Bull. Iraq Nat. Hist. Mus. (2011) 11 (3): 25-33

# A NEW SPECIES OF *RHYNCOMYA* ROB.-DESVOIDY, 1830 (DIPTERA : CALLIPHORIDAE) FROM IRAQ \*

N. A. Mawlood\*\* and M. S. Abdul-Rassoul \*\*\*

\*\*Education College Diyala university \*\*\*Iraq Nature Museum History Baghdad University

### ABSTRACT

This research includes a detaile description of new species *Rhyncomya irakensis* sp. nov. from Iraq.

Localities distribution, host plants and data of collection were recorded.

### INTRODUCTION

*Rhyncomya* Rob.-Desvoidy is one of small genus from family Calliphoridae which contains 18 species (Peiris, 1951; Rognes, 1998).

Some species unknown bionomics, the other visted the flower (Kurahashi et al., 1997).

Taxonomic revision of the genus carried out by (Zumpt, 1956; Zumpt and Tasacas, 1976; Deeming, 1996; Fan, 1997).

*Rhyncomya irakensis* sp. nov. Body: Gry yellowish, 7.4 - 6.0 mm length. 2.8 - 2.2 mm width.

Male: Head (fig. 1a) yellow; Inner vertical bristles slightly curved;

Postvertical bristles short and equal one-third of length of inner ones;

Compound eyes holoptic, dark brown, oval shaped, 2.0 - 1.8 mm length, 1.1 - 0.9 mm width, occupy about third-fourth of the anterior region of the head, narrow point is in quarte apical 0.06 - 0.03 mm; Frons Redish -Redish brown with pale yellow dust; Parafrontal narrow with pale yellow dust and 3 - 2 shorte setae, each sides with 8 - 7 of bristles; Frontal stripe wide from the basal, 0.26 - 0.21 mm length and gradually tappering forward the vertex, its narrow pointed is in qurter apical 0.03 - 0.01 mm; Face yellow with yellow dust and 3 - 2 setae; Parafacial yellow with yellow dust and 3 - 2 shorte setae, its upper surface with small, circular, and black spot without dust; Antenna (fig. 1b) yellow with yellow dust, 1st segment cup shaped with numerous of short setae, 2nd segment cup shaped longer twice and half time than 1<sup>st</sup> ones, its outer margin with a pair row of short setae and one long bristle, 3<sup>rd</sup> segment cylinderical shaped, 0.42 - 0.38 mm length; Arista pubescent very long 0.91 - 0.87 mm length; Vibrissae slightly curved and non-crossed; Epistoma yellow; Oral margin with a row of long bristles; Maxillary palp(fig. 1c) clup shaped, 0.91 - 0.84 mm length, outer margin of apical half with a row of bristles; Mentum (fig. 1d) dark brown, nearly triangle shaped, with moderate dense of bristles and brown setae.

<sup>\*</sup> Part of PH.D. Thesis

### The Knowledgeo of the Genus Chalcophorella

Labrum-epipharynx (fig. 1e) cone shaped, with 10 - 9 bristles, its apodeme yellow, 1.1 - 1.0 mm length; Oral lobs small, oval shaped with different length of long, yellow setae; Prestomal teeth yellow.

Femal head similar to the male but outer vertical bristles is present; 1 pair of reclinate and 2 pairs of proclinate fronto-oribital bristle; Compound eyes cirular shaped, 1.7 - 1.6 mm length, 0.8 - 0.7 mm width; Frontal stripe wide.

- Thorax: Scutum grey, scutellum yellow, each with slivery dust and moderate, dense, short and black setae; chaetotaxy:- acrostichal bristles. 2+3; dorsocentral bristles 2+3; notopleural bristles 2; humeral bristles 3; posthumeral bristles 2; intra-alar bristles 1+2; supra-alar bristles 2; presuture bristle 1; post-alar bristles 2; scutellum bristles 3+1; propleural bristle 1; stigmatal bristle 1; sternopleural bristles 1:1; pleuron grey with dark slivery dust; mesothracic spiracels oval shaped, yellow, 0.56 0.49 mm length; prosternum grey, with slivery dust and long, crinkley, pale white setae; mesopleuron grey, with dark slivery dust and without setae, its lower margin with 4 3 long bristles; hypopleuron with dark slivery dust, its lower margin with a row (7 6) long bristles, metathoracic spiracels yellow, circular shaped; sunbanal knob kidney shaped with dark slivery dust.
- Wings: Hyaline, basicosta yellow; dorsal surface of stem vein with a row of short yellow setae; subcostal sclerite without setae; node without setae; apical cell very narrow 0.05
  -0.03 mm length; thoracic squqma circular shaped with fine yellow pubescent; upper squama similar to the thoracic squama but smaller; tympanic membrane with comb of long pale yellow setae; halters yellow.
- Legs: Yellow, fore femure with a pair rows of long bristles on the posterodorsal surface, a row of long bristles on the posteroventral surface; fore tibia with a row of moderate dense bristles on anterodorsal surface, 1bristle on the anteroventral surface; mid femure with a row of bristles on the posteroventral surface; mid tibia (fig. 2a,b) with 3bristles on the anterodorsal surface, one bristle on each anteroventral and posteroventral surface; hind femure with a row of bristles on the anterodorsal surface, and non-complete row on anteroventral surface; hind tibia (fig. 2c,d) with arow of bristles on anterodorsal surface, tow bristles on posterodorsal surface.
- Abdomen: Dark yellow witj grey dust; posterior margin of T1+2 without bristles; posrerior angle of each tergits with circulrr black spot; sternites in male (fig. 2e) dark yellow with grey dust, 1<sup>st</sup> nearly cup shaped without setae; st 2 nearly triangle shaped; st 4 3 oval shaped; st 4 2 with moderate dense of black setae and 5 4 of long bristles; st 5 with deep incision posteriory and formed bilobed sclerite with moderate dense, long, black bristles; Abdomen in female similar to those in male but differ by tergites without black spots, 5 st oval shaped.
- Male terminalia: Tergite 6 (fig. 3a) yellow, its hind margin with 5 4 long bristles; sternite 6 (fig. 3b) nearly ring shaped, its left arm reach to the syntergosternite 7+8, right arm is short and failing to reach to the syntergosternite 7+8; syntergosternite 7+8 (fig. 3c) with lowestly dense of short bristles and four very long bristles; Tergite 9 (fig. 3d) short, its arms strongly curved, the distance among its apical 0.09 0.05 mm; Paralobs (fig. 3e) semiparrel, cyliderical shaped, its one-third basal with dark yellow of long bristles, and its one-third apical with 5 4 very short dark yellow bristles; Anal cerci (fig. 3f) with a broad basal which strongly tapper forword the apical, its one-third

### Wand Kh. Ali

basal with dark yellow of long bristles; Phalloapodeme (fig. 3g) cylinderical shaped, with antero median flange, 0.35 - 0.31 mm length, Pregonite (fig. 3h) with a row of bristles on posterior margin and apex. Postgonite (fig. 3i) cylinderical shaped, with one long bristle near the apex; Phallus (fig. 3j) striaght, short, 0.09 - 0.05 mm length, basiphallus recatingle shaped, 0.17 - 0.12 mm length, epiphallus nearly hook shaped, equal to length of basiphallus, paraphallus 0.42 - 0.35 mm length, paraphallus process l -inversed shaped, 0.31 - 0.24 mm length, its apical pointed and curved, membrane distance among basiphallus and paraphallus process very short 0.05 - 0.03 mm, hypophallus oval shaped, its outer margin with minute teeth which directed to the upper, acrophallu very short, cylinderical shaped; Ejaculatory sclerite short 0.26 - 0.22 mm and moderately expanded.

Female terminalia: Segments short, teloscopic, Tergite 6 (fig. 4a) yellow, its posterior edge with a row of different length bristles, spiracles 6 and 7 located in this tergite; sternite 6 (fig. 4b) yellow nearly recatangular shaped, its posterior edge with a row of short bristles and with four long bristles on one-third apical; Tergite 7 (fig. 4c) is composed essentialy of two oval longitudinal plates, which may be widely separated, fused at their posterior medial ends, which provided with a row of short bristles; Sternite 7 (fig. 4d) with oval shaped basal, its surface with moderate dense of short bristles; Tergite 8 (fig 4 e) consist of two cup shaped plates which flanks the ovipositor, their surface without bristles; Sternite 8 (fig. 4f) triangle shaped, with numerous of short bristles; Epiproct (fig. 4 h) triangular shaped, with fine brown pubescent, its surface with 36-34 short bristles, Anal cerci (fig. 4j) oval shaped, its half apical with moderate dense of bristles; Spermatheca yellow, oval shaped, 0.26-0.21 mm length, without a nipple-like projection.

*Rhyncomya irakensis* sp. nov. closely realted to *R. peusi* Zumpt but differ from it by the following characters :-acrostichal bristles 2+3; dorsocetral bristles 2+3; intra-alar bristles 1+2, supra-alar bristles 2, scutellum bristles 3+1; fore tibia with 3 bristles on the anterodorsal surface, ibristle on each anteroventral and posteroventral surface; paralobs equal to length of anal cerci; epiphallus hook-like, membrane distance among basiphallus and paraphallus process narrow.

Host plant : Weeds Material examination 1 ♂ (Holotype), 1 ♀ (Paratype) Coll. 15 / 5 / 1999 (Leg. N. A. Mawlood) The types were preserved in Iraq Natural History Museum.

# LITERATURE CITES

- Deeming, J. C. 1996. The Calliphoridae (Diptera : Cyclorrhapha) of Oman. Fauna of Saudi Arabia 15: 264-279.
- Fan, Z. 1997. Fauna Sinica. Insecta Vol. 6. Diptera: Calliphoridae. Science Press, Beijing. Ixii + 707pp. (in Chinese with English. summary of keys and new taxa).
- Kurahashi, H.; Benjaphong, N. and Omar, B. 1997. Blow flies. (Insecta: Diptera: Calliphoridae) of Malaysia and Singapore. Raff. Bull. Zool., 5, 1-88.

## The Knowledgeo of the Genus Chalcophorella

- Peris, S. V. 1951. Descriptiones preliminares de nuevos Rhiniini (Diptera : Calliphoridae). Eos, Madrid 27: 237-247.
- Rognes, K. 1998. Contribution to a manual of Palaearctic Diptera. Vo: 3, Higher Brachycera. Published by Science Herald, Budapest. 617-648.
- Zumpt, F. 1965. Myiasis in man and animals of the Old World. A textbook for Physians. veterinarians and zoologists London. Iv +267 pp.
- Zumpt, F. and Tsacas, L. 1976. The *Rhynchomya callpis*-group sensu Seguy (Diptera; Calliphoridae). J. Nat. Hist. 10: 347 -349.

Wand Kh. Ali



# The Knowledgeo of the Genus Chalcophorella







The Knowledgeo of the Genus Chalcophorella



Wand Kh. Ali

Bull. Iraq Nat. Hist. Mus. (2011) 11 (3): 25-33

# *RHYNCOMYA* ROB.-DESVOIDY, 1830 نوع جديد من DIPTERA : CALLIPHORIDAE) في العراق

أ. د. نبيل عبد القادر مولود\*\* و أ. د. محمد صالح عبد الرسول\*\*\*
 \*\*قسم علوم الحياة / كلية التربية/ جامعة ديالى
 \*\*\*متحف التاريخ الطبيعي/ جامعة بغداد

# الخلاصة

يتضمن هذا البحث وصف تفصيلي لنوع جديد للعلم -.Rhyncomya irakensis Rob في العراق. سجلت مناطق توزيع الحشرة وعوائلها النباتية وتاريخ جمعها.