

An atlas moth infestation at Yishun

Subjects: Atlas moth, *Attacus atlas* (Insecta: Lepidoptera: Saturniidae).

Subjects identified by: Contributor.

Location, date and time: Singapore Island, Yishun Ring Road; 18 April 2017; 1120 hrs.

Habitat: Urban. In a row of trees along the road in a public housing estate with concrete high-rise buildings.

Observer: Contributor.

Observation: A row of trees were stripped almost bare by atlas moth caterpillars, most of which have pupated in silk cocoons hanging from the tips of the tree branches (Fig 1). Only one caterpillar was seen eating young leaves. The identity of the trees was not noted. Two cocoons were taken for observation. An adult male (Fig. 2) eclosed from one cocoon on 8th May 2017, and a female (Fig. 3) from the other cocoon on 16th May 2017.

Remarks: There was an earlier atlas moth infestation of sentul (*Sandoricum koetjape*) trees in the same area in January (Tan, 2017). It takes about 3 weeks for the moths to emerge from the cocoons. The adults live for an average of 7 days, during which they do not feed, but use the fat reserves accumulated during their larval stage to mate and reproduce (Tan, 2016).

The atlas moth is sexually dimorphic. Males are generally smaller than females and have a more feathery and wider antennae. The female's antennae are narrower and less feathery (Wee, 2012). The more feathery antennae allows males to detect pheromones released by the females, and home in on their precise locations. Another possible method of distinguishing the sexes is by comparing the sizes of the 'windows' or clear patches of the wings. When compared with the male, the 'windows' on the female are wider, rounder and larger (Fig 2 & 3).

References:

Wee Y. C., 2012. The Atlas Moth Chronicles – episode 1: the arrival of the moths. <http://butterflycircle.blogspot.sg/2012/08/the-atlas-moth-chronicles-episode-1.html>. Accessed on 4 May 2017.

Tan, R., 2016. Wild Singapore: Atlas Moth. <http://www.wildsingapore.com/wildfacts/insecta/atlas.htm>. Accessed on 10 May 2017.

Tan, R. Z. Y., 2017. Defoliation of sentul tree by atlas moth caterpillars. *Singapore Biodiversity Records*. 2017: 22.



Fig 1. Roadside tree defoliated by caterpillars that have pupated in cocoons hanging from the branches.
Photograph by Foo Maosheng



Fig 2. Dorsal view of adult male having just emerged from his cocoon, and showing smaller 'windows' on his wings and wider feathery antennae.



Fig 3. Dorsal view of the slightly larger adult female (wingspan of around 22 cm) having just emerged from her cocoon, and showing wider 'windows' on her wings and a more slender antennae.

Photographs by Foo Maosheng

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