

Chrysomelidae (Coleoptera) of high mountain regions of North-West Vietnam

Chrysomelidae (Coleoptera) высокогорий Северо-западного Вьетнама

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КЛЮЧЕВЫЕ СЛОВА: Вьетнам, новые таксоны, фаунистика.

ABSTRACT: One new genus (*Hirtomimastra* **gen.n.**) and 16 new species: *Cryptocephalus fedorenkoi*, *C. fanxipanus*, *Basilepta interrupta*, *Sastroides rufofulva*, *Hirtomimastra gracilis*, *Stenoluperus vietnamicus*, *Paleosepharia tricolor*, *P. fedorenkoi*, *P. subsuturalis*, *P. suturalis*, *P. fanxipana*, *P. rubricollis*, *Aplosonyx montana*, *Laosixantha bicolor*, *Galerucida fanxipana* **spp.n.** are described. Besides, a few species firstly found in Vietnam or endemic for this area are indicated. A key to genus *Paleosepharia* of Vietnam is included.

РЕЗЮМЕ: Описываются 1 новый род (*Hirtomimastra* **gen.n.**) и 16 новых видов: *Cryptocephalus fedorenkoi*, *C. fanxipanus*, *Basilepta interrupta*, *Sastroides rufofulva*, *Hirtomimastra gracilis*, *Stenoluperus vietnamicus*, *Paleosepharia tricolor*, *P. fedorenkoi*, *P. subsuturalis*, *P. suturalis*, *P. fanxipana*, *P. rubricollis*, *Aplosonyx montana*, *Laosixantha bicolor*, *Galerucida fanxipana* **spp.n.** Приведён ключ рода *Paleosepharia* фауны Вьетнама. Кроме того, указывается ряд видов, впервые отмеченных для Вьетнама или эндемичных для региона.

Introduction

This publication is based mostly on material collected by Dr. D. Fedorenko in the high mountain region Fanxipan and partly on different materials from Shapa region. This fauna differs sharply from such of more southern and lowland regions and has distinct connection with mountains of South-West China and the Himalaya region.

Taxonomic part

Colobaspis septemmaculata Hope, 1831

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 1 ex.

REMARKS. Species was known from North India, Nepal, Burma, firstly found in Vietnam.

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Cryptocephalus (s. str.) *fedorenkoi* L.Medvedev **sp.n.**

Fig. 1

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

DESCRIPTION. Black, head pale flavous, 4 basal antennal segments, prothorax, transverse band in middle of elytra, not interrupted on suture, fore legs (with feebly darkened tarsi), bases and apices of mid femora, knees of hind femora and basal process of abdomen fulvous.

Body elongate, cylindrical. Head with distinct punctures on vertex, other surface impunctate, clypeus triangular, flat, practically not elevated, vertex as wide as interantennal space. Antennae thin and long, reach apical quarter of elytra, proportions of segments are as 11–5–6–8–13–12–12–12–12–11–13, preapical segments about 4–4.5 times as long as wide. Prothorax 1.6 times as wide as long, shining and impunctate. Scutellum triangular with truncate apex, impunctate. Elytra 1.25 times as long as wide, with 5 regular rows of strong punctures in inner part and confusedly punctate in lateral area, interspaces flat or slightly convex, mostly as large as diameter of punctures, smooth. Pygidium feebly convex, punctate and sparsely pubescent. Segment 1 of fore and mid tarsi moderately widened. Prosternum longitudinally convex, without collar on anterior margin, feebly bidentate on hind margin. Aedeagus — Fig. 1. Length of body 3.0 mm.

DIAGNOSIS. Near *C. taravellieri* Pic, 1922, but outer part of elytra confusedly punctate and light elytral band transverse, not oblique, underside black, body smaller.

Cryptocephalus (s. str.) *fanxipanus* L.Medvedev **sp.n.**

MATERIAL. Holotype, ♀, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100m, VII.2007, leg. D. Fedorenko (LM).

DESCRIPTION. Light fulvous, antennae, vertex, scutellum, metasternum, except fulvous episternae, and legs black, labrum darkened. elytra metallic greenish blue.

Body cylindrical. Head with a few fine punctures, clypeus triangular, elevated, flat anteriorly, with shallow impression posteriorly, vertex as wide as interantennal space. Eyes large. Antennae thin, reach middle of elytra, proportions of segments are as 13–5–6–7–8–11–12–12–12–11–13, preapical segments 3 times as long as wide. Prothorax 1.7 times as wide

as long, surface shining and impunctate. Scutellum broad with rounded apex, impunctate. Elytra 1.35 times as long as wide, with regular rows of strong punctures, more feeble on apex, interspaces mostly comparable with diameter of punctures, each of them with row of microscopical punctures. Pygidium feebly convex, punctured and finely pubescent. Prosternum without collar on anterior margin, with two teeth posteriorly. Length of body 4.5 mm.

DIAGNOSIS. Differs from *C. thibetanus* Pic, 1917 with black antennae and legs, fulvous venter and larger size, from *C. pieli* Pic, 1928 with greenish blue elytra, black antennae, breast and legs.

Basilepta interrupta L. Medvedev **sp.n.**

Fig. 2

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality and date, 3 ex. (LM); — Vietnam, mountains near Shapa, 1600–2000m, 25.V.1963, leg. O. Kabakov, 2 ex. (LM); same locality, 4.VI.1963, 3 ex. (LM).

DESCRIPTION. Black, upperside sometimes with feeble metallic luster, all palpi except apical segment, labrum and basal segments of antennae fulvous, femora except apices red or dark red.

Body elongate. Head shining, with distinct sparse punctures, anterior margin of clypeus triangularly emarginated. Antennae thin, proportions of segments 2–4 are as 10–12–14, next segments subequal to 4th. Prothorax 1.4–1.5 times as wide as long, acutely angulate just behind middle, anterior sulcus (collar) broadly interrupted in middle. Surface shining, with moderately large and dense (especially on sides) punctures. Scutellum trapeziform with rounded apex, smooth. Elytra 1.3–1.4 times as long as wide, surface with well developed postbasal impression and regular rows of large punctures, more feeble on basal convexity and almost disappearing on apical slope; on sides punctures confused in males, more rugose and with a few tubercles or short ridges in female. All femora not toothed beneath. Aedeagus with elongate-rounded apex (Fig. 2). Length of male 4.1–5.0 mm, of female 4.5–5.3 mm.

DIAGNOSIS. This species might be compared only with *B. chapaensis* (Pic, 1930). Original description, given by Pic [1930], is very short, but more characters of *B. chapaensis* were given by Gressitt & Kimoto [1982], who studied the type. Both species might be divided as follows:

- 1(2) Collar of prothorax entire. Cupreous with purple or greenish luster. Legs dark cupreous with tibiae and tarsi dark reddish. Length 4.0 mm
 *B. chapaensis* (Pic, 1930)
- 2(1) Collar of prothorax broadly interrupted in middle. Black with feeble metallic luster. Legs black with femora red or dark red. Length 4.1–5.3 mm *B. interrupta* **sp.n.**

Sastroides rufofulva L. Medvedev **sp.n.**

Fig. 19

MATERIAL. Holotype, ♀, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

DESCRIPTION. Head and prothorax red, antennae and scutellum black, elytra pale fulvous with humeral area and very narrow basal and sutural margins black. Underside, tibiae and tarsi black, femora reddish fulvous, pubescence white.

Body elongate, widened to behind. Clypeus impunctate, frontal tubercles elongate triangular, flat and smooth, delimited posteriorly and at sides, but feebly divided from each

other, vertex strongly punctate, with longitudinal impressed line. Antennae reach behind middle of elytra, proportions of segments are as 7–3–12–11–9–10–10–9–8–6–7, preapical segments about 4 times as long as wide. Prothorax 1.5 times as wide as long, broadest before base, with side margins feebly rounded, anterior angles obtuse, posterior angles rounded, surface finely and sparsely punctate, with transverse impression on each side and longitudinal impression in middle, widened on both ends. Scutellum trapeziform with rounded apex, pubescent, punctate and microsculptured.

Elytra 1.6 times as long as wide, without basal convexity, densely punctate and pubescent. Apical abdominal sternite without impression, not emarginated. Segment 1 of hind tarsus as long as segment 2. Spermatheca — Fig. 19. Length of body 5.2 mm.

DIAGNOSIS. Differs from all species known in Indochina with smaller size, different colour of prothorax and elytra and black emargination of elytra.

Paragetocera fasciata Gressitt & Kimoto, 1963

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 1 ex.

REMARK. Species was described from China (Yunnan). A genus and species firstly found in Vietnam.

Liroetis clermonti (Laboissiere, 1929)

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 1 ex.

REMARK. Species was described from Chapa, only type was known.

Hirtomimastra L. Medvedev **gen.n.**

Type of genus — *Hirtomimastra gracilis* **sp.n.**

DESCRIPTION. Body narrow, elongate. Antennal insertions placed distinctly behind anterior margin of eyes, frontal tubercles triangular, produced, with anterior angles between antennal insertions. Clypeus triangular, eyes large and strongly convex, genae very short, vertex smooth. Antennae very thin and longer than body, segment 2 twice shorter than 3. Prothorax transverse, with anterior and posterior borders unmarginated, surface with feeble distinct depressions on each side, bare. Scutellum triangular, pubescent. Elytra confusedly punctate, with moderately dense suberect pubescence directed backward, epipleurae very narrow. Anterior coxal cavities open, anterior coxae contiguous. Mesosternum connected with metasternum in one point. Legs very thin and long, tibiae without spurs. Claws with basal tooth.

DIAGNOSIS. Very alike at *Mimastra* Baly, 1865 and *Trichomimastra* Weise, 1922, differs from the first with prothorax not margined on anterior and posterior border and pubescent elytra, from the second with prothorax not margined on posterior margin, very long legs and structure of aedeagus, not splitted on apex.

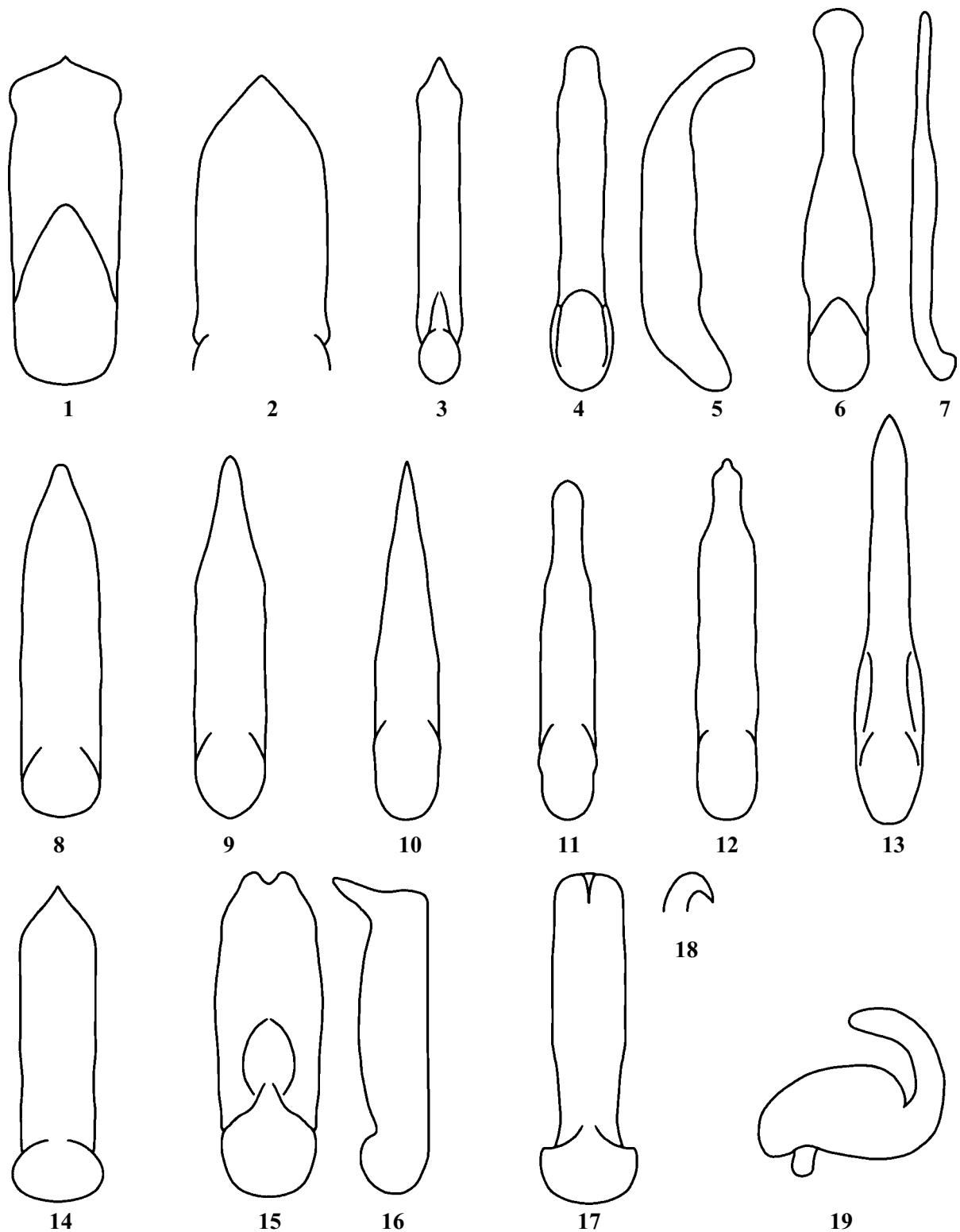
Hirtomimastra gracilis L. Medvedev **sp.n.**

Fig. 3

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon Mt. Range, env. Fanxipan, 1950–2100m, 15. VII.2007, on light, leg. D. Fedorenko (LM). Paratypes: same locality, 15 and 21.VII.2007, on light, 11 specimens (LM, 2 ex. — NHMB).

DESCRIPTION. Pale flavous, antennae, upperside of femora, tibiae and tarsi black.

Head as wide as prothorax, impunctate. Antennae reach apex of elytra with more or less 9th segment, proportions of



Figs 1-19. Details of Chrysomelidae: 1-17 — aedeagus; 18 — extreme apex of aedeagus; 19 — spermatheca; 1 — *Cryptocephalus fedorenkoi*; 2 — *Basilepta interrupta*; 3 — *Hirtomimastra gracilis*; 4-5 — *Stenoluperus vietnamicus*; 6-7 — *S. potanini*; 8 — *Paleosepharia tricolor*; 9 — *P. fedorenkoi*; 10 — *P. subsuturalis*; 11 — *P. suturalis*; 12 — *P. fanxipana*; 13 — *P. rubricollis*; 14 — *Aplosonyx montana*; 15-16 — *Laosixantha bicolor*; 17-18 — *Galerucida fanxipana*; 19 — *Sastroides rufofulva*; 1-4, 6, 8-15, 17 — ventral view; 5, 7, 16-18 — lateral view.

Рис. 1-19. Детали строения листоедов: 1-14 — эдеагус; 18 — вершина эдеагуса; 19 — сперматека; 1 — *Cryptocephalus fedorenkoi*; 2 — *Basilepta interrupta*; 3 — *Hirtomimastra gracilis*; 4-5 — *Stenoluperus vietnamicus*; 6-7 — *S. potanini*; 8 — *Paleosepharia tricolor*; 9 — *P. fedorenkoi*; 10 — *P. subsuturalis*; 11 — *P. suturalis*; 11 — *P. fanxipana*; 12 — *P. rubricollis*; 14 — *Aplosonyx montana*; 15-16 — *Laosixantha bicolor*; 17-18 — *Galerucida fanxipana*; 19 — *Sastroides rufofulva*; 1-4, 6, 8-15, 17 — снизу; 5, 7, 16-18 — сбоку.

segments are as 21–5–21–24–22–21–23–21–19–17–20, preapical segments about 10 times as long as wide. Prothorax 1.7 times as wide as long, broadest near middle, narrowed anteriorly, with almost straight side margins and obtuse, not produced angles; surface rather flat, especially before scutellum, shining and impunctate. Elytra about twice as long as wide, parallel-sided or widened to apex, densely punctate with punctures of different size, interspaces mostly smaller than punctures and convex. Legs very long, fore legs: femora — 2.5 mm, tibiae — 2.6 mm, first tarsal segment — 8 mm, next tarsal segments together — 8 mm; mid legs correspondingly: 3.2 mm, 3.1 mm, 1.1 mm, 1 mm; hind legs correspondingly: 4 mm (a half of body length!), 4 mm, 1.7 mm, 1.3 mm. Aedeagus thin and long, with longitudinal impressed line on underside (Fig. 3). Length of body 8.0–9.0 mm.

DIAGNOSIS. This species is very alike at *Trichomiastrea attenuata* Gressitt & Kimoto, 1963, which however has distinctly margined hind border of prothorax and aedeagus splitted on apex (a paratype of this species was studied).

Cneorella chapaensis Medvedev & Dang Dap, 1981

MATERIAL examined. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 4 ex.

REMARK. Species was described from Shapa. Later Kimoto [1989] indicated it from South Vietnam, but these data are very doubtful and possibly belong to other species.

Stenoluperus vietnamicus L. Medvedev sp.n.

Figs 4–5

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 1 ♂, 2 ♀♀ (LM); Vietnam, Shapa, 22.XI.1972, 1 ♀ (LM).

DESCRIPTION. Metallic green or bluish green, underside and legs black with more or less distinct metallic luster, labrum and antennae black or piceous.

Body elongate, slightly narrowed to behind. Clypeus triangular, frontal tubercles transverse with anterior angles produced to interantennal space, delimited posteriorly with straight transverse impression, vertex with deep sparse punctures, slightly rugose near eyes. Antennae of male reach apical slope of elytra, proportions of segments are as 14–6–8–12–14–14–14–13–13–12–13, preapical segments about 4 times as long as wide; in female proportions of 5 basal segments are as 12–6–10–13–14. Prothorax 1.7 times as wide as long, side margins almost straight, anterior angles swollen and prominent, hind angles slightly prominent, surface with deep and moderately dense punctures, without impressions. Scutellum triangular, subtruncate apically, smooth. Elytra 1.6 times as long as wide, surface shining, strongly and densely punctate, without distinct basal convexity. Last abdominal sternite with triangular impression on central lobe. Aedeagus thin, slightly narrowed to truncate apex, in lateral view apical part strongly curved beneath (Figs 4–5). Length of male 4.0–4.1 mm, of female 3.9–4.1 mm.

DIAGNOSIS. Near *S. potanini* Weise 1889 from China, differs with strongly punctate and not impressed prothorax, other proportions of basal antennal segments and form of aedeagus. In *S. potanini* proportions of basal antennal segments are as 12–4–6–15–15, aedeagus straight in lateral view and has other form of extreme apex (Figs 6–7). A genus is firstly recorded for Vietnam.

Stenoluperus flaviventris Chen, 1942.

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 7 ex.; Vietnam, mountains near Shapa, 1600m, 4.VI.1963, leg. O. Kabakov, 1 ex.

REMARK. Species was known from China, firstly recorded for Vietnam.

Monolepta roseoflava L. Medvedev sp.n.

MATERIAL. Holotype, ♀, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 2 ♀♀ (LM).

DESCRIPTION. Body rose, head and antennae black, elytra with large, pale flavous spot in apical half, touching suture, but not side margin, tarsi blackish.

Body elongate ovate. Head impunctate, interantennal space convex, frontal tubercles triangular, straightly delimited posteriorly, but poorly from each other, frons 1.5 times as wide as transverse diameter of eye. Antennae almost reach middle of elytra, proportions of segments areas 10–3–4–8–8–8–8–8–9, preapical segments about 3 times as long as wide. Prothorax 1.35 times as wide as long, broadest near hind angles, strongly narrowed anteriorly, with almost straight side margins, surface shining, evenly convex, finely and not densely punctate. Scutellum triangular, smooth. Elytra 1.5 times as long as wide, densely punctate. Pygidium triangular. Spur of hind tibiae longer than its width at apex, segment 1 of hind tarsus 1.6 times as long as next ones together. Length of body 5.3–5.6 mm.

DIAGNOSIS. Near *M. nigrifrons* Allard, 1889 from Indochina and *M. capitata* Chen, 1940 from China, differs from the first with broad frons, evenly convex prothorax and bicolor elytra, from the second with black antennae, bicolor elytra and larger body.

Monolepta trifasciata Jacoby, 1896

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 2 ♂♂, 2 ♀♀ (LM).

REMARK. Species was known from India, East Pakistan, Nepal and Thailand. Kimoto [1989] incorrectly removed this species to *Atrachya* Dejean, 1837, but it is typical *Monolepta* Chevrolat, 1837, having narrowly but distinctly closed anterior coxal cavities. But it seems, that Kimoto had in hands not real *M. trifasciata*, but other species, because he mentioned about black vertex and two fulvous markings on elytra. A real *M. trifasciata* has fulvous head with black labrum and three very distinct fulvous markings on elytra. Specimens from Vietnam have same aedeagus, as these from Nepal.

Monolepta selmani Gressitt & Kimoto, 1963

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 65 ex.

REMARK. Firstly recorded for Vietnam, was known from China.

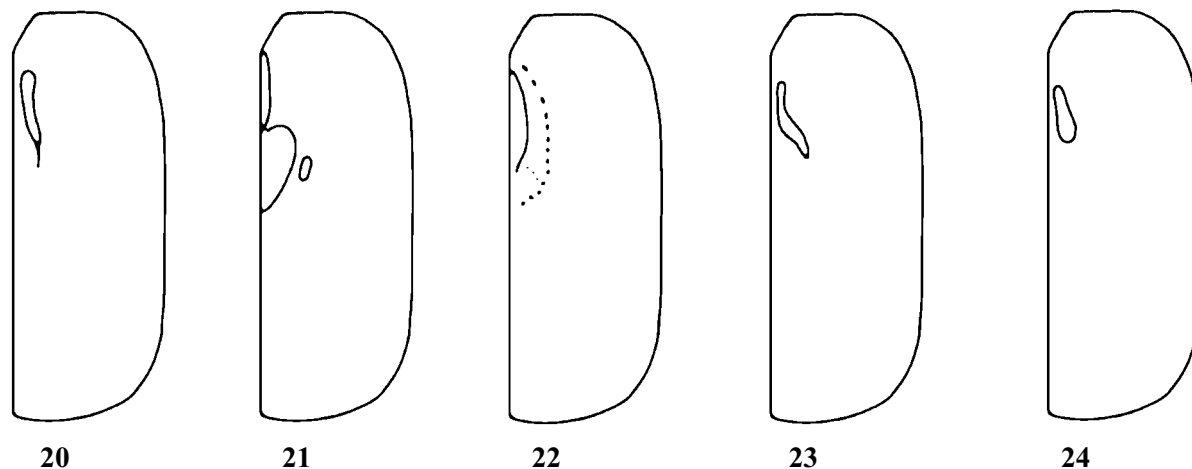
Sermyleptoides semiornata Chen, 1942

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 1 ex.

REMARK. Firstly recorded for Vietnam, was known from China.

Genus *Paleosepharia* Laboissiere, 1936

This genus, distributed mostly in south-east Asia, includes a lot of species with very delimited areals. To the



Figs 20–24. Elytral sculpture of male: 20 — *Paleosepharia fedorenkoi*, 21 — *P. subsuturalis*, 22 — *P. suturalis*, 23 — *P. fanxipana*, 24 — *P. rubricollis*.

Рис. 20–24. Скульптура надкрылий самца: 20 — *Paleosepharia fedorenkoi*, 21 — *P. subsuturalis*, 22 — *P. suturalis*, 23 — *P. fanxipana*, 24 — *P. rubricollis*.

moment 22 species are known for South China, 10 for Vietnam, 7 for Laos, 8 for Thailand, 5 for Malacca, 4 for Borneo and 2 for the Philippines. Only a few species were recorded from South Asia: 3 for Burma, 2 for India, 2 for Nepal. Keys exist for China [Gressitt & Kimoto, 1963], Indochina [Kimoto, 1989] and Vietnam [Medvedev, 2001].

In the studied region 6 species of this genus were found, all they were collected on light and represented exclusively with males. To my surprise all they are new species.

Paleosepharia tricolor L.Medvedev **sp.n.**

Fig. 8

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

DESCRIPTION. Head, antennae, prothorax, scutellum and legs black, elytra red in basal and pale flavous in apical part, but narrow, poorly delimited stripe along suture and extreme apex reddish, epipleurae fulvous with red basal third, underside including pygidium red.

Clypeus triangular finely and sparsely punctate, interantennal space rather broad, convex. Frons and vertex dull, sparsely punctate and microsculptured, frontal tubercles triangular, flat, poorly delimited. Proportions of antennal segments are as 10–3–6–11–11 (next segments absent). Prothorax twice as wide as long, broadest in middle, sides feebly rounded, surface finely and densely punctate. Scutellum triangular, punctate. Elytra 1.6 times as wide as long, with rounded-truncate apices, surface with dense and moderately strong punctures, without any secondary sexual characters. 5th abdominal sternite with longitudinal impression and quadrangular elongate central lobe. Segment 1 of anterior tarsi thin. Aedeagus (Fig. 8) short and thick, narrowed to truncate apex. Length of body 5.7 mm.

DIAGNOSIS. Near *P. membranaceus* L. Medvedev, 2001, differs with absence of membranaceous stripe on elytral apices and black legs.

Paleosepharia fedorenkoi L.Medvedev **sp.n.**

Figs 9, 20

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 6 ♂♂.

DESCRIPTION. Pale flavous, anterolateral area of elytra including corresponding part of epipleurae, pygidium except base, metasternum and apical abdominal sternite except sodes red. Tibiae often slightly darkened.

Head finely and sparsely punctate, clypeus triangular, interantennal space moderately broad, frontal tubercles triangular, well delimited posteriorly and from each other, flat. Antennae reach almost apex of elytra, proportions of segments are as 11–3–7–10–10–10–10–10–9–11, preapical segments about 5 times as long as wide. Prothorax 1.6–1.7 times as wide as long, broadest in middle, sides very feebly rounded, surface indistinctly punctate, flattened in middle. Scutellum triangular, nitid. Elytra 1.5 times as long as wide, broadened to behind, with subtruncate apex, surface finely and very densely punctate, with deep impression going from scutellum parallel to suture and then curved obliquely outwards (Fig. 20). Pygidium rounded on apex. Apical sternite of abdomen with subquadrate flat central lobe and 2 high ridges at base divided with deep impression. Aedeagus almost parallel-sided in basal two thirds and then narrowed to apex (Fig. 9). Length of body 5.3–5.5 mm.

DIAGNOSIS. Very near to *P. persimilis* Kimoto, 1989, having same secondary sexual features, differs in red pygidium and apical abdominal sternites. Besides, *P. persimilis*, according description, has fulvous leg, but on corresponding photo at least hind tibiae are distinctly black.

Paleosepharia subsuturalis L.Medvedev **sp.n.**

Figs 10, 21

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

DESCRIPTION. Fulvous, head reddish fulvous, labrum, palpi, antennae except basal segment, scutellum, meso- and metasternum, anterolateral area of elytra, including corresponding part of epipleurae, apex of pygidium, central part of apical abdominal sternite, tibiae, tarsi and bases of hind femora black, modified area of elytra more intensive fulvous, pygidium except apex and spur of hind tibia red.

Clypeus triangular, finely and sparsely punctate, interantennal space moderately broad, convex; frontal tubercles triangular, flat, microsculptured, well delimited posteriorly,

but feebly from each other, vertex with a few punctures and thin microsculpture. Antennae reach at least middle of elytra, proportions of segments are as 10–3–5–8–10–10–10–10–10 (next segment absent), segment 9 about 4 times as long as wide. Prothorax 1.5 times as wide as long, broadest in anterior quarter, sides very feebly rounded, surface finely punctate, flattened in middle before scutellum. Scutellum triangular, nitid. Elytra 1.4 times as long as wide, broadened to behind, with subtruncate apex, main surface finely and very densely punctate, modified area includes thickened and elevated stripe on suture behind scutellum (0.8 mm in length), ovate common impression with dense microsculpture at the end of stripe, delimited externally with elevated area bearing pore (Fig. 21). Pygidium broadly rounded on apex. %th abdominal sternite with quadrate and concave central lobe. Segment 1 of fore tarsi not widened, elongate triangular. Aedeagus (Fig. 10) comparatively thin, narrowed to apex, underside with central elevation before middle, delimited on sides with impression. Length of body 5.0 mm.

DIAGNOSIS. Near *P. persimilis* Kimoto, 1989, differs with black scutellum, modified stripe on elytra of male, smaller size and details of colour.

Paleosepharia suturalis L. Medvedev **sp.n.**

Figs 11, 22

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 4 ♂♂.

DESCRIPTION. Fulvous with elytra more pale, labrum palpi, antennae except basal segment, scutellum, anterolateral area of elytra including corresponding part of epipleurae, apex of pygidium, meso- and metasternum, central part of apical abdominal sternite, tibiae, tarsi and bases of hind femora black, thickened part of suture piceous, pygidium except apex and spur of hind tibiae red.

Head and antennae as in preceding species. Prothorax also has same proportions and form, but much more densely punctate and more flattened before base. Scutellum triangular, nitid. Elytra 1.5 times as long as wide, broadened to behind, with subtruncate apex, main surface finely and very densely punctate, modified area, includes thickened elevated and smooth stripe, which occupies about one third of suture and much longer than in preceding species (1.4 mm) and area neighbouring this stripe, distinctly elevated, but without pore and with same punctures as in main surface (Fig. 22). Abdomen and legs as in *P. subsuturalis*. Aedeagus thin and long, distinctly curved in lateral view, with apical two thirds narrow, fingerlike; underside longitudinally grooved on narrow part (Fig. 11). Length of body 4.9–5.4 mm.

DIAGNOSIS. Very near to *P. subsuturalis* **sp.n.**, differs mostly with modified area of elytra and form of aedeagus. Very possibly that unknown females of both species are very alike.

Paleosepharia fanxipana L. Medvedev **sp.n.**

Figs 12, 23

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 3 ♂♂.

DESCRIPTION. Fulvous, head, basal antennal segment, pygidium except apex, base of 5th abdominal sternite red, labrum palpi; antennal segments 2.11, scutellum, anterolateral narrow stripe of elytra including corresponding part of epipleurae, breast, apex of 5th abdominal sternite, tibiae, tarsi and base of hind femora black.

Head finely punctate, interantennal space moderately broad, convex, frontal tubercles triangular, microsculptured, with a few punctures, sharply delimited behind and poorly from each other. Antennae almost reach apex of elytra, proportions of segments are as 10–3–6–9–9–10–10–10–9–8–10, preapical segments about 7 times as long as wide. Prothorax 1.5 times as wide as long, broadest before middle, sides very feebly rounded, surface finely punctate, shining, with shallow impression each side of middle, flattened basally. Scutellum triangular with rounded apex, smooth. Elytra 1.5 times as long as wide, broadened to behind, with subtruncate apices, surface with deep dense punctures and deep impressed groove starting almost behind scutellum, going parallel to suture and then curved obliquely outwards (Fig. 23). Pygidium broadly rounded on apex. Apical sternite of abdomen with quadrate and concave central lobe. Segment 1 of fore tarsus not widened. Aedeagus (Fig. 12) convex on underside, with concave apical part. Length of body 5.0–5.3 mm.

DIAGNOSIS. Near *P. scutellaris* Kimoto, 1989, differs with having deep and curved postscutellar groove on elytra of male and details of colour.

Paleosepharia rubricollis L. Medvedev **sp.n.**

Figs 13, 24

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 1 ♂, 1 ♀.

DESCRIPTION. Body red, labrum, clypeus, antennae, tibiae and tarsi black, elytra black with broad pale fulvous band in middle, narrowly interrupted on suture and not touch side margin.

Male. Clypeus triangular, impunctate and densely microsculptured, interantennal space rather narrow, with obtuse ridge, frontal tubercles transverse with acute anterior angles, sharply delimited posteriorly and from each other, microsculptured, vertex microsculptured, with very sparse microscopic punctures, without impression. Antennae a little longer than body, thin, proportions of segments are as 12–4–8–12–12–12–12–12–12–10–13, preapical segments about 6 times as long as wide. Prothorax 1.65 times as wide as long, broadest in anterior quarter, sides feebly rounded, surface very finely and sparsely punctate, microsculptured. Scutellum triangular with rounded apex, microsculptured. Elytra 1.5 times as long as wide, broadened to behind, with subtruncate apex, surface very finely punctate, with drop-like impression near suture behind scutellum (Fig. 24). Pygidium broadly rounded on apex. 5th abdominal sternite with subquadrate central lobe having triangular impression. Segment 1 of fore tarsus not widened. Aedeagus thin and long, narrowed to apex (Fig. 13). Length of body 5.8–5.9 mm.

Female. Elytra without postscutellar impression, but flattened in this area. Length of body 6.3 mm.

DIAGNOSIS. Very alike in colour at *P. fasciata* Gressitt & Kimoto, 1963 from China, but elytra of male with impression, labrum, clypeus and antennae black, labrum not concave, antennae longer than body and with other proportions of segments, scutellum microsculptured, elytra almost impunctate and not expanded on sides. From *P. gongshana* Chen & Jiang, 1986 differs with colour of prothorax, elytra and underside and other structure of postscutellar impression of male.

A KEY TO MALES OF *PALEOSEPHARIA* FROM VIETNAM

1(2) Apex of elytron with membranaceous transparent stripe. Red, head, prothorax and last sternite black, elytra with broad pale flavous band, only basal third and extreme

- apex red, without any modifications. Length 4.7–5.5 mm. North Vietnam (Tamdao) *P. membranaceous* L. Medvedev, 2001
- 2(1) Apex of elytron without membranaceous stripe
- 3(4) Prothorax black. Body red, head, antennae, scutellum and legs black, elytra pale flavous in apical half without any modifications. Aedeagus — Fig. 8. Length 5.7 mm. Vietnam (Fanxipan) *P. tricolor* **sp.n.**
- 4(3) Prothorax fulvous or red.
- 5(12) Scutellum and elytra entirely fulvous or red.
- 6(7) Length 6.8–8.1 mm. Body fulvous with metasternum red to black. Elytra with postbasal narrow groove curving obliquely outwards posteriorly. Apical abdominal sternite with deep longitudinal sulcus in middle. South Vietnam (Cochinchina), Laos, Thailand *P. truncata* Laboissiere, 1936
- 7(6) Length shorter than 6.6 mm.
- 8(11) Ventral surface entirely fulvous. Elytra not modified.
- 9(10) Prothorax about 1.5 times as wide as long, with nearly straight anterior margin. Median lobe of apical abdominal sternite flat. Length 4.8 mm. South Vietnam (Balao, Fyan) *P. fulva* Kimoto, 1989
- 10(9) Prothorax about 2.5 times as wide as long, with anterior margin distinctly rounded posteriorly. Median lobe of apical abdominal sternite longitudinally sulcate. Length 4.5–6.6 mm. South Vietnam (Dalat, Fyan), Laos *P. unicolor* Kimoto, 1989
- 11(8) Underside fulvous with metasternum and basal part of interior margin of epipleurae blackish. Elytron with postbasal impression subparallel to suture and closely situated. Length 4.7–5.7 mm. Vietnam (Dalat, Fyan), China (Chekiang) *P. fulvicornis* Chen, 1942
- 12(5) Elytra not entirely fulvous.
- 13(24) Elytra fulvous with anterolateral area black or red, usually in form of stripe on lateral margin.
- 14(17) Scutellum fulvous. Elytra with narrow impression behind scutellum and parallel to suture and then curved obliquely outwards (Fig. 20).
- 15(16) Abdomen, pygidium and legs fulvous (possibly tibiae are partly black). Length 5.0–6.3 mm. South Vietnam (Fyan), Laos, Thailand *P. persimilis* Kimoto, 1989
- 16(15) Apical abdominal sternite and pygidium red, legs fulvous, mostly with feebly darkened tibiae. Length 5.3–5.5 mm. Extreme NW Vietnam (Fanxipan) *P. fedorenkoi* **sp.n.**
- 17(14) Scutellum black.
- 18(21) Elytra with thickened basal part of scutellum in form of sharply delimited, convex and nitid stripe.
- 19(20) Sutural stripe short (0.8 mm), light colored. Aedeagus — Fig. 10. Length 5.0 mm. Extreme NW Vietnam (Fanxipan) *P. subsuturalis* **sp.n.**
- 20 (19) Sutural stripe long (1.4), about one third of suture, usually piceous. Aedeagus — Fig. 11. Length 4.9–5.4 mm. Extreme NW Vietnam (Fanxipan) *P. suturalis* **sp.n.**
- 21(18) Elytra without thickened sutural stripe.
- 22(23) Elytra with deep impressed groove behind scutellum and parallel to suture, then curved obliquely outwards (Fig. 23). Fulvous, head, basal antennal segment, pygidium and apical abdominal sternite red, labrum, antennae except basal segment, breast extreme apex of abdomen, tibiae and tarsi black. Aedeagus — Fig. 12. Length 5.0–5.3 mm. Extreme NW Vietnam (Fanxipan) *P. fanxipana* **sp.n.**
- 23(22) Elytra without modification, only slightly depressed along suture. Fulvous, including antennal (sometimes with darkened apical segment), breast black to reddish brown. Length 4.2–6.6 mm. South Vietnam (Dalat), Laos, Thailand *P. scutellaris* Kimoto, 1989
- 24(13) Elytra with distinct dark pattern except anterolateral area or black with fulvous spot or bands.
- 25(26) Elytra black with two fulvous spots: one before middle, other before apex. Body red with black antennae, scutellum, metasternum and legs. Elytra with longitudinal groove parallel to suture and widened posteriorly. Aedeagus broad with long and narrow apical process. Length 4.2–5.4 mm. South Vietnam (Buon Loi), Laos *P. vietnamica* L. Medvedev, 2004
- 26(25) Elytra otherwise marked.
- 27(28) Elytra black with broad fulvous band in middle. Body red, labrum, clypeus, antennae, tibiae and tarsi black. Elytra with short elongate impression near suture behind scutellum (Fig. 24). Aedeagus thin with long apical process (Fig. 13). Length 5.3–6.2 mm. Extreme NW Vietnam (Fanxipan) *P. rubricollis* **sp.n.**
- 28(27) Elytra pale fulvous with red emargination, rather broad on suture but nowhere sharply delimited, abdomen more pale than breast; labrum, antennae except basal segment, apex of abdomen, tibiae and tarsi piceous. Elytra without modification, only flattened on suture behind scutellum, prothorax with shallow groove in center covered with short hairs, hind tibiae incised on underside before apex. Aedeagus moderately thick with very long and thin apex. Length 4.8–5.7 mm. North Vietnam (Tam Dao; river Con) *P. rubromarginata* L. Medvedev, 2001

Aplosomyx montana L. Medvedev **sp.n.**

Fig. 14

MATERIAL. Holotype, ♀, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 2 ♀♀ (LM); Thailand, Khao Sok, 8°55'N, 98°54'E, 14.XI.1995, leg. M. Mostovsky, 1 ♂, 1 ♀ (LM).

DESCRIPTION. Fulvous, antennae except basal segment, prothorax except all margins, scutellum, elytra except all margins, meso- and metasternum (sometimes only on sides), tibiae, tarsi and often innerside of femora black. One paratype from Vietnam has strongly reduced black colour of prothorax, both paratypes from Thailand have entirely fulvous prothorax.

Head impunctate, frontal tubercles, subquadrangular, sharply delimited, interocular space twice as wide as transverse diameter of eye. Antennae reach middle of elytra, proportions of segments are as 14–5–7–16–15–15–13–12–12–16, preapical segments about 2–2.3 times as long as wide. Prothorax 1.3 times as wide as long, broadest in anterior third and slightly concave behind middle, surface shining and transversely impressed just behind middle; this impression strongly punctate, rest surface smooth. Scutellum triangular, smooth. Elytra 1.5 times as long as wide, surface with trace of basal convexity, strongly and confusedly punctate, more feebly on apical slope. Aedeagus (Fig. 14) short, almost parallel-sided with triangular apex, underside with ovate impression in apical third. Length of male 8.7 mm, of female 8.8–9.5 mm.

DIFFERENTIAL DIAGNOSIS. Near *A. orientalis* Jacoby, 1892, differs in having prothorax and elytra dark with all margins fulvous and body distinctly smaller

Laosixantha bicolor L. Medvedev **sp.n.**

Figs 15–16

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Paratypes: same locality, 1 ♂, 4 ♀♀ (LM).

DESCRIPTION. Black, apical half of elytra, underside including pygidium, upperside of abdomen and femora fulvous; fulvous part of elytra usually more or less reddish anteriorly.

Body elongate ovate, more widened to behind. Head impunctate, with straight anterior margin, interantennal space with narrow flat stripe, frontal tubercles transverse, with acute anterior angles, sharply delimited behind with straight impression, vertex with small round groove. Antennae reach behind middle of elytra, proportions of segments are as 12–4–7–11–11–11–11–11–11–13, preapical segments about 5–6 times as long as wide. Prothorax 1.7–1.8 times as wide as long, broadest in middle, with sides rounded and all angles obtusely angulate, surface without any depressions, shining, with microscopical punctures. Scutellum triangular. Elytra 1.4 times as long as wide, broadest in posterior quarter, surface less shining, finely and densely punctate, interspaces narrow, without microsculpture, but with sparse microscopical punctures, basal convexity scarcely visible. Segment 1 of hind tarsus as long as next two together. Aedeagus thick, with bifurcate apex (Figs 15–16). Length of males 5.2–5.3 mm, of females 6.0–7.2 mm.

DIFFERENTIAL DIAGNOSIS. Only two species are known in this genus. *L. fulva* Kimoto, 1989 from Laos is entirely fulvous, *L. apicata* L. Medvedev, 2007 from Thailand has fulvous upperside with black elytral apices.

Galerucida fanxipana L. Medvedev **sp.n.**

Figs 17–18

MATERIAL. Holotype, ♂, North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko (LM).

Description. Reddish fulvous, antennae black with more light three apical segments and reddish two basal segments, elytra in basal half black, in apical part flavous, narrowly margined with black and with poorly delimited black band before apex. Epipleurae black, more or less reddish basally, tibiae and tarsi black.

Head impunctate, anterior margin of clypeus straight, frontal tubercles subquadrate, delimited posteriorly with 3 grooves in transverse row. Antennae reach apical quarter of elytra, proportions of segments are as 14–3–9–18–15–15–15–14–13–12–16, four preapical segments more thin, segments 6–10 about 5 times as long as wide. Prothorax 1.9 times as wide as long, broadest at level of acute anterior angles, narrowed in basal third, side margins concave, hind

angles strongly produced aside. Surface shining, with shallow impression on each side and with distinct sparse punctures except central impunctate area. Scutellum triangular, impunctate. Elytra 1.4 times as long as wide, feebly broadened posteriorly, surface slightly shining, with two sizes of punctures, larger ones arranged in 7 irregular rows and smaller ones confusedly impressed. Mesosternal process large, with vertical anterior margin. Aedeagus with acute triangular apex bent downwards, because of it in dorsal view apex looks rounded (Figs 17–18), underside with impression before apex, divided with ridge. Length of body 8.8 mm.

DIAGNOSIS. Near *G. tibialis* Laboissiere, 1931 from Yunnan, differs with distinctly bicolor elytra bearing well developed black pattern.

Euphitrea shapaensis L. Medvedev, 1998

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 25 ex.

REMARK. Species was known only from Shapa.

Hemipyxis quadrimaculata (Jacoby, 1892)

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 1 ex.

REMARK. Species was known from Laos, Nepal, India, Burma, China. Firstly recorded from Vietnam.

Leptispa atricolor Pic, 1928

MATERIAL. North Vietnam, Prov. Lao Cai, Hoang Lien Shon, Mt. Range, env. Fanxipan, 1950–2100 m., VII.2007, leg. D. Fedorenko, 8 ex.

REMARK. Species was described from Shapa, only type was known.

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