

Butterflies of Rishijharan Waterfall, Gariaband, with three additions to the state fauna of Chhattisgarh, India

Recent studies on butterflies from Chhattisgarh list 170 species, last updated with addition of Black Spotted Pierrot (Chand et al. 2022). The major contribution has been made by Sisodia (2019) who added 19 new records and listed 159 species from Chhattisgarh based on Chandra et al. (2014) and Dubey et al. (2015). Further addition to tally 170, has been made by Sisodia & Khirsagar (2020), Tandan et al. (2020, 2021a & b,) and Nihlani et al. (2021). Here we report three butterfly species for the first time from Chhattisgarh.

Our survey area was restricted to the Rishijharan Waterfall (19.7798 & 82.5837), which is located in the Deobhog block of Gariaband District in the vicinity of Udanti-Sitanadi Tiger Reserve in Chhattisgarh, India. Rishijharan Waterfall is a small seasonal waterfall where the water flows in full force during the rainy season only, whereas a trickle of water continues throughout the year



Abisara bifasciata. ©H. N. Tandan.



Prosotas noreia. ©Gulab Chand.

Bugs & ALL

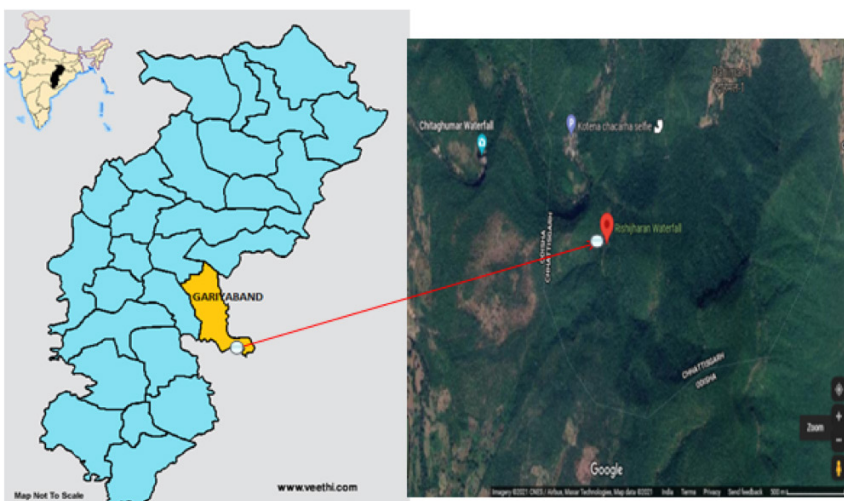
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)



Sarangesa dasahara. ©Ramanand Agrawal.



Track of butterfly walk on 28 November 2021.



Study area Rishijharan Waterfall.

from surrounding catchment areas. This water availability provides a good habitat for various fauna like butterflies, insects, some frogs, birds, and mammals. Month-wise observations of butterflies were made during October, November, and December, 2021 in the morning hours of 0700–1100. Additional observations were made through a butterfly walk of 3 km, in five hours, organized on 28 November 2021 in which a total six members participated in the survey. The butterflies were photographed using DSLR cameras. The field identification of butterflies was made with the help of Wynter-Blyth (1957), Haribal (1992), and Kehimkar (2016). Species identities were confirmed through online help by Krushnamegh Kunte, chief editor, Butterflies of India website: www.ifoundbutterflies.org.

Family: Riodinidae

Sub Family: Nemeobiinae

***Abisara bifasciata* Moore, 1877**

Double-banded Judy

Individuals photographed: 28 November 2021, 12 July 2020, 15 July 2020, 17 September 2020. Gulab Chand Atang, and

Table 1. List of the butterflies recorded from Rishijharan Waterfall, Deobhog, Gariaband District, Chhattisgarh, India (October–December 2021).

	Order	Super Family	Family	Subfamily	Common name	Scientific name	Recorded on (0700–1100 h)		
							17.x.2021	18.xi.2021	25.xii.2021
1					Lime Swallowtail	<i>Papilio demoleus</i> (Linnaeus, 1758)	+	+	+
2			Papilionoidea	Papilioninae	Common Mormon	<i>Papilio polytes</i> (Linnaeus, 1758)	+	-	+
3					Blue Mormon	<i>Papilio polymnestor</i> (Cramer, 1775)	-	+	-
4					Common Banded Peacock	<i>Papilio crino</i> (Fabricius, 1793)	+	-	-
5			Riodinidae	Nemeobiinae	Double-banded Judy	<i>Abisara bifasciata</i> (Moore, 1877)	+	+	-
6					Common Emigrant	<i>Catopsilia pomona</i> (Fabricius, 1775)	+	-	+
7					Mottled Emigrant	<i>Catopsilia pyranthe</i> (Linnaeus, 1758)	+	-	-
8			Pieridae	Coliadinae	Common Grass Yellow	<i>Eurema hecabe</i> (Linnaeus, 1758)	+	+	+
9		Papilionoidea			Small Grass Yellow	<i>Eurema brigitta</i> (Stoll, [1780])	-	-	+
10				Pierinae	Painted Jezebel	<i>Delias hyparete</i> (Linnaeus, 1758)	+	+	+
11					Common Pierrot	<i>Castalius rosimum</i> (Fabricius, 1775)	+	+	+
12					Lesser Grass Blue	<i>Zizina otis</i> (Fabricius, 1787)	+	+	+
13					Forget-me-not	<i>Catochrysops strabo</i> (Fabricius, 1793)	+	+	-
14			Lycaenidae	Polyommattinae	Angled Pierrot	<i>Caleta decidia</i> (Hewitson, 1876)	+	+	+
15					Common Lineblue	<i>Prosotas nora</i> (C. Felder, 1860)	+	+	+
16					Pointed Ciliate Blue	<i>Anthea lycaenina</i> (R. Felder, 1868)	+	+	-
17					Tailless Lineblue	<i>Prosotas dubiosa</i> (Semper, [1879])	+	+	+

	Order	Super Family	Family	Subfamily	Common name	Scientific name	Recorded on (0700–1100 h)				
							17.x.2021	18.xi.2021	25.xii.2021		
18	Lepidoptera	Papilionoidea	Lycaenidae	Polyommatainae	White-tipped Lineblue #	<i>Protoparce noreia</i> (R. Felder, 1868)	-	+	-		
19					Grass Jewel	<i>Freyeria trochylus</i> (Freyer, 1845)	+	+	-		
20					Orange-crowned Cupid	<i>Everes lacturnus</i> (Godart, [1824])	+	+	+		
21					Small Grass Jewel	<i>Freyeria putli</i> (Kollar, [1844])	+	+	+		
22					Dingy Lineblue	<i>Petrelaea adana</i> (de Nicéville, [1884])	-	+	-		
23					Common Hedge Blue	<i>Acyrtodes puspa</i> (Horsfield, [1828])	+	+	+		
24					Common Shot Silverline	<i>Spindasis ictis</i> (Hewitson, 1865)	+	+	+		
25					Redspot	<i>Zesius chrysomallus</i> Hübner, [1819]	-	+	-		
26					Indigo Flash	<i>Rapala varuna</i> (Horsfield, [1829])	-	+	-		
27					Purple Leaf Blue	<i>Amblypodia anita</i> (Hewitson, 1862)	+	+	+		
28					Common Banded Awl	<i>Hasora chromus</i> (Cramer, [1780])	+	-	-		
29					Dark Palm-Dart	<i>Tellicota bambusae</i> (Moore, 1878)	+	+	-		
30					Complete Paint-brush Swift	<i>Baoris farri</i> (Moore, 1878)	-	+	-		
31					Chestnut Bob	<i>Iambrix salsala</i> (Moore, [1866])	-	+	-		
32			Golden Angle	<i>Caprona ransonnetti</i> (R. Felder, 1868)	+	+	+				
33			Common Small Flat #	<i>Sarangesa dasahara</i> (Moore, [1866])	+	+	-				
34			Angled Castor	<i>Ariadne ariadne</i> (Linnaeus, 1763)	+	+	+				
					Nymphalidae	Biblidinae					

	Order	Super Family	Family	Subfamily	Common name	Scientific name	Recorded on (0700–1100 h)		
							17.x.2021	18.xi.2021	25.xii.2021
35				Charaxinae	Indian Nawab	<i>Charaxes bharata</i> C. & R. Felder, [1867]	+	+	+
36				Danaeinae	Plain Tiger	<i>Danaus chrysippus</i> (Linnaeus, 1758)	+	+	+
37			Blue Tiger		<i>Tirumala limniace</i> (Cramer, [1775])	+	+	+	+
38			Striped Tiger		<i>Danaus genutia</i> (Cramer, [1779])	+	+	+	+
39				Common Crow	<i>Euploea core</i> (Cramer, [1780])	+	+	+	+
40				Common Palmfly	<i>Elymnias hypermnestra</i> (Linnaeus, 1763)	+	+	+	+
41				Common Bushbrown	<i>Mycalopsis perseus</i> (Fabricius, 1775)	+	+	+	+
42				Common Leopard	<i>Phalanta phalantha</i> (Drury, [1773])	+	+	+	+
43	Lepidoptera	Papilionoidea	Nymphalidae		Common Sailer	<i>Neptis hylas</i> (Linnaeus, 1758)	+	+	+
44					Short-banded Sailer	<i>Phaedyma columella</i> (Cramer, [1780])	+	+	-
45					Chestnut-streaked Sailer	<i>Neptis jumbah</i> Moore, [1858]	-	+	-
46				Limnitiinae	Common Lascar	<i>Pantoporia hordonia</i> (Stoll, [1790])	+	+	-
47					Common Baron	<i>Euthalia aconthea</i> (Cramer, [1777])	-	-	+
48					Commander	<i>Moduza procris</i> (Cramer, [1777])	+	+	+
49					Staff Sergeant	<i>Athyma selenophora</i> (Kollar, [1844])	-	+	+
50					Baronet	<i>Euthalia nais</i> (Forster, 1771)	+	+	+
51				Nymphalinae	Peacock Pansy	<i>Junonia almana</i> (Linnaeus, 1758)	+	+	+

	Order	Super Family	Family	Subfamily	Common name	Scientific name	Recorded on (0700–1100 h)		
							17.x.2021	18.xi.2021	25.xii.2021
52					Gray Pansy	<i>Junonia atlites</i> (Linnaeus, 1763)	+	+	+
53					Lemon Pansy	<i>Junonia lemonias</i> (Linnaeus, 1758))	+	+	-
54				Nymphalinae	Chocolate Pansy	<i>Junonia iphita</i> (Cramer, [1779])	+	-	+
55	Lepidoptera	Papilionoidea	Nymphalidae		Blue Pansy	<i>Junonia orithya</i> (Linnaeus, 1758)	+	+	+
56					Great Eggfly	<i>Hypolimnas bolina</i> (Linnaeus, 1758)	+	+	-
57				Acraeinae	Tawny Coster	<i>Acraea violae</i> (Fabricius 1793)	+	+	+

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

Deobhog, H.N. Tandan at Kurud, & Ravi Naidu at KVNP & Jabeli in Bastar.

Known distribution: Andaman & Nicobar Islands (Varshney & Smetacek 2015). The distribution of this species has been updated recently that the subspecies *A. b. bifasciata* is endemic to Andaman & Nicobar, whereas *A. b. suffusa* is widely distributed from the Western Ghats to the Vindhya and Satpuda Hills, the Eastern Ghats, Himalaya, and northeastern India up to the Garo and Khasi Hills (Kunte et al. 2023).

Remarks: The species was photographed during the survey at Rishijharan Waterfall on 28 November 2021. It was observed by us earlier, outside the survey, at Government Nursery, Bhatagaon, (20.8694 & 81.6998); Atang village (20.8927 & 81.7197) and at Kanger Valley National Park, Bastar. It has been also observed from Tapkara and Jashpur by Saurabh Singh & Ashwini Chauhan; in Naya Raipur, Mainpur, Deobhog, Manjhingarh by Gulab Sahu, Gulashan Kumar Sahu; and Pratap Singh recorded it from Nagari. All these observations from different localities in Chhattisgarh have been uploaded frequently on Indian Foundation of Butterflies website <https://www.ifoundbutterflies.org/> (Kunte et al. 2020). The observed individuals had pale green eyes with reddish-brown wings, differing from *A. echerius* which has green eyes.

Family: Lycaenidae

Sub Family: Polyommatae

***Prosotas noreia* (R. Felder, 1868)**

White-tipped Lineblue

Individual photographed: 28 November 2021, Gulab Chand and Ramanand Agrawal at Deobhog.

Known distribution: Sri Lanka to Uttarakhand and northeast India onwards to Indonesia (Varshney & Smetacek 2015); India, Burma, Ceylon, and nearly all the Islands of the Malay Archipelago (Kehimkar 2016).

Remarks: *Prosotas noreia* is tailless, small sized (2.2–2.8 cm) butterfly, has white hair fringe along forewing apex (Kehimkar 2016) or white tip of forewing cilia hence its common name. The external margin is less convex in the forewing. Felder (1868) first described the species as *Lycaena noreia* (Bingham 1907). Three subspecies of *Prosotas* are *P. noreia noreia* (Tite 1963); *P. noreia cyclops* (Toxopeus 1929); and the only subspecies that has been recorded in India is *Prosotas noreia hampsonii* (de Nicéville 1885) (Smetacek 2016).

Family: HesperIIDae

Sub Family: Pyrginae

***Sarangesa dasahara* (Moore, [1866])**

Common Small Flat

Individual photographed: 18 November 2021, Gulab Chand and Ramanand Agrawal at Deobhog.

Known distribution: Rajasthan to Orissa and south to Andhra Pradesh, Himachal Pradesh to northeastern India, Gujarat to Kerala and Andaman & Nicobar Islands (Middle Andaman Is.) (Varshney & Smetacek 2015).

Remarks: This small-sized, fast, and ground flying HesperIIDae butterfly has a wingspan of around 30–35 mm, commonly found in all Chhattisgarh. It is a dull brown butterfly having semitransparent spots on wings. During present survey, we photographed the species on 18 November 2021 but earlier we observed it first on 11 February 2019 at Kanger Valley National

Park, subsequently observed from Jashpur, Kanker, Keshkal, Korba, Surajpur, and Sarguja. The present survey documented a checklist of 57 species of butterflies belonging to six families systematically placed under 17 subfamilies (Table 2). We referred to Chandra et al. (2014) and Sisodia (2019) for earlier records of butterflies from Chhattisgarh and found that the White-tipped Lineblue, Common Small Flat, and Double-banded Judy have not been recorded till now from Chhattisgarh State.

Earlier, *Abisara echerius* (Stoll, [1790]) was observed from Bastar, Dantewada, Surguja, Korea, and Raipur districts (Chandra et al. 2014). Sisodia (2019) listed *A. bifasciata* and *A. echerius* in tentative list of butterflies of Chhattisgarh and suggested for further confirmation of these taxon. Kunte et al. (2012) reported the *A. bifasciata*, *A. neophron* and *A. fylla* from northeastern India. The distribution of *A. bifasciata* shows Andaman & Nicobar Islands (Varshney & Smetacek 2015). Bora (2015) reported four species of *Abisara* as *A. fylla*, *A. bifasciata*, *A. neophron*, and *A. chela* from Meghalaya. These reports show the distribution of *A. bifasciata* in India. We also photographed it during field survey

Table 2. Family-wise number of species, recorded from Rishijharan Waterfall, Deobhog, District-Gariaband, Chhattisgarh, India (October–December 2021).

	Family	Number of species recorded
1	Nymphalidae	24
2	Lycaenidae	17
3	HesperIIDae	06
4	Pieridae	05
5	Papilionoidea	04
6	Riodinidae	01

Bugs R All

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

at Chhattisgarh; hence the presence of *A. bifasciata* in Chhattisgarh has been confirmed with this report and there are already records from Surguja, Raipur, Dhamtari, Gariaband, Bastar, and Kondagaon districts of Chhattisgarh on IFB.

References

- Bora, A. (2015).** *Final report on Butterflies of Meghalaya*. Meghalaya Biodiversity Board (MBB) Forest Department, Meghalaya Shillong, India, 72 pp.
- Chand, G., H.N. Tandan & R. Naidu (2022).** Black-spotted Pierrot, addition to the butterfly fauna of Chhattisgarh, India. *Bugs R All* #235, In: *Zoo's Print* 37(3): 33–36.
- Chandra, K., A. Raha, A. Majumder & R.P. Gupta (2014).** New records and updated list of butterflies (Lepidoptera: Rhopalocera) from Chhattisgarh, Central India. *Records of the Zoological Survey of India* 114(2): 233–250.
- Dubey, S., R.K. Agarwal & S. Mondal (2015).** New Records of butterflies (Lepidoptera: Hesperiiidae) in Bastar District (C.G), India. *Biolife* 3(2): 528–532.
- Haribal, M. (1992).** *The Butterflies of the Sikkim Himalaya and their natural history*. Sikkim Nature Conservation Foundation, Gangtok, 217 pp.
- Kehimkar I. (2016).** *Butterflies of India*, Bombay Natural History Society, Mumbai, 528 pp.
- Kunte, K., K. Saji & H. Ogale (2023).** *Abisara bifasciata* Moore, 1877 – Double-banded Judy. In Kunte, K., S. Sondhi & P. Roy (Chief Editors). *Butterflies of India*, v. 4.12. Published by the Indian Foundation for Butterflies. <https://www.ifoundbutterflies.org/abisara-bifasciata>. Accessed on 20.ii.2023.
- Kunte, K., S. Sondhi, B.M. Sangma, R. Lovalekar, K. Tokekar & G. Agavekar (2012).** Butterflies of the Garo Hills of Meghalaya, northeastern India: their diversity and conservation. *Journal of Threatened Taxa* 4(10): 2933–2992.
- Nihlani, G., F. Bux & A. Bharos (2021).** First record of Spotted Angle butterfly *Caprona agama agama* (Moore, 1858) (Lepidoptera: Papilionoidea: Hesperiiidae) from Borhamdev Wildlife Sanctuary, Chhattisgarh, India. *Revista Chilena De Entomología*, 47(2): 259-264. <https://doi.org/10.35249/rche.47.2.21.13>
- Sisodia, A. (2019).** Butterflies (Lepidoptera: Papilionoidea) of Chhattisgarh, India. *Bionotes* 21(4): 116–141.
- Sisodia, A. & N. Kshirsagar (2020).** Further additions to the butterfly fauna of Chhattisgarh, India. *Bionotes* 22(2): 38-40
- Tandan, H.N., G. Chand, R. Naidu & S. Tandan (2020).** Butterflies of Government Nursery, Bhatagaon, Chhattisgarh with Two additions to the state fauna. *Bionotes* 22(3): 195-201
- Tandan, H.N., R. Naidu, G. Chand & G.D. Sampat (2021a).** Butterflies of Tatamari Eco Centre, Chhattisgarh, India. *Bugs R All* #204, In: *Zoo's Print* 36(9): 01–06
- Tandan, H.N., G. Chand, R. Naidu, S. Tandan, G.K. Sahu, R. Agrawal & Tanuja. (2021b).** Checklist of butterflies (Insecta: Lepidoptera) from four districts of Chhattisgarh, India with three additions to the state fauna of butterflies of Chhattisgarh. *Bionotes* 23 (2 & 3): 96-106.
- Varshney, R.K. & P. Smetacek (2015).** *A Synoptic Catalogue of the Butterflies of India*. Butterfly Research Centre, Bhimtal and Indinov Publishing, New Delhi, 261 pp.
- Wynter-Blyth, M.A. (1957).** *Butterflies of the Indian Region*. Bombay Natural History Society, Mumbai, 523 pp.

Acknowledgements

The authors are thankful to officers of the forest department of Government of Chhattisgarh who guided us during tracking within the deep forest. We are also thankful to Krushnamegh Kunte, chief editor, Butterflies of India website www.ifoundbutterflies.org for his valuable online help to identification of species via photographs. Authors are also thankful to Google search engine and eBirds India website from where we recorded the track map during the butterfly walk. We are thankful to Saurabh Singh and Ashwini Chauhan of Jashpur Wild Welfare Society; Gulshan Kumar Sahu and Pratap Kumar, from Nagri for their contribution to records, uploaded in IFB.

Hit Narayan Tandan¹, Gulab Chand², Ravi Naidu³, Ramanand Agrawal⁴ & Jayant Biswas⁵

^{1&5} ISBM University, Chhura, District - Gariaband, Chhattisgarh 493996, India,

¹ S.G.G. Govt. P.G. College, Kurud, Chhattisgarh 493663, India; ² Govt. N. P. G. College of Science, Raipur, Chhattisgarh 492001, India; ³ C.R.O.W. Foundation, Jagdalpur, Chhattisgarh 494001, India; ⁴ Govt. Pt. S. S. M. College Deobhog, Chhattisgarh 493890, India; ⁵ National cave Research and Protection Organization, Chhattisgarh 492001, India.

Email: ¹tandanhn79@gmail.com (corresponding author)

Citation: Tandan, H.N., G. Chand, R. Naidu, R. Agrawal & J. Biswas (2023). Butterflies of Rhishijharan Waterfall, Gariaband, with three additions to the state fauna of Chhattisgarh, India. *Bugs R All* #267, In: *Zoo's Print* 38(4): 09–16.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA)

