A new species and new records of darkling beetles of the tribe Helopini (Coleoptera: Tenebrionidae) from Iran and Armenia

Новый вид и новые находки жуков чернотелок трибы Helopini (Coleoptera: Tenebrionidae) из Ирана и Армении

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Ключевые слова: Coleoptera, Tenebrionidae, Helopini, Иран, Армения, новый вид, новые находки.

Abstract. *Armenohelops medvedevi* **sp. n.** from northwestern Iran is described. *Catomus antoniae* Reitter, 1890, *Eustenomacidius svetlana araxi* Nabozhenko, 2006, and *Cylindrinotus femoratus* (Faldermann, 1837) are reported for the first time from Iran, and *Eustenomacidius svetlana araxi* from Armenia. Additional data for *Armenohelops armeniacus* Nabozhenko, 2002 are provided. A key to the known species of the genus *Armenohelops* Nabozhenko, 2002 is given.

Резюме. Описан новый вид *Armenohelops medvedevi* **sp. n.** из Северо-Западного Ирана. В статье указываются ранее не отмеченные в фауне Ирана представители трибы Helopini (Tenebrionidae): *Catomus antoniae* Reitter, 1890, *Eustenomacidius svetlana araxi* Nabozhenko, 2006, *Cylindrinotus femoratus* (Faldermann, 1837). Для Армении впервые указывается *Eustenomacidius svetlana araxi* и добавлен материал по *Armenohelops armeniacus* Nabozhenko, 2002. Составлена определительная таблица для известных видов рода *Armenohelops* Nabozhenko, 2002.

Introduction

So far the following five genera of the tribe Helopini were known from Iran: *Catomus* Allard, 1976, *Hedyphanes* Fischer de Waldheim, 1820, *Nalassus* Mulsant, 1854, *Probaticus* Seidlitz, 1896, and *Reitterohelops* Skopin, 1960.

Northern Iran is one of the centers of diversity of the genus *Probaticus*. Five species of the subgenus *Pelorinus* Vauloger de Beaupré, 1900, and one species of the nominative subgenus are known from Iran, all described from northern Iran (Talysh, Elburs, Khorassan, Kopet-Dag). The genus *Hedyphanes* is widespread in Iran and includes 11 species. The genus *Nalassus* is in Iran represented by 7 species of the subgenera *Helopondrus* Reitter, 1922 and *Helopocerodes* Reitter, 1922. *Helopondrus* is limited to northern Iran with greatest diversity in the Elburs mountains. *Helopocerodes* is known from northern Iran (Talysh, Elburs) and southern Zagros mountains. Two species of the genus *Catomus* were described from Mazandaran province (*C. persicus* Allard, 1876 and *C. semiruber* Allard, 1876), and 1 species (*C. karakalensis* Medvedev, 1964) is known from Kopet-Dag, eastern Elburs, and Khorasan. The genus *Reitterohelops* is represented in Iran by *Reitterohelops ahngeri* (G. Medvedev, 1964) [Medvedev, 2008].

Additional investigations yielded a new species of *Armenohelops* Nabozhenko, 2002 and new records of species of the genera *Catomus*, *Cylindrinotus* Faldermann, 1837 and *Armenohelops* for the fauna of Iran. Thus 7 genera are known from Iran now. *Eustenomacidius svetlana araxi* Nabozhenko, 2006 which was described from Nakhichevan [Nabozhenko, 2006] was found in Iran and Armenia.

Materials and methods

This paper is based on material from the following institutions and private collections: National Museum (NMP, Prague, Czech Republic), Hungarian Natural History Museum (HNHM, Budapest, Hungary), collection of M.Yu. Kalashyan [CK], collection of M.V. Nabozhenko [CN]. Scanning electrone microscopy was made in the analytic laboratory of Southern Scientific Centre RAS with the SEM EVO-40 XVP (LEO 143OVP).

Catomus (s. str.) *antoniae* Reitter, 1890

Additional material studied. 1♀ with labels: "Iran, 4–5.04.2000, Azarbayjan-é Sharhgi Prov., 7 km S Torkaman (37°32'N, 47°21'E)", "Iran 2000 Czech Biological Expedition, J. Hájek & M. Mikát leg."[NMP].

The species was known from Armenia and Azerbaijan (Nakhichevan) [Nabozhenko, 2006].

Eustenomacidius (*Caucasohelops*) *svetlana araxi* Nabozhenko, 2006

Additional material studied. 1♀ with label: "NW Iran, E Azerbaijan prov., Tabriz distr., Kendevan v., 2500 m, 22.06.06, V. Patrikeev leg." [CN]; 1♂ with label: "Armenia, distr. Yekhegnadzor, env. Vernashen, 10.05.1985 (leg. M.Yu. Kalashyan) [CK].

The subspecies was described from Nakhichevan (Azerdaijan) [Nabozhenko, 2006]. This is its first record for Iran and Armenia.

Cylindrinotus femoratus (Faldermann, 1837)

Additional material studied. 1♂ and 1♀ with label: "NW Iran, E Azerbaijan prov., Tabriz distr., Kendevan v., 2500 m, 22.06.06, V. Patrikeev leg." [CN]; 1♂ with label: "N Iran, Mazandaran prov., Gochsar env., 3000 m, 20.06.06, V. Patrikeev leg. [CN]".

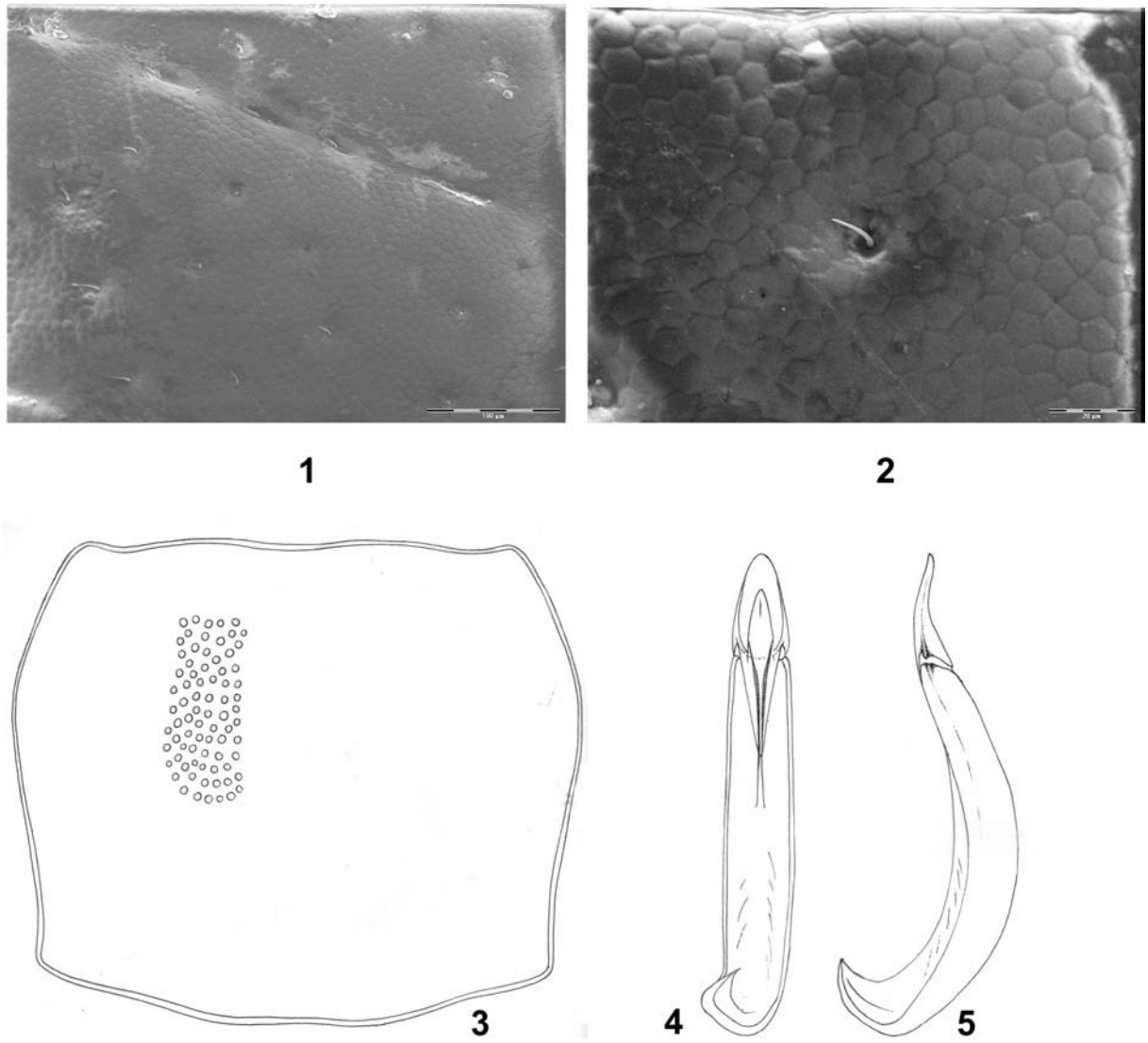

Fig. 1–5. *Armenohelops medvedevi* **sp. n.**, male.
1 – interval of elytra; 2 – microsculpture of elytral interval; 3 – pronotum; 4 – aedeagus, ventral view; 5 – aedeagus, lateral view.
Рис. 1–5. *Armenohelops medvedevi* **sp. n.**, самец.
1 – междурядье надкрылий; 2 – микроскульптура междурядья надкрылий; 3 – переднеспинка; 4 – эдеагус, вид снизу; 5 – эдеагус, вид сбоку.

The species is widespread in Armenia, Karabakh, Azerbaijan (Nakhichevan, Talysh). This is its first record for Iran.

Armenohelops Nabozhenko, 2002.

The genus was described for 2 species: *A. armeniacus* Nabozhenko, 2002 the type species of the genus, and *A. kagyzmanicus* Nabozhenko, 2002 [Nabozhenko, 2002]. *A. armeniacus* is known from central Armenia, *A. kagyzmanicus* from Eastern Turkey province Kars. Species of the genus *Armenohelops* are nocturnal, they inhabit exclusively oak forests, and feed on lichens on oaks. During the daytime they hide under trunks or under bark of trees. The new species of *Armenohelops* is described from Iran.

Armenohelops armeniacus Nabozhenko, 2002

Additional material from Armenia studied [CK]: Khosrov reserve, 25.06.1992 (leg. M.Yu. Kalashyan), 1♂; Aragatsotn prov., Arai-Ler mt., between N40°23'/E44°25' and N40°24'/E44°26', 19.05.1996 (leg. M.Yu. Kalashyan), 1♀; Khosrov reserve, central area, 1500–1800 m, 24.05.1999 (leg. M.Yu. Kalashyan), 1♀; Khosrov reserve, central area, 1500 m, N39°59'/E44°53', 17.04.2004 (leg. M.Yu. Kalashyan), 1♂; Ararat prov., env. Lusashogh, 1850 m, N39°59'/E44°58', 21.05.2005 (leg. M.Yu. Kalashyan), 2♀.

For details about the type material see the original description [Nabozhenko, 2002].

Armenohelops medvedevi Nabozhenko, **sp. n.**
(Fig. 1–5)

Descrition. Male. Body slender, reddish-brown, convex, matt, microreticulated.

Head widest at level of eyes, between frons and clypeus with deep transverse depression, outer margin between gena and clypeus without emargination. Head between frons and clypeus with deep transverse depression. Eyes moderately convex (ratio of head width at level of eyes to distance between eyes 1.46). Puncturation of head moderately coarse, not dense, punctures round. Puncture

diameter subequal to distance between punctures in middle of frons and clypeus; sides of frons with very sparse puncturation. Antennae moderately long, their three apical segments extending beyond base of pronotum. 3rd segment of antennae 1.3 times as long as 4th and 3 times as long as 2nd.

Pronotum weakly cordate, weakly transverse (1.15 times as wide as long), widest before middle, 1.4 times as wide as head. Lateral margins of pronotum weakly rounded, weakly widely emarginated near base. Anterior margin of pronotum widely emarginated, base weakly rounded. Anterior angles obtuse, widely rounded, posterior angles weakly obtuse, narrowly rounded. Puncturation of pronotum as on head. All margins of pronotum finally borderd. Disc of pronotum regularly convex. Propleura with very fine and dense longitudinal rugae.

Elytra distinctly convex, elongated, oval, with regularly rounded sides, 1.3 times as wide and 2.45 times as long as pronotum. Intervals weakly convex. Strial punctures elongated, not merged into continuous deep rows. Puncturation of intervals fine and sparse. Intervals 1–6 with 2 punctures in cross section, intervals 7–8 with 3 punctures.

Abdominal sternites with fine, moderately dense puncturation and obliterate rugulae on sides. Anal sternite not margined apically.

Fore and middle tibia straight. Outer margin of fore tibia distinctly protruded. Hind tibia weakly curved inwards. Fore tarsi slightly more widened than middle and hind tarsi.

Body length 8.3 mm, body width 3 mm.

Genitalia of male. The parameres are typical for *Armenohelops*, short, in lateral view curved outwards, well moveable dorso-ventrally. Sclerites of penis slightly extending beyond base of parameres, on apex widely separated from each other. Ventral lobes of parameres long.

Differential diagnosis. The species is similar to *A. kagyzmanicus* Nabozhenko, 2002. About the differences see the key to species of *Armenohelops*.

Material. Holotype, male (deposited in HNHM) with labels: «Iran 1970 Wittmer, v. Bothmer» (printed), «Macou, 24.4.» (illegible handwritten label), «*acutangulus* Seidl. det Kaszab», «*Catomus* sp.? det. Schawaller», «*Probaticus* sp. S. Bečvář det. 1999 HNHM», «Holotypus *Armenohelops medvedevi* sp. n. det. Nabozhenko».

Remarks. The exact type locality is unknown, because the label of the holotype is rather illegible. It is known, that W. Wittmer and U. Bothmer collected material in 1970 in northern Iran in the area from Gorgan (prov. Mazanderan) to Hashtpar (prov. Ardabil) [Gfelier, 1972]. Taking into account the distribution of the known species of the genus *Armenohelops,* it is possible to suppose that the species was collected in the province Ardabil (Herowabad).

Etymology. The species named in honour of my teacher Prof. Gleb Sergeevich Medvedev.

Key to species of the genus *Armenohelops*

1(2). Outer margin of head between gena and clypeus with emargination. Elytra strongly elongated, 2.8–3 times as long as pronotum .....***A. armeniacus***

2(1). Outer margin of head between gena and clypeus without emargination. Elytra moderately elongated, 2.2–2.45 times as long as pronotum

3(4). Lateral margins of pronotum near anterior angles emarginated. Anterior femora with transverse oval depression on inner side. Anal sternite apically margined..... .....***A. kagyzmanicus***

4(3). Lateral margins of pronotum near anterior angles not emarginated, straight. Anterior femora without depression on inner side. Anal sternite apically not margined..... .....***A. medvedevi* sp. n.**

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References

Gfelier W. 1972. Cerambycidae (Coleoptera) der Türkei-Persienexpedition 1970 der Herren Dr. h.c. W. Wittmer und U. v. Bothmer // Mitteilungen der Entomologischen Gesellschaft Basel. 22(1): 1–8.

Medvedev G.S. 2008. New and little-known tenebrionid beetles (Coleoptera: Tenebrionidae) from Iran // Kavkazsky entomologicheskiy bulleten. 4(3): 303–319. [in Russian].

Nabozhenko M.V. 2002. New genus of Darkling beetles of the tribe Helopini (Coleoptera, Tenebrionidae) // Vestnik zoologii. 36(2): 41–46. [in Russian].

Nabozhenko M.V. 2006. Revision of the genus *Catomus* Allard, 1876 (Coleoptera, Tenebrionidae) and allied genera of the Caucasus, Middle Asia and China // Entomologicheskoye obozreniye. 85(4): 798–857. [in Russian, English translation: Entomological review. 2006. 86(9): 1024–1072].

References

Gfelier W. 1972. Cerambycidae (Coleoptera) der Turkei-Persienexpedition 1970 der Herren Dr. h.c. W. Wittmer und U. v. Bothmer. *Mitteilungen der Entomologischen Gesellschaft Basel*. 22(1): 1–8.

Medvedev G.S. 2008. New and little-known tenebrionid beetles (Coleoptera: Tenebrionidae) from Iran. *Kavkazsky entomologicheskiy bulleten.* 4(3): 303–319 (in Russian).

Nabozhenko M.V. 2002. New genus of Darkling beetles of the tribe Helopini (Coleoptera, Tenebrionidae). *Vestnik zoologii*. 36(2): 41–46 (in Russian).

Nabozhenko M.V. 2006. Revision of the genus *Catomus* Allard, 1876 (Coleoptera, Tenebrionidae) and allied genera of the Caucasus, Middle Asia and China. *Entomologicheskoe obozrenie*. 85(4): 798–857 (in Russian; English translation: *Entomological review*. 2006. 86(9): 1024–1072).