New Species of Leaf-Beetles (Coleoptera, Chrysomelidae) from China: V

I. K. Lopatin

Belarusian State University, Minsk, Belarus
Received February 7, 2005

Abstract—Melixanthus puncticollis sp. n., Chrysolina nigrorugosa sp. n., Ch. purpureoviridis sp. n., Phaedon flavotibialis sp. n., Oreomela parva sp. n., O. yangi sp. n., Gallerucida emeishanica sp. n., Calomicrus warchalowskii sp. n., and Luperus pulchellus sp. n. from the Chinese provinces Sichuan and Gansu are described. Types of the new species are deposited in the Zoological Institute, Russian Academy of Sciences, St. Petersburg.

The new leaf-beetle species described in the present communication were found in Gansu and Sichuan Provinces of the Chinese People’s Republic. Type specimens of the new species are deposited in the Zoological Institute, Russian Academy of Sciences, St. Petersburg.

Subfamily CRYPTOCEPHALINAE

Melixanthus puncticollis Lopatin, sp. n.

Description. Holotype (male). Body length 2.6 mm, width across humeri 1.2 mm. Dorsal side metallic-dark green, densely shagreened; labrum, 5 basal antennal segments, apices of femora, entire tibiae, and 2 basal segments of tarsi rufous; 6 apical antennal segments black; upper side of basal antennal segments and outer surface of apical half of tibiae brownish.

Head finely, sparsely, irregularly punctate. Eyes elliptic, with emarginate inner margin. First antennal segment long and thick; 2nd one half as long as 1st, wide-oval; 3rd and 4th segments as long as 2nd, but much narrower; 5th slightly widened toward apex, 6–10th segments distinctly widened, of subequal lengths; 11th slightly longer, strongly narrowed toward apex.

Pronotum 1.57 times as wide as long, silky-shining, uniformly covered with dense deep punctures separated by intervals nearly everywhere shorter than puncture diameter; fine punctures scattered between these punctures in places. Lateral declivities of pronotum without transverse depressions or grooves. Scutellum small, flat, with several punctures.

Elytra 2.4 times as long as pronotum and 1.4 times as long as wide across humeri, more shining than pronotum, with regular rows of punctures smaller than those on pronotum and becoming distinctly shallower toward apices. Intervals wide, impunctate. Humeral calli strongly convex, oblong. Apical half of elytra with sparse short whitish hairs visible at great magnification. Lateral margination widened and deflexed in anterior 1/3, narrowed backwards. All tarsi widened. Claws with small tooth. Aedeagus as in Figs. 1, 2.

Material. Holotype: ♂, “China, C. Sichuan, WNW of Danba, 4 km S of Bianer (= Bianr), 31°01′20″N/101°32′34″E, H ~ 3220 m, 19.VIII.2004, Belousov and Kabak leg.”

Diagnosis. The new species differs from M. yajangensis Tan in the green dorsum, rufous tibiae, and dense uniform punctuation of the pronotum.

Subfamily CHRYSOMELINAE

Chrysolina nigrorugosa Lopatin, sp. n.

Description. Holotype (female). Body length 7.5 mm, maximum width of elytra 4.2 mm. Body apertured, uniformly black, weakly shining, finely and densely shagreened, with wrinkled elytra.

Labrum short and wide, with wide emargination of anterior margin and transverse row of 8 setiferous pores. Clypeus flat, with sparse, distinct, rather deep punctures. Frons and vertex with finer and sparser, sharp punctures. Ultimate segment of maxillary palpus oval, slightly narrower at base than penultimate one; the latter widened toward apex. Antennae short, with apices reaching humeral angles of elytra; length ratio of antennal segments 17 : 8 : 14 : 10 : 10 : 8 : 8 : 10 : 10 : 12 : 20. Five apical segments thickened and densely covered with short whitish hairs.
Pronotum twice as wide as long, with deep and wide emargination of anterior margin and anterior angles strongly projecting forwards; disc weakly convex, gently sloping from middle toward sides; sides thickened, but without distinct carinae; border of thickening designated in anterior part by group of rather large and deep punctures; similar group of punctures situated at posterior corners and extending onto lateral parts of basal margin. Disc with fine scattered punctures smaller than those on vertex. Anterior angles narrowly rounded apically, posterior angles rectangular. Anterior and lateral marginations very narrow. Sides widely rounded. Pronotum widest at base, then roundly narrowed toward anterior angles, 0.66 times as wide there as at base. Scutellum flat, narrowly triangular.

Elytra without humeral calli, strongly convex, 3 times as long as pronotum and 1.28 times as long as wide, with fine scattered punctures and large deep wrinkles, uneven, with irregularly arranged prominences (especially at sides) and with 2 rows of punctures at lateral margin running from humeral angles along 2/3 of length of elytra. Epipleura horizontal, flat, with margins in the form of narrow edgings, gradually narrowed.

Sole surfaces of all tarsi with continuous brush of dense hairs. Claws fine, simple.

Diagnosis. *Ch. nigrorugosa* differs from the all Chinese congeners in the uneven, wrinkled elytra.

*Chrysolina purpureoviridis* Lopatin, sp. n.

Description. Holotype (male). Body length 8 mm, width in middle part of elytra 4.6 mm. Dorsal side bright metallic; head and elytra purplish violet, with narrow green sutural edging; pronotum green, with purplish violet lateral carinae. Antennae and legs black, 2nd antennal segment rufous.

Labrum short, convex; its anterior margin widely emarginate, with 1 row of short fine cilia. Clypeus flat, black, 2nd antennal segment rufous. Purely violet lateral carinae. Antennae and legs narrowly green sutural edging; pronotum green, with bright metallic; head and elytra purplish violet, with width in middle part of elytra 4.6 mm. Dorsal side Chinese congeners in the uneven, wrinkled elytra.

Material. 1 ♂, 1 ♀, “China, Sichuan, WNW of Danba, E of Suopo, H ~ 4560–4780 m, 30°52’54”N / 102°03’05”E–30°57’36”N / 101°32’41”E, 23.VIII.2004, Belousov and Kabak leg.”.

Diagnosis. The new species is closely related to *Ch. sichuanica* Lop., but differs from it in the shape of the pronotum, green head, coarser and deeper punctation of the elytra, and shape of the aedeagus.

*Phaedon flavotibialis* Lopatin, sp. n.

Description. Holotype (male). Body length 3.8 mm, width 2.4 mm. Body widely oval, rounded at ends, highly convex, 1.6 times as long as wide. Dorsal side metallic dark green; underside of two basal antennal segments, all tibiae, and two basal segments of tarsi orange; labrum, claw-segments of tarsi, bases of tibiae, and other antennal segments black. Underside black, with bronze reflection.

Head with double punctation: large, deep, partly merging punctures and dense fine punctures (visible only at great magnification) between them. Antennae short, 7–11th segments distinctly thickened.

Material. 6 specimens, “China, Sichuan, E of Danba, E of Suopo, H ~ 4560–4780 m, 30°52’54”N / 102°03’05”E–30°57’36”N / 101°32’41”E, 14.VIII.2004, Belousov and Kabak leg.”.
**Diagnosis.** *Ph. flavotibialis* differs from the other Chinese species in the orange tibiae and shape of the aedeagus.

**Oreomela parva** Lopatin, sp. n.

**Description.** Holotype (male). Body length 4.8 mm, width in middle part of elytra 2.5 mm. Body black, with weak bronze reflection; labrum, maxillary palpi, antennae, and legs rufous. Labrum convex, with emarginate anterior margin and transverse row of long yellow setae. Clypeus distinctly separated from frons, entire head with dense superficial punctures.

Pronotum wide, 1.46 times as wide as long, weakly straightly widened in basal 3/4, then roundly narrowed; lateral margination very narrow, anterior one obsolete; posterior margin not edged. Surface with rather large, irregularly situated punctures denser in basal half opposite scutellum. Distinctly smaller punctures scattered on intervals between large ones. Scutellum small, with several small punctures.

Elytra 2.48 times as long as pronotum and 1.28 times as long as wide, widely rounded at sides, not wider at base than pronotum, with punctures similar to those on pronotum. Aedeagus as in Figs. 7, 8.

**Female** (paratype). Body length 5.5 mm. Dorsal side less lustrous, blackish brown; sides of pronotum and apex of elytra brown.

**Material.** 14 specimens, “China, Sichuan, WNW of Danba, 10–10.6 km S of Bianer, 4475–4770 m, 30°57’59”N/101°33’01”E–30°57’36”N/101°32’41”E, 23.VIII.2004, Belousov and Kabak leg.”

**Diagnosis.** The new species differs from the closely related *O. potanini* Lop. in the straight, instead of rounded, sides of the pronotum, paler coloration, and shape of the aedeagus.

**Oreomela yangi** Lopatin, sp. n.

**Description.** Holotype (male). Body length 7 mm, width 3.7 mm. Body black, shining; labrum, anterior margin of clypeus, palpi, apices of five basal antennal segments, and fore tarsus rusty-brown. Clypeus large, convex, with fine sparse punctures. Clypeus with clypeus flattened; vertex convex, with singular punctures scattered over entire surface and forming transverse row only at border with anterior margin of pronotum.

Pronotum wide, 1.8 times as wide as long, moderately convex between lateral margins. Punctuation scattered, obsolete at sides, consisting on disc of irregularly situated, small punctures separated by varying wide intervals. Lateral edging narrow; anterior margin entirely edged; posterior margin edged only at angles. Scutellum short, with scattered punctures.

Elytra 2.17 times as long as pronotum and 1.12 times as long as wide in middle part. Punctures very fine, subequal in size to those on pronotum, obliterated on apical declivity and arranged in vague rows. Aedeagus as in Figs. 9, 10.
**Female** (paratype). Body length 6.5 mm. Punctures on elytra forming rows along suture and lateral margins, intervals slightly convex.

**Material.** 8 specimens, “China, Sichuan, E of Danba, sources of Odikai River, 4518–4613 m, 15.VII.2004, Belousov and Kabak leg.”

**Diagnosis.** *O. yangi* differs from the closely related *O. sichuanica* Lop. in the shape of the aedeagus.

Subfamily **GALERUCINAE**

**Gallerucida emeishanica** Lopatin, sp. n.

**Description.** Body length 5.2 mm, width in middle part of elytra of 2.6 mm. Body black, with metallic-greenish reflection; frontal tubercle, small spots at apices of elytra, and wide lateral margination of abdominal sternites orange.

Frons with deep depression turning into deep sulcus between transverse frontal tubercules indistinctly limited dorsally; frontal carina in the form of a very wide, convex triangle, its anterior margin with 1 row of 4 rather long hairs.


Pronotum 1.87 times as wide as long, widest at end of anterior 1/3, narrowed toward base, with strongly protruding angles and deep lateral groove separating wide lateral margination; posterior angles produced before base. Disc bearing 2 widely spaced depressions with several large punctures on bottom; rest of surface with very sparse, microscopic punctures over fine shagreenity. Scutellum convex, oblong-triangular.

Elytra 5 times as long as pronotum, weakly straightly widened from humeral angles to apical declivity, then roundly narrowed; surface with dense, but very fine punctures visible at great magnification and separated by smooth narrow intervals; lateral declivities and posterior half of elytra with sparse short erect hairs. Lateral margination narrow, invisible in dorsal view.

Abdomen with sparse, rather long, subrecumbent hairs; anal sternite three-lobed, median lobe wide, densely punctate. Legs long and slender; tibiae straight, weakly widened toward apices; 1st segment of fore tarsus elongate and moderately widened, distinctly narrower than apex of tibia; 1st segment of hind tarsus nearly as long as succeeding ones combined. Claws toothed. Aedeagus (Figs. 11, 12) narrow, arcuately curved, with oblong-triangular apex.

**Female** (paratype). Body length 4 mm (not including protruding pygidium). Lateral depressions on pronotal disc shallower, smooth.

Diagnosis. C. warchalowskii differs from the uniformly black Chinese species in the elongate and slender body, yellow coloration of all legs, and shape of the aedeagus.

_Luperus pulchellus_ Lopatin, sp. n.

Description. Holotype (male). Body length 2.5 mm, width across humeri 1.1 mm. Dorsal side mirror-shining, metallic dark blue; two basal antennal segments uniformly rufescent yellow, 3rd segment brown, others tar-brown; legs yellow, with slightly darkened upper parts of femora. Ventral side of body black.

Frontal tubercles convex, smooth, separated from each other by deep narrow groove, separated from frons by deep transverse sulci. Frontal carina short, narrow, strongly triangularly widened downwards. Temples long; vertex smooth, with scattered punctures at sides. Antennae longer than body; 3rd segment twice as long as 2nd; 4–10th segments of subequal length, each slightly longer than 3rd.

Pronotum 1.5 times as wide as long (width measured along apical margin); sides weakly roundly converging toward base; lateral margin separated by deep groove and deflexed; anterior and posterior angles strongly protruding sideward, with setiferous pores and long setae. Disc with weak and wide oblique depressions at sides in posterior half, covered with fine and sparse punctures larger and deeper, but sparse in middle part.

Scutellum small, triangular, with rounded apex, smooth.

Elytra 4 times as long as pronotum and 2.3 times as long as wide across humeri, 1.8 times as wide at base as base of pronotum, with strong humeral calli, widest before apical declivity. Punctures large up to elytral apices, deep and dense, separated by convex intervals shorter than diameter of punctures. Punctuation of pronotum and elytra distinctly differing.

Abdomen convex, strongly narrowed toward apex; anal sternite appearing in middle as a short lobe with slightly emarginate margin. Legs long and slender, claw of tarsi with large tooth at base. Aedeagus as in Figs. 13, 14.

Material. 2 specimens, “China, S Gansu, WSW of Wudu, 8.5 km SE of Guazigou, 33°19′04″N / 104°44′07″E, H ~ 2490 m, 11.VII.2004, Belousov and Kabak leg.”

Diagnosis. _L. pulchellus_ is similar to _L. orientalis_ Fald., but differs in the smaller body and in the shape of the aedeagus.

ACKNOWLEDGMENTS

The author is grateful to I.A. Belousov and I.I. Kabak for the opportunity to examine their very interesting collections and for their constant assistance in examination of the leaf-beetle fauna of many areas of Eastern Asia.

REFERENCES