

## Biodiversity Record: The lanternfly, *Penthicodes bimaculatus*, in the Nee Soon swamp forest

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**Recommended citation.** Neo I, Lee MDS & Ting WK (2024) Biodiversity Record: The lanternfly, *Penthicodes bimaculatus*, in the Nee Soon swamp forest. Nature in Singapore, 17: e2024016. DOI: 10.26107/NIS-2024-0016

**Subjects:** Lanternfly, *Penthicodes bimaculatus* (Insecta: Hemiptera: Fulgoridae).

**Subjects identified by:** Ivan Neo and Lee Ming De Samuel.

**Location, date and time:** Singapore Island, Central Catchment Nature Reserve, Nee Soon swamp forest, 16 January 2023 at 2143 hrs and 20 January 2023 at 0957 hrs.

**Habitat:** Mature secondary forest alongside freshwater swamp forest.

**Observers:** Ivan Neo, Ming Kai Tan, Ting Wai Kit and Lee Ming De Samuel.

**Observations:** On two occasions, at least five examples, each about 4 cm in length (Fig. 1), were observed congregating on the trunk of an *Alstonia* tree of about 0.6 m diameter at breast height (Fig. 2). The species of the tree has not been determined, but its foliage is illustrated in Fig. 3. On the first occasion (16 January 2023) where observation was made at night, these insects were found feeding on tree sap (Fig. 4) between 1 and 3 m above the ground. On the second occasion (20 January 2023) where they were observed in the day, the lanternflies were found higher up the trunk, about 5 m above the ground.



Fig. 1. Lateral view of one of the *Penthicodes bimaculatus*, in-situ. Fig. 2. The *Alstonia* tree (indicated by arrow) on which *Penthicodes bimaculatus* were feeding (Photographs by: Ivan Neo).

**Remarks:** While *Penthicodes bimaculatus* has been collected from Upper Seletar Reservoir in 1991 (Constant, 2010), little is known of its ecology in Singapore. Images of this species of lanternfly taken in May 2019 and July 2023, have been uploaded on the website inaturalist ([inaturalist.org/taxa/337397-Penthicodes](https://www.inaturalist.org/taxa/337397-Penthicodes), accessed on 17 February 2024). As



with the featured observations, both records are from the north-eastern section of the Central Catchment Nature Reserve. These could suggest that in Singapore, *Penthicodes bimaculatus* inhabits freshwater swamp forest. The present observation documents *Penthicodes bimaculatus* feeding on the sap of an unidentified species of *Alstonia*, and that it seems to go down to the lower parts of the trunk at night. However, it is unclear if this is an important host plant for this species of lanternfly.



Fig. 3. Leaves of the *Alstonia* sp. – top side (A) and underside (B).

Fig. 4. Sap leaking out of the trunk of the *Alstonia* tree on which the lanternflies were seen feeding.

(Photographs by: Ivan Neo)



**Note:** This observation was made during a faunistic fieldwork survey for pygmy grasshoppers (Orthoptera: Tetrigidae) under NParks permit NP/RP22-096.

**Literature cited:**

Constant J (2010). The lanternfly genus *Penthicodes*: key to the species and review of the “*Ereosoma* group” with two new species and one new subspecies (Hemiptera: Fulgoromorpha: Fulgoridae). *Zootaxa*, 2523: 1–26.