

Paper wasp *Ropalidia sumatrae* nest in Central Catchment Nature Reserve

Subjects: Paper wasp, *Ropalidia sumatrae* (Insect: Hymenoptera: Vespidae: Polistinae).

Subjects identified by: Zestin W. W. Soh.

Location, date and time: Singapore Island, western part of Central Catchment Nature Reserve; 23 September 2016 at 1000 hrs and 27 September 2016 at 1200 hrs.

Habitat: Edge of secondary forest.

Observers: Robin W. J. Ngiam, William Ng & Ngon Soon Kong.

Observation: A large nest with live workers was observed protruding from the side of a tree, at a height of about 4 m. The total length of the nest was about 1 m. See Figs. 1 & 2.

Remarks: *Ropalidia* is a speciose genus of paper wasp with a wide distribution in the Old World, and represented by about 60 species in Southeast Asia (Tan et al., 2014). Despite their presence in Singapore's parks and gardens (Soh & Ngiam, 2013), the diversity and nesting biology of *Ropalidia* in the country is poorly studied.

Species of *Ropalidia* are known to exhibit a diverse range of nest architectures, and examination of these can aid in specific identification, as well as contribute to the understanding of their phylogenetic relationships (Kojima, 1982; Tan et al., 2014).

The featured record shows the nest architecture of *Ropalidia sumatrae* (Figs. 1 & 2), one of the most common *Ropalidia* species in Singapore (Soh & Ngiam, 2013). The large rounded combs extend on the side of the tree from within a hollow, and may be mistaken for the nests of the giant honeybee (*Apis dorsata*) which has a similar appearance. The nest architecture of *Ropalidia sumatrae* is vastly different from several other species of *Ropalidia* in Singapore that build long, elongated nests which extend from underneath an overhang.

References:

- Kojima, J. I., 1982. Nest architecture of three *Ropalidia* species (Hymenoptera: Vespidae) on Leyte island, the Philippines. *Biotropica*. 14 (4): 272-280.
- Tan J. L., K. van Achterberg & X. X. Chen, 2014. Pictorial key to species of the genus *Ropalidia* Guérin-Méneville, 1831 (Hymenoptera, Vespidae) from China, with description of one new species. *ZooKeys*. 391: 1-35.
- Soh, Z. W. W. & R. W. J. Ngiam, 2013. Flower-visiting bees and wasps in Singapore Parks (Insecta: Hymenoptera). *Nature in Singapore*. 6: 153-172.

Contributors: Zestin W. W. **Soh**, Robin W. J. **Ngiam**, William **Ng** & Ngon **Soon Kong**

Contact addresses: zestin_soh@nparks.gov.sg (Soh);

ngiam_wen_jiang@nparks.gov.sg, yanrobin@hotmail.com (Ngiam)



Fig. 1. Nest of *Ropalidia sumatrae* on a tree trunk.



Fig. 2. Close up of nest and workers.

Photographs by Robin W. J. Ngiam