

Original Research Article

Common Tinsel - *Catapaecilma major* Druce, 1895; a new record for Butterflies of Chhattisgarh.

ABSTRACT

During a field visit to Kanger Valley National Park (KVNP), we had the opportunity to capture photographs of the Common Tinsel - *Catapaecilma major* Druce, 1895. The species was spotted along the forest trail that leads to Kotumsar cave from Kotumsar Bariar (NH30), the entrance of the Kanger Valley National Park in Bastar. This area is characterized by dense forest habitat dominated by *Sorearobusta* trees. Notably, the presence of the Common Tinsel butterfly had never been documented in the Chhattisgarh state prior to this sighting, thus marking its inclusion as a new record for the butterfly fauna of Chhattisgarh.

Keywords: Biodiversity, Bastar, Kanger Valley National Park, Kotumsar Cave, Lepidoptera, Rhopalocera, Faunal diversity.

1. INTRODUCTION

Butterflies, classified under the order Lepidoptera, boast a global presence, with approximately 19,238 documented species¹. In the Indian region, there are approximately 1500 species documented^{2,3,4} of which nearly 1300 species of butterflies reported in India alone⁵. The butterfly diversity was reported earlier in Central India^{6,7,8,9,10,11,12,13,14}. The recent past studies on butterflies of Central India including Vidarbha, Madhya Pradesh and Chhattisgarh, were published^{15,16,17,18,19,20,21,22,23,24}. The prior studies provide an extensive analysis of the Central India and the first area-specific checklist of butterflies of Chhattisgarh²¹. Recent additions butterfly fauna of Chhattisgarh state were made in last decade^{3,20,25,26,27,28,29,30,32,33,34}. The state of Chhattisgarh with two recent addition, exhibits significant butterfly diversity, with a total of 180 species documented³⁵. The previous report on butterfly fauna in Chhattisgarh shows that the Common Tinsel butterfly was observed for the first time in Chhattisgarh here in the present report opportunistically observed from KVNP.

Study area: Kanger Valley National Park is situated approximately 24 kilometers Southeast of Jagdalpur (Figure-1). Positioned along the Jagdalpur-Sukma Road, the park was officially established on July 22, 1982. Encompassing the Kotumsar and Koleng ranges, it extends from coordinates 18045' to 81051'30" N and 81051'30" to 82010' E, covering an area of 200 square kilometers. From the captivating Tirathgarh waterfall to the Kolab River, the park's boundaries embrace diverse landscapes, including low flatlands, gentle slopes, steep inclines, plateaus, valleys, and streams, resulting in an undulating terrain. Home to many subterranean limestone caves, notable attractions include the Kutumsar, Kailash, and Dandak caves. The park's topography is characterized by hilly terrain, with the eastern section being particularly rugged and interspersed with small plateaus. Altitudes within the park range from 338 to 781 meters above mean sea level, while the soils display a variety of hues, from yellowish and brownish-red to reddish and brown³⁶.

Kanger Valley National Park is situated in the southeastern part of Chhattisgarh State, which itself came into existence following its separation from Madhya Pradesh on November 1,

2000. Initially comprising 16 districts, the state has now expanded to a total of 33 revenue districts. Covering an area of 135,192 square kilometers, Chhattisgarh ranks as the ninth-largest state in India. Notably, it boasts a substantial forest cover, with over 44% of its total area enveloped by woodlands. These forests are classified into Reserve forests (43.13%), protected forests (40.21%), and Un-classed forests (16.65%), hosting three National Parks and eleven Wildlife Sanctuaries. The state exhibits diverse forest types, including evergreen, dry-deciduous, grasslands, and bamboo²⁵.

2. MATERIAL AND METHODS

The present observation occurred opportunistically while taken photographs of some floral diversity at the forest trail between Entrance of Kanger Vally National Park at NH 30, KotamsarbariarKamanar (Nichenaka) to Kotamsar Cave at Jagdalpur District of Chhattisgarh, India. The butterflies were identified by examining key traits, including color patterns and wing spots, in accordance with standard literature^{37,38} and online help by Butterflies of India website³⁹.

3. RESULTS AND DISCUSSION

The Common Tinsel butterfly had not been documented in Chhattisgarh before this observation. The distribution records of the Common Tinsel in India include Manipur, Meghalaya, Nagaland; Maharashtra to Kerala; and Uttarakhand to Sikkim⁵. Studies on butterflies in Central India, including Vidarbha, Madhya Pradesh, and Chhattisgarh, have no previous records of the Common Tinsel. Some observations from Kanha Tiger Reserve, Madhya Pradesh, were made and uploaded to the iFoundButterflies website³⁹. This observation marks the first report of the Common Tinsel from Chhattisgarh. It marks a significant addition to the region's documented butterfly diversity.

Family: Lycaenidae

***Catapaecilma major* Druce, 1895 - The Common Tinsel (Image- 2& 3)**

Individual Photographed: 24.ii.2024.

Host plant: *Terminalia arujuna*, *Terminalia paniculata*, *Mallotus nudiflorus*, *Lagerstromia parviflora*, *Ziziphus rugosa*³¹.

During a workshop on safe caving organized by the National Cave Research and Protection Organization, our team was en route to Kotumsar Cave when we took a break for rest. As we photographed some plants at the resting spot, one of our team members had the species land on their hand and begins feeding on sweat. We managed to capture a small video and some photographs of this encounter. **After consulting the field guide^{2,5} we identified the species as Common Tinsel.**

The Common Tinsel - *Catapaecilma major* Druce, 1895, is a medium sized, blue butterfly of Lycaenidae family described by Hamilton Herbert Druce in 1895. The striking yellow wings of this species are patterned with fine black lines that resemble beautiful filigree. It is a medium-sized butterfly, with wingspan typically measuring between 28 to 32 millimeters, three tails of varying size and irregular silvery-edged yellowish bands and spots on underwings³⁸. There are three subspecies of the *Catapaecilma major* in India, are: *C. m. anais* Fruhstorfer, 1915; *C. m. callone* Fruhstorfer, 1915; and *C. m. major* Druce, 1895. The distribution of *C. m. anais* are found in Manipur; Meghalaya; Nagaland; *C. m. callone* distributed in Maharashtra to Kerala; and subspecies *C. m. major* Uttarakhand to Sikkim⁵.

4. CONCLUSION

The present study highlights the significant butterfly diversity within Chhattisgarh, particularly with the first documented sighting of the Common Tinsel (*Catapaecilma major*) in the region. This discovery not only adds to the existing knowledge of butterfly species in Chhattisgarh but also underscores the importance of continued research and documentation in the area. The Kanger Valley National Park, with its rich and varied ecosystems, proves to be a vital habitat supporting a diverse range of butterfly species. The findings emphasize the need for conservation efforts and further exploration to fully understand and protect the region's biodiversity. The involvement of local experts and enthusiasts in the identification process underscores the collaborative nature of such ecological studies, reinforcing the importance of community participation in conservation initiatives.

CONSENT

Not applicable for this manuscript.

ETHICAL APPROVAL (WHEREEVER APPLICABLE)

Not applicable for this manuscript.

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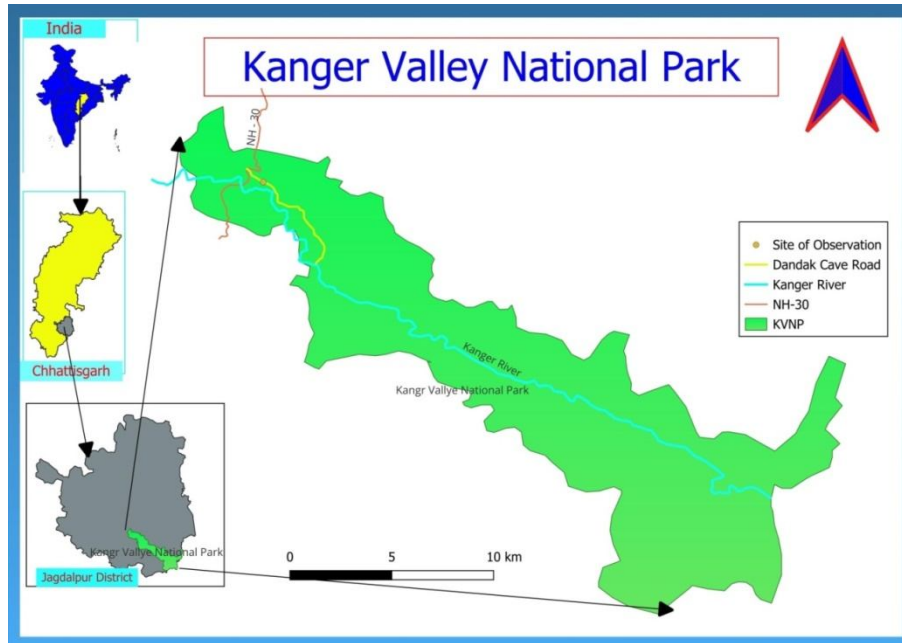


Figure-1: Study area – Kanger Valley National Park



Image-2: *Catapaecilma major* Druce, 1895 - Common Tinsel © H. N. Tandan



Image –3: *Catapaecilma major* Druce, 1895 - Common Tinsel © S. K. Patel

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