

## Biodiversity Record: Predation of a common tiger caterpillar by Asian weaver ants

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**Subjects:** Common tiger, *Danaus genutia genutia* (Insecta: Lepidoptera: Nymphalidae: Danainae);  
Asian weaver ant, *Oecophylla smaragdina* (Insecta: Hymenoptera: Formicidae).

**Subjects identified by:** Ivy Lim Han Peng and Anuj Jain.

**Location, date and time:** Singapore Island, Marina East Drive Park Connector Network (1.2940763°N, 103.8818945°E); 20 January 2022, 1320 hrs.

**Habitat:** Urban parkland with caterpillar host plants (including *Crotolaria retusa*, *Zingiber* sp. and *Parsonsia helicandra*) next to a patch of scrubland (about 50 ha) that borders the Marina Bay Golf Course on its west and the East Coast Park on the east.

**Observer:** Ivy Lim Han Peng.

**Observation:** Eight final instar common tiger caterpillars, each about 30 mm in total length, were found on their host plant, *Cynanchum pulchellum*, a climbing vine that was growing among the shrubs. There were no ants in sight when the caterpillars were first observed two hours earlier. At 1320 hrs, the observer returned and found the caterpillars covered with Asian weaver ants. The ants were observed firmly biting the caterpillars and hauling them away and upwards (Figs. 1–3). None of the caterpillars were left intact and unharmed.

**Remarks:** The common tiger is an uncommon medium sized butterfly that is native to Singapore (Jain et al., 2018) and whose caterpillars feed on climbers from the genus *Cynanchum* (family Apocynaceae) such as *Cynanchum ovalifolium* and *Cynanchum pulchellum* (Khew, 2015). The caterpillars are poisonous, acquiring their toxicity from their host plants, and are brightly coloured to advertise their toxicity to birds and other potential predators.

Ants are known to be important predators of caterpillars on tropical rainforest plants despite some having developed symbiotic relationships with Lycaenid caterpillars (Floren et al., 2002). Weaver ants inhabit urban parks and scrubland in Singapore where they tend to be major predators of non-Lycaenid caterpillars, and can be a major cause of their mortality (Tan & Corlett, 2012; Anuj Jain, unpublished data). While predation of caterpillars by weaver ants is believed to be a common phenomenon in Singapore, there appears to be very few published records.

The location of the featured observation has also been planted with the larval host plants of locally threatened butterflies such as the common birdwing (*Troides helena*) and the common rose (*Pachliopta aristolochiae*). The caterpillars of those two species are also known to fall prey to weaver ants (Anuj Jain, personal observations). It would be interesting to ascertain if these butterflies can successfully breed at locations with weaver ant colonies. This note is a small contribution of baseline data for prompting studies on the impacts of ant species on threatened native butterflies.

### Literature cited:

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Fig. 1. A common tiger caterpillar being attacked by Asian weaver ants. Figs. 2 & 3. Zoomed out shots of the stem on which the attack on the caterpillars took place. *Cynanchum pulchellum* is the climbing plant with the heart-shaped leaves. Other plants in the background include *Crotalaria retusa*, *Zingiber* sp. and *Parsonsia helicandra*. (Photographs by: Ivy Lim Han Peng)