

REDISCOVERY OF THE KASHMIR MEADOWBROWN BUTTERFLY (*HYPONEPHELE CHEENA KASHMIRICA*) FROM JAMMU & KASHMIR, INDIA

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ABSTRACT

Several butterfly surveys were conducted in Baramulla district of Jammu & Kashmir between March and December, 2020.

Hyponephele cheena kashmirica, which was described in 1893 by Moore sighting from specimens obtained from Baramulla and Doda districts, has now been recorded for the second time from the type locality after a gap of almost 128 years.

INTRODUCTION

The genus *Hyponephele* Muschanmp, 1915 (Lepidoptera: Nymphalidae: Satyrine) is widely distributed in the central and southern Palaearctic Region and is represented by forty species and 102 subspecies (Eckweiler & Bozano, 2011; Lukhtanov & Pazhenkova, 2021). In India, the genus is represented by five species and five subspecies (Appendix I for checklist with type locality) (Eckweiler & Bozano, 2011). *Hyponephele*

coenonympha goolmurga (Lang, 1868), *Hyponephele cheena kashmirica* (Moore, 1893) and *Hyponephele pulchra neoza* (Lang, 1868) are reported from the territory of Jammu & Kashmir. *H. cheena kashmirica* (Moore, 1893) was raised to species rank by Tshikolovets & Pages (2016); later, Lukhtanov & Pazhenkova (2021) treated it as a subspecies.

In the present note, we report the recent sighting of *H. cheena kashmirica* (Moore, 1893) at Baramulla district, the first since F. Moore reported the butterfly from Gulmarg in 1893. The type-localities of the Kashmir Meadowbrown, *H. cheena kashmirica* were Gulmurg (Baramulla district) and Baderwah and Jora (Doda district).

MATERIALS AND METHODS

Baramulla was surveyed from March to December, 2020 to record the butterfly diversity. About 80 random surveys were carried out in the study area. Collection was carried out with the help of aerial nets

and specimens were photographed with the help of Olympus camera with supramacro feature. The specimens were killed with fumes of ethyl acetate and after killing, the specimens were relaxed and then stretched on insect stretching boards and were kept in insect cabinets which have been deposited in the Department of Zoology, Baba Ghulam Shah Badshah University, Rajouri (J&K).

RESULTS AND DISCUSSION

H. cheena kashmirica was found to be abundant in forests of Baramulla. The first sample was sighted in a forested stretch between Gowas and Gorivan villages and was photographed there (34°09'01"N; 74°17'43"E) at an altitude of 2008 m, located in the Narvaw tehsil of Baramulla. Individuals of the same species were seen perching on *Circium* flowers; a few individuals were also seen perching on *Cedrus deodara* branches. Being undisturbed habitat, this site hosted a variety of butterfly species. This sighting confirms that the *H. cheena kashmirica* is still present in Jammu and Kashmir.

CONCLUSION

H. cheena kashmirica, was found to be common in forests of the Kashmir valley. Since the habitat appears to be restricted to undisturbed forests, the taxon was not commonly observed in non forested areas. Due to deforestation and other anthropogenic activities, the habitat of this subspecies faces a challenge.

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APPENDIX I

Checklist of genus *Hyponephele* Muschanmp, 1915 in India:

1. *Hyponephele cheena cheena* (Moore, 1865) – TL: "Kunawur"

[Bashahr, Himachal Pradesh, India]

- a. *Hyponephele cheena kashmirica* (Moore, 1893) – TL: “Gulmarg” [Gulmarg, Jammu and Kashmir, India]
2. *Hyponephele coenonympha coenonympha* (Felder & Felder, 1867) – TL: (Felder & Felder, 1867) – TL: “Himalaya Occidental.: Ladakh: Suroo” [Suru valley, Jammu and Kashmir, India]
 - a. *Hyponephele coenonympha goolmurga* (Lang, 1868) – TL: “Hab. Goolmurg” [Gulmarg, Jammu and Kashmir, India]
3. *Hyponephele davendra davendra* (Moore, 1865) – TL: “Spiti and Tibet” (Spiti valley, Himachal Pradesh, N India)
 - a. *Hyponephele davendra brevistigma* (Moore, 1893) – TL: “N.-W. Himalayas (Dras Valley)” [Dras, Ladakh, India]
4. *Hyponephele pulchra pulchra* (Felder & Felder, 1867) – TL: “Himalaya Occidental.: Spiti: Losar, Dishungdeo, Kibber, Shalkar, Rupshu: Rumbog, Ladakh: Karnag: Niri Sumbo in alt. 15,500 ped., Padam: Abrang,

Marmang” [Zanskar, Ladakh; Himachal Pradesh, India]

- a. *Hyponephele pulchra neoza* (Lang, 1868) – TL: “Goolmurg” [Gulmarg, Kashmir, India]
- b. *Hyponephele pulchra astorica* (Tytler, 1926) – TL: “... in the Rupal Nullah and at Rama in Astor and also a few from Ladakh...” [Baltistan; Ladakh, India]
5. *Hyponephele pulchella pulchella* (Felder & Felder, 1867) – TL: “Himalaya Occidental.: Spiti: Losar, Dishungdeo, Kibber, Shalkar, Rupshu: Rumbog, Ladakh: Karnag: Niri Sumbo in alt. 15,500 ped., Pangchog” [Zanskar, Ladakh, India]



Fig.1: Upperside



Fig. 2: Underside



Fig. 3: *H. kashmirica* perching on *Cirsium* flowers