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NEW RECORD OF THE PARASITOID WASP *MONODONTOMERUS OBSCURUS* WESTWOOD, 1833 (HYMENOPTERA, TORYMIDAE) IN IRAQ

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ABSTRACT

This article reveals the first record of the parasitoid wasp, *Monodontomerus obscurus* Westwood (Hymenoptera, Torymidae) from Iraq. A total of 27 specimens were emerged from mud nests of sphecoid wasp of *Sceliphron* sp. (Hymenoptera, Sphecidae), that collected from a wall at a residential garden in Dohuk province. A short morphological description is presented.

Keywords: Dohuk, Iraq, *Monodontomerus obscures*, Parasitoid, Sphecoid wasp.

INTRODUCTION

Monodontomerus obscures Westwood, 1833 (Hymenoptera, Torymidae) was first described by Westwood (1833) from Britain; it is now widely distributed in the Palaearctic, Nearctic, Neotropical and Oriental regions (Grissell, 1995; Zerova and Seryogina, 2002; Noyes, 2017). In the Palaearctic region, it was recorded from the following countries: Azores, Bulgaria, Croatia, Czech Republic, Denmark, Egypt, France, Germany, Hungary, Iran, Israel, Italy, Kazakhstan, Lebanon, Macedonia, Moldavia, Netherland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, Turkmenistan, Ukraine, United Kingdom and Central Asia; Nearctic: Canada, United State of America; Neotropical: Chile; Oriental: India and Pakistan (Noyes, 2017).

M. obscures is gregarious parasitoid reared from cocoons and larvae of different species of Coleoptera, family Curculionidae; Diptera, family Stratiomyiidae; families Hymenoptera: Apidae, Chrysididae, Diprionidae, Sphecidae, and Vispidae; Lepidoptera, family Gelechiidae, Lymantriidae and Tortricidae (Noeys, 2017). It is reported in the Palaearctic region from the following hosts: *Hoplitis* (*Hoplitis*) *adunca* (Panzer, 1798) and *Osmia rufa* (Linnaeus, 1758) (Hymenoptera, Megachilidae) in France (Steffan, 1952); from *Eumenes pomiformis* (Fabricius, 1781) (Hymenoptera,Vespidae) in the nest of *Chlicodomas* sp. (Family, Megachilidae) and from *Sceliphron destillatorium* (Illiger, 1807) (Hymenoptera, Sphecidae), in Italy (Bouček, 1970); from *Megachile willughbiella* (Kirby,1802) (Hymenoptera, Megchilidae) in Denmark (Holm and Skou, 1972); *Xylocopa fenestrata* (Hymenoptera, Anthophoridae) in India (Sihag, 1992).

The reported Nearctic hosts include: *Osmia cornuta* (Latreille, 1805), *O. lignaria* Say, 1837 and alfalfa leafcutter bee, *Megachile rotundata* (Fabricius, 1787) (Family, Megachilidae) (Grissell, 1995). Recently Gözüaçık and Şimşek (2015) reported *M. obscures* from larvae of the cereal weevil, *Pachytychius horrdei* (Brulle, 1832) (Coleoptera: Curculionidae) in Turkey.

M. obscures has not been recorded from Iraq until now; however, it is present in two neighboring countries; Turkey (Oncuer, 1991) and Iran (Lotfalizadeh and Gharali, 2005), and now we are presenting here for the first time the occurrence of this parasitoid species in Iraq from specimens have been recently obtained from mud nests of sphecoid wasp, *Sceliphron* sp. from Dohuk province.

MATERIALS AND METHODS

A total of 15 mud nests of sphecoid wasp, *Sceliphron* sp. (Hymenoptera, Sphecidae) were collected. The nests were found in sheltered places attached to electrical wires and walls in residential garden during the month of May, 2013 and 2014 in Dohuk province north of Iraq; these nests were taken to the laboratory and placed in plastic boxes in order to get either the adult sphecoid wasp or the parasitoid. The emerged adult parasitoids were kept in vials containing ethanol alcohol 75% for the purpose of identification.

RESULTS AND DISCUSSION

Examination of the specimens, which was conducted by the first author, revealed the presence of an unidentified species of the genus *Monodontomerus* in Iraq; according to the literature available, keys and descriptions given by Gahan (1941), Zerova and Seryogina (2002) and Grissell (1995), this species is identified as *M. obscures* Westwood, 1833. This result is considered as the first record of this parasitoid in Iraq.

Diagnosis:

The *M. obscures* Westwood, 1833 can be separated from the other species of Malar furrow with a combination of the following characters:

Frenal area of scutellum with fine striation on smooth shiny background. Ovipositor as long as gaster. Fore wing at least somewhat infumate around stigma. Inner hind tibial spurs with different length. Punctured border line of scutellum apex not interrupted medially. Hind femoral tooth represented by more or less acute spine. Antennal scape in both sexes slender (not expanded). Lower margin of clypeus straight. Malar furrow present and complete; face flat or nearly so, at least not markedly swollen. Propodeum laterad of median depression very weakly sculptured, practically smooth; eyes conspicuously pilose.

Description:

A short morphological description is given here based on the Iraqi specimens for easy identification.

Female (Pl. 1): Body length 3.0-3.5 mm plus 2.5-3.0 mm ovipositor (together 5.5-6.5 mm). Body color dark green to blackish green; antenna with scape testaceous, darker toward apex; pedicel brownish; flagellum black; coxae and femora blackish tined with green, tibiae and tarsi reddish; wings hyaline, with a weak infuscation around, veins brown.

Gaster black, base beneath often more or less testaceous, tergite dorsally slightly greenish, ovipositor sheaths black. Head from above: width and length in ratio 9:4; head in frontal view: width: height ratio about 6:5, moderately clothed with white whitish hairs, face transverse in outline ; malar furrow present and complete; clypeus straight; eyes conspicuously pilose.

Antennal scape subcylndrica, nearly reaching to lower margin of anterior ocellus; pedicel a little less than twice as long as wide; ring segment about two-third as wide as long; first funicular segment subequal in length to pedicel but distinctly thicker, a little longer than wide; other segments of funicle subquadrate and not wider than first; club as wide as funicle and about as long as two preceding segments combined.

Thorax with parapsidal grooves sharply impressed; scutellum distinctly longer than wide, punctured border line of scutellum apex not interrupted medially, frenal area of scutellum with fine striation on smooth shiny background. Propodeum laterad of median depression very weakly sculptured, practically smooth. Fore wing: costal cell above with complete row along anterior margin, below with 1 to 2 complete setae rows along anterior margin; stigma somewhat squarish, stigma vein faintly stained around stigma; postmarginal vein twice as long as stigma, hind femur about 3 times as long as wide, hind femur tooth triangular; inner hind tibial spur of different length. Gaster longer than thorax, and ovipositor as long as gaster.

Male (Pl. 2)**:** Body length 2-4 mm. Similar to female, except that antenna with dark scape, first funicular segments not longer than wide, other funicular segments more transverse slightly wider than long; gasteral tergites short.

Materials examined
Dohuk 14♀♀, 3♂♂ May.2013, and 2014 ex. Mud nest of *Sceliphron* sp.

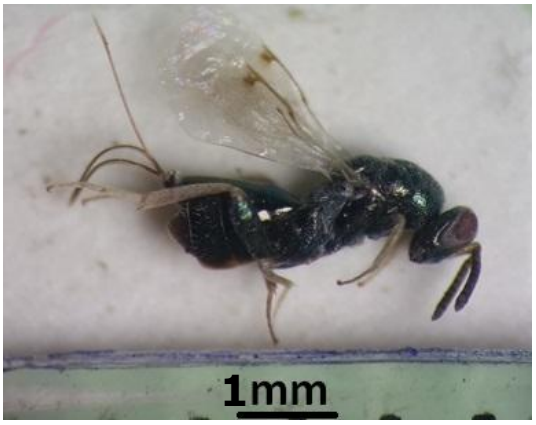

Plate (1): Female of *M. obscurus*

Plate (2): Male of *M. obscurus*

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تسجيل جديد للزنبور المتطفل *Monodontomerus obscurus* (Hymenoptera, Torymidae) Westwood, 1833 في العراق

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الخلاصة

سجلت الدراسة الزنبور المتطفل *Monodontomerus obscurus* Westwood, 1833 رتبة غشائية الاجنحة، عائلة Torymidae كنوع جديد للعراق؛ وقد جمعت 27 عينة من الطفيلي من أعشاش الطين لزنبور *Sceliphron* sp. من رتبة غشائية الاجنحة، عائلة Sphecidae ؛ التي تم جمعها من جدار في حديقة سكنية في محافظة دهوك.

زودت النتائج بوصف مختصر لاهم الصفات التشخيصية للنوع اعلاه.