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First live record of Noble's Helen *Papilio noblei* de Nicéville, 1889 (Lepidoptera: Papilionidae) swallowtail butterfly India from Namdapha national park, Arunachal Pradesh, India, a newly reported species from India

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Abstract

Noble's Helen *Papilio noblei* is an extremely rare swallowtail butterfly and *photographed* live for the first time from India three times on 13 September 2019, 7 September 2020 & 27 September 2021 from Namdapha National Park of India. The record from Namdapha National Park is aerially only 80 kms away from Putao in Kachin states of Myanmar where there is last published information recorded in April 5, 1999. The records are significant as this rare swallowtail butterfly is disappearing in recent times from its previously known ranges in SE Asia.

Keywords: *Papilio noblei*, Noble's Helen, first live record, Namdapha, India, swallowtail

Introduction

Noble's Helen *Papilio noblei* is a swallowtail butterfly found in Myanmar, Yunnan, Hubai (China), North Thailand, Laos, Cambodia, Vietnam^[1, 2, 3] (Fig 4). The butterfly is a member of the *noblei* species group; closely related to the *demolion* species group with two species *viz.* *Papilio antonio* Hewitson 1875, *Papilio noblei* de Nicéville, 1889.

The butterfly is known to be very rare in occurrence in its previously known ranges^[8]. Historically, it was once locally common in montane forest at moderate elevations in N. Thailand (alt.700 m – 1000 m),^[3]. Presently, the species is quite rare although not completely disappeared from Thailand (<https://thaibutterflies.com>). The closest species of *Papilio noblei* is *P. antonio* from Philippines where the dorsal white spot is very large^[1].

Altogether, there are two recognized subspecies of *Papilio noblei viz.* *Papilio noblei noblei* de Nicéville, 1889 (Myanmar, N. Thailand, Laos & *Papilio noblei hoa* Gabriel, 1945 (Northern to Central Northern Vietnam^[1]). The butterfly is very similar to *P. helenus* and has a wingspan of 100–120 mm but has an extra white spot in the dorsum of forewing^[2]. The white spot on the dorsum of the forewing may be quite small but clear or even nonexistent in nomotypical subspecies and sexes are similar^[1] and hence can be confused easily with *P. helenus*. However, the white spot on the dorsum of the forewing is always consistent in *Papilio noblei hoa*^[1]. *Papilio noblei* has complete row of red lunules in underside of hind wing and discal white areas in 5-7 in upper side hind wing^[7].

The species was recorded for the first time in India by AB on 19th Miles, Namdapha NP on 13/9/2019 (11.30 am) which is the first record of the species from India (Fig 1). AB initially thought the species to be an aberration of *P. helenus*. The second confirmed sighting of the species is from Lunkai Nala, Namdapha NP on 7.9.2020 (2.30 pm) by AB (Fig 2). The third sighting of the species is Near Deban Camp, Namdapha NP on 27.9.2021 by AB along with LS and other participants including MJG during Namdapha butterfly meet 2021 (Fig 3). Later on, other participants also have seen the same individual in the same spot. Rather than our record, on September 2021 from Namdapha by Adarsha Mukherjee (<https://indiabiodiversity.org/observation/show/17790828>) and a dead specimen was also recently recorded in October 2022 from Namdapha as first record for India^[6]. However, the record of AB in 2019 is the first photograph of the species from India.

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On close observation on the distribution of the species, it has been found that the butterfly was earlier recorded from Putao of Kachin states of Myanmar in April 5, 1999 [5]. The record from Kachin states is is aerially only 80 kms from our present sighting (Fig 4). Hence, sighting of this species in Namdapha NP in India was expected. The records of this extremely rare swallowtail from Namdapha is also significant as the species is already disappearing in its previously known ranges in N. Thailand.

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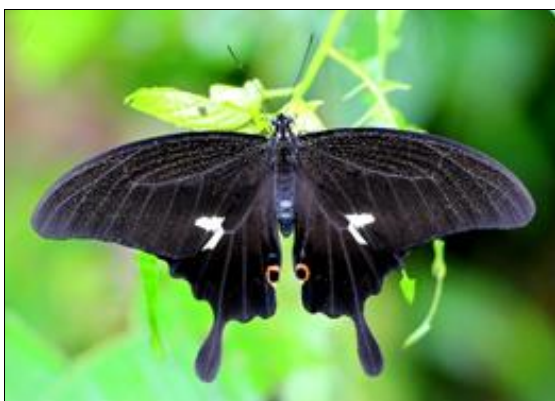


Fig 1: *Papilio noblei*, 13.9.2019, Namdapha NP, Arunachal Pradesh, India, Photo: AB

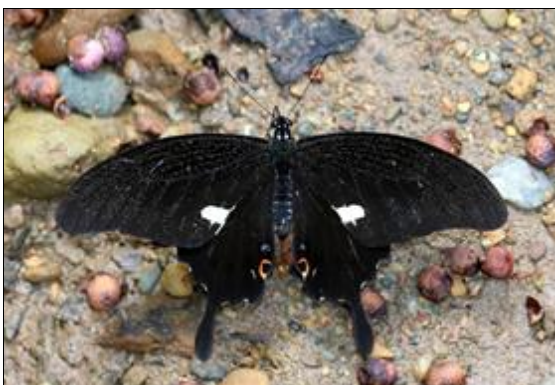


Fig 2: *Papilio noblei*, 27.9.2021, Namdapha NP, Arunachal Pradesh, India, Photo: AB



Fig 3: *Papilio noblei*, 27.9.2021, Namdapha NP, Arunachal Pradesh, India, Photo: LS

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