

РОССИЙСКАЯ АКАДЕМИЯ НАУК  
Южный научный центр

RUSSIAN ACADEMY OF SCIENCES  
Southern Scientific Centre

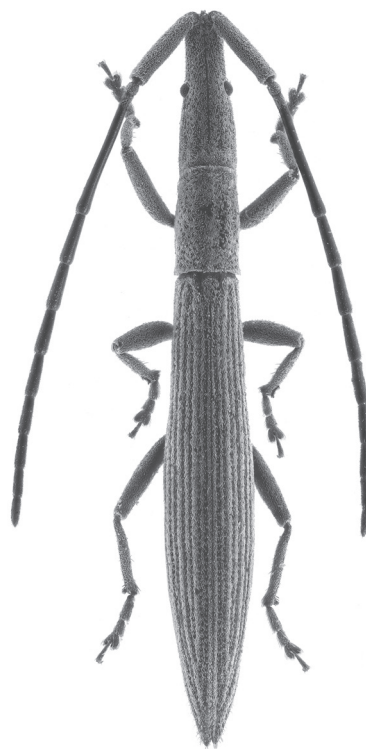


# Кавказский Энтомологический Бюллетень

CAUCASIAN ENTOMOLOGICAL BULLETIN

Том 17. Вып. 1

Vol. 17. No. 1



Ростов-на-Дону  
2021

## New and poorly known species of flea beetles (Coleoptera: Chrysomelidae: Galerucinae: Alticini) from Vietnam

© P.V. Romantsov

Russian Entomological Society, Krasnoutilovskaya str., 105–9, St Petersburg 196240 Russia. E-mail: pawelr@mail.ru

**Abstract.** Five new species of flea beetles are described from Vietnam: *Euphitrea lamdongica* sp. n. from the species group with head and pronotum red brown and elytra metallic green; *Lankaphthona nigropicta* sp. n. is similar to *L. yunnantarsella* Ruan, Konstantinov et Prathapan, 2019; *Lipromorpha provirovi* sp. n. from the species group with unicolor yellow body and transverse impression behind anterior margin of pronotum; *Luperomorpha lobanovi* sp. n. from the species group having black elytra with brown pattern and with not reticulated surface of pronotum; *Manobia maculipennis* sp. n. from the species group having brown elytra with black pattern. *Agasicles hygrophilus* Selman et Vogt, 1971, *Aphthonella bhamoensis* Jacoby, 1889 and *Euphitrea cheni* Zang et Yang, 2006 are recorded for the first time from Vietnam, and *Aphthona nigrilabris* Duvivier, 1892 is listed for the first time for Vietnam and Indonesia (Java).

**Key words:** Coleoptera, Chrysomelidae, Galerucinae, Alticini, Vietnam, South-East Asia.

### Новые и малоизвестные виды земляных блошек (Coleoptera: Chrysomelidae: Galerucinae: Alticini) из Вьетнама

© П.В. Романцов

Русское энтомологическое общество, Краснопутиловская ул., 105–9, Санкт-Петербург 196240 Россия. E-mail: pawelr@mail.ru

**Резюме.** Описано пять новых видов жуков-листоедов из Вьетнама: *Euphitrea lamdongica* sp. n. из группы видов с красно-коричневой головой и переднеспинкой и зелеными надкрыльями; *Lankaphthona nigropicta* sp. n., близкий к *L. yunnantarsella* Ruan, Konstantinov et Prathapan, 2019; *Lipromorpha provirovi* sp. n. из группы видов с одноцветно-желтым телом и с поперечной бороздкой вблизи переднего края переднеспинки; *Luperomorpha lobanovi* sp. n. из группы видов, имеющих черные надкрылья с коричневым рисунком и несчетчатую поверхность переднеспинки, и *Manobia maculipennis* sp. n. из группы видов с черными надкрыльями с коричневым рисунком. Виды *Agasicles hygrophilus* Selman et Vogt, 1971, *Aphthonella bhamoensis* Jacoby, 1889 и *Euphitrea cheni* Zang et Yang, 2006 впервые указаны для фауны Вьетнама; *Aphthona nigrilabris* Duvivier, 1892 впервые указан для Вьетнама и Индонезии (Ява).

**Ключевые слова:** Coleoptera, Chrysomelidae, Galerucinae, Alticini, Вьетнам, Юго-Восточная Азия.

The Galerucinae (including the tribe Alticini) is the largest subfamily of the family Chrysomelidae, containing more than 15000 species distributed worldwide (an approximate estimate of the author, based on many sources). In the present paper based on the study of materials collected by A.S. Prosvirov, P.V. Romantsov and A.M. Prokofiev in Vietnam, five new species of Alticini are described as well as several species are recorded as new for Vietnam and Indonesia.

### Material and methods

All measurements were made using an ocular grid mounted on MBS-20 stereomicroscope. All proportions of antennal and tarsal segments are given in scale 1 : 4 (1 = 0.25 mm). Photographs of the habitus were made by a Canon EOS 80D digital camera with combined Canon EF 70–200 mm f/4.0L IS USM and inverted Minolta MC Rokkor-PF 50 mm f/1.7 objectives. Photographs of aedeagi were made by a Canon EOS 80D digital camera with Canon Extender EF 1.4 X II and with combined Canon EF 70–200 mm f/4.0L IS USM and inverted Minolta MC Rokkor-PF 50 mm f/1.7 objectives. Photographs of spermathecae were made by a Canon EOS 80D digital camera with Canon Extender EF 1.4 X II and with combined Canon EF 70–200 mm

f/4.0L IS USM and inverted EFS 18–55 mm f/3.5–5.6 objectives. Images at different focal planes were combined using Zerene Stacker Professional 1.04 software.

Following abbreviation is used for depository place of types:

PR – private collection of P. Romantsov (St Petersburg, Russia).

#### *Agasicles hygrophilus* Selman et Vogt, 1971

**Material.** 1♂, 3♀ (PR), “N Vietnam, Ninh Binh Prov., ~6 km SW Ninh Binh, h~30 m., N 20°13'35", E 105°56'24" 28.IV.2019 P. Romantsov leg.”; 2♂, 2♀ (PR), same data, but “30.IV.2019”.

**Distribution.** Australian, Nearctic, Neotropical, Oriental regions, China [Döberl, 2010] and northern Vietnam (new record).

**Note.** *Agasicles hygrophila* is native species to southern Brazil and northern Argentina. Then it was introduced to different regions of the world as a biological control agent of alligatorweed *Alternanthera philoxeroides*. In the Oriental Region this leaf beetle was known only from Thailand [Biological control..., 2014].

#### *Aphthona nigrilabris* Duvivier, 1892

**Material.** 1♂, 1♀ (PR), “N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., near Cuc Phuong NP, h~75 m., at light N 20°15'01”,

E 105°44'14" 4.V.2019 P. Romantsov leg.; 2♂, 1♀ (PR), same data, but "5.V.2019"; 6♂, 2♀ (PR), "Indonesien, Java II., Jakarta, h~4m, S 06°6'33.6", E 106°41'45.1" 25.III.2020 P. Romantsov leg."

**Distribution.** Bangladesh, India, Nepal, Thailand, Sri Lanka [Medvedev, 2009] as well as northern Vietnam and Java Jakarta (new records).

*Aphthonella bhamoensis* Jacoby, 1889

**Material.** 1♂, 2♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. N 22°19'31.8", E 103°49'41.9" N 22°19'14.7", E 103°49'20.5" 1348-1326 m., 19.V.2018 P. Romantsov leg."; 3♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. N 22°19'35.3", E 103°49'47.8" N 22°19'12.2", E 103°49'17.9" 1280-1337 m., 21.V.2018 P. Romantsov leg."; 1♀ (PR), "N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., near Cuc Phuong NP, h~75 m., at light N 20°15'01", E 105°44'14" 5.V.2019 P. Romantsov leg."

**Distribution.** Thailand, Myanmar [Medvedev, 2009] and northern Vietnam (new record).

*Euphitrea cheni* Zhang et Yang, 2006

**Material.** 2♂, 3♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. N 22°19'37", E 103°49'57.9" N 22°19'18.5", E 103°49'35.3" 1220-1274 m., 14.V.2018 P. Romantsov leg."; 2♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Sin Chai Vill. N 22°21'7.2", E 103°48'12" N 22°21'08", E 103°47'59" 1437-1464 m., 16.V.2018 P. Romantsov leg."; 4♂ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. N 22°19'31.8", E 103°49'41.9" N 22°19'14.7", E 103°49'20.5" 1348-1326 m., 19.V.2018 P. Romantsov leg."; 4♂, 6♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. N 22°19'35.3", E 103°49'47.8" N 22°19'12.2", E 103°49'17.9" 1280-1337 m., 21.V.2018 P. Romantsov leg."

**Distribution.** China [Döberl, 2010] and northern Vietnam (new record).

*Euphitrea lamdongica* sp. n.

(Figs 1, 8, 9)

**Material.** Holotype, ♂ (PR): "Vietnam, Lam Dong Prov., on border with Khanh Hoa, 2068 m. 22-23. IV. 2010/ A. Prokofiev leg."

**Description.** Holotype. Head red brown with apical half of mandibles and apical segment of maxillary palpus darkened. Antennae black with segments 1–3 entirely and segment 4 partly red brown. Pronotum red brown. Scutellum black with metallic tint. Elytra metallic green. Legs black. Underside red brown with meso-, metathorax and abdomen black. Body length 7.4 mm. Habitus as in Fig. 1.

Labrum narrow, transverse with small notch in middle of anterior margin, surface covered with microsculpture; frontoclypeus strongly convex, triangular, distinctly delimited from vertex with transverse depression; frontal tubercles inconspicuous; vertex shining and impunctate, strongly longitudinally raised in middle and excavated on either side above eye by deep furrow. Eyes strongly convex, elongate; genae short, about 3 times shorter than transversal diameters of eye; interocular space 2.5 times as wide as transverse diameter of eye. Antennae filiform, reaching middle of elytral length, proportions (in length) of segments are as 20 : 10 : 11 : 11 : 12 : 13 : 15 : 15 : 15 : 15 : 19; segment 11 with pointed apex. Pronotum 2 times as wide as long, widest in basal third with concave anterior margin, rounded lateral margins and strongly convex posterior margin. Anterior margin distinctly bordered near angles and indistinctly in middle, lateral margins bordered and reflexed, posterior margin thinly bordered. Surface sparsely covered with very fine punctures. Scutellum triangular, with rounded apex; surface covered with fine microsculpture. Elytra strongly rounded on sides, 1.15 times as long as wide; humeral calli well developed. Elytral surface irregularly covered with medium size punctures; interstices here and there with fine punctures. Hind wings present. Pygidium with deep longitudinal furrow. Fore and middle femora slightly swollen, hind femora strongly

swollen; all tibiae without spurs. Segment 1 of all tarsi expanded but narrower than 3; segment 3 of all tarsi bilobed; proportions (in length) of segments 1–4 of hind tarsi are as 20 : 12 : 11 : 23. Claws appendiculate. Anterior coxal cavities closed posteriorly. Aedeagus (Figs 8, 9), slightly widened in apical quarter with widely rounded apex. Underside slightly convex with narrow and shallow longitudinal groove in middle, length of aedeagus 2.5 mm.

**Differential diagnosis.** *Euphitrea lamdongica* sp. n. belongs to the species group with head and pronotum red brown and elytra metallic green. In the region of its distribution *E. lamdongica* sp. n. is similar to *E. viridipennis* (Jacoby, 1889) and *E. flavipes* (Chen, 1933), but differs in antennae bicolored, legs and underside (except head and prothorax) black, contrary to antennae, legs and underside entirely brown in *E. viridipennis* and *E. flavipes*. From *E. ruficollis* L. Medvedev, 1998 having similar colouring of antennae and underside, *E. lamdongica* sp. n. differs in the larger body (7.4 mm) and legs black contrary to the smaller body (2.6–3.2 mm) and legs brown in *E. ruficollis*. In the key to *Euphitrea* Baly, 1875 species [Medvedev, 2009] this new species should be placed near the key couplet 19(16).

Other species of this genus, *E. cribripennis* Chen et Wang, 1980 and *E. mandibula* Wang et Zhang, 2006 from China, also having large body, head and pronotum red brown and elytra metallic green are similar to the new species, but differ in antennae, scutellum, underside and legs red brown, mandibles concave in varying degrees, contrary to antennae bicolored, legs and underside (except head and prothorax) black and mandibles not concave in *E. lamdongica* sp. n. In addition, all of the species listed above have different structure of the aedeagus (compare Figs 8, 9 and [Zhang, Yang, 2006: figs 21–23, 43–45]).

**Etymology.** The name of the new species refers to the province of the origin.

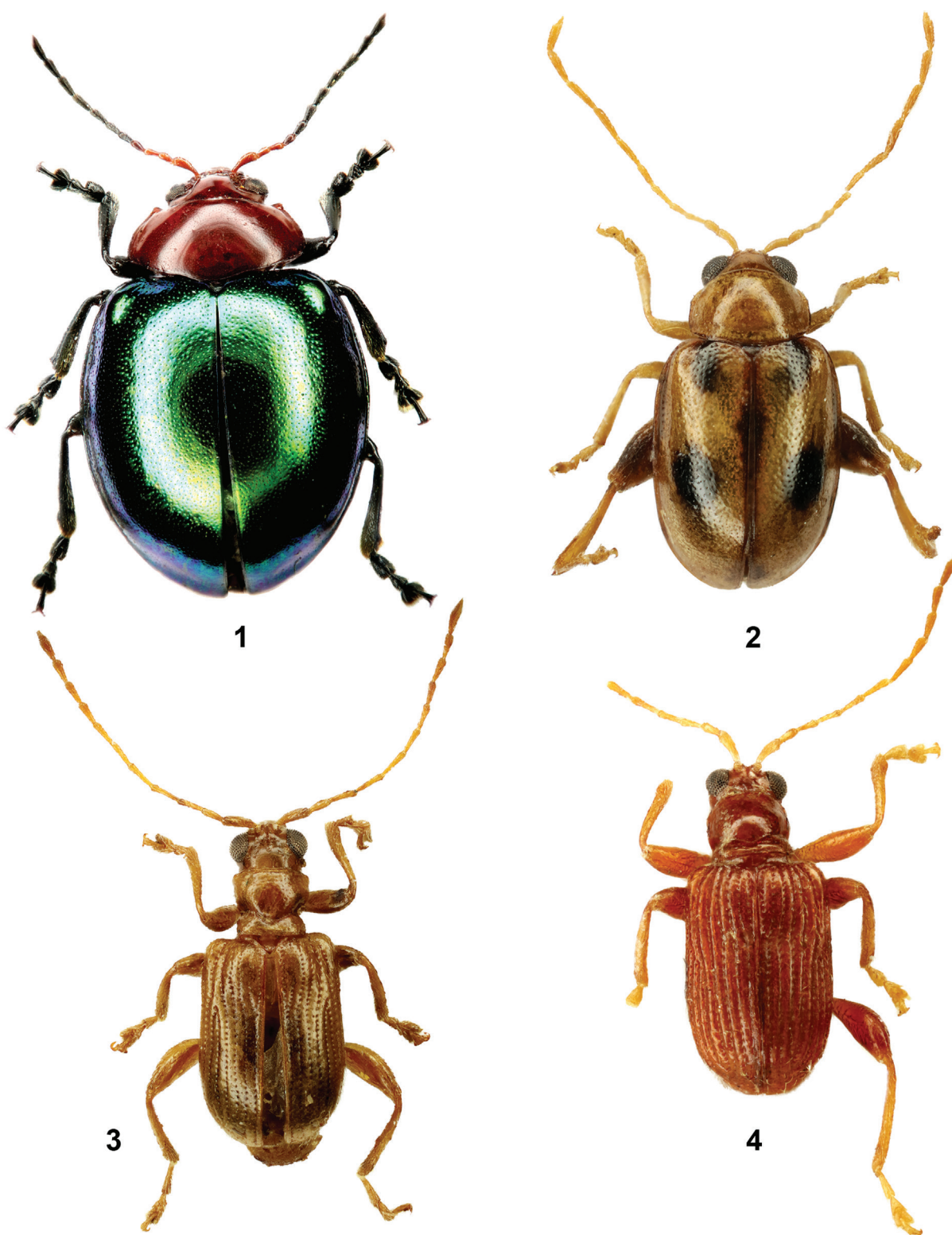
*Lankaphthona nigropicta* sp. n.

(Figs 2, 10–14, 27)

**Material.** Holotype, ♂ (PR): "N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., near Cuc Phuong NP, h~85 m., at light, N 20°14'59.6", E 105°44'7.4" 3.V.2019 P. Romantsov leg." Paratypes: 1♂, 1♀ (PR), same locality and date; 1♀ (PR), "N Vietnam, Ninh Binh Prov., ~6 km SW Ninh Binh, h~30 m., N 20°13'35", E 105°56'24", 28.IV.2019 P. Romantsov leg."; 1♀ (PR), "N Vietnam, Ninh Binh Prov., ~6 km SW Ninh Binh, h~30 m., N 20°13'32", E 105°56'8", 29.IV.2019 P. Romantsov leg."; 1♀ (PR), same locality but "30.IV.2019"; 2♀ (PR), "N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., Cuc Phuong NP, h~180 m., N 20°15'13", E 105°42'32", 5.V.2019 A. Prosvirov leg."

**Description.** Holotype. Head, antennae and pronotum brown. Scutellum dark brown. Each elytron with three black spots: elongate one near elytral humeral calli, longitudinal one on sutural margin and round one at middle. Legs brown, hind femora dorsally black. Underside brown with meso- and metathorax partly darkened. Body length 2.1 mm. Habitus as in Fig. 2.

Labrum narrow, transverse, with almost straight anterior margin, surface convex and impunctate; frontoclypeus convex, triangular, delimited from labrum with distinct transverse depression; frontal tubercles obliquely elongate, triangular, conjoined, distinctly delimited posteriorly; interantennal space rather wide and convex; vertex shining and impunctate. Eyes strongly convex, irregularly oval; genae very short, about 4 times shorter than transversal diameter of eye; interocular space 0.9 times as wide as transverse diameter of eye. Antennae filiform and long, reaching apical slope of elytra, proportions of segments are as 8 : 4 : 5 : 5 : 6 : 7 : 8 : 8 : 8 : 8 : 10, segment 11 with pointed apex. Pronotum 1.6 times as wide as long, widest in middle with

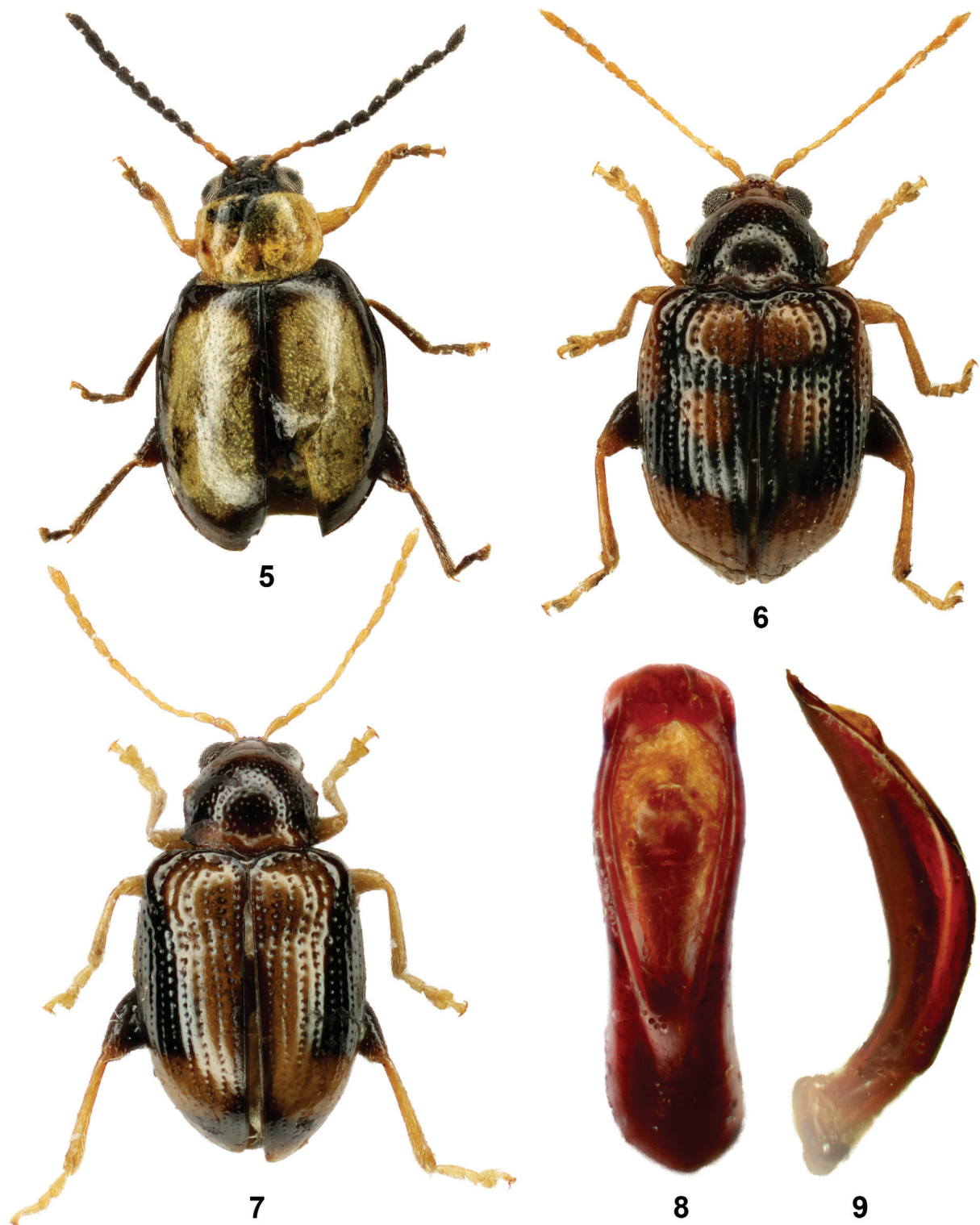


Figs 1–4. Altitini, habitus.

1 – *Euphitrea lamdongica* sp. n., male, holotype; 2 – *Lankaphthona nigropicta* sp. n., male, holotype; 3 – *Lipromorpha prosvirovi* sp. n., male, holotype; 4 – *Lipromorpha thoracica*, male, holotype.

Рис. 1–5. Altitini, общий вид.

1 – *Euphitrea lamdongica* sp. n., самец, голотип; 2 – *Lankaphthona nigropicta* sp. n., самец, голотип; 3 – *Lipromorpha prosvirovi* sp. n., самец, голотип; 4 – *Lipromorpha thoracica*, самец, голотип.



Figs 5–9. Representatives of the tribe Alticini, habitus and details of structure.  
 5 – *Luperomorpha lobanovi* sp. n., male, holotype; 6 – *Manobia laosica*, male, holotype; 7 – *Manobia maculipennis* sp. n., male, holotype; 8–9 – *Euphitrea lamdongica* sp. n., holotype, aedeagus: 8 – dorsal view, 9 – lateral view.  
 Рис. 5–9. Представители трибы Alticini, общий вид и детали строения.  
 5 – *Luperomorpha lobanovi* sp. n., самец, голотип; 6 – *Manobia laosica*, самец, голотип; 7 – *Manobia maculipennis* sp. n., самец, голотип; 8–9 – *Euphitrea lamdongica* sp. n., голотип, эдеагус: 8 – вид сверху, 9 – вид сбоку.

almost straight anterior margin, rounded lateral margins and slightly convex posterior margin. Anterior margin unbordered, lateral and posterior margins thinly bordered. Surface sparsely covered with very fine punctures, with distinct antebasal transverse impression. Scutellum with rounded apex; surface covered with fine microsculpture. Elytra slightly rounded on sides, 1.43 times as long as wide; humeral calli moderately developed. Elytral surface irregularly covered with medium size punctures; interstices slightly wrinkled. Hind wings present. Pygidium with truncate and slightly concave apex, surface covered with microsculpture. Fore and middle femora slightly swollen, hind femora strongly swollen; fore and middle tibiae without spurs, hind tibiae with short spurs. Segment 1 of fore tarsi slightly expanded but narrower than 3; segment 1 of hind tarsi long, 1.57 times shorter than length of tibia and longer than all following segments combined; proportions (in length) of segments 1–4 are as 14 : 5 : 3 : 5. Claws appendiculate. Anterior coxal cavities closed posteriorly. Aedeagus (Figs 10–14) in lateral view almost straight, apex tri-lobed with narrow tooth-shaped middle lobe, length of aedeagus 0.85 mm.

Paratypes. Body length: male 2 mm, females 2.3–2.6 mm. Variability lies in shape and size of elytral black spots. Male has colouration as in the holotype, but elytral black spots slightly smaller. Three females have colouration as in the holotype, but with two additional black spots on each elytron: long elongate one at lateral margin near base and indistinct sutural one on apical slope. Three other females have elytra with three black spots on each: almost reduced humeral one, large elongate one in middle and small round one on apical slope. Antebasal transverse impression poorly to well developed. Pygidium of all females with rounded apex. Spermatheca as in Fig. 27.

**Differential diagnosis.** Species of *Lankaphthona* Medvedev, 2001 were recently reviewed [Ruan et al., 2019]. *Lankaphthona nigropicta* sp. n. having (in lateral view) the almost straight aedeagus with the tri-lobed apex is similar to *L. yunnantarsella* Ruan, Konstantinov et Prathapan, 2019, but differs in the apex of the aedeagus with the narrow tooth-shaped middle lobe (Figs 10, 11) in males and in another form of the spermatheca with the less hook-shaped spermathecal pump (Fig. 27) in females, contrary to the apex of the aedeagus with the wide middle lobe (Figs 15–17) in males and the spermatheca with the distinct hook-shaped spermathecal pump (Fig. 28) in females of *L. yunnantarsella*. In addition, some specimens of *L. nigropicta* sp. n. have elytra with more or less pronounced sutural black spots contrary to the elytral suture without ones in *L. yunnantarsella*. In the key to *Lankaphthona* species [Ruan et al., 2019], *L. nigropicta* sp. n. should be placed near the key couplet 3(4), between *L. yunnantarsella* and *L. phuketensis* (Gruev, 1989).

**Etymology.** The name of the new species indicates its elytral colouration with black spots.

*Lipromorpha prosvirovi* sp. n.  
(Figs 3, 18, 19)

**Material.** Holotype, ♂ (PR): “N Vietnam, Lai Chau Prov., nat. park Hoang Lien, N 22.33768° E 103.77922°, 2068 m. 26.IV.2013 Prosvirov A. leg.”

**Description.** Holotype. Entirely brown. Body length 3 mm. Habitus as in Fig. 3. Labrum narrow, transverse, with convex anterior margin and several long setae; frontoclypeus convex, triangular, delimited from labrum with distinct transverse impression; frontal tubercles small, triangular, penetrating between antennal sockets, delimited posteriorly with wide impression; interantennal space narrow with deep longitudinal sulcus; vertex shiny, smooth and impunctate. Eyes convex, oval, medium size, interocular space about 1.4 times as wide as transverse diameter

of eye; genae about 2 times shorter than transversal diameters of eye and about 2.4 times shorter than longitudinal diameter of eye. Antennae moderately long, reaching apical slope of elytra, proportions (in length) of segments are as 12 : 8 : 10 : 11 : 11 : 10 : 10 : 9 : 9 : 8 : 12, segments 1–5 almost cylindrical, 6–10 slightly expanded on the apex, segment 11 with pointed apex. Pronotum 1.11 times as wide as long, widest at level of anterior angles, with almost straight anterior and posterior margins, deeply constricted in basal third at sides. Constriction ratio (maximal pronotal breadth / minimal breadth) 1.5. Anterior and posterior margins thinly bordered, lateral margins unbordered. Surface with very weak transverse impression behind anterior margin and with deep semicircular impression before posterior margin; space between these impressions sparsely and finely (but distinctly) punctured; shining, but covered with very fine microsculpture. Scutellum transverse, triangular with sharp apex. Elytra almost parallel-sided, slightly widened behind middle, 1.5 times as long as wide; humeral calli well developed; base of elytra strongly convex; postbasal impression deep; apical half convex; elytral apices rounded with obtusely rounded sutural angles. Elytral surface not sharply divided on horizontal and vertical parts; horizontal part with 9 rows of punctures (considering short scutellar row) distinct throughout from base to apex, 5<sup>th</sup> row bifurcate behind transverse depression, interstices weakly convex, impunctate, but with microsculpture, each interstice with row of long, semi-erect hairs; vertical part with 3 rows of punctures. Hind wings present. Pygidium evenly convex, without impressions, indistinctly truncated at apex. Fore and middle femora slightly swollen, hind femora distinctly swollen; all tibiae slightly curved, with short spurs. Segment 1 of fore tarsi not widened; segment 1 of hind tarsi elongated, shorter than remainder segments combined, proportions of segments 1–4 are as 12 : 6 : 5 : 10. Claws appendiculate. Underside covered with sparse hairs and small punctures; last visible abdominal sternite with wide longitudinal impression in middle, trilobed with slightly rounded anterior margin of central lobe. Anterior coxal cavities closed posteriorly. Aedeagus (Figs 18, 19) with long and wide apical process, in lateral view almost straight, length of aedeagus 0.9 mm.

**Differential diagnosis.** For Alticini species with pronotum constricted behind middle Chûjô and Kimoto [1960] established the genera *Lipromorpha* Chûjô et Kimoto, 1960 and *Pseudoliprus* Chûjô et Kimoto, 1960 that differ from each other in proportions and the constriction ratio of the pronotum. Then Komiya [2006a] suggested the following key to distinguish these genera:

- 1(2). Pronotum distinctly broader than long (pronotal ratio: 1.1–1.3) with weak or distinct constriction behind middle (constriction ratio: 1.08–1.3) ..... *Pseudoliprus*
- 2(1). Pronotum nearly as broad as long (pronotal ratio: 0.99–1.03) with strong constriction behind middle (constriction ratio: 1.41–1.47) ..... *Lipromorpha*

In the next work [Komiya, 2006b] he indicated that in addition to the differences listed above, Japanese species of *Pseudoliprus* have anterior coxal cavities open posteriorly, instead of closed ones in *Lipromorpha* (although in the original descriptions it was indicated that both of these genera have closed anterior coxal cavities). In my opinion both of these genera are very close, and it is possible that their taxonomic positions may be further revised.

Although *Lipromorpha prosvirovi* sp. n. has slightly transverse pronotum (pronotal length/width ratio 1.11), but the presence of strong impression of pronotum with constriction ratio (maximal pronotal breadth / minimal breadth) 1.5 allows to place it in *Lipromorpha*. Among *Lipromorpha* species with unicolor yellow body, this new species belongs to the species group with the transverse

impression behind anterior margin of the pronotum. *Lipromorpha prosvirovi* sp. n. having unusual shape of the aedeagus (Figs 18, 19) with long and wide apical process is similar to *L. thoracica* Medvedev, 2009 (Fig. 4), but differs in the pronotum widest at the level of anterior angles with the weak transverse impression behind anterior margin (contrary to the pronotum widest at anterior third with the deeper transverse impression behind anterior margin having a row of punctures in *L. thoracica*), in the structure of the elytral surface with weakly convex interstices (contrary to strongly convex interstices in *L. thoracica*) as well as in the shape of the aedeagus with the wider apical process (Fig. 18) and in lateral view almost straight (Fig. 19), contrary to the aedeagus with the narrower apical process (Fig. 20) and with convexity on ventral side in lateral view (Fig. 21) in *L. thoracica*. In the key to *Lipromorpha* species [Medvedev, 2009] *L. prosvirovi* sp. n. should be placed between *L. difficilis* (Chen, 1934) and *L. thoracica*.

**Note.** *Pseudoliprus bisulcatus* Chen et Wang, 1980, having completely yellow body and pronotum with two sulci could be similar to this new species, but in according to the original description it has the weakly constricted pronotum with the surface covered with wrinkles and inconspicuous among them punctures, contrary to the strongly constricted pronotum with the smooth shiny surface covered with distinct punctures.

**Etymology.** The new species is named after its collector A.S. Prosvirov, a specialist on Elateridae.

*Luperomorpha lobanovi* sp. n.  
(Figs 5, 22, 29)

**Material.** Holotype, ♂ (PR): "N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., near Cuc Phuong NP, h~135 m., N 20°15'6.8", E 105°44'1.8" 1.V.2019 P. Romantsov leg. Paratypes: 1♂, 3♀ (PR), same locality and date; 1♀ (PR), "N Vietnam, Ninh Binh Prov., Nho Quan District, Dong Tam Vill., near Cuc Phuong NP, h~85-115 m., N 20°15'12", E 105°44'4", N 20°15'23", E 105°43'37" 3.V.2019 P. Romantsov leg."

**Description.** Holotype. Head black. Antennae black with three basal segments brown. Pronotum brown. Scutellum black. Elytra black, with large elongate brown spot on the most part of elytral surface (Fig. 5). Prosternum brown; mesosternum, metasternum and abdomen black. Fore legs brown with apex of tibiae and tarsi darkened, mid and hind legs darkened with fulvous knees. Habitus as in Fig. 5.

Labrum narrow, transverse with almost straight anterior margin and several setae; frontoclypeus convex, triangular; interantennal space rather wide with obtuse ridge; frontal tubercles flat, strongly transverse, almost contiguous, delimited behind with almost straight groove; interocular space about 1.35 times as wide as transverse diameter of eye. Eyes convex, oval, of moderate size, interocular space about 1.4 times as wide as transverse diameter of eye; genae very short, about 6 times shorter than longitudinal diameter of eye. Antennae robust, reaching anterior third of elytra, proportions (in length) of segments are as 8 : 3 : 4 : 5 : 5 : 5 : 5 : 5 : 7, their proportions in width are as 3 : 2 : 2 : 3 : 3 : 3 : 3 : 3 : 3 : 3. Segment 1 extended to apex, 2 spheroidal, segments 3–4 slightly expanded at apex, 5–10 strongly expanded at apex, segment 11 with pointed apex. Vertex convex, shining and impunctate. Pronotum about 1.45 times as wide as long, widest at middle, with almost straight anterior margin, strongly rounded lateral and widely rounded posterior margin. Anterior angles almost rectangular; posterior angles very obtusely angulate, seem almost rounded. Anterior margin unbordered, lateral and

posterior margins thinly bordered; each lateral margin with one long seta near anterior angle. Surface of pronotum convex, shining, without microsculpture, covered with very sparse and fine punctures, without any impressions. Scutellum triangular, with slightly rounded apex. Elytra 1.47 times as long as wide, widest at middle; apices rounded with obtusely rounded sutural angles. Humeral calli weakly developed. Elytra surface shining, covered with fine, confused punctures (interstices here and there with even smaller punctures) and with sparse erect hairs on apical slope and edges. Hind wings present. Pygidium slightly convex, triangular with rounded apex, surface shagreen, covered with semi-adjointing hairs. Hind femora distinctly swollen; all tibiae almost straight; fore and middle tibiae with short spurs, hind tibiae with long ones. Segment 1 of fore tarsi moderately expanded, not narrower than 3; segment 1 of hind tarsi elongate, 1.4 times shorter than other segments combined. Anterior coxal cavities open posteriorly, prosternal process very narrow but visible between procoxae. Underside covered with distinct punctures and short hairs; last visible abdominal sternite trilobed, central lobe wide with rounded apex. Aedeagus (Fig. 22) narrow, almost parallel, very slightly rounded before triangular apex, in lateral view almost straight, length of aedeagus 1.05 mm. Length of body 2.5 mm.

Paratypes. Body length: males about 2.5 mm, females about 2.1–2.6 mm, the colouration of all specimens stable, identical to the holotype. Females have antenna structure like in males, but last visible abdominal sternite not trilobed. Spermatheca as in Fig. 29.

**Differential diagnosis.** Indochinese members of the tribe Alticini were recently revised and keyed by Kimoto [2000] and Medvedev [2009], besides there is a revision of Chinese species of the genus *Luperomorpha* Weise, 1887 [Wang et al., 2010]. *Luperomorpha lobanovi* sp. n. belongs to the species group having black elytra with brown pattern and with not reticulated surface of the pronotum. *Luperomorpha lobanovi* sp. n. easy differs from other members of this group in the wide body shape and in the elytral colouration with the large elongate brown spot occupying the most part of the elytral surface. In the key to *Luperomorpha* species [Medvedev, 2009], *L. lobanovi* sp. n. corresponds to "*L. sp. C*". In the key of Chinese species of the genus *Luperomorpha* [Wang et al., 2010] this new species should be placed near *L. glabricollis* Wang et Ge, 2010, but the latter has head yellow, elongate body and not such large yellow spot on elytra.

**Etymology.** The new species is named after late A.L. Lobanov, the specialist on Cerambycidae and the editor of Internet site of the Zoological Institute of the Russian Academy of Sciences "Beetles (Coleoptera) and Coleopterists" (<https://www.zin.ru/Animalia/Coleoptera/rus/>).

*Manobia maculipennis* sp. n.  
(Figs 7, 25, 26, 30)

**Material.** Holotype, ♂ (PR): "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. 1280-1337 m., N 22°19'35.3", E 103°49'47.8" N 22°19'12.2", E 103°49'17.9", 21.V.2018 P. Romantsov leg. Paratypes: 1♀ (PR), "N Vietnam, Lai Chau Prov., Loshui tong Vill. river Cat Cat, N 22.33399° E 103.82281°, 1323 m., 17.IV.2013 Prosvirov A. leg."; 3♂ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. 1220-1274 m., N 22°19'37", E 103°49'57.9", N 22°19'18.5", E 103°49'35.3", 14. V.2018 P. Romantsov leg."; 1♀ (PR), "N Vietnam, Lao Cai Prov., near Sa pa, Cat Cat Vill. 1348-1264 m., N 22°19'31.8", E 103°49'41.9" N 22°19'19.2", E 103°49'28.6", 18.V.2018 P. Romantsov leg."

**Description.** Holotype. Head with low part and occiput black, front with blurred brown spot in middle. Antennae brown.



Figs 10–21. Aedeagi of representatives of the tribe Alticini.

10–14 – *Lankaphthona nigropicta* sp. n., holotype; 15–17 – *Lankaphthona yunnantarsella* (after Ruan et al. [2019]); 18–19 – *Lipromorpha prosvirovi* sp. n., holotype; 20–21 – *Lipromorpha thoracica*, holotype. 10 – apex, dorsal view; 11, 17 – apex, ventral view; 12, 18, 20 – dorsal view; 13, 15 – ventral view; 14, 16, 19, 21 – lateral view.

Рис. 10–21. Эдеагусы представителей трибы Alticini.

10–14 – *Lankaphthona nigropicta* sp. n., голотип; 15–17 – *Lankaphthona yunnantarsella* (по [Ruan et al., 2019]); 18–19 – *Lipromorpha prosvirovi* sp. n., голотип; 20–21 – *Lipromorpha thoracica*, голотип. 10 – вершина, вид сверху; 11, 17 – вершина, вид снизу; 12, 18, 20 – вид сверху; 13, 15 – вид снизу; 14, 16, 19, 21 – вид сбоку.





Figs 22–30. Genitalia of representatives of the tribe Alticini.

22, 29 – *Luperomorpha lobanovi* sp. n.: 22 – holotype, 29 – paratype; 23–24 – *Manobia laosica*, holotype; 25–26 – *Manobia maculipennis* sp. n., holotype; 27 – *Lankaphthona nigropicta* sp. n., paratype; 28 – *Lankaphthona yunnantarsella* (after Ruan et al. [2019]); 30 – *Manobia maculipennis* sp. n., paratype. 22–26 – aedeagi: 22, 23, 25 – dorsal view, 24, 26 – lateral view; 27–30 – spermathecae.

Рис. 22–30. Гениталии представителей трибы Alticini.

22, 29 – *Luperomorpha lobanovi* sp. n.: 22 – голотип, 29 – паратип; 23–24 – *Manobia laosica*, голотип; 25–26 – *Manobia maculipennis* sp. n., голотип; 27 – *Lankaphthona nigropicta* sp. n., паратип; 28 – *Lankaphthona yunnantarsella* (по [Ruan et al., 2019]); 30 – *Manobia maculipennis* sp. n., паратип. 22–26 – эдеагусы: 22, 23, 25 – вид сверху, 24, 26 – вид сбоку; 27–30 – сперматеки.

Pronotum blackish with anterior angles and basal part from posterior margin till transverse impression brown. Elytra brown, with black large spot (comparatively narrow at level of humeral calli and strongly expanding in middle of elytra) along lateral margin, narrowly blackened basal margin as well as narrow sutural band started from anterior third of elytra to apical slope, forming anchor-shaped spot. Legs brown with hind femora black. Underside black. Body length 2 mm. Habitus as in Fig. 7.

Labrum narrow, transverse with almost straight anterior margin; frontoclypeus convex, triangular; interantennal space narrow, with obtuse ridge; frontal tubercles triangular, distinctly delimited posteriorly by deep arcuate groove; vertex convex and impunctate. Eyes convex, oval, medium size; interocular space about 1.35 times as wide as transverse diameter of eye; genae about 1.5 times shorter than transverse diameter of eye and about 2 times shorter than longitudinal diameter of eye. Antennae reach posterior third of elytra, proportions (in length) of segments are as 6 : 4 : 4 : 4 : 4 : 4 : 5 : 5 : 5 : 5 : 7; segments 1–2 thickened, 3–9 almost cylindrical, segment 10 slightly thickened, 11 distinctly thickened (2.3 times as long as wide), with pointed apex. Pronotum 1.25 times as wide as long, widest at level of anterior angles; anterior margin almost straight, lateral margins slightly rounded, posterior margin sinuate, with distinctly protruded middle lobe. Anterior margin unbordered, lateral and posterior margins bordered; anterior angles oblique and acute. Pronotum with deep antebasal transverse impression, which sinuate and more deep in middle and having row of punctures; surface before this impression rather densely but unevenly covered with moderately deep punctures: in some places diameter of pronotal punctures equal or more than distance between adjacent punctures, in other places diameter of pronotal punctures 2–3 times smaller than distance between adjacent ones. Scutellum convex and impunctate, triangular with sharp apex. Elytra widely rounded on sides, 1.45 times as long as wide; humeral calli well developed; base of elytra convex, postbasal impression deep. Elytral surface covered with 9 rows of punctures (excluding short scutellar row) distinct throughout from base to apical slope and disappeared just before apex; interstices slightly convex and impunctate. Hind wings present. Pygidium convex, with wide rounded apex. Fore and middle femora very slightly swollen, hind femora strongly swollen; all tibiae almost straight. Segment 1 of fore tarsi slightly expanded but narrower than 3; segment 1 of hind tarsi elongated, significantly shorter than following segments combined. Anterior coxal cavities closed posteriorly. Aedeagus slightly widened before triangular apex, in lateral view slightly curved (Figs 25, 26), length of aedeagus 0.75 mm.

Paratypes. Body length: males 1.9–2 mm, females about 2 mm, coloration of all specimens stable, identical to holotype. Spermatheca as in Fig. 30.

**Differential diagnosis.** The majority of *Manobia* Jacoby, 1885 species has unicolour elytra. Short descriptions of species with not unicolour elytra and their differences from *Manobia maculipennis* sp. n. are presented below.

*Manobia dorsalis* Jacoby, 1896, *M. dohertyi* Bryant, 1939 and *M. fasciata* Medvedev, 1997 from India have elytra fulvous, with simple pattern of single spots or bands and the pronotum impunctate or sparsely and finely punctate. *Manobia bhutanensis* Scherer, 1979 from Bhutan and Nepal has elytra dark brown with lightened basal and apical areas, the almost impunctate pronotum and the weakly pointed apex of the aedeagus. The Taiwanese species *M. bimaculata* Kimoto, 1991 has elytra with black margins and the unicolour reddish brown pronotum with fine punctures; *M. hayashii* Kimoto, 1991 has the pronotum with distinct punctures but another colouration (elytron with subbasal and postmedian markings black, antenna with the fifth to

the tenth segments darkened). In addition, both of these species have the unicolour reddish brown pronotum. The Vietnamese species *M. medvedevi* Kimoto, 2000 has the impunctate, unicolour, brown pronotum; *M. vietnamica* Medvedev, 2004 having the distinctly punctate pronotum is similar to *M. maculipennis* sp. n., but distinctly differs in the lanceolate aedeagus gradually narrowing towards the apex. In addition, both *M. medvedevi* and *M. vietnamica* have elytra with black spot in the middle near lateral margin instead more complicated elytral pattern in *M. maculipennis* sp. n. The new species having brown elytra with complicated black pattern and pronotum strongly punctate before basal impression is the most similar to *M. laosica* Medvedev, 2009 from Laos, but differs in details of the elytral pattern and in a shape of the aedeagus (see the key below).

The key provided here can be inserted in the place of the couplet 7 in the key given by Medvedev [2009].

7(2). Elytra with complex black pattern.

7a(7b). Elytra brown with black pattern (Fig. 7) consisting of large spot (comparatively narrow on level of humeral calli and strongly expanding in middle of elytra) along lateral margin, basal margin as well as narrow sutural band started from anterior third elytra and expanded to apical slope forming anchor-shaped spot. Antennae with more thickened apical segments (segment 11 about 2.3 times as long as wide). Aedeagus (Figs 25, 26) somewhat longer, slightly widened before apex. Body length 1.9–2 mm. North Vietnam .....  
..... *M. maculipennis* sp. n.

7b(7a). Elytra brown with black pattern (Fig. 6) consisting of two longitudinal and two transverse stripes connecting with each other. Lateral margin brown except junction with middle transverse black stripe. Suture black for most of its length but without anchor-shaped spot. Antennae with slightly thickened apical segments (segment 11 3.5 times as long as wide). Aedeagus (Figs 23, 24) somewhat shorter, almost parallel-sided, not widened at apex. Body length 2.1 mm. Laos .....  
..... *M. laosica*

**Note.** Medvedev [2009] erroneously indicated in the original description of *M. laosica* that the holotype is a female. We dissected the holotype (it was not dissected before) and confirm, that it is a male.

**Etymology.** The name of the new species indicates its elytral colour with black pattern.

## Acknowledgements

The author is grateful to A.S. Prosvirov (Moscow State University, Moscow, Russia), who supplied material of two new species. The author also thanks L.N. Medvedev (Severtsov Institute of Problems of Ecology and Evolution of the Russian Academy of Sciences, Moscow, Russia) for the opportunity to work with his collection as well as J. Bezděk (Mendel University, Brno, Czech Republic) and K.S. Nadein (Senckenberg German Entomological Institute, Müncheberg, Germany) for useful advice and for their help in the identification of *Agasicles hygrophilus*. The author thanks two reviewers for helpful comments and corrections.

## References

- Biological control of weeds: A world catalogue of agents and their target weeds. 5th edition. 2014. Morgantown: USDA Forest Service, Forest Health Technology Enterprise. 838 p.
- Döberl M. 2010. Alticinae. *In*: Catalogue of Palaearctic Coleoptera. Volume 6. Chrysomeloidea. (I. Löbl, A. Smetana eds). Stenstrup: Apollo Books: 491–562.
- Chūjō M., Kimoto S. 1960. Descriptions of three new genera and a new species of Chrysomelid-beetles from Japan, with some notes on the Japanese species. *Niponius, Acta Coleopterologica*. 1(4): 1–10.
- Kimoto S. 2000. Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam. VII. Alticinae. *Bulletin of the Institute of Comparative Studies of International Cultures and Societies*. 26: 103–299.
- Komiya Y. 2006a. Studies on the genus *Lipromorpha* (Alticinae, Chrysomelidae, Coleoptera) in Japan, with description of a new species. *Elytra*. 34(1): 199–205.
- Komiya Y. 2006b. Description of a new species of the genus *Lipromorpha* (Coleoptera, Chrysomelidae, Alticinae) from Okinoerabu-jima Island, Southwest Japan. *Elytra*. 34(2): 375–378.
- Medvedev L.N. 2009. Alticinae of Indochina. Moscow: KMK Scientific Press Ltd. 224 p.
- Ruan Y., Konstantinov A.S., Prathapan K.D., Zhang M., Yang X. 2019. A review of the genus *Lankaphthona* Medvedev, 2001, with comments on the modified phallobase and the unique abdominal appendage of *L. binotata* (Baly) (Coleoptera, Chrysomelidae, Galerucinae, Alticini). *ZooKeys*. 857: 29–58. DOI: 10.3897/zookeys.857.34465
- Wang S.Y., Cui J.Z., Li W.Z., Ge S.Q., Yang X.K. 2010. The species of *Luperomorpha* Weise from China (Coleoptera, Chrysomelidae, Alticinae). *Acta Zootaxonomica Sinica*. 35(1): 190–201. DOI: 10.1016/S1002-0721(10)60377-8
- Zhang Y., Yang X.-K. 2006. A study of the flea beetle genus *Euphitrea* Baly from China, with the description of five new species (Coleoptera: Chrysomelidae: Alticinae). *Proceedings of Entomological Society of Washington*. 108(4): 842–859.

Received / Поступила: 11.12.2020

Accepted / Принята: 4.03.2021

Published online / Опубликована онлайн: 15.06.2021