

New host plant records for melon ladybird *Chnootriba elaterii* (Rossi) (Coleoptera: Coccinellidae) from India

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Introduction

Chnootriba elaterii (Rossi) (= *Henosepilachna elaterii* (Rossi)), commonly known as melon ladybird, is distributed in Africa, Madagascar, the Middle East, and South Europe, and is mainly a pest of melons, cucumber, other cucurbits, and lettuce (CABI 2020). It was originally described as *Coccinella elaterii* by Rossi (1894). Fürsch (1964) erected the subgenus *Henosepilachna* (*Elateria*) with '*Coccinella elaterii* P. Rossi' as the type species. In the World Catalogue of Epilachninae by Jadwiszczak & Wegrzynowicz (2003), it was listed as *Henosepilachna elaterii* and Pakistan, from the Indian Subcontinent, was included in its distribution range. Tomaszewska & Szawaryn (2016) synonymized *Henosepilachna* (*Elateria*) with *Chnootriba* Chevrolat in their generic revision of Epilachnini. They omitted to list the Indian subcontinent in the distribution range of the genus *Chnootriba*, apparently missing the record of *C. elaterii* published earlier as '*Epilachna chrysomelina orientalis* Zimm.' from Rajasthan, northwestern India, by Kapur & Bhaumik (1966). It was originally described as *Epilachna elaterii orientalis* by Zimmermann (1934) and later synonymized with *H. elaterii* by Jadwiszczak & Wegrzynowicz (2003). Kapur & Bhaumik (1966) also mentioned its occasional occurrence in northern India. Specimens from Uttar Pradesh and Gujarat (in the collections of Zoological Survey of India, Kolkata, and material received for identification) also have been examined as part of ongoing studies on Indian Coccinellidae. The species is also known from Punjab and Khyber Pakhtunkhwa in Pakistan (Rehman et al. 2018; Bodlah et al. 2021). The distribution of *C. elaterii* remains to be mapped in India and systematic collections are lacking from many parts of India. Here, based on field surveillance data for crop pests, we report two economically important host plants of *C. elaterii* from Rajasthan for the first time.

Results and Discussion

The specimens were collected on two economically important and widely cultivated host plants, *Cucumis callosus* (Rottler) Cogn. (Cucurbitaceae), perhaps a synonym of *Cucumis melo* L. (John et al. 2012) (Fig. 2 a,b), and Indian Jujube/ber (*Ziziphus mauritiana* Lam., Rhamnaceae) (Fig. 2 c,d). Larvae and adults were collected on these host plants from Barmer District, Rajasthan, India, in September 2023 during routine surveillance for pest damage on various crops. The adult (Fig. 1) is yellowish-orange with black elytral spots characteristic in having distinct yellowish-orange halos and arranged in a 2-2-1-1 pattern on each elytron. The more common host, *Cucumis callosus* is known as mango melon, snap melon, small gourd and wild musk melon (vernacular names: Kachri, Phoot Kakdi) and non-desertic form of musk melon (*Cucumis melo* L.). It is a drought-hardy vegetable of the Indian Thar Desert widely consumed by the local people of the arid region of Rajasthan as a fresh fruit or as value-added products. Indian Jujube is also commonly cultivated as an arid zone fruit crop in Rajasthan and it is a new host record for *C. elaterii*. The nature of damage on these hosts is characteristic of phytophagous coccinellids with the larvae and adults feeding by scraping away the epidermis leading to skeletonizing and withering of the leaves. The host plants recorded from the Indian subcontinent until now include water melon from India (Kapur & Bhaumik, 1966), cucumber and bottle gourd from Pakistan (Rehman et al. 2015).

Due to the near total absence of literature records of this species from India, we consider this a minor pest that does not require intensive surveillance. On the other hand, the major reason for the availability of very few specimens of *C. elaterii* in Indian repositories is most likely the lack of systematic collection surveys for the documentation of economically

important insect fauna associated with crops, with particular reference to the arid, inhospitable deserts of northwestern India.

Material

https://data.canadensys.net/micropublications/resource?r=specimen_19

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Fig. 1. *Chnootriba elaterii*, dorsal view, specimen NRCB-CE-2.

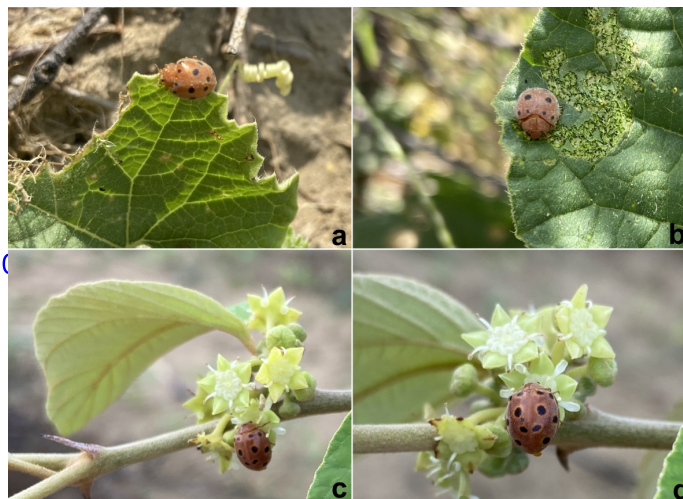


Fig. 2. Melon ladybird feeding on: (a, b) wild musk melon; (c, d) Indian Jujube.