

Short Communication

Sighting of a rare species of butterfly, *Tajuria maculata* Hewitson, 1865 (Spotted Royal) from Darjeeling District, West Bengal, India

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Abstract

During the course of documentation status survey of butterfly diversity in the Eastern Himalayas, West Bengal, India, the Spotted Royal *Tajuria maculata* (Hewitson, 1865) (Lepidoptera : Lycaenidae) was observed and identified from Darjeeling District, West Bengal, India. Therefore, one more species of butterfly (Lepidoptera) was added to the regional faunal records.

Keywords: Lepidoptera, New Record, *Tajuria maculata* (Hewitson, 1865)

Introduction

Our planet is undergoing a period of substantial diminution in biodiversity and mass extinction of species (Barnosky *et al.*, 2011), which threatens ecosystem services and ultimate survival of human race. However, these decline rates of organisms in general are poorly quantified and studied. Among various organisms, butterflies (Lepidoptera) due to their life-history traits link to characteristics of their larval and nectaring host plants, breeding and mating habitat, etc, are extremely responsive to any changes in their environment (Brereton *et al.*, 2011; Cayton and Haddad, 2018). Hence they occupy a vital position in ecosystem and their presence and diversity is considered as a good indicator of the health of any biotope. Reporting observations of these indicator species is an integral part of continued success of our efforts to conserve biodiversity. In the present paper we report sighting and first photographic record of Spotted Royal *Tajuria maculata* (Hewitson, 1865) (Lepidoptera : Lycaenidae) from Darjeeling District, West Bengal.

Study Area

Mangpong Forest lies along the west bank of river Teesta, at an elevation of about 500 ft along the lower ranges of

Eastern Himalayas, on the outskirts of Mahananda Wildlife Sanctuary, Kalimpong Tehsil, Darjeeling District, West Bengal 734005, India (26.8752831°N, 88.5094081°E). It is commonly known as gateway to Dooars. The vegetation complex of the area includes a considerable number of trees, vines, climbers, hedges, shrubs, brushes and grasses. The rich plant diversity of this area provides many suitable niche areas for butterflies. The province has a tropical climate, with four distinct seasons: winter (late November to February), summer (March to May), monsoon (June to September) and autumn (October to November). The temperature ranges from an average minimum of 10°C and maximum of 35°C and experiences an average annual rainfall from 2000-2500mm.

Observation

Tajuria maculata was observed during a butterfly survey along the NH31 highway besides, Mangpong Forest, under Kalimpong Tehsil, Darjeeling District, West Bengal 734005, India (26.8752831°N, 88.5094081°E) (Figure 1).

Species Description

Tajuria maculata bears two tails, with prominent dark spots on the underwing. The upper forewing is shining

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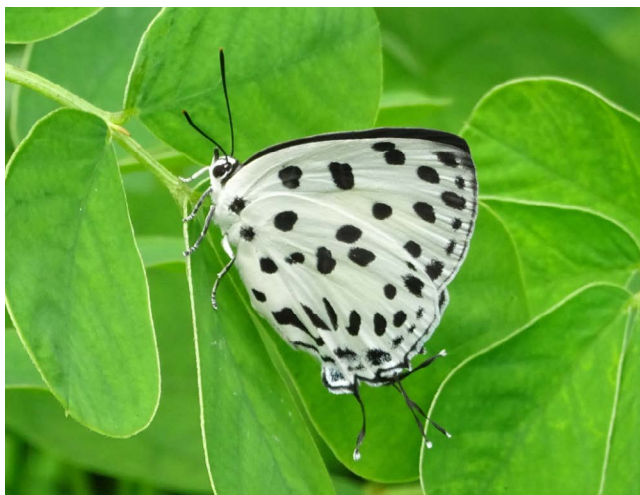


Figure 1. Spotted Royal *Tajuria maculata* (Hewitson, 1865) (Lepidoptera: Lycaenidae).

blue, with a whitish central area and broad dark border whitish beyond the upper hindwing cell. The butterfly is about 36-44 mm in size.

Food Plants

Dendrophthoe spp. (Family Loranthaceae).

Distribution

Tajuria maculata is known to occur very rare even in the areas of their distribution elsewhere. *T. maculata* is rare species of butterfly, native to the Indomalayan realm. *T. maculata* inhabits hilly forest of about 500-1800 m altitude. Within the Indian subcontinent, the species has been previously reported from the South China, Nepal, Malaysia and Borneo (Bascombe *et al.*, 1999). In

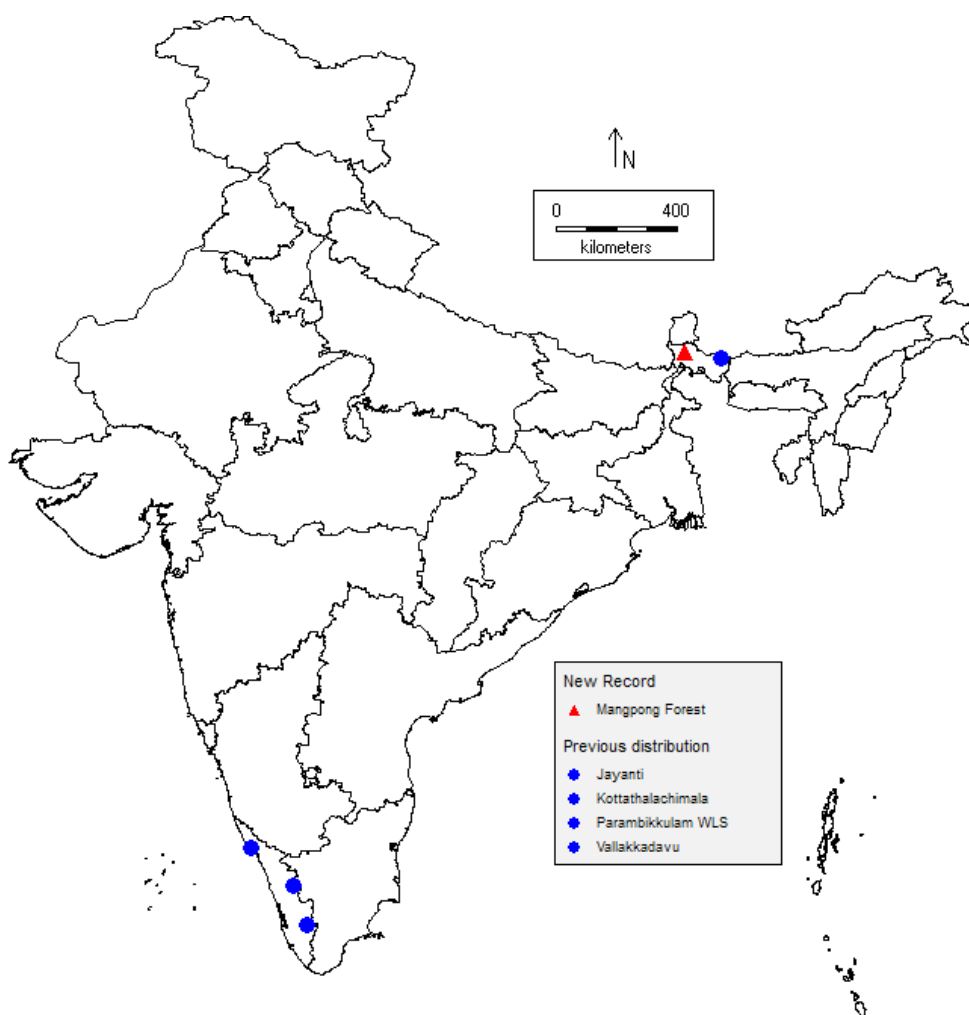


Figure 2. Records of previous and recent distribution of *Tajuria maculata* from India.

India it has been reported from Western Ghats (Sarkar *et al.*, 2011; Ghorpade and Kunte, 2010) and north-eastern India from Jayanti, Alipurduar District, India (Anonymous, 2017), Conditions of the north-east zone of India, including Assam (Singh, 2017), favours the growth of *T. maculata* (Figure 2). Outside India, several accounts from Hong Kong, Vietnam, Japan, Nepal, Bhutan, Myanmar and Indonesia have confirmed the report of this species (Van Lien, 2014; Widhiono, 2015; Kehimkar, 2016).

Conservation Status

Rare: Placed under Schedule II, Part II of IWPA (1972).

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Discussion

Sighting this rare species is of great ecological significance especially when the biodiversity is increasingly under the impact of human mediated environmental changes leading to habitat loss and fragmentation contributing to population decline or even extinction of species. Thus a basic inventory of butterflies of such ecologically imperative regions should be a high priority for monitoring the ecological health of the region.

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