

ISSN 0972- 1800

# BIONOTES

VOLUME 23, NO. 1

QUARTERLY

JANUARY - MARCH, 2021



Date of Publication: 12<sup>th</sup> April, 2021

# BIONOTES

**A Quarterly Newsletter for Research Notes and News  
On Any Aspect Related with Life Forms**

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## **From Volume 21**

**Published by the Entomological Society of India (ESI), New Delhi (Nodal Officer: V.V.  
Ramamurthy, ESI, New Delhi)**

**And**

**Butterfly Research Centre, Bhimtal**

**Executive Editor: Peter Smetacek**

**Assistant Editor: Shristee Panthee**

**Butterfly Research Trust, Bhimtal**

Published by Dr. R.K. Varshney, A Biologists Confrerie, Raj Bhawan, Manik Chowk,  
Aligarh (up to volume 20 (2018)) R.N.I. Registration No. 71669/99.

Cover Photo by Parixit Kafley of *Balinta octonotata*

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## FIRST EVIDENCE OF *PAPILIO MACHAON* (LEPIDOPTERA: PAPILIONIDAE) FROM TERAJ REGION OF NEPAL

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Reviewer: Piet van der Poel

### Introduction

Nepal possesses diverse habitats, flora and fauna owing to its unique geographic position and variation in altitude and climate. 660 species of butterflies were reported by Smith (2010), but now the number has risen to 674 (Van der Poel & Smetacek, *in prep.*). To the North above 3000m, Palearctic butterfly species are found while to the south below 1500m, Oriental species are found. They surely do overlap to some extent but we also find a separate group of typically Himalayan species in the region of overlap (Smith, 2011). *Papilio machaon* Linnaeus, 1758 is basically a Palearctic species found throughout the Palearctic region, parts of North America, and Indo-Malayan region. Two subspecies of *P. machaon* fly in Nepal. In India, subspecies *asiatica* Menetries, 1855 flies from Jammu & Kashmir to Uttarakhand (Varshney & Smetacek, 2015).

While *P. machaon* was only reported in Nepal from elevations as low as 980 a.m.s.l (van der Poel & Smetacek, *in prep.*), lately several individuals were spotted in Terai region at elevations as low as 230m. This paper presents the new distribution record of *P. machaon* from lower elevations of Nepal. Surendra Pariyar, an expert on Nepal butterflies, has seen this butterfly in Terai before but lacks any evidence as proof (personal communication).

### Observation

Two individuals of *P. machaon* were observed in a home garden located at an altitude of 230m (27°34'52.6"N, 84°40'45.1"E) in Rapti, Chitwan, sipping nectar from *Tagetes* sp. during the afternoon of 1st November, 2020. Three more individuals were observed on 23rd February, 4th March, and 11th March 2021 at the same location. However, photos of only the first and last observations were taken using a Samsung galaxy J5 smartphone.

### Discussion

In the Himalaya and other mountain systems, it is normal for mid and high elevation butterflies to migrate to lower elevation, either in response to inclement weather at higher elevation or during winter. Cabbage Whites (*Pieris* spp.), Clouded Yellows (*Colias* spp.) and even Tortoiseshells (*Aglais* sp.) have been recorded on the Gangetic plain in winter.

Therefore, the record of *P. machaon* from relatively low elevation is not unusual and confirms the presence of this butterfly sporadically at low elevation during winter. Although the larval hostplants of the butterfly include cultivated umbellifers like dill, fennel, etc. there is so far no evidence to indicate that the specimens observed in the present study bred in the locality observed. Rather, it is likely that they descended to low elevation in response to cold weather.

Although several subspecies of *P. machaon* have been described in earlier works, we have

refrained from assigning subspecific status to the specimens we observed in this study in deference to the practice of not assigning subspecies status without specimens in hand.

#### **Acknowledgements**

We are grateful to Mr. Sajan K.C. and Mr. Surendra Pariyar for their kind help and support in this study.

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Fig.1: *P. machaon* 230m in Rapti, Chitwan, 1<sup>st</sup> November, 2020

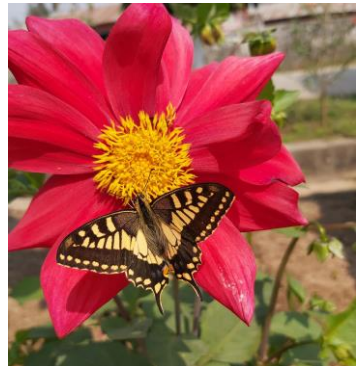


Fig.2: *P. machaon* 230m in Rapti, Chitwan, 11<sup>th</sup> March, 2021