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The longicorn beetle tribe Cerambycini Latreille, 1802 (Coleoptera: Cerambycidae: Cerambycinae) in the fauna of Asia. 8. New or little-known taxa from India, Indochina and Sumatra, with notes on the genus *Carinolesthes* Vitali, Gouverneur et Chemin, 2017

Жуки-дровосеки трибы Cerambycini Latreille, 1802 (Coleoptera: Cerambycidae: Cerambycinae) фауны Азии. 8. Новые и малоизвестные таксоны из Индии, Индокитая и Суматры с заметками о роде *Carinolesthes* Vitali, Gouverneur et Chemin, 2017

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***Key words*:** Coleoptera, Cerambycidae, *Carinolesthes*, *Diorthus*, *Zatrephus*, new species, India, Indochina, Sumatra.
***Ключевые слова*:** Coleoptera, Cerambycidae, *Carinolesthes*, *Diorthus*, *Zatrephus*, новые виды, Индия, Индокитай, Суматра.

Abstract. A brief review of the genus *Carinolesthes* Vitali, Gouverneur et Chemin, 2017, as well as a key to its species are given. A new species of this genus, *C. dembickyi* **sp. n.**, is described from the Northeastern India. The need to clarify the generic attribution of *C. ningshanensis* (Chiang, 1981) is justified. Two new species of the genus *Diorthus* Gahan, 1891, both from Southern India, *D. dembickyi* **sp. n.** and *D. aurosetosus* **sp. n.**, similar to another South Indian species *D. sericeus* Gardner, 1939, are described. These three species form a peculiar group which illuminates a very strong morphological similarity between the genera *Diorthus* and *Lamellocerambyx* Pic, 1923. At the same time, some recently revealed stable differences between these genera are given. A new species, *Zatrephus sumatranus* **sp. n.**, is described from Sumatra. The previously unknown female of *Elydnus barclayi* Miroshnikov, 2017 and male of *Pachydissus patricius* Holzschuh, 1991 are also described, while the latter species is being recorded from Western Malaysia for the first time. Numerous and detailed colour pictures of the species studied, including their type specimens, are provided.

Резюме. Дан краткий обзор рода *Carinolesthes* Vitali, Gouverneur et Chemin, 2017 и предложена таблица для определения его видов. Описан новый вид этого рода – *C. dembickyi* **sp. n.** из Северо-Восточной Индии. Обоснована необходимость в уточнении родовой принадлежности *C. ningshanensis* (Chiang, 1981). Описаны 2 новых вида рода *Diorthus* Gahan, 1891 – *D. dembickyi* **sp. n.** и *D. aurosetosus* **sp. n.** (оба из Южной Индии, причем из одного и того же местонахождения), – сходные с *D. sericeus* Gardner, 1939, происходящим также из Южной Индии. Эти 3 вида образуют своеобразную группу, которая подчеркивает очень сильное морфологическое сходство между родами *Diorthus* и *Lamellocerambyx* Pic, 1923. Вместе с тем даны некоторые недавно выявленные устойчивые отличия между этими родами. Описан новый вид *Zatrephus sumatranus* **sp. n.** с Суматры. Также описаны ранее неизвестные самка *Elydnus barclayi* Miroshnikov, 2017 и самец *Pachydissus patricius* Holzschuh, 1991, причем последний вид впервые приводится из Западной Малайзии. Представлено большое количество цветных иллюстраций рассматриваемых таксонов, в том числе их типовых экземпляров.

Introduction

The present paper provides a brief review of the genus *Carinolesthes* Vitali, Gouverneur et Chemin, 2017, with the description of a new species and the discussion of the generic attribution of *C. ningshanensis* (Chiang, 1981). Two new species of the genus *Diorthus* Gahan, 1891 and one new species of the genus *Zatrephus* Pascoe, 1857 are also described here. The additional differences between the genera *Diorthus* and *Lamellocerambyx* Pic, 1923 are shown. Besides this, some other new data are given.

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);

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

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

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

NWAFU – Northwest Agriculture and Forestry University (Yangling, China);

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

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

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

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

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

Genus *Carinolesthes* Vitali, Gouverneur et Chemin, 2017

Carinolesthes Vitali, Gouverneur et Chemin, 2017a: 53. Vitali et al., 2017b: 98.

Type species: *Aeolesthes* (*Pseudaeolesthes*) *pericalles* Gressitt et Rondon, 1970.

Remarks. This genus has been established for three species, namely, *C. pericalles* (Gressitt et Rondon, 1970), *C. aurosignata* (Pic, 1915) and *C. ningshanensis* (Chiang, 1981), with the following diagnosis and remarks [Vitali et al., 2017a: 53]: "*Diagnosis*. – Body convex, elongated. Head with an interantennal ridge posteriorly bifurcate but disappearing, delimiting a hardly guessable triangular interocular space. Scape slightly concave externally, smooth dorsally; antennae endoapically mutic and ectoapically compressed (♂) or toothed (♀) from the 7th article, antennomeres III to V or VI strongly inflated and pubescent, especially in females. Prothorax as long as wide, with or without lateral spines, dorsally transversely wrinkled; prosternal intercoxal process not tuberculate; procoxal cavities rounded. Elytra elongated, apically narrowed in males, parallel-sided in females, with longitudinal smooth ridges on the disc; elytral pubescence giving changing pattern condensed along longitudinal stripes. Femoral apex mutic...

Remarks. – *Carinolesthes* n. gen. is related to *Pseudaeolesthes*, from which it differs in the pronotal sculpture (with fine transverse rather than strong longitudinal wrinkles), the elytra peculiarly sculptured by longitudinal smooth ridges and the inflated basal antennomeres.

The Vietnamese (*sic*) *Carinolesthes aureosignata* (*sic*) differs from *C. pericalles*, in primitive characters linking it to *Pseudaeolesthes*: pronotum spined at sides, antennomeres III-V feebly inflated and antennomere VI nearly normal. In contrast, the posteriorly bifurcate interantennal ridge (linear in *Pseudaeolesthes*) and the ridged elytra belong patently to *Carinolesthes* n. gen.

According to the original descriptions (Chiang, 1981), the Chinese *Aeolesthes ningshanensis* differs from *aureosignata* (*sic*) in the golden pubescence, the transverse pronotum and the rounded elytral apices. The inflated antennomeres III-V and the ridged elytra belong to *Carinolesthes* n. gen.".

Based on the material I have studied and discussed below, it seems necessary to make some important clarifications and additions to the main characteristics of this genus. However, these features apply only to *C. pericalles*, *C. aurosignata* and a new species described below, since the generic attribution of *Carinolesthes ningshanensis* sensu Vitali et al. [2017a], in my opinion, is highly controversial (see below).

The genus *Carinolesthes* is characterized by the following combination of features, which makes it clearly distinguishable from *Pseudaeolesthes* Plavilstshikov, 1931 and other similar genera of the tribe. Antennomeres 3–5 or 3–6 strongly to weakly inflated in various combinations and at least the same antennomeres with a dense or very dense recumbent setation; all antennomeres endoapically unspined. Pronotum barely transverse (not more than 1.08 times as wide as long), or vice versa, hardly longitudinal (not more than 1.02 times as long as wide), with small but distinct or poorly expressed, conical, lateral tubercles, on disc with rough and/or moderately coarse (but not too coarse), mainly transverse, partly irregular, in places sinuous folds and, in addition, with four or five separate sharply expressed spots of dense, recumbent, bright setae. Elytra with smooth ridges and with a recumbent, dense, bright setation forming this or that peculiar iridescent pattern of longitudinal stripes; elytral apices not toothed, at the most with a small, very short denticle at sutural angle. Venter mainly without dense recumbent setation, this being well-developed only on sides of prosternum in middle part, on mesepisterna and on sides of metasternum, including episterna, or only on metasternum partly.

Carinolesthes pericalles (Gressitt et Rondon, 1970) (Figs 1, 4, 8, 9, 12–14)

Aeolesthes (*Pseudaeolesthes*) *pericalles* Gressitt et Rondon, 1970: 61 (type locality: Laos, Xieng Khouang Province, Plaine des Jarres, 1000 m (according to the original description and the label of the holotype)). Catalogue..., 2010: 158; Nga et al., 2014: 430.

Aeolesthes pericalles: Hua, 1984: 4; Hua, 2002: 191; Wang, Hua, 2009: 161.

Carinolesthes pericalles: Vitali et al., 2017a: 53.

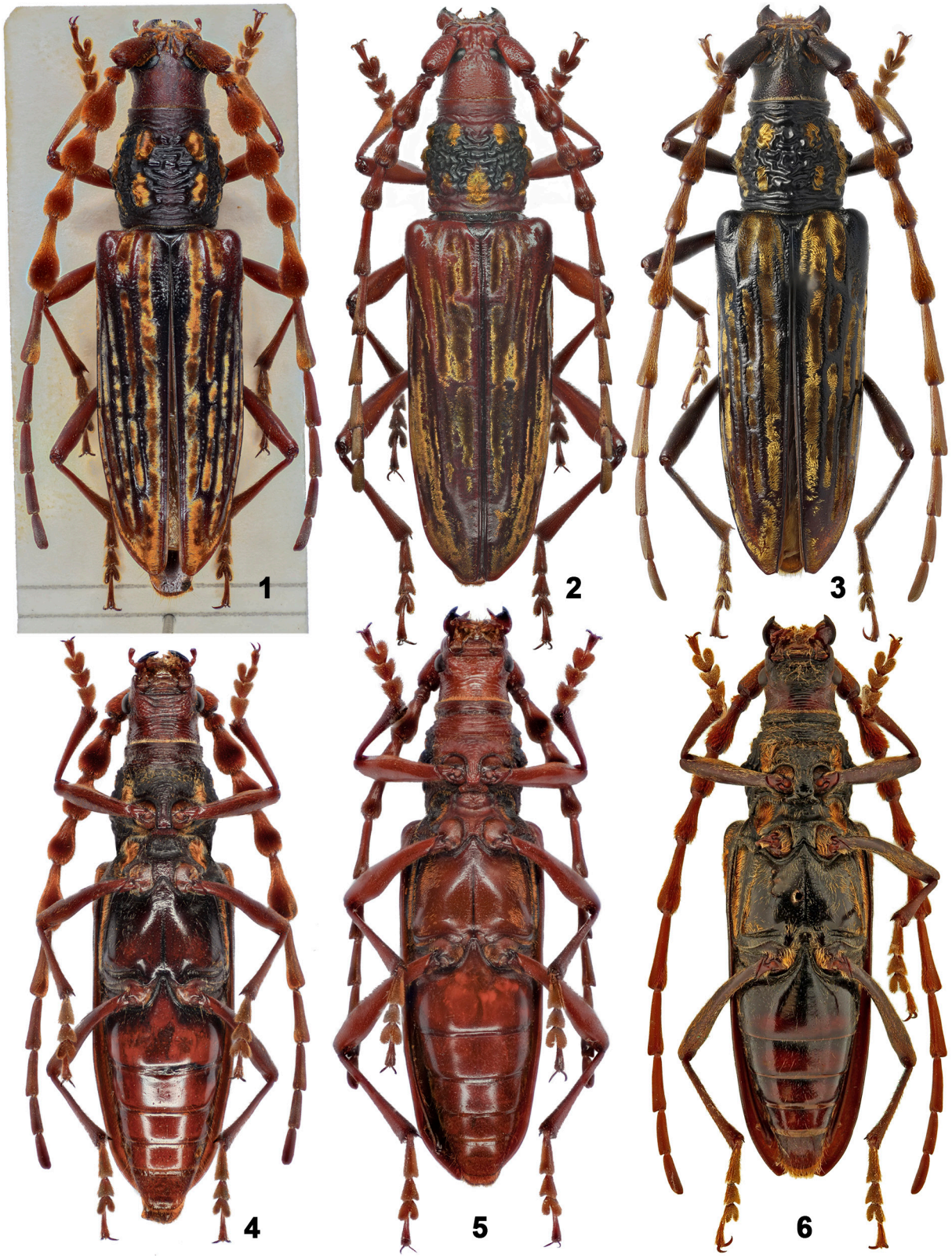
Material. 1♂, holotype (BM) (Figs 8, 9), "P. des Jarres, 28.3.[19]64", "Laos: P. des Jarres, 28.III.1964", "J.A. Rondon Collection Bishop Mus.", "Holotype *Aeolesthes pericalles* J.L. Gressitt et Rondon", "*Aeolesthes* (*Pseudaeolesthes*) *pericalles* Gressitt et Rondon, 196[?]" (Fig. 12); 1♀, paratype (allotype) (BM) (Figs 1, 4), same labels as holotype, but "Allotype *Aeolesthes pericalles* J.L. Gressitt et Rondon" (Fig. 13); 3♂, 1♀, paratypes (BM), same labels as holotype, but "Paratype *Aeolesthes pericalles* J.L. Gressitt et Rondon"; 1♀, paratype (BM), "X. Khouang, 30.4.[19]64", "Laos: Ban Theuong, 18 km NW of Xieng Khouang, 1035 m", "Paratype *Aeolesthes pericalles* J.L. Gressitt et Rondon".

Morphological notes. Pronotum barely transverse, 1.04–1.06 times as wide as long, at least so in the holotype male and the female (allotype).

Distribution. Laos, Vietnam. The records in Yunnan, China [Hua, 2002; Wang, Hua, 2009; Catalogue..., 2010] require confirmation.

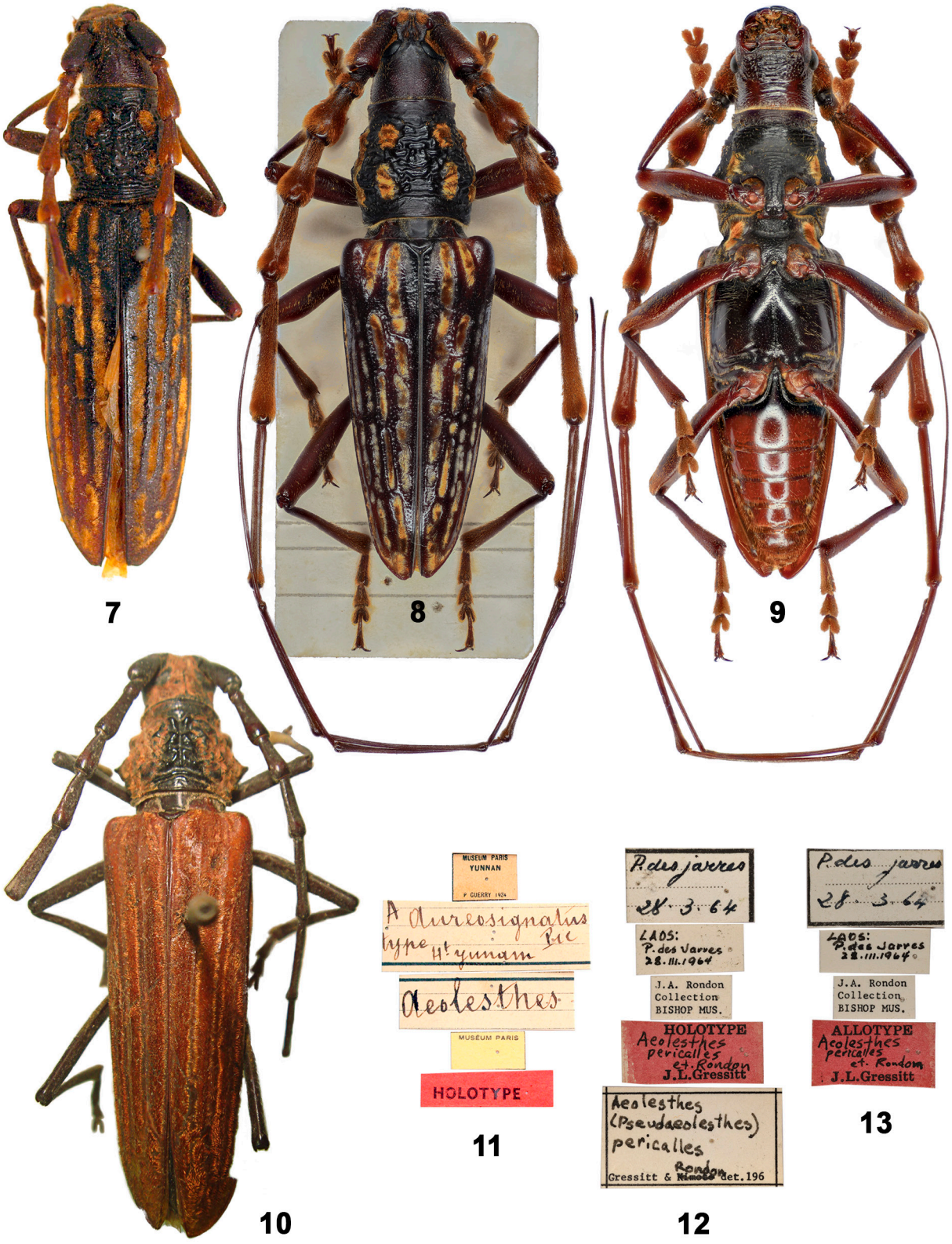
Carinolesthes aurosignata (Pic, 1916) (Figs 3, 6, 7, 11, 16)

Aeolesthes aurosignatus Pic, 1916: 325 (type locality: "Chine méridionale" (according to the original description) or "Haut



Figs 1–6. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017, females, habitus, dorsal and ventral views.
1, 4 – *C. pericalles* (Gressitt et Rondon, 1970), paratype (allotype); 2, 5 – *C. dembickyi* **sp. n.**, holotype; 3, 6 – *C. aurosignata* (Pic, 1916) (Xizang, China). 6 – photograph by Florence Trus.

Рис. 1–6. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017, самки, общий вид сверху и снизу.
1, 4 – *C. pericalles* (Gressitt et Rondon, 1970), паратип (аллотип); 2, 5 – *C. dembickyi* **sp. n.**, голотип; 3, 6 – *C. aurosignata* (Pic, 1916) (Тибет, Китай). 6 – фотография Флоренции Трус.



Figs 7–13. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017 and "*Carinolesthes*", habitus, dorsal and ventral views, and labels.

7, 11 – *C. aurosignata* (Pic, 1916), female, holotype; 8–9, 12 – *C. pericalles* (Gressitt et Rondon, 1970), male, holotype; 10 – "*Carinolesthes*" *ningshanensis* (Chiang, 1981), female, paratype; 13 – *C. pericalles*, female, paratype (allotype). 7, 11 – photographs by Gérard Chemin.

Рис. 7–13. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017 и «*Carinolesthes*», общий вид сверху и снизу и этикетки.

7, 11 – *C. aurosignata* (Pic, 1916), самка, голотип; 8–9, 12 – *C. pericalles* (Gressitt et Rondon, 1970), самец, голотип; 10 – «*Carinolesthes*» *ningshanensis* (Chiang, 1981), самка, паратип; 13 – *C. pericalles*, самка, паратип (аллотип). 7, 11 – фотографии Жерара Шемена.

Yunnan" (according to the label of the holotype)). Hua, 1984: 3; 2002: 191; Wang, Hua, 2009: 161.

Pseudaeolesthes ? *aurosignatus*: Plavilstshikov, 1931: 75.

Pseudaeolesthes aurosignatus: Pic, 1946: 107; Gressitt, 1942: 5; 1951: 136.

Aeolesthes (*Pseudaeolesthes*) *aurosignata*: Catalogue..., 2010: 158.

Carinolesthes aureosignata (incorrect subsequent spelling): Vitali et al., 2017a: 53.

Material. 1♀, holotype (by monotypy) (MNHN) (Fig. 7), "*Aeolesthes*", "*A. aureosignatus* (*sic*) Pic, type, Ht Yunnan", "Museum Paris, Yunnan, P. Guerry 1924", "Muséum Paris", "Holotype" (Fig. 11); 1♀ (IRSN) (Figs 3, 6), [China] "Thibet, Vrianatong", "*Carinolesthes aurosignata* (Pic, 1915) ♀ det. A. Miroshnikov 2019" (preliminary identification).

Morphological notes. Pronotum barely transverse, about 1.06 or 1.08 times as wide as long in the holotype female and the Tibetan female, respectively.

Distribution. China: Yunnan and Xizang (labels of the holotype; [Gressitt, 1951]).

Based on the material studied, Gressitt's data on the distribution of this species in Xizang are confirmed here.

At the same time, the records in Fujian (China), Taiwan and Laos [Hua, 1984, 2002; Catalogue..., 2010] are doubtful. The indication of "Vietnamese *Carinolesthes aureosignata*" [Vitali et al., 2017a: 53] is without any doubt a misprint.

Carinolesthes dembickyi Miroshnikov, **sp. n.**
(Figs 2, 5, 15)

Material. Holotype, ♀ (cLD) (Figs 2, 5): NE India, Arunachal Pradesh, Anini vic., ~1700 m, 28°54′N / 95°56′E, 30–31.05.2007 (leg. L. Dembický).

Diagnosis. Based on female characters, this new species is similar to *C. pericalles* and *C. aurosignata*, but differs very clearly from both by the peculiar location of the spots of dense, recumbent, bright setae on the pronotum, namely, the presence of a large median spot in its basal part, as in Figs 2, 15 (cf. Figs 1, 3, 7, 8, 14, 16); the presence of only two and not so well expressed longitudinal ridges on each elytron; the less expressed conical lateral tubercles of the pronotum, as in Fig. 15 (cf. Figs 14, 16); the shorter antennae (especially compared to *C. aurosignata*), as in Figs 2, 5 (cf. Figs 1, 3, 4, 6); the prosternal process being less strongly protruding at the apex; the more robust femora, as in Figs 2, 5 (cf. Figs 1, 3, 4, 6, 7); the somewhat less coarse sculpture of the head ventrally; the predominantly lighter tones of red coloration of the integument, as in Figs 2, 5 (cf. Figs 1, 3, 4, 6, 7); the very weakly developed recumbent bright setation on the sides of the prosternum in its middle part and on the mesepisterna, as in Fig. 5 (cf. Figs 4, 6). Besides this, *C. dembickyi* **sp. n.** differs from *C. pericalles* by the less strongly inflated antennomeres 3–5, non-inflated shape of antennomere 6, the clearly less dense setation of the basal antennomeres (except for antennomere 1), as in Figs 2, 5 (cf. Figs 1, 4).

Description. Female. Body length 26.2 mm, humeral width 6.9 mm. Coloration of integument mainly of red tones; eyes, mandibles along inner margins and apically, most of pronotum (mainly in the folds area), partly mesepisterna, as well as metosternum by a narrow stripe near margin of its episterna black.

Head with moderately developed antennal tubercles; eyes relatively small; genae long; with somewhat rough, but shallow punctures on vertex and with very well-expressed transverse granules on neck dorsally and partly laterally; submentum and neck on most part of lateral sides and ventrally with rough transverse folds; antennae very clearly failing to reach apex of elytra; length ratio of antennomeres 1–11, 24 : 6 : 21 : 19 : 20 : 29 : 28 : 22 : 20 : 15 : 17; antennomere 1 with a clear, partly dense, in places confluent, heterogeneous puncturation; antennomere 2 slightly transverse; antennomeres 3 and 4 strongly, 5 moderately inflated, antennomere 6 non-inflated, as in Figs 2, 5.

Pronotum barely longitudinal, 1.02 times as long as wide; base 1.2 times as wide as apex; with rough and moderately coarse, irregular, partly sinuous, in places transverse, partly longitudinal folds; tuberculated on sides, with a most developed median tubercle.

Scutellum triangular, with a narrow emargination apically.

Elytra in basal part nearly parallel-sided, beyond middle clearly narrowed towards apex, 2.45 times as long as humeral width; in middle part of disc behind the basal quarter very distinctly depressed; each elytron with two smooth ridges, namely, with a short ridge located near middle of disc and occupying basal third of elytra, and with a long ridge starting from humerus and about reaching the apical quarter of elytra; unlike *C. pericalles* and *C. aurosignata*, without clear lateral ridges; with a heterogeneous, small and very small, predominantly dense puncturation; near suture, partly, especially in basal quarter just behind the scutellum, with small, dense, mainly transverse wrinkles; apical external angle rounded, sutural angle with a very short obtuse denticle.

Prosternum near apex with a very well-expressed, moderately deep, transverse groove; behind it with rough, long, transverse folds; in middle part with rough, more or less short, irregular, partly transverse folds; prosternal process moderately wide between coxae, with rough heterogeneous sculpture, at apex dorsally distinctly protruding; mesosternal process between coxae very clearly wider than prosternal process, in apical part with rough, dense, scabrous punctures, without tubercle dorsally; metasternum and sternites mainly with a clear, small, more or less dense, partly heterogeneous puncturation; metasternum with a distinct median groove; last (visible) sternite broadly subtruncate apically; last (visible) tergite truncate, with a shallow emargination at apex.

Legs moderately long; metatarsomere 1 subequal to metatarsomeres 2 and 3 combined.

Recumbent dense setation mainly reddish golden, forming peculiar iridescent pattern of longitudinal stripes on elytra, as in Fig. 2, five spots on pronotal disc, namely, four symmetrical spots on its sides, two in basal half and two in apical half, and large longitudinal median spot in basal part, in addition, longitudinal, wide, lateral stripes of pronotum, as in Figs 2, 15; recumbent setation of venter very weakly developed, more or less dense or at least numerous setae mainly present on mesepisterna by a narrow stripe along inner margin and on sides of metasternum, including their episterna, as in Fig. 5; more or less long, erect, light setae mostly developed on head, pronotum and apex of abdomen.

Distribution. Northeastern India.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Mr. Luboš Dembický (Brno, Czech Republic), who collected the holotype and constantly provides a very important assistance to my entomological research.

"*Carinolesthes*" *ningshanensis* (Chiang, 1981)
(Fig. 10)

Aeolesthes (*Pseudaeolesthes*) *ningshanensis* Chiang, 1981: 79, 83, pl. 1, fig. 3 (type locality: China, Shaanxi, Ningshan (according to the original description)). Lin, 2017: 146, pl. 11, fig. 6 (female paratype).

Aeolesthes ningshanensis: Hua, 2002: 191; Wang, Hua, 2009: 161; Hua et al., 2009: 149, pl. 21, fig. 241, ♂ (sex of specimen is doubtful).

Carinolesthes ningshanensis: Vitali et al., 2017a: 53.

Material. 1♀, paratype (NWAFU, see [Lin, 2017: 147]) (photograph; Fig. 10), [China], "Shaanxi, Ningshan, Huoditang, VIII. 1959 leg. Shu-Qin Li".

Remarks. Through the courtesy of Dr. Meiying Lin (Institute of Zoology, Chinese Academy of Sciences, Beijing, China), currently I have been able to examine this species at least from a picture of the paratype, female (Fig. 10).

Judging from this photograph and the original description (including a picture of the holotype female), "*Carinolesthes*" *ningshanensis* is characterized by the following important features: pronotum strongly transverse, about 1.3 times as wide as long, with strongly developed lateral conical tubercles, with coarse and very coarse, irregular, partly longitudinal folds on disc, with a continuous, dense, recumbent setation, except for middle part; antennomeres 3–6 nearly normal in structure, devoid of dense recumbent setae; elytra with smooth ridges and longitudinal stripes of dense, recumbent, bright setae. The features of the recumbent setation of venter are not known to me yet.

Apparently this species is a transitional form between *Carinolesthes* and *Pseudaeolesthes*, seemingly closer to the latter. But its generic attribution needs to be clarified.

It is also notewortly that both the holotype [Chiang, 1981: pl. 1, fig. 3] and the paratype (Fig. 10), judging from their photographs, are partly damaged and deformed, including the elytra. Therefore, these females differ noticeably each other in the pictures, at least in the shape of the elytra.

Distribution. China: Shaanxi.

Key to species of *Carinolesthes*

1. Pronotum barely transverse or hardly longitudinal, with or without small, conical, lateral tubercles, on disc with four or five separate, sharply expressed spots of dense, recumbent setae; antennomeres 3–5 or 3–6 strongly to weakly inflated and with a dense recumbent setation 2
– Pronotum strongly transverse, with very well-developed, conical, lateral tubercles, without separate spots of dense, recumbent setae, with a continuous, dense, recumbent setation, except for middle part; antennomeres 3–6 nearly normal in structure, devoid of dense recumbent setae .... "*Carinolesthes*" *ningshanensis*
2. Pronotal disc with four spots of dense recumbent setae; each elytron with four smooth ridges; female antennae about reaching or distinctly extending beyond the apex of elytra 3
– Pronotal disc with five spots of dense recumbent setae; each elytron only with two smooth ridges; female antennae very clearly failing to reach the apex of elytra ..... *C. dembickyi* **sp. n.**
3. Elytra at least partly, including humeri, dark red-brown and red-brown tones; antennomeres 3 and 4 (male) or 3–6 (female) strongly inflated; pronotum with less strongly developed lateral conical tubercles .... *C. pericalles*
– Elytra almost entirely, including humeri, black; female antennomeres 3–5 more or less weakly inflated (male unknown); pronotum with more strongly developed lateral conical tubercles ..... *C. aurosignata*

Genus *Diorthus* Gahan, 1891

Diorthus Gahan, 1891: 27 (*Pachydissus* subgen., "section"). Gahan, 1906: 132; Plavilstshikov, 1931: 81; Gressitt, Rondon, 1970: 70; Adlbauer, 2006: 62; Catalogue..., 2010: 160; Nga et al., 2014: 433; Kariyanna et al., 2017: 30; Miroshnikov, 2018: 234.

Diorthrus (misspelling): Aurivillius, 1912: 56.

Tapinolachnus auct. (non J. Thomson, 1865): Özdikmen, Turgut, 2009: 302 (part.).

Type species: *Hammaticherus simplex* White, 1853 = *Cerambyx cinereus* Fabricius, 1793, by subsequent designation [Gahan, 1906].

Remarks. An annotated checklist of this genus was published recently, in which seven species were considered, including one new [Miroshnikov, 2018]. Along with that, it was noted that the South Indian species *D. sericeus* Gardner, 1939 morphologically is not so a characteristic representative of the genus.

In the course of the study of a material collected by Mr. Luboš Dembický (Brno, Czech Republic) also in Southern India, two previously unknown species (described below) similar to *D. sericeus* have been identified. It seems obvious to me that all these three species form a peculiar group which illuminates a very strong morphological similarity between the genera *Diorthus* and *Lamellocerambyx* Pic, 1923.

At the same time, these genera differ from each other not only in the features indicated earlier [Miroshnikov, 2018], but also in the shape of antennomere 2 which in *Lamellocerambyx* is very clearly flattened in the basal part ventrally, as indicated by arrows in Fig. 31 (cf. Figs 28–30).

Diorthus dembickyi Miroshnikov, **sp. n.**
(Figs 17, 18, 20, 21, 23, 24, 28, 29, 33, 34, 36, 37, 39, 41, 42, 44, 45)

Material. Holotype, ♂ (cLD) (Fig. 23): S India, Tamil Nadu, Nilgiri Hills, 11 km SE Kotagiri, Kunchappanai, 1000–1200 m, 11°24′N / 76°56′E, 3–15.05.2002 (leg. L. Dembický). Paratypes: 1♀ (cLD), 1♂, 1♀ (Fig. 24) (cAM ex cLD), same label as holotype.

Comparative material. *Diorthus sericeus* Gardner, 1939: 1♂, lectotype (BMNH) (Fig. 26), [India] "S. Mangalore, 400 [m], Madras, J.C.M. Gardner, 30.IV.1931" (upperside), "No. 86.M." (underside), "Ex *Pterocarpus marsupium*", "R.R.D. 119, B.C.R. 126, Cage 779", "*Diorthus sericeus* J.C.M. Gardner sp. n., Type", "Type", "Brit. Mus. 1939–414", "NHMUK 011220588", "Lectotypus ♂ *Diorthus sericeus* Gardner, 1939, A. Miroshnikov des., 2018"; 1♀, paralectotype (BMNH) (Fig. 27), [India] "Sappal, 1700 [m], Palghat, Madras, J.C.M. Gardner, 2.V.1931" (upperside), "No. M.74" (underside), "Ex *Acacia* sp.", "R.R.D. 119, B.C.R. 154, Cage 768", "*Diorthus sericeus* J.C.M. Gardner sp. n., Allotype", "Type", "Brit. Mus. 1939–414", "NHMUK 011220589", "Paralectotypus ♀ *Diorthus sericeus* Gardner, 1939, A. Miroshnikov des., 2018".

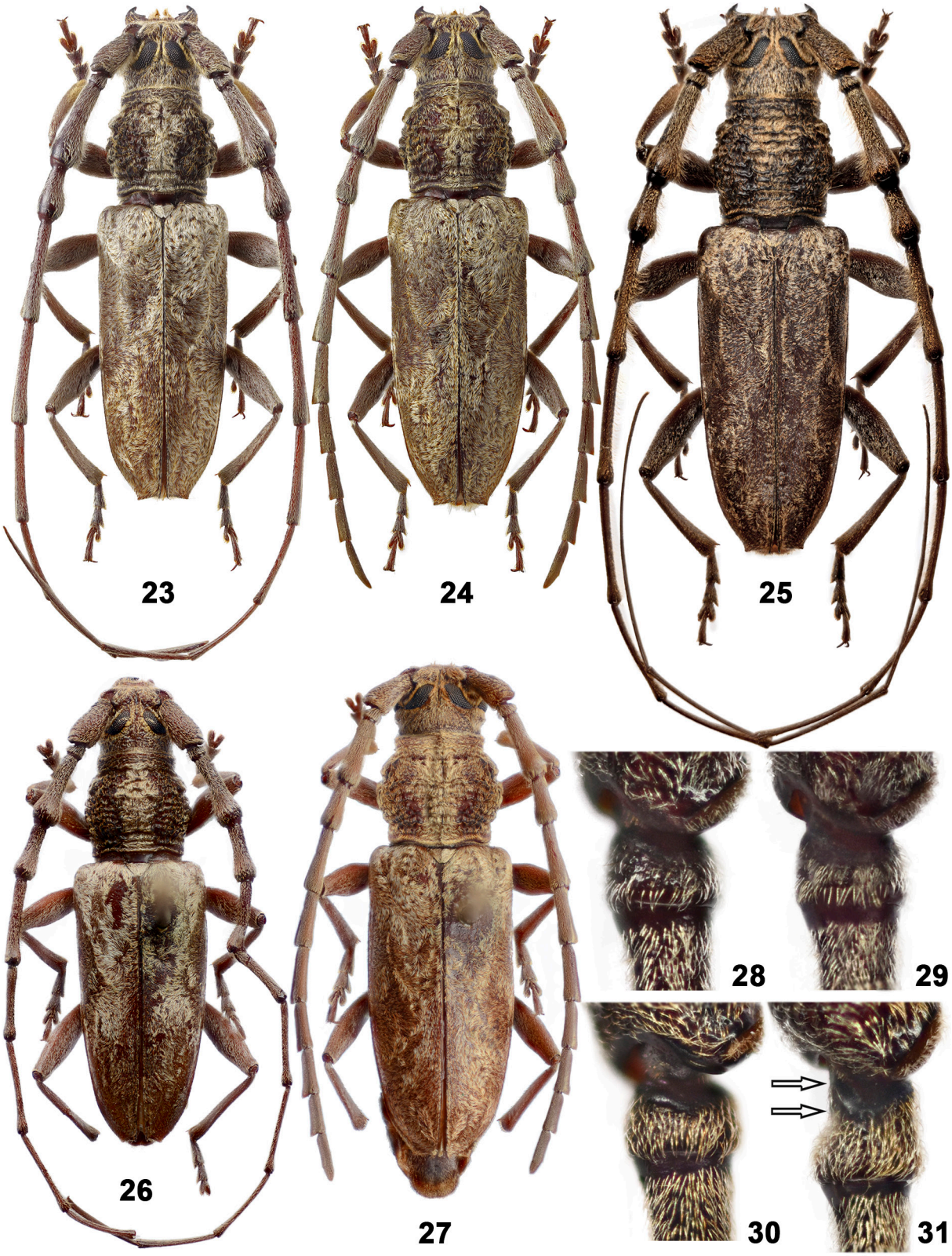
Diagnosis. This new species is most similar to *D. sericeus*, but differs clearly by the structure of the antennae, in particular, the more strongly elongated antennomeres 3, 5 and 6, especially so in the male, as in Figs 23, 24 (cf. Figs 26, 27); the less coarse sculpture of the antennomere 1, especially so in the male and the more strongly inflated antennomere 4 in the male, as in Fig. 23 (cf. Fig. 26). Also it is distinguished by the greater length in the female, as in Fig. 24 (cf. Fig. 27); the less coarse sculpture of the head dorsally; the more strongly elongated elytra, especially so in the male, as in Fig. 23 (cf. Fig. 26); the more closely spaced upper lobes of the eyes in the male, as in Figs 17, 23 (cf. Fig. 26); the mostly darker red tones in the integument coloration, as in Figs 23, 24 (cf. Figs 26, 27).

Figs 14–22. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017 and *Diorthus* Gahan, 1891, details of structure.

14 – *C. pericalles* (Gressitt et Rondon, 1970); 15 – *C. dembickyi* **sp. n.**; 16 – *C. aurosignata* (Pic, 1916) (Xizang, China); 17–18, 20–21 – *D. dembickyi* **sp. n.**; 19, 22 – *D. aurosetosus* **sp. n.** 14, 18 – paratypes (14 – allotype); 15, 17, 19–20, 22 – holotypes; 14–16, 18, 21 – females; 17, 19–20, 22 – males; 14–16 – pronotum, dorsal view; 17–19 – head and pronotum, dorsal view; 20–22 – prosternal process, lateral view.

Рис. 14–22. *Carinolesthes* Vitali, Gouverneur et Chemin, 2017 и *Diorthus* Gahan, 1891, детали строения.

14 – *C. pericalles* (Gressitt et Rondon, 1970); 15 – *C. dembickyi* **sp. n.**; 16 – *C. aurosignata* (Pic, 1916) (Тибет, Китай); 17–18, 20–21 – *D. dembickyi* **sp. n.**; 19, 22 – *D. aurosetosus* **sp. n.** 14, 18 – паратипы (14 – аллотип); 15, 17, 19–20, 22 – голотипы; 14–16, 18, 21 – самки; 17, 19–20, 22 – самцы; 14–16 – переднеспинка сверху; 17–19 – голова и переднеспинка сверху; 20–22 – простернальный отросток сбоку.



Figs 23–31. *Diorthus* Gahan, 1891 and *Lamellocerambyx* Pic, 1923, habitus, dorsal view, and antennomere 2, lateral view.

23–24, 28–29 – *D. dembickyi* **sp. n.**; 25, 30 – *D. aurosetosus* **sp. n.**; 26–27 – *D. sericeus* Gardner, 1939; 31 – *L. laosensis* Pic, 1923. 23, 25, 28, 30 – holotypes; 24, 29 – paratype; 26 – lectotype; 27 – paralectotype; 23, 25, 26, 28, 30–31 – males; 24, 27, 29 – females.

Рис. 23–31. *Diorthus* Gahan, 1891 и *Lamellocerambyx* Pic, 1923, общий вид сверху и 2-й членик усиков сбоку.

23–24, 28–29 – *D. dembickyi* **sp. n.**; 25, 30 – *D. aurosetosus* **sp. n.**; 26–27 – *D. sericeus* Gardner, 1939; 31 – *L. laosensis* Pic, 1923. 23, 25, 28, 30 – голотипы; 24, 29 – паратип; 26 – лектотип; 27 – паралектотип; 23, 25, 26, 28, 30–31 – самцы; 24, 27, 29 – самки.

Description. Body length 15–18.8 mm, humeral width 3.9–5.3 mm, thereby holotype 17.3 and 4.7 mm, respectively. Coloration of integument mainly combines red-brown and dark red-brown tones; eyes, partly mandibles, folds of pronotum or almost entirely pronotum black.

Head with moderately or very well-developed antennal tubercles; upper lobes of eyes rather close together, especially so in male; with a more or less rough sculpture dorsally; genae moderately short; submentum with rough, heterogeneous, very dense and confluent punctures; neck ventrally and partly laterally and gula with sharp transverse folds; antennae of male much longer than body, reaching beyond apex of elytra by antennomere 7, in female very clearly longer than body, reaching beyond apex of elytra by antennomere 9; length ratio of antennomeres 1–11 in male (holotype taken as an example), 22 : 5 : 30 : 19 : 36 : 36 : 35 : 32 : 31 : 31 : 58, in female (one of the paratypes taken as an example), 22 : 6 : 30 : 19 : 28 : 25 : 24 : 20 : 19 : 17 : 22; antennomere 1 with a sharply expressed cicatrix (apical carina), with a heterogeneous, rough, mostly confused puncturation; antennomere 2 slightly transverse or subequal in length and width; antennomeres 3 and 4 of male very clearly inflated; in male, sculpture of bases of antennomeres 4 and 5 similar to that of adjacent parts of these segments, thereby in front of bases without any constriction, like in *D. sericeus*.

Pronotum barely or slightly transverse, 1.06–1.1 times as wide as long, sometimes subequal in length and width; base 1.11–1.15 times as wide as apex; with coarse and very coarse, mostly transverse, partly sinuous folds.

Scutellum triangular, narrowly rounded apically.

Elytra in basal part nearly parallel-sided, beyond middle clearly narrowed towards apex, or distinctly narrowed towards apex starting from base; 2.23–2.32 times as long as humeral width; with a more or less small, heterogeneous, dense puncturation; apical external angle sharply protruding; sutural angle drawn into a very clear or long sharp tooth.

Prosternum in apical part with rough, mainly transverse folds; in front of middle with a more or less deep, transverse groove; prosternal process distinctly or very clearly (but not too strong) protruding at apex dorsally; mesosternal process between coxae much wider than prosternal process, without tubercle dorsally; metasternum and sternites with a heterogeneous puncturation; metasternum with a distinct median groove; last (visible) sternite at apex in male with a clear, but shallow emargination, in female rounded; last (visible) tergite at apex in male broadly truncate, without emargination, as in Figs 33, 34, in female subtruncate or rounded, with a weak emargination.

Legs moderately long; femora without distinct carina; metatarsomere 1 noticeably shorter than metatarsomeres 2 and 3 combined.

Recumbent dense setation mainly greyish, forming, in addition to everything else, patterned iridescent surface on elytra and median wide stripe on pronotum; dorsum, except for scutellum, with numerous reddish and yellow setae; venter with less numerous and less noticeable similar setae; in male, antennomeres 1–8, partly on inner side and partly ventrally, with numerous, erect, thin, silver-grey setae in the form of a sparse gentle brush, thereby antennomeres 1–6 with longest setae while antennomeres 7–8 with shortest ones; antennomeres 1–5 of female with similar, but relatively short, mainly suberect setae; antennae of both male and female with a greyish, recumbent, moderately dense setae, these gradually becoming more sparse towards apex; more or less long, erect, light setae, in addition to antennae, mostly developed on head and pronotum.

Male genitalia (Figs 36, 37, 39, 41, 42, 44, 45). Apex of tergite 8 with a very deep emargination dividing it into two protrusions being distinctly rounded apically, as in Figs 36, 37; penis distinctly narrowed in front of apex, as in Figs 44, 45; tegmen narrow at very base, apical parts of parameres clearly inclined towards each other, as in Figs 39, 41, 42.

Distribution. Southern India.

Etymology. I am pleased to dedicate this new species to my colleague and friend, Mr. Luboš Dembický (Brno, Czech Republic), who collected it.

Diorthus aurosetosus Miroshnikov, **sp. n.**
(Figs 19, 22, 25, 30, 32, 35, 38, 40, 43)

Material. Holotype, ♂ (cLD) (Fig. 25): S India, Tamil Nadu, Nilgiri Hills, 11 km SE Kotagiri, Kunchappanai, 1000–1200 m, 11°24′N / 76°56′E, 3–15.05.2002 (leg. L. Dembický).

Diagnosis. Based on male characters, this new species is very similar to *D. dembickyi* **sp. n.**, but differs clearly by the structure of the antennae, in particular, their greater length, as in Fig. 25 (cf. Fig. 23), the length ratio of antennomeres 3, 4 and 5 combined, to last antennomere, as in Fig. 25 (cf. Fig. 23), the golden erect and recumbent setation, the features of the erect setation, as well as by the prosternal process being very strongly protruding at the apex dorsally, as in Fig. 22 (cf. Figs 20, 21), the shape of the last (visible) tergite at the apex, as in Fig. 32 (cf. Figs 33, 34), the predominance of a golden setation on the head, the darker coloration of the integument in general, the larger body, the structure of the genitalia, as in Figs 35, 38, 40, 43 (cf. Figs 36, 37, 39, 41, 42, 44, 45).

Description. Male. Body length 22.2 mm, humeral width 6.3 mm. Coloration of integument mostly of dark brown tones, partly with a reddish tint; head dorsally, antennomeres 1–3 partly, eyes, mandibles, almost entirely pronotum, as well as scutellum along margins black.

Head with well-developed antennal tubercles; upper lobes of eyes rather close together; with a more or less rough sculpture dorsally; genae moderately short; submentum with rough, heterogeneous, very dense and confluent punctures; neck ventrally and partly laterally and gula with sharp transverse folds; antennae about 2.2 times as long as body (while in *D. dembickyi* **sp. n.**, male antennae no more than 1.9 times as long as body), reaching beyond apex of elytra by antennomere 7; length ratio of antennomeres 1–11, 29 : 6 : 39 : 25 : 49 : 51 : 51 : 46 : 47 : 51 : 116; antennomere 1 with a sharply expressed cicatrix (apical carina), with a heterogeneous, rough, mostly confused puncturation; antennomere 2 very clearly transverse; antennomeres 3 and 4 very clearly inflated; sculpture of bases of antennomeres 4 and 5 similar to that of adjacent parts of these segments, thereby in front of bases without any constriction, like in *D. sericeus* and *D. dembickyi* **sp. n.**; last antennomere barely longer than antennomeres 3, 4 and 5 combined (while in male of *D. dembickyi* **sp. n.**, antennomeres 3, 4 and 5 combined 1.5–2 times as long as last antennomere).

Pronotum barely transverse, 1.05 times as wide as long, sometimes subequal in length and width; base 1.12 times as wide as apex; with coarse and very coarse, mostly transverse, partly sinuous folds.

Elytra clearly narrowed towards apex starting from base, 2.2 times as long as humeral width; with a more or less small, heterogeneous, dense puncturation; apical external angle sharply protruding; sutural angle drawn into a pretty long sharp tooth.

Prosternum in apical part with rough, mainly transverse folds; in front of middle with a moderately deep, transverse groove; prosternal process very strongly protruding at apex dorsally; mesosternal process between coxae much wider than prosternal process, without tubercle dorsally; metasternum and sternites with a heterogeneous puncturation; metasternum with a distinct median groove; both last (visible) sternite and tergite broadly rounded apically, with a distinct emargination as in Fig. 32 (while in male of *D. dembickyi* **sp. n.**, last (visible) tergite broadly truncate, without emargination, as in Figs 33, 34; see also above).

Legs moderately long; meso- and metafemora without distinct carina, only promemora with a poorly expressed carina in basal part; metatarsomere 1 noticeably shorter than metatarsomeres 2 and 3 combined.

Recumbent dense setation, except for antennae and partly head, mainly greyish, forming, in addition to everything else, patterned iridescent surface on elytra and median wide stripe on pronotum; dorsum with numerous reddish setae; venter with less numerous and less noticeable similar setae; antennomeres 1–9, partly on inner side and partly ventrally, with numerous, erect, thin, golden setae in the form of a sparse gentle brush, thereby antennomeres 1–7 with longest setae while antennomeres 8–9 with shortest ones (whereas in male of *D. dembickyi* **sp. n.**, only antennomeres 1–6 with longest setae; see also above); antennae with a golden, recumbent, moderately dense setae, these gradually becoming more sparse towards apex; more or less long, erect, light setae, in addition to antennae, mostly developed on head and pronotum.

Male genitalia (Figs 35, 38, 40, 43). Apex of tergite 8 with a very deep emargination dividing it into two protrusions being obtuse-angled apically, as in Fig. 35; penis near apex gradually narrowed towards the very apex, as in Fig. 43; tegmen relatively wide at very base, as in Fig. 38, apical parts of parameres weakly inclined towards each other, as in Figs 38, 40 (for comparison see also above a description of the genitalia of *D. dembickyi* **sp. n.**).

Distribution. Southern India.

Etymology. The formation of the name of this new species is related to the golden coloration of both erect and recumbent setation of the antennae.

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; Miroshnikov, 2017: 208; Miroshnikov, 2018: 232.

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

Remarks. Until now, eight species of this genus have been known, two of which described just recently [Miroshnikov, 2017, 2018].

Below further one species of the genus stemming from Sumatra is described.

Zatrephus sumatranus Miroshnikov **sp. n.**
(Figs 46, 47, 49)

Material. Holotype, ♂ (cLD) (Figs 46, 47): "Indonesia, Sumatra, W of Sungai Akar [now Talang Lakat], 300 m, IV.1999, native collector".

Comparative material. *Zatrephus crassinus* Holzschuh, 1992: 1♂, holotype (cCH) (photograph); 1♂ (NHMD), 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), W Malaysia, Perak, 40 km SE Ipoh, Banjaran Titi Wangsa, Ringlet, 900 m, 29.03–15.04.2004 (leg. P. Čechovský); 1♂ (cDH) (photograph).

Zatrephus spinosus Brongniart, 1890: 1♂ (cAM), E Malaysia, Sabah, Trus Madi Mt., 22.03.2000 (local collector), "*Zatrephus spinosus* Brongniart, det. K. Hüdepohl [20]01"; 1♀ (cDH), same locality, but taken on 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).

Diagnosis. Based on male characters, this new species seems to be especially similar to *Z. crassinus* Holzschuh, 1992, but differs by the less deep, shorter and narrower median groove between the upper lobes of the eyes and on the vertex; the weakly developed antennal tubercles; the less convex tubercles at the very base of the elytra on sides of the scutellum; the less sharp puncturation on the elytra, metasternum and sternites; the apical tubercle of the prosternal process being strongly protruding obliquely upwards. *Zatrephus sumatranus* **sp. n.** can also be compared to *Z. spinosus* Brongniart, 1890, but is distinguished, partly like from *Z. crassinus*, by the less deep, shorter and narrower median groove between the upper lobes of the eyes and on the vertex, the less convex tubercles at the very base of the elytra on sides of the scutellum, as well as by the predominance of transverse folds on the pronotal disc, the clearly more uniform, dense, recumbent setation of the elytra being somewhat more sparse in front of their apical third.

Description. Male. Body length 23.8 mm, humeral width 6.9 mm. Head mostly dorsally and partly ventrally, eyes, partly mandibles, the very base, the very apex and partly folds of pronotum, partly scutellum black; pronotum partly, scutellum mostly, elytra, mostly venter of dark red-brown tones; remaining parts mainly combines red and red-brown tones.

Head with weakly developed antennal tubercles; with a moderately deep, relatively narrow, pretty short, median groove partly between upper lobes of eyes and partly on vertex; genae moderately short; eyes weakly convex; neck dorsally with rough, transverse, short folds, while ventrally with coarse, transverse, more or less long folds; submentum without distinct puncturation; antennae reaching beyond apex of elytra by penultimate antennomere; length ratio of antennomeres 1–10 (last antennomere missing), 23 : 5 : 22 : 21 : 22 : 31 : 35 : 35 : 34 : 32; antennomere 1 with a clear dense, partly confluent puncturation; antennomere 2 strongly transverse; antennomeres 3 and 4 strongly, 5 moderately inflated, as in Fig. 46.

Pronotum barely transverse, 1.03 times as wide as long; strongly narrowed towards apex starting about from middle, base 1.26 times as wide as apex; on disc barely convex, with coarse, predominantly transverse, partly somewhat sinuous folds.

Scutellum strongly narrowed towards apex, broadly truncate apically.

Elytra in basal part nearly parallel-sided, beyond middle clearly narrowed towards apex, 2.28 times as long as humeral width; at the very base on sides of scutellum with a very clear (but not too strong) tubercle; with a small, somewhat heterogeneous, dense puncturation; apical external angle obtuse, sutural angle drawn into a long sharp tooth, thereby both angles masked under a dense setation.

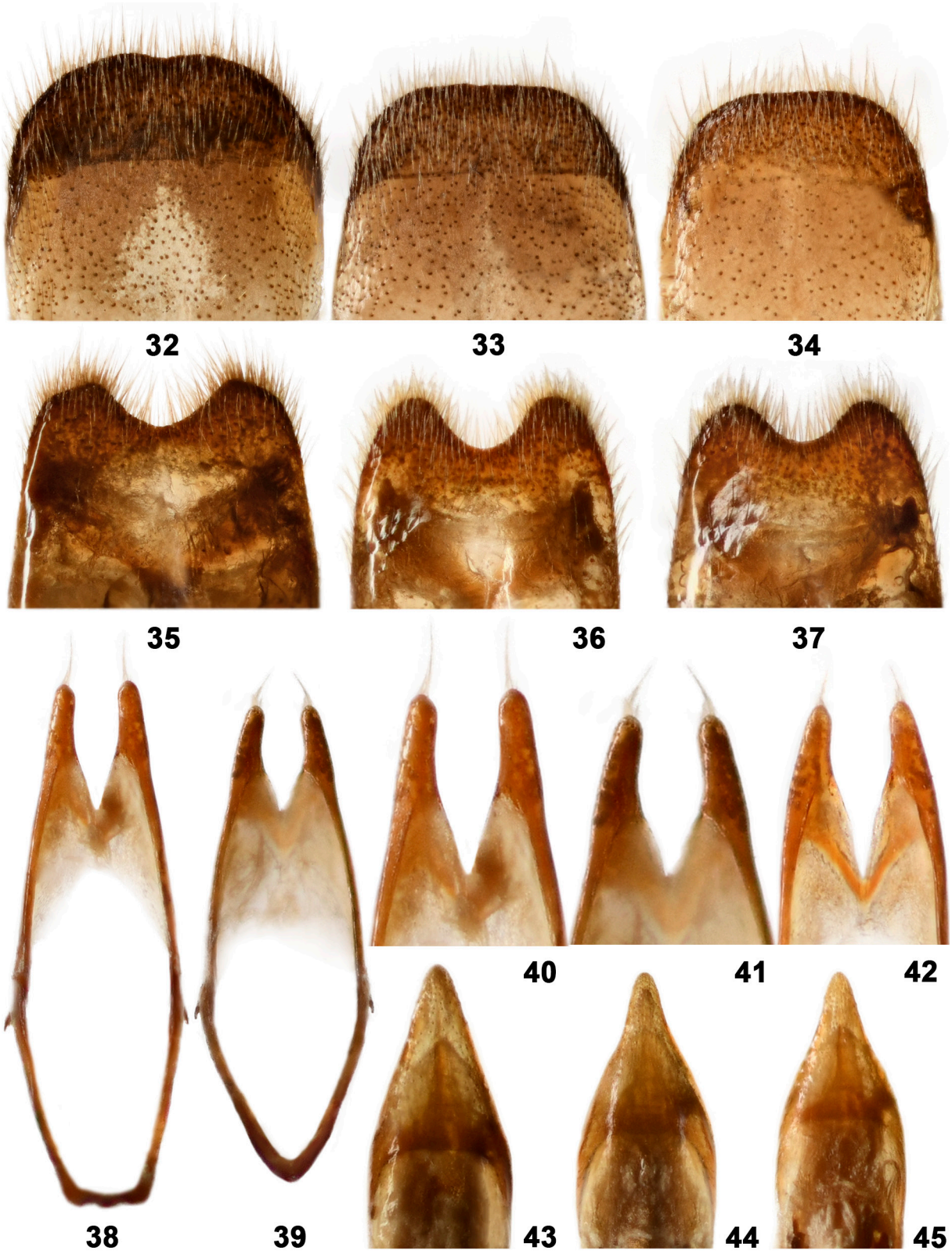
Prosternum with a well-expressed transverse groove in front of middle, with coarse irregular folds in apical part; prosternal process nearly parallel-sided dorsally, with a strong apical tubercle; mesosternal process without tubercle dorsally, between coxae clearly wider than prosternal process; mesosternum partly, metasternum and sternites with a small dense puncturation; metasternum with a gentle median groove; last (visible) sternite broadly subtruncate apically, last (visible) tergite with a poorly noticeable emargination at apex.

Legs relatively short; metatarsomere 1 clearly shorter than metatarsomeres 2 and 3 combined.

Recumbent setation combines red/reddish and white/whitish tones, densest on elytra and venter; red setae strongly dominating mainly on head dorsally, pronotum and basal antennomeres whereas whitish setae clearly prevailing on venter; elytral setation clearly spotted; more or less long, erect, light setae mostly developed on head and pronotum.

Distribution. Indonesia: Sumatra.

Etymology. The formation of the name of this new species is related to its distribution in Sumatra.

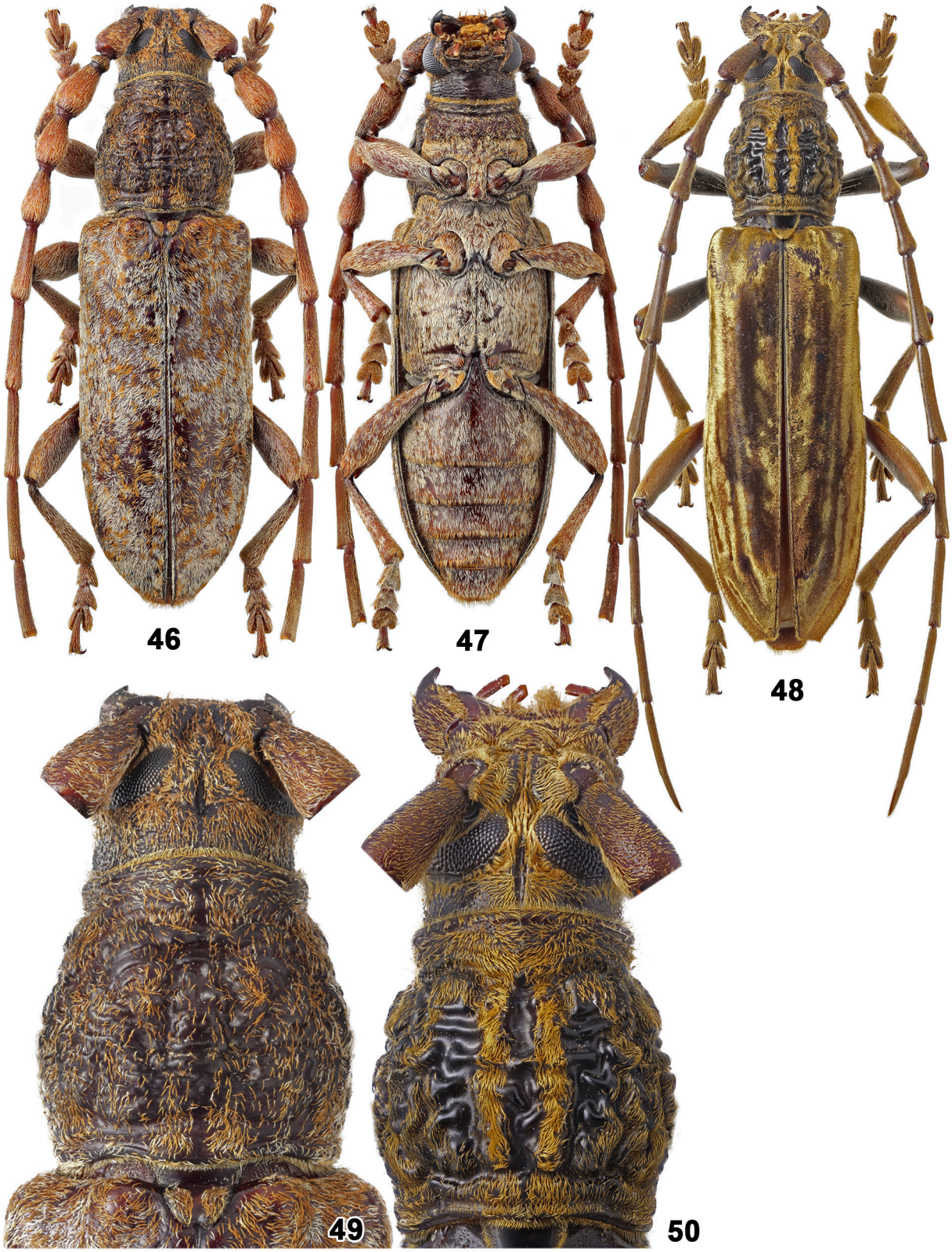


Figs 32–45. *Diorthus* Gahan, 1891, last (visible) tergite, dorsal view, and genitalia.

32, 35, 38, 40, 43 – *D. aurosetosus* **sp. n.**; 33–34, 36–37, 39, 41–42, 44–45 – *D. dembickyi* **sp. n.** 32–33, 35–36, 38–41 – holotypes; 34, 37, 42, 45 – paratypes; 35–37 – tergite 8, dorsal view; 38–39 – tegmen, ventral view; 40–42 – apical part of tegmen, ventral view; 43–45 – apical part of penis, ventral view.

Рис. 32–45. *Diorthus* Gahan, 1891, последний (видимый) тергит сверху и гениталии.

32, 35, 38, 40, 43 – *D. aurosetosus* **sp. n.**; 33–34, 36–37, 39, 41–42, 44–45 – *D. dembickyi* **sp. n.** 32–33, 35–36, 38–41 – голотипы; 34, 37, 42, 45 – паратипы; 35–37 – 8-й тергит сверху; 38–39 – тегмен снизу; 40–42 – вершинная часть тегмена снизу; 43–45 – вершинная часть пениса снизу.



Figs 46–50. *Zatrephus* Pascoe, 1857 and *Elydnus* Pascoe, 1869.

46–47, 49 – *Z. sumatranus* **sp. n.**, male, holotype; 48, 49 – *E. barclayi* Miroshnikov, 2017, female. 46, 48 – habitus, dorsal view; 47 – habitus, ventral view; 49 – head, pronotum and very base of elytra, dorsal view; 50 – head and pronotum, dorsal view.

Рис. 46–50. *Zatrephus* Pascoe, 1857 и *Elydnus* Pascoe, 1869.

46–47, 49 – *Z. sumatranus* **sp. n.**, самец, голотип; 48, 49 – *E. barclayi* Miroshnikov, 2017, самка. 46, 48 – общий вид сверху; 47 – общий вид снизу; 49 – голова, переднеспинка и основание надкрылий сверху; 50 – голова и переднеспинка сверху.

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, 1990: 75; Hüdepohl, 1998: 213; Vives, 2005: 245; Heffern, 2013: 10; Miroshnikov, 2017: 182.

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

Remarks. This genus includes six species [Miroshnikov, 2017; Miroshnikov, Tichý, 2018]. Some of them are still known only from one sex.

Elydnus barclayi Miroshnikov, 2017
(Figs 48, 50)

Elydnus barclayi Miroshnikov, 2017: 183 (type locality: "Peninsular Siam, Nakon Sri Tam[m]arat, Khao Luang , 2000 ft. [8°33′N / 99°44′E]" (according to the original description and the label of the holotype)).

Material. 1♀ (cLD), W Malaysia, Johor, Endau-Rompin NP, Pulau Jasin, 50–400 m, 2°18′N / 103°12′E, 19.03.1998 (leg. L. Dembický, P. Pacholátko), "*Elydnus barclayi* Miroshnikov, 2017 ♀ det. A. Miroshnikov 2019".

Remarks. This species was described on the basis of two males. Female features are given here for the first time.

Description of the female. Closely resembles a male. Body length 28.4 mm, humeral width 6.6 mm.

Antennae very clearly longer than body, nearly reaching the apex of elytra by apex of antennomere 9; length ratio of antennomeres 1–11, 25 : 6 : 30 : 21 : 24 : 39 : 43 : 41 : 38 : 36 : 54; antennomere 5, 1.14 times as long as antennomere 4 (in male 1.10–1.13 times; while in similar species, *E. amictus* Pascoe, 1869, antennomere 5, 1.28–1.37 or 1.19–1.36 times as long as antennomere 4 in male and female, respectively [Miroshnikov, 2017]); submentum 2.4 times as wide as long (in male 2.34–2.42 times; while in male and female of *E. amictus*, submentum 2.68–2.89 times as wide as long, as a rule [Miroshnikov, 2017]).

Pronotum barely longitudinal, 1.02 times as long as wide; base 1.16 times as wide as apex.

Elytra in basal third nearly parallel-sided, in apical part distinctly broadened, in apical third clearly narrowed towards apex; 2.7 times as long as humeral width; with a recumbent dense setation being clearly golden tones partly, like in male (in *E. amictus*, setation in the vast majority of cases with a silvery tint partly [Miroshnikov, 2017]).

Last (visible) sternite widely rounded apically; last (visible) tergite truncate at apex.

Genus *Pachydissus* Newman, 1838

Pachydissus Newman, 1838: 494. Thomson, 1864: 231; Lacordaire, 1868: 265; Gemminger, 1872: 2804; Gahan, 1891: 24; Reitter, 1894: 356; Gahan, 1906: 133; Aurivillius, 1912: 56; Plavilstshikov, 1931: 83; Gressitt, 1951: 141; Gressitt, Rondon, 1970: 71; Adlbauer, 2002: 158; Catalogue..., 2010: 162; Ślipiński, Escalona, 2016: 223; Kariyanna et al., 2017: 34; Miroshnikov, 2017: 220; Bouyer, 2018: 15; Miroshnikov, 2018: 211.

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

Remarks. This genus includes eleven Asian species [Miroshnikov, 2018], but at least one of them needs a clarification of its generic attribution. Most of the species are still known only from one sex.

Pachydissus patricius Holzschuh, 1991
(Figs 51, 53, 55, 57)

Pachydissus patricius Holzschuh, 1991: 36 (type locality: Thailand, NE Bangkok, Saraburi (according to the original description)). Miroshnikov, 2017: 222, fig. 404; Miroshnikov, 2018: 212, fig. 74.

Material. 1♂ (cLD) (Fig. 51), W Malaysia, Pahang, 15 km E Kampong Dong, Benom Mts., 300–1000 m, 3°53′N / 102°01′E, 24.03–15.04.1998 (leg. L. Dembický), "*Pachydissus patricius* Holzschuh, 1991 ♂ det. A. Miroshnikov 2019".

Comparative material. *Pachydissus borneoensis* Miroshnikov, 2018: 1♂, holotype (NHMD) (Fig. 52), E Malaysia, Sabah, Crocker Range, 03.2003 (local collector).

Remarks. This species was described on the basis of single female. Male features are given here for the first time.

Description of the male. Closely resembles a female. Body length 33 mm, humeral width 8.1 mm.

Antennae much longer than body, reaching beyond apex of elytra by antennomere 7; basal antennomeres pretty robust; length ratio of antennomeres 1–11, 36 : 14 : 60 : 27 : 76 : 70 : 70 : 66 : 65 : 72 : 139; antennomere 1 with a coarse sculpture forming, in addition to everything else, in middle part dorsally a distinct longitudinal rib, the latter occupying more than half of antennomere length starting from base, as well as with a small dense puncturation; antennomere 2 subequal in length and width; apical external angle of antennomeres 3–10 rounded or obtuse, not drawn towards laterad; antennomeres 3 and 4 partly with a well-visible longitudinal impression both dorsally and ventrally.

Pronotum distinctly longitudinal, 1.11 times as long as wide; base 1.13 times as wide as apex; with coarse, partly sinuous, mainly transverse folds; with a recumbent, dense, light setation, forming a peculiar pattern, as in Figs 51, 53, nearly like in female.

Elytra in basal third nearly parallel-sided, but then very distinctly narrowed towards apex, 2.58 times as long as humeral width; apical external angle very well-expressed, sutural angle drawn into a very clear sharp tooth.

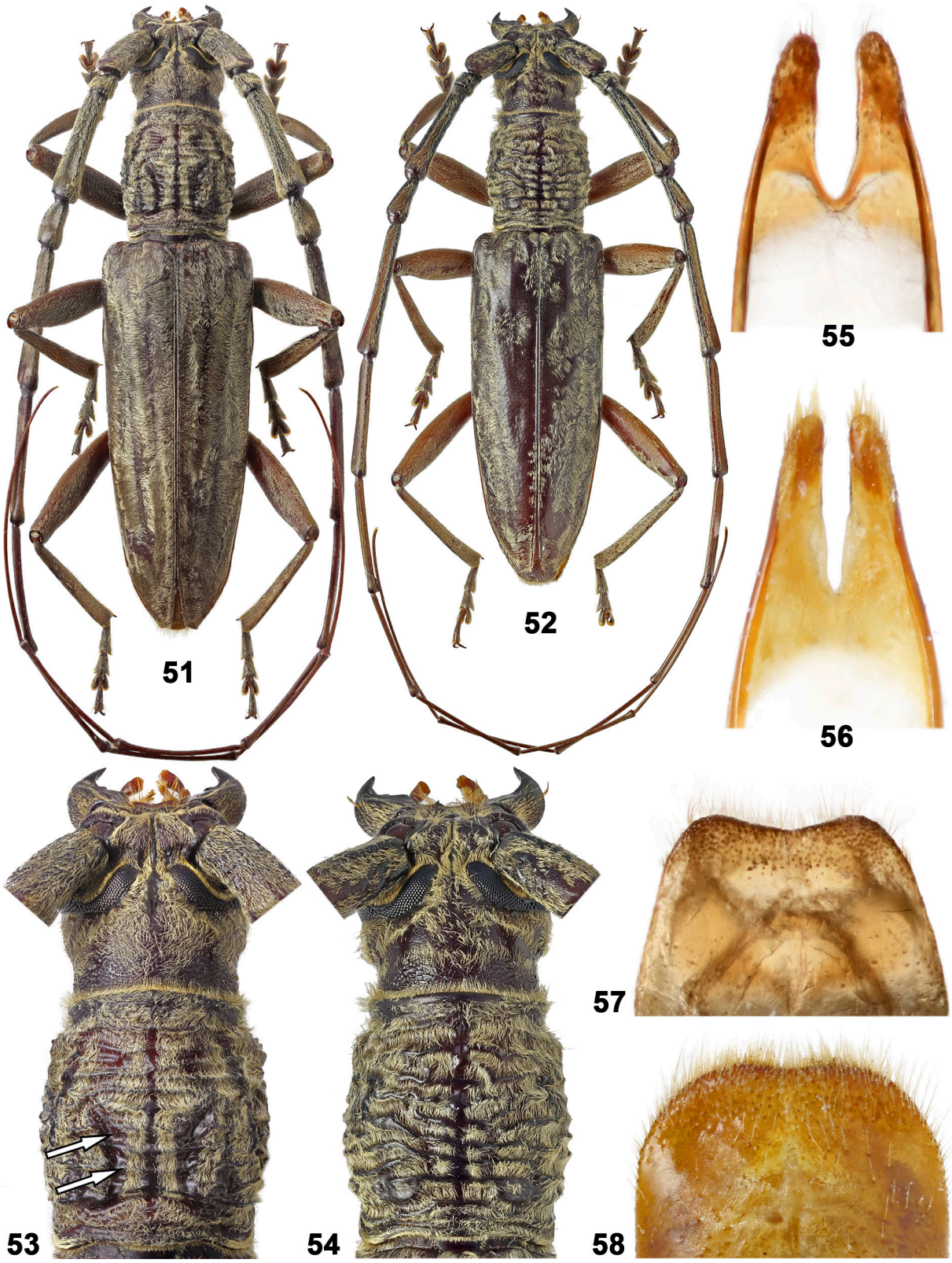
Last (visible) sternite with a distinct emargination at apex; last (visible) tergite widely rounded apically.

Notes. The male structure of *P. patricius* reliably confirms the very clear differences between this species and the similar species, *P. borneoensis* Miroshnikov, 2018, described from Borneo.

The male, like a female, clearly differs from the male of *P. borneoensis* by the somewhat peculiar both sculpture and setation of the pronotum, including the presence of a longitudinal, pretty wide, bare (devoid of a setation), very well-expressed area in the basal half lateral to the midline, as indicated by arrows in Fig. 53 (cf. Fig. 54), as well as by the presence of a well-expressed median groove between the upper lobes of the eyes and on the vertex, as in Fig. 53 (cf. Fig. 54). Additionally, in the male of *P. patricius*, compared to the male of *P. borneoensis*, the antennomere 1 with a clearly less sharp longitudinal rib dorsally; the basal antennomeres are distinctly more robust, especially so antennomeres 3 and 4, as in Fig. 51 (cf. Fig. 52); the antennomeres 3, 4 and 5 combined only 1.17 times as long as the last antennomere (while in *P. borneoensis* 1.35 times); the scutellum is more broadly rounded apically; last (visible) sternite with a distinct emargination at the apex (while in *P. borneoensis*, the last (visible) sternite widely truncate apically); both tergite 8 and tegmen of peculiar shape in the apical part, as in Figs 55, 57 (cf. Figs 56, 58).

Distribution. Until now, this species has only been known from Thailand [Holzschuh, 1991].

Based on the material studied, *P. patricius* is being recorded here from Western Malaysia for the first time.



Figs 51–58. *Pachydissus* Newman, 1838, males.

51, 53, 55, 57 – *P. patricius* Holzschuh, 1991 (Western Malaysia); 52, 54, 56, 58 – *P. borneoensis* Miroshnikov, 2018, holotype. 51–52 – habitus, dorsal view; 53–54 –head and pronotum, dorsal view; 55–56 – apical part of tegmen, ventral view; 57–58 – tergite 8, dorsal view.

Рис. 51–58. *Pachydissus* Newman, 1838, самцы.

51, 53, 55, 57 – *P. patricius* Holzschuh, 1991 (Западная Малайзия); 52, 54, 56, 58 – *P. borneoensis* Miroshnikov, 2018, голотип. 51–52 – общий вид сверху; 53–54 –голова и переднеспинка сверху; 55–56 – вершинная часть тегмена снизу; 57–58 – 8-й тергит сверху.

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