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## A new species of seed-beetles of the genus *Bruchus* Linnaeus, 1767 (Coleoptera: Chrysomelidae: Bruchinae) from Western Iran

### Новый вид жуков-зерновок рода *Bruchus* Linnaeus, 1767 (Coleoptera: Chrysomelidae: Bruchinae) из Западного Ирана

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**Ключевые слова:** Coleoptera, Chrysomelidae, Bruchinae, *Bruchus*, новый вид, Иран.

**Abstract.** *Bruchus lorestanus* sp. n., a new species of seed-beetles, is described from Iran. The new species is the most similar to *Bruchus mirabilicollis* Ter-Minassian, 1968, from which it differs in the shape of pronotum, shape and size of pronotal tooth, pronotal punctation, and form of mesotibial plate. New records from Iran are provided for *Bruchus hamatus* Miller, 1881 and *B. altaicus* Fähræus, 1839.

**Резюме.** Описан *Bruchus lorestanus* sp. n., новый вид жуков-зерновок из Ирана. Новый вид наиболее близок к *Bruchus mirabilicollis* Ter-Minassian, 1968, от которого отличается формой и пунктировкой переднеспинки, формой и размером зубца на ней, строением пластинки на вершине средней голени самца. Приводятся новые данные по распространению в Иране *Bruchus hamatus* Miller, 1881 и *B. altaicus* Fähræus, 1839.

According to the check-list of Iranian Bruchidae the fauna of Iran contains 26 species of the genus *Bruchus* Linnaeus, 1767 [Ghahari, Borowiec, 2017], of which some species were described only recently [Delobel, Sadeghi, 2014]. One new Iranian *Bruchus* is described and new records for two little known species of the genus are listed below.

#### *Bruchus lorestanus* sp. n.

(Color plate 3: 1–5, 9; Color plate 4: 10–14)

**Material.** Holotype, ♂, and paratype, 1♀: Iran, Lorestan Prov., 24 km S Azna, 33.279639 N / 49.499288 E, 16–17.05.2017 (leg. D. Kasatkin). Holotype will be deposited in Zoological Institute of the Russian Academy of Science (St. Petersburg, Russia), paratype is in author's collection.

**Description.** Body length: male 5 mm, female 5.1 mm; width 2.3 mm (level of medial part of elytra). Body black, densely covered with olive-grey hairs, first two antennomeres lighter (Color plate 3: 1, 2). Basal lobe of pronotum with whitish hairs. Legs covered with grey hairs. Head short, eyes moderately convex, ocular sinus 70% length of eye, with 10–11 ommatidia; frontal carina absent in male, present in female. Punctuation of head dense, fine, apex of clypeus straight. Antennae twice as short as body length; antennomere 2 submoniliform, 1 and 3–4 cylindrical, 5 subtriangular, 6–10 subserrate, 7–9 with subequal length and width, 6 slightly longer than wide.

Pronotum moderately transverse (1.48–1.56 as wide as long), with very strong lateral tooth on each side at anterior third; lateral excavation very deep; basal lobe (portion) trapezoidal, with very weak oblique impression on sides (Color plate 3: 3; Color plate 4: 9). Disc convex, with very dense and coarse punctation. Lateral side between apex of tooth and apex of pronotum serrated.

Elytra wider than pronotal base; 1.39 times longer than wide at level of humeri; lateral sides nearly parallel, evenly and slightly rounded; elytral striae distinct; interstriae flat.

Mesotibia apically widened into a plate with two equal sharp teeth (Color plate 3: 4). Metafemora moderately thickened; ventral margin with large, sharp preapical tooth and well-defined excavation (Color plate 3: 5); metatibia with distinct carina on ventral edge, at external and inner side; mucro of metatibia slightly longer than other apical teeth.

Pygidium of male shield-shaped, slightly longer than basal width, with apex slightly bulging and declinate; apex in female more elongate, with distinctly longitudinal ridge apically and impressions at each side, not declinate, formed sharp edge to body axis.

Male genitalia. Median lobe (Color plate 4: 10, 11) moderately short and robust (thickened) (ratio of maximal width in apical part to total length 0.2), apically strongly widened, with cellular microsculpture in medial part; ventral valve strongly sclerotized, rounded, with small recurved process, with two lateral groups of about 17 setae at apex; internal sac with dense masses of spicules, sparser in second half and two group of very dense spicules at base. Lateral lobes cleft to 43% of their length; apex of lateral lobes with intricate structure, with sclerotized plate and numerous setae (Color plate 4: 12, 13). Inner sternite strongly sclerotized, elongate, with apical margin cupola-shaped and several setae (Color plate 4: 14).

**Differential diagnosis.** A new species is the most similar to *B. mirabilicollis* Ter-Minassian, 1968 described from Turkmenistan, Kopet-Dag [Ter-Minassian, 1968], from which it differs in the shape of pronotum, shape of pronotal tooth which is smaller than in *B. mirabilicollis* and not hook-shaped, finer pronotal punctation, and longer mesotibial teeth (Color plate 3: 6–8). From *B. lugubris* Fähræus, 1839 another uniformly coloured species, *B. lorestanus* sp. n. differs in the larger body, the much more developed pronotal tooth and excavation, larger tooth of metafemora, body shape and male genitalia. From *B. barimani* Delobel et Sadeghi, 2014, it differs in the

genital morphology, habitus, form of antennomere 4, large size, position and direction of pronotal tooth, complete absence of spots on elytra and pygidium, not serrated apical margin of male inner sternite VIII, as well as form of median and lateral lobes of aedeagus.

**Etymology.** A new species named after the type locality, Lorestan, Iran (Color plate 4: 15).

*Bruchus hamatus* Miller, 1881

**Material.** 1♂ (in author's collection), Iran, Zanjan Prov., 40 km NW Bonab, 36.799154 N / 4.873157 E, 9–10.05.2017 (leg. D. Kasatkin); 1♂, 1♀ (in author's collection), Iran, Lorestan Prov., Dorud Distr., near Cham Chit vill., 13.05.2107 (leg. D. Kasatkin).

**Notes.** This species was listed for East Azerbaijan and Fars provinces of Iran [Ghahari, Borowiec, 2017]. Some specimens were collected by author in Lorestan and Zanjan provinces.

*Bruchus altaicus* Fåhraeus, 1839

**Material.** 1♀ (in author's collection), Iran, West Azerbaijan Province, Urmia Lake env., near Rajan vill., 25.05.2014 (leg. D. Kasatkin); 1♂, 1♀ (in author's collection), Iran, Gilan Prov., near Gash Sara vill., 36.667177 N / 49.70406 E, 9.05.2017 (leg. D. Kasatkin).

**Notes.** This species was listed for North Iran (without distinct locality) and Mazandaran Province [Ghahari, Borowiec, 2017]. It was collected by me in Gilan and Western Azerbaijan provinces.

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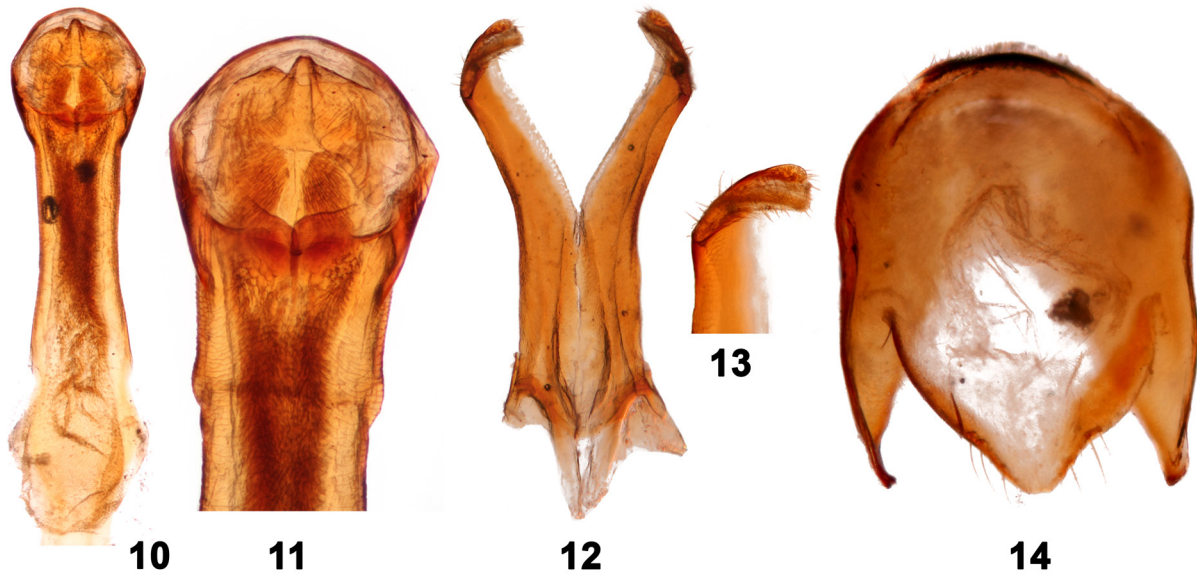
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Figs 1–9. Species of the genus *Bruchus*.  
 1–5, 9 – *B. lorestanus* sp. n.; 6–8 – *B. mirabilicollis* Ter-Minassian, 1968. 1, 6 – holotype, male, dorsal view; 2 – paratype, female, dorsal view; 3 – pronotum, dorsal view; 4 – apex of mesotibia; 5 – apex of hind femur; 7 – holotype, male, lateral view; 8–9 – pronotum, lateral view.  
 Рис. 1–9. Виды рода *Bruchus*.  
 1–5, 9 – *B. lorestanus* sp. n.; 6–8 – *B. mirabilicollis* Ter-Minassian, 1968. 1, 6 – голотип, самец, вид сверху; 2 – паратип, самка, вид сверху; 3 – переднеспинка, вид сверху; 4 – вершина средней голени; 5 – вершина заднего бедра; 7 – голотип, самец, вид сбоку; 8–9 – переднеспинка, вид сбоку.



Figs 10–14. *Bruchus lorestanus* sp. n., male genitalia.

10 – median lobe; 11 – apex of median lobe; 12 – lateral lobes; 13 – apex of lateral lobe; 14 – VIII inner male segment (tergite and sternite).

Рис. 10–14. *Bruchus lorestanus* sp. n., гениталии самца.

10 – пенис; 11 – вершина пениса; 12 – парамеры; 13 – вершина парамер; 14 – VIII скрытый сегмент самца (тергит и стернит).



Fig. 15. The type locality of *Bruchus lorestanus* sp. n., Lorestan, Iran.

Рис. 15. Типовое местонахождение *Bruchus lorestanus* sp. n., Лурестан, Иран.