

UDC 595.76(574)

A NEW SPECIES OF THE GENUS *LEISTUS* (COLEOPTERA, CARABIDAE, NEBRIINI) FROM KAZAKHSTAN

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Received 13 April 2010

Accepted 31 July 2010

A New Species of the Genus *Leistus* (Coleoptera, Carabidae, Nebriini) from Kazakhstan. Kabak I. I., Putschkov A. V. — *Leistus (Pogonophorus) tatianae* Kabak et Putschkov, sp. n. is described from the right bank of the Bayankol River (South-Eastern Kazakhstan). Its differences from the closely related species *L. mitjaevi* Kabak, 2008 and *L. tschitscherini* Semenov, 1906 are discussed.

Key words: Coleoptera, Carabidae, *Leistus*, new species, South-Eastern Kazakhstan.

Новый вид рода *Leistus* (Coleoptera, Carabidae, Nebriini) из Казахстана. Кабак И. И., Пучков А. В. — Описан *Leistus (Pogonophorus) tatianae* Kabak et Putschkov, sp. n. с горы по правому берегу р. Баянкол (Юго-Восточный Казахстан). Обсуждены его отличия от близких видов, *L. mitjaevi* Kabak, 2008 и *L. tschitscherini* Semenov, 1906.

Ключевые слова: Coleoptera, Carabidae, *Leistus*, новый вид, Юго-Восточный Казахстан.

This publication contains the description of a new species of the genus *Leistus* Froehlig collected by the second author in the South-Eastern part of Terskei Alatau Mountain Range (Kazakhstan).

The following measurements were taken: body length from the anterior margin of the labrum to the elytral apex; head width (HW) across eyes; pronotal length (PL) along its median line; elytral length (EL) from the summit of scutellum to the apex of elytra; width of both pronotum (PW) and elytra (EW) at their broadest part; width of basal margin of pronotum (PB) between the hind angles; width of elytral base (EB) between the humeral angles; length of antennae (AL) from the scapus base to the apex of ultimate segment; and length of the eye (EyL) was measured in dorsal view. The number of genitalic preparations follows in parenthesis the number of available specimens.

The holotype and some paratypes of the new species are deposited in the collections of the Institute of Zoology, National Academy of Sciences of Ukraine, Kyiv (SIZK), other paratypes in the collections of the Zoological Institute of Russian Academy of Sciences, St. Petersburg (ZISP), Moscow Pedagogical University (MPU), in the collections of I. Belousov and I. Kabak, St. Petersburg (cBK), S. Facchini, Piacenza (cSF), J. Farkač, Praha (cJF), and A. Koval, St. Petersburg (cAK).

Leistus (Pogonophorus) tatianae Kabak et Putschkov, sp. n. (fig. 1)

Type material. Holotype ♂ (SIZK), SE Kazakhstan, Bayankol Valley, Shirokiy Pass env., 2800–3000 m, 9–11.06.2007 (A. Putschkov leg.). Paratypes: 21 ♂, 16 ♀ (ZISP, SIZK, MPU, cAK, cBK, cJF, cSF), collected together with holotype.

Description. Apterous species with narrow and convex body (fig. 1, *I*), length 6.6–7.8 (7.3) mm (a rather small species for the *L. spinangulus* group). Colour of upper-side ferrugineous to blackish, usually pitchy-brown; mandibles, labrum, appendages and occasionally lateral margins of pronotum paler, reddish-brown.

Head narrow, PW/HW = 1.23–1.31 (1.26), forehead strongly convex, delimited posteriorly by a deep transverse occipital impression. Upper surface of head smooth,

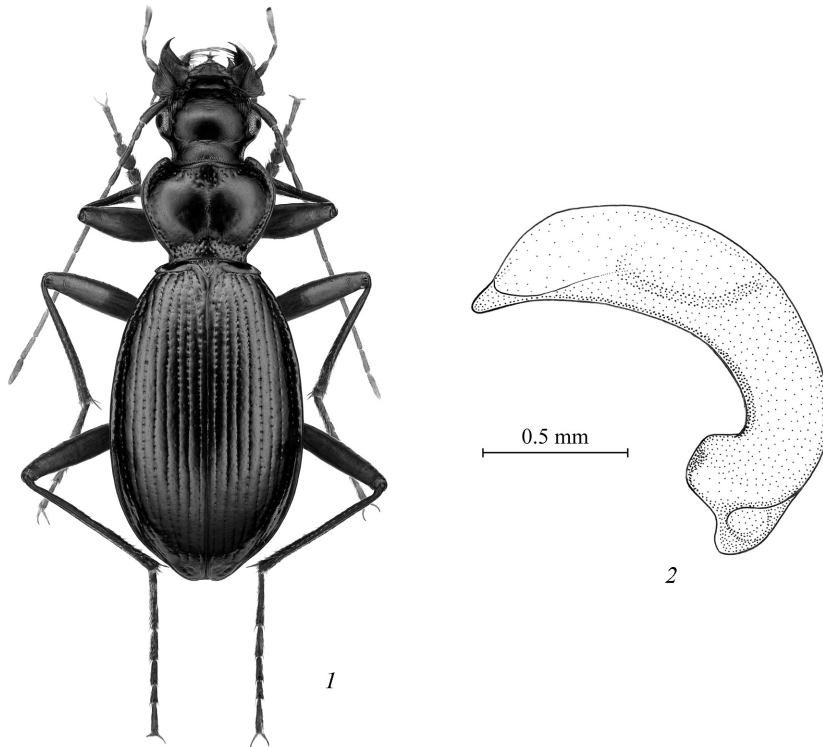


Fig. 1. *Leistus (Pogonophorus) tatianae*: 1 — habitus; 2 — median lobe of aedeagus, lateral view.

Рис. 1. *Leistus (Pogonophorus) tatianae*: 1 — общий вид; 2 — срединная лопасть эдеагуса, вид сбоку.

only its antero-lateral sides with shallow longitudinal wrinkles and occasionally with a few weak punctures. Supraorbital stria posteriorly curved medially and delimits frons from occiput. Frontal fovea always distinct on clypeus, more vaguely impressed posteriorly, on forehead, at most, reaching level of anterior margin of eye. Clypeus glabrous. Eyes long, $EyL/L3 = 0.99-1.08$ (1.03), moderately convex. External margin of mandibles slightly sinuate. Antennae long, though usually not reaching mid-length of elytra $AL/EL = 1.01-1.14$ (1.06); the 5th antennomere 1.32–48 (1.40) times longer than the 3rd. Penultimate segment of maxillary palpi bisetose on anterior surface: one prebasal seta and one median. Mentum with a pair of median and a pair of baso-lateral setae; anterior margin of median tooth not concave, with a pair of setae. Lateral lobes of mentum with a long apical aciculum instead of usual apical setae. Gular carina weak, slightly arched, bearing 5 setae; each side of submentum with only one angular seta placed on small tubercle.

Pronotum cordiform, narrow, $PW/PL = 1.27-1.37$ (1.32), rather strongly constricted at base, $PW/PB = 1.67-1.79$ (1.73). Maximum width of pronotum in its anterior third. Lateral margins slightly and somewhat irregularly rounded for most length, briefly and rather deeply sinuate just before hind angles. The latter small, acute, usually pointed at apices, always clearly produced backward and often outward. Anterior margin convex medially, concave laterally, its border well-pronounced, complete or only briefly smoothed medially. Anterior angles narrowly rounded and very strongly protruding. Posterior margin of pronotum more or less distinctly concave medially, basal border thin, occasionally reduced. Sides of pronotum moderately margined and deflexed throughout. Basal foveae small but deep. Anterior transverse impression vaguely outlined, posterior one sharp and deep. Disk rather strongly convex, smooth. Punctures of pronotum sparse and not rough, small on the lateral slopes of disk, large

on both anterior and basal surfaces as well in lateral gutter. Median line well-impressed, markedly shortened anteriorly and posteriorly.

Elytra ovate and convex, not or weakly flattened on disk, broadest just behind mid-length, $EL/EW = 1.56-1.69$ (1.60), $EL/PL = 2.96-3.19$ (3.05), $EW/PW = 1.37-1.49$ (1.44). Shoulders narrow, $EW/EB = 1.75-1.96$ (1.85), humeral denticles acute and attenuate. Anterior margin of shoulder rather strongly oblique (usually even more strongly than in fig. 1), so base of elytra in front of basal border triangularly shaped in dorsal view. Basal border slightly oblique to perpendicular to elytral suture. Lateral margins of elytra evenly rounded, in basal quarter nearly straight. Marginal bead not wide, narrowed toward humeri, margins slightly deflexed. Elytral striae very deep, roughly punctate, striae 6–8 shallower; all striae effaced on apical slope, though one or two striae briefly and sharply engraved near preapical pore. Prescutellary striae usual in length, prescutellary pore lacking. Intervals subequal in width, convex throughout, their punctuation fine, sparse, arranged in a irregular longitudinal row. Discal setae lacking, one preapical pore on interval 3. Umbilicate series consisting of 7 (seldom 6) small pores. Microsculpture superficial: hardly perceptible on forebody, consisting of isodiametric mesh on head, transverse mesh on both pronotum and elytra. Surface of upper-side moderately shining, more strongly in males due to less developed microsculpture. Ventrites 1–3, meso- and metasternum sparsely and not roughly punctured on sides. Ventrites 3–5 with two pairs of setae along posterior margin. Legs slender, average in length, their pubescence oblique and very short.

Aedeagus (fig. 1, 2) small, stout, its apical lamella triangle in shape, blunt at apex.

Diagnosis. The new species belongs to the *L. spinangulus* species group (Perrault, 1982) of the subgenus *Pogonophorus* Latreille, 1802 sensu G. Perrault (Perrault, 1980). In the aedeagal structure (median lobe stout, apical lamella triangularly shaped), *L. tatianae* sp. n. is most closely related to *L. mitjaevi* Kabak (Kabak, 2008) known from the western part of the Narat Mt. Range. The new species differs from it by the following features: the body smaller (average length is 7.3 vs. 7.9 mm in *L. mitjaevi*); the head, on average, larger (PW/HW means is 1.26 vs. 1.30 in *L. mitjaevi*); the external margin of mandibles more strongly sinuate; the pronotum less regularly rounded on sides, its maximum width closer to the anterior margin, sinuation before hind angles longer, punctures of both anterior and posterior surfaces, on average, weaker, pronotal base narrower (PW/PB means is 1.73 vs. 1.66 in *L. mitjaevi*); the sides of elytra behind shoulders weakly rounded, more strongly near mid-length, the elytral base narrower (EW/EB means is 1.85 vs. 1.81 in *L. mitjaevi*), humeral border strongly oblique; the antennomere 5 longer (on average, 1.40 times as long as antennomere 3, vs. 1.34 in *L. mitjaevi*). Apart from the above characters, *L. tatianae* sp. n. differs in male genitalia: ventral margin of penis less arcuate, ring of the endophallus armature larger.

Externally, the new species is similar to *L. tschitscherini* Semenov (Semenov-Tian-Shanskij, 1906) inhabiting the eastern part of the Terskey Alatau Ridge between the Karkara and Bayankol valleys and the upper Sary-Dzhas Valley (Belousov, Kabak, 1992). *L. tatianae* sp. n. is readily distinguished from *L. tschitscherini* by the aedeagus structure: its median lobe is more robust, the apical lamella is triangularly shaped, less rounded at apex, the ring of the endophallus armature is larger. In addition to the above features, the new species differs from *L. tschitscherini* by the narrower pronotum (means $PW/PL = 1.32$ vs. 1.35 in *L. tschitscherini*) with hind angles smaller and less protruding outwards, the less convex eyes, the narrower elytral base (means $EW/EB = 1.85$ vs. 1.81 in *L. tschitscherini*); on average, the more oblique anterior margin of shoulders, and the wider basal area of elytra.

Distribution. The new species is known from the right bank of the Bayankol River near the Shirokiy Pass (Kazakhstan), 42°36'00" N / 80°04'45" E. The nearest finds

of *L. tschitscherini* are known on the Meridionalnyi Mt. R. (Alaighyr River) and left bank of the Bayankol River near the frontier post.

Habitats. The type series of *L. tatarica* sp. n. was collected on banks of streams in the alpine zone about 3000 m a. s. l.

We are very grateful to our friend and colleague Dr. I. Belousov (St-Petersburg) for his help in preparing this publication and to Dr. B. Kataev (St. Petersburg) for providing us with type material deposited in the ZISP collection. Our sincere thanks to Dr. R. Yashenko (Almaty) and Mr. S. Shumov (Kyiv) for organisational assistance.

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