

New net-winged beetles (Coleoptera: Lycidae) from Indochina, with synonymic and taxonomic notes

Новые краснокрылы (Coleoptera: Lycidae) из Индокитая, с синонимическими и таксономическими замечаниями

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Ключевые слова: Coleoptera, Lycidae, новая триба, новый род, новые виды, таксономия, Ориентальная область.

Abstract. A new tribe, *Vikhrevini* **tr. n.**, a new genus, *Vikhrevia* **gen. n.**, and nine new species, *Vikhrevia ludificator* **sp. n.**, *Dilophotes flabellicornis* **sp. n.**, *D. angustipennis* **sp. n.**, *D. rubrovestitus* **sp. n.**, *Mesolycus fedorenkoi* **sp. n.**, *M. rubromarginatus* **sp. n.**, *Macrolycus holzschuhi* **sp. n.**, *Cerceros chapaensis* **sp. n.** and *C. drymophilus* **sp. n.**, are described from Indochina. *Scarelus cibodasensis* Malohlava et Bocák, 2011, **syn. n.**, is synonymized with *S. luchti* Kazantsev et Yang, 1999, **nom. rev.** The validity of the genus *Cerceros* Kraatz, 1879, **nom. rev.**, which was considered to be a synonym of *Macrolycus* Waterhouse, 1878, is confirmed. Phylogenetic relationships of *Vikhrevini* **tr. n.** are discussed.

Резюме. Из Индокитая описывается новая триба, *Vikhrevini* **tr. n.**, новый род, *Vikhrevia* **gen. n.**, и девять новых видов, *Vikhrevia ludificator* **sp. n.**, *Dilophotes flabellicornis* **sp. n.**, *D. angustipennis* **sp. n.**, *D. rubrovestitus* **sp. n.**, *Mesolycus fedorenkoi* **sp. n.**, *M. rubromarginatus* **sp. n.**, *Macrolycus holzschuhi* **sp. n.**, *Cerceros chapaensis* **sp. n.** и *C. drymophilus* **sp. n.** *Scarelus cibodasensis* Malohlava et Bocák, 2011, **syn. n.**, сводится в синонимы к *S. luchti* Kazantsev et Yang, 1999, **nom. rev.** Подтверждается валидность рода *Cerceros* Kraatz, 1879, **nom. rev.**, считавшегося синонимом *Macrolycus* Waterhouse, 1878. Обсуждаются филогенетические связи *Vikhrevini* **tr. n.**

Introduction

In the new lycid material collected in Thailand a small inconspicuous specimen was discovered that did not quite fit into any known higher level taxon. Although actually every expedition to the tropical zone yields new species (and sometimes genera), this time it did not seem possible to refer the insect to any tribe of net-winged beetles. In fact, its bizarre-looking aedeagus gave an impression that the whole insect was a hoax, composed of elements of net-winged beetles belonging in different groups. While its globular head, robust mandibles and certain details of the aedeagus indicated to its possible relationships with *Ateliini*, its prosternal structure, other aedeagal details (such as the absent parameres and very large asymmetric phallobase) suggested the taxon might be a member of

Dilophotini or *Macrolycini*. At the same time its pronotal structure, elytra, with four fully developed costae and double rows of cells in the interstices, and simple claws readily differentiated the new specimen from *Dilophotini* and *Macrolycini* as well. A detailed study revealed that a new tribe, new genus and new species ought to be established for the specimen. Further new species from the genera *Macrolycus* Waterhouse, 1878, *Cerceros* Kraatz, 1879, **nom. rev.**, *Dilophotes* Waterhouse, 1879 and *Mesolycus* Gorham, 1883 were found in the material from Laos, Vietnam and Taiwan.

Presented below are descriptions of the new taxa, as well as certain taxonomic notes that were deemed necessary.

Material and methods

The studied specimens were pinned or glued on cardboard plates. For a detailed examination they were relaxed in water; then, after separation from the body, the ultimate abdominal segments with the aedeagus were treated for several hours in 10% KOH at room temperature, then placed in a microvial with glycerin.

MSP-1 zoom stereoscopic dissecting microscope with x8–x80 magnification range was used. Photographs were taken with Canon EOS 6D camera and Canon MP-E 65 mm lens.

The following acronym is used in the paper: ICM – Insect Center, Moscow.

Vikhrevini Kazantsev, **tr. n.**

Type genus: *Vikhrevia* **gen. n.**

Diagnosis. *Vikhrevini* **tr. n.** differs from *Dilophotini* by the globular head, robust mandibles with apices curved at right angle, pronotal structure, conspicuous reticulation in elytral interstices (Fig. 1), structure of mesonotum, with deep median anterior incision and divided scutal halves, and developed tibial spurs. It differs from *Macrolycini* by the same characters, whereas the tibial spurs are also developed in *Macrolycus*, the type genus of the tribe, but absent in *Mesolycus*, to which the new taxon is most similar in certain aspects. *Vikhrevini*

tr. n. also appears to have affinities with *Ateliini* (*Ateliinae*) (globular head and simple, narrow and pointed distally median lobe of the aedeagus), but may be distinguished by the absent parameres and large asymmetric phallobase of the aedeagus (Figs 4, 5), prosternal, pronotal and elytral structure, as well as by the developed tibial spurs, the said similarities presumably being of homoplastic or symplesiomorphic nature.

Vikhrevini **tr. n.** includes just one genus, *Vikhrevia* **gen. n.**

Distribution. Southern Thailand.

Vikhrevia Kazantsev, **gen. n.**

Type species: *Vikhrevia ludificator* **sp. n.**

Description. Adult male. Alate, slender, elongate (Fig. 1). Head transverse, dorsally convex, slightly narrowed behind eyes. Fastigium blunt, ca. 105 degrees. Eyes small, spherical. Labrum small, lightly sclerotized, lying inside epistoma. Mandibles robust, with broad bases, apices at right angle to bases. Maxillary palps slender, 4-segmented, with ultimate palpomere pointed distally. Labium consisting of undivided prementum and 3-segmented palps, ultimate palpomere elongate, pointed distally. Gula short. Antennal prominence inconspicuous, with deep median groove; antennal sockets separated by prominent lamina. Antenna 11-segmented, moderately long; antennomeres 4–10 narrow, parallel-sided, slightly compressed; antennomere 2 about twice as short as antennomere 3; pubescence on antennomeres 2–11 moderately long and decumbent (Fig. 1).

Pronotum transverse, narrow, considerably narrower than elytra, with almost parallel sides, triangularly produced anterior margin, narrow median carina in posterior two thirds, a pair of conspicuous roundish bulges at anterior third and noticeable transverse carinae near lateral margins; posterior angles blunt (Fig. 1). Prosternum short, T-shaped. Thoracic spiracles elongate, small, not projecting beyond coxae. Mesoventrite short, V-shaped, not divided by median suture. Mesonotum with deep median anterior incision, scutellum attaining to anterior margin, scutal halves divided; scutellum with narrow elongate postnotal projection. Elytra long, almost parallel-sided, with four fully developed, but relatively inconspicuous primary costae; interstices with a double row of small irregular roundish cells; proximal half of interstice 2 with three rows of cells; short and sub-erect elytral pubescence uniform (Fig. 1). Metanotum transverse; scuto-scutellar ridge strongly convex, shorter than allocrista; prescutum with median keel; intrascutal suture small, emerging at middle of scutum; scutellum with median suture; postnotal plate transverse, but relatively long, semicircular, with median suture in posterior half. Metaventrite transverse, with blunt posterior angles; discrimen complete, attaining to mesosternum. Metathoracic wing with anal cell closed; wedge cell present, Cu veins merged to M; cu-a brace connecting Cu and A considerably below Cu veins branching point.

Protrochantins conspicuously more prominent than mesotrochantins. Pro- and mesocoxae elongate; metacoxae short, separated. Legs short; trochanters short, cylindrical, connected to femora distally; femurs and tibiae only slightly flattened, tibiae straight, longer than femurs, tibial spurs well visible; tarsomeres 3–4 slightly widened, tarsomeres 1–4 with plantar pads in distal half; all claws simple. Abdominal spiracles dorsal, located on membrane, near edge of sternite. Paraproct almost completely incised medially, with short proximolateral apodemes; sternite 9 elliptical, noticeably bipartite, with asymmetric, moderately long and broad proximal part (Figs 2, 3).

Aedeagus asymmetric, with symmetric, elongate, narrow, curved and pointed at apex median lobe; parameres absent;

phallobase strongly asymmetric, long, narrowing proximally, with elongate lateral opening (Figs 4, 5).

Female. Unknown.

Etymology. The genus is named after Dr. N. Vikhrev, who collected the unique holotype of its type species. Gender feminine.

Diagnosis. *Vikhrevia* **gen. n.** is easily differentiated from other lycids by the tribal characters. The pronotal structure of the new genus, with a pair of conspicuous round bulges at anterior third and vestiges of transverse carinae near lateral margins, seems to be unique in the family. Its aedeagus is also unique, with the median lobe closely matching that of certain members of *Ateliini* (*Ateliinae*) and the phallobase superlatively resembling in minor detail that of the genus *Mesolyucus* (*Macrolycini*, *Lycinae*).

The mesonotum of *Vikhrevia* **gen. n.**, with deep median anterior incision, attaining to anterior margin scutellum and divided scutal halves, appears to be symplesiomorphic with *Mesolyucus* [Kazantsev, 2004], and possibly with certain neotropical *Leptolycinae* [e.g., Kazantsev, 2005, 2009, 2013; Kazantsev, Zaitsev, 2009].

Vikhrevia ludificator Kazantsev, **sp. n.**

(Color plate 1: figs 1–5)

Material. Holotype, ♂, (S) Thailand, Phang Nga Prov., Khao Lak, 13–21.12.2009, N. Vikhrev (ICM).

Description. Male. Dark brown; pronotal margins and shoulders light brown.

Vertex with shallow median impression. Eyes small, interocular distance ca. 5.5 times greater than eye radius. Antennae attaining to elytral three fourths, with antennomere 2 slightly longer than wide and 1.8 times shorter than antennomere 3; antennomere 3 1.4 times shorter than antennomere 4, antennomeres 4–11 with moderately long and decumbent pubescence (Fig. 1).

Pronotum transverse, ca. 1.6 times as wide as long, convex basally, with almost straight sides, and small conspicuous blunt posterior angles. Scutellum elongate, parallel-sided, constricted in distal half, noticeably emarginate at apex (Fig. 1).

Elytra long, 3 times longer than wide at humeri, with four more or less equally developed primary costae.

Aedeagus with narrow, slightly bent, in lateral view, median lobe; phallobase about as long as median lobe (Figs 4, 5).

Female. Unknown.

Length: 6 mm. Width (humeraly): 1.5 mm.

Etymology. The name of the species is derived from the Latin noun meaning “mockery”, alluding to the strange combination of features characterizing the taxon.

Diagnosis. *Vikhrevia ludificator* **sp. n.** is easily distinguishable from other lycids by the generic characters.

Dilophotes flabellicornis Kazantsev, **sp. n.**

(Color plate 1: figs. 6, 9, 10)

Material. Holotype, ♂, E Laos, Hua Phan Prov., Ban Saleui, Phou Pan Mt., ~20°12'N, 104°01'E, 1300–1900 m, 1–31.05.2011, C. Holzschuh leg. (ICM). Paratypes: 8♂, 1♀, same label (ICM).

Description. Male. Black; antennomere 2 light brown.

Vertex with deep median impression, finely and densely punctured. Eyes moderately large, interocular distance ca. 2.2 times greater than eye radius. Antennae almost attaining to elytral apices, flabellate from antennomere 3;

with lamella of antennomere 3 ca. as long as antennomere, lamellae of antennomeres 4–9 about twice as long as respective antennomeres, lamella of antennomere 10 ca. twice as short as antennomere; antennomere 2 small, transverse; antennomere 3 subequal in length to antennomere 4; antennomeres 3–11 with short dense decumbent pubescence (Fig. 6).

Pronotum transverse, ca. 1.4 times as wide as long, bisinuate basally, convex anteriorly, with almost straight sides, somewhat constricted before anterior angles, and small, produced laterally and acute posterior angles. Scutellum transverse, parallel-sided, rounded and triangularly emarginate at apex (Fig. 6).

Elytra long, 3.5 times longer than wide at humeri, almost parallel-sided, slightly dehiscent in distal half; costa 1 noticeable in proximal half (Fig. 6).

Aedeagus with long, narrow and asymmetric median lobe, distally provided with long curved downwardly hook and a pair of upwardly directed processes; phallobase relatively short, about twice as short as median lobe (Figs 9, 10).

Female. Similar to male, but eyes smaller, antennae non-flabellate, only dentate.

Length: 6.6–8 mm. Width (humeraly): 1.5–1.9 mm.

Etymology. The name of the species is derived from the Latin for “with flabellate antennae”, alluding to its long antennal flabellae.

Diagnosis. *Dilophotes flabellicornis* sp. n. differs from the similarly coloured *D. anthracinus* Bic, 2002, also from Laos and also characterized by the flabellate antennae, by the shorter antennal lamellae, as well as by the long and narrow median lobe of the aedeagus, about twice as long as phallobase (Figs 9, 10).

Dilophotes angustipennis Kazantsev, sp. n.
(Color plate 1: figs 7, 11, 12)

Material. Holotype, ♂, E Laos, Hua Phan Prov., Ban Saleui, Phou Pan Mt., ~20°12'N, 104°01'E, 1300–1900 m, 1–31.05.2011, C. Holzschuh leg. (ICM). Paratypes: 3♂, 3♀, same label (ICM).

Description. Male. Black; antennomere 2 light brown.

Vertex with deep median impression anteriorly, finely and densely punctured. Eyes relatively small, interocular distance ca. 2.6 times greater than eye radius. Antennae attaining to elytral apices, from antennomere 3 flattened, moderately dentate; antennomere 2 small, transverse; antennomere 3 1.2 times shorter than antennomere 4; antennomeres 3–11 with short dense decumbent pubescence (Fig. 7).

Pronotum transverse, ca. 1.5 times as wide as long, trapezoidal, bisinuate basally, somewhat concave at sides, convex anteriorly, with acute posterior angles. Scutellum subquadrate, parallel-sided, triangularly emarginate at apex (Fig. 7).

Elytra long, 3.9 times longer than wide at humeri, concave at sides and dehiscent in distal three fifths; costa 1 noticeable at proximal three fifths (Fig. 7).

Aedeagus with short symmetric median lobe provided with lateral curved spines and long and narrow phallobase; internal sack structures nearly as long and twice as broad as median lobe (Figs 11, 12).

Female. Similar to male, but slightly wider, with less dentate antennae.

Length: 6.3–7.4 mm. Width (humeraly): 1.2–1.7 mm.

Etymology. The name of the species is derived from the Latin for “with narrow wings”, alluding to its long, narrow and dehiscent elytra.

Diagnosis. *Dilophotes angustipennis* sp. n. differs from other uniformly black *Dilophotes* by the non-flabellate antennae, narrowed distally, dehiscent and concave laterally, elytra (Fig. 7) and long, narrow phallobase and

short symmetric median lobe of the aedeagus (Figs 11, 12).

Dilophotes rubrovestitus Kazantsev, sp. n.
(Color plate 1: figs 8, 13, 14)

Material. Holotype, ♂, E Laos, Hua Phan Prov., Ban Saleui, Phou Pan Mt., ~20°12'N, 104°01'E, 1300–1900 m, 1–31.05.2011, C. Holzschuh leg. (ICM). Paratypes: 12♂, 9♀, same label (ICM).

Description. Male. Dark brown; antennomere 2 light brown; narrow elytral sides, suture and humeral costae red; pubescence at elytral margins broadly reddish.

Vertex with narrow median line, more conspicuous anteriorly, finely and densely punctured. Eyes small, interocular distance ca. 4 times greater than eye radius. Antennae reaching over elytral apices, flattened and strongly dentate, antennomere 2 small, transverse; antennomere 3 1.7 times shorter than antennomere 4; antennomeres 3–11 with short dense decumbent pubescence (Fig. 8).

Pronotum transverse, ca. 1.5 times as wide as long, bisinuate basally, nearly triangular anteriorly, with almost straight sides and small, narrow and acute posterior angles. Scutellum transverse, trapezoidal, truncate at apex (Fig. 8).

Elytra long, 3 times longer than wide at humeri, parallel-sided, not dehiscent at suture; costa 1 noticeable at proximal three fifths (Fig. 8).

Aedeagus with long phallobase with hooked ventral process and short symmetric median lobe (Figs 13, 14).

Female. Similar to male, but slightly wider, with somewhat less dentate antennae.

Length: 6.8–7.8 mm. Width (humeraly): 1.6–1.8 mm.

Etymology. The name of the species is derived from the Latin for “covered with red”, alluding to its elytral pubescence.

Diagnosis. *Dilophotes rubrovestitus* sp. n. differs from congeners by the reddish pubescence on the elytra, as well as by the structure of the aedeagus, with the hooked phallobase enveloping the short symmetric median lobe (Figs 13, 14).

Mesolycus fedorenkoi Kazantsev, sp. n.
(Color plate 2: figs 15, 17, 18)

Material. Holotype, ♂, S Vietnam, Lam Dong Prov., Bi Doup-Nui Ba Nat. Reserve, env. Long Lanh, 12°10'N, 108°40'E, 1400–1800 m, 1–22.04.2008, D. Fedorenko leg. (ICM).

Description. Male. Dark brown; pronotum and elytra bright red.

Vertex with narrow glabrous impressed median line, finely and densely punctured. Eyes relatively large, interocular distance subequal in length to eye diameter. Antennae attaining to elytral three fifths; almost filiform, feebly dentate, antennomere 2 small, transverse; antennomere 3 subequal in length to antennomere 4; antennomeres 3–11 with short dense decumbent pubescence and sparse erect long hairs (Fig. 15).

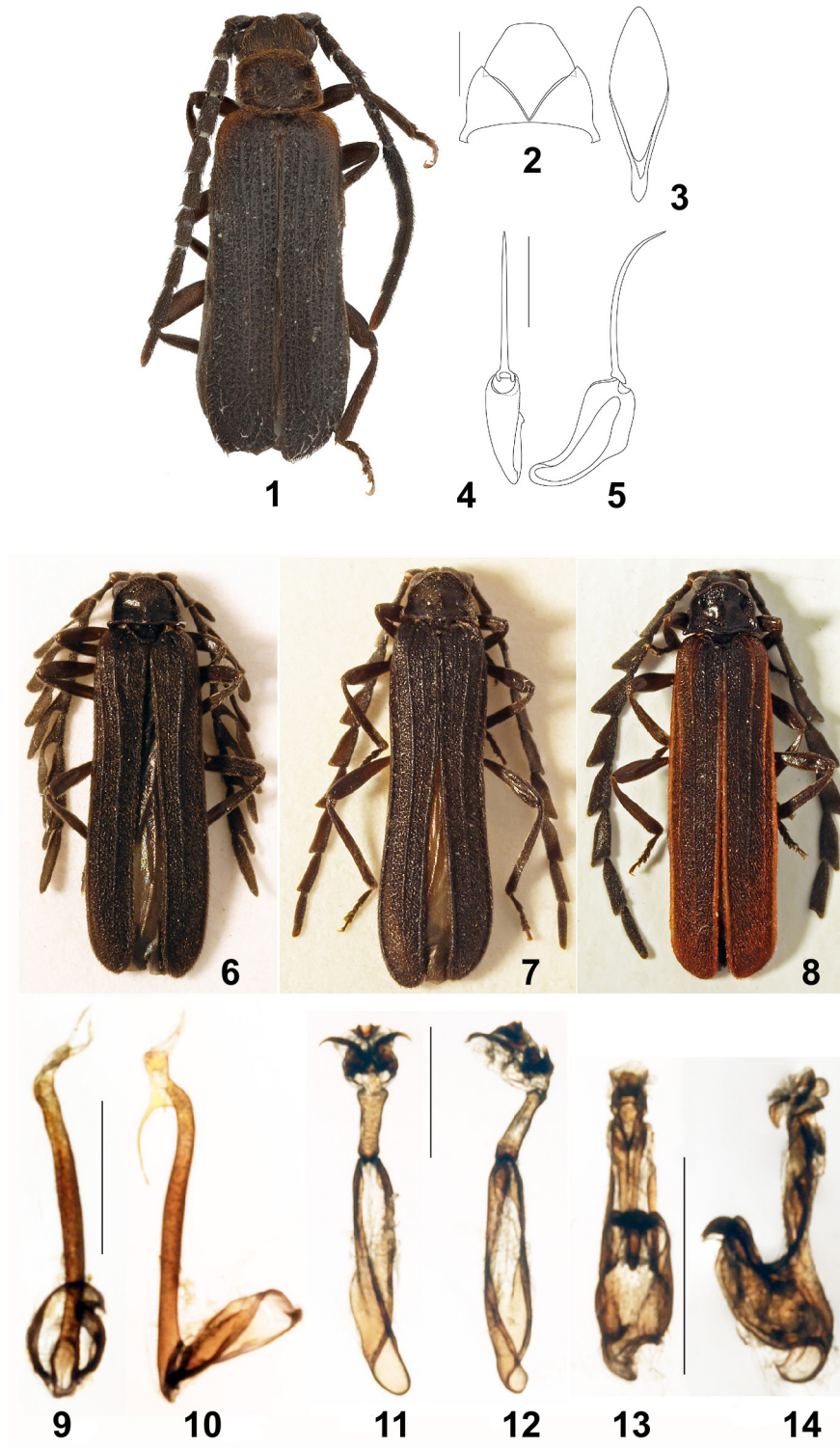
Pronotum transverse, ca. 1.25 times as wide as long, trapezoidal, convex anteriorly, strongly bisinuate basally, with conspicuous acute posterior angles. Scutellum transverse, trapezoidal, truncate at apex (Fig. 15).

Elytra long, 4.1 times longer than wide at humeri, narrow, slightly concave laterally and dehiscent in distal two thirds, with two prominent, equally developed primary costae, attaining to elytral apices, costa 1 also noticeable in proximal third (Fig. 15).

Aedeagus slender, with small inner sac structures and absent upper plate (Figs 17, 18).

Female. Unknown.

Length: 7.4 mm. Width (humeraly): 1.5 mm.



Figs 1–14. General view and aedeagi of *Vkhrevia ludificator* gen. n., sp. n. (1–5 – holotype male), *Dilophotes flabellicornis* sp. n. (6, 9, 10 – holotype male) and *D. angustipennis* sp. n. (7, 11, 12 – holotype male).

1, 6–8 – general view; 2 – tergites 9 and 10; 3 – sternite 9; 4, 5, 9–14 – aedeagi. 2, 6–9 – dorsally; 3, 4, 11, 13 – ventrally; 5, 10, 12, 14 – laterally. Scale: 0.5 mm.

Рис. 1–14. Общий вид и эдеагусы *Vkhrevia ludificator* gen. n., sp. n. (1–5 – голотип, самец), *Dilophotes flabellicornis* sp. n. (6, 9, 10 – голотип, самец) и *D. angustipennis* sp. n. (7, 11, 12 – голотип, самец).

1, 6–8 – общий вид; 2 – тергиты 9 и 10; 3 – стернит 9; 4, 5, 9–14 – эдеагусы. 2, 6–9 – сверху; 3, 4, 11, 13 – снизу; 5, 10, 12, 14 – сбоку. Масштабная линейка: 0.5 мм.



Figs 15–31. General view and aedeagi of *Mesolyclus fedorenkoi* sp. n. (15, 17, 18 – holotype male), *Mesolyclus rubromarginatus* sp. n. (16, 19, 20 – holotype male), *Macrolyclus holzschuhi* sp. n. (21, 26, 27 – holotype male), *Cerceros chapaensis* sp. n. (22, 28, 29 – holotype male), *Cerceros drymophilus* sp. n. (23, 30, 31 – holotype male) and *Macrolyclus bowringi* (24, 25 – male).

15, 16, 21–23 – general view; 17–20, 24–31 – aedeagi. 17, 19, 28 – ventrally; 18, 20, 25, 27, 29, 31 – laterally; 21–24, 26, 30 – dorsally. Scale: 0.5 mm.

Рис. 15–31. Общий вид и эдеагусы *Mesolyclus fedorenkoi* sp. n. (15, 17, 18 – голотип, самец), *Mesolyclus rubromarginatus* sp. n. (16, 19, 20 – голотип, самец), *Macrolyclus holzschuhi* sp. n. (21, 26, 27 – голотип, самец), *Cerceros chapaensis* sp. n. (22, 28, 29 – голотип, самец), *Cerceros drymophilus* sp. n. (23, 30, 31 – голотип, самец) и *Macrolyclus bowringi* (24, 25 – самец).

15, 16, 21, 23 – общий вид; 17–20, 24–31 – эдеагусы. 17, 19, 28 – снизу; 18, 20, 25, 27, 29, 31 – сбоку; 21–24, 26, 30 – сверху. Масштабная линейка: 0.5 мм.

Etymology. The species is named after Dr. D. Fedorenko (Moscow), who collected the unique holotype.

Diagnosis. *Mesolycus fedorenkoi* sp. n. differs from congeners by the very narrow dark red elytra with lighter apices (Fig. 15), as well as by the small and relatively simple inner sac structures of the aedeagus with absent upper plate (Figs 17, 18). It differs from *M. bolavensis* Bic, 2002 and *M. jendeki* Bic, 2002, with somewhat similarly structured aedeagus by the narrower inner sac with three short distal teeth.

Mesolycus rubromarginatus Kazantsev, sp. n.
(Color plate 2: figs 16, 19, 20)

Material. Holotype, ♂, E Laos, Hua Phan Prov., Ban Saleui, Phou Pan Mt., ~20°12'N, 104°01' E, 1300–1900 m, 1–31.05.2011, C. Holzschuh leg. (ICM). Paratypes: 23♂, 5♀, same label (ICM).

Description. Male. Dark brown; pronotum and elytra dark red.

Vertex without median line, finely and densely punctured. Eyes relatively large, interocular distance 1.1 times greater than eye diameter. Antennae attaining to elytral two thirds; almost filiform, moderately flattened from antennomere 3, antennomere 2 small, transverse; antennomere 3 subequal in length to antennomere 4; antennomeres 3–11 with short dense decumbent pubescence and sparse erect long hairs (Fig. 16).

Pronotum transverse, ca. 1.25 times as wide as long, trapezoidal, convex anteriorly, strongly bisinuate basally, with conspicuous acute posterior angles. Scutellum transverse, trapezoidal, truncate at apex (Fig. 16).

Elytra long, 4.1 times longer than wide at humeri, narrow, parallel-sided, dehiscent in distal two thirds, with two prominent, equally developed primary costae, attaining to elytral apices, costa 1 also noticeable in proximal half (Fig. 16).

Aedeagus relatively broad, robust, with large inner sac structures and small, but conspicuous teeth; upper plate absent (Figs 19, 20).

Female. Similar to male, but slightly wider, with somewhat less dentate antennae.

Length: 5.9–9.9 mm. Width (humerally): 1.2–2.4 mm.

Etymology. The name of the new species is derived from the Latin for “with red margin”, alluding to the entire red margin of its elytra.

Diagnosis. *Mesolycus rubromarginatus* sp. n. differs from the similarly coloured congeners by the absent upper plate of the inner sac of the aedeagus (Figs 19, 20); it may be distinguished from *M. fedorenkoi* sp. n. by the absence of a median line on vertex, dark red elytra with entire lighter red margin (Fig. 16), as well as by the broader aedeagus, with broader and more complex structures of the inner sac (Figs 19, 20).

Macrolycus holzschuhi Kazantsev, sp. n.
(Color plate 2: figs 21, 26, 27)

Material. Holotype, ♂, E Laos, Hua Phan Prov., Ban Saleui, Phou Pan Mt., ~20°12'N, 104°01' E, 1300–1900 m, 1–31.05.2011, C. Holzschuh leg. (ICM). Paratypes: 2♂, 2♀, same label (ICM).

Description. Male. Dark brown; scapus posteriorly, antennomere 2, pronotum and elytra orange.

Vertex flat, finely punctuate. Eyes relatively small, interocular distance only ca. 1.25 times greater than eye diameter. Antennae attaining to elytral three fourths, flattened and flabellate from antennomere 3; flabellum of antennomere 3 ca. 1.5 times shorter than antennomere, flabellum of antennomere 4 subequal in length

to antennomere; antennomere 2 small, transverse; antennomere 3 1.25 longer than antennomere 4; antennomeres 3–11 with short dense decumbent pubescence (Fig. 21).

Pronotum transverse, ca. 1.25 times as wide as long, convex anteriorly, bisinuate basally, with almost straight sides and conspicuous acute posterior angles; with noticeable anterior and lateral ribs. Scutellum subquadrate, parallel-sided, slightly rounded at apex (Fig. 21).

Elytra long, 3.6 times longer than wide at humeri, oval, widest in distal fourth, with four primary costae; costae 2 and 4 attaining to elytral apices, costae 1 and 3 disappearing in distal fifth; interstices densely punctured (Fig. 21).

Aedeagus with short and globulose parameres and laterally compressed and curved proximal portion of median lobe (Figs 26, 27).

Female. Similar to male, but slightly wider, antennal flabellae somewhat shorter.

Length: 10.6–13.8 mm. Width (humerally): 2.3–3.2 mm.

Etymology. The species is named after Dr. C. Holzschuh (Villach, Austria), who collected the type series.

Diagnosis. *Macrolycus holzschuhi* sp. n. is readily distinguishable from the similarly coloured *M. bowringi* Waterhouse, 1878 and *M. jeanvoinei* Pic, 1935 by the short and globulose parameres and more laterally compressed and curved proximal portion of the median lobe of the aedeagus (Figs 26, 27). It is additionally separable from *M. jeanvoinei* by the conspicuously longer lamellae of antennomeres (Fig. 21).

Cerceros Kraatz, 1879, **nom. rev.**

Cerceros Kraatz, 1879: 126.

Type species *Cerceros pectinicornis* Kraatz, 1879.

Remarks. *Cerceros* Kraatz, 1879 has for a long time been considered a synonym of *Macrolycus* Waterhouse, 1878 [e.g., Kleine, 1933; Bocákova, Bocák, 2007]. Its type species, *Cerceros pectinicornis* Kraatz, 1879 (= *Cerceros flabellatus* (Motschulsky, 1860)), indeed is externally very similar to *Macrolycus bowringi* Waterhouse, 1878, the type species of *Macrolycus*. The aedeagi of the two species, however, are quite different: *M. bowringi* and allied species have well developed parameres (e.g., Figs 24–27), while *C. flabellatus* and the rest of the group do not have any (e.g., Figs 28–31), there being no known transitional forms. Needless to say that neither of the authors of the two taxa examined the male copulatory organs [Waterhouse, 1878; Kraatz, 1879], nor did the author of the synonymy [Bourgeois, 1882]. As the presence or absence of parameres of the aedeagus is considered to be of crucial importance in the family, and many genera in various lycid lineages are separated by this criterion, the validity of the genus *Cerceros* Kraatz, 1879, **nom. rev.**, is hereby restored.

Hence, the genus *Macrolycus* will include eight species, *M. bowringi* (eastern Himalayas), *M. gansuensis* Kazantsev, 2002 (central China), *M. jeanvoinei* Pic, 2002 (northern Indochina), *M. luteus* Li, Bocák et Pang, 2012 (southeastern China), *M. quadrifidus* Li, Bocák et Pang, 2012 (central China), *M. shaanxiensis* Kazantsev, 2001 (central China), *M. holzschuhi* sp. n. (Laos) and *M. yunnanus* Kazantsev, 2001 (southeastern China). All other “*Macrolycus*” species have to be transferred to the genus *Cerceros*.

Cerceros chapaensis Kazantsev, **sp. n.**
(Color plate 2: figs 22, 28, 29)

Material. Holotype, ♂, N Vietnam, Chapa, Fan-si-pan Mt., N-Seite, 1600 m, prim. Urwald, 25–30.03.1995, Schintmeister leg. (ICM).

Description. Male. Dark brown; antennomere 2, pronotum, scutellum and elytra orange.

Vertex flat, finely punctuate. Eyes small, interocular distance ca. 2.5 times greater than eye diameter. Antennae attaining to elytral two thirds, flattened and flabellate from antennomere 3; flabellum of antennomere 3 ca. 1.7 times shorter than antennomere, flabellum of antennomere 4 1.3 times longer than antennomere; antennomere 2 small, transverse; antennomere 3 1.4 longer than antennomere 4; antennomeres 3–11 with short dense decumbent pubescence (Fig. 22).

Pronotum transverse, ca. 1.25 times as wide as long, convex anteriorly, bisinuate basally, with straight sides and acute posterior angles, conspicuously produced latero-posteriorly; with noticeable anterior and lateral ribs. Scutellum subquadrate, parallel-sided, triangularly emarginate at apex (Fig. 22).

Elytra long, 3.6 times longer than wide at humeri, almost parallel-sided, only slightly widening distally; with four primary costae: costae 2 and 4 attaining to elytral apices, costae 1 and 3 considerably less conspicuous, but also almost reaching apices; interstices densely punctured, in distal third reticulate (Fig. 22).

Aedeagus with curved distally median lobe at and before apex, with proximal curved portion occupying ca. two thirds of length, and elongate distal compression, with relatively short distal oval opening, only twice as long as wide (Figs 28, 29).

Female. Unknown.

Length: 10.7 mm. Width (humeral): 2.4 mm.

Etymology. The name of the new species is derived from the locality where the unique type specimen was collected.

Diagnosis. *Cerceros chapaensis* **sp. n.** is apparently close to *C. extrusus* (Li, Bocák et Pang, 2012), distinguishable by the longer lamellae of antennomeres 3 and 4, longer basal, curved, portion of the median lobe of the aedeagus and more elongate distal compression, as well as by the relatively shorter distal oval opening (Figs 22, 28, 29).

Cerceros drymophilus Kazantsev, **sp. n.**
(Color plate 2: figs 23, 30, 31)

Material. Holotype, ♂, Taiwan, Huolien Co., Pilushi For., 2150 m, 24.05.2000, Bishkin leg. (ICM).

Description. Male. Dark brown; scapus light brown; antennomere 2, pronotum, scutellum and elytra orange.

Vertex flat, finely punctuate, with narrow glabrous shining median line. Eyes relatively small, interocular distance ca. twice as great as eye diameter. Antennae attaining to elytral three fifths, flattened and flabellate from antennomere 3; flabellae narrow, flabellum of antennomere 3 ca. 1.6 times shorter than antennomere, flabellum of antennomere 4 1.3 times longer than antennomere; antennomere 2 small, transverse; antennomere 3 1.3 longer than antennomere 4; antennomeres 3–11 with short dense suberect pubescence (Fig. 23).

Pronotum transverse, 1.35 times as wide as long, slightly widening anteriorly, bisinuate basally, with concave posteriorly sides and acute posterior angles; with prominent anterior and noticeable lateral ribs; posterior median areole well delineated. Scutellum subquadrate, parallel-sided, feebly triangularly emarginate at apex (Fig. 23).

Elytra long, 3.75 times longer than wide at humeri, noticeably widening distally; with four primary costae: costae 2

and 4 attaining to elytral apices, costae 1 and 3 less conspicuous in distal half, but also almost reaching apices; interstices densely punctured, in distal sixth somewhat reticulate (Fig. 23).

Aedeagus slender, with elongate narrow distal oval opening and flattened apically distal process (Figs 30–31).

Female. Unknown.

Length: 12.2 mm. Width (humeral): 2.9 mm.

Etymology. The name of the new species is derived from the Greek for “forest lover”, alluding to its distribution in the Forest of Pilushi.

Diagnosis. *Cerceros drymophilus* **sp. n.** differs from *C. laetus* (Nakane, 1967), the only other *Cerceros* species from Taiwan with the uniformly orange (“testaceous”) upperside, by the flabellate antennomeres 3 and 4 and different shape of the aedeagus; at the same time it differs from *C. testaceicollis* Pic, 1923, which occurs in Vietnam, Laos and Yunnan [Kazantsev, 1993; Li et al., 2012] and to which it may be related, by the shorter flabellae of antennomeres (Fig. 23), slenderer aedeagus with narrower distal oval opening, as well as by the strongly flattened apically distal process (Figs 30, 31).

Scarelus luchtii Kazantsev et Yang, 1999, **nom. rev.**

Scarelus luchtii Kazantsev et Yang, 1999: 245.

Scarelus cibodasensis Malohlava et Bocák, 2011: 187, **syn. n.**

Remarks. The introduction of *Scarelus cibodasensis* by Malohlava and Bocák [2011] to replace *Scarelus luchtii* seems to be unjustified, as the taxon *Scarelus luchtii* was suggested [Kazantsev, Yang, 1999] with explicit fixation of a holotype and a bibliographic reference to its description, which contains an illustration of the aedeagus of the holotype [Kazantsev, 1992], i.e. in full conformity with provisions of the International Code for Zoological Nomenclature (Article 16).

Discussion

In one of their first papers on Lycidae Bocák and Bocáková [1990] synonymized Dilophotini with Macrolycini on the basis of the similar pronotal structure and bifid claws. A detailed morphological analysis, however, demonstrated that each of the two lineages had a number of autapomorphic characters, and Dilophotini was restored [Kazantsev, 2004]. Later on, this time after a molecular study, Bocák and Bocáková [2008] moved Dilophotini farther away and united it with the rather unlike morphologically Ateliini in the subfamily Ateliinae, leaving Macrolycini, with which it had been previously grouped, in Lycinae. Although the authors’ conclusions on classification of Lycidae in general can hardly be accepted, being in contradiction with the available morphological data, fragmentarily, when supported by other evidence, may prove to be useful for taxonomic purposes. The affinities between Vikhrevini **tr. n.** and Ateliinae, on the one hand, and Vikhrevini **tr. n.** and Dilophotini or Macrolycini, on the other, indeed suggest that these latter lineages may be linked phylogenetically, and imply that their relationships should be restudied.

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