

New addition to the larval food plants of *Trypanophora semihyalina* Kollar, [1844] from India (Lepidoptera: Zygaenidae)

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Abstract

Rubus ellipticus Smith 1815 (Rosaceae) is reported as new larval food plant for *Trypanophora semihyalina* Kollar, [1844] for the first time from India

KEY WORD: Lepidoptera, Zygaenidae, *Trypanophora semihyalina*, food plants, India.

**Nueva planta nutricia de *Trypanophora semihyalina* Kollar, [1844] de India
(Lepidoptera: Zygaenidae)**

Resumen

Se cita por primera vez a *Rubus ellipticus* Smith 1815 (Rosaceae) como nueva planta nutricia para *Trypanophora semihyalina* Kollar, [1844] en India.

PALABRAS CLAVE: Lepidoptera, Zygaenidae, *Trypanophora semihyalina*, planta nutricia, India.

Introduction

Lepidoptera comprises of Butterflies and Moths. According to VAN NIEUKERKEN *et al.* (2011), 157,424 species of Lepidoptera under 15,578 genera have been reported globally. 13,500 species of moths have been reported from India (CHANDRA, 2011). Moths are characterized by drably-colored scales on the body, phytophagous and predominantly nocturnal nature. They are also considered vital for ecosystem services because of various roles such as agricultural pests (SHARMA & BISEN, 2013), food for mammals (VAUGHAN, 1997), birds (WILSON *et al.*, 1999), night pollinators (MACGREGOR *et al.*, 2015). They are very sensitive to climate changes and vegetation alterations, making them an important group for monitoring climate and habitat changes (DAR & JAMAL, 2021a). The sudden decline of moths has severe effects on birds, bats and plants because of keystone role of moths in an ecosystem (DAR & JAMAL, 2021b). *Trypanophora semihyalina* Kollar, 1844 is a species of moth in the Zygaenidae family. It is found in south-east Asia, including India, China, Hong Kong and parts of Taiwan (ANONYMOUS, 2022).

Previous recorded food plants of this moth caterpillar are *Barringtonia acutangula* (L.) Gaertn. (Family: Lecythidaceae), *Bombax ceiba* Linnaeus (Malvaceae), *Careya* sp. Roxb. (Lecythidaceae), *Carissa carandas* (Linnaeus Apocynaceae), *Gardenia* J. Ellis (Rubiaceae), *Holarrhena* sp. R. Br. (Apocynaceae), *Lagerstroemia* including *Lagerstroemia indica* (L.) Pers. (*Lagerstroemia*) and *Lagerstroemia speciosa* (L.) Pers. (*Lagerstroemia*), *Ricinus communis* Linnaeus (Euphorbiaceae), *Rosa* sp. Linnaeus (Rosaceae), *Shorea robusta* Roth (Dipterocarpaceae), *Terminalia* including *Terminalia*

catappa Linnaeus (Combretaceae) and *Terminalia tomentosa* Linnaeus (Combretaceae) and *Ziziphus* including *Ziziphus mauritiana* Lam. (Rhamnaceae) (ROBINSON *et al.*, 2010). MESHARAM & GARG (2000) reported this moth as a defoliator of *Gmelina arborea* Roxb. (Lamiaceae). This caterpillar also seen as pest on *Mangifera indica* Linnaeus (Anacardiaceae) in southern West Bengal (JHA & PAUL, 2002). *Psidium guajava* Linnaeus (Myrtaceae) is also reported as larval host plant from West Bengal in previous studies (ARAJUSH PAYRA, 2020).

Results and discussions

On 31-VIII-2019, First author found the caterpillar (Figs 3-4) of *Trypanophora semihyalina* Kollar feeding on *Rubus ellipticus* Smith (Rosaceae) inside Baba Ghulam Shah Bashah University in Rajouri district of Jammu and Kashmir, India at an altitude of around 1200 m and the coordinates were recorded as (33°23'38.2" N, 74°20'36.8" E) (Fig. 4). After August same species caterpillar was found on 6-IX-2019 and 2-XI-2019 on *Rubus ellipticus*. Caterpillar was showing defense (Fig. 1) also on touching the leaf in the form of watery drops like.

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BIBLIOGRAPHY

- ANONYMOUS, 2022.– *Trypanophora semihyalina*, *iNaturalist observation entry*: Accessed on 24 February 2022.
- ARAJUSH, P., 2020.– New larval host plant of *Trypanophora semihyalina* Kollar [1844] (Insecta: Lepidoptera: Zygaenidae: Chalcosinae) from West Bengal, India.– *Bionotes*, **22**(3): 138-140.
- CHANDRA, K., 2011.– Insect fauna of states and Union Territories in India. Arthropods and their Conservation in India (Insects & Spiders).– *ENVIS Bulletin Himalayan Ecology*, **14**(1): 189-218.
- DAR, A. A. & JAMAL, K., 2021a.– Moths as Ecological Indicators: A review of possible causes.– *Munis Entomology & Zoology*, **16**(2): 833-839.
- DAR, A. A. & JAMAL, K., 2021b.– The decline of moths globally: A review of possible causes.– *Munis Entomology & Zoology*, **16**(1): 317-326.
- MACGREGOR, C. J., POCOCK, M. J., FOX, R. & EVANS, D. M., 2015.– Pollination by nocturnal Lepidoptera, and the effects of light pollution: a review.– *Ecological Entomology*, **40**: 187-198. <https://doi.org/10.1111/een.12174>.
- ROBINSON, G. S., ACKERY, P. R., KITCHING, I. J., BECCALONI, G. W. & HERNÁNDEZ, L. M., 2010.– *HOSTS - A Database of the World's Lepidopteran Hostplants*. Natural History Museum, London. Available from <http://www.nhm.ac.uk/hosts> (accessed 24 February 2022).
- SHARMA, A. K. & BISEN, U. K., 2013.– Taxonomic documentation of insect pest fauna of vegetable ecosystem collected in light trap.– *International Journal of Environmental Science: Development and Monitoring*, **4**(3): 4-10.
- VAN NIEUKERKEN, E. J., KAILA, L., KITCHING, I. J., KRISTENSEN, N. P., LEES, D. C., MINET, J., MITTER, C., MUTANEN, M., REGIER, J. C., SIMONSEN, T. J. & WAHLBERG, N., 2011.– Order Lepidoptera Linnaeus, 1758.– In Z. Q. ZHANG (Ed.). *Animal biodiversity: an outline of higher-level classification and survey of taxonomic richness*.– *Zootaxa*, **3148**(1): 212-221.
- VAUGHAN, N., 1997.– The diets of British bats (Chiroptera).– *Mammal Review*, **27**: 77-94. <https://doi.org/10.1111/j.1365-2907.1997.tb00373.x>.

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Figures 1-3.– 1. Caterpillar of *Trypanophora semihyalina* Kollar showing defense. 2-3. Caterpillar feeding on *Rubus ellipticus*.

