

Andromorphs of the Sultan dragonfly

Subjects: Sultan, *Camacinia gigantea* (Insecta: Odonata: Libellulidae).

Subjects identified by: Contributor.

Location, date and time: Singapore Island -

1) Nanyang Technological University Jurong Campus, Herb Garden; 4 January 2015 (Fig. 1).

2) Tanah Merah Country Club; 20 October 2013 (Fig. 2).

Habitat: Open parkland.

Observers: Janice Ang (Jurong Campus) & Michael Khor (Tanah Merah).

Observation: Two examples of the Sultan dragonfly (Figs. 1 & 2) are identified as andromorphs. Both have male colour pattern, but appear to have female anal appendages.

Remarks: The Sultan appears to be a rare but widespread dragonfly in Singapore. It is the largest member of the family Libellulidae with a total body length of up to 56 mm. The species has the tendency to perch in a vertical position. The male has a dark red body and the wing is dark red except for the distal one-third (Fig. 3). The female is slightly larger and has a yellow body (Fig. 4). The coloured part of the wing is also pale and less extensive than that of the male (see Tang et al., 2010: 145-146).

This appears to be the first published records of *Camacinia gigantea* andromorphs in Singapore. The contributor first noticed this unusual condition on Fig. 1, taken by Janice Ang at the Jurong Campus, which was posted on the Facebook group *Dragonflies of Singapore* on 5 January 2015 (Fig. 1). He visited the Jurong Campus the following week to look for the Sultan andromorph with hopes of obtaining a better picture, but to no avail. Henceforth, whenever the contributor encountered a Sultan in the field or came across photographs of this species, he tried to look for hints of an andromorph but was unsuccessful. Eventually, he found the picture (Fig. 2) by Michael Khor, which was published in the application *Dragonflies of Singapore* by Soon Chye on 20 December 2015. The contributor's findings of Sultan dragonfly andromorphs have been posted on the Facebook group *Dragonflies of Singapore* on 22 December 2015.

The contributor would like to thank Janice Ang and Michael Khor for kind permission to publish their photographs of *Camacinia gigantea* andromorphs here.

Reference: Tang H. B., L. K. Wang & M. Hämäläinen, 2010. *A Photographic Guide to the Dragonflies of Singapore*. The Raffles Museum of Biodiversity Research, National University of Singapore. 222 pp.

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Fig. 1. Dorsal view of an andromorphic Sultan dragonfly at Jurong campus on 4 January 2015. Photograph by Janice Ang



Fig. 2. Dorsal view of an andromorphic Sultan dragonfly at Tanah Merah Country Club on 20 October 2013. Photograph by Michael Khor



Fig. 3. Dorsal view of typical male Sultan dragonfly with male colour pattern and anal appendage. Photograph by Ronnie Ang



Fig. 4. Dorsal view of typical female Sultan dragonfly with female colour pattern and anal appendage. Photograph by Ronnie Ang