

## Rediscovery of Common Tinsel *Catapaecilma major* Druce, 1895 (Lepidoptera, Lycaenidae) from the Garhwal region of Uttarakhand, India

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**ABSTRACT:** During a butterfly survey in the remote village of Gailung in Chamoli district, Uttarakhand, one Common Tinsel was recorded on 27<sup>th</sup> March 2023. The butterfly was photographed and identified with the help of field guides as *Catapaecilma major* Druce, 1895 (Lepidoptera, Lycaenidae). The habitat was adjacent to local terrace farmland and was dominated by plants such as *Ageratum conyzoides*, *Oxalis* sp., *Urtica* sp., *Fluggea virosa*, and *Bauhinia variegata*. The butterfly was observed resting on the leaves of *Ageratina adenophora*. and was noted for its swift flight. The current communication highlights the first observation of Common Tinsel from the Garhwal Himalaya after 1930s.

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**KEY WORDS:** Butterfly, Lycaenidae, Garhwal Himalaya, Kumaon

Common Tinsel *Catapaecilma major* is a lycaenid butterfly with a known distribution in India, Nepal, Bhutan, Myanmar, Sri Lanka, and Southeast Asia. In India, it is found in Western Ghats (Maharashtra southwards), Odisha, Chhattisgarh, Northeastern India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland), Sikkim, and Uttarakhand (Wynter-Blyth, 1957; Kehimkar, 2008; Gasse, 2013; Anonymous, 2023). It has two subspecies in India viz., *Catapaecilma major major* Druce, 1895 and *C. m. callone* Fruhstorfer, 1915 (Sondhi and Kunte, 2018; Anonymous, 2023; Savela, 2023) whereas some authors also consider a third subspecies *i.e.*, *C. m. anais* Fruhstorfer, 1915 (Gasse, 2013; Varshney and Smatecek, 2015). Morphologically, its features include three tails and brownish-yellow underside with silver- black edged ochreous bands, and pale violet blue upperside in female, whereas

dark violet blue in male. It has a wingspan of 28-32 mm, and altitudinal ranges of up to 1,700m (Evans, 1932; Wynter-Blyth, 1957; Kehimkar, 2008; Sondhi and Kunte, 2018). The current communication highlights the first observation of Common Tinsel from the Garhwal Himalaya after 1930s.

During a butterfly survey in the remote village of Gailung in Chamoli district, Uttarakhand, one individual of Common Tinsel was recorded on 27<sup>th</sup> March 2023 at 1544hrs (30.3195° N; 79.1506° E; Alt: 856m). The butterfly was photographed and identified with the help of field guides (Kehimkar, 2008; Sondhi and Kunte, 2018). The habitat was adjacent to local terrace farmland and was dominated by plants such as *Ageratum conyzoides*, *Oxalis* sp., *Urtica* sp., *Fluggea virosa*, and *Bauhinia variegata*. The butterfly was observed

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Figs. 1a, b - Common Tinsel photographed at the site

resting on the leaves of *Ageratina adenophora*. and was noted for its swift flight, however, to my surprise, it perched on the lens hood of my camera. Following a brief flight of 10-15 seconds, the butterfly returned to its original location and was seen crawling on the leaves (Figs. 1a, b). Two individuals of hill jezebel *Delias bellandona*, along with some birds such as verditer flycatcher *Eumyias thalassinus*, purple sunbird *Cinnyris asiaticus* and black bulbul *Hypsipetes leucocephalus* were also sighted in and around the same habitat. The following day, on 28<sup>th</sup> March 2023 at 1100 hrs, a search conducted at the same location failed to yield any sightings of the species.

The larval host plants are *Terminalia arjuna*, *Terminalia paniculata*, *Mallotus nudiflorus*, *Lagerstroemia parviflora*, and *Ziziphus rugosa* (Davidson *et al.* 1896; Bell, 1919; Wynter-Blyth, 1957; Nitin *et al.*, 2018). None of the aforementioned species of larval host plants were seen in the area.

There have been quite a few studies from Garhwal on the exploration of the butterfly fauna, including the earliest studies by McKinnon and DeNiceville (1899), and Ollenbach (1930). They reported the sighting of this species from Mussoorie and Dehradun. One of the most comprehensive studies was done by Singh and Sondhi (2016) where a

checklist comprising 407 species was presented, which included directly recorded 349 species of butterflies from this region. However, no sightings of common tinsel were reported. It was only in 2019 that Kumar *et al.* discovered the presence of this butterfly in the Kumaon region. Finding presented in this article is noteworthy as it marks the first recorded sighting of this butterfly in the Garhwal region in 90 years.

In the recent past, owing to the extensive surveys conducted by the researchers and naturalists, various rediscoveries and addition to the butterflies of Uttarakhand came from Garhwal Himalaya, including Apefly *Spalgis epeus epeus*, Pale Jezebel *Delias sanaca sanaca*, Variegated Plushblue *Flos adriana*, Dark Sapphire *Heliophorus indicus*, Mountain Tortoiseshell *Aglaia rizana*, Small Silverfork *Lethe jalaurlida*, White-Ringed Meadowbrown *Hyponephele davendra davendra*, Dubious Five-Ring *Ypthima parasakra* (Singh, 2016; Sondhi, 2016; Venkatesh, 2016; Singh and Seal, 2019; Bhatt *et al.*, 2020; Kumar *et al.*, 2020; Singh and Singh, 2019, 2021, 2022). These records indicate that the Garhwal Himalaya region contains unexplored areas with significant potential for studying butterfly diversity and ecology. Further research is crucial to assess the status of butterflies in the Garhwal Himalaya, especially considering that many of them lack recent records.

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## REFERENCES

- Anonymous (2023) *Catapaecilma major* Druce, 1895 – Common Tinsel. In: Kunte, K., S. Sondhi, and P. Roy (Chief Editors). Butterflies of India, v. 4.12. Published by the Indian Foundation for Butterflies. <https://www.ifoundbutterflies.org/catapaecilma-major> (accessed 2023/08/14).
- Bell T.R. (1919) The common butterflies of the plains of India (including those met with the hill stations of the Bombay Presidency). Journal of the Bombay Natural History Society 26: 750–769.
- Bhatt H., Kumar S. and Singh P. (2020) Re-discovery of small silverfork, *Lethe jalaurida* (Insecta: Lepidoptera: Nymphalidae) from Garhwal, Uttarakhand, India. Bionotes 22 (4): 5–7.
- Davidson J., Bell T. R. and Aitken E. H. (1896) The butterflies of the North Canara district of the Bombay Presidency. Part I. Journal of the Bombay Natural History Society 10: 237–259.
- Evans W.H. (1932) The Identification of Indian Butterflies, 2nd Edition. Bombay Natural History Society, Bombay. 454pp+32pl.
- Gasse P.V. (2013) Annotated checklist of the Butterflies of the Indo-Burmese region. [http://flutters.org/home/docs/Butterflies\\_Of\\_India\\_Paul\\_Van\\_Gasse.pdf](http://flutters.org/home/docs/Butterflies_Of_India_Paul_Van_Gasse.pdf).
- Kehimkar I. (2008) The Book of Indian Butterflies. BNHS, Oxford University, Delhi Press. 497pp.
- Kumar S., Singh R.S. and Singh P. (2020) Rediscovery of white-striped snow flat *Tagiades cohaerens* Mabille, 1914 (Lepidoptera: Hesperiiidae) from Uttarakhand, India. Journal of Entomology and Zoology Studies 8(1): 1431-1433.
- Mackinnon, P.W. and de Nicéville L. (1899) List of butterflies of Mussoorie in the Western Himalayas and neighbouring region. Journal of the Bombay Natural History Society 11: 205–221, 368–389, 585–605.
- Nitin R., Balakrishnan V. C., Churi P. V., Kalesh S., Prakash S. and Kunte K. (2018) Larval host plants of the butterflies of the Western Ghats, India. Journal of Threatened Taxa 10(4): 11495-11550.
- Ollenbach O.C. (1930) Butterfly collection grounds at Mussoorie (U.P.). Journal of the Bombay Natural History Society 34: 836–840.
- Savela M. (2023) *Catapaecilma major* Druce, 1895. Lepidoptera and Some Other Life Forms. <https://www.nic.funet.fi/pub/sci/bio/life/insecta/lepidoptera/ditrysia/papilionoidea/lycaenidae/theclinae/catapaecilma/#major> (Retrieved August 16, 2023).
- Singh A.P. (2016) Recent records of the Pale Jezebel *Delias sanaca sanaca* (Moore, 1857) (Lepidoptera: Pieridae) from Mussoorie hills, western Himalaya, India. Journal of Threatened Taxa 8(12): 9473–9478. doi:10.11609/jott.2834.8.12.9473–9478.
- Singh A.P. and Sondhi S. (2016) Butterflies of Garhwal, Uttarakhand, western Himalaya, India. Journal of Threatened Taxa 8(4): 8666–8697. doi: 10.11609/jott.2254.8.4.8666-8697.
- Singh A.P. and Seal S. (2019) Occurrence of Dark Sapphire *Heliophorus indicus* Fruhstorfer, 1908 (Lepidoptera: Lycaenidae) in Garhwal Himalaya, Uttarakhand, India. Zoo's Print 34 (7): 33–34.
- Singh A.P. and Singh T. (2019) Recent records of the rare Mountain Tortoiseshell *Aglais rizana* (Moore, 1872) (Lepidoptera: Nymphalidae) in the upper Garhwal, western Himalaya, India, after 100 years. Journal of Threatened Taxa 11(15): 15068–15071. doi: 10.11609/jott.5276.11.15.15068-15071.
- Singh A.P. and Singh T. (2021) First record of White-ringed Meadowbrown, *Hyponphele davendra* (Moore, 1865) (Lepidoptera: Nymphalidae) from inner valleys of Garhwal, Uttarakhand, India. Journal of Bombay Natural History Society 118(2): 1–5. doi: 10.17087/jbnhs/2021/v118/152490
- Singh A.P. and Singh T. (2022) Occurrence of Dubious Five-Ring, *Ypthima parasakra* Eliot in Garhwal Himalaya. Indian Journal of Entomology 84(1): 1–3.
- Sondhi S. (2016) First sighting of the Apefly *Spalgis epeus epeus* Westwood, 1851 (Lepidoptera: Lycaenidae: Miletinae: Spalagini) from the Garhwal Himalaya. Bugs R All 2: 4–5.
- Sondhi S. and Kunte K. (2018) Butterflies of Uttarakhand—A Field Guide. Bishen Singh Mahendra Pal Singh (Dehradun), Titli Trust (Dehradun), National Centre for Biological Sciences (Bengaluru), and Indian Foundation for Butterflies, Bengaluru. 310pp.

- imidacloprid on egg, egg-larval and larval parasitoids under laboratory conditions. *Journal of Plant Protection Research* 50: 535–540.
- Preetha G., Stanle J., Suresh S., Kuttalam S. and Samiyappan R. (2009) Toxicity of selected insecticides to *Trichogramma chilonis*: assessing their safety in the rice ecosystem. *Phytoparasitica* 37: 209215.
- Rajendran B. and Gopalan M. (1996) Contact toxicity of insecticides on the egg parasitoid *Trichogramma chilonis* (Ishii.). *Pestology* 20(10): 17–19.
- Sarkar B., Samantha A., Choudury A., SomChoudury A.K. (1998) Comparative study of emulsifiers on the toxicity of a few synthetic pyrethroids towards the indigenous parasitoid, *Trichogramma chilonis* (Ishii.). *Pestology* 22(11): 2–34.
- Sattar S., Farmanullah S. A.R., Arif M., Sattar H. and Qazi J.I. (2011) Toxicity of some new insecticides against *Trichogramma achilonis* (Hymenoptera: Trichogrammatidae) under laboratory and extended laboratory conditions. *Pakistan Journal of Zoology* 43: 1117–1125.
- Smith S.M. (1996) Biological control with *Trichogramma*: Advances, successes, and potential of their use. *Annual Review of Entomology* 41: 375–406.
- Snedecor G.W. and Cochran W.G. (1967) *Statistical methods*. The Iowa State University Press Iowa, USA.
- Steel R.G.D., Torrie J.H. and Dickey D.A. (1997) *Principles and procedures of statistics. A biometrical approach*. 3rd ed. McGraw Hill Inc., New York.
- Tiwari S. and Khan M.A. (2002) Effect of fenobucarb and chlorpyrifos methyl on the parasitization of *Trichogramma chilonis* (Ishii.). *Pestology* 26(3): 40–42.
- Wang Y., Wu C., Cang T., Yang L., Yu W., Zhao X., Wang Q. and Cai L. (2014) Toxicity risk of insecticides to the insect egg parasitoid, *Trichogramma evanescens* Westwood (Hymenoptera: Trichogrammatidae). *Pest Management Science* 70(3): 398–404. doi:10.1002/ps.3571.
- Williams L. and Price L. (2004) A space efficient contact toxicity bioassay for minute Hymenoptera, used to test the effects of novel and conventional insecticides on the egg parasitoids *Anaphe siole* and *Trichogramma apretiosum*. *Biocontrol* 38: 163–185.

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