

## New taxa of Oriental leaf beetles (Coleoptera: Chrysomelidae)

## Новые таксоны ориентальных листоедов (Coleoptera: Chrysomelidae)

Lev N. Medvedev  
Л.Н. МЕДВЕДЕВInstitute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 119071, Russia.  
Институт проблем экологии и эволюции РАН, Ленинский проспект 33, Москва 119071, Россия.KEY WORDS: *Chrysomelidae*, new taxa, Oriental region.КЛЮЧЕВЫЕ СЛОВА: *Chrysomelidae*, новые таксоны, Ориентальный регион.

ABSTRACT. One new genus, *Liroetina* **gen.n.**, and 10 new species: *Cneorane minutissima* (Thailand), *Liroetina viridipennis* (Vietnam), *Liroetina nigromaculata* (Indonesia, Sulawesi), *Monolepta bistriimpres*a (Thailand), *Sermyloides coomani* (India), *Sermyloides sichuana* (China), *Paleosepharia centromaculata* (India), *Paleosepharia laysi* (Philippines), *Hemipyxis fedorenkoi* (Vietnam), *Hemipyxis piceolimbatus* (China) **spp.n.** and one subspecies: *Paleosepharia laysi bucasi* **ssp.n.** (Philippines) are described.

РЕЗЮМЕ. Описываются один новый род: *Liroetina* **gen.n.**, 10 новых видов: *Cneorane minutissima* (Таиланд), *Liroetina viridipennis* (Вьетнам), *Liroetina nigromaculata* (Сулавеси), *Monolepta bistriimpres*a (Таиланд), *Sermyloides coomani* (Индия), *Sermyloides sichuana* (Китай), *Paleosepharia centromaculata* (Индия), *Paleosepharia laysi* (Филиппины), *Hemipyxis fedorenkoi* (Вьетнам), *Hemipyxis piceolimbatus* (Китай) **spp.n.** и 1 подвид: *Paleosepharia laysi bucasi* **ssp.n.** (Филиппины).

Descriptions of a few new taxa of Oriental Chrysomelidae based on materials of Naturhistorisches Museum Basel and author's collection are proposed below. Next abbreviations are used for the depository places: NHMB — Naturhistorisches Museum Basel, Switzerland; LM — author's collection, Moscow, Russia.

*Cneorane minutissima* Medvedev **sp.n.**

Fig. 1

MATERIAL. Holotype, ♂: N. Thailand, Chiang Mai, Belle Villa Resort, 18°48' N, 98°50' E, 500 m, 24–27.VIII.2010, leg. O. Gorbunov (LM). Paratypes: same locality and date, 2 ♂♂ (LM).

DESCRIPTION. Head, prothorax, scutellum and legs fulvous, antennae black with 4–5 basal and 2–3 apical segments fulvous, elytra metallic blue, underside piceous with apical half of abdomen fulvous. One paratype, not quite natured has all underside and epipleurae fulvous.

Body elongate, parallel-sided. Head impunctate, clypeus triangular with straight anterior margin, interantennal space convex, frontal tubercles triangular, feebly convex, and delimited behind with sharp straight impres-

sion. Antennae reach apical slope of elytra, nitidiform, proportions of segments are as 11–6–9–11–11–11–11–11–10–13, preapical segments about 3 times as long as wide. Prothorax 1.5 times as wide as long, broadest in anterior quarter, side margins feebly rounded, surface lustrous, with sparse and almost indistinct microscopical punctures. Scutellum as wide as long, triangular, microsculptured. Elytra 1.5 times as long as wide, surface without postbasal convexity, shining, densely and not strongly punctate, all interspaces flat. Anterior coxal cavities open in one specimen and half closed in other two. Segment 1 of fore and mid tarsi not widened. Aedeagus (Fig. 1) with acute triangular apex and strongly curved in lateral view.

Length of body 3.0–3.2 mm.

DIAGNOSIS. This is the smallest species in the genus, smaller than *C. minuta* L. Medvedev, 1992 (3.7–4.8 mm) and seems to be near *C. sprecheriae* L. Medvedev, 2011, also from Thailand, but differs with entirely fulvous head, other sculpture of elytra, smaller size and other form of aedeagus. In the key of Oriental species [Medvedev, 2011] it might be placed near *C. cribratissima* Fairmaire, 1888 and *C. orientalis* Jacoby, 1892, having also 1 or 2 apical antennal segments fulvous, but both these species more than twice larger than the species in question.

*Liroetina* Medvedev **gen.n.**

DESCRIPTION. Body elongate. Antennal insertions situated behind anterior margins of eyes, broadly separated and placed near inner margins of eyes. Frontal tubercles large, subquadrate. Antennae nitidiform, almost as long as body. Upperside not pubescent except sparse erect hairs on apical slope of elytra. Prothorax with all margins bordered and surface without impressions. Elytra confusedly punctured, without basal convexity. Epipleurae narrow, distinct to middle of elytra. Prosternal process not seen between coxae, coxal cavities narrowly open. Last abdominal sternite of female deeply excavated on hind margin. Mesosternum narrow between mid coxae. Mid and hind tibiae with distinct spur. Claws appendiculate. Segment 1 of hind tarsus as long as segments 2 and 3 united.

DIAGNOSIS. This genus is very alike in practically all characters at *Liroetis* Weise, 1889 and *Luperogala* L. Medvedev & Samoderzenkov, 1989 (these two genera differ only by males), but differ immediately in having well developed spur on hind tibia.

Type of genus — *Liroetina viridipennis* **sp.n.**

*Liroetina viridipennis* Medvedev **sp.n.**

**MATERIAL.** Holotype, ♀: Vietnam, Dak Lak province, Chu Yang Sin Nam Park (12°23'48" N, 108°20'59" E), 1000 m, upper flow of Krong Kmar, 30.III–14.IV.2012, on light, leg. D. Fedorenko (LM).

**DESCRIPTION.** Fulvous, 4 apical antennal segments piceous to black, posterior half of scutellum black, elytra metallic green, tarsi more or less darkened.

Labrum, clypeus and frontal tubercles impunctate and shining, vertex with large sparse punctures. Proportions of antennal segments are as 12–3–10–12–11–11–10–8–9–10–12, preapical segments about 6 times as long as wide. Prothorax 1.75 times as wide as long, broadest in middle, side margins rounded, anterior angles acute, posterior angles obtuse, surface with distinct and comparatively sparse punctures, interspaces with microscopical punctures; there is also a flatten round area on each side of middle. Scutellum triangular, with dense microsculpture and fine sparse punctures. Elytra 1.9 times as long as wide, almost parallel-sided with rounded apices, surface densely punctate, interspaces smaller than punctures, microsculptured and mostly convex.

Length of body 13.5 mm.

**DIAGNOSIS.** This species is very alike at female of *Luperogala mirabilis* L. Medvedev & Samoderzenkov, 1989, but differs, except main generic character, with bicolor scutellum and deep emargination of apical abdominal sternite. Also it is very alike at *Liroetis viridipennis* Kimoto, 1989 and differs, according description, only by spur of hind tibia and bicolor scutellum.

*Liroetina nigromaculata* Medvedev **sp.n.**

**MATERIAL.** Holotype, ♀: Indonesia, Sulawesi Utara, Tomohon, Kakaskesen Dua, 1°22' N, 124°51' E, 15–16.IV.2008, leg. O. Gorbunov (LM).

**DESCRIPTION.** Fulvous, antennae, 3 spots on prothorax in transverse row, apex of Pygidium, 3 spots on hind margin of preceding tergite, spot on each side of all abdominal sternites black, scutellum and elytra metallic green. Tibiae and tarsi black. Basal half of antennal segments 10 and 11 fulvous.

Body elongate, slightly widened to behind. Labrum smooth, with long bristles on each side and emarginated in middle of anterior margin, clypeus pubescent, with feeble punctures, frontal tubercles convex, poorly delimited and microsculptured, vertex pubescent, with feeble punctures. Antennae reach apical slope of elytra, proportions of segments are as 10–2–5–9–9–9–9–10–10–9–10, preapical segments about 8–9 times as long as wide. Prothorax 2.15 times as wide as long, broadest before base, sides feebly rounded, anterior angles obtuse, posterior angles rectangular, surface with transverse impression interrupted in middle, punctures dense and large, but not deep, interspaces microsculptured. Scutellum triangular with rounded apex, punctate. Elytra 1.3 times as long as wide, widened to apex, surface strongly and densely punctate with narrow interspaces.

Length of body 9.0 mm.

**DIAGNOSIS.** Differs from preceding species with other proportions of body, color of antennae, prothorax and abdomen, other sculpture and pubescence of head.

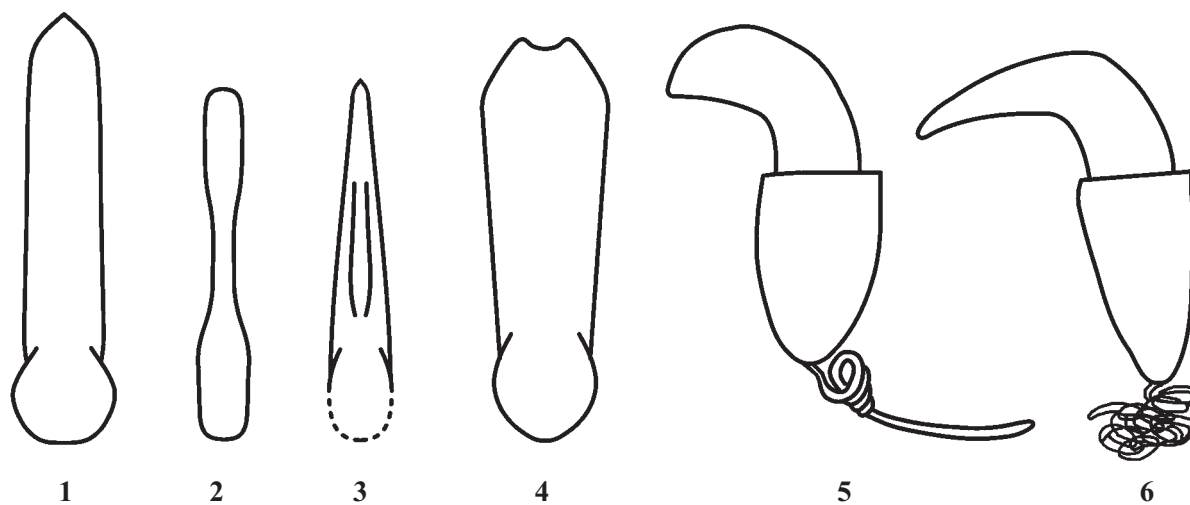
*Monolepta bistrimpressa* Medvedev **sp.n.**

Figs 2, 7–9

**MATERIAL.** Holotype, ♂: Thailand, Ranong Mangroves, VII–VIII.1988, at *Avicennia alba*, leg. D.N. Murphy (LM). Paratypes: same locality and date, 1 ♀ (LM); Thailand, Chiang Mai Prov., Doi Intha Non National Park, 18°33'44" N, 98°29' E, 2145 m, 19.VIII.2009, leg. V.K. Zinchenko 1 ♀ (LM).

**DESCRIPTION.** Black, vertex fulvous, Elytra black with fulvous pattern: male with ovate spot at base near scutellum, curved stripe behind middle and apical part of lateral margin prolonged to apex (Fig. 8), female with longitudinal stripe and apical part of lateral margin including almost all apex fulvous (Fig. 9).

Head impunctate but finely microsculptured, anterior margin of clypeus straight, frontal tubercles triangular, vertex with longitudinal impressed line, interocular space only a little wider than transverse diameter of eye. Antennae reach anterior third of elytra, proportions of segments are as 7–2–4–7–7–7–7–7–7–9, preapical segments about 3 times as long as wide. Prothorax 1.5 times as wide as long, broadest



Figs 1–6: 1 — *Cneorane minutissima* **sp.n.**; 2 — *Monolepta bistrimpressa* **sp.n.**; 3 — *Paleosepharia centromaculata* **sp.n.**; 4 — *Paleosepharia laysi* **sp.n.**; 5 — *Hemipyxis fedorenkoi* **sp.n.**; 6 — *Hemipyxis piceolimbatus* **sp.n.**; 1–4 — aedeagus; 5–6 — spermatheca.

Рис. 1–6: 1 — *Cneorane minutissima* **sp.n.**; 2 — *Monolepta bistrimpressa* **sp.n.**; 3 — *Paleosepharia centromaculata* **sp.n.**; 4 — *Paleosepharia laysi* **sp.n.**; 5 — *Hemipyxis fedorenkoi* **sp.n.**; 6 — *Hemipyxis piceolimbatus* **sp.n.**; 1–4 — эдеагус; 5–6 — сперматека.

just behind middle, side margins feebly rounded, surface with impression on each side of middle, microsculptured and densely punctate. Elytra 1.35 times as long as wide, broadest in apical third, humeral tubercle feeble, surface densely punctate, punctures distinctly larger than on prothorax, interspaces microsculptured, not larger than diameter of punctures, feebly convex; apical slope with a few erect hairs; in male elytra with elongate impression behind humerus including a row of 3 round grooves: the first and the third grooves are very shallow, while the mid one much deeper (Fig. 7). Segment 1 of posterior tarsus a little longer than next segments united. Aedeagus thin and long, spear-like, with underside longitudinally impressed in apical third (Fig. 2).

Length of body 5.0 mm.

DIAGNOSIS. Differs well from all continental species in having unusual elytral pattern and specific elytral sculpture of male.

*Sermyloides coomani antennata* Medvedev **sp.n.**

Fig. 12

MATERIAL. Holotype, ♂: NE India, Meghalaya, 3 km E Tura, 25°30'N, 90°14'E, 1150 m, 4.V.1999, leg. Dembický & Pacholátko (NHMB).

DESCRIPTION. Fulvous, antennae except basal segment black.

Body elongate ovate. Head with vertex punctate and microsculptured, other surface impunctate and shining, intraocular space very broad, about 3 times as wide as transverse diameter of eye, deeply concave before antennal bases, with flattened subquadrate protuberance on bottom starting just before antennal bases, having a few hairs on apex. Antennae reach apical slope of elytra, proportions of segments are as 9-1.5-6-6-5-5-5-4-4-4-5, preapical segments about 2.5 times as long as 3, segment 3 triangularly widened on apex (Fig. 12). Prothorax 2.2 times as wide as long, broadest at base, side margins almost straight, anterior angles thickened, with pore and bristle, posterior angles obtuse, with pore and bristle, surface densely punctate with narrow microsculptured interspaces. Scutellum triangular, microsculptured. Elytra 1.7 times as long as wide, with narrowly rounded apices and oblique groove near basal margin, surface with

moderately dense punctures and shining interspaces. Segment 1 of fore and mid tarsi not widened.

Length of body 6.0 mm.

DIAGNOSIS. Differs from the nominative form, distributed in Vietnam, Laos and Thailand with much more developed triangular tooth on the apex of the third antennal segment and a little different interocular concavity, not having on bottom 2 small round grooves. Possibly it is a good species

All species of this genus are distributed in China, Indochina and on islands from Sumatra to the Philippines. The described form is the first one found in Northern India.

*Sermyloides sichuana* Medvedev **sp.n.**

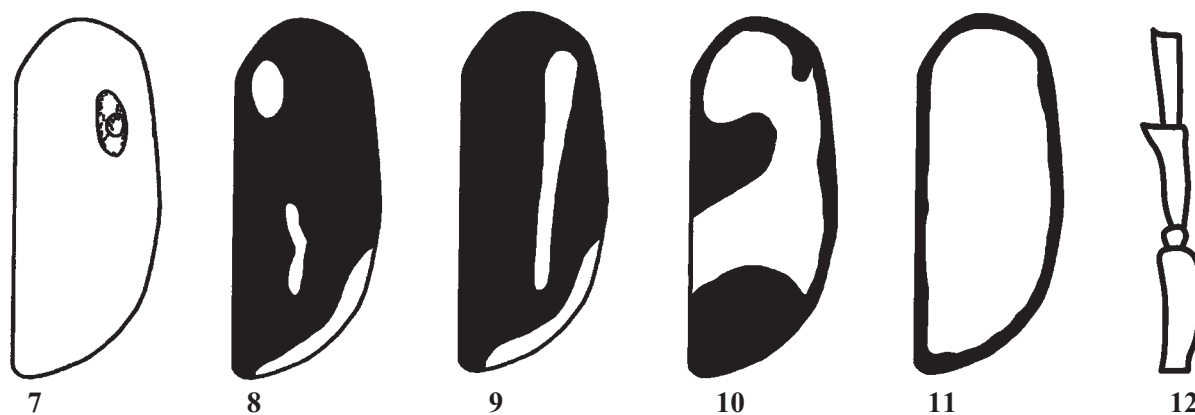
MATERIAL. Holotype, ♀: China, C Sichuan, Dayi distr., Chaping env., 1200-1500 m, 5-7.VIII.1996, leg. A. Miroshnikov & A. Zamotajlov (LM).

DESCRIPTION. Red, head, antennae, prothorax and legs black.

Body elongate ovate with maximal width at posterior third of elytra. Head impunctate, microsculptured, deeply transversally grooved before antennal bases and partly behind them, frontal tubercles transverse, sharply delimited behind and poorly delimited on sides, clypeus with arcuate anterior margin, interocular space 3 times as wide as transverse diameter of eye. Proportions of segments are as 11-3-10-8-8-7-7-7-, segments 9-11 absent. Prothorax 2.1 times as wide as long, broadest at base, side margins straight, posterior margin arcuate, surface without any impression, densely microsculptured, with very sparse and scarcely distinct fine punctures. Scutellum triangular, microsculptured. Elytra 1.4 times as long as wide, moderately widened to behind, with broadly rounded apices, surface with feeble and poorly delimited humeral tubercles, densely and moderately strongly punctate.

Length of body 5.5 mm.

DIAGNOSIS. Differs immediately from all Chinese species with black prothorax. Rather near to preceding species, but differs with black head, entirely antennae and legs and entirely reddish underside. Besides, elytra have no groove at basal margin, but I think, that this character is typical only for male.



Figs 7-12: 7-9 — *Monolepta bistrimpressa* sp.n.; 10 — *Paleosepharia centromaculata* sp.n.; 11 — *Hemipyxis fedorenkoi* sp.n.; 12 — *Sermyloides coomani antennata* sp.n.; 7 — elytral sculpture; 8-11 — elytral pattern; 12 — basal antennal segments; 7-8, 12 — males; 9 — female.

Рис. 7-12: 7-9 — *Monolepta bistrimpressa* sp.n.; 10 — *Paleosepharia centromaculata* sp.n.; 11 — *Hemipyxis fedorenkoi* sp.n.; 12 — *Sermyloides coomani antennata* sp.n.; 7 — скульптура надкрылий; 8-11 — рисунок надкрылий; 12 — базальные членики антенн; 7-8, 12 — самцы; 9 — самка.

*Paleosepharia centromaculata* Medvedev **sp.n.**

Figs 3, 10

**MATERIAL.** Holotype, ♂: India, Uttaranchal state, Nainital distr., Peora, 1950 m, II.2006, leg. S. Saluk (LM). Paratype: same locality and date, 1 ♀ (LM).

**DESCRIPTION.** Head fulvous with black labrum, antennae black with 3 basal segments fulvous, prothorax fulvous with extreme lateral margin very narrowly black, scutellum black, elytra pale flavous with large common pear-like spot in anterior third, connected with base by narrow stripe, basal and most part of lateral margin including humerus and apical quarter of elytron black (Fig. 10), metasternum black, abdomen fulvous with black pygidium, femora fulvous, tibiae and tarsi black.

Body elongate. Head with vertex shining and smooth, frontal tubercles cuneiform and sharply delimited posteriorly, interocular space subequal to transverse diameter of eye. Antennae reach a little behind middle of elytra, proportions of segments are as 12–6–6–10–11–11–11–10–9–12, preapical segments about 3–3.5 times as long as wide. Prothorax 1.5 times as wide as long, almost parallel-sided with obtuse angles, surface with feeble impression on each side behind middle, finely and not densely punctate, shining. Scutellum triangular, impunctate. Elytra 1.6 times as long as wide, not modified in male, rather densely punctate, shining. Median lobe of apical sternite of male flat and quadrate. Aedeagus — Fig. 3.

Length of male 3.3 mm, of female 3.8 mm.

**DIAGNOSIS.** Differs from most continental species with not modified elytra of male; morphologically and in color of legs is near *P. tenasserimensis* (Maulik, 1936).

*Paleosepharia laysi* Medvedev **sp.n.**

Fig. 4

**MATERIAL.** Holotype, ♂: [Philippines] Mindanao, S. Cotabato Prov, Monabo Tasaday Forest Reserve, Mt. Tasaday, 3.II–10.III.1991, leg. Pascal Lays (LM). Paratypes: same locality and date, 2 ♀♀ (LM); same locality, 1000–1100 m, 1–30.X.1993, 1 ♀ (LM); Philippines, Mindanao, S. Cotabato Prov., Manobo Tasaday Forest Reserve, Mt. Temlofung, 1300 m, 19–24.X.1994, leg. Pascal Lays, 1 ♂ (LM); Mindanao, Momungan, 1 ♂ (LM); Mindanao, Pt. Bango, 1 ♀ (LM).

**DESCRIPTION.** Fulvous with elytra red fulvous.

Body elongate ovate, broadest behind middle. Clypeus in hind part and interantennal space carinate, frontal tubercles strongly transverse, delimited posteriorly with transverse straight impression, vertex microsculptured, finely and sparsely punctate. Antennae reach apical slope of elytra, proportions of segments are as 12–3–5–8–8–12–13–13–10–10–12, preapical segments 5–6 times as long as wide, segments 2–11 with rather dense suberect hairs. Prothorax twice as wide as long, broadest near middle, sides feebly rounded, surface with transverse impression in middle, densely punctate and microsculptured. Scutellum triangular, microsculptured. Elytra 1.7 times as long as wide, with truncate apex, surface very densely punctate, with narrow convex interspaces, not modified in male. Segment 1 of hind tarsus twice as long as next segments united. Aedeagus (Fig. 4) with truncate apex.

Length of male 6.2–6.8 mm, of female 6.8–7.8 mm.

**DIAGNOSIS.** This species, having not modified elytra of male, differs well from the single fulvous Philippines species — *P. fulvescens* L. Medvedev, 2007 with quite other sculpture of upperside and impressed prothorax.

*Paleosepharia laysi bucasei* Medvedev **sp.n.**

**MATERIAL.** Holotype, ♂: Philippines, Bucas (LM). Paratype: same locality, 1 ♂.

**DESCRIPTION.** Entirely fulvous, elytra has same color as prothorax.

Morphologically quite identical with nominative form. Aedeagus with apex feebly bilobed.

Length of male 6.2–6.7 mm.

**DIAGNOSIS.** Differs from the nominative form with other color of elytra, which are fulvous in the nominative form, and form of aedeagus.

*Hemipyxis fedorenko* Medvedev **sp.n.**

Figs 5, 11

**MATERIAL.** Holotype, ♀: Vietnam, Lam Dong prov., 35 km NW of Bao Loc, Loc Bao env., 11°50'12" N, 107°38'25" S, 650 m, 17–22.IV.2012, at light, leg. D.Fedorenko, 1 ex. (LM). Paratype: Vietnam, Lam Dong province, Bao Loc, 1.VII.1980, leg. L. Medvedev 1 ex. (LM) (this specimen was cited earlier [Medvedev, 2009] as *Hemipyxis* sp. B).

**DESCRIPTION.** Black, elytra flavous with narrow black emargination (Fig. 11), in paratype abdomen dark fulvous.

Body ovate, 1.3 times as long as wide. Head impunctate, frontal tubercles distinct, triangular, and sharply delimited posteriorly with transverse impression. Antennae reach middle of elytra, proportions of segments are as 13–7–11–15–15–14–14–13–13–13–15, preapical segments about 3 times as long as wide, apical segment with pointed apex. Prothorax 2.1–2.2 times as wide as long, broadest near middle, with rounded side margins, surface moderately convex, shining and practically impunctate. Scutellum triangular, very finely punctate. Elytra 1.2 times as long as wide, without basal convexity, surface shining, finely and not densely punctate, interspaces flat, much larger than diameter of punctures. Spermatheca — Fig. 5. Length of body 4.4–4.5 mm.

**DIAGNOSIS.** Near *H. sadonensis* (Bryant, 1938) from Myanmar and North Vietnam [Medvedev, 2009], differs with other elytral pattern, more pale elytra and other form of spermatheca.

*Hemipyxis piceolimbatus* Medvedev **sp.n.**

Fig. 6

**MATERIAL.** Holotype, ♀: [China], Yunnan, Weibaoshan mts, 25°11' N, 100°24' E, west slope, 2000–2800 m, 25–28.VI.1992, leg. D.Kral (LM).

**DESCRIPTION.** Black, elytra pale flavous with piceous lateral and sutural margins, including apex.

Body rather narrow, 1.75 times as long as wide. Head impunctate, with transverse furrow delimited frontal tubercles from vertex. Antennae with proportions of segments as 14–8–12–14–14, next segments absent. Prothorax 1.9 times as wide as long, broadest just behind middle, with rounded side margins, surface moderately convex, shining and impunctate. Scutellum triangular, practically impunctate. Elytra 1.4 times as long as wide, without basal convexity, surface shining, distinctly punctate, interspaces flat and large than diameter of punctures. Spermatheca — Fig. 6.

Length of body 4.8 mm.

**DIAGNOSIS.** Elytral pattern is more or less same as in *H. variabilis* (Jacoby, 1885), which however has head and prothorax fulvous. A species in question is no doubt resembled preceding species and *H. sadonensis* (Bryant, 1938), but differs with more narrow and elongate body, other form of dark elytral margins, which are not black, but dark brown to piceous, and other form of spermatheca.

## References

- Medvedev L.N. 2009. Alticinae of Indochina. Moscow: KMK Scientific Press. 224 p.  
 Medvedev L.N. 2011. A contribution to knowledge of Oriental species of *Cneorane* Baly (Chrysomelidae, Galerucinae) // Entomologica Basiliensia et Collectionis Frey. Vol.33. P.351–368.