

وصف نوع جديد من الخنافس الزهرية لينة الأجنحة

(Coleoptera: Malachiidae) *Malachius* Fabricius, 1775 في العراق

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الملخص

تم وصف نوع جديد من الخنافس الزهرية لينة *Malachius ranciasia* sp. nov. في العراق. الأجنحة

الصفات التشخيصية للنوع هي، الفكوك العليا ثنائي السن . اللآمس منشاري فيه العقلة ١١

انبوبية ١،٢ مرة

بقدر طول العقلة العاشرة . الجزء القمي للقضيب أنبوبي والقاعدي اسطواناني الشكل .

الكلمات المفتاحية : رتبة غمدية الأجنحة ، عائلة Malachidae، نوع جديد ، العراق

A new species of soft-winged flower beetles, *Malachius* Fabricius, 1775 (Coleoptera: Malachiidae) from Iraq

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ABSTRACT

A new species of soft-winged flower beetles, Malachiusraniansis sp. nov. is described and illustrated from Iraq. Distinctive characteristics for this species are Mandibles bidental; Antenna serrate, 11th segment tubular shaped 1.2 times as long as 10th segment. Apical part of aedeagus nearly tubular, basal cylindrical shaped.

Key words : Coleoptera , Malachiidae, New species; *Malachiusraniansis sp. nov.* , Iraq.

1. INTRODUCTION

Malachiidae are a large family in the superfamily Cleroidea. The family numbers over 1.400 species in the Palearctic region [1], they are commonly known as soft-wing flower beetles. The adults occur commonly on flowers and evidently feed on other insects as well as on pollen[2].[3] found insect fragments in the guts of adults belonging to several species. Larvae are usually predacious, but may also be scavengers [4] . [5] mentioned that the larvae are primarily predators, occurring in various habitats but most commonly in soil, leaf litter or under bark, some larvae feed on locust egg pods. The taxonomy of the family is in poor condition. There are no recent revisions or taxonomic treatments of the Nearctic and Palearctic species; therefore the list below reflects our best effort at achieving a list based on available literature. A key to the genera will be found in [6]. [7] gives a key to the species from the Pacific Northwest. Classification, distribution and economic important of malachiid beetles were treated by many investigators [8,9,10,11,12]. In Iraq there are not any taxonomic study of the family species except; [13] indicated 10 species in six genera and [14] recorded six species.

2. RESULTS

Description

Malachiusraniansis sp. nov.

Body: Cylindrical, dark reddish, length 6.1-8.0 mm, width 3.1- 4.2 mm.

Head: Oval, with narrow black sutural edge. Eyes black, rounded. Vertex shine black weakly convex, densely black setose and fine punctate .Coronal suture present. Frons shiny black, slightly concave, densely black setose, fine punctate . Clypeus slightly concave, triangular laterally, sparsely black setose, fine punctate. Labrum (Fig.1a) nearly globular, pale yellow, sparsely pale yellow setose, anterior margin slightly concave. Mandible (Fig.1b) yellow - dark brown, high sclerotized, apical part bidentics, inner denticles slightly shorter than the outer, scrob sparsely setose ,moler aria bare. Maxilla (Fig.1c) dark brown, cardo triangular, distal part of galea triangular, apical part membranes

densely yellow short setose, lacina membranes apical part densely short dark yellow setose, maxillary palp four segmented,

1-3 segments of nearly cup shaped, 2nd segment 1.3 times as long as 3rd segment, 4th segment elongated oval, 1.2 times as long as 3rd segment. Antenna (Fig.1d) serrate, length 0.4-0.5 mm. dark brown except the basal part of 2nd segment yellow, 1st segment rectangular, 1.1 times as long as 2nd segment, 2nd segment semi-rounded, 3rd-10th segments nearly cup shaped, 4th segment 1.2 times as long as 3rd segment, 11th segment tubular 1.2 times as long as 10th segment. Labium dark brown, 1st-2nd segments of labial palp triangular, 2nd segment 1.3 times as long as 1st segment. 3rd segment cylindrical as long as 2nd segment.

Thorax: Pronotum shiny black, with two reddish brown rectangular spots laterally, surface densely white setose, randomly irregular punctate, anterior margin of slightly concave, posterior margin rounded at the middle, anterior and posterior margins with row of pale white setae, anterior and posterior angle rounded, procoxal cavity open, prosternum black, rectangular, sparsely black setose, anterior margin of prosternum straight, prosternal process nearly globular. Scutellum shiny black, semi rounded, surface sparsely fine punctate. Elytra (Fig.1e) reddish brown simple at the tip, ¼ of apical part black, surface densely black setose, fine punctate. Epipleural dark black, short black setose, fine punctate. Hind wing pale brown, veins brown – dark brown, radial cell oval, wedge cell oval elongated. Fore legs brown – dark brown, fore-femur cylindrical, tibia tubular, 1.2 times as long as the femur, black sparsely setose. 5th segment of protarsal 1.5 times as long as 1st segment. Middle legs brown, coxa oval, trochanter oval, 5th segment of mesotarsal 1.4 times as long as the 1st segment. Hind legs brown, coxa conical, trochanter oval, 5th segment of metatarsal 2.2 times as long as the 4th segment. Claws dark brown, shot slightly curved.

Abdomen: Shiny black, oval, six segmented, surface densely black setose, densely randomly irregular punctate. 1st-4th abdominal sternite transverse same length. 5th sternite cup shaped, 1.2 times as long as the 4th. 6th abdominal sternite brightly black, nearly cup shaped, anterior margin slightly concave, posterior

margin nearly straight , surface sparsely black setose .6th tergites, dark brown, cup shaped ,anterior edge straight , posterior slightly concave. Spiculumgaster absent.

Male genitalia: Aedeagus (Figs.1g,h,i) pale brown, tubular, length 2.6-3.0 mm, apical part nearly tubular, basal hood pale brown, low sclerotized, nearly hook shaped.Tegmen(Fig.1f) pale yellow, nearly quadrate shaped, anterior part slightly concave, posterior margin V-shaped at the middle, its arm nearly clavate ,high sclerotized.

Type Material

Holotype(♂) :Iraq - Kurdistan region; Erbil-Rania,330 km N Baghdad, 4.April. 2014 from whit top, *Cardariadraba*, H.Q.Hammamurad leg., Paratype (7 ♂♂ ,6 ♀♀): from same locality and date, the holotype is kept in the Insect Museum of College of Agricultural-Erbil, Kurdistan region –Iraq.

Diagnosis :*Malachiusraniansissp. nov.*This species differs from closely related species *Malachiusmirandus*(LeConte) by the following characters: body dark reddish, length 6.1-8.0 mm . Antenna serrate, dark brown except the basal part of 2nd segment yellow.Aedeagus pale brown, tubular , basal part nearly cylindrical shaped . length 2.6-3.0 mm.

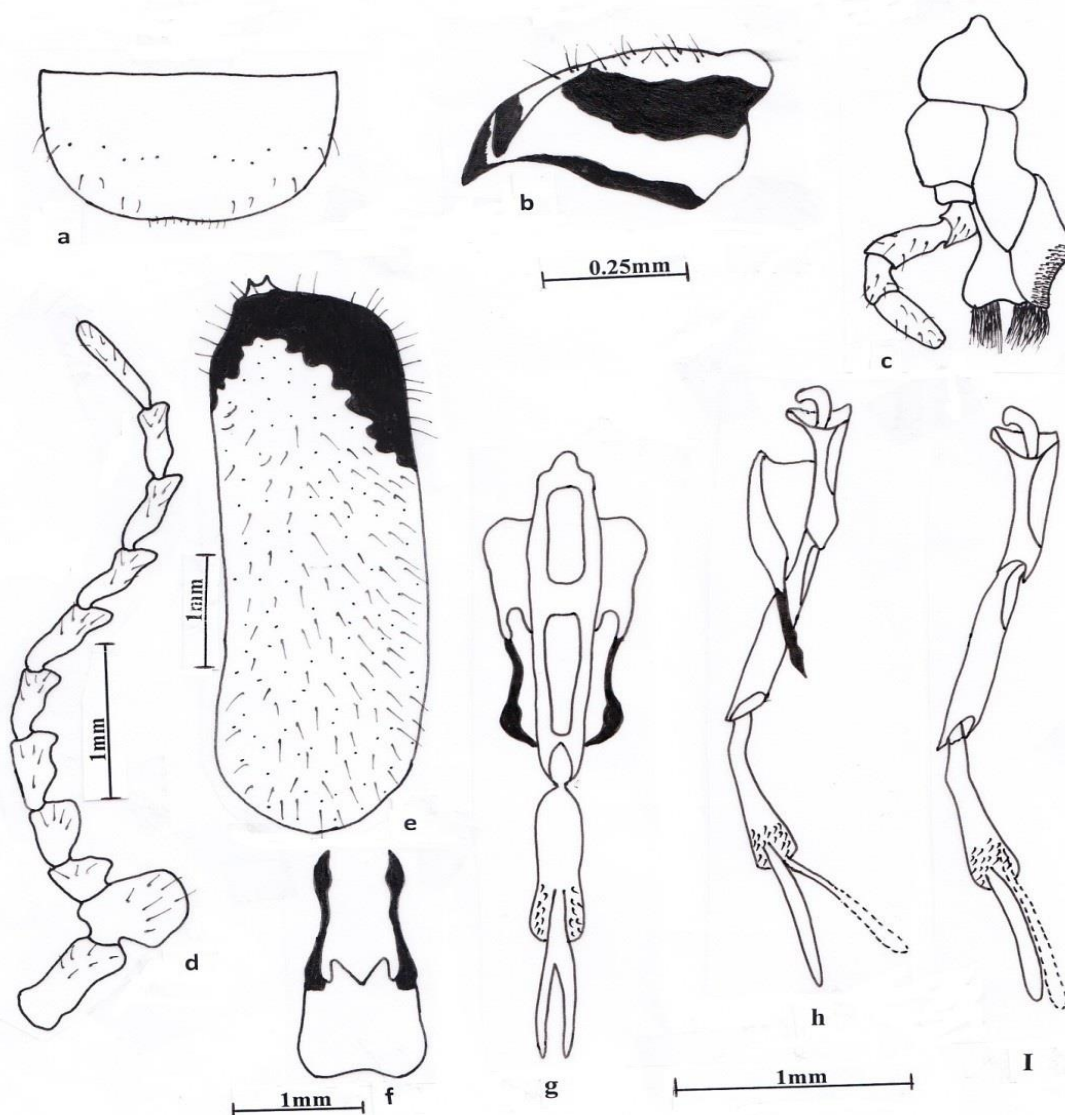


Figure 1: *Malachiusraniansis* sp. nov.

a. Labrum b. Mandible c. Maxilla d. Antenna e. Elytra
f. Tegmen g. Male genitalia (dorsal view) h- i. Male genitalia (lateral view)

REFERENCES

- [1]A. Mayor, 2007, Malachiidae. In: Lobl. I. and smetana, A.(eds.): Catalogue of palaearctic Coleoptera. Vol. 4. Elateroidea-Derodontoidea- Bostrichoidea- Lymexyloidea- Cleroidea- Cucujoidea. Apollo Books, Stenstrup, 935pp.
- [2]T.J. Hawkeswood,1987, Notes on some Coleoptera from *Baechea stenophylla* F.Muell. (Myrtaceae) in new South Wales, Australia. G. Ital. Entomol., 3:285-290.
- [3]R.A.Crowson, 1964, A review of the classification of Cleroidea (Coleoptera), with descriptions of two new genera of Peltidae and of several new larval types. Roy. Entomol. Soc. London. 116 (12) :275-327 .
- [4]G.Fiori, 1971, Contributi alla conoscenza morfologica ed etologica dei Coleotteri-ix.*Psilothrix viridicaeruleus* (Geoffr.)(Melyridae: Dasytinae). Studi Sassaresi, 19:3-70.
- [5]R.A. Farrow, 1974, A modified light-trap for obtaining large samples of Night- flying locusts and Grasshoppers. J. Aust. Ent. Soc., 13:357-360.
- [6]R.H. Jr. Arnett, 1968, The beetles of the United states(A manual for identification),American Entomological Instliute, Ann. Arbor. Mich., 1112pp.
- [7]M.H. Hatch, 1962, The beetles of the pacific north west. Part III: Pselaphidae and Diversicornia I. Uni. Washn. Pub. Bio.16: ix+ 503pp.
- [8]A. M. J. Evers, 1985, Distribution of the Palaearctic species of the genus complex of *Malachius* F. 54th Contribution to the knowledge of the Malachiidae.Entomologische-Blatter-fur Biologie-und-Systematik-der-Kafer . 81(1-2): 1-40.
- [9]A. Arefnia, and S. E.Tshernyshev , 2004 , First record of *Laiusvenustus*Erichson, 1840 (Coleoptera, Malachiidae) in Iran. Euroasian Entomol. J., 3(1): 32.
- [10]V. Svihla, and J. Hajek , 2009 , Taxonomic changes in Eastern Mediterranean *Malachius* (Coleoptera: Malachiidae). ActaEntomol. Mus. Nati. Pragae, 49(1): 217-224.



- [11]P. Bahillo De La Puebla, and J.I.Lopez-Colon ,2009, La familia Malachiidae Fleming, 1821 en la comunidad Autónoma Vasca (Coleoptera: Cleroidea). Heteropterus Rev. Entomol., 9(1): 25-42.
- [12]V. V. Mirutenko, 2010, A review of the beetles of the families Malachiidae and Dasytidae (Insecta: Coleoptera) of the Ukrainian Carpathians and Trans-carpathian Lowland. Ukrainska entomofaunistyka, 1(1): 1-21.
- [13]A.I. Derwesh, 1965, A preliminary list of identified insects and arachnids of Iraq. Direct. Gen. Agr. Res. Proj. Baghdad. Bull., No.121:123pp.
- [14]A.S. Al-Ali, 1977, Phytophagous and entomophagous insects and mites of Iraqi Natural History Research center, publishing, No. 33 , 142pp.

