



A new species of the genus *Entomogonus* Solier, 1848 (Coleoptera: Tenebrionidae) from Eastern Anatolia

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Abstract

A new species *Entomogonus* (*Delonurops*) *doguanatolicus* Nabozhenko, **sp. n.** (Coleoptera: Tenebrionidae) is described from Diyarbakır (Turkey). It differs from all members of the subgenus *Delonurops* Reitter, 1922 in the flattened lateral sides of pronotum. The newly described species is similar to *E. clavimanus* Reitter, 1903, *E. makovskyi* Nabozhenko et Tichý, 2011 and *E. bialookii* Nabozhenko et Tichý, 2011 from which it also differs by a more robust body, structure of pro- and mesotibiae, pro- and mesotarsi and elytral apex. A key to species (based on males) of the subgenus *Delonurops* of Eastern Anatolia is given.

Key words: Tenebrionidae, Turkey, Helopini, *Entomogonus*

Introduction

The tenebrionid genus *Entomogonus* Solier, 1848 of the tribe Helopini includes 15 species and 2 subspecies from Cyprus, Turkey, Syria, Iraq and Western Transcaucasia (Nabozhenko & Löbl 2008, Nabozhenko & Tichý 2011, Nabozhenko 2013). The genus was twice revised by Reitter (1903, 1922). The Transcaucasian species were revised by Nabozhenko and co-authors (Nabozhenko 2002; Abdurakhmanov & Nabozhenko 2011). Several species were described later from Turkey: *E. nylanderi* from Antalya Province (Ferrer & Soldati 1999), *E. bialookii* from Malatya Province and *E. makovskyi* from Adıyaman Province (Nabozhenko & Tichý 2011). *Hedyphanes elongatus* Allard, 1876 from Amasya was transferred to the genus *Entomogonus* by Nabozhenko (2013).

The genus *Entomogonus* is divided into three subgenera: the nominotypical one with two species from southern Turkey and Western Syria, the most diverse and widespread *Delonurops* Reitter, 1922 and *Eutelogonus* Reitter, 1922 with two species from Southern Turkey. The subgenus *Delonurops* is widespread from Cyprus to Armenia and the subgenus contains ten species distributed in Turkey, from which five are known from Eastern Anatolia (Reitter, 1903; Kaszab 1968; Özgen, 2016; Nabozhenko & Tichý 2011): *E. clavimanus* Reitter, 1903, *E. peyronis* (Reiche, 1861), *E. duchoni* Reitter, 1903, *E. bialookii* and *E. makovskyi*. Kaszab (1939) also listed *E.* (s. str.) *angulicollis* Mulsant et Wachanru, 1853 for Malatya Province. Some records by Reitter (1922) and Kaszab (1939, 1968) for Eastern Anatolia are the results of misidentification. For example, *E. egregius* (Seidlitz, 1896) was described from Antalya and is known only from the Mediterranean region of Turkey (Antalya and Mersin provinces). Its distribution in Erzurum (Reitter 1922) or Tunceli (Kaszab 1939) is questionable. *Entomogonus saphyrinus* Allard, 1876 occurs in Central Anatolia from Konya to Tokat provinces and its distribution in Van (Kaszab 1968) is doubtful. We checked quality photos of these specimens from the collection of HNHM and determined Reitter's "*Entomogonus egregius*" as male of *E. makovskyi* Nabozhenko et Tichý, 2011 (Fig. 1) and Kaszab's "*Entomogonus saphyrinus*" as female of *Cylindrinotus nitidus* Seidlitz, 1896 (Fig. 2).

A new Eastern Anatolian species of the subgenus *Delonurops* from Diyarbakır is described below.



FIGURE 1. *Entomogonus makovskyi* (*E. egregius* Seidl. sensu Reitter (1922)) from Erzurum, male. A, dorsal view; B, lateral view; C, labels of the specimen; D, left mesotibia; E, right protibia.

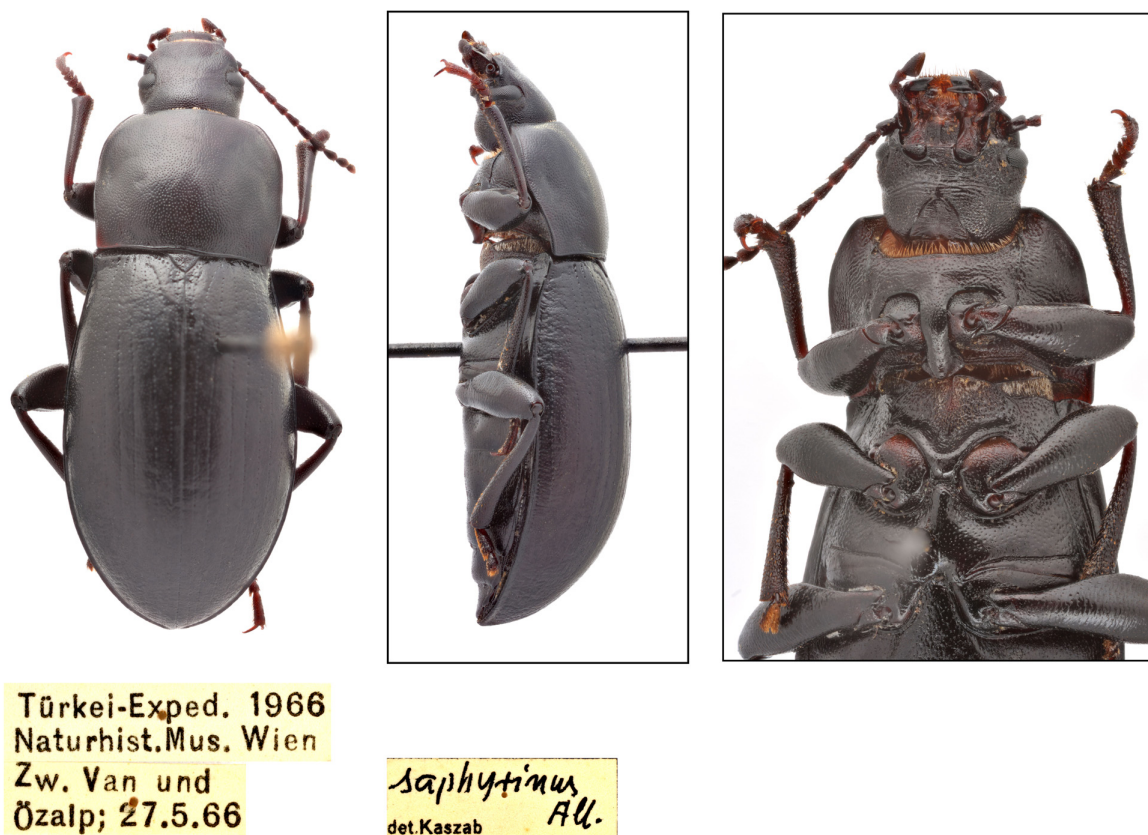


FIGURE 2. *Cylindrinotus nitidus* (*Entomogonus saphyrinus* All. Sensu Kaszab (1968)) from Van, female. A, dorsal view ; B, lateral view; C, ventral view; D, labels of the specimen.

Material and methods

The material from the collection of Zoological Department of Ege University (ZDEU, Bornova – Izmir, Turkey, Bekir Keskin) and Hungarian Natural History Museum (HNHM, Budapest, Hungary, Ottó Merkl) was used in the work.

Entomogonus (Delonurops) doguanatolicus Nabozenko, sp. n.

(Figs 3, 4)

Material. Holotype (♂) and paratype (♀) (ZDEU): Turkey, Diyarbakır Province, Hani District, Kuyular, 38°25'52.8492" N, 40°16'33.9888" E, 1.v.2011, leg. Inanç Özgen.

Description. Male. Body length 19.2 mm, width 7.2 mm. Body large, robust, black, with bluish tinge. Head. Anterior margin straight; lateral margin with weak wide emargination between frontoclypeus and genae; lateral margin of genae angulate, widely rounded; eyes strongly transverse, convex, head width 1.7× wider than interocular space; frontoclypeus with coarse and moderately dense punctation (puncture diameter 1.5× as long as interpunctural distance), punctures not connected; frons with coarser and denser punctation, punctures connected; vertex with very coarse and dense punctation, gula with coarse transverse wrinkles; mentum rectangular; last 4 antennomeres missing.

Prothorax. Pronotum transverse, 1.2× as wide as long, 1.58× as wide as head, widest a little behind middle; lateral margins rounded in anterior half, straight in basal half and undulate in middle; anterior margin widely emarginate, with small sinuation at middle; base trisinuate; anterior corners obtuse, widely rounded, weakly protruded; posterior corners weakly obtuse, narrowly rounded at apex; all margins beaded, but lateral and anterior margins with interrupted bead in middle; disc weakly convex, with widely, slightly flattened lateral sides; punctation of disc coarse, not dense, puncture diameter subequal to interpunctural distance; prothoracic hypomera with full thick bead, with coarse and dense smooth punctation; prosternal process beaded, cone-shaped, strongly projected.

Elytra widest at middle, elongate-oval, moderately convex, 1.73× as long as wide, 2× as wide as head, 1.28× as wide and 2.7× as long as pronotum; humeral callosities projected; dorsal epipleural carina narrow, but completely visible dorsally; strial punctures round, not connected; intestriae flat, smooth (without wrinkles), with fine and sparse distinct punctation (4, rarely 3 punctures in transverse section); each elytron with weak, widely rounded flat apex; epipleura with fine and sparse punctation.

Ventral side. Metaventricle with fine, moderately dense smooth punctation, punctures connect to wrinkles; abdominal ventrites 1–3 with coarse longitudinal wrinkles, without distinct punctation; ventrite 4 with wrinkles in basal part and fine smooth punctation in apical part; ventrite 5 with fine dense smooth punctation, completely and coarsely beaded.

Legs. Protibiae straight from extensor side and C-shaped curved from lateral side, with weak sinuation on inner side, not claviform; mesotibia weakly curved from extensor side and C-shaped curved from lateral side; metatibiae weakly curved from extensor side and straight from lateral side; all tibiae with very dense long brush of dark brown hairs on inner side; protarsi widened, protarsomeres 1–4 transverse, ratio of length/width of 1–5 protarsomeres: 1/1.3, 0.9/1.5, 0.7/1.4, 0.6/1, 2.9/1; mesotarsomeres weakly widened, mesotarsomeres 2–4 with subequal length and width, ratio of length/width of 1–5 protarsomeres: 1.5/1.3, 1.2/1.2, 1/1.2, 0.9/0.9, 2.7/0.9.

Female. Body more large and robust. Body length 21 mm, width 9 mm. Pronotum more transverse, widest in middle, with protruded acute anterior corners, narrowly rounded at apex; posterior corners right; lateral margins in basal half weakly widely emarginate. Elytral interstriae 3–4 with 4–5 punctures in transverse section. Protibiae straight, meso- and metatibiae weakly curved from extensor side. Tarsi not widened.

Etymology. The name derives from Turkish “doğu” (eastern) and “Anatolia” (Asiatic part of Turkey).

Diagnosis. This species belongs to the subgenus *Delonurops* based on the non-beaded elytral apical suture (as in *Eutelogonus*) and not strongly angulate lateral margins of pronotum (as the nominotypical subgenus). The new species differs from all known *Delonurops* by the flattened lateral sides of pronotum. It can be compared with *E. clavimanus*, *E. bialookii* and *E. makovskyi*, which also have strongly curved pro- and mesotibiae and widened pro- and mesotarsi. *Entomogonus doguanatolicus* sp. n. differs from all three species by the more robust male body with shorter elytra (elytra 2.5× as long as pronotum in a new species and 3× as long as pronotum in three listed

species), wider male pronotum (1.26× as wide as long in *E. doguanatolicus* **sp. n.** and 1.08× as wide as long in *E. bialookii* and *E. makovskiyi*), non-claviform widened male protibia (claviform in *E. clavimanus*), flattened apices of elytra (convex in *E. bialookii* and *E. makovskiyi*), protruding anterior corners (not protruding in *E. bialookii* and *E. makovskiyi*).



FIGURE 3. *Entomogonus doguanatolicus* **sp. n.**, habitus. A, male; B, female.

Key to species of the genus *Entomogonus* of the subgenus *Delonurops* of Eastern Anatolia based on structures of males

- 1(2). Prothoracic hypomera, metepisterna and partly metaventricle covered with dense granules. *E. saphyrinus*
- 2(1). Ventral side of body only with punctures.
- 3(4). Elytral intervals with coarse depressed transverse wrinkles. *E. egregius*
- 4(3). Elytral intervals smooth, not wrinkled.
- 5(6). Lateral sides of pronotum flattened. *E. doguanatolicus* **sp. n.**
- 6(5). Lateral sides of pronotum not flattened.
- 7(8). Protibiae straight, strongly widened to apex, claviform *E. duchoni*
- 8(7). Protibiae curved, claviform or not.
- 9(10). Protarsi weakly widened, longitudinal, mesotarsi not widened *E. peyronis*
- 10(9). Protarsi transverse, mesotarsi widened, transverse.

- 11(12). Pronotum wider, 1.3× as wide as long. Elytra flattened apically *E. clavimanus*
 12(11). Pronotum narrower, 1.08× as wide as long. Elytra with convex apices.
 13(14). Pronotum widest at middle. Pro- and mesotibiae strongly angulate curved *E. bialookii*
 14(13). Pronotum widest before middle. Pro- and mesotibiae gently curved *E. makovskyi*

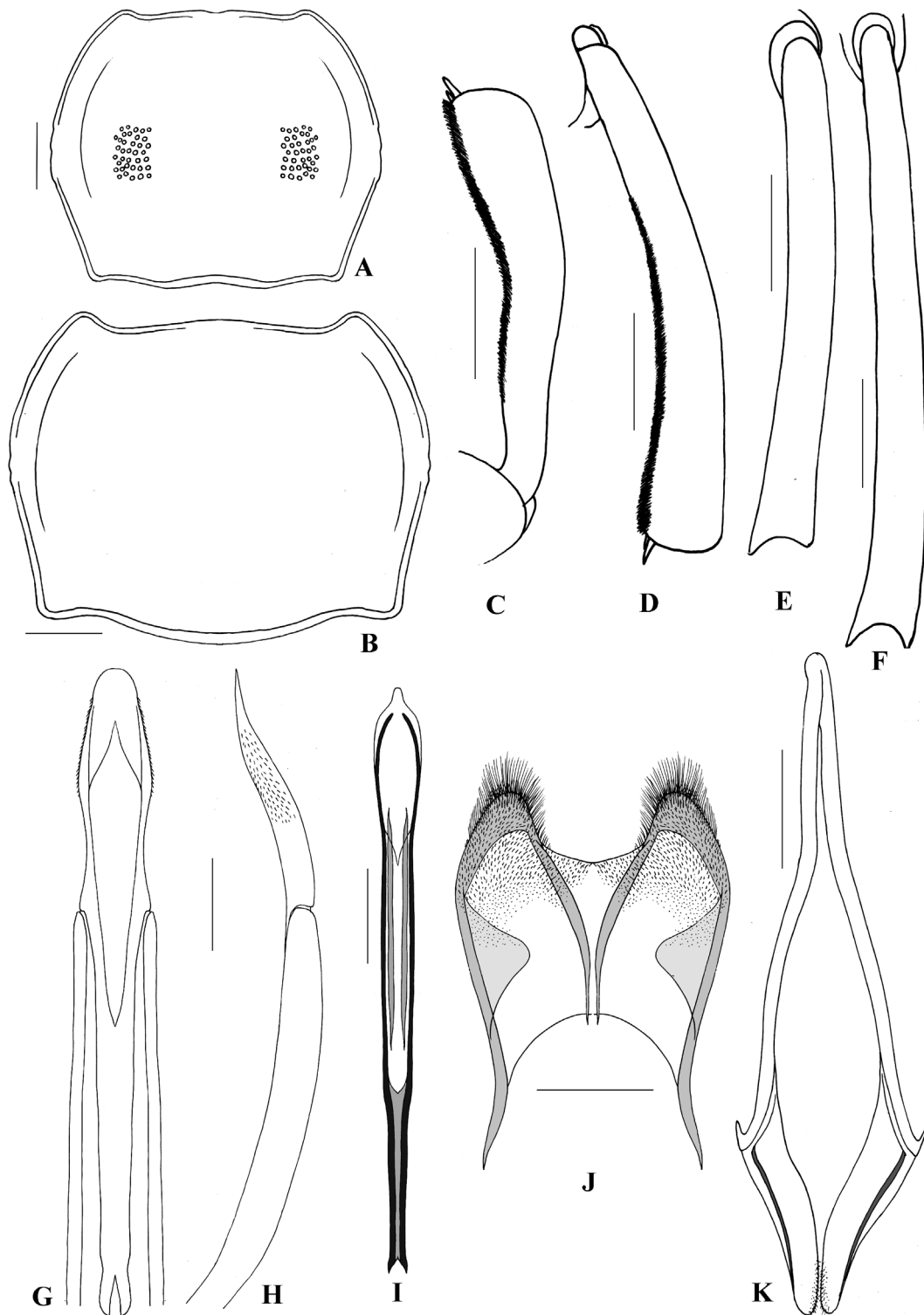


FIGURE 4. *Entomogonus doguanatolicus* sp. n., details of the structure. A, male pronotum; B, female pronotum; C, male protibia, lateral view; D, male mesotibia, lateral view; E, male mesotibia, extensor side; F, male metatibia, extensor side; G, aedeagus, ventral view; H, aedeagus, lateral view; I, penis; J, male sternite VIII; K, gastral spicula.

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