

NOBLE'S HELEN *PAPILIO NOBLEI* DE NICÉVILLE, [1889] (LEPIDOPTERA: PAPILIONIDAE) AN ADDITION TO THE BUTTERFLY FAUNA OF INDIA

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INTRODUCTION

The author visited Namdapha National Park (27°29'00"N; 96°23'00"E) in Changlang district of Arunachal Pradesh for a butterfly camp organized by Bombay Natural History Society (BNHS) during 9-14 October 2022. He was leading the camp as a butterfly researcher. He and the six participants photographed and recorded butterflies along the existing roads and around the Forest Rest House at Deban in Namdapha NP. They photographed many species of butterflies, of which more than 180 are already identified.

Namdapha National Park is spread across 1,985 sq.km. and is a biodiversity hotspot. It has lowland evergreen rainforests besides extensive dipterocarp forests. It falls in north-western part of the Mizoram-Manipur-Kachin rain forests ecoregion.

While driving along the roads, on 9 October 2022, the team found many dead butterflies, especially at places where butterflies were congregating for mud puddling. The team took stops at such places and photographed most butterflies they could manage. At one such puddle the author found a big dead swallowtail butterfly. Photographs of the dead specimen were taken from upper as well as undersides, for better identification.

The following features are visible in the photographed specimen (see images 1 and 2) and matches with the description of *Papilio nobleimale* (Bingham, 1907). The forewing has a quadrate white spot in the middle of interspaces 1a and 1 (white tooth like marking); the hind wing with a dark ochraceous incomplete ring at the tornal angle, with an enclosed deep black oval spot. Upper side of hind wing has an upper discal cream-white patch that consists of a quadrate spot in interspace 7, an elongate rectangular spot in interspace 6, and a trapezoidal spot in interspace 5. Hind wing: below it has a white elongate mark

in interspace 1 and a complete series of subterminal broad ochraceous-orange lunules. Antennae, head, thorax and abdomen black; beneath the thorax and abdomen marked with greyish white (Bingham, 1907).

The author confirmed the specimen as *Papilio noblei* from this description. Notably, the alternate English name of this species 'Tooth Swallowtail' is coined after the small tooth-like creamy white mark on its forewing (in the middle of interspaces 1a and 1), which distinguishes it from its relatives.

Bingham (1907) mentions *Papilio noblei* as a rare insect and gives distribution as 'recorded from Taungoo and the Karen Hills in Lower Burma (now Myanmar); from Katha and the Ruby Mines district in Upper Burma. Fruhstorfer took it in Middle Tonkin' (now Vietnam).

Evans (1932) mentions *Papilio noblei* to be a very rare and found only in Burma (now Myanmar). The 'Butterflies of Indo-China' (<http://yutaka.it-n.jp>) website mentions the distribution of the species as 'Myanmar, Northern Thailand, Laos, Vietnam, China'. It also gives details of many specimens available in various museums and the multiple synonyms used to describe the species. Tytler (1926) described the sub-species *Papilio noblei haynei* from a specimen taken from North Burma without the tooth like white patch on the hind margin of the forewing.

Wynter-Blyth (1957) and Kehimkar (2016) did not include the species in their books. Recently, Varshney & Smetacek

(2015) also did not include it in the catalog of Indian butterflies.

Considering the above images and previous works and available references, the finding of *Papilio noblei* by the author in Namdapha NP, Arunachal Pradesh can be considered as the first record of the species from Arunachal Pradesh as well as from India. This will be an addition to India's butterfly fauna.

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Fig 1: Noble's Helen *Papilio nobeli* Underside



Fig 2: Noble's Helen *Papilio nobeli* Upperside