

A new *Cylindera* Westwood, 1831 species of the subgenus *Apterodela* Rivalier, 1950 from China (Coleoptera: Carabidae: Cicindelinae)

Новый вид рода *Cylindera* Westwood, 1831 подрода *Apterodela* Rivalier, 1950 из Китая (Coleoptera: Carabidae: Cicindelinae)

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KEY WORDS: Coleoptera, Cicindelinae, *Cylindera*, *Apterodela*, China, new species, identification key.

КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Cicindelinae, *Cylindera*, *Apterodela*, Китай, новый вид, определительный ключ.

ABSTRACT: A new species, *Cylindera* (*Apterodela*) *kazantsevi* sp.n., is described from Jinggang Shan, Province Jiangxi, China. Identification key to species of the subgenus *Apterodela* is given.

РЕЗЮМЕ: Описан новый для науки вид *Cylindera* (*Apterodela*) *kazantsevi* sp.n. из Цинганг Шан, провинция Цзянси, Китай. Приведены отличия нового вида и дан определительный ключ подрода *Apterodela*.

The genus *Apterodela* was established by Rivalier [1950] for two apterous Palaearctic species: *C. ovipennis* Bates, 1883 and *C. lobipennis* Bates, 1888. The first of them inhabits Japan only, while the second one is distributed wider occurring in central and south-eastern China [Horn, 1915; Wiesner, 1992]. Later, *C. shirakii* W.Horn, 1927 was regarded as a member of the subgenus *Apterodela* [Schilder, 1953; Wiesner, 1992]. In present paper one new *Cylindera* Westwood, 1831 species of subgenus *Apterodela* is described. Two males of this species were collected by Russian entomologist Sergei Kazantsev in Province Jiangxi, China in May 1998.

The type specimens are presently kept in the collections of Smithsonian Institute, Washington, USA (SI) and Sergei Kazantsev, Moscow, Russia (SK). Terminology referring to the elytral pattern and chaetotaxy follows that of Acciavatti & Pearson [1989], genitalia of males follows that of Freitag et al. [1985] and Matalin [1998] with some additions. Measurements are as follows: total body length (from posterior margin of labrum to elytral apex), length of labrum (along midline), width of labrum, length and width of pronotum (all in widest place), length of elytra (along suture), width of shoulders and of elytral apex (in widest place), length of tibia, tarsus and penis.

Cylindera (*Apterodela*) *kazantsevi* Matalin, sp.n.

Figs. 1, 3a, 4a, 5, 7, 9, 11, 13–16.

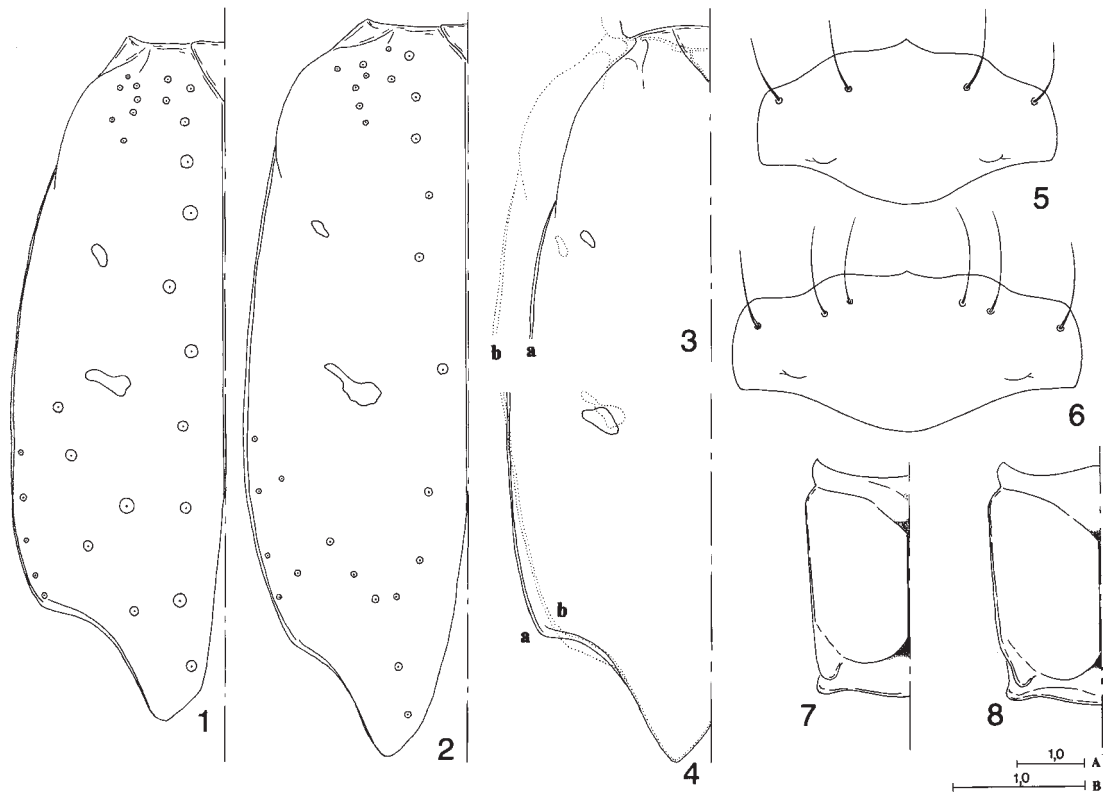
MATERIAL. Holotype ♂, "China, Jiangxi, Jinggang Shan, 700–1000 m, 25–31.V.1998, leg. S.Kazantsev" (SI); Paratype ♂, from the same sample as holotype (SK).

DIAGNOSIS. A large, bronze coloured *Apterodela* species. Labrum transverse, testaceous, 4-hiared. Pronotum longitudinal, with straight sides converged to base. Elytral disc poorly concave, practically flat; shoulders sloping and narrow; apical third broadened with deep subapical situation; white elytral pattern represented by small, oval subhumeral dot and a short transversal middle band, some distance from the lateral margin. Legs graceful, tarsus longer than tibia. Median lobe of penis with slightly elongate, cylindrical apex and extended lateral flanks.

DESCRIPTION. Length without labrum 14.7–15.7 mm. Head metallic bronze with light bluish-green lustre on clypeus, frons and anterior edge of genae; glabrous, coarsely wrinkled, with thin dense frontal furrows; supraorbital area deeply lined, with two long setae on each side. Antennae long, projected to the middle of elytral disc. Scape metallic green with cupric-golden lustre, beside a single apical seta glabrous. The 2rd–4th antennomeres metallic green with bright cupric reflections; the 3rd one 1.20–1.25 times as long as the 4th, with three-five, while the 4th with two-four stout white setae, except apical ones; 5–11 antennomeres black, finely and regular pubescent. Labrum yellowish with narrow brown anterior margin, glabrous, transverse, 1.82–1.86 times as wide as long, unidentate, with four long submarginal setae (Fig. 5). Mandibles metallic green with golden-cupric tinge in the teeth base and wide white lateral margin basally. Maxillary and labial palpi metallic green with golden-cupric and purple reflections.

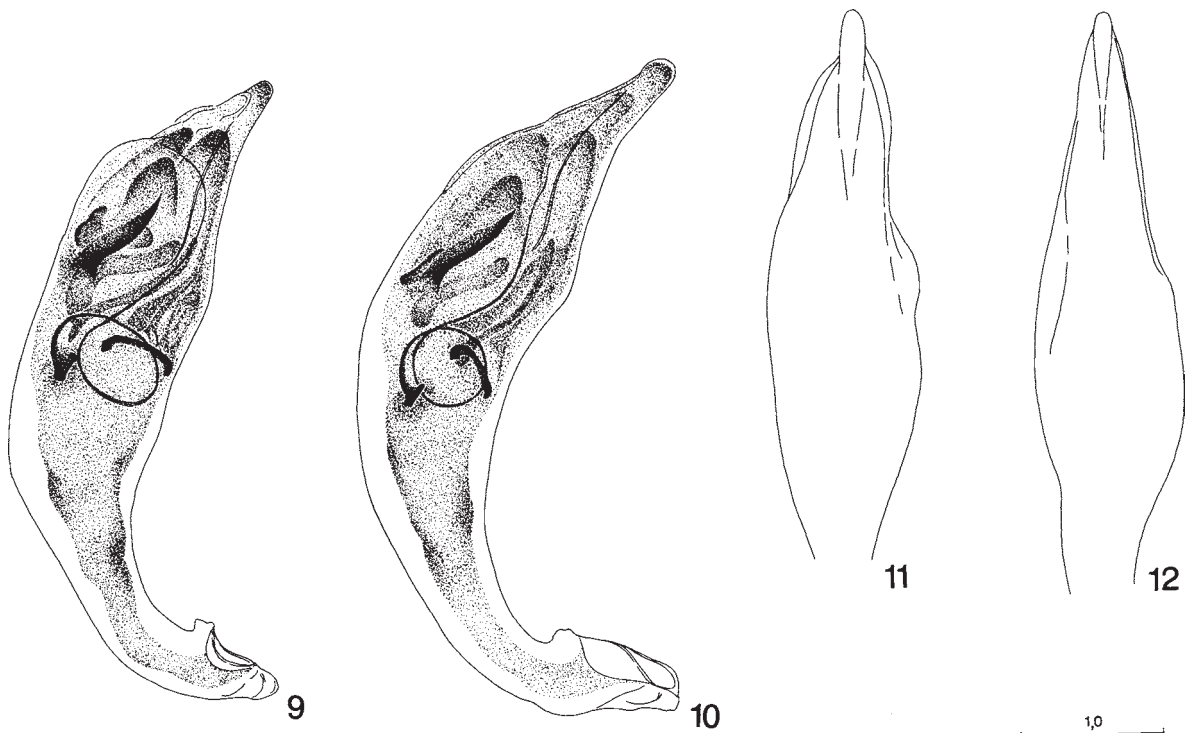
Pronotum metallic bronze with a distinct cupric reflections; slightly longitudinal, 1.07–1.11 as long as wide, with straight sides converged to base; wrinkled and practically flat on disc; anterior sutures indistinct, posterior ones very shallow; midline thin, metallic green with a deep circle pit basally (Fig. 7). Thoracic segments deep bronze, glabrous. Legs metallic green with bright cupric or cupric-purple reflections; graceful, tarsus longer than tibia in 1.65–1.66, 1.25–1.29 and 1.09–1.13 times for front, middle and hind legs, respectively. Three basal joints of forelegs in the males large and broad.

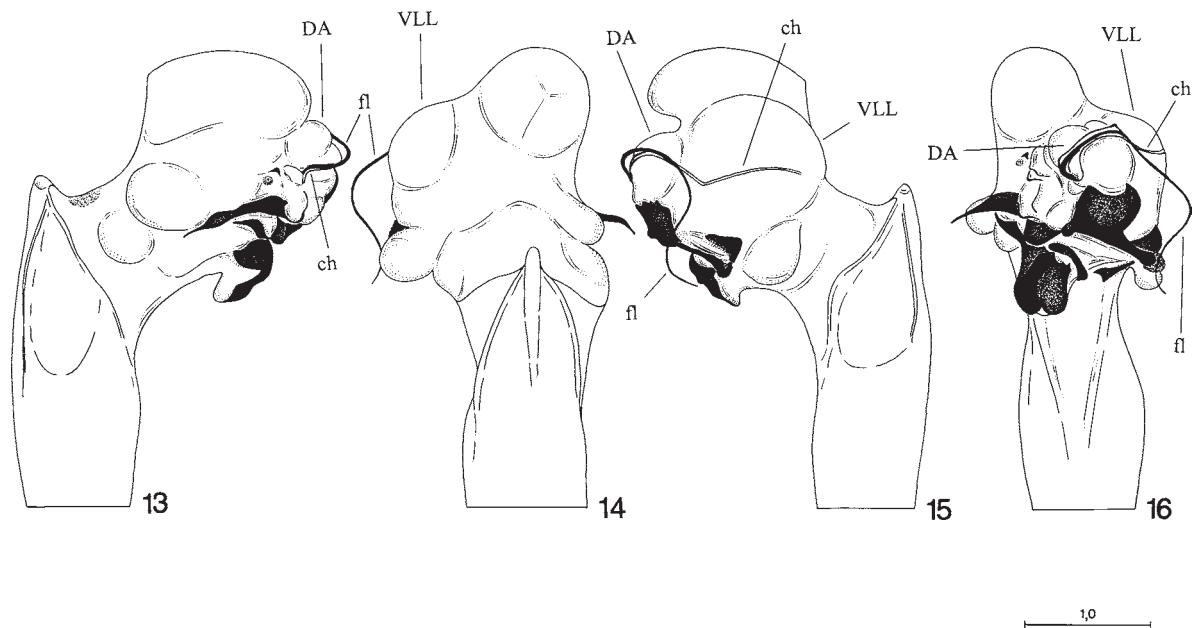
Elytral disc bronze with cupric lustre, with numerous, dense diffused, small bluish-green punctures as well as with subsutural and apical rows of large green or golden-green setigerous pores; poorly concave, practically flat. Elytral base



Figs. 1-8. *Cylindera (Apterodela) kazantsevi* sp.n., holotype ♂ (1, 5, 7), paratype ♂ (3a, 4a), *Cylindera (Apterodela) lobipennis* Bates (2, 3b, 4b, 6, 8): 1-2 — left elytra; 3 — left shoulders; 4 — left apical thirds of elytra; 5, 6 — labrum; 7, 8 — pronotum, left half. Scale bars: A — 1 mm (1-4), B — 1 mm (5-8).

Рис. 1-8. *Cylindera (Apterodela) kazantsevi* sp.n., ♂, голотип (1, 5, 7), ♂, паратип (3а, 4а), *Cylindera (Apterodela) lobipennis* Bates (2, 3б, 4б, 6, 8): 1-2 — левое надкрылье; 3 — левое плечо; 4 — верхинная часть левого надкрылья; 5, 6 — верхняя губа; 7, 8 — переднеспинка, левая половина. Масштаб: А — 1 мм (1-4), В — 1 мм (5-8).





Figs. 13–16. Internal sac of *Cylindera (Apterodela) kazantsevi* sp.n., paratype ♂: 13 — right view; 14 — dorsal view; 15 — left view; 16 — ventral view; VLL — ventro-lateral left lobe, DA — dorso-apical lobe, fl — flagellum, ch — chute for flagellum. Scale bar: 1 mm

Рис. 13–16. Внутренний мешок *Cylindera (Apterodela) kazantsevi* sp.n., ♂, паратип: 13 — вид справа; 14 — вид сверху; 15 — вид слева; 16 — вид снизу; VLL — левый вентро-латеральный выступ, DA — дорзо-апикальный выступ, fl — флагеллум, ch — направляющий желоб флагеллума. Масштаб 1 мм

not wider than the base of pronotum; shoulders sloping, narrow, 0.34–0.36 times as elytral long; apical third distinct broad, 0.48–0.53 times as elytral long; external margin of apical edge with deep subapical sinuation. Scutellum bronze, very large. Elytral pattern reduced and presented by sub-humeral small oval, distinct projected brownish dot and a short transversal yellowish middle band (Fig. 1). Abdominal sternites black with a light bluish or violet tinge along anterior margin, glabrous.

Penis 0.42–0.46 times as long as elytra, its median lobe with slightly elongate, cylindrical apex (Fig. 9), extended lateral flanks (Fig. 11) and distinct concavity (Figs 13 and 15). Internal sac as in Figs 13–16. There is a distinct chute (ch) for flagellum (fl), which placed across the dorso-apical (DA) and ventro-lateral left (VLL) lobes (Figs 15–16).

ETYMOLOGY. The new species is named for the Russian entomologist Sergei Kazantsev (Moscow), who collected the type series.

REMARKS. *C. lobipennis* was described by Bates [1888] on the basis of a single female only. In the next year *C. bivirgulata* was described by Fairmaire [1889] by a single male. These specimens are well distinguished from each other by the shape of subapical sinuation on elytral apex. It was a main reason, because they were described as two separate species. Synonymy of *C. lobipennis* and *C. bivirgulata* was initially established by Flentiaux [1892] and then accepted by all subsequent authors [Horn, 1915, 1926; Wiesner, 1992]. *C. (Apterodela) kazantsevi* sp.n. is easily distinguished from *C. (A.) lobipennis* by the narrow labrum (Figs 5–6), longitudinal

pronotum (Figs 7–8), more flat elytral disc (Figs 1–2), narrow shoulders (Fig. 3), broad elytral apex with deep subapical sinuation (Fig. 4), as well as by a small penis with elongate, cylindrical apex and distinct extended lateral flanks of median lobe (Figs 9–12).

For the identification of *Cylindera* species of the subgenus *Apterodela* the following key is provided:

- 1(2). Pro- and metathorax partly or fully pubescent. White elytral pattern represented by the short middle band and basal part of apical dot, humeral dot absent. Elytra without subapical sinuation 3
- 2(1). Pro- and metathorax glabrous. White elytral pattern represented by the central part of middle band and small subhumeral dot, apical dot absent. Elytra with subapical sinuation 5
- 3(4). Metathorax and metepisternum dense and evenly pubescent by the white, semi-erect hairs. Mesepisternum with a single long white seta basally. Pronotum transverse, 0.85–0.90 times as long as wide, with slightly rounded sides. Antennae shorter, projected to the basal elytral quarter. Shoulders well developed, straight-angular, rounded. Elytral middle band with short lateral portion, basal part of apical dot oval. Wings well developed *C. shirakii* W.Horn, 1927
- 4(3). Metathorax and metepisternum with sparse, white, semi-erect hairs on posterior edge only. Mesepisternum glabrous. Pronotum sub-quadrate, 0.99–1.01 times as long as wide, with straight sides converged to base. Antennae

Figs. 9–12. *Cylindera (Apterodela) kazantsevi* sp.n., holotype ♂ (9, 11), *Cylindera (Apterodela) lobipennis* Bates (10, 12): 9, 10 — aedeagus, left view, 11, 12 — aedeagus, dorsal view. Scale bar: 1 mm

Рис. 9–12. *Cylindera (Apterodela) kazantsevi* sp.n., ♂, голотип (9, 11), *Cylindera (Apterodela) lobipennis* Bates (10, 12): 9, 10 — эдеагус, вид слева; 11, 12 — эдеагус, вид сверху. Масштаб 1 мм

- longer, projected to the basal elytral third. Shoulders not developed, sloping. Elytral middle band without lateral portion, basal part of apical dot comma-formed. Wings not developed *C. ovipennis* Bates, 1883
- 5(6). Labrum broader, 2.3–2.4 times as wide as long, with 4–6 submarginal setae (Fig. 6). Pronotum sub-quadrate, 1.00–1.03 times as long as wide (Fig. 8). Elytral disc more concave. Shoulders broader, 0.40–0.42 times as elytral long (Fig. 3). Apex of elytra narrower, 0.40–0.45 times as elytral long, with shallow subapical sinuation (Fig. 4). Penis larger, its median lobe with long, slightly broadened apex (Fig. 10) and very narrow lateral flanks (Fig. 12) *C. lobipennis* Bates, 1888
- 6(5). Labrum narrower, 1.82–1.86 times as wide as long, with 4 submarginal setae (Fig. 5). Pronotum longitudinal, 1.07–1.11 times as long as wide (Fig. 7). Elytral disc more flat. Shoulders narrower, 0.34–0.36 times as elytral long (Fig. 3). Apex of elytra broader, 0.48–0.53 times as elytral long, with deep subapical sinuation (Fig. 4). Penis smaller, its median lobe with elongate, cylindrical apex (Fig. 9) and distinct extended lateral flanks (Fig. 11) *C. kazantsevi* sp.n.

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