

## A new subspecies of the genus *Cymindis* Latreille, 1805 from East Kazakhstan (Coleoptera: Carabidae: Lebiini)

### Новый подвид рода *Cymindis* Latreille, 1805 из Восточного Казахстана (Coleoptera: Carabidae: Lebiini)

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КЛЮЧЕВЫЕ СЛОВА: Lebiini, таксономия, Казахстан, Алтай.

**ABSTRACT.** A new subspecies of ground beetles of the genus *Cymindis* Latreille, 1805 is described from the valley of the Bukhtarma River (East Kazakhstan): *C. (Paracymindis) altaica bukhtarmensis* **ssp.n.** Photographs of habitus and the median lobe of aedeagus are provided. The new subspecies differs from the nominotypical form in the smaller size, less rough punctures on dorsum, wider pronotum and the slenderer median lobe of aedeagus with longer apical lamella.

**РЕЗЮМЕ.** Описан новый подвид жужелиц рода *Cymindis* Latreille, 1805 из долины р. Бухтарма (Восточный Казахстан): *C. (Paracymindis) altaica bukhtarmensis* **ssp.n.** Приведены фотографии габитуса и медиальной доли эдеагуса. Новый подвид отличается от номинативной формы меньшим размером, менее грубой пунктировкой верха, более широкой переднеспинкой и более тонкой медиальной долей эдеагуса, апикальная ламелла которого длиннее.

### Introduction

This paper contains the description of a new subspecies of the genus *Cymindis* Latreille, 1805 collected in the valley of the Bukhtarma River in the Altai Mountains within the East Kazakhstan territory.

### Material and Methods

The study is based on the examination of three specimens of the new subspecies together with com-

prehensive *Cymindis* (*Paracymindis*) material comprising all species known from the Altai Mountains for comparison.

Specimens were examined and measured with an MBS-10 stereomicroscope and an ocular micrometer. The male genitalia were extracted and prepared using a conventional technique.

Photographs of beetles were taken with a Canon EOS 60D DSLR digital camera, using stacking and subsequently processed with Zerene stacker software version 1.04 (<http://zerenesystems.com/stacker>).

Measurements were taken as follows: body length from anterior margin of labrum to elytral apex; head width across eyes; pronotal length along its median line; elytral length from tip of scutellum to sutural angle of longest elytron; width of both pronotum and elytra at their widest part; pronotal base at the hind angles; length of antennae from base of scape to tip of ultimate segment; length of eye in dorsal view.

The number of specimens studied is followed by the number of genitalia preparations given in parentheses.

Abbreviations used in the paper are as follows: AL — length of antennae; EL — length of elytra; EW — width of elytra; HW — width of head; L3 — length of antennomere 3; PB — width of pronotum at base; PL — length of pronotum; PW — width of pronotum; YL — length of eye.

The holotype and one paratype of the new subspecies are housed in the collection of the Zoological Institute of the Russian Academy of Sciences (ZIN, St. Petersburg, Boris Kataev), one paratypes is kept in the working collection of Igor Belousov and Ilya Kabak, (CBK, St. Petersburg, Russia).

## Taxonomy

*Cymindis* Latreille, 1805

*Cymindis (Paracymindis) altaica*  
*bukhtarmensis* Kabak, **ssp.n.**

Figs 1–2.

**MATERIAL.** Holotype ♂, **Kazakhstan**, “Bukhtarma Riv. valley, from stanitsa Altaiskaya (Katon-Karagai), 20.VI.1899, P.K. Kozlov & A.N. Kaznakov” [in Russian] [ca. N49°10', E85°36'30", 1055 m] (ZIN). Paratypes: 1(1)♀, “Tshingistai-Altaiskaya, Bukhtarma Riv. vall. Sedel'nikov, 19.VII.914” [ca. N49°11'14", E85°52'56", 875 m] (ZIN); 1(1)♂, “E Kazakhstan, 46 km E of Katon-Karagai Vill., Bukhtarma Riv. 980 m, 5.08.1986, I.I. Kabak leg.” [ca. N49°12'36", E86°12'42"J] (CBK).

**DESCRIPTION.** Species medium-sized, body length 8.8–9.2 mm in males, 10.8 mm in female, hind wings reduced, habitus wide and moderately convex, appendages averaged (Fig. 1). Colour of dorsal side reddish-brown to dark-brown, labrum, mandibles, margins and base of pronotum and elytral margins reddish, head a little darker, pronotal disc a little paler medially. Legs and antennae brownish-testaceous. Ventral side of body dark-brown, head and abdomen blackish, meso- and metathorax red medially; lower surface densely punctate and pubescent.

Head rather large; eyes markedly protruding, pubescent, L3/YL = 1.05–1.13 (1.09); tempora long, slightly convex. Antero-lateral margins of frons evenly rounded, moderately reflexed. Upper-side of head rather convex, especially at vertex, frontal foveae small and vague, supraorbital furrow long, sharp and deep. Frons and vertex densely and roughly punctate. Pubescence of dorsal surface of head moderately dense, hairs medium in length, slightly inclined forward. Two pairs of long supraorbital setae. Antennae medium in length, AL/EL = 1.02–1.09 in males and 0.97 in female. Scape long, longer than antennomere 3, feebly constricted medially, sparsely pubescent, with long preapical seta. Genae rather densely pubescent, hairs long. Labial tooth shorter than lateral lobes, broadly rounded at apex, bordered along anterior margin. Submentum bisetose, setae in anterolateral angles absent. Apical segment of labial palpi fusiform, with a few small hairs. Penultimate labial palpomere with four long setae on anterior margin. Apical maxillar palpomere fusiform in both sexes, sparsely pubescent.

Pronotum wide, PW/HW = 1.43–1.45 (1.44), PW/PL = 1.42–1.46 (1.44), markedly constricted toward base, PW/PB = 1.38–1.41 (1.39), broadest in anterior third. Sides markedly rounded in anterior half, subrectilinear basally, laterobasal angles small, obtuse, pointed at tip, protruded laterally. Anterior margin deeply concave, without distinct border; anterior angles ample, markedly rounded and produced anteriorly. Basal margin of pronotum convex throughout, bordered laterally. Lateral sides of pronotum very widely explanate and moderately reflexed. Disc rather convex medially, median line thin, shortened anteriorly and posteriorly, deeply impressed. Apical transverse impression deep, anterior surface slightly convex. Basal foveae sharply delimited posteriorly, vaguely outlined anteriorly. Basal transverse impression vague. Punctures on pronotal surface rough and dense, especially near base. Pubescence dense, suberect, hairs as long as on head. Two pairs of lateral setae present, one in anterior half of pronotum, and one in laterobasal angles.

Elytra wide, ovate, slightly convex, not depressed on disc (suture slightly roof-shaped in posterior half), broadest near midlength, EL/EW = 1.30–1.36 (1.32), EL/PL = 2.59–2.71 (2.66), EW/PW = 1.37–1.43 (1.40). Lateral margins arched

throughout, shoulders rounded, not protruded anteriorly. Apices oblique, subrectilinear medially, faintly ciliate; both external and sutural apical angles of each elytron broadly rounded. Marginal gutter wide, especially in middle, lateral margins reflexed. Basal border complete, moderately sinuate. Elytral striae deep, rather roughly punctate. Parascutellary striole short, parascutellary setiferous pores present. Intervals flat, densely and rather roughly punctate, punctures arranged mostly in 2 irregular rows; interval 3 with 3 small discal setiferous pores, of which the anterior one set closer to stria 3. Pubescence of elytra dense, inclined backward, as long as on head and pronotum. Umbilicate series consisting of 16–19 pores. One apical pore in stria 7 on the level of interval 3.

Scutellum glabrous and smooth. Sides of prothorax sparsely pubescent. Metepisterna slightly longer than wide. Metacoxae, in addition to short pubescence, with two long setae.

Visible abdominal sternites with a single pair of paramedian setae, anal sternite quadrisetose in both sexes.

Microsculpture on forebody indistinct, on elytra consisting of isodiametric meshes, in males hardly perceptible, in female distinct.

Meso- and metatibiae longer than corresponding tarsi. Dorsal surface of tarsi with long hairs; inner margin of claws denticulate.

Median lobe of aedeagus not thick, its ventral margin slightly sinuate; apical lamella medium in length, curved ventrally; copulatory piece saddle-shaped (Fig. 2).

Apical gonocoxite wide, straight, obliquely truncated distally.

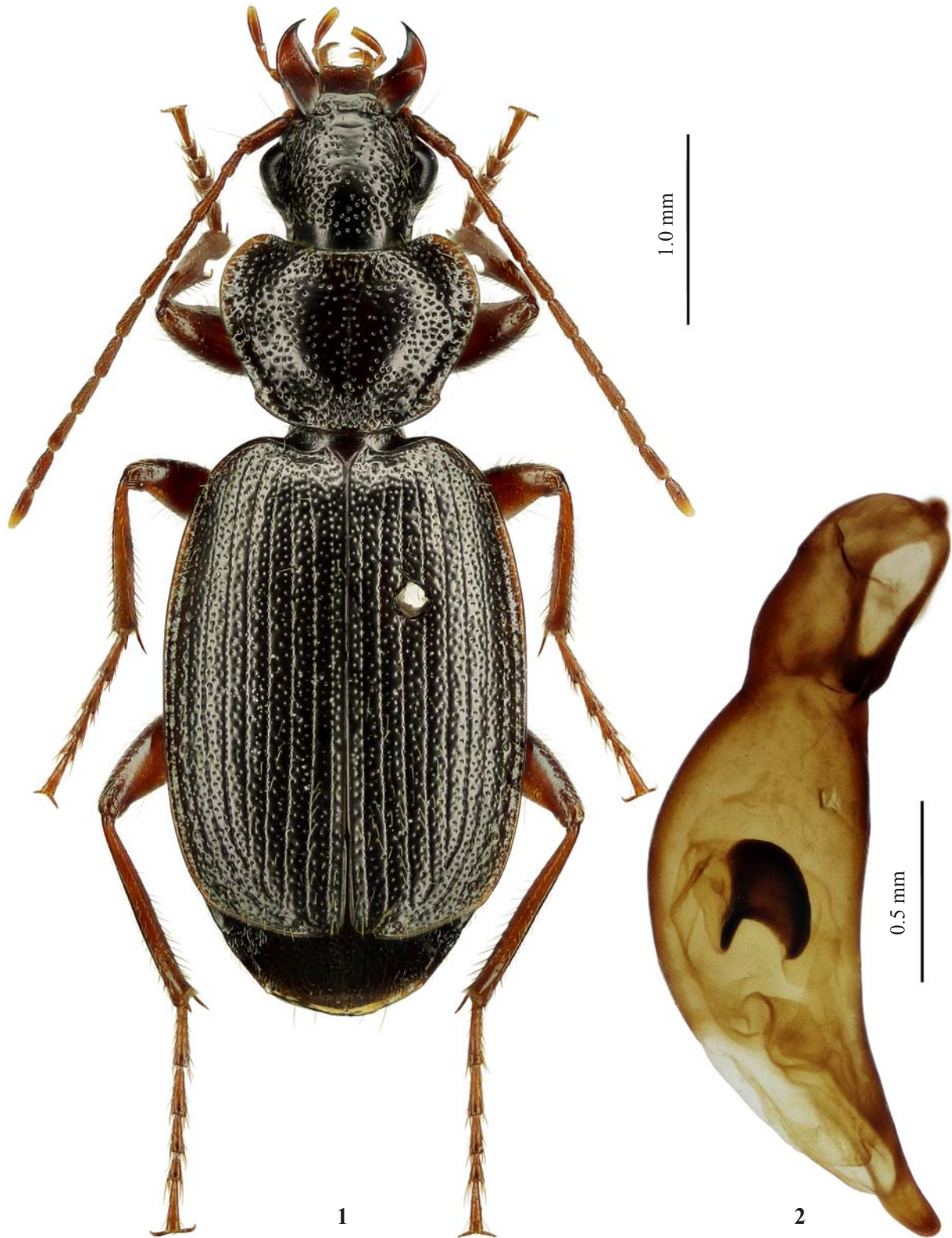
**COMPARATIVE NOTES.** *Cymindis (Paracymindis) altaica* Gebler, 1833 is distributed in the steppe biotopes of Central and Southeastern Altai: Ust-Kan, Tshuya Steppe (Ust-Inya, Ulgumenskiy Pass), Northwestern Mongolia: between Ulangom and Ulukhem [Gebler, 1833; Emetz, 1972]. The new subspecies differs from the nominotypical form in the smaller size (on the average, 9.6 mm vs. 11 mm in *C. altaica altaica*); less rough punctures on dorsum, especially on elytra where they arranged in two irregular rows (in one row in *C. altaica altaica*); and wider pronotum (minimum value of the ratio PW/PL is 1.42, average 1.44 vs. maximum value of the same index is 1.30, average 1.27 in the counterpart, maximum value of the ratio EW/PW is 1.43, average 1.40 vs. minimum 1.53, average 1.58 in *C. altaica altaica*). Additionally, the median lobe of aedeagus in the new subspecies slenderer, its ventral margin distinctly concave, apical lamella longer.

From syntopic *C. binotata* Fischer von Waldheim, 1820, the new taxon is distinguishable in having much more rough punctuation of body, deep supraorbital furrow, more produced eyes, markedly explanate lateral sides of pronotum, ample anterior angles of the latter, and conformation of the male genitalia.

**DISTRIBUTION.** The new subspecies is known only from the valley of the middle course of the Bukhtarma River, between the Katon-Karagai and Uryl' villages, Eastern Kazakhstan.

**BIONOMICS.** The subspecies was found in summer in the steppe biotopes at the elevation of about 875–1055 m a.s.l.

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Figs 1–2. *Cymindis (Paracymindis) altaica bukhtarmensis* ssp.n.: 1 — habitus of ♂, paratype; 2 — median lobe of aedeagus holotype, lateral view.

Рис. 1–2. *Cymindis (Paracymindis) altaica bukhtarmensis* ssp.n., 1 — общий вид ♂, паратип; 2 — медиальная доля эдеагуса голотипа, сбоку.

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