

Tree-climbing behavior of the land snail *Hemiplecta humphreysiana*

Subject: *Hemiplecta humphreysiana* (Mollusca: Gastropoda: Ariophantidae).

Subject identified by: Contributors.

Location, date and time: Singapore Island, Dairy Farm Nature Park, on road verge; 29 December 2013; 1110 hrs.

Habitat: On tree trunk in secondary rainforest.

Observer: Foon Junn Kitt.

Observation: A sub-adult individual of about 50 mm shell diameter (Fig. 1) was observed climbing up a large tree trunk to 3.5 m above ground level (Fig. 2).

Remarks: Most *Hemiplecta humphreysiana* individuals were observed to live under and among fallen logs and leaf litter on the forest floor at the same location. Historical reports of the species have not noted any tree-climbing behavior (Ho, 1990 and references therein). The only other record of semi-arboreal behavior for the genus *Hemiplecta* is from *Hemiplecta cymatium*, which has been noticed primarily on trees and occasionally on the ground (Stoliczka, 1973). We believe this observation of arboreal behaviour in *H. humphreysiana* has not been published. From our personal observations prior to this, *H. humphreysiana* individuals have been seen at a maximum height of around 2 m on man-made structures in the Nee Soon Swamp Forest.

Ho (1990) commented that *Hemiplecta humphreysiana* can be found on algae-covered logs. This species has also been observed to graze on fungi (Mableinsingapore, 2007; Artistscaravan, 2011a, 2011b; Tan et al., 2012). We speculate that the impetus for the snail's semi-arboreal behavior could be due to the high humidity brought by monsoonal rains as well as the availability of algae and fungi on the normally drier tree surfaces. However, further studies are required to gauge the propensity and nature of such behavior. If quantitatively validated, this behavior may be considered a niche extension for *H. humphreysiana* and hence, may have ecological and evolutionary implications such as predation exposure and character displacement (Chiba, 1996).

References:

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Fig. 1. Close-up of the subadult *Hemiplecta humphreysiana*.



Fig. 2. A view of the snail and its surroundings.

Photographs by Foon Junn Kitt