



First report of the cuckoo wasp *Chrysidea falsa* (Hymenoptera) from India

According to Kimsey & Bohart (1991), Rosa & Xu (2015), and Rosa *et al.* (2021), only two species of *Chrysidea* Bischoff, 1913 have been reported from India: *C. furiosa* (Cameron, 1897) from West Bengal and *C. pumila* (Klug, 1845) from Maharashtra (Bingham 1903). Here, we report the first record of a third species, *C. falsa* Rosa & Xu, 2015 from India, previously recorded only from China, Malaysia, and the Philippines, and thereby extending the known range of this species. We randomly collected chrysidids from Kasaragod and Calicut Districts in Kerala, which lies in the south-western part of India. Six specimens of *C. falsa* were collected using sweep nets. Five of them were from two sacred groves in Kasaragod District, Edayilakkad Kavu and Koyithatta Sree Dharma Shastha Kavu. One specimen was collected at Vadakara, Calicut District. The specimens from Kasaragod and Vadakara were found in small rock crevices and on the brick walls of an old abandoned house respectively.

Sacred groves are forest patches dedicated to deities, which still follow traditional conservation practices. These sites usually harbour rich floral and faunal diversity (Chandrashekara & Sankar 1998), which may be due to the cultural restrictions that prevent access to the sacred groves. Many rare and threatened species of plants and animals are still well conserved in these environments (Khan *et al.* 2008). Edayilakkad Kavu has 6.4 ha of land with a rich biodiversity, whereas, Koyithatta Sree Dharma Shastha Kavu has 3.0 ha of land with evergreen vegetation in close proximity to roads and human settlements. The specimen collected from Vadakara, with less vegetation, implies that the species occurs in a variety of habitats. Therefore, we expect a wider distribution of *C. falsa* to be found.

The specimens were pinned and examined under a Labomed Luxeo 6Z stereomicroscope.

Photomicrographs were taken with a Leica DMC4500 digital camera mounted on a Leica M205 C stereo microscope. The image of the entire body was taken using a Canon 7D Mark II digital camera with 100mm F/2.8L macro lens. Specimens were identified using the original description by Rosa & Xu (2015). The specimens are deposited in the entomological collection of Shadpada Entomology Research Lab (CCSERLC), Christ College, Irinjalakuda, Thrissur, Kerala.

Chrysidea falsa (CCSERLC-14; Fig. 1) is morphologically similar to species of the genus *Trichrysis* Lichtenstein, 1876 in having three teeth on the third tergum (T3) apically (Fig. 1A, 1B) and a complete forewing discoidal cell. According to Rosa & Xu (2015), *C. falsa* can be distinguished from *Trichrysis* in having the transverse frontal carina topping the scapal basin (Fig. 1C), the sublateral pronotal carina lacking (Fig. 1D), and the differently shaped dark spots on the second sternum (S2) (Fig. 1E). *Chrysidea falsa* differs from *C. furiosa* and *C. pumila*, the previously reported species from India, in having three metasomal teeth, the latter two having only two lateral metasomal teeth (Bingham 1903). Morphometric features of the collected specimens are in agreement with the original description. According to the recent faunal checklist published, studies on Chrysididae in India are still scarce (Rosa *et al.* 2021) and more species of chrysidids can be expected in the diverse ecosystems of India.

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Plate 27

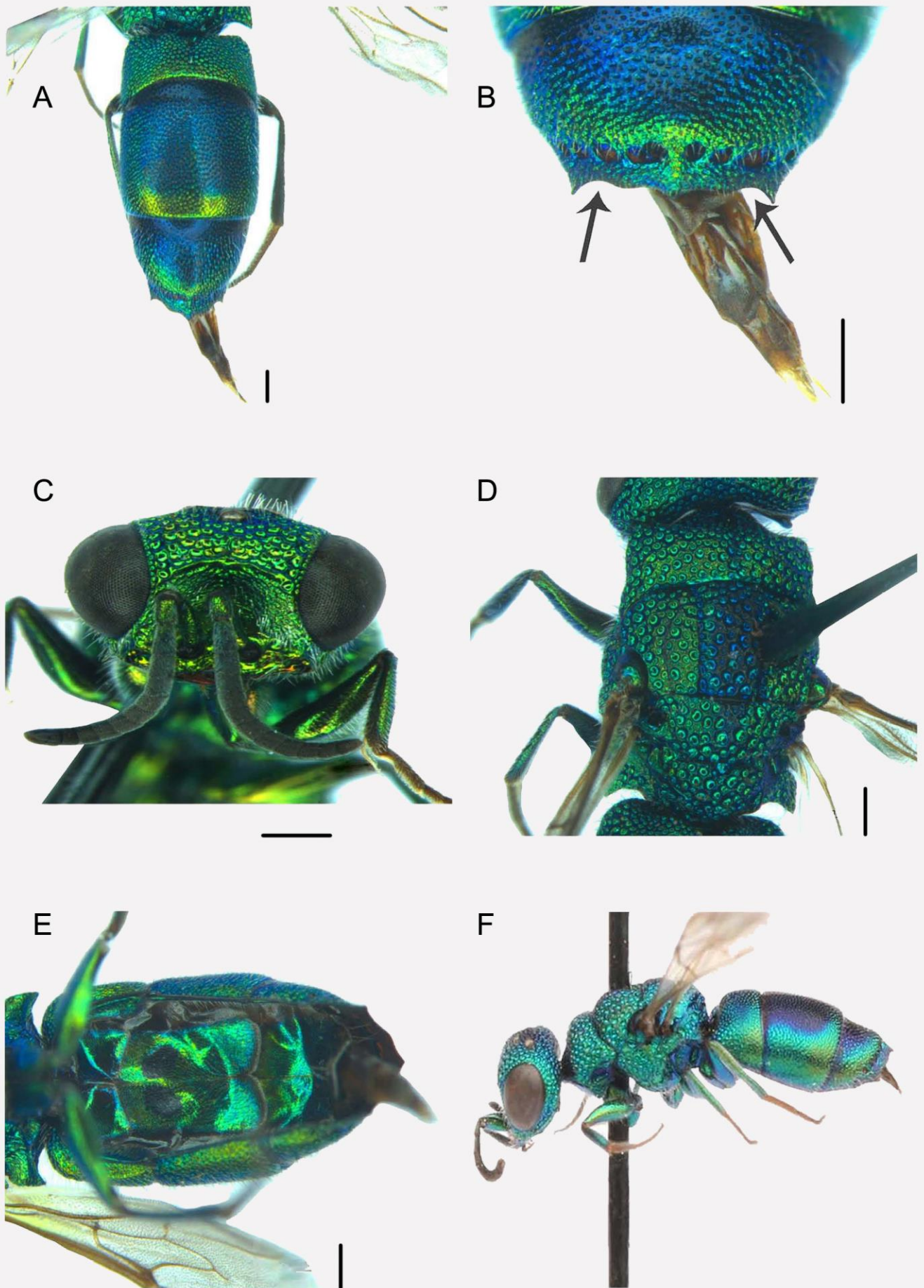


Figure 1. *Chrysidea falsa* (CCSERLC-14): (A) Metasoma, dorsal view; (B) Metasoma, posterior view; (C) Head, frontal view; (D) Mesosoma, dorsal view; (E) Metasoma, ventral view; (F) entire body, lateral view. scale: 0.2 mm