

## Synchronous emergence of cicadas at Labrador Nature Reserve

**Subjects:** Cicada, *Chremistica umbrosa* (Insecta: Homoptera: Cicadidae);  
Cicada, *Purana* sp. (Insecta: Homoptera: Cicadidae).

**Subjects identified by:** Contributor.

**Location, date and time:** Singapore Island, Labrador Nature Reserve / Labrador Park; 7 September 2016 at 2000 hrs to 8 September 2016 at 0130 hrs.

**Habitat:** Mature secondary coastal forest.

**Observers:** Contributor & Jacqueline Lau.

**Observation:** Observations of cicadas emerging from their nymphoid larval stage were made in the night over a five and a half hour period. Four instances of emerging cicadas were observed: a nymphoid larva on a shrub yet to emerge at 2012 hrs (Fig. 1); a freshly emerged adult on a tree trunk clinging to its exuvia at 2243 hrs (Fig. 3), a newly coloured adult on a tree trunk next to its exuvia at 0110 hrs (Fig. 4), and an example in the process of emergence at 0114 hrs (Fig. 2). Empty exuvia were ubiquitous on vegetation such as low shrubs and tree trunks by the service road that runs through Labrador Nature Reserve, as well as the vegetation beside Port Road. The weather was cool and humid after heavy showers in the morning and early afternoon.

**Remarks:** Cicadas form a prominent and strongly audible component of the fauna of Labrador Nature Reserve where their population density can result in rain-like sprays of excrement from the canopy as noted by Sivasothi (2004). The high density of cicadas at a single location may be attributed to a synchronous emergence event. Such an event involving the species *Chremistica umbrosa* has been recorded at Labrador Nature Reserve in March and April 2010 (Leong et al., 2011). The present observations are in a later part of the year.

The cicadas shown on Figs. 2 & 3 are identical in appearance to the emerging *Chremistica umbrosa* illustrated in Leong et al (2011). However, the emergent cicada in Fig. 4 does not appear (from comparison of the markings on the thorax) to be conspecific, and is tentatively identified as a species of *Purana*. It suggests that the featured mass emergence event is not limited to one species of cicada.

### References:

- Leong T. M., Aminurashid & B. P. Y-H. Lee, 2011. Records of the cicada, *Chremistica umbrosa* (Distant, 1904) in Singapore, with accounts of its mass emergence (Homoptera: Cicadidae: Cicadinae). *Nature in Singapore*. 4: 163-175.
- Sivasothi, N., 2004. Cicada showers at Labrador Park. *Habitatnews*. Posted on 17 June 2004.  
<http://habitatnews.nus.edu.sg/index.php?entry=/nature/labrador-cicada.txt>. Accessed on 17 Sep. 2016.

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Fig. 1. Unidentified cicada nymphoid larva about to emerge as imago at 2013 hrs.



Fig. 2. Cicada emergence at 0114 hrs.



Fig. 3 Freshly emerged adult at 2243 hrs.



Fig. 4. Freshly emerged adult, probably a species of *Purana*, at 0110 hrs. Vacated exuvia outside frame.

Photographs by Marcus F. C. Ng