

Yellow archduke caterpillars feeding on native species of *Calophyllum*

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Subjects: Yellow archduke, *Lexias canescens pardalina* (Insecta: Lepidoptera: Nymphalidae: Limenitidinae);
Calophyllum ferrugineum var. *ferrugineum* (Angiosperms: Malpighiales: Calophyllaceae);
Calophyllum tetrapterum var. *tetrapterum* (Angiosperms: Malpighiales: Calophyllaceae);

Subjects identified by: Tan Hwee Huat and Sherry Ming Xuan Hung.

Location, date and time: Singapore Island, Central Catchment Nature Reserve, edge of Upper Peirce Reservoir; 25 June 2018 at 1031 hrs, 18 July 2018 at 0954 hrs, 16 September 2018 at 1101 hrs.

Habitat: Secondary rainforest dominated by native plant species. All caterpillars were observed on leaves of the plant *Calophyllum ferrugineum* var. *ferrugineum*.

Observers: Cheo Zi Han, Ho Li Ling, Sherry Ming Xuan Hung, Tan Hwee Huat and Tan Hui Zhen.

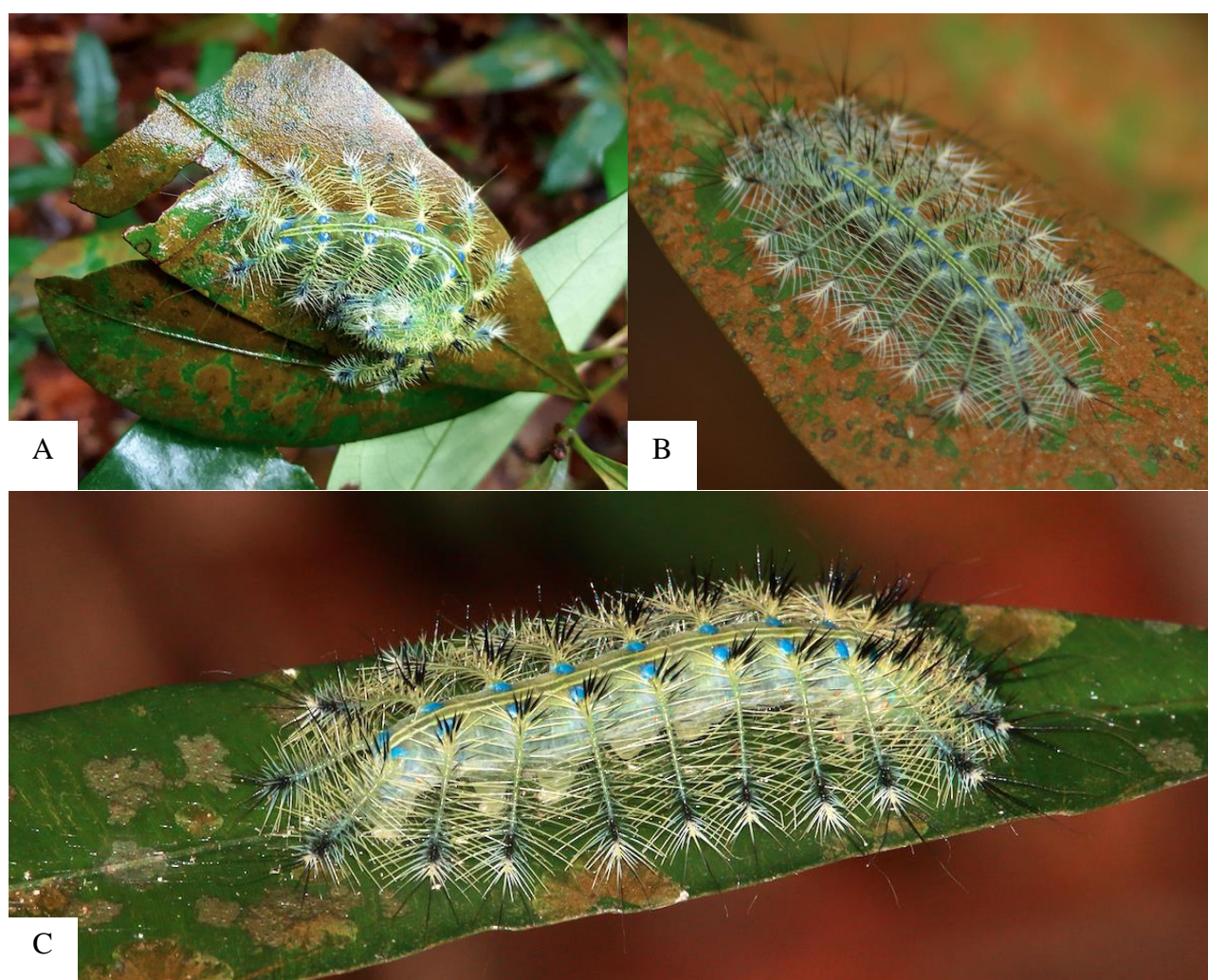


Fig. 1A-C. Three individuals of the yellow archduke caterpillar observed on leaves of *Calophyllum ferrugineum* var. *ferrugineum* in secondary forest along Upper Peirce Reservoir, on (A) 25 June 2018, photograph by Cheo Zi Han; (B) 18 July 2019, photograph by Sherry Ming Xuan Hung; and (C) 16 September 2018, photograph by Tan Hui Zhen.

Observations: Caterpillars of the yellow archduke butterfly were observed on three separate occasions:

- 1) On 25 June 2018, a late instar caterpillar was spotted resting on a leaf in secondary forest (Fig. 1A).
- 2) On 18 July 2018, a late instar caterpillar was found resting on a leaf less than 5 m from the reservoir's edge (Fig. 1B).
- 3) On 16 September 2018, a late instar caterpillar was seen resting on a leaf close to the reservoir's edge (Fig. 1C).

Remarks: The host plant of the species has been recorded as *Calophyllum* sp. (Khew, 2015: 134). Based on the featured observations, the host plant of the yellow archduke is identified as *Calophyllum ferrugineum* var. *ferrugineum* with reference to Hung et al. (in prep.).

In their attempts at rearing caterpillars of the yellow archduke in the laboratory, the observers have recorded the species feeding on *Calophyllum tetrapterum* var. *tetrapterum* (Fig. 2A–E) as well as *Calophyllum ferrugineum* var. *ferrugineum* (Fig. 2F). It appears that the caterpillar of this butterfly is probably polyphagous like its congeners (see Igarashi & Fukuda, 1997: 441; Igarashi & Fukuda, 2000: 489–491). Further attempts to identify other host plant species should be made.



Fig. 2. The different stages of the yellow archduke caterpillar reared in the laboratory: (A) egg, (B) 1st instar caterpillar, (C) 2nd instar caterpillar, (D) 3rd instar caterpillar, (E) 4th instar caterpillar, (F) 5th instar caterpillar. In B–E, the caterpillars are feeding on *C. tetrapterum* var. *tetrapterum*; in F, the caterpillar is feeding on *C. ferrugineum* var. *ferrugineum*. Photographs by Tan Hwee Huat

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References:

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