

Four rare lycaenid butterflies from Upper Seletar

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Subjects: Green imperial, *Manto hypoleuca terana* (Insecta: Lepidoptera: Lycaenidae: Theclinae), Fig. A; Red-edge blue, *Semanga superba deliciosa* (Insecta: Lepidoptera: Lycaenidae: Theclinae), Fig. B; The plane, *Bindahara phocides phocides* (Insecta: Lepidoptera: Lycaenidae: Theclinae), Fig. C; Sumatran gem, *Poritia sumatrae sumatrae* (Insecta: Lepidoptera: Lycaenidae: Poritiinae), Fig. D.

Subjects identified by: Yi-Kai Tea.

Location, date and time: Singapore Island: Central Catchment Nature Reserve, Upper Seletar; 28 Jul, 2012, 1435 hrs; 05 Aug, 2014, 1022 hrs; 23 Sep, 2012, 1145 hrs; 10 Jul, 2012, 0945 hrs.

Habitat: Secondary rainforest; see Observations for specific habitat of each species.

Observer: Yi-Kai Tea.

Observations: Four rare lycaenid butterflies were observed on separate occasions between 2012 and 2014. Details of the observations are as follows.

1. A female *Manto hypoleuca* (Green imperial) was photographed in the afternoon of 28 July 2012 (Fig. A) feeding on the flowers of *Ixora javanica* along a carpark adjacent to secondary rainforest.
2. A male *Semanga superba* (Red-edge blue) was photographed on the morning of 5 August 2014 (Fig. B) feeding on the flowers of *Ixora javanica* flanking a carpark adjacent to secondary rainforest.
3. A male *Bindahara phocides* (The plane / sword-tailed flash) was photographed on the morning of 23 September 2012 (Fig. C) feeding on the flowers of *Baphia nitida* in an exposed clearing flanked by secondary rainforest.
4. A male *Poritia sumatrae* (Sumatran gem) was photographed on the morning of 10 July 2012 (Fig. D) sun-bathing along a densely shaded track in the forest.

Remarks: In Singapore, all four species of butterflies featured here are regarded as forest dependent. *Manto hypoleuca* appears locally confined to the Central Catchment area. *Bindahara phocides* has an even more restricted distribution, with sightings centered around Upper Seletar (iNaturalist, 2017a), Upper Peirce (iNaturalist, 2017b), and Mandai (iNaturalist, 2018). Both species are regarded as 'rare' in Singapore (Khew, 2015: 262, 273). In Singapore, *Poritia sumatrae* and *Semanga superba* are considered to be 'moderately rare' (Khew, 2015: 169, 243).

The cultivation of flowering plants along the edges of forest reserves serve as an important source of nectar for many species of insects, particularly in the biodiverse rainforests of Upper Seletar; in this instance, drawing rare species out into the open (Jain *et al.*, 2016). Apart from *Ixora javanica*, *Manto hypoleuca* is known to feed on *Syzygium zeylanicum* and *Bidens* spp. (personal observations), all of which are common plants used in landscaping. *Bindahara phocides* has been reported feeding on the flowers of *Syzygium zeylanicum* (ButterflyCircle, 2018), *Baphia nitida*, and *Leea indica* (Khew, 2015), of which only *Leea* is native to Singapore.

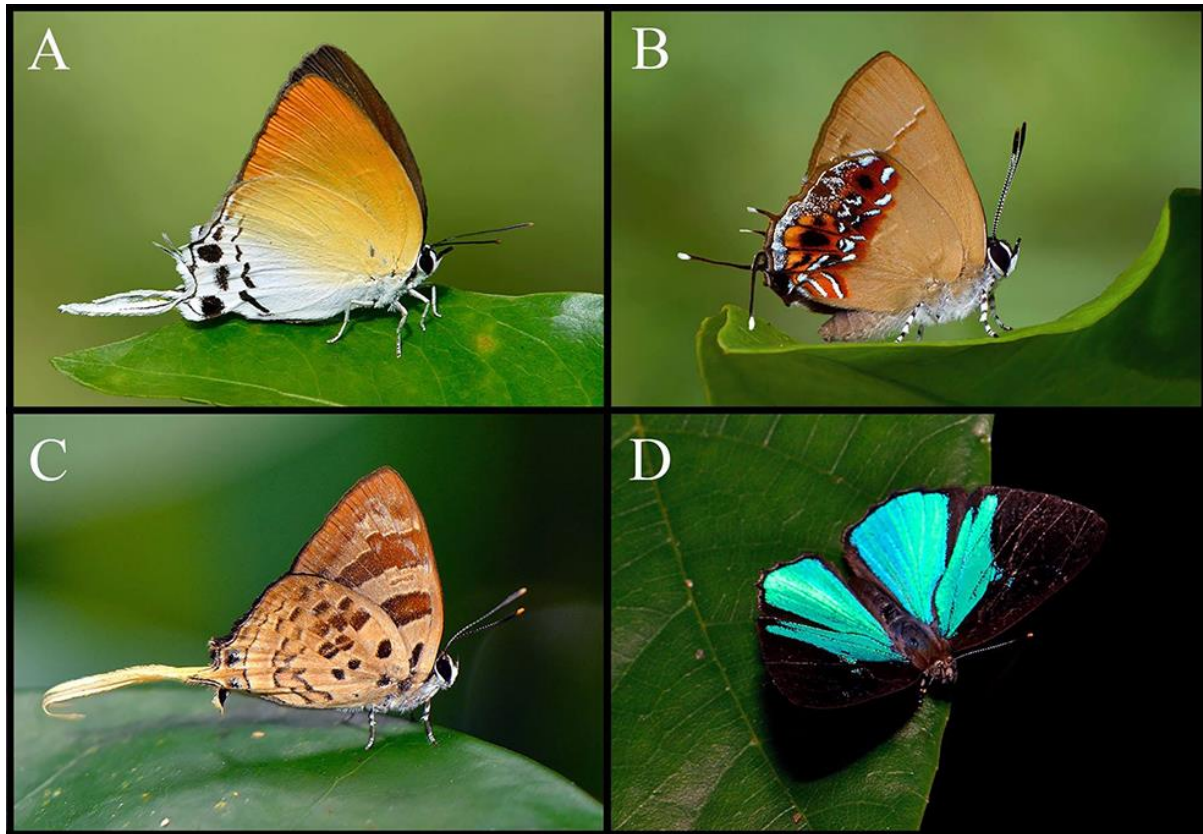


Fig. A-D. Four lycaenids photographed at Upper Seletar Reservoir. A: Ventral view of *Manto hypoleuca terana*. B: Ventral view of *Semanga superba deliciosa*. C: Ventral view of *Bindahara phocides phocides*. D: Dorsal view of *Poritia sumatrae sumatrae*. Photographs by Yi-Kai Tea

References:

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- iNaturalist, 2017a. Sword-tailed Flash (*Bindahara phocides*). Observed: Aug 11, 2015. Submitted: Jul 14, 2017. <https://www.inaturalist.org/observations/7047357>
- iNaturalist, 2017b. Sword-tailed Flash (*Bindahara phocides*). Observed: Feb 23, 2014. Submitted: May 9, 2017. <https://www.inaturalist.org/observations/7047357>
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- Jain, A., K. Kunte & E. L. Webb, 2016. Flower specialization of butterflies and impacts of non-native flower use in a transformed tropical landscape. *Biological Conservation*. 201: 184–191.
- Khew S. K., 2015. *A Field Guide to the Butterflies of Singapore*. 2nd edition. Ink On Paper Communications Pte Ltd, Singapore. xxv + 375 pp.