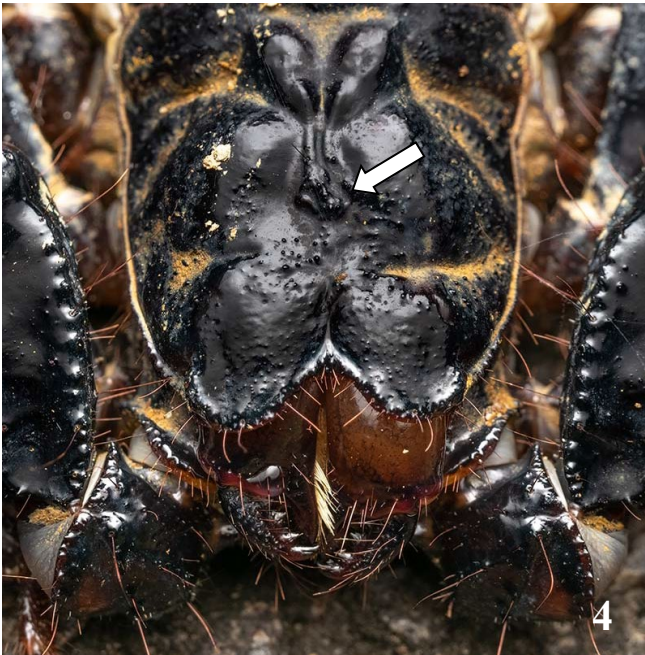


Fig. 2. Dorsal view of the subject under white light. Fig. 3. Dorsal view of the subject exhibiting ultra-violet fluorescence under black light. Fig. 4. Close-up of the dorsal surface of the head showing the missing median eyes (position indicated by arrow). Fig. 5. For comparison, dorsal view of the head of a similar example of *Heterometrus* from Pulau Ubin with median eyes (indicated by arrow). (Photographs by: Ivan Neo)

Literature cited:

Court DJ & Wang LK (2011) Scorpions. In: Ng PKL, Corlett RT & Tan HTW (eds.) Singapore Biodiversity. An Encyclopedia of the Natural Environment and Sustainable Development. Editions Didier Millet and Raffles Museum of Biodiversity Research, National University of Singapore, Singapore, p. 446.