



New report of *Mesostenus transfuga* Gravenhorst, 1829 (Ichneumonidae - Hymenoptera) from Karbala Province in Iraq

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Received:	Abstract
May 18, 2022	<i>Mesostenus transfuga</i> Grav., 1829 is recorded first time in Karbala city about 100km south of Baghdad. The specimens assessed were from Karbala city. This parasitoid wasp is very imported as a bio-agent against key pests. It is important to understand the diversity of beneficial insects in the area of study and how to keep them up.
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Introduction

Cryptinae is an important subfamily in Ichneumonidae, with more than 397 genera [1]. Species of Cryptinae are normally parasitoids of Lepidopteran cocoons and some other pest orders [2]. The popular hosts of this subfamily are pupae or prepupae of endopterygota orders. Some species of Cryptinae parasitize the egg sacs of other arthropods [3]. Many species of this subfamily are idiobiont ectoparasitoids, and some genera also contain koinobiont endoparasitoids [4] *M. transfuga* Grav. has been recorded in Iraq, Egypt, Malta and Iran [5; 6; 7]. It has been reported [8] *Dichrogaster modesta* species of Cryptinae first time in Karbala/ Iraq. Therefore, this research is added a new record for this subfamily checklist Karbala.

Materials and Methods

This investigation is examined adult specimens collected from an open farm in the city of Karbala, Iraq, coordinates 32.6060° N, 44.0101° E, 14.6.2019 ♂ 3, a period between March-May 2019. Samples were kept in the Entomology lab. in Agriculture College. LabCam Pro for smart iPhone mobile connected to a microscope was used to Photograph specimens. The specimen was examined according to the identification key to species as described in [7; 6; 9]. Dr Gavin Broad in was confirmed the species level at Natural History Museum London.

Results and Discussion

Mesostenus transfuga Gravenhorst, 1829.

Diagnosis

Three males were studied. Diagnosis of species characteristics. The mean characteristics are Propodeum black, reddish hue posteriorly; coxae, trochanters and hind tibia black (Figure A, B, C, and D), 3rd and 4th hind tarsomeres unusually white; metasoma nearly red with dark apex (Figure A, B, C, and D).

Distribution

It is reported in many countries around the world [7; 8; 3;10]. New record in Iraq.

Host

It has been informed linked with many hosts of insect includes 15 families belonging to five orders and confirmed liked with *Sitotroga cerealella* Oliv. [9; 3;11;12;13].



Figure (1): Habitats male of *M. transfuga* (A) face, (B), first metasomal segment (C), forewing (D), hind leg, (tibia), hind leg (tarsus), dorsal aspect of metasoma propodeum.

In this study *M. transfuga* Grav., 1829 reported the first time in Karbala city, Iraq. Finding increases our knowledge about the ichneumonid wasp distribution in Iraq. More survey is continued to update the checklist of ichneumonid wasps in Iraq.

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