



## Occurrence of *Elymnias obnubila* Marshall and de Nicéville, 1883 (Lepidoptera: Nymphalidae: Satyrinae) in southern Mizoram: Range extension of the species and an addition to the Indian butterfly fauna

Krushnamegh Kunte

FAS Center for Systems Biology, Harvard University, 52 Oxford St, Northwest Lab Room 454.40-2, Cambridge, MA 02138, USA.  
Email: KKunte@cgr.harvard.edu

The Oriental genus *Elymnias* Hübner 1818, with about four dozen species, ranges from Sri Lanka and the Western Ghats in India to southern China in the north and to Papua New Guinea and Australia in the south, peaking in species diversity in the Malayan Archipelago (Marshall & de Nicéville 1883; Talbot 1947; Corbet et al. 1992). India has nine species of *Elymnias* (Evans 1932; Talbot 1947), to which this report adds *Elymnias obnubila* Marshall & de Nicéville, 1883, popularly known as the Chestnut Palmfly.

**Sighting of *E. obnubila* in Ngengpui WLS:** Ngengpui Wildlife Sanctuary is situated about 40km southwest of the town of Lawngtlai in southern Mizoram in northeastern India. It covers an area of 110km<sup>2</sup>, which is low-lying (170-550m) but hilly and receives an annual precipitation of 2,500mm. It is covered with subtropical evergreen and semi-evergreen forests, most of which remain undisturbed by any large-scale human activities. The outskirts of the sanctuary are either completely denuded or have been converted to teak plantations, *jhum* (shifting) cultivation and post-*jhum* bamboo growth (further details in Pawar & Birand 2001). The sanctuary thus forms one of the last refuges for evergreen forest species in the area, where I surveyed butterflies from 26 to 28 April 2008.

On 26 April, I spotted an *Elymnias* perched on a sapling, ca 1m off the ground, next to an elephant path in dense evergreen forest. This forest was on a ridge near the Pawizawh Forest Hut

(22°25'50"N & 92°47'29"E) within the Ngengpui Wildlife Sanctuary, at an altitude of 300 to 400m. After taking a few photographs, I captured the specimen to inspect it closely. It exactly matched the original species description of *E. obnubila* (Marshall & de Nicéville 1883) and photographs illustrated in several butterfly faunas (d'Abbrera 1985; Pinratana 1988; Inayoshi 2008). The chestnut wing margins particularly proved the identity of the species, and the relatively undamaged wings and the hind-wing brand and hair tufts that are clearly visible in photographs (Images 1 & 2) also indicated that the individual was a somewhat fresh male. Since the species identity was clear and I did not have permits to collect butterflies from the sanctuary, I released the specimen on the spot after taking the photographs.

On the underside of the wings, *E. obnubila* somewhat resembles the widely distributed *E. hypermnestra* Linnaeus, 1763, but is easily separated from all other species of *Elymnias* by coloration on the upper side of the wings, which are dark velvet-brown, broadly bordered with a rich, light chestnut colour (Marshall & de Nicéville 1883). Males have a prominent brand on the upper side of the hind wing, which is covered by a tuft of hair composed of two pencils (Evans 1932). Females lack this brand, are paler on the upper side with much broader chestnut wing margins and a few obscure marginal spots on the hind wing, but have otherwise similar markings and coloration (Marshall & de Nicéville 1883; Evans 1932; d'Abbrera 1985; Pinratana 1988).

**Significance of this sighting:** Marshall and de Nicéville (1883) described *E. obnubila* from only two specimens, a male and a female, giving the habitat as "Upper Tenasserim; Mergui", in southern Myanmar (although only "Marshall, n. sp." appears on the species description on pp. 272-273). Dohertyi later collected it from "the Karen Hills at about 2000 feet in April" and "west of Bassein" from southern Myanmar (Elwes 1891). The species has subsequently been reported from Ranong and Phuket, across the border in Peninsular Thailand, although the known distributional range of this species is still very restricted in southern Myanmar and Thailand (Pinratana 1988; Inayoshi 2008).

The relatively fresh specimen reported here is most likely to have enclosed in the area. *Elymnias* are generally weak on the wing and do not fly very far, so it is also implausible that my specimen had traveled to southern Mizoram from its previously known range. These two factors suggest that there is a native population of *E. obnubila* in southern Mizoram. Since the species was previously known only from a small geographic area in southern Myanmar and Thailand, my sighting represents a major range extension of this species by 1,500 to 2,000 km, across several major mountain ranges. Nevertheless, this range extension is not surprising. In spite of previous collecting efforts by a handful of British entomologists, the butterfly fauna of this part of the Oriental Region remains poorly documented. Besides, *Elymnias* tend to be crepuscular and most species occur in dense evergreen forests. Hence, they are difficult to find and are easily overlooked due to the cryptic patterns on their undersides. Specifically, *E. obnubila* is known only from a few specimens, and the species was considered rare by all previous authors. Presumably, the species occurs at very low density and perhaps in small pockets throughout its range.

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**Image 1.** Male *Elymnias obnubila* near Pawizawh Forest Hut in Ngengpui Wildlife Sanctuary, southern Mizoram, India.



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2a

2b

**Image 2.** The specimen in Image 1, showing key characters of the species. 2a - Upperside, 2b - underside of the wings.

Moreover, the paucity of recent work on butterflies throughout most of Myanmar and northeastern India has not helped faunal discoveries in this region. It is, thus, not surprising that this species has gone unnoticed in northeastern India for 125 years since its description.

Recently, range extensions of other organisms that were previously known to occur only as far north as southern Myanmar, have been reported from Ngengpui Wildlife Sanctuary; a prominent example is of *Ptychozoon lionotum* the Smooth-backed Parachute Gecko (Pawar & Biswas 2001). The range extension of *E. obnubila* indicates that more southern Myanmar species may be found in Ngengpui Wildlife Sanctuary and other forested regions in Mizoram and adjacent northeastern Indian states.

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