

Biodiversity Record: A spike-head stick insect, *Diacanthoidea diacanthos*, at Upper Seletar

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Subject: Spike-head stick, *Diacanthoidea diacanthos* (Insecta: Phasmatodea: Diapheromeridae).

Subject identified by: Francis Seow-Choen, Ivan Neo and ‘chugbug111’ (on iNaturalist).

Location, date and time: Singapore Island, Upper Seletar Reservoir Park; 7 January 2025; around 2001 hrs.

Observers: Ong Jun Xiang Lumin, Tay Jing Xuan and Low Jian Kai.

Habitat: Edge of freshwater swamp forest.



Fig. 1. Dorsal view of the male *Diacanthoidea diacanthos* (Photograph by: Ong Jun Xiang Lumin). Fig.2. A closer view of the subject's abdomen showing a tinge of red on the wings and a white patch at the end of the abdomen (Photograph by: Tay Jing Xuan).

Observation: A male of about 6 cm body length was observed on a leaf, about 175 cm off the ground, barely moving (Figs. 1, 2).

Remarks: *Diacanthoidea diacanthos* was first recorded in Singapore in the early 1900s. Subsequently seen in 1997, it was declared to be ‘very rare’ (Seow-Choen, 1997). However, in the third edition of the Singapore Red Data Book, it is declared ‘nationally extinct’ (Seow-Choen, 2024). The current observation represents the third record of this species in Singapore after around 27 years. It shows the continued occurrence of *Diacanthoidea diacanthos* in the country, and possibly revising its local conservation status to ‘critically endangered’. It is noted that only male individuals have been seen in Singapore thus far.

Diacanthoidea diacanthos is identified by an ever-present pair of occipital spines (which inspired the English name ‘spike head stick’) that can be seen clearly from the side (Seow-Choen, 2017). Unfortunately, this character is not evident on Fig. 1 as a closeup image of the lateral aspect of the head was not obtained. Instead, the subject was identified with the unique coloration on its wings and body (see Seow-Choen, 2017).

Literature cited:

- Seow-Choen F (1997) Stick and leaf insect (Phasmida: Insecta) biodiversity in the Nature Reserves of Singapore. Gardens’ Bulletin Singapore, 49: 297–312.
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- Seow-Choen F (2024) Checklist of Phasmida species with their category of threat status for Singapore. In: Davison GWH, Gan JWM, Huang D, Hwang WS, Lum SKY & Yeo DCJ (eds.) The Singapore Red Data Book. Red Lists of Singapore Biodiversity. Third edition. National Parks Board, Singapore, pp. 602–603.