

**REPORT OF A LIVE RECORD OF *NEPTIS ASPASIA* (SYN:
PHAEDYMA ASPASIA), LEECH, 1890, (LEPIDOPTERA:
NYMPHALIDAE: LIMENITIDINAE: NEPTINI) FROM INDIA
AFTER 68 YEARS**

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Abstract

Phaedyma aspasia falda (Eliot, 1969) was described on the basis of a type series collected from Bhutan in 1933 and Assam in 1947 (Eliot, 1969). Since then, this subspecies has not been recorded from India. Dhungel & Wahlberg (2018) returned the taxon *aspasia* to genus *Neptis* Fabricius, 1807, based on molecular phylogeny. Consequently, the original combination, *Neptis aspasia*, has been revived. We have photographed a live specimen of *Neptis aspasia falda* from Pange, Talle valley W.L.S, North Subansiri District, Arunachal Pradesh, in August, 2015. This is 68 years after the last Indian specimens were collected in 1947.

Key words: Neptini, Rediscovery, Pange, Talle valley, Apatani, Arunachal Pradesh, Conservation.

Introduction

J.N. Eliot (1969) listed 10 species under *Phaedyma* Felder, 1861 including a new species, *Phaedyma chinga* Eliot, 1969. He also described a new subspecies *falda*, for *Phaedyma aspasia* based on specimens collected from Assam (Dafla Hills, Apotani-15.viii.1947) and Bhutan (Wan du Potrang, 01.vii.1933 (*F. Ludlow & G. Sheriff*)). No subsequent records of this species have been reported from India till a live specimen was photographed by us in 2015 from Pange, Talle Valley, Arunachal Pradesh. Another subspecies, *P. a. kathmandia* (Fujioka, 1970) was described from Godavari, Central Nepal.

Materials and Methods

During a field survey in August 2015, VKC photographed a moderate sized *Neptis* in Pange, Talle Valley Wildlife Sanctuary, North Subansiri District, Arunachal Pradesh. The location was near the iron bridge in the vicinity of Forest Range Office, Pange (1500m amsl.). The individual sighted had landed on the path, from a nearby *Dalbergia horrida* plant. It was photographed at once, using a Canon 7D SLR with a Tamaron 180 mm Macro lens, and the individual flew away before a second photograph could be taken. The image was subsequently reviewed and identified as *Neptis aspasia* by Purnendu Roy and the subspecies identity was suggested by Peter Smetacek.

Observations

The individual sighted was old in appearance, and a piece from the right forewing termen near the tornus and another from the right hind wing apex plus termen were missing from a putative predator attack, but the markings on the left wings were intact and clear enough for identification. The *Dalbergia horrida* plant from which the butterfly flew was examined and two early instar caterpillars, similar to typical *Neptis* caterpillars, were found.

Discussion

The species was identified based on the morphology of wing pattern. The forewing discal spots in spaces 2 and 3 join with the cell streak forming a distinctive pattern which has been described as a hockeystick. In India *N. nycteus* de Nicéville, 1890, *N. nemorum* Oberthür, 1906 and *N. manasa* Moore, [1858] all have this arrangement. However, in all those species the spot in 2 is relatively broad in relation to the spot above in space 3 and the hindwing discal band is also broader than *N. aspasia*. We also compared it with images of *Neptis aspasia* from Vietnam (Yutaka Inayoshi, 2021) and Myanmar (Shizuya *et al.*, 2011) with which it matched well. From the white markings which show some traces of yellow in places, and the locality of sighting, this individual appears to match with Eliot's description of the sub species *falda*, specially with the albescent individual collected from the Dafla Hills, Apotani, 1947 (Eliot, 1969), almost the same territory of our record. Eliot's specimen from the Dafla Hills was almost certainly collected by Frederick Betts, who collected in the Apa Tani valley (= Apotani), today known as the Ziro valley, barely 20 km from the Talle Wildlife Sanctuary. Although Betts (1950) did not mention this species in his list of butterflies of the area, that was probably because he appears to have listed only those species whose identity he was certain of, and deposited the unidentified specimens of his collection in the Natural History Museum, London (Catriona Child, *pers. comm.*), where

J.N. Eliot found his type series. This species is very rare and there are no studies available about its preferred habitat and elevation. It is clearly a montane species, inhabiting broadleaf forests above 1600 m elevation.

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References

- Betts, F.N. 1950. On a collection of butterflies from the Balipara frontier tract and the Subansiri area (Northern Assam). *Journal of the Bombay Natural History Society* 49: 488-502
- Dhungal, B. & Wahlberg, N. 2018. Molecular Systematics of the subfamily Limenitidinae (Lepidoptera: Nymphalidae). *PeerJ*, 6, e4311.
- Eliot, J.N. 1969. An Analysis of the Eurasian Australian Neptini (Lepidoptera: Nymphalidae). *Bulletin of British Museum (Natural History): Entomology* 15: 1- 115.
- Evans, W. H. 1932. *The Identification of Indian Butterflies*. (Second Edition Revised). Bombay Natural History Society, Bombay. x+454 pp., 32 pls.
- Fabricius, J.C. 1807. Die neueste Gattungseintheilung der Schmetterlinge aus den Linneischen Gattungen *Papilio* und *Sphinx*. *Magazin Insektenk. (Illiger)* 6: 277 -289.
- Felder, C. 1861. Ein neues Lepidopteron aus der Familie der Nymphaliden und seine Stellung im natürlichen Systeme begründet aus der Synopse der ubrigen Gattungen. *Nova Acta Acad. Caesar. Leop. Carol.* 28: 1-50; 1 pl.
- Fujioka, T.1970. Butterflies collected from lepidopterological research expedition to Nepal, Himalaya, 1963. *Spec. Bull. Lep. Soc. Jap. Lepidopterological Society*, 36.

Inayoshi, Y. 2021. A Checklist of Butterflies in Indo-China, chiefly from Thailand, Laos & Vietnam. <http://yutaka.it-n.jp>

Shizuya, H., Y. Watanabe, M. Saito, T. Soe & H. Ozawa. 2011. Basic information on butterflies of Kachin State, Myanmar (Part 4). *Journal of Butterflies (Teinopalpus)* 57: 29–45.



Fig.1. *Neptis aspasia falda* recorded from Talle Valley Wildlife Sanctuary



Fig.2. Location Map, *Neptis aspasia falda* sighting