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Cover Photo of *Spialia zebra* by Mukesh Panwar

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BUTTERFLIES OF GOVERNMENT NURSERY, BHATAGAON, CHHATTISGARH WITH TWO ADDITIONS TO THE STATE FAUNA

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Reviewer: Peter Smetacek

Abstract

Butterflies visiting the Government Nursery, Bhatagaon, Chhattisgarh in May, June and July 2020 were recorded. A total of 38 species of butterflies were recorded and two of them, *Jamides bochus* and *Anthene lycaenina*, are reported here as new records for Chhattisgarh.

Keywords: Chhattisgarh, Biodiversity, Butterfly, New Record, *Jamides bochus*, *Anthene lycaenina*.

Introduction

Chhattisgarh is rich in biodiversity and 162 species of butterflies have been documented in a review of literature by Sisodia (2019) and recent field work (Sisodia & Kshirsagar (2020). The Government Nursery (20°86' N; 81°69' E; 457m) is located at Bhatagaon village, near National Highway 30, about 50 km from Raipur towards Jagdalpur in Kurud block of Dhamtari district, Chhattisgarh, India. The nursery is maintained by government of Chhattisgarh for supplying plants to various government projects, local farmers, schools and colleges, etc. These plants are host for various butterfly species; therefore, the nursery is rich in butterfly diversity. The nursery was established in 2008, and is spread over 15 acres.

Butterflies were photographed by Canon 1300D DSLR Camera and an iPhone mobile camera during visits to the nursery from May to July, 2020. Field identification was undertaken with the help of Evans (1932); Wynter Blyth (1957); Haribal (1992) &

Smetacek (2016). During the study, a total of 38 species of butterflies belonging to five families were photographed. During this study we found two species which were not recorded earlier from Chhattisgarh and therefore have added these to the butterfly fauna of the state.

Result and Discussion

A total of 38 species belonging to five families are reported from Bhatagaon nursery, of which two species were recorded for the first time from Chhattisgarh. 36 species were known from the area but are of interest because, as mentioned above, the nursery supplies plants for various purposes. Most of the plants are native species and are therefore hosts to insect species. The role of nurseries as islands of biodiversity in urban or degraded rural landscapes cannot be overlooked.

The two additions to the state fauna of Chhattisgarh butterflies both belong to Lycaenidae and are as follows:

Jamides bochus (Stoll, [1782]) Dark Cerulean

Specimen Photographed 01.vii.2020 and 19.vii.2020, Government Nursery, Bhatagaon, (20°86' N & 81°69' E), Chhattisgarh; Gulab Chand.

Known Distribution

There are two subspecies of *J. bochus* recorded in India, *J. b. bochus* distributed throughout India including Andaman Is. and *J. b. nicobaricus* (de Niceville, 1890) from the Nicobars Is. (Varshney & Smetacek, 2015).

Remarks

The species was first photographed on 01.vii.2020 on a cloudy day at Government Nursery, Bhatagaon and subsequently it was observed at the same location on 19.vii.2020. The butterfly was flying very actively in a grassland, settling only for few seconds at a time. Mainly the species was found flying about 1.5 to 2 m high bushes and also flying over mango trees at a height of up to 3 to 5 m. It was also observed at the residence of Gulab Chand on 25.vii.2020 & 27.vii.2020 in Atang village, and in Kurud village of Dhamtari district by Swati Tandan on 22.vii.2020.

The present observations confirm the presence of this species in Chhattisgarh. It is not a range extension.

Anthene lycaenina (R. Felder, 1868) Pointed Ciliate Blue

Specimen Photographed

19.vii.2020, Government Nursery, Bhatagaon, (20°86' N & 81°69' E), Chhattisgarh; Gulab Chand.

Known Distribution: Gujarat southwards to Kerala and eastwards to Odisha and W. Bengal. (Varshney & Smetacek, 2015). Jharkhand, Northeast, Odisha, Sikkim in the west to Arunachal Pradesh in the east in Himalaya, South India up to Gujarat, Tripura, West Bengal, Bangladesh, Myanmar, Sri Lanka. (Lodh & Agarwala, 2015)

Remarks

The specimen photographed was sitting on a concrete surface of the approach road inside the nursery and photographed only once. This

record also merely confirms the presence of this butterfly in Chhattisgarh and is not an extension to the known distribution, since it was reported from Odisha as well as south India earlier (Lodh & Agarwala, 2015).

Acknowledgement

The authors are grateful to Renu Maheshwari, Professor, Department of Zoology, Govt. N. P. G. College of Science, Raipur, C.G., for encouragement for this work.

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Table – 1: List of the recorded butterflies from Government Nursery Bhatagaon, District-Dhamtari, Chhattisgarh, India.

S. N.	Common Name	Scientific Name	Recorded on (07:00 am to 11:00 am)			Distribution in India (Varshney & Smetacek, 2015)
			22.v. 2020	30.vi. 2020	19.vii. 2020	
Family: Papilionoidea						
Sub family: Papilioninae						
01.	Common Rose	<i>Pachliopta aristolochiae</i> (Fabricius, 1775)	–	–	+	Throughout India
02.	Lime Swallowtail	<i>Papilio demoleus</i> Linnaeus, 1758	–	+	+	Throughout India below 2000m elevation
03.	Common Mormon	<i>Papilio polytes</i> Linnaeus, 1758	–	+	+	Throughout India below 2000m elevation
04.	Common Jay	<i>Graphium doson</i> (C&R. Felder, 1864)	+	+	+	J&K to N.E. India, Delhi, South India to W. Bengal
Family: Hesperidae						
Sub Family: Coeliadinae						
05.	Common Banded Awl	<i>Hasora chromus</i> (Cramer, 1780)	–	–	+	Throughout India and Andaman & Nicobar Islands
Family: Pieridae						
Sub Family: Coliadinae						
06.	Common Emigrant	<i>Catopsilia pomona</i> (Fabricius, 1775)	+	+	+	Throughout India
07.	Mottled Emigrant	<i>Catopsilia pyranthe</i> (Linnaeus, 1758)	+	+	+	Throughout India
08.	Common Grass Yellow	<i>Eurema hecabe</i> (Linnaeus, 1758)	+	+	+	Throughout India including Andaman & Nicobar Islands
Sub Family: Pierinae						
09.	Pioneer	<i>Belenois aurota</i> (Fabricius, 1793)	+	+	+	Throughout India except N.E. States
Family: Lycaenidae						
Sub Family: Theclinae						
10.	Large Oakblue	<i>Arhopala amantes</i> (Hewitson, 1862)	–	–	+	Gujarat to Andhra Pradesh and southwards to Kerala, Arunachal to Manipur
11.	Common Guava Blue	<i>Virachola isocrates</i> (Fabricius, 1793)	–	–	+	Throughout India
Sub Family: Polyommatae						

12.	Pointed Blue	Ciliate	<i>Anthene lycaenina</i> (R. Felder, 1868)	-	-	+	Gujarat southwards to Kerala and eastwards to Odisha and W. Bengal
13.	Common Lineblue		<i>Prosotas nora</i> (C. Felder, 1860)	+	-	+	Andaman & Nicobar Islands, throughout India except arid regions
14.	Dark Cerulean		<i>Jamides bochus</i> (Stoll, [1782])	-	+	+	Throughout India including Andaman & Nicobar Islands
15.	Zebra Blue		<i>Leptotes plinius</i> (Fabricius, 1793)	+	+	+	Throughout India except Jammu & Kashmir
16.	Common Pierrot		<i>Castalius rosimon</i> (Fabricius, 1775)	+	-	+	Throughout India including Andaman and Nicobar Islands
17.	Dark Grass Blue		<i>Zizeeria karsandra</i> (Moore, 1865)	+	-	+	Throughout India, Andaman & Nicobar Islands
18.	Lesser Grass Blue		<i>Zizina otis</i> (Fabricius, 1787)	+	+	+	Throughout India, W. Bengal and Sikkim to N.E. India, Andaman & Nicobar Islands
19.	Indian Cupid		<i>Everes lacturnus</i> (Godart, [1824])	-	-	+	Himachal to N.E. India, Uttar Pradesh and Bihar, Andaman & Nicobar Islands, Gujarat southwards to Andhra Pradesh and Kerala
20.	Gram Blue		<i>Euchrysops cnejus</i> (Fabricius, 1798)	+	+	+	Throughout India
21	Grass Jewel		<i>Freyeria trochylus</i> (Freyer, 1845)	+	+	+	South India, North India from Punjab to N.E. India
22. *	Small Grass Jewel		<i>Freyeria putli</i> (Kollar, [1844])	+	+	+	Throughout India
23.	Lime Blue		<i>Chilades lajus</i> (Stoll, [1780])	+	+	+	Throughout India
24.	Small Cupid		<i>Chilades parrhasius</i> (Fabricius, 1793)	-	-	+	Rajasthan to Kerala; eastwards to Uttar Pradesh; Himachal Pradesh and Uttarakhand.

Family: Nymphalidae

Sub Family: Danainae						
25.	Plain Tiger	<i>Danaus chrysippus</i> (Linnaeus, 1758)	+	+	+	Throughout India
26.	Common Tiger	<i>Danaus genutia</i> (Cramer, [1779])	+	+	+	Throughout India
27.	Blue Tiger	<i>Tirumala limniace</i> (Cramer, [1775])	+	+	+	Throughout India including Andaman & Nicobar Island and Lakshadweep
28.	Common Crow	<i>Euploea core</i> (Cramer, [1780])	+	+	+	Throughout India, Andaman & Nicobar Islands
Sub Family: Satyrinae						
29.	Common Evening Brown	<i>Melanitis leda</i> (Linnaeus, 1758)	+	+	+	Throughout India
Sub Family: Limenitidinae						
30.	Common Sailer	<i>Neptis hylas</i> (Linnaeus, 1758)	+	-	+	Andaman Island, Uttarakhand to N.E. India, Southern Nicobar Island, Gujarat, Madhya Pradesh and Jharkhand southwards to Kerala
31.	Baronet	<i>Symphaedra nais</i> (Forster, 1771)	-	-	+	Tamil Nadu to Gujarat and Rajasthan, eastwards to W. Bengal and along the Himalaya from Uttarakhand to W. Bengal
Sub Family: Nymphalinae						
32.	Peacock Pansy	<i>Junonia almana</i> (Linnaeus, 1758)	+	+	+	Throughout India
33.	Gray Pansy	<i>Junonia atlites</i> (Linnaeus, 1763)	+	+	+	Throughout India
34.	Lemon Pansy	<i>Junonia lemonias</i> (Linnaeus, 1758))	+	+	+	Sikkim to N.E. India, J&K to Uttarakhand, Rajasthan to Kerala and eastwards to Jharkhand
35.	Blue Pansy	<i>Junonia orithya</i> (Linnaeus, 1758)	+	+	+	Sikkim to N.E. India, Nicobar Islands, J&K to Kerala and W. Bengal

36.	Great Eggfly	<i>Hypolimnas bolina</i> (Linnaeus, 1758)	+	-	+	Throughout India except very arid region
37.	Danaid Eggfly	<i>Hypolimnas misippus</i> (Linnaeus, 1764)	-	+	+	Throughout India
Sub Family: Acraeinae						
38.	Tawny Coster	<i>Acraea violae</i> (Fabricius, 1793)	+	+	+	Throughout India

New record added to the butterflies of the state Chhattisgarh in the present study.



Fig. 1: *Jamides bochus* underside

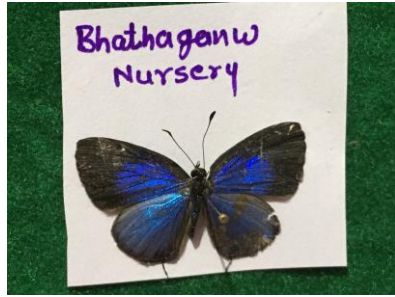


Fig. 2: *Jamides bochus* upperside



Fig.3: *Anthene lycaenina*



Fig.4: *Hasora chromus*



Fig.5: *Eurema hecabe*

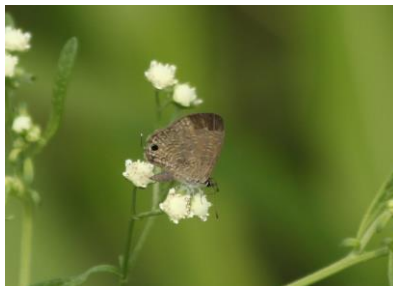


Fig.6: *Prosotas nora*

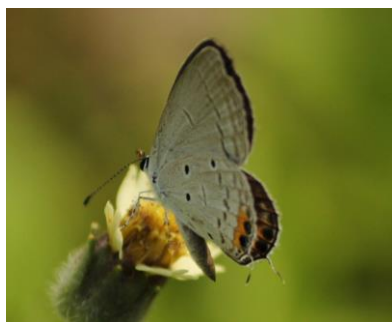


Fig.7: *Everes lacturnus*



Fig.8: *Arhopala amantes*

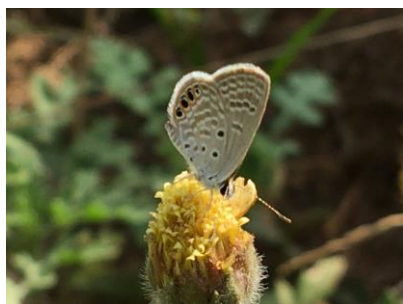


Fig.9: *Freyeria trochylus*



Fig.10: *Freyeria putli*