

NEW RECORD OF TAWNY RAJAH *CHARAXES BERNARDUS* (INSECTA: LEPIDOPTERA: NYMPHALIDAE) FROM KUMAON, UTTARAKHAND, INDIA

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Introduction

Uttarakhand is divided into two administrative zones, Kumaon and Garhwal. Kumaon comprises a cross section of the Himalayan range west of Nepal, ranging from the low lying Tarai-Bhabhar in the south to lofty snow-clad mountains in the north. Due to the great biodiversity of this region, a large number of insect species, especially butterflies, occur here.

Tawny Rajah *Charaxes bernardus* (Fabricius, 1793) has three subspecies recorded from India namely, *C. b. agna* Moore, 1878 (Andaman Is.), *C. b. hierax* C. & R. Felder, [1867] (E. Himalaya and N.E. India) & *C. b. hemana* Butler, 1870 (W. Himalaya, Uttarakhand) (Varshney and Smetacek, 2015). According to Mackinnon and de Nicéville (1899), "Three males and two females only obtained near Mussoorie in September at 4,000 feet elevation; Dr. Butler records it from "Mussuri" and North of "Landour" & Mr. Moore records it from "Massuri" and the "Uglar" valley north to Landour, this being probably a misprint for "Aglar"."

In the present study, we have sighted Tawny Rajah *Charaxes bernardus hemana* from four different sites of Kumaon during a butterfly survey organized from August, 2019 to September, 2020. These sightings confirm the

presence of this species in Kumaon for the first time.

Observations

A single individual was observed at 1045 hrs on 16.ix.2019 near the Police Station of Chorgalia (29.126686 N; 79.681724 E), altitude 306 m, district Nainital near the highway. It was feeding on human excreta. Another individual was observed at 1230 hrs on 26.viii.2020 near Machali Van of Nandhaur Wildlife Sanctuary (29.133650 N; 79.704343 E), altitude 361m, when it was resting near a forest road. Two individuals were also recorded from Balighat (29.876373 N; 79.784768 E), altitude 931m, of Bageshwar district. One was observed feeding on scat of a carnivore and the other was mud puddling near the motor road. These sightings were made at 1130 hrs on 12.ix.2020. Five individuals of Tawny Rajah were also sighted the next day at Song Village (30.033588 N; 79.955751 E), 1869 m of Bageshwar district. Hence a total of nine individuals of Tawny Rajah were observed during the survey.

These individuals are the first members of the species ever recorded from Kumaon, although the species is known from both east and west of this area. Chorgalia and Nandhaur are at low elevation where the Gangetic plain meets the

Himalaya, while Balighat and Song are in the interior of the division, suggesting that the species occurs throughout the region at suitable elevation, unlike species like *Graphium doson*, that occurs along a narrow belt at low elevation below the outermost range of the Himalaya, never venturing into the interior.

In our opinion the main reasons behind the notable presence of this species in Kumaon are the low incidence of forest fires and the favourable weather throughout the year 2020. Although this species was probably always present in the area surveyed in small numbers, it went unrecorded because of the lack of surveys at the right place and right time. In short, the slight change in atmospheric/environmental conditions i.e. temperature, precipitation, humidity, forest

fires and other minor factors affect the population of certain butterfly species.

Acknowledgment

The corresponding author is thankful to Prof. (Dr.) Hema Prasad, Principal, Government Post Graduate College, Ranikhet, Almora for her valuable guidance to complete the study successfully.

References

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Fig.1 & 2.: The UP and UN of Tawny Rajah clicked at Song Village, Bageshwar of Kumaon

Fig.3: Tawny Rajah at Chorgalia, Haldwani, Nainital of Kumaon