

## RESEARCH NOTES

### (I)

# Range Extension of *Matapa sasivarna* [Moore (1866)] Black-veined Branded Redeye to Western Himalaya

Recent studies in butterflies showed that there is a lot to learn about the status of butterflies in India, especially in western Himalaya, which has many butterflies, waiting to be rediscovered or discovered. There have been many reports of range extensions and rediscoveries for several species of butterflies to the western Himalaya during past two decades. Almost all of these reports have been documented from the hilly state Uttarakhand of India, that lie to the west of Nepal and shares its boundary with China occupied Tibet. These include *Talica nyseus* GuérinMenéville (Singh, 2005a), *Poritia hewitsoni* Moore (Singh, 2003a), *Ampittia dioscorides* Fabricius (Singh, 2003b), *Delias acalis* Godart (Smetacek, 2001), *Pontia daplidice* and *Pontia glauconome* (Smetacek, 2002) *Zesius chrysomallus* Hübner (Singh, 2005b), *Meandrusa lachinus* Fruhstorfer (Singh, 2006), *Talica nyseus* Guérin Menéville, *Nacaduba kurava* Moore, *Flos asoka* de Nicéville and *Arhopala abseus* Riley (Smetacek, 2011). Due to its variable geographical structure and lack of proper research, status of most of the butterflies is unclear. The current research was carried out from March 2016 to October 2016 with an aim to document rare species to contribute more in butterfly diversity of Uttarakhand. During the survey carried out in various parts of Nainital a new distribution and range extension to western Himalaya was recorded for- Black-veined branded Redeye.

*Matapa sasivarna* was documented first time from Uttarakhand. The skipper genus *Matapa* (Lepidoptera: Hesperidae: Hesperinae), described by Moore in 1881 with *Ismene aria* Moore, 1866 as the type specimen, is a small group of the family Hesperidae. In India there are five species of genus *Matapa* have been recorded till date. These are: (i) Common Redeye, *Matapa aria*

Moore, 1866 (ii) Purple Redeye, *Matapa purpurascens* Elwes and Edwards, 1897 (iii) Dark-brand Redeye, *Matapa druna* Moore, 1866 (iv) Black-veined Branded Redeye, *Matapa sasivarna* Moore, 1866 (v) Fringed Redeye, *Matapa cresta* Evans, 1949.

Among these only *Matapa aria* is found abundant everywhere in Uttarakhand. In India *Matapa sasivarna* occurs Sikkim to NE India, elsewhere Central Nepal, NE and SE Bangladesh and Burma. Singh (2012) also reported this species from subtropical lowland forests of Bhutan along the Sankosh River (118–220 m). There is no subspecies listed under this species in India. It was identified using the identification of *Matapa* was based on the keys of Jong (1983) based on the morphological characters. Identification keys of Watson (1897); Evans (1932); Talbot (1947) and photographic guide of Kehimkar (2016) were also considered.

#### Study area

The location is in Nainital district of Uttarakhand at a distance of 20km. apart from district headquarter. The Nainital district occupies the southern portion of the Kumaun division (28°44'N-30°49'N, 78°45'E-81°01'E). Geographically Nainital district is heterogeneous; its northern portion consists of hills and the southern portion of the alluvial plain called Bhabar. The study site is dominated by two species of oak: *Quercus leucotrichophora* and *Quercus floribunda*, Himalayan cypress *Cupressus torulosa* and deodar *Cedrus deodara*. Among oaks, banj (*Quercus leucotrichophora*) is most common. The belt contains deciduous forest. Lantana is also widely spread here. This site is ideal habitat for most of the butterflies species found in Uttarakhand. The butterfly was photographed at the elevation of 1200m.



Fig 1 and 2: Black-veined branded reye *Matapa sasivarna*, with using flash (Left) and without using flash (Right).

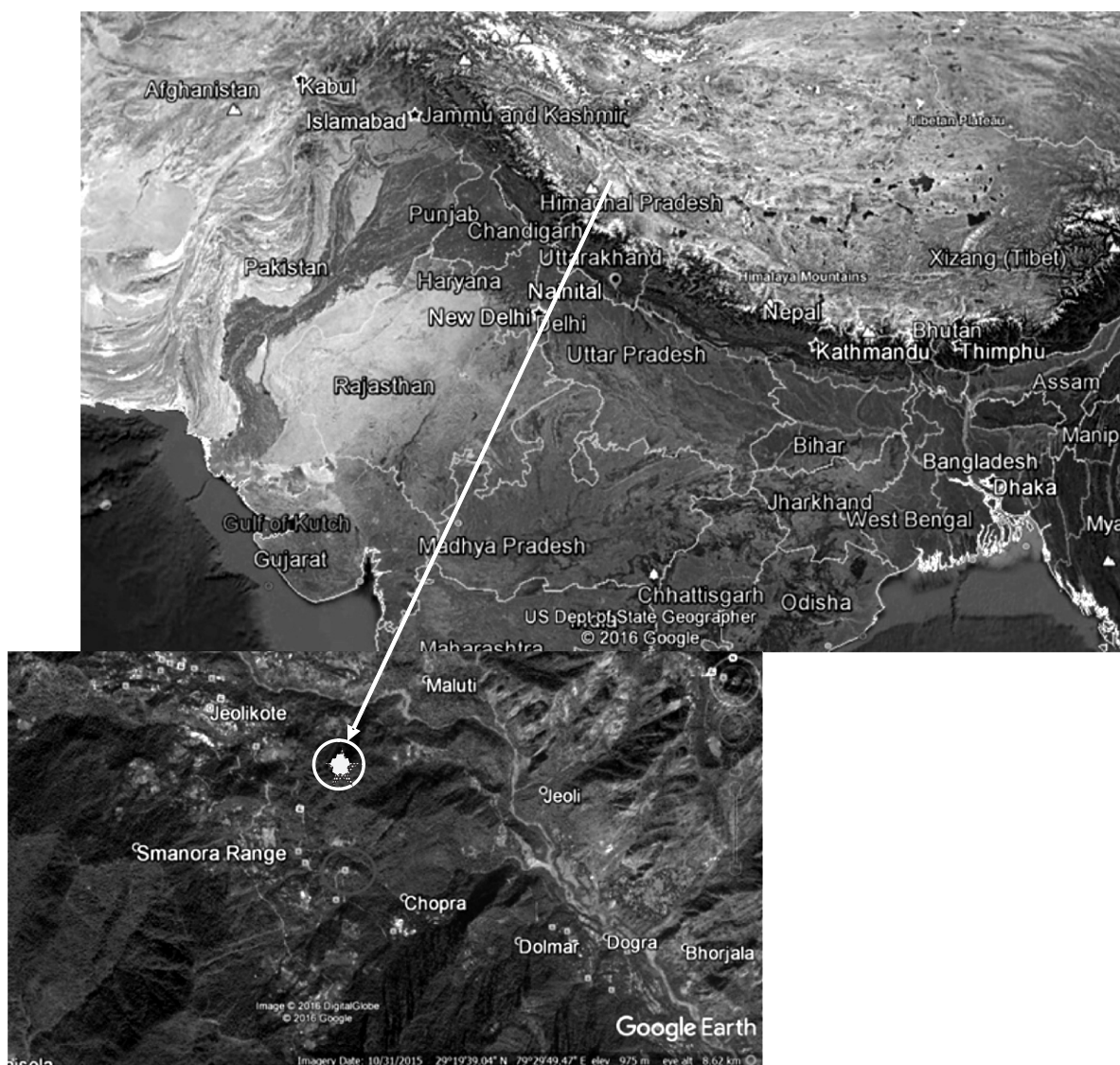


Fig. 3: Study area shown by white circle with particular site marked as star, where Matapa sasivarna was photographed. (Courtesy- Google earth ver. 7.1.7.2606).

### Significance of this record

Recent sighting shows that possibility of presence of this butterfly between Central Nepal and Uttarakhand cannot be ruled out. It also offers support to putative role as link habitat between central Himalaya and western Himalaya. The record of such rare species shows the potential biodiversity of the area and reflects the need for more survey works. Singh and Sondhi (2016) reported that there are at least 51 species of butterflies which have no recent records from Uttarakhand. In addition, there are 10 species for which records need further verification. Due to the lack of proper scientific data related to habitat, seasonal form, brood and distribution of these 50+ species is under negligence. Lack of proper attention, limited number of butterfly researchers and lack of awareness are the main reasons behind the uncertainty relating to the status of butterflies in this state. This indicates that Uttarakhand needs significantly more

research on this faunal group. The record of such species from the area shows the importance of conserving the low altitude forest of Uttarakhand. These forests are facing problems of logging and deforestation. Fuel wood extraction is going on regularly and should be stopped. An effort should be made to save the forests in this area. In short this record is helpful for updating the status and distribution of butterfly fauna in the state.

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- (Note:- *Meandrusa lachinus* Fruhstorfer is the correct scientific name of Brown Gorgon butterfly instead of *Meandrusa gyas gyas* (Singh 2006).)

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