



A New species of comb-clawed beetles *Cteniopus* Solier, 1835 (Coleoptera: Alleculidae) from Erbil Governorate Kurdistan Region-Iraq

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ABSTRACT

A new species of comb-clawed beetles, Cteniopus erbilensis sp. nov. from Erbil governorate Kurdistan region-Iraq was described and illustrated .

The important taxonomic features have been drawn. Locality, host plant and date of the collection have been mentioned.

Keywords: (Coleoptera: Alleculiidae). New species. Kurdistan region-Iraq.

وصف نوع جديد من خنافس ذات المخالب المشطية

Cteniopus Solier, 1835 (Coleoptera: Alleculiidae)

في محافظة أربيل – إقليم كردستان العراق

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الملخص

تم وصف نوع جديد من خنافس ذات المخالب المشطية *Cteniopus erbilensis* sp. nov. في محافظة أربيل – إقليم كردستان العراق. كما تم رسم الأجزاء المهمة تصنيفياً. ذكرت منطقة إنتشار النوع، وتاريخ جمعه وعائلته النباتي .

الكلمات الدالة: (Coleopter: Alleculiidae). نوع جديد من الخنافس. إقليم كردستان – العراق .

1. INTRODUCTION

The family Alleculidae has always been thought to be closely related to Tenebrionidae, and the only constant character separating the adults is the possession of pectinate tarsal claws by the former [1]. [2] Divided the family into two subfamilies, the Alleculinae and the Omophlinae. The subfamily Alleculinae was characterized by having the following combination of characters: 5-5-4 tarsal formula, the eyes usually deeply emarginate anteriorly, the apical segment of the maxillary palpi expanded and much larger than the penultimate segment; and the apex of the mandibles cleft [3], [4], and [5]. [6], [7] Mentioned that the larvae were found mainly in rotten wood, and the adults on foliage flowers and under the dead

bark. About 50 species of Alleculidae are listed in the catalogue of Palaearctic Coleoptera [5]. These beetles can mainly be encountered in sunny places on inflorescences of Apiaceae and Asteraceae species, especially *Achillea* species. The Iraqi Alleculidae fauna has been poorly studied so far with only species from genera having been recorded by different authors [8], [9] and [10].

2. TYPE MATERIAL

(♂) (Holotype) Iraq - Kurdistan region: Erbil-Taq Taq, 15. April. 2013 from Haory cress, *Lepidium draba*, N. A. Mawlood leg., Paratype (7♂♂ 8 ♀♀): from same locality, the holotype is kept in the Insect Museum of Erbil – Iraq.

3. *Cteniopus erbilensis* sp. nov.

DIAGNOSIS

Cteniopus erbilensis sp. nov. This species differs from close related *Cteniopus sulphureus* (Linnaeus) by the body is yellowish brown, length 7.6-8.1mm. Tip of antenna pale brown. Anterior tarsal claws with 15teeth. Mesotarsal claws with 14 teeth. Metatarsal claws with 8 teeth.

BODY

Yellowish brown, oval elongated, moderately convex. Length 7.6-8.1mm.

HEAD

Small, dark yellow, upper side matt, without setation, only upper of eyes with sparse and very short microscopic setation. Head length 2.6-2.9mm. Head broadest across eyes, width 1.7-2.1mm. Eyes relatively small, black, nearly oval, slightly emarginated at the middle. Surface of head with conspicuous soft microsculpture, matt, relatively densely but very shallowly punctate, densely fine pale brown setose. Labrum (Fig. 1a) yellow, nearly cup shaped, posterior margin moderately emarginated with row of short microscopic setae, lateral and surface of labrum sparsely setose. Mandibles (Fig. 1b) yellow, only 1/3 of apex black, apex with single acute tooth, scape sparsely setose, molar are with row of fine, short yellow setae. Maxilla (Fig. 1c) yellow, galea cylindrical shaped, sparsely yellow setose, apex densely yellow setose. Maxillary palpus, ultimate palpomere brown, secuiiform, as long 2nd palpomere, surface densely fine brown setose. Antennae (Fig. 1d) filiform, pale brown, slightly longer

than half of body length. First antennomere oval, 1.7 times as long as 2nd, second antennomere which is the shortest, 3rd - 11th antennomeres same length 0.5-0.7mm of each. Antennomeres with sparse brown setation, 1st and 2nd segments of labial palp yellow, 3rd segment brown, seciiform.

THORAX

Pronotum brown-dark brown, slightly shiny, with very sparse microscopic short setae in pore-punctures with fine granulation, matt. Length (in middle) 1.6-1.9mm; broadest at half 2.0-2.4mm. Base slightly curved, posterior angle slightly acute, anterior angle rounded, Pronotal sides regularly rounded. Prosternum brown, rectangular, sparsely fine yellow setose. Prosternal processes needle-like, sparsely fine yellow setose. Elytron light yellowish brown. Length 5.2- 6.5mm, two times longer than wide, surface with densely short yellow setose. Elytra epiplura well developed yellowish brown with sparse yellow setose. Elytra surface with small punctures. Scutellum dark yellow with very short light setose. Hind wing yellow. Legs brown, entire legs covered in relatively dense brown setose. Femora cylindrical, strong. Tibia tubular, narrowest on base, broadest on rounded apex, surface sparsely short brown spinose and densely short brown setose. Tarsal formula almost always 5-5-4, 1st segment of protarsal two times as long as 2nd segment and as long as 5th segment. 1st segment of mesotarsus 1.2 times as long as 2nd segment and 1.3 as long as 5th segment. 1st segment of metatarsal 1.8 times as long as 2nd segment and 1.7 as long as 5th segment; Ratio of relative lengths of tarsomeres from base to apex as follows: protarsus: 0.45: 0.18: 0.17: 0.40: 0.45; mesotarsus: 0.55: 0.50: 0.43: 0.40: 0.45; metatarsus: 0.55: 0.32: 0.27: 0.35. Claws pectinate, anterior tarsal claws with 15 teeth. Mesotarsal claws with 14 teeth. Metatarsal claws with 8 tooth.

ABDOMEN

Six segmented, densely short brown setose, surface punctated, with fine granulation, matt, pore-punctures very small-sized and shallow. 5th sternite dark yellow, semispherical. 6th tergite transverse, light yellowish brown, anterior margin strait, posterior margin slightly concave at the middle, surface sparsely fine, short yellow setose. 6th sternite cup shaped, light yellowish brown, anterior and posterior margins strait.



MALE GENITALIA

Eight tergite (Fig. 1e) darkly yellowish, nearly cup shaped, anterior angles black and acute, lateral margins and surface sparsely brown short setose. Eight sternite (Fig. 1f) inverted U-shaped, surface sparsely yellow setose, posterior margin with row of fine yellow setose. Gastra spicula (Fig. 1g) yellow, inverted nearly Y-shaped, apical arm short nearly rod shaped, lateral arms long, clavate shaped. Aedeagus (Fig. 1h, i) light yellowish dark yellowish, slightly curved at the middle. Length 1.8-2.2mm. Apical piece regularly triangular, half of basal piece regularly rounded, apical half of basal piece straight and linear. Apical part acute and sclerotized. Lateral processes of median lob small. Ejaculatory duct dark yellow, narrowest tubular.

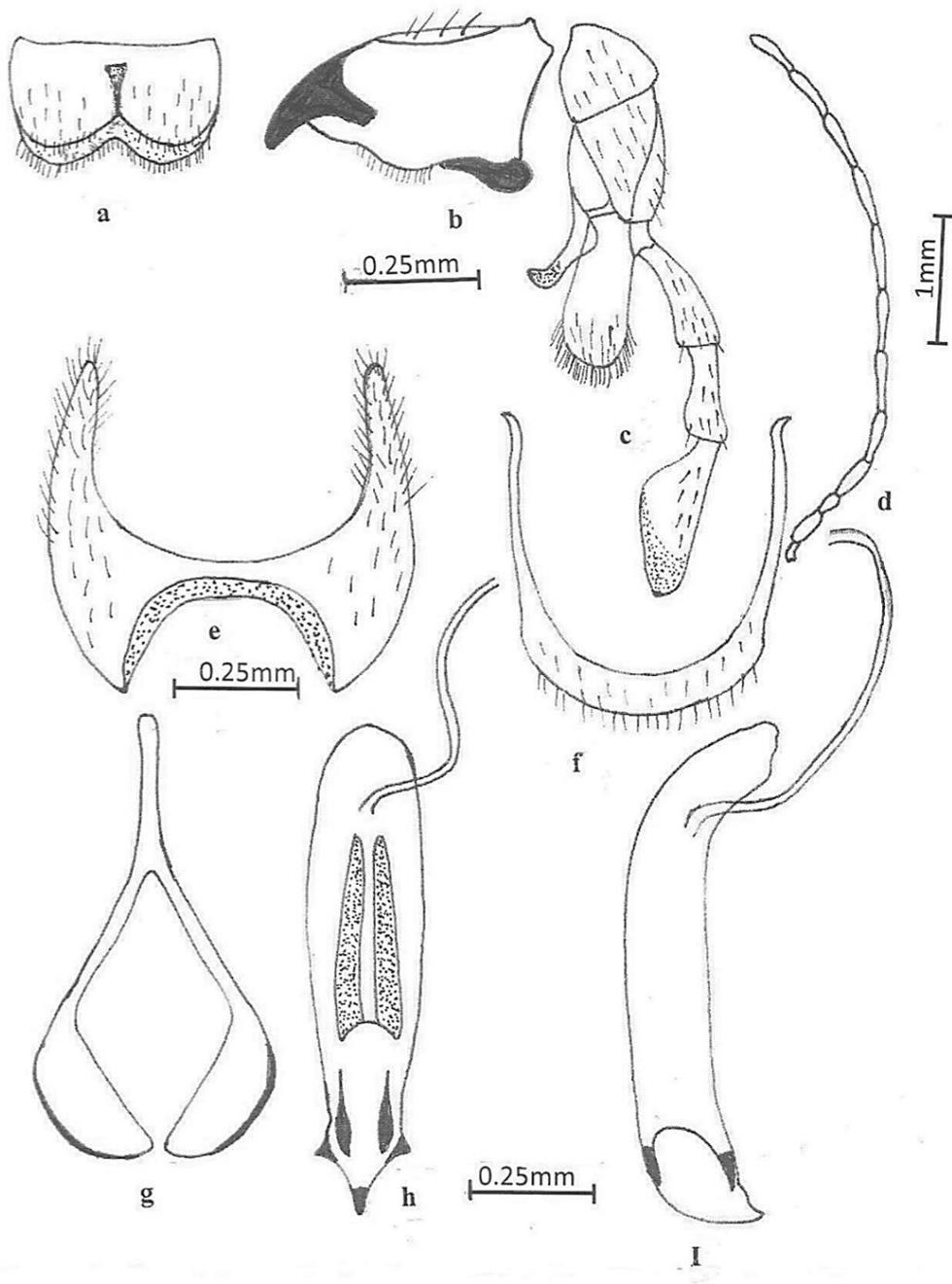


Fig. (1): *Cteniopus erbilensis* sp. nov.

- a. Labrum b. Mandible c. Maxilla d. Antenna e. Eight abdominal tergite
 f. Eight abdominal sternite g. Gastra spicula h. Aedeagus (Ventral view)
 i. Aedeagus (Lateral view)



FEMALE GENITALIA

Ovipositor nearly cup shaped with small styli, coxites partly fused with valvifers paraprocts and proctiger often with rod-like thickenings.

The female similar with male but different in the following characters: body yellowish brown. Tip of antenna pale brown. Each Anterior and Mesotarsal claws with 7 teeth while Metatarsal claws with 9 tooth.

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REFERENCES

- [1] J. C. Watt a revised subfamily classification of Tenebrionidae (Coleoptera) 1974, New Zealand Journal of Zoology, 1(4): 381-452.
- [2] G. Von Seidlitz Naturgeschichte der Insecten Deutschlands. Alleculidae 1896, Band 5 (pt. 2).
- [3] J. M. Campbell and J. D. Marshall the ocular index and its application to the taxonomy of the Alleculidae (Coleoptera) 1964, Coleopterists' Bull. 18:42.
- [4] J. M. Campbell A revision of the Alleculidae (Coleoptera) of the West Indies 1971, Memoirs of the Entomological Society of Canada 103: 7-140.
- [5] V. Novak and R. Petterson Alleculinae, pp. 319–339. In: Löbl, I. and Smetana, A. (Eds), Catalogue of Palaearctic Coleoptera, Vol. 5. Tenebrionoidea 2008, Apollo Books, Stenstrup, 670 pp.
- [6] F. D. Bluck Handbooks for the identification of British insects 1954, Roy. Entomolo. Soc. 5(9): 30pp.

[7] D. J. Borrer and D. M. Delong An introduction to study of insects 1954, New York, Rinehart and company 1030 pp.

[8] A. I. Derwesh A preliminary list of identified insects and arachnids of Iraq 1965, Direct. Gen. Agr. Res. Proj Baghdad. Bull. No. 121-123.

[9] M. S. Abdul-Rassoul Checklist of Iraq Natural History Museum Insects Collection 1976, Nat. Hist. Res. Cent. of Iraq Pub. (30).

[10] A. S. Al-Ali Phytophagous and entomophagous insects and mites of Iraqi 1977, Natural History Research Center Publishing 33:142pp.

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