

ISSN 0972- 1800



VOLUME 22, NO. 2

QUARTERLY

APRIL-JUNE, 2020



Date of Publication: 28<sup>th</sup> June, 2020

# BIONOTES

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

BIONOTES articles are abstracted/indexed/available in the Indian Science Abstracts, INSDOC; Zoological Record; **Thomson Reuters (U.S.A); CAB International (U.K.); The Natural History Museum Library & Archives, London; Library Naturkundemuseum, Erfurt (Germany)** etc. and online databases.

## Founder Editor

Dr. R. K. Varshney, Aligarh, India

## Board of Editors

Peter Smetacek, Bhimtal, India

V.V. Ramamurthy, New Delhi, India

Jean Haxaire, Laplune, France

Vernon Antoine Brou, Jr., Abita Springs,  
U.S.A.

Zdenek F. Fric, Ceske Budejovice, Czech  
Republic

Stefan Naumann, Berlin, Germany

R.C. Kendrick, Hong Kong SAR

## Publication Policy

Information, statements or findings  
published are the views of its author/ source  
only.

## Manuscripts

Please E-mail to [petersmetacek@gmail.com](mailto:petersmetacek@gmail.com).

## Guidelines for Authors

BIONOTES publishes short notes on any  
aspect of biology. Usually submissions are  
reviewed by one or two reviewers.

Kindly submit a manuscript after studying the  
format used in this journal  
(<http://www.entosocindia.org/>).

Editor reserves the right to reject articles that do not  
adhere to our format. Please provide a contact  
telephone number. Authors will be provided  
with a pdf file of their publication.

## Address for Correspondence

Butterfly Research Centre, Bhimtal,  
Uttarakhand 263 136, India. Phone: +91  
8938896403.

Email: [butterflyresearchcentre@gmail.com](mailto:butterflyresearchcentre@gmail.com)

## 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 Roshan Upadhaya of *Yamamotozephyrus kwangtungensis*.

**TABLE OF CONTENTS**

|   |    |
|---|----|
| ADDITION OF A BUTTERFLY GENUS AND SPECIES TO THE INDIAN FAUNA<br>by Roshan Upadhyay, Minom Pertin, Peter Smetacek & Motoki Saito  | 34 |
| FIRST ENCOUNTER OF INDIGENOUS PREDATORS ON NEW INVASIVE PEST OF GUAVA,<br>WOOLLY WHITEFLY <i>ALEUROTHRIXUS FLOCCOSUS</i> (MASKELL) IN TAMIL NADU, INDIA<br>by K. Elango, S. Jeyarajan Nelson, S. Sridharan & A. Aravind | 36 |
| FURTHER ADDITIONS TO THE BUTTERFLY FAUNA OF CHHATTISGARH, INDIA<br>by Anupam Sisodia & Nileshkumar Kshirsagar (I.A.S.)  | 38 |
| CONFIRMATION OF <i>GRAPHIUM DOSON ELEIUS</i> (INSECTA: LEPIDOPTERA: PAPILIONIDAE) IN<br>DELHI, INDIA<br>by Akash Gulalia  | 41 |
| NEW RECORD OF <i>PSEUDONEOPONERA RUFIPES</i> (INSECTA: HYMENOPTERA: FORMICIDAE)<br>FROM JHARKHAND, INDIA<br>by Ashirwad Tripathy  | 43 |
| <i>SAPINDUS LAURIFOLIUS</i> VAHL, 1794 AS A NEW HOST PLANT FOR THE COMMON GUAVA<br>BLUE BUTTERFLY <i>VIRACHOLA ISOCRATES</i> IN GUJARAT, INDIA<br>by Mayur H. Variya  | 46 |
| CHECKLIST OF BUTTERFLIES (INSECTA: LEPIDOPTERA) FROM MUKUNDARA HILLS TIGER<br>RESERVE, RAJASTHAN<br>by Rohan Bhagat   | 50 |
| A PRELIMINARY REPORT ON COLEOPTERA FAUNA OF KALYANI (A SUBURBAN CITY), WEST<br>BENGAL, INDIA<br>by Bhim Prasad Kharel, Udipta Chakraborti Kakali Bhadra & Subhankar Kumar Sarkar  | 55 |
| SEVEN TYPICALLY FRUIT AND SAP FEEDING NYMPHALID BUTTERFLIES RECORDED AT<br>FLOWERS IN THE KUMAON HIMALAYA, INDIA<br>by Rajashree Bhuyan, Shristee Panthee & Peter Smetacek  | 65 |
| MODIFICATIONS TO THE KNOWN EXPANSE OF INDIAN BUTTERFLIES<br>by Shristee Panthee & Peter Smetacek  | 69 |
| FIRST RECORD OF BANDED ROYAL BUTTERFLY <i>RACHANA JALINDRA</i> (INSECTA:<br>LEPIDOPTERA: LYCAENIDAE) FROM JHARKHAND, INDIA<br>by Tanya Garg   | 75 |
| TWO NEW LYCANIDAE SPECIES FOR BHUTAN: <i>BOTHRINIA CHENNELLI</i> (DE NICÉVILLE,<br>[1884]) AND <i>UNA USTA</i> DISTANT, 1886<br>by Piet Van Der Poel  | 77 |
| THE ELUSIVE PRINCE <i>ROHANA TONKINIANA</i> IN ARUNACHAL PRADESH: AN ADDITION TO<br>THE BUTTERFLY FAUNA OF INDIA<br>by Minom Pertin, Antonio Giudici, Roshan Upadhyay, Sonam Dorji & Peter Smetacek                     | 79 |
|   | 32 |

- INDIVIDUAL ABERRATIONS OF THE COMMON BLUEBOTTLE BUTTERFLY *GRAPHIUM SARPEDON SARPEDON* (INSECTA: LEPIDOPTERA: PAPILIONIDAE) IN INDIA  
by Shristee Panthee, Peter Smetacek & Parixit Kafley 81
- TWO INDIAN BILATERAL GYNANDROMORPH BUTTERFLY SPECIMENS  
by Rosalynd Moore Wankhar 84
- LESTES PATRICIA TAAMPATTI* **SSP. NOVA** (INSECTA: ODONATA: LESTIDAE) FROM MAHARASHTRA, INDIA  
by Shriram Dinkar Bhakare, Sunil Hanmant Bhoite & Pratima Ashok Pawar 85
- DISTRIBUTIONAL RANGE EXTENSION OF THE MOTHS *SOMATINA ROSACEA* (SWINHOE), *PTEROGONIA AURIGUTTA* (WALKER) AND *CARRIOLA FENESTRATA* (HAMPSON) (INSECTA: LEPIDOPTERA) TO THE EASTERN GHATS OF ODISHA  
by J.M. Samraj, Sandeep Mishra & H. Sankararaman 92
- A PLAIN TIGER BUTTERFLY *DANAUS CHRYSIPPUS* (INSECTA: NYMPHALIDAE) WITH DYSFUNCTIONAL PROBOSCIS IN CAPTIVITY  
by Shantanu Dey & Samarth Khanna 95
- CURRENT STATUS OF THE CHINESE PANGOLIN IN SOME COMMUNITY FORESTS OF ARUNACHAL PRADESH, INDIA  
by Chiging Pilia, Neeroj Mossang, Dongche Boni, Minam Taggu & Daniel Mize 98
- BUTTERFLY VISITORS TO TWO INVASIVE PLANTS IN THE INDIAN AND BHUTANESE HIMALAYA  
by Daya Shanker Sharma, Gyeltshen, Ambica Agnihotri & Peter Smetacek 101

# INDIVIDUAL ABERRATIONS OF THE COMMON BLUEBOTTLE BUTTERFLY *GRAPHIUM SARPEDON* *SARPEDON* (INSECTA: LEPIDOPTERA: PAPILIONIDAE) IN INDIA

**SHRISTEE PANTHEE<sup>1</sup>, PETER SMETACEK<sup>2</sup> & PARIXIT KAFLEY<sup>3</sup>**

<sup>1</sup>CAS Key Laboratory of Tropical Forest Ecology,, Xishuangbanna Tropical Botanical Garden,  
University of Chinese Academy of Sciences, Menglun, Mengla, Yunnan, China

[shristeesharma3@outlook.com](mailto:shristeesharma3@outlook.com)

<sup>1</sup> & <sup>2</sup>Butterfly Research Centre, Bhimtal, Uttarakhand, 263 136 India

[\\*petersmetacek@gmail.com](mailto:petersmetacek@gmail.com)

<sup>3</sup>Village Gangmouthan, Biswanath district, Assam, 784 167 India

[parixitk1@gmail.com](mailto:parixitk1@gmail.com)

Reviewer: Zdenek F. Fric

## Introduction

*Graphium sarpedon* (Linnaeus, 1758) is a widespread butterfly, that occurs from Pakistan, along the southern face of the Himalaya to China and Japan, southwards through Thailand and Malaysia to the Philippines and parts of Indonesia (Page & Treadaway, 2013). The facies vary seasonally and geographically and there are several described subspecies along its range. On the Indian subcontinent, the subspecies *G. s. sarpedon* occurs from northern Pakistan, along the Himalaya to N.E. India. Page & Treadaway (2013) proposed a new subspecies, *G. s. sircari*, with a distribution from Meghalaya and Assam in India to Yunnan in China and northern Myanmar, but Tschikolovets & Pages (2016) treated the Himalayan subspecies as *G. s. sarpedon*, apparently ignoring Page & Treadaway (2013). In addition, Page & Treadaway (2013) described a new subspecies of *Graphium adonarensis* (Rothschild, 1896), namely, *G. a. septentrionicolus* Page & Treadaway, 2013 from the Khasi Hills of Meghalaya. Rosseau-Decelle (1947) described two individual forms or aberrations of *G. sarpedon* from India, namely *cellamaculosa* and *punctata* from the Khasi hills (Meghalaya) and Magok, northern West Bengal

respectively, based on a single specimen each in his collection. The form *cellamaculosa* is distinguished by having a small pale blue spot on both surfaces of the wing at the lower angle of the forewing cell, while *punctata* bears, in addition to the cell spot characteristic of *cellamaculosa*, a small pale line in space 8 on both surfaces of the forewing. Recently, the form *cellamaculosa* has been recorded from the Bhimtal valley in Uttarakhand, India. In addition, a form similar to *punctata* but with a much larger cell spot has also been recorded from Assam and Uttarakhand. This is treated under *punctata* in this report. A third, intermediate, form has also been recorded, as described below. The question arose, that since *G. adonarensis septentrionicolus* and *G. sarpedon* f. *cellamaculosa* are both so far only known from the Khasi hills, the possibility that *cellamaculosa* is a form of *G. adonarensis* rather than of *G. sarpedon* cannot be ruled out. To confirm this, two male specimens of both named forms described below were dissected and compared with genitalia of *sarpedon* and *adonarensis* illustrated by Page & Treadaway (2013). Both specimens matched *sarpedon* and not *adonarensis*, confirming that the aberrations described by Rosseau-Decelle

(1947) are correctly placed under *sarpedon*, assuming that *adonarensis* does not have identical aberrations. Although butterflies have been monitored continuously at what is now the Butterfly Research Centre in the Bhimtal valley for around 70 years, the aberrant forms are not among the older material present in the collection. The aberrations only came to notice during the last eight years. They are all from the spring brood, although the butterfly is on the wing from March to October, according to the personal records of PS. This might be because the spring brood is attracted in numbers to buddleia flowers, whereas the summer and autumn broods are found at thistles (*Cirsium* sp.) and occasionally on other flowers, but rarely in numbers. Males gather at wet mud, but, so far, only one individual of *cellamaculosa* has been observed mudpuddling. This is the record from Assam in the present paper. The current records suggest that these aberrations occurs throughout the Indian distribution of the species, from the western Himalaya to N.E. India, which is the type locality for both forms described by Rosseau-Decelle (1947).

#### Material examined

*G. sarpedon sarpedon* forma indiv. *cellamaculosa*: 2 exs.: 21.iii. 2012 male; 1.iv.2017 male. Both from Butterfly Research Centre, Bhimtal, Uttarakhand, India. Coll. Butterfly Research Centre, Bhimtal, Uttarakhand, India. *G. sarpedon sarpedon* forma indiv. *punctata*: 2 exs.: 24.ii.2016, Gangmouthan village, Biswanath district, Assam, Coll. Parixit Kafley, Gangmouthan, Assam; 9. iii.2016, male, Butterfly Research Centre, Bhimtal, Uttarakhand, India, Coll. Butterfly Research Centre, Bhimtal, Uttarakhand, India. A third undescribed form occurs at the Butterfly Research Centre, Bhimtal. This is described below. This form bears a small pale spot on both surfaces of the forewing in space 8, in the same

location as the spot that distinguishes *punctata* from *cellamaculosa*. It differs from both *punctata* and *cellamaculosa* in lacking the pale blue spot at the lower angle of the forewing cell.

The new form confirms that the two extra spots that distinguish all three forms from typical *sarpedon* are independent of each other, so that *cellamaculosa* bears the spot in the forewing cell, the new form bears the spot in space 8 on the forewing, while *punctata* combines both features and has a spot in the forewing cell as well as in space 8 of the forewing.

The size of the spots is variable, ranging from a thin line in the specimen from 21. Iii. 2012 (top right in the plate), to a rather larger cell-spot (1. iv.2017) (right middle in the plate) to a large, prominent cell spot in both specimens of *punctata* (9. Iii.2016) and 24.ii.2016) examined in this study, although Rosseau-Decelle (1947) noted that the spots in both his type specimen are small, *punctata* bearing only a pale line in space 8.

It is interesting that the closely related taxon *Graphium isander isander* (Godman & Salvin, 1888) also bears the pale spot in space 8 of the forewing.

#### Acknowledgment

We are highly obliged to Yutaka Inayoshi and Adam M. Cotton for guidance and literature.

#### References

- Rosseau-Decelle, G. 1947. Contribution a l'etude des *Papilio* de la faune Indo-Oceanienne (Lepidoptera. Papilionidae). *Bulletin de la Societe entomologique de France*. 51: 128-133.
- Page, M.G.P. & C.G. Treadaway. 2013. Speciation in *Graphium sarpedon* (Linnaeus) and allies (Lepidoptera: Rhopalocera: Papilionidae). *Stuttgarter Beitrage zur naturkunde A, Neue Serie* 6: 223- 246.
- Tshikolovets, V. & J. Pages. 2016. *Butterflies of Pakistan*. V. Tshikolovets publisher, Pardubice. 318 pp., 67 pl.



Fig.1: Top right: *G. sarpedon* forma *cellamaculosa* 21.iii.2012; centre right: *G. sarpedon* forma *cellamaculosa* 1.iv.2017; bottom right: *G. sarpedon* forma *punctata* 9.iii.2016; bottom left: *G. sarpedon* typical wet season form female 17.ix.2016; centre left: *G. sarpedon* undescribed form 19.iii.2019; top left *G. sarpedon* undescribed form 26.iii.2019.



Fig.2: *Graphium sarpedon* f. *punctata*,  
Gangmouthan, Assam