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On Any Aspect Related with Life Forms

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Cover Photo of founder of BIONOTES *Late* Dr. R.K. Varshney

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CHECKLIST OF BUTTERFLIES (INSECTA: LEPIDOPTERA) FROM FOUR DISTRICTS OF CHHATTISGARH, INDIA WITH THREE ADDITIONS TO THE STATE FAUNA OF BUTTERFLIES OF CHHATTISGARH

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Reviewer: A.S. Sisodia

Abstract

A checklist of 83 species of butterflies from Dhamtari, Gariaband, Raipur & Baloda Bazar districts of Chhattisgarh state is presented based on surveys from October, 2018 to December, 2020. Three species out of 83 here reported are new records to the state butterfly fauna of Chhattisgarh.

Introduction

Biogeographically, Chhattisgarh comes under the Deccan Plateau (Rodgers *et al.*, 2002), and geologically, the Central Indian Plateau of Madhya Pradesh and Chhattisgarh is a part of the Gondwana Plateau (Chandra & Singh, 2004). The climate of the state is tropical, hot and humid due to its proximity to the Tropic of Cancer.

Sisodia (2019) reviewed 142 species from the previously published records (Chandra *et al.*, 2014 & Dubey *et al.*, 2015) and further added 19 species to the state fauna of butterflies, while removing two misidentified species from the list, taking the tally to 159. Subsequently, Sisodia & Kshirsagar (2020) made further additions of three species, Tandan *et al.* (2020) added two more and Nihlani *et al.* (2021) added one species which resulted in 165 species of butterflies from Chhattisgarh. This study reports three additions to the butterfly fauna of Chhattisgarh, taking the count of reported butterflies from Chhattisgarh to 168.

Materials and Methods

For the present study, we selected four districts of central Chhattisgarh and carried out a random survey there for two years, from October, 2018 to December, 2020. Sites of the study were selected as Kurud (20.8304°N, 81.7084°E) and Nagri (20.3484°N, 81.9593°E) blocks in Dhamtari district, Deobhog (19.9137°N, 82.6432°E) block in Gariaband district, Kasdol (21.2514°N, 81.6296°E) block in Baloda Bazar, Abhanpur (21.0529°N, 81.7441°E) & Raipur (Dharsinwa) (21.2514° N, 81.6296°E) blocks in Raipur district.

The observation of butterflies at various sites were made by H. N. Tandan, Gulab Chand, Swati Tandan and Tanuja at Kurud, Gulshan Kumar Sahu at Nagri, Ravi Naidu and Ramanand Agrawal at Deobhog and H. N. Tandan at Kasdol. Butterflies were photographed using a Canon 1300D DSLR camera and mobile cameras (iPhone 6S, Redmi note 5, redmi note 6 pro & Samsung

galaxy M11). Field identification was made with the help of Evans (1932); Wynter Blyth (1957); Haribal (1992) & Smetacek (2017).

Observations

The three additions to the butterfly fauna of Chhattisgarh state, two of them belonging to Lycaenidae, one to the Nymphalidae, are as follows:

Family: Lycaenidae

Sub Family: Polyommatae

Freyeria putli (Kollar, [1844] – Lesser Grass Jewel (Figs. 1, 2)

Specimens Photographed: 01.vii.2020, 29.x.2020

Known Distribution: South India; Himalaya from Uttarakhand to N.E. India. (Varshney & Smetacek, 2015).

Remarks: The specimen was photographed on 24.xi.2017 during a field visit conducted by Department of Zoology, Government College, Deobhog. Subsequently it was observed by Gulab Chand and H. N. Tandan in P.G. College Campus, Kurud & Bhatagaon Nursery on 01.vii.2020 & 29.x.2020. The observations were made by Ramanand Agrawal from Deobhog, by Gulshan Kumar Sahu from Nagri, by Ravi Naidu from Bastar and other parts of Chhattisgarh. Sometimes it was observed in plenty, flying about grasslands during October and November.

Sub Family: Theclinae

Spindasis ictis (Hewitson, 1865) – Common Shot Silverline (Figs. 3, 4)

Specimens Photographed: 29.ix.2020, 10.x.2020 & 2.xii.2020

Known Distribution: Rajasthan northwards to Himachal Pradesh, eastwards to W. Bengal and southwards to Kerala (Varshney & Smetacek, 2015).

Remarks: The specimen was photographed on 29.ix.2020 by Ramanand Agrawal at his home backyard in Deobhog. Subsequently it was also observed by Ravi Naidu on 2.xii.2020 at Deobhog. The species was observed in the urban areas as well as dense forest of Tatamari forest range in the Keshkal forest division by

H. N. Tandan on 10.x.2020. *Spindasis ictis* is known from central India, recorded from Sidhi (Chandra *et al.*, 2000) and Umaria (Choudhary & Khan, 2002).

Family: Nymphalidae

Sub Family: Danaeinae

Euploea klugii Moore, [1858] – King Crow (Figs. 5, 6)

Specimen Photographed: 21.viii.2020

Known Distribution: Northern Bihar; Sikkim to N.E. India. (Varshney & Smetacek, 2015).

Remarks: The specimen was photographed on 21.viii.2020, by Ramanand Agrawal at his home backyard in Deobhog. *Euploea klugii* is a very widely distributed species, recorded for the first time from Madhya Pradesh (Flora *et al.*, 2020) in central India. The state of Chhattisgarh was established in 2000 and the specimen of King Crow is reported here as a new record for the state fauna of Chhattisgarh.

Discussion and Conclusion

During the study, a total of 83 species of butterflies belonging to 18 subfamilies placed under five families were observed and photographed from four districts of Chhattisgarh state (Table 1). Family Lycaenidae dominates with 31 species in 24 genera, followed by Nymphalidae with 26 species in 18 genera, Hesperidae 10 species in 9 genera, Pieridae 9 species in 6 genera, and Papilionidae with 7 species in 3 genera. The present study results in three species unrecorded earlier from Chhattisgarh. Therefore, they have been added here new to the known butterfly fauna of the state.

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Table1: List of the butterflies recorded from Dhamtari, Gariaband, Raipur & Baloda Bazar Districts of Central Chhattisgarh, India. (# indicate new record to the state Chhattisgarh)

S. N.	Common Name	Scientific Name	Oct.2018 to Dec. 2020, Recorded from	Distribution in India (Varshney & Smetacek (2015))			
			Dhamtari	Raipur	Gariaband	Baloda Bazar	
Family: Papilionoidea							

Sub family: Papilioninae							
1	Blue Mormon	<i>Papilio polymnestor</i> Cramer, 1775	+	+	+	+	Peninsular India as far north as W. Bengal and Bangladesh, to Madhya Pradesh and Gujarat.
02.	Lime Swallowtail	<i>Papilio demoleus</i> (Linnaeus, 1758)	+	+	+	-	Throughout India below 2000 m elevation
03.	Common Mormon	<i>Papilio polytes</i> (Linnaeus, 1758)	+	+	+	+	Throughout India below 2000 m elevation
04.	Common Banded Peacock	<i>Papilio crino</i> Fabricius, 1793	+	-	+	-	Peninsular India as far north as W Bengal.
05.	Tailed Jay	<i>Graphium agamemnon</i> (Linnaeus, 1758)	+	+	+	-	Uttarakhand to N.E. India; peninsular India.
06.	Common Jay	<i>Graphium doson</i> (C. & R. Felder, 1864)	+	+	+	+	J. & K. to N.E. India, Delhi, South India to W. Bengal
07.	Common Rose	<i>Pachliopta aristolochiae</i> (Fabricius, 1775)	+	-	-	-	Throughout India
Family: Hesperidae							
Sub Family: Coeliadinae							
08.	Common Banded Awl	<i>Hasora chromus</i> (Cramer, 1780)	+	+	+	-	Throughout India and Andaman & Nicobar Islands
Sub Family: Hesperinae							
09.	Dark Palm-Dart	<i>Telicota bambusae</i> (Moore, 1878)	+	-	-	-	Throughout India except Rajasthan.
10.	Pale Palm-Dart	<i>Telicota colon</i> (Fabricius, 1775)	+	-	-	-	Gujarat to W. Bengal and southwards to Kerala; Delhi to Uttar Pradesh; Uttarakhand to Sikkim.
11.	Grass Demon	<i>Udaspes folus</i> (Cramer, [1775])	+	-	+	-	Gujarat to West Bengal and south to Kerala; Himachal Pradesh to N. E. India

12.	Restricted Demon	<i>Notocrypta curvifascia</i> (C. & R. Felder, 1862)	+	-	+	-	Andaman & Nicobar Is. (Andamans); Maharashtra to Kerala; Uttarakhand to N.E. India.
13.	Indian Palm Bob	<i>Suastus gremius</i> (Fabricius, 1798)	-	-	+	-	Throughout India.
14.	Rice Swift	<i>Borbo cinnara</i> (Wallace, 1866)	+	-	+	-	Throughout India except Jammu & Kashmir.
15.	Giant Redeye	<i>Gangara thyrsis</i> (Fabricius, 1775)	-	-	+	-	Maharashtra to Kerala; Andhra Pradesh; Himachal Pradesh to N.E. India; Andaman & Nicobar Is..
Sub Family: Pyrginae							
16.	Golden Angle	<i>Caprona ransonnettii</i> (R. Felder, 1868)	+	-	-	-	Gujarat east to Jharkhand and south to Kerala.
17.	Indian Skipper	<i>Spialia galba</i> (Fabricius, 1793)	+	+	+	-	Throughout India.
Family: Pieridae							
Sub Family: Coliadinae							
18.	Common Emigrant	<i>Catopsilia pomona</i> (Fabricius, 1775)	+	+	+	+	Throughout India
19.	Mottled Emigrant	<i>Catopsilia pyranthe</i> (Linnaeus, 1758)	+	+	+	+	Throughout India
20.	Common Grass Yellow	<i>Eurema hecabe</i> (Linnaeus, 1758)	+	+	+	+	Throughout India including Andaman & Nicobar Islands
21.	Small Grass Yellow	<i>Eurema brigitta</i> (Stoll, [1780])	+	-	-	-	Throughout India including the Andaman and Nicobar Is..
Sub Family: Pierinae							
22.	Pioneer	<i>Belenois aurota</i> (Fabricius, 1793)	+	-	-	-	Throughout India except N.E. States

23.	Indian Jezabel	<i>Delias eucharis</i> (Drury, 1773)	+	-	+	-	Throughout India.
24.	Painted Jezabel	<i>Delias hyparete</i> (Linnaeus, 1758)	-	-	+	-	Sikkim to N.E. India; Odisha, Andhra Pradesh.
25.	Indian Wanderer	<i>Pareronia hippia</i> (Fabricius, 1787)	+	-	+	-	Throughout India except Jammu & Kashmir, Punjab and Rajasthan.
26.	Psyche	<i>Leptosia nina</i> (Fabricius, 1793)	+	-	+	-	Throughout India east of Punjab, including the Andaman Is..
Family: Lycaenidae							
Sub family : Curetinae							
27.	Indian Sunbeam	<i>Curetis thetis</i> (Drury, [1773])	+	-	-	-	Andaman & Nicobar Is. (Kondula Island, Great and Little Nicobar). Peninsular India.
Sub family : Miletinae							
28.	Apefly	<i>Spalgis epius</i> (Westwood, [1851])	+	-	+	-	Uttarakhand to N.E. India; Gujarat to Kerala and east to W. Bengal.
Sub Family: Theclinae							
29.	Large Oakblue	<i>Arhopala amantes</i> (Hewitson, 1862)	+	-	-	-	Gujarat to Andhra Pradesh and southwards to Kerala, Uttarakhand to Arunachal to Manipur.
30.	Indian Oakblue	<i>Arhopala atrax</i> (Hewitson, 1862)	+	-	-	-	Peninsular India; Jammu & Kashmir to N.E. India.
31.	Common Shot Silverline	<i>Spindasis ictis</i> (Hewitson, 1865)	-	-	+	-	Rajasthan northwards to Himachal Pradesh, eastwards to W. Bengal and southwards to Kerala.
32.	Common Silverline	<i>Spindasis vulcanus</i> (Fabricius, 1775)	+	-	+	-	Throughout India.
33.	Purple Leaf Blue	<i>Amblypodia anita</i> Hewitson, 1862	+	-	-	-	Andaman & Nicobar Is. (Andamans). Peninsular India,
34.	Common Guava Blue	<i>Virachola isocrates</i> (Fabricius, 1793)	+	-	+	-	Throughout India

35.	Common Red Flash	<i>Rapala iarbus</i> (Fabricius, 1787)	+	-	-	-	Sikkim to N.E. India.
36.	Yamfly	<i>Loxura atymnus</i> (Stoll, 1780)	-	-	+	-	Maharashtra and Madhya Pradesh to Kerala; Uttarakhand to West Bengal & N.E. India.
Sub Family: Polyommatainae							
37.	Pointed Ciliate Blue	<i>Anthene lycanina</i> (R. Felder, 1868)	+	-	-	-	Gujarat southwards to Kerala and eastwards to Odisha and W. Bengal; Uttarakhand to NE India.
38.	Common Lineblue	<i>Prosotas nora</i> (C. Felder, 1860)	+	-	-	-	Andaman & Nicobar Islands, throughout India except arid regions
39.	Tailless Lineblue	<i>Prosotas dubiosa</i> (Semper, [1879])	+	-	-	-	India including Andaman & Nicobar Is. (Andamans).
40.	Dark Cerulean	<i>Jamides bochus</i> (Stoll, [1782])	+	+	+	-	Throughout India including Andaman & Nicobar Islands
41.	Common cerulean	<i>Jamides celeno</i> (Cramer, [1775])	+	-	+	-	Gujarat south to Kerala and eastward to West Bengal; Uttarakhand to N.E. India.
42.	Forget-me-not	<i>Catochrysops strabo</i> (Fabricius, 1793)	+	+	+	-	Throughout India including Andaman & Nicobar Is..
43.	Common Pierrot	<i>Castalius rosimon</i> (Fabricius, 1775)	+	+	+	+	Throughout India including Andaman and Nicobar Islands.
44.	Angled Pierrot	<i>Caleta decidia</i> (Hewitson, 1876)	-	-	+	-	Peninsular India; Sikkim to N.E. India.
45.	Small Cupid	<i>Chilades parrhasius</i> (Fabricius, 1793)	+	-	+	-	Rajasthan to Kerala; Uttar Pradesh; Himachal Pradesh and Uttarakhand.
46.	Plains Cupid	<i>Chilades pandava</i> (Horsfield, [1829])	-	+	-	-	Throughout India
47.	Lime Blue	<i>Chilades lajus</i> (Stoll, [1780])	+	+	+	+	Throughout India
48.	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
49.	Pea Blue	<i>Lampides boeticus</i> (Linnaeus, 1767)	+	-	-	-	Throughout India including Andaman & Nicobar Is..
50.	Grass Jewel	<i>Freyeria trochylus</i> (Freyer, 1845)	+	+	+	-	South India, North India from Punjab to N.E. India
51. #	Lesser Grass Jewel	<i>Freyeria putli</i> (Kollar, [1844])	+	+	+	-	Throughout India
52.	Lesser Grass Blue	<i>Zizina otis</i> (Fabricius, 1787)	+	+	+	+	Throughout India, W. Bengal and Sikkim to N.E. India, Andaman & Nicobar Islands
53.	Dark Grass Blue	<i>Zizeeria karsandra</i> (Moore, 1865)	+	+	+	+	Throughout India, Andaman & Nicobar Islands
54.	Tiny Grass Blue	<i>Zizula hylax</i> (Fabricius, 1775)	+	-	+	-	Throughout India; Andaman and Nicobar Is..
55.	Gram Blue	<i>Euchrysops cnejus</i> (Fabricius, 1798)	+	+	+	+	Throughout India.
56.	Pale Grass Blue	<i>Pseudozizeeria maha</i> (Kollar, [1844])	+	-	-	-	Throughout India.
57.	Zebra Blue	<i>Leptotes plinius</i> (Fabricius, 1793)	+	+	+	-	Throughout India except Jammu & Kashmir
Family: Nymphalidae							
Sub Family: Danainae							
58.	Plain Tiger	<i>Danaus chrysippus</i> (Linnaeus, 1758)	+	+	+	+	Throughout India
59.	Common Tiger	<i>Danaus genutia</i> (Cramer, [1779])	+	+	+	+	Throughout India
60.	Blue Tiger	<i>Tirumala limniace</i> (Cramer, [1775])	+	+	+	+	Throughout India including Andaman & Nicobar Island and Lakshadweep

61.	King Crow #	<i>Euploea klugii</i> Moore, [1858]	-	-	+	-	Uttar Pradesh; Northern Bihar; Sikkim to N.E. India. Odisha to Kerala.
62.	Common Crow	<i>Euploea core</i> (Cramer, [1780])	+	+	+	+	Throughout India, Andaman & Nicobar Islands
63.	Double-branded Crow	<i>Euploea sylvester</i> (Fabricius, 1793)	+	-	-	-	Peninsular India to N.E. India.
Sub Family: Satyrinae							
64.	Common Evening Brown	<i>Melanitis leda</i> (Linnaeus, 1758)	+	+	+	+	Throughout India
65.	Common Bushbrown	<i>Mycalopsis perseus</i> (Fabricius, 1775)	+	-	-	-	Himachal Pradesh to N.E. India.
66.	Common Palmfly	<i>Elymnias hypermnestra</i> (Linnaeus, 1763)	+	-	+	-	Maharashtra to Kerala; Punjab to Odisha and N.E. India.
Sub Family: Limenitidinae							
67.	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
68.	Short-banded Sailer	<i>Phaedyma columella</i> (Cramer, [1780])	+	-	-	-	Gujarat eastwards to W. Bengal and southwards to Kerala. Uttarakhand to N.E. India.
69.	Common Baron	<i>Euthalia aconthea</i> (Cramer, [1777])	+	+	+	+	Maharashtra to Odisha; Himachal Pradesh to Uttarakhand and Uttar Pradesh.
70.	Baronet	<i>Symphaedra nais</i> (Forster, 1771)	+	+	+	+	Tamil Nadu to Gujarat and Rajasthan, eastwards to W. Bengal.
71.	Commander	<i>Moduza procris</i> (Cramer, [1777])	+	-	+	+	Uttarakhand to N.E. India. Peninsular India.
72.	Grey Count	<i>Tanaecia lepidea</i> (Butler, 1868)	+	-	-	-	Maharashtra eastwards to Odisha and southwards to Kerala. Uttarakhand to N.E. India.
Sub Family: Nymphalinae							
73.	Peacock Pansy	<i>Junonia almana</i>	+	+	+	+	Throughout India

		(Linnaeus, 1758)					
74.	Grey Pansy	<i>Junonia atlites</i> (Linnaeus, 1763)	+	+	+	+	Throughout India
75.	Lemon Pansy	<i>Junonia lemonias</i> (Linnaeus, 1758))	+	+	+	+	Sikkim to N.E. India, J&K to Uttarakhand, Rajasthan to Kerala and eastwards to Jharkhand
76.	Blue Pansy	<i>Junonia orithya</i> (Linnaeus, 1758)	+	+	+	+	Sikkim to N.E. India, Nicobar Islands, J. & K. to Kerala and W. Bengal
77.	Chocolate Pansy	<i>Junonia iphita</i> (Cramer, [1779])	+	+	+	+	Jammu & Kashmir to N.E. India.
78.	Great Eggfly	<i>Hypolimnas bolina</i> (Linnaeus, 1758)	+	+	+	+	Throughout India except very arid regions
79.	Danaid Eggfly	<i>Hypolimnas misippus</i> (Linnaeus, 1764)	+	-	+	-	Throughout India
Sub Family: Biblidinae							
80.	Common Castor	<i>Ariadne merione</i> (Cramer, [1777])	+	-	+	-	Gujarat to Kerala and Andhra Pradesh.
Sub Family: Charaxinae							
81.	Plain Tawny Rajah	<i>Charaxes psaphon</i> Westwood, 1847	+	-	+	-	Peninsular India as far north as Gujarat; Madhya Pradesh; Odisha to N.E. India.
Sub Family: Heliconiinae							
82.	Common Leopard	<i>Phalanta phalantha</i> (Drury, [1773])	+	-	-	-	Throughout India.
Sub Family: Acraeinae							
83.	Tawny Coster	<i>Acraea violae</i> (Fabricius, 1793)	+	+	+	+	Throughout India



Fig.1: *Freyeria putli* upperside



Fig.2: *Freyeria putli* underside

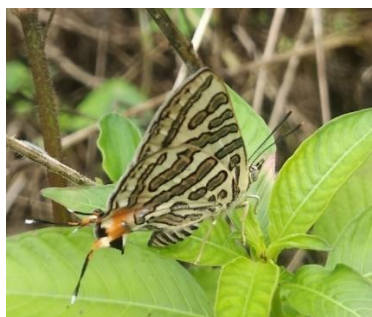


Fig.3: *Spindasis ictis* underside



Fig.4: *Spindasis ictis* underside



Fig.5: *Euploea klugii* underside



Fig.6: *Euploea klugii* upperside