

РОССИЙСКАЯ АКАДЕМИЯ НАУК
Южный Научный Центр

RUSSIAN ACADEMY OF SCIENCES
Southern Scientific Centre

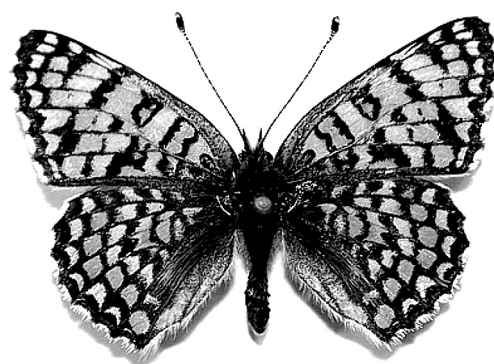


Кавказский Энтомологический Бюллетень

CAUCASIAN ENTOMOLOGICAL BULLETIN

Том 7. Вып. 1

Vol. 7. No. 1



Ростов-на-Дону
2011

Two new species of the genus *Entomogonus* Solier, 1848 (Coleoptera: Tenebrionidae) from Turkey

Два новых вида рода *Entomogonus* Solier, 1848 (Coleoptera: Tenebrionidae) из Турции

M.V. Nabozhenko¹, V. Tichý²
М.В. Набоженко¹, В. Тихий²

¹Southern Scientific Centre, Russian Academy of Sciences, Chekhov str., 41, Rostov-on-Don 344000 Russia. E-mail: nalassus@mail.ru

²Institute of Microbiology, Opatovický mlýn, Třeboň 37981 Czech Republic. E-mail: vtichi@alga.cz

¹Южный научный центр РАН, ул. Чехова, 41, Ростов-на-Дону 344000 Россия

²Институт Микробиологии, Опатовский млын, Требонь 37981 Чехия

Key words: Tenebrionidae, Helopini, *Entomogonus*, new species, Turkey.

Ключевые слова: Tenebrionidae, Helopini, *Entomogonus*, новый вид, Турция.

Abstract. Two new species of the genus *Entomogonus* Solier, 1848 are described from Eastern Turkey (provinces Malatya and Adıyaman): *E. bialookii* sp. n. and *E. makovskyi* sp. n. Both species included in the subgenus *Delonurops* Reitter, 1922 and close to *E. egregius* (Seidlitz, 1896) and *E. clavimanus* Reitter, 1922.

Резюме. В статье описываются 2 новых вида рода *Entomogonus* Solier, 1848 из Восточной Турции (провинции Малатья и Адьяман): *Entomogonus bialookii* sp. n. and *Entomogonus makovskyi* sp. n. Оба вида включены в подрод *Delonurops* Reitter, 1922 и наиболее близки к *E. egregius* (Seidlitz, 1896) и *E. clavimanus* Reitter, 1922

Introduction

Species of the genus *Entomogonus* Solier, 1848 are widespread in Turkey, Syria, Armenia and Azerbaijan (Nakhichevan). 11 from 13 known taxa are inhabit Turkey. Last revisions of this group were made by Reitter [1903, 1922]. One species from South-Eastern Turkey (province Antalya) was described in morden period by Ferrer and Soldati [1999]. Later review of the genus of Transcaucasus was made by Nabozhenko [2002].

Reitter [1922] divided this genus on 3 subgenera: nominative, *Delonurops* Reitter, 1922 and *Eutelogonus* Reitter, 1922. *Eutelogonus* is doubtful subgenus because it differs only in more clear and long sutural emargination of elytra on apex. This character is variable in the genus and can not be used for subgeneric taxonomy. The species which was included by Reitter in the subgenus *Eutelogonus* possibly concern to the subgenus *Delonurops*. Status of *Eutelogonus* can be established after studying of types and big material.

Two new species of the genus *Entomogonus* from Eastern Turkey are described in this paper. *E. bialookii* sp. n. and *E. makovskyi* sp. n. concern to the subgenus *Delonurops* and have typical characters: not angle-shaped outer margins of pronotum without strangulation in base, fore tibiae of male mace-shaped, fore and middle tarsi widened. Both species are close (on description) to *E. egregius* (Seidlitz, 1896), described on one female from

Antalya and *E. clavimanus* Reitter, 1903 from Armenia. Reitter [1922] cited *E. egregius* also for Erzurum, but it is improbable.

Material

This paper is based on material from the collection of Vladimir Tichý. Types of new species are deposited in National Museum Prague [NMP] (Czech Republic) and Zoological Institute of Russian Academy of Sciences [ZIN] (St.-Petersburg, Russia).

Entomogonus bialookii Nabozhenko et Tichý, sp. n.
(Fig. 1, 2, 5, 7, 8, 11, 12, 13, 15, 17)

Description. Male. Body slender, elongated, matt, black, pronotum with weak bluish shade. Head widest at level of eyes. Eyes large, convex. Ratio of head width at eyes to distance between eyes – 1.8. Genae moderately rounded in the middle. Outer margin of head at the meeting-point of gena and clypeus without clear emargination at each side. Head very weakly and widely depressed between frons and clypeus. Punctuation of head moderately coarse, dense, punctures 1.5–2 times as wide as distance between them. Ventral side of head covered with short, recumbent reddish setae. Antennae long, their 4 apical segments extending beyond base of pronotum. 9th and 10th antennomeres weakly asymmetric, flattened and widened, 11th segment strongly asymmetric and flattened.

Pronotum weakly transverse (1.08 times as wide as long), widest at middle, 1.5 as wide as head. Outer margins of pronotum weakly angle-shaped rounded, almost straight from middle to anterior margin and weakly widely sinuated from middle to base. Anterior margin very weakly widely emarginated, base straight. Anterior angles weakly obtuse, posterior – almost rectangular. Outer margins and base clear rimmed, rim of anterior margin interrupted in the middle. Disc of pronotum visibly evenly convex, lateral sides not flattened. Punctuation of pronotum sparse, not coarse, diameter of punctures visibly less than distance between them; punctuation at middle more sparse, punctures without clear margins. Propleura with very unclear rasp-shaped puncturation, in the base passing in granulation and the smoothed wrinkles. Outer side of propleura rimmed. Prosternal process with expressed tubercle, which is clearly separated from base of process (lateral view).

Elytra strongly elongated (2 times as long as wide), widest

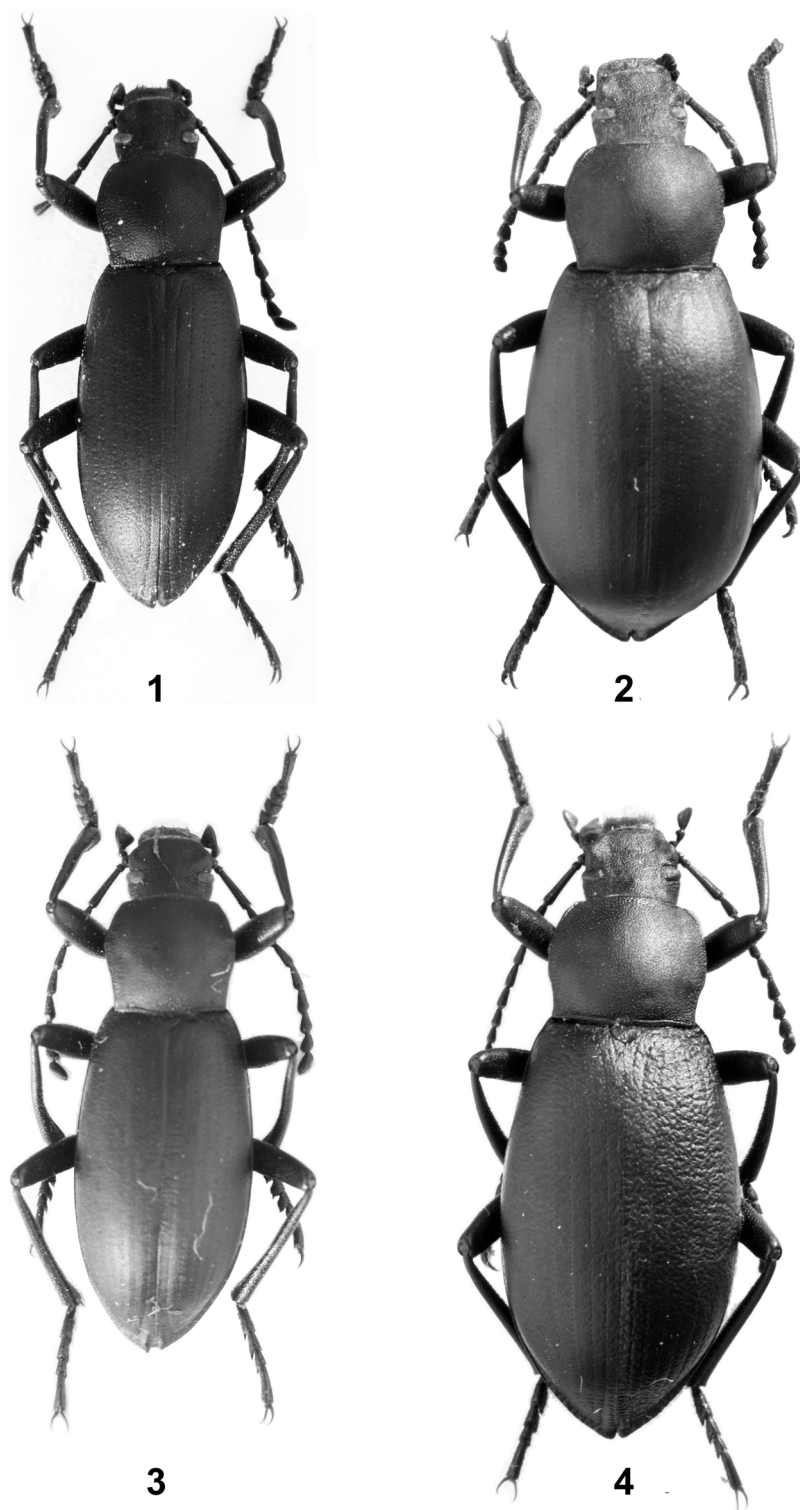


Fig. 1–4. New species of *Entomogonus*, habitus.

1, 2 – *E. bialookii* sp. n.; 3, 4 – *E. makovskyi* sp. n. 1, 3 – male; 1, 4 – female.

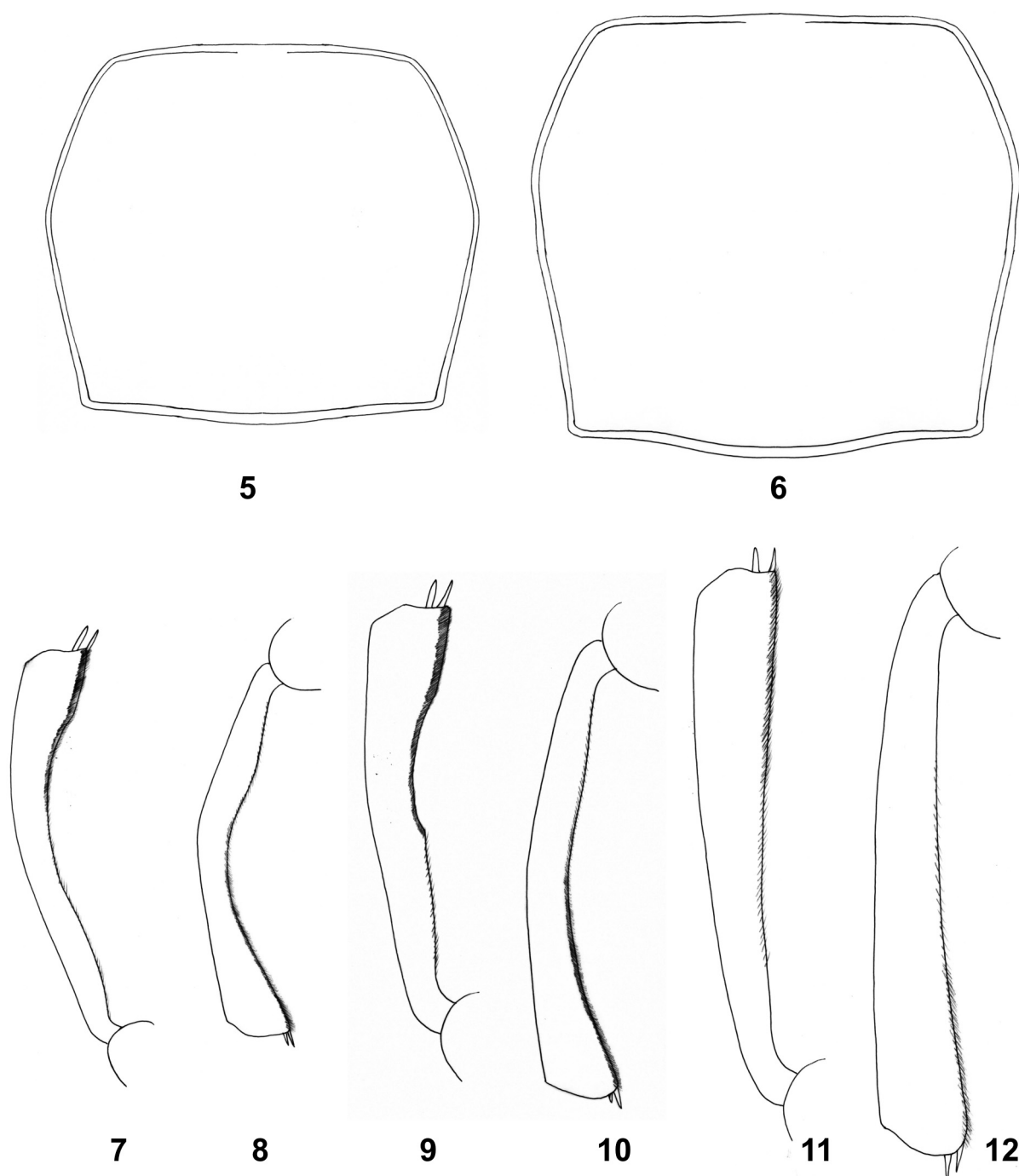
Рис. 1–4. Новые виды рода *Entomogonus*, внешний вид.

1, 2 – *E. bialookii* sp. n.; 3, 4 – *E. makovskyi* sp. n. 1, 3 – самец; 1, 4 – самка.

behind the middle, 1.3 times as wide and 2.8 as long as pronotum. Punctures in striae round, small, not merged in entire furrows. Intervals with sparse and fine punctation, with 2–3 punctures in transverse section. Apex of elytra with obtuse processes, which are

not merged together completely. Base of elytra at level of humeral angles wider than base of pronotum.

Abdominal sternites with dense fine puncturation and dense longitudinal rugae, covered with fine recumbent dark reddish

Fig. 5–12. *Entomogonus*, pronotum and tibiae.

5, 7, 8, 11, 12 – *E. bialookii* sp. n.; 6, 9, 10 – *E. makovskyi* sp. n. 5, 6 – pronotum of male; 7, 9 – protibiae of male; 8, 10 – mesotibiae of male; 11, 12 – pro- and mesotibia of female.

Рис. 5–12. *Entomogonus*, переднеспинка и голени.

5, 7, 8, 11, 12 – *E. bialookii* sp. n.; 6, 9, 10 – *E. makovskyi* sp. n. 5, 6 – переднеспинка самца; 7, 9 – передние голени самца; 8, 10 – средние голени самца; 11, 12 – передняя и средняя голень самки.

hairs. Anal sternite completely rimmed.

Fore tibiae strongly arcuated, mace-shaped widened apically. Outer margin of protibiae regularly bent, inner side widely emarginated. Thickness of tibiae (lateral view) regular almost from base (where tibiae are more thin) to mace at apex. Inner side of protibiae covered with very dense brush of black-reddish long hairs. Mesotibiae strongly angle-shaped arcuated, more thick in the basal half than in the middle, regularly strongly widened

from middle to apex. Metatibiae straight, inner side very weakly widely emarginated in middle. 1–3 segments of fore and middle tarsi weakly widened. Protarsi more widened than mesotarsi, with weakly transverse segments. All tarsi with brush of black-reddish hairs on sole.

Body length 14.5 mm, width – 5 mm.

Female. Body massive, broad. Antennae short, only 2 their apical segments extending beyond base of pronotum. Pronotum

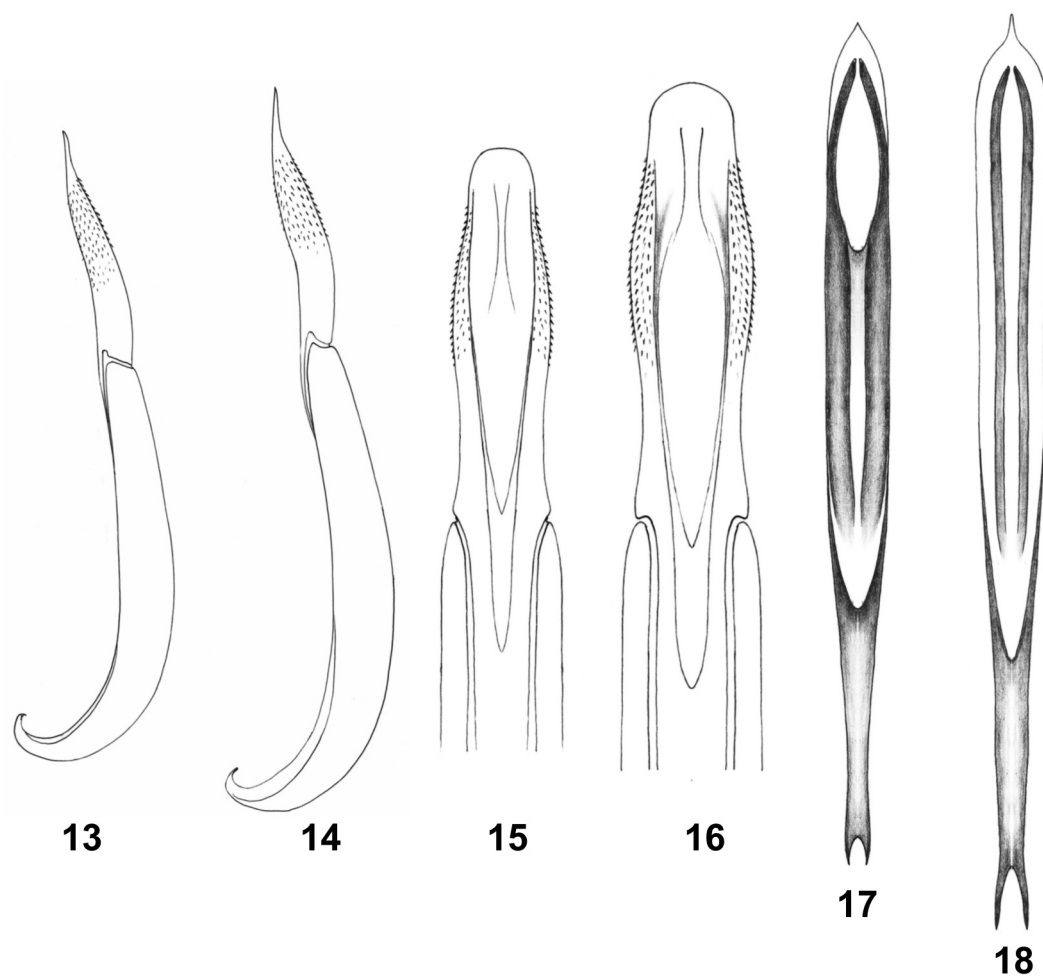


Fig. 13–18. *Entomogonus*, genital structures of male.

13, 15, 17 – *E. bialookii* sp. n.; 14, 16, 18 – *E. makovskyi* sp. n. 13, 14 – parameres, lateral view; 15, 16 – parameres, ventral view; 17, 18 – penis, ventral view.

Fig. 13–18. *Entomogonus*, генитальные структуры самца.

13, 15, 17 – *E. bialookii* sp. n.; 14, 16, 18 – *E. makovskyi* sp. n. 13, 14 – параметеры сбоку; 15, 16 – параметеры вентрально; 17, 18 – пенис вентрально.

more transverse (1.24 times as wide as long), 1.7 times as wide as head. Outer margins of pronotum with short sinuation in middle. Propleura with coarse punctation and smooth wrinkles. Elytra convex and broad (1.57 times as wide as long), 1.5 times as wide as pronotum. Intervals of elytra wider than at male, with 4–5 punctures in transverse section. Base of elytra visibly broader than base of pronotum. Fore tibiae not mace-shaped, middle tibiae weakly arcuated, regularly widened to apex. Pro- and mesotarsi not widened. Body length – 22 mm, width – 9.5 mm.

Material. Holotype [NMP], ♂, with label: "03.06.2002 S Turkey, Nemrut Dağı SE Malatya, leg P. Bialooki". Paratype (♀) [ZIN] with the same label.

Differential diagnosis. The new species is close to *E. makovskyi* sp. n., but differs from it by the follows characters: pronotum of male widest at middle (at *E. makovskyi* sp. n. pronotum widest before middle); base of elytra at female visibly wider than base of pronotum (*E. makovskyi* sp. n. has the same width of base of pronotum and elytra); strongly angle-shaped arcuated fore tibiae of male (*E. makovskyi* sp. n. with weakly, not angle-shaped arcuated tibiae); other structure of sclerites of penis.

Both species are differ from *E. clavimanus* and *E. egregius* by the structure of pro- and mesotibia, parameres and penis.

Entomogonus makovskyi Nabozhenko et Tichý, sp. n.
(Fig. 3, 4, 6, 9, 10, 14, 16, 18)

Description. Male. Body slender, elongate, matt, black; head, pronotum and legs with weak bluish shade. Head widest at level of eyes. Eyes large, convex. Ratio of head width at eyes to distance between eyes – 1.7. Genae rounded only in the middle. Outer margin of head at the meeting-point of gena and clypeus widely emarginated at each side. Punctuation of head coarse, dense, punctures 1.5–2 times as wide as distance between them. Temples and ventral side of head covered with short, recumbent reddish setae. Antennae long, their 4 apical segments extending beyond base of pronotum.

Pronotum weakly transverse (1.08 times as wide as long), widest at middle, 1.5 as wide as head. Outer margins of pronotum weakly regularly rounded, weakly widely sinuated in basal half. Anterior margin of pronotum straight, base weakly bisinuated. Anterior angles obtuse, rounded at apex, posterior angles weakly obtuse, clear. All margins of pronotum rimmed, rim of anterior margin not clear or absent in the middle. Disc of pronotum moderately convex, lateral sides weakly, but clearly flattened. Punctuation of pronotum moderately coarse, not dense: distance between punctures 1.5–3 as long as punctures; lateral sides of disc with less dense puncturation. Propleura with clear or smooth

punctuation (punctures large, rounded) and unclear rugae. Outer margins of propleura rimmed. Prosternal process cone-shaped, with vertical margin reaching base of thorax.

Elytra strongly elongated (1.9–2 times as long as wide), convex, widest at middle, 1.8 times as wide and 2.8–2.9 as long as pronotum. Punctures in striae small, round, only little more largely than punctures of intervals. Intervals flattened, with 3–4 punctures in transverse section. Apical processes of elytra acute, visibly disperse. Width of elytral and pronotal base is equal.

Abdominal sternites with dense fine puncturation and dense longitudinal rugae. 4–5 sternites regularly covered with strongly recumbent dark reddish hairs; 1–3 sternites covered with very small and fine hairs. Anal sternite completely rimmed.

Protibiae weakly arcuated, regularly widened from base to middle, mace-shaped apically; inner side with clear wide emargination. Mesotibiae visibly arcuated, more thick in the basal half than in the middle, mace-shaped widened to apex. Metatibiae straight. Inner side of tibiae covered with very dense brush of black-reddish long hairs. Pro- and mesotarsi widened. All tarsi with brush of black-reddish hairs on sole.

Body length 15–18 mm, width – 5–7.5 mm.

Female. Body more massive and wide than at male. Pronotum more transverse (1.2 as wide as long), widest at the middle. Outer

margin of pronotum shortly sinuated at the middle. Elytra convex, broad (1.75 as long as wide), 1.5 as wide as pronotum. Protibiae very weakly arcuated, mesotibiae more arcuated. Tarsi not widened. Body length – 21 mm, width – 9.4 mm.

Material. Holotype, ♂ and paratypes (1♂, 1♀) with label: “Turkey, prov. Adiyaman, Karadut, 10.05.1996, B. Makovsky”. Holotype and 1 paratype (♀) in NMP, 1 paratype in ZIN.

Diagnosis. The new species is close to *E. bialookii* sp. n. (see diagnosis of *E. bialookii* sp. n.).

References

- Ferrer J., Soldati L. 1999. Contribution à l'étude des Tenebrionidae de Turquie (Insecta, Coleoptera) // Entomofauna. 20: 53–92.
- Nabozhenko M.V. 2002. Tenebrionid beetles of the genera *Hedyphanes* Fischer and *Entomogonus* Solier (Coleoptera, Tenebrionidae: Helopini) from the Caucasus // Entomologicheskoe obozrenie. 81(3): 684–692. [English translate: Entomological review. 2002. 82(8): 1003–1009].
- Reitter E. 1903. Uebersicht der Arten der Coleopteren-Gattung *Entomogonus* Sol. // Wiener Entomologische Zeitung. 22: 18–20.
- Reitter E. 1922. Bestimmungs-Tabellen der europäischen Coleopteren. H. 92. Tenebrionidae. 16. Teil: Unterfamilie Helopina, I // Wiener Entomologische Zeitung. 39: 1–44.

References

- Ferrer J., Soldati L. 1999. Contribution a l'etude des Tenebrionidae de Turquie (Insecta, Coleoptera). *Entomofauna*. 20: 53–92.
- Nabozhenko M.V. 2002. Tenebrionid beetles of the genera *Hedyphanes* Fischer and *Entomogonus* Solier (Coleoptera, Tenebrionidae: Helopini) from the Caucasus. *Entomological Review*. 82(8): 1003–1009.
- Reitter E. 1903. Uebersicht der Arten der Coleopteren-Gattung *Entomogonus* Sol. *Wiener Entomologische Zeitung*. 22: 18–20.
- Reitter E. 1922. Bestimmungs-Tabellen der europäischen Coleopteren. H. 92. Tenebrionidae. 16. Teil: Unterfamilie Helopina, I. *Wiener Entomologische Zeitung*. 39: 1–44.