

Biodiversity Record: Caterpillars of the pellucid hawkmoth, *Cephonodes hylas*, at Yishun Central

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Subjects: Pellucid hawkmoth, *Cephonodes hylas* (Insecta: Lepidoptera: Sphingidae).

Subjects identified by: Simon Kee Mun Chan.

Location, date and time: Singapore Island, Yishun Central, compound of Khoo Teck Puat Hospital; 26 June 2023; around 1045 hrs.

Habitat: Urban. On a shrub (*Gardenia* sp.) in planter among concrete buildings (Fig. 3).

Observer: Simon Kee Mun Chan.

Observations: On 26 June 2023, many small green caterpillars, each around 1 cm, were found eating the leaves of a *Gardenia* shrub (Fig. 1). The stiff appendage on their rear ends identified them as larvae of Sphingidae. About one week later, the caterpillars had grown larger (Fig. 2). The observer took a few specimens indoors for rearing. On 10 July, 12 pupae and one pupating caterpillar (Fig. 4) were found on the bottom of the rearing container. On 19 July, six adult hawkmoths eclosed (Figs. 5, 6). Newly eclosed moths had a fine layer of dusty scales on the wings (Fig. 7). These scales were shaken off when the moths exercised their wings, revealing the characteristic translucent wings (Fig. 6) of the species.



Fig. 1. Three different young caterpillars, each around 1 cm, on 26 June 2023 (Photographs by: Simon Kee Mun Chan).



Fig. 2. Three different and slightly larger caterpillars, about a week later (Photographs by: Simon Kee Mun Chan).



Fig. 3. The planter where the caterpillars defoliated the *Gardenia* shrub in the centre. Fig. 4. Some of the pupae and one pupating caterpillar that the observer was rearing (Photographs by: Simon Kee Mun Chan).

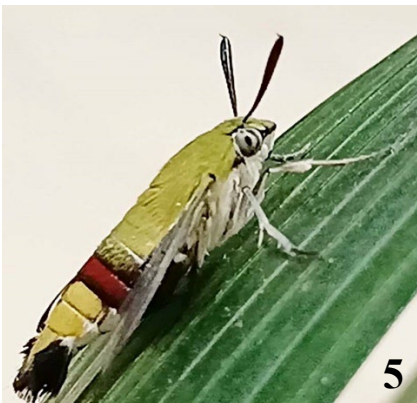


Fig. 5. Lateral view of a hawkmoth (body length about 40 mm) that eclosed. Fig. 6. Dorsal view of another moth that eclosed right afterwards. Fig. 7. Yet another newly eclosed moth with a layer of scales on its wings that will be shaken off when the insect exercises its wings (Photographs by: Simon Kee Mun Chan).

Remarks: *Cephonodes hylas* is known to occur in Singapore and *Gardenia* has been recorded as the larvae food-plant (Morrell, 1973). This hawkmoth, easily recognised by its transparent wings, is widely distributed from Africa eastwards through south and east Asia, through Indonesia to Australia. The nominate subspecies occurs in Pakistan, India, Sri Lanka, through Myanmar, China, northwards to south Korea and southern Japan, southwards to the Philippines, Thailand, Peninsular Malaysia and Indonesia (Borneo and Java). Other subspecies inhabit Africa, the Lesser Sunda Islands and Australia (Pittaway & Kitching, 2018). It does not appear to be common in Singapore.

Literature cited:

Morrell RCR (1973) Butterflies and moths. In: Chuang SH (ed.) *Animal Life and Nature in Singapore*. Singapore University Press, Singapore, pp. 74–84.
 Pittaway AR & Kitching IJ (2018) *Cephonodes hylas hylas* (Linnaeus, 1771) – coffee clearwing, coffee bee hawkmoth. Sphingidae of the Eastern Palearctic. https://tpittaway.tripod.com/china/c_hyl.htm (Accessed 12 September 2023)