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Ревизия рода *Xenoda* Baly, 1877  
(Coleoptera: Chrysomelidae:  
Galerucinae)

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A revision of the genus  
*Xenoda* Baly, 1877 (Coleoptera:  
Chrysomelidae: Galerucinae)



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На титуле оригинальная фотография П.В. Романцова *Xenoda (Xenoda) luzonica* L. Medvedev, 2004

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## A revision of the genus *Xenoda* Baly, 1877 (Coleoptera: Chrysomelidae: Galerucinae)

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**Abstract.** The genus *Xenoda* Baly, 1877 is revised. One new subgenus and 42 new species are described as new to science: *Trichoxenoda* subgen. n.; *Xenoda fulvicornis* sp. n., *X. geiseri* sp. n., *X. klimenkoi* sp. n., *X. minutissima* sp. n. from the subgenus *Xenoda* s. str.; *Xenoda merkli* sp. n. from the subgenus *Paraxenidea* Medvedev, 2004; *Xenoda pseudovittata* sp. n. from the subgenus *Xenodania* Medvedev, 2004; *Xenoda bezdeki* sp. n., *X. javanica* sp. n., *X. pseudoabdominalis* sp. n. from the subgenus *Xenodella* Weise, 1922; *Xenoda perakensis* sp. n. and *X. simplex* sp. n. from the subgenus *Trichoxenoda* subgen. n.; *Xenoda antennalis* sp. n., *X. bipunctata* sp. n., *X. bruneiensis* sp. n., *X. bryanti* sp. n., *X. bukitlawangensis* sp. n., *X. bukittingiensis* sp. n., *X. cruciata* sp. n., *X. deformicornis* sp. n., *X. dentiventris* sp. n., *X. elegantula* sp. n., *X. fasciata* sp. n., *X. filicornis* sp. n., *X. filimonovi* sp. n., *X. flavipennis* sp. n., *X. flexuosa* sp. n., *X. impressipennis* sp. n., *X. inaequalipennis* sp. n., *X. kerinciensis* sp. n., *X. ketambensis* sp. n., *X. longicornis* sp. n., *X. matangensis* sp. n., *X. metallipennis* sp. n., *X. nigroapicalis* sp. n., *X. parafilicornis* sp. n., *X. pseudoantennalis* sp. n., *X. pseudobasalis* sp. n., *X. pseudoimpressa* sp. n., *X. schawalleri* sp. n., *X. sibayakensis* sp. n., *X. subcyanipennis* sp. n., *X. trusmadiensis* sp. n. from the subgenus *Xenodina* Medvedev, 2004.

The figures of general view and aedeagi are given for them and related species. A key to the species of *Xenoda* is provided. A new synonymy is proposed: *Xenoda tuberculata* L. Medvedev, 2004 = *X. yoshitomii* Takizawa, 2017, **syn. n.**

**Key words:** Coleoptera, Chrysomelidae, Galerucinae, Galerucini, *Xenoda*.

### Ревизия рода *Xenoda* Baly, 1877 (Coleoptera: Chrysomelidae: Galerucinae)

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**Резюме.** Ревизован род *Xenoda* Baly, 1877. Один подрод и 42 вида описаны как новые для науки: *Trichoxenoda* subgen. n.; *Xenoda fulvicornis* sp. n., *X. geiseri* sp. n., *X. klimenkoi* sp. n., *X. minutissima* sp. n. из подрода *Xenoda* s. str.; *Xenoda merkli* sp. n. из подрода *Paraxenidea* Medvedev, 2004; *Xenoda pseudovittata* sp. n. из подрода *Xenodania* Medvedev, 2004; *Xenoda bezdeki* sp. n., *X. javanica* sp. n., *X. pseudoabdominalis* sp. n. из подрода *Xenodella* Weise, 1922; *Xenoda perakensis* sp. n. и *X. simplex* sp. n. из подрода *Trichoxenoda* subgen. n.; *Xenoda antennalis* sp. n., *X. bipunctata* sp. n., *X. bruneiensis* sp. n., *X. bryanti* sp. n., *X. bukitlawangensis* sp. n., *X. bukittingiensis* sp. n., *X. cruciata* sp. n., *X. deformicornis* sp. n., *X. dentiventris* sp. n., *X. elegantula* sp. n., *X. fasciata* sp. n., *X. filicornis* sp. n., *X. filimonovi* sp. n., *X. flavipennis* sp. n., *X. flexuosa* sp. n., *X. impressipennis* sp. n., *X. inaequalipennis* sp. n., *X. kerinciensis* sp. n., *X. ketambensis* sp. n., *X. longicornis* sp. n., *X. matangensis* sp. n., *X. metallipennis* sp. n., *X. nigroapicalis* sp. n., *X. parafilicornis* sp. n., *X. pseudoantennalis* sp. n., *X. pseudobasalis* sp. n., *X. pseudoimpressa* sp. n., *X. schawalleri* sp. n., *X. sibayakensis* sp. n., *X. subcyanipennis* sp. n., *X. trusmadiensis* sp. n. из подрода *Xenodina* Medvedev, 2004.

Приводятся изображения габитуса и эдеагусов для описанных и близких к ним видов. Составлена определительная таблица видов рода *Xenoda*. Предложен новый синоним *Xenoda tuberculata* Medvedev, 2004 = *X. yoshitomii* Takizawa, 2017, **syn. n.**

**Ключевые слова:** Coleoptera, Chrysomelidae, Galerucinae, Galerucini, *Xenoda*.

## Introduction

*Xenoda* Baly, 1877 is a leaf beetle genus of the tribe Luperini from the subfamily Galerucinae. This genus consists of 68 species (including new species described in this paper) occurring in the Malayan Archipelago where they are known from the Greater Sunda Islands, the Philippines, Peninsular Malaysia and South Thailand. The climate of this area is close to the equatorial with rain tropical forests and rugged relief contributed to the extensive adaptive radiation of this genus. I suggest that Borneo and Sumatra Islands can be regarded as evolutionary centers of the genus, because the maximum numbers of species, forming several closely related groups, exist on these islands.

The most species of the genus *Xenoda* are characterized by distinct sexual dimorphism in the structure of antennae, which are modified in males and filiform in females. However several species of the most primitive *Xenoda* have unmodified antennomeres in both sexes.

## Material and methods

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

were made by a Canon EOS 80D digital camera with Canon Extender EF 1.4 X II and with a combined Canon EF 70–200 mm f/4.0L IS USM and inverted Minolta MC Rokkor-PF 50 mm f/1.7 lenses. Photographs of spermatheca were made by a Canon EOS 80D digital camera with Canon Extender EF 1.4 X II and with a combined Canon EF 70–200 mm f/4.0L IS USM and inverted EFS 18–55 mm f/3.5–5.6 lenses. Images at different focal planes were combined using Zerene Stacker Professional 1.04 software.

Exact label data are cited for all specimens. Type localities are cited in the original spelling. Other comments and remarks are placed in brackets: (h) – preceding data are handwritten, (r) – red label, (b) – blue label, and (y) – yellow label.

Following abbreviations are used for depository places of types:

IBTP – Institute for Tropical Biology and Conservation of Universiti Malaysia (Malaysia, Sabah, Kota Kinabalu);

JB – private collection of Jan Bezděk (Brno, Czech Republic);

NMB – Naturhistorisches Museum Basel (Switzerland);

NHM – Natural History Museum (London, United Kingdom). This place has one more abbreviation often used on labels – BMNH (British Museum of Natural History);

NHRS – Swedish Museum of Natural History (Stockholm, Sweden);

NMPC – Národní muzeum (Praha, Czech Republic);

MCZ – Museum of Comparative Zoology, Harvard University (Cambridge, Massachusetts, USA);

PR – private collection of Pavel Romantsov (St Petersburg, Russia);

RBINS – Royal Belgian Institute of Natural Sciences (Brussel, Belgique);

RMNH – Nationaal Natuurhistorisch Museum (Leiden, Netherlands);

UKM – Centre for Insect Systematics, Universiti Kebangsaan Malaysia (Bangi, Malaysia);

ZIN – Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia).

Material on *Xenoda* was taken from the collection of Lev Medvedev (Moscow, Russia), which is now accepted to the collection of ZIN.

### Genus *Xenoda* Baly, 1877

*Xenoda* Baly, 1877: 225; Jacoby, 1896a: 471; Jacoby, 1899: 289; Wilcox, 1973: 605; Seeno, Wilcox, 1982: 113; Staines, Staines, 1999: 522.

Type species: *Xenoda spinicornis* Baly, 1877.

**Differential diagnosis.** *Xenoda* can be distinguished from other similar genera by the combination of the following characters: body moderately divergent posteriorly; elytral surface covered with hairs; maxillary palpi robust, with penultimate segment enlarged; male antennae modified in most species, rarely filiform; pronotum strongly transverse with anterior margin unbordered, lateral and posterior margins bordered; surface of pronotum with transverse depression; anterior coxal cavities opened posteriorly; posterior tibiae without spines, claws appendiculate.

At present, the only way to identify of Galerucinae genera from Malay Archipelago is to use keys to the neighbouring faunas, together with the original descriptions

of genera endemic to the region. The most current of them is the key for Galerucinae of Thailand, Laos, Cambodia and Vietnam [Kimoto, 1989]. In this key *Xenoda* should be placed near the genus *Trichomimastra* Weise, 1922, members of which also have pubescent body, anterior coxal cavities open posteriorly; metatibiae without spines, claws appendiculate and the pronotum with anterior margin unbordered, lateral and posterior margins bordered. The genus *Trichomimastra* was proposed by Weise [1922] as a subgenus of *Mimastra* Baly, 1865 and originally included six small species (body length 3–4 mm) with elytra densely covered with short setae. Bezděk [2013] suggested that subsequent authors very often confused the generic concept of *Trichomimastra* and described or transferred here many species although, evidently, not congeneric. I think, *Trichomimastra* is currently a very heterogeneous genus, which needs a review and perhaps many species of this genus will be transferred to other genera. I suppose that *Trichomimastra* species have elongate elytra densely covered with short hairs, elytral surface not rugose and long, not modified antennae. In contrast, *Xenoda* species have body moderately divergent posteriorly; distinctly rugose elytral surface, not densely covered with longer hairs; short or moderately long antennae that are modified in males of most species. A few primitive species of *Xenoda* with unmodified antennae have other the above attributes characteristic of this genus.

**Distribution.** South Thailand, Peninsular Malaysia, Sumatra, Mentawai, Bodjo, Java, Borneo and the Philippines.

### Subgeneric classification of the genus *Xenoda* Baly, 1877

Baly [1877] established the genus *Xenoda* with the type species *Xenoda spinicornis* Baly, 1877. The subgenus *Xenoda* s. str. is characterized by male antennae with the most modified structure (antennomeres III–VIII united in thick oval bulb, antennomere VIII ending with long spine). Weise [1922] suggested the subgeneric name *Xenodella* for *Xenoda* species without long spine on the antennomere VIII and Wilcox [1973] designated *Xenoda abdominalis* Jacoby, 1896 as the type species for this subgenus. All species without this spine described later were considered exactly in the subgenus *Xenodella*. However, this subgenus in understanding at that time was a very heterogeneous group of species with completely different structure of antennae and other characters. Later Medvedev [2004] reviewed *Xenoda*, proposed three new subgenera (*Xenodania*, *Xenodina*, *Paraxenidea*) differing in the structure of male antennae and gave a key for *Xenoda* subgenera. In accordance with Medvedev's work, the subgenus *Xenodina* is the most primitive in the genus *Xenoda* and it is characterized by the following characters: antennomeres III–X are moderately thickened, not forming bulb, without spine, the antennomere X is often with groove or pore. The subgenus *Xenodania* differs from other subgenera in the antennomere X with the apical process. *Paraxenidea* was characterized as a subgenus with combination of reduced bulb on the middle antennomeres and well developed curved spine on the antennomere VIII.

Medvedev [2004: 344] designated its systematic position as follows: "It seems to be nearest to *Xenoda* s. str. but appears definitely more primitive". *Xenodella* was mentioned in Medvedev's article [2004: 346] as a subgenus whose representatives have "segment 8 of antennal bulb without long curved spine".

This work based on the examination of a large amount of *Xenoda* material, confirm in general the opinion of Medvedev. New species described in the subgenera *Xenodania* and *Paraxenidea*, which were monotypic before, confirm the validity of the allocation of these subgenera. Descriptions of new species with completely filiform antennae within the subgenus *Xenodina* confirm the primitiveness of this subgenus. Now, the subgeneric classification of the genus *Xenoda* looks as follows. *Xenodina* is the most primitive within the genus and includes the majority species. When studying the variability of the structure of the antennae, the following trends in their evolutionary transformation are observed: from filiform antennae with elongate antennomeres in the most primitive representatives to antennae with strongly thickened antennomeres, some of them may be more or less modified (with pore, impressions, or with wide processes on apex) with transitions between them. Species of the subgenera *Xenodella* and *Paraxenidea* have part of characters typical to the subgenus *Xenoda* and are close evolutionary lines originating from an ancestral form of *Xenodina*. It should be borne in mind that almost all species previously classified in the subgenus *Xenodella* (all "non-*Xenoda* s. str." were traditionally included in *Xenodella*), really belong to the subgenus *Xenodina* or new subgenus *Trichoxenoda* **subgen. n.** described below.

Actually only the type species *X. abdominalis* has main characters of the subgenus *Xenodella* (antennomeres III–VIII united in oval bulb without long spine on antennomere VIII), two additional species of *Xenodella* are described in the present paper. Almost all other species, except for *Xenoda* s. str. and taxa described by Medvedev, should be interpreted as members of the subgenus *Xenodina*.

Several species have modified antennomere VIII in the form of long bulb; weakly rugose, dense punctured elytral surface covered with dense, short recumbent hairs and thin aedeagus. Besides, the same character (but less pronounced) is also peculiar to females, that is non-typical for other *Xenoda*. I propose *Trichoxenoda* **subgen. n.** for this group and include the following species: *Xenoda parvula* Jacoby, 1899, *X. hitam* Mohamedsaid, 2001, *X. lapar* Mohamedsaid, 2001, *X. simplex* **sp. n.** and *X. perakensis* **sp. n.** I suggest this subgenus is a separate branch of the genus *Xenoda*.

Finally, *Xenoda* s. str. is the most specialized subgenus, members of which have the most modified antennae. Mohamedsaid and Furth [2011] suggested that modified antennomeres of species from *Xenoda* s. str. have stridulatory devices. *Xenoda* species of this subgenus have the antennomere VIII bearing a long spine and the antennomere IX bearing a series of pegs on the apical area, where the spine has a function as a scraper. The majority species of this subgenus has the body length large, rather similar habitus and the aedeagus shape

and differs from each other mainly in colouration and in details of the structure of antennal bulb. Only one species *X. (s. str.) minutissima* **sp. n.**, having medium size 3.8 mm and rather narrow antennal bulb with a long spine on antennomere VIII, shows a close similarity with *Xenodella* and *Paraxenidea* subgenera. Below I offer a new key to subgenera of the genus *Xenoda*.

The above subgeneric classification can not be considered final. Despite the large number of new species described in this article, I believe that it covers no more than half of the existing species. At present, when many previously difficult of approach areas of Malaysia and Indonesia became available to researchers, it should be expected finding many new species of this genus. In addition, some species can be transferred to *Xenoda* from related genera (especially from *Trichomimastra*). It should be assumed that the studying of a new material will carry adjustments to the above classification. First of all, this concerns to *Xenodina*, which includes at present many different groups of species and is the most heterogeneous subgenus. As for *Xenodania* this subgenus is very similar to the subgenus *Xenodina*, numerous members of the latter have very diverse types of antennae structure (from simple to modified in varying degree) and perhaps *Xenodania* is not a separate taxon.

#### Key to subgenera of the genus *Xenoda* Baly, 1877

- 1(4). Antennomere VIII ending with long spine, antennomeres III–VIII united in thick ovate bulb or not.
  - 2(3). Antennomeres III–VII either transverse or their length equal to width, united in thick ovate bulb (as in Figs 210, 211). Elytra either not rugose or rugose with frequent wrinkles not forming ridges or forming undistinct and very short ridges. Body length usually more than 5 mm (only *X. minutissima* **sp. n.** 3.8 mm) ..  
..... *Xenoda* s. str.
  - 3(2). Antennomeres III–VII thickened but elongate (1.5 time as long as wide or more), not united in thick ovate bulb (Figs 15, 16). Elytra rugose with frequent wrinkles not forming ridges. Body length 4 mm or less  
..... *Paraxenidea*
  - 4(1). Antennomere VIII without long spine; antennomeres III–VIII filiform or thickened.
  - 5(6). Elytral surface granulose with dense punctures and convex narrow interstices, but not forming ridges; more densely covered with short recumbent hairs. Antennomere VIII in most species enlarged, bulb-shaped (as in Figs 213, 214). The same character (but less pronounced) is also peculiar to females. Only *X. simplex* **sp. n.** has filiform antennae in both sexes. ..  
..... *Trichoxenoda* **subgen. n.**
  - 6(5). Elytral surface rugose, sparsely covered with long semi-erect hairs. Antennomere VIII not bulb-shaped (females always with filiform antennae).
  - 7(8). Antennomeres III–VIII united in spindleform bulb thick at base and thinning towards apex (as in Figs 215–217), elytra with frequent wrinkles not forming ridges or forming undistinct and very short ridges ..... *Xenodella*

- 7(8). Antennomeres III–VIII not united in spindleform bulb, elytra with not frequent wrinkles usually forming distinct ridges and sparse punctures between them.  
 9(10). Antennomere X with narrow spine on apical outer angle (as in Fig. 212) ..... *Xenodania*  
 10(9). Antennomere X either simple or with wide apical process ..... *Xenodina*

#### Subgenus *Xenoda* s. str.

Type species of the subgenus (by monotypy): *Xenoda spinicornis* Baly, 1877.

**Description.** Antennomeres III–VIII united in thick ovate bulb (as in Figs 210, 211), antennomere VIII ending with long spine. Elytral surface not rugose or rugose with frequent wrinkles not forming ridges or forming indistinct and very short ridges.

#### Key to the species of the subgenus *Xenoda* s. str.

- 1(14). Elytra with metallic shine: blue, bluish black, greenish blue or bronze.  
 2(3). Elytra broadened posteriorly, impunctate, not rugose, sparsely pubescent, bluish black (Fig. 262). Length 6 mm. Borneo ..... *X. ovalis*  
 3(2). Elytra parallel-sided, transversely rugose.  
 4(5). Head, prothorax and legs black or dark metallic, antennae black with two apical antennomeres pale flavous (Fig. 9). Length 5.5–6.3 mm. Sumatra, Malay Peninsula ..... *X. nigricollis*  
 5(4). Head and prothorax fulvous.  
 6(7). Antennae entirely fulvous, legs fulvous with apical part of femora, tibiae and tarsi darkened (Fig. 3). Length 4.8 mm. Borneo ..... *X. fulvicornis* sp. n.  
 7(6). Antennae entirely or partly black, legs fulvous or entirely or partly black.  
 8(9). Legs entirely fulvous. Antennae darkened (often basal segments 1–2 more or less fulvous), antennomeres X–XI in male and IX–XI in female pale fulvous (Figs 13, 14). Length 5.2–6.5 mm. Sumatra, Mentawai ..... *X. weyersi*  
 9(8). Legs entirely or partly black.  
 10(11). Legs fulvous with upper side of tibiae and tarsi black. Antennae with two basal segments fulvous, antennomeres III–VIII darkened, antennomeres IX–XI white (Fig. 2). Antennomeres III–VIII transverse, forming thick bulb. Length 5.2–5.7 mm. Mentawai ..  
 ..... *X. carinata*  
 11(10). Legs entirely or mostly black.  
 12(13). Larger (5.1–6 mm). Antennae with darkened antennomeres X–XI in male and IX–XI in female white. Legs entirely or mostly darkened (from black to deep dark fulvous). Body as in Figs 11, 12. Antennomeres III–VIII transverse, forming elongate ovate bulb (about 3 times as long as wide) like in Fig. 210. Peninsular Malaysia, Tioman Island, Borneo ..  
 ..... *X. spinicornis*  
 13(12). Smaller (3.8 mm). Antennae and legs deep black, except antennomere XI white with black tip (Fig. 7). Antennomeres III–VIII equal in length and width, forming narrow elongated bulb (about 5 times as long as wide) as in Fig. 211. Sumatra .....  
 ..... *X. minutissima* sp. n.  
 14(1). Elytra without metallic shine: yellow, dark fulvous or black.  
 15(18). Elytra dark fulvous or black.  
 16(17). Elytra dark fulvous, distinctly broadened posteriorly (Fig. 4). Antennae fulvous, antennomeres VII–X and tip of antennomere XI dark fulvous; with robust spur on apex of antennomere X (Fig. 210). Protarsomere I narrow, 2.6 times as long as wide. Length 6.5–7.3 mm. Borneo ..... *X. geiseri* sp. n.  
 17(16). Elytra black and narrower (Fig. 5). Antennae entirely yellow with thin spur on apex of antennomere X. Protarsomere I wide, 1.45 times as long as wide. Body length 5.9 mm. Philippines ..... *X. klimentkoi* sp. n.  
 18(15). Elytra fulvous or reddish fulvous.  
 19(20). Prothorax very densely punctate, punctures small, surface more or less rugose. Body pale fulvous, antennomeres V–VIII black, antennomeres IX–XI almost white. Length 6 mm. Male unknown. Java .....  
 ..... *X. puncticollis*  
 20(19). Prothorax impunctate or indistinctly punctate.  
 21(24). Aedeagus slightly curved in lateral view, apex not bent upwards, underside without teeth (Fig. 102). Species from Sumatra, Java and Peninsular Malaysia.  
 22(23). Elytra densely punctate and pubescent, finely rugose. Entirely fulvous or tibiae and tarsi darkened (Fig. 10). Antennal bulb thick, 1.3–1.4 times as long as wide. Aedeagus as Figs 101, 102. Body length 5.7–6.3 mm. Peninsular Malaysia, Borneo, Sumatra, Java .....  
 ..... *X. pallida*  
 23(22). All characters of preceding species, but elytra not rugose. Unclear species, possibly identical with *X. pallida*. Sumatra ..... *X. hirtipennis*  
 24(21). Aedeagus strongly curved in lateral view; apex bent upwards; underside with teeth before apex (Figs 86, 96). Species from the Philippines.  
 25(26). Body entirely fulvous (Fig. 1). Antennal bulb short ovate, 1.55 times as long as wide. Aedeagus as Figs 85, 86. Body length 5.2 mm. Luzon ..... *X. bakeri*  
 26(25). Body (Fig. 6) fulvous with tibiae and tarsi darkened (sometimes also three apical antennomeres, elytral suture and metasternum darkened). Antennal bulb elongate ovate, 2 times as long as wide. Aedeagus as Figs 95, 96. Body length 5.7–6.5 mm. Luzon, Mindanao .....  
 ..... *X. luzonica*

*Xenoda (Xenoda) bakeri* L. Medvedev, 2004  
 (Figs 1, 85, 86)

*Xenoda bakeri* L. Medvedev, 2004: 340.

**Material.** 1♂, holotype (ZIN), "Mt. Makiling Luzon Baker".

**Distribution.** Philippines (Luzon).

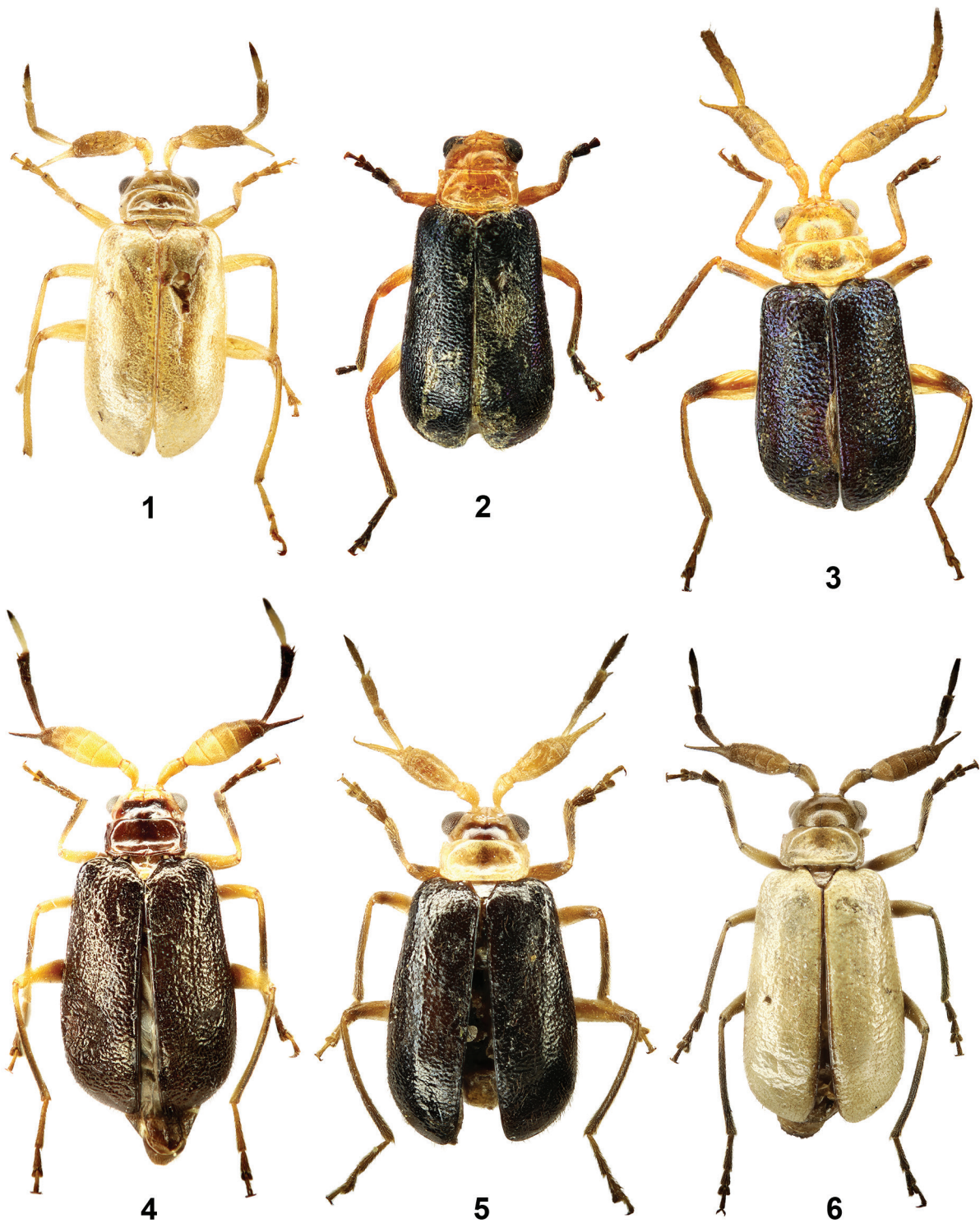
*Xenoda (Xenoda) carinata* Laboissière, 1929  
 (Figs 2, 87, 88)

*Xenoda carinata* Laboissière, 1929: 94; Wilcox, 1973: 605; Weidner, 1976: 264; Kimoto, 1990: 235.

**Material.** 1♂, syntype (NHM), "Sipora Island West Sumatra Oct. 1924 C. B. K. and N. S."; "Xenoda sp Det. G. E. Bryant"; "Xenoda carinata V. Laboissière – Det."

**Distribution.** Indonesia (Mentawai Island).



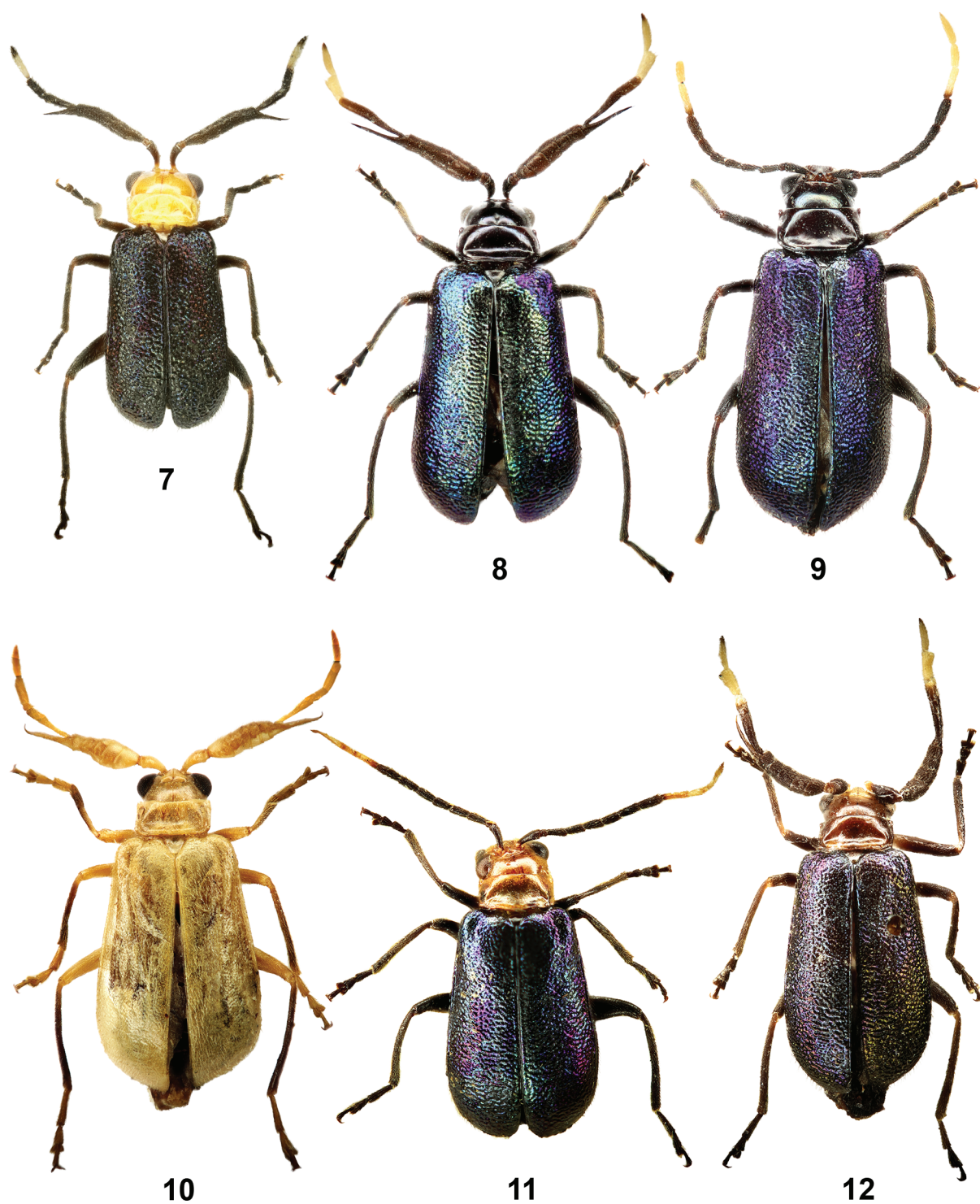


Figs 1–6. *Xenoda* s. str., general view.

1 – *X. bakeri*, male, holotype; 2 – *X. carinata*, male, syntype; 3 – *X. fulvicornis* sp. n., male, holotype; 4 – *X. geiseri* sp. n., male, holotype; 5 – *X. klimenkoi* sp. n., male, holotype; 6 – *X. luzonica*, male, holotype.

Рис. 1–6. *Xenoda* s. str., общий вид.

1 – *X. bakeri*, самец, голотип; 2 – *X. carinata*, самец, синтип; 3 – *X. fulvicornis* sp. n., самец, голотип; 4 – *X. geiseri* sp. n., самец, голотип; 5 – *X. klimenkoi* sp. n., самец, голотип; 6 – *X. luzonica*, самец, голотип.



Figs 7–12. *Xenoda* s. str., general view.

7 – *X. minutissima* sp. n., male, holotype; 8–9 – *X. nigricollis*: 8 – male, syntype, 9 – female, syntype; 10 – *X. pallida*, male, syntype; 11–12 – *X. spinicornis*: 11 – female, 12 – male, holotype.

Рис. 7–12. *Xenoda* s. str., общий вид.

7 – *X. minutissima* sp. n., самец, голотип; 8–9 – *X. nigricollis*: 8 – самец, синтип, 9 – самка, синтип; 10 – *X. pallida*, самец, синтип; 11–12 – *X. spinicornis*: 11 – самка, 12 – самец, голотип.



*Xenoda (Xenoda) fulvicornis* sp. n.  
(Figs 3, 89, 90)

**Material.** Holotype, ♂ (NHM): "Borneo Baly Coll.", the specimen is provided with one additional blank circle blue label.

**Description.** Male, holotype (Fig. 3). Length 4.8 mm, width 2.3 mm. Body yellow; hind and middle legs with apex of femora and tibiae darkened; elytra blackish blue.

Head impunctate, labrum weakly transverse, about 1.5 times as wide as long, anterior margin convex with semicircle emargination, surface smooth and shiny with several pale setae; maxillary palpi robust, with penultimate segment enlarged, apical segment short, conical. Eyes oval and convex; interocular space about 1.9 times as wide as transverse diameter of eye. Clypeus triangular raised, sparsely covered with curved hairs; frontal tubercles raised, elongate triangular with sharp apex, contiguous but divided by median longitudinal line and delimited posteriorly by impression. Antennae rather long, reaching posterior third of elytra, antennomeres shagreen, covered with short and moderately dense sub-recumbent hairs. Antennomere I long and slightly curved; antennomere II very small, transverse; antennomeres III–VII forming rather thick, oblong bulb; antennomere VIII ending with long spine bent at level of apical third; antennomeres IX–X slightly thickened and flattened, antennomere XI thin. Proportions in length of antennomeres I–XI are as 24 : 5 : 16 : 8 : 7 : 7 : 6 : 31 : 30 : 20 : 10; their proportions in width are as 10 : 7 : 16 : 16 : 16 : 14 : 13 : 10 : 7 : 7 : 5 (length of antennomere VIII includes length of spine).

Pronotum lustrous, impunctate but with microsculpture in basal half; transverse, 2.15 times as broad as long, widest in apical third, with slightly rounded sides; surface deep transversely depressed. Anterior margin concave, posterior margin almost sinuate: emarginate near posterior angles, convex behind humerus and at level of scutellum. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, weak swollen, protruding to side; posterior angles triangular with setigerous pores bearing short pale seta; additional two short setae visible slightly lower posterior angle on lateral margin.

Scutellum lustrous and impunctate; triangular with sharp apex; transverse, 0.52 times as long as wide.

Elytra 1.55 times as long as wide; surface rugose, but without distinct punctures, covered with rather dense sub-recumbent hairs. Humeral calli moderately convex.

Legs slender, protarsomere I 2 times as long as wide, slightly narrower than protarsomere III; proportions in length of protarsomeres I–IV are as 10 : 9 : 6 : 14, metatarsomere I long and narrow, slightly shorter than remaining segments combined; proportions in length of metatarsomeres I–IV are as 21 : 10 : 6 : 13. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus slightly narrowed before truncated apex, in lateral view curved before apex (Figs 89, 90), aedeagus length 1.25 mm.

Female unknown.

**Differential diagnosis.** *Xenoda fulvicornis* sp. n. differs from other Bornean species of the subgenus *Xenoda*, having metal reflection on elytra, in antennae and legs entirely fulvous (Fig. 3).

**Distribution.** Malaysia (Sabah).

**Etymology.** The name of the new species refers to entirely fulvous antennae.

*Xenoda (Xenoda) geiseri* sp. n.  
(Figs 4, 91, 92, 210)

**Material.** Holotype, ♂ (NHM): "SARAWAK: Gunong Mulu Nat. Park R.G.S. Exped. 1977–8 J.D. Holloway et al. B.M. 1978–2006", "Site 5. January Camp 4, Mulu 1780m. 451463 Low 1.-u. montane forest. Acl-

by path.". Paratypes: 1♂ (NHM), 1♂ (PR), same data as in holotype; 1♂ (NHM), "SARAWAK: 4th Division Gn. Mulu NP.", "nr. Camp c. 1800m.", "P.M. Hammond & J.E. Marshall v-viii. 1978 B.M. 1978–49"; 1♂ (NHM), "Sarawak Site Dmins S of Camp 4 Low Forest 1. 78 J. J. Holloway At light" (h).

**Description.** Male, holotype (Fig. 4). Length 6.5–7.3 mm, width 3.3–3.8 mm.

Head fulvous with large black spot. Antennae fulvous except antennomeres VII–X and apex of antennomere XI dark fulvous. Pronotum dark fulvous, lighter in middle part and darker on sides, scutellum fulvous, elytra dark fulvous. Legs fulvous, basal half of femora tibiae and tarsi darkened. Underside darkened.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin with narrow and deep excavation, surface smooth with several pale setae in transverse row; maxillary palpi robust with penultimate segment enlarged, apical segment short, conical. Eyes small, interocular space wide, 2.15 times as wide as transverse diameter of eye. Clypeus triangular raised with several long pale setae laterally along anterior margin and laterally along antennal insertions; frontal tubercles strongly raised, elongate triangular with sharp apex, divided by median longitudinal line and delimited posteriorly by impression. Antennae (Fig. 210) reaching posterior third of elytra, covered with short and moderately dense sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small, antennomeres III–VII forming elongate bulb, antennomere VIII ending with long spine short on apex, antennomeres IX–XI thin and long, antennomere X with short spur at apex. Proportions in length of antennomeres I–XI are as 24 : 5 : 22 : 15 : 12 : 15 : 9 : 43 : 47 : 25 : 37; their proportions in width are as 13 : 10 : 25 : 29 : 27 : 23 : 18 : 8 : 7 : 8 : 6 (length of antennomere VIII includes length of spine; length of spur on apex of antennomere X – 5).

Pronotum transverse, 2 times as broad as long, with almost straight sides, surface transversely depressed, punctate but with microsculpture. Anterior margin concave, lateral margins almost parallel, posterior margin almost straight. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles swollen, posterior angles rectangular, all angles with setigerous pores bearing long pale seta, additional short setae visible on anterior half of lateral margins.

Scutellum impunctate, as long as wide, triangular with sharp apex.

Elytra 1.57 times as long as wide, surface uneven, finely and densely rugose (but without distinct punctures), covered with dense erect hairs. Humeral calli well developed.

Legs slender, protarsomere I 2.6 times as long as wide, narrower than protarsomere III; proportions in length of protarsomeres I–IV are as 17 : 14 : 8 : 12, metatarsomere I long and narrow, as long as remaining segments combined; proportions in length of metatarsomeres I–IV are as 34 : 15 : 5 : 16. Claws appendiculate.

Anterior coxal cavities open posteriorly. Aedeagus with truncated apex, in lateral view curved in apical third (Figs 91, 92), aedeagus length 1.4 mm.

Female unknown.

**Differential diagnosis.** This new species belongs to the subgenus *Xenoda* s. str. whose representatives have antennomeres III–VII united in thick ovate bulb and antennomere VIII ending with curved spine. *Xenoda geiseri* sp. n. is similar to *X. ovalis* with elytra broadened posteriorly but differs by dark fulvous elytra without metallic shine (Fig. 4). In addition this new species (together with *X. klimenkoi* sp. n.) differs from the congeners by having of thin spur at apex of antennomere X (only in males).

**Distribution.** Malaysia (Sabah).

**Etymology.** The new species is named after Michael Geiser, the curator of Chrysomelidae collections in NHM.

*Xenoda (Xenoda) hirtipennis* Jacoby, 1884  
(Figs 273–275, 277)

*Xenoda hirtipennis* Jacoby, 1884: 58; Wilcox, 1973: 605; Kimoto, 1990: 235; Medvedev, 2004: 346.

**Material.** 1♂, holotype (RMNH) (photograph), "M. Lab. 11.77", "*Xenoda hirtipennis* Jacoby" (h).

**Distribution.** Indonesia (Sumatra).

*Xenoda (Xenoda) klimenkoi* sp. n.  
(Figs 5, 93, 94)

**Material.** Holotype, ♂ (PR): "Philippines, N Luzon Nueva Vizcaya, Santa Fe 1200m., 16. V. 2015 Klimenko A. leg."

**Description.** Male, holotype (Fig. 5). Length 5.9 mm, width 3 mm.

Body fulvous, head with large black brown spot, elytra black. Legs with apex of femora, tibiae and tarsi darkened. Underside darkened.

Head impunctate, labrum strongly transverse, about 3.6 times as wide as long, anterior margin with narrow and deep excavation, surface smooth with four long pale setae in transverse row; maxillary palpi robust with penultimate segment enlarged, apical segment small, conical. Eyes small, interocular space 1.5 times as wide as transverse diameter of eye. Clypeus triangularly raised with several long pale setae laterally along anterior margin; frontal tubercles raised, elongate triangular with sharp apex, divided by thin median longitudinal impression. Antennae reaching posterior third of elytra, dense covered with short sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small, antennomeres III–VII forming elongate bulb, antennomere VIII ending with long spine curved on apex, antennomeres IX–X flattened, antennomere XI thin, antennomere X with short, very thin spur at apex. Proportions in length of antennomeres I–XI are as 25 : 5 : 15 : 11 : 10 : 5 : 4 : 44 : 40 : 25 : 23; their proportions in width are as 14 : 10 : 20 : 21 : 21 : 19 : 13 : 8 : 9 : 9 : 6 (length of antennomere VIII includes length of spine; length of spur on apex of antennomere X = 4).

Pronotum transverse, 2.1 times as broad as long, surface wide transversely depressed, punctate but with microsculpture. Anterior margin sinuate, concave in middle and near anterior angles; lateral margins rounded, posterior margin almost straight. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles prominent, posterior angles obtuse, all angles with setigerous pores bearing long pale seta, additional three short setae visible on anterior half of lateral margins.

Scutellum impunctate but with microsculpture, triangular with slightly rounded apex, 1.2 times as wide as long.

Elytra 1.56 times as long as wide, surface uneven, finely and densely rugose without distinct punctures, covered with dense erect hairs. Humeral calli well developed.

Legs slender, protarsomere I 1.45 times as long as wide, slightly wider than protarsomere III; proportions in length of protarsomeres I–IV are as 17 : 10 : 6 : 11; metatarsomere I long and narrow, slightly longer than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 30 : 14 : 5 : 17. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus curved in lateral view (Figs 93, 94), aedeagus length 1.25 mm.

Female unknown.

**Differential diagnosis.** This new species belongs to the subgenus *Xenoda* s. str. whose representatives have antennomeres III–VII united in thick ovate bulb and antennomere VIII ending with curved spine. *Xenoda klimenkoi* sp. n. is similar to *X. geiseri* sp. n. having elytra without metallic shine and spur on apex of antennomere VIII, but differs in less wide black elytra,

entirely fulvous antennae with more subtle spur of antennomere X and wide protarsomere I (Fig. 5).

**Distribution.** Philippines (Luzon).

**Etymology.** The new species is named after my late friend Aleksey Klimenko who collected the holotype.

*Xenoda (Xenoda) luzonica* L. Medvedev, 2004  
(Figs 6, 95, 96)

*Xenoda luzonica* L. Medvedev, 2004: 340.

**Material.** 1♂, holotype (ZIN), "Butao Luzon"; 1♂, 2♀ (JB), "PHILIPPINES Mindanao, Bukitdron Panamokan December 2014".

**Distribution.** Philippines (Luzon, Mindanao).

*Xenoda (Xenoda) minutissima* sp. n.  
(Figs 7, 97, 98, 211)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra, Aceh Prov. Bukit Lawang Vill. h~190-240m, N 03°32'52", E 098°07'27" N 03°33'16", E 098°06'21" 27.1.2018 P. Romantsov leg."

**Description.** Male, holotype (Fig. 7). Length 3.8 mm, width 1.8 mm.

Head fulvous, maxillary palpi and apex of mandibulae black. Antennomere I–X black, antennomere XI white with black tip. Pronotum and scutellum fulvous; elytra blackish blue with coppery tint. Legs black with fore femora dark fulvous. Underside darkened.

Head impunctate, labrum weakly transverse, about 1.5 times as wide as long, anterior margin weakly convex, surface smooth and shiny with several pale setae in transverse row; maxillary palpi robust with penultimate segment enlarged, apical segment very short, conical. Eyes round and convex, interocular space about 1.5 times as wide as transverse diameter of eye. Clypeus triangularly raised, covered with long erect hairs; frontal tubercles small, weakly raised, elongate triangular with sharp apex, divided by median longitudinal line and delimited posteriorly by impression. Antennae (Fig. 211) rather long, reaching posterior quarter of elytra, antennomeres shagreen, covered with short and moderately dense sub-recumbent hairs. Antennomere I long and slightly curved; antennomere II small, transverse; antennomeres III–VII forming rather narrow and oblong bulb; antennomere VIII ending with long spine short curved on apex; antennomeres IX–XI thin and long. Proportions in length of antennomeres I–XI are as 15 : 4 : 10 : 10 : 10 : 10 : 22 : 25 : 15 : 17; their proportions in width are as 7 : 5 : 9 : 9 : 9 : 9 : 9 : 8 : 5 : 5 : 5 (length of antennomere VIII includes length of spine).

Pronotum lustrous and impunctate, transverse, 2.45 times as broad as long, widest at level of front angles with almost straight sides, surface deep transversely depressed. Anterior margin concave, posterior margin almost straight with shallow notch at level of scutellum. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles triangular, very weakly swollen, posterior angles rectangular, all angles with setigerous pores bearing long pale seta, additional three short setae visible on anterior half of lateral margins.

Scutellum lustrous and impunctate, triangular with sharp apex, as long as wide.

Elytra elongate, 1.8 times as long as wide; surface rugose, but without distinct punctures, covered with rather dense sub-recumbent hairs. Humeral calli moderately convex.

Legs slender, protarsomere I 2.4 times as long as wide, slightly narrower than protarsomere III; proportions in length of protarsomeres I–IV are as 9 : 6 : 5 : 11, metatarsomere I long and narrow, as long as remaining segments combined; proportions in length of metatarsomeres I–IV are as 15 : 3 : 5 : 7. Claws strongly appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus with truncated apex, uniformly curved (Figs 97, 98), its length 0.9 mm.

Female unknown.



**Differential diagnosis.** The new species is the smallest of all members of the subgenus *Xenoda* s. str., whose representatives have antennomeres III–VII united in thick ovate bulb and antennomere VIII ending with curved spine. *Xenoda minutissima* sp. n. (Fig. 7) differs from congeners by small size and almost entirely black antennae (except part of antennomere XI).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to its small size, the smallest in the subgenus *Xenoda* s. str.

*Xenoda (Xenoda) nigricollis* Jacoby, 1896  
(Figs 8, 9, 99, 100, 229)

*Xenoda nigricollis* Jacoby, 1896a: 472; Wilcox, 1973: 605; Kimoto, 1990: 235; Mohamedsaid, 1995: 5, 1997: 174; Mohamedsaid, 1999a: 141; Mohamedsaid, 1999b: 16; Mohamedsaid, 1999c: 237; Mohamedsaid, Holloway, 1999: 169; Mohamedsaid, 2000: 356; Mohamedsaid, 2001: 19–20; Mohamedsaid, 2004: 117; Medvedev, 2004: 339.

**Material.** 2♀, syntypes (NHM), "Type H. T." (circle label with red border), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani", "Jacoby Coll. 1909-28a.", "Xenoda nigricollis Jac." (b., h.); 1♂, syntype (NHM), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani"; 1♂ (ZIN), "Singapore Biro 1898"; 1♂ (NHM), "SARAWAK: 4th Division Gn. Mulu NP", "nr. Camp 4 c. 1800m."; "P.M. Hammond & J.E. Marshall v-viii. 1978 B.M. 1978-49"; 1♀ (JB), "Sabah: Lembah Danum 17-20 Nov. 94 Ismail, Sham & Ruslan"; 1♂ (ZIN), "Thailand, 8 55' N Khao Sok 98 45' E 12. XI. 1995 M. Mostovski coll."; 1♀ (JB), "MALAYSIA, Perak Banjarqrv Bintang Bukit Berapit (Taiping) 11.-12.iii.1997 lgt. Oliver Dulik"; 1♀ (ZIN), "Malaysia, Benon Mts. 15 km E Kampong Dong, 700 m 3°53' N, 102°01' E 1.IV.1998, leg. Dembický & Pacholátko"; 1♀ (JB), "MALAYSIA W, Camerom Highlands, 17-20.iii.2001 lgt. R. Novák"; 1♀ (JB), "MALAYSIA, Pahang distr., 30 km NE Raub, Lata Lembik 03°56' N, 101°38' E, 200-400m 22.iv.-15.v.2002 E.Jendek & O. Šauša leg."; 1♂ (JB), "MALAYSIA, Perak Camerom Highlands Batu [Mile], 19. Vill. env. 04°22.2' N, 101°20.0' E, 590 m Jiň Hájek leg. 5-15.v.2009".

**Distribution.** Thailand, Singapore, Malaysia (Peninsular Malaysia, Sarawak, Sabah), Indonesia (Sumatra).

*Xenoda (Xenoda) ovalis* Mohamedsaid, 2001  
(Figs 262, 263)

*Xenoda (Xenoda) ovalis* Mohamedsaid, 2001: 20; Mohamedsaid, 2004: 117 (UKM).

**Distribution.** Malaysia (Sabah).

*Xenoda (Xenoda) pallida* Jacoby, 1896  
(Figs 10, 101–104)

*Xenoda pallida* Jacoby, 1896a: 471; Wilcox, 1973: 605; Kimoto, 1990: 235; Mohamedsaid, 1995: 5; Mohamedsaid, 1998: 84; Mohamedsaid, 1999a: 141; Mohamedsaid, 1999b: 16; Mohamedsaid, 1999c: 237; Mohamedsaid, Holloway, 1999: 169; Mohamedsaid, 2000: 355; Mohamedsaid, 2001: 19, 22; Mohamedsaid, 2004: 117; Medvedev, 2004: 346.

**Material.** 1♂, syntype (NHM), "Type H. T." (circle label with red border), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani", "Jacoby Coll. 1909-28a.", "Xenoda pallida Jac." (b., h.); 1♂, syntype (NHM), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani", "Xenoda pallida Jac." (h.); 1♂ (ZIN), "Sumatra Dolok Baroe"; 1♂ (ZIN), "Noesa", "Kambangan", "Drescher"; 1♂ (ZIN), "BORNEO: SABAH Kinabalu N.P. Poring 500 m. 23.-24. XI. 1996 leg. W. Schawaller"; 1♂ (JB), "MALAYSIA, Perak Cameron Highlands, 30 km E of Tapah, 650m, 22.-26.III.2004"; 2♂ (PR), "Indonesia, Sumatra, Aceh Prov. Bukit Lawang Vill. h~190-240m, N 03°32'52", E 098°07'27" N 03°33'16", E 098°06'21" 27.I.2018 P. Romantsov leg."; 1♀ (PR), "Indonesia, Sumatra Il., West Sumatra Prov, 20 km S Bukittinggi, 6 km SWW Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 8.II.2018 P. Romantsov leg."

**Distribution.** Indonesia (Sumatra, Java), Peninsular Malaysia, Borneo.

*Xenoda (Xenoda) puncticollis* Weise, 1922

*Xenoda puncticollis* Weise, 1922: 79; Wilcox, 1973: 605; Kimoto, 1990: 235 (NHRS).

**Distribution.** Indonesia (Java).

*Xenoda (Xenoda) spinicornis* Baly, 1877  
(Figs 11, 12, 105, 106, 230)

*Xenoda spinicornis* Baly, 1877: 225; Jacoby, 1884: 58 (in fact, this record refers to *X. weyersi*); Wilcox, 1973: 605; Kimoto, 1990: 236; Mohamedsaid, 1995: 5; Mohamedsaid, 1999b: 17; Mohamedsaid, 1999d: 251; Mohamedsaid, Holloway, 1999: 169; Staines, Staines, 1999: 522; Mohamedsaid, 2000: 355; Mohamedsaid, 2001: 19, 24; Mohamedsaid, 2004: 118; Medvedev, 2004: 345.

**Material.** 1♂, holotype (NHM), "Type" (circle label with red border), "Baly Coll.", "Xenoda spinicornis Baly", (b., h.); 1♀ (NHM), "Martapura S.E. Borneo Doherty 1891", "Sharp Coll. 1905-313"; 1♂ (NHM), "SARAWAK: Bau. 22.II-15.X.1909. C.J. Brooks, B.M. 1936-681"; 1♂ (NHM), "Mt. Matang, W Sarawak G. E. Bryant 1. 2. 14", "Bryant Coll. 1919-147"; 2♂ (ZIN), "Malaysia, Pahang Palau Tiloman, 2 km S Kampung Juara secondary growth", "swept & beaten 15. III. 1995 N 28 O. Merkl"; 1♂ (ZIN), "MALAYSIA, Tioman, 400 m Kampong Tekek - K. Juara 9. III. 1998; 2.48N 104.11E, Dembický & Pacholátko"; 1♂ (PR), "MALAYSIA, Benom Mts 15 km E Kampong Dong, 700 m 3.53N 102.01E, 1. IV. 1998 Dembický & Pacholátko".

**Notes.** In the *Xenoda* key given by Medvedev [2004] there is an error in distinguishing this species and *X. weyersi*. In that key it is indicated that *X. spinicornis* has legs fulvous, three apical antennal segments pale fulvous, and *X. weyersi* has legs entirely or mostly black and two apical antennal segments pale fulvous. But in according to descriptions of both species, it is the opposite: *X. spinicornis* has legs entirely or mostly black and *X. weyersi* has entirely fulvous ones. Most likely theses 16 and 17 were confused in that key. As for the colour of the antenna, it is similar in both species: antennae darkened, with antennomeres X–XI in male and IX–XI in female white. Jacoby [1884, 1899] considered *X. spinicornis* as a very variable species in the legs and underside colouring and suppose that *X. weyersi* with fulvous legs from Sumatra belongs to this species. It is likely that all subsequent records of this species from Sumatra are based on this. I believe these are two different species that differ (in addition to the above mentioned differences in legs and underside colouring which are rather stable attributes) in the shape of body: elongate in *X. weyersi* (elytra 1.76–2.04 times as long as wide) and rather robust in *X. spinicornis* (elytra 1.2–1.67 times as long as wide).

**Distribution.** Malaysia (Peninsular Malaysia, Tioman Island, Borneo: Sarawak), Indonesia (Kalimantan).

*Xenoda (Xenoda) weyersi* (Duvivier, 1885)  
(Figs 13, 14, 107, 108, 231, 276, 278)

*Theopea weyersi* Duvivier, 1885: 53.

*Xenoda weyersi*: Wilcox, 1973: 605; Medvedev, 2004: 345.

*Xenoda spinicornis*: Jacoby, 1884: 58; Jacoby, 1899: 289; Weise, 1924: 133.

**Material.** 1♀ (Fig. 276), syntype (RBINS) (photograph), "Lie Bodj Weyeres", "Collect. Duvivier", "A. Duvivier det. *Theopea weyersi* Duv.", "Ex-

Typis" (in red), "cf. Ann. Soc. Ent.", "His. Nat. Belg., XXIX, 1885, p. 53-54", "V. Laboissière rev., 1940: *Xenoda* s. str. *weyersi* (Duv.)", "Paratype" (r), "cf. Bull. Mus. Belg. XVI, 1940, № 37, p. 35"; 5♂, 8♀ (NHM), "Doherty", "Sumatra Merang"; 1♂ (PR), "Dohrn Sumatra Soekaranda"; 1♂ (JB), "Sumatra, Takengon"; 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~414-550m. N 03°41'01", E 097°39'16" N 03°41'26", E 097°39'27" 31.III.2017 P. Romantsov leg."; 1♂ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~ 420-510 m, N 03°41'06", E 097°39'11" N 03°41'26", E 097°39'11" 2.IV.2017 P. Romantsov leg."; 3♂ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-240m, N 03°32'52", E 098°07'27" N 03°33'16", E 098°06'21" 27.I.2018 P. Romantsov leg."; 3♂, 1♀ (PR), same data, but "28.I.2018"; 2♂, 2♀ (PR), same data, but "29.I.2018"; 1♂ (PR), same data, but "30.I.2018", "Prosvirov leg."; 1♂ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-370m, N 03°32'52", E 098°07'27" N 03°33'25", E 098°06'21" 28.I.2018 P. Romantsov leg."; 4♀ (PR), "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi, 6 km SWW Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 8.II.2018 A. Prosvirov leg."; 1♂ (PR), same data, but "10.II.2018"; 1♂, 1♀ (PR), "Indonesien, Sumatra II., West Sumatra Prov 16 km W Bukittinggi Maninjau Lake; h~695-790 m, S 0°16'18", E 100°14'00" S 0°16'22", E 100°14'11" 13.II.2018 P. Romantsov leg."

**Notes.** In the *Xenoda* key given by Medvedev [2004] there is an error in distinguishing of this species and *X. spinicornis* (see comments under *X. spinicornis*).

**Distribution.** Indonesia (Sumatra, Mentawai, Bodjo).

#### Subgenus *Paraxenidea* L. Medvedev, 2004

Type species of the subgenus (by original designation): *Xenoda brancuccii* L. Medvedev, 2004.

**Description.** Antennae without bulb, with antennomere III about 4 times as long as wide and antennomere IV about 3 times as long as wide, antennomeres V–VIII moderately thickened, but each of them about twice as long as wide, three apical antennomeres thin, antennomere VIII with long curved spine. Elytra evenly rugose with frequent wrinkles not forming ridges.

#### Key to the species of the subgenus *Paraxenidea* L. Medvedev, 2004

- 1(2). Body black (except vertex fulvous) as in Fig. 16, aedeagus with triangular apex (Figs 111, 112). Body length 3.7–4 mm. Peninsular Malaysia, Borneo ..... *X. merkli* **sp. n.**
- 2(1). Body fulvous (Fig. 15), aedeagus with narrow pointed apex (Figs 109, 110). Body length 3.4–3.5 mm. Philippines ..... *X. brancuccii*

*Xenoda* (*Paraxenidea*) *brancuccii* L. Medvedev, 2004  
(Figs 15, 109, 110)

*Xenoda brancuccii* L. Medvedev, 2004: 343.

**Material.** 1♂, paratype (ZIN), "Philippines N. Palawan, Bahile 50 m, 22. XI. 1992 leg. Bolm".

**Distribution.** Philippines.

*Xenoda* (*Paraxenidea*) *merkli* **sp. n.**  
(Figs 16, 111, 112)

**Material.** Holotype, ♂ (ZIN): "INDONESIA, Kalimantan Barat Gunung Palung Nat. Park Cabang Panti research site, 1°13'S, 110°7'E", "O. Merkli lowland rainforest, swept & beaten, No 11, 18-26. VII. 1993". Paratypes: 1♂ (PR), "BORNEO, Brunei E 115°07' N 04°34' 18. V. 91 Kuala Belalong FSC N. Mawdsley, Malaise GM4 BMNH {E} 1991-173"; 1♂ (NHM), "Doherty", "Perak G. B.", "Fry Coll. 1905. 100"; 1♂ (NHM), "MALAY PENINS. PAHANG F.M.S. Fraser's Hill 4.200 ft. 18. 7. 1936", "Ex F.M.S. Museum B.M. 1955-354".

**Description.** Male, holotype (Fig. 16). Length 3.9 mm, width 1.7 mm.

Head black with red-fulvous occiput; antennae with two first antennomeres fulvous, antennomeres III–IX black, antennomere X black with fulvous distal part, antennomere XI fulvous with black apex; pronotum, scutellum and elytra black; legs black with darkened apex of hind femora and tarsi; underside black with dark fulvous abdomen.

Head impunctate, labrum transverse, 2 times as wide as long with almost straight anterior margin, surface smooth; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment very small, conical. Eyes strongly convex, oval (1.27 times as long as wide), interocular space 1.36 times as wide as transverse diameter of eye. Anterior part of head moderately convex, nasal keel strongly convex; frontal tubercles moderately large, flattened, triangular with sharp apex, divided by rather deep median longitudinal impression and distinctly delimited posteriorly by deep transverse impression. Vertex impunctate and convex. Antennae reaching hind quarter of elytra, covered with thin recumbent hairs. Antennomere I large, antennomere II very small, antennomeres III–X moderate enlarged; antennomere III conical, antennomeres IV–VIII more or less rectangular; antennomere VIII ending with long spine short curved on apex; antennomeres IX and XI thin, latter with pointed apex. Proportions in length of antennomeres I–XI are as 20 : 3 : 21 : 11 : 11 : 12 : 13 : 17 : 15 : 20; their proportions in width are as 8 : 5 : 6 : 6 : 6 : 6 : 6 : 4 : 4 : 3 (length of antennomere VIII includes length of spine).

Pronotum transverse, 2 times as broad as long, surface impunctate with transverse impression, pitted on sides and weakened in middle. Anterior margin almost straight; lateral margins parallel in basal two-thirds, then expand and slightly emarginated before fore angles; posterior margin strongly sinuated. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles triangular, slightly prominent laterally; posterior angles triangular, prominent; lateral margin with three setae below anterior and one seta before hind angles.

Scutellum triangular, 1.35 times as wide as long; surface shining and impunctate.

Elytra 1.65 times as long as wide, slightly broadest behind apical fourth, surface evenly rugose with frequent wrinkles, covered with sparse sub-recumbent hairs. Humeral calli well developed.

Legs slender, tarsomere I of fore and middle legs rather wide, equal in width to tarsomere III, proportions in length of protarsomeres I–IV are as 10 : 7 : 5 : 12; metatarsomere I long and narrow, slightly longer than remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 17 : 9 : 6 : 10. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 111, 112) parallel-sided with triangular apex; slightly curved with bent down tip in lateral view, its length 1.5 mm.

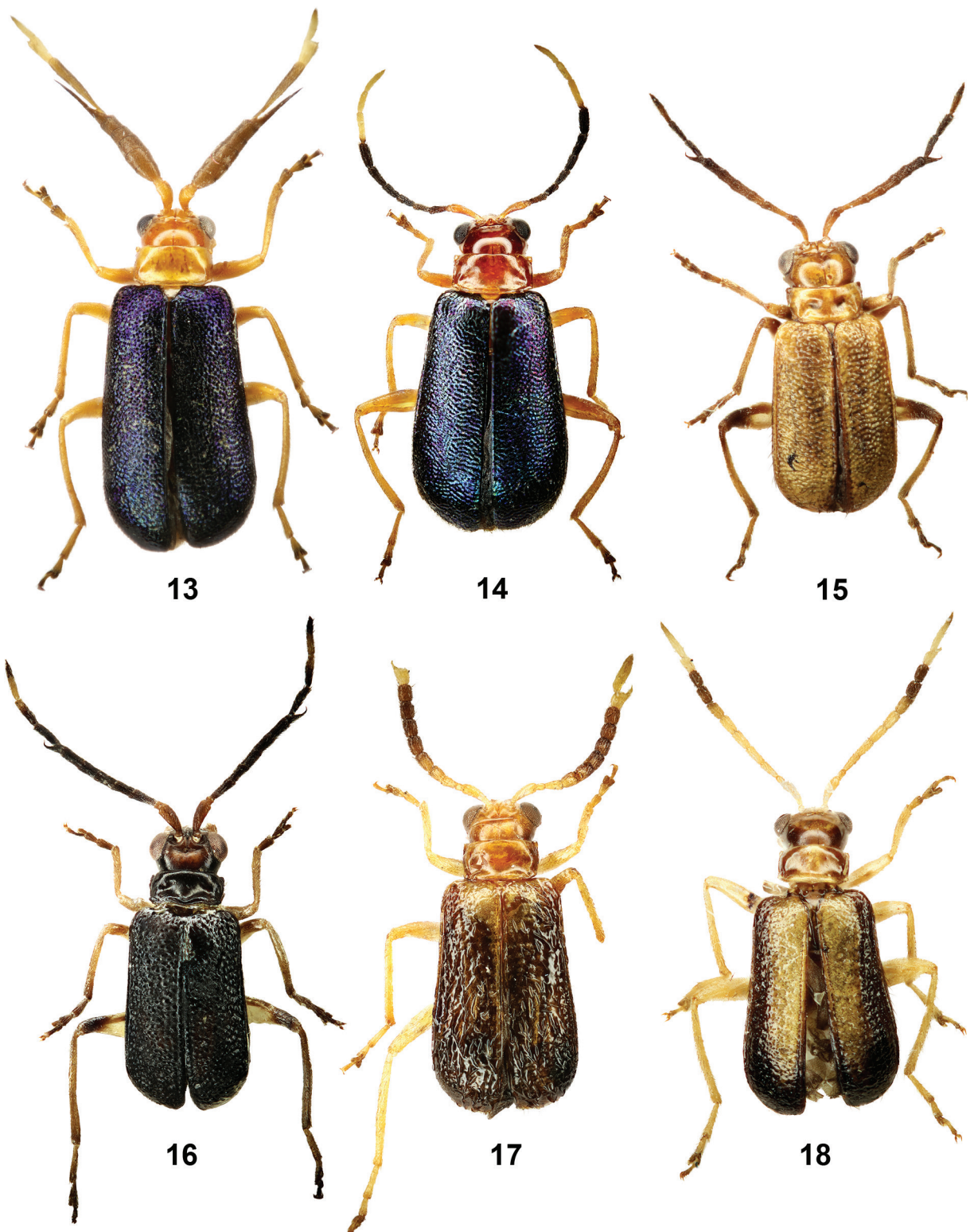
Paratypes: body length 3.7–4 mm (both specimens from Peninsular Malaysia somewhat larger, about 4 mm). All paratypes are similar to holotype, specimen from Fraser's Hill has slightly lighter head and legs.

Female unknown.

**Differential diagnosis.** *Xenoda merkli* **sp. n.** is similar to *X. brancuccii*, but differs in black body (except fulvous vertex) and in aedeagus with triangular apex (Figs 16, 111, 112) instead of fulvous body and aedeagus with narrow pointed apex (Figs 15, 109, 110) in the latter species.

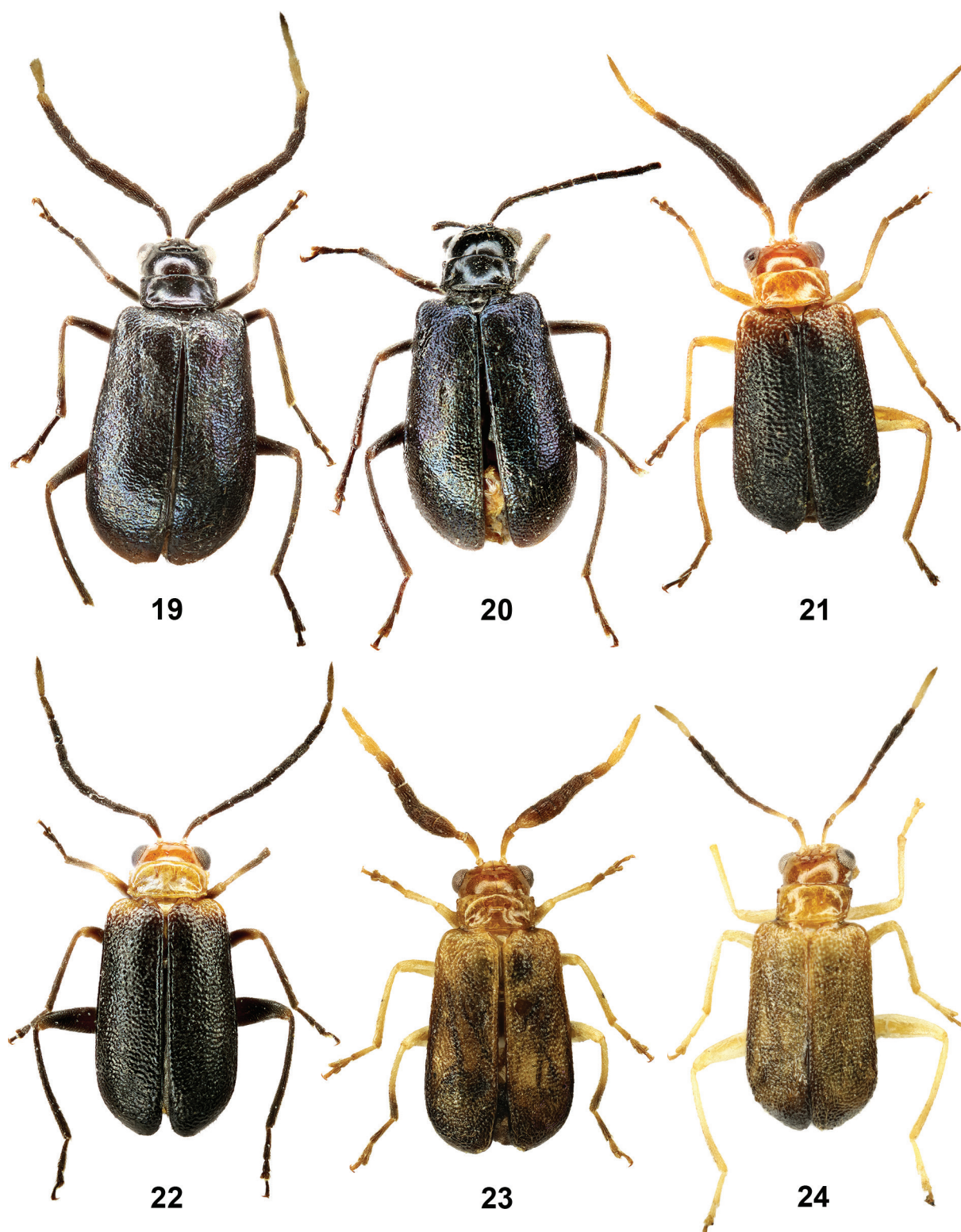
**Distribution.** Peninsular Malaysia, Borneo.

**Etymology.** The new species is named after Ottó Merkli who collected the holotype.



Figs 13–18. *Xenoda* s. str. (*Paraxenidea*, *Xenodania*), general view.  
 13–14 – *X. weyersi*: 13 – male, 14 – female; 15 – *X. brancuccii*, male, paratype; 16 – *X. merkli* **sp. n.**, male, holotype; 17 – *X. pseudovittata* **sp. n.**, male, holotype; 18 – *X. vittata*, male, paratype.  
 Рис. 13–18. *Xenoda* s. str. (*Paraxenidea*, *Xenodania*), общий вид.  
 13–14 – *X. weyersi*: 13 – самец, 14 – самка; 15 – *X. brancuccii*, самец, паратип; 16 – *X. merkli* **sp. n.**, самец, голотип; 17 – *X. pseudovittata* **sp. n.**, самец, голотип; 18 – *X. vittata*, самец, паратип.





Figs 19–24. *Xenoda* (*Xenodella*), general view.

19–20 – *X. abdominalis*: 19 – male, syntype, 20 – female, syntype; 21–22 – *X. pseudoabdominalis* **sp. n.**: 21 – male, holotype, 22 – female, paratype; 23–24 – *X. javanica* **sp. n.**: 23 – male, holotype, 24 – female, paratype.

Рис. 19–24. *Xenoda* (*Xenodella*), общий вид.

19–20 – *X. abdominalis*: 19 – самец, синтип, 20 – самка, синтип; 21–22 – *X. pseudoabdominalis* **sp. n.**: 21 – самец, голотип, 22 – самка, паратип; 23–24 – *X. javanica* **sp. n.**: 23 – самец, голотип, 24 – самка, паратип.

**Subgenus *Xenodania* L. Medvedev, 2004**

Type species of the subgenus (by original designation): *Xenoda vittata* L. Medvedev, 2004.

**Description.** Antennae without bulb, filiform, with antennomeres III and IV more than twice as long as wide, V and VI about twice as long as wide, VII–IX slightly thickened, about 1.5 times as long as wide, antennomere X with narrow curved spine on apical outer corner (Fig. 212). Surface of elytra without frequent wrinkles forming distinct ridges and sparse punctures between them.

**Notes.** Medvedev [2004] indicated in the description of the subgenus that antennomere VIII deep concave. The same is indicated in the species description of *X. vittata*. In fact, this indication is most likely based on the mistake. The paratype available to us and all other *Xenodania* specimens have normal antennomere VIII. Although the paratype we studied has little depression on segment VIII of right antenna, but this is clearly a consequence of the deformation.

This subgenus is very similar to the subgenus *Xenodina* numerous representatives of which have very diverse types of antennal structure (from simple to modified in varying degrees) and perhaps it is not a separate taxon.

**Key to the species of the subgenus**  
***Xenodania* L. Medvedev, 2004**

- 1(2). Elytra fulvous with black lateral stripe widened to apex (Fig. 18), middle antennomeres more elongate (about 1.8 times as long as wide). Aedeagus with truncate and slightly concave apex (Figs 115, 116). Body length 3.3–3.5 mm. Peninsular Malaysia, Borneo ..... *X. vittata*
- 2(1). Elytra fulvous without black lateral stripe (Fig. 17), middle antennomeres less elongate (about 1.2 times as long as wide). Aedeagus with pointed apex (Figs 113, 114). Body length 3.5–3.8 mm. Borneo ..... *X. pseudovittata* sp. n.

***Xenoda (Xenodania) pseudovittata* sp. n.**  
 (Figs 17, 113, 114, 237)

**Material.** Holotype, ♂ (NHM): "SARAWAK Mt. Dulit, R. Koyan 2,500 ft Primery forest, 18. XI. 1932", "Oxford Univ. Exp. B.M. Hobby A. W. Moore. B. M. 1933-254". Paratype: 1♀ (PR), "SARAWAK Mt. Dulit, 4,000 ft Moss forest, 19. X. 1932", "Oxford Univ. Exp. B.M. Hobby A. W. Moore. B. M. 1933-254".

**Description.** Male, holotype (Fig. 17). Length 3.8 mm, width 1.7 mm.

Body, antennae and legs fulvous, antennomeres VI–IX darkened (Fig. 17).

Head impunctate, labrum transverse with microsculpture; maxillary palpi with penultimate segment enlarged, apical segment very small, conical. Eyes convex, oval (1.25 times as long as wide), interocular space 1.55 times as wide as transverse diameter of eye. Anterior part of head and nasal keel slightly convex; frontal tubercles moderately large, convex, triangular with sharp apex, divided by rather deep median longitudinal impression and distinctly delimited posteriorly by narrow deep transverse impression. Vertex impunctate and convex, with fine longitudinal line in middle. Antennae reaching hind third of elytra, covered with thin sub-recumbent hairs. Antennomere I large, antennomere II very small, antennomere III conical, antennomeres IV–IX moderate enlarged, rectangular; antennomere X flattened with narrow

curved spine on apical outer corner; antennomere XI long and thin, pointed on apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 9 : 10 : 9 : 8 : 8 : 8 : 8 : 20; their proportions in width are as 8 : 5 : 6 : 6 : 6 : 6 : 6 : 4 : 4 : 3 (length of antennomere X is indicated without length of spine, length of latter – 6).

Pronotum transverse, 1.85 times as broad as long, surface impunctate with broad, transverse, impression (deeper on sides). Anterior margin slightly concave; lateral margins parallel in basal two-thirds, then expand and slightly emarginated before anterior angles; posterior margin almost straight. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, slightly prominent forward and laterally; posterior angles triangular, not prominent; lateral margin with one seta below anterior and one seta before hind angles.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate.

Elytra 1.65 times as long as wide, slightly broadest behind apical fourth, surface of elytra with not frequent wrinkles forming distinct ridges and with sparse small punctures between them, covered with not dense sub-recumbent hairs. Humeral calli developed.

Legs slender, tarsomere I of fore and middle legs not expanded, narrower than tarsomere III, proportions in length of protarsomeres I–IV are as 10 : 6 : 5 : 10; metatarsomere I long and narrow, approximately equal to length of remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 17 : 9 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 113, 114) wide on base, narrowed towards middle, further parallel-sided with narrow triangular apex, aedeagus length 1.25 mm.

Paratype, female. Body length 3.5 mm. Antennae filiform. Colouring like in holotype, but antennomere V and IX darkened, antennomeres VI–VIII almost black. Spermatheca as in Fig. 237, its length 0.25 mm.

**Differential diagnosis.** *Xenoda pseudovittata* sp. n. is similar to *X. vittata*, but differs in elytra without longitudinal black stripe and in shape of aedeagus with pointed apex (Figs 17, 113, 114). See also the key.

**Distribution.** Borneo (Sarawak).

**Etymology.** The species name refers to similarity with *X. vittata*.

***Xenoda (Xenodania) vittata* L. Medvedev, 2004**  
 (Figs 18, 115, 116)

*Xenoda vittata* L. Medvedev, 2004: 343; Bezděk, 2009: 101.

**Material.** 1♂, paratype (ZIN), "Malaysia, Benon Mts. 15 km E Kampong Dong, 700 m 3°53' N, 102°01' E 1.IV.1998, leg. Dembický & Pacholátko"; 1♂, 1♀, paratypes (JB), "MALAYSIA, Pahang distr., 30 km NE Raub, Lata Lembik 03°56' N, 101°38' E, 200-400m 22.iv.-15.v.2002 E. Jendek & O. Šauša leg."; 1♂ (NHM), "Doherty", "Perak G. B.", "Fry Coll. 1905. 100"; 1♂ (NHM), "SARAWAK: 4th Division Gn. Mulu NP", "nr. Base Camp 50-100m", "P.M. Hammond & J.E. Marshall v-viii. 1978 B.M. 1978-49".

**Notes.** The specimen from Borneo is slightly larger than ones from Peninsular Malaysia and has aedeagus with more sharply curved upwards hook-shaped tip. But I think insignificant differences between these specimens are within limits of variability.

**Distribution.** Peninsular Malaysia, Borneo (Sarawak), Thailand.

**Subgenus *Xenodella* Weise, 1922**

*Xenodella* Weise, 1922: 80; Weise, 1924: 133; Wilcox, 1973: 605; Seeno, Wilcox, 1982: 113.

Type species of the subgenus: *Xenoda abdominalis* Jacoby, 1896, designated by Wilcox, 1973: 605.

**Description.** Antennomeres III–VIII united in spindleform bulb thick at base and thinning towards apex without spine on antennomere VIII (as in Figs 215–217), elytra rugose with frequent wrinkles which not forming ridges or forming indistinct and very short ridges.

**Key to the species of the subgenus**  
***Xenodella* Weise, 1922**

- 1(2). Upperside pale fulvous to fulvous, middle antennomeres and distal part of hind tibia darkened (Figs 23, 24). Body length 3.2–3.5 mm. Java ..... *X. javanica* **sp. n.**
- 2(1). Elytra completely or mostly black with or without metallic luster. Antennae mostly black. Species from Sumatra and Peninsular Malaysia.
- 3(4). Head and pronotum black; antennae black with antennomeres IX–XI fulvous; legs mostly darkened, underside black with abdomen fulvous; elytra with violaceous metallic luster, elytral surface less rugose (Figs 19, 20). Body length 4.8–5 mm. Sumatra ..... *X. abdominalis*
- 4(3). Head and pronotum fulvous. Elytra without metallic luster, elytral surface more rugose.
- 5(6). Elytra black with narrow fulvous base (Figs 21, 22). Antennae black with two basal antennomeres and two or three apical antennomeres fulvous; legs fulvous, sometimes with partly darkened tibiae and tarsi. Underside fulvous. Aedeagus with triangular apex (Figs 123, 124). Body length 3.5–4 mm. Sumatra ..... *X. pseudoabdominalis* **sp. n.**
- 6(5). Elytra entirely black (Fig. 25). Antennae black with two apical antennomeres fulvous but strongly darkened. Fore legs fulvous with apical part of tibiae and tarsi darkened, middle legs darkened with apical half of femora and apical part of tibiae fulvous, hind legs almost completely darkened. Underside fulvous with mesothorax, metathorax and abdomen black. Aedeagus with roundly truncated apex (Figs 119, 120). Body length 3.9–4 mm. Peninsular Malaysia ..... *X. bezdeki* **sp. n.**

*Xenoda (Xenodella) abdominalis* Jacoby, 1896  
(Figs 19, 20, 117, 118, 238)

*Xenoda abdominalis* Jacoby, 1896a: 472; Weise, 1924: 133; Wilcox, 1973: 606; Kimoto, 1990: 236.

**Material.** 1♀, syntype (NHM), "Type H. T." (circle label with red border), "Sumatra Si-Rambe XII.90-III.91 E. Modigliani", "Teste Jacoby", "Jacoby Coll. 1909-28a", "Xenoda abdominalis Jac." (b., h.); 1♂, syntype (NHM), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani", "Teste Jacoby", "Xenoda abdominalis Jac." (h.); 1♂, syntype (NHM), "Sumatra Si-Rambe XII. 90-III.91 E. Modigliani".

**Distribution.** Indonesia (Sumatra).

*Xenoda (Xenodella) bezdeki* **sp. n.**  
(Figs 25, 119, 120)

**Material.** Holotype, ♂ (NMPC): "Malaysia, Perak Cameron Highlands Batu [= Mile] 19 vill. env. 04°22.2' N, 101°20.0' E, 590 m Jiří Hájek leg., 5-15.V.2009". Paratypes: 3♂ (NMPC, PR), same data as in holotype.

**Description.** Male, holotype (Fig. 25). Length 3.9 mm, width 1.8 mm.

Head and pronotum fulvous. Elytra entirely black. Antennae black with two apical antennomeres fulvous but strongly darkened. Fore legs fulvous with apical part of tibiae and tarsi darkened, middle legs darkened with apical half of femora and apical part of tibiae fulvous, hind legs almost completely darkened. Underside fulvous with mesothorax, metathorax and abdomen black.

Head impunctate, labrum transverse 1.75 times as wide as long, anterior margin with wide excavation, surface convex covered with fine microsculpture and with several setae; maxillary palpi with penultimate segment enlarged, apical segment very small, conical. Eyes convex, oval (1.28 times as long as wide), interocular space 1.57 times as wide as transverse diameter of eye. Anterior part of head weakly convex; nasal keel wide and weakly convex; frontal tubercles rather large and slightly convex, triangular with sharp apex, divided by deep median longitudinal impression and delimited posteriorly by straight shallow impression. Vertex impunctate and convex with shallow depression before frontal tubercles, surface covered with very fine microsculpture. Antennae reaching hind third of elytra, densely covered with short, thin, sub-recumbent hairs. Antennomere I slightly curved; antennomere II small; antennomeres III–VIII united in spindleform bulb thick at base and narrowed towards apex; antennomere X slightly flattened with elongate pore in apical part; antennomere XI long and thin, pointed on apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 14 : 10 : 9 : 8 : 9 : 8 : 12 : 14 : 23; their proportions in width are as 6 : 4 : 9 : 9 : 9 : 8 : 8 : 7 : 7 : 5 : 3.

Pronotum transverse, 2 times as broad as long, widest at level of anterior angles; surface impunctate with broad transverse impression weakened in middle and deepened on sides in form of wide grooves directed towards posterior angles. Anterior margin slightly concave; lateral margins almost straight; posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, not prominent; posterior angles triangular, slightly prominent laterally; each angle with one long seta, two additional setae visible on lateral margin.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate.

Elytra 1.72 times as long as wide, slightly broadest behind apical fourth, surface of elytra rugose with frequent wrinkles and distinct microsculpture among them, rather densely covered with short, sub-recumbent, dark hairs. Humeral calli well developed.

Legs slender, tarsomere I of fore legs narrower than tarsomere III, proportions in length of protarsomeres I–IV are as 8 : 6 : 5 : 12; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 15 : 7 : 5 : 10. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 119, 120) short and thin with roundly truncated apex, curved in lateral view, aedeagus length 0.75 mm.

Paratypes, males: colouration and morphology like in holotype, length 3.9–4 mm.

Female unknown.

**Differential diagnosis.** This new species is similar to *X. pseudoabdominalis* **sp. n.** from Sumatra but differs in entirely black elytra, black underside (except prothorax) and in aedeagus with roundly truncated apex (Figs 25, 119, 120). See also the key.

**Distribution.** Peninsular Malaysia.

**Etymology.** The name of this new species is dedicated to Jan Bezděk, a well known specialist in Chrysomelidae, who provided me the type series.

*Xenoda (Xenodella) pseudoabdominalis* **sp. n.**  
(Figs 21, 22, 123, 124, 239)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra II., West Sumatra Prov, 16 km W Bukittinggi Maninjau Lake, h~695-790 m, S 0°16'18",



E 100°14'00" S 0°16'22", E 100°14'11" 13.II.2018 P. Romantsov leg.; Paratypes: 1♀ (PR), same data as in holotype; 2♀ (PR), "Indonesien, Sumatra Il., West Sumatra Prov, 16 km W Bukittinggi Maninjau Lake, h~527-610 m, S 0°17'08", E 100°13'46" S 0°17'07", E 100°13'55" 11.II.2018 P. Romantsov leg.; 1♀ (PR), same data, but "12.II.2018"; 1♀ (NHM), same data, but "Prosvirov leg."; 1♂, 3♀ (ZIN), "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.; 4.-18. III. 2003".

**Description.** Male, holotype (Fig. 21). Length 3.7 mm, width 1.7 mm.

Body fulvous; antennae black with two basal and two apical antennomeres fulvous; legs fulvous with partly darkened tarsi; elytra black with fulvous base, narrower near scutellum and wider in humeral tubercles area.

Head impunctate, labrum transverse 1.5 times as wide as long, with several setae; maxillary palpi with penultimate segment enlarged, apical segment very small, conical. Eyes convex, oval (1.28 times as long as wide), interocular space 1.43 times as wide as transverse diameter of eye. Anterior part of head and nasal keel weakly convex; frontal tubercles convex, narrowly triangular with sharp apex, divided by median longitudinal impression and distinctly delimited posteriorly by narrow deep arcuate impression. Vertex impunctate and convex with very fine longitudinal line in middle. Antennae reaching hind quarter of elytra, densely covered with thin sub-recumbent hairs. Antennomere I long and slightly curved; antennomere II very small; antennomeres III–VIII united in spindleform bulb thick at base and thinning towards apex; antennomere X elongate; antennomere XI long and thin, pointed on apex. Proportions in length of antennomeres I–XI are as 16 : 3 : 14 : 10 : 9 : 8 : 8 : 10 : 14 : 15 : 23; their proportions in width are as 6 : 4 : 10 : 10 : 10 : 8 : 8 : 6 : 5 : 5 : 3.

Pronotum transverse, 2 times as broad as long, widest at level of anterior angles; surface impunctate with broad transverse impression deeper on sides in form of grooves bent towards basal margin of pronotum. Anterior margin concave; lateral margins almost straight; posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, not prominent; posterior angles triangular, prominent laterally; each angle with one long seta.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate.

Elytra 1.6 times as long as wide, slightly broadest behind apical fourth, elytral surface with frequent wrinkles, rather densely covered with pretty short sub-recumbent hairs. Humeral calli well developed.

Legs slender, tarsomere I of fore and middle legs not expanded, narrower than tarsomere III, proportions in length of protarsomeres I–IV are as 8 : 6 : 4 : 8; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 16 : 7 : 5 : 11. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 123, 124) short and thin, curved in lateral view, its length 0.65 mm.

Paratypes. Male: colouration and morphology like in holotype, length 4 mm. Females: antennae filiform, colouration like in holotype, but one specimen has legs strongly darkened (Fig. 22), body length 3.5–4 mm. Spermatheca as in Fig. 239, its length 0.25 mm.

**Differential diagnosis.** This new species, having antennomeres III–VII thickened and united in ovate bulb belongs to the subgenus *Xenodella*. *Xenoda pseudoabdominalis* sp. n. differs from *X. abdominalis* (another species of this subgenus also having darkened elytra) in smaller size and in colouration with two basal antennomeres, pronotum, base of elytra and legs (sometimes legs can be partly darkened) fulvous (Figs 21, 22, 123, 124). See also the key.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to similarity with *X. abdominalis*.

*Xenoda (Xenodella) javanica* sp. n.  
(Figs 23, 24, 121, 122, 236)

**Material.** Holotype, ♂ (ZIN): "Java (E) Trawas E slope Gn Penanggungan 6-9 May 2001 Bolm lgt., 1000 m". Paratypes: 6♂, 7♀ (ZIN, PR, NHM, JB), same data as in holotype.

**Description.** Male, holotype (Fig. 23). Length 3.4 mm, width 1.5 mm.

Head brown, pronotum fulvous; elytra brown, somewhat lighter near base and humeral calli. Antennae fulvous with apical part of antennomere I and antennomeres III–IX darkened. Legs fulvous with partly darkened tibiae and tarsi. Underside fulvous with darkened metathorax.

Head impunctate, labrum transverse 1.5 times as wide as long with deep concave anterior margin and several setae on smooth and shining surface; maxillary palpi with penultimate segment enlarged, apical segment very small and narrow with sharp tip. Eyes convex, oval (1.36 times as long as wide), interocular space 1.8 times as wide as transverse diameter of eye. Anterior part of head and nasal keel weakly convex; frontal tubercles moderately convex, narrow triangular with sharp apex, divided by thin longitudinal impression and delimited posteriorly by narrow deep arcuate impression. Vertex convex and impunctate with very fine longitudinal line in middle. Antennae reaching third quarter of elytra, sparsely covered with short sub-recumbent hairs. Antennomere I slightly flattened and curved, widened towards apex; antennomere II small; antennomeres III–VIII united in spindleform bulb thick at base and narrowed towards apex; antennomere IX and X thick; antennomere XI long and thin, pointed on apex. Proportions in length of antennomeres I–XI are as 13 : 3 : 13 : 8 : 8 : 5 : 8 : 6 : 9 : 10 : 15; their proportions in width are as 5 : 4 : 10 : 10 : 9 : 8 : 7 : 6 : 5 : 5 : 3.

Pronotum transverse, 1.9 times as broad as long, widest at level of anterior angles; surface impunctate with broad transverse impression, which deeper on sides. Anterior margin concave; lateral margins almost straight; posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, not prominent; posterior angles triangular, slightly prominent laterally; lateral margin with four short setae.

Scutellum triangular with rounded apex, 1.4 times as wide as long; surface shining and impunctate.

Elytra 1.6 times as long as wide, slightly broadest behind apical fourth, surface of elytra rugose with frequent wrinkles, rather densely covered with rather short sub-recumbent hairs. Humeral calli developed.

Legs slender, tarsomere I of fore and middle legs not expanded, narrower than tarsomere III, proportions in length of protarsomeres I–IV are as 8 : 6 : 3 : 6; metatarsomere I narrow, approximately equal to length of remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 15 : 6 : 3 : 8. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 121, 122) short and thin, wide in basal three quarters and narrowed before elongate triangular apex, aedeagus length 0.65 mm.

Paratypes. Males are similar to holotype, body length 3.2–3.5 mm. Female: antennae filiform with only two last antennomeres fulvous (Fig. 24); body colouration in several specimens slightly lighter than in males; body length 3.5–3.8 mm. Spermatheca as in Fig. 236, spermatheca length 0.17 mm.

**Differential diagnosis.** This new species, having antennomeres III–VII thickened and united in ovate bulb, belongs to the subgenus *Xenodella*. *Xenoda javanica* sp. n.

differs from other species of this subgenus in its smallest size (less 3.8 mm) and in entirely fulvous elytra (Figs 23, 24, 121, 122).

**Distribution.** Indonesia (Java).

**Etymology.** The name of the new species refers to Java Island where the holotype and paratypes have been collected.

#### *Trichoxenoda* subgen. n.

Type species of the subgenus: *Xenoda parvula* Jacoby, 1899.

**Description.** Elytral surface granulose with dense punctures and convex narrow interstices, not forming ridges; densely covered with short recumbent hairs. Antennomere VIII in most species (except *X. simplex* sp. n. having filiform antennae) enlarged, bulb-shaped without spine. The same character (but less pronounced) is also peculiar to females. Aedeagus flattened and thin with the tip more or less bent down.

**Differential diagnosis.** *Trichoxenoda* subgen. n. differs from other subgenera in granulose and densely pubescent elytral surface without ridges in all species of this subgenus and in structure of antennae with enlarged antennomere VIII in most species. In my opinion *X. simplex* sp. n. having elytral surface and shape of aedeagus like other members of the subgenus but filiform antennae is the most primitive in this subgenus and connecting link between subgenera *Trichoxenoda* subgen. n. and *Xenodina*.

#### Key to the species of the subgenus *Trichoxenoda* subgen. n.

- 1(2). Antennae filiform, almost reaching apex of elytra, antennomere VIII not wider than previous one. Elytra fulvous with black apical third (Fig. 31). Underside fulvous with meso-, metathorax and abdomen black. Body length 3.3–3.6 mm. Borneo ..... *X. simplex* sp. n.
- 2(1). Antennae not reaching apex of elytra (like in Figs 213, 214), with elongated and thickened antennomere VIII (1.4–2 times wider than previous one).
- 3(4). Antennomere VIII 1.4–1.5 times wider than previous one, antennomere XI inserted apically on antennomere X (Fig. 214). Antennae black with one or two basal antennomeres dark fulvous and two last antennomeres fulvous. Pronotum fulvous, elytra black except fulvous base, legs fulvous with black tibiae and tarsi (Figs 35, 36). Body length 3–3.5 mm in males, 4.2 mm in females. Peninsular Malaysia ..... *X. perakensis* sp. n.
- 4(3). Antennomere VIII about 2 times wider than previous one, antennomere XI inserted subapically on antennomere X (like in Fig. 213).
- 5(6). Antennomere XI slightly inserted subapically on antennomere X. Colouration is changeable: elytra entirely fulvous (Figs 32, 34) or elytra more or less blackish (sometimes elytra black with narrow fulvous base as in Fig. 33). Body length 3.6–4 mm. Sumatra .... *X. parvula*

6(7). Antennomere XI strongly inserted subapically on antennomere X (Figs 256, 257). Two uncertain species from Borneo (key for identification of these two species is given after Mohamedsaid [2001], see also remarks in the text below).

7(8). Elytra yellowish, with apical one-third black, legs black (Fig. 29). Eyes small, with interocular space twice as broad as the transverse diameter of each eye. Antennomere X 3 times as broad as antennomere XI, the latter one-half as long as the former (Figs 267–269). Body length 4–4.2 mm ..... *X. lapan*

8(7). Elytra entirely black. Legs brownish, with tibiae and tarsi black. Eyes large, with interocular space 1.2 times as broad as the transverse diameter of each eye. Antennomere X slightly broader than antennomere XI, the latter as long as the former (Figs 264–266). Body length 3.5–4.2 mm ..... *X. hitam*

*Xenoda (Trichoxenoda) hitam* Mohamedsaid, 2001  
(Figs 264–266)

*Xenoda (Xenodella) hitam* Mohamedsaid, 2001: 19, 30; Mohamedsaid, 2004: 118 (UKM).

**Notes.** See remarks to *X. lapan* and *X. parvula*.

**Distribution.** Malaysia (Sarawak).

*Xenoda (Trichoxenoda) lapan* Mohamedsaid, 2001  
(Figs 27–29, 125, 126, 234, 267–269)

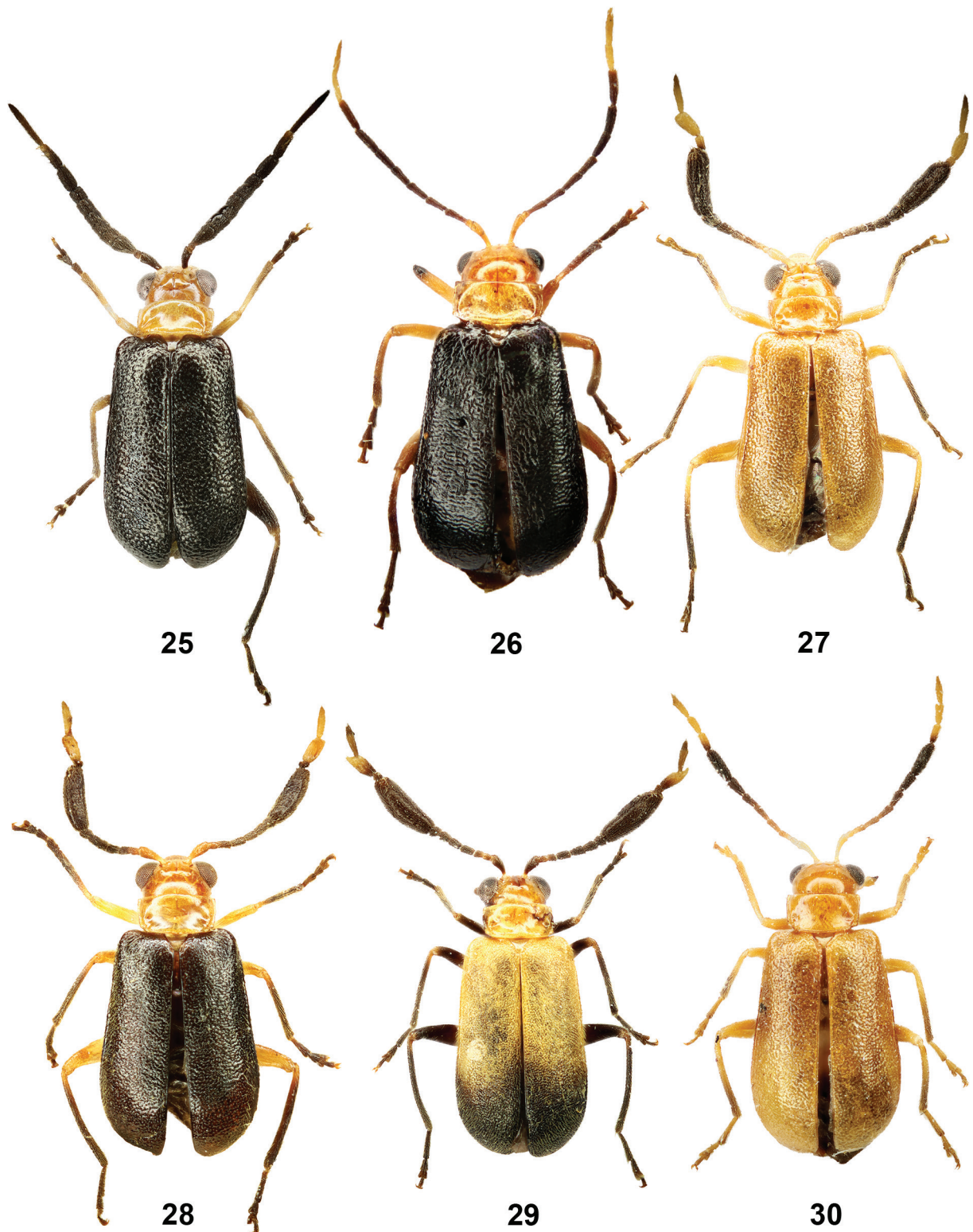
*Xenoda (Xenodella) lapan* Mohamedsaid, 2001: 19, 28; Mohamedsaid, 2004: 118 (UKM).

**Material.** 1♂ (NHM), "Quop, W. Sarawak G. E. Bryant III. 1914", "Bryant Coll. 1919-147"; 1♂ (ZIN), "Borneo, Sabah Batu Punggul Resort 24.VI.1996 leg. J. KODADA"; 3♂, 1♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5" 17-27.III.2012 P. Romantsov leg"; 1♂ (PR), same data, but "7. IV. 2013"; 1♂ (PR), same data, but "27. II. 2014"; 2♂, 1♀ (PR), "MALAYSIA, S Borneo, Sabah, Nabawan dist., h~370 m ~7 km N Pensiangan vill., near river, the daytime N 04°34'54", E 116°20'11" 2.III.2014 P. Romantsov leg"; 1♂ (PR), same data, but "5.III.2014"; 1♂ (PR), "MALAYSIA, S Borneo, Sabah, Nabawan dist., h~370-530m ~7 km N Pensiangan vill., the daytime N 04°34'54", E 116°20'11" N 04°35'16", E 116°19'27" 4.III.2014 P. Romantsov leg."

**Notes.** Most of examined specimens from Borneo have elytral colouration with apical one-third black (Fig. 29), but one specimen has entirely yellow (Fig. 27) and the other entirely black elytra (Fig. 28).

All these specimens have interocular space about 1.2–1.3 times as broad as transverse diameter of eye and approximately equal lengths of antennomeres X and XI. In other words they have characters of both *X. lapan* and *X. hitam*. In addition, there are not distinct differences between these species and *X. parvula*. Mohamedsaid [2001] indicated that *X. parvula* differs from *X. lapan* in having elytra entirely yellowish and in the antennomere X cylindrical, as broad as the antennomere IX. Really, *X. parvula* is very variable in elytral colouration which can be from entirely fulvous till almost black (see also remark to *X. parvula*) and has the antennomere X about 1.5 times wider than the antennomere IX. It should also be pointed that *X. parvula* and all examined Bornean specimens have very similar aedeagus shape. Possibly all these three species are identical. I believe it is necessary to study more material (including the type material of species described



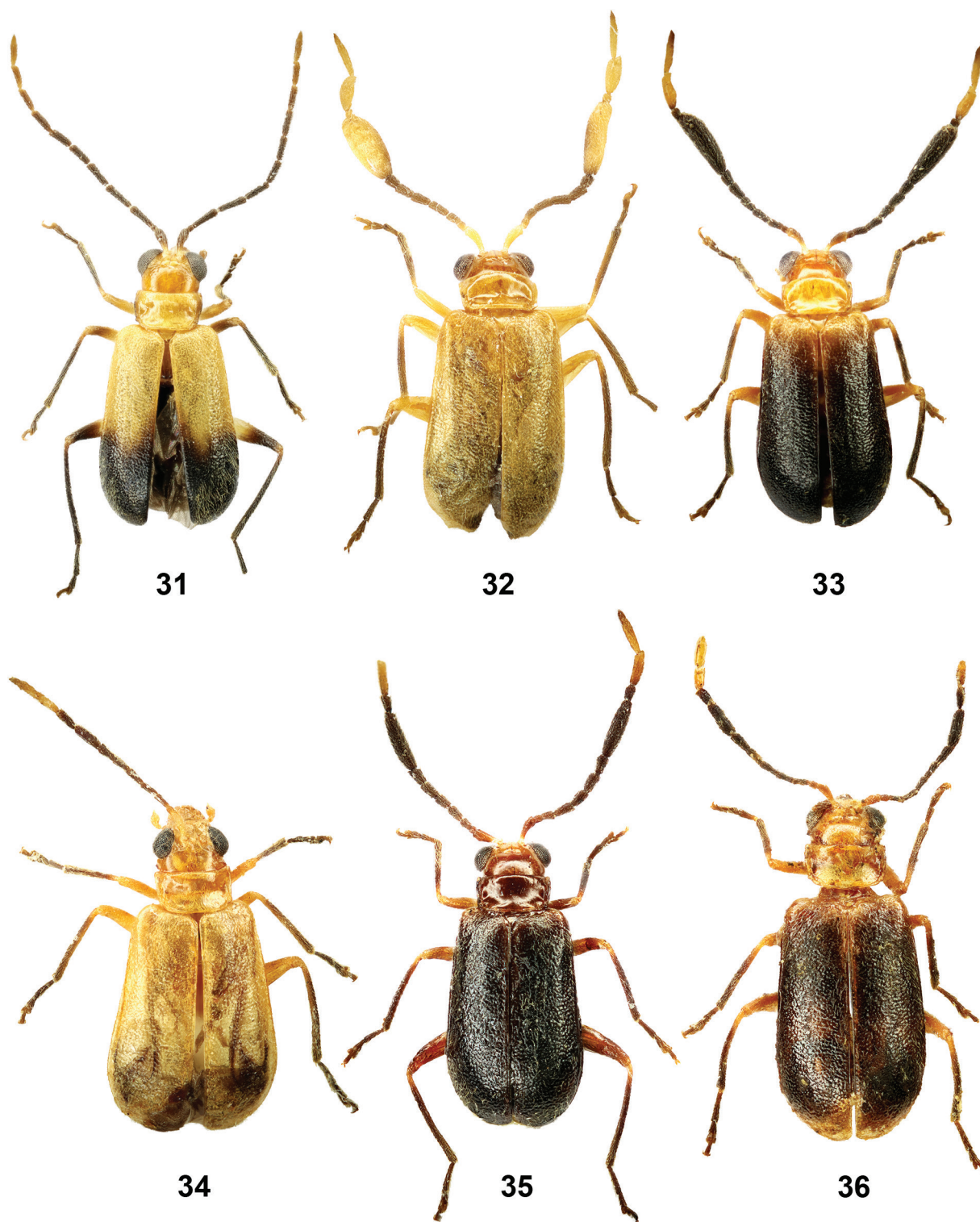


Figs 25–30. *Xenoda* (*Xenodella*, *Trichoxenoda* **subgen. n.**), general view.

25 – *X. bezdeki*, male, holotype; 26 – *X. modigliani*, female, syntype; 27–30 – *X. lapan* (Borneo): 27–29 – males, 30 – female.

Рис. 25–30. *Xenoda* (*Xenodella*, *Trichoxenoda* **subgen. n.**), общий вид.

25 – *X. bezdeki*, самец, голотип; 26 – *X. modigliani*, самка, синтип; 27–30 – *X. lapan* (Борнео): 27–29 – самцы, 30 – самка.



Figs 31–36. *Xenoda* (*Trichoxenoda* **subgen. n.**), general view.

31 – *X. simplex* **sp. n.**, male, holotype; 32–34 – *X. parvula*: 32–33 – males, 34 – female, syntype; 35–36 – *X. perakensis* **sp. n.**: 35 – male, holotype, 36 – female, paratype.

Рис. 31–36. *Xenoda* (*Trichoxenoda* **gen. n.**), общий вид.

31 – *X. simplex* **sp. n.**, самец, голотип; 32–34 – *X. parvula*: 32–33 – самцы, 34 – самка, синтип; 35–36 – *X. perakensis* **sp. n.**: 35 – самец, голотип, 36 – самка, паратип.

by Mohamedsaid) for the detail knowledge of this species group.

**Distribution.** Malaysia (Sabah).

*Xenoda (Trichoxenoda) parvula* Jacoby, 1899  
(Figs 32–34, 127, 128, 232, 233)

*Xenoda parvula* Jacoby, 1899: 288; Weise, 1924: 133 (in the subgenus *Xenodella*); Wilcox, 1973: 606; Kimoto, 1990: 236; Mohamedsaid, 2001: 34.

**Material.** 1♀, syntype (NHM), "Type H. T" (circle label with red border), "Soekaranda Januar 1894 Dohrn", "Jacoby Coll. 1909-28a", "*Xenoda parvula* Jac." (b., h.); 11♂, 4♀ (ZIN), "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.; 4.-18. III. 2003"; 1♂ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~357-400 m, N 03°40'56", E 097°39'11" N 03°41'04", E 097°39'01" 19-20. III. 2017 P. Romantsov leg."; 1♂, 1♀ (PR), same data, but "2. IV. 2017"; 1♂ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-240m, N 03°32'52", E 098°07'27" N 03°33'16", E 098°06'21" 26.I.2018 P. Romantsov leg."; 2♂ (PR), same data, but "27.I.2018"; 1♂ (PR), same data, but "28.I.2018"; 1♀ (PR), same data, but "29.I.2018"; 2♂ (PR), same data, but "30.I.2018"; 1♀ (PR), "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi, 6 km SWW Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 9.II.2018 P. Romantsov leg."; 1♀ (PR), same data, but "Galinskaya leg."; 1♀ (PR), same data, but "10.II.2018 P. Romantsov leg."

**Notes.** In original description it is described as species with entirely fulvous body, darkened middle antennomeres and black tibiae and tarsi. Actually this species is very variable in elytral colouration: entirely fulvous, fulvous with black apical half or almost completely black except fulvous base. It should be noted that this variability is a characteristic of males, all females examined have elytra entirely fulvous.

**Distribution.** Indonesia (Sumatra).

*Xenoda (Trichoxenoda) perakensis* sp. n.  
(Figs 35, 36, 129, 130, 214, 235)

**Material.** Holotype, ♂ (NHM): "Doherty", "Perak L. C.", "Fry Coll. 1905. 100". Paratypes: 5♂ (NHM, PR), same data as in holotype; 1♂, 1♀ (NHM), "FED. MALAY STATES: 1909. C.J. Brooks. B.M. 1931-570".

**Description.** Male, holotype (Fig. 35). Length 3.5 mm, width 1.5 mm.

Head fulvous, pronotum dark fulvous and elytra pitchy fulvous with slightly lighter base. Antennae black with two basal antennomeres dark fulvous and two apical antennomeres fulvous. Legs fulvous with strongly darkened tibiae and tarsi. Underside fulvous with metathorax and abdomen dark fulvous.

Head impunctate, labrum 1.5 times as long as wide with almost straight anterior margin, its surface smooth and shining with several setae; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes large and very convex, oval (1.3 times as long as wide), interocular space narrow, approximately equal to transverse diameter of eye. Anterior part of head and nasal keel weakly convex; frontal tubercles wide, moderately convex, triangular with sharp apex, divided by thin longitudinal impression and delimited posteriorly by short straight impression. Vertex convex and impunctate, longitudinal line in middle weakly expressed and barely visible. Antennae (Fig. 214) slightly shorter than body length, rather densely covered with short sub-recumbent hairs. Antennomere I widened towards apex; antennomeres II–IV almost cylindrical; antennomeres IV–VII slightly widened towards apex; antennomere VIII moderately thickened and elongated, bulb-shaped; antennomeres IX and X almost cylindrical; antennomere XI lanceolate. Proportions in length of antennomeres I–XI are as 14 : 4 : 6 : 9 : 8 : 9 : 8 : 29 : 8 : 15 : 20; their proportions in width are as 5 : 3 : 4 : 5 : 5 : 5 : 7 : 4 : 5 : 5 : 5.

Pronotum transverse, 2 times as broad as long, widest at anterior third; surface impunctate with broad transverse impression weakened in middle and deepened on sides. Anterior margin shallowly concave; lateral margins almost straight; posterior margin almost straight in middle part and rounded on sides. Anterior margin unborded, lateral and basal margins bordered. Anterior and posterior angles triangular, not prominent; all angles with setigerous pores bearing long pale seta, additional two short seta visible on lateral margins.

Scutellum triangular, 1.2 times as wide as long; surface impunctate but with microsculpture.

Elytra 1.7 times as long as wide, slightly widened in apical third, surface of elytra granulose with dense punctures and convex narrow interstices, not forming ridges; densely covered with short recumbent light hairs. Humeral calli well developed.

Legs slender, tarsomere I of fore and middle legs not expanded, narrower than tarsomere III; proportions in length of protarsomeres I–IV are as 8 : 5 : 3 : 7; metatarsomere I narrow, approximately equal to remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 14 : 6 : 5 : 7. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 129, 130) flattened and thin with bent down tip, aedeagus length 1.15 mm.

Paratypes: males are similar to holotype, body length 3–3.8 mm. Female (Fig. 36) is similar to males but has antennomere VIII although thickened like in males but less elongated (1.7 times longer than antennomere VII instead of 3.6 times in males), body length 4.3 mm. Spermatheca as in Fig. 235, spermatheca length 0.25 mm.

**Differential diagnosis.** This new species differs from other *Trichoxenoda* species with modified antennae in less thickened antennomere VIII (Fig. 214). See also the key.

**Distribution.** Peninsular Malaysia.

**Etymology.** The species name refers to Malaysian state Perak where the holotype of this new species has been collected.

*Xenoda (Trichoxenoda) simplex* sp. n.  
(Figs 31, 131, 132)

**Material.** Holotype, ♂ (PR): "MALAYSIA, S Borneo, Sabah, Nabawan dist., h~370m, ~7 km N Pensiangan vill., near river, the daytime, N 04°34'54", E 116°20'11" 05.III.2014 P. Romantsov leg". Paratype: 1♂ (PR), "MALAYSIA, S Borneo, Sabah, Nabawan dist., ~7 km N Pensiangan vill., h~530m N 04°35'16", E 16°19'27" 04.III.2014 P. Romantsov leg".

**Description.** Male, holotype (Fig. 31). Length 3.3 mm, width 1.5 mm.

Head (except darkened labrum) and pronotum fulvous; elytra fulvous in basal half and black in apical third with darkened transitional area between them. Antennae black with three lightened apical antennomeres. Legs black with fulvous fore and middle femora (except apex) as well as basal two-thirds of hind femora. Underside fulvous with darkened propleurae and black metathorax and abdomen.

Head impunctate, labrum 1.2 times as wide as long with almost straight anterior margin and several setae along anterior and posterior margins, its surface smooth and shining; maxillary palpi with penultimate segment enlarged, apical segment very small and narrow with sharp tip. Eyes large and very convex, oval (1.33 times as long as wide), interocular space narrow, approximately equal to transverse diameter of eye. Anterior part of head and nasal keel weakly convex; frontal tubercles small, moderately convex, triangular with sharp apex, divided by longitudinal impression and delimited posteriorly by short arcuate impression. Vertex convex and impunctate, longitudinal line in middle weakly expressed and barely visible. Antennae filiform and long, almost reaching apex of elytra; rather densely covered with short sub-recumbent hairs.



Proportions in length of antennomeres I–XI are as 12 : 3 : 17 : 15 : 13 : 11 : 11 : 12 : 11 : 10 : 14; their proportions in width are as 5 : 3 : 4 : 4 : 4 : 4 : 4 : 4 : 3 : 3 : 3.

Pronotum transverse, 1.95 times as broad as long, widest at anterior third; surface impunctate with broad transverse impression weakened in middle and deepened on sides. Anterior margin shallowly concave; lateral margins almost straight in basal third and rounded in apical two-thirds; posterior margin almost straight in middle part and rounded on sides. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, not prominent; posterior angles triangular, distinctly prominent laterally; all angles with setigerous pores bearing long pale seta, additional two short seta visible on lateral margins.

Scutellum triangular, 1.35 times as wide as long; surface shining and impunctate with very short, barely visible hairs.

Elytra 1.78 times as long as wide, very slightly widened in apical quarter, surface of elytra granulose with dense punctures and convex narrow interstices, not forming ridges; densely covered with short recumbent hairs. Humeral calli developed.

Legs slender, tarsomere I of fore and middle legs not expanded, narrower than tarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 3 : 6; metatarsomere I narrow, 1.2 times longer than remaining tarsomeres combined, proportions in length of metatarsomeres I–IV are as 18 : 6 : 4 : 7. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 131, 132) flattened and thin with bent down tip, aedeagus length 0.95 mm.

Paratype: male is similar to holotype, body length 3.6 mm.

Female unknown.

**Differential diagnosis.** This species stands out from other subgenus members. Although *X. simplex* sp. n. has simple, not bulb-shaped antennomere VIII, I included this species to the subgenus *Trichoxenoda* subgen. n. because *X. simplex* sp. n. has elytral surface and shape of aedeagus similar to other members of the subgenus (Figs 31, 131, 132). In the same time, its filiform antennae suggest that this species is the most primitive species of this subgenus and connecting link between subgenera *Trichoxenoda* subgen. n. and *Xenodina*.

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to simple, not modified antennae.

#### Subgenus *Xenodina* L. Medvedev, 2004

Type species of the subgenus (by original designation): *Xenoda fulva* L. Medvedev, 2004.

**Description.** Antennae filiform (like in Figs 218, 221, 222) or with antennomeres III–X moderately thickened (like in Figs 219, 220, 223–227), antennomeres VIII–X (one of them or several ones) often modified (with groove, pore or with wide apical process but always without long spines and never united in bulb). Elytral surface sparsely covered with long semi-erect hairs; rugose with not frequent wrinkles usually forming distinct ridges; sometimes with impressions or tubercles.

#### Key to the species of the subgenus *Xenodina* L. Medvedev, 2004

1(6). Elytra entirely or partly metallic-coloured.

2(3). Elytra blue with fulvous base (Figs 81, 82). Aedeagus with narrow pointed apex (Figs 202, 203). Body length 3.5–3.9 mm. Sumatra ..... *X. subcyanipennis* sp. n.

3(2). Elytra entirely metallic-coloured. Aedeagus with widely triangular apex.

4(5). Elytra blue, less rugose with more fine punctuation and weakly convex interstices (Figs 48–50). Aedeagus with small teeth on sides of apex in lateral view (Figs 152, 153). Body length 3.4–4.1 mm. Malay Peninsula ..... *X. cyanipennis*

5(4). Elytra green or blue, strongly rugose with deep coarse punctuation and convex interstices (Figs 67, 68, 209). Aedeagus without teeth on sides of apex in lateral view (Figs 186, 187). Body length 3.5–4.1 mm. Sumatra ..... *X. metallipennis* sp. n.

6(1). Elytra not metallic-coloured (*X. filimonovi* sp. n. with weak metallic shine in black part of elytra).

7(16). Surface of elytra uneven with impressions or tubercles.

8(9). Larger (body length 4.5–5.3 mm). Surface of elytra without impressions but with two tubercles: one high black near suture, the other feeble, same colour as elytra, near side margin (Fig. 84). Borneo ..... *X. tuberculata*

9(8). Smaller (body length less 4.5 mm), surface of elytra with impressions but without distinctly elevated tubercles (sometimes with gently elevated humps).

10(11). Antennae with strongly thickened antennomeres III and IV (2 and 1.75 times wider than antennomere I) and excavated antennomere IX. Body as in Fig. 60; body length 3.9 mm. Borneo ..... *X. inaequalipennis* sp. n.

11(10). Antennae with weakly thickened antennomeres III and IV (same width or slightly wider than antennomere I).

12(13). Body wider (1.8 times as long as wide). Antennomere X with process on outer side. Body length 3.6 mm. Elytra dark fulvous with apical part fulvous (Fig. 59). Borneo ..... *X. impressipennis* sp. n.

13(12). Body narrower (2–2.2 times as long as wide). Antennomere X without process on outer side. Elytra fulvous with black pattern.

14(15). Antennomeres VIII–X elongate, not modified. Body (Fig. 58) less elongate (2 times as long as wide), body length 3.1–3.3 mm. Sumatra ..... *X. impressa*

15(14). Antennomeres VIII–X transverse, strongly modified (antennomere IX with process, antennomere X with pore). Body (Fig. 76) more elongate (2.2 times as long as wide), body length 3.3 mm. Borneo ..... *X. pseudoimpressa* sp. n.

16(7). Surface of elytra evenly rugose without depressions or humps.

17(32). Antennae filiform.

18(19). Body elongate and narrow, 2.6–2.7 times as long as wide; antennae 1.25 times shorter than body length. Body fulvous, head and pronotum orange, antennae fulvous with darkened middle antennomeres, legs fulvous with black tarsi (Figs 53, 54). Aedeagus long (1.7 mm) with bent upwards tip (Figs 158, 159). Body length 3.3–3.5 mm. Borneo ..... *X. elegantula* sp. n.

19(18). Body less than 2.4 times as long as wide. Aedeagus shorter (less 1.2 mm) with not bent upwards tip.

20(25). Elytra unicolour: black or fulvous.

21(22). Elytra black. Legs fulvous with black basal half of hind femora and often with partly darkened tibia and

- tarsi (Figs 255, 256). Antennae long (1.2 times shorter than the body length). Aedeagus with rounded tip (Figs 162, 163). Body length 2.9–3.4 mm. Borneo ..... *X. filicornis* **sp. n.**
- 22(21). Elytra and legs entirely fulvous. Aedeagus with triangular tip.
- 23(24). Antennae short (1.5 times shorter than the body length). Body as in Figs 71, 72, body length 3.1–3.5 mm in males, 3.2–3.6 mm in females. Sumatra ..... *X. parafilicornis* **sp. n.**
- 24(23). Antennae long, almost equal to body length (0.97 of body length). Body as in Fig. 66; body length 3 mm. Java ..... *X. longicornis* **sp. n.**
- 25(20). Elytra fulvous with black pattern.
- 26(27). Antennae long (1.2 times shorter than the body length), middle antennomeres 3.5–6 times as long as wide. Each elytron with longitudinal sinuate black stripe (Figs 55, 56). Body length 2.7–2.9 mm. Java ..... *X. flexuosa* **sp. n.**
- 27(26). Antennae short (about 1.5 times shorter than the body length), middle antennomeres 1.5–2 times as long as wide. Elytra with black (or blackish) patches or with black spots.
- 28(29). Antennae more elongate, apical antennomere 2.7 times as long as wide. Each elytron with one oblique black spot on apical slope (Fig. 41). Body length 3.1 mm. Sumatra ..... *X. bipunctata* **sp. n.**
- 29(28). Antennae rather robust, apical antennomere 2 times (or less) as long as wide. Each elytron with two dark patches. Species from Borneo.
- 30(31). Each elytron with two blurred blackish patches (first in middle, second on apical slope) together forming indistinct cruciform pattern (Figs 46, 47). Aedeagus in lateral view slightly curved with not curved down apex (Figs 150, 151). Body length 2.7–2.8 mm ..... *X. cruciata* **sp. n.**
- 31(30). Elytra fulvous with basal 2/5 and transverse patch near apical slope black (Fig. 70). Aedeagus in lateral view strongly curved with apex acutely curved down ventrally (Fig. 272). Body length 2.5–3 mm ..... *X. nigromaculata*
- 32(17). Antennae with more or less thickened middle antennomeres, often one or more antennomeres modified.
- 33(34). Head dark reddish-fulvous to black, pronotum black, elytra fulvous (Figs 258, 259). Antennae black with last antennomere fulvous, sometimes two basal antennomeres dark reddish-fulvous; antennomere IX with concave outer surface. Body length 3–3.2 mm in males, 2.8–3 mm in females. Peninsular Malaysia, Sumatra ..... *X. flavipennis* **sp. n.**
- 34(33). Pronotum fulvous.
- 35(52). One or more antennomeres modified (irregular shape, with processes or excavation).
- 36(37). Antennomeres VIII–X modified (antennomeres VIII and IX with apical processes, antennomere X excavated). Body and legs fulvous (Fig. 52). Body length 3.2 mm. Borneo ..... *X. deformicornis* **sp. n.**
- 37(36). Only one antennomere (IX or X) modified.
- 38(45). Antennae with modified antennomere IX (either protruding laterally from main axis of antenna or irregular shape with outer corner protruding laterally or with excavation). Middle antennomeres darkened in varying degrees, two or three apical antennomeres fulvous, last of them with black tip.
- 39(42). Antennomere IX long with outer corner protruding laterally or with excavation.
- 40(41). Elytra black (Fig. 79). Antennomere IX with outer corner protruding up and laterally. Body length 3.6–3.9 mm. Sumatra ..... *X. sibayakensis* **sp. n.**
- 41(42). Elytra fulvous with darkened latero-apical area in posterior third (Fig. 69). Antennomere IX modified with excavated inner side and apical outer corner slightly protruding laterally at right angle. Body length 3.2 mm. Borneo ..... *X. nigroapicalis* **sp. n.**
- 42(39). Antennomere IX short, protruding laterally from main axis of antenna.
- 43(44). Elytra fulvous (Fig. 37). Antennae fulvous with antennomeres V–VIII and tip of antennomere XI darkened. Antennomere IX narrowly triangular. Body length 3.7 mm. Sumatra ..... *X. antennalis* **sp. n.**
- 44(43). Elytra blackish with wide lighter area at base and along suture (Fig. 73). Antennae fulvous with antennomeres IV–VIII and tip of antennomere XI black. Antennomere IX rounded. Body length 3.5 mm. Sumatra ..... *X. pseudoantennalis* **sp. n.**
- 45(38). Antennae with modified antennomere X (with apical process). Middle antennomeres (IV–X) darkened in varying degrees or almost black, last antennomere fulvous.
- 46(49). Elytra more wrinkled and lighter (pale fulvous), antennomere X with strongly raised outer edge forming directed forward process or with process directed forward in the form of plate extending from the outer side surface, aedeagus with truncated apex.
- 47(48). Antennae robust with transverse antennomeres VIII–X, head and pronotum more or less dark fulvous (Fig. 83), antennomere X with strongly raised outer edge forming directed forward process. Aedeagus more smoothly curved upward in lateral view, its truncated apex slightly concave (Figs 204, 205). Body length 3.5 mm. Borneo ..... *X. trusmadiensis* **sp. n.**
- 48(47). Antennae less robust with antennomeres VIII–X not transverse, equal in length and width or longer than width, pronotum entirely fulvous (Figs 62, 63), antennomere X with process directed forward in the form of plate extending from the outer side surface, aedeagus more steeply curved upward in lateral view, its truncated apex more concave (Figs 180, 181). Body length 3.3–3.6 mm. Sumatra ..... *X. ketambensis* **sp. n.**
- 49(46). Elytra darker (dark fulvous or brick fulvous) and less wrinkled, antennomere X with obliquely cut apical margin so that its outer edge forming wide and short process directed forward, aedeagus with pointed apex.
- 50(51). Basal antennomeres with blackish upperside and fulvous underside, aedeagus slightly curved in lateral view. Elytra brick fulvous (Fig. 45). Body length 3.5 mm. Sumatra ..... *X. bukittinggiensis* **sp. n.**
- 51(50). Basal antennomeres entirely fulvous, aedeagus curved almost at right angle in lateral view. Elytra fulvous (Figs 77, 78). Body length 3.8 mm. Borneo ..... *X. schawalleri* **sp. n.**

- 52(35). Antennae not modified (antennomeres may be slightly thickened but without processes or deep excavations, only *X. bryanti* **sp. n.** with small and poorly visible spur on upper outer corner of antennomere X).
- 53(54). Hind margin of abdominal ventrite I in male with two large teeth directed downward (Fig. 208). Antennomere X with flattened underside. Body as in Fig. 51, body length 4.6 mm. Sumatra ..... *X. dentiventris* **sp. n.**
- 54(53). Abdominal ventrites without teeth.
- 55(58). Elytra not unicolour, either with black spots and bands or bicoloured with distinct border between fulvous anterior and black posterior parts.
- 56(57). Elytra bicoloured with distinct border between fulvous anterior and black posterior parts, black part with weak metallic shine (Fig. 257). Antennae 1.3 times shorter than length of body. Body length 3.2 mm. Java ..... *X. filimonovi* **sp. n.**
- 57(56). Elytra with partly darkened anterior and black apical thirds and with fulvous transverse band between them. Antennae 1.6 times shorter than length of body (Fig. 254). Body length 3.2 mm. Sumatra ..... *X. fasciata* **sp. n.**
- 58(55). Elytra unicolour fulvous or black (some specimens of *X. basalis* have fulvous elytra with obscure dark pattern but never with distinct border between pale and dark parts).
- 59(64). Elytra black.
- 60(61). Aedeagus with concave truncated apex (Figs 144, 145). Antennae 1.25 times shorter than body length. Antennomere X with small and poorly visible, curved spur on upper outer corner. Body as in Fig. 43, body length 3.5 mm. Borneo ..... *X. bryanti* **sp. n.**
- 61(60). Apex of aedeagus not truncated but sharp or rounded. Antennae 1.4–1.45 times shorter than body length. Species from Sumatra.
- 62(63). Body smaller 3–3.5 mm. Body as in Fig. 38. Aedeagus with sharp apex (Figs 135–137), antennomere X without pore ..... *X. basalis* (black form)
- 63(62). Body larger 3.5–4.1 mm. Body as in Figs 74, 75. Aedeagus with widely rounded apex (Figs 194, 195), antennomere X with pore ..... *X. pseudobasalis* **sp. n.**
- 64(59). Elytra entirely fulvous or fulvous with obscure dark pattern.
- 65(66). Elytra fulvous with obscure dark pattern (see also theses 56 and 71) ..... *X. basalis*
- 66(65). Elytra entirely fulvous.
- 67(72). Antennomere XI equal or longer than antennomeres IX and X combined. Body length 4–4.2 mm. Species from Peninsular Malaysia and Sumatra.
- 68(71). Antennae black (except last antennomere fulvous) with gradually narrowing antennomeres VIII–X, antennomere XI 1.5 times narrower than the previous one.
- 69(70). Legs entirely fulvous. Body length 4–4.2 mm. Peninsular Malaysia ..... *X. setiuensis*
- 70(69). Legs fulvous with tibiae (except base) and tarsi black. Aedeagus with triangular apex (Figs 146, 147). Body as in Fig. 44, body length 3.5 mm. Sumatra ..... *X. bukitlawangensis* **sp. n.**

- 71(68). Antennae black with two basal and last antennomeres fulvous, antennomeres VIII–X of almost equal width, contrast with narrow antennomere XI which almost 2 times narrower than the previous ones. Legs fulvous with tibiae (except base) and tarsi black (Fig. 57). Aedeagus with rounded apex (Figs 168, 169). Body length 3.9–4.1 mm. Peninsular Malaysia ..... *X. fulva*

Here also must be externally similar species *X. kerinciensis* **sp. n.** (Fig. 61) from Sumatra which differs from *X. fulva* in narrow aedeagus with elongate apex (Figs 178, 179) and in more transverse and enlarged antennomeres III–X.

- 72(67). Antennomere XI shorter than antennomeres IX and X combined.
- 73(76). Antennae longer (1.07–1.25 times shorter than body length), apical antennomeres modified in varying degrees (with excavation, groove or asymmetric). Species from Borneo.
- 74(75). Antennae 1.07–1.15 times shorter than body length, antennomere IX with deep wide groove on lateral side, antennomere XI narrow, not excavated. Body as in Figs 64, 65, body length 3–3.4 mm ..... *X. matangensis* **sp. n.**
- 75(74). Antennae 1.25 times shorter than body length, flattened lateral side of antennomere IX with pore, antennomere XI wide, asymmetric with excavated lateral side. Body as in Fig. 42, body length 2.5–2.7 mm ..... *X. bruneiensis* **sp. n.**
- 76(73). Antennae shorter (1.4–1.5 times shorter than body length), apical antennomeres not modified. Species from Peninsular Malaysia or Sumatra.
- 77(78). Legs fulvous (Figs 39, 40). Antennomere X the same width or slightly narrower than previous one. Sumatra. (See also theses 56 and 59) ..... *X. basalis* (pale form)
- 78(77). Legs with tibiae and tarsi black. Antennomere X narrow (3 times narrower than previous one). Body length 3.5 mm. Peninsular Malaysia ..... *X. castanea*

*Xenoda (Xenodina) antennalis* **sp. n.**  
(Figs 37, 133, 134)

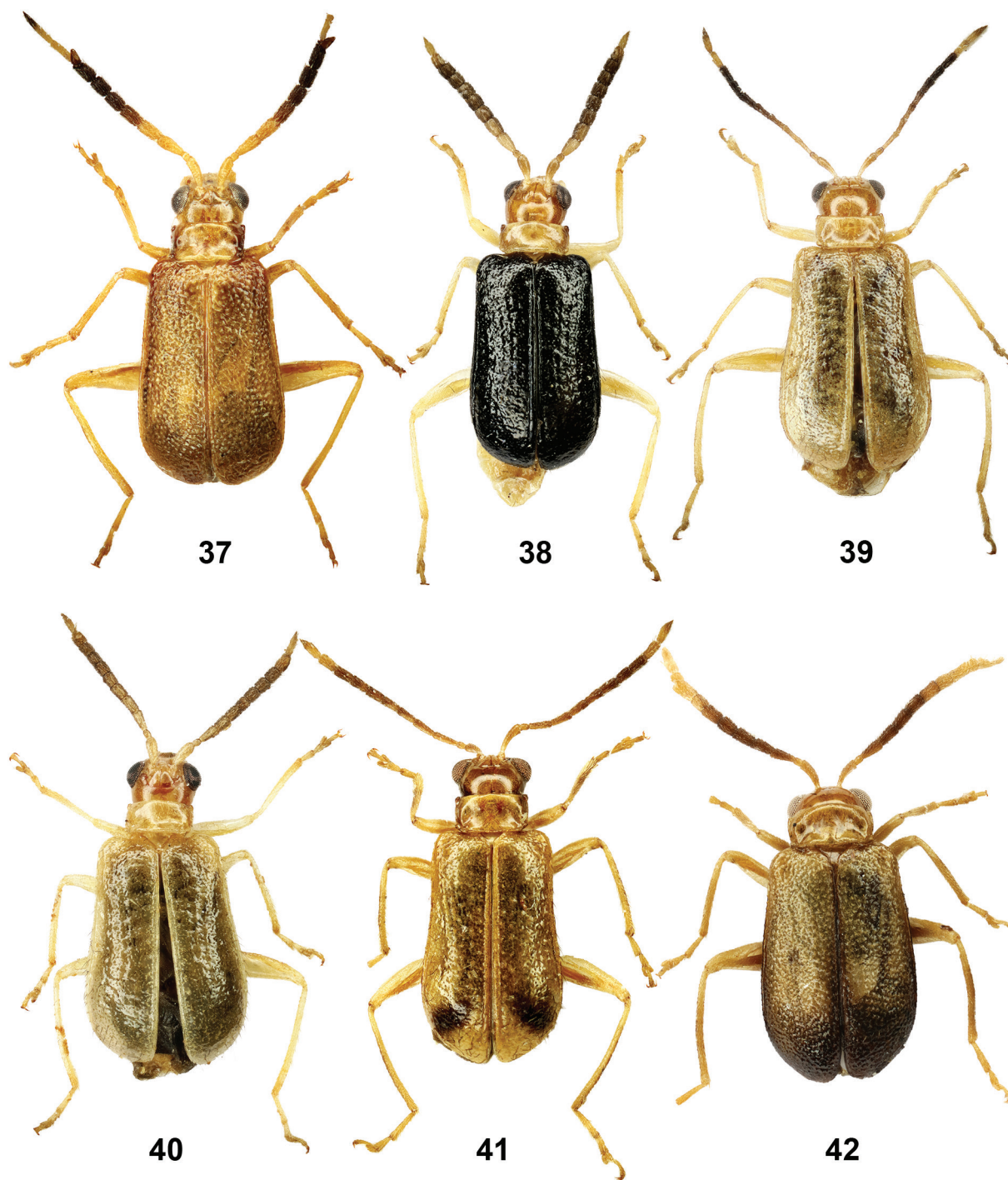
**Material.** Holotype, ♂ (ZIN): "SUMATRA (N.) 30 km of SW BRASTAGI, h~1300–1800m G. Sinabung 22. III. 2018 Bocák & Bocáková lgt."

**Description.** Male, holotype (Fig. 37). Length 3.5 mm, width 1.9 mm.

Body fulvous (lateral margins of pronotum and elytra slightly darker than the rest of body). Antennae fulvous, antennomeres V and IX piceous, antennomeres VI–VIII and tip of antennomere XI black.

Head impunctate, labrum transverse, 1.6 times as wide as long, with concave anterior margin and smooth surface; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes convex, oval (1.35 times as long as wide), interocular space 1.6 times as wide as transverse diameter of eye. Anterior part of head convex; frontal tubercles medium size, convex, elongate with obtuse apex, divided by thin median longitudinal impression and distinctly delimited posteriorly by narrow straight impression. Vertex impunctate, shining with short and thin longitudinal impression in proximal part. Antennae reaching posterior third of elytra, sparsely covered with thin sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small and cylindrical; antennomeres III–VIII moderately thickened;



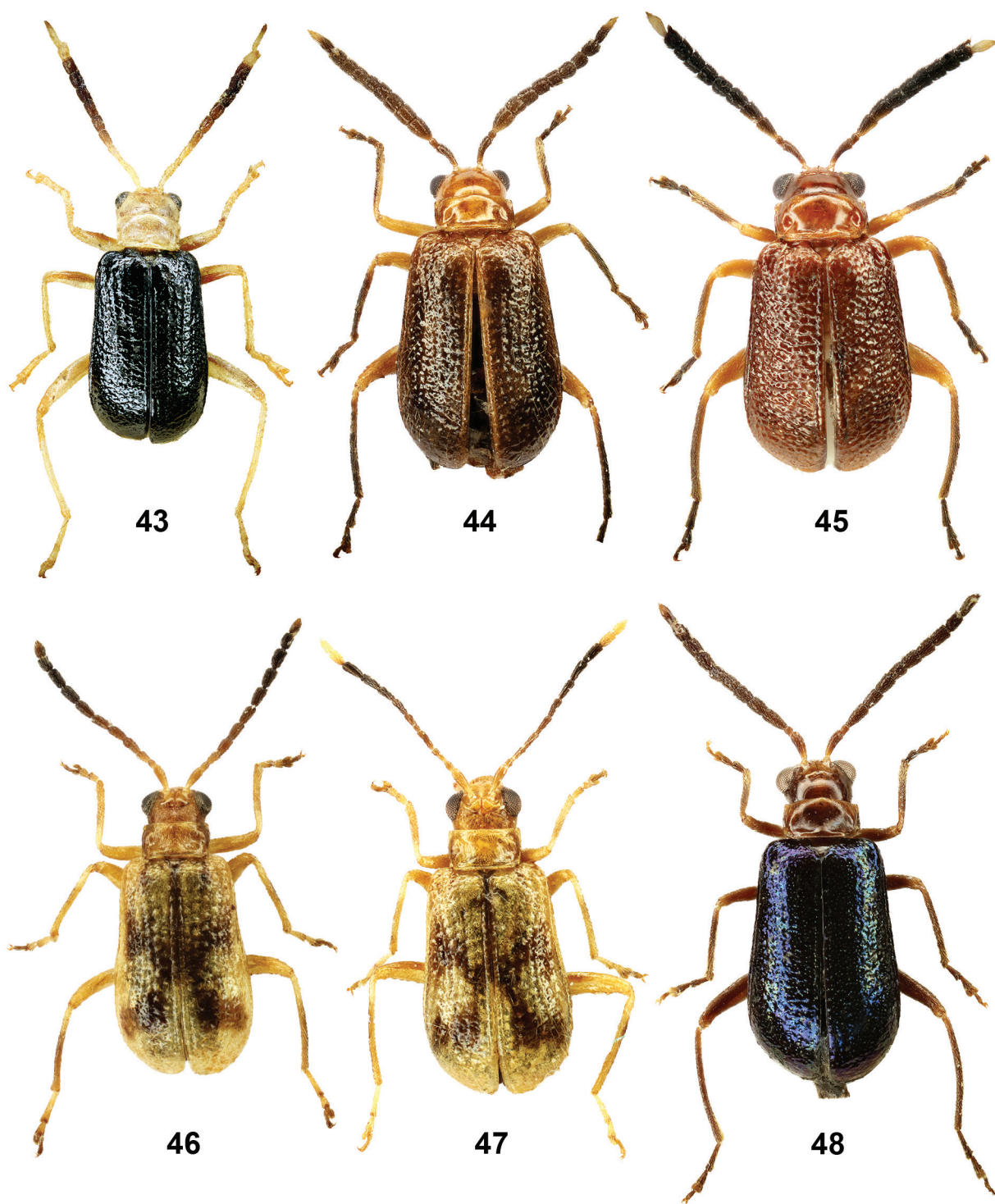


Figs 37–42. *Xenoda* (*Xenodina*), general view.

37 – *X. antennalis* **sp. n.**, male, holotype; 38–40 – *X. basalis*: 38, 40 – males, 39 – female; 41 – *X. bipunctata* **sp. n.**, male, holotype; 42 – *X. bruneiensis* **sp. n.**, male, holotype.

Рис. 37–42. *Xenoda* (*Xenodina*), общий вид.

37 – *X. antennalis* **sp. n.**, самец, голотип; 38–40 – *X. basalis*: 38, 40 – самцы, 39 – самка; 41 – *X. bipunctata* **sp. n.**, самец, голотип; 42 – *X. bruneiensis* **sp. n.**, самец, голотип.



Figs 43–48. *Xenoda* (*Xenodina*), general view.

43 – *X. bryanti* **sp. n.**, male, holotype; 44 – *X. bukitlawangensis* **sp. n.**, male, holotype; 45 – *X. bukittinggiensis* **sp. n.**, male, holotype; 46–47 – *X. cruciata* **sp. n.**: 46 – male, holotype, 47 – female, paratype; 48 – *X. cyanipennis*, male, holotype.

Рис. 43–48. *Xenoda* (*Xenodina*), общий вид.

43 – *X. bryanti* **sp. n.**, самец, голотип; 44 – *X. bukitlawangensis* **sp. n.**, самец, голотип; 45 – *X. bukittinggiensis* **sp. n.**, самец, голотип; 46–47 – *X. cruciata* **sp. n.**: 46 – самец, голотип, 47 – самка, паратип; 48 – *X. cyanipennis*, самец, голотип.



antennomere III conical; antennomeres IV–VIII more or less rectangular; antennomere IX wedge-shaped, protruding upward and laterally from main axis on which other antennomeres are located; antennomeres X and XI thin, the latter with pointed apex. Proportions in length of antennomeres I–XI are as 20 : 5 : 13 : 13 : 12 : 10 : 10 : 10 : 7 : 14 : 20; their proportions in width are as 5 : 4 : 7 : 7 : 7 : 7 : 7 : 5 : 3 : 3.

Pronotum transverse, 1.85 times as broad as long, widest at level of front angles; surface wide transversely depressed, impunctate. Anterior margin very slightly concave, lateral and posterior margins almost straight. Anterior margin unbordered, lateral and basal margins bordered. Anterior and posterior angles triangular, not prominent.

Scutellum triangular, 1.4 times as wide as long; surface shining and impunctate in basal half, apical half with fine microsculpture.

Elytra 1.6 times as long as wide, broadest at apical fourth, surface rugose with frequent wrinkles, sparsely covered with sub-recumbent hairs. Humeral calli well developed.

Legs slender with very slightly curved hind tibiae, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 6 : 5 : 12; metatarsomere I long and narrow, approximately equal to remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 18 : 9 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 133, 134) gradually narrowing towards triangular apex; slightly curved in lateral view, its length 1 mm.

Female unknown.

**Differential diagnosis.** This new species (together with *X. pseudoantennalis* sp. n.) belongs to the species group of the subgenus *Xenodina* with antennomere IX short and modified, protruding upward and laterally from the main axis on which other antennomeres are located. *Xenoda antennalis* sp. n. differs from *X. pseudoantennalis* sp. n. in triangular antennomere IX (Fig. 37) instead of rounded antennomere IX (Figs 73, 224) in the latter species.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to its modified antennae.

*Xenoda (Xenodina) basalis* Jacoby, 1893  
(Figs 38–40, 135–137, 240)

*Xenoda basalis* Jacoby, 1893: 107; Jacoby, 1896a: 471; Weise, 1924: 133; Wilcox, 1973: 606; Kimoto, 1990: 236; Mohamedsaid, 1995: 5; Mohamedsaid & Holloway, 1999: 169; Mohamedsaid, 2000: 355; Mohamedsaid, 2001: 19, 24; Mohamedsaid, 2004: 118.

**Material.** 1♀, syntype (NHM), "Type H. T." (circle label with red border), "SUMAT", "Jacoby Coll. 1909-28a.", "Xenoda basalis Jac." (b., h.); 10♂, 2♀ (JB), "W SUMATRA, Bengkulu prov., nr. Curup, BULIT KASA MT. 3°29' S, 102°36' E, 1000-1500 m. J. Bezděk leg.; 30.i-3.ii.2000"; 1♂, 1♀ (NHM), "Sumatra: JAMBI pr., Kerinci Seblat N. P.; 7 km E Kayuaro: Mt. TUJUH, 1750±250 m. 1°45' S, 101°25' E: Dembický leg.; 25.II-2.III. 2003"; 11♂, 2♀ (ZIN), 1♀ (NHM), "West Sumatra prov., Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.; 4.-18. III. 2003"; 1♂ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~400-410m, N 03°40'49", E 097°39'40" N 03°41'04", E 097°39'01" 2. III. 2017 P. Romantsov leg."; 1♀ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~210-240m, N 03°33'01", E 098°06'39" N 03°33'15", E 098°06'05" 29.I.2018 P. Romantsov leg."; 12♂, 3♀ (PR), "Indonesien, Sumatra, North Sumatra Prov, near Berastagi, Sidebuk-Debuk Place, h~1400-1670m, N 03°13'17", E 098°30'43" N 03°12'55", E 098°31'00" 2.II.2018 P. Romantsov leg."; 12♂, 10♀ (PR), same data, but "4.II.2018"; 3♂ (PR), "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi, 6 km SWW Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 8.II.2018 P. Romantsov leg."; 2♂ (PR), same data, but "9.II.2018"; 3♂ (PR), same data, but "10.II.2018"; 1♂ (PR), "Indonesien, Sumatra II., West Sumatra Prov, 16 km W Bukittinggi Maninjau Lake,

h~527-610 m, S 0°17'08", E 100°13'46" S 0°17'07", E 100°13'55" 11.II.2018 P. Romantsov leg."; 1♂ (PR), same data, but "12.II.2018"; 2♂, 1♀ (PR), same data, but "13.II.2018".

**Notes.** This species is very variable in colouration (elytra entirely fulvous, elytra fulvous with obscure dark pattern, elytra entirely black) and quite common in Sumatra. In addition, there is one recording of this species for Peninsular Malaysia [Mohamedsaid, 2001].

**Distribution.** Peninsular Malaysia, Sumatra.

*Xenoda (Xenodina) bipunctata* sp. n.  
(Figs 41, 138, 139)

**Material.** Holotype, ♂ (JB): "SUMATRA Takengen".

**Description.** Male, holotype (Fig. 41). Length 3.1 mm, width 1.8 mm.

Upperside fulvous with sides of head and lateral margin of pronotum dark fulvous; each elytron with one oblique black spot on apical slope. Antennae fulvous with antennomeres V–IX slightly darkened. Legs fulvous. Underside fulvous with meso-, metathorax and abdomen darkened.

Head impunctate, labrum transverse, 1.8 times as wide as long with convex anterior margin, surface convex with several short setae, covered with fine microsculpture; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes moderately convex, oval (1.35 times as long as wide), interocular space 1.35 times as wide as transverse diameter of eye. Anterior part of head convex and impunctate; nasal keel rather wide and slightly convex; frontal tubercles narrow and convex with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by narrow arcuate depression. Vertex shining and impunctate with hardly visible trace of longitudinal line in middle. Antennae filiform, reaching posterior third of elytra, densely covered with short recumbent hairs. Proportions in length of antennomeres I–XI are as 14 : 4 : 11 : 9 : 8 : 8 : 8 : 8 : 8 : 8 : 11; their proportions in width are as 4 : 3 : 3 : 3 : 4 : 4 : 4 : 4 : 4 : 4 : 4.

Pronotum transverse, 1.75 times as broad as long, widest at level of front angles; surface wide transversely depressed, shining and impunctate. Anterior margin concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles slightly thickened and prominent; posterior angles triangular, not prominent. Anterior angles with setigerous pores bearing long curved seta, posterior angles with somewhat shorter seta, additional several short setae visible on lateral margin.

Scutellum triangular, 1.6 times as wide as long; surface impunctate, covered with hardly visible microsculpture.

Elytra 1.7 times as long as wide, broadest in apical quarter; surface moderately rugose with distinct punctures among low ridges, sparsely covered with long semi-erect hairs. Humeral calli well developed.

Legs slender with slightly curved hind tibiae, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 5 : 8 : 9; metatarsomere I distinctly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 7 : 4 : 10. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 138, 139) large and wide, narrowed in middle, with wide triangular apex; in lateral view distinctly curved; aedeagus length 1.3 mm.

Female unknown.

**Differential diagnosis.** *Xenoda bipunctata* sp. n. belongs to the species group with filiform antennae in both sexes. This new species is very similar to *X. parafilicornis* sp. n. from Sumatra but differs in elytral pattern with one black spot on each elytron and in distinctly

curved in lateral view aedeagus with wide triangular apex (Figs 41, 138, 139). *Xenoda parafilicornis* sp. n. has entirely fulvous elytra and slightly curved in lateral view aedeagus with narrow triangular apex (Figs 71, 190, 191). See also the key.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to the elytra with two black spots.

*Xenoda (Xenodina) bruneiensis* sp. n.  
(Figs 42, 140–143)

**Material.** Holotype, ♂ (NHM): "BORNEO, Brunei E 115°07' N 04°34' 18. V. 91 Kuala Belalong FSC N. Mawdsley, Malaise GM4 BMNH {E} 1991-173". Paratype: 1♂ (PR), same data as in holotype.

**Description.** Male, holotype (Fig. 42). Length 2.7 mm, width 1.4 mm.

Body deep fulvous, legs fulvous. Antennae fulvous with antennomeres III–X piceous.

Head impunctate, labrum transverse, 1.5 times as wide as long; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes large and strongly convex, widely oval (1.15 times as long as wide), interocular space 1.15 times as wide as transverse diameter of eye. Anterior part of head weakly convex, covered with several long pale setae, nasal keel almost flat; frontal tubercles narrow, small and weakly convex with sharp apex, divided by thin median longitudinal impression and distinctly delimited posteriorly by deep impression, surface covered with very fine microsculpture. Vertex impunctate, shining with trace of longitudinal line in middle. Antennae long, almost reaching apex of elytra, covered with thin sub-recumbent hairs and punctures. Antennomere I curved, antennomere II small, cylindrical; antennomeres III–XI enlarged in varying degrees; antennomeres III and IV conical; antennomeres V–X more or less rectangular; antennomere IX with pore, antennomere XI wide, asymmetric with excavated lateral side and sharp tip. Proportions in length of antennomeres I–XI are as 15 : 4 : 10 : 9 : 9 : 9 : 8 : 9 : 6 : 14; their proportions in width are as 4 : 3 : 4 : 5 : 5 : 6 : 6 : 5 : 5 : 4 : 5.

Pronotum strongly transverse, 1.95 times as broad as long, widest at anterior third; surface impunctate with transverse impression, which pitted on sides and weakened in middle. Anterior margin almost straight, lateral margins slightly rounded, posterior margin slightly convex. Anterior margin unbordered, lateral margins distinctly bordered, basal margin thinly bordered. Anterior and posterior angles triangular, not prominent.

Scutellum triangular, 1.3 times as wide as long; surface impunctate but with fine microsculpture.

Elytra 1.55 times as long as wide, broadest at apical third, surface rugose with frequent ridges and small punctures among them, covered with sparse recumbent hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 4 : 7; metatarsomere I narrow, almost equal to remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 13 : 5 : 3 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (weakly sclerotized, Figs 140, 141) short and thin with triangular apex; curved in lateral view, its length 0.6 mm.

Paratype. Male is similar to holotype but with lighter body and antennae (only antennomeres III–VII piceous), body length 2.8 mm. Aedeagus as in Figs 142, 143.

Female unknown.

**Differential diagnosis.** *Xenoda bruneiensis* sp. n. differs from other species of the subgenus *Xenodina* in asymmetric antennomere XI with excavated lateral side, as well as in flattened aedeagus, thin in lateral view (Figs 42, 140–143). See also the key.

**Distribution.** Malaysia (Borneo).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) bryanti* sp. n.  
(Figs 43, 144, 145)

**Material.** Holotype, ♂ (NHM): "Mt. Matang, Sarawak G. E. Bryant 13. XII. 13", "Bryant Coll. 1919-147".

**Description.** Male, holotype (Fig. 43). Length 3.5 mm, width 1.6 mm.

Head and pronotum fulvous, elytra black. Antennae fulvous with antennomeres IV–IX darkened in varying degrees; antennomere XI fulvous with darkened tip. Legs entirely fulvous. Underside fulvous with meso- and metathorax black.

Head impunctate, labrum transverse, about 2 times as wide as long; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes small and weakly convex, wide oval (1.25 times as long as wide), interocular space 1.75 times as wide as transverse diameter of eye. Anterior part of head slightly convex; nasal keel rather wide and weakly convex; frontal tubercles convex, triangular with sharp apex, divided by rather wide and deep median longitudinal impression and distinctly delimited posteriorly by thin impression; surface of frontal tubercles with microsculpture. Vertex with very thin and slightly depressed longitudinal line, surface covered with microsculpture. Antennae reaching posterior third of elytra, sparsely covered with thin semi-erect hairs. Antennomere I moderately thickened, antennomere II small, cylindrical; antennomere III slightly thickened, antennomeres IV–IX thickened; antennomeres III and IV conical, antennomeres V–IX almost rectangular, antennomere X flat with triangular outer corner bearing small and poorly visible spur; antennomere XI thin, elongate and sinuate with pointed top. Proportions in length of antennomeres I–XI are as 16 : 5 : 8 : 10 : 10 : 10 : 9 : 9 : 9 : 8 : 18; their proportions in width are as 4 : 3 : 5 : 5 : 6 : 6 : 6 : 7 : 6 : 7 : 3.

Pronotum transverse, 1.85 times as broad as long, widest at level of anterior angles; surface with wide transverse depression in basal third, covered with microsculpture. Anterior margin slightly concave, lateral margins almost straight, posterior margin convex. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior angles triangular, not prominent, posterior angles triangular, slightly prominent.

Scutellum triangular, 1.25 times as wide as long; surface with distinct microsculpture.

Elytra 1.65 times as long as wide, broadest at apical third, surface moderately rugose with distinct punctures among ridges, without hairs (most likely abraded). Humeral calli developed.

Legs slender, protarsomere I short and slightly thickened but narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 4 : 4 : 11; metatarsomere I narrow, shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 8 : 5 : 10. All tibiae without apical spurs. Claws appendiculate.

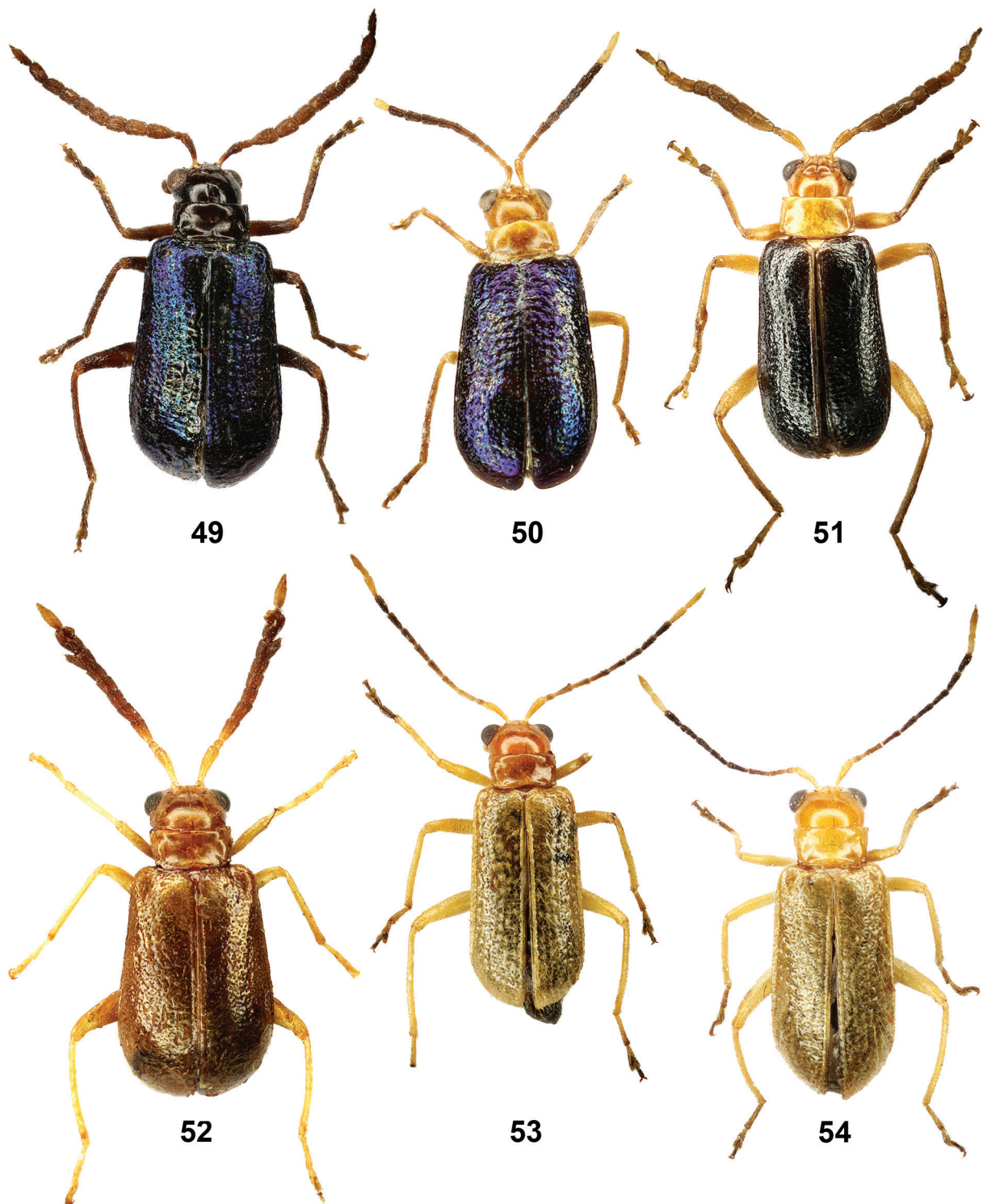
Aedeagus (Figs 144, 145) large and thick with truncated and concave apex; in lateral view strong bent at apical quarter; aedeagus length 1.5 mm.

Female unknown.

**Differential diagnosis.** *Xenoda bryanti* sp. n. is similar to *X. pseudobasalis* sp. n. and *X. basalis* (form with black elytra), but differs in aedeagus with truncated and concave apex, as well as in having small and poorly visible spur on upper outer corner of antennomere X (Figs 43, 144, 145). See also the key.

**Distribution.** Malaysia (Sarawak).

**Etymology.** The name of this new species is dedicated to memory of Dr Gilbert Ernest Bryant (1878–1965), who investigated chrysomelid beetles of South-East Asia and was a collector of holotype of this new species.



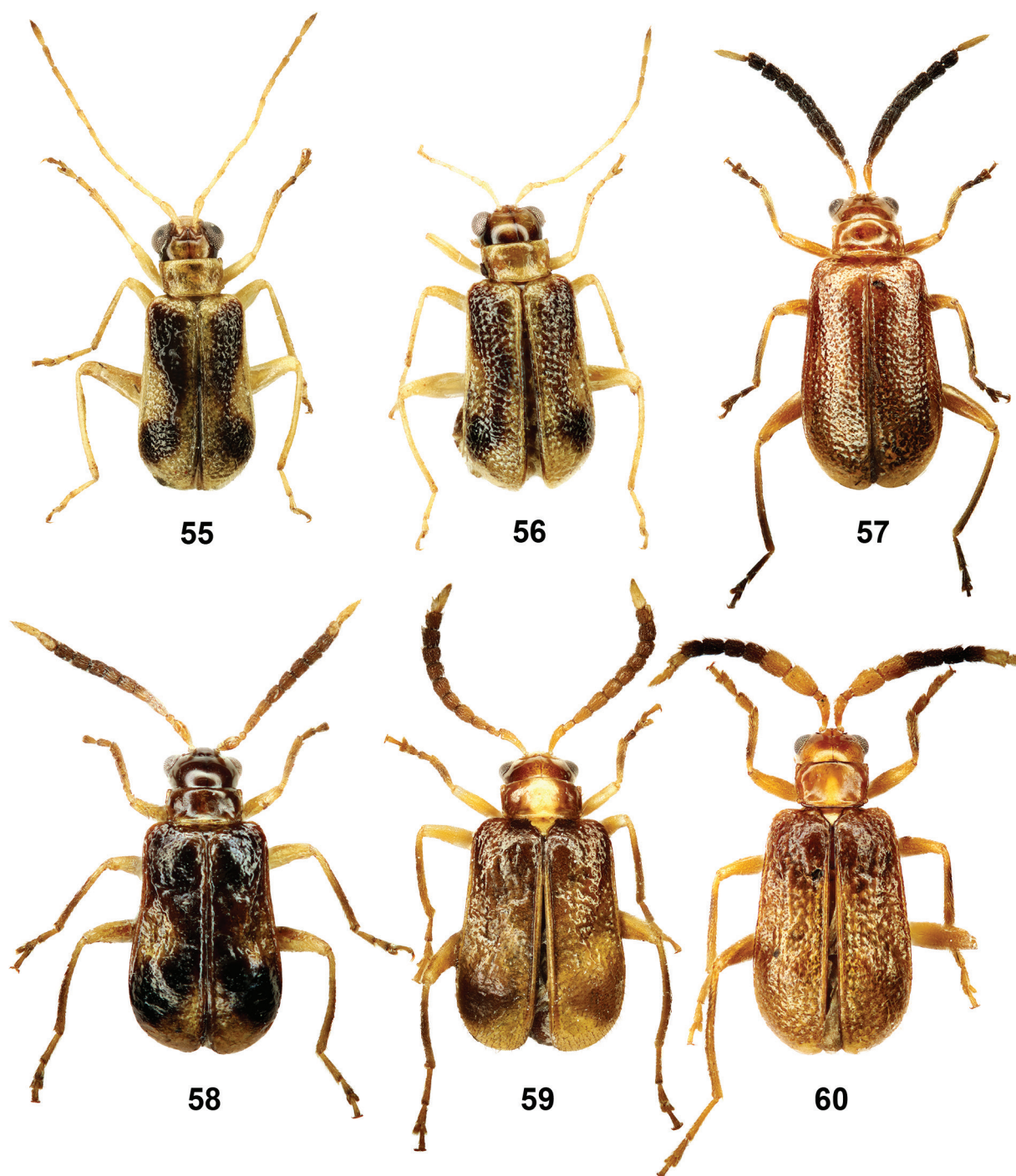
Figs 49–54. *Xenoda* (*Xenodina*), general view.

49–50 – *X. cyanipennis*: 49 – male, 50 – female (Sumatra); 51 – *X. dentiventris* **sp. n.**, male, holotype; 52 – *X. deformicornis* **sp. n.**, male, holotype; 53–54 – *X. elegantula* **sp. n.**: 53 – male, holotype, 54 – female, paratype.

Рис. 49–54. *Xenoda* (*Xenodina*), общий вид.

49–50 – *X. cyanipennis*: 49 – самец, 50 – самка (Суматра); 51 – *X. dentiventris* **sp. n.**, самец, голотип; 52 – *X. deformicornis* **sp. n.**, самец, голотип; 53–54 – *X. elegantula* **sp. n.**: 53 – самец, голотип, 54 – самка, паратип.





Figs 55–60. *Xenoda* (*Xenodina*), general view.

55–56 – *X. flexuosa* sp. n.: 55 – male, holotype, 56 – female, paratype; 57 – *X. fulva*, male, holotype; 58 – *X. impressa*, male, holotype; 59 – *X. impressipennis* sp. n., male, holotype; 60 – *X. inaequalipennis* sp. n., male, holotype.

Рис. 55–60. *Xenoda* (*Xenodina*), общий вид.

55–56 – *X. flexuosa* sp. n.: 55 – самец, голотип, 56 – самка, паратип; 57 – *X. fulva*, самец, голотип; 58 – *X. impressa*, самец, голотип; 59 – *X. impressipennis* sp. n., самец, голотип; 60 – *X. inaequalipennis* sp. n., самец, голотип.

*Xenoda (Xenodina) bukitlawangensis* sp. n.  
(Figs 44, 146, 147)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~170-157m, N 03°32'39", E 098°07'30" N 03°31'53", E 098°07'33" 31.I.2018 P. Romantsov leg."

**Description.** Male, holotype (Fig. 44). Length 3.5 mm, width 1.8 mm.

Head fulvous except anterior part light fulvous (almost white), pronotum and scutellum fulvous, elytra dark fulvous. Antennae strongly darkened, only apical half of last antennomere fulvous. Legs fulvous with tibiae (except bases) and tarsi strongly darkened. Underside dark fulvous.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin slightly convex, surface impunctate and shining with several pale setae; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment very small, triangular. Eyes moderately convex, oval (1.27 times as long as wide), interocular space 1.72 times as wide as transverse diameter of eye. Anterior part of head convex with several pale setae; nasal keel rather wide and weakly convex; frontal tubercles moderately convex, triangular with sharp apex, divided by thin median longitudinal impression and distinctly delimited posteriorly by straight impression; surface of frontal tubercles impunctate but with fine microsculpture. Vertex impunctate, shining with thin and slightly depressed longitudinal line more deeper before frontal tubercles. Antennae reaching posterior third of elytra, moderately densely covered with thin semi-erect hairs. Antennomere I curved, slightly thickened before apex, antennomere II small and square, antennomeres III–X moderately thickened; antennomere III conical; antennomeres IV–X almost rectangular; antennomere XI elongate with pointed top. Antennomere X with pore. Proportions in length of antennomeres I–XI are as 14 : 4 : 11 : 8 : 8 : 7 : 7 : 8 : 7 : 15; their proportions in width are as 5 : 4 : 9 : 9 : 8 : 7 : 7 : 7 : 7 : 4.

Pronotum strongly transverse, 2.1 times as broad as long, widest at level of anterior angles; surface impunctate with wide transverse depression. Anterior margin slightly concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unborded, lateral and basal margins distinctly bordered. Anterior angles slightly thickened, posterior angles triangular, slightly prominent; lateral margin with several short pale setae.

Scutellum widely triangular, 1.65 times as wide as long; surface convex, shining and impunctate.

Elytra 1.55 times as long as wide, broadest at apical third, surface rugose with coarsely punctures and convex ridge-like interstices, moderately sparsely covered with rather long semi-erect hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 5 : 9; metatarsomere I narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 7 : 5 : 8. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 146, 147) wide in basal third, then gradually narrowing to triangular apex, slightly curved in lateral view, underside with narrow and rather deep groove along almost whole length, aedeagus length 1.2 mm.

Female unknown.

**Differential diagnosis.** This new species (together with *X. fulva* and *X. setiuensis*) belongs to the species group of the subgenus *Xenodina* with long antennomere XI which is equal or larger than antennomeres IX and X combined. *Xenoda bukitlawangensis* sp. n. differs from *X. fulva* in wide antennomere XI; from *X. setiuensis* in not uniform fulvous legs (Fig. 44). See also the key.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) bukittinggiensis* sp. n.  
(Figs 45, 148, 149)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi, 6 km SW/W Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 9.II.2018 P. Romantsov leg."

**Description.** Male, holotype (Fig. 45). Length 3.5 mm, width 1.9 mm.

Body fulvous, head fulvous with darker (brick fulvous) sides, pronotum slightly lighter than brick fulvous elytra. Antennae black with narrow basal parts and ventral sides of antennomeres I–IV fulvous, antennomere XI white. Maxillary palpi black. Legs fulvous with upper side of tibiae and tarsi darkened.

Head impunctate, labrum transverse, 1.45 times as wide as long, anterior margin slightly convex, surface smooth; maxillary palpi with penultimate segment enlarged, covered with semi-erect setae, apical segment small, conical. Eyes convex, oval (1.4 times as long as wide), interocular space 1.55 times as wide as transverse diameter of eye. Clypeus convex, covered with several long pale setae; frontal tubercles moderately large and convex with impunctate, shining surface, elongate triangular with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by thin depressed line. Vertex impunctate but covered with microsculpture, with thin depressed longitudinal line in middle. Antennae reaching posterior third of elytra, covered with thin sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small; antennomeres III–X moderate enlarged; antennomeres III and IV conical; antennomeres V–IX more or less rectangular; antennomere X modified with raised outer edge forming wide and short forward process; antennomere XI lanceolate. Proportions in length of antennomeres I–XI are as 15 : 3 : 10 : 10 : 9 : 8 : 8 : 8 : 7 : 9 : 13; their proportions in width are as 5 : 3 : 6 : 7 : 8 : 8 : 8 : 8 : 8 : 8 : 5.

Pronotum transverse, 1.8 times as broad as long with almost straight sides; surface impunctate with transverse impression, which pitted on sides and weakened in middle. Anterior margin slightly concave; lateral margins almost parallel, posterior margin slightly convex. Anterior margin unborded, lateral and basal margins distinctly bordered. Anterior angles thickened, posterior angles triangular, prominent; fore angles with setigerous pores bearing short pale seta, additional two short setae visible on lateral margins.

Scutellum triangular, 1.2 times as wide as long; surface shining and impunctate,

Elytra 1.57 times as long as wide, broadest at apical fourth, surface covered with rather sparse semi-erect hairs, strongly rugose without punctures among ridges. Humeral calli well developed.

Legs slender, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 6 : 4 : 9; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 14 : 6 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 148, 149) gradually narrowing towards pointed apex, curved in lateral view, aedeagus length 1.2 mm.

Female unknown.

**Differential diagnosis.** This new species (together with *Xenoda ketambensis* sp. n., *X. trusmadiensis* sp. n., *X. schawalleri* sp. n. and *X. kerinciensis* sp. n.) belongs to the species group of the subgenus *Xenodina* with modified antennomere X. *Xenoda bukittinggiensis* sp. n. having slightly enlarged and elongate or equal lengths and widths antennomeres III–X is similar to *X. ketambensis* sp. n. but differs in more wrinkled and darker body as well as pointed aedeagus apex (Figs 45, 148, 149) instead of fulvous body, another form of process on antennomere X (like in *X. trusmadiensis* sp. n.) and truncated aedeagus

apex in *X. ketambensis* sp. n. (Figs 62, 180, 181). *Xenoda trusmadiensis* sp. n. differs from this new species in more robust antennae with transverse antennomeres VIII–X, body colour (head and pronotum more or less dark fulvous, elytra fulvous) and truncated aedeagus apex (Figs 83, 204, 205). *Xenoda kerinciensis* sp. n. differs from *X. bukittinggiensis* sp. n. and other group members in more enlarged antennomeres III–X (Fig. 61). *Xenoda schawalleri* sp. n. is most like to this new species but differs in aedeagus curved almost at a right angle in lateral view and entirely fulvous basal antennomeres (Figs 77, 198, 199) instead of slightly curved aedeagus in lateral view and blackish upperside but fulvous underside of basal antennomeres in *X. bukittinggiensis* sp. n. *Xenoda impressipennis* sp. n. also has process on antennomere X and differs from *X. bukittinggiensis* sp. n. and other group members in uneven elytral surface with depressions and convexities (Fig. 59).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) castanea* Mohamedsaid, 2001  
(Figs 260, 261)

*Xenoda (Xenodella) castanea* Mohamedsaid, 2001: 20, 28; Mohamedsaid, 2004: 118 (UKM).

**Distribution.** Peninsular Malaysia.

*Xenoda (Xenodina) cruciata* sp. n.  
(Figs 46, 47, 150, 151, 241)

**Material.** Holotype, ♂ (NMPC): "BORNEO-Sabah 1995 Crocker Mt. 5--1900 m Gunung Emas 6-21. 5. Jifi Stolarczyk leg.". Paratypes: 1♂ (NHM), "N BORNEO Mt. Kinabalu", "Pinosuk Plateau 28.III.1964 5.225 ft.", "Royal. Soc. Exped coll. S Kueh. B.M. 1964-250"; 1♀ (PR), "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660-1950m N 05°48'47", E 116°20'16" N 05°49'32", E 116°20'27" 07.III.2014 P. Romantsov leg."

**Description.** Male, holotype (Fig. 46). Length 2.8 mm, width 1.8 mm.

Head and pronotum fulvous, elytra light fulvous. Each elytron with two blurred blackish patches (first in middle, second on apical slope) together forming an indistinct cruciform pattern. Antennae with three basal antennomeres fulvous, antennomeres IV–X in varying degrees darkened, apical antennomere fulvous but with darkened upper side. Legs fulvous, hind tibiae slightly darkened, tarsomere III and claws of all legs darkened. Underside fulvous with meso-, metathorax and abdomen darkened.

Head impunctate, labrum about 1.5 times as wide as long, anterior margin straight, surface convex, shining and impunctate with several short setae; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes moderately convex, narrowly oval (1.45 times as long as wide), interocular space 2 times as wide as transverse diameter of eye. Anterior part of head convex and impunctate; nasal keel narrow and convex; frontal tubercles medium size, convex with sharp apex, divided by rather wide and deep median longitudinal impression and distinctly delimited posteriorly by narrow arcuate depression, surface impunctate but with fine microsculpture. Vertex slightly convex, shagreen. Antennae filiform, reaching posterior third of elytra, covered with thin, short, recumbent hairs. Proportions in length of antennomeres I–XI are as 12 : 4 : 6 : 8 : 8 : 8 : 8 : 8 : 6 : 7; their proportions in width are as 4 : 3 : 3 : 4 : 4 : 4 : 4 : 4 : 4 : 4.

Pronotum transverse, 1.8 times as broad as long, widest at anterior third; surface wide transversely depressed, with

microsculpture. Anterior margin concave, lateral margins slightly rounded, posterior margin almost straight. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior and posterior angles triangular, not prominent. Each angles with setigerous pores bearing long pale seta, additional several short setae visible on lateral margin.

Scutellum triangular with rounded apex, 1.4 times as wide as long; surface with microsculpture.

Elytra 1.6 times as long as wide, widest in apical third; surface rugose with distinct punctures among infrequent ridges, sparsely covered with semi-erect hairs. Humeral calli well developed.

Legs slender with fore and hind tibiae slightly curved, protarsomere I slightly narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 4 : 3 : 8; metatarsomere I slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 12 : 5 : 3 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 150, 151) large and wide with triangular apex; in lateral view evenly curved with slightly thickened tip; aedeagus length 1.15 mm.

Paratypes. Male is similar to holotype, but has slightly more elongate antennomeres (middle ones 2.6–3 times as long as wide) and less contrasting blackish pattern on elytra, body length 2.8 mm. Female (Fig. 47) is similar to holotype but with more elongate antennomeres (middle ones 2.7–4 times as long as wide) and has two apical antennomeres entirely fulvous, body length 2.7 mm. Spermatheca as in Fig. 241, spermatheca length 0.22 mm.

**Differential diagnosis.** *Xenoda cruciata* sp. n. belongs to the species group with filiform antennae in both sexes. This new species is similar to *X. nigromaculata* from Borneo but differs in elytral colouring (two blackish patches on each elytron together forming an indistinct cruciform pattern) and in aedeagus slightly curved in lateral view with not curved down apex (Figs 46, 47, 150, 151). *Xenoda nigromaculata* has elytra with basal 2/5 and transverse patch near apical slope black as well as strongly curved in lateral view aedeagus with acutely curved down ventrally apex (Figs 70, 249). See also the key.

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to two blackish patches on each elytron together forming cruciform pattern.

*Xenoda (Xenodina) cyanipennis* L. Medvedev, 2004  
(Figs 49, 50, 152, 153, 242)

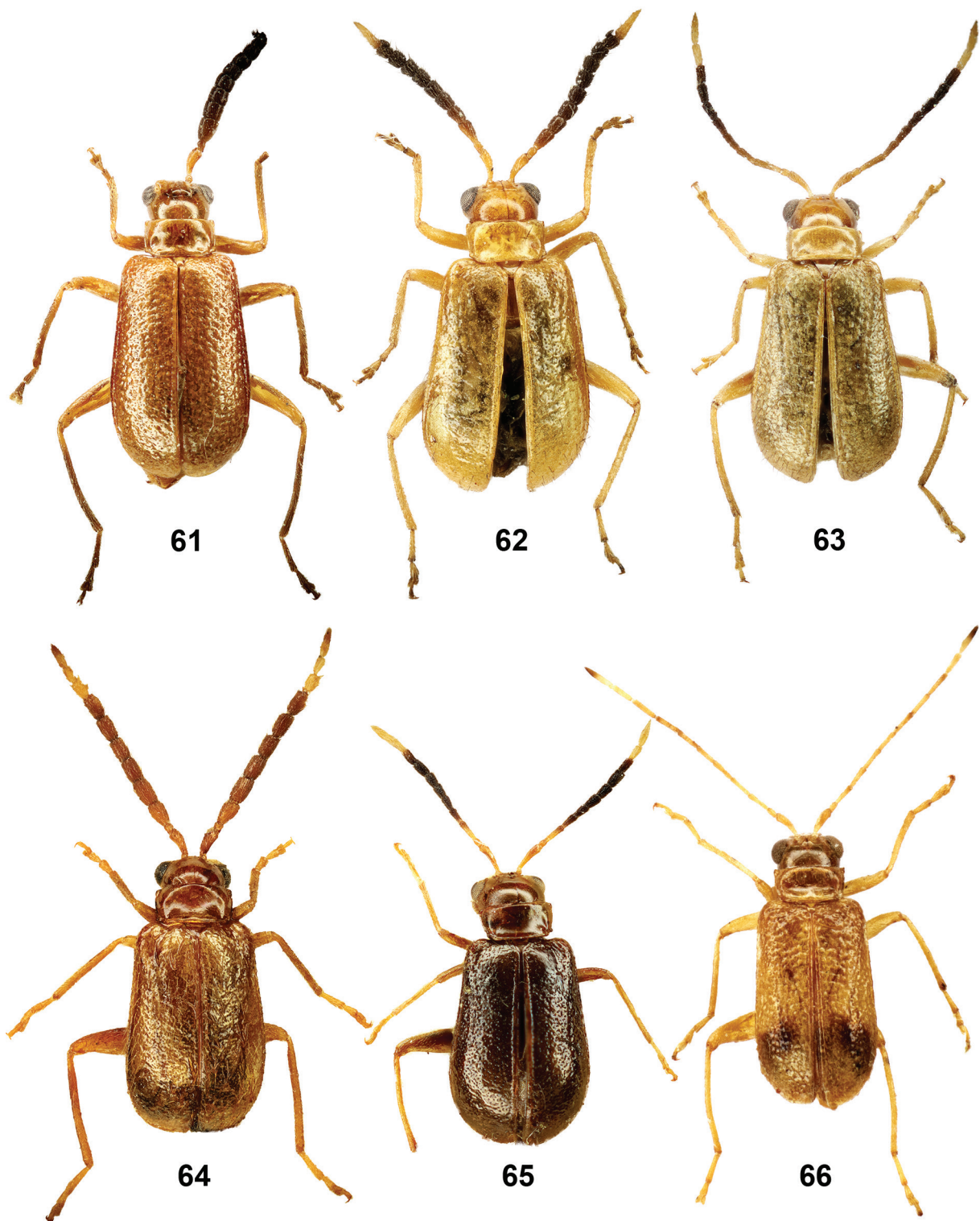
*Xenoda cyanipennis* L. Medvedev, 2004: 341.

**Material.** 1♂, paratype (ZIN), "Malaysia, Benom Mts. 15 km E Kampong Dong, 700 m 3°53' N, 102°01' E 1.IV.1998, leg. Dembický & Pacholátko"; 1♂, 1♀ (NHM), "Doherty", "Perak", "Fry Coll. 1900-100"; 1♂ (NHM), "Siam Renong", "Doherty", "Fry Coll. 1900-100".

**Notes.** According to the original description this species has upperside fulvous or dark fulvous with blue elytra. The paratype studied by us has fulvous head and pronotum, both males from additional material have head and pronotum strongly darkened.

**Distribution.** Malay Peninsula (south of Thailand, Malaysia). In addition, I have one female from Sumatra ("SUMATRA Gn Talamau 17 km E Simpangempat 21-25 May 2001, 750m Bolm lgt. (Ophir mts)") possessing the most characters of this species. However, based on only one female, we did not include Sumatra in the range of this species.



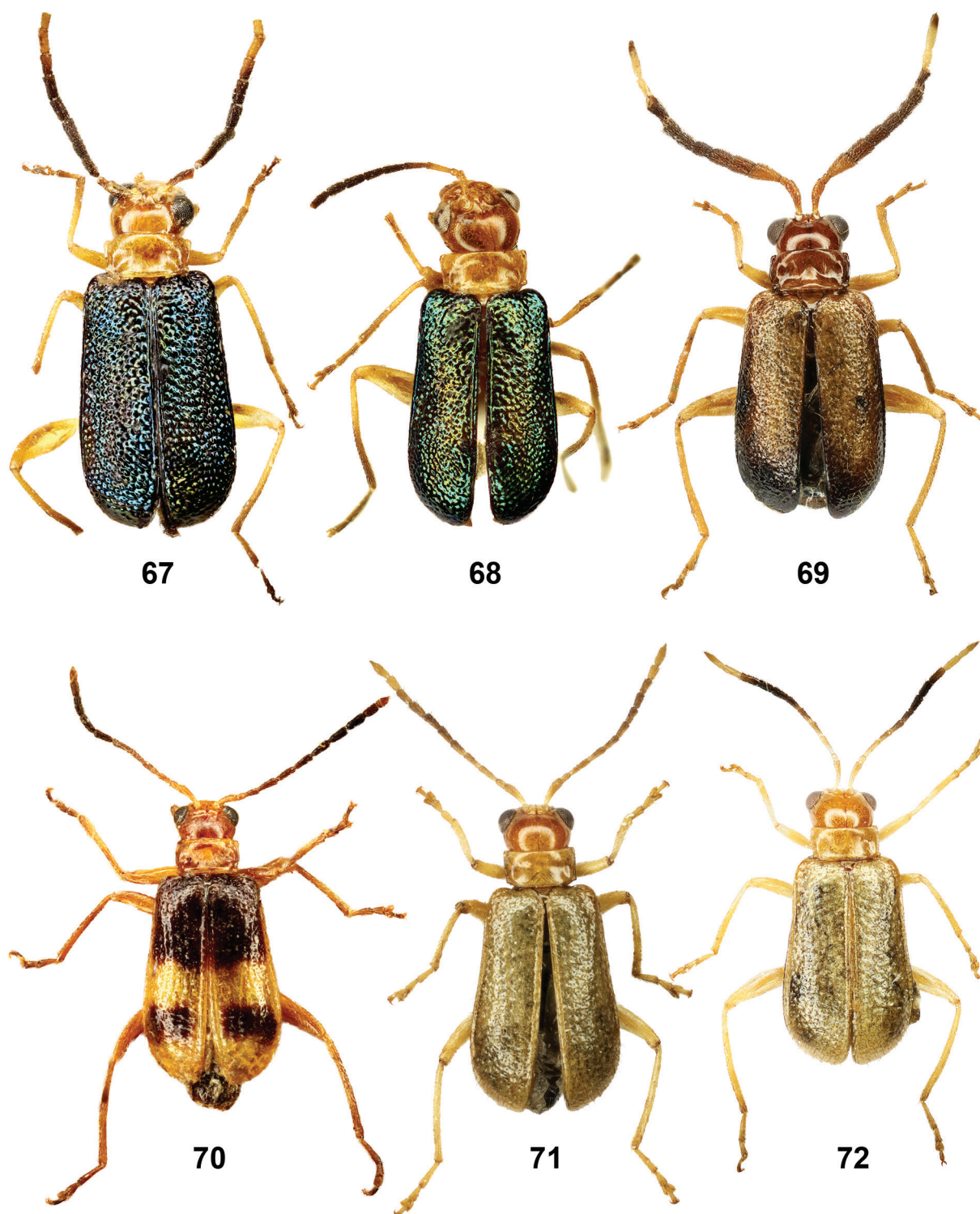


Figs 61–66. *Xenoda* (*Xenodina*), general view.

61 – *X. kerinciensis* sp. n., male, holotype; 62–63 – *X. ketambensis* sp. n.: 62 – male, holotype, 63 – female, paratype; 64–65 – *X. matangensis* sp. n.: 64 – male, holotype, 65 – female, paratype; 66 – *X. longicornis* sp. n., male, holotype.

Рис. 61–66. *Xenoda* (*Xenodina*), общий вид.

61 – *X. kerinciensis* sp. n., самец, голотип; 62–63 – *X. ketambensis* sp. n.: 62 – самец, голотип, 63 – самка, паратип; 64–65 – *X. matangensis* sp. n.: 64 – самец, голотип, 65 – самка, паратип; 66 – *X. longicornis* sp. n., самец, голотип.



Figs 67–72. *Xenoda* (*Xenodina*), general view.

67–68 – *X. sp. n.*: 67 – male, holotype, 68 – female, paratype; 69 – *X. nigroapicalis sp. n.*, male, holotype; 70 – *X. nigromaculata*, female; 71–72 – *X. parafilicornis sp. n.*: 71 – male, holotype, 72 – female, paratype.

Рис. 67–72. *Xenoda* (*Xenodina*), общий вид.

67–68 – *X. metallipennis sp. n.*: 67 – самец, голотип, 68 – самка, паратип; 69 – *X. nigroapicalis sp. n.*, самец, голотип; 70 – *X. nigromaculata*, самка; 71–72 – *X. parafilicornis sp. n.*: 71 – самец, голотип, 72 – самка, паратип.



*Xenoda (Xenodina) deformicornis* sp. n.  
(Figs 52, 156, 157, 220)

**Material.** Holotype, ♂ (NHM): "Mt. Matang W Sarawak G. E. Bryant XII. 1913".

**Description.** Male, holotype (Fig. 52). Length 3.2 mm, width 1.6 mm.

Body entirely fulvous. Antennae with two basal and one apical antennomeres fulvous; antennomere III slightly darkened, antennomeres IV–X darkened. Legs light fulvous.

Head impunctate, labrum transverse, about 1.5 times as wide as long, anterior margin with shallow emargination, surface with microsculpture and with several long setae; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes convex, widely oval (1.2 times as long as wide), interocular space 1.8 times as wide as transverse diameter of eye. Anterior part of head flattened with microsculpture; nasal keel moderately wide and convex; frontal tubercles narrow, elongate and slightly convex with sharp apex, distinctly divided by rather deep median longitudinal impression and weakly delimited posteriorly; surface of frontal tubercles densely covered with microsculpture. Vertex impunctate, shagreen with traces of longitudinal line in middle. Antennae (Fig. 220) reaching posterior third of elytra, rather densely covered with thin, short, recumbent hairs. Antennomere I long and slightly curved, antennomere II small, antennomeres III–X thickened; antennomere III conical; antennomeres IV–VII almost rectangular, antennomeres VIII and IX with apical processes, antennomere X excavated, antennomere XI lanceolate with pointed tip. Proportions in length of antennomeres I–XI are as 17 : 4 : 11 : 9 : 6 : 6 : 6 : 6 : 10 : 12 : 6 : 15; their proportions in width are as 5 : 4 : 5 : 6 : 6 : 6 : 6 : 6 : 9 : 8 : 4.

Pronotum transverse, 2 times as broad as long, surface wide transversely depressed; impunctate, widest at level of front angles. Anterior margin concave; lateral margins almost straight, posterior margin very slightly rounded. Anterior margin unbordered, but with convexity formed at border of anterior margin and transversal depression; lateral and basal margins very thinly bordered. Anterior angles slightly thickened, not prominent; posterior angles triangular, prominent; anterior angles with long pale seta.

Scutellum narrow triangular, 0.9 times as wide as long; surface with fine microsculpture.

Elytra 1.52 times as long as wide, broadest at apical third, surface moderately rugose with punctures among low ridges, sparsely covered with semi-erect hairs. Humeral calli well developed, prominent, separated from disc by distinct depression.

Legs slender, protarsomere I long and elongate, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 4 : 3 : 6; metatarsomere I narrow, equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 12 : 5 : 3 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 156, 157) wide in basal two thirds, narrowed before elongate triangular apex; in lateral view, almost straight in basal and median parts, apically bent at right angle; aedeagus length 0.55 mm.

Female unknown.

**Differential diagnosis.** *Xenoda deformicornis* sp. n. differs from other species of the subgenus *Xenodina* in three modified antennomeres (antennomeres VIII and IX with apical processes, antennomere X excavated (Fig. 220). Most other representatives of this subgenus have only one or less often two modified antennomeres.

**Distribution.** Malaysia (Sarawak).

**Etymology.** The species name refers to modified antennomeres VIII–X.

*Xenoda (Xenodina) dentiventris* sp. n.  
(Figs 51, 154, 155, 208)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~210-240m, N 03°33'01", E 098°06'39" N 03°33'15", E 098°06'05" 29.I.2018 P. Romantsov leg.,"

**Description.** Male, holotype (Fig. 51). Length 4.6 mm, width 1.9 mm.

Body, antennae and legs fulvous. Elytra black with thinly brown suture. Underside fulvous with two black teeth on abdominal ventrite I (Fig. 208).

Head impunctate, labrum transverse, 2 times as wide as long, anterior margin with shallow emargination, surface smooth with several long setae; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, triangular. Eyes convex, widely oval (1.2 times as long as wide), interocular space 1.5 times as wide as transverse diameter of eye. Anterior part of head convex, covered with several long pale setae; frontal tubercles large and convex, triangular with sharp apex, divided by thin median longitudinal impression and distinctly delimited posteriorly. Vertex impunctate, shining with thin depressed longitudinal line in middle and wide impression behind frontal tubercles. Antennae moderately long, extend beyond middle of elytra, covered with thin sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small; antennomeres III–X enlarged; antennomere III conical; antennomeres IV–IX more or less rectangular; antennomere X modified with flattened underside; antennomere XI lanceolate. Proportions in length of antennomeres I–XI are as 20 : 5 : 15 : 12 : 11 : 11 : 10 : 9 : 10 : 10 : 15; their proportions in width are as 6 : 4 : 9 : 10 : 10 : 10 : 9 : 8 : 8 : 8 : 5.

Pronotum transverse, 1.88 times as broad as long, widest at base; surface wide transversely depressed, impunctate. Anterior margin concave; lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles slightly thickened, not prominent; posterior angles triangular, prominent; each angles with setigerous pores bearing long pale seta (longer on front angles), additional two short setae visible below anterior angle on lateral margin.

Scutellum triangular, 1.6 times as wide as long; surface shining and impunctate.

Elytra 1.7 times as long as wide, broadest at apical third, surface moderately rugose with punctures among ridges, covered with sub-recumbent hairs. Humeral calli well developed.

Legs slender, protarsomere I slightly thickened but narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 9 : 6 : 7 : 13; metatarsomere I narrow, 1.25 times shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 20 : 10 : 7 : 15. All tibiae without apical spurs. Claws appendiculate.

Hind margin of abdominal ventrite I with two large teeth, triangular directed downward (Fig. 208). Anterior coxal cavities open posteriorly.

Aedeagus (Figs 154, 155) short, wide on base, gradually narrowing towards apex with narrowly rounded tip; in lateral view almost straight for most of its length but bent at right angle before apex, aedeagus length 1.7 mm.

Female unknown.

**Differential diagnosis.** This new species has rugose elytra, antennae with antennomeres III–X moderately thickened without bulb and spines, with modified antennomere X and belongs to the subgenus *Xenodina* but differs from other subgenus members in having two teeth on abdominal ventrite I (Fig. 208).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to teeth on abdominal ventrite I.

*Xenoda (Xenodina) elegantula* **sp. n.**  
(Figs 53, 54, 158, 159, 221, 243)

**Material.** Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5" 27.III.2012 P. Romantsov leg". Paratypes: 2♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1160m, N 05°25'58", E 116°26'22" 28.II.2014 P. Romantsov leg".

**Description.** Male, holotype (Fig. 53). Length 3.3 mm, width 1.25 mm.

Head testaceous, pronotum, scutellum and elytra fulvous. Antennae fulvous with antennomeres II–IX gradually darkened (from slightly darkened antennomeres II and III to almost black antennomeres VIII and IX). Legs fulvous with darkened tarsi. Underside fulvous with mesothorax, metathorax and abdomen black.

Head impunctate, labrum transverse, about 1.35 times as wide as long, anterior margin slightly convex, surface impunctate and shining with several pale setae; maxillary palpi with penultimate segment enlarged, densely covered with setae, apical segment very small, conical. Eyes moderately convex, oval (1.27 times as long as wide), interocular space 1.45 times as wide as transverse diameter of eye. Anterior part of head weakly convex; frontoclypeus with distinct sharp tooth directed downwards each side; nasal keel wide and weakly convex; frontal tubercles small and weakly convex, triangular with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by wide arcuate impression; surface of frontal tubercles impunctate and shining. Vertex with trace of longitudinal line in middle, covered with very fine microsculpture. Antennae (Fig. 221) filiform, reaching posterior quarter of elytra, covered with dense short recumbent setae and long sparse semi-erect hairs. Antennomere I gradually expanding towards apex, antennomere II with very slightly rounded sides, antennomeres III–XI cylindrical, apical antennomere with acute triangular apex. Proportions in length of antennomeres I–XI are as 13 : 4 : 10 : 9 : 9 : 9 : 9 : 9 : 9 : 12; their proportions in width are as 4 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3.

Pronotum transverse, 2 times as broad as long, widest at level of anterior angles; surface shining and impunctate with wide and deep transverse depression. Anterior margin concave, lateral and posterior margins almost straight. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior angles very slightly thickened, posterior angles triangular, all angles not prominent. Lateral margin with several short setae.

Scutellum triangular, 1.4 times as wide as long; surface with fine microsculpture.

Elytra 2 times as long as wide, very slightly broadened before apex; surface rugose with distinct punctures among ridges, rather densely covered with long semi-erect hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 4 : 8; metatarsomere I slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 7 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 158, 159) long and thick, apex triangular with obtuse tip; in lateral view almost straight with tip bent up; aedeagus length 1.75 mm.

Paratypes: females (Fig. 54) are similar to male holotype, body length 3.3–3.5 mm. Spermatheca as in Fig. 243, spermatheca length about 0.3 mm.

**Differential diagnosis.** *Xenoda elegantula* **sp. n.** differs from all other species of the subgenus *Xenodina* with filiform antennae in the narrow elongate body 2.6–2.7 times as long as wide (Figs 53, 54), instead of less than 2.3 times as long as wide in other species of this group.

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to fine body.

*Xenoda (Xenodina) fasciata* **sp. n.**  
(Figs 160, 161, 254)

**Material.** Holotype, ♂ (ZIN): "SUMATRA, JAMBI pr., Kerinci Seblat N.P.; 7 km E Kayuarj Mt. TUYUH 1750 ± 250m 1°45' S, 101°25' E Dembický leg.; 25.II–2. III. 2003".

**Description.** Male, holotype (Fig. 254). Length 3.2 mm, width 1.5 mm.

Head and pronotum brick fulvous; elytra with partly darkened anterior third (except fulvous area along suture), black apical third and with fulvous transverse band between them. Antennae fulvous with antennomeres IV–VIII darkened. Legs and underside fulvous.

Head impunctate, labrum transverse, about 1.5 times as wide as long, anterior margin almost straight, surface impunctate and shining with several pale setae; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment very small, conical. Eyes moderately convex, narrowly oval (1.4 times as long as wide), interocular space wide, 2 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel rather narrow and weakly convex; frontal tubercles medium-size, convex, triangular with sharp apex, divided by rather wide and deep median longitudinal impression and distinctly delimited posteriorly by thin, arcuate impression; surface of frontal tubercles shining and impunctate. Vertex impunctate, shining with thin and slightly depressed longitudinal line. Antennae reaching posterior third of elytra, covered with sub-recumbent hairs. Antennomere I moderately thickened and slightly curved; antennomere II small, cylindrical; antennomeres III–XI moderately thickened, antennomere III conical, antennomeres IV–X almost rectangular; antennomere XI triangular with sharp top. Antennomere X with pore. Proportions in length of antennomeres I–XI are as 15 : 4 : 9 : 7 : 8 : 8 : 8 : 7 : 10 : 5 : 12; their proportions in width are as 4 : 3 : 5 : 6 : 6 : 6 : 6 : 6 : 6 : 6 : 6.

Pronotum transverse, 2.1 times as broad as long, widest at level of anterior angles; surface impunctate with wide, more or less evenly deep transverse depression. Anterior margin sinuate, lateral and posterior margins almost straight. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles triangular slightly prominent, posterior angles obtuse, not prominent; lateral margin with several short setae.

Scutellum small triangular, 1.25 times as wide as long; surface impunctate.

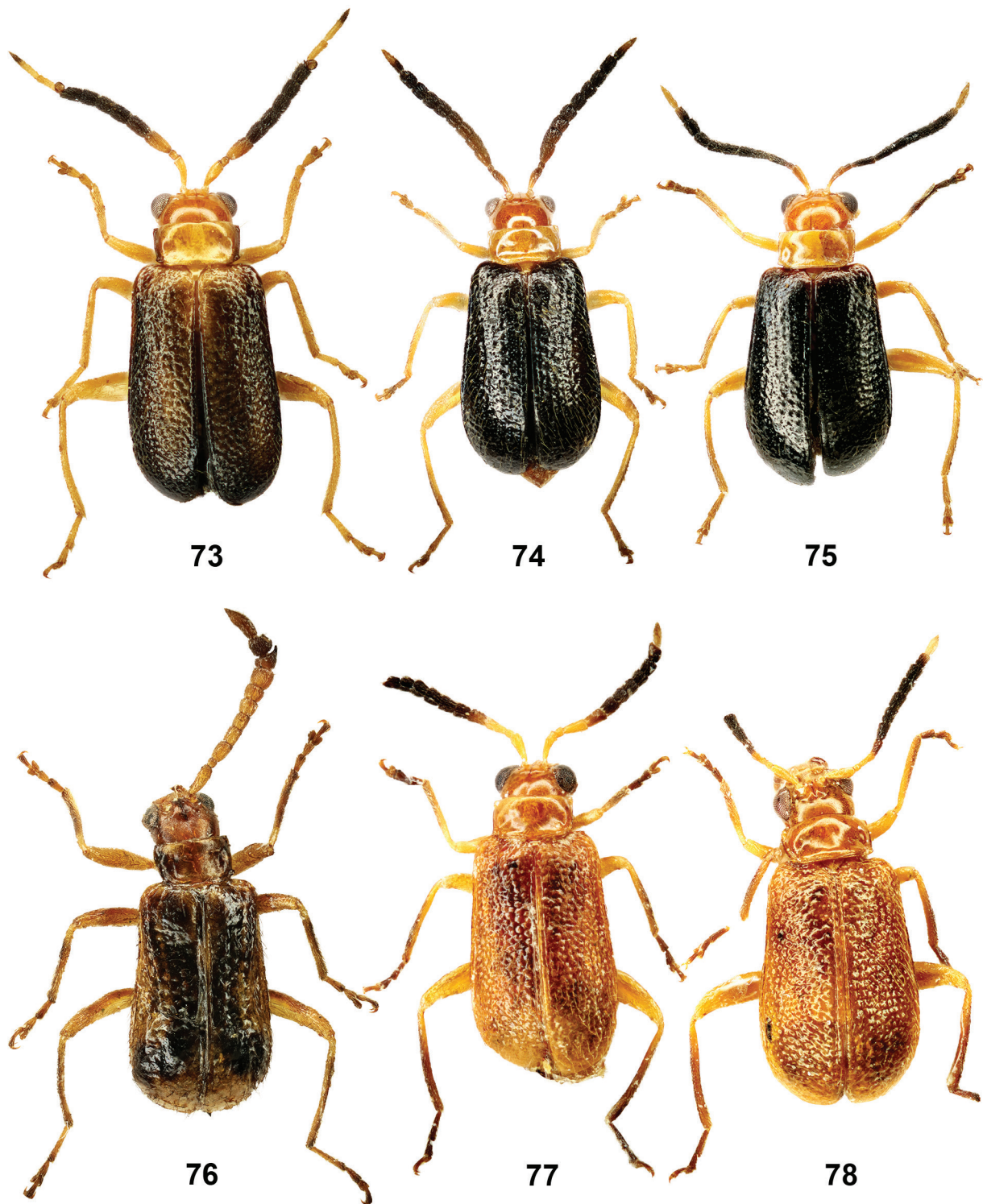
Elytra 1.55 times as long as wide, broadest in apical quarter, surface quite strongly rugose with indistinct punctures rather high among ridges, sparsely covered with sub-recumbent hairs. Humeral calli developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 5 : 4 : 8; metatarsomere I narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 6 : 4 : 10. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 160, 161) wide on base, apex elongate with rounded tip; in lateral view thin, curved; aedeagus length 0.65 mm.

Female unknown.

**Differential diagnosis.** *Xenoda fasciata* **sp. n.** can be distinguished from other members of the subgenus *Xenodina* in the unique combination of the following characters: elytra with partly darkened anterior third and black apical third, with yellow transverse band between them; elytral surface without depressions or humps; antenna with moderately thickened antennomeres but without other modifications; thin aedeagus in lateral view (Figs 160, 161, 254). All others *Xenodina* species (except *X. filimonovi* **sp. n.**) with elytra with dark pattern have either uneven elytra with depressions (*X. impressa* and other similar species) or filiform antennomeres (*X. filicornis* **sp. n.** and *X. nigromaculata*). *Xenoda*



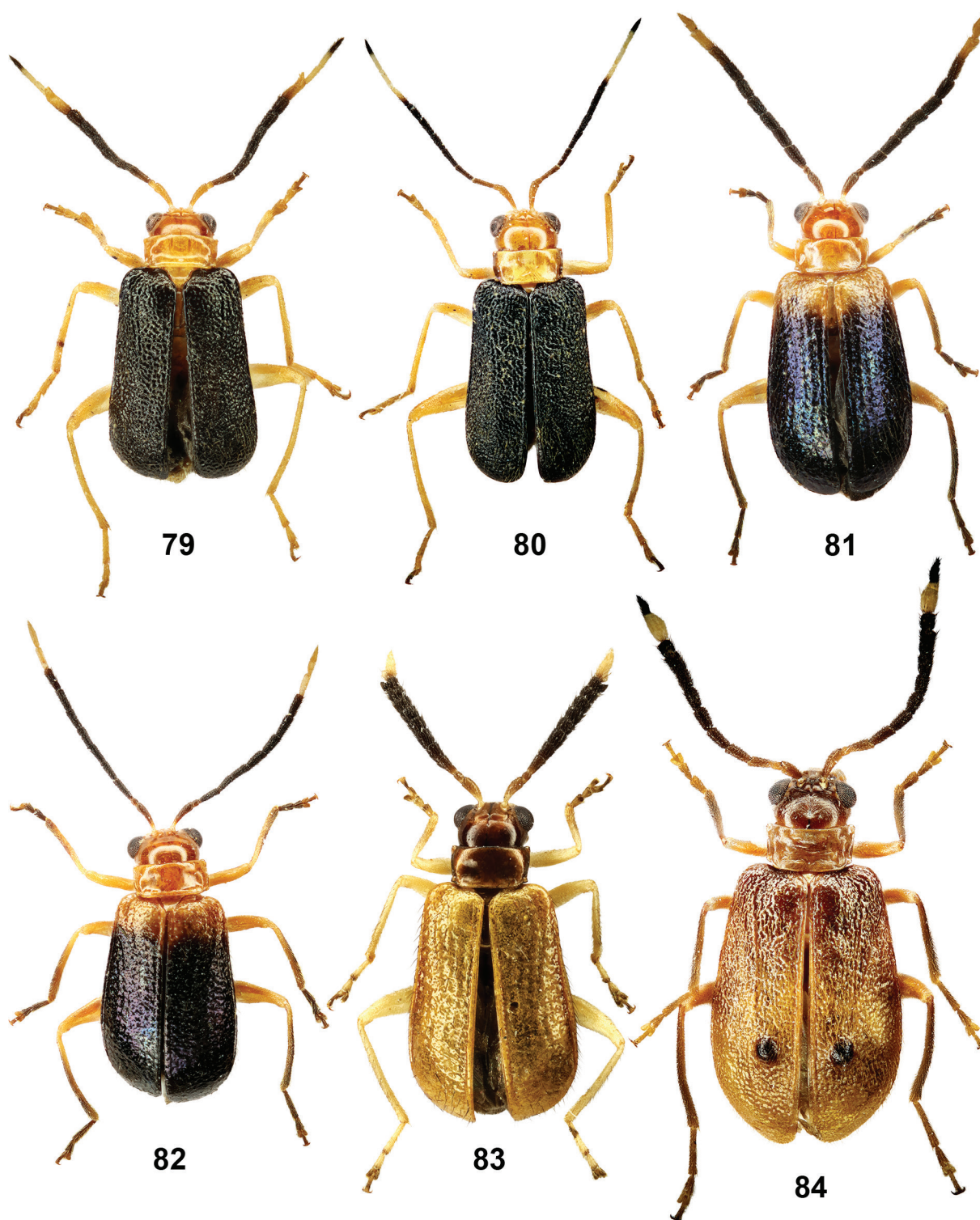
Figs 73–78. *Xenoda* (*Xenodina*), general view.

73 – *X. pseudoantennalis* **sp. n.**, male, holotype; 74–75 – *X. pseudobasalis* **sp. n.**: 74 – male, holotype, 75 – female, paratype; 76 – *X. pseudoimpressa* **sp. n.**, male, holotype; 77–78 – *X. schawalleri* **sp. n.**: 77 – male, holotype, 78 – female, paratype.

Рис. 73–78. *Xenoda* (*Xenodina*), общий вид.

73 – *X. pseudoantennalis* **sp. n.**, самец, голотип; 74–75 – *X. pseudobasalis* **sp. n.**: 74 – самец, голотип, 75 – самка, паратип; 76 – *X. pseudoimpressa* **sp. n.**, самец, голотип; 77–78 – *X. schawalleri* **sp. n.**: 77 – самец, голотип, 78 – самка, паратип.





Figs 79–84. *Xenoda* (*Xenodina*), general view.

79–80 – *X. sibayakensis* **sp. n.**: 79 – male, holotype, 80 – female, paratype; 81–82 – *X. subcyanipennis* **sp. n.**: 81 – male, holotype, 82 – female, paratype; 83 – *X. trusmadiensis* **sp. n.**, male, holotype; 84 – *X. tuberculata*, male, holotype.

Рис. 79–84. *Xenoda* (*Xenodina*), общий вид.

79–80 – *X. sibayakensis* **sp. n.**: 79 – самец, голотип, 80 – самка, паратип; 81–82 – *X. subcyanipennis* **sp. n.**: 81 – самец, голотип, 82 – самка, паратип; 83 – *X. trusmadiensis* **sp. n.**, самец, голотип; 84 – *X. tuberculata*, самец, голотип.

*filimonovi* sp. n. is similar to this new species but differs in bicoloured elytra with distinct border between fulvous anterior and black posterior parts and in aedeagus with hook-like bent tip in lateral view (Figs 164, 165, 257).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to fulvous transverse band in the middle of elytra.

*Xenoda (Xenodina) filicornis* sp. n.  
(Figs 162, 163, 244, 255, 256)

**Material.** Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1160m, N 05°25'58", E 116°26'22" 28.III.2014 P. Romantsov leg.". Paratypes: 3♂, 1♀ (PR), same data as in holotype; 5♂, 2♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35" E 116°27'5" 17-26.03.2012 P. Romantsov leg."; 9♂, 3♀ (PR, NHM, ZIN), same data, but "24-27.III.2012"; 3♂, 4♀ (PR, NHM, ZIN), same data, but "27.III.2012"; 1♀ (PR), same data, but "08.04.2013".

**Description.** Male, holotype (Fig. 255). Length 3 mm, width 1.35 mm.

Anterior part of head fulvous, occiput testaceous, pronotum and scutellum fulvous, elytra black. Antennae fulvous with antennomeres V–IX in varying degree darkened (from slightly darkened antennomeres V to strongly darkened antennomeres VII–IX). Legs fulvous, basal half of hind femora black, apical half of tibia and tarsi darkened. Underside fulvous with mesothorax, metathorax and abdomen black.

Head impunctate, labrum transverse, about 1.4 times as wide as long, anterior margin slightly convex, surface covered with microsculpture; maxillary palpi with penultimate segment enlarged, covered with setae, apical segment very small, conical. Eyes moderately convex, oval (1.27 times as long as wide), interocular space 1.35 times as wide as transverse diameter of eye. Anterior part of head and nasal keel weakly convex; frontal tubercles moderately convex, triangular with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by wide arcuate impression; surface of frontal tubercles covered with distinct microsculpture. Vertex with trace of longitudinal line deeper in front of frontal tubercles; surface covered with fine microsculpture. Antennae filiform, reaching posterior quarter of elytra, covered with dense short recumbent setae and long rare semi-erect hairs. Antennomere I gradually expanding towards apex, antennomeres II–XI cylindrical, apical antennomere with acute triangular apex. Proportions in length of antennomeres I–XI are as 14 : 5 : 10 : 10 : 9 : 9 : 8 : 8 : 7 : 8 : 12; their proportions in width are as 5 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3.

Pronotum transverse, 1.75 times as broad as long, widest before anterior angles; surface transversely depressed, covered with fine microsculpture. Anterior margin concave, lateral and posterior margins slightly convex. Anterior margin unbordered, lateral margins distinct and basal margin thinly bordered. Anterior and posterior angles triangular, not prominent. Each angles with setigerous pores bearing long pale seta, additional several short setae visible on lateral margin.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate.

Elytra 1.68 times as long as wide, very slightly broadened in apical quarter; surface rugose with distinct punctures among ridges, sparsely covered with long semi-erect hairs. Humeral calli developed.

Legs slender, protarsomere I slightly narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 3 : 7; metatarsomere I shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 11 : 6 : 4 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 162, 163) short and thick, apex elongate with rounded tip; slightly curved in lateral; aedeagus length 1.15 mm.

Paratypes: males and females (Fig. 256) are similar to male holotype, but several specimens have almost entirely fulvous fore

legs. Body length 2.9–3.1 mm in males, 3.1–3.4 mm in females. Spermatheca as in Fig. 244, spermatheca length about 0.25 mm.

**Differential diagnosis.** *Xenoda filicornis* sp. n. differs from most other species of the subgenus *Xenodina* in not modified filiform antennae in both sexes. *Xenoda parafileicornis* sp. n., *X. nigromaculata*, *X. cruciata* sp. n., *X. flexuosa* sp. n. and *X. elegantula* sp. n. also have not modified antennae in male but the first three species have robust antennae (1.5 times shorter than the body length) with less elongated antennomeres. *Xenoda flexuosa* sp. n. and *X. elegantula* sp. n. have long antennae (1.2 times shorter than the body length) with more elongated antennomeres and are most similar to this new species but *X. flexuosa* sp. n. differs in cross-like blackish elytral pattern and aedeagus strongly curved in lateral view (Figs 55, 56, 167). *Xenoda elegantula* sp. n. differs from *X. filicornis* sp. n. (and from all other species of the subgenus *Xenodina* with filiform antennomeres) in narrow elongate body 2.6–2.7 times as long as wide (Figs 53, 54), instead of less than 2.3 times as long as wide in other species of this group.

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to filiform antennae.

*Xenoda (Xenodina) filimonovi* sp. n.  
(Figs 164, 165, 257)

**Material.** Holotype, ♂ (PR): "INDONESIA, West Java, Gunung Halimun Salak N.P., Cikaniki Research Station 1128 - 1342 m 06° 44,745' S 106° 32,097' E - 06° 45,003' S 106° 31,845' E 22. III. 2014 Filimonov R. leg.". Paratype: 1♂ (ZIN), "Java".

**Description.** Male, holotype (Fig. 257). Length 3.2 mm, width 1.4 mm.

Head dark fulvous, pronotum fulvous. Basal part of elytra fulvous (fulvous pattern looks like triangle with wide base at level of humeral tubercles and apex on middle length of suture). Rest of elytral surface black with weak metallic violaceous shine. Antennae fulvous with antennomeres IV–IX slightly darkened. Fore and middle legs fulvous; hind legs fulvous with apical half of femora, tibiae and tarsi darkened. Underside fulvous with metathorax and abdomen darkened.

Head impunctate, labrum transverse, about 1.3 times as wide as long, anterior margin with shallow emargination, surface impunctate but with microsculpture and with several long setae; maxillary palpi with penultimate segment enlarged, sparsely covered with rather long setae, apical segment small, conical. Eyes convex, slightly oval (1.18 times as long as wide), interocular space 1.72 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel rather narrow and convex; frontal tubercles rather large and convex, triangular with sharp apex, divided by thin and shallow median longitudinal impression and delimited posteriorly by arcuate impression. Vertex impunctate, shining with very thin and slightly depressed longitudinal line in middle. Antennae reaching posterior third of elytra, rather densely covered with thin sub-recumbent hairs. Antennomere I moderately thickened, slightly dorsoventrally flattened, antennomere II small, antennomeres III–IX moderately thickened; antennomere III conical, antennomeres IV–IX almost rectangular; antennomere XI elongate with pointed top. Proportions in length of antennomeres I–XI are as 12 : 4 : 10 : 10 : 10 : 9 : 10 : 10 : 8 : 11; their proportions in width are as 5 : 3 : 5 : 5 : 6 : 6 : 6 : 6 : 5 : 3.

Pronotum transverse, 2 times as broad as long, widest near anterior angles; surface with transverse depression, impunctate but with microsculpture. Anterior margin concave; lateral margins

almost straight; posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior and posterior angles triangular, prominent; each angle with setigerous pores bearing short pale seta, additional two shorter setae visible on lateral margin (one near anterior angle and another near posterior angle).

Scutellum broadly triangular, 1.2 times as wide as long; surface with microsculpture.

Elytra 1.65 times as long as wide, broadest at apical third, surface moderately rugose with punctures among ridges, sparsely covered with rather long semi-erect hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 3 : 3; metatarsomere I narrow, approximately equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 6 : 3 : 8. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 164, 165) constricted in middle with long pointed apex; strongly curved in lateral view with hook-like bent tip; aedeagus length 1.1 mm.

Paratype, male, is similar to holotype but with shorter triangular fulvous part on bicoloured elytra; body length 3.5 mm.

Female unknown.

**Differential diagnosis.** This new species has antennomeres thickened but without excavations or processes and is similar to *Xenoda basalis* but differs in bicoloured elytra with weak metallic shine and distinct border between fulvous anterior and black posterior parts and in aedeagus with hook-like bent tip in lateral view (Figs 164, 165, 257). *Xenoda basalis* has aedeagus with ball-shaped thickened, not curved tip in lateral view and entirely black or fulvous elytra (Figs 38–40, 135–137), if bicoloured ones then without distinct border between fulvous and black parts. *Xenoda filimonovi* sp. n. has bicoloured elytra with weak metallic shine and is similar to *X. subcyanipennis* sp. n. but differs in aedeagus with hook-like bent tip (Fig. 165) and in less pronounced metallic shine on elytra, instead of aedeagus with not bent down tip and elytra with distinct metallic shine in the latter species (Figs 81, 82, 203).

**Distribution.** Indonesia (Java).

**Etymology.** The name of the new species is dedicated to Rostislav Filimonov (St Petersburg, Russia), specialist on Curculionidae, who collected the holotype.

*Xenoda (Xenodina) flavipennis* sp. n.

(Figs 170, 171, 245, 258, 259)

**Material.** Holotype, ♂ (NHM): “Doherty”, “Perak”, “Fry Coll. 1900–100”. Paratypes: 1♂ (JB), “MALAYSIA, Pahang distr., 30 km ne Raub, Lata Lembik 3°56' N 101°38' E, 200–400 m, 22.IV–15.V.2002 E. Jendek & O. Šauša leg.”; 1♂ (PR), “Penang G. E. Bryant. 29. X. 13”; 1♀ (NHM), “Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~210–240m, N 03°33'01”, E 098°06'39” N 03°33'15”, E 098°06'05” 29.I.2018 A. Prosvirov leg.”; 1♀ (PR), same data, but “30. I. 2018”.

**Description.** Male, holotype (Fig. 258). Length 3 mm, width 1.6 mm.

Head dark reddish-fulvous, pronotum black, elytra fulvous. Antennae black with two basal antennomeres dark reddish-fulvous and last antennomere fulvous. Legs fulvous, basal half of femoral and tibiae (except base) darkened. Underside blackish.

Head impunctate, labrum trapezoid, about 1.6 times as wide as long, anterior margin almost straight, surface impunctate and shining with several pale setae; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes strongly

convex, widely oval (1.35 times as long as wide), interocular space 1.6 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel moderately narrow and convex; frontal tubercles weakly convex and moderately small, divided by thin median longitudinal impression and distinctly delimited posteriorly by thin impression; surface of frontal tubercles with very fine microsculpture. Vertex covered with very fine microsculpture, with thin but distinct longitudinal depressed line. Antennae reaching posterior third of elytra, sparsely covered with thin semi-erect hairs. Antennomere I rather large, antennomere II small, antennomeres III–XI moderately thickened; antennomere IX with concave outer surface. Proportions in length of antennomeres I–XI are as 15 : 4 : 11 : 10 : 9 : 9 : 9 : 7 : 10 : 8 : 16; their proportions in width are as 5 : 3 : 4 : 5 : 6 : 6 : 6 : 7 : 5 : 5 : 5.

Pronotum strongly transverse, 2.2 times as wide as long, widest near anterior angles; surface impunctate with wide and deep transverse depression. Anterior and posterior margins almost straight, lateral margins slightly rounded in apical third. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles slightly thickened, triangular; posterior angles obtuse, all angles not prominent; all angles with setigerous pores bearing very long pale seta, additional two short setae visible on lateral margin.

Scutellum triangular, 1.2 times as wide as long; surface shining and impunctate.

Elytra wide, 1.5 times as long as wide, broadest at apical third, surface rugose with rather high ridges, covered with semi-erect hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 9 : 5 : 9 : 8; metatarsomere I approximately equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 14 : 5 : 5 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 170, 171) small and thin with triangular apex; in lateral view curved in apical third; aedeagus length 0.85 mm.

Paratypes males are similar to holotype but with head and basal antennomeres entirely black and with more darkened tibia and femora, one male from Penang has tibia and femora almost entirely blackish. Females (Fig. 259) have filiform antennae with not thickened antennomeres. Body length 3–3.2 mm in males, 2.8–3 mm in females. Spermatheca as in Fig. 245.

**Differential diagnosis.** *Xenoda flavipennis* sp. n. differs from other species of the subgenus *Xenodina* (and of the genus as a whole) in colouration with black pronotum and fulvous elytra (Figs 258, 259), which is atypical for the genus *Xenoda*.

**Distribution.** Peninsular Malaysia, Indonesia (Sumatra).

**Etymology.** The species name refers to fulvous elytra.

*Xenoda (Xenodina) flexuosa* sp. n.

(Figs 55, 56, 166, 167)

**Material.** Holotype, ♂ (PR): “INDONESIA, West Java, Puncak Pass, Telaga Warna forest reserve 06° 41,956' S 106° 59,758' E - 06° 41,994' S 106° 59,867' E 1450–1474m 12. III. 2014 Filimonov R. leg.”. Paratype: 1♀ (PR), same data as in holotype.

**Description.** Male, holotype (Fig. 55). Length 2.8 mm, width 1.2 mm.

Body fulvous. Spot on frontal tubercles and sides of pronotum blackish. Each elytron with curved blurred blackish longitudinal stripe, which form general cruciform pattern on elytra. Antennae with three apical antennomeres darkened.

Legs fulvous with basal part of tarsomeres darkened. Underside fulvous with metathorax and abdomen darkened.

Head impunctate, labrum rather narrow, 1.15 times as wide as long, anterior margin straight, surface convex, shining and impunctate with several short setae; maxillary palpi with



Figs 85–108. *Xenoda* s. str., aedeagi.

85–86 – *X. bakeri*, holotype: 85 – dorsal view, 86 – lateral view; 87–88 – *X. carinata*, syntype: 87 – dorsal view, 88 – lateral view; 89–90 – *X. fulvicornis* **sp. n.**, holotype: 89 – dorsal view, 90 – lateral view; 91–92 – *X. geiseri* **sp. n.**, holotype: 91 – dorsal view, 92 – lateral view; 93–94 – *X. klimenkoi* **sp. n.**, holotype: 93 – dorsal view, 94 – lateral view; 95–96 – *X. luzonica*, holotype: 95 – dorsal view, 96 – lateral view; 97–98 – *X. minutissima* **sp. n.**, holotype: 97 – dorsal view, 98 – lateral view; 99–100 – *X. nigricollis*, syntype: 99 – dorsal view, 100 – lateral view; 101–102 – *X. pallida*, syntype (Sumatra): 101 – dorsal view, 102 – lateral view; 103–104 – *X. pallida* (Borneo): 103 – dorsal view, 104 – lateral view; 105–106 – *X. spinicornis*, holotype: 105 – dorsal view, 106 – lateral view; 107–108 – *X. weyersi*, holotype: 107 – dorsal view, 108 – lateral view.

Рис. 85–108. *Xenoda* s. str., эдеагусы.

85–86 – *X. bakeri*, голотип: 85 – вид сверху, 86 – вид сбоку; 87–88 – *X. carinata*, синтип: 87 – вид сверху, 88 – вид сбоку; 89–90 – *X. fulvicornis* **sp. n.**, голотип: 89 – вид сверху, 90 – вид сбоку; 91–92 – *X. geiseri* **sp. n.**, голотип: 91 – вид сверху, 92 – вид сбоку; 93–94 – *X. klimenkoi* **sp. n.**, голотип: 93 – вид сверху, 94 – вид сбоку; 95–96 – *X. luzonica*, голотип: 95 – вид сверху, 96 – вид сбоку; 97–98 – *X. minutissima* **sp. n.**, голотип: 97 – вид сверху, 98 – вид сбоку; 99–100 – *X. nigricollis*, синтип: 99 – вид сверху, 100 – вид сбоку; 101–102 – *X. pallida*, синтип (Суматра): 101 – вид сверху, 102 – вид сбоку; 103–104 – *X. pallida* (Борнео): 103 – вид сверху, 104 – вид сбоку; 105–106 – *X. spinicornis*, голотип: 105 – вид сверху, 106 – вид сбоку; 107–108 – *X. weyersi*, голотип: 107 – вид сверху, 108 – вид сбоку.



Figs 109–132. *Xenoda* (*Paraxenidea*, *Xenodania*, *Xenodella*, *Trichoxenoda* subgen. n.), aedeagi.

109–110 – *X. brancuccii*, paratype: 109 – dorsal view, 110 – lateral view; 111–112 – *X. merkli* sp. n., holotype: 111 – dorsal view, 112 – lateral view; 113–114 – *X. pseudovittata* sp. n., holotype: 113 – dorsal view, 114 – lateral view; 115–116 – *X. vittata*, paratype: 115 – dorsal view, 116 – lateral view; 117 – *X. abdominalis*, syntype, male 1, dorsal view; 118 – *X. abdominalis*, syntype, male 2, dorsal view; 119–120 – *X. bezdeki* sp. n., holotype: 119 – dorsal view, 120 – lateral view; 121–122 – *X. javanica* sp. n., holotype: 121 – dorsal view, 122 – lateral view; 123–124 – *X. pseudoabdominalis* sp. n., holotype: 123 – dorsal view, 124 – lateral view; 125–126 – *X. lapan* (Borneo): 125 – dorsal view, 126 – lateral view; 127–128 – *X. parvula* (Sumatra): 127 – dorsal view, 128 – lateral view; 129–130 – *X. perakensis* sp. n., holotype: 129 – dorsal view, 130 – lateral view; 131–132 – *X. simplex* sp. n., holotype: 131 – dorsal view, 132 – lateral view.

Рис. 109–132. *Xenoda* (*Paraxenidea*, *Xenodania*, *Xenodella*, *Trichoxenoda* subgen. n.), эдеагусы.

109–110 – *X. brancuccii*, паратип: 109 – вид сверху, 110 – вид сбоку; 111–112 – *X. merkli* sp. n., голотип: 111 – вид сверху, 112 – вид сбоку; 113–114 – *X. pseudovittata* sp. n., голотип: 113 – вид сверху, 114 – вид сбоку; 115–116 – *X. vittata*, паратип: 115 – вид сверху, 116 – вид сбоку; 117 – *X. abdominalis*, синтип, самец 1, вид сверху; 118 – *X. abdominalis*, синтип, самец 2, вид сверху; 119–120 – *X. bezdeki* sp. n., голотип: 119 – вид сверху, 120 – вид сбоку; 121–122 – *X. javanica* sp. n., голотип: 121 – вид сверху, 122 – вид сбоку; 123–124 – *X. pseudoabdominalis* sp. n., голотип: 123 – вид сверху, 124 – вид сбоку; 125–126 – *X. lapan* (Борнео): 125 – вид сверху, 126 – вид сбоку; 127–128 – *X. parvula* (Суматра): 127 – вид сверху, 128 – вид сбоку; 129–130 – *X. perakensis* sp. n., голотип: 129 – вид сверху, 130 – вид сбоку; 131–132 – *X. simplex* sp. n., голотип: 131 – вид сверху, 132 – вид сбоку.



penultimate segment enlarged, sparsely covered with short setae, apical segment very small, conical. Eyes large and strongly convex, oval (1.3 times as long as wide), interocular space 1.3 times as wide as transverse diameter of eye. Anterior part of head convex and impunctate; nasal keel rather narrow and convex; frontal tubercles small, narrow and slightly convex with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by narrow arcuate depression. Vertex impunctate but with microsculpture and with traces of longitudinal line in middle. Antennae filiform, long, reaching apical slope of elytra; covered with thin, short, recumbent hairs. Proportions in length of antennomeres I–XI are as 13 : 5 : 10 : 9 : 9 : 9 : 10 : 10 : 11 : 9 : 12; their proportions in width are as 4 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 3.

Pronotum transverse, 1.75 times as broad as long, widest at level of front angles; surface widely transversely depressed, with microsculpture. Anterior and lateral margins almost straight, posterior margin very slightly convex. Anterior margin unbordered, lateral and basal margins very thinly bordered. Anterior angles triangular, not prominent; posterior angles sharp, prominent.

Scutellum widely triangular, 2 times as wide as long; surface impunctate and shining.

Elytra 1.65 times as long as wide, broadest at level of apical slope; surface rather strongly rugose with punctures among high ridges, sparsely covered with recumbent hairs. Humeral calli well developed.

Legs slender, protarsomere I long and elongate, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 3 : 6; metatarsomere I slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 12 : 6 : 4 : 6. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 166, 167) wide in basal part, gradually narrowed to constriction before elongate triangular apex; strongly curved in lateral view; aedeagus length 0.75 mm.

Paratype, female (Fig. 56), is similar to male, body length 2.8 mm.

**Differential diagnosis.** *Xenoda flexuosa* sp. n. belongs to the species group with not modified antennomeres in both sexes. This new species having comparatively long antennae (1.2 times shorter than the body length) is similar to *X. filicornis* sp. n. from Borneo but differs in cross-like blackish elytral pattern and strongly curved aedeagus in lateral view (Figs 55, 56, 167), instead of elytra entirely black and slightly curved aedeagus (Figs 163, 255, 256) in the latter species.

**Distribution.** Indonesia (Java).

**Etymology.** The species name refers to the sinuate black stripe on each elytron.

*Xenoda (Xenodina) fulva* L. Medvedev, 2004  
(Figs 57, 168, 169)

*Xenoda fulva* L. Medvedev, 2004: 341.

**Material.** 1♂, paratype (ZIN), "Malaysia, Benom Mts. 15 km E Kampong Dong, 700 m 3°53' N, 102°01' E 1.IV.1998, leg. Dembický & Pacholátko"; 1♂ (NHM), "Doherty", "Perak L. C.", "Fry Coll. 1905. 100"; 1♂ (NHM), "Penang", "Pascoe Coll. 93–60".

**Notes.** This species is very similar to *X. setiuensis* but was described without comparison with it. Possible they are identical. I did not have the opportunity to examine the type specimen of *X. setiuensis* and the description of this species given by Mohamedsaid [2001] is not informative enough. Differences, that has been established between these species based on the descriptions, are given in the key.

**Distribution.** Peninsular Malaysia.

*Xenoda (Xenodina) impressa* L. Medvedev, 2004  
(Figs 58, 172, 173)

*Xenoda fulva* L. Medvedev, 2004: 342.

**Material.** 1♂, holotype (ZIN), "Sumatra, Tanjung Morawa"; 1♂ (JB), "SUMATRA Takengen".

**Distribution.** Indonesia (Sumatra).

*Xenoda (Xenodina) impressipennis* sp. n.  
(Figs 59, 174, 175)

**Material.** Holotype, ♂ (NHM): "SARAWAK: 4th Division Gn. Mulu NP", "nr. Camp 4 c. 1800m.", "P.M. Hammond & J.E. Marshall v–viii. 1978 B.M. 1978–49".

**Description.** Male, holotype (Fig. 59). Length 3.6 mm, width 1.9 mm.

Head dark fulvous with frontal tubercles and nasal keel light fulvous. Pronotum dark fulvous with longitudinal light fulvous stripe in middle. Elytra with epipleura light fulvous, most of elytral disc dark fulvous with apex and part of apical slope light fulvous. Legs fulvous, base of hind femora, all tibiae and tarsi darkened. Underside light fulvous with metathorax and abdomen dark fulvous. Antennae dark fulvous with last antennomere light fulvous.

Legs fulvous, base of hind femora, all tibiae and tarsi darkened. Underside light fulvous with metathorax and abdomen dark fulvous. Antennae dark fulvous with last antennomere light fulvous.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin with shallow emargination, surface impunctate with several pale setae; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes convex, oval (1.35 times as long as wide), interocular space very wide, 2.2 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel wide and slightly convex; frontal tubercles moderately convex, triangular with sharp apex, divided by rather deep median longitudinal impression and delimited posteriorly by thin impression; surface of frontal tubercles covered with very fine microsculpture. Vertex shining and impunctate with slightly depressed thin longitudinal line in middle. Antennae reaching posterior third of elytra, sparsely covered with semi-erect hairs. Antennomere I thickened, antennomere II small and elongate, antennomeres III–X thickened; antennomeres III and IV conical, antennomeres V–IX almost rectangular; antennomere X modified with small process directed forward forming plate extending from outer side surface; antennomere XI moderately large with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 5 : 10 : 11 : 10 : 9 : 9 : 9 : 9 : 8 : 16; their proportions in width are as 5 : 4 : 6 : 8 : 8 : 8 : 8 : 8 : 8 : 8 : 6.

Pronotum transverse, 1.8 times as wide as long, widest at level of anterior angles; surface covered with very fine microsculpture and with wide transverse depression shallow in middle and deeper on sides. Anterior margin very slightly concave, lateral margins almost straight, posterior margin slightly sinuate. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles slightly thickened, not prominent; posterior angles triangular, prominent; each angles with setigerous pores bearing long pale seta, additional several short setae visible on lateral margin.

Scutellum triangular with sharp apex, 1.3 times as wide as long; surface with very fine microsculpture.

Elytra 1.57 times as long as wide, widest in apical fourth; surface rather densely covered with erect hairs, uneven (with several wide impressions and two large, slightly convex tubercles on apical slope) and rugose (with ridges and sparse punctures among them). Humeral calli well developed.

Legs moderately slender with slightly curved hind tibiae, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 4 : 11;



metatarsomere I narrow, shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 18 : 9 : 5 : 12. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 174, 175) wide on base, narrow and elongate on apex; in lateral view curved near middle; aedeagus length 1.75 mm.

Female unknown.

**Differential diagnosis.** This new species differs from other species of the subgenus *Xenodina* in combination of the following characters: antennomere X with process and uneven elytral surface with depressions and convexities (Fig. 59). *Xenoda impressipennis* sp. n. occupies an intermediate position between two groups of species: either with modified antennomere X or with uneven elytral surface but not having these characters in combination.

**Distribution.** Malaysia (Sarawak).

**Etymology.** The species name refers to elytral surface with impressions.

*Xenoda (Xenodina) inaequalipennis* sp. n.  
(Figs 60, 176, 177)

**Material.** Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660m N 05°48'47", E 116°20'16" 16.IV.2013 P. Romantsov leg".

**Description.** Male, holotype (Fig. 60). Length 3.9 mm, width 1.8 mm.

Head dark fulvous with occiput light fulvous. Pronotum dark fulvous with median longitudinal light fulvous stripe (beginning from basal margin and not reaching anterior margin). Elytra fulvous with basal quarter dark fulvous. Antennae with fulvous antennomeres V–VIII blackish. Legs fulvous with tibiae partly darkened. Underside fulvous.

Head impunctate, labrum transverse, 1.4 times as wide as long with almost straight anterior margin, surface convex with several pale setae; maxillary palpi with penultimate segment enlarged and small, triangular apical segment. Eyes convex, narrowly oval (1.45 times as long as wide), interocular space 1.75 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel narrow and strongly convex; frontal tubercles very small and weakly convex, triangular with sharp apex, divided by thin median longitudinal impression and indistinctly delimited posteriorly. Vertex shining and impunctate with distinct longitudinal line in middle. Antennae robust and short, reaching middle of elytra, rather densely covered with large punctures and sub-recumbent hairs. Antennomere I slightly thickened, antennomere II small, antennomeres III and IV strongly thickened, antennomeres V–VIII moderately thickened, antennomere IX slightly thickened and excavated, antennomere X small and slightly flattened, antennomere XI lanceolate with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 16 : 15 : 10 : 9 : 10 : 10 : 13 : 5 : 10; their proportions in width are as 5 : 4 : 12 : 11 : 9 : 8 : 8 : 8 : 7 : 5 : 4.

Pronotum transverse, 1.55 times as wide as long, widest near anterior angles; surface shining and impunctate with wide transverse depression shallow in middle and deeper on sides. Anterior margin very slightly concave, lateral margins and posterior margin slightly sinuate. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles triangular, not prominent; posterior angles triangular, prominent; lateral margin with several short setae near anterior and posterior angles.

Scutellum triangular with sharp apex, 1.1 times as wide as long; surface shining and impunctate.

Elytra 1.69 times as long as wide, widest in apical fourth; surface covered with erect hairs, uneven (with several wide

impressions and two large slightly convex tubercles before apical slope) and rugose (with ridges and sparse punctures among them). Humeral calli well developed.

Legs slender with slightly curved hind tibiae, protarsomere I slightly thickened, as wide as protarsomere III, proportions in length of protarsomeres I–IV are as 10 : 7 : 5 : 9; metatarsomere I narrow, equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 23 : 9 : 6 : 12. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 176, 177) wide on base, gradually narrowed towards triangular apex with obtuse tip; in lateral view curved near middle; aedeagus length 1.35 mm.

Female unknown.

**Differential diagnosis.** This new species belongs to species group having uneven elytral surface with impressions and convexities. *Xenoda inaequalipennis* sp. n. is most similar to *X. impressipennis* sp. n. but differs from the latter and other species of the subgenus *Xenodina* in strongly thickened antennomeres III–IV and excavated antennomere IX (Fig. 60).

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to uneven surface of elytra.

*Xenoda (Xenodina) kerinciensis* sp. n.  
(Figs 61, 178, 179)

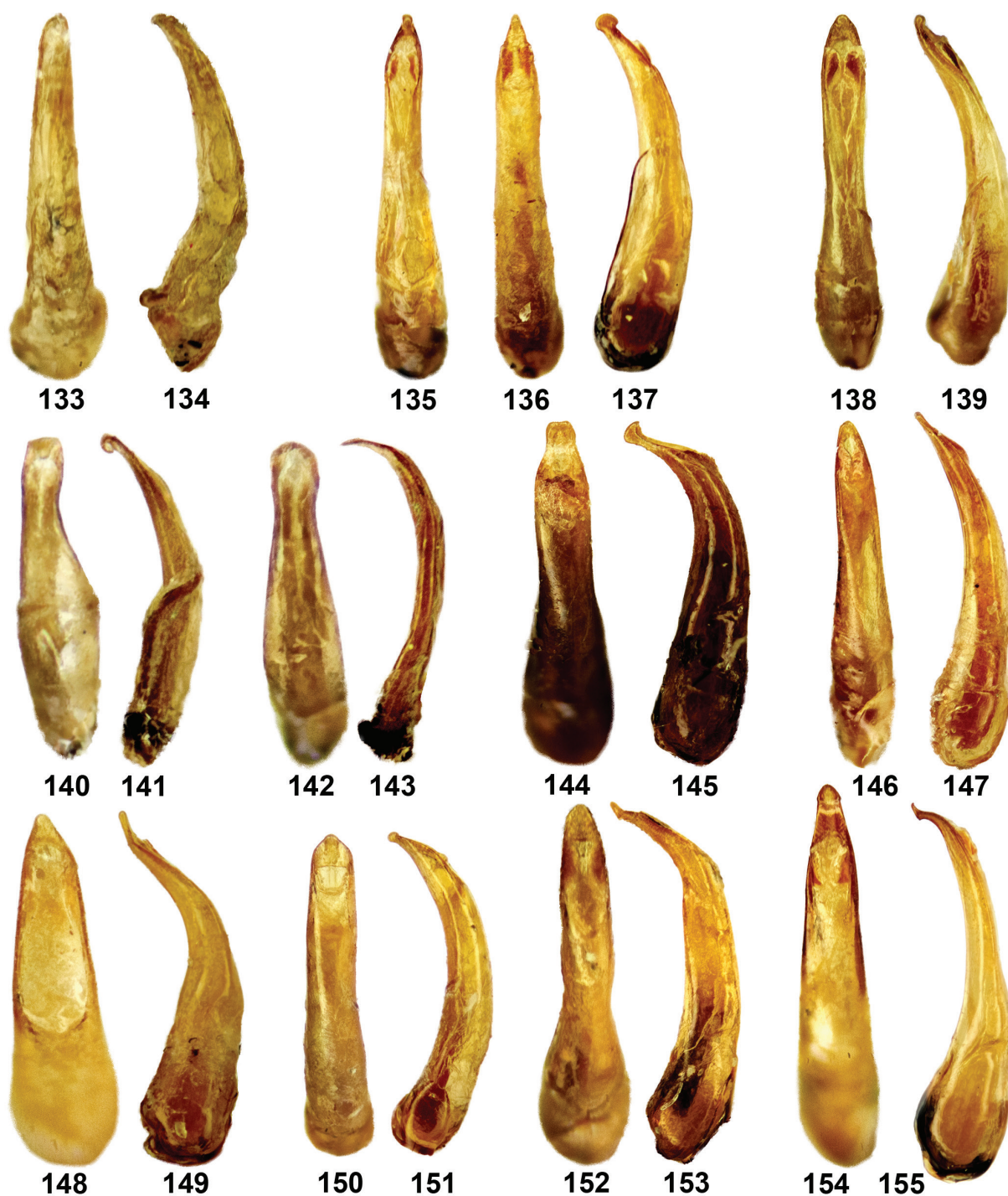
**Material.** Holotype, ♂ (ZIN): "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO → E env.: 2°05' S, 101°15' E: 400–550 m. Dembický leg.; 4.–18. III. 2003".

**Description.** Male, holotype (Fig. 61). Length 4 mm, width 1.8 mm.

Body fulvous, antennae strongly darkened with two basal antennomeres fulvous. Legs fulvous with apical part of tibiae and tarsi slightly darkened. Underside dark fulvous.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin slightly concave, surface convex and impunctate with several pale setae; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment narrow, conical. Eyes large and convex, oval (1.3 times as long as wide), interocular space 1.6 times as wide as transverse diameter of eye. Anterior part of head convex with several pale setae; nasal keel rather narrow and convex; frontal tubercles moderately elongate and convex, triangular with sharp apex, divided by thin median longitudinal impression and distinctly delimited posteriorly by straight impression; surface of frontal tubercles shining and impunctate. Vertex shining and impunctate with thin slightly depressed longitudinal line deeper before frontal tubercles. Antennae reaching posterior third of elytra, moderately densely covered with sub-recumbent hairs. Antennomere I curved, slightly thickened on apex, antennomere II small and transverse, antennomeres III–X moderately thickened; antennomere III conical and elongate; antennomeres IV–IX transverse in varying degrees, rectangular; antennomere X square. Proportions in length of antennomeres I–X (left antenna missing, apical antennomere of right antenna missing) are as 16 : 4 : 13 : 9 : 8 : 8 : 8 : 8 : 8 : 8; their proportions in width are as 7 : 5 : 10 : 11 : 11 : 10 : 9 : 9 : 8 : 8.

Pronotum transverse, 1.9 times as broad as long, widest at level of anterior angles; surface impunctate with wide and deep transverse depression in basal third. Anterior margin slightly concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles nearly rectangular, not thickened; posterior angles triangular, slightly prominent; anterior and posterior angles with setigerous pores bearing very long pale seta; additional two short setae visible on lateral margin.

Figs 133–155. *Xenoda* (*Xenodina*), aedeagi.

133–134 – *X. antennalis* sp. n., holotype: 133 – dorsal view, 134 – lateral view; 135–137 – *X. basalis*: 135–136 – dorsal view, 137 – lateral view; 138–139 – *X. bipunctata* sp. n., holotype: 138 – dorsal view, 139 – lateral view; 140–143 – *X. bruneiensis* sp. n. (140–141 – holotype, 142–143 – paratype): 140, 142 – dorsal view, 141, 143 – lateral view; 144–145 – *X. bryanti* sp. n., holotype: 144 – dorsal view, 145 – lateral view; 146–147 – *X. bukittlawangensis* sp. n., holotype: 146 – dorsal view, 147 – lateral view; 148–149 – *X. bukittinggiensis* sp. n., holotype: 148 – dorsal view, 149 – lateral view; 150–151 – *X. cruciata* sp. n., holotype: 150 – dorsal view, 151 – lateral view; 152–153 – *X. cyanypennis*, paratype: 152 – dorsal view, 153 – lateral view; 154–155 – *X. dentiventris* sp. n., holotype: 154 – dorsal view, 155 – lateral view.

Рис. 133–155. *Xenoda* (*Xenodina*), эдеагусы.

133–134 – *X. antennalis* sp. n., голотип: 133 – вид сверху, 134 – вид сбоку; 135–137 – *X. basalis*: 135–136 – вид сверху, 137 – вид сбоку; 138–139 – *X. bipunctata* sp. n., голотип: 138 – вид сверху, 139 – вид сбоку; 140–143 – *X. bruneiensis* sp. n. (140–141 – голотип, 142–143 – паратип): 140, 142 – вид сверху, 141, 143 – вид сбоку; 144–145 – *X. bryanti* sp. n., голотип: 144 – вид сверху, 145 – вид сбоку; 146–147 – *X. bukittlawangensis* sp. n., голотип: 146 – вид сверху, 147 – вид сбоку; 148–149 – *X. bukittinggiensis* sp. n., голотип: 148 – вид сверху, 149 – вид сбоку; 150–151 – *X. cruciata* sp. n., голотип: 150 – вид сверху, 151 – вид сбоку; 152–153 – *X. cyanypennis*, паратип: 152 – вид сверху, 153 – вид сбоку; 154–155 – *X. dentiventris* sp. n., голотип: 154 – вид сверху, 155 – вид сбоку.





Figs 156–179. *Xenoda* (*Xenodina*), aedeagi.

156–157 – *X. deformicornis* sp. n., holotype: 156 – dorsal view, 157 – lateral view; 158–159 – *X. elegantula* sp. n., holotype: 158 – dorsal view, 159 – lateral view; 160–161 – *X. fasciata* sp. n., holotype: 160 – dorsal view, 161 – lateral view; 162–163 – *X. filicornis* sp. n., holotype: 162 – dorsal view, 163 – lateral view; 164–165 – *X. filimonovi* sp. n., holotype: 164 – dorsal view, 165 – lateral view; 166–167 – *X. flexuosa* sp. n., holotype: 166 – dorsal view, 167 – lateral view; 168–169 – *X. fulva*, paratype: 168 – dorsal view, 169 – lateral view; 170–171 – *X. flavipennis* sp. n., holotype: 170 – dorsal view, 171 – lateral view; 172–173 – *X. impressa*, holotype: 172 – dorsal view, 173 – lateral view; 174–175 – *X. impressipennis* sp. n., holotype: 174 – dorsal view, 175 – lateral view; 176–177 – *X. inaequalipennis* sp. n., holotype: 176 – dorsal view, 177 – lateral view; 178–179 – *X. kerinciensis* sp. n., holotype: 178 – dorsal view, 179 – lateral view.

Рис. 156–179. *Xenoda* (*Xenodina*), эдеагусы.

156–157 – *X. deformicornis* sp. n., голотип: 156 – вид сверху, 157 – вид сбоку; 158–159 – *X. elegantula* sp. n., голотип: 158 – вид сверху, 159 – вид сбоку; 160–161 – *X. fasciata* sp. n., голотип: 160 – вид сверху, 161 – вид сбоку; 162–163 – *X. filicornis* sp. n., голотип: 162 – вид сверху, 163 – вид сбоку; 164–165 – *X. filimonovi* sp. n., голотип: 164 – вид сверху, 165 – вид сбоку; 166–167 – *X. flexuosa* sp. n., голотип: 166 – вид сверху, 167 – вид сбоку; 168–169 – *X. fulva*, паратип: 168 – вид сверху, 169 – вид сбоку; 170–171 – *X. flavipennis* sp. n., голотип: 170 – вид сверху, 171 – вид сбоку; 172–173 – *X. impressa*, голотип: 172 – вид сверху, 173 – вид сбоку; 174–175 – *X. impressipennis* sp. n., голотип: 174 – вид сверху, 175 – вид сбоку; 176–177 – *X. inaequalipennis* sp. n., голотип: 176 – вид сверху, 177 – вид сбоку; 178–179 – *X. kerinciensis* sp. n., голотип: 178 – вид сверху, 179 – вид сбоку.



Scutellum triangular, 1.35 times as wide as long; surface convex, covered with fine microsculpture.

Elytra 1.65 times as long as wide, broadest at apical third; surface rugose with distinct punctures among moderately frequent ridges, sparsely covered with long semi-erect hairs. Humeral calli developed.

Legs slender with slightly curved hind tibiae, protarsomere I very slightly thickened but narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 5 : 5 : 9; metatarsomere I narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 18 : 9 : 5 : 11. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 178, 179) long and thick, wide on base narrowing to elongate apex and slightly compressed laterally behind middle; in lateral view slightly curved; underside convex; aedeagus length 1.6 mm.

Female unknown.

**Differential diagnosis.** This new species is similar to *Xenoda fulva* from Peninsular Malaysia but differs in narrow aedeagus with elongate triangular apex as well as in transverse and more enlarged antennomeres III–X (Figs 61, 178, 179) in contrast to wider aedeagus with less elongate rounded apex and less enlarged, elongate antennomeres III–X (Figs 57, 168, 169) in *X. fulva*.

**Note.** A single specimen of this new species has no last antennomere, length of which used by us in the key of species. However, since it is very similar to *X. fulva*, I put it near this species in our key without giving it a separate thesis.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) ketambensis* sp. n.  
(Figs 62, 63, 180, 181, 246)

**Material.** Holotype, ♂ (PR): "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~357-400 m, N 03°40'56", E 097°39'11" N 03°41'04", E 097°39'01" 29. III. 2017 P. Romantsov leg.". Paratypes: 1♂ (PR), same data as in holotype; 1♀ (PR), same data, but "18. III. 2017"; 2♂, 3♀ (PR), same data, but "19–20. III. 2017"; 1♂, 2♀ (PR), same data, but "20. III. 2017"; 1♂ (PR), same data, but "23. III. 2017"; 2♂, 1♀ (PR), same data, but "27. III. 2017"; 1♂ (PR), "Indonesia, Sumatra Is., West Sumatra Prov., Agam Regency, IV Koto Distr., ca. 3 km W Bukittinggi City, S 00°18'19.2", E 100°20'32.7", h~814 m, 23–24. II. 2017. Prosvirov A. leg."; 1♂ (PR), "Indonesia, Sumatra Is., Aceh Prov., South-east Aceh Regency, Ketambe Distr., Gunung Leuser Nat. Park, N 03°41'38.8", E 097°38'49.1", h~404 m, primary forest, near stream, 1. III. 2017 Prosvirov leg."; 1♂, 2♀ (PR, NHM), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~400-410m, N 03°40'49", E 097°39'40" N 03°41'04", E 097°39'01" 2. III. 2017 P. Romantsov leg."; 1♂ (PR), same data, but "3. IV. 2017"; 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~414-550 m, N 03°41'01", E 097°39'16" N 03°41'26", E 097°39'27" 24. III. 2017 P. Romantsov leg."; 1♂ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~420-510 m, N 03°41'06", E 097°39'11" N 03°41'26", E 097°39'11" 30. III. 2017 P. Romantsov leg."; 1♂ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-240m, N 03°32'52", E 098°07'27" N 03°33'16", E 098°06'21" 27. I. 2018 P. Romantsov leg."; 1♂ (PR), same data, but "30. I. 2018"; 5♂, 9♀ (PR), "Indonesia, Sumatra Is., Aceh Prov., Southeast Aceh Regency, Ketambe Distr., ca. 29.1 km NNW Kutacane Town, Ketambe Vill. env., Gunung Leuser Nat. Park, 3°41'08.7" N, 97°38'55.9" E, h~402 m, primary forest, 21–23. III. 2020 A. Prosvirov leg."

**Description.** Male, holotype (Fig. 62). Length 3.4 mm, width 1.75 mm.

Antennae fulvous with antennomere III dark fulvous and antennomeres IV–X black. Body fulvous with lighter anterior part of head, middle of vertex and blurred smear on pronotum; legs fulvous with apical part of tarsomeres darkened.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin convex, surface smooth with several long pale setae; maxillary palpi with penultimate segment enlarged, apical segment very small, conical, both apical segments covered

with semi-erect setae. Eyes moderately convex, widely oval (1.25 times as long as wide), interocular space 1.6 times as wide as transverse diameter of eye. Clypeus convex, covered with several long pale setae laterally; frontal tubercles moderately raised, elongate triangular with sharp apex, divided by thin median longitudinal impression, surface impunctate, subopaque. Vertex smooth, impunctate with thin depressed longitudinal line but without oval deep depression behind tubercles. Antennae reaching posterior third of elytra, covered with short sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small, cylindrical; antennomere III conical; antennomeres IV–IX more or less rectangular; antennomere X modified with directed forward process in form of plate extending from outer side surface; antennomere XI thin with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 5 : 10 : 8 : 8 : 7 : 8 : 7 : 7 : 6 : 15; their proportions in width are as 4 : 3 : 5 : 5 : 5 : 6 : 6 : 7 : 7 : 7 : 4.

Pronotum transverse, 1.95 times as broad as long, surface wide transversely depressed; impunctate; widest at level of front angles. Anterior margin sinuate; lateral margins almost straight, posterior margin almost straight. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles prominent, posterior angles triangular; all angles with setigerous pores bearing long pale seta, additional one short seta visible on each lateral margin.

Scutellum shining and impunctate, triangular with bluntly pointed apex, 1.25 times as wide as long.

Elytra 1.45 times as long as wide, broadest at apical fourth, surface covered with rather sparse erect hairs, rugose with punctures among ridges. Humeral calli well developed.

Legs slender, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 5 : 5 : 5 : 9; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 5 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus with truncated, slightly concave apex, in lateral view curved at apical third (Figs 180, 181), length of aedeagus 1.35 mm.

Paratypes: body length 3.3–3.6 mm in males, 3.4–3.6 mm in females; colouration of males as in holotype or slightly darker; colouration of females like in males but with two apical antennomere fulvous (Fig. 63). Spermatheca as in Fig. 246, spermatheca length about 0.2 mm.

**Differential diagnosis.** *Xenoda ketambensis* sp. n. having directed upward process on antennomere X and cut apex of aedeagus, is similar to *X. trusmadiensis* sp. n. from Borneo but differ from the latter species by following characters: antennae less robust with antennomeres VIII–X not transverse, equal in length and width or longer than width, elytra and pronotum entirely fulvous, eyes and frontal tubercles less convex, vertex without oval deep depression behind tubercles, aedeagus more steeply curved upward in lateral view, its truncated apex is more concave, antennomere X with directed forward process in the form of a plate extending from the outer side surface (Figs 62, 180, 181); *X. trusmadiensis* sp. n. has antennae more robust with transverse antennomeres VIII–X, head and pronotum more or less dark fulvous, elytra fulvous, eyes and frontal tubercles more convex, vertex with oval deep depression behind tubercles, aedeagus more smoothly curved upward in lateral view, its truncated apex is slightly concave, antennomere X with a strongly raised outer edge forming the forward process (Figs 83, 204, 205).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) longicornis* sp. n.  
(Figs 66, 182, 183)

**Material.** Holotype, ♂ (NHM): "Soekaboemi, Java, G. E. Bryant. 4. 04. 09."

**Description.** Male, holotype (Fig. 66). Length 3 mm, width 1.4 mm.

Body entirely fulvous, head slightly darker than pronotum and elytra. Antennae fulvous with apical half of antennomere XI darkened.

Head impunctate, labrum transverse, 1.65 times as wide as long, anterior margin concave, surface with several short setae, covered with microsculpture; maxillary palpi with penultimate segment enlarged, apical segment small, conical. Eyes convex, oval (1.4 times as long as wide), interocular space 1.5 times as wide as transverse diameter of eye. Anterior part of head convex, covered with microsculpture; nasal keel rather narrow and convex; frontal tubercles very small, narrow, slightly convex with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by narrow arcuate depression. Vertex convex, impunctate but with very fine microsculpture and without traces of longitudinal line in middle. Antennae filiform, long, almost reaching apex of elytra, covered with thin, short, sub-recumbent hairs. Proportions in length of antennomeres I–XI are as 14 : 4 : 10 : 10 : 10 : 10 : 11 : 11 : 12 : 9 : 14; their proportions in width are as 4 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 2 : 3.

Pronotum strongly transverse, 2 times as broad as long, widest at level of front angles; surface wide and deep transversely depressed, impunctate but with fine microsculpture. Anterior margin concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior and posterior angles triangular, not prominent.

Scutellum triangular with sharp apex, 1.4 times as wide as long, surface impunctate and shining.

Elytra 1.75 times as long as wide, broadest at level of apical slope; surface rather strongly rugose, sparsely covered with recumbent hairs. Humeral calli developed.

Legs slender with slightly curved hind tibiae, protarsomere I elongate, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 10 : 6 : 4 : 9; metatarsomere I equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 14 : 6 : 3 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 182, 183) with obtuse triangular apex, strongly curved in lateral view, aedeagus length 0.77 mm.

Female unknown.

**Differential diagnosis.** *Xenoda longicornis* sp. n. belongs to the species group with filiform antennae in both sexes. This new species having long antennae is similar to *X. flexuosa* sp. n. but can be easily distinguished from the latter in following characters: body less shining, entirely fulvous, eyes less convex with interocular space 1.5 times as wide as transverse diameter of eye, antennae more long (1.03 times shorter than the body length), pronotum more transverse (2 times as broad as long) and aedeagus with less sharp tip (Figs 66, 182); in contrast to strongly shining, fulvous body with underside, sides of pronotum and curved blurred longitudinal stripe on each elytron blackish, eyes strongly convex with interocular space 1.3 times as wide as transverse diameter of eye, antennae 1.08 times shorter than the body length, pronotum 1.8 times as broad as long and aedeagus with sharp tip (Figs 55, 56, 166) in *X. flexuosa* sp. n.

**Distribution.** Indonesia (Java).

**Etymology.** The species name refers to the long antennae.

*Xenoda (Xenodina) matangensis* sp. n.  
(Figs 64, 65, 184, 185, 247)

**Material.** Holotype, ♂ (NHM): "Mt. Matang W Sarawak G. E. Bryant 16-30. XII. 13", "Bryant Coll. 1919–147". Paratypes: 1♀ (NHM), same data as in holotype, but "XII 1913"; 1♂ (PR), same data as in holotype, but "8. II. 14"; 1♂ (NHM), same data, but "27. I. 14"; 1♀ (NHM), same data, but "17. 12. 13"; 1♂, 1♀ (NHM, PR), same data, but "I. 1914".

**Description.** Male, holotype (Fig. 64). Length 3 mm, width 1.5 mm.

Body fulvous. Antennae fulvous with antennomeres IV–VIII in varying degrees darkened and antennomeres IX–XI light fulvous. Legs fulvous. Underside fulvous with slightly darkened mesothorax and metathorax.

Head impunctate, labrum transverse, 1.25 times as wide as long, anterior margin weakly convex, lateral margins rounded, surface convex and impunctate but with fine microsculpture; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment small, triangular. Eyes moderately convex, widely oval (1.25 times as long as wide), interocular space 1.35 times as wide as transverse diameter of eye. Anterior part of head slightly convex; nasal keel narrow and weakly convex; frontal tubercles slightly convex and very narrow with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by arcuate impression; surface of frontal tubercles impunctate and shining. Vertex strongly convex, shining and impunctate without longitudinal line in middle. Antennae long, almost reaching apex of elytra, covered with semi-erect hairs and punctures. Antennomere I slightly expanded before apex, antennomere II cylindrical, antennomere III conical, antennomeres IV–IX almost rectangular; antennomeres III–VIII quite enlarged, antennomere IX slightly enlarged with deep wide groove on lateral side, two apical antennomeres thin, antennomere XI with slightly pointed apex. Proportions in length of antennomeres I–XI are as 14 : 4 : 12 : 13 : 11 : 10 : 11 : 11 : 9 : 8 : 12; their proportions in width are as 5 : 4 : 7 : 8 : 7 : 7 : 7 : 7 : 6 : 3 : 3.

Pronotum transverse, 1.7 times as broad as long, widest at level of anterior angles; surface impunctate with wide transverse depression. Anterior and lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior angles slightly thickened, not prominent; posterior triangular, very slightly prominent; lateral margin with several short setae.

Scutellum triangular, 1.3 times as wide as long; surface shining and impunctate.

Elytra 1.5 times as long as wide, broadest at apical third, surface slightly rugose with distinct, deep punctures among infrequent and weakly convex ridges, covered with long semi-erect hairs. Humeral calli well developed.

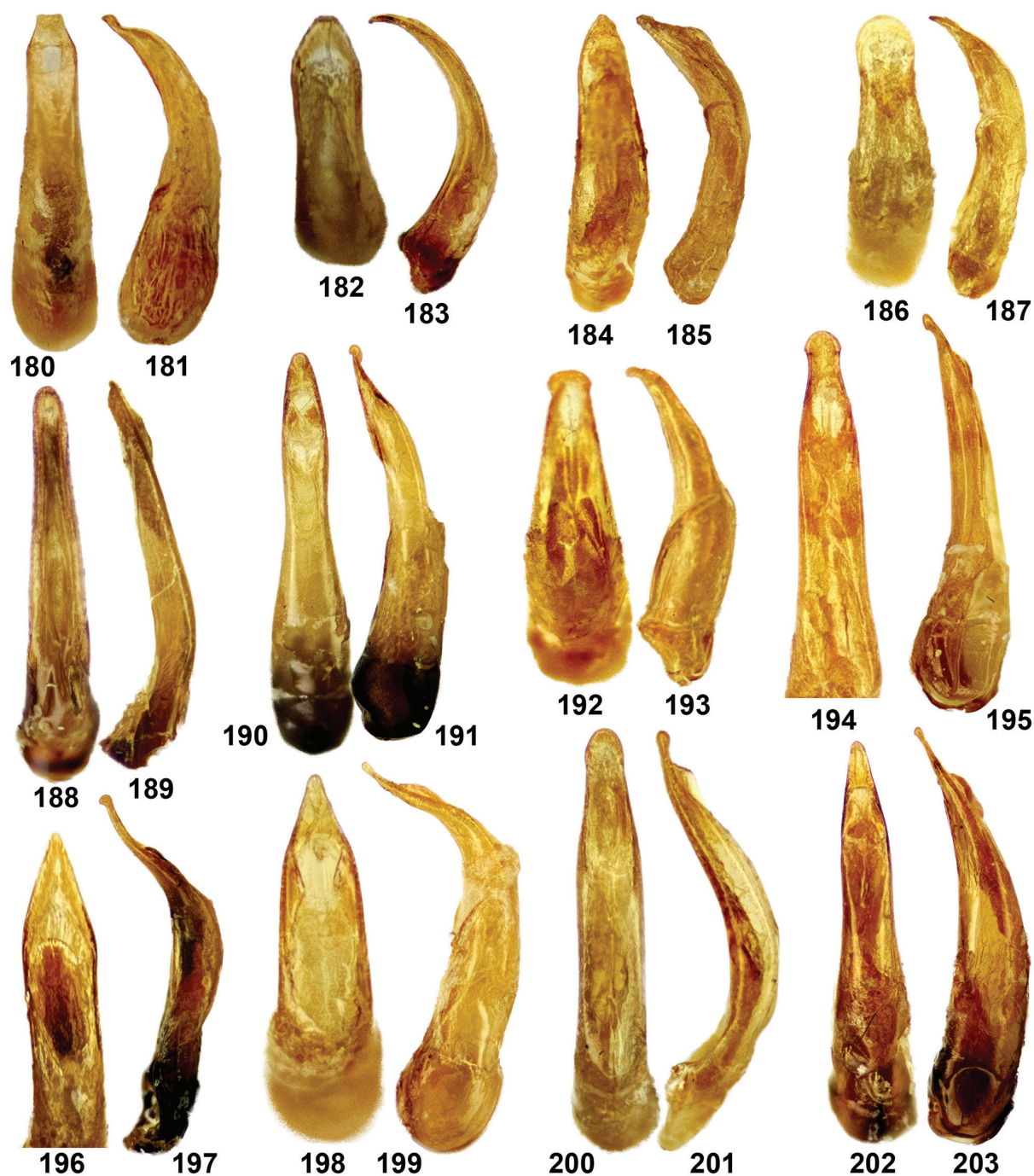
Legs slender, protarsomere I slightly thickened, as wide as protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 3 : 7; metatarsomere I equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 6 : 4 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 184, 185) wide on base gradually narrowing towards triangular apex; curved in lateral view; aedeagus length 1.05 mm.

Paratypes. Males are similar to holotype, body length 3–3.4 mm. Females (Fig. 65) are similar to males but with strongly darkened (almost black) and not thickened antennomeres IV–IX; body length 3.1–3.3 mm. Spermatheca as in Fig. 247, spermatheca length 0.15–0.18 mm.

**Differential diagnosis.** *Xenoda matangensis* sp. n. can be distinguished from other members of the subgenus *Xenodina* by the combination of the following characters: surface of elytra without depressions, antennomeres III–VIII quite enlarged, antennomere IX slightly enlarged with deep wide groove on lateral side, antennomeres X and XI



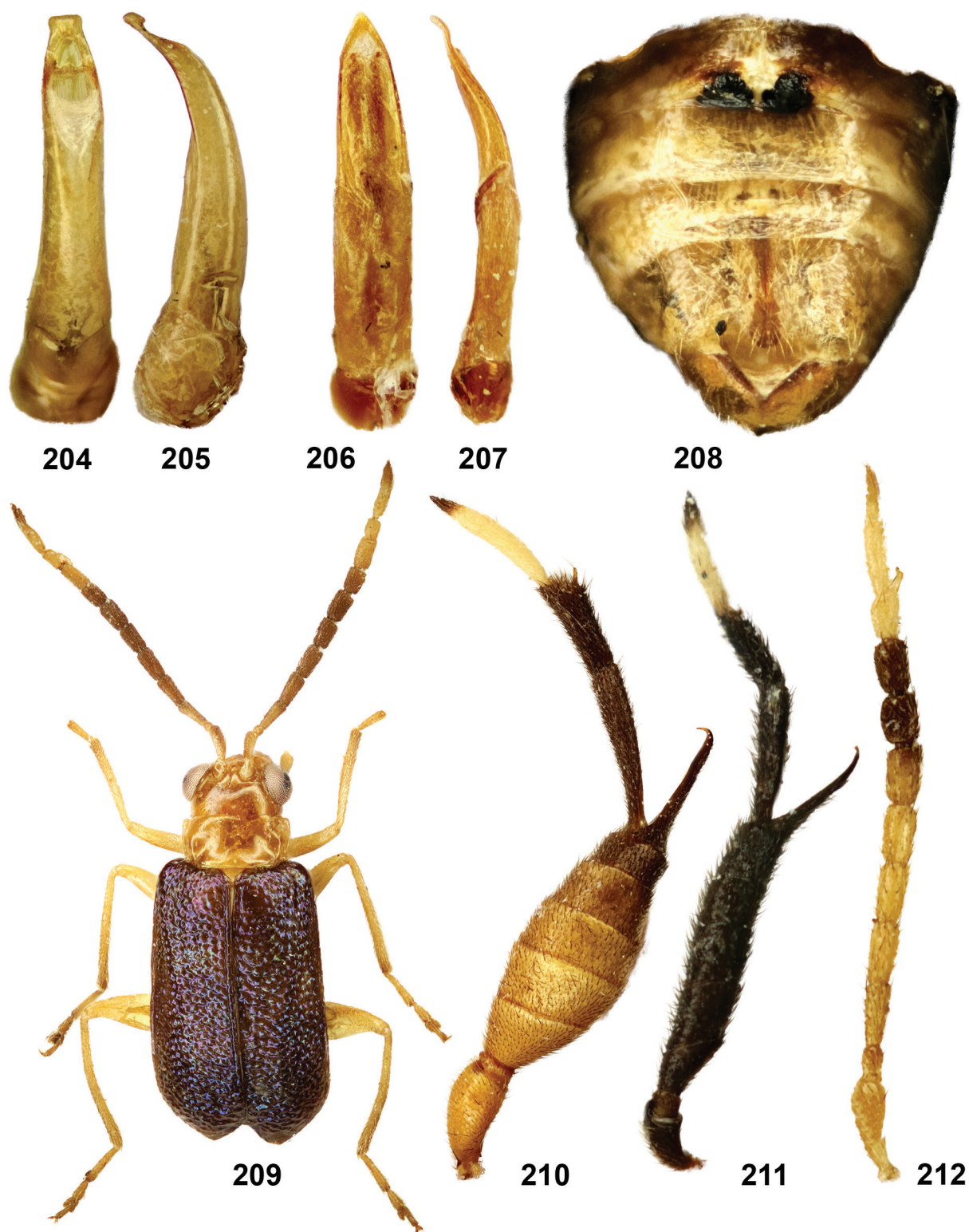
Figs 180–203. *Xenoda* (*Xenodina*), aedeagi.

180–181 – *X. ketambensis* sp. n., holotype: 180 – dorsal view, 181 – lateral view; 182–183 – *X. longicornis* sp. n., holotype: 182 – dorsal view, 183 – lateral view; 184–185 – *X. matangensis* sp. n., holotype: 184 – dorsal view, 185 – lateral view; 186–187 – *X. metallipennis* sp. n., holotype: 186 – dorsal view, 187 – lateral view; 188–189 – *X. nigroapicalis* sp. n., holotype: 188 – dorsal view, 189 – lateral view; 190–191 – *X. parafilicornis* sp. n., holotype: 190 – dorsal view, 191 – lateral view; 192–193 – *X. pseudoantennalis* sp. n., holotype: 192 – dorsal view, 193 – lateral view; 194–195 – *X. pseudobasalis* sp. n., holotype: 194 – dorsal view, 195 – lateral view; 196–197 – *X. pseudoimpressa*, holotype: 196 – dorsal view, 197 – lateral view; 198–199 – *X. schawalleri* sp. n., holotype: 198 – dorsal view, 199 – lateral view; 200–201 – *X. sibayakensis* sp. n., holotype: 200 – dorsal view, 201 – lateral view; 202–203 – *X. subcyanipennis* sp. n., paratype: 202 – dorsal view, 203 – lateral view.

Рис. 180–203. *Xenoda* (*Xenodina*), эдеагусы.

180–181 – *X. ketambensis* sp. n., голотип: 180 – вид сверху, 181 – вид сбоку; 182–183 – *X. longicornis* sp. n., голотип: 182 – вид сверху, 183 – вид сбоку; 184–185 – *X. matangensis* sp. n., голотип: 184 – вид сверху, 185 – вид сбоку; 186–187 – *X. metallipennis* sp. n., голотип: 186 – вид сверху, 187 – вид сбоку; 188–189 – *X. nigroapicalis* sp. n., голотип: 188 – вид сверху, 189 – вид сбоку; 190–191 – *X. parafilicornis* sp. n., голотип: 190 – вид сверху, 191 – вид сбоку; 192–193 – *X. pseudoantennalis* sp. n., голотип: 192 – вид сверху, 193 – вид сбоку; 194–195 – *X. pseudobasalis* sp. n., голотип: 194 – вид сверху, 195 – вид сбоку; 196–197 – *X. pseudoimpressa*, голотип: 196 – вид сверху, 197 – вид сбоку; 198–199 – *X. schawalleri* sp. n., голотип: 198 – вид сверху, 199 – вид сбоку; 200–201 – *X. sibayakensis* sp. n., голотип: 200 – вид сверху, 201 – вид сбоку; 202–203 – *X. subcyanipennis* sp. n., паратип: 202 – вид сверху, 203 – вид сбоку.





Figs 204–212. *Xenoda*, details of structure.

204–205 – *X. (Xenodina) trusmadiensis* sp. n., holotype, aedeagus: 204 – dorsal view, 205 – lateral view; 206–207 – *X. (Xenodina) tuberculata*, aedeagus: 206 – dorsal view, 207 – lateral view; 208 – *X. (Xenodina) dentiventris* sp. n., male, holotype, abdomen; 209 – *X. (Xenodina) metallipennis* sp. n., male, paratype, general view; 210 – *X. (s. str.) geiseri* sp. n., male, holotype, antenna; 211 – *X. (s. str.) minutissima* sp. n., male, holotype, antenna; 212 – *X. (Xenodania) vittata*, male, paratype, antenna.

Рис. 204–212. *Xenoda*, детали строения.

204–205 – *X. (Xenodina) trusmadiensis* sp. n., голотип, эдеагус: 204 – вид сверху, 205 – вид сбоку; 206–207 – *X. (Xenodina) tuberculata*, эдеагус: 206 – вид сверху, 207 – вид сбоку; 208 – *X. (Xenodina) dentiventris* sp. n., самец, голотип, брюшко; 209 – *X. (Xenodina) metallipennis* sp. n., самец, паратип, общий вид; 210 – *X. (s. str.) geiseri* sp. n., самец, голотип, антенна; 211 – *X. (s. str.) minutissima* sp. n., самец, голотип, антенна; 212 – *X. (Xenodania) vittata*, самец, паратип, антенна.

thin, aedeagus with triangular apex (Figs 64, 184). See also the key.

**Distribution.** Malaysia (Sarawak).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) metallipennis* sp. n.  
(Figs 67, 68, 186, 187, 209, 248)

**Material.** Holotype, ♂ (ZIN): "SUMATRA (W.), G Merapi S of BUKITTINGGI, 1050-1800 m, 11.III.1991 Bocák & Bocáková lgt.". Paratypes: 1♀ (ZIN), "SUMATRA (W.), Batang Palupuh Nat. Reserve 850 m, 15.II.1991 Bocák & Bocáková lgt."; 1♂ (PR), "SUMATRA (Aceh), KETAMBE Leuser Nat. Park, 450 m 26.II - 1.III.1991 Bocák & Bocáková lgt."; 1♀ (JB), "W SUMATRA, BENGKULU prov. nr. Curup, BUKIT KABA Mt. 3°29' S, 102°36' E, 100-1500m J. Bezděk leg, 30.I. - 3.II. 2000"; 1♂ (ZIN), "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.; 4.-18. III. 2003".

**Description.** Male, holotype (Fig. 67). Length 3.8 mm, width 1.7 mm.

Head, pronotum and scutellum fulvous. Elytra metallic-green. Antennae fulvous with antennomeres V–VIII darkened. Legs fulvous with apical part of tibiae and tarsi darkened. Underside fulvous.

Head impunctate; labrum trapezoid, 1.3 times as wide as long with convex anterior margin, surface with microsculpture and with several pale setae; maxillary palpi with penultimate segment enlarged and small, conical apical segment. Eyes moderately convex, oval (1.3 times as long as wide), interocular space 1.85 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel wide and slightly convex; frontal tubercles medium size, triangular and slightly convex, distinctly delimited posteriorly. Vertex shining and impunctate with hardly visible trace of longitudinal line in middle. Antennae reaching apical third of elytra, rather densely covered with sub-recumbent hairs. Antennomere I slightly thickened, triangular; antennomere II small, square; antennomeres III–VIII moderately thickened (antennomere III conical, other ones almost square); antennomere IX slightly flattened; antennomere X cylindrical. Proportions in length of antennomeres I–X (last antennomere missing) are as 15 : 4 : 12 : 10 : 10 : 10 : 10 : 9 : 13 : 8; their proportions in width are as 4 : 3 : 5 : 6 : 6 : 6 : 6 : 5 : 5.

Pronotum strongly transverse, 2.2 times as wide as long, widest at level of anterior angles; surface shining and impunctate with wide transverse depression. Anterior margin concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins thinly bordered. Anterior angles triangular, neither thickened nor prominent; posterior angles triangular, sharp, slightly prominent.

Scutellum triangular, 1.6 times as wide as long; surface shining and impunctate.

Elytra 1.75 times as long as wide, widest in apical fourth; elytral surface rugose with deep coarse punctures and narrow convex interstices here and there connecting and forming short transverse ridges; sparsely covered with recumbent hairs. Humeral calli well developed.

Legs slender with very slightly curved hind tibiae, protarsomere I long, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 12 : 8 : 5 : 10; metatarsomere I slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 18 : 8 : 6 : 10. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 186, 187) slightly constricted before widely triangular apex; strongly curved in lateral view; aedeagus length 0.8 mm.

Paratypes: body colouration in one male and one female (Fig. 68) are similar to holotype, but other male (Fig. 209) and female have elytra metal blue. Body length 3.5–3.8 mm in males,

4.1 mm in females. Antennae of females almost filiform with very slightly thickened antennomeres III–VIII. Spermatheca as in Fig. 248.

**Differential diagnosis.** This new species differs from other *Xenodina* species with metallic-coloured elytra in strongly rugose elytral surface with deep coarse punctures and narrow convex interstices. *Paraxenoda punctata* Mohamedsaid, 1999 from Borneo having coarse punctate, metallic-green elytra is similar to this new species. But *P. punctata* differs from all *Xenoda* species in metatibiae with spine at apex and less wide, transversely sulcate pronotum with lateral margins thickened.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to metallic-coloured elytra.

*Xenoda (Xenodina) nigroapicalis* sp. n.  
(Figs 69, 188, 189)

**Material.** Holotype, ♂ (NHM): "INDONESIA, Borneo Kalimantan Tengah Busang, Recut confl 0°03' S, 113°59' E", "Flight Intercept FIT 5 Brendell Mendel August 2001", "Barito Ulu 2001 BMNE(E) 2001-191".

**Description.** Male, holotype (Fig. 69). Length 3.2 mm, width 1.5 mm.

Head and pronotum brick fulvous. Elytra fulvous with darkened latero-apical area in posterior third. Antennae with antennomeres I–III brick fulvous; antennomeres IV–IX gradually darkened (from dark fulvous to black); two apical antennomeres white with darkened tip of antennomere XI. Legs and underside fulvous.

Head impunctate; labrum trapezoidal, 1.3 times as wide as long with straight truncated anterior margin, its surface with microsculpture and with several pale setae; maxillary palpi with penultimate segment enlarged and small, triangular apical segment. Eyes strongly convex, wide oval (1.25 times as long as wide), interocular space 1.45 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel narrow and strongly convex; frontal tubercles small and very narrow, but convex and distinctly delimited laterally and posteriorly. Vertex shining and impunctate with thin longitudinal line in middle. Antennae reaching apical third of elytra, rather densely covered with moderate size punctures and sub-recumbent hairs. Antennomere I slightly thickened, triangular; antennomere II small, square; antennomeres III–VIII moderately thickened (antennomere III conical, other ones almost square); antennomere IX modified with excavated inner side and with apical outer corner slightly protruding laterally at right angle; antennomere X thin, cylindrical; antennomere XI lanceolate with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 12 : 10 : 9 : 8 : 10 : 8 : 14 : 9 : 14; their proportions in width are as 5 : 3 : 9 : 9 : 8 : 7 : 7 : 7 : 5 : 4 : 5.

Pronotum transverse, 1.75 times as wide as long, widest near anterior angles; surface shining and impunctate with wide, more or less evenly deep transverse depression. Anterior and posterior margins almost straight, lateral margins slightly sinuate. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles triangular, not prominent; posterior angles widely triangular, slightly prominent; all angles with setigerous pores each of which bearing moderately long seta, additional several short setae visible on lateral margins.

Scutellum triangular with sharp apex, 1.1 times as wide as long; surface shining and impunctate.

Elytra 1.75 times as long as wide, widest in apical fourth; surface rugose with ridges and distinct punctures among them, sparsely covered with erect hairs. Humeral calli well developed.

Legs slender with very slightly curved hind tibiae, protarsomere I slightly widened, 1.25 times narrower than

protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 7 : 5 : 10; metatarsomere I narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 8 : 4 : 7. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 188, 189) wide on base, apical part narrow elongated with triangle tip; in lateral view curved near base and then almost straight; aedeagus length 1 mm.

Female unknown.

**Differential diagnosis.** *Xenoda nigroapicalis* sp. n. belongs to the species group of the subgenus *Xenodina* with modified antennomere X but differ from other members of the group in elytra with a dark pattern in the apical third and in shape of modified antennomere IX with lateral side longitudinal excavated and apical outer corner protruding laterally at right angle (Fig. 69). See also the key.

**Distribution.** Indonesia (Kalimantan).

**Etymology.** The species name refers to elytra with a dark pattern in the apical third.

*Xenoda (Xenodina) nigromaculata* Takizawa, 2017  
(Figs 70, 249, 272)

*Xenoda nigromaculata*: Takizawa, 2017: 207 (IBTP).

**Material.** 1♀ (NHM), “B.N. Borneo. Mt. Kinabalu, Kamborngah, 27: 3: 1929”; 1♀ (NHM), same data, but “April 2 1929”; 4♀ (NHM, PR), “N. BORNEO: Mt. Kinabalu”, “Mesilau Cave 23-24. III. 1964. 6,175 ft”, “Royal. Soc. Exped. coll. S. Kueh. B.M. 1964-250”; 1♀ (NHM), same data, but “24. III. 1964”; 2♀ (NHM, PR), same data, but “24-26. III. 1964”.

**Distribution.** Malaysia (Sabah).

*Xenoda (Xenodina) parafulvicornis* sp. n.  
(Figs 71, 72, 190, 191, 250)

**Material.** Holotype, ♂ (PR): “Indonesien, Sumatra II., West Sumatra Prov, 16 km W Bukittinggi Maninjau Lake, h~527-610 m, S 0°17'08", E 100°13'46" S 0°17'07", E 100°13'55" 12.II.2018 P. Romantsov leg.” Paratypes: 4♀ (PR), same data as in holotype; 1♀ (PR), same data, but “11.II.2018”; 1♀ (PR), “Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi 6 km SWW Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 8.II.2018 P. Romantsov leg.”; 1♂ (PR), same data, but “9.II.2018”; 7♂, 1♀ (PR, ZIN, JB), “Indonesien, Sumatra II., West Sumatra Prov, 16 km W Bukittinggi Maninjau Lake, h~695-790 m, S 0°16'18", E 100°14'00" S 0°16'22", E 100°14'11" 13.II.2018 P. Romantsov leg.”; 1♂ (NHM), same data, but “A. Prosvirov leg.”.

**Description.** Male, holotype (Fig. 71). Length 3.3 mm, width 1.4 mm.

Head testaceous, pronotum, scutellum and elytra fulvous. Antennae fulvous with antennomeres III–IX in varying degree darkened. Legs fulvous. Underside fulvous with mesothorax, metathorax and abdomen black.

Head impunctate, labrum transverse, about 1.35 times as wide as long, anterior margin almost straight, surface impunctate, covered with fine microsculpture with several pale setae; maxillary palpi with penultimate segment enlarged, densely covered with setae, apical segment very small, conical. Eyes moderately convex, widely oval (1.18 times as long as wide), interocular space 1.45 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel wide and weakly convex; frontal tubercles convex, narrow and elongate with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by wide arcuate impression; surface of frontal tubercles impunctate but with fine microsculpture. Vertex with trace of longitudinal line in middle, covered with very fine microsculpture. Antennae filiform, reaching posterior third of elytra, covered with dense short recumbent setae and long sparse semi-erect hairs. Antennomere I slightly expanded at apex, antennomere II with slightly rounded

sides, antennomeres III–X cylindrical, antennomere XI slightly expanded before narrow triangular apex. Proportions in length of antennomeres I–XI are as 13 : 4 : 10 : 9 : 8 : 8 : 7 : 7 : 7 : 7 : 10; their proportions in width are as 4 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3 : 3.

Pronotum transverse, 1.9 times as broad as long, widest at level of anterior angles; surface impunctate with wide transverse depression in basal third. Anterior margin slightly concave, lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles slightly thickened, posterior angles sharp, triangular, slightly prominent; with setigerous pores each of them bearing long seta, additional several short setae visible on lateral margin.

Scutellum triangular, 1.5 times as wide as long; surface with fine microsculpture.

Elytra 1.65 times as long as wide, broadest at apical third, surface moderately rugose with punctures among ridges, covered with rather long semi-erect hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 5 : 7 : 8; metatarsomere I shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 12 : 6 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 190, 191) long with triangular apex; in lateral view slightly curved with thickened tip; aedeagus length 1.25 mm.

Paratypes. Males are similar to holotype, body length 3.1–3.5 mm. Females (Fig. 72) are similar to males but with more darkened antennomeres III–IX (VII–IX often almost black); body length 3.1–3.6 mm. Spermatheca as in Fig. 250, spermatheca length about 0.35–0.4 mm.

**Differential diagnosis.** *Xenoda parafulvicornis* sp. n. belongs to the species group with filiform antennae in both sexes. This new species has comparatively short antennae (1.5 times shorter than the body length) and is similar to *X. nigromaculata* from Borneo but differs in entirely fulvous elytra and aedeagus with not bent down tip in lateral view instead of elytra with black pattern and aedeagus with bent down tip in the latter species. *Xenoda fulvicornis* sp. n. is similar to this new species but differs in black elytra, long antennae (1.2 times shorter than the body length) and aedeagus with rounded tip (Figs 162, 255, 256); in contrast to fulvous elytra, short antennae (1.5 times shorter than the body length) and aedeagus with triangular apex (Figs 71, 72, 190) in *X. parafulvicornis* sp. n.

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to similarity with *X. fulvicornis* sp. n.

*Xenoda (Xenodina) pseudoantennalis* sp. n.  
(Figs 73, 192, 193)

**Material.** Holotype, ♂ (PR): “Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~210-240m, N 03°33'01", E 098°06'39" N 03°33'15", E 098°06'05" 29.I.2018 P. Romantsov leg.”.

**Description.** Male, holotype (Fig. 73). Length 3.5 mm, width 1.7 mm.

Head, pronotum (except narrowly darkened lateral margins), scutellum, legs and underside fulvous, elytra blackish with wide lighter area at base and along suture. Antennae fulvous with antennomeres IV–VIII and tip of antennomere XI black.

Head impunctate, labrum transverse, 2 times as wide as long with almost straight anterior margin, surface smooth; maxillary palpi with penultimate segment enlarged, sparsely covered with short setae, apical segment small, conical. Eyes convex, oval (1.3 times as long as wide), interocular space 1.6 times as wide as



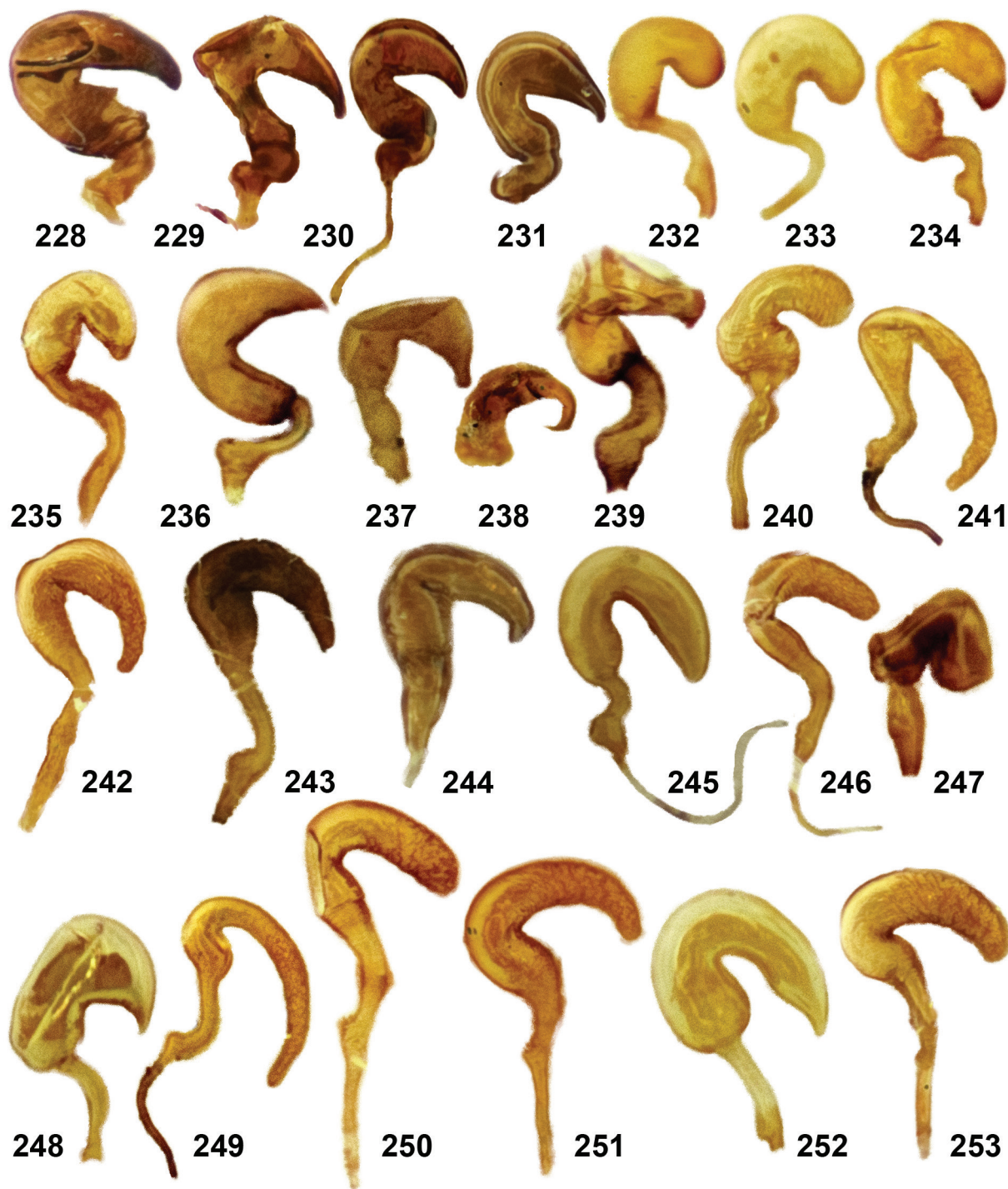


Figs 213–227. *Xenoda*, antennae of males: *Trichoxenoda* subgen. n. (213–214), *Xenodella* (215–217), *Xenodina* (218–227).

213 – *X. parvula*; 214 – *X. perakensis* sp. n., holotype; 215 – *X. abdominalis*, syntype; 216 – *X. pseudoabdominalis* sp. n., holotype; 217 – *X. javanica* sp. n., paratype; 218 – *X. bruneiensis* sp. n., paratype; 219 – *X. bukittingiensis* sp. n., holotype; 220 – *X. deformicornis* sp. n., holotype; 221 – *X. elegantula* sp. n., holotype; 222 – *X. filicornis* sp. n., holotype; 223 – *X. ketambensis* sp. n., paratype; 224 – *X. pseudoantennalis* sp. n., holotype; 225 – *X. pseudobasalis* sp. n., holotype; 226 – *X. pseudoimpressa* sp. n., holotype; 227 – *X. sibayakensis* sp. n., holotype.

Рис. 213–227. *Xenoda*, усики самцов: *Trichoxenoda* subgen. n. (213–214), *Xenodella* (215–217), *Xenodina* (218–227).

213 – *X. parvula*; 214 – *X. perakensis* sp. n., голотип; 215 – *X. abdominalis*, синтип; 216 – *X. pseudoabdominalis* sp. n., голотип; 217 – *X. javanica* sp. n., паратип; 218 – *X. bruneiensis* sp. n., паратип; 219 – *X. bukittingiensis* sp. n., голотип; 220 – *X. deformicornis* sp. n., голотип; 221 – *X. elegantula* sp. n., голотип; 222 – *X. filicornis* sp. n., голотип; 223 – *X. ketambensis* sp. n., паратип; 224 – *X. pseudoantennalis* sp. n., голотип; 225 – *X. pseudobasalis* sp. n., голотип; 226 – *X. pseudoimpressa* sp. n., голотип; 227 – *X. sibayakensis* sp. n., голотип.



Figs 228–253. *Xenoda*, spermathecae.

228 – *X. modigliani*; 229 – *X. nigricollis*; 230 – *X. spinicornis*; 231 – *X. weyersi*; 232 – *X. parvula*, syntype; 233 – *X. parvula* (Sumatra); 234 – *X. lapan*; 235 – *X. perakensis* sp. n., paratype; 236 – *X. javanica* sp. n., paratype; 237 – *X. pseudovittata* sp. n., paratype; 238 – *X. abdominalis*, syntype; 239 – *X. pseudoabdominalis* sp. n., paratype; 240 – *X. basalis*; 241 – *X. cruciata* sp. n., paratype; 242 – *X. cyanipennis* (Perak); 243 – *X. elegantula* sp. n., paratype; 244 – *X. filicornis* sp. n., paratype; 245 – *X. flavipennis* sp. n., paratype; 246 – *X. ketambensis* sp. n., paratype; 247 – *X. matangensis* sp. n., paratype; 248 – *X. metallipennis* sp. n., paratype; 249 – *X. nigromaculata*; 250 – *X. parafileicornis* sp. n., paratype; 251 – *X. pseudobasalis* sp. n., paratype; 252 – *X. sibayakensis* sp. n., paratype; 253 – *X. subcyanipennis* sp. n., paratype.

Рис. 228–253. *Xenoda*, сперматеки.

228 – *X. modigliani*; 229 – *X. nigricollis*; 230 – *X. spinicornis*; 231 – *X. weyersi*; 232 – *X. parvula*, синтип; 233 – *X. parvula* (Суматра); 234 – *X. lapan*; 235 – *X. perakensis* sp. n., паратип; 236 – *X. javanica* sp. n., паратип; 237 – *X. pseudovittata* sp. n., паратип; 238 – *X. abdominalis*, синтип; 239 – *X. pseudoabdominalis* sp. n., паратип; 240 – *X. basalis*; 241 – *X. cruciata* sp. n., паратип; 242 – *X. cyanipennis* (Перак); 243 – *X. elegantula* sp. n., паратип; 244 – *X. filicornis* sp. n., паратип; 245 – *X. flavipennis* sp. n., паратип; 246 – *X. ketambensis* sp. n., паратип; 247 – *X. matangensis* sp. n., паратип; 248 – *X. metallipennis* sp. n., паратип; 249 – *X. nigromaculata*; 250 – *X. parafileicornis* sp. n., паратип; 251 – *X. pseudobasalis* sp. n., паратип; 252 – *X. sibayakensis* sp. n., паратип; 253 – *X. subcyanipennis* sp. n., паратип.



transverse diameter of eye. Anterior part of head convex, covered with several long pale setae; frontal tubercles moderately large and convex, triangular with sharp apex, divided by thin median longitudinal impression and distinctly delimited posteriorly. Vertex impunctate, shining with thin depressed longitudinal line in middle. Antennae moderately long extending beyond middle of elytra, covered with thin sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small; antennomeres III–VIII enlarged; antennomere III conical; antennomeres IV–VIII more or less rectangular; antennomere IX short, oval, protruding upward and laterally from main axis; antennomeres X and XI thin, latter with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 13 : 11 : 10 : 9 : 9 : 5 : 10 : 17; their proportions in width are as 5 : 3 : 7 : 7 : 7 : 7 : 6 : 4 : 3 : 3.

Pronotum transverse, 1.95 times as broad as long, widest at level of front angles; surface impunctate, widely transversely depressed. Anterior margin slightly concave; lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles triangular, not prominent; posterior angles triangular, prominent; each angles with setigerous pores bearing long pale seta (longer on front angles), additional two short setae visible close to anterior angle on lateral margin.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate.

Elytra 1.7 times as long as wide, broadest at apical fourth, surface rugose, covered with rather dense sub-recumbent hairs. Humeral calli well developed.

Legs slender, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 7 : 6 : 4 : 8; metatarsomere I long and narrow, approximately equal to remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 6 : 4 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 192, 193) short, wide on base gradually narrowing towards apex with widely rounded tip; in lateral view slightly curved with bent down tip, aedeagus length 1 mm.

Female unknown.

**Differential diagnosis.** This new species (together with *X. antennalis* sp. n.) belongs to the species group of the subgenus *Xenodina* with antennomere IX short, modified, protruding upward and laterally from the main axis on which other antennomeres are located. *Xenoda pseudoantennalis* sp. n. differs from *X. antennalis* sp. n. in rounded antennomere IX (Fig. 73) instead of triangular antennomere IX (Fig. 37) in the latter species and in shape of aedeagus with rounded tip which bent down (Figs 192, 193) in lateral view in the former species instead of triangular, not bent down tip of aedeagus in the latter species (Figs 133, 134).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to similarity with *X. antennalis* sp. n.

*Xenoda (Xenodina) pseudobasalis* sp. n.  
(Figs 74, 75, 194, 195, 251)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Padang, Sumatra Ecology GH, h~25-75 m, S 1°07'31", E 100°22'18" S 1°07'36", E 100°22'19" 15. II. 2018 P. Romantsov leg." Paratypes: 2♂ (PR), same data as in holotype, but "16. II. 2018"; 1♂, 1♀ (PR), same data, but "17. II. 2018"; 2♀ (PR), same data, but "18. II. 2018"; 1♂ (JB), "Indonesien, S SUMATRA, LAMPUNG prov. BUKIT BARISAN SELATAN N.P. 5°4' S 104°4' E; ±600 m., 5 km SW Liwa, J. Bezděk leg.; 7-17. II. 2000"; 1♂ (ZIN), "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.;

4-18. III. 2003"; 1♂ (PR), "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Bukittinggi, 6 km SW/W Padang Panjang, h~410-510 m, S 0°28'58", E 100°20'37" S 0°28'53", E 100°20'31" 8.II.2018 P. Romantsov leg."

**Description.** Male, holotype (Fig. 74). Length 3.7 mm, width 1.8 mm.

Head dark fulvous, pronotum and scutellum fulvous, elytra black. Antennae with five basal antennomeres darkened, antennomeres VI–X black, antennomere XI black in basal and fulvous in apical parts. Legs fulvous with slightly darkened apical part of tibiae and tarsi. Underside fulvous.

Head impunctate, labrum transverse, about 1.6 times as wide as long, anterior margin almost straight, surface impunctate and shining with several pale setae; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment small, triangular. Eyes moderately convex, oval (1.3 times as long as wide), interocular space 1.75 times as wide as transverse diameter of eye. Anterior part of head convex; nasal keel wide and weakly convex; frontal tubercles convex, triangular with sharp apex, divided by rather wide and deep median longitudinal impression and distinctly delimited posteriorly by thin impression; surface of frontal tubercles shining and impunctate. Vertex impunctate, shining with very thin and slightly depressed longitudinal line. Antennae reaching posterior third of elytra, sparsely covered with thin semi-erect hairs. Antennomere I moderately thickened and slightly curved, antennomere II small, antennomeres III–X thickened; antennomere III conical; antennomeres IV–X almost rectangular; antennomere XI elongate with pointed top. Antennomere X with pore. Proportions in length of antennomeres I–XI are as 13 : 3 : 11 : 9 : 8 : 8 : 8 : 8 : 9 : 16; their proportions in width are as 5 : 4 : 8 : 8 : 9 : 8 : 8 : 8 : 7 : 7 : 4.

Pronotum transverse, 1.9 times as broad as long, widest at level of anterior angles; surface impunctate with rather narrow transverse depression in basal third. Anterior margin concave, lateral margins almost straight, posterior margin sinuate. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles slightly thickened, posterior angles triangular, all angles not prominent; lateral margin with several short pale setae.

Scutellum triangular, 1.3 times as wide as long; surface with poorly visible microsculpture.

Elytra 1.65 times as long as wide, broadest at apical third, surface moderately rugose with punctures among ridges, covered with rather long semi-erect hairs. Humeral calli developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 4 : 7; metatarsomere I narrow, approximately equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 6 : 5 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 194, 195) with slight constriction before rounded apex; in lateral view almost straight, only tip very slightly bent down; aedeagus length 1.3 mm.

Paratypes. Males are similar to holotype, but some specimens have more darkened apical parts of tibiae and tarsi; body length 3.5–4.1 mm. Females (Fig. 75) are similar to males but with significantly less thickened antennomeres III–X (1.8–1.35 times as long as wide instead of almost square in males); body length 3.7–3.9 mm. Spermatheca as in Fig. 251, spermatheca length about 0.4 mm.

**Differential diagnosis.** This new species is similar to the form of *X. basalis* with black elytra, but differs in having pore on antennomere X and in shape of aedeagus with widely rounded apex (Figs 74, 194), instead of lacking of pore on antennomere X and aedeagus with sharp apex in the latter species (Figs 38, 40, 135).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The species name refers to similarity with *X. basalis*.



*Xenoda (Xenodina) pseudoimpressa* sp. n.  
(Figs 76, 196, 197)

**Material.** Holotype, ♂ (NHM): "N. BORNEO: Mt. Kinabalu", "Mesilau Cave 23-24. III. 1964. 6,200 ft.", "Royal. Soc. Exped. coll. S. Kueh. B. M. 1964-25".

**Description.** Male, holotype (Fig. 76). Length 3.3 mm, width 1.8 mm.

Body fulvous. Spot on frontal tubercles and sides of pronotum blackish. Each elytron with curved blurred blackish longitudinal stripe, together forming cruciform pattern on elytra. Legs fulvous with base of tarsomeres darkened. Underside fulvous with metathorax and abdomen darkened.

Head impunctate, labrum transverse, about 1.5 times as wide as long, surface with several pale setae; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes convex, narrow oval (1.55 times as long as wide), interocular space 1.8 times as wide as transverse diameter of eye. Anterior part of head convex, shagreened; nasal keel rather narrow and convex; frontal tubercles large, convex, triangular with sharp apex, divided by rather narrow median longitudinal impression and distinctly delimited posteriorly by thin impression; surface of frontal tubercles indistinctly covered with microsculpture. Vertex densely covered with microsculpture and with slightly depressed longitudinal line in middle. Antennae (left antenna missing) reaching posterior third of elytra, covered with rather long semi-erect hairs. Antennomere I moderately thickened and slightly curved, antennomere II small, antennomeres III–X thickened; antennomere III conical; antennomeres IV–VIII almost rectangular; antennomeres IX and X transverse and modified: antennomere IX with strongly raised outer edge forming forward process; antennomere X with pore; antennomere XI moderately large with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 9 : 8 : 7 : 7 : 6 : 9 : 5 : 6 : 17; their proportions in width are as 5 : 4 : 7 : 6 : 6 : 7 : 8 : 9 : 10 : 9 : 5.

Pronotum transverse, 1.6 times as wide as long, widest in apical third; surface covered with microsculpture and with transverse depression deeper on sides. Anterior margin almost straight; lateral margins very slightly rounded, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins thinly bordered. All angles triangular, posterior angles prominent; lateral margins with several long curved setae.

Scutellum impunctate, triangular with sharp apex, 1.8 times as wide as long; surface with small depression in middle.

Elytra 1.65 times as long as wide, widest in apical fourth; surface sparsely covered with erect hairs, uneven and rugose with impressions, ridges and punctures among them. Humeral calli well developed.

Legs slender, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 5 : 5 : 10; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 16 : 7 : 5 : 11. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 196, 197) with triangular apex, in lateral view strongly curved at apical third; aedeagus length 1.25 mm.

Female unknown.

**Differential diagnosis.** This new species differs from other species of the subgenus *Xenodina* with elytral surface with depressions and convexities in antennal structure (Fig. 76) with thickened antennomeres VIII–X of which the last two are transverse and modified (antennomere IX with process, antennomere X with pore). *Xenoda impressa*, having black pattern on bumpy elytra surface, is most similar to this new species, but differs in very slightly thickened and not transverse antennomeres VIII–X without process on antennomere IX (Fig. 58).

**Distribution.** Malaysia (Sabah).

**Etymology.** The species name refers to similarity with *X. impressa*.

*Xenoda (Xenodina) schawalleri* sp. n.  
(Figs 77, 78, 198, 199)

**Material.** Holotype, ♂ (NMB): "BORNEO: SABAH Kinabalu, N.P. Headquarters 1500-1600 m, 11.-15.XI.1996 Schawaller leg.". Paratype: 1♀ (ZIN), "Borneo: Sabah, Rm 53 road KK-Tambunan Gn. Emas, 1650 m. 22 Mar 6 Apr 2000, Bolm lgt."

**Description.** Male, holotype (Fig. 77). Length 3.8 mm, width 1.7 mm.

Body fulvous, head and pronotum slightly lighter than dark fulvous elytra. Antennae fulvous with antennomere IV slightly darkened and antennomeres V–X black. Legs fulvous with tibiae and tarsi slightly darkened.

Head impunctate, labrum transverse, 1.6 times as wide as long, anterior margin slightly convex, surface smooth; maxillary palpi with penultimate segment enlarged, apical segment small, triangular. Eyes large and convex, oval (1.3 times as long as wide), interocular space 1.22 times as wide as transverse diameter of eye. Anterior part of head moderately convex, covered with microsculpture near antennal sockets; nasal keel moderately narrow and convex; frontal tubercles moderately convex, divided by deep median longitudinal impression and delimited posteriorly by thin depressed line, surface of each tubercle with elongate oval fossa. Vertex impunctate but covered with fine microsculpture, with distinct depressed (deeper in distal part) longitudinal line in middle. Antennae short, barely reaching middle of elytra, surface rather densely covered with short sub-recumbent hairs and with shagreen-like sculpture. Antennomere I slightly curved, expanded in apical part, antennomere II small, square; antennomeres III–X moderate enlarged; antennomeres III and IV conical; antennomeres V–IX more or less rectangular; antennomere X somewhat modified with obliquely cut apical margin so that its outer edge has form of wide and short process; antennomere XI moderately short with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 11 : 10 : 9 : 8 : 8 : 7 : 7 : 8 : 12; their proportions in width are as 5 : 4 : 6 : 6 : 7 : 7 : 7 : 7 : 7 : 7 : 4.

Pronotum transverse, 1.8 times as broad as long with almost straight sides; surface impunctate with transverse impression, pitted on sides and weakened in middle. Anterior margin slightly concave, lateral margins almost parallel, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles slightly thickened and prominent, posterior angles obtuse, lateral margin with four short setae (two near anterior and two near posterior angles).

Scutellum triangular with slightly rounded apex, surface shining and impunctate.

Elytra 1.7 times as long as wide, broadest at apical fourth, surface covered with rather sparse semi-erect hairs, strongly rugose without punctures (but with microsculpture) among frequent ridges. Humeral calli developed.

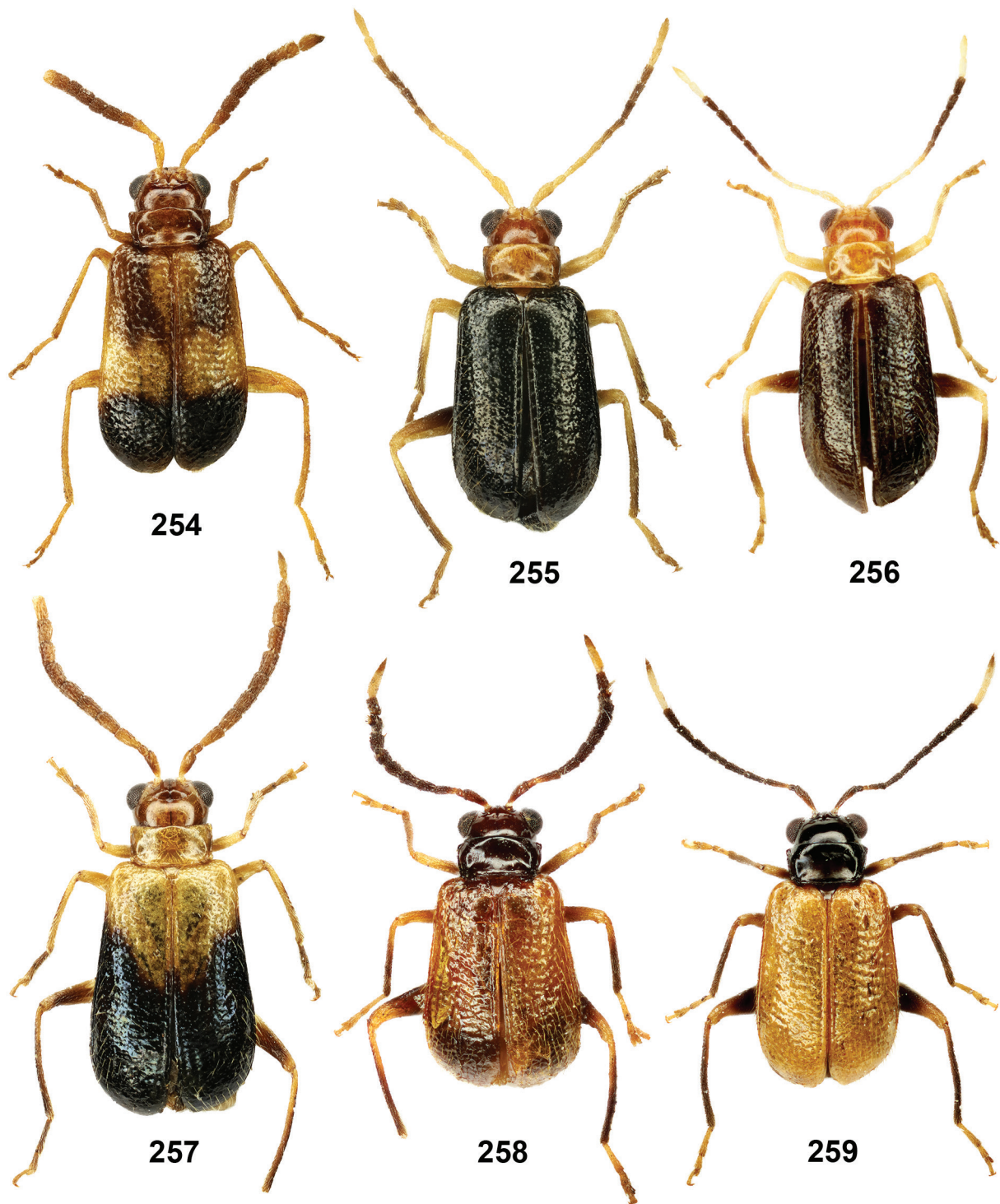
Legs slender with hind tibiae slightly curved in apical third; protarsomere I slightly expanded but narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 8 : 6 : 4 : 8; metatarsomere I narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 16 : 7 : 4 : 10. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 198, 199) gradually narrowing towards pointed apex, in lateral view curved almost at right angle, aedeagus length 1.15 mm.

Female (Fig. 79) is very similar to male but with less thickened middle antennomeres. Body length 3.8 mm.

**Differential diagnosis.** This new species belongs to the species group of the subgenus *Xenodina* having

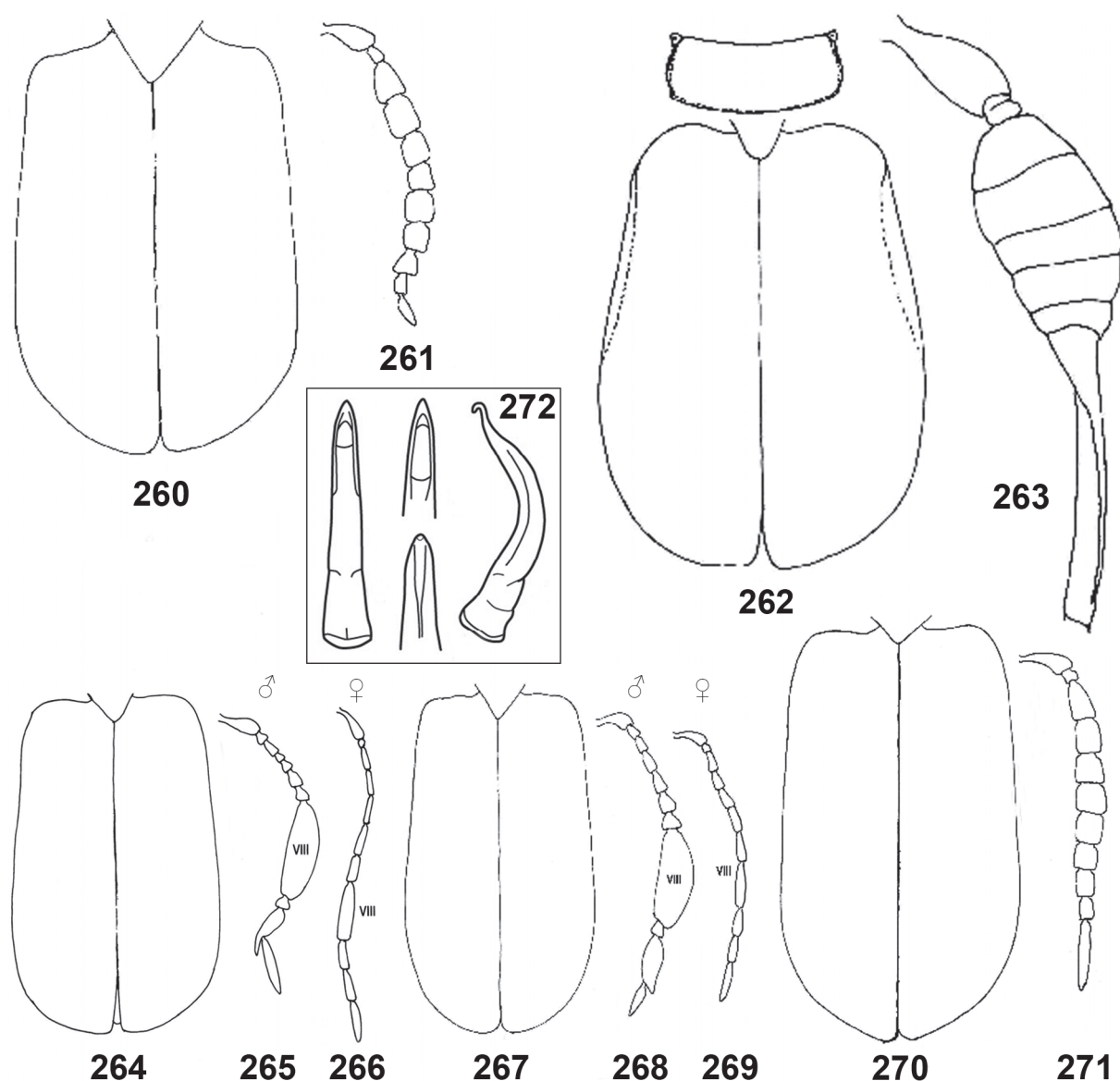


Figs 254–259. *Xenoda* (*Xenodina*), general view.

254 – *X. fasciata* **sp. n.**, male, holotype; 255–256 – *X. filicornis* **sp. n.**: 255 – male, holotype, 256 – female, paratype; 257 – *X. filimonovi* **sp. n.**, male, holotype; 258–259 – *X. flavipennis* **sp. n.**: 258 – male, holotype, 259 – female, paratype.

Рис. 254–259. *Xenoda* (*Xenodina*), общий вид.

254 – *X. fasciata* **sp. n.**, самец, голотип; 255 – *X. filicornis* **sp. n.**: 255 – самец, голотип, 256 – самка, паратип; 257 – *X. filimonovi* **sp. n.**, самец, голотип; 258–259 – *X. flavipennis* **sp. n.**: 258 – самец, голотип, 259 – самка, паратип.



Figs 260–272. *Xenoda*, details of structure.

260–261 – *X. castanea*; 262–263 – *X. ovalis*; 264–266 – *X. hitam*; 267–269 – *X. lapan*; 270–271 – *X. setiuensis*; 272 – *X. nigromaculata*. 260, 264, 267, 270 – elytra; 261, 263, 265–266, 268–269, 271 – antennae; 262 – pronotum and elytra; 272 – aedeagus (after Takizawa [2017]). 260–271 – after Mohamedsaid [2001].

Рис. 260–272. *Xenoda*, детали строения.

260–261 – *X. castanea*; 262–263 – *X. ovalis*; 264–266 – *X. hitam*; 267–269 – *X. lapan*; 270–271 – *X. setiuensis*; 272 – *X. nigromaculata*. 260, 264, 267, 270 – надкрылья; 261, 263, 265–266, 268–269, 271 – антенны; 262 – переднеспинка и надкрылья; 272 – эдеагус (по [Takizawa, 2017]). 260–271 – по [Mohamedsaid, 2001].

antennomere X with outer edge forming directed forward process and is most similar to *X. bukittinggiensis* sp. n., but differs in aedeagus curved almost at right angle in lateral view and in entirely fulvous basal antennomeres (Figs 77, 199) instead of slightly curved aedeagus in lateral view, basal antennomeres with blackish upperside and fulvous underside in the latter species (Figs 45, 149).

**Distribution.** Malaysia (Sabah).

**Etymology.** The name of this new species is dedicated to the coleopterologist Dr Wolfgang Schawaller (Stuttgart, Germany) who collected the holotype of this new species.

*Xenoda (Xenodina) setiuensis* Mohamedsaid, 2001  
(Figs 270, 271)

*Xenoda (Xenodella) setiuensis* Mohamedsaid, 2001: 20, 34 (UKM); Mohamedsaid, 2004: 118.

**Notes.** This species is very similar to *X. fulva*, possible they are identical (see comments to *X. fulva*).

I did not have the opportunity to examine the type specimen and the description of this species given by Mohamedsaid [2001] is not informative enough. Differences that has been established between these species based on the descriptions are given in the key.

**Distribution.** Peninsular Malaysia (Perak).



*Xenoda (Xenodina) sibayakensis* sp. n.  
(Figs 79, 80, 200, 201, 252)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra II., North Sumatra Prov, Sidebuk-Debuk Place, h~1400-1670m, N 03°13'17", E 098°30'43" N 03°12'55", E 098°31'00" 4.II.2018 P. Romantsov leg.". Paratypes: 1♂ (PR), same data as in holotype; 2♀ (PR), same data, but "2. II. 2018"; 1♂ (PR), same data, but "15.III.2020".

**Description.** Male, holotype (Fig. 79). Length 3.7 mm, width 1.8 mm.

Head, pronotum, scutellum, legs and underside fulvous (pronotum slightly lighter than head), elytra black. Antennae fulvous with antennomeres III–VIII and apex of antennomere XI black.

Head impunctate, labrum transverse, 1.37 times as wide as long with almost straight anterior margin, surface smooth; maxillary palpi with penultimate segment enlarged, sparsely covered with short erect setae, apical segment small, conical. Eyes convex, oval (1.3 times as long as wide), interocular space 1.7 times as wide as transverse diameter of eye. Anterior part of head convex, covered with several long pale setae; frontal tubercles relatively small, triangular with sharp apex, divided by thin median longitudinal impression and delimited posteriorly by thin, curved depressed line. Vertex impunctate, shining with thin depressed longitudinal line in middle. Antennae moderately long, reaching hind quarter of elytra, covered with thin sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small; antennomere III conical; antennomeres IV–IX slightly enlarged, more or less rectangular; antennomere IX modified with raised inner edge forming directed upward and forward process; antennomeres X and XI thin, latter with pointed apex. Proportions in length of antennomeres I–XI are as 15 : 4 : 12 : 11 : 11 : 10 : 11 : 10 : 16 : 10 : 20; their proportions in width are as 5 : 4 : 5 : 5 : 6 : 6 : 6 : 6 : 3 : 3. Length of antennomere IX includes length of its process.

Pronotum transverse, 2 times as broad as long, widest at level of front angles with almost straight margins; surface impunctate with transverse depression. Anterior margin unbordered, lateral and basal margins bordered. Anterior and posterior angles triangular, prominent; each angles with setigerous pores bearing long pale seta, additional two short setae visible below anterior angle on lateral margin.

Scutellum triangular, 1.5 times as wide as long; surface shining and impunctate with oval fossa near apex.

Elytra 1.7 times as long as wide, broadest at apical fourth, surface covered with rather sparse short semi-erect hairs, strongly rugose. Humeral calli well developed.

Legs slender, protarsomere I expanded, slightly wider than protarsomere III, proportions in length of protarsomeres I–IV are as 9 : 7 : 5 : 9; metatarsomere I long and narrow, slightly longer than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 20 : 9 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 200, 201) gradually narrowing towards rounded apex; in lateral view slightly curved with bent up tip, aedeagus length 1.25 mm.

Paratypes. Male is similar to holotype, but lateral margins of pronotum narrowly darkened. Body length 3.8 mm. Females are very similar to males but have filiform antennae with unmodified antennomeres. One female has unicolourous pronotum as in holotype; another female (Fig. 80) has pronotum with narrowly darkened lateral margins as in paratype male. Body length 3.8–3.9 mm. Spermatheca as in Fig. 252, spermatheca length 0.3 mm.

**Differential diagnosis.** *Xenoda sibayakensis* sp. n. has modified antennomere IX and is similar to *X. antennalis* sp. n. and *X. pseudoantennalis* sp. n., but differs from these species in expanded protarsomere I

and in long and slightly modified antennomere IX with raised inner edge forming process directed upward and forward (Fig. 79) instead of *X. antennalis* sp. n. and *X. pseudoantennalis* sp. n. having not expanded protarsomere I and short and strongly modified antennomere IX (Figs 37, 73).

**Distribution.** Indonesia (Sumatra).

**Etymology.** The name of the new species refers to the collecting locality situated near Sibayak Volcano.

*Xenoda (Xenodina) subcyanipennis* sp. n.  
(Figs 81, 82, 202, 203, 253)

**Material.** Holotype, ♂ (PR): "Indonesien, Sumatra II., West Sumatra Prov, 20 km S Padang, Sumatra Ecology GH, h~25-75 m, S 1°07'31", E 100°22'18" S 1°07'36", E 100°22'19" 17.II.2018 P. Romantsov leg.". Paratypes: 2♂, 3♀ (PR), same data as in holotype; 2♂ (PR), same data, but "Prosvirov leg."; 2♂, 2♀ (PR), same data as in holotype, but "15.II.2018"; 4♂ (PR), same data, but "16.II.2018"; 1♀ (PR), same data, but "18.II.2018"; 1♂, 3♀ (NHM), "Doherty", Sumatra, Merang, "1905-100"; 1♀ (JB), "Indonesia Sumatra-Barat Umg.Padang Panjang 700-1000 m 21.1 – 25.1.95 leg. C Zorn"; 8♂, 6♀ (ZIN), "West Sumatra prov, Kerinci Seblat N. P.; 24 km NE Tapan: MUARA SAKO→ E env.: 2°05' S, 101°15' E: 400-550 m. Dembický leg.; 4.-18. III. 2003".

**Description.** Male, holotype (Fig. 81). Length 3.9 mm, width 1.8 mm.

Body fulvous. Elytra bicoloured: basal fifth fulvous, rest of elytral surface black with distinct metallic violaceous shine. Antennae with two basal antennomeres darkened; antennomeres III–VIII black; antennomere IX darkened and two apical antennomeres fulvous. Legs fulvous with tibiae (except basal part) and tarsi black.

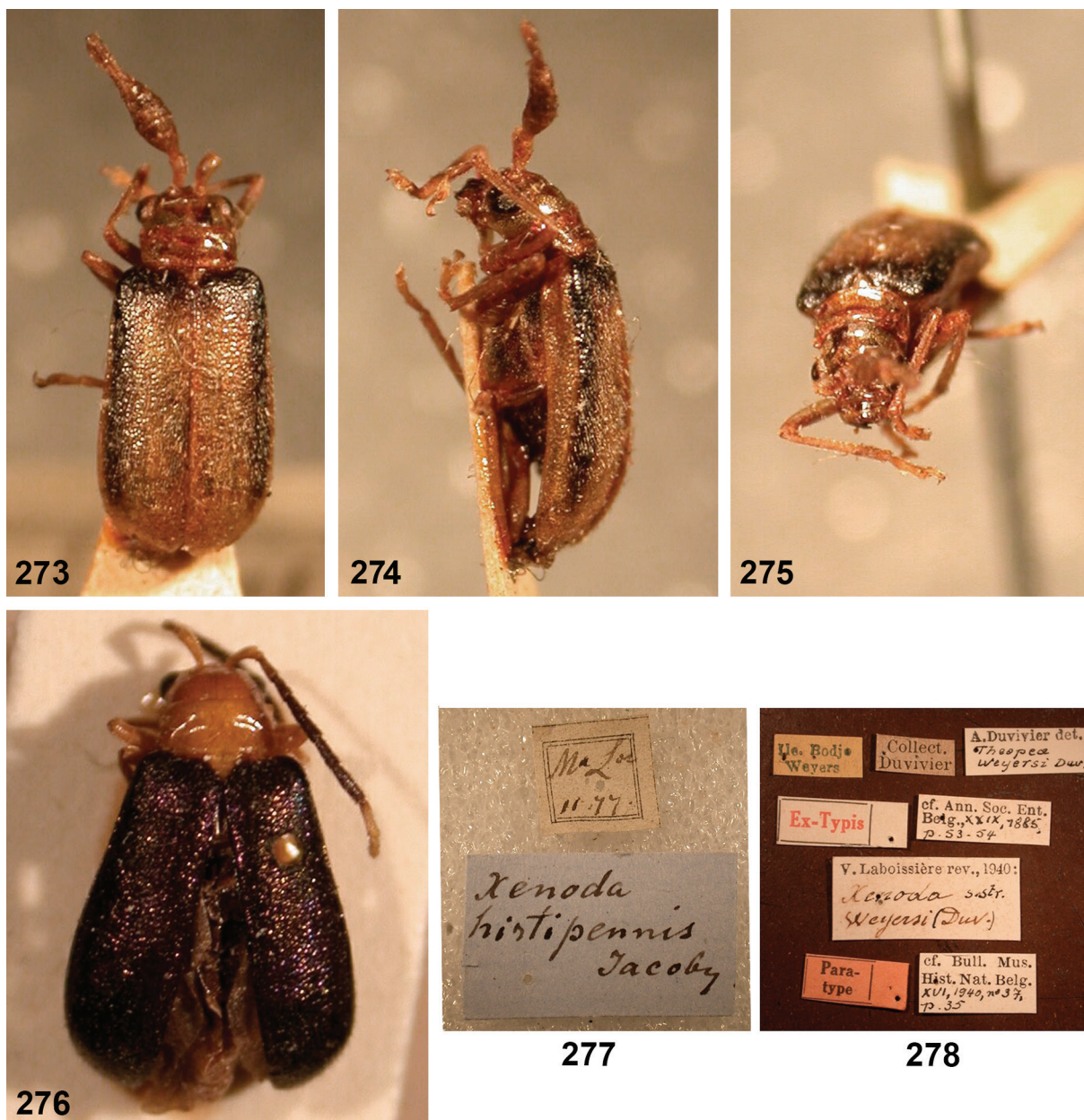
Head impunctate, labrum transverse, about 1.5 times as wide as long, anterior margin with shallow emargination, surface impunctate with microsculpture and with several long setae; maxillary palpi with penultimate segment enlarged, sparsely covered with setae, apical segment small, triangular. Eyes convex, widely oval (1.3 times as long as wide), interocular space 1.6 times as wide as transverse diameter of eye. Anterior part of head flattened; nasal keel moderately wide and convex; frontal tubercles narrow and moderately convex, triangular with sharp apex, divided by thin and shallow median longitudinal impression and slightly delimited posteriorly by shallow impression. Vertex impunctate, shining with very thin and slightly depressed longitudinal line in middle. Antennae reaching posterior third of elytra, rather densely covered with thin sub-recumbent hairs. Antennomere I moderately thickened and slightly curved, antennomere II small, antennomeres III–X thickened; antennomere III conical; antennomeres IV–X almost rectangular; antennomere XI lanceolate with pointed top. Proportions in length of antennomeres I–XI are as 15 : 3 : 12 : 11 : 11 : 11 : 11 : 11 : 11 : 14; their proportions in width are as 6 : 4 : 7 : 7 : 7 : 7 : 7 : 6 : 6 : 6.

Pronotum transverse, 2 times as broad as long, widest in apical third; surface wide transversely depressed, impunctate. Anterior margin concave; lateral margins very slightly rounded, posterior margin almost straight. Anterior margin unbordered, lateral and basal margins bordered. Anterior angles slightly thickened, not prominent; posterior angles triangular, prominent; each angle with setigerous pores bearing long pale seta, additional two short setae visible on lateral margin (one below anterior angle and another near posterior angle).

Scutellum triangular, 1.3 times as wide as long; surface shining and impunctate.

Elytra 1.65 times as long as wide, broadest at apical third, surface moderately rugose with punctures among ridges, covered with rather long sub-recumbent hairs. Humeral calli well developed.

Legs slender, protarsomere I narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 4 : 4 : 6;



Figs 273–278. *Xenoda*, general view and labels (photographs by Jan Bezděk).  
 273–275 – *X. (Xenoda) hirtipennis*, male, holotype: 273 – dorsal view, 274 – lateral view, 275 – front view; 276 – *X. (Xenoda) weyersi*, female, syntype, dorsal view; 277 – labels of the holotype of *X. (Xenoda) hirtipennis*; 278 – labels of the syntype of *X. (Xenoda) weyersi*.  
 Рис. 273–278. *Xenoda*, общий вид и этикетки (фотографии Яна Бездека).  
 273–275 – *X. (Xenoda) hirtipennis*, самец, голотип: 273 – вид сверху, 274 – вид сбоку, 275 – вид спереди; 276 – *X. (Xenoda) weyersi*, самка, синтип, вид сверху; 277 – этикетки голотипа *X. (Xenoda) hirtipennis*; 278 – этикетки синтипа *X. (Xenoda) weyersi*.

metatarsomere I narrow, approximately equal to length of remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 13 : 5 : 3 : 7. All tibiae without apical spurs. Claws appendiculate.

Aedeagus (Figs 202, 203) gradually narrowing towards elongate triangular apex, very slightly bent in lateral view, aedeagus length 1.38 mm.

Paratypes. Males are similar to holotype, but some specimens have antennae with three apical antennomeres fulvous, body length 3.5–4.1 mm. Females (Fig. 82) are similar to males but with filiform antennae, body length 3.5–4 mm. Spermatheca as in Fig. 253, spermatheca length 0.4–0.5 mm.

**Differential diagnosis.** This new species belongs to the species group of the subgenus *Xenodina* with thickened but not modified antennomeres without spurs, groove or pore. *Xenoda subcyanipennis* sp. n. differs from other representatives of this group in bicoloured elytra with metallic shine (Figs 81, 82). *Xenoda filimonovi* sp. n. also has bicoloured elytra with weak metallic shine in black part but differs from *X. subcyanipennis* sp. n. in aedeagus with hook-like bent tip in lateral view and in less pronounced metallic shine on elytra (Figs 165, 257).

**Distribution.** Indonesia (Sumatra).



**Etymology.** The species name refers to the partially blue elytra colouration.

*Xenoda (Xenodina) trusmadiensis* sp. n.  
(Figs 83, 204, 205)

**Material.** Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., river h~830m, N 05°27'37", E 116°26'52" 27.II.2014 P. Romantsov leg."

**Description.** Male, holotype (Fig.83). Length 3.5 mm, width 1.65 mm.

Antennae with antennomeres I and II dark fulvous; antennomeres IV–X black, antennomere X fulvous. Body fulvous, legs fulvous with apical part of tarsomeres slightly darkened. Anterior part of head fulvous; frontal tubercles and vertex dark fulvous. Pronotum with middle part and sides dark fulvous, areas between them and anterior angles fulvous.

Head impunctate, labrum transverse, about 2 times as wide as long, anterior margin slightly convex, surface smooth, with several long pale setae; maxillary palpi with penultimate segment enlarged, apical segment small, conical, both apical segments covered with semi-erect setae. Eyes convex, oval (1.35 times as long as wide), interocular space 1.75 times as wide as transverse diameter of eye. Clypeus convex, covered with several long pale setae laterally; frontal tubercles strongly raised, large, elongate triangular with sharp apex, divided by thin median longitudinal impression, surface impunctate, subopaque. Vertex smooth, impunctate with thin depressed longitudinal line and oval deep depression behind tubercles. Antennae reaching posterior third of elytra, covered with short sub-recumbent hairs. Antennomere I long and slightly curved, antennomere II small, cylindrical; antennomere III conical; antennomeres IV–IX more or less rectangular; antennomere X modified with strongly raised outer edge forming forward process; antennomere XI thin with pointed apex. Proportions in length of antennomeres I–XI are as 14 : 4 : 9 : 7 : 8 : 6 : 7 : 5 : 5 : 15; their proportions in width are as 5 : 3 : 4 : 5 : 6 : 7 : 7 : 7 : 8 : 4.

Pronotum transverse, 2 times as broad as long, widest at level of front angles; surface wide transversely depressed, impunctate. Anterior margin sinuate; lateral margins almost straight, posterior margin slightly convex. Anterior margin unbordered, lateral and basal margins distinctly bordered. Anterior angles prominent, posterior angles triangular, all angles with setigerous pores bearing long pale seta, additional two short setae visible on lateral margins.

Scutellum shining and impunctate, triangular with sharp apex, 1.2 times as wide as long.

Elytra 1.55 times as long as wide, broadest at apical fourth, surface covered with rather sparse erect hairs, rugose with punctures among ridges. Humeral calli well developed.

Legs slender, protarsomere I not expanded, narrower than protarsomere III, proportions in length of protarsomeres I–IV are as 6 : 5 : 5 : 9; metatarsomere I long and narrow, slightly shorter than remaining tarsomeres combined; proportions in length of metatarsomeres I–IV are as 15 : 7 : 5 : 9. All tibiae without apical spurs. Claws appendiculate.

Anterior coxal cavities open posteriorly.

Aedeagus (Figs 204, 205) with almost straight cut apex, in lateral view curved at apical third, aedeagus length 1.47 mm.

Female unknown.

**Differential diagnosis.** *Xenoda trusmadiensis* sp. n. has directed upward process on antennomere X and truncated apex of aedeagus and is similar to *X. ketambensis* sp. n. from Sumatra but differs from the latter species by following characters: antennae more robust with transverse antennomeres VIII–X, head and pronotum more or less dark fulvous, elytra fulvous, eyes and frontal tubercles more convex, vertex with oval deep depression behind tubercles, aedeagus more smoothly curved upward in lateral view, its truncated apex is

slightly concave, antennomere X with strongly raised outer edge forming the upward process (Figs 83, 204, 205). *Xenoda ketambensis* sp. n. has antennae less robust with antennomeres VIII–X not transverse, equal in length and width or longer than width, elytra and pronotum entirely fulvous, eyes and frontal tubercles less convex, vertex without oval deep depression behind tubercles, aedeagus more steeply curved upward in lateral view, its truncated apex is more concave, antennomere X with directed forward process in the form of a plate extending from the outer side surface (Figs 62, 180, 181).

**Distribution.** Malaysia (Sabah).

**Etymology.** The name of the new species refers to the collecting locality.

*Xenoda (Xenodina) tuberculata* L. Medvedev, 2004  
(Figs 84, 206, 207)

*Xenoda tuberculata* L. Medvedev, 2004: 342.

*Xenoda yoshitomii* Takizawa, 2017: 208, **syn. n.** (IBTP).

**Material.** 1♂, holotype (ZIN), "MALAYSIA Prov. Sabah, Banjarmasin", "HOLOTYPUS *Xenoda m. tuberculata* L.N. Medvedev det." (r); 1♂ (PR), "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660m, at light N 05°48'47", E 116°20'16" 7.III.2014 P. Romantsov leg."

**Note.** *Xenoda yoshitomii* and *X. tuberculata* are conspecific taxa on the basis of the original description and photo of the habitus of *X. yoshitomii*.

**Distribution.** Malaysia (Sabah).

**A species with unclear subgeneric position  
within the genus *Xenoda***

*Xenoda modiglianii* Jacoby, 1896  
(Figs 26, 228)

*Xenoda modiglianii* Jacoby, 1896b: 140; Weise, 1924: 133 (in the subgenus *Xenodella*); Wilcox, 1973: 606; Kimoto, 1990: 236.

**Material.** 1♀, syntype (NHM), "Co-type" (circle label with yellow border), "Mentawai, Sereinu V-VI, 94 Modigliani", "Museo Civ. Genova" (yellow label), "*Xenoda Modigliani* Jac" (b., h.).

**Notes.** According to the description, male of *X. modiglianii* has intermediate antennomeres gradually but moderately thickened without spine, length of body 5.2 mm but female has entirely simple antennae and based on that this species should be placed to the subgenus *Xenodella*. The only type specimen at my disposal is the female. But images of a type male of this species, kept in MCZ (Type 18217), are available on MCZ Type Database Site [<https://mcz.harvard.edu/database>]. The male on that photo has a long spine on antennomere VIII, like members of the subgenus *Xenoda* s. str. This species is not included in any of the keys given in my article because I suggest that it is necessary to study more type specimens and material from the type locality for the final decision of its taxonomic position.

**Distribution.** Indonesia (Mentawai).

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A revision of the genus *Xenoda* Baly, 1877 (Coleoptera: Chrysomelidae: Galerucinae)

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