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The longicorn beetle tribe Cerambycini Latreille, 1802 (Coleoptera: Cerambycidae: Cerambycinae) in the fauna of Asia. 1. New or little-known taxa, mainly from Indochina and Borneo, with reviews of some genera

Жуки-дровосеки трибы Cerambycini Latreille, 1802 (Coleoptera: Cerambycidae: Cerambycinae) фауны Азии. 1. Новые и малоизвестные таксоны, преимущественно из Индокитая и Борнео, с обзорами некоторых родов

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Key words: Coleoptera, Cerambycidae, Cerambycini, new genera and species, reviews of genera, Southeastern Asia. *Ключевые слова:* Coleoptera, Cerambycidae, Cerambycini, новые роды и виды, обзоры родов, Юго-Восточная Азия.

Abstract. Taking into account the new data presented in this paper, the tribe Cerambycini in the fauna of Asia contains almost 60 genus-group taxa and about 335 species, being the largest compared to the faunas of the other parts of the world. Serious problems in the development of a reasonable supraspecific classification of the tribe are noted. Reviews of such taxonomically confused genera as Elydnus Pascoe, 1869, Imbrius Pascoe, 1866, Zatrephus Pascoe, 1857, and Zegriades Pascoe, 1869, as well as keys to their constituent species are given. The following new genera and species are described, two new statuses change and new combinations are established: Falsopachydissus gen. n., F. foveiscapus (Holzschuh, 2011), comb. n., Mimimbrius gen. n., M. dembickyi sp. n. Thailand), M. geminatus (Holzschuh, (Southern 2005), comb. n., M. micaceus (Pascoe, 1858), comb. n., M. subargenteus (Gressitt et Rondon, 1970), comb. n., Pascoetrephus gen. n., P. hefferni sp. n. (Eastern Malaysia), P. klimenkoi sp. n. (Eastern Malaysia), P. inscitus (Pascoe, 1857), comb. n., P. ranongensis (Holzschuh, 2009), stat. n. et comb. n., Spinidymasius gen. n., S. chrysophanes (Gressitt et Rondon, 1970), comb. n., S. crinicornis (Hüdepohl, 1989), comb. n., S. dembickyi (Holzschuh, 2003), comb. n., S. grossescapus (Hüdepohl, 1989), comb. n., S. huedepohli (Vives, 2005), comb. n., S. ochraceovittatus (Hüdepohl, 1989), comb. n., S. pascoei (Gahan, 1891), comb. n., S. sericatus (Pascoe, 1869), comb. n., S. tawauanus (Vives et Heffern, 2016), comb. n., Elydnus rufulus Holzschuh, 2016, stat. n. These new genera are also reviewed, with keys to their species given. The following new species are described: Dymasius makarovi sp. n. (Western Malaysia), D. murzini sp. n. (Sri Lanka),

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Elydnus barclayi sp. n. (Southern Thailand and Western Malaysia), E. tatianae sp. n. (Vietnam), E. vitalii sp. n. (Vietnam), Imbrius fedorenkoi sp. n. (Southern Vietnam), I. klimenkoi sp. n. (Eastern Malaysia), I. solodovnikovi sp. n. (Eastern Malaysia), Massicus ivani sp. n. (Eastern Malaysia), M. valentinae sp. n. (Western Malaysia), Sebasmia indochinensis sp. n. (Thailand and Vietnam), Zatrephus golovatchi sp. n. (Southern Vietnam), Zegriades olemehli sp. n. (Eastern Malaysia). The genus Sebasmia Pascoe, 1859 is reported from Indochina for the first time. New records of a number of species from other genera are given as well, thus one way or another expanding their distribution areas, sometimes very significantly so. Provisional considerations on the taxonomy of the genus Pachydissus Newman, 1838 and on the systematic position of Plavichydissus Pic, 1946 are presented. Based on a comparison of the holotypes of Dymasius macilentus (Pascoe, 1859) and D. strigosus J. Thomson, 1864, their synonymy traditionally used in the literature is questioned as requiring indisputable evidence. The lectotype male of Dymasius minor Gahan, 1906 is designated. Abundant pictures of the species studied, including numerous type specimens, are provided.

Резюме. Триба Cerambycini Latreille, 1802 с учетом новых данных, представленных в настоящей работе, насчитывает в фауне Азии почти 60 таксонов родовой группы и около 335 видов – наибольшее число таксонов по сравнению с другими частями света. Обсуждаются серьезные проблемы в построении обоснованной надвидовой классификации трибы. Даны обзоры таких таксономически запутанных родов, как *Elydnus* Pascoe, 1869, *Imbrius* Pascoe, 1866, *Zatrephus* Pascoe,

1857, Zegriades Pascoe, 1869, и предложены таблицы для определения их видов. Описаны следующие новые роды и виды и установлены новые комбинации и два новых статуса: Falsopachydissus gen. n., F. foveiscapus (Holzschuh, 2011), comb. n., Mimimbrius gen. n., М. dembickyi sp. n. (Южный Таиланд), М. geminatus (Holzschuh, 2005), comb. n., M. micaceus (Pascoe, 1858), comb. n., M. subargenteus (Gressitt et Rondon, 1970), comb. n., Pascoetrephus gen. n., P. hefferni sp. n. (Восточная Малайзия), *Р. klimenkoi* sp. n. (Восточная Малайзия), P. inscitus (Pascoe, 1857), comb. n., P. ranongensis (Holzschuh, 2009), stat. n. et comb. n., Spinidymasius gen. n., S. chrysophanes (Gressitt et Rondon, 1970), comb. n., S. crinicornis (Hüdepohl, 1989), comb. n., S. dembickyi (Holzschuh, 2003), comb. n., S. grossescapus (Hüdepohl, 1989), comb. n., S. huedepohli (Vives, 2005), comb. n., S. ochraceovittatus (Hüdepohl, 1989), comb. n., S. pascoei (Gahan, 1891), comb. n., S. sericatus (Pascoe, 1869), comb. n., S. tawauanus (Vives et Heffern, 2016), comb. n., Elydnus rufulus Holzschuh, 2016, stat. n. Даны обзоры этих новых родов и таблицы для определения их видов. Описаны следующие новые виды: Dymasius makarovi sp. n. (Западная Малайзия), D. murzini sp. n. (Шри Ланка), Elydnus barclayi sp. n. (Южный Таиланд и Западная Малайзия), E. tatianae sp. n. (Вьетнам), E. vitalii sp. n. (Вьетнам), Imbrius fedorenkoi sp. n. (Южный Вьетнам), I. klimenkoi sp. n. (Восточная Малайзия), I. solodovnikovi sp. n. (Восточная Малайзия), Massicus ivani sp. n. (Восточная Малайзия), М. valentinae sp. n. (Западная Малайзия), Sebasmia indochinensis sp. n. (Таиланд и Вьетнам), Zatrephus golovatchi sp. n. (Южный Вьетнам), Zegriades olemehli sp. n. (Восточная Малайзия). Род Sebasmia Pascoe, 1859 впервые приведен для Индокитая. Отмечены также новые находки целого ряда видов из других родов, расширяющие их ареалы. Обсуждается таксономия рода Pachydissus Newman, 1838 и систематическое положение Plavichydissus Pic, 1946. На основании сравнения голотипов Dymasius macilentus (Pascoe, 1859) и D. strigosus J. Thomson, 1864 обосновано, что традиционно используемая в литературе синонимия D. macilentus = D. strigosus требует неоспоримых доказательств. Обозначен лектотип Dymasius minor Gahan, 1906. Представлено большое количество иллюстраций исследуемых видов, в том числе многих типовых экземпляров.

Introduction

Taking into account the new data presented in this paper, the Asian fauna of the tribe Cerambycini Latreille, 1802 contains almost 60 genus-group taxa and about 335 species, being the largest compared to the faunas of the other parts of the world.

The tribe is generally characterized by a very considerable morphological diversity, on the one hand, and by very similar or identical morphological structures in these or those component groups, on the other. All this makes it extremely difficult any clear differential diagnoses of various genus-group taxa to be worked out and poses serious problems in the development of a reasonable supraspecific classification of the tribe.

An extensive range of questions pertaining to the systematics and morphology of various representatives of the tribe were recently discussed by the author at the 15th Congress of the Russian Entomological Society [Miroshnikov, 2017]. Many of the ideas expressed there have been implemented in one way or another in the present paper.

A detailed study of a highly rich and diverse material amassed by the author, partly through the invaluable assistance of numerous colleagues and friends, has allowed to reconsider the species composition and provide reviews of such taxonomically confused genera as *Elydnus* Pascoe, 1869, *Imbrius* Pascoe, 1866, *Zatrephus* Pascoe, 1857 and *Zegriades* Pascoe, 1869; to describe and revise four new genera; to discuss some aspects of the systematics of the genera *Dymasius* J. Thomson, 1864, *Massicus* Pascoe, 1867, *Pachydissus* Newman, 1838 and their individual representatives; to describe sixteen new species belonging to nine genera, including two new ones; to clarify or expand, partly very significantly, the distribution areas of a number of species; and to present some other new data on little-known forms.

No complete systematic list of the genus-group taxa of Cerambycini is available in the modern literature. Nor even the exact number of cerambycine genera and species is known for the fauna of Asia. In the present paper, this information is not arranged in alphabetic order, but is given in a way that seems most convenient for a discussion and corresponding taxonomic conclusions. The species lists in the generic accounts are given, as far as possible, in systematic order.

I have properly remounted many of the type specimens kept in various museums in order to take highquality photographs of both their habitus and individual taxonomically important details. Therefore, in the present work, the pictures of these or those types may differ to some degree in appearance from those available in previous publications, including original ones.

Given the various new records of these or those species generally from Indochina as presented in this paper, the Malay Peninsula, from where some of such records are known, is taken here as its southern extremity.

The material treated in this work belongs to the following institutional and private collections:

BM – Bishop Museum (Honolulu, USA);

BMNH – Natural History Museum (London, United Kingdom);

IRSN – Institut Royal de Sciences naturelles de Belgique (Bruxelles);

LIPI – Lembaga Ilmu Pengetahuan Indonesia (Cibinong-Bogor, Indonesia);

NHMD – Natural History Museum of Denmark, University of Copenhagen (Copenhagen, Denmark);

MNHN – Muséum national d'Histoire naturelle (Paris, France);

PUM – Moscow Pedagogical State University (Moscow, Russia);

USNM – National Museum of Natural History, Smithsonian Institution (Washington D.C., USA);

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

ZSM – Zoologische Staatssammlung München (München, Germany);

cAM – collection of Alexandr Miroshnikov (Krasnodar, Russia);

cAN - collection of Alexandr Napolov (Riga, Latvia);

cCH – collection of Carolus Holzschuh (Villach, Austria);

cDH – collection of Daniel Heffern (Houston, USA);

cEV – collection of Eduard Vives (Barcelona, Spain);

cFV – collection of Francesco Vitali (Luxembourg);

cGC – collection of Gérard Chemin (Champigny-sur-Marne, France);

cLD – collection of Luboš Dembický (Brno, Czech Republic);

cNO – collection of Nobuo Ohbayashi (Kamimiyada, Miura City, Japan);

cPH – collection of Pierre Haller (Essert, Le Mouret, Switzerland);

cPJ – collection of Philippe Jacquot (Montbouchersur-Jabron, France);

cSM – collection of Sergey Murzin (Moscow, Russia); cTT – collection of Tomáš Tichý (Opava, Czech Republic);

cWT – collection of William Tyson (Coarsegold, USA).

Results and discussion

Tribe Cerambycini Latreille, 1802 Genus *Imbrius* Pascoe, 1866

Imbrius Pascoe, 1866b: 528. Pascoe, 1869: 518; Lacordaire, 1868: 261 (syn. pro *Dymasius*); Gemminger, 1872: 2803 (syn. pro *Dymasius*); Aurivillius, 1912: 59; Hüdepohl, 1990a: 65; Heffern, 2013: 10.

Type species: *Imbrius lineatus* Pascoe, 1866, by subsequent designation [Pascoe, 1869].

Diagnosis. This genus differs from all related and other Asian genera of the tribe by the peculiar structure of the pronotum, namely, the combination of certain features of its shape, sculpture and setation, all being more or less similar in species of the genus, as in Figs 31–54.

The pronotum of *Imbrius* is clearly or at least slightly/ barely, but always longitudinal, more or less broadly rounded or obtusely angulate in the middle part on the sides, at the apex insignificantly narrower than at the base; the sculptural formations in the apical one-third are sharply delimited posteriorly by symmetrical, usually arcuate ledges creating two (very rarely three) protrusions near the midline, these usually being well-expressed, rightor obtuse-angled, sometimes sharpened and directed backwards, in front with a median, often longitudinal, more or less clear tubercle; the apex of the pronotum at the midline also has two symmetrical, more or less clear, usually right- or obtuse-angled, small protrusions or a single, transverse, truncate one; the remaining disc surface covered with coarse, very coarse or more smooth tubercles and folds of various shapes, but is devoid of folds that are strongly extended in one direction or another; with a more or less strongly developed setation forming separate and different shapes, but neither long, sometimes partly fused, symmetrical bundles nor spots, often missing almost entirely or mostly on the disc, especially in its middle area; the setation never forms any obvious bands all or almost all along the pronotum.

Imbrius is also characterized by the following features, the combination of which makes it even more distinct compared to the other genera of the tribe: head comparatively short, usually with a deep, broad, longitudinal groove both between dorsal lobes of eyes and on vertex; eyes well-developed, more or less strongly convex; antennae of male different both in length and structure of antennomeres, sometimes much longer than body and with many antennomeres strongly elongated, but in most cases moderately long, with less strongly elongated antennomeres; male antennomeres 3-5 or 3-4 in the vast majority of cases more or less inflated in apical parts, length ratios of antennomeres differing, antennomeres 1 and 3-5 can be comparatively short and insignificantly different in length, antennomeres 6-10 moderately broadened towards apex, their apical inner angle sometimes with a clear spine, but thereby last antennomere apically of usual structure, not extended into a sharp spine; pronotum generally rounded or obtusely angulate in outline on sides, but can show separate protrusions formed by a very coarse sculpture, yet without clear lateral tubercles; elytra moderately, sometimes strongly elongated, without distinct longitudinal ribs, with both a relatively rough and very small, double, very contrastingly differing puncturation, as in Figs 64-66, apical sutural angle usually more or less straight, but sometimes sharpened or produced into a long tooth; recumbent setation of elytra entirely or mostly monochrome, not velvety, continuous (may be partly abraded) or, behind middle, with a v-shaped fascia devoid of dense setae (sometimes appearing like abraded fragments of setation), also can be in the form of more or less clear longitudinal strips; prosternum with a wellexpressed transverse groove in front of middle, prosternal process without lateral dentiform protrusion on sides in middle part of apical half, as in Figs 73-78, usually with a more or less clear, sometimes very sharp tubercle, but can also be without it; mesosternal process without tubercle, between coxae clearly or slightly wider than prosternal process, sometimes these processes subequal in width between coxae; legs moderately long, femora claviform, both femora and tibiae without carina along each side; genitalia as in Figs 82–110, endophallus of various shapes, thereby can differ very strongly between superficially very similar species (Figs 102-105; see also below); body predominantly medium-sized, 13.5–26.5 mm in length.

Besides this, some important details of *Imbrius* structure are shown below, in the diagnosis of the new genus, *Mimimbrius* gen. n., described here.

Composition. The genus includes twelve species, three of which are described as new.

Distribution. Oriental realm.



Figs 1–6. *Imbrius* Pascoe, 1866, habitus, dorsal view. 1–2 – *I. lineatus* Pascoe, 1866; 3, 6 – *I. similis* Hüdepohl, 1990; 4–5 – *I. solodovnikovi* **sp. n.** 1–2 – syntypes; 3–4 – holotypes; 5 – paratype; 1, 3–4 – males; 2, 5–6 – females. Puc. 1–6. *Imbrius* Pascoe, 1866, общий вид сверху. 1–2 – *I. lineatus* Pascoe, 1866; 3, 6 – *I. similis* Hüdepohl, 1990; 4–5 – *I. solodovnikovi* **sp. n.** 1–2 – синтипы; 3–4 – голотипы; 5 – паратип; 1, 3–4 – самцы; 2, 5–6 – самки.

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Imbrius lineatus Pascoe, 1866 (Figs 1, 2, 35–38, 41, 42, 64, 69, 73–75, 84, 85, 89, 90, 435, 436)

Imbrius lineatus Pascoe, 1866b: 529, pl. 41, fig. 12. Type locality: [Malaysia] Penang (according to the original description and the label of the holotype). Aurivillius, 1912: 60 (Penang); Hüdepohl, 1990a: 70 (Malaysia; Sumatra).

Dymasius lineatus: Gemminger, 1872: 2803 (Penang).

Material. ♂, syntype, (BMNH) (Fig. 1), "Penang (Lamb.) Pascoe Coll.", "Pascoe Coll. 93–60", "Imbrius lineatus Pasc. ♂ Type", "Type", "♂," "Imbrius lineatus P. Type Penang" (Fig. 435); ♀, syntype, (BMNH) (Fig. 2), "Penang", "Penang (Lamb.) Pascoe Coll.", "Pascoe Coll. 93–60", "Imbrius lineatus Pasc. ♀ Type", "Type", "♀" (Fig. 436); 1♂ (BMNH), "Singapore", "Atkinson Coll. 92–3", "Imbrius lineatus Pascoe, 1866 ♂ det. A. Miroshnikov 2017"; 1♀ (BMNH), "Malay, Penang", "Fry Coll. 1905.100", "16724", "Imbrius lineatus Pasc., ♀ comp. with type"; 1♀ (ZSM), "N Sumatra, Aik Tarum, 1.I.[19]84 Diehl [leg.]", "Imbrius lineatus Pasc. Hüdepohl det. 1987".

Morphological notes. Body length 13.5–15.8 mm, humeral width 3.1–3.8 mm, thereby syntype male largest.

Distribution. Western Malaysia, Singapore, Indonesia (Sumatra).

Imbrius solodovnikovi Miroshnikov, **sp. n.** (Figs 4, 5, 31–33, 39, 40, 65, 68, 77, 82, 83, 87, 88)

Imbrius lineatus auct.: Heffern, 2013: 10 (partim, Borneo) (non Pascoe, 1866).

Material. Eastern Malaysia: holotype, ♂ (NHMD) (Fig. 4): Sabah, Trus Madi Mt., 03.2004 (local collector), "Imbrius lineatus Pascoe, Ole Mehl det. 2005". Paratypes: 3^Q (NHMD), same locality as holotype, 03.2003, 03.2004, 04.2005 (local collector), "Imbrius lineatus Pasc., Ole Mehl det. 2005"; 1 (cPJ), same locality as holotype, 1200 m, 13-26.05.2017 (leg. A. Sochivko); 1[°] (BMNH), "Sarawak, R. Kapah trib., of R. Tinjar, 3.X.1932", "Beating", "Primitive forest", "Oxford Univ. Exp. B.M. Hobby & A.W. Moore, B.M.1933-254"; 1♀ (BMNH), same labels, "*Elydnus lineatus* Pasc."; 1♀ (cDH), Sabah, Trus Madi Mt., 1500-2000 m, 11.03.1998 (leg. Affenddy), "Imbrius lineatus Pascoe, det. K. Hüdepohl [19]99"; 1^Q (cDH), same geographical label, *"Imbrius lineatus* Pascoe, det. D. Heffern"; 1^Q (cDH), Sabah, Trus Madi Mt., 1500-2000 m, 03-05.1998 (local collector), "Imbrius lineatus Pascoe, det. K. Hüdepohl [19]99"; 1♀ (cDH), same geographical label, "Imbrius lineatus Pascoe, det. D. Heffern"; 1º (cLD) (Fig. 5), Sabah, Batu Punggul Resort env., primary forest, 07.1999 (leg. J. Kodada); 1 $\stackrel{\odot}{_{\sim}}$ (cAM ex NHMD), $1\ensuremath{^\circ}$ (NHMD), Sabah, Crocker Range, 03.2004, 04.2005 (local collector), "Imbrius lineatus Pasc., Ole Mehl det. 2005"; 1♂ (BMNH), "Borneo, Sabah, Ranau, 24.IX.2005, Steven Chew [leg.], BMNH {E}2006-36", "Imbrius $\mathit{lineatus}$ Pasc., det. C. Holzschuh 2009". 2
 $\stackrel{\circ}{_{\sim}}$ (NHMD), 1 $\stackrel{\circ}{_{\sim}}$ (cAM ex NHMD), Sabah, Crocker Range, 04.2014 (local collector), "Imbrius lineatus Pasc., O. Mehl det. 2014"; 2♀ (cAM), Sabah, Trus Madi Mt., 1250 m, 05°26'35"N / 116°27'5"E, 22-26.05.2014, 5-12.11.2015 (leg. A. Klimenko).

Diagnosis. This new species is very similar to I. *lineatus*, but differs by the structure of the male genitalia, in particular, the penis being relatively wide near the apex, narrowed at the very apex through a short cone, as in Figs 82, 83 (cf. Figs 84, 85); by the noticeably wider parameres, in general the peculiar shape of the apical part of the tegmen, the wider base of the tegmen, as in Figs 87, 88 (cf. Figs 89, 90); by the more strongly developed, recumbent, light setation of the pronotum disc, as in Figs 31-33 (cf. Figs 35-38); the usually less strongly expressed, median, longitudinal tubercle near the apex of the pronotum, as in Figs 31-33 (cf. Figs 35-38); the somewhat denser, recumbent, light setation of the prosternum between the constriction at its apex and the anterior border of the coxal cavities, as in Figs 39, 40 (cf. Figs 41, 42); the usually denser setation of the apical part of the mesosternum, and often by the less clearly expressed longitudinal strips of dense, recumbent, light setae on the elytra. Imbrius solodovnikovi sp. n. can also be compared to *I. similis* Hüdepohl, 1990, but differs clearly by the structure of the pronotum, in particular, its shape being slightly more longitudinal, the coarser sculpture, at least so on its disc, and the usually more or less clearly bidentate median protrusion at the apex; if longitudinal strips of dense, recumbent, light setae on the elytra clearly expressed, then these strips being narrower; the sharper apical tubercle of the prosternal process; the weakly or barely impressed profemora both on the external and inner sides near the apex; the structure of the male genitalia (cf. Figs 86, 91).

Description. Body length 14.9–22.5 mm, humeral width 3.6– 5.2 mm, thereby holotype 17.4 and 4 mm, respectively. Coloration of integument mainly combines reddish brown and dark reddish brown tones; eyes, partly mandibles, head dorsally or, besides this, partly pronotum black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, growing even sharper between eyes and on vertex, as well as with a very sharp, deep, oblique groove behind inner part of each of dorsal lobes of eyes; genae rather short; eyes well-developed, relatively strongly convex; submentum in basal part with a coarse irregular sculpture, in apical part strongly impressed, smooth; neck with sharp transverse folds both ventrally and laterally; antennae of both male and female usually subequal in length, reaching beyond apex of elytra by last antennomere, but in female sometimes can only reaching the apex of elytra; length ratio of antennomeres 1-11 in male (holotype taken as an example), 30:10:30:26:28:37:41:42:40:37:48, in female (one of the paratypes taken as an example), 31:10:31:24: 27:38:42:41:40:38:52; antennomere 1 with a heterogeneous, partly rough, rugose, dense puncturation; antennomere 2 subequal in length and width; male antennomeres 3 and 4 strongly, $5^{\mbox{\tiny th}}$ moderately inflated in apical part; last antennomere with a distinct appendage.

Pronotum clearly longitudinal, 1.17–1.21 times as long as width; base 1.10–1.15 times as wide as apex; with a sharp constriction near apex; on disc with coarse or rough tubercles and folds, at apex in middle part with two more or less right-angled, small protrusions, as in Figs 31–33; near apex with a clearly, but not too strongly expressed, usually moderately shiny, longitudinal, median tubercle usually bearing at least a few, recumbent, light setae, as in Figs 31–33 (in *I. lineatus*, median tubercle strongly expressed, very shiny, completely devoid of recumbent light setae, as in Figs 35–38).

Scutellum strongly narrowed towards apex, triangular, at the very apex more or less broadly rounded or truncate, but can also be sharpened.

Elytra in male slightly narrowed towards apex, in female about parallel-sided, 2.67–2.88 times as long as humeral width; with both a relatively rough and very small, double, very contrastingly differing puncturation characteristic of the genus; apical external angle broadly or obtusely rounded, sutural angle narrowly rounded or obtuse.

Prosternum with a well-expressed, pretty deep transverse groove in front of middle, with heterogeneous, coarse or rough folds; prosternal process with a very clear apical tubercle; mesosternal process without tubercle dorsally, between coxae slightly or barely wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, but not too sharp, median groove; last (visible) sternite at apex in male with a very clear broad emargination, in female widely rounded; last (visible) tergite at apex in male truncate, in female widely rounded.

Legs moderately short; femora claviform; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation mainly yellow tones, only partly greyish or greyish yellow; distribution of setation predominantly almost same as in *I. lineatus*, but on disc of pronotum comparatively more strongly developed, thereby on tubercles lateral to midline, especially in basal part, always with clear fragments of setae while a fascia near apex less clearly interrupted in area of median tubercle, as in Figs 31–33 (in *I. lineatus*, tubercles lateral to midline devoid of setae, as a rule, only rarely with a few setae on tubercles in basal part just beyond middle; fascia near apex usually very clearly interrupted in area of median tubercle, as in Figs 35–38), on elytra often forming less strongly expressed, partially confused, longitudinal strips, as in Figs 4, 5, on prosternum partly denser, as in Figs 39, 40; head, pronotum laterally in apical part, pro- and metasterna partly, abdomen usually at apex, most of antennomeres in apical part, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia of male as in Figs 82, 83, 87, 88.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Dr. Alexey Yu. Solodovnikov, curator of the Coleoptera collection of the Natural History Museum of Denmark (University of Copenhagen), who constantly provides his great and versatile help to my research. Without his strong support, many of the issues, including those related to a rapid and safe delivery of material, would have been much more difficult to solve.

Distribution. Eastern Malaysia.

Imbrius similis Hüdepohl, 1990 (Figs 3, 6, 34, 86, 91, 437)

Imbrius similis Hüdepohl, 1990a: 70. Type locality: Philippines (according to the original description and the label of the holotype).

Material. \mathcal{J} , holotype, (ZSM) (Fig. 3), "Philippines", "Holotypus \mathcal{J} *Imbrius similis* mihi, Hüdepohl 1987" (Fig. 437); 1 \mathcal{Q} (BMNH) (Fig. 6), "Phillip [*sic*; = Philippines] Islands", "Butuan", "Fry Coll. 1905.100", "*Imbrius similis* Hüdepohl, 1990 \mathcal{Q} det. A. Miroshnikov 2017".

Morphological notes. This species was described from a single male which I have revised, its body length being 15.7 mm and humeral width 4 mm. I have also examined one female from BMNH with a body length of 14.5 mm and a humeral width of 3.65 mm.

Distribution. Philippines.

Imbrius ephebus Pascoe, 1866 (Figs 15, 18, 47, 441)

Imbrius ephebus Pascoe, 1866b: 529. Type locality: Java (according to the label of the holotype) (see Remarks). Pascoe, 1869: 519 (Singapore, Java, Penang); Aurivillius, 1912: 59 (Malacca, Java); Heffern, 2013: 10 (Borneo, Java, Western Malaysia).

Dymasius ephebus: Gemminger, 1872: 2803 (Penang).

Imbrius imitator Holzschuh, 2006: 222 (Malaysia, Sabah, Crocker Range). Holzschuh, 2010: 149 (syn. pro Imbrius ephebus).

Material. ♀, holotype, by monotypy (see Remarks) (BMNH) (Fig. 15), "Java", "Imbrina ephebus Pasc. Type", "Type", "Imbrins ephebus P. Java" (Fig. 441); 1♀ (BMNH), "Sarawak" (upperside), "♀" (underside); 1♀ (BMNH), "Sarawak", "♀"; 1♀ (BMNH), "Sarawak, 76.24", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Borneo", Fry Coll. 1905.100", "46359", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Borneo", Fry Coll. 1905.100", "46359", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Borneo", Fry Coll. 1905.100", "46359", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Grawak, 76.24", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Grawak, 76.24", "Imbrins ephebus Pasc. ♀"; 1♀ (BMNH), "Grawak, 1937–662", "B.M. F.C.D. 1"; 1♀ (IRSN), "Java"; 1♀ (BMNH), "Sing[apore]", "Pascoe Coll. 93–60", "Imbrins ephebus Pascoe, 1866 ♀ det. A. Miroshnikov 2017"; 1♀ (NHMD), E Malaysia, Sabah, Crocker Range, 04.2014 (local collector), "Imbrins simulator Holz., Ole Mehl det. 2014", "Imbrins ephebus Pascoe, 1866 ♀ det. A. Miroshnikov 2017"; ♂, holotype of Imbrins imitator Holzschuh, 2006 (cCH) (photograph); Fig. 18).

Morphological notes. Body length 16.5–19.8 mm, humeral width 4.1–4.8 mm, thereby holotype 19.3 and 4.7 mm, respectively.

Remarks. This species was described in the following work: "Catalogue of Longicorn Coleoptera collected in the Island of Penang by James Lamb, Esq. (Part II.)" [Pascoe, 1866b]. However, BMNH keeps the female type bearing 4 labels: "Java", "*Imbrius ephebus* Pasc. Type", "Type" and "*Imbrius ephebus* P. Java" (Fig. 441). Its length is 19.3 mm (humeral width 4.7 mm), which corresponds approximatelly to the length indicated in the original description (9 lines, i.e. about 19.05 mm). I am not aware of any other types.

In a later work, Pascoe [1869: 519] noted the following distribution area of this species: "Singapore, Java (and Penang)". However, the material from "Penang", as well as those from other districts of Western Malaysia, are known from neither BMNH nor any other of the museums whence material was possible to study.

Therefore, taking into account all above, it seems obvious that Pascoe provided the original description, based exactly on the specimen kept in BMNH, but for some reason he falsely indicated its provenance from "Penang"; the same holds true also for the introductory text of the first part of the work [Pascoe, 1866a]. In this respect, I consider that specimen as the holotype by monotypy, and I define the type locality according to the appropriate label ("Java"), but not to the original description ("Penang").

Distribution. Western and Eastern Malaysia, Indonesia (Java), Singapore.

Imbrius diehli Hüdepohl, 1989 (Figs 13, 14, 16, 17, 48, 49, 67, 442, 443)

Imbrius diehli Hüdepohl, 1989a: 48. Type locality: [Indonesia] Sumatra, Aik Tarum (according to the original description and the label of the holotype). Heffern, 2013: 10 (Borneo, Sumatra).

Material. ♂, holotype, (ZSM) (Fig. 16), "N–Sumatra, Aik Tarum, 1.I.[19]84, Diehl [leg.]", "Holotypus ♂ *Imbrius diehli* mihi, Hüdepohl 1988" (Fig. 442); 1♀, paratype, (ZSM) (Fig. 17), "N–Sumatra, Dolok Merangir, VIII.[19]81, Diehl leg", "Paratypus ♀ *Imbrius diehli* mihi, Hüdepohl 1988" (Fig. 443); 1♂ (BMNH), "N. Borneo", "Pascoe Coll. 93–60", "♂", "*Imbrius diehli* Hüdepohl, 1989 ♀ det. A. Miroshnikov 2017"; 1♂ (NHMD) (Fig. 13), E Malaysia, Sabah, Trus Madi Mt., 04.2014 (local collector), "*Imbrius diehli* Hüdepohl, 1989 ♂ det. A. Miroshnikov 2017"; 1♀ (BMNH) (Fig. 14), "Brunei: Temburong District, ridge NE of Kuala Belalong, 125W m. v. light", "approx. 300 m alt. XI.1992, J.H. Martin coll., BM 1992–172", "1751", "*Imbrius ephebus* Pascoe, E. Vives det. 2006", "*Imbrius diehli* Hüdepohl, 1989 ♀ det. A. Miroshnikov 2017".

Morphological notes. Body length 20.1–26.5 mm, humeral width 4.65–6 mm, thereby holotype 21.5 and 4.9 mm, paratype 22.9 and 5.4 mm, respectively.

Distribution. Eastern Malaysia, Brunei, Indonesia (Sumatra).

Imbrius simulator Holzschuh, 2005 (Figs 20, 21, 44–46, 93, 94, 96, 97)

Imbrius simulator Holzschuh, 2005: 7. Type locality: Malaysia, Sabah, Crocker Range (according to the original description). Heffern, 2013: 10.

Material. \eth , holotype (cCH) (photograph); 1 \circlearrowright , paratype (cDH) (Fig. 20), E Malaysia, Sabah, Crocker Range, 13.04.1999 (local collector), "Paratypus *Imbrius simulator* n. sp. det. C. Holzschuh 2004"; 1 \circlearrowright , 2 \circlearrowright (NHMD), same locality, 03.2003, 03.2004 (local collector), "*Imbrius simulator* Holz., Ole Mehl det. 2005"; 1 \circlearrowright (cAM ex NHMD), 2 \circlearrowright (NHMD), 1 \circlearrowright (cAM ex NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2003 (local collector), "*Imbrius simulator* Holz., Ole Mehl det. 2005"; 1 \circlearrowright , 2 \circlearrowright (cAM) (Fig. 21), Sabah, Trus Madi Mt., 507.2011, 24.08.2012, 5.04.2013



Figs 7–12. Imbrius Pascoe, 1866, habitus, dorsal view.
7–8 – I. uniformis Holzschuh, 2010 (7 – after Holzschuh [2010], photograph by Luboš Dembický); 9, 12 – I. corrugatus Hüdepohl, 1990; 10–11 – I. klimenkoi sp. n. 7, 9–10 – holotypes, males; 8 – female from Western Malaysia (Perak, Ringlet); 11–12 – paratypes, females.
Рис. 7–12. Imbrius Pascoe, 1866, общий вид сверху.
7–8 – I. uniformis Holzschuh, 2010 (7 – по [Holzschuh, 2010], фотография Л. Дембицкого); 9, 12 – I. corrugatus Hüdepohl, 1990; 10–11 – I. klimenkoi sp. n. 7, 9–10 – голотипы, самцы; 8 – самка из Западной Малайзии (Перак, Ринглет); 11–12 – паратипы, самки.



Figs 13–18. *Imbrius* Pascoe, 1866, habitus, dorsal view.
13–14, 16–17 – *I. diehli* Hüdepohl, 1989; 15, 18 – *I. ephebus* Pascoe, 1866 (18 – holotype of *I. imitator* Holzschuh, 2006, after Holzschuh [2006], photograph by Luboš Dembický).
13 – male from Eastern Malaysia; 14 – female from Brunei; 15–16 – holotypes, female and male, respectively; 17 – paratype, female. Puc. 13–18. *Imbrius* Pascoe, 1866, общий вид сверху.
13–14, 16–17 – *I. diehli* Hüdepohl, 1989; 15, 18 – *I. ephebus* Pascoe, 1866 (18 – голотип *I. imitator* Holzschuh, 2006, по [Holzschuh, 2006], фотография Л. Дембицкого).
13 – самец из Восточной Малайзии; 14 – самка из Брунея; 15–16 – голотипы, самка и самец, соответственно; 17 – паратип, самка.



Figs 19–24. Imbrius Pascoe, 1866, habitus, dorsal view.
19–1. fedorenkoi sp. n.; 20–21–1. simulator Holzschuh, 2005; 22–23–1. acutipennis (Fisher, 1935); 24–1. allardi Hüdepohl, 1992. 19, 24– holotypes, males; 20– paratype, male; 21, 23– females; 22– male.
Рис. 19–24. Imbrius Pascoe, 1866, общий вид сверху.
19–1. fedorenkoi sp. n.; 20–21–1. simulator Holzschuh, 2005; 22–23–1. acutipennis (Fisher, 1935); 24–1. allardi Hüdepohl, 1992. 19, 24– голотипы, самцы; 20– паратип, самец; 21, 23– самки; 22– самец.



Figs 25–30. Mimimbrius gen. n., habitus.
25–26 – М. micaceus (Pascoe, 1858), comb. n.; 27 – M. geminatus (Holzschuh, 2005), comb. n.; 28–29 – M. subargenteus (Gressitt et Rondon, 1970), comb. n.; 30 – M. dembickyi sp. n. 29–30 – holotypes, males; 25–27 – females; 28 – male from Northern Thailand; 25, 27–30 – dorsal view; 26 – ventral view. Рис. 25–30. Mimimbrius gen. n., общий вид.
25–26 – М. micaceus (Pascoe, 1858), comb. n.; 27 – M. geminatus (Holzschuh, 2005), comb. n.; 28–29 – M. subargenteus (Gressitt et Rondon, 1970), comb. n.; 30 – M. dembickyi sp. n. 29–30 – голотипы, самцы; 25–27 – самки; 28 – самец из Северного Таиланда; 25, 27–30 – вид сверху; 26 – вид

снизу.

(leg. A. Klimenko); 2♂ (NHMD), same locality, 04.2013 (local collector), *"Imbrius simulator* Holz., O. Mehl det. 2014".

Morphological notes. Body length 13.9–19.2 mm, humeral width 3.3–4.5 mm.

Distribution. Eastern Malaysia.

Imbrius fedorenkoi Miroshnikov, **sp. n.** (Figs 19, 43, 66, 76, 92, 95)

Material. Holotype, ♂ (ZIN) (Fig. 19): Vietnam, Lam Dong Prov., 25 km NNW of Bao Loc, Loc Bao env., 800 m, 11°44′18″N / 107°42′08″E, 5–20.04.2013 (leg. D. Fedorenko).

Diagnosis. This new species seems to be especially similar to *I. simulator*, but differs clearly by the structure of the tegmen, the shape of the apical part of the penis, as in Figs 92, 95 (cf. Figs 93, 94, 96, 97), as well as by the structure of the pronotum, in particular, the very poorly developed setation along its sides, the somewhat peculiar sculpture of the disc, as in Fig. 43 (cf. Figs 44–46), including the shape of the folds in the basal part near the midline, the generally broader and more rounded (not crest-like) folds dorsally, the predominantly clearly sharper puncturation of the folds, the generally more delicate, recumbent, light pubescence of the antennae, the coloration of the elytra with a distinctly creamy tone, and some other minor features.

Description. Male. Body length 17.1 mm, humeral width 4.3 mm. Coloration of integument mainly combines red-brown, dark red-brown and red tones; eyes, mandibles partly and pronotum on disc near apex lateral to median tubercle black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, growing even sharper between eyes and on vertex, as well as with a very sharp, deep, wide, oblique groove behind inner part of each of dorsal lobes of eyes; genae moderately short; eyes well-developed, relatively strongly convex; submentum in basal part with a rough shallow puncturation, in apical part clearly impressed, smooth; neck with clear transverse folds both ventrally and laterally; antennae reaching beyond apex of elytra by last antennomere; length ratio of antennomere 1-11, 28:9:31:27:28:31:38:41:40:37:45; antennomere 1 with a heterogeneous, partly rough, rugose, dense puncturation; antennomere 2 subequal in length and width; antennomeres 3 and 4 clearly, 5th and 6th moderately inflated in apical part; last antennomere with a very evident appendage.

Pronotum distinctly longitudinal, 1.17 times as long as width, at base slightly wider than at apex; with a sharp constriction near apex; on sides angularly broadened towards the middle from both base and apex; on disc predominantly with coarse, partly rough tubercles and folds, at apex in middle part with a distinctly emarginate protrusion; near apex with a sharp, longitudinal, long, median tubercle; compared to I. simulator (as noted in Diagnosis partly), tubercles and folds mostly roundish dorsally, wider, with sharp punctures partly, thereby in basal part lateral to midline with two symmetrical, short, slightly sinuous, partly more or less roundish tubercles connected by a transverse, short, moderately rough fold and behind these tubercles with a median fold branched in basal part into two partly transverse short folds (while in I. simulator in apical part lateral to midline with two pairs of symmetrical relatively narrow folds, these often partially connected with each other, thereby upper pair clearly or very clearly coarser, strongly crest-shaped, whereas instead of lower pair of folds sometimes with one or even two transverse folds; besides this, median tubercle near apex usually shorter than in new species, sometimes even very short, somewhat roundish).

Scutellum strongly narrowed towards apex, triangular.

Elytra barely narrowed towards apex, 2.53 times as long as humeral width; with both a relatively rough and very small,

double, very contrastingly differing puncturation characteristic of the genus; apical external angle obtusely rounded, sutural angle obtuse.

Prosternum with a well-expressed transverse groove in front of middle, with a coarse sculpture between this groove and anterior border of coxal cavities; prosternal process with a very clear apical tubercle; mesosternal process without tubercle dorsally, between coxae distinctly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, but not too sharp, median groove; last (visible) sternite very broadly truncate at apex; last (visible) tergite with a barely visible emargination apically.

Legs relatively well-developed; femora claviform; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation on head dorsally and pronotum yellow tones, both on scutellum and elytra grey with cream tint (in I. simulator, recumbent setation of both scutellum and elytra grey tones, but without cream tint), on remaining parts grey tones; distribution of setation predominantly about same as in I. simulator, on pronotum generally weakly developed, as in Fig. 43, fragments of setation on its disc present only in apical onequarter and near base, but on sides almost absent (in I. simulator, pronotum on sides with well-expressed individual fragments of recumbent setation, as in Figs 44-46); on elytra continuous recumbent setation in apical part interrupted by a v-shaped broad fascia (in holotype, setation partly in area of fascia strongly abraded), as in Fig. 19; head, pronotum mainly on sides, near both apex and base on disc, the very base of elytra, prosternum, abdomen at apex, most of antennomeres in apical part, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 92, 95.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Dr. Dmitry N. Fedorenko (Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Moscow, Russia), who has, well over a decade, collected in Vietnam a rich and very valuable material on Coleoptera, including cerambycids.

Distribution. Vietnam.

Imbrius uniformis Holzschuh, 2010 (Figs 7, 8, 50, 99, 101, 104, 105, 108–110)

Imbrius uniformis Holzschuh, 2010: 149. Type locality: Malaysia, Sabah, Crocker Range (according to the original description). Heffern, 2013: 10.

Material. ♂, holotype (cCH) (photograph; Fig. 7); 1♀, paratype (see Remarks) (BMNH), "[W Malaysia] Pahang, F.M.S., March 1923, M.R. Henderson [leg.]", "1937.425", "317", "Paratypus *Imbrius* uniformis n. sp. det. Holzschuh 2010"; 1^o/₄ (cAM ex cLD) (Fig. 8), W Malaysia, Perak, 40 km SE Ipoh, Banjaran Titi Wangsa, Ringlet, 900 m, 26-31.03.2000 (leg. P. Čechovský), "Imbrius uniformis Holzschuh, 2010 d det. A. Miroshnikov 2017"; 1d (cLD), same labels, but taken on 25.03-3.04.2002; 1 (cAM ex cLD), W Malaysia, Johor, Endau - Rompin, Selendang, 1–4.03.1997 (leg. I. Jeniš), "Imbrius uniformis Holzschuh, 2010 3 det. A. Miroshnikov 2017"; 1^o (cLD), W Malaysia, Pahang, 30 km SE Ipoh, Cameron Highlands, Tanah Rata, 1500 m, 14–17.03.1998 (leg. P. Čechovský), "Imbrius uniformis Holzschuh, 2010 \bigcirc det. A. Miroshnikov 2017"; 1 \bigcirc (cAM), same locality, 04.2015 (local collector), "Imbrius uniformis Holzschuh, 2010 d det. A. Miroshnikov 2017"; 1º (NHMD), E Malaysia, Sabah, Trus Madi Mt., 8.03.2000 (local collector), "Imbrius ephebus Pascoe, 1866, Ole Mehl det. 2011", "Imbrius uniformis Holzschuh, 2010 Q det. A. Miroshnikov 2017"; 2⁻₊ (NHMD), same locality, 04.2010, 04.2014 (local collectors), "Imbrius uniformis Holzschuh, 2010 ♀ det. A. Miroshnikov 2017"; 1♀ (cAM), same locality, 24.08.2012, 1160 m (leg. A. Klimenko), "Imbrius uniformis Holzschuh, 2010 2 det. A. Miroshnikov 2017"; 22 (NHMD), E Malaysia, Sabah, Crocker Range, 03.2005, 07.2007 (local collector), "Imbrius ephebus Pascoe, 1866, Ole Mehl det. 2011", "Imbrius uniformis Holzschuh, 2010 $\stackrel{\bigcirc}{_{\!\!\!\!\!\!\!\!}}$ det. A. Miroshnikov 2017".

Comparative material. 2^{\bigcirc} (NHMD), E Malaysia, Sabah, Crocker Range, 03.2001, 03.2003 (local collectors), *"Imbrius ephebus* Pascoe, 1866, Ole Mehl det. 2011", *"Imbrius ?uniformis* Holzschuh, 2010 $^{\bigcirc}$ det. A. Miroshnikov 2017"; 1^{\bigcirc} (cAM), E Malaysia, Sabah, Trus Madi Mt., 1250 m, 05°26'35"N / 116°27'5"E, 5–12.11.2015 (leg. A. Klimenko), *"Imbrius ?uniformis* Holzschuh, 2010 $^{\bigcirc}$ det. A. Miroshnikov 2017".

Morphological notes. Body length 15.6–23.3 mm, humeral width 3.6–5.7 mm.

Remarks. The original description [Holzschuh, 2010: 149] erroneously stated the paratype in the BMNH to be a male ("1 \Diamond Pahang... (BMNH)"), but in fact it is a female.

Distribution. Western and Eastern Malaysia.

Imbrius klimenkoi Miroshnikov, **sp. n.** (Figs 10, 11, 98, 100, 102, 103, 106, 107)

Material. Holotype, ♂ (cAM) (Fig. 10): E Malaysia, Sabah, Trus Madi Mt., 1160 m, 20.03.2012 (leg. A. Klimenko). Paratypes: 2, 1, 2 (Fig. 11) (cAM), same label as holotype; 1, 2 (cAM), same label as holotype; 1, 3 (NHMD), Trus Madi Mt., 03.2004 (local collector), *"Imbrius ephebus* Pascoe, 1866, Ole Mehl det. 2011"; 1, 2 (NHMD), E Malaysia, Sabah, Crocker Range, 03.2004 (local collector), *"Imbrius ephebus* Pascoe, 1866, Ole Mehl det. 2011"; 1, 3 (cAM), Sabah, Trus Madi Mt., 1250 m, 05°26'35"N / 116°27'5"E, 22–26.05.2014 (leg. A. Klimenko); 2, 3 (cAM), same label, but taken on 5–12.11.2015; 2, 3 (cAM), 1, 3 (BMNH ex cAM), E Malaysia, Sabah, Nabawan Distr., ~7 km N Pensiangan, 530 m, 04°35'16"N / 116°19'27"E, 27–31.05.2014 (leg. A. Klimenko).

Diagnosis. Based on external features of the male, this new species is very similar to I. uniformis, while their females seem to be identical. However, I. klimenkoi sp. n. differs at least by the structure of the antennae of the male, in particular, the less strongly inflated antennomeres 3-5 in the apical part, the more numerous, long, erect or suberect setae on the inner side of antennomeres 3-7 or 3-8 and, in most cases, by the somewhat shorter antennae. The most important differences between I. klimenkoi sp. n. and I. uniformis lie both in the shape and fine armature of the endophallus, as in Figs 102, 103 (cf. Figs 104, 105), as well as in the conformation of the penis and tegmen. In the new species, the apical part of the penis is wider, as in Fig. 98 (cf. Fig. 99), that of the tegmen is also wider and less strongly elongated, as in Fig. 100 (cf. Fig. 101), each of the parameres on the ventral side distal to about 3/4 is more or less strongly sloping down, thereby the brown coloration of the parameres noticeably or very clearly fails to reach their bases, as in Fig. 100, whereas in I. uniformis the parameres are more or less strongly sloping down only behind their bases on their ventral side so that the entire surface of the paramers lies in about the same plane, thereby the brown coloration covers completely each of the parameres and reaches their bases, as in Fig. 101. Reliable differences between I. klimenkoi sp. n. and I. uniformis have been found yet neither in the structure of the female genitalia nor in general any external features (see Notes below). Only in the former species are both tergite and sternite 8 much darker (Figs 106, 107) than in the latter one (Figs 108-110), but possibly this trait is variable, since in some cases there seem to be transitions in coloration.

Remarks. The attribution of these or those female specimens to *I. uniformis* or the new species has been established, based of the following observations. Considering that *I. uniformis*, judging from the original description, is known from both parts of Malaysia and that I have at my disposal a male of *I. uniformis* and one

female (Fig. 8) from the same locality (W Malaysia, Perak, Cameron Highlands, Ringlet), both collected at about the same time (25.03-3.04.2002 and 26-31.03.2000, respectively), I have assigned them to the same species. Their both tergite and sternite 8 are coloured clearly light tones. Identically coloured are both tergite and sternite 8 in two females originating from Tanah Rata, located on the same, Cameron Highlands, as well as in most of the females from Eastern Malaysia, in particular, from the Crocker Range (Sabah), the type locality of *I. uniformis*, and from Trus Madi Mountain (Sabah). In the female collected in the latter locality (i.e. Trus Madi Mt.) on 23.03.2012 together with two males of the new species, including the holotype, as well as in one female from the same place (27.02.2014) and in another female from Pensiangan (Sabah), both tergite and sternite 8 are equally strongly darkened. I have preliminarily attributed them to paratypes of *I. klimenkoi* sp. n. By the character of the coloration of both tergite and sternite 8 in two females and one female originating from the Crocker Range and Trus Madi Mountain, respectively, it appears impossible to unequivocally assign them to either species. It is quite obvious that to securely identify females of both species, further detailed studies are needed.

Description. Body length 16.2–22.9 mm, humeral width 3.95–5.5 mm, thereby holotype 18.5 and 4.8 mm, respectively. Coloration of integument mainly combines reddish brown, dark reddish brown and red tones; eyes, partly mandibles, head dorsally or, besides this, partly pronotum black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, growing even sharper between eyes and on vertex, as well as with a very sharp, deep, oblique groove behind inner part of each of dorsal lobes of eyes; genae moderately short; eyes well-developed, relatively strongly convex; submentum in basal part with a rough irregular sculpture, in apical part clearly or strongly impressed, smooth; neck with sharp transverse folds both ventrally and laterally; antennae of male one way or another reaching beyond apex of elytra by last antennomere, in female usually distinctly not reaching the apex of elytra, but sometimes can reach it; length ratio of antennomeres 1-11 in male (holotype taken as an example), 33:10:34:27:28:36:42:44:44:51, in female (one of the paratypes taken as an example), 32:10:34:27:30:37:42:42:41:39:50; antennomere 1 with a heterogeneous, partly rough, rugose, dense puncturation; antennomere 2 subequal in length and width; antennomeres 3–5 of male slightly inflated in apical part, as in Fig. 10; apical inner angle of antennomeres 6-10 with a small, but well-expressed, sharp spine; last antennomere with a more or lees obvious appendage.

Pronotum distinctly longitudinal, 1.14–1.16 times as long as width, at base slightly or barely wider than at apex; with a sharp constriction near apex; on disc with coarse or rough tubercles and folds, at apex in middle part with a truncate, sometimes apically emarginate protrusion; near apex with a clear or very clear, usually more or less roundish, median tubercle.

Scutellum strongly narrowed towards apex, triangular, at the very apex usually narrowly rounded.

Elytra in male distinctly narrowed towards apex, in female about parallel-sided, 2.46–2.54 times as long as humeral width; with both a relatively rough and very small, double, very contrastingly differing puncturation characteristic of the genus; apical external angle broadly or obtusely rounded, sutural angle obtuse or narrowly rounded.

Prosternum with a very sharp, deep, transverse groove in front of middle, with heterogeneous, coarse or rough folds; prosternal



Figs 31–46. *Imbrius* Pascoe, 1866, pronotum and prosternum. 31–33, 39–40 – *I. solodovnikovi* **sp. n.**; 34 – *I. similis* Hüdepohl, 1990; 35–38, 41–42 – *I. lineatus* Pascoe, 1866; 43 – *I. fedorenkoi* **sp. n.**; 44–46 – *I. simulator* Holzschuh, 2005. 31, 34, 39, 43 – holotypes; 32–33, 40, 44 – paratypes; 35–36, 41–42 – syntypes; 31–32, 34–35, 39, 41, 43–46 – males; 33, 36–38, 40, 42 - females.

чо, ч2 - геннаез. Рис. 31–46. *Imbrius* Pascoe, 1866, переднеспинка и простернум. 31–33, 39–40 – *I. solodovnikovi* **sp. n.**; 34 – *I. similis* Hüdepohl, 1990; 35–38, 41–42 – *I. lineatus* Pascoe, 1866; 43 – *I. fedorenkoi* **sp. n.**; 44–46 – *I. simulator* Holzschuh, 2005. 31, 34, 39, 43 – голотипы; 32–33, 40, 44 – паратипы; 35–36, 41–42 – синтипы; 31–32, 34–35, 39, 41, 43–46 – самцы; 33, 36–38, 40, 42 – самки.



Figs 47-66. Imbrius Pascoe, 1866 and Mimimbrius gen. n., pronotum and puncturation fragment of basal part of elytra. 47 – *I. ephebus* Pascoe, 1866; 48–49 – *I. diehli* Hüdepohl, 1989; 50 – *I. uniformis* Holzschuh, 2010 (from Western Malaysia); 51 – *I. allardi* Hüdepohl, 1992; 52–53 – *I. corrugatus* Hüdepohl, 1990; 54 – *I. acutipennis* (Fisher, 1935); 55–57, 63 – *M. subargenteus* (Gressitt et Rondon, 1970), **comb. n.**; 58 – *M. dembickyi* **sp. n.**; 59, 61 – *M. micaceus* (Pascoe, 1858), **comb. n.**; 60, 62 – *M. geminatus* (Holzschuh, 2005), **comb. n.**; 64 – *I. lineatus* Pascoe, 1866; 65 – I. solodovnikovi sp. n.; 66 – I. fedorenkoi sp. n. 47, 49, 51–52, 57–58, 65–66 – holotypes; 48, 53 – paratypes; 47–48, 50, 53, 59–62, 64 – females; 49, 51–52, 54-58, 63, 65-66 - males.

, ю, ю, ю–юе – плаез. Рис. 47–66. *Imbrius* Pascoe, 1866 и *Mimimbrius* **gen. n.**, переднеспинка и фрагмент пунктировки основной части надкрылий. 47 – *I. ephebus* Pascoe, 1866; 48–49 – *I. diehli* Hüdepohl, 1989; 50 – *I. uniformis* Holzschuh, 2010 (из Западной Малайзии); 51 – *I. allardi* Hüdepohl, 1992; 52-53 - I. corrugatus Hüdepohl, 1990; 54 - I. acutipennis (Fisher, 1935); 55-57, 63 - M. subargenteus (Gressitt et Rondon, 1970), comb. n.; 58 -M. dembickyi sp. n.; 59, 61 – M. micaceus (Pascoe, 1858), comb. n.; 60, 62 – M. geminatus (Holzschuh, 2005), comb. n.; 64 – I. lineatus Pascoe, 1866; 65 – I. solodovnikovi **sp. n.**; 66 – I. fedorenkoi **sp. n.** 47, 49, 51–52, 57–58, 65–66 – голотипы; 48, 53 – паратипы; 47–48, 50, 53, 59–62, 64 – самки; 49, 51–52, 54-58, 63, 65-66 - самцы.

process with a very clear or strong apical tubercle; mesosternal process without tubercle dorsally, between coxae slightly or barely wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, but not too sharp, median groove; last (visible) sternite at apex in male very broadly truncate, in female widely rounded; last (visible) tergite at apex widely rounded both in male and female.

Legs moderately short; femora claviform; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation on head dorsally, pronotum, scutellum, the very base of elytra red-yellow tones or, besides this, partly yellow, on antennae and legs combined with yellow and grey tones, on elytra, except for base, and on venter grey, on disc of pronotum with a pattern as in Figs 10, 11, on elytra continuous and uniform; head, pronotum, including a disc, the very base of elytra, prosternum, partly abdomen and legs, most of antennomeres in apical part and, besides this, on antennomeres 2–7 on inner side with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 98, 100, 102, 103, 106, 107.

Etymology. This new species is dedicated to the memory of late Alexey Alexandrovich Klimenko who untimely left us (1970–2017), a remarkable Russian traveller and connoisseur of Coleoptera. His magnificent collections and other material on some groups of longicorn beetles from the Oriental Region, especially from Borneo, which he generously shared with me, formed the basis for a number of important taxonomic findings and the discovery of new, sometimes surprising taxa described in this work.

Distribution. Eastern Malaysia.

Imbrius corrugatus Hüdepohl, 1990 (Figs 9, 12, 52, 53, 439, 440)

Imbrius corrugatus Hüdepohl, 1990a: 68. Type locality: Philippines, Luzon, Mountain Province (according to the original description and the label of the holotype).

Material. \eth , holotype, (ZSM) (Fig. 9), "Philippinen, Luzon, V.[19]86", Mountain Province", "Holotypus \eth *Imbrius corrugatus* mihi, Hüdepohl 1987" (Fig. 439); 1 \bigcirc , paratype (ZSM) (Fig. 12), "Philippinen, Romblon, Sibuyan Is., Espana", "Paratypus \bigcirc *Imbrius corrugatus* mihi, Hüdepohl 1987" (Fig. 440); 1 \circlearrowright , 1 \bigcirc (cAM), Philippines, N Luzon, Nueva Vizcaya, Santa Fe, 03.2014 (leg. N. Layron); 1 \bigcirc (cAM), Philippines, Leyte Island, Sogod, 05.2015 (leg. N. Layron).

Morphological notes. Body length 15.5–19.3 mm, humeral width 3.85–4.9 mm, thereby holotype male 15.8 and 3.9 mm, respectively (the body length of the holotype as indicated in the original description, namely, 13.5 mm, is erroneous).

Distribution. Philippines.

Imbrius acutipennis (Fisher, 1935) (Figs 22, 23, 54)

Dymasius acutipennis Fisher, 1935: 586. Type locality: Malaysia, Sabah, Kinabalu Mt., 5500 ft., Lumu Lumu (according to the original description and the label of the holotype).

Imbrius acutipennis: Hüdepohl, 1989a: 51; Heffern, 2013: 10; Lingafelter et al., 2014: 10, fig. 9c, d.

Material. \bigcirc , holotype, by monotypy (USNM) (photograph); 1 (NHMD), E Malaysia, Sabah, Crocker Range, 04.2001 (local collector), "Imbrius acutipennis (Fisher), Ole Mehl det."; 1 (cAM ex NHMD) (Fig. 22), same geographical label, "Imbrius acutipennis Fish., Ole Mehl det. 2010"; 2 (NHMD), same locality, 03.2003, "Imbrius acutipennis Fisher, C. Holzschuh det. 2006, 2008"; 1 (1 (NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2004 (local collector), "Imbrius acutipennis (Fisher), Ole Mehl det. 2007"; 1 (NHMD), same locality, 04.2013, "Imbrius acutipennis (Fisher), Ole Mehl det. 2014"; 1 (cAN) (Fig. 23), Sabah, Trus Madi Mt., 1160 m, 5.07.2011 (leg. A. Klimenko), "Imbrius ephebus Pascoe, 1866"; 1 \bigcirc (cAM), same geographical label; 5 \bigcirc (cAM), Sabah, Trus Madi Mt., 1250 m, 05°26'35"N / 116°27'5"E, 22–26.05.2014 (leg. A. Klimenko); 2 \bigcirc (cNO) (photographs).

Morphological notes. Body length 18–24.3 mm, humeral width 3.9–5.45 mm.

Distribution. Eastern Malaysia.

Imbrius allardi Hüdepohl, 1992 (Figs 24, 51, 438)

Imbrius allardi Hüdepohl, 1992: 411. Type locality: [Malaysia] Sabah, Crocker Range (according to the original description and the label of the holotype). Heffern, 2013: 10.

Material. ♂, holotype (ZSM) (Fig. 24), "Borneo, Sabah, Crocker Range, II.[19]90 [unknown collector]", "Holotypus ♂ *Imbrius allardi* mihi, Hüdepohl 1991" (Fig. 438).

Morphological notes. Holotype male. Body length 24.6 mm, humeral width 6.25 mm.

Remarks. According to the personal communication of Mrs. Katja Neven (ZSM) of November 9, 2015, Hüdepohl's collection contains only the holotype male which I have revised. However, based on the original description [Hüdepohl, 1992: 411], there must also be a paratype female. No other specimens of this species are known to me.

Distribution. Eastern Malaysia.

Key to species of Imbrius

- into a tooth, as in Figs 22–24 11

- 4. Disc of pronotum with a less strongly developed recumbent light setation, as in Figs 35–38; median longitudinal tubercle near apex of pronotum more strongly expressed, as in Figs 35–38; recumbent light setation of prosternum between constriction at its apex and anterior border of coxal cavities sparser, as in Figs 41, 42; apex of penis as in Figs 84, 85; parameres

– Disc of pronotum with a more strongly developed recumbent light setation, as in Figs 31–33; median longitudinal tubercle near apex of pronotum usually less strongly expressed, as in Figs 31–33; recumbent light setation of prosternum between constriction at its apex and anterior border of coxal cavities denser, as in Figs 39, 40; apex of penis as in Figs 82, 83; parameres clearly wider, as in Figs 87, 88, base of tegmen much wider, as in Figs 87, 88 (E Malaysia)

5. Setation of elytra of dense, recumbent, light setae entirely

- 6. Apical inner angle of antennomeres 6–10 with a clear or well-developed sharp spine7

- Antennomeres 3–5 of male in apical part less strongly inflated, as in Fig. 10, antennomeres 3–7 or 3–8 of male on inner side with more numerous long erect and suberect setae; endophallus, apical part of penis and tegmen as in Figs 98, 100, 102, 103; both tergite and sternite 8 of female strongly darkened, as in Figs 106, 107 (Borneo) I. klimenkoi sp. n.*

- Antennomere 1, predominantly dorsally, only with a rough, dense, in places very dense, sometimes confluent puncturation, creating a weakly expressed

scabrous surface; antennomere 3, 1.40–1.66 times as long as antennomere 4; body length 21.5–26.5 mm (rarely down to 20.1 mm); scutellar setation of recumbent dense setae usually clearly more bright; antennae of male freely reaching the base of elytra by antennomere 4 (Figs 13, 16) *I. diehli*

- 11. Elytra strongly elongated, 2.9–3.1 times as long as humeral width, their apical sutural angle sharpened, as in Figs 22, 23, or drawn into a short tooth, with a more or less uniform, silky, mostly grey setation, sometimes appearing somewhat striped longitudinally; setation of pronotal disc of recumbent light setae well-developed, as in Figs 22, 23, 50; prosternal process without clear tubercle at apex; antennae of male reaching beyond apex of elytra by a penultimate antennomere (Fig. 22) ... *I. acutipennis*

***Note.** These two species so far differ reliably only on the basis of male characters.

Genus Mimimbrius Miroshnikov, gen. n.

Type species: Cerambyx micaceus Pascoe, 1858.

Diagnosis. This new genus, whose representatives have hitherto been assigned to the genus *Imbrius*, differs very clearly from the latter by the much more strongly developed eyes noticeably reaching beyond the anterior border of the bases of the antennae and strongly connivent on the ventral side of the head, as in Figs 70–72 (cf. Figs 67–69); the much larger ocelli, as in Figs 70–72 (cf. Figs 67–69) (see also Remarks below); the presence of a carina along each side, both external and inner, of the femora and tibiae, as in Figs 25–30; the structure of the prosternal process which has a very strongly developed, lateral, dentiform protrusion on each side in the middle part of the apical half, as indicated by arrows in Figs 79–81 (cf. Figs 73–78); the rather peculiar setation of the elytra, as in Figs 25, 27–30; the more or less homogeneous puncturation, as in Figs 61–63 (but not



Figs 67–81. *Imbrius* Pascoe, 1866 and *Minimbrius* **gen. n.**, head, ventral view and prosternal process. 67 – *I. diehli* Hüdepohl, 1989; 68, 77 – *I. solodovnikovi* **sp. n.**; 69, 73–75 – *I. lineatus* Pascoe, 1866; 70, 81 – *M. subargenteus* (Gressitt et Rondon, 1970), **comb. n.**; 71, 80 – *M. geminatus* (Holzschuh, 2005), **comb. n.**; 72, 79 – *M. micaceus* (Pascoe, 1858), **comb. n.**; 76 – *I. fedorenkoi* **sp. n.**; 78 – *I. klimenkoi* **sp. n.** 68, 76–78 – holotypes; 69, 73–74 – syntypes; 67–70, 73, 76–78, 81 – males; 71–72, 74–75, 79–80 – females.

I. Rumenkoi sp. n. 68, 76-78 - полотурев; 69, 73-74 - Syntypes; 67-76, 76, 76-76, 61 - паде5, 12-76, 72-75, 72-60 - тепаде5.
 Puc. 67-81. Imbrius Pascoe, 1866 и Mimimbrius gen. n., голова снизу и отросток простернума.
 67 - I. diehli Hüdepohl, 1989; 68, 77 - I. solodovnikovi sp. n.; 69, 73-75 - I. lineatus Pascoe, 1866; 70, 81 - M. subargenteus (Gressitt et Rondon, 1970), comb. n.; 71, 80 - M. geminatus (Holzschuh, 2005), comb. n.; 72, 79 - M. micaceus (Pascoe, 1858), comb. n.; 76 - I. fedorenkoi sp. n.; 78 - I. klimenkoi sp. n. 68, 76-78 - голотипы; 69, 73-74 - синтипы; 67-70, 73, 76-78, 81 - самцы; 71-72, 74-75, 79-80 - самки.



Figs 82–101. Imbrius Pascoe, 1866, tegmen and apical part of penis. 82–83, 87–88 – I. solodovnikovi **sp. n**.; 84–85, 89–90 – I. lineatus Pascoe, 1866; 86, 91 – I. similis Hüdepohl, 1990; 92, 95 – I. fedorenkoi **sp. n**.; 93–94, 96–97 – I. simulator Holzschuh, 2005; 98, 100 – I. klimenkoi **sp. n**.; 99, 101 – I. uniformis Holzschuh, 2010. 82, 86–87, 91–92, 95 – holotypes; 83, 88, 93, 96,

96-97 – *I. sumulator* Holzschult, 2005, 96, 100 – *I. kumenkoi* sp. n.; 97, 101 – *I. uniformis* Holzschult, 2010. 82, 86-87, 91–92, 95 – I. fedorenkoi sp. n.; 93, 96, 97, 96, 97, - *I. similis* Hüdepohl, 1990; 92, 95 – *I. fedorenkoi* sp. n.; 93–94, 96–97 – *I. similator* Holzschult, 2005; 98, 100 – *I. klimenkoi* sp. n.; 99, 101 – *I. uniformis* Holzschult, 2010. 82, 86–87, 91–92, 95 – *I. fedorenkoi* sp. n.; 93, 96, 98, 100 – паратипы; 84, 89 – синтип; 85, 90 – экземпляр из Сингапура.

double that would vary radically in size) (cf. Figs 64–66); the very similar structure of the antennae and elytra; and on the average a smaller body, 11–14.1 mm in length.

Besides this, even though the general structure of the pronotum and, in particular, the sculpture of its disc in Mimimbrius gen. n. resemble those of Imbrius, the former genus is sufficiently distinct from the latter. Thus, in the new genus, the apical margin of the pronotum at the midline is clearly drawn into a more or less rounded angle, as in Figs 55-60, 115-118; the ledges sharply delimiting posteriorly and lateral to the midline a sculptural formation in the apical third of the pronotum (Figs 55-60, 115-118) that creates usually less strongly curved and often more vertical lines that grow increasingly vague towards the lateral margin of the pronotum, as in Figs 55-60, 115-118; the disc of the pronotum is sculptured this or that way (see below), but creates no clearly symmetrical, longitudinal, individual folds lateral to the midline, whereas in Imbrius the apical margin of the pronotum at the midline is bidentate or with a truncate, more or less broad, single projection, as in Figs 31-38, 43-54; the ledges sharply delimit posteriorly and lateral to the midline a sculptural formation in the apical third of the pronotum (Figs 31-38, 43-54) that usually creates more horizontal and often more strongly curved lines which largely remain clear-cut until the very lateral margins on both sides, as in Figs 31-38, 43-54, the disc of the pronotum lateral to the midline, at least so in the basal part, usually with clearly or quite symmetrical, often longitudinal, individual or partly confluent folds.

In Mimimbrius gen. n., the head is with a more or less deep groove between the bases of the antennae and the eyes, as well as on the vertex; the eyes always clearly reach forward beyond bases of antennae, considerably embracing them (while in Imbrius the anterior border of the eyes is located about the same level as the anterior border of the antennal cavities); the antennae of the male are slightly longer than the body, at least reaching beyond the apex of the elytra by the last antennomere, in the female hardly shorter or barely longer than the elytra, can also be subequal to body length; antennomeres 3-5 of the male are noninflated, resemble those in the female; antennomere 3 in both sexes barely shorter than the 1st; antennomeres 6–10 moderalety serrate, their apical inner angle without spine (while in Imbrius the length of the antennae, especially in the male, is very clearly variable, thereby the antennae of the male can be much longer than the body, antennomeres 3–5 of the male in the vast majority of cases one way or another inflated, in the remaining cases at least antennomere 3 more or less clearly thickened at the apex, the length ratio of antennomeres 1 and 3 very clearly variable, antennomere 3 from barely to much longer than the 1st and, as it seems, cannot be shorter than the latter; the apical inner angle of antennomeres 6-10 sometimes with a clear spine); the elytra with a moderately small, more or less dense, relatively homogeneous puncturation gradually decreasing from base towards apex or, besides this, partly with larger, but not coarse, denser or sparser punctures; the apical sutural angle is either obtuse or rounded, either without

tooth or with a weakly expressed denticle (while in Imbrius the elytra with a double puncturation radically differing in size, as in Figs 64–66, apical sutural angle can be sharpened or with a long tooth); the recumbent setation of the elytra, due to variously located and differently dense setae, forms a peculiar pattern, as in Figs 25, 27-30 (while in Imbrius the setation of the elytra, whatever it is like, does not show features similar to those in the new genus); the longitudinal carinae on the femora and tibiae extending over entire length, from base to apex, and located almost completely in the middle part of both external and inner sides, can also be partly less strongly expressed or indistinct, especially on the metafemora (a similar carina is also characteristic of certain species of Dymasius J. Thomson, 1864, Xoanodera Pascoe, 1857 (in the latter genus, the carina can be present only on femora), of some Derolus Gahan, 1890 and several other genera as well, but at least on the femora it is shifted towards their lower margin on both sides).

Remarks. It is noteworthy that in some representatives of the tribe, e.g., *Sebasmia* Pascoe, 1859, the eyes can be as strongly developed as in the new genus, but the size of their ocelli is comparatively smaller. This strengthens the taxonomic significance of that feature, at least so as regards *Mimimbrius* **gen. n.** and *Imbrius*.

Etymology. In Greek, mimos (απομίμηση) means "imitating, similar", derived directly from *Imbrius* Pascoe, 1866, to emphasize the resemblance and to mean "imitating *Imbrius*".

Composition. The genus includes four species, one of which is described as new.

Distribution. Oriental realm.

Mimimbrius micaceus (Pascoe, 1858), comb. n. (Figs 25, 26, 59, 61, 72, 79)

Cerambyx micaceus Pascoe, 1858: 237. Type locality: Borneo (according to the original description).

Imbrius micaceus: Pascoe, 1866b: 529; 1869: 519 (Sarawak); Aurivillius, 1912: 60; Heffern, 2013: 10.

Dymasius micaceus: Gemminger, 1872: 2803.

Material. \bigcirc , holotype, (BMNH) (photograph); $1\bigcirc$ (NHMD) (Figs 25–26), E Malaysia, Sabah, Crocker Range, 03.2003 (local collector), "*Imbrius geminatus* Holz., Ole Mehl det. 2005", "*Mimimbrius micaceus* (Pascoe, 1858) \bigcirc det. A. Miroshnikov 2017".

Morphological notes. Body length 12–14 mm, humeral width 2.7–3.1 mm, thereby holotype smallest.

Distribution. Eastern Malaysia.

Mimimbrius geminatus (Holzschuh, 2005), **comb. n.** (Figs 27, 60, 62, 71, 80)

Imbrius geminatus Holzschuh, 2005: 6. Type locality: Malaysia, Sabah, Trus Madi Mt. (according to the original description). Heffern, 2013: 10.

Material. \mathcal{Q} , holotype (cCH) (photograph); $1\mathcal{Q}$ (NHMD), $1\mathcal{Q}$ (cAM ex NHMD) (Fig. 27), E Malaysia, Sabah, Trus Madi Mt., 03.2003 (local collector), "*Imbrius geminatus* Holz., Ole Mehl det. 2005"; $1\mathcal{Q}$ (NHMD), same labels, but taken on 03.2004; $1\mathcal{Q}$ (NHMD), E Malaysia, Sabah, Crocker Range, 04.2014 (local collector), "*Imbrius geminatus* Holz., O. Mehl det. 2014".

Morphological notes. Body length 12.6–14.2 mm, humeral width 2.7–3.05 mm.

Distribution. Eastern Malaysia.

Mimimbrius subargenteus (Gressitt et Rondon, 1970), comb. n.

(Figs 28, 29, 55–57, 63, 70, 81, 112–114, 116–118, 444)

Zegriades subargenteus Gressitt et Rondon, 1970: 87. Type locality: Laos, Vientiane Province, Phou Khao Khouay (= Phou Kou Khouei) (according to the original description and the label of the holotype).

Imbrius subargenteus: Holzschuh, 2005: 8 (Northern Thailand).

Material. 3° , holotype, (BM) (Fig. 29), "Laos: Vientiane Prov., Phou Kou Khouei", "P. K. Khouei, 31.V.[19]66", "J.A. Rondon Collection Bishop Mus.", "Holotype Zegriades subargenteus J.L. Gressitt et Rondon", "Zegriades subargenteus Gressitt & Rondon det. 196[?]" (Fig. 444); 13° , paratype (BM), "Laos: [Champassak Prov.] Ile de Khong", "Ile de Khong, 15.IV.[19]65", "J.A. Rondon Collection Bishop Mus.", "Paratype Zegriades subargenteus Gressitt & Rondon"; 13° (cAM), 13° (cAM), N Thailand, Lamphun, Mae Ha, 20.04.2011 (local collector); 13° (cAM), N Thailand, Mae Hong Son, Pai env., road to Mae Yen Waterfall, 575–615 m, 19°21'42"N / 98°30'29"E, 27.04–9.05.2013 (leg. I. Melnik).

Morphological notes. Body length 11–13.8 mm, humeral width 2.35–3.1 mm, thereby the holotype and a paratype 13.5 or 13.8 and 3 or 3.1 mm, respectively (the body sizes of the holotype and a paratype are confused in the original description).

Distribution. Laos, Thailand.

Mimimbrius dembickyi Miroshnikov, **sp. n.** (Figs 30, 58, 111, 115)

Material. Holotype, ${\it d}^\circ$ (cLD) (Fig. 30): S Thailand, Nakhon Si Thammarat, Khao Luang, Kiriwong, 08°16'12"N / 99°26'24"E, 9.04.1997 (local collector).

Diagnosis. This new species is very similar to *M. subargenteus* **comb. n.**, but differs clearly by the somewhat peculiar sculpture and setation of the pronotum disc, as in Figs 58, 115, as well as by features of the setation on the head between and behind the eyes, as in Fig. 115, the presence of a partly dense setation on antennomere 1, as in Fig. 115, the generally the sparser, recumbent, light setation of the elytra, as in Fig. 30, a somewhat less deep transverse groove of the prosternum in front of its middle, the genitalia of the male, in particular, the shape of the penis apex, as in Fig. 111 (cf. Figs 28, 29, 55–57, 112–114, 116–118).

Description. Male. Body length 12.8 mm, humeral width 2.8 mm. Coloration of integument combines reddish-brown and dark reddish-brown tones, only eyes black.

Head with weakly developed antennal tubercles; with a sharp median groove between bases of antennae, eyes and on vertex; eyes large, strongly convex, with very large ocelli characteristic of the genus; genae relatively short; submentum with a heterogeneous, rough and coarse sculpture; behind eyes with sharp transverse folds both laterally and ventrally; antennae slightly longer than body, reaching the apex of elytra by apical part of penultimate antennomere; length ratio of antennomere 1-11, 20: 6: 21: 16: 21: 28: 32: 31: 31: 30: 40; antennomere 1 mainly with a somewhat heterogeneous, rough, partly dense and confluent puncturation; antennomere 2 slightly longitudinal; antennomeres 6-10 clearly serrate; last antennomere with a weakly expressed appendage.

Pronotum clearly longitudinal, 1.2 times as long as width; base 1.16 times as wide as apex; with a very sharp constriction near apex; on disc with coarse or rough, partly symmetrical, partially somewhat flattened dorsally, irregular folds and tubercles, as in Fig. 58 (in *M. subargenteus* **comb. n.**, coarse folds mainly or fully transverse, rounded dorsally, not flattened, as in Figs 55–57), near apex in median area partly with fragments of clear, but not too

sharp, relatively small puncturation (in *M. subargenteus* **comb. n.**, puncturation in this place generally smaller, but at least partly noticeably sharper); sculptural formation in apical one-third of disc, compared to *M. subargenteus* **comb. n.**, less strongly elevated, with a clearly less expressed median tubercle.

Scutellum strongly narrowed towards apex, triangular. Elytra strongly elongated, about parallel-sided, 2.81 times as long as humeral width; with a small, somewhat heterogeneous, more or less dense puncturation; apical external angle widely rounded, sutural angle almost right.

Prosternum with a distinct, but not too sharp, transverse groove in front of middle, with rough irregular folds between this groove and anterior border of coxal cavities; prosternal process with a lateral tooth in apical part on each side characteristic of the genus; mesosternal process between coxae very clearly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a gentle median groove; last (visible) sternite at apex widely truncate; last (visible) tergite at apex widely rounded.

Legs moderately developed; femora claviform; femora and tibiae with a clear longitudinal carina characteristic of the genus (described above); tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation of dorsum, partly of basal antennomeres yellow, of venter mainly greyish; dense setae between upper lobes of eyes forming two symmetrical, very well-expressed, clearly divided, longitudinal strips, as in Fig. 115 (in M. subargenteus comb. n., these strips significantly narrower and less strongly expressed, as in Figs 116-118); dense setae on pronotum forming relatively symmetrical individual fragments only along sides, near both apex and base in middle part, thereby near apex fragments much narrower than in *M. subargenteus* comb. n.; setation of elytra peculiar, as in Fig. 30, only partly masking puncturation; antennomere 1 partly, predominantly on inner side, with dense yellow setae (Fig. 115) while this antennomere in M. subargenteus comb. n. only with sparse greyish setae (Figs 116-118); head, pronotum laterally, elytra and abdomen at apex, prosternum, most of antennomeres in apical part, legs mainly on tibiae and trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Fig. 111.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Mr. Luboš Dembický (Brno, Czech Republic), who created an excellent database of colour pictures of the type specimens of cerambycid species and constantly provides a very important assistance to my research.

Distribution. Thailand.

Key to species of Mimimbrius gen. n.

- 2. Pronotum on disc with very coarse, transverse, partly somewhat sinuous folds (Figs 55–57), mostly rounded (in any case non-flattened) dorsally, dense light setation near apex forming much wider fragments, as in Figs 55–57, 116–118, puncturation in area of these fragments of setation, albeit smaller, but at least partly clearly sharper; antennomere 1 with sparse, recumbent, light setae, as in Figs 116–118; elytra with



Figs 102-118. Imbrius Pascoe, 1866 and Mimimbrius gen. n.

102-103, 106-107 - I. klimenkoi sp. n.; 104-105, 108-110 - I. uniformis Holzschuh, 2010; 111, 115 - M. dembickyi sp. n.; 112-114, 116-118 -M. subargenteus (Gressitt et Rondon, 1970), comb. n. 102-105 - endophallus; 106-110 - tergite 8 of females, dorsal view; 111-114 - apical part of penis, ventral view; 115–118 – head, dorsal view, and pronotum, males; 111–112, 115–116 – holotypes; 102–103, 106–107, 114 – paratypes; 117–118 – specimens

from Northern Thailand. Рис. 102–118. *Imbrius* Pascoe, 1866 и *Mimimbrius* gen. n. 102–103, 106–107 – *I. klimenkoi* sp. n.; 104–105, 108–110 – *I. uniformis* Holzschuh, 2010; 111, 115 – *M. dembickyi* sp. n.; 112–114, 116–118 – *M. subargenteus* (Gressitt et Rondon, 1970), **совь** в. 102-105 – эндофалус; 106-110 –8-й тергит самок сверху; 111–114 – вершинная часть пениса снизу; 115–118 – голова сверху и переднеспинка, самцы; 111–112, 115–116 – голотипы; 102–103, 106–107, 114 – паратипы; 117–118 – экземпляры из Северного Таиланда.

Genus Elydnus Pascoe, 1869

Elydnus Pascoe, 1869: 516. Gemminger, 1872: 2803; Gahan, 1891: 23 (*Dymasius* subgen.); Aurivillius, 1912: 60 (*Dymasius* subgen.); Gressitt, Rondon, 1970: 78 (*Dymasius* subgen.); Hüdepohl, 1990a: 75; 1998: 213; Vives, 2005: 245; Heffern, 2013: 10.

Type species: *Elydnus amictus* Pascoe, 1869, by subsequent designation [Gressitt, Rondon, 1970].

Diagnosis. This genus seems to differ clearly from all other Asian genera of the tribe, including closely related ones, by the unique structure of antennomeres 4 and 5 of the male, namely, the presence at the base of each of these antennomeres of a very peculiar area with a particular sculpture and, in the vast majority of cases, bearing numerous pores, in addition the area is either devoid of long erect setae or sometimes with individual such setae, as in Figs 131–144. In representatives of some genera of the tribe, which are generally rather dissimilar morphologically to *Elydnus*, for example, *Diorthus* Gahan, 1891, there is also a somewhat peculiar structure of antennomeres 4 and 5 or 3–5, as in Fig. 147, but this is very clearly different from the genus in question.

Besides this, *Elydnus* is characterized by the following features, the combination of which makes it even more distinct compared to the other contribal genera: head with moderately developed eyes; antennae of male much longer than body, reaching beyond apex of elytra by antennomere 8 or 9 (Color plate 1: 119–121, 123, Fig. 126), in female always longer than elytra, reaching beyond their apex by antennomere 9 or 10, as in Color plate 1: 122, Color plate 2: 128, antennomere 1 with neither a very coarse sculpture (in the form of very strong folds, grooves, impressions, processes, etc.), nor a cicatrix, antennomere 2 distinctly or strongly transverse, apical external angle of antennomeres 6–10

insignificantly broadened at apex, apical inner angle of the same antennomeres without spine, last antennomere apically can be neither strongly sharpened nor extended into a long sharp spine (Figs 145-146), antennomeres 3 and 4 or only 3rd of male in apical part inflated, while last antennomere of male not more than 1.9 times as long as penultimate antennomere; pronotum from slightly longitudinal to barely transverse, widely rounded on sides, with a rather diverse, coarse or very coarse sculpture, as in Figs 171–182, but never only or mainly with transverse folds; elytra moderately elongated, starting with base mostly about parallel-sided or slightly broadened behind the middle; each elytron apically more or less obliquely truncate or slightly emarginate, with an about straight or obtuse, apical, external angle, while sutural angle with a more or less weakly developed denticle; velvet setation of elytra shimmering and with light or dark fragments of very dense recumbent setae forming a peculiar pattern, as in Color plate 1: 119–124, Color plate 2: 125–126, 128, thereby this being very similar among all members of the genus; prosternal process with a clear or well-developed tubercle; mesosternal process without tubercle; metatibia at anterior margin from strongly concave to more straight, but at least barely concave (in any case, not clearly straight), as in Figs 159–170; protibia predominantly with a dense or very dense light setation both on inner side and at posterior margin, mainly in apical part; femora and tibiae without longitudinal carina; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined; body from medium- to large-sized, in length 18.4–31 mm.

Remarks. Originally, *Elydnus* was described as a separate genus with two species: *E. amictus* Pascoe, 1869 (Sarawak) and *E. sericatus* Pascoe, 1869 (Banda Island) [Pascoe, 1869]. After Gahan [1891] had considered as a subgenus ("section") of the genus *Dymasius* J. Thomson, 1864, this was accepted also by Aurivillius [1912], and Gressitt and Rondon [1970]. But the type species of *Elydnus* was designated only by the latter authors.

Hüdepohl [1989a] was the first to draw attention to the unique feature of E. amictus: structure of antennomeres 4 and 5 of the male. Discussing the taxonomic significance of this feature, he [Hüdepohl, 1990a: 75-76] noted the following: "Pascoe's Elydnus amictus, 1869, shows a very peculiar character in the male antennae: there are poriferous pits at the bases of the fourth and fifth segments - something uncommon in Cerambycidae and not mentioned by Pascoe or Gahan. Even if this character might be of importance on specific level only, it seems useful to maintain *Elydnus* as a genus till the situation is cleared up." However, Hüdepohl [1989a, b] thereby described three new species in this genus, the males of which, unlike *E. amictus*, do not show the above structural features of male antennomeres 4 and 5. Another three species were added to Elydnus, also dissimilar in the structure of the antennae and some other features from E. amictus [Holzschuh, 2003; Vives, 2005; Vives, Heffern, 2016]. Besides this, a few more species clearly distinct from *E. amictus* were later assigned to *Elydnus* (as a subgenus of Dymasius), described at different times [Gressitt, Rondon, 1970; Kusama, Takakuwa, 1984; Nakamura et al., 1992; Nga et al., 2014 and others]. Most recently, also Aeolesthes (Pseudaeolesthes) chrysophanes Gressitt et Rondon, 1970



Figs 119–124. *Elydnus* Pascoe, 1869, habitus, dorsal view. 119–122 – *E. amictus* Pascoe, 1869, i23 – *E. barclayi* **sp. n.**; 124 – *E. rufulus* Holzschuh, 2016, **stat. n.** (after Holzschuh [2016], photograph by Luboš Dembický). 119, 123–124 – holotypes; 119–121, 123–124 – males (120–121 – from Brunei and Philippines, respectively); 122 – female from Eastern Malaysia. Puc. 119–124. *Elydnus* Pascoe, 1869, общий вид сверху. 119–122 – *E. amictus* Pascoe, 1869; 123 – *E. barclayi* **sp. n.**; 124 – *E. rufulus* Holzschuh, 2016, **stat. n.** (по [Holzschuh, 2016], фотография А. Дембицкого). 119, 123–124 – голотипы; 119–121, 123–124 – самцы (120–121 – из Брунея и Филиппин соответственно); 122 – самка из Восточной Малайзии.



Figs 125–130. *Elydnus* Pascoe, 1869 and *Spinidymasius* gen. n., habitus, dorsal view. 125, 128 – *E. vitalii* sp. n.; 126 – *E. tatianae* sp. n.; 127, 129–130 – *S. pascoei* (Gahan, 1891), comb. n. 125–126, 129 – holotypes; 128 – paratype; 125–127 – males (127 – from Eastern Malaysia); 128–130 – females.

125–127 – палез (127 – понг Lastern Ivialaysia), 126–130 – теппалез.
 Рис. 125–130. Elydnus Pascoe, 1869 и Spinidymasius gen. n., общий вид сверху.
 125, 128 – E. vitalii sp. n.; 126 – E. tatianae sp. n.; 127, 129–130 – S. pascoei (Gahan, 1891), comb. n. 125–126, 129 – голотипы; 128 – паратип;
 125–127 – самцы (127 – из восточной Малайзии); 128–130 – самки.

was transferred to this genus [Vitali et al., 2017]. As a result, *Elydnus* currently is a highly heterogeneous assemblage encompassing 14 different species.

The discovery of yet new species generally very similar to *E. amictus*, including the structure of the male antennae, like those described below, shows a decisive importance of the unique character considered above in the diagnosis of the genus. In addition, that feature proves to be to some degree species-specific, this only reinforcing its high taxonomic significance. The female, unlike the male, differs clearly from other genera, as noted above, only by a combination of traits, among which the most important seem to be elytra setation, its strong similarity between all species and the structure of the metatibia.

In any case, the isolation of the genus *Elydnus* in the composition proposed here is rather obvious and it seems to be the best expressed against the background of very complex problems in the development of diagnoses in a number of other genus-group taxa within the tribe Cerambycini.

A detailed study of species excluded from *Elydnus* allows to propose the following solution for establishing their systematic positions. For species similar to "*Elydnus*" *pascoei* (Gahan, 1891) and "*E*." *sericatus*, which seem to be morphologically somewhat peculiar and represent a rather homogeneous group, a new genus is described (see below). The remaining species, namely, "*Elydnus*" *vitreus* (Pascoe, 1885) (Figs 200, 453), "*E*." *kisanus* (Matsushita, 1935), "*E*." *hirayamai* (Matsushita, 1941) and "*E*." *simplex* (Gressitt et Rondon, 1970), are siggested to be assigned to the genus *Dymasius* without a subgeneric placement, at least so pending a revision of this genus.

Thus, only five species are considered in *Elydnus*, three of which are described as new, while one taxon gets a full species status.

Distribution. Oriental realm.

Elydnus amictus Pascoe, 1869 (Color plate 1: 119–122; Figs 131–133, 138, 139, 145, 148, 149, 152, 153, 155, 156, 159–165, 173–178, 445)

Elydnus amictus Pascoe, 1869: 517. Type locality: [Malaysia] Sarawak (according to the original description and the label of the holotype). Gemminger, 1872: 2803; Hüdepohl, 1989a: 60; 1990a: 76; 1998: 214.

Dymasius (Elydnus) amictus: Aurivillius, 1912: 60.

Material. J, holotype, by monotypy (see Remarks) (BMNH) (Fig. 119), "Sarawak", "*Elydnus amictus* Pasc. Type", "Type", "Pascoe Coll. 93-60", "Elydnus amictus P." (Fig. 445); 1^o/₊ (BMNH), "N. Borneo", "Pascoe Coll. 93-60", "Elydnus amictus Pascoe, 1869 ♀ det. A. Miroshnikov 2016"; 1^C (BMNH), "N. Borneo", "Pascoe Coll. 93-60", "[Elydnus] amictus Pasc., Borneo"; 1^O₊ (BMNH), "Sarawak" (upperside), "75. 31." (underside), "Elydnus amictus Pasc., ♀"; 1♀ (BMNH), "Mt. Merinjak, Sarawak, 1500 ft., 27.V.[19]14, G.E. Bryant," (G. Bryant Coll. 1919–147", "Rs 123", *"Elydnus amictus* Pascoe, 1869 \bigcirc det. A. Miroshnikov 2016"; 1 \bigcirc (BMNH) (Fig. 120), "Brunei: Temburong District, ridge NE of Kuala Belalong, approx. 300 m alt., 30 October 1992, J H Martin coll. B M 1992 - 172", "1752", "Imbrius nimbatus ? (sic) E. Vives det. 2006", "Elydnus amictus Pascoe, 1869 🗟 det. A. Miroshnikov 2016"; 1º (NHMD) (Fig. 122), "E Malaysia, Borneo, Sabah Pr., Trus Madi Mt., March 2004. Loc. leg.", "Elydnus amictus Pasc. Holzschuh det. 2006"; 1 (NHMD) (Fig. 121), "Philippines, Tawi Tawi Tarawakan, north of Batu Batu, 5.XI.1961, Noona Dan Exp. 61-62", "Caught in Malaise-traps", "Elydnus amictus Pasc. Hüdepohl det. 1985"; 13 (NHMD), "Philippines", "Elydnus amictus Pasc. Hüdepohl det. 1987"; 1º (NHMD), "Philippines, Tawi Tawi Tarawakan, north of Batu Batu, 27.X.1961, Noona Dan Exp. 61-62", "Caught in Malaise-traps", "Elydnus **Morphological notes.** Body length 18.4–29.1 mm, humeral width 4.05–7 mm, thereby holotype 22.7 and 5.2 mm, respectively.

Remarks. Based on the original description, as well as the material kept in the BMNH, it seems that only the holotype by monotypy is to be distinguished.

Distribution. Singapore, Eastern Malaysia, Brunei, Philippines; very likely also the territory of Indonesia in Borneo; the record in Myanmar [Hüdepohl, 1998] is likely to be attributed to the next new species.

> *Elydnus barclayi* Miroshnikov, **sp. n.** (Color plate 1: 123; Figs 134, 135, 140–142, 150, 151, 154, 157, 158, 166, 171, 172)

Material. Holotype, ♂ (BMNH) (Fig. 123): "Peninsular Siam, Nakon Sri Tam[m]arat, Khao Luang, 2000 ft. [8°33'N / 99°44'E], March 16th 1922, H.M. Pendlebury [leg.]", "1927.428", "315". Paratype: 1♂ (cLD), W Malaysia, Johor, 20 km S Mersing, Jemaluang, 300 m, 1–14.02.2003 (leg. P. Čechovský).

Diagnosis. This new species is very similar to *E. amictus*, but differs by the obliterated sculpture of the base of antennomeres 4 and 5 of the male, as in Figs 134, 135, 140-142, the shortened antennomere 5 in relation to antennomere 4 at least in the male, as in Figs 134, 135, the narrower submentum, the somewhat peculiar structure of the tegmen, as in Fig. 154, the darker penis and tergite 8, as in Figs 150, 151, 157, 158 (cf. Figs 131–133, 138, 139, 148, 149, 152, 153, 155, 156). Besides this, E. barclayi sp. n. has light fragments of recumbent setation on the elytra with clearly golden tones (Color plate 1: 123), while in E. amictus such fragments in the vast majority of cases are silvery tones (Color plate 1: 119–122). A new species can also be compared to E. rufulus Holzschuh, 2016, stat. n., but differs by a generally peculiar coloration, as in Color plate 1: 123 (cf. Color plate 1: 124), as well as in the structure of the area at the base of male antennomeres 4 and 5, namely, the presence of very clear and numerous pores it supports (Figs 134, 135, 140-142) (see also Remarks to E. rufulus below).

Description. Male. Body length 20.8–24.9 mm, humeral width 4.7–6.2 mm, thereby holotype largest. Coloration of integument mainly combines reddish-brown and dark reddish-brown tones; eyes, partly mandibles, disc of pronotum or, besides this, partly prosternum black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, eyes and on vertex; eyes moderately convex; longitudinal diameter of lower lobe of eye 1.64-1.76 times as long as genae; submentum only 2.34-2.42 times as wide as long (in E. amictus, 2.68-2.89 times, as a rule), with a heterogeneous, coarse or rough, sparse, in places small puncturation; neck with sharp transverse folds both ventrally and laterally; antennae much longer than body, reaching beyond apex of elytra by antennomere 8 or barely not reaching it by apex of this antennomere: length ratio of antennomeres 1–11 (holotype taken as an example), 25:5:29:22:24:55:61:60:60:57:100; antennomere 1 with a clear, heterogeneous, partly somewhat rough, dense puncturation; antennomere 2 distinctly transverse; antennomeres 3 and 4 moderately inflated in apical part; antennomeres 4 and 5 each with a peculiar area at base, this being characteristic of the genus and showing an obliterated surface with clear numerous pores, as in Figs 134-135, 140-142 (in E. amictus,

this peculiar area with a very coarse sculpture, as in Figs 131–133, 138, 139), thereby antennomere 5 only 1.10–1.13 times as long as antennomere 4 (in *E. amictus*, 1.28–1.37 or 1.19–1.36 times in male and female, respectively).

Pronotum barely longitudinal, 1.03–1.05 times as long as width; base 1.07–1.09 times as wide as apex; with a very sharp constriction near apex; on disc with very coarse folds, like in *E. amictus*, namely, with two longitudinal, long, symmetrical folds in the middle and irregular, partly sinuous and clearly transverse, in places symmetrical folds, as in Figs 171–172, thereby predominantly on longitudinal ones with heterogeneous, in places coarse, partly small, sharp punctures.

Scutellum strongly narrowed towards apex, triangular.

Elytra about parallel-sided, 2.7–2.77 times as long as humeral width; with a very small dense puncturation; apical external angle about right, well-expressed, sutural angle with a small, but clear denticle.

Prosternum with a sharp transverse groove in front of middle, with heterogeneous, coarse or rough, irregular folds; prosternal process clearly broadened towards apex dorsally, with a very strong apical tubercle; mesosternal process without tubercle dorsally, between coxae distinctly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a sharp median groove; last (visible) sternite at apex with a broad, but shallow emargination; last (visible) tergite truncate apically.

Legs moderately long; protibia, like in *E. amictus*, very clearly broadened from base towards apex, somewhat peculiar in shape; metatibia at anterior margin clearly concave, this characteristic of the genus, as in Fig. 166; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation like in E. amictus, on head dorsally, pronotum, partly elytra, antennae and legs yellow tones, on venter mainly greyish; more or less dense setae covering most of head dorsally, partly basal antennomeres, tibiae, metafemora, tarsi, on pronotum forming a pattern, as in Figs 171, 172; light setae on elytra partly with a golden tint (in E. amictus, setae partly in the vast majority of cases with a silvery tint), combined with brown and dark brown setae and generally forming an iridescent pattern characteristic of the genus, as in Color plate 1: 123; head, pronotum on disc and laterally, metasternum, partly abdomen, including at apex, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae; erect setation of antennae heterogeneous, almost same as in other representatives of the genus: antennomeres 1-8, except for base of antennomeres 4 and 5, predominantly on inner and, partly, venral sides with numerous, short, erect, somewhat oblique, thin setae in the form of a sparse gentle brush (subsequent antennomeres with even shorter erect setae), thereby antennomeres 2-10 at apex with individual, long, thin setae directed towards apex of antennae and individual, long, erect setae in apical part ventrally.

Genitalia as in Figs 150, 151, 154, 157, 158.

Etymology. I am pleased to dedicate this new species to my colleague, Dr. Maxwell V.L. Barclay, the curator of the collection of Coleoptera at the Natural History Museum, London, United Kingdom, who, over a number of years, has kindly provided his great assistance to my study of the museum material.

Distribution. Thailand, Western Malaysia.

Elydnus rufulus Holzschuh, 2016, **stat. n.** (Color plate 1: 124; Fig. 179)

Elydnus amictus rufulus Holzschuh, 2016: 110. Type locality: Indonesia, Mentawai Isls., S Siberut Isl., Salapa vill. env. $[01^{\circ}21^{\circ}S / 98^{\circ}54^{\circ}E]$ (according to the original description).

Material. (), holotype (cCH) (photograph; Color plate 1: 124).

Morphological notes. Holotype male. Body length 22 mm (according to the original description).

Remarks. Based both on the original description [Holzschuh, 2016] and high-quality photograph (Color plate 1: 124) of the holotype (received through the courtesy of Mr. Luboš Dembický, Brno, Czech Republic) I have studied, as well as taking into account the structural features of other representatives of the genus, this taxon, in my opinion, is to be considered as a separate species. Thus, *Elydnus rufulus* Holzschuh, 2016, **stat. n.**

Considering the original description, the peculiar area at the base of male antennomeres 4 and 5 is devoid of pores [Holzschuh, 2016, p. 110: "das Fehlen eines Porenfeldes auf der Innenseite der Basis der Fühlerglieder 4 und 5"], in contrast to all other representatives of the genus. However, the area proper on both these antennomeres, based on the picture (Color plate 1: 124), is distinguished clearly enough.

At the same time, it seems noteworthy, and as noted above, the presence of a peculiar area at the base of each of male antennomeres 4 and 5 bearing more or less clear and numerous pores is highly characteristic of *Elydnus*. In this connection, this structure requires revision in *E. rufulus* **stat. n.**, as the pores could have been overlooked, but at least some individual pores are actually present, albeit poorly-visible.

Distribution. Indonesia (Mentawai Islands, Siberut Island).

Elydnus tatianae Miroshnikov, **sp. n.** (Color plate 2: 126; Figs 136, 143, 169, 170, 180)

Material. Holotype, c (cAM) (Color plate 2: 126): Vietnam, Thua Thien-Hue Prov., Bach Ma Mt., 1400 m, 16°11°N / 107°51°E, 05.2017 (local collector). Paratypes: 3c (cFV), 1c (cGC), same locality as holotype, 03.2016 (leg. T.L. Luong); 1c (cPH), same locality as holotype, 03.2017 (local collector); 1c (cFV), Vietnam, Quang Nam Prov., 06.2016 (leg. N. Thai); 2c (cPI), Vietnam, Quang Nam Prov., Tay Giang, Axan Mt., 04.2017 (local collector); 1c (cAM), same locality, 06.2017 (local collector).

Diagnosis. This new species resembles *E. amictus* Pascoe, 1869 and *E. barclayi* **sp. n.**, but differs very clearly from both by the very peculiar sculpture of the pronotum disc, the character of its setation, as in Fig. 180, the structure of antennomeres 4 and 5 of the male, including the sculpture in the area at their bases, as in Figs 136, 143, the peculiar, non-inflated shape of antennomere 4 of the male, as in Fig. 136, the shorter antennae of the female, on the average a larger body and some other characteristics (cf. Figs 131–135, 138–142, 171–178). *Elydnus tatianae* **sp. n.** is very similar to another new species, *E. vitalii* **sp. n.**, described below, but differs by the features noted in the the latter's diagnosis.

Description. Body length 24–31 mm, humeral width 6–7.7 mm, thereby holotype largest. Coloration of integument mainly combines reddish brown and dark reddish brown tones; head predominantly behind antennal tubercles, eyes, partly mandibles, disc of pronotum entirely or mostly, prosternum at apex, profemora partly on external side black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, eyes and on vertex; eyes moderately convex; longitudinal diameter of lower lobe of eye 1.2–1.36 times as long as genae; submentum 2.7–3.2 times as wide as long, with a very heterogeneous puncturation; neck with sharp transverse folds both ventrally and laterally; antennae of male much longer than body, reaching beyond apex of elytra by



Figs 131–147. *Elydnus* Pascoe, 1869 and *Diorthus* Gahan, 1891. 131–133, 138–139, 145 – *E. amictus* Pascoe, 1869; 134–135, 140–142 – *E. barclayi* **sp. n**.; 136, 143 – *E. tatianae* **sp. n**.; 137, 144, 146 – *E. vitalii* **sp. n**.; 147 – *Diorthus* **sp.** (Afghanistan). 131, 134, 136–138, 141–144 – holotypes; 135, 140, 146 – paratypes; 131–144, 147 – males (132, 139 – from Brunei; 133 – from Philippines); 131–137 – right antennomeres 4 and 5; 138–144 – base of antennomere 4; 145–146 – last left antennomere, females; 147 – right antennomeres 3–5.

Рис. 131–147. Elydnus Pascoe, 1869 и Diorthus Gahan, 1891.
131–133, 138–139, 145 – E. amictus Pascoe, 1869; 134–135, 140–142 – E. barclayi sp. n.; 136, 143 – E. tatianae sp. n.; 137, 144, 146 – E. vitalii sp. n.;
147 – Diorthus sp. (Афганистан). 131, 134, 136–138, 141–144 – голотипы; 135, 140, 146 – паратипы; 131–144, 147 – самцы (132, 139 – из Брунея; 133 – с Филиппин); 131–137 – 4-й и 5-й правые членики усиков; 138–144 – основание 4-го членика усиков; 145–146 – последний левый членик усиков, самки; 147 – 3–5-й правые членики усиков.



Figs 148–170. *Elydnus* Pascoe, 1869. 148–149, 152–153, 155–156, 159–165 – *E. amictus* Pascoe, 1869; 150–151, 154, 157–158, 166 – *E. barclayi* **sp. n.**; 167–168 – *E. vitalii* **sp. n.**; 169–170 – *E. tatianae* **sp. n.** 148, 152, 154, 155, 157, 166, 168–169 – holotypes; 151, 158, 167, 170 – paratypes; 159 (from Brunei), 160 (from Philippines), 161 (from Philippines), 166 – males; 162 (from Philippines), 163, 165 (from Borneo), 164 (from Singapore) – females; 148–151 – apical part of penis, ventral view; 152–154 – apical part of tegmen, ventral view; 155–158 – apical part of male tergite 8, dorsal view; 159–170 – metatibia.

132 – аркатрат от кедпен, ченна чем, 155–156 – аркатрат от нас чегде о, чогоа чем, 155 – 156 – неспола чем, 155 – 156 – неспола чем, 155 – 156 – 165 – 165 – 166 – 166 – 166 – 167 – 168 – 167 – 168 – 167 – 168 – 167 – 168 – 167 – 168 – 167 – 168 – 167 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 151, 154, 157 – 158, 166 – 169 – 170 – 168 – 169 – 170 – 169 – 170 – 168 – 169 – 170 – 168 – 169 – 170 – 151, 154, 167 – 168 – 169 – 170 – 170 – 17



Figs 171–182. *Elydnus* Pascoe, 1869, pronotum. 171–172 – *E. barclayi* **sp. n.**; 173–178 – *E. amictus* Pascoe, 1869; 179 – *E. rufulus* Holzschuh, 2016, **stat. n.** (photograph by Luboš Dembický); 180 – *E. tatianae* **sp. n.**; 181–182 – *E. vitalii* **sp. n.** 171, 173, 179, 180, 181 – holotypes; 172, 182 – paratypes; 171–173, 174 (from Brunei), 175 (from Philippines),

L. tatianae sp. n., 181–182 – Е. vitalii sp. n. 171, 173, 179, 180, 181 – понтурев, 172, 182 – рагатурев, 171–173, 174 (понт втипер), 175 (понт втипер), 180 – 20, 171–172 – *E. barclayi* sp. n., 173–178 – *E. amictus* Pascoe, 1869; 179 – *E. rufulus* Holzschuh, 2016, stat. n. (фотография А. Дембицкого); 180 – *E. tatianae* sp. n.; 181–182 – *E. vitalii* sp. n. 171, 173, 179, 180, 181 – голотипы; 172, 182 – паратипы; 171–173, 174 (из Брунея), 175 (с Филиппин), 176 (с Филиппин), 179–181 – самцы; 177 (с Борнео), 178 (с Борнео), 182 – самки.



Figs 183–188. Spinidymasius gen. n., habitus, dorsal view.
183, 184, 188 – S. crinicornis (Hüdepohl, 1989), comb. n. (184 – from Western Malaysia; 188 – from Brunei); 185 – S. ochraceovittatus (Hüdepohl, 1989), comb. n., holotype; 186–187 – S. dembickyi (Holzschuh, 2003), comb. n., paratypes. 183, 185–186 – males; 184, 187–188 – females.
Рис. 183–188. Spinidymasius gen. n., общий вид сверху.
183, 184, 188 – S. crinicornis (Hüdepohl, 1989), comb. n. (184 – из Западной Малайзии; 188 – из Брунея); 185 – S. ochraceovittatus (Hüdepohl, 1989), comb. n., паратипы. 183, 185–186 – самцы; 184, 187–188 – самки.

antennomere 8, in female reaching the apex of elytra by apical part of penultimate antennomere; length ratio of antennomeres 1-11in male (holotype taken as an example), 36: 6: 39: 27: 36: 56:65: 66: 65: 63: 115, in female, 4: 30: 20: 25: 32: 32: 30:29: 27: 34; antennomere 1 of male with a heterogeneous, mostly rough, partly rugose, dense puncturation, in about apical one-third on inner side clearly narrowed towards apex, in female with a small dense puncturation, narrowed towards apex, like in male, but less clearly; antennomere 2 distinctly transverse; antennomere 3 of male moderately inflated in apical part; antennomere 4 closer to cylindrical in shape, thereby its base about 1.3 times as wide as that of antennomere 3; antennomeres 4 and 5 each with a peculiar area at base, this being characteristic of the genus and showing a moderately rough, but not too sharp sculpture and clear numerous pores, as in Figs 136, 143.

Pronotum subequal in length and width, at base slightly wider than at apex; with a very sharp constriction near apex; on disc with longitudinal, very coarse, sinuous folds and two longitudinal, wide, coarsest and highest near middle, symmetrical elevations in middle part, each of which on external side in front of middle with a very strong protrusion connected to ventral margin of nearest fold, as in Fig. 180, thereby elevations with a small dense puncturation and individual coarse punctures.

Scutellum strongly narrowed towards apex, triangular, can be clearly truncate apically.

Elytra about parallel-sided, 2.56–2.59 times as long as humeral width; with a very small dense puncturation; apical external angle subobtuse, well-expressed, sutural angle with a small denticle, thereby both angles masked under a dense setation.

Prosternum with a sharp transverse groove in front of middle, with coarse or rough, irregular folds predominantly between this groove and anterior border of coxal cavities; prosternal process with a strong apical tubercle; mesosternal process without tubercle dorsally, between coxae distinctly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, not sharp median groove; last (visible) sternite at apex in male with a well-expressed obtuseangled emargination, in female widely rounded; last (visible) tergite at apex truncate both in male and female.

Legs moderately long; protibia very clearly broadened from base towards apex; metatibia at anterior margin, in comparison with other species of genus, generally the least concave, but still not too straight, as in Figs 169, 170; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation similar to that of other species of the genus, on head dorsally, pronotum, partly elytra, antennae and legs yellow and reddish yellow tones, partly with golden tint, on venter mainly greyish; more or less dense setae covering most of head dorasally, partly basal antennomeres, tibiae, metafemora, tarsi, on pronotum forming a pattern, as in Fig. 180; light setae on elytra combined with red-brown setae and generally forming an iridescent pattern characteristic of the genus, as in Color plate 2: 126, thereby in area of humeri distinguished by paler tint: head, pronotum on disc and laterally, partly meso- and metasterna, abdomen mainly at apex, legs mostly on trochanters and coxae with more or less long, erect, partly suberect, sparse or individual, thin setae; erect setation of antennae heterogeneous, almost same as in other representatives of the genus: male antennomeres 1-7, except for basal part of antennomeres 4 and 5, on inner and, partly, venral sides, in female, at least antennomeres 1-6 also on inner and, partly, venral sides with numerous, short, erect, somewhat oblique, thin setae in the form of sparse gentle brush (in female, these setae badly damaged, at least they look much less clearly than in male), thereby both in male and female, antennomeres 2-10 at apex with individual, long, thin setae directed towards apex of antennae and individual, long, erect setae in apical part ventrally; peculiar area in basal part of male antennomeres 4 and 5 with sparse erect setae, as Figs 136, 143.

Etymology. I am pleased to dedicate this new species to my wife, Tatiana P. Miroshnikova, who, over many years, selflessly supports my entomological research and provides an invaluable editing assistance in preparing very numerous photographs and various other scientific materials.

Distribution. Vietnam.

Elydnus vitalii Miroshnikov, **sp. n.** (Color plate 2: 125, 128; Figs 137, 144, 146, 167, 168, 181, 182)

Material. Holotype, \Diamond (cFV) (Color plate 2: 125): Vietnam, Quang Ngai Prov., Bato Mt., 04.2014 (local collector). Paratype: $1 \bigcirc$ (ZIN), Vietnam, Ha Tinh Prov., Rao An, 04–05.2000 (leg. N.L. Orlov).

Diagnosis. This new species is most similar to *E. tatianae* **sp. n.**, but differs clearly by the peculiar sculpture of the pronotum, in particular, the structure of two symmetrical longitudinal elevations in the middle part of the disc, each of which is devoid of a very sharp protrusion on the external side in front of the middle, as in Figs 181, 182, the partly less saturated, yellow and golden-yellow coloration of the dorsum, the structure of the antennae of the male, in particular, the peculiar sculpture of the area at the base of antennomeres 4 and 5, as in Figs 137, 144, the distinctly inflated antennomere 4, the last (visible) sternite of the male devoid of a clear emargination apically, the last (visible) sternite of the female truncate apically (not rounded), and some other minor traits (cf. Figs 136, 143, 180).

Description. Body length 29.1–30.4 mm, humeral width 7–7.6 mm, thereby holotype smallest. Coloration of integument mainly combines reddish brown and dark reddish brown tones; head predominantly behind antennal tubercles, eyes, partly mandibles, pronotum almost entirely, antennomere 1 partly on external side black.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, eyes and on vertex; eyes moderately convex; longitudinal diameter of lower lobe of eye 1.31-1.4 times as long as genae; submentum 2.78-3 times as wide as long, with a heterogeneous, shallow, sparse, irregular puncturation; neck with sharp transverse folds both ventrally and laterally; antennae of male much longer than body, reaching beyond apex of elytra by antennomere 8, in female reaching beyond apex of elytra by apical part of penultimate antennomere; length ratio of antennomeres 1–11, 30 : 7 : 29 : 22 : 32 : 49 : 56 : 54 : 52:49: (last antennomere missing) or 27:6:31:20:29:38:39: 37:36:34:47 in male and female, respectively; antennomere 1 with a heterogeneous, partly rough, rugose, dense puncturation, more strongly expressed in male, on inner side in about apical one-third somewhat narrowed towards apex, but less clearly than at least in male of *E. tatianae* **sp. n.**: antennomere 2 distinctly transverse; antennomeres 3 and 4 of male moderately inflated in apical part, thereby base of antennomere 4 barely wider than that of 3rd; antennomeres 4 and 5 each with a peculiar area at base, this being characteristic of the genus and showing a relatively coarse sculpture and well-visible numerous pores, as in Figs 137, 144.

Pronotum of male subequal in length and width, in female slightly longitudinal, at base barely or slightly wider than at apex; with a very sharp constriction near apex; on disc with longitudinal, very coarse, sinuous folds and two longitudinal, wide, coarsest and highest near middle, symmetrical elevations in middle part (Figs 181, 182), each of which on external side can be angularly broadened from both base and apex towards about middle, as in Fig. 182, thereby elevations with a small dense puncturation and individual or numerous coarse punctures.

Scutellum strongly narrowed towards apex, triangular.

Elytra about parallel-sided, 2.68–2.74 times as long as humeral width; with a very small dense puncturation; apical external angle about obtuse, well-expressed, sutural angle with a small denticle, thereby both angles masked under a dense setation.

Prosternum with a clear, but not too sharp transverse groove in front of middle, with heterogeneous, coarse or rough, transverse and transversely oblique, partly irregular folds; prosternal process with a very strong apical tubercle; mesosternal process without tubercle dorsally, between coxae clearly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, not sharp median groove; last (visible) sternite at apex truncate both in male and female; last (visible) tergite at apex in male with a small, but distinct emargination, in female truncate.

Legs moderately long; protibia very clearly broadened from base towards apex; metatibia at anterior margin clearly concave, this characteristic of the genus, as in Figs 167, 168; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent setation similar to that of other species of the genus,on head dorsally, pronotum, partly elytra, antennae and legs mainly yellow and yellowish tones, partly with golden and silvery tints, on venter greyish; more or less dense setae covering most of head dorasally, partly basal antennomeres, tibiae, metafemora, tarsi, on pronotum forming a pattern, as in Figs 181, 182; light setae on elytra combined with brown setae and generally forming an iridescent pattern characteristic of the genus, as in Color plate 2: 125, 128; head, pronotum on disc and laterally, partly metasternum, abdomen predominantly at apex, legs mostly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae; erect setation of antennae heterogeneous, almost same as in other representatives of the genus: male antennomeres 1-6, except for basal part of antennomeres 4 and 5, on both inner and ventral sides and, besides this, all subsequent antennomeres predominantly on inner side, while female antennomeres 1-3 on inner side and almost over entire ventral one and, besides this, antennomeres 4-7 predominantly on inner side with numerous, short, erect, somewhat oblique, thin setae in the form of sparse gentle brush, thereby both in male and female, antennomeres 1-10 at apex with individual, long, thin setae directed towards apex of antennae and individual, long, erect setae in apical part ventrally.

Etymology. I am pleased to dedicate this new species to my colleague, Dr. Francesco Vitali (Musée national d'histoire naturelle de Luxembourg), who kindly provided a very valuable material for study and shared his important scientific information.

Distribution. Vietnam.

Key to species of Elydnus

- Pronotum on disc with coarse, partly transverse folds, as in Figs 171–179; antennae of female longer (at least so in *E. amictus*), as in Color plate 1: 122; body length 18.4–29.1 mm

- General looks clearly red tones, as in Color plate 1: 124; peculiar area at base of male antennomeres 4 and 5

with a smooth surface and without pores (see also Remarks to this species above) *E. rufulus*

- 3. Submentum 2.68–2.89 times as width as long, as a rule; area at base of antennomeres 4 and 5 of male with a very coarse sculpture, as in Figs 131–133, 138, 139; antennomere 5, 1.28–1.37 or 1.19–1.36 times as long as antennomere 4 in male and female, respectively; light fragments of recumbent setation of elytra in the vast majority of cases with silvery tones (Color plate 1: 119–122); male genitalia as in Figs 148, 149, 152, 153, 155, 156 *E. amictus*
- Submentum 2.34–2.42 times as width as long; area at base of antennomeres 4 and 5 of male with a more strongly obliterated sculpture, as in Figs 134, 135, 140–142; antennomere 5 of male only 1.10–1.13 times as long as antennomere 4 (female unknown); light fragments of recumbent setation of elytra with golden tones (Fig. 123); male genitalia as in Figs 150, 151, 154, 157, 158 E. barclayi sp. n.
- 4. Each of two symmetrical longitudinal elevations in middle part of pronotal disc on external side in front of middle with a very strong protrusion connected to ventral margin of nearest longitudinal fold in apical part of sculpture, as in Fig. 180; setation of dorsum partly with a more saturated, predominantly golden-red coloration, as in Color plate 2: 126 *E. tatianae* **sp. n.**
- Each of two symmetrical longitudinal elevations in middle part of pronotal disc on external side without strong protrusion, can only be protruding obtusely angulate near middle, as in Figs 181, 182; setation of dorsum partly with a less saturated, predominantly yellow and golden yellow coloration, as in Color plate 2: 125, 128... *E. vitalii* sp. n.

Genus Spinidymasius Miroshnikov, gen. n.

Type species: *Imbrius strigosus* Pascoe, 1866 = *Dymasius (Elydnus) pascoei* Gahan, 1891.

Diagnosis. The new genus is very similar to *Dymasius* J. Thomson, 1864, but differs by the structure of the apex of antennomeres 6–10, namely, the inner angle with a more or less developed, sharp spine, as well as by the last antennomere being either sharpened or strongly sharpened, or drawn into a sharp spine apically, thereby both features usually/more often being expressed to the strongest degree in the female, as in Figs 212–216.

Besides this, *Spinidymasius* gen. n. is characterized by the following features, the combination of which makes it even more distinct compared to the other genera of the tribe, including *Dymasius*: head with moderately developed eyes; antennae of male very long or shorter, extending beyond apex of elytra at least by antennomere 9, in female one way or another, but always longer than body, antennomere 1 with a variable sculpture, with or without cicatrix, sometimes with a very strong external lateral process (protrusion), antennomeres 6–10 clearly or strongly broadened at apex on external side and there can be with a strongly sharpened or spiny angle, antennomere 4 subequal to or slightly shorter than 5th, antennomere 2 clearly or strongly transverse, antennomere 3 one way or another longer than or subequal to, but not shorter than 5th,



Figs 189–194. Spinidymasius gen. n., habitus, dorsal view.
189 – S. sericatus (Pascoe, 1869), comb. n.; 190 – S. prope sericatus (Pascoe, 1869), comb. n. (from Sarawak); 191 – S. chrysophanes (Gressitt et Rondon, 1970), comb. n.; 192 – S. tawauanus (Vives et Heffern, 2016), comb. n. (after Vives, Heffern [2016]; photograph reproduced courtesy Daniel Heffern); 193 – S. huedepohli (Vives, 2005), comb. n. (after Vives [2005], photograph by Eduard Vives); 194 – S. prope huedepohli (Vives, 2005), comb. n. 189, 191–193 – holotypes; 192–193 – males; 189–191, 194 – from Sabah).

Рис. 189–194. Spinidymasius gen. n., общий вид сверху.

1 нс. 107–177. *Sprinzymasius* **gen**. **n.**, оощин вид сверху. 189 – *S. sericatus* (Pascoe, 1869), **comb. n.**; 190 – *S. prope sericatus* (Pascoe, 1869), **comb. n.** (из Саравака); 191 – *S. chrysophanes* (Gressitt et Rondon, 1970), **comb. n.**; 192 – *S. tawaunus* (Vives et Heffern, 2016), **comb. n.** (по [Vives, Heffern, 2016]; фотография предоставлена Д. Хефферном); 193 – *S. huedepohli* (Vives, 2005), **comb. n.** (по [Vives, 2005], фотография Э. Вивеса); 194 – *S.* prope *huedepohli* (Vives, 2005), **comb. n.** 189, 191–193 – голотипы; 192–193 – самцы; 189–191, 194 – самки (194 – из Сабаха).



Figs 195-200. Spinidymasius gen. n. and Dymasius J. Thomson, 1864, habitus, dorsal view.

195–196 – *S. grossescapus* (Hüdepohl, 1989), **comb. n.**; 197 – *D. minor* Gahan, 1906, lectotype; 198 – *D. macilentus* (Pascoe, 1859); 199 – *D. strigosus* J. Thomson, 1864 (photograph by Gérard Tavakilian); 200 – *D. vitreus* Pascoe, 1885. 198– 200 – holotypes; 195, 197–200 – males; 196 – female. Puc. 195–200. *Spinidymasius* **gen. n.** и *Dymasius* J. Thomson, 1864, общий вид сверху.

195–196 – *S. grossescapus* (Hüdepohl, 1989), **comb. n.**; 197 – *D. minor* Gahan, 1906, лектотип; 198 – *D. macilentus* (Pascoe, 1859); 199 – *D. strigosus* J. Thomson, 1864 (фотография Ж. Тавакиляна); 200 – *D. vitreus* Pascoe, 1885. 198– 200 – голотипы; 195, 197–200 – самцы; 196 – самка.

last antennomere can be extremely long, exceeding the length of previous antennomere up to 4 times; pronotum to some degree variable in shape, from clearly longitudinal to subequal in length and width or slightly transverse, broadly rounded on either side, on disc with coarse or very coarse, predominantly or only transverse folds, but sometimes can be with predominantly irregular folds; setation of pronotum of dense, recumbent, light setae can form predominantly or only longitudinal strips, but in any case lack a clear pattern of separate, differently shaped, symmetrical spots; elytra moderately elongated, with a heterogeneous, mostly more or less small, irregular, in places dense (but not confluent) puncturation, each elytron at apex either obliquely or straightly truncate, or slightly emarginate, sutural angle with a more or less strongly developed denticle, but without a very long tooth, external angle very well-expressed, never rounded or very strongly obtuse, sometimes drawn into a very long sharp tooth; setation of elytra of dense, recumbent, light setae forms more or less distinct longitudinal strips or a continuous (subcontinuous), but always patterned, contrasting, iridescent surface, never a uniformly continuous setation; prosternum with a clearly-expressed, deep, relatively wide, transverse groove in front of middle, as a rule; prosternal process with a sharp, very sharp or at least well-expressed tubercle; mesosternum with a clear or sharp/very sharp tubercle or without such; legs robust, moderately long, femora more or less claviform; metatibia comparatively straight (at least never clearly nor visibly concave on external side); femora and tibiae without longitudinal carina; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined; body from medium- to large-sized, in length 19.4-33 mm.

It seems very remarkable that another new genus, *Falsopachydissus* **gen. n.**, also described here, is characterized by the structure of antennomeres 6–10 similar to that in *Spinidymasius* **gen. n.**, but these genera differ very clearly from each other by the features shown below in the diagnosis of the former.

Remarks. Allotting a generic status to *Spinidymasius* **gen. n.** at this stage of research, despite its generally very close resemblance to *Dymasius*, is not only because the former after all seems to represent a morphologically quite clearly delineated group of species, but also based on some other considerations.

As already mentioned several times by individual researchers, including a few very recently [Holzschuh, 2015; Miroshnikov, 2016, 2017], the genus Dymasius, whose numerous representatives show great morphological diversity, is highly heterogeneous and needs a detailed revision. The previously proposed intrageneric structure of Dymasius with three subgenera [Gressitt, Rondon, 1970] is now obsolete, since Microdymasius Pic, 1946 is considered as a separate genus [Holzschuh, 2015], while the taxonomic status of Elydnus and its species composition are substantiated in the present paper. Under these circumstances, the establishment of Spinidymasius gen. n. as a subgenus of Dymasius would hardly be justified, since the formal inclusion of all other species in the subgenus Dymasius s. str. would be taxonomically erroneous. The clarification of the status of Spinidymasius gen. n. seems to be possible, in my opinion, only within the framework of a detailed revision of *Dymasius* and the development of its reasonable intrageneric classification.

Etymology. The formation of the name of this new genus is related to its greatest similarity to the genus *Dymasius* and the most important diagnostic feature in the structure of the antennae.

Composition. The genus includes nine species. **Distribution.** Oriental realm.

Spinidymasius pascoei (Gahan, 1891), **comb. n.** (Color plate 2: 127, 129, 130; Figs 211, 215, 447)

Imbrius strigosus Pascoe, 1866b: 529. Type locality: [Malaysia] Penang (according to the original description and the label of the holotype).

Dymasius strigosus: Gemminger, 1872: 2803 (Penang).

Dymasius (Elydnus) pascoei Gahan, 1891: 23 (name replacement for *Imbrius strigosus* Pascoe, 1866, non *Dymasius strigosus* J. Thomson, 1864); Aurivillius, 1912: 60 (Penang).

Dymasius (Dymasius) pascoei: Heffern, 2013: 9 (Borneo; Western Malaysia).

Elydnus pascoei: Hüdepohl, 1998: 214.

Material. \bigcirc , holotype, by monotypy (see Remarks) (BMNH) (Color plate 2: 129),"Penang", "Pascoe Coll. 93–60", "Imbrius strigosus Pasc. Type", "Type", "Imbrius strigosus P." (Fig. 447); 1 \bigcirc (BMNH) (Color plate 2: 130), "Penang (Lamb.) Pascoe Coll.", "Pascoe Coll. 93–60", "Lamb.", "Imbrius strigosus Pasc."; 1 \bigcirc (BMNH), "Penang (Lamb.) Pascoe Coll.", "Spinidymasius strigosus Pasc."; 1 \bigcirc (BMNH), "Penang (Lamb.) Pascoe Coll.", "Spinidymasius strigosus Pasc.", 1 \bigcirc (BMNH), "Pascoe Coll.93–60", "Lamb.", "Imbrius strigosus Pasc.", 1 \bigcirc (BMNH), "Pascoe Coll.93–60", "Dymasius strigosus Pasc... [illegible further on]"; 1 \bigcirc (BMNH), "Sarawak", "Imbrius! strigosus Pasc."; 1 \bigcirc (BMNH), "Mascoe Coll.93–60", "Creagh. 96–197", "Spinidymasius pascoei (Gahan, 1891) 4 det. A. Miroshnikov 2017"; 1 \bigcirc (BMNH) (Fig. 127), "Sarawak, 1910–43", "Simanggang, May 28, 1909", "23", "Spinidymasius pascoei (Gahan, 1891) \bigcirc det. A. Miroshnikov 2017"; 1 \bigcirc (NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2003 (local collector), "Dymasius pascoei Gaha, C. Holzschuh det. 2006"; 1 \bigcirc (cPJ) (photograph), same locality, 14.03.2000, 1500–2000 m (leg. L. Bezark); 1 \bigcirc (cPJ) (photograph), Indonesia, W Kalimantan, Bawang Mt., 245 m, 00"53"N / 109"22'E, 03.2017 (local collector).

Morphological notes. Body length 20.7–28.8 mm, humeral width 4.8–6.6 mm, thereby holotype smallest.

Remarks. Based on the original description, as well as the material kept in the BMNH, it seems that only the holotype by monotypy is to be distinguished.

Distribution. Western and Eastern Malaysia.

Spinidymasius crinicornis (Hüdepohl, 1989), comb. n. (Figs 183, 184, 188)

Elydnus crinicornis Hüdepohl, 1989b: 476. Type locality: [Malaysia] Sabah, Trus Madi Mt. (according to the original description). Hüdepohl, 1998: 214; Heffern, 2013: 10.

Material. \mathcal{J} , holotype (ZSM) (photograph); 1^{\bigcirc} (NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2004 (local collector), *"Elydnus crinicornis* Hüdepohl, Ole Mehl det. 2005"; $1\mathcal{J}$ (cAM), same locality, 20.03.2012, 1160 m (leg. A. Klimenko); $1\mathcal{J}$ (NHMD), E Malaysia, Sabah, Crocker Range, 04.2004 (local collector), *"Elydnus crinicornis* Hüdepohl, Ole Mehl det. 2005"; $1\mathcal{J}$ (cAM ex NHMD) (Fig. 183), same labes, but taken on 04.2001; 1^{\bigcirc} (cLD) (Fig. 184), W Malaysia, Pahang, Banjaran Benom Mts., 10–15 km SSE K. Ulu Dong, 17–23.04.1997 (leg. D. Hauck); 1^{\bigcirc} (BMNH) (Fig. 188), "Brunei: Temburong District, ridge NE of Kuala Belalong, approx. 300 m alt. XI.1992, 125W m. v. light, J.H. Martin coll., BM 1992–172", "1750", "*Dymasius* n. sp.?, E. Vives det. 2006", *"Elydnus" crinicornis* Hüdepohl, 1989 φ det. A. Miroshnikov 2016".

Morphological notes. Body length 19.7–25.5 mm, humeral width 4.25–5.9 mm.

Distribution. Until now, this species has only been known from Eastern Malaysia [Hüdepohl, 1989b, 1998].
Based on the material studied, *S. crinicornis* **comb. n.** is being recorded here from Brunei and Western Malaysia, as from Indochina in general, for the first time.

Spinidymasius dembickyi (Holzschuh, 2003), comb. n. (Figs 186, 187)

Elydnus dembickyi Holzschuh, 2003: 172. Type locality: Malaysia, Johor, Endau–Rompin NP, Pulau Jasin, 2.31°N / 103.21°E, 50–400 m (according to the original description and the label of the holotype). Heffern, 2013: 10.

Material. \Diamond , holotype (cCH) (photograph); $1 \Diamond$, $1 \wp$, paratypes (cLD) (Figs 186, 187), "Malaysia, Johor, Endau–Rompin NP, Pulau Jasin, $2.31^{\circ}N / 103.21^{\circ}E$, 50-400 m, 19.03.1998 (leg. Dembický & Pacholátko)", "Paratypus *Elydnus dembickyi* n. sp. det. C. Holzschuh 2003"; $1 \Diamond$ (NHMD), $1 \wp$ (cLD), same labels as paratypes.

Morphological notes. Body length 23–33 mm.

Distribution. This species was described from Western Malaysia [Holzschuh, 2003]. It has recently been recorded from Borneo [Heffern, 2013].

Spinidymasius grossescapus (Hüdepohl, 1989), comb. n. (Figs 195,196, 216)

Elydnus grossescapus Hüdepohl, 1989a: 52. Type locality: [Malaysia] Sabah, Kimanis Road, 8th mile (according to the original description). Hüdepohl, 1998: 214; Heffern, 2013: 10.

Material. \Im , holotype (ZSM) (photograph); $1\Im$ (NHMD), E Malaysia, Sabah, Trus Madi Mt., 27.03.2000 (local collector), *"Elydnus grossescapus* Hüdepohl, Mehl det. 2002"; $1\wp$ (NHMD), same locality, 03.2003 (local collector), *"Elydnus grossescapus* Hüdepohl, Ole Mehl det. 2005"; $1\wp$ (cSM), same locality, 1200 m, 10–20.01.2006 (leg. V. Murzin); $1\Im$ (cAM) (Fig. 195), Sabah, Trus Madi Mt., 1000–1200 m, 5°26'N / 116°27'E, 17–29.04.2007 (leg. V. Tuzov); $1\Im$, $1\wp$ (Fig. 196) (cAM), Sabah, Trus Madi Mt., 1250 m, 5°26'S''N / 116°27'5''E, 5–12.11.2015 (leg. A. Klimenko).

Morphological notes. Body length 25.7–32 mm, humeral width 5.7–7 mm, thereby holotype 28.5 and 6.3 mm, respectively.

Distribution. Until now, this species is known only from Eastern Malaysia [Hüdepohl, 1989a, 1998].

Spinidymasius ochraceovittatus (Hüdepohl, 1989), comb. n.

(Figs 185, 446)

Elydnus ochraceovittatus Hüdepohl, 1989a: 56. Type locality: [Malaysia] Sabah, Kimanis [= Kumanis] Road, 10th mile (according to the original description and the label of the holotype). Hüdepohl, 1998: 214; Heffern, 2013: 10.

Material. ♂, holotype (ZSM) (Fig. 185), "Borneo, Sabah, Kumanis (*sic*) Road, 10th ml., IV.[19]86", "Holotypus ♂ *Elynus* (*sic*) *ochraceovittatus* mihi, Hüdepohl 1988" (Fig. 446): 1♂, paratype (ZSM), "Borneo, Sabah, Kumanis (*sic*) Road, 10th ml., V.[19]86", "Paratypus ♂ *Elydnus ochraceovittatus* mihi, Hüdepohl 1988"; 1♂, paratype (ZSM), "Borneo, Sabah, Kumanis (*sic*) Road, 9th ml., VI.[19]86", "Paratypus ♂ *Elydnus ochraceovittatus* mihi, Hüdepohl 1988".

Morphological notes. Body length 22.9–24.9 mm, humeral width 5.5–5.8 mm, thereby holotype largest.

Distribution. Until now, this species is known only from Eastern Malaysia [Hüdepohl, 1989a, 1998].

Spinidymasius huedepohli (Vives, 2005), comb. n. (Fig. 193)

Elydnus huedepohli Vives, 2005: 246. Type locality: Indonesia, Kalimantan (according to the original description). Heffern, 2013: 10.

Material. 🖒, holotype (photograph; Fig. 193).

Comparative material. 1° (cAM) (Fig. 194), E Malaysia, Sabah, Keningau Distr., Trus Madi Mt., 1250 m, 05°26'35N" / 116°27'5"E, 22–26.05.2014 (leg. A. Klimenko), "Spinidymasius ?huedepohli (Vives, 2005) $^{\circ}$ det. A. Miroshnikov 2017"; 1° (NHMD), E Malaysia, Sabah, Crocker Range, 03.2003 (local collector), "Elydnus ochraceovittatus Hüdepohl, Ole Mehl det. 2005", "Spinidymasius ?huedepohli (Vives, 2005) $^{\circ}$ det. A. Miroshnikov 2017".

Morphological notes. Holotype male. Body length 30 mm, humeral width 7 mm. Females of *S.* ? *huedepohli* (Fig. 194). Body length 23.5–24.8 mm, humeral width 5.55–5.8 mm.

Distribution. Until now, this species is known only from Indonesia in Borneo [Vives, 2005].

Spinidymasius sericatus (Pascoe, 1869), **comb. n.** (Figs 189, 201, 204, 206, 208, 212, 449)

Elydnus sericatus Pascoe, 1869: 517. Type locality: [Indonesia] Banda [Islands] (according to the original description and the label of the holotype). Gemminger, 1872: 2803; Hüdepohl, 1998: 214.

Dymasius (Elydnus) sericatus: Aurivillius, 1912: 60.

Material. \bigcirc , holotype (BMNH) (Fig. 189), "Banda", "*Elydnus sericatus* Pasc. Type \bigcirc ," "Type", "*Elydnus sericatus* P." (Fig. 449).

Comparative material. 1 \bigcirc (see Remarks below) (BMNH) (Fig. 190), "Sarawak" (upperside), "75.[illegible further on]" (underside), "*Elydnus* sericatus Pasc., comp[ared]. with type" (Fig. 450), "Spinidymasius prope sericatus (Pascoe, 1869) (?sp. n.) \bigcirc det. A. Miroshnikov 2017".

Remarks. I have studied the holotype of this species which is a female (Fig. 189), plus another female (Figs 190, 202, 205, 207, 209, 213, 450) with the labels "Sarawak", "Elydnus sericatus Pasc., comp. with type". Both are very similar and kept in BMNH. The holotype of S. sericatus comb. n. differs from the Sarawak female by the structure of the apical part of the prosternal process, including the shape and location of the apical tubercle, as in Figs 206, 207, the clearly more strongly developed, recumbent, light setation on the head dorsally and on the pronotum (see Note below), the somewhat coarser, at least partly so, sculpture of the pronotal disc (Figs 201, 202), the denser recumbent light setation of the prosternum (Figs 204, 205), and the slightly wider scutellum. It must thereby be noted that the setation on the head dorsally and on the pronotum, the sculpture of the disc of the pronotum, as well as the structure of the apical part of the prosternal process of the holotype of S. sericatus comb. n. are all very similar to those of the holotype male of S. tawauanus (Vives et Heffern, 2016), comb. n. (information on the structure of the prosternum of the latter species was kindly provided by Mr. Daniel J. Heffern, Houston, USA, in whose collection it is kept; his personal communication of July 11, 2017).

Taking into account the above, if one assumes that the female from "Sarawak" represents a yet undescribed species, then *S. tawauanus* **comb. n.** is most likely to be a senior synonym of *S. sericatus* **comb. n.** However, this issue can only be solved when additional material becomes available for study. In this connection, one must also be aware that the type locality of *S. sericatus* **comb. n.** (holotype) as indicated both on its label and in the original description might appear to be erroneous.

The body length is 27.5 or 27.2 mm and the humeral width is 6.8 or 6.5 mm in the holotype and the female from "Sarawak", respectively.



Figs 201–216. Spinidymasius gen. n., females, details of structure.

201, 204, 206, 212 – *S. sericatus* (Pascoe, 1869), **comb. n.**, holotype; 202, 205, 207, 209, 213 – *S.* prope *sericatus* (Pascoe, 1869), **comb. n.** (from Sarawak); 203, 210, 214 – *S. chrysophanes* (Gressitt et Rondon, 1970), **comb. n.**, holotype; 211, 215 – *S. pascoei* (Gahan, 1891), **comb. n.**; 216 – *S. grossescapus* (Hüdepohl, 1989), **comb. n.** 201–203 – head, dorsal view, and pronotum; 204–205 – head, ventral view, and prosternum; 206–207 – prothorax, lateral view; 208–211 – metatibia; 212–216 – last right antennomere.

Рис. 201–216. Spinidymasius gen. n., самки, детали строения.

201, 204, 206, 208, 212 – *S. sericatus* (Pascoe, 1869), **сотb. п.**, голотип; 202, 205, 207, 209, 213 – *S. prope sericatus* (Pascoe, 1869), **сотb. п.** (из Саравака); 203, 210, 214 – *S. chrysophanes* (Gressitt et Rondon, 1970), **сотb. п.**, голотип; 211, 215 – *S. pascoei* (Gahan, 1891), **сотb. п.**; 216 – *S. grossescapus* (Hüdepohl, 1989), **сотb. п.** 201–203 – голова сверху и переднеспинка; 204–205 – голова снизу и простернум; 206–207 – переднегрудь сбоку; 208– 211 – задняя голень; 212–216 – последний правый членик усиков.



Figs 217-232. Dymasius J. Thomson, 1864 and Zegriades Pascoe, 1869.

217, 219, 221, 225-227 - D. makarovi sp. n.; 218, 220, 222, 228-230 - D. cuneatulus Holzschuh, 2005; 223 - D. macilentus (Pascoe, 1859); 224 -D. strigosus J. Thomson, 1864 (photograph by Alexandr Kirejtshuk); 231 – Z. olemehli sp. n; 232 – Z. magister (Pascoe, 1857). 217, 223–224, 231 – holotypes;
 221, 225–227 – paratype; 217–218, 221–224, 231–232 – males; 219–220 – females; 217–220 – pronotum; 221–222 – puncturation fragment of basal part of elytra;
 223–224 – head, dorsal view, basal antennomeres and pronotum; 225, 228 – apical part of penis, ventral view; 226, 229 – apical part of tegmen, ventral view;
 227, 230 – apical part of male tergite 8, dorsal view; 231–232 – head, ventral view, and prosternum.
 Puc. 217–232. Dymasius J. Thomson, 1864 и Zegriades Pascoe, 1869.

217, 219, 221, 225–227 – D. makarovi **sp.** n; 218, 220, 222, 228–230 – D. cuneatulus Holzschuh, 2005; 223 – D. macilentus (Pascoe, 1859); 224 – D. strigosus J. Thomson, 1864 (фотография А.Г. Кирейчука); 231 – Z. olemehli **sp. n**; 232 – Z. magister (Pascoe, 1857). 217, 223–224, 231 – голотипы; 221, 225–227 – паратип; 217–218, 221–224, 231–232 – самцы; 219–220 – самки; 217–220 – переднестичка; 221–222 – фрагмент пунктировки основной части надкрылий; 223–224 – голова сверху, основные членики усиков и переднеспинка; 225, 228 – вершинная часть пениса снизу; 226, 229 – вершинная часть тегмена снизу; 227, 230 – вершинная часть 8-го тергита самца сверху; 231–232 – голова снизу и простернум.



Figs 233-249. Dymasius J. Thomson, 1864 and Zegriades Pascoe, 1869, apical part of penis and tegmen, ventral view, and apical part of male tergite 8, dorsal view.

233–235 – *D. macilentus* (Pascoe, 1859); 236–237 – *D. mandibularis* (Gahan, 1891); 238–240 – *D. fedorenkoi* Miroshnikov, 2016; 241–243 – *D. indigus* Holzschuh, 2008; 244, 246, 248 – *Z. olemehli* **sp. n.**; 245, 247, 249 – *Z. magister* (Pascoe, 1857). 233–235, 238–240, 244, 246, 248 – holotypes. Рис. 233–249. *Dymasius* J. Thomson, 1864 и *Zegriades* Pascoe, 1869, вершинная часть пениса и тегмена снизу и вершинная часть 8-го тергита

самца сверху. 233–235 – *D. macilentus* (Pascoe, 1859); 236–237 – *D. mandibularis* (Gahan, 1891); 238–240 – *D. fedorenkoi* Miroshnikov, 2016; 241–243 – *D. indigus* Holzschuh, 2008; 244, 246, 248 – *Z. olemehli* **sp. n.**; 245, 247, 249 – *Z. magister* (Pascoe, 1857). 233–235, 238–240, 244, 246, 248 – голотипы.

Note. In the female from "Sarawak", the setation of the pronotum seems to be abraded in places, but it is very well preserved at least at the base and apex of its disc, as well as on the head, including behind the eyes, and it looks clearly sparser in comparison with the holotypes of *S. sericatus* **comb. n.** and *S. tawauanus* **comb. n.**

Distribution. Banda Islands (Indonesia, Maluku) (according to the original description and the label of the holotype); ? Eastern Malaysia (see Remarks above).

Spinidymasius tawauanus (Vives et Heffern, 2016), comb. n. (Fig. 192)

Elydnus tawauanus Vives et Heffern, 2016: 53. Type locality: Eastern Malaysia, Sabah, Tawau (according to the original description).

Material. J, holotype (cDH) (photograph; Fig. 192).

Morphological notes. Holotype male. Body length 25 mm, humeral width 5 mm.

Remarks. This species has been described from the holotype male alone [Vives, Heffern, 2016]. I have restudied it, based on the original publication, quality pictures of the holotype and on some clarifications received from one of the authors, Mr. Daniel J. Heffern (see above).

Distribution. Eastern Malaysia.

Spinidymasius chrysophanes (Gressitt et Rondon, 1970), **comb. n.** (Figs 191, 203, 210, 214, 448)

Aeolesthes (Pseudaeolesthes) chrysophanes Gressitt et Rondon, 1970: 64. Type locality: see below.

Elydnus chrysophanes: Vitali et al., 2017: 57.

Material. Q, holotype (BM) (Fig. 191), "[SW Cambodia] Phare Iles des Saracene, 5.12.[19]62, lumière", "J.A. Rondon Collection Bishop Mus.", "Holotype *Pseudaeolesthes chrysophanes* J.L. Gressitt et Rondon", "*Aeolesthes (Pseudaeolesthes) chrysophanes* Gressitt & Rondon det. 196[?]" (Fig. 448).

Morphological notes. Holotype female. Body length 26.2 mm, humeral width 6.9 mm.

Remarks. Most recently, Vitali et al. [2017: 58] transferred this species to the genus *Elydnus*, thereby they noting the following: "This species is characterised by mutic antennae and interantennal furrow. The pronotum shows a single median furrow, while the elytral pubescence is longitudinally striped and obscured along the suture. All these characters belong to *Elydnus* Pascoe, 1869; actually, this species is extremely similar to the type-species *E. amictus* Pascoe 1869."

In my opinion, however, the holotype female of *Spinidymasius chrysophanes* **comb. n.** I have revised is very similar to the holotype of *S. sericatus* **comb. n.** and differs mainly by the structure of the pronotum, in particular, its slightly transverse shape and predominantly irregular folds on the disc, as in Fig. 203 (in the holotype of *S. sericatus* **comb. n.**, the pronotum is subequal in length and width, and the disc is mostly with transverse folds, as in Fig. 201), whereas it is likewise distinguished very clearly from *Elydnus amictus* by the features of antennal structure characteristic of *Spinidymasius* **gen. n.**, namely, the presence of a spine at the apical inner angle of antennomeres 6–10, the last antennomere sharpened apically (Fig. 214), as well as by the generally noticeably different antennae, including

the shape and pattern of setation of antennomeres, the metatibiae straight (not concave) at the anterior margin (Fig. 210), both the shape and setation of the elytra and protibia, and some other traits.

Notes on the type locality. Vitali et al. [2017] have corrected the type locality of *S. chrysophanes* **comb. n.** which was confused in its original description [Gressitt, Rondon, 1970], proposing the following: Cambodia, Koh Rong Sanloem Island, Saracen Bay. This quotation is indeed unquestioned.

At the same time, through the kind assistance of Dr. Gérard L. Tavakilian (MNHN), I seem to have been able to completely decipher the geographical label of the holotype (see both Material and Fig. 448), from which it follows that the beetle had been collected at light near the lighthouse on the island (islands) within the Saracen Bay. Eventually, this bay has only a single island, namely, Koh Rong Sanloem Island (exactly as given by Vitali et al. [2017]). As far as is known, however, there is a single lighthouse on the island, located in its extreme south. Now this lighthouse is an abandoned building. So it is obvious that this place is to be considered as the strict type locality of *S. chrysophanes* **comb. n.**

Considering the above, the type locality of this species is refined as follows: Southwestern Cambodia, Koh Rong Sanloem Island (Saracen Bay), near the lighthouse $(10^{\circ}32'42N'' / 103^{\circ}19'04''E)$.

Distribution. Cambodia.

Key to species of Spinidymasius gen. n.

- Apical external angle of elytra drawn into a very long sharpened tooth, as in Figs 193, 194 S. huedepohli
- Pronotum at most barely longer than width in male, subequal in length and width or even slightly transverse in female, as in Figs 192, 201–203; mesosternal process without tubercle; male antennae shorter, extending beyond apex of elytra only by antennomere 9 (Fig. 192)

- Pronotum with predominantly irregular folds, as in Fig. 203, in female slightly transverse, as in Fig. 203
 S. chrysophanes
- 4. Antennomere 1 with a well-expressed cicatrix 5
- Antennomere 1 without cicatrix7
- 5. Antennomere 3 less strongly elongated so that antennomeres 4 and 5 combined 1.31–1.5 or 1.16–1.47 times as long as this antennomere in male and female, respectively, thereby showing the smallest difference in length of these antennomeres



Figs 250-256. Dymasius J. Thomson, 1864, habitus, dorsal view, and head, ventral view.

250, 252, 254 – *D. makarovi* **sp. n**; 251, 253, 255 – *D. cuneatulus* Holzschuh, 2005; 256 – *D. murzini* **sp. n**. 250, 254, 256 – holotypes; 252 – paratype; 250–251, 254–255 – males; 252–253, 256 – females.

250, 251, 255 - 2556, Dymasius J. Thomson, 1864, общий вид сверху и голова снизу.
 250, 252, 254 – *D. makarovi* sp. n.; 251, 253, 255 – *D. cuneatulus* Holzschuh, 2005; 256 – *D. murzini* sp. n. 250, 254, 256 – голотипы; 252 – паратип;
 250–251, 254–255 – самцы; 252–253, 256 – самки.



Figs 257–262. Zegriades Pascoe, 1869, habitus, dorsal view, and head, dorsal view, and pronotum. 257, 261 – Z. olemehli **sp. n.**, holotype; 258–260, 262 – Z. magister (Pascoe, 1857) (260 – from "Siam"). 257–258, 261–262 – males; 259–260 – females. Рис. 257–262. Zegriades Pascoe, 1869, общий вид сверху и голова сверху и переднеспинка. 257, 261 – Z. olemehli **sp. n.**, holotype; 258–260, 262 – Z. magister (Pascoe, 1857) (260 – из «Siam»). 257–258, 261–262 – самцы; 259–260 – самки.

(i.e. 1.16 times), setation of dorsum, at least of antennomeres 1–3 and venter mostly of orange and ocher tones; antennomere 1 of male without process ..

- Setation of dorsum, at least of antennomeres 1–3 and most of venter of orange and ocher tones; longitudinal strips of elytra of dense recumbent setae sharply expressed, as in Fig. 185 S. ochraceovittatus

- Elytral setation of dense, recumbent, light setae forming a continuous or almost continuous, but patterned iridescent surface, as in Figs 183, 184, 188; setation of pronotum, albeit very poorly developed on most of its disc, but generally appearing very peculiar, as in Figs 183, 184, 188; some basal antennomeres with a light, dense, shaggy setation (Figs 183, 184, 188); last antennomere of male extremely long, usually not less than 3.5 times as long as previous antennomere

...... S. crinicornis

Genus Dymasius J. Thomson, 1864

Dymasius J. Thomson, 1864: 234. Lacordaire, 1868: 261; Gemminger, 1872: 2803; Gahan, 1891: 22; 1906: 139; Aurivillius, 1912: 60; Gressitt, 1951: 144; Gressitt, Rondon, 1970: 78; Catalogue..., 2010: 160; Heffern, 2013: 9.

Type species: *Dymasius strigosus* J. Thomson, 1864, by monotypy (? = *Cerambyx macilentus* Pascoe, 1859; see Remarks to this species below).

Remarks. This genus is widely distributed and covers South, East and Southeast Asia. This is a clearly heterogeneous group of species rather diverse in composition, which requires a very detailed revision.

Taking into account the new forms described here and some remarks, *Dymasius* counts more than 50 species. Besides this, at least several species, yet undescribed, but known to me and, partly, in one way or another mentioned in this paper, show that a noticeable replenishment of the composition of the genus can also be expected in the future.

Descriptions of two new species are given below, the synonymy of the type species of the genus, *D. strigosus*, and *D. macilentus* (Pascoe, 1859) is discussed, as well as some comments concerning *D. minor* Gahan, 1906 are presented.

Dymasius makarovi Miroshnikov, **sp. n.** (Figs 217, 219, 221, 225–227, Color plate 3: 250, 252, 254)

Material. Holotype, \Diamond (cAM) (Color plate 3: 250): W Malaysia, Pahang, Cameron Highlands, Tanah Rata, 04.2015 (local collector). Paratypes: $1\Diamond$, $1\Diamond$ (Color plate 3: 252) (cAM), same label as holotype.

Diagnosis. This new species is very similar to D. cuneatulus Holzschuh, 2005, but differs by the pronotum being relatively narrower at the apex, as in Figs 217, 219 (cf. Figs 218, 220), the somewhat peculiar sculpture of its disc, as in Figs 217, 219 (cf. Figs 218, 220), against the background of a rough elytral puncturation similar to that of D. cuneatulus, with sharper and very small punctures on the elytra, as in Fig. 221 (cf. Fig. 222); in the narrower apical tubercle of the prosternal process; the general coloration of the recumbent setation, as in Color plate 3: 250, 252 (cf. Color plate 3: 251, 253); by some features of the male, in particular, the longer antennae, the less strongly elongated apical antennomeres, especially the last one, as in Color plate 3: 250 (cf. Color plate 3: 251), antennomeres 3-5 distinctly less strongly inflated in their apical parts, as in Color plate 3: 250 (cf. Color plate 3: 251), antennomere 1 narrower near the base, the less sharp antennal tubercles, the less strongly developed setation of the submentum, as in Color plate 3: 254 (cf. Color plate 3: 255), the somewhat peculiar structure of the apical part of the tegmen, including the parameres, and of the penis, as in Figs 225, 226 (cf. Figs 228, 229), the lighter tergite 8, as in Fig. 227 (cf. Fig. 230).

Remarks. Very recently, Vitali et al. [2017] quite correctly transferred *Aeolesthes fulgens* Schwarzer, 1926 (Philippines, Mindanao, Surigao) to the genus *Dymasius*. They thereby noted the following: "Actually, *Dymasius fulgens* (Schwarzer, 1926) n. comb. is closely related to the Bornean *D. cuneatulus* Holszchuh 2005, which might be a subspecies or even a synonym of the Philippine species." [Vitali et al., 2017: 53].

Through the courtesy of Dr. Andre Skale (Hof, Germany), I have received a good picture of the holotype male of this species, although such is also available in Vitali et al. [2017].

Based on this picture, *D. fulgens*, albeit very similar to *D. cuneatulus*, differs (there are 2 males, 6 females and a quality photograph of the holotype male of *D. cuneatulus* at my disposal) at least by the elytra being generally wider, especially so in the apical part, thereby somewhat less strongly narrowed towards the apex, by their apical external angle drawn into a sharp tooth directed about straight downwards, seemingly the coloration of the elytra, as well as by the clearly more strongly elongated antennomere 1.

In my opinion, *D. cuneatulus* is almost without any doubt a "good", separate species.

Dymasius makarovi **sp. n.** differs from *D. fulgens* by the same features as *D. cuneatulus* from the latter, as well as by the shorter antennae of the male, the less strongly elongated apical antennomeres in addition to antennomere 1, and the pronotum relatively narrower at the apex.

Description. Body length 27.5–32.8 mm, humeral width 6.9–8.3 mm, thereby holotype 29.2 and 6.9 mm, respectively. Head dorsally, pronotum, antennae, legs, partly venter black; elytra, partly venter, sometimes most of legs and venter reddish brown and dark reddish brown, thereby elytra of female black-brown with a reddish tint.

Head with moderately developed antennal tubercles; with a coarse, longitudinal, median fold partly between bases of antennae and partly between eyes, with a short median groove on vertex just behind eyes; with a very small dense puncturation in area of bases of antennae; eyes relatively strong convex; longitudinal diameter of lower lobe of eye 1.33-1.42 times as long as genae; submentum with individual transverse folds and clear, heterogeneous, rough or smaller, more or less dense puncturation; neck behind eyes predominantly smooth, in basal part with sharp, transverse, partly short folds; antennae of male much longer than body, reaching or almost reaching the apex of elytra by apex of antennomere 7, in female reaching beyond apex of elytra by penultimate antennomere; length ratio of antennomeres 1-11 in male (holotype taken as an example), 27:8:39:29:37:57:61: 60:59:54:92 (in male of *D. cuneatulus*, apart from more strongly elongated apical antennomeres, last antennomere not less than twice as long as previous antennomere, at least in all three males revised, including holotype), in female, 26:8:39:23:30:42: 45:41:36:30:31; antennomere 1 devoid of a cicatrix (apical carina), with a small dense puncturation, sparse, individual, rough punctures dorsally and a clear impression at the very base dorsally, can be with several rough wrinkles predominantly on inner side; antennomere 2 subequal in length and width; antennomeres 3-5 of male distinctly, but relatively weakly inflated apically.

Pronotum barely longitudinal, 1.05–1.06 times as long as width; base 1.26–1.3 times as wide as apex; with a sharp constriction near apex; on disc barely or slightly convex in male and female, respectively, with coarse, transverse, partly fused folds, as in Figs 217, 219.

Scutellum strongly narrowed towards apex, triangular.

Elytra strongly or moderately narrowed towards apex in male and female, respectively, 2.6–2.7 times as long as humeral width; with clear, rough, more or less uniform puncturation and very small, sharp, dense punctures; apical external angle very well-expressed, subrectangular, sutural angle drawn into a clear tooth.

Prosternum with a very well-developed transverse groove in apical part, with coarse, irregular, more or less short folds behind it; prosternal process clearly broadened towards apex dorsally, with a strong, wider in female, apical tubercle; mesosternal process with a strong tubercle dorsally, between coxae significantly wider than prosternal process; mesosternum partly, metasternum and sternites with a clear, small, dense puncturation; metasternum, besides this, with individual rough punctures and sharply expressed median groove; last (visible) sternite at apex in male truncate, in female widely rounded; last (visible) tergite at apex with a barely noticeable or clear emargination in male and female, respectively.

Legs long; femora not claviform, without longitudinal carina; tarsomere 1 distinctly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation of elytra and scutellum entirely, of pronotum completely or mostly, of head at least partly greyish with a clear silvery tint, thereby setation of elytra forming an iridescent pattern, as in Color plate 3: 250, 252 (in *D. cuneatulus*, recumbent setation without silvery tint; Color plate 3: 251, 253); in female, head almost entirely and pronotum partly with greyish yellow dense setae; antennae, legs and venter mainly with greyish and grey-yellowish setae differing in density; head, pronotum on disc and laterally, apex of elytra, prosternum, partly abdomen and legs, most of antennomeres in apical part with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia of male as in Figs 225-227.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Dr. Kirill V. Makarov (Moscow Pedagogical State University, Russia), a master of microphotography who rendered his invaluable help in taking the pictures presented in this work.

Distribution. Western Malaysia.

Dymasius murzini Miroshnikov, **sp. n.** (Color plate 3: 256)

Material. Holotype, \heartsuit (cSM) (Color plate 3: 256), Sri Lanka, Kitugala, 600 m, 6°59'N / 80°24'E, 30.01.1999 (leg. S. Murzin).

Diagnosis. This new species seems to have no clear resemblance to any species of the genus *Dymasius*. By the presence and arrangement of longitudinal strips of dense recumbent setae on the pronotum and elytra, combined with the structure of the antennae, the black monochrome coloration of the integument of the dorsum, and the monochrome legs it somewhat resembles *D. lepidus* Holzcshuh, 2005, but differs easily at least by the peculiar sculpture of the pronotum and elytra, the bright yellow coloration of the strips on the elytra, and the structure of the elytral apex, as in Color plate 3: 256.

Description. Female. Body length 15.4 mm, humeral width 3.1 mm. Coloration of integument mainly combines red-brown and dark reddish-brown tones, thereby most of elytra darkest; eyes and partly pronotum black.

Head with clear, but not too strong antennal tubercles; sculpture of dorsum hidden by a very dense setation; eyes very well-developed, relatively strongly convex, with pretty large ocelli; genae short; submentum with an obliterated sculpture; neck almost entirely with more or less sharp transverse folds ventrally; antennae reaching beyond apex of elytra by last antennomere, thereby clearly not reaching the base of elytra by antennomere 4; length ratio of antennomeres 1-11, 27: 6: 33: 21: 34: 35: 34: 30: 31: 28: 36; antennomere 1 without coarse sculpture, including cicatrix (apical carina); antennomere 2 subequal in length and width; antennomeres <math>7-10 distinctly serrate; last antennomere with a clear appendage, rounded apically.

Pronotum strongly longitudinal, 1.3 times as long as width; base 1.14 times as wide as apex; with a clear constriction near apex; slightly convex; on disc with rough irregular folds, as in Color plate 3: 256.

Scutellum strongly narrowed towards apex, triangular.

Elytra strongly elongated, predominantly about parallelsided starting from base, 3.1 times as long as humeral width; with a weak sparse puncturation; apical external angle drawn into a large tooth, sutural angle with a clear denticle, as in Color plate 3: 256.

Prosternum in apical half with a rough irregular sculpture; prosternal process without distinct apical tubercle; mesosternal process without tubercle dorsally, between coxae clearly wider than prosternal process; mesosternum partly, metasternum and sternites with a distinct relatively dense puncturation; metasternum with a clear, not sharp median groove; both last (visible) sternite and tergite widely rounded apically.

Legs moderately short; femora distinctly claviform, with a longitudinal carina on sides; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation ocher-yellow, on pronotum and elytra forming longitudinal stripes, as in Color plate 3: 256, on head dorsally very dense, on venter the densest on sides of pro-, meso- and metasterna and over most of sternites; head, pronotum laterally, abdomen at apex, legs on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Dr. Sergey V. Murzin (Moscow, Russia), who collected the holotype and, over the many years, supports my entomological research.

Distribution. Sri Lanka.



Figs 263–268. Zatrephus Pascoe, 1857, habitus, dorsal view. 263–264 – Z. pannosus Pascoe, 1857 (263 – holotype); 265 – Z. javanicus Fisher, 1936; 266 – Zatrephus sp. (from Meru Betiri National Park, Java); 267 – Z. spinosus Brongniart, 1890; 268 – Z. lumawigi Hüdepohl, 1990, type specimen (see Remarks to this species). 264–265, 267 – males; 263, 266, 268 – females. Puc. 263–268. Zatrephus Pascoe, 1857, общий вид сверху. 263–264 – Z. pannosus Pascoe, 1857 (263 – голотип); 265 – Z. javanicus Fisher, 1936; 266 – Zatrephus sp. (из национального парка Меру Бетири, Ява); 267 – Z. spinosus Brongniart, 1890; 268 – Z. lumawigi Hüdepohl, 1990, типовой экземпляр (см. замечания к этому виду). 264–265, 267 – самцы; 263, 266, 268 – самки.



Figs 269–274. Zatrephus Pascoe, 1857, habitus, dorsal view. 269, 272 – Z. crassinus Holzschuh, 1992; 270–271, 273 – Z. longicornis Pic, 1930; 274 – Z. golovatchi **sp. n.** 270, 274 – holotypes; 269–271, 273–274 – males (273 – small specimen from Laos); 272 – female from Western Malaysia. Puc. 269–274. Zatrephus Pascoe, 1857, общий вид сверху. 269, 272 – Z. crassinus Holzschuh, 1992; 270–271, 273 – Z. longicornis Pic, 1930; 274 – Z. golovatchi **sp. n.** 270, 274 – голотипы; 269–271, 273–274 – самцы (273 – мелкий экземпляр из Лаоса); 272 – самка из Западной Малайзии.

Dymasius macilentus (Pascoe, 1859) (Figs 198, 223, 233–235, 451)

Cerambyx macilentus Pascoe, 1859: 20. Type locality: Ceylon (now Sri Lanka) (according to the original description and the label of the holotype).

Dymasius macilentus: Gahan, 1891: 22; 1906: 139; Makihara et al., 2008: 100, pl. 1, fig. 9 (wrong determination; see Remarks below); Kariyanna et al., 2017: 29.

Dymasius (Dymasius) macilentus: Aurivillius, 1912: 60.

Material. ♂, holotype, by monotypy (BMNH) (Fig. 198), "Ceylon" (upperside), "59.106" (underside), "*Cerambyx macilentus* Pascoe, Type", "Type" (Fig. 451).

Remarks. This species is known to me only from the holotype I have revised, with a body length of 28.2 mm and a humeral width of 6.8 mm.

Until now, *D. strigosus* J. Thomson, 1864 (Figs 199, 224, 452) has traditionally been believed to represent a junior synonym of *D. macilentus* (including in the most recent publications, in particular, Kariyanna et al. [2017]), the synonymy first advanced by Gahan [1906] and followed by Aurivillius [1912].

However, when comparing the male holotypes of these taxa, I drew attention to some significant differences they showed, primarily in the structure of the antennae. Thus, in the holotype of *D. macilentus*, antennomere 3 is only 1.36 or 1.32 times as long as antennomeres 1 and 4, respectively, antennomere 5, 1.32 times as long as 4th, antennomere 1 with a dense, skin-deep, partly slightly rugulose puncturation, while the holotype of D. strigosus has antennomere 3 about 1.6 or almost 1.5 times as long as antennomeres 1 and 4, respectively, antennomere 5 about 1.6 times as long as 4th, and antennomere 1 seems to be mainly coarsely to very coarsely sculptured (Figs 223, 224). Besides this, in the former species, the antennae are clearly shorter, thereby the last antennomere both by itself and in relation to the length of the pronotum is considerably shorter (Figs 198, 199), antennomeres 3-5 are somewhat more strongly inflated in the apical parts (Figs 198, 199, 223, 224). In the holotype of *D. macilentus*, the pronotum is clearly more strongly elongated, 1.31 times as long as wide at the base, while in the holotype of *D. strigosus* the pronotum is only 1.17 times as long as wide at the base (Figs 223, 224). In the former species, the apical external angle of the elytra is produced into a very strong tooth more strongly drawn towards the external side, while in the latter species this tooth is about half as long, thereby the restudied holotypes generally differ clearly in the shape of the elytral apex (Figs 198, 199).

It is quite possible to admit that the shape of the pronotum (more or less elongated) and the teeth at the apex of the elytra can be variable, but to also regard the very significant differences in the length ratios of the basal antennomeres, as well as in the sculpture of antennomere 1 as individual variability seems to be rather difficult. I have not been able yet to study any other material, but nevertheless it is quite obvious that the synonymy *D. macilentus* = *D. strigosus* demands indisputable evidence.

Certain records of *D. macilentus* likewise require clarification. In particular, the male from Sri Lanka (Sigiriya, Matale Distr.) depicted in the paper of Makihara et al. [2008: pl. 1, fig. 9] is similar, in my opinion, to

neither the holotype of *D. macilentus* nor the holotype of *D. strigosus.* This specimen generally looks like one of the representatives of the genus *Dialeges* Pascoe, 1857.

Dymasius minor Gahan, 1906 (Figs 197, 454)

Dymasius minor Gahan, 1906: 140. Type locality: Southern India, Nilgiri Hills (according to the original description and the label of the lectotype). Aurivillius, 1912: 60; Makihara et al., 2008: 100, pl. 2, fig. 10 (wrong determination; see Remarks below); Kariyanna et al., 2017: 29.

Material. Lectotype, ♂, here designated (BMNH) (Fig. 197), "[S India] Nilgiri Hills", "Nilgiris (H.L. Andrewes) 1907–402", "361", "Dymasius minor Gahan, Type", "Type" (Fig. 454), "Lectotypus ♂ Dymasius minor Gahan, 1906, A. Miroshnikov des., 2017"; 1♂, paralectotype (BMNH), "[S India] Nilgiri Hills", "Andrewes Bequest B.M. 1922–221", "361", "Pachydissus (sic) minor Gahan, Cotype", "Cotype", "Paralectotypus ♂ Dymasius minor Gahan, 1906, A. Miroshnikov des., 2017".

Morphological notes. Body length 9.4 or 10.9 mm, humeral width 2 or 2.2 mm in the lectotype and paralectotype, respectively.

Remarks. This species was described from two males, these two probably remaining its only material known to date. In the present paper, *D. plagiatus* is illustrated for the first time.

The female from Sri Lanka (Sigiriya, Matale Distr.), depicted in the work of Makihara et al. [2008: pl. 2, fig. 10], undoubtedly belongs to another, most likely yet undescribed species.

Genus Zegriades Pascoe, 1869

Zegriades Pascoe, 1869: 525. Gemminger, 1872: 2805; Aurivillius, 1912: 62; Heffern, 2013: 12.

Type species: *Xoanodera magister* Pascoe, 1857, by monotypy.

Diagnosis. Representatives of this genus seem to resemble most closely some species of the genus *Dymasius*, in particular, through having, to varying degrees, a long antennomere 3, especially in the male, and the antennae, also in the male, generally much longer than the body, but differ by the following features. Zegriades is characterized by the comparatively longest antennomere 3 of the male, which is 2.21–2.5 times as long as antennomere 1, thereby the latter is with a sharply expressed cicatrix (including the female) (Color plate 4: 257-262), whereas in Dymasius (in particular, in such species as D. mandibularis (Gahan, 1891), D. cos Holzschuh, 1998, D. fedorenkoi Miroshnikov, 2016), antennomere 3 of the male is not more than 1.93 times as long as antennomere 1 (see also below), thereby the latter is devoid of a cicatrix (including the female); generally speaking, a cicatrix in Dymasius is observed extremely rarely and it seems to be present only in D. brevipes Holzschuh, 1991, but antennomere 3 of the male of this latter species is only moderately long and it is not similar to representatives of Zegriades by many other characters; in my opinion, the generic attribution of D. querceus Holzschuh, 2015 (Fig. 405), with both a long antennomere 3 and, based on the picture, a cicatrix on antennomere 1, requires clarification, also bearing in mind that this species is most likely to belong to the genus Pachydissus Newman, 1838.

In Zegriades, tergite 8 of the male is with a very deep emargination apically, as a result of which the apex proper looks bidentate (Figs 248, 249), while in Dymasius, tergite 8 of the male has no emargination, as a rule (Figs 227, 230, 235, 240); if, however, certain Dymasius spp. do sufficiently strongly resemble Zegriades spp. in the structure of this tergite (Fig. 243), then by many other features they differ significantly from the latter genus; such is, for example, D. indigus Holzschuh, 2008, in which, in comparison with Zegriades, the structure of the head, the shape of the pronotum, the character of the dorsum, the structure of the prosternum, penis and tegmen (Figs 241, 242) are different in addition to its antennomere 3 of the male being only 1.6 times as long as the 1st (by the way, this species was described from two females and elsewhere, in one of my following papers, I plan to give the first description of its male I have got at my disposal); generally speaking, an emargination at the apex of male tergite 8 that exists in this or that genus of the tribe, for example, in *Elydnus*, Zatrephus Pascoe, 1857 (Figs 155-158, 287-290), is never very deep and the apex proper of the tergite does not look bidentate.

The genus Zegriades is also characterized by the following features, the combination of which makes it even more distinct compared to Dymasius and at least the other similar genera of the tribe: head with long (male) or shorter (female), widely rounded temples and a well-expressed constriction behind them, clearly delimiting a neck, as in Figs 231, 232, Color plate 4: 261, 262; eyes slightly convex; antennae generally slender, as in Color plate 4: 257-260, in male more than 2 times as long as body, in female extending beyond apex of elytra by penultimate antennomere, antennomere 2 subequal in length and width, but not transverse, antennomeres 3-5 in apical parts distinctly inflated (to a greater extent in male than in female), apical external angle of antennomeres 8-10 can be with a small, but evident and sharp spine, most of male antennomeres to a varying degree strongly elongated; pronotum very clearly or strongly longitudinal, widely rounded on sides, as in Color plate 4: 261, 262, its disc weakly convex, with more or less sharp transverse folds; setation of pronotum of dense, recumbent, yellow or yellowish setae forms longitudinal strips, leaving middle part of disc almost bare through a broad stripe, as in Color plate 4: 261, 262; elytra in male slightly narrowed towards apex, in female in front of middle can be slightly broadened, apical external angle clearlyexpressed, sutural angle drawn into a long or shorter tooth, with a heterogeneous, in places irregular, partly rugulose puncturation; setation of elytra of dense, recumbent, yellow or yellowish setae forms clear longitudinal strips, either entire or partly broken by strokes and partially confused, as in Color plate 4: 257-260; prosternum without clear transverse groove in front of middle, only with coarse transverse folds, prosternal process dorsally relatively strongly broadened in apical part, as in Figs 231, 232; mesosternum with a more or less distinct (but not sharp) tubercle; legs slender, rather long, femora not claviform; metatibiae straight; femora and tibiae without longitudinal carinae; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined; penis rather broadly rounded apically, as in Figs 244, 245, tegmen as Figs 246, 247; body from medium- to large-sized, in length 20.1–34.3 mm, but obviously up to 40 mm (see below).

Remarks. To somewhat detail the significance of the length ratios of antennomeres 1 and 3 of the male in the genera compared, in Dymasius mandibularis it is 1.8–1.92, in *D. cos* about the same as the highest value in the previous species, in D. fedorenkoi it is 1.89 (besides this, these species differ very clearly from Zegriades spp. by the shape of the apical part of both penis and tegmen, as in Figs 236–239, 244–247, and by a number of other features). At the same time, I have at my disposal a photograph of a male representing a not yet described Dymasius species from India, in which, based on the picture, antennomere 3 is about twice as long as the 1st, but in this case, as usual, antennomere 1 is devoid of a cicatrix, while many other morphological features of the beetle, including the structure of the head, the setation of the dorsum, the shape of the elytra apex, are all different from Zegriades. The females of the genera compared fail to differ in the length ratios of antennomeres 1 and 3. Thus, in the female of Z. magister (Pascoe, 1857) this ratio is 1.76-1.77, but it reaches the same values in the female of *D. mandibularis*; in the female of D. cos, based by the picture I have, this value is slightly lower than the previous ones; no female D. fedorenkoi is known yet.

It is noteworthy that some species previously described or considered in the genus *Zegriades* [Gressitt, 1939, 1951; Gressitt, Rondon, 1970; Catalogue..., 2010] have been transferred to other genera only relatively recently, in particular, *Gibbocerambyx* Pic, 1923 [Holzschuh, 2003, 2010], *Dymasius* [Holzschuh, 2010] and *Imbrius* [Holzschuh, 2005]. At the same time, the systematic position of one species transferred to the latter genus is also clarifed in the present paper (see above genus *Mimimbrius* gen. n.).

Besides this, the long described Zegriades siamensis and Z. fulvipennis [Nonfried, 1895] are known to me only by their original descriptions, albeit I have repeated attempted to relocate the types in a number of European museums and some other institutions. No information on the whereabouts of the types is likewise available from the literature, nor can anyone among my numerous colleagues could help me in this respect (their personal communications). Based on the original descriptions alone, both species, almost without any doubt, do not belong to Zegriades, at least so in accordance with a number of those morphological characteristics of the genus that are given above (the diagnosis of Zegriades omits those or other features noted in Nonfried's descriptions). At the same time, I formally include Z. siamensis and Z. fulvipennis in the present review, as well as in the key (based on some features taken from the descriptions), since I have no indisputable evidence for their incorporation into any other genus or genera.

Thus, the genus *Zegriades* includes four species, one of which is described as new, while two species are considered here solely conditionally.

Distribution. Oriental realm.



Figs 275–286. Zatrephus Pascoe, 1857, pronotum. 275–276 – Z. pannosus Pascoe, 1857; 277 – Z. javanicus Fisher, 1936; 278–281 – Z. longicornis Pic, 1930; 282 – Z. golovatchi **sp. n.**; 283 – Z. crassinus Holzschuh, 1992; 284 – Z. spinosus Brongniart, 1890; 285 – Z. lumawigi Hüdepohl, 1990, type specimen (see Remarks to this species); 286 – Zatrephus sp. (from Meru Betiri National Park, Java). 276, 278, 282 – holotypes; 275, 277–284 – males; 276, 285–286 – females. Puc. 275–286. Zatrephus Pascoe, 1857, переднеспинка. 275–276 – Z. pannosus Pascoe, 1857; 277 – Z. javanicus Fisher, 1936; 278–281 – Z. longicornis Pic, 1930; 282 – Z. golovatchi **sp. n.**; 283 – Z. crassinus Holzschuh, 1992; 284 – Z. spinosus Brongniart, 1890; 285 – Z. lumawigi Hüdepohl, 1990, типовой экземпляр (см. замечания к этому виду); 286 – Zatrephus sp. (из национального парка Меру Бетири, Ява). 276, 278, 282 – голотипы; 275, 277–284 – самцы; 276, 285–286 – самки.



Figs 287-306. Zatrephus Pascoe, 1857 and Pascoetrephus gen. n., genitalia. 287, 291 – Z. golovatchi sp. n.; 288-290, 292-294 – Z. longicornis Pic, 1930; 295, 297 – Z. pannosus Pascoe, 1857; 296, 298 – Z. javanicus Fisher, 1936; 299, 301, 305 – P. inscitus (Pascoe, 1857), comb. n.; 300, 302, 306 – P. klimenkoi sp. n.; 303 – P. hefferni sp. n.; 304 – P. ranongensis (Holzschuh, 2009), stat. n. et comb. n. 287–288, 291–292, 300, 302–304 – holotypes; 306 – paratype; 287–290 – apical part of male tergite 8, dorsal view; 291–294, 297–300, 303–304 – apical part of tegmen, ventral view; 295–296, 301–302 – apical part of penis, ventral view; 305–306 – coxites and styles, dorsal view. Puc. 287–306. Zatrephus Pascoe, 1857 и Pascoetrephus gen. n., гениталии. 287, 291 – Z. golovatchi sp. n.; 288–290, 292–294 – Z. longicornis Pic, 1930; 295, 297 – Z. pannosus Pascoe, 1857; 296, 298 – Z. javanicus Fisher, 1936; 299, 301, 305 – P. inscitus (Pascoe, 1857), comb. n.; 300, 302, 306 – P. klimenkoi sp. n.; 303 – P. hefferni sp. n.; 304 – P. ranongensis (Holzschuh, 2009), stat. n. et comb. n. 287–288, 291–292, 300, 302–304 – голотипы; 306 – паратип; 287–290 – вершинная часть 8-го тергита самца сверху; 291–294, 297–300, 303–304 – вершинная часть тетмена снизу: 295–296. 301–302 – вершинная часть пениса снизу; 305–306 – кокситы и стилусы сверху.

303–304 – вершинная часть тегмена снизу; 295–296, 301–302 – вершинная часть пениса снизу; 305–306 – кокситы и стилусы сверху.

Zegriades magister (Pascoe, 1857) (Figs 232, 245, 247, 249, 455; Color plate 4: 258–260, 262)

Xoanodera magister Pascoe, 1857: 93. Type locality: Borneo (according to the original description and the label of the holotype).

Zegriades magister: Pascoe, 1869: 526; Gemminger, 1872: 2805; Aurivillius, 1912: 62; Heffern, 2013: 12 (Borneo).

Material. \bigcirc , holotype (BMNH) (photographs); $1 \circ$ (IRSN) (Color plate 4: 258), "Bornéo Occ. Pontianak, 1901"; $1 \circ$ (IRSN), same label; $1 \circ$ (IRSN), same label; "Coll. Z", "Zegriades!"; $1 \circ$ (IRSN), "Pontianak, Borneo Holl", "Zegriades magister... [illegible further on]"; $1 \circ$ (IRSN) (Color plate 4: 260), "Coll. Nonfried. Siam", "Zegriades magister Pasc" (Fig. 455); $1 \circ$ (NHMD) (Color plate 4: 259), E Malaysia, Sabah, Crocker Range, 04.2014 (local collector), "Zegriades magister (Pascoe), O. Mehl det. 2014; $1 \circ$, $1 \circ$ (cP)) (photographs), Indonesia, W Kalimantan, Bawang Mt., 245 m, 00°53 N / 109°22 E, 03.2017 (local collector).

Morphological notes. Body length 25.2–37.8 or 32.3–34.1 mm, humeral width 5.2–8.2 or 7.3–8.1 mm in male and female, respectively.

Besides this, based by the photograph I found on one of the commercial websites, the male reaches a length of about 40 mm and the humeral width is almost 9 mm.

Distribution. This species has hitherto been known only from Borneo [Pascoe, 1857; Heffern, 2013]. Based on the material studied, *Z. magister* is being recorded here from Thailand, and generally from Indochina, for the first time. However, the label data ("...Siam", Fig. 455) for the specimen I have examined (see above) may need confirmation.

Zegriades olemehli Miroshnikov, **sp. n.** (Figs 231, 244, 246, 248; Color plate 4: 257, 261)

Material. Holotype, \circlearrowleft (NHMD) (Color plate 4: 257): E Malaysia, Sabah, Trus Madi Mt., 04.2014 (local collector).

Diagnosis. This new species is similar to *Z. magister*, but differs by the longer antennomere 3, at least so in the male, which is 2.5 times as long as antennomere 1 (in *Z. magister*, male antennomere 3, 2.21–2.38 times as long as antennomere 1), the continuous and non-confused longitudinal strips of dense, recumbent, yellow setae on the elytra (Color plate 4: 257), the slightly more elongated pronotum (Color plate 4: 261), the more fragmentary (less entire) and partly less sharp transverse folds of its disc, the apical sutural angle of the elytra with a shorter tooth hidden by dense setae, the more strongly developed, recumbent, light setation of the head dorsally behind the eyes that form no distinct longitudinal strips (Color plate 4: 261), and the smaller body sizes (cf. Color plate 4: 258–260, 262).

Description. Male. Body length 20.1 mm, humeral width 4.35 mm. Dorsum, partly antennae black; venter, legs, most of antennae reddish brown and dark reddish brown tones.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae, eyes and partly on vertex; eyes slightly convex, their upper lobes strongly connivent; genae long, longitudinal diameter of lower lobe of eye not more than 1.4 times as long as genae; temples very long, only slightly shorter than longitudinal diameter of lower lobe of eye, widely rounded, noticeably narrowed backwards, with rough transverse folds; behind temples with a sharp constriction clearly separating a neck; gula with transverse small folds; neck with transverse oblique small folds; submentum moderately transverse, only twice as wide as long, somewhat impressed, with unclear sculpture; antennae slender, very long, about 2.4 times as long as body, thereby reaching the apex of elytra by apex of antennomere 6; length ratio of antennomeres 1-11, 21:7:52:27:37:59:54:50:49:51:104;

antennomere 1 with a strong cicatrix (apical carina), along almost entire length clearly and broadly impressed dorsally, partly with a rough rugose puncturation; antennomere 2 subequal in length and width; antennomeres 3–5 distinctly inflated at apex, as in Color plate 4: 257; apical external angle of antennomeres 8–10 with a small, but clear, sharp spine (in *Z. magister*, small sharp spine can only be on antennomere 8 while apical external angle of antennomere 9 without spine, can be not more than sharpened, at least in specimens revised; see above); last antennomere with a distinct appendage.

Pronotum strongly longitudinal, 1.3 times as long as width; base 1.23 times as wide as apex; with a sharp constriction near apex; on disc slightly convex, with transverse, partly oblique, coarse, pretty regular folds, as in Color plate 4: 261.

Scutellum strongly narrowed towards apex, triangular.

Elytra strongly elongated, weakly narrowed towards apex, 3.12 times as long as humeral width; with a dense, partly rugose, relatively rough puncturation between longitudinal stripes of dense setae, and a very small and dense, finely scabrous puncturation under these stripes; apical external angle obtuse, sutural angle drawn into a clear, but small denticle hidden by a dense setation.

Most of prosternum with transverse and transversely oblique folds, the coarsest in middle part; prosternal process strongly broadened towards apex dorsally, with a strong tubercle at apex; mesosternal process without tubercle dorsally, between coxae distinctly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a clear, not too deep median groove; last (visible) sternite truncate apically; last (visible) tergite at apex with a barely visible emargination.

Legs pretty long; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation of dorsum, several basal antennomeres dorsally, legs predominantly on inner side, partly head ventrally yellow tones, thereby on both pronotum and elytra forming longitudinal stripes, as in Color plate 4: 257; setation of venter, external side of legs and partly antennae ventrally mainly greyish and greyish yellowish tones; head, pronotum on sides in apical part, apex of abdomen, most of antennomeres in apical part with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 244, 246, 248.

Etymology. This new species is dedicated to the memory of Ole Mehl (1948–2015), a remarkable Danish coleopterologist and connoisseur of longicorn beetles, who collected a rich and very valuable collection of this family, especially from the Oriental Region, now kept in NHMD. The study of a diverse material from this collection has made it possible to solve in one way or another various questions of the systematics of some groups, including the discovery of new taxa.

Distribution. Eastern Malaysia.

Zegriades ? siamensis Nonfried, 1895

Zegriades siamensis Nonfried, 1895: 308 ("Siam"). Aurivillius, 1912: 62.

Morphological notes. Body length 28 mm [Nonfried, 1895].

Distribution. Thailand.

Zegriades ? fulvipennis Nonfried, 1895

Zegriades fulvipennis Nonfried, 1895: 309 ("Siam"). Aurivillius, 1912: 62.

Morphological notes. Body length 24 mm [Nonfried, 1895].

Distribution. Thailand.

Key to species of Zegriades

- 1. Pronotum on disc weakly convex; setation of elytra without silky luster, that of pronotum yellow tones 2
- Pronotum on disc strongly convex; setation of elytra with a silky luster or setation of pronotum dark reddishbrown
 3

- Main setation light yellow; each elytron with very faintly noticeable longitudinal ribs Z. (?) *fulvipennis*

Genus Zatrephus Pascoe, 1857

Zatrephus Pascoe, 1857: 94. Thomson, 1864: 235; Pascoe, 1869: 523; Lacordaire, 1868: 267; Gemminger, 1872: 2805; Aurivillius, 1912: 62; Gressitt, Rondon, 1970: 88; Catalogue..., 2010: 162; Heffern, 2013: 12.

Type species: *Zatrephus pannosus* Pascoe, 1857, by subsequent designation [Gressitt, Rondon, 1970].

Diagnosis. This genus is primarily characterized by the robust, medium- to large-sized body, 18.3-37 mm in length, the setation of the elytra being at least two-coloured, one way or another spotty, often rather variegated, without silky lustre, almost continuous or occupying most of the surface, as in Figs 263-274, in one degree or another similar to the elytral setation of at least the abdomen and metasternum (Fig. 345) and, besides this, often of the legs and antennae, antennomeres 3-5 being relatively short, strongly, very strongly or clearly inflated in the male and distinctly inflated in the female, as in Figs 363-368, the absence from all antennomeres of any clearly expressed sculptural formations, including spines, from the slightly transverse to the slightly longitudinal pronotum with variable sculpture, as in Figs 275-386, but at least forming no long longitudinal folds. By these features combined, Zatrephus differs clearly from all other genera of the tribe, including similar ones.

By the character of elytra setation, the structure of the pronotum and other individual features, *Zatrephus* can be compared to the genus *Rhytidodera* White, 1853, at least with some of its representatives, but differs either in the shape of antennomeres 3–5, especially of the male, or in the structure of almost all antennomeres (in *Rhytidodera*, antennomeres 3–5 can be neither clearly nor strongly inflated, while, in contrast to *Zatrephus*, many antennomeres can be strongly serrate), the very sharply or clearly expressed tubercle on the prosternal process (in *Rhytidodera*, a tubercle on the prosternal process is absent or can only be weakly developed), the polychrome setation of at least the abdomen and metasternum, like that on the elytra (in *Rhytidodera*, the abdomen and metasternum, often also the remaining part of the venter monochrome light).

Important structural details of *Zatrephus* are also listed below, in the diagnosis of the new genus *Pascoetrephus* **gen. n.** Taking into account the above features, this allows for an even more reliable diagnosis of *Zatrephus* to be formulated.

Composition. The genus includes seven species, one of which is described as new.

Distribution. Oriental realm.

Zatrephus pannosus Pascoe, 1857 (Figs 263, 264, 275, 276, 295, 297, 456)

Zatrephus pannosus Pascoe, 1857: 94, pl. 23, fig. 3. Type locality: Borneo, [Malaysia] Sarawak (according to the original description and the label of the holotype). Pascoe, 1869: 524; Gemminger, 1872: 2805; Aurivillius, 1912: 62; Hüdepohl, 1989b: 479; Heffern, 2013: 12 (Borneo).

Material. Q, holotype, by monotypy (BMHN) (Fig. 263), "Sarawak", "Pascoe Coll. 93-60", "Zatrephus pannosus Pasc. Type", "Type", "Sarawak, Zatrephus pannosus P. Type" (Fig. 456); 1º (PUM), Indonesia, Sumatra, 3.07–1.08.2002 (leg. S. Nikireev), "Zatrephus pannosus Pascoe, 1857 🖓 det. A. Miroshnikov 2017"; 1♀ (NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2003 (local collector), "Zatrephus pannosus Pascoe, Ole Mehl det. 2007"; 1^Q (NHMD), same locality, 03.2004 (local collector), "Zatrephus sp., Ole Mehl det. 2005", "Zatrephus pannosus Pasc., det C. Holzschuh 2006"; 2 (NHMD), 1^O₊ (cAM ex NHMD), E Malaysia, Sabah, Crocker Range, 03.2004 (local collector), "Zatrephus pannosus Pascoe, Ole Mehl det. 2007"; 1 (BMHN) (Fig. 264), "E Malaysia, Sabah, Imbak Canyon, 12.05.2004, MV-Light trap helipad (leg. E. Turner & J. Snaddon)", "BMNH {E}2012–16", "Zatrephus pannosus Pascoe, S.L. Shute det. 2007"; 1♀ (BMHN), Borneo, Sabah, Ranau, 24.09.2005 (leg. Steven Chew), "BMNH {E}2006-36", "Zatrephus pannosus Pasc., det C. Holzschuh 2009"; 1º (cAM), Sabah, Trus Madi Mt., 1250 m, 05°26'35"N / 116°27'5"E, 22–26.05.2014 (leg. A. Klimenko); 1♂, 1♀ (cDH), 1♂ (cNO) (photographs).

Morphological notes. Body length 26.2–36.3 mm, humeral width 7.4–10.7 mm.

Distribution. Eastern Malaysia, Indonesia (Sumatra; undoubtedly also Borneo), very likely Brunei.

Zatrephus javanicus Fisher, 1936 (Figs 265, 277, 296, 298)

Zatrephus javanicus Fisher, 1936: 171. Type locality: [Indonesia] Java, Batoerraden, Slamat Mt. (according to the original description and the label of the holotype). Lingafelter et al., 2014: 83, fig. 90u, v.

Material. ♂, holotype, by monotypy (USNM) (photographs); 1♂ (BMNH) (Fig. 265), "Java, G. Slamat, 15–17.VIII.1935, Drescher [leg.]", "Brit. Mus. 1937–662", "*Zatrephus javanicus* Fisher, 1935/36"; 1♂ (BMNH), "Java, G. Slamat, Oct. 1925, Drescher [leg.]", "Brit. Mus. 1937–662", "*Zatrephus javanicus* Fisher, 1935/36"; 1♂ (LIPI) (photograph).

Morphological notes. Body length 22.7–29 mm, humeral width 6.5–8.3 mm.

Remarks. So far as currently known, Java, Indonesia seems to host only this species of the genus. However, two females I have studied, originating from Toegoe (Western Java) and the Meru Betiri National Park (Eastern Java) (Fig. 266), respectively, in my opinion belong to neither *Z. javanicus* nor any other described species, very possibly representing a new form.

Among the *Z. javanicus* specimens I have studied, there are no females. However, based on the expression



Figs 307–326. Zatrephus Pascoe, 1857, Pascoetrephus gen. n. and Xoanodera Pascoe, 1857, endophallus. 307–309 – Z. longicornis Pic, 1930; 310–312 – Z. golovatchi sp. n.; 313–315, 317 – P. klimenkoi sp. n.; 316 – P. inscitus (Pascoe, 1857), comb. n.; 318–320 – P. hefferni sp. n. (the apex is strongly deformed); 321–323 – X. trigona Pascoe, 1857; 324–326 – X. subtita Holzschuh, 2005. 310–312, 313–315, 317-320 - holotypes.

 Bit i Stor Holes, Parken Pascoe, 1857, Pascoetrephus gen. n. и Xoanodera Pascoe, 1857, эндофаллус.
 307–326. Zatrephus Pascoe, 1857, Pascoetrephus gen. n. и Xoanodera Pascoe, 1857, эндофаллус.
 307–309 – Z. longicornis Pic, 1930; 310–312 – Z. golovatchi sp. n.; 313–315, 317 – P. klimenkoi sp. n.; 316 – P. inscitus (Pascoe, 1857), comb. n.; 318–320 – P. hefferni sp. n. (вершина сильно деформирована); 321–323 – X. trigona Pascoe, 1857; 324–326 – X. subtita Holzschuh, 2005. 310–312, 313–315, 317 – P. klimenkoi sp. n.; 318–316, 2017 – P. hefferni sp. n. (вершина сильно деформирована); 321–323 – X. trigona Pascoe, 1857; 324–326 – X. subtita Holzschuh, 2005. 310–312, 313–315, 317 – P. klimenkoi sp. n.; 318–316, 317 – P. klimenkoi sp. n.; 318–316, 317 – P. klimenkoi sp. n.; 318–316, 318–31 317-320 - голотипы.

of male and female features in a very similar species, *Z. pannosus*, the degree of external similarity between the sexes in *Z. javanicus*, almost without any doubt, ought to be comparable.

The above two females, based on the structure of elytral setation, appear to resemble most closely the female of *Z. pannosus*, but in the apical one-quarter of the elytra both show neither clear nor contrasting symmetrical spots so characteristic of *Z. pannosus* and *Z. javanicus* (in the latter, at least according to its males). Yet the structure of the pronotum, in particular, the features of setation, as well as the shape and, partly, sculpture (Fig. 286) as observed in these females generally differ markedly from those of *Z. pannosus* and *Z. javanicus*. Besides this, there are some other, but mostly minor differences. Nevertheless, in my opinion, additional material is needed to establish of the species identity of these Javanese females.

The differences between *Z. javanicus* and *Z. pannosus* presented in the key below are to be considered preliminary, at least partly so.

Distribution. Indonesia (Java).

Zatrephus longicornis Pic, 1930 (Figs 270, 271, 273, 278–281, 288–290, 292–294, 307–309, 458)

Zatrephus longicornis Pic, 1930: 15. Type locality: [Vietnam] Hoa Binh (according to the original description and the label of the holotype). Gressitt, Rondon, 1970: 88 (Laos); Hua, 1984: 117 (Laos); Hua, 2002: 237 (China: Guangdong; Vietnam, Laos); Hua et al., 2009: 58, (fig. 679), 191 (China); Wang, Hua, 2009: 190 (China); Catalogue..., 2010: 162 (China: Guangdong); Nga et al., 2014: 439 (Vietnam).

Material. d, holotype, by monotypy (MNHN) (Fig. 270), "[Tonkin] Hoa Binh", "Zatrephus longicornis n. sp", "Type", "Museum Paris Coll. M. Pic", "Holotype" (Fig. 458); 1♂ (cLD), 70 km NW Hanoi, Tam Dao, 900-1200 m, 21°27'N / 105°39'E, 1-8.06.1996 (leg. Dembický and Pacholátko); 13 (cSM), N Vietnam, 55 km NNW Hanoi, Tam Dao env., 800-900 m, 04-08.1998 (local collector), "Zatrephus longicornis Pic, S. Murzin det. 2002"; 2d (cLD), Tam Dao Nat. Park, 1000 m, 14.05, 28.05.2011 (leg. M. Pejcha), "Zatrephus longicornis Pic, det. L. Dembický, 1997"; 1 (cAM) (Fig. 271), Vietnam, Kon Tum Prov., Kon Plong Distr., Dak Khe River, 14°43'20"N / 108°18'58"E, 1030 m, 8-23.04.2015, at light (leg. D. Fedorenko); 1³, 1[♀] (cPJ) (photographs), Vietnam, Lai Chau Prov., Tam Duong, 05.2017 (local collector); 1 (cPJ) (photograph), Vietnam, Da Nang, BaNa Mt., 1450 m, 05.2015 (local collector); 13 (BM), "Phontiou, 17.3.[19]64", "Laos: Khammouane prov. Phon Tiou", "J.A. Rondon Collection Bishop Mus."; 1 (BM), "Phontiou, 22.4.[19]64", "Laos: Khammouane prov. Phon Tiou", "J.A. Rondon Collection Bishop Mus.", "Zatrephus longicornis Pic, J.L. Gressitt det. 196[?]"; 1º (BM), "Phontiou, 1.4.[19]63", "Laos: Khammouane prov. Phon Tiou", "J.A. Rondon Collection Bishop Mus.", "Zatrephus longicornis Pic, J.L. Gressitt det."; 14 (BM), "Phontiou, 25.6.[19]65", "Laos: Khammouane prov. Phon Tiou", "J.A. Rondon Collection Bishop Mus."; 1⁽²⁾ (BM), "Phontiou, 11.4.[19]64", "Laos: Khammouane prov. Phon Tiou", "J.A. Rondon Collection Bishop Mus.", "Zatrephus longicornis Pic, J.L. Gressitt det. 196[?]"; 1^o (cLD), Houaphanh Prov., 25 km SE Vieng Xai, Ban Kangpabong env., 20°19'N / 104°25′E, 14–18.05.2001 (leg. D. Hauck), "Zatrephus longicornis Pic, 1930 ♀ det. A. Miroshnikov 2017"; 1 d (cAM ex cLD) (Fig. 273), Bolikhamsai Prov., Ban Nape env., 600 m, 18°21 N / 105°08 E, 1-18.05.2001 (leg. L. Dembický); 1° (cNO) (photograph).

Morphological notes. Body length 19.3–29.2 mm, humeral width 5.4–8 mm, thereby holotype 27.5 and 7.7 mm, respectively.

Distribution. Laos, Vietnam; has also been recorded from Guangdong Province of China [Hua, 2002].

Zatrephus golovatchi Miroshnikov, **sp. n.** (Figs 274, 282, 287, 291, 310–312, 353, 368)

Material. Holotype, ♂ (ZIN) (Fig. 274): Vietnam, Lam Dong Prov., 25 km NNW of Bao Loc, Loc Bao env., 800 m, 11°44′18″N / 107°42′08″E, 5–20.04.2013 (leg. D. Fedorenko).

Diagnosis. This new species is very similar to Z. longicornis and Z. crassinus Holzschuh, 1992, especially the former, but differs from both at least by features of the male, in particular, the pronotum is slightly less clearly broadened in the middle part and it shows a distinctly more strongly developed setation of dense, recumbent, light setae very considerably hiding the sculpture not only on the sides, but also in the middle part of the disc, as in Fig. 282 (cf. Figs 278-281, 283); by the somewhat shorter antennae, as in Fig. 274 (cf. Figs 269-271, 273), as well as, compared to Z. longicornis, the clearly or much more obliterate sculpture of the middle part of the disc of the pronotum, whereas, compared to Z. crassinus, by the absence of a clear tubercle at the base of the elytra on either side of the scutellum, and by the almost continuous setation of the elytra. Besides this, there are insignificant, yet noticeable differences in the structure of the genitalia of the new and compared species, in particular, in the shapes of the parameres and endophallus, and the apex of tergite 8, as in Figs 287-294, 307-312, thereby, when compared to Z. longicornis, fields with fine armature on the endophallus are clearly less strongly developed and less clearly expressed (in Z. crassinus, the endophallus has not been studied yet).

Description. Male. Body length 22 mm, humeral width 6 mm. Coloration of integument mainly dark brown with a reddish tint; eyes and head partly dorsally black.

Head with weakly developed antennal tubercles; with a clear median groove between bases of antennae and on vertex, with a distinct median fold between eyes; genae moderately short, longitudinal diameter of lower lobe of eye about 1.5 times as long as genae; eyes weakly convex; gula with relatively small transverse folds; neck predominantly with rough transverse folds; submentum with a poorly distinguishable puncturation; antennae reaching beyond apex of elytra by last antennomere; length ratio of antennomeres 1-11, 20:4:18:17:17:18:26:28:27:26:36; antennomere 1 with a clear dense puncturation; antennomere 2 strongly transverse; antennomere 3 and 4 strongly, 5th moderately inflated, as in Fig. 368; last antennomere with a distinct appendage.

Pronotum barely transverse, 1.06 times as wide as long; base 1.13 times as wide as apex; with a distinct constriction near apex; on disc almost flat, with folds of different shape, symmetrical, rough and coarse on sides, predominantly more or less obliterated in middle area, and a flat median tubercle in basal part in front connected with two longitudinal folds; generally this sculpture strongly masked under a dense setation, as in Fig. 282 (in *Z. longicornis*, middle area of pronotal disc with symmetrical, coarse or very coarse folds insignificantly masked under a setation and distinctly visible, without any median tubercle in basal part, but approximately in its stead with two symmetrical, longitudinal, coarse and very coarse folds, as in Figs 278–281).

Scutellum strongly narrowed towards apex, triangular, at the very base shortly truncate.

Elytra moderately elongated, barely narrowed towards apex, 2.46 times as long as humeral width; with a small, somewhat heterogeneous, dense puncturation; apical external angle obtuse, sutural angle drawn into a clear, but small tooth, thereby both angles masked under a dense setation.

Prosternum with a well-expressed transverse groove in front of middle, with coarse irregular folds between this groove and anterior border of coxal cavities; prosternal process barely narrowed towards apex dorsally, with a strong apical tubercle; mesosternal process without tubercle dorsally, between coxae distinctly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a gentle median groove; last (visible) sternite broadly truncate at apex, last (visible) tergite with a well-developed triangular emargination apically.

Legs relatively short; tarsomere 1 clearly shorter than tarsomeres 2 and 3 combined.

Recumbent dense or very dense setation predominantly clearly spotted, especially on elytra and venter, combines red/ reddish and white/whitish tones; red setae prevailing or strongly dominating mainly on head dorsally and basal antennomeres, whereas white setae clearly prevailing at least on elytra, as in Fig. 274; head, pronotum on disc and laterally, abdomen at apex, most of antennomeres in apical part, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 287, 291, 310–312.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Dr. Sergei I. Golovatch (Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Moscow, Russia), who, over a number of years, has kindly provided his very important assistance to my research.

Distribution. Vietnam.

Zatrephus crassinus Holzschuh, 1992 (Figs 269, 272, 283)

Zatrephus crassinus Holzschuh, 1992: 13. Type locality: Thailand, North-Eastern Bangkok, Saraburi (according to the original description). Heffern, 2013: 12 (Borneo, Thailand).

Material. ♂, holotype (cCH) (photograph); 1♂ (NHMD) (Fig. 269), E Malaysia, Sabah, Crocker Range, 04.2005 (local collector), "Zatrephus sp., O. Mehl det. 2005", "Zatrephus crassinus Holzschuh, 1992 ♂ det. A. Miroshnikov 2017"; 1♀ (cLD) (Fig. 272), W Malaysia, Perak, 40 km SE Ipoh, Banjaran Titi Wangsa, Ringlet, 900 m, 29.03–15.04.2004 (leg. P. Čechovský); 1♂ (cDH) (photograph).

Morphological notes. Body length 23–30 mm, humeral width 6–7.9 mm, thereby holotype smallest.

Distribution. This species was described from Thailand [Holzschuh, 1992]. It has recently been recorded from Borneo [Heffern, 2013]. Based on the studied material, *Z. crassinus* is being recorded here from Western Malaysia for the first time.

Zatrephus spinosus Brongniart, 1890 (Figs 267, 284)

Zatrephus spinosus Brongniart, 1890: 183. Type locality: "Bornéo" (according to the original description). Aurivillius, 1912: 62 (Borneo); Heffern, 2013: 12 (Borneo).

Material. 1♂ (cAM ex cDH) (Fig. 267), E Malaysia, Sabah, Trus Madi Mt., 22.03.2000 (local collector), "Zatrephus spinosus Brongniart, det. K. Hüdepohl [20]01"; 1♀ (cDH), same locality, 24.03.2004 (local collector), "Zatrephus spinosus Brongniart, det. D. Heffern"; 1♂ (cDH), Sabah, Tawau, 26.03.2004 (local collector), "Zatrephus spinosus Brongniart, det. D. Heffern"; 1♂ (cDH), Sabah, Crocker Range, Kipandi Park, 700 m, 20.04.2013 (local collector), "Zatrephus spinosus Brongniart, det. D. Heffern"; 1♀ (cNO) (photograph).

Morphological notes. According to the original description, the body sizes are as follows: "Long. 25 mill.; lat. 4–6 mill." [Brongniart, 1890: 184]. Besides this, the author noted that "Le Muséum possède cette espèce de Bornéo. M.M. Maindron l'a recueillie à Singapore. L'échantillon type est enregistré dans le Catalogue do 1885 sous le n°

7059." [Brongniart, 1890: 184]. Based on this information and taking into account the entire text of the description, it is quite difficult to unambiguously understand how many specimens Brongniart used in his work. However, if one considers that, for example, with a beetle length of 18.3 mm its width at the humeri is 5.1 mm (see below), then the width indicated by Brongniart is likely to be approximate and probably refers to a single specimen (i.e., the holotype by monotype) with a body length of 25 mm.

Remarks. I have no information concerning the type specimen or specimens of this species. My repeated attempts to relocate the material in the collection of the Muséum national d'Histoire naturelle, Paris, kindly undertaken at my request by Dr. Gérard L. Tavakilian, have failed. Nothing is known about the type(s) to my numerous colleagues as well (their personal communications). Nor do such data on this species exist in the literature ever since the original description.

In the present paper, *Z. spinosus* is characterized, based on four male and one female identified so by Karl-Ernst Hüdepohl and Daniel J. Heffern (see the material above). Hüdepohl might have seen the type.

The above specimens of *Z. spinosus* are kept in the collection of Mr. Daniel J. Heffern (Houston, USA), who kindly shared one of them with me. They have a body length of 18.3 to 23 mm and a humeral width of 5.1 to 6.3 mm.

Distribution. Eastern Malaysia; ? Singapore.

Zatrephus lumawigi Hüdepohl, 1990 (Figs 268, 285, 457)

Zatrephus lumawigi Hüdepohl, 1990a: 83, fig. 27. Type locality: Philippines, Luzon, Mountain Province, Luzon (according to the original description). Vives, 2009: 5 (*"Zatrepus"*, misspelling) (Philippines, Mindanao, Davo).

Material. \bigcirc (!), "Holotypus" (non \bigcirc ; see Remarks) (ZSM) (Fig. 268), "Philippines, Luzon, VI.[19]86", "Mountain Province", "Holotypus \bigcirc (*sic*) *Zatrephus lumawigi* mihi, Hüdepohl 1987" (Fig. 457).

Remarks. Hüdepohl's collection (ZSM) contains only the "holotype" (Mrs. Katja Neven, personal communication of November 9, 2015). I have revised it, but it is a female (!) (Fig. 268). It is this specimen that is depicted in the original description [Hüdepohl, 1990a: 83, fig. 27], but the holotype was claimed to be a male.

Thus, there is confusion in that publication. The following is also noted there: "*Zatrephus lumawigi* sp. nov. (Fig. 27)... \circlearrowleft : ...Antennae extending to apical 4/5 of elytra; ... \bigcirc : Antennae hardly surpassing middle of elytra. ...Holotype \eth , length 24,5 mm, width 7,2 mm, and Paratype \bigcirc , length 30,5 mm, width 9 mm, Luzon, Mountain Province, VI.1986, coll. Lumawig, in author's collection." [Hüdepohl, 1990a: 83].

In the female I have studied, with the labels reading "Philippines, Luzon, VI.86" and "Mountain Province", the body sizes agree with those indicated by Hüdepohl for "Holotype 3", while the length of the antennae coincides with that marked for the female, which is clearly seen also in Fig. 27 in the original publication (see above). The sizes of the "Paratype Q" as given by that author, namely, "length 30,5 mm, width 9 mm" obviously refer to the male which is absent from his collection.

Distribution. Philippines.

Key to species of Zatrephus

- Pronotum only with transverse irregular folds, as in Fig. 285; apical external angle at least of antennomeres 8–10, especially of 9th and 10th, strongly sharpened, this being expressed to a greater degree in female, as in Fig. 268, thereby antennomere 6 distinctly serrate at least in female; sutural angle of elytra with a barely expressed tooth (Philippines) Z. lumawigi

- 3. Setation at least of head dorsally, antennomere 1 and pronotal disc almost entirely consisting of setae with a more saturated coloration, reddish brown tones (Figs 265, 277); parameres wider, as in Fig. 298 (Java) ... *Z. javanicus*
- 4. Setation of elytra or, additionally, that of remaining parts of body generally more or less dominated by whitish or greyish setae, accordingly forming a characteristic background, as in Figs 269–274, , thereby elytral setation almost entirely very dense or alternating with less strongly developed and generally less numerous fragments of sparser or sparse setae; elytra at the very

- Setation of elytra at least on dorsum generally dominated by red-brown and red setae, accordingly forming a characteristic background, as in Fig. 267, thereby dense setation on elytra alternating with more strongly developed and generally more numerous fragments of sparser or sparse setae; elytra at the very base on sides of scutellum with a very clear tubercle; antennomeres 3–5 of male strongly inflated, as in Fig. 267; apical part of penis near very apex wider Z. spinosus

Genus Pascoetrephus Miroshnikov, gen. n.

Type species: Zatrephus inscitus Pascoe, 1857.

Diagnosis. This new genus, whose representatives have so far been considered in the genus *Zatrephus*, differs very clearly from the latter by the significantly larger eyes much more connivent on the ventral side of the head, as in Figs 354–358 (cf. Figs 351–353), the structure of the antennae, including the shape, sculpture and length ratios of some antennomeres, the sculpture of the pronotum, the apical external angle of the elytra drawn into a large tooth,



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Figs 327–332. *Pascoetrephus* **gen. n.**, habitus, dorsal view. 327–330 – *P. inscitus* (Pascoe, 1857), **comb. n.**; 331–332 – *P. klimenkoi* **sp. n.** 327, 331– holotypes; 332 – paratype; 330–331 – males; 327–329, 332 – females (329 – from Western Malaysia). Puc. 327–332. *Pascoetrephus* **gen. n.**, общий вид сверху. 327–330 – *P. inscitus* (Pascoe, 1857), **comb. n.**; 331–332 – *P. klimenkoi* **sp. n.** 327, 331– голотипы; 332 – паратип; 330–331 – самцы; 327–329, 332 – самки (329 – из Западной Малайзии).





Figs 333–338. Pascoetrephus gen. n., habitus, dorsal view.
333–335 – P. hefferni sp. n.; 336–338 – P. ranongensis (Holzschuh, 2009), stat. n. et comb. n. 333, 336 – holotypes, males; 334–335, 337–338 – paratypes, females (338 – after Holzschuh [2009], photograph by Luboš Dembický).
Puc. 333–338. Pascoetrephus gen. n., общий вид сверху.
333–335 – P. hefferni sp. n.; 336–338 – P. ranongensis (Holzschuh, 2009), stat. n. et comb. n. 333, 336 – голотипы, самцы; 334–335, 337–338 – паратипы, самки (338 – по [Holzschuh, 2009], фотография Λ. Дембицкого).



Figs 339–344. Xoanodera Pascoe, 1857 and Xoanotrephus Hüdepohl, 1989, habitus, dorsal view. 339–341 – Xoanodera trigona Pascoe, 1857 (340 – holotype); 342–343 – X. subtita Holzschuh, 2005; 344 – Xoanotrephus v-signatus Hüdepohl, 1989. 339, 342, 344 – males; 340–341, 343 – females. Puc. 339–344. Xoanodera Pascoe, 1857 и Xoanotrephus Hüdepohl, 1989, общий вид сверху. 339–341 – Xoanodera trigona Pascoe, 1857 (340 – голотип); 342–343 – X. subtita Holzschuh, 2005; 344 – Xoanotrephus v-signatus Hüdepohl, 1989. 339, 342, 344 – самцы; 340–341, 343 – самки.



Figs 345–350. Cerambycini Latreille, 1802, habitus, ventral view. 345 – Zatrephus longicornis Pic, 1930; 346 – Pascoetrephus klimenkoi **sp. n.**; 347 – P. hefferni **sp. n.**; 348–349 – Xoanodera subtita Holzschuh, 2005; 350 – Xoanotrephus v-signatus Hüdepohl, 1989. 346–347 – holotypes; 345–348, 350 – males; 349 – female. Puc. 345–350. Cerambycini Latreille, 1802, общий вид снизу. 345 – Zatrephus longicornis Pic, 1930; 346 – Pascoetrephus klimenkoi **sp. n.**; 347 – P. hefferni **sp. n.**; 348–349 – Xoanodera subtita Holzschuh, 2005; 350 – Xoanotrephus v-signatus Hüdepohl, 1989. 346–347 – голотипы; 345–348, 350 – самцы; 349 – cамка.

the shape of the submentum, the presence of a distinct dorsal tubercle on the process of the mesosternum and the clear longitudinal carina on the femora (Figs 346, 347, cf. Fig. 345) at their ventral margin on both sides, the general character of setation, on the average the smaller body size, the structure of the endophallus and some other features. By the structure of the eyes, like the head as a whole, the shape of the elytral apex, the presence of a longitudinal carina on the femora, the shape and, partly, sculpture of the pronotum, Pascoetrephus gen. n. resembles individual representatives of the genus Xoanodera Pascoe, 1857, in particular, X. trigona Pascoe, 1857, X. subtita Holzschuh, 2005 (Figs 339-343, 348, 349, 359-361, 374-376, 461) and some other similar species, but differs very clearly at least by the more robust body, the elytral sculpture and setation, the structure of the antennae, especially the shape of antennomeres 3-5 in the male, the shorter and more robust legs, the clearly claviform femora, and the structure of the endophallus. The new genus can also be compared to Xoanotrephus Hüdepohl, 1989 (Figs 344, 350, 362, 373), but differs very clearly at least by characters of the sculpture and setation of the dorsum, the shape of the elytra, including their apex, the presence of a longitudinal groove on antennomere 1 dorsally and of a longitudinal carina on the femora, and the structure of the genitalia.

When detailing the structure of Pascoetrephus gen. n., the following features must be noted as being characteristic of this genus: head short, with a more or less clear or deep groove on vertex and, partly, between eyes; antennae of male about reaching or barely extending beyond, but can also be slightly or barely not reaching the apex of elytra (whereas in Xoanodera, antennae of male at least in the compared species listed above, one way or another, but seem to always be longer than body; in Zatrephus, antennae of male noticeably varying in length, from relatively short, slightly or distinctly not reaching the apex of elytra up to significantly exceeding the length of body, at least extending beyond the apex of elytra by antennomere 9, thereby having a rather strongly elongated last antennomere), in female clearly, very clearly or slightly shorter than body, antennomere 1 with a very wide, relatively deep, longitudinal groove dorsally, occupying most of its length (while in Zatrephus and at least in the compared species of Xoanodera, antennomere 1 without groove dorsally), antennomere 2 clearly transverse, male antennomeres 3 and 4 clearly or strongly inflated, but antennomere 5 not inflated (Figs 369, 371), in basal part on ventral side noticeably flattened, in female (Figs 370, 372) not only 5th, but also antennomeres 3 and 4 flattened (while both in male and female antennomeres 3-5 of Zatrephus one way or another, but to a greater extent in male, inflated, as in Figs 363-368, not flattened; both in male and female Xoanodera antennomeres 3-5 not inflated at all, as in Figs 374-376), last male antennomere only slightly longer than previous one (while in Zatrephus, last antennomere clearly or much longer than previous one); pronotum on disc in middle part not less than with two very strong longitudinal folds (ribs) occupying most or a significant part of pronotum length, its remaining surface also with very coarse, irregular, partly transverse folds, as in Figs 377-392 (while in Zatrephus, at least disc of pronotum cannot be with long, longitudinal, straight, very strong folds, as in Figs 275–286); setation of pronotum consisting of very short or moderately short, suberect, recumbent, monochrome-red or reddish (or mostly yellowish) setae distributed in various ways, but always irregular, generally from sparse and very sparse (Figs 377-381) to quite dense in places (Figs 382–392), thereby capable of forming a peculiar pattern resembling brackets, as in Figs 382-389 (while in Zatrephus, setation of pronotum in most cases at least bicolour, more or less variegated, as in Figs 275-286, but if monochrome-red, then forming no pattern similar to that in some Pascoetrephus gen. n.); elytra with a sharp or more obtuse, but very well-expressed tooth, as a rule, in which their apical external angle extended, with a heterogeneous sculpture almost entirely or strongly hidden by dense setation (in unabraded specimens); puncturation rough, more or less sparse, irregular, one way or another gradually decreasing towards apex or clearly smaller in apical part and, besides this, with very small, relatively uniform, moderately dense, more or less same punctures from base to almost until apex of elytra (while in Xoanodera, at least so in the compared species, elytra with a rough, coarse and extremely coarse puncturation, thereby the latter occupying significant fragments of elytral surface devoid of dense setation, as in Figs 339-343; but if also a very small puncturation present, then it can be observed only as single punctures or insignificant in size, individual, few fragments in different parts of elytra); recumbent setation of elytra dense or very dense, all or almost all monochrome (can only slightly differ in colour from main setation at the very base of elytra), somewhat variable in coloration, more often beige-yellowish, can be grayish, yellowish or other, but only similar tones (while in Zatrephus, setation of elytra polychrome, one way or another variegated, often clearly motley and predominantly small-spotted from red or reddish, sometimes brown or reddish-brown setae in combination with whitish or yellowish setae, as in Figs 263-274; in Xoanodera, at least in the compared species, setation, albeit monochrome, always forming this or that pattern, leaving at least a significant part of elytra surface bare, as in Figs 339-343); prosternum with a welldeveloped transverse groove in front of middle; endophallus with clear or very sharply expressed fields of microtrichia, as in Figs 313–320 (while in *Zatrephus*, at least in the species studied, endophallus with barely or weakly expressed fields of microtrichia, as in Figs 307-312; in Xoanodera species compared, endophallus, albeit with sharply expressed fields of microtrichia, as in Figs 321-326, but location of these fields, like shape of endophallus proper, very strongly different from those in Pascoetrephus gen. n.). The new genus resembles Xoanotrephus mainly by the habitus, the structure of the head, including the eyes, the structure of the legs and antennae, including antennomeres 3-5 of the male and, based on the similarity of these very features, it was compared above with this genus.

Remarks. *Pascoetrephus inscitus* (Pascoe, 1857), **comb. n.**, originally described in the genus *Zatrephus* [Pascoe, 1857], was later transferred by that author to the genus *Xoanodera* [Pascoe, 1869: 524]. Lacordaire [1868: 270] pointed to the transitional character of *P. inscitus* **comb. n.** between *Zatrephus* (meaning another, now the type species of the genus, *Z. pannosus*)

and *Xoanodera*, namely, *X. trigona* (also the type species of the genus). Gemminger [1872: 2805] and Aurivillius [1912: 63] treated *inscitus* in *Xoanodera*. Modern researchers [Heffern, 2005, 2013; Holzschuh, 2009; Base de données..., 2017] include it into the genus *Zatrephus*, albeit some specimens I have studied are labelled by Holzschuh as "*Xoanodera inscita* Pasc. Holzschuh det. 2006" (see below).

Indeed, *Pascoetrephus* gen. n. combines some features of the genera *Zatrephus*, *Xoanodera* and *Xoanotrephus*, as partly noted above. However, the discovery of new species described below and a detailed study of already known taxa convincingly demonstrate both the taxonomic independence and morphological isolation of the new genus to be established, on the one hand, and the clearly expressed homogeneity of all of its representatives, on the other hand.

Etymology. This new genus is dedicated to the memory of Francis Polkinghorne Pascoe (1813–1893), a famous English coleopterologist, who made invaluable contributions to the knowledge of longicorn beetles, especially of the Oriental Region. The name is formed in combination with part of the generic name "*Zatrephus*" he also established.

Composition. The new genus includes four species, two of which are described as new, while one taxon gets a full species status.

Distribution. Oriental realm.

Pascoetrephus inscitus (Pascoe, 1857), **comb. n.** (Figs 299, 301, 305, 316, 354, 377–381, 459; Color plate 5: 327–330)

Zatrephus inscitus Pascoe, 1857: 94. Type locality: Borneo [Malaysia] Sarawak (according to the original description and the label of the holotype).

Zatrephus inscitus inscitus: Holzschuh, 2009: 289; Heffern, 2013: 12.

Xoanodera inscita: Pascoe, 1869: 524; Gemminger, 1872: 2805; Aurivillius, 1912: 63.

Material. \bigcirc , holotype, by monotypy (BMNH) (Fig. 327), "Sarawak", "Zatrephus inscitus Pasc. Type", "Type", "Sarawak, Xoanodera inscita P., Type" (Fig. 459); $1\bigcirc$ (cDH), E Malaysia, Sabah, Crocker Range, 6.04.1999 (local collector), "Zatrephus inscitus Pascoe, det. D. Heffern", "Pascoetrephus inscitus (Pascoe, 1857) \bigcirc det. A. Miroshnikov 2017"; $1\bigcirc$ (cDH) (Fig. 330), E Malaysia, Sabah, Trus Madi Mt., 17.03.2000 (local collector), "Zatrephus inscitus Pascoe, det. D. Heffern", "Pascoetrephus inscitus (Pascoe, 1857) \bigcirc det. A. Miroshnikov 2017"; $1\bigcirc$ (cDH) (Fig. 328), same labels, but taken on 03.2000, "Pascoetrephus inscitus (Pascoe, 1857) \bigcirc det. A. Miroshnikov 2017"; $1\bigcirc$ (cAM) (Fig. 329), W Malaysia, Pahang, Cameron Highlands, Ringlet, 05.2013 (local collector), "Pascoetrephus sinstitus (Pascoe, 1857) \bigcirc det. A. Miroshnikov 2017";

Morphological notes. Body length 20.4–22.8 mm, humeral width 5.6–6.4 mm, thereby holotype largest.

Distribution. This species has hitherto been known only from Borneo [Pascoe, 1857; Heffern, 2013]. Based on the material studied, *P. inscitus* **comb. n.** is being recorded here from Western Malaysia, as generally from Indochina, for the first time. However, the label data "Pahang, Cameron Highlands, Ringlet" for the specimen I have examined (see above) may need confirmation.

Pascoetrephus klimenkoi Miroshnikov, **sp. n.** (Figs 300, 302, 306, 313–315, 317, 331, 332, 346, 355, 356, 369, 370, 382–385)

Material. Holotype, \eth (cAM) (Fig. 331): E Malaysia, Sabah, Nabawan Distr., ~7 km N Pensiangan vill., 530 m, 04°35′16″N / 116°19′27″E, 27–

31.05.2014 (leg. A. Klimenko). Paratypes: 1 \checkmark , 1 \bigcirc (cAM), same label as holotype; 1 \bigcirc (cDH) (Fig. 332), E Malaysia, Sabah, Trus Madi Mt., 18.03.2000 (local collector), "*Zatrephus inscitus* Pascoe, det. C. Holzschuh".

Diagnosis. The new species seems to be especially similar to P. inscitus comb. n., but differs clearly by the somewhat peculiar sculpture of the pronotum disc, as in Figs 382-385, its generally more strongly developed, recumbent, red/reddish setation forming a characteristic pattern in the form of brackets, as in Figs 382-385 (cf. Figs 377-381), the less deep median groove on the vertex and, partly, between the eyes, the sparser, recumbent, light setation in the apical part of the prosternum, the less deep transverse impression at the anterior margin of the submentum, the structure of the genitalia of the male and female, including the clearly rounded apex of the styles, as in Figs 300, 302, 306, 313-315, 317 (cf. Figs 299, 301, 305, 316). Pascoetrephus klimenkoi sp. n. can also be compared to P. hefferni sp. n. and P. ranongensis Holzschuh, 2009, stat. n. et comb. n., but differs from both by the clearly shorter setae at least at the apex and base of the pronotum disc, as in Figs 382-385 (cf. Figs 386-392), the less strongly expressed and seemingly sparser puncturation in the apical part of the elytra (discarding the very small puncturation); it also differs from the former species by the shape of the pronotum, as in Figs 382-385 (cf. Figs 386-389), the structure of the endophallus, including its shape and clearly more strongly expressed fields of microtrichia, as in Figs 313-315, 317 (cf. Figs 318-320), from the latter species by the generally less strongly developed setation of the pronotum and the somewhat peculiar sculpture on its disc, as in Figs 382-385 (cf. Figs 390-392).

Description. Body length 19.1–22.6 mm, humeral width 5.15–6.1 mm, thereby holotype 22.4 and 6 mm, respectively. Head dorsally, eyes, fragments of coarse sculpture (folds) on pronotum, partly apex of elytra and epipleura, also partly mandibles, antennae and legs black or brown-black; remaining parts reddish brown and dark reddish brown tones, however black or brown-black can also be scuttelum and significant part of elytra while reddish brown and dark reddish brown can be head dorsally.

Head with weakly developed antennal tubercles; with a coarse, longitudinal, median fold partly between bases of antennae and partly between eyes, with a median groove between most of bases of antennae, with a clear or sometimes moderately deep, more or less short, median groove on vertex just behind eyes or, besides this, partly between eyes; eyes well-developed, relatively strongly convex; genae short, about twice shorter than longitudinal diameter of lower lobe of eye; submentum with a heterogeneous, coarse and rough, sparse, partly confluent puncturation; neck ventrally with sharp, transverse, predominantly short, numerous folds; gula with clear transverse folds; antennae of male barely reaching beyond apex of elytra by last antennomere or only reaching it, in female very clearly not reaching the apex of elytra; length ratio of antennomeres 1–11 in male (holotype taken as an example), 37:10:40:38:33:42:47:47:46:41:51, in female (one of the paratypes taken as an example), 34:11:40:32:32:41:43:40:37:32:34; antennomere 1 with a very wide, relatively deep, longitudinal groove dorsally, the latter taking up most of its length; antennomere 2 strongly transverse; antennomeres 3-4 of male strongly inflated; antennomeres 6-10 or 7-10 serrate; last antennomere with a distinct appendage.

Pronotum distinctly longitudinal, 1.11–1.13 times as long as width; base 1.2–1.22 times as wide as apex; with a very sharp constriction near apex; on disc in middle part with two very strong longitudinal folds (ribs), the latters taking up most of pronotal length; remaining surface with very coarse, irregular, partly transverse folds, as in Figs 382–385.



Figs 351-376. Cerambycini Latreille, 1802, head, ventral view, and left antennomeres 2-6 or 2-5, dorsal view.

351, 367 – Zatrephus crassinus Holzschuh, 1992; 352, 366 – Z. longicornis Pic, 1930; 353, 368 – Z. golovatchi **sp. n.**; 354 – Pascoetrephus inscitus (Pascoe, 1857), **comb. n.**; 355–356, 369–370 – P. klimenkoi **sp. n.**; 357–358, 371–372 – P. hefferni **sp. n.**; 359, 374 – Xoanodera trigona Pascoe, 1857; 360–361, 375–376 – X. subtita Holzschuh, 2005; 362, 373 – Xoanotrephus v-signatus Hüdepohl, 1989; 363–364 – Z. pannosus Pascoe, 1857; 365 – Z. javanicus Fisher, 1936, 353–355, 357, 368–369, 371 – holotypes; 356, 358, 370, 372 – paratypes; 351–353, 355, 357, 359–360, 362–363, 365–369, 371, 373–375 – males; 354, 356, 358, 361, 364, 370, 372, 376 – females.

Рис. 351–376. Cerambycini Latreille, 1802, голова снизу и 2–6-й или 2–5-й левые членики усиков сверху.

351, 367 – Zatrephus crassinus Holzschuh, 1992; 352, 366 – Z. longicornis Pic, 1930; 353, 368 – Z. golovatchi **sp. n**.; 354 – Pascoetrephus inscitus (Pascoe, 1857), **comb. n**.; 355–356, 369–370 – P. klimenkoi **sp. n**.; 357–358, 371–372 – P. hefferni **sp. n**.; 359, 374 – Xoanodera trigona Pascoe, 1857; 360–361, 375–376 – X. subtita Holzschuh, 2005; 362, 373 – Xoanotrephus v-signatus Hüdepohl, 1989; 363–364 – Z. pannosus Pascoe, 1857; 365 – Z. javanicus Fisher, 1936. 355–355, 357, 368–369, 371 – голотипы; 356, 358, 370, 372 – паратипы; 351–353, 355, 357, 359–360, 362–363, 365–369, 371, 373–375 – самцы; 354, 356, 358, 361, 364, 370, 372, 376 – самки.















Figs 377-392. Pascoetrephus gen. n., pronotum. 377-381 – P. inscitus (Pascoe, 1857), comb. n.; 382-385 – P. klimenkoi sp. n.; 386-389 – P. hefferni sp. n.; 390-392 – P. ranongensis (Holzschuh, 2009), stat. n. et comb. n. 377, 382, 386, 390 – holotypes; 383-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-383, 386, 390 – males; 377-379, 384-385, 387-389, 391-392 – paratypes; 380-382, 386, 390 – males; 377-379, 384-385, 386, 390 – males; 377-379, 390 – males; 377-380, 390 – m

2009), stat. n. et comb. n. 377, 382, 380, 390 – полотурся, 383–383, 391–392 – рагатурся, 380–383, 380, 390 – пайся, 377–383, 391–392 – рагатурся, 380–383, 380, 390 – пайся, 377–383, 391–392 – рагатурся, 380–383, 380, 390 – пайся, 377–384, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–383, 380–382, 280–383, 380–383, 380–383, 380–382, 280–383, 380–380–383, 380–383, 380–380–380, 391–392–380,

Scutellum strongly narrowed towards apex, triangular, at the very apex truncate or broadly rounded.

Elytra predominantly almost parallel-sided starting from base, 2.31–2.35 times as long as humeral width; with a rough, more or less sparse, irregular puncturation, punctures being larger in basal part and clearly smaller in apical one; besides this, with a very small, relatively regular, moderately dense punctures, more or less same in size, extending from base to almost until apex of elytra; apical external angle drawn into a large sharpened tooth, sutural angle drawn into a clear sharp denticle.

Prosternum with a sharp, deep, transverse groove in front of middle, with coarse irregular folds behind it; prosternal process with a very strong apical tubercle; mesosternal process with a very strong tubercle dorsally, between coxae slightly or distinctly wider than prosternal process; mesosternum partly and sternites with a clear, small, dense puncturation; metasternum with a clear, small, dense puncturation and individual rough punctures, as well as with a well-expressed median groove; both last (visible) male sternite and tergite at apex truncate, with a shallow emargination; in female, last (visible) sternite at apex broadly rounded or truncate, last (visible) tergite at apex broadly rounded or truncate, with a shallow emargination.

Legs moderately short; femora claviform, with a longitudinal carina on sides; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation of head dorsally and partly, at least of most of antennomeres, of elytra almost entirely (partly except for humeri), of scutellum, legs, of almost entirely venter beigeyellowish, sometimes greyish, parly yellowish dorsally, mainly yellowish ventrally; red/reddish short setae on disc of pronotum forming a very clear peculiar pattern resembling brackets, whereas near base, apex and on sides ones mainly sparse or very sparse, as in Figs 382–385, and can also be present individualy in middle part of disc; head, pronotum laterally, elytra and abdomen at apex, partly legs, including trochanters, most of antennomeres in apical part with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 300, 302, 306, 313-315, 317.

Etymology. This new species is dedicated to the memory of Alexey Alexandrovich Klimenko who untimely left us (1970–2017), a remarkable traveler, as well as an excellent connoisseur and collector of beetles.

Distribution. Eastern Malaysia.

Pascoetrephus hefferni Miroshnikov, **sp. n.** (Figs 303, 318–320, 333–335, 347, 357, 358, 371, 372, 386–389)

Material. Holotype, \Diamond (cAM) (Fig. 333): E Malaysia, Sabah, Keningau Distr., Trus Madi Mt., 1160 m, 22.03.2014 (leg. A. Klimenko). Paratypes: 1 \Diamond (cAM) (Fig. 334), Sabah, Keningau Distr., Trus Madi Mt., 1250 m, 05°26'35N" / 116°27'5"E, 22–26.05.2014 (leg. A. Klimenko); 1 \Diamond (NHMD) (Fig. 335), E Malaysia, Sabah, Crocker Range, 03.2003 (local collector), *"Xoanodera inscita* Pasc., Holzschuh det. 2006"; 1 \Diamond (cDH), same locality, 13.03.1998 (local collector), "DJHC Acc. # 98.4987", "Zatrephus inscitus Pascoe, det. D. Heffern".

Diagnosis. The new species seems to be especially similar to *P. ranongensis* **stat. n.** et **comb. n.**, but differs at least by the somewhat peculiar shape and sculpture of the pronotum, as in Figs 386–389 (cf. Figs 390–392), the generally less strongly developed, recumbent, red/reddish setation on its disc, but forming a very clear and characteristic pattern in the form of brackets, as in Figs 386–389 (cf. Figs 390–392), the peculiar shape of the apical part of the tegmen, as in Fig. 303 (cf. Fig. 304). *Pascoetrephus hefferni* **sp. n.** can also be compared to *P. inscitus* **comb. n.** and *P. klimenkoi* **sp. n.**, but differs from

both by the somewhat peculiar shape and sculpture of the pronotum, shown in Figs 377–385, the comparatively longer setae at least at the apex and base of its disc, as in Figs 386–389 (cf. Figs 377–385), the more sharply expressed puncturation in the apical part of the elytra (discarding the very small puncturation); it also differs from the former species by the generally more strongly developed, recumbent, red/reddish setation of the pronotum, thereby forming on its disc a pattern shown above in Figs 386– 389 (cf. Figs 377–381), it differs from the latter species by the structure of the endophallus, as in Figs 318–320 (cf. Figs 313–315, 317), as partly described above.

Description. Body length 18–23.05 mm, humeral width 4.8– 6.35 mm, thereby holotype smallest. Head dorsally, eyes, fragments of coarse sculpture (folds) on pronotum, partly apex and epipleura of elytra, also partly mandibles, antennae and mesostrnum black or brown-black; remaining parts reddish brown and dark reddish brown tones, however black or brown-black can also be pronotum almost entierely, scuttelum and significant part of elytra while reddish brown and dark reddish brown can be head dorsally.

Head with weakly developed antennal tubercles; with a coarse, longitudinal, median fold partly between bases of antennae and partly between eyes, with a median groove between most of bases of antennae, with a ptetty deep, more or less short, median groove on vertex just beyond eyes or, besides this, partly between eyes; eyes well-developed, relatively strongly convex; genae short, about twice shorter than longitudinal diameter of lower lobe of eye; submentum with a heterogeneous, coarse or rough, sparse, but not too deep, partly confluent puncturation; neck ventrally with sharp, transverse, predominantly short, numerous folds; gula with clear transverse folds; antennae of male barely reaching beyond apex of elytra by last antennomere, in female clearly or very clearly not reaching the apex of elytra; length ratio of antennomeres 1-11 in male, 30 : 7 : 35 : 28 : 25 : 38 : 41 : 39 : 38 : 35 : 40, in female (one of the paratypes taken as an example), 34:10:40:29:32:43:45:41:39:34:36; antennomere 1 with a very wide, relatively deep, longitudinal groove dorsally, the latter taking up most of its length; antennomere 2 strongly transverse; antennomeres 3-4 of male moderately inflated; antennomeres 6-10 or 7-10 serrate; last antennomere with a distinct appendage.

Pronotum distinctly longitudinal, 1.13–1.15 times as long as width; base 1.26–1.34 times as wide as apex; with a very sharp constriction near apex; on disc in middle part with two very strong longitudinal folds (ribs) taking up most of pronotal length, can be with another two similar, but shorter adjacent folds; remaining surface with very coarse, irregular, partly transverse folds, as in Figs 386–389; sculptural formation in apical one-quarter of disc delimited to rear by symmetrical, more or less strongly curved ledges converging at midline under a distinct angle, as in Figs 386–389 (in *P. ranongensis* **stat. n.** et **comb. n.**, this sculptural formation delimited to rear, at least so in middle part, by a common, more or less even ledge, from which a longitudinal very short fold branching off at midline, as in Figs 390–392).

Scutellum strongly narrowed towards apex, triangular, at the very apex truncate or broadly rounded.

Elytra predominantly almost parallel-sided starting from base, 2.3–2.37 times as long as humeral width; with puncturation rough, more or less sparse, irregular, one way or another gradually decreasing towards apex and, besides this, with very small, relatively uniform, moderately dense, more or less same punctures from base to almost until apex of elytra; apical external angle drawn into a large or very large, sharpened tooth, sutural angle drawn into a clear sharp denticle.

Prosternum with a sharp, deep, transverse groove in front of middle, with coarse irregular folds behind it; prosternal process with a very strong apical tubercle; mesosternal process with a very strong tubercle dorsally, between coxae not or only slightly wider than prosternal process; mesosternum partly, metasternum and sternites with a clear, small, dense puncturation; metasternum with a well-expressed median groove; both last (visible) male sternite and tergite at apex with a weak broad emargination; in female, last (visible) sternite at apex broadly rounded, last (visible) tergite truncate apically.

Legs moderately short; femora claviform, with a longitudinal carina on sides; tarsomere 1 very clearly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation of head dorsally partly, at least of most of antennomeres, of elytra almost entirely (except for humeri partly), of scutellum, legs, of almost completely venter beige-yellowish; red/reddish, moderately short and shorter setae on disc of pronotum forming a very clear peculiar pattern resembling brackets while setae near base and apex (where they most developed in length) and, besides this, in middle part of disc and on sides mainly sparse or very sparse, as in Figs 386–389; head, pronotum on disc and laterally, elytra and abdomen at apex, prosternum, partly legs, including on trochanters, most of antennomeres in apical part, sometimes the very base of elytra with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia as in Figs 303, 318-320.

Etymology. I am pleased to dedicate this new species to my colleague, Mr. Daniel J. Heffern (Houston, USA), a great enthusiast in the study of Bornean cerambycids, who has kindly provided his very important material for my study and shared valuable information.

Distribution. Eastern Malaysia.

Pascoetrephus ranongensis (Holzschuh, 2009), stat. n. et comb. n. (Figs 304, 390–392, 460; Color plate 6: 336–338)

Zatrephus inscitus ranongensis Holzschuh, 2009: 289. Type locality: Thailand, 7 km N Ranong, 350–500 m (according to the original description and the label of the holotype).

Material. δ , holotype (BMNH) (Color plate 6: 336), Thailand, 7 km N Ranong, 350–500 m, 26.11.1991 (leg. I. Kitching), "Imbrius simulans (sic) Holz., E. Vives det. 2008", "Holotypus Zatrephus inscitus ranongensis n. ssp. det. C. Holzschuh 2009" (Fig. 460). Paratypes: 1φ (BMNH), same geographical label as holotype, "Imbrius simulans (sic) Holz., E. Vives det. 2008", "Paratypus Zatrephus inscitus ranongensis n. ssp. det. C. Holzschuh 2009"; 2φ (BMNH), same locality as holotype, 28–29.11.1991 (leg. I. Kitching), "Imbrius simulator Holz., E. Vives det. 2008", "Paratypus Zatrephus inscitus ranongensis n. ssp. det. C. Holzschuh 2009"; 1φ (BMNH), same locality as holotype, 28–29.11.1991 (leg. I. Kitching), "Imbrius simulator Holz., E. Vives det. 2008", "Paratypus Zatrephus inscitus ranongensis n. ssp. det. C. Holzschuh 2009"; 1φ (BMNH) (Color plate 6: 337), Thailand, 7 km N Ranong, 350–500 m, 28–29.11.1991, "Kitching & Cotton, BMNH {E}, 1992–14"; 1φ (cCH) (photograph; Color plate 6: 338).

Morphological notes. Body length 15.6–23 mm, humeral width 4.3–6.2 mm, thereby holotype smallest.

Remarks. Based on the holotype male and four paratype females I have studied, this taxon, without any doubt, is to be considered as a separate species belonging to the newly described genus. Thus, *Pascoetrephus ranongensis* (Holzschuh, 2009), **stat. n.** et **comb. n.**

Distribution. This species is still known in the literature only from the original description, based on material coming from the south of Thailand [Holzschuh, 2009]. Undoubtedly, it is much more widely distributed and its records can be expected at least from Western Malaysia.

Key to species of Pascoetrephus gen. n.

1. Red/reddish setae on pronotal disc at least at base and apex clearly shorter, as in Figs 377–385; rough puncturation in basal part of elytra much more strongly expressed

- Setation of pronotum of red/reddish setae in general more strongly developed, forming on its disc a distinct characteristic pattern in the form of brackets, as in Figs 382–385; each of at least two longitudinal folds in median part of pronotal disc without any branch, as in Figs 382–385; head with a less deep median groove on vertex and partly between eyes *P. klimenkoi* sp. n.
- Setation of pronotum of red/reddish setae generally less strongly developed, but forming on its disc a very distinct characteristic pattern in the form of brackets, as in Figs 386–389; sculptural formation in apical one-quarter of pronotal disc delimited to rear by symmetrical, more or less strongly curved ledges converging at midline under a distinct angle, as in Figs 386–389; Borneo P. hefferni sp. n.
- Setation of pronotum of reddish/yellowish setae generally more strongly developed, but forming no very clear pattern on its disc, as in Figs 390–392; sculptural formation in apical one-quarter of pronotal disc delimited to rear, at least so in middle part, by a common, more or less even ledge, from which a longitudinal fold can branch off at midline, as in Figs 390–392; Indochina: Thailand P. ranongensis

Genus Pachydissus Newman, 1838

Pachydissus Newman, 1838: 494. Thomson, 1864: 231; Lacordaire, 1868: 265; Gemminger, 1872: 2804; Gahan, 1891: 24; 1906: 133; Aurivillius, 1912: 56; Gressitt, 1951: 141; Gressitt, Rondon, 1970: 71; Adlbauer, 2002: 158; Catalogue..., 2010: 162; Ślipiński, Escalona, 2016: 223.

Type species: *Pachydissus sericus* Newman, 1838, by monotypy.

Remarks. This genus is very widely distributed and covers Africa, South, East and Southeast Asia, Australia and Papua New Guinea, generally encompassing about 40 species [Ślipiński, Escalona, 2016; Base de données..., 2017].

Reviews of the African and Australian representatives of the genus were made by Adlbauer [2002] and Ślipiński and Escalona [2016], respectively. Papua New Guinea supports only two species [Montrouzier, 1855; Gressitt, 1959]. The Asian group of species needs a detailed revision and a diagnostic re-evaluation of the genus as a whole.

The first transformations in the supraspecific classification of the genus were implemented by Gahan



Figs 393–399. Falsopachydissus gen. n. and Pachydissus Newman, 1838, habitus, dorsal view, pronotum and last left antennomere. 393–397 – F. foveiscapus (Holzschuh, 2011), comb. n. (394 – paratype, after Holzschuh [2011], photograph by Luboš Dembický); 398 – P. parvicollis Gahan, 1891; 399 – P. schmutzenhoferi Holzschuh, 1990 (after Holzschuh [1990], photograph by Luboš Dembický). 398–399 – holotypes; 393, 397–399 –

 Galan, 1991, 397 – Г. schmutzenniger Protecting 1990 (and Protecting 1996), рассов дельску, теленску, теленску, геленску, 394-396 - самки.



Figs 400–405. Pachydissus Newman, 1838 and Dymasius J. Thomson, 1864, habitus, dorsal view.
400 – P. sericus Newman, 1838; 401 – P. australasiae (Hope, 1842); 402 – P. intermedius Gahan, 1891; 403 – P. probatus Gahan, 1893; 404 – P. patricius
Holzschuh, 1991 (after Holzschuh [1991], photograph by Luboš Dembický); 405 – D. querceus Holzschuh, 2015 (after Holzschuh [2015], photograph by Luboš Dembický). 400, 402–405 – holotypes; 400–402, 405 – males; 403–404 – females.
Puc. 400–405. Pachydissus Newman, 1838; 401 – P. australasiae (Hope, 1842); 402 – P. intermedius Gahan, 1891; 403 – P. probatus Gahan, 1893; 404 –
Pursteijus Holzschuh 1001 (and Underschuh 2015).

Р. patricius Holzschuh, 1991 (по [Holzschuh, 1991], фотография Л. Дембицкого); 405 – D. querceus Holzschuh, 2015 (по [Holzschuh, 2015], фотография Л. Дембицкого). 400, 402–405 – holotypes; 400–402, 405 – самцы; 403–404 – самки.

[1891], who established four taxa as its subgenera ("sections"): *Pachydissus* s. str. ("verus"), *Margites* Gahan, 1891, *Derolus* Gahan, 1891 and *Diorthus* Gahan, 1891. However, he later [Gahan, 1906] promoted his taxa to full genera. This was accepted by Aurivillius [1912], Gressitt [1951], Gressitt and Rondon [1970] and subsequent researchers.

At the same time, Gressitt and Rondon [1970] proposed to divide *Pachydissus* into two subgenera, including *Plavichydissus*, described by Pic [1946] as a separate genus. But they noted thereby: *"Plavichydissus...* We are tentatively (*sic*) treating the latter as a subgenus of *Pachydissus.*" Until now, such a subgeneric structure is supported by some modern researchers (see, for example, Base de données... [2017]).

In the present work, it seems to me impossible to discuss in detail the systematic position of *Plavichydissus* and its morphological features. However, provisionally I would like to note that this taxon seems should not be considered within *Pachydissus*. Representatives of *Plavichydissus* are characterized at least by the peculiar sculpture and setation of the elytra and pronotum, as well as by the apex of the elytra devoid of clear or long teeth or spines, by non-inflated antennomeres 3 and 4 of the male, and only up to 28 mm in length.

When determining, again just preliminarily, the composition of *Plavichydissus*, besides its type species, *P. semiplicatus* (Pic, 1926) [Pic, 1946], as well as *Pachydissus* (*Plavichydissus*) grossepunctatus Gressitt et Rondon, 1970, I would prefer to consider among its representatives, also included therein earlier [Pic, 1946], *P. rufipennis* (Pic, 1923) and such species as *Margites sulcicollis* Gahan, 1893, *M. decipiens* Holzschuh, 1989, *M. aggregatus* Holzschuh, 1999 and *M. sodalis* Holzschuh, 1999. However, further studies are needed to clarify the diagnosis and species composition of the genus *Plavichydissus*.

Pachydissus foveiscapus was described relatively recently from Eastern Malaysia, but the author noted the following: "Differentialdiagnose. Die neue Art ist schwierig in eine der bekannten Gattungen unterzubringen. Nur wegen des ziemlich kurzen Halsschildes stelle ich sie vorläufig zu *Pachydissus* Newman, 1838." [Holzschuh, 2011: 280–281]. Indeed, this species shows both a peculiar combination of features and some structural details that are generally typical of neither *Pachydissus* nor other similar genera. In this regard, it seems to me appropriate to distinguish *P. foveiscapus* in a separate, new genus described below.

Genus Falsopachydissus Miroshnikov, gen. n.

Type species: *Pachydissus foveiscapus* Holzschuh, 2011.

Diagnosis. This new monotypic genus, the single representative of which has hitherto been in the genus *Pachydissus* (see above), differs clearly from the latter (except for one African species, keeping in mind only the structure of the antennae; see Remarks below) by the structure of the apical inner angle of antennomeres 5–10 with a long sharp spine, the last antennomere being strongly sharpened or extended apically into a very sharp

spine, as in Fig. 396, the coarser, partly one way or another shaggy, dense setation of the elytra, as in Figs 393–395, the somewhat peculiar distribution of the pronotum setation, as in Figs 393–395, 397, reminding of some *Zatrephus*.

Besides this, Falsopachydissus gen. n. is similar to neither Asian forms (see, for example, Figs 398, 399, 404) nor numerous other representatives of Pachydissus in a number of other features, differing by the more strongly convex pronotum on the disc, the shorter antennomere 1 with a strong or at least very clear impression near the base dorsally, the distinctly tuberous (more clearly so in the female) mesosternal process in the middle part on the sides, the shorter and wider submentum, the shape of the inflated apical part of antennomeres 3 and 4 of the male (in contrast to species with thickened apices of male antennomeres 3 and 4), the more strongly elongated last antennomere of the male relative to the previous antennomere, the somewhat peculiar shape of the apical external angle of the elytra; differs also from some Asian species by the shorter legs with more robust tibiae, and the clearly shorter metaand mesotarsi 1.

For the purpose of a more complete characterization of the new genus, it is also advisable to use some details of the structure of its sole representative as shown in the comparatively recent paper of Holzschuh [2011].

Very interesting is the strong similarity in the structure of the antennae of Falsopachydissus gen. n. to another new genus described above, Spinidymasius gen. n., but the former differs clearly from the latter by the more robust body; the wider head, including the broader frons and the more widely spaced bases of the antennae; the apical inner angle of antennomere 5 with a long sharp spine similar to the following antennomeres, except for the last one (in Spinidymasius gen. n., the apical inner angle of antennomere 5 can only be with a small denticle, but not a long spine); the structure of the pronotum, in particular, its being clearly more strongly convex on the disc and there bearing a somewhat peculiar sculpture and setation; the character of elytral setation (in Spinidymasius gen. n., elytra, if with a continuous setation, then clearly silky or distinctly patterned, but not shaggy).

At the same time, by the structure of the antennae, at least by the presence and location of the spine at an apical inner angle of antennomeres 5–10 and the shape of most antennomeres, the new genus is similar to some members of the genus *Massicus* Pascoe, 1867, in particular, *M. venustus* (Pascoe, 1859), but differs very clearly in many features, including the more robust body, the much less strongly elongated elytra, the pattern of their recumbent setation, the structure of the pronotum, the stronger and shorter legs, etc.

Remarks. Among the African *Pachydissus*, only one species, *P. samai* Adlbauer, 2000, has the apical inner angle of the antennomeres 5–10 with a distinct spine, but in many other features it is a characteristic representative of the African group of species of this genus (Adlbauer [2002] and his personal communication of July 21, 2017). Besides this, in *P. samai*, in contrast to *Falsopachydissus* **gen. n.**, the last antennomere is distinctly rounded apically (personal communication of Dr. Karl Adlbauer of July 21, 2017).

It is noteworthy that the apical inner angle of antennomeres 5–10 (in addition, sometimes the 3^{rd} and 4^{th} as well) carrying a more or less long spine, on the contrary, is characteristic of one or another representative of the genus *Aeolesthes* Gahan, 1890, with which some authors compare *Pachydissus* [Ślipiński, Escalona, 2016]. However, in *Aeolesthes* the last antennomere is the same as in *Pachydissus*, neither sharpened apically nor drawn into a sharp spine, but differs clearly from the new genus by the same features as *Pachydissus* does, including the setation of the pronotum and elytra, the sculpture of the pronotum and a number of other features.

Until now, I have been able to study more or less in due detail only the majority of Australian (see, for example, Figs 400-403), some Asian and several African representatives of Pachydissus (including the type species of the genus, the Australian P. sericus Newman, 1838, Fig. 400), while the structure of the other species from Australia, Asia and Africa, as well as the species from Papua New Guinea, have been studied, based on literature data alone [Gressitt, 1959; Holzschuh, 1991; Adlbauer, 2002; Ślipiński, Escalona, 2016 and others], as well as many quality photographs and personal advice kindly provided to me by Dr. Karl Adlbauer (Graz, Austria) on some African forms. Several species of this genus remain unknown to me, in particular, P. elegans Nonfried, 1895. Nevertheless, already at this stage I tend to believe that Pachydissus and Falsopachydissus gen. n. do not constitute a group closely related supraspecific taxa. At least in the future, in the case of a detailed revision of Pachydissus, the new genus can hardly be justified as one of the latter's subgenera. No analogy with Dymasius and Spinidymasius gen. n. seems to be observed on this case (see above).

Etymology. In Latin, "falsus" means "false", i.e., in general the name is treated as "false *Pachydissus*".

Composition. The new genus includes a single species.

Distribution. Until now, this genus is known only from Borneo.

Falsopachydissus foveiscapus (Holzschuh, 2011), comb. n. (Figs 393–397)

Pachydissus foveiscapus Holzschuh, 2011: 279. Type locality: Malaysia, Sabah, Crocker Range (according to the original description). Heffern, 2013: 11.

Material. ♂, holotype (cCH) (photograph); 1♀, paratype (NHMD), E Malaysia, Sabah, Trus Madi Mt., 03.2003 (local collector), "Paratypus Pachydissus foveiscapus n. sp., det. C. Holzschuh 2011"; 1♀ (cAM) (Fig. 395), same locality, 22–26.05.2014, 1250 m, 05°26'35″N / 116°27'5″E (leg. A. Klimenko); 1♂ (NHMD), E Malaysia, Sabah, Crocker Range, 04.2014 (local collector), "Pachydissus foveiscapus, O. Mehl det. 2014"; 1♂ (BMNH) (Fig. 393), "Brunei, Kuala Belalong FSC [Field Studies Centre], 4.34°N, 115.7″E, Dipterocarp forest, Dryobalanops becarii, BM(NH), 1991–173", "Aerial Malaise 3, 220 m alt., 8V1.[19]91, N. Mawdsley [leg.] NM181", "57", "Zatrephus spinosus Brong., E. Vives det. 2005", "Pachydissus" foveiscapus Holzschuh, 2011 ♂ det. A. Miroshnikov 2016"; 1♀, paratype (cDH) (photograph); 1♀, paratype (cCH) (photograph; Fig. 394).

Morphological notes. Body length 26-34 mm.

Distribution. This species has hitherto been known only from Eastern Malaysia [Holzschuh, 2011]. Based on the studied material, *F. foveiscapus* **comb. n.** is being recorded here from Brunei for the first time.

Genus Massicus Pascoe, 1867

Massicus Pascoe, 1867: 319 [name replacement for *Conothorax* J. Thomson, 1864, non Jeckel, 1854 (Curculionidae)]. Lacordaire, 1868: 260; Gemminger, 1872: 2802; Gahan, 1906: 129; Aurivillius, 1912: 55; Gressitt, Rondon, 1970: 59; Lee, 1982: 27; Kusama, Takakuwa, 1984: 252; Hüdepohl, 1990a: 60; Catalogue..., 2010: 161; Heffern, 2013: 10.

Mallambyx Bates, 1873: 152 (Pachydissus subgen.).

Mallambyx: Ganglbauer, 1889: 473; Winkler, 1929: 1141; Matsushita, 1933: 243; Mitono, 1940: 82; Plavilstshikov, 1940: 79, 635; Gressitt, 1951: 135; Kojima, Hayashi, 1969: 47; Tsherepanov, 1981: 22.

Type species: *Cerambyx pascoei* J. Thomson, 1857, by monotypy.

Remarks. This genus is widely distributed and covers South, East and Southeast Asia. Taking into account the new forms described here, it contains no less than 15 species.

Massicus is very similar to *Neocerambyx* J. Thomson, 1861, but the diagnoses of both genera require a further detailed development, since the morphological differences between them as proposed by various researchers are generally unstable and can be used only for part of the species. *Neocerambyx* or *Massicus* (= *Mallambyx* Bates, 1873) *raddei* Blessig, 1872 can be mentioned as a striking example, when many publications treat the same species in different genera [Blessig, 1872; Heyden, 1880–1881; Ganglbauer, 1889; Pic, 1900; Aurivillius, 1912; Winkler, 1929; Matsushita, 1933; Mitono, 1940; Plavilstshikov, 1940; Gressitt, 1951; Kojima, Hayashi, 1969; Tsherepanov, 1981; Lee, 1982; Kusama, Takakuwa, 1984; Hüdepohl, 1990b; Hua, 2002; Catalogue..., 2010 and many others].

Descriptions of two new species from Malaysia are given below.

Massicus valentinae Miroshnikov, sp. n. (Figs 406, 409)

Material. Holotype, ♂ (cAM) (Fig. 406): W Malaysia, Pahang, Cameron Highlands, Tanah Rata, 04.2015 (local collector). Paratype: 1♀ (cAM), W Malaysia, Pahang, Bukit Fraser [= Fraser's Hill], 3°43'N / 101°44'E, 1000–1300 m, 9–11.05.2007 (leg. V. Tuzov).

Diagnosis. The new species seems to be especially similar to M. trilineatus (Pic, 1933) and M. taiwanus Makihara et Niisato, 2014, but differs from both by the clearly more strongly convex pronotum; the somewhat peculiar, recumbent, light setation on its disc forming clearly narrower longitudinal strips and significantly masking the sculpture in the middle part of the disc (especially so in the male), due to which the longitudinal strips look less contrasting against the general background of the setation, as in Fig. 409 (cf. Figs 412, 413); the shorter and more obtuse tooth of the sutural angle of the elytra; the structure of the apical external angle of antennomeres 5–10 or 6–10, each bearing a well-developed, sharp spine; the somewhat shorter antennae of the male; antennomeres 3 and 4 slightly more strongly inflated apically in the male. Massicus valentinae sp. n. can also be compared to M. pascoei (J. Thomson, 1857), but differs clearly by the structure of the pronotum, including its shape and setation, as in Fig. 409 (cf. Fig. 414); the slenderer antennae; the smoothened sculpture and the less strongly protruding apical external



Figs 406–414. Massicus Pascoe, 1867, habitus, dorsal view, and pronotum.
406, 409 – M. valentinae sp. n.; 407, 408, 410–411 – M. ivani sp. n.; 412 – M. trilineatus (Pic, 1933); 413 – M. taiwanus Makihara et Niisato, 2014;
414 – M. pascoei (J. Thomson, 1857), male. 406–407, 409–410 – holotypes, males; 408, 411 – paratype, female.
Рис. 406–414. Massicus Pascoe, 1867, общий вид сверху и переднеспинка.
406, 409 – M. valentinae sp. n.; 407, 408, 410–411 – M. ivani sp. n.; 412 – M. trilineatus (Pic, 1933); 413 – M. taiwanus Makihara et Niisato, 2014;
414 – M. pascoei (J. Thomson, 1857), самец. 406–407, 409–410 – голотипы, самцы; 408, 411 – паратип, самка.
angle of antennomere 1; the much less strongly expressed individual punctures (discarding very small puncturation) on the 3^{rd} and some following antennomeres; the more strongly developed spine on antennomeres 5-10 or 6-10; the slightly shorter antennae in the male; the shape of the inflated apical part of antennomeres 3 and 4 in the male; the shape of the apical external angle of the elytra; the clearly longitudinal antennal tubercles; the structure of the submentum; the seemingly more uniformly curved external margin of the mandibles; the slightly more strongly convex eyes; and on the average a smaller body. The differences between *M. valentinae* **sp. n.** and another similar new species, *M. ivani* **sp. n.**, are shown below in the diagnosis of the latter.

Description. Body length 41.5 or 52.4 mm, humeral width 9.8 or 13 mm in male and female, respectively. Head, pronotum, basal antennomeres, prosternum, except for process partly, mesosternum, tibiae and tarsi entirely or almost completely black; elytra, apical antennomeres, prosternal process partly, metasternum, sternites, femora, most of coxae red-brown and dark red-brown tones.

Head with moderately developed antennal tubercles; with a distinct, narrow, median groove between bases of antennae, a wider and deep one between eyes and partly on vertex; with a dense, partly sharp puncturation dorsally; eyes moderately convex; longitudinal diameter of lower lobe of eye 1.28 or 1.5 times as long as genae in female and male, respectively; submentum with a rough, partly obliterated puncturation, in middle part with a well-expressed transverse fold, in front of and behind which with clear depressions; neck almost entirely with more or less sharp transverse folds ventrally; gula also with sharp transverse folds; antennae of male significantly longer than body, reaching beyond apex of elytra by basal part of antennomere 8, in female reaching beyond apex of elytra by penultimate antennomere; length ratio of antennomeres 1-11 in male, 38:8:67:42:61:78:77:70: 59:56:96, in female, 46:10:77:44:60:71:67:58:52:49:66; antennomere 1 without coarse sculpture, only with a relatively small dense puncturation, apical external angle very clearly protruding and obtusangularly; antennomere 2 distinctly transverse; antennomere 3 clearly, antennomeres 4 and 5 less strongly inflated at apex; apical external angle of antennomeres 5-10 or 6-10 with a sharp spine, more or less equally developed on all these antennomeres; last antennomere sharpened apically.

Pronotum 1.02 or 1.05 times as wide as long, base 1.29 or 1.41 times as wide as apex in male and female, respectively; relatively strongly (male) or very clearly (female) convex; on disc with a very coarse, transverse, partly irregular folds, as in Fig. 409.

Scutellum strongly narrowed towards apex, triangular.

Elytra 2.64–2.8 times as long as humeral width; moderately convex; with a small dense puncturation; apical external angle rounded, sutural angle with a short, but distinct tooth almost entirely masked under a dense setation.

Prosternum in apical one-third at middle visibly tuberculiform elevated, mainly with transverse coarse folds in apical part; prosternal process distinctly broadened towards apex dorsally, with a clear or very clearl tubercle at apex; mesosternal process without tubercle dorsally, between coxae clearly wider than prosternal process; meso- and metasterna and sternites with a small dense puncturation; metasternum with a sharp median groove; both last (visible) sternite and tergite of male truncate apically; last (visible) sternite in female truncate, last (visible) tergite with a weak emargination.

Legs moderately long; tarsomere 1 barely shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation ocher-yellow, entirely or almost completely clothing head dorsally, elytra, scutellum, antennomeres 1 and 2, pro-, meso- and metasterna, sternites, legs, mandibles dorsally, partly antennomere 3; setation of pronotum as in Fig. 409 (see also Diagnosis above); head, pronotum on disc and laterally, antennomeres 3–10 in apical part, apex of abdomen, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Etymology. I am very pleased to dedicate this new species to my mother, Valentina Dmitrievna Miroshnikova, who celebrated her 90th birthday on September 29, 2017 and whose constant care for my family I feel all the time.

Distribution. Western Malaysia.

Massicus ivani Miroshnikov, **sp. n.** (Figs 407, 408, 410, 411)

? *Massicus trilineatus trilineatus* auct.: Heffern, 2005: 16 (partim, Borneo) (non Pic, 1933); Heffern, 2013: 10 (partim, Borneo) (non Pic, 1933).

Material. Holotype, \Im (NHMD) (Fig. 407): E Malaysia, Sabah, Keningau Distr., Trus Madi Mt., 03.2005 (local collector). Paratype: 1 \bigcirc (cAM ex NHMD) (Fig. 408), same label as holotype.

Diagnosis. The new species seems to be especially similar to *M. valentinae* **sp. n.**, but differs by the somewhat more robust body and antennae, especially so the basal antennomeres; the shorter antennomere 3; the apical external angle of antennomere 6 with a less strongly developed denticle, but more robust (not so long) one on the following antennomeres, except for the last one; the structure of the pronotum, in particular, it being less strongly convex on the disc at least in the male and somewhat less strongly broadened at the middle in the male; the much less strongly developed recumbent light setation in the middle part of the disc only weakly masking its sculpture there, as in Figs 410, 411 (cf. Fig. 409); the apical sutural angle of the elytra of the male with a more strongly developed tooth; the sharper tubercle at the apex of the prosternal process; the somewhat more strongly elongated mesosternal process of the male; the more robust legs, at least so in the male, as in Fig. 407 (cf. Fig. 406); and the larger body in the male and female, respectively. Massicus ivani sp. n. can also be compared to *M. pascoei*, but differs, partly like M. valentinae sp. n., in the structure of the antennae, in particular, the smoothened sculpture and the less strongly protruding apical external angle of antennomere 1; the more strongly developed denticle on antennomeres 7–10; many antennomeres less strongly elongated, including 3rd and 4th, in which, additionally, the apical part is somewhat differently inflated in the male; the shorter antennae in both sexes; the somewhat peculiar sculpture of the pronotum, as in Figs 410, 411 (cf. Fig. 414); the less strongly developed sutural tooth at the apex of the elytra; the clearly rounded apical external angle of the elytra; the shape of the antennal tubercles and the external margin of the mandibles; the seemingly slightly more strongly convex eyes; the shape and sculpture of the submentum and some other features.

Besides this, by the habitus, larger body, partly the structure of the antennae and some other traits the new species resembles *Neocerambyx pubescens* Fisher, 1936 (see Note), but differs in the slenderer basal antennomeres; antennomere 1 clearly less strongly broadened towards the apex, with a smooth sculpture; the apical external angle of antennomeres 7–10 with a more strongly developed denticle; the more closely spaced dorsal lobes of the eyes;

the significantly longer median groove on the vertex, mainly hidden by dense setation between the bases of the antennae; the less transverse pronotum and its generally less strongly developed setation; the sculpture on the ventral side of the head; and the more strongly elongated and narrower process of the mesosternum in the male.

At the same time, evident similarities of *M. ivani* **sp. n.** and *M. unicolor* Gahan, 1906 must be noted in the structure of the antennae, the shape of the elytral apex and some other details, but the former species differs clearly from the latter at least by the coloration of the recumbent setation of the dorsum, the less strongly protruding apical external angle of antennomere 1, the structure of the pronotum, including its somewhat peculiar shape and sculpture, and the distribution of recumbent setation, the shorter antennae of the female in which many antennomeres are less strongly elongated.

Note. I have only been able to examine the holotype male of *Neocerambyx pubescens*, kept in the USNM, from a series of high-quality photographs of the habitus and some structural details, all kindly provided by Dr. Alexandr S. Konstantinov (USNM) upon my request.

Until recently *N. pubescens* was only known from Java. Based on the data available at the Insecterra Forum (http://insecterra.forumactif.com/), this species has also been recorded from Borneo, at the same locality as *M. ivani* **sp. n.** (Sabah, Trus Madi Mt.: http://insecterra.forumactif.com/t24742-massicus).

Description. Body length 56.2 or 65 mm, humeral width 13.6 or 16.8 mm in male and female, respectively.

Head, pronotum, antennae, prosternum, except for process partly, mesosternum, tibiae and tarsi entirely or almost completely black; elytra, prosternal process partly, metasternum, sternites, femora, predominantly coxae red-brown and dark red-brown tones; elytra in male with a more strongly expressed red tint than that in female.

Head with very strong antennal tubercles; with a distinct, narrow, median groove between bases of antennae, as well as with a wider one between eves and partly on vertex, a well-expressed, but moderately deep in male and a significantly deeper in female; with a dense puncturation dorsally, coarser in female; eyes moderately convex; genae slightly shorter than longitudinal diameter of lower lobe of eye; submentum with puncturation rough, predominantly obliterated in male, clearer in female, in middle part with a coarse transverse fold roundish dorsally in male, in front of and behind which with well-expressed depressions; neck ventrally in middle part almost smooth, lateral to middle with more or less sharp transverse folds; gula with transverse folds, very sharp in male, weak in female; antennae of male much longer than body, reaching beyond apex of elvtra by antennomere 8, in female noticeably not reaching the apex of elytra; length ratio of antennomeres 1-11 in male, 31:8:43:31:45:55:58:56:50:46:80, in female, 31:8: 38: 26: 34: 37: 37: 31: 29: 26: 35; antennomere 1 without coarse sculpture, only with a relatively small dense puncturation, apical external angle very clearly protruding and obtusangularly; antennomere 2 distinctly transverse; in male, antennomeres 3 and 4 pretty robust, antennomere 3 clearly, 4th and 5th less strongly inflated at apex; apical external angle of antennomeres 6-10 with a sharp denticle, most developed and sharper on antennomeres 8-10; last antennomere sharpened apically, in female by a shorter cone.

Pronotum 1.03 or 1.15 times as wide as long, at base 1.21 or 1.49 times as wide as apex in male and female, respectively; moderately convex in male and somewhat more strongly so in female; on disc with a very coarse, transverse, partly sinuous, in male partly irregular folds, as in Figs 410, 411.

Scutellum in male strongly narrowed towards apex, triangular, in female almost uniformly rounded towards apex, starting from base.

Elytra 2.6–2.66 times as long as humeral width; very clearly convex; with a small dense puncturation; apical external angle rounded; sutural angle in male drawn into a relatively long, well-visible tooth, in female with a barely expressed denticle masked under a dense setation.

Prosternum in apical one-third at middle clearly tuberculiform elevated, with transverse, partly coarse and oblique folds in apical part; prosternal process very clearly broadened towards apex dorsally, with a strong tubercle at apex, wider in female; mesosternal process without tubercle dorsally, between coxae clearly wider than prosternal process; meso- and metasterna and sternites with a small dense puncturation; metasternum with a sharp median groove; last (visible) sternite at apex in male broadly slightly rounded, almost truncate, in female with a narrow shallow emargination; last (visible) tergite at apex in male distinctly broadly rounded, in female very clearly obtusangularly emarginate.

Legs moderately long; tarsomere 1 barely or slightly shorter than tarsomeres 2 and 3 combined.

Recumbent dense setation ocher-yellow, entirely or almost completely clothing elytra, antennomeres 1 and 2, sternites, legs, most of head dorsally, pro- and mesosterna, partly scutellum in male, partially antennomere 3; setation of pronotum as in Figs 410, 411 (see also Diagnosis above); head, pronotum on disc and laterally, most of antennomeres in apical part, apex of abdomen, legs mainly on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Etymology. This new species is dedicated to the memory of my father, Ivan Polikarpovich Miroshnikov (1928–1995), whose wise advice and very strong support I received during all his life.

Distribution. Eastern Malaysia.

Genus Sebasmia Pascoe, 1859

Sebasmia Pascoe, 1859: 18. Thomson, 1864: 234; Lacordaire, 1868: 272; Gemminger, 1872: 2807; Gahan, 1906: 143; Aurivillius, 1912: 61; Heffern, 2013: 11.

Type species: *Sebasmia templetoni* Pascoe, 1859, by monotypy.

Remarks. This Oriental genus includes eight species, five of them described relatively recently, while one species is described as new. One species previously referred to this genus [Gahan, 1906: *Sebasmia nigra*] has since been transferred to *Microdymasius* Pic, 1946 [Holzschuh, 2015].

Sebasmia is characterized by a peculiar combination of features [Holzschuh, 2005] and differs clearly from all similar genera. Only this genus seems to show one very notable character distinguishing it from any other in the tribe. In the male, the middle part or most of the ventral side of the mesofemur has a dense or very dense brush consisting of coarse, sometimes partly twisted, light setae which can be located in a more or less clear or even deep emargination.

Representatives of the genus have hitherto been known only from Sri Lanka, Borneo and Sumatra [Pascoe, 1859; Gahan, 1906; Aurivillius, 1912; Heffern, 2005, 2013; Holzschuh, 2005, 2006; Makihara et al., 2008; Base de données..., 2017].

Based on the material studied (see below), the genus *Sebasmia* is being recorded here from Indochina for the first time.



Figs 415–420. *Sebasmia* Pascoe, 1859, habitus, dorsal view. 415–416 – *S. speculifera* Holzschuh, 2005 (415 – after Holzschuh [2005], photograph by Luboš Dembický); 417–419 – *S. indochinensis* **sp. n.** (417, 419 – from Vietnam, 418 – from Thailand); 420 – *S. vetusta* Holzschuh, 2006 (from Western Malaysia). 415, 417 – holotypes; 416, 418–419 – paratypes; 415–418, 420 – males; 419 – female. Puc. 415–420. *Sebasmia* Pascoe, 1859, общий вид сверху. 415–416 – *S. speculifera* Holzschuh, 2005 (415 – по [Holzschuh, 2005], фотография Л. Дембицкого); 417–419 – *S. indochinensis* **sp. n.** (417, 419 – из Вьетнама, 418 – из Таиланда); 420 – *S. vetusta* Holzschuh, 2006 (из Западной Малайзии). 415, 417 – голотипы; 416, 418–419 – паратипы; 415–418, 420 – самцы; 419 – самка.



Figs 421–434. Sebasmia Pascoe, 1859, details of structure.
 421, 425, 429–430 – S. speculifera Holzschuh, 2005 (429 – photograph by Luboš Dembický); 422–424, 426–428, 431–434 – S. indochinensis sp. n.
 (422–423, 426–427, 431–432, 434 – from Vietnam, 424, 428, 433 – from Thailand). 422, 426, 429, 431 – holotypes; 421, 423–425, 427–428, 430, 432–434 –
 paratypes; 425–433 – males; 434 – female; 421–424 – apical part of tegmen, ventral view; 425–428 – apical part of male tergite 8, dorsal view; 429–434 – head, dorsal view, and pronotum.

Рис. 421–434. Sebasmia Pascoe, 1859, детали строения.

421, 425, 429–430 – *S. speculifera* Holzschuk, 2005 (429 – фотография Л. Дембицкого); 422–424, 426–428, 431–434 – *S. indochinensis* **sp. n.** (422–423, 426–427, 431–432, 434 – из Вьетнама, 424, 428, 433 – из Таиланда). 422, 426, 429, 431 – голотипы; 421, 423–425, 427–428, 430, 432–434 – паратипы; 425–433 – самцы; 434 – самка; 421–424 – вершинная часть тегмена снизу; 425–428 – вершинная часть 8-го тергита сверху; 429–434 – голова сверху и переднеспинка.

Sebasmia indochinensis Miroshnikov, **sp. n.** (Figs 417–419, 422–424, 426–428, 431–434)

Material. Holotype, 3° (BMNH ex cTT) (Fig. 417): Vietnam, Kon Tum Prov., Ngọc Linh, 1700 m, 04.2016 (local collector). Paratypes: 13° (cAM ex cTT), Vietnam, Thua Thien-Hue Prov., Bach Ma Mt., 1400 m, 16°11N / 107°51E, 03.2016 (local collector); 1 $^{\circ}$ (cTT), same locality, 06.2017 (local collector); 1 $^{\circ}$ (cAM) (Fig. 419), Vietnam, Lam Dong Prov., 25 km NNW of Bao Loc, Loc Bao env., 800 m, 11°44'18"N / 107°42'08"E, 5–20.04.2013 (leg. D. Fedorenko); 1 $^{\circ}$ (cTT), Vietnam, Quang Nam Prov., Tay Giang Distr., Axan, 1300 m, 06.2017 (local collector); 1 $^{\circ}$ (cTT), same locality, 07.2017 (local collector); 1 $^{\circ}$ (cFV), Vietnam, Quang Nam Prov., 05.2017 (leg. N. Tai); 1 $^{\circ}$ (cWT), Vietnam, Da Nang, BaNa Mt., 1450 m, 05.2014 (local collector); 1 $^{\circ}$ (cTT), same locality, 05.2015 (local collector); 1 $^{\circ}$ (cSM) (Fig. 418), N Thailand, Chiang Dao Hill Resort, 100 km N Chiang Mai, 600 m, 10–23.03.2010 (leg. S. Murzin).

Comparative material. Sebasmia speculifera Holzschuh, 2005: 3, holotype (cCH) (photograph; Fig. 415); 13, paratype (cDH) (Fig. 416), Malaysia, Sabah, Trus Madi Mt., 17.03.2000 (local collector), "Cerambycini n. gen., n. sp. det. K. Hüdepohl 2001", "Paratypus Sebasmia speculifera n. sp. det. C. Holzschuh 2004".

Diagnosis. This new species is very similar to *S. speculifera*, but differs at least by the clearly less strongly developed recumbent light setation both of the pronotum and head dorsally, especially of the former, as in Figs 431–434 (cf. Figs 429–430), the male genitalia, including the much shorter parameres, as in Figs 422–424 (cf. Fig. 421), the somewhat peculiar shape of the apex of tergite 8, as in Figs 426–428 (cf. Fig. 425); on the average a larger body, as well as by the variable composition of the coloration of the pronotal setation, up to the complete absence of yellow/yellowish tones and the presence of only a silver-white tone, as in Figs 417–418 (cf. Figs 415, 416), and some other minor traits.

Description. Body length 17.9–21.7 or 24–26.4 mm, humeral width 3.4–4.2 or 4.7–5.2 mm in males and females, respectively, thereby holotype largest among the males, while Thai male smallest (body length of type specimens of *S. speculifera*, including of two female, 13.6–19.2 mm). Coloration of integument mainly combines black and dark reddish brown tones; eyes black; antennae and legs red-brown, antennomere 1 darkest, but femora can also be darker.

Head with well-developed antennal tubercles; with a sharp median groove between bases of antennae and a more or less sharp, sometimes weak groove between eyes partly and on vertex; genae relatively short; eyes of male very large and very strong convex, in female less strongly developed and less strongly convex, in both sexes with large ocelli; submentum with coarse punctures; neck with sharp transverse folds both ventrally and laterally; antennae of male reaching beyond apex of elytra by penultimate antennomere, sometimes by basal part of last antennomere, in female distinctly not reaching the apex of elytra or reaching it; length ratio of antennomeres 1-11 in male (holotype taken as an example) 32:11:37:35:52:58:60:58: 57:55:68, in female (one of the paratypes taken as an example) 34:12:44:33:48:50:48:46:45:44:61; antennomere 1 mostly with a coarse, very dense and partly confluent, or mainly confluent puncturation; antennomere 2 barely longitudinal (given its longest inner side); last antennomere with a distinct appendage.

Pronotum clearly/very clearly longitudinal, 1.2–1.29 times as long as width; base 1.14–1.18 times as wide as apex; broadly rounded on sides; with a sharp or very sharp constriction near apex; with coarse or very coarse, mainly irregular, partly sinuous folds and with a strong or very strong, median, keel-shaped, longitudinal, shiny dorsally elevation located mostly in basal half, as in Figs 431–434.

Scutellum triangular, at apex more or less narrowly truncate.

Elytra strongly elongated, in male barely narrowed towards apex, in female about parallel-sided, 3.14–3.45 times as long as humeral width; slightly obliquely and broadly truncate at apex; sutural angle with a clear or very clear tooth; with somewhat heterogeneous, small, mostly gentle, sometimes sharper puncturation.

Prosternum with rough or coarse, irregular, partly transverse folds in apical part and with a transverse, more or less clearly expressed groove in front of middle; prosternal process with a well-developed, sometimes weakly expressed, apical tubercle; mesosternal process without tubercle dorsally; metasternum and sternites with a clear, dense, small puncturation, somewhat heterogeneous in former; last (visible) sternite at apex in both sexes with a small or more strong developed emargination.

Legs relatively short; femora with a carina along each side; mesofemora in male with a well-developed brush of very dense light setae characteristic of the genus; tarsomere 1 slightly shorter than tarsomeres 2 and 3 combined.

Recumbent setation on head dorsally mostly or completely yellow/yellowish, as in Figs 431–434; on pronotum combined with yellow/yellowish and silver-white tones or entirely silver-white, thereby forming near apex no narrow fascia (Figs 431–434) (in *S. speculifera*, along with a clearly more strongly developed setation than in *S. indochinensis* **sp. n**., a very well-expressed, more or less narrow fascia located near apex, as in Figs 429, 430); on elytra forming longitudinal strips of silver-white or, in addition, partly yellowish tones, thereby in front of apex creating a relatively large naked spot of triangular or oval shape on each elytron, as in Figs 417–419; on venter completely or almost entirely silver-white; elytral apex strongly or entirely masked under a dense setation; head, pronotum laterally, prosternum partly, legs on trochanters with more or less long, erect, partly suberect, sparse or individual, thin setae.

Genitalia of male as in Figs 422–424, 426–428; parameres very short, peculiar in shape; tergite 8 truncate apically, thereby can be slightly emarginate (while in *S. speculifera*, parameres moderately long, tergite 8 broadly rounded apically, as in Figs 421, 425).

Etymology. The formation of the name of this new species is related to its distribution in some countries of Indochina Peninsula.

Distribution. Vietnam, Thailand.

Sebasmia vetusta Holzschuh, 2006 (Fig. 420)

Sebasmia vetusta Holzschuh, 2006: 228. Type locality: Malaysia, Sabah, Crocker Range (according to the original description). Heffern, 2013: 11 (Borneo).

Material. ♂, holotype (cCH) (photograph); 1♂ (BMNH) (Fig. 420), "[Malaysia] Penang Hill, 2.260, Penang, 98–89", "*Sebasmia vetusta* Holzschuh, 2006 ♂ det. A. Miroshnikov 2016"; 1♂ (cLD), Indonesia, Kalimantan Selatan, 40 km E Kandangan, Loksado, 2"30"S / 115"20"E, 7–22.09.1997 (leg. S. Jakl), "*Sebasmia vetusta* Holzschuh, 2006 ♂ det. A. Miroshnikov 2017"; 1♀ (cAM), E Malaysia, Sabah, Trus Madi Mt., 1160 m, 24.08.2012 (leg. A. Klimenko); 1♂ (cAM), E Malaysia, Sabah, Nabawan Distr., ~7 km N Pensiangan, 530 m, 04"35'16"N / 116"19'27"E, 29.05.2014 (leg. A. Klimenko); 1♀, paratype (cDH) (photograph).

Remarks. This species has hitherto been known only from Eastern Malaysia [Holzschuh, 2006]. *Sebasmia vetusta* is being recorded here from Western Malaysia and generally from Indochina, on the one hand, and from Indonesia (south of Borneo), on the other hand, for the first time.



Figs 435-461. Cerambycini Latreille, 1802, labels of types and other specimens.

435–436 – syntypes; 437–439, 441–442, 444–449, 451–453 (452 – photograph by Gérard Tavakilian), 456, 458–461 – holotypes; 440, 443 – paratypes; 454 – lectotype; 457 – "holotypus" (see Remarks to *Zatrephus lumawigi* Hüdepohl, 1990).

несокурс, 457 – покурця (see karrennars to zairepnas tamawagi пасерон; 1990). 495–496 – синтипы; 437–439, 441–442, 444–449, 451–453 (452 – фотография Ж. Тавакиляна), 456, 458–461 – голотипы; 440, 443 – паратипы; 454 – лектотип; 457 – «holotypus» (см. замечания к Zatrephus lumawigi Hüdepohl, 1990).

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