

First report of *Anisoneura aluco* (Fabricius, 1775) (Lepidoptera: Erebidae) from Punjab, India

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Abstract

In September 2024, *Anisoneura aluco* (Fabricius, 1775) (Lepidoptera: Erebidae) was observed for the first time in Punjab (India). This note reports that sighting from Mohali, Punjab (northwestern region of India). The specimen was found resting on a window frame. This is the first record of *Anisoneura aluco* in Punjab.

Key words: *Anisoneura aluco*, Erebidae, first report, moth, Punjab

On 02 September 2024, we chanced upon a moth (Figure 1) that we found settled on the frame of a window at our home (30.68° N, 76.73° E) in Mohali, Sahibzada Ajit Singh Nagar District, Punjab, India. The second author identified the moth as *Anisoneura aluco*. Identification was made based on visual comparison with photographs available on online resources, namely, mothsofindia.org (Anonymus 2024), geenature.com (2024), and iNaturalist.org (2024). Compared to other genera of the family Erebidae, *Anisoneura* Guenée, 1852 has mostly remained taxonomically stable, likely in consequence of the small number of species involved and the conspicuous size of the moths, which has made visual comparisons comparatively easy (Zilli & Vos 2019). From India, only three *Anisoneura* species have been reported so far, namely, *A. aluco*, *A. hypocyanea*, and *A. salebrosa* (Kuniyil & Peter 2022). Therefore, the visual identification of *A. aluco* was relatively easier when compared to the other two. We cross-checked the identification with experts. Md. Jahir Rayhan confirmed the identity of the moth as *Anisoneura aluco* (personal communication, October 1, 2024). Roger Kendrick also confirmed that this is *Anisoneura aluco* without any doubt (personal communication, October 2, 2024). Sanjay Sondhi also agreed with the identification (personal communication, October 3, 2024).

Anisoneura aluco (Fabricius, 1775) (Lepidoptera: Erebidae) is distributed in India, Nepal, Bangladesh, Myanmar, Sri Lanka, China, Taiwan, Singapore, Japan, Vietnam, Cambodia, Thailand, Malayasia, Philippines, Indonesia, Timor and Australia (Chandra et al. 2019, Zilli & Vos 2019). Within India, it is known from Uttarakhand, Sikkim, West Bengal, Assam, Meghalaya, Arunachal Pradesh, Chhattisgarh, Madhya Pradesh, Maharashtra and Tamil Nadu (Chandra et al. 2019, Anonymus 2024).



Figure 1. *Anisoneura aluco* Fabricius settled on a window frame

Our observation is the first record of *Anisoneura aluco* in Punjab and is a significant addition to the *Lepidoptera* fauna of the region. There are no previously published records of this species from Punjab. A comprehensive list of 486 species of the moths by Singh et al. (2019) didn't find *Anisoneura aluco* from Punjab in the literature reviewed by them from the year 1892 onwards. Additional references reviewed by us (Paunikar & Sharma 2022; Anonymous 2024; iNaturalist 2024) also didn't throw up any reporting of *Anisoneura aluco* from Punjab.

This first record of *Anisoneura aluco* from Punjab indicates a potentially broader distribution of the species in northern India. This chance discovery emphasizes the need for academic and professional entomologists to conduct surveys throughout Punjab to better document the moth diversity in Punjab.

The habitat of the adult *Anisoneura aluco* includes forests and woodlands, grasslands and prairies, agricultural and cultivated areas, and urban and suburban areas (Insect Picture, 2024). The present specimen was found in an urban area having neighbourhood parks, mature avenue trees and open wooded areas with a lot of mature trees. Due to its variegated wing pattern, *A. aluco* can easily camouflage itself with the bark of the trees. In other Indian states, this species has been reported primarily from forests and hilly areas but also from human settlements in/around those areas (Smetacek, 2008; Shubhalaxmi et al., 2011; Sivasankaran et al., 2012, Gurule & Nikam, 2013 and Singh, 2019). In comparison to many other states in India, Punjab has very little forest area. Thus, finding *A. aluco* in an urban area is very significant. It means that even if urban areas have some green cover (in whatever form) with mature trees, it is important to conserve those areas as they can support some moth fauna (and other life forms as well). The conservation of the pockets of natural habitats in urban Punjab can play an important role in the long-term survival of all the insect species in general and *Anisoneura aluco* in particular.

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Conflict of interests

The authors declare that they have no competing interests.

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