

NEW RECORD OF PREDATOR *MELANTHRIPS PALLIDIOR* PRIESNER
(THYSANOPTERA: MELANTHRIPIDAE) IN BAGHDAD - IRAQ

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ABSTRACT

The predator *Melanthrips pallidior* Priesner regarded as a new record in Baghdad. The specimens were collected from alfalfa field during April 2010 to April 2011 in Abu-Gharib. Morphological characters of different body parts were studied and compared with other specimens by using taxonomic keys.

INTRODUCTION

Alfalfa *Medicago sativa* L. one of perennial plant that regarded as a good media for pests and their natural enemies in the world. The natural enemies are an important biological factors that balancing and limiting the outbreak of pests.

Thrips belong to the order Thysanoptera are divided into two suborders, suborder Terebrantia and suborder Tubuilifera (Haliday, 1836) depending on number of antennal segments and shape of sense cones, shape a tip of fore wing and number of setae on the two veins, these two suborders include over 6000 species belong to 9 families and six subfamilies (Mound & Marullo. 1996; Mound & Morris. 2007a; Mound. 2007).

There are many species of thrips feed on insects and mites and small size arthropods. *Melanthrips pallidior* Priesner was record a predator on insects of bean flowers in Turkey (Akakan.2008), also in Europe, Africa and North America on wheat (Alavie & Zurstrasn & Bagherami. 2007) and on *Tulipa gesneriana* L. and *Pyrus zommunis* L. (Kirk. 2007; Mound and Morris, 2007; Nichle, 2003, Raspudic, Ivezic,. Brmez, Trdan, 2009) the pupate found under the soil inside a fine cocoon (De Borbon, 2009).

MATERIAL AND METHODS

Specimens were collected weekly from alfalfa field in Baghdad/ Abu-Gharib from April 2010 - April 2011 by using a sweeping net about 30 sweeps from crossing lines were taken (15 sweeps from each line). The collected insects by the net were brought to laboratory for isolating, thrips mounted on a slides for identification by using keys for higher category as suborders, super families, families, genera and species (Mound and Walker, 1982; Mound & Marullo. 1996; Priesner, 1936, 1949). The specimens were compared with species that described and recorded previously. Body parts of the specimens were drawing by camera Lucida (Drawing scale for antenna was 0.001, and for the rest of body parts was 0.01) and approximately as pictures. The specimen was sand to CSIOR in Australia / Canberra to Dr. L.A. Mound to conferan their identity.

Material studies: 6 adult female Collected on xi 2010 – i. ii 2011.

RESULT AND DISCUSSION

Family Melanthripidae

Result showed that the species under study was belong to suborder Terebrantia and family Melanthripidae, this species was recorded previously under family Aeolothripidae and subfamily Melanthripinae, then transferred to family Melanthripidae. Their characters are: antenna 9 segments with linear sensory area on third and fourth segments, number and distribution of the setae on head a rounded the ocelli (post and pre ocular setae), number of longitudinal veins with across vein on fore wing, number of setae on posterior margin of pronotum, ovipositor curved upward, all of species in this family are predators, the family included 4 genera and 63 species (Mound. 2007).

Melanthrips pallidior Priesner.1919

Female (fig. 1) body 1.1 - 1.3 mm in length, dark brown -black in color, yellow fore tibia brown tarsi, body seats is dark, antenna 0.389 - 0.391 mm in length sensory area liner on third and fourth segments (fig. 3). Head is 1.5 time longer than width , compound eye prolonged, pairs of ocular seats 1,2,3 present with a series of four setae behind eye. Prothorax width is 1.3 time wider than the length with three pairs of setae on each sides of pronotum and one pair of setae on posterior angle, posterior margin of pronotum with 5 pairs of setae and one pair on pre-posterior margin. Fore wing (fig.5) 0.95-0.99 mm in length shaded with grey color with rounded apex reaching at eighth or ninth abdominal segments, veins on fore wing present with one across vein at half nearest at the base. The abdominal segments 3-9 convex toward their sides (fig.6) (fig.4 a, b, c, d, e).

The seventh antennal segment is modified and enlarged in comparison to the others and branched into 2 small segments (fig.2). This species is a new record in Iraq.

SYNONYMS

According to Priesner (1920) three synonyms for this species were recorded:

- **Melanthrips fuscus* var. *pallidior* .Sitzgsb, Priesner 1919a (Priesner. 1919a)
- * *Melanthrips fuscus*., Priesner. 1920 (Priesner, 1920)
- * *Melanthrips fuscus*., Priesner. 1926 (Priesner, 1926)

The predator which identified in this study represents an important factor in the predation in ecosystem the predator feeds on small insects and mites, and prefers a warm weather and feathery wind. Therefore, it's necessary to know how to suggest its occurrence for long time in the field, and to determine its preys and seasonal occurrence, it is very important to know the life cycle of this predator under different environmental factors and the possibility of entering the predator in biological control program.

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New Record of Predator



(Fig.1) female, *Melanthrips pallidior* Priesner (400x)

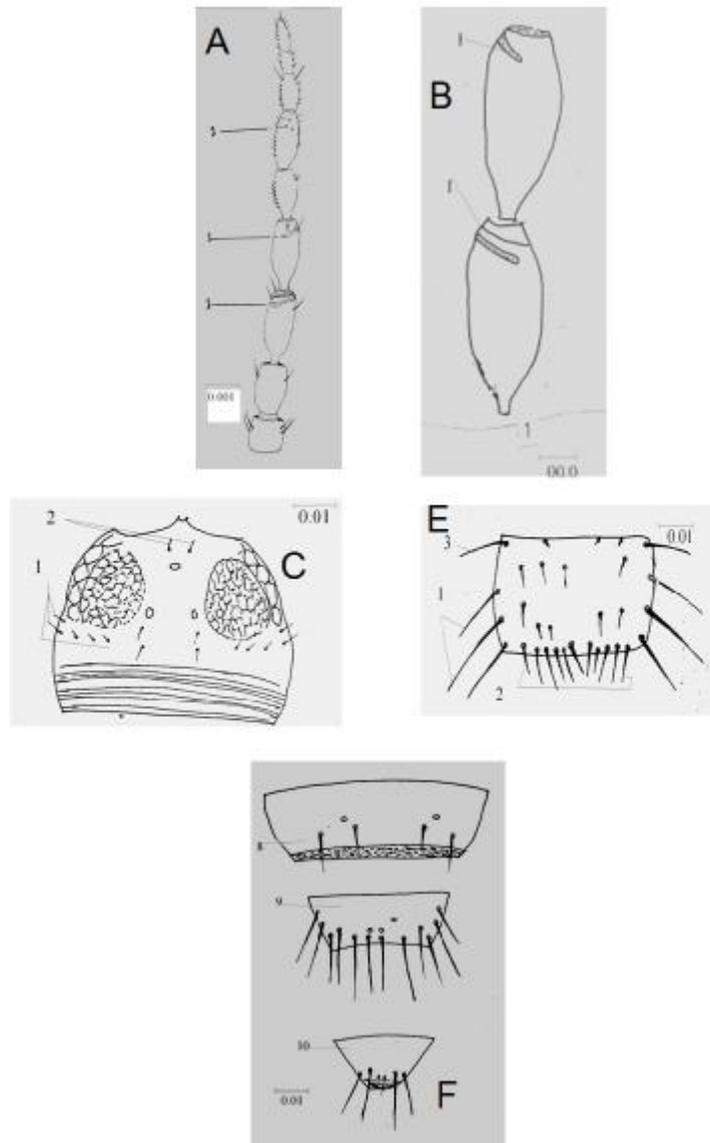


(Fig.2) modification of 7th antennal segment (1000x)



(Fig.3) segments 3rd and 4th of antenna with sensory area,
1- sensory area from ventral surface (1000x)

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(Fig.4) *Melanthrips pallidior* Priesner

a-antenna (1000x). **b**- segments 3rd and 4th of antenna with sensory area 1- sensory area from ventral surface (1000x) (scale draw:0.001). **c**- head. 1-pairs of post-ocular seats .2- pairs of pre- ocular seats (400x). **d**- prothorax. 1- plural seats, 2- post marginal seats , 3- anterior angle setae. **e**- abdominal segments 8,9,10, (400x) (scale draw: 0.01)

New Record of Predator



(Fig.5) *Melanthrips pallidior* fore wing showing the veins and the cross vein (200x)



(Fig.6) *Melanthrips pallidior* lateral curved of abdomen (400x)

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Bull. Iraq nat. Hist. Mus.
(2012) 10 (1): 11-17

تسجيل جديد للمفترس *Melanthrips pallidior* (Thysanoptera: Melanthripidae) في بغداد / العراق

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الخلاصة

تم تسجيل المفترس *Melanthrips pallidior* Priesner لأول مرة في بغداد ، جمعت الحشرات من حقل الجت خلال نيسان ٢٠١٠ - نيسان ٢٠١١ درست الصفات المظهرية لأجزاء الجسم المختلفة وقورنت الصفات مع ما ذكر في المفاتيح التصنيفية.