

**A note on the record of Sahyadri Gaudy Baron *Euthalia lubentina arasada* Fruhstorfer, 1913 (Lepidoptera: Nymphalidae) from a sub-tropical countryside habitat in Kerala, India**

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Butterflies are known to be one of the most appropriate taxonomic groups for environmental evaluation. The Western Ghats harbour 330 species of butterflies out of the 1501 species recorded from India (Goankar, 1990). This note is to report the capture of the Sahyadri Gaudy baron *Euthalia lubentina* from Nilambur, Kerala. Gaudy Baron is a butterfly species; with dark greenish brown upper side with snow white spots on the fore wing with crimson spots in hind wings, with a wing span of 70-80 mm. Its underside is dark purplish brown (Evans, 1932; Wynter-Blyth, 1957). The three identified subspecies of *Euthalia lubentina* are *E. l. psittacus* Fruhstorfer from Sri Lanka, *E. l. arasada* Fruhstorfer from South India and *E. l. indica* Fabricius from Mumbai to Bengal and from Kangra (Himachal Pradesh) to Myanmar (Evans, 1932). *E. l. indica* Fabricius was reported in the areas of the lower foot-hills of the Himalayas from Haridwar to Sikkim, but recorded from Mussooree, at 3048 m ASL, Oudh; Bengal; eastward through Bhutan, Assam, Cachar to Myanmar, Teuasserim, Siam, Malay Peninsula, and Sumatra. The *E. l. indica* Fabricius have few records from the country, such as from Jharghand (Singh, 2010), Haryana (Kumar, 2010). The distribution of *E. l. arasada* in South India, is scarce (Bhakare, 2011), as reported from Thenmala (Divin Pers. Comm), and from Aleppy (Prasanth Pers. Comm) in Kerala (Figure 1). But the increased number of experts in the field and popularity made the species reported from many regions Bhakare and Karmakar 2017). Bhakare (2011) have documented the different stages of the life cycle of the species, from Satara, Maharashtra.

Nilambur (11° 4' to 13'N and 76° 24' to 29'E) is forming the core area of the Nilgiri Biosphere Reserve is located in the Western Ghats Biotic Province in the Malappuram District of Kerala, with moist deciduous trees and teak plantations. This area experiences both South-west and North-east monsoons with heavy downpour during June to August. The average annual rainfall varies in different regions increasing with the elevation.

During the present study, modified butterfly traps, baited with a semi-fermented mixture of bananas and alcohol were hung in the study plot at Mampad college campus. In our preliminary observation, the traps yielded very rare butterflies such as Common Nawab (*Polyura agraria*) and Grey Count (*Tanaecia lepidea*). On 11<sup>th</sup> December 2011 a female Sahyadri Gaudy Baron was captured in the butterfly trap, operated in the shade of the trees (Figure 2). Although frequent monitoring of the butterflies of the campus were carried out, it is notable that, this species have never recorded in the study area until an observation made on 27<sup>th</sup> September 2016 feeding on ripened ficus fruit along with common baron. The fruit bait traps have to be highlighted as an effective tool for estimating the species richness in the environments as they are functional throughout the day, offer least possibility for missing cryptic species.

This establishes the efficacy of the method for sampling butterflies in tropical forest habitats where traversing would require much time due to its impenetrable environment. It also warrants complementing the prevailing methodology, the Pollard walk, in order to achieve a better understanding and increased resolution of the butterfly fauna. The need for a comprehensive and systematic study of butterflies in The Western Ghats is essential to figure out the limitations of current knowledge in relation to conservation concern and diversity of the butterflies of these threatened mountain system.

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Figure 1. Map showing the distribution of three subspecies of *Euthalia lubentina*



Photograph- Selvakumar

Figure 2. Sahyadri Gaudy Baron *Euthalia lubentina arasada* (Lepidoptera: Nymphalidae) recorded from a sub-tropical country side habitat in Kerala, India



Figure 3. Sahyadri Gaudy Baron *Euthalia lubentina arasada* (Lepidoptera: Nymphalidae) sharing niche with a closely related species Common baron (*Euthalia aconthea*)