

## ENCOUNTER WITH A GREEN FORM FINAL INSTAR CATERPILLAR OF THE HAWKMOTH, *THERETRA NESSUS NESSUS* (DRURY, 1773) IN SINGAPORE (LEPIDOPTERA: SPHINGIDAE: MACROGLOSSINAE)

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### INTRODUCTION

The caterpillars of *Theretra nessus nessus* (Drury, 1773) are known to occur in two colour forms—brown and green (Barlow, 1982; Pittaway & Kitching, 2011). In Singapore, a brown form caterpillar, found in Bukit Timah Nature Reserve in Nov.2009, was previously reared to the adult moth (Leong & Lim, 2009). Subsequently, an example of the green form caterpillar was observed and is briefly described here, with a photographic record.

### OBSERVATIONS

While conducting a faunal survey at Bukit Timah Nature Reserve on the night of 14 Mar.2010 (ca. 2030 hours), a hawkmoth caterpillar was found at chest-level on the stem of a thin vine beside a forest trail (South View Path). On closer inspection, it was determined to be the green form final instar of *Theretra nessus nessus* (Fig. 1). Its body length was ca. 80 mm, with a 8-mm tail horn. Overall, its body was a pale bluish green, with two pairs of longitudinal, chalky white stripes along its dorsum. Along its flank, another longitudinal, chalky white line originated from the base of its tail horn and repeatedly branched to intersect the spiracles on A6 to A3, then faded towards A2 and A1 (Fig. 2).



Fig. 1. Dorso-lateral view of the final instar caterpillar (green form) of *Theretra nessus nessus*, perched on the main stem of its hostplant, *Dioscorea* species (Dioscoreaceae), at the Bukit Timah Nature Reserve (South View Path) on the night of 14 Mar.2010 (ca. 2030 hours).



Fig. 2. Lateral view of final instar caterpillar (as in Fig. 1). Its total length was ca. 80 mm; tail horn, 8 mm.



Fig. 3. Ventral close-up of the anterior segments of the final instar caterpillar. Note the yellow thoracic limbs (T1 to T3) and bulging white ocelli on the first and second abdominal segments (A1 and A2).



Fig. 4. Lateral close-up of the tail horn (8 mm), uniformly adorned with fine tubercles.



Fig. 5. Lower leaves of the *Dioscorea* vine, just above the forest floor.

Its spiracles were brick coloured and outlined with white. Closer examination of the anterior segments of the caterpillar showed its distinct yellow thoracic limbs (Fig. 3). On A1 and A2, the characteristic white, egg-shaped ocelli were prominent, each having a slight bulge. Its tail horn was uniform mustard-yellow, gently curved towards the posterior, and tapered to a rounded tip (Fig. 4). Its surface had a finely granular texture, owing to a uniform arrangement of tiny tubercles.

When the vine was traced downwards towards the forest floor, characteristic heart-shaped leaves (Fig. 5) confirmed that it belonged to the genus *Dioscorea* (family Dioscoreaceae), a previously documented larval hostplant for this sphingid. This caterpillar was not reared, and allowed to continue its larval development and metamorphosis in the forest.

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