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# BIONOTES

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## **From Volume 21**

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**RANGE EXTENSION OF PURPLE SWIFT *CALTORIS TULSI DE NICÉVILLE* (LEPIDOPTERA: HESPERIIDAE) TO THE WESTERN HIMALAYA SHANKAR KUMAR<sup>1</sup>, RAJ SHEKHAR SINGH<sup>2</sup>, PARAMJIT SINGH<sup>3</sup> & SUNDAR KUMAR<sup>4</sup>**

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Reviewer: Peter Smetacek

**Abstract**

The present note reports a range extension of Purple Swift *Caltoris tulsi* de Nicéville, [1884] to the Kumaon Himalaya, Uttarakhand, India.

**Introduction**

The Indian state of Uttarakhand comprises a cross section of the Himalayan range and constitutes a major portion of the western Himalaya. The butterflies of Uttarakhand have not been well studied since the colonial period. Doherty (1886) published a list of 271 species of butterflies from Kumaon region of Uttarakhand. 323 species of butterflies were reported from Mussoorie and nearby areas by Mackinnon & Nicéville (1899). Hannington (1910, 1911, 1915) recorded 378 species of butterflies from the Kumaon region of Uttarakhand. Ollenbach (1929) published his records of butterflies from various sites of Mussoorie. In recent years, Smetacek (2011) documented four new lycaenid from the Kumaon Himalaya. Singh & Sondhi (2016) published their records of 349 species of butterflies observed over a period of 20 years from Garhwal, Uttarakhand. Beside this, during the past 3 to 4 years, some independent researchers reported

significant records related to rediscoveries and range extensions for several species of butterflies for Uttarakhand i.e. *Flos adriana* de Nicéville (Venkatesh, 2016), *Matapa sasivarna* Moore (Kumar, Singh & Joshi, 2018), *Anthene emolus* Godart and *Caltoris kumara* Moore (Kumar, Singh & Singh, 2018) etc.

The current two days survey, carried out from 14<sup>th</sup> to 17<sup>th</sup> June, 2017, is part of a larger assessment of the diversity and status of rare butterflies in the Bageshwar district of Uttarakhand. The present paper unequivocally confirms the previously unreported presence of Purple Swift *Caltoris tulsi* in Uttarakhand.

**Materials and Methods**

**Study area**

The present study was carried out in various sites of Bageshwar district in the Kumaon Himalaya of Uttarakhand, India. One of the sites, Song village (1500-2200 m) of Kapkote block (Fig. 1), lies in the northern part of Bageshwar district. It

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was surveyed on 17<sup>th</sup> June, 2017. The study area contains mostly subtropical evergreen forests. This region is dominated by Oak species associated with Deodar (*Cedrus deodara*), Bamboo (subfamily *Bambusoideae*), Chir pine (*Pinus roxburghii*), Rhododendron (*Rhododendron arboreum*) and Yew (*Taxus baccata*). Broadly, three seasons can be recognized for the study area, viz. summer (April-June), rains (July-September) and winter (October-March). The Pindari glacier is 50 km from Song village.

### Methodology

During the survey, Purple Swift *Caltoris tulsi* was recorded and photographed by a digital single-lens reflex (DSLR) camera using a 70–300 mm lens. The specimen of *C. tulsi* was photographed from different angles to get enough photographs to confirm the identity of the species. The identity was confirmed with the help of Evans (1932), Wynter-Blyth (1957) and Kehimkar (2016).

### Results and Discussion

#### Purple Swift *Caltoristulside* Nicéville, [1884]

This is a small butterfly belonging to the Hesperidae (Skippers) family. In India, the genus *Caltoris* Swinhoe, 1893 is represented by 12 species, out of which only Blank Swift *Caltoris kumara* is known from the western Himalaya (Kumar, Singh & Singh, 2018). *Caltoris kumara* was first recorded from Nalena, Nainital district of Uttarakhand. The species *Caltoris tulsi* has a single subspecies in India i.e. *C. t. tulsi* de Nicéville, [1884]. In Evans (1932) this species is described as *Baoris tulsi* ranging from Sikkim to Karens. Varshney & Smetacek (2015) list the distribution of this species from Sikkim to northeast India. It is listed as “*Not Rare*” by Van Gasse (2013) from central Nepal to northeast India, and Burma to

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Karens. A single individual of Purple Swift *Caltoris tulsi* was photographed near a motor road (fig. 2), when it was basking on a leaf of a shrub. This sighting was made at 10:30 hrs on 17<sup>th</sup> June, 2017 in Song village of Bageshwar district of Uttarakhand (30°1'57.66" N; 9°57'16.15" E). This record of *Caltoris tulsi* in Song village extends its range by more than 500 km westward from its previously known distribution i.e. central Nepal (Smith, 1994) and hence the possibility of this butterfly occurring between central Nepal and Uttarakhand cannot be ruled out.

### Conclusion

The Kumaon Himalaya has been explored relatively poorly as far as insect communities are concerned. The sighting of *Caltoris tulsi* also needs to be understood in the context of the lack of past surveys in this region as it might be possible that this species was always present there. This emphasizes the need of proper and systematic surveys in this area.

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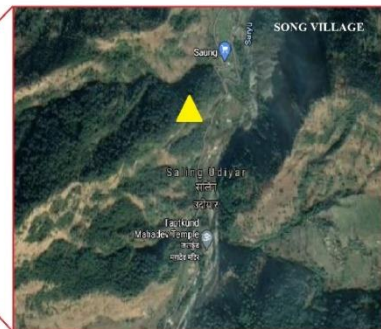




Fig.2: *Caltoris tulsi* underside view



Fig.3: *Caltoris tulsi*