

**A New species of comb-clawed beetles, *Mycetochara* Berthold, 1827 From Erbil - Iraq
(Coleoptera: Alleculidae)**

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ABSTRACT

Key words:

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A new species of comb-clawed beetles, *Mycetochara erbilensis* sp. nov. was described, illustrated and compared with other related species from the region. The distinctive characters of species are, thread like antennae. Combed nails of the hind tarsi that show fine teeth.

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**وصف نوع جديد من خنافس ذات المخالب المشطية *Mycetochara* Berthold, 1827 في اربيل - العراق
(Coleoptera: Alleculidae)**

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الخلاصة

تم وصف نوع جديد من خنافس ذات المخالب المشطية *Mycetochara erbilensis* sp. nov. في اربيل - العراق, كما تم رسم ومقارنته مع الأنواع القريبة منه. وجد بان الصفات التشخيصية المميزة لهذا النوع هي: اللامس خيطي الشكل، المشط الموجود على رسغ الأرجل الخلفية ذات أسنان ناعمة.

الكلمات المفتاحية:

وصف، نوع، الخنافس ذات المخالب المشطية.
للمراسلة:

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INTRODUCTION

The family Alleculidae (Coleoptera) is similar in most respects to the Tenebrionidae but may readily be distinguished by having the tarsal claws pectinate. The family identified with the following combination of characters: 5-5-4 tarsal formula, anterior coxal cavities closed posteriorly by the proepisterna, and the tarsal claws pectinate (Campbell, 1971; Watt, 1974; Novak & Petterson, 2008). The genus *Mycetochara* Berthold, 1827 was defined by anterior coxae close to each other and most of them possess uniformly-coloured and possess flat, elongated body (4 - 9 mm in length). Also the species can be distinguished from other weevils which belong to the family Tenebrionidae by the presence of abridged sternum's appendix between coxa of the first pair. The preimaginal stages of some species are obligatory associated with necrotic, humid wood of many deciduous tree species, namely: oak, beech, maple, birch and poplar (Burakowski *et al.*, 1987). Novak and Pettersson (2008) recorded 52 species from Palearctic region. Novak *et al.*, (2013) described, and illustrated the new species, *Mycetochara mersinica* Novak sp. nov. in Southern Turkey and compared with other species. Since there is no definitive list of Iraqi Alleculidae except five species from four genera had been recorded by different authors (Derwesh, 1963; Abdul-Rassoul, 1976 and Al-Ali, 1977, Mawlood *et al.*, 2016a).

MATERIALS AND METHODS

Specimens were studied under a binocular stereomicroscope. Measurements were made with an ocular micrometer. The specimens were placed in boiling water for 10-15 minutes to soften their parts. Then the parts were separated and put in 10% KOH which placed in water bath for 10-15 minutes. After that placed in distilled water for 2-3 minutes in order to neutralize the alkali. The parts are placed in ethyl alcohol 25% and dissected under microscope, then transferred to ethyl

alcohol 50%, 75% and 100% respectively for two minutes of each concentrations to dehydration of water, then placed in xylol for two minutes, for translucency, finely placed in D.P.X solution to support slides for subsequent examination under microscope (Lane and Crosskey, 1993; Mawlood1 *et al.*, 2016b). The Important parts drawing by a digital camera (Ucma series microscope camera) was used to photographing the important parts.

RESULTS AND DISCUSSIONS

Mycetochara erbilensis sp. nov.

Type material: Holotype (♂) labeled; Iraq – Erbil - Shaqlawa, 360km NW Baghdad, 8. April. 2017 from Hoary cress, *Lepidium draba* , Abbas M. Faraj leg., Paratype (5 ♂♂ 4 ♀♀): the same data as holotype. The holotype is kept in the Insect Museum of Directorate General of Agricultural Research - Ministry of Agriculture-Erbil – Iraq.

Diagnosis: Material and new species from Iraq was examined and compared with type material of *Mycetochara erbilensis* sp. nov. : This species differs from closely related species *Mycetochara amersinica* Novak by the following characters: Elytra uniform, pale brown reaching to the one-sixth of elytral base. Hind tarsal claws with 4 visible teeth. Apical piece of aedeagus tubular shaped laterally.

Description

Body: Yellowish brown, oval elongated, slightly convex. Length 5.6mm.

Head: brown relatively small and broad, with dense, coarse, large granulation. Vertex dark brown, highly granulated. Frons nearly triangular, highly granulated. Eyes large, transverse, space between eyes relatively narrow. Labrum (Fig.1a) yellow, nearly cup shaped, posterior margin slightly convex, surface sparsely yellow setose and punctuation. Mandibles (Fig. 1b) dark brown - black, apex with single acute tooth, scrobe sparsely setose, molar area microstation. Maxilla pale brown (Fig.1c), apical part of galea spherical, densely brown setose, lacinia tubular, apical part densely brown setose, Palpomeres 2-4 distinctly narrowest at base and broadest at apex. penultimate palpomere is the shortest, Second palpomere longest, distinctly broader at apex, 1.3 times as long as third, each sparsely pale brown setose, Ultimate palpomere, axe-shaped. Labium (Fig.1d) Brown, Ultimate palpomere, expanded oval, moderate densely fine dark brown setose. Antennae (Fig.1e) brown, thread like, length 2.1mm with micro granulation, densely short, fine brown setose, 1st antennomere oval 2 times, antennomere 2 shortest, 3rd antennomere as long as 4th , 4th – 6th nearly same length, antennomeres 7– 8 same length , 9th antennomere 1.1 times as long as 10th and 1.2 times as long as 11th antennomere.

Thorax: dark brown, densely microscopic setose with coarse granulation, anterior angle rounded, posterior angle triangular. Prosternum brown, rectangular, sparsely fine yellow setose. Posterior edge of Prosternum with row of short brown setae. Prosternal processes road-like, sparsely fine yellow setose. prosternum cavities closed. Scutellum, triangular, brown with coarse granulation. Elytron long parallel, pale brown, length 4.3mm, surface densely short ,dark brown setose, elytra surface consist of nine striae covered with fine and dense, simple punctures , interstices of striae finely punctured, flat, not raised. Epiplura well developed yellowish brown, sparsely punctate. Hind wing yellow , stigma oval , no extended to apical margin , 3rd radius vein very short arise at the middle and joined with stigma, medial spur no reached to internal margin ,R-M loop moderately broad forming acute angle. Legs, yellow-brown, densely short, brown setose, fore coxae nearly spherical, fore femora cylindrical, fore tibia elongated oval 1.2 times as long as femur. Tarsal formula almost always 5-5-4. 1st segment of protarsal 2 times as long as 2nd segment, 2nd segment nearly 3 times as long as 3rd segment, 3rd segment 1.8 times as long as 4th , segment 4th segment is the smallest, 5th segment nearly 1.2 times as long as 2nd segment, both protarsal tarsal claws with 6 visible teeth. Middle legs resemble with fore legs except, coxa conical, mesotarsal claws with 5 visible teeth. Hind legs resemble with fore legs except, coxa plate shaped, metatibia thickened at the middle. Hind tarsal claws with 4 visible teeth.

Abdomen: Five segmented, densely short brown setose, 1st abdominal sternite taprazoidal, 2nd -4th abdominal sternite rectangular, 2nd segment is the largest 1.2 as long as the 3rd. 3rd segment 1.1 as long as the 4th. 5th segment semioval, posterior margin oval, surface densely short, dark yellow setose. 8th abdominal sternite (Fig.1f) bilobed, triangular, apical parts densely, short, brown setos. 9th abdominal sternite (Fig.1g) bilobed, nearly clavate shaped, apical part densely long, dark brown setose. Tegmen (Fig.1h) yellow, bilobed nearly triangular shaped, lateral arms long joined at nearly one fifth of apical part.

Male genitalia: Aedeagus (Fig.1 i, j) pale brown, slightly curved, Length 1.2mm. Basal piece oval laterally and almost parallel dorsally, length 0.85mm. Apical piece triangular dorsally, tubular shaped laterally, length 0.35mm. Peins knife shaped 0.15mm length. Ratio of length of apical piece to length of basal piece 1: 3.1.

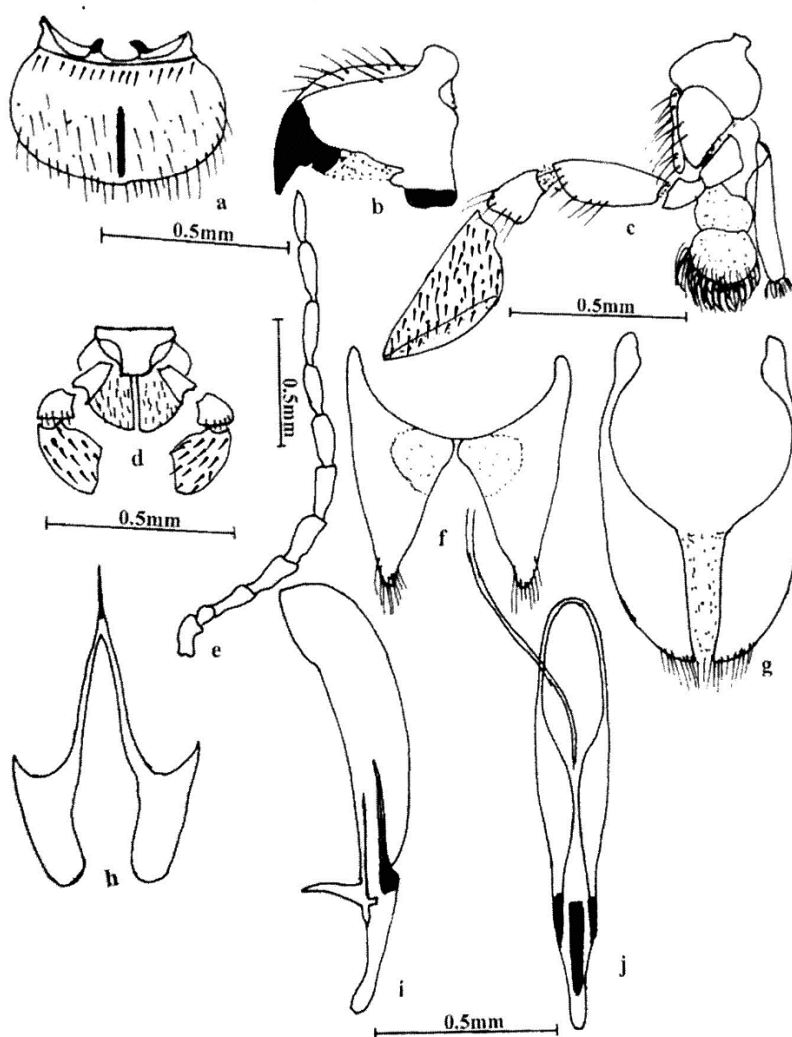


Figure (1) *Mycetochara erbilensis* sp. nov.

a. Labrum b. Mandible c. Maxilla d. Labial palp e. Antenna f. 8th
abdominal sternite g. 9th abdominal sternite h. Tegmen i. Aedeagus
(Lateral view) j. Aedeagus (Ventral view)

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