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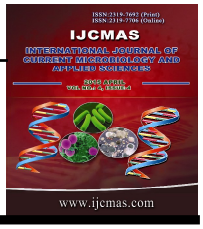

Original Research Article

First Record of Hairy Rove Beetle, *Creophilus maxillosus* (Linnaeus, 1758) (Coleoptera; Staphylinidae) for Iraq

Razzaq Shalan Augul[1]*, H. H. Al-Saffar[1], Hayder B. Ali[2] and M. S. Abdul – Rassoul[1]

[1]Iraq Natural History Research Center & Museum, Baghdad University; Baghdad, Iraq
[2]Department of Biology, College of Science, Baghdad University; Baghdad, Iraq
**Corresponding author*

K e y w o r d s

Coleoptera, Creophilus, Iraq, New record, Staphylinidae

A B S T R A C T

Hairy rove beetle, *Creophilus maxillosus* Linnaeus (Coleoptera; Staphylinidae) was registered as a new record for Iraq. Some morphological features were figured.

Introduction

Coleoptera is the second largest order of forensic insects, with several necrophagous representatives, most being predators but their feeding habit may change between larval and adult stages. The species of Coleoptera increase in number both of individuals and species during advanced stages of decomposition in open environment and are absent or less represented indoors (Goff, 1991). Beetles are encountered in great numbers during the faunal succession process; moreover their biological traits may be used to estimate the *post mortem* interval; the family of Staphylinidae is one of the most diverse lineages of Coleoptera, with representatives occupying every conceivable non-marine niche (Caterino *et al.*, 2005).

The family Staphylinidae occupies almost all moist environments throughout the world. Because none of them is truly aquatic, they do not live in open waters; although winged adults may be skimmed from the sea surface far from land, their presence is due to misadventure but attests to their dispersive ability. They live in the leaf litter of woodland and forest floors and grasslands (Paulian, 1941; Moore and Legner, 1976; Newton *et al.*, 2000).

Creophilus maxillosus (Linnaeus**)** is one of the many forensically important insect species commonly encountered during crime scene investigations. This species can be used in investigative forensic entomology to aid in establishing a time of colonization or post mortem interval (PMI), both of which

usually prove helpful in general crime scene investigation. Hairy rove beetles are considered forensically important, however; their use is somewhat limited due to their transient nature and widespread distribution. *C. maxillosus* frequency at crime scene investigations conducted in their natural habitat often disqualifies them from being an indicator of body relocation (Matuszewski *et al.*, 2008).

Although the forensic importance of rove beetles, their faunistic knowledge in Iraq remains incipient, Abdul-Rassoul *et al.* (2010) were surveyed of adults Coleoptera in Baghdad on exposed carcasses; but the results did not record species belonging to this family.

In this paper, the additional information about coleopteran fauna of Iraq was made.

Materials and Methods

On 2 May 2013, a rat laboratory *Rattus norvegicus* killed by using chloroform; and placed in a metal cage (mesh diameter 3 cm) and exposed to direct sunlight in the garden of the Iraq Natural History Research Centre & Museum – Bab-Almudham, Baghdad province. Adult beetles were captured by forceps and put in the test tubes, and then sampling were killed by freezing for 24 hours, and then mounted on entomological pins. Specimen photographs were taken with a Dino light microscope and a Samsung galaxy S4, GT-19500.

Many different keys were used to diagnostic the family, subfamily and species such as: Cameron (1930) and Brunke *et al.* (2011).

Result and Discussion

In this study, the species of *Creophilus maxillosus* (Linnaeus) belongs to subfamily Staphylininae (Coleoptera; Staphylinidae) was registered as a new record of Iraqi fauna, which collected from exposed rat carcass *Rattus norvegicus* in decay stage, these specimens had been found feeding on the larvae of *Chrysomya albiceps* (Wiedemann) (Diptera; Calliphoridae), this result agreement with Matuszewski *et al.* (2008) and who confirmed that this species associated with predation of Diptera larvae, which is one of the most important secondary predations encountered at crime scenes.

They feed on carcasses (from the hours after death to the advanced stages of decomposition), as well as on maggots that tend to be on dead animals. This species was registered in Iran (Samin *et al.*, 2011a,b) and Turkey (Bana and Beyarslan, 2012; Kökdener and Polat, 2014).

Creophilus maxillosus (Linnaeus)

Staphylinus maxillosus Linnaeus, 1758, Syst. Nat., ed. X, p. 421

Materials: 2 males were collected in this study at 14.V.2013.

Distribution: North America, the West Indies, the entire Palearctic region (Newton *et al.*, 2000), Chile, Argentina (Navarrete - Heredia *et al.*, 2002) and Peru (Asenjo and Clarke, 2007).

Color (Plate1), body and hairs black with exception the some pubescences white on anterior angles of pronotum, gray hairs on elytra and abdomen.

Body length 15–19 mm; head bare except for the temples; antennae short, the last five flagellomeres forming a club and broader than long; pronotum bare except narrowly on the side margins, disc of pronotum glabrous without punctures; white pubescence on the anterior angles of the

pronotum; elytra covered with short dense hairs forming a broad irregular transverse gray band across them, exposed part of abdomen also with thick variegated gray hairs.

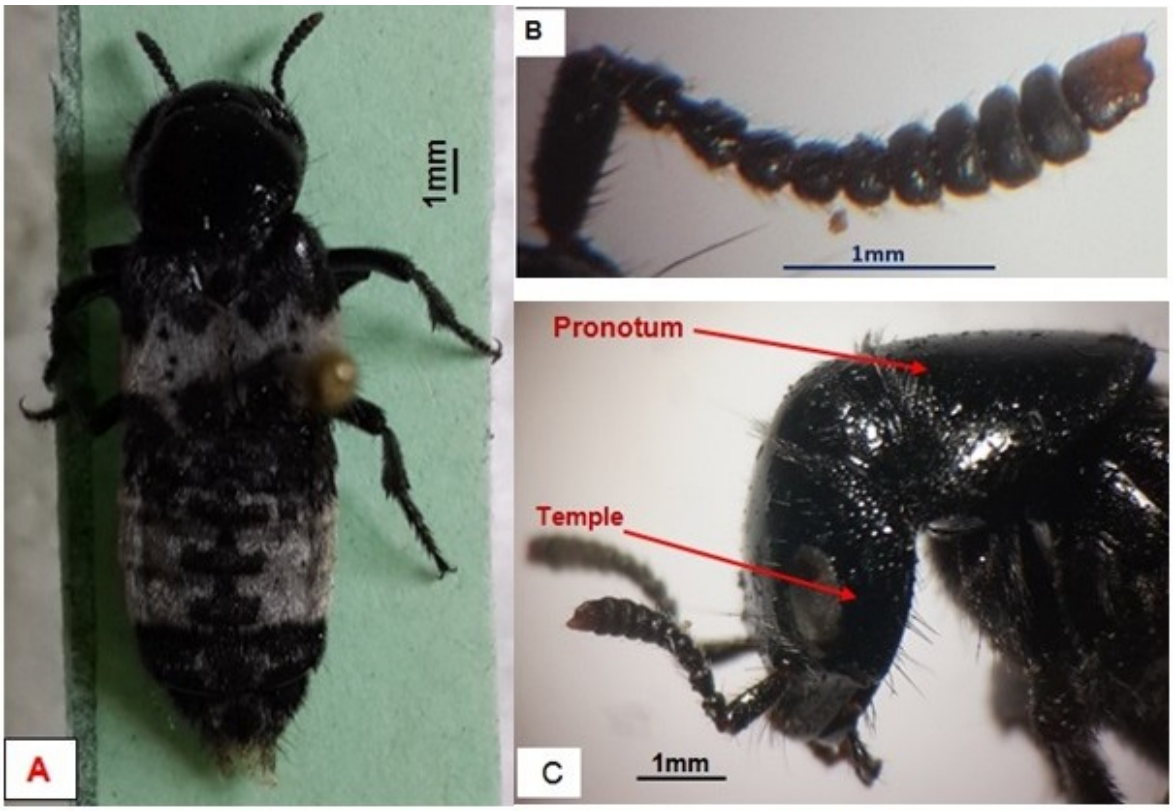

Plate (1) male of ***Creophilus maxillosus*** A) habit B) antenna C) head and pronotum (lateral view)

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