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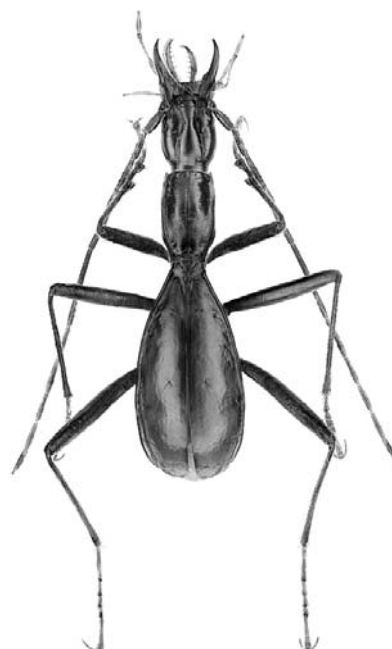


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Contribution to the knowledge of the subgenus *Helopondrus* Reitter, 1922 of the genus *Nalassus* Mulsant, 1854 (Coleoptera: Tenebrionidae) of Iran

К познанию подрода *Helopondrus* Reitter, 1922 рода *Nalassus* Mulsant, 1854 (Coleoptera: Tenebrionidae) Ирана

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Ключевые слова: Tenebrionidae, Helopini, *Nalassus*, *Helopondrus*, Иран, обзор.

Abstract. Brief review of the subgenus *Helopondrus* Reitter, 1922 of the genus *Nalassus* Mulsant, 1854 of Iran is given in this paper. 6 species of this subgenus are known from Iran: *N. kabakovi* sp. n., *N. cambyses* (Seidlitz, 1896), *N. heres* (Reitter, 1922), *N. cunctator* (Reitter, 1922), *N. lineatus* (Allard, 1877), *N. ahngeri* (Medvedev, 1998). All species are distributed in northern part of Iran (Elburs, Kopet-Dagh). Lectotypes of *Cylindrinotus heres* and *Stenomax vexator* Reitter, 1887 are designated.

Резюме. В статье дан короткий обзор подрода *Helopondrus* рода *Nalassus* Ирана. К настоящему времени из Ирана известно 6 видов подрода: *N. kabakovi* sp. n., *N. cambyses* (Seidlitz, 1896), *N. heres* (Reitter, 1922), *N. cunctator* (Reitter, 1922), *N. lineatus* (Allard, 1877), *N. ahngeri* (Medvedev, 1998). Все виды распространены в северной части Ирана (Эльбурс, Копет-Даж). Обозначены лекотипы *Cylindrinotus heres* и *Stenomax vexator* Reitter, 1887.

Introduction

The genus *Nalassus* Mulsant, 1854 is presented in fauna of Iran by two subgenera: *Helopocerodes* Reitter, 1922 and *Helopondrus* Reitter, 1922. The review of the first subgenus has been recently made by Nabozhenko [2006]. The subgenus *Helopondrus* was reviewed only by Reitter [1922] who included in it 9 species. Later some taxa were synonymized or included in other groups of the tribe Helopini [Nabozhenko, 2001, 2004], and also short review of *Helopondrus* of the Caucasus and adjacent regions [Nabozhenko, 2002] was made. Recently some works were published on *Helopondrus* of Turkey [Nabozhenko, 2008a; Keskin, Nabozhenko, 2010]. Four species of this subgenus were known till now from Iran: *N. lineatus* (Allard, 1877), *N. cambyses* (Seidlitz, 1896), *N. heres* (Reitter, 1922), *N. cunctator* (Reitter, 1922). The new species *N. kabakovi* sp. n. is described in this work after studying of an additional material.

Northern Iran is one of centers of diversity of *Helopondrus*, which is distributed in two mountain systems: Elburs and Kopet Dag. The new species inhabits

Western Elburs, *N. cambyses* is known from Central Elburs, 2 species (*N. heres* and *N. cunctator*) are described from Eastern Elburs (Gorgan), *N. heres* is also known from Gilyan province. *N. angeri* (Medvedev, 1998) was described from Kopet Dag and one more species, *N. lineatus*, widespread in Northern Iran (on the east to Gorgan) and South-Eastern Azerbaijan (Talysh). More species are typical for alpine zone and mountain-steppe landscapes, only one species inhabits oak Girkan woods: *N. lineatus*.

The subgenus differs from other groups of *Nalassus* by dorso-ventral flattened parameres of male and small lateral branches or granules on spermatheca of females. Besides, antennomeres of males of *Helopondrus* are not more thickened than at females.

Material

The study is based on the examination of the material from the following collections: ZIN – Zoological Institute of Russian Academy of Sciences (Saint-Petersburg, Russia); DEI – Deutches Entomologische Institute (Müncheberg, Germany); HNHM – Hungarian Natural History Museum (Budapest, Hungary); NMPC – National Museum Praha (Praha, Czech Republic); MNHP – Muséum National d'Histoire Naturelle (Paris, France); SNMS – Staatliches Museum für Naturkunde (Stuttgart, Germany); ZSM – Zoologische Staatssammlung München (München, Germany); CS – private collection of D. Szalóki (Budapest, Hungary).

Nalassus (Helopondrus) cambyses (Seidlitz, 1896)
(Fig. 6, 10, 12)

Seidlitz, 1896: 738, 753 [*Helops (Omaleis)*]; Reitter, 1922: 154 [*Cylindronotus (Helopondrus)*, nota]; Gebien, 1911: 537 [*Helops (Omaleis)*]; Gebien, 1943: 897 (812) [*Cylindronotus (Helopondrus)*]; Nabozhenko, 2008b: 37 (*Nalassus*); Nabozhenko, Löbl, 2008: 242 [*Nalassus (Helopondrus)*].

Type material. Holotype, ♂ (ZSM) with labels: "n. Persien Stauding.", "Cambyses", "Seiditz det.", "Cambyses Typ Seidl.", "Holotypus, ♂, *Cylindronotus cambyses* Sdl., 1898 Staatsamml. München".

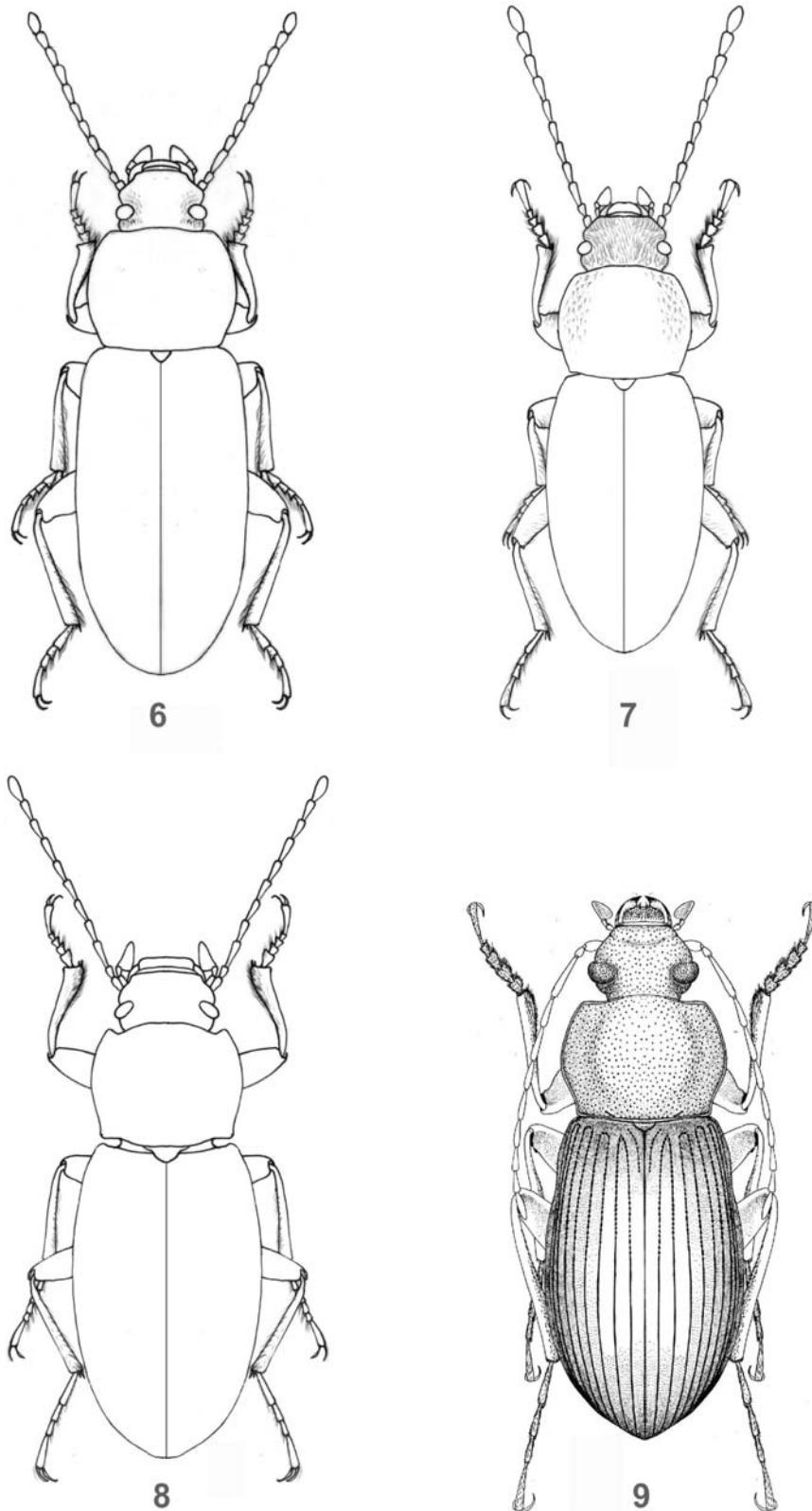


Fig. 6–9. *Nalassus (Helopondrus)* spp., males.

6 – *N. cambyses*; 7 – *N. kabakovi* sp. n. (small male, comments in description: variability); 8 – *N. heres*; 9 – *N. lineatus* (on Nabozhenko [2001]).

Рис. 6–9. *Nalassus (Helopondrus)* spp., самцы.

6 – *N. cambyses*; 7 – *N. kabakovi* sp. n. (самец небольшого размера, комментарии в описании: изменчивость); 8 – *N. heres*; 9 – *N. lineatus* (по Nabozhenko [2001]).

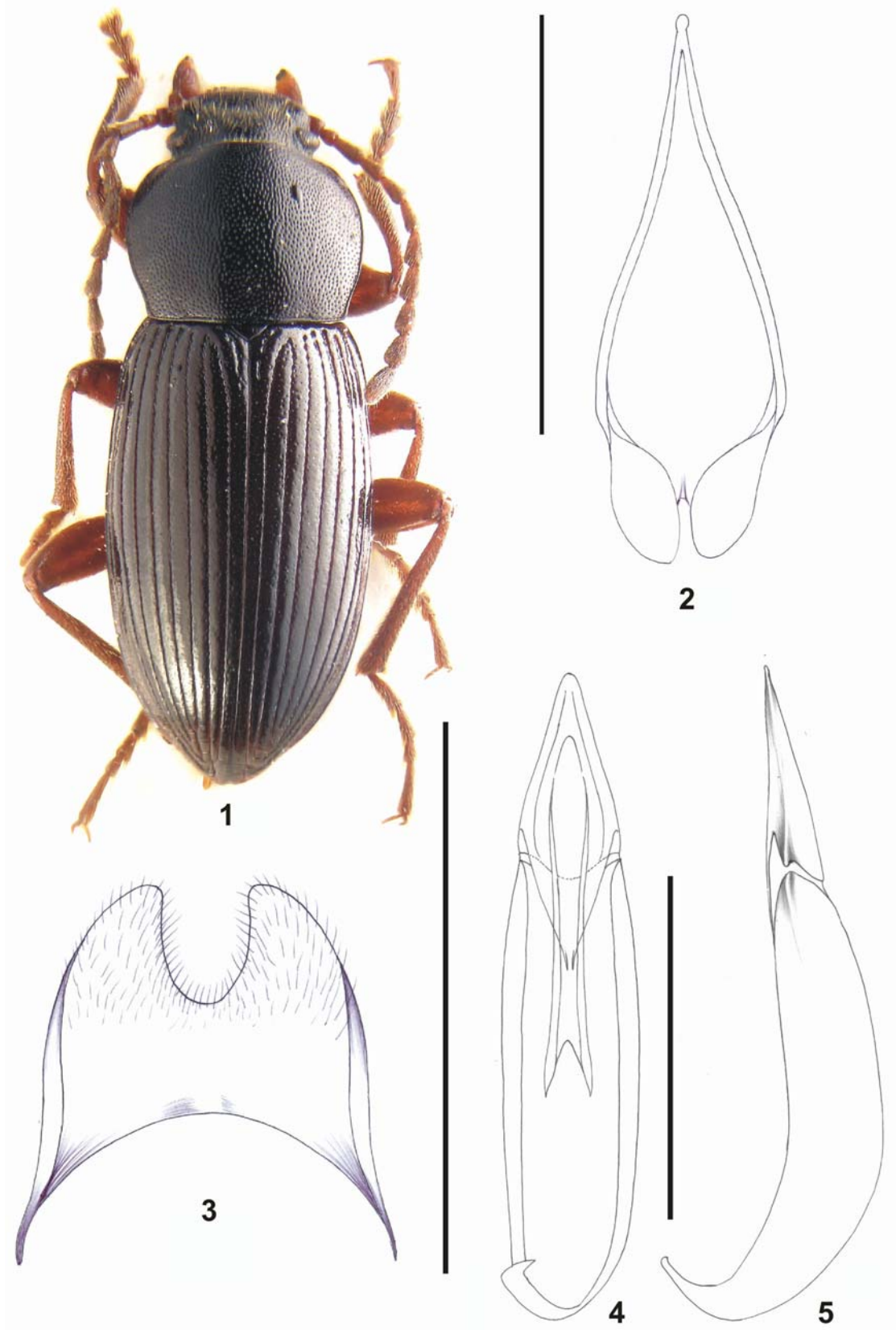


Fig. 1-5. *N. (Helopondrus) kabakovi* sp. n.

1 – common view; 2 – gastral spicula; 3 – VIII inner sternite; 4 – aedeagus, ventral view; 5 – aedeagus, lateral view. Scale bare – 1 mm.

Рис. 1-5. *N. (Helopondrus) kabakovi* sp. n.

1 – общий вид; 2 – гастральная спикула; 3 – VIII скрытый стернит; 4 – эдеагус вентрально; 5 – эдеагус латерально. Масштабная линейка – 1 mm.

Other studied material. Iran, Elburs Mts., Demavend, 30.05.1894 (leg. Glazunov) (kirillic label), 15 ex. (ZIN); Iran, Elburs, Darband Tal, 26.05.1961 (leg. J. Klapperich), 1♀ (SNMS); Iran, Firusabad (Chalus), 23.05.1965 (Mission Franco-Iranienne), 1♀ (MNHP); Iran, Elburs Mts., Demavend, 2500–3200 m, 22–25.08.1966 (leg. V. Sbordoni), 1♂ (HNHM); Iran, Elburs, Demavend, Lajran (Loc. No 68), 2400 m, 23.07.1970 (Expedition of National Museum Praha), 1♂ (NMPC); Iran, prov. Tehran, Elburz, Sicalh-Massiv, Between Sicalh and Shemshak, 2500–4000, 30.06.1975 (leg. Dr. Ulbrich), 1♂, 1♀ (SNMS); Iran, 8 km W Gachsar (Loc. no. 396), 6–8.07.1977 (Expedition of National Museum Praha), 2♂ (NMPC); Iran, prov. Mazandaran, 35 km S Amol, 500 m, 36°22.1'N / 52°20.2'E, 14.05.1998 (leg. Gy Fábíán, S. Székely), 2♂ (HNHM, ZIN); Iran, prov. Mazandaran, Demavend, 2500–3200 m, 3.05.2000 (leg. K. Gaskó), 1♂ (HNHM); Iran, prov. Mazandaran, Elburs Mts., Damavend, 3500 m, 30.06–2.07.2000 (leg. G. Rozner), 1♂, 4♀ (HNHM); Iran, prov. Tehran, Elburz Mts., 3 km W Reine, kuh-e-Demavend, 05.2001 (leg. Gy Fábíán), 9♂, 13♀ (HNHM); Iran, prov. Mazandaran, 35 Elburs Mts., 15 km E Lar-e-Polur, 35°52'28"N / 52°06'10"E, 2580 m, 12–13.05.2001 (leg. Gy Fábíán, K. Vig), 8♂, 23♀ (HNHM, 1♀ – ZIN); Iran, prov. Mazandaran, Alborz Mts., 2 km E Ilka (alpine meadow, stream, lake), 36°14.0'N / 51°26.0'E, 31.05–1.06.2006, 2855–3020 m (leg. J. Hajek, P. Chvojka), 1♂, 1♀ (NMPC); Iran, prov. Mazandaran, 10 km SW of Reine, 2600 m, 14.05.2001 (leg. B. Benedek, G. Csorba), 1♂, 2♀ [CS].

Distribution. Northern Iran, alpine zone of Elburs and Copet Dag, some populations inhabit meadows on 500–700 m.

Nalassus (Helopondrus) kabakovi sp. n.
(Color plate 2: fig. 1–5; fig. 7, 11, 13)

Description. Male. Body slender, brown, shining. Tibiae, tarsi and labrum red brown. Head widest at level of eyes. Eyes large, convex. Ratio of head width at eyes to distance between eyes – 1.4. Genae sharply rounded at base and straight further up to clypeus. Outer margin of head at the meeting-point of gena and clypeus without emargination at each side. Punctuation of head dense, moderately coarse, punctures round; diameter 2 times wide as distance between punctures. Head densely pubescent with suberect goldish hairs. Antennae long, their three apical segments extending beyond base of pronotum.

Pronotum transverse (1.18–1.24 times as wide as long), widest in the middle, 1.4–1.5 times as wide as head. Outer margins of pronotum weakly, widely evenly rounded, not emarginated at base. Anterior margin of pronotum straight or very weakly rounded, with small emargination at middle, base weakly rounded. Anterior and posterior angles obtuse, widely rounded on apex, anterior angles not projected. All sides of pronotum bordered, emargination of anterior margin absent in middle. Disc of pronotum weakly regularly convex. Punctuation of pronotum the same as head, but punctures elongated. Lateral sides and anterior part of pronotum covered with thin, short sparse hairs. Propleura with longitudinal rugae and recumbent hairs in anterior part; outer margin of propleura not flattened.

Elytra elongate oval (1.73 times as long as wide), their sides not parallel, widest at the middle, 1.12–1.16 times as wide and 2.3–2.35 times as long as pronotum. Punctures in striae on elytra merged into entire furrows. Intervals weakly convex, with moderately coarse and sparse punctuation. Transverse distans of each interval with 2–3 punctures. Apex of elytra with short sparse subrecumbent setae.

Ventral side of body pubescent. Abdominal sternites densely covered with goldish recumbent hairs. 1st, 4th and 5th sternites with hair spot. Anal sternite fully bordered on apex.

Tibiae straight, covered with dense hairs. Fore tibiae covered with recumbent hairs and dense erected hairs on outer margin. Protarsi weakly widened.

Material. Holotype, ♂ (HNHM) with labels: "Gachsar-Marzanabad, 550 m, 28.4" [prov. Mazandaran, 36°27'N / 51°16'E], "Iran 1970, Wittmer, v. Bothmer", "*Helopondrus* sp. det. Kaszab". Paratypes, the same labels: 2♂ and 5♀ (HNHM), 2♂ and 2♀ (ZIN); 2♂, 2♀ with label "Iran: Mazandaran, Hasan keif [36°30'N / 51°09'E], 19–21.04.1999, leg. J. Rejsek" (SNMS).

Variability. Small males have more less widened pronotum (fig. 2) than big males (color table 2, fig. 1).

Etymology. The species is named in memory of Oleg Nikolaevich Kabakov, well-known geologist and coleopterologist.

Differential diagnosis. New species is close to *N. cambyses*, but differs from it by follows characters: head densely pubescent with suberect hairs; pronotum very weakly convex (*N. cambyses* have visibly convex pronotum); erected setae on outer margin of fore tibiae very dense; elytra oval, with rounded margins (*N. cambyses* has parallel or near parallel margins of elytra); three hair spot on abdominal segments (*N. cambyses* has only one clear hair spot on 1st sternite); elytra 1.15 times long as antennae (1.6 at *N. cambyses*).

Distribution. Steppe zone of Central Elburs on high 500–600 m.

Nalassus (Helopondrus) heres (Reitter, 1922)
(Fig. 8)

Reitter, 1922: 154 [*Cylindronotus (Helopondrus)*]; Kühnelt, 1957: 79, 91 (*Cylindronotus*); Gebien, 1943: 897 (812) [*Cylindronotus (Helopondrus)*]; Nabozhenko, 2008b: 37 (*Nalassus*); Nabozhenko, Löbl, 2008: 242 [*Nalassus (Helopondrus)*].

Type material (studied). Lectotype ♂ (DEI) is designated here, with labels: "Astrabad", "Coll. Kraatz", "Syntypus", "Ed. Reitter det.". Paralectotype, ♀ (DEI) with labels: "Persia", "Coll. Kraatz", "Syntypus", "Ed. Reitter det.", "*Helopondrus heres* m."; paralectotype, ♀ (DEI) with labels: "Persia", "Coll. Kraatz", "Syntypus", "Ed. Reitter det."; paralectotype, ♂ (HNHM), with labels: "Astrabad heres Type", "Paratypus, 1922, *Cylindronotus heres*". 1 paralectotype is deposited in NMBA, Switzerland [Kulzer, 1963].

Other studied material. Iran, prov. Mazandaran, Kalardacht, 26.06.1965 (leg. L. Matile, Museum Paris, Mission Franco-Iranienne), 2♂, 7♀ (MNHP); Iran, 10 km. S Behshahr (Loc. no. 380), 23–24.06.1977 (Expedition of National Museum Praha), 1♀ (NMPC); Iran, prov. Mazandaran, Razi, 1900 m, 24.04.1999 (leg. N. Rahmé), 1♀ (HNHM); Iran, prov. Gilan, 32 km W Asalem, Halhal, 15.06.2000 (G. Rozner), 1♀ (HNHM).

Distribution. Northern Iran (prov. Gilan, Mazandaran).

Nalassus (Helopondrus) cunctator (Reitter, 1922)

Reitter, 1922: 155 [*Cylindronotus (Helopondrus)*]; Kühnelt, 1957: 79, 91 (*Cylindronotus*); Gebien, 1943: 897 (812) (as possible synonym of *Cylindronotus (Helopondrus) ponticus*); Nabozhenko, 2008b: 37 (*Nalassus*); Nabozhenko, Löbl, 2008: 242 [*Nalassus (Helopondrus)*].

Type material. The material is probably lost, types are absent in collection of E. Reitter (HNHM) and A. Schuster (NMBA).

Other material. Not studied.

Notes. Reitter [1922] compared this species with *N. heres*, however description of *N. cunctator* similar to *N. cambyses*. Reitter didn't know *N. cambyses* and not included it in his key, but cited it in footnote.

Distribution. The species is known only on type material from Astrabad (now Gorgan, prov. Mazandaran).

Nalassus (Helopondrus) lineatus (Allard, 1877)
(Fig. 9)

Allard, 1877: 259 [*Stenomax (Omaleis)*]; Seidlitz, 1896: 738 [*Helops (Omaleis)*]; Gebien, 1911: 547 [*Helops (Omaleis)*]; Reitter, 1922: 153 [*Cylindronotus (Helopondrus)*]; Gebien, 1943:

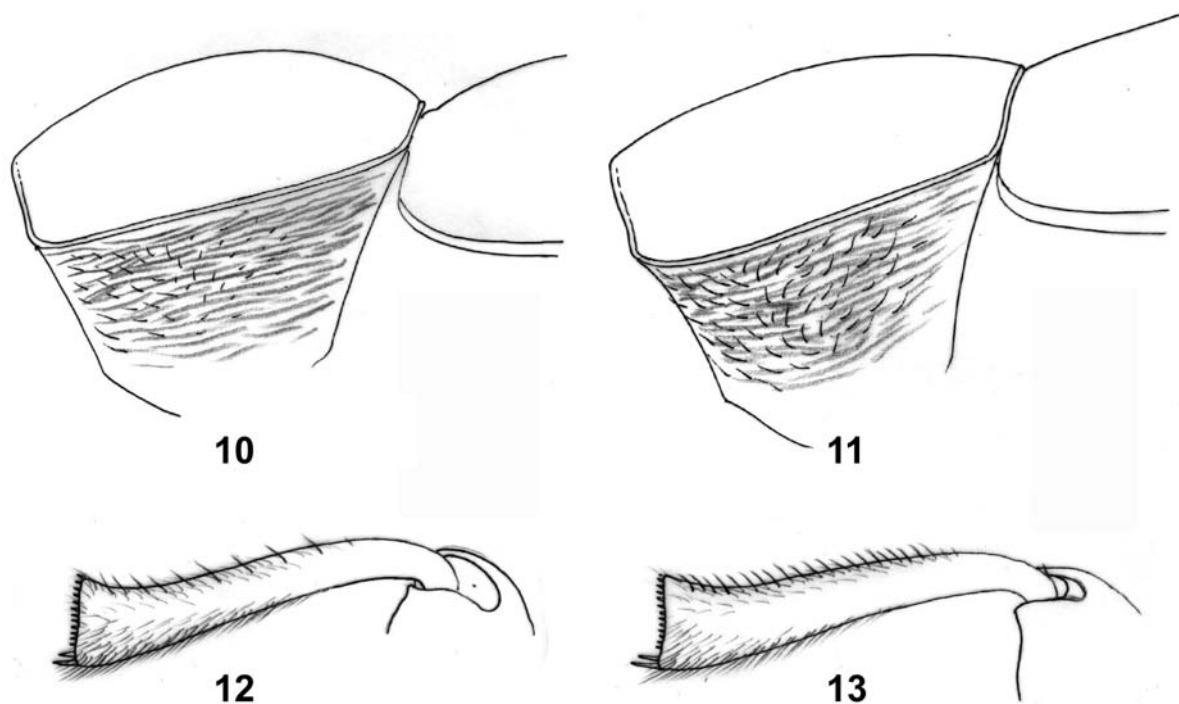


Fig. 10–13. Structures of *Nalassus (Helopondrus)* spp., males.

10, 11 – prothorax, lateral view; 12, 13 – fore tibiae. 10, 12 – *N. cambyses*; 11, 13 – *N. kabakovi* sp. n.

Рис. 10–13. Строение самцов *Nalassus (Helopondrus)*.

10, 11 – переднегрудь латерально; 12, 13 – передняя голень. 10, 12 – *N. cambyses*; 11, 13 – *N. kabakovi* sp. n.

897 (812) [*Cylindronotus (Helopondrus)*]; Kühnelt, 1957: 79, 91 (*Cylindronotus*); Dzhambazishvili, 2000: 191 (*Nalassus*); Nabozhenko, 2001: 655, fig. 40, 41, 45 [*Nalassus (Helopondrus)*]; Nabozhenko, 2005: 39 [*Nalassus (Helopondrus)*]; Nabozhenko, Löbl, 2008: 242 [*Nalassus (Helopondrus)*].

= *vexator* Reitter, 1887: 524 (*Stenomax*); Seidlitz, 1896: 730 [*Helops (Stenomax)*]; Gebien, 1911: 555 [*Helops (Stenomax)*]; Reitter, 1922: 153 [*Cylindronotus (Helopondrus)*]; Gebien, 1943: 897 (812) [*Cylindronotus (Helopondrus)*].

= *propheta* Seidlitz, 1893: 730 [*Helops (Stenomax)*]; Gebien, 1911: 551 [*Helops (Stenomax)*]; Reitter, 1922: 139 [*Cylindronotus (Omaleis)*]; Gebien, 1942: 428 (807) [*Cylindronotus (Omaleis)*]; Kühnelt, 1957: 79, 91 (*Cylindronotus*).

Type material (studied). Types of *Nalassus lineatus* are not studied. *Helops propheta*. Holotype, ♂ (DEI) with labels: “astrabad Staudgr”, “88”, “Holotypus”, “*propheta* n. sp.”, 1 goldish and 1 dark blue small squares. Designation of synonymy in Nabozhenko [2004].

Types of *Stenomax vexator* (HNHM). Lectotype (♂) is designated here, and 4 paralectotypes (2♂, 2♀) with labels: “Casp.-M.-Gebiet. Liryk. Leder (Reitter)”, “Talyshgeb. Transcaucas. Leder, Reitter”, “Lencoran. Leder, Reitter”. 1 paralectotype is deposited in NMBA, Switzerland [Kulzer, 1963]. Designation of synonymy in Nabozhenko [2001].

Other studied material from Iran. Iran, prov. Mazandaran, 3 km S Kelerd, 200 m, 22–27.04.1999 (leg. N. Rahmé), 2♂, 4♀ (HNHM); Iran, prov. Golestan, 2 km E Tunel-e-Golestan (stream valley, oak forest; at light), 37°22.1'N / 55°59.3'E, 835 m, 26–27.05.2006 (leg. J. Hajek, P. Chvojka), 1♀ (NMPC); Iran, prov. Golestan, Korud Abad (stream valley with Alnus; at light), 36°53.1'N / 54°53.2'E, 230 m, 28–29.05.2006 (leg. J. Hajek, P. Chvojka), 2♂ (NMPC); Iran, prov. Mazandaran, 10 km S Galudan (broadleaved forest, at light) 36°41.2'N / 53°46.3'E, 550 m, 29–30.05.2006 (leg. J. Hajek, P. Chvojka), 1♂, 1♀ (NMPC). Other material cited in Nabozhenko [2001].

Distribution. Northern Iran (prov. Golestan, Mazandaran, Gilyan), South-Eastern Azerbaijan (Talysh), local populations are on Black sea coastal forests (from Southern Georgia (Adzharia) to Taman peninsula: Anapa).

Nalassus (Helopondrus) ahngeri (Medvedev, 1998)

Medvedev, 1998: 138, figs. 1–4 [*Cylindronotus (Helopondrus)*]; Nabozhenko, 2008b: 37 (*Nalassus*); Nabozhenko, Löbl, 2008: 242 [*Nalassus (Helopondrus)*].

Type material. Holotype (Zoological Museum, University of Helsinki, not studied), ♂: “Transcasp.”, “Ahnger”.

Other studied material. Iran, prov. Khorasan, Quidjan (Qučan), Mts. Kopetdag, 3000 m, 30.05.1999 (leg. K. Gaskó), 1♀ (HNHM).

Notes. Reliable differences between females of *N. cambyses* and *N. angeri* are absent. Additional material is necessary for establishment of status (synonym or subspecies of *N. cambyses*) of *N. angeri*.

Distribution. Kopet Dag mountains (Turkmenistan, Iran). New record for Iran.

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