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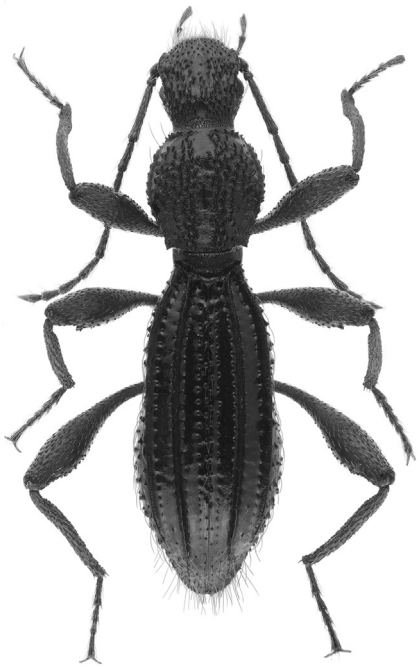

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To the knowledge of the leaf-beetles of the genus *Taumacera* Thunberg, 1814 (Coleoptera: Chrysomelidae) from Malaysia, Indonesia, and Thailand

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Abstract. Ten new species of the genus *Taumacera* Thunberg, 1814 are described from Malaysia, Indonesia, and Thailand: *T. alexklimenkoi* **sp. n.** from the *viridis* species-group; *T. lamellicornis* **sp. n.** from the *insignis* species-group; *T. pseudoantennata* **sp. n.** from the *antennata* species-group; *T. pseudonigricornis* **sp. n.** from the *nigricornis* species-group; *T. sinabungensis* **sp. n.** and *T. trizonalis* **sp. n.** from the *deusta* species-group. *Taumacera bezdeki* **sp. n.** and *T. moseykoi* **sp. n.**, having long antennae covered long, erected setae and metatibiae with apical process, as well as *T. carinatipennis* **sp. n.** and *T. unicoloripennis* **sp. n.**, having not modified antenna and metatibiae with apical process, are unassigned to any species-group. The figures of general views and aedeagi are given for them and the majority of related species. The new identification keys for males of the *antennata* and the *nigricornis* species-groups, as well as for the Sumatran representatives of the *deusta* species-group with the angulate pronotum are proposed. A new colour form of *T. monstrosa* (Jacoby, 1899) with darkened elytra is described from Sumatra. *Taumacera javanensis* (Jacoby, 1895) has antennomeres VII and VIII dilated with distinct spine directed backwards on the latter and is assigned to the *antennata* species-group. The lectotype of *T. javanensis* is designated. The following new synonymy is proposed: *Taumacera antennata* (Mohamedsaid, 1997) = *T. musaamani* (Mohamedsaid, 2010), **syn. n.**

Key words: Chrysomelidae, Galerucinae, *Taumacera*, Indonesia, Malaysia, Thailand, Borneo, Sumatra, new species.

К познанию жуков-листоедов рода *Taumacera* Thunberg, 1814 (Coleoptera: Chrysomelidae) Малайзии, Индонезии и Таиланда

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Резюме. Описано десять новых видов жуков-листоедов рода *Taumacera* Thunberg, 1814 из Малайзии, Индонезии и Таиланда: *T. alexklimenkoi* **sp. n.** из группы видов *viridis*; *T. lamellicornis* **sp. n.** из группы видов *insignis*; *T. pseudoantennata* **sp. n.** из группы видов *antennata*; *T. pseudonigricornis* **sp. n.** из группы видов *nigricornis*; *T. sinabungensis* **sp. n.** и *T. trizonalis* **sp. n.** из группы видов *deusta*. *Taumacera bezdeki* **sp. n.** и *T. moseykoi* **sp. n.**, имеющие длинные усики, покрытые длинными торчащими щетинками, и задние голени с апикальном отростком, а также *T. carinatipennis* **sp. n.** и *T. unicoloripennis* **sp. n.**, имеющие не модифицированные усики и задние голени с апикальном отростком, не отнесены к какой-либо из известных групп видов. Для всех этих и для большинства близких к ним видов даны фотографии габитуса и эдеагуса. Предложены новые определительные таблицы для самцов групп видов *antennata* и *nigricornis*, а также для суматранских представителей группы видов *deusta* с угловато расширенной переднеспинкой. Описана новая цветовая форма *T. monstrosa* (Jacoby, 1899) с темными надкрыльями из Суматры. *Taumacera javanensis* (Jacoby, 1895) имеет расширенные усиковые членики VII и VIII с отчетливым шипом, направленным назад на последнем, и относится к группе видов *antennata*. Обозначен лектотип *T. javanensis*. Предложен новый синоним: *Taumacera antennata* (Mohamedsaid, 1997) = *T. musaamani* (Mohamedsaid, 2010), **syn. n.**

Ключевые слова: Chrysomelidae, Galerucinae, *Taumacera*, Индонезия, Малайзия, Таиланд, Борнео, Суматра, новые виды.

The genus *Taumacera* established by Thunberg [1814] is widely distributed in the Oriental region (from India to the Philippines). Recently, a fundamental work [Bezděk, 2019] devoted to this genus was published. In this work the generic synonyms of *Taumacera* were revised; a lot of species were transferred to *Taumacera* from other genera; all known species-groups of this genus were considered; as well as the diagnostic characters of the genus (including images of habitus and some characters for many species) and an extensive bibliography were given. Taking this into account, the list of cited here literature includes only articles with identification keys or publications that contain information directly related to the species discussed in this paper. Separately it should be mentioned the publications of Mohamedsaid [1993, 1994, 1995, 1997, 1998a, 1998b, 2002] and Reid [1999, 2001] in which many species from Indonesia and Malaysia were described and keyed. In addition, special mention deserves the work of Mohamedsaid and Furth [2011] about secondary sexual characteristics in males of Galerucinae (including ones of this genus).

The present paper is based on the study of *Taumacera* materials collected by the author, as well as materials from collections of Museo Civico di Storia Naturale "Giacomo Doria" (Genova, Italy), Natural History Museum (London, United Kingdom), National Museum of Natural History,

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Smithsonian Institution (Washington D.C., USA) and collections of my colleagues. This made it possible to describe ten species new for science and to present new identification keys for some species-groups of this genus from Indonesia and Malaysia.

Taumacera can be distinguished from other Galerucinae genera by the following combination of characters: maxillary palpi with slightly enlarged third segment; pronotum with unbordered anterior margin and bordered lateral and posterior margins, its surface with two depression; elytra confusedly punctate or semistriate with epipleura gradually narrowed to apex; procoxal cavities closed posteriorly; tarsal claws appendiculate; tibiae without spurs and secondary sexual characteristics of males listed below. Antennae usually with one or more antennomeres modified; metasternum with metasternal process (lobe protruding between metacoxae); metatibia usually with apically process.

Material and methods

All measurements were made using an ocular grid mounted on MBS-20 stereomicroscope. Measurements of all segments were taken at their widest part, unless otherwise specifically stated. All measurements for syntypes of *T. javanensis* (Jacoby, 1895) and *T. nigriventris* (Baly, 1864) were made by M. Geiser. In describing of the antennomeres, the inner side is considered to be one facing the body when the antennae are extended along it. For convenience of description of metasternal process, its side furthest from the abdomen is considered as upper side. All the proportions of antennomeres and tarsomeres are given in standard units (1 standard unit = = 0.025 mm). All photos presented in this article were taken by the author with the exception of photos of *T. javanensis* and *T. nigricornis* (Baly, 1864) taken by M. Geiser and photo of *T. constricta* Mohamedsaid, 2002 taken by Y. van Dam. Author's photographs of habitus were taken using a Canon EOS 80D digital camera with a combined Canon EF 70–200 mm f/4.0L IS USM and inverted Olympus OM-System Zuiko Auto-T 100 mm f/2.8. Photographs of aedeagi and spermathecae were taken using a Canon EOS 80D digital camera and a combined Canon EF 70–20 mm f/4.0L IS USM and inverted Canon EF-S 24mm F2.8 STM lenses (to photograph spermathecae Canon Extender EF 1.4 X II was additionally used). Images at different focal planes were combined using Zerene Stacker Professional 1.04 software.

The following abbreviations are used for depository places of types:

FMNH – Finnish Museum of Natural History LUOMUS (Helsinki, Finland);

HTC – private collection of Haruo Takizawa (Tokyo, Japan);

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

MSNG – Museo Civico di Storia Naturale "Giacomo Doria" (Genova, Italy);

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

NMEG – Naturkundemuseum (Erfurt, Germany);

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

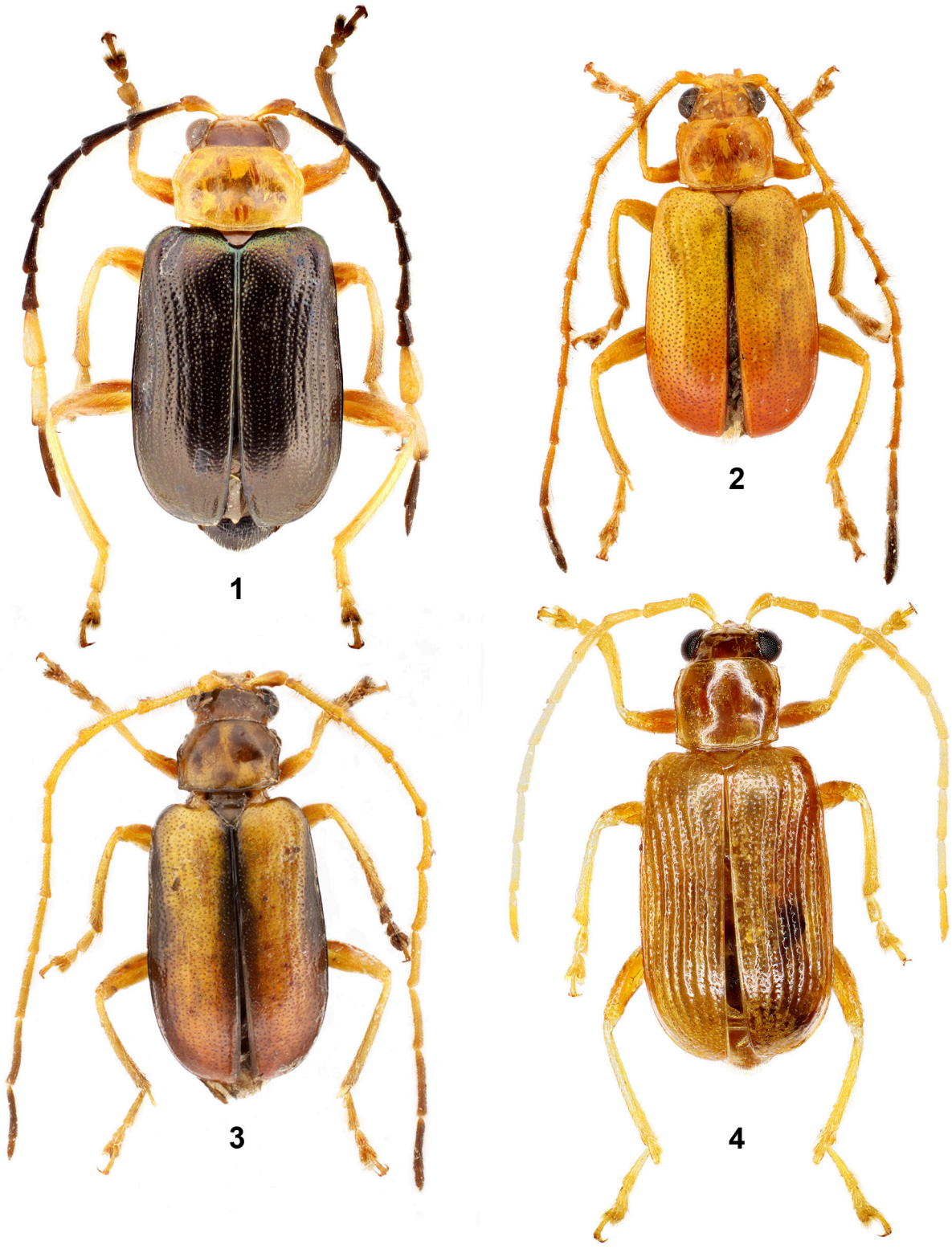
Taumacera alexklimenkoi **sp. n.**
(Figs 1, 17–19, 53)

Material. Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660 m, N 05°48′47″, E 116°20′16″ 13-15.II.2015, A. Klimenko leg.". Paratypes: 1♂ (HTC), "MALAYSIA, Sabah, Mesilau Ranau, 2-3.III.2010, A. Abe"; 1♂ (PR), the same locality as holotype, but "6.III.2014, P. Romantsov leg."; 1♂ (PR), the same data, but "8.III.2014"; 1♂ (NMEG), "EAST MALAYSIA, Borneo, Sabah, Tambunan env., Crocker Range foothills, 05°43′ N, 116°18′ E, 26.IV.2015, 1100 m, edge of primary lower montane rainforest, leg. local collector".

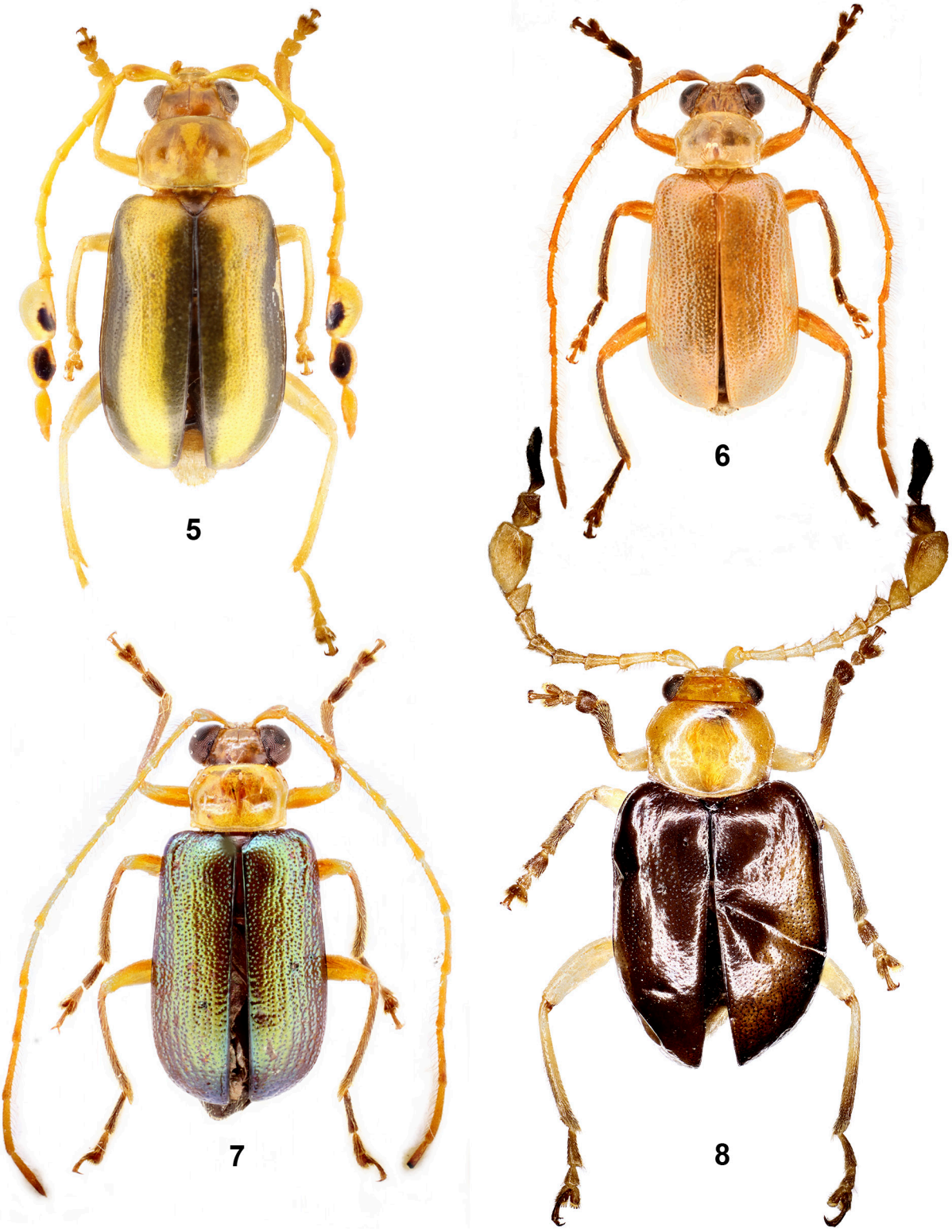
Description. Holotype. Head brown with occiput dark brown and apical half of mandibulae black; pronotum brown with blurred light brown spots; elytra dark copper-purple, area near scutellum and epipleura in basal part third with green-blue tint. Antennomeres I–II and IX–X brown, antennomeres III–VIII and XI black (except underside of antennomeres III–IV brown). Legs brown with darkened two last tarsomeres. Underside of body brown with metasternum (except metaepisterna and metaepimera dark brown) and abdomen black-brown. Body length 8 mm. General view as in Fig. 1.

Body wide, oblong, moderately convex, slightly widened posteriorly, about 2.1 times as long as wide. Head impunctate, labrum large, trapezoidal with slightly concave apical margin. Labrum surface convex, impunctate, shining, covered with very fine microsculpture. Penultimate maxillary palpomere moderately (about 1.5 times wider than previous one) swollen, apical palpomere short (about 3 times shorter than previous one), conical. Frontoclypeus triangular, strongly convex, especially in central part. Genae short, about 2.5 times shorter than transversal diameter of eye and about 3 times shorter than longitudinal diameter of eye. Frontal tubercles very slightly convex, broad, rectangular with produced inner anterior angles, located closely and almost touching each other with their inner sides but distinct separated with thin deep groove. Surface of frontal tubercles impunctate, but covered with fine microsculpture. Posterior margin of frontal tubercles indistinctly separated from vertex. Eyes large, strongly convex, oval (1.2 times as long as wide); interocular space 1.6 times as wide as transverse diameter of eye. Vertex with small rounded fossa in front of junction of frontal tubercles; vertex surface impunctate, covered with fine microsculpture. Antennae long, extended beyond apex of elytra (1.19 times longer than body length). Antennomere I large, stout, club-shaped; antennomere II small. Antennomeres III–XI with expressed in varying degree longitudinal rib (obtuse on antennomere III, sharper on next antennomeres and most sharp on antennomeres VII–VIII) on dorsal side of each; looks trihedral. Antennomeres I and II glabrous. Lateral margins of antennomeres III–XI deeply shagreen; lower edge of lateral faces and underside of antennomeres III–VIII with rather long setae directed down and laterally; setae of antennomeres IX–XI denser and much shorter. Antennomeres IX–X enlarged. Antennomere XI pointed at apex, with weak constriction, so antennae look indistinctly 12-segmented. Length ratio of antennomeres I–XI as 31 : 7.5 : 37 : 37 : 35 : 32 : 33 : 25 : 42 : 43 : 57, width ratio as 12 : 7 : 10 : 10 : 10 : 10 : 10 : 12 : 18 : 15 : 8.

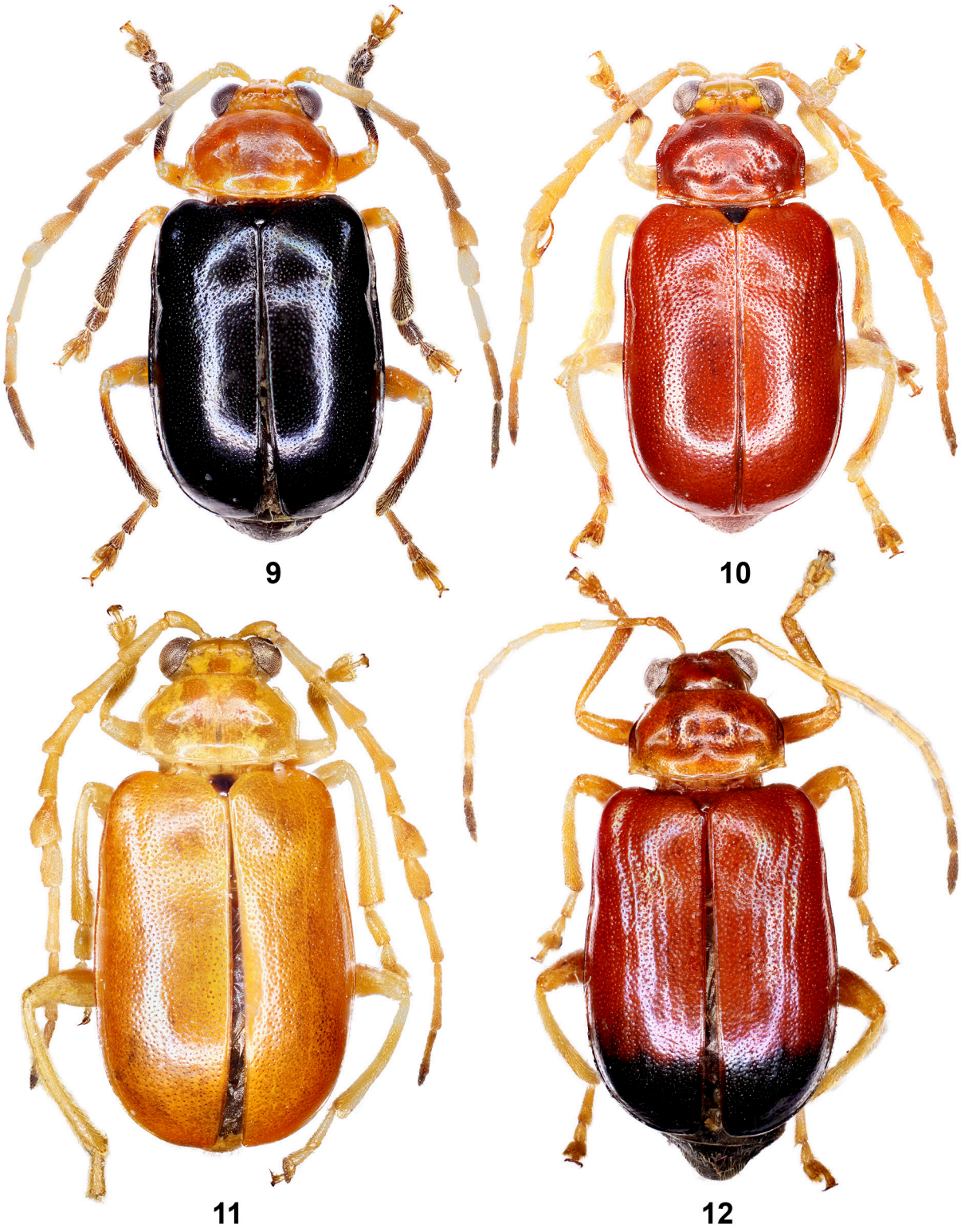
Pronotum transverse 1.51 times as wide as long (broadest at anterior half, its sides slightly constricted at basal third), about 1.4 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles very slightly swollen, almost not protruding; posterior angles obtuse. All angles with setigerous pore bearing long pale seta. Several additional short



Figs 1–4. *Taumacera*, general view.
1 – *T. alexklimenkoi* **sp. n.**, male, holotype; 2–3 – *T. bezdeki* **sp. n.**: 2 – male, holotype, 3 – male, paratype; 4 – *T. carinatipennis* **sp. n.**, male, holotype.
Рис. 1–4. *Taumacera*, общий вид.
1 – *T. alexklimenkoi* **sp. n.**, самец, голотип; 2–3 – *T. bezdeki* **sp. n.**: 2 – самец, голотип, 3 – самец, паратип; 4 – *T. carinatipennis* **sp. n.**, самец, голотип.



Figs 5–8. *Taumacera*, general view.
5 – *T. lamellicornis* **sp. n.**, male, holotype; 6–7 – *T. moseykoi* **sp. n.**: 6 – male, paratype, 7 – male, holotype; 8 – *T. monstrosa*, male.
Рис. 5–8. *Taumacera*, общий вид.
5 – *T. lamellicornis* **sp. n.,** самец, голотип; 6–7 – *T. moseykoi* **sp. n.**: 6 – самец, паратип, 7 – самец, голотип; 8 – *T. monstrosa*, самец.

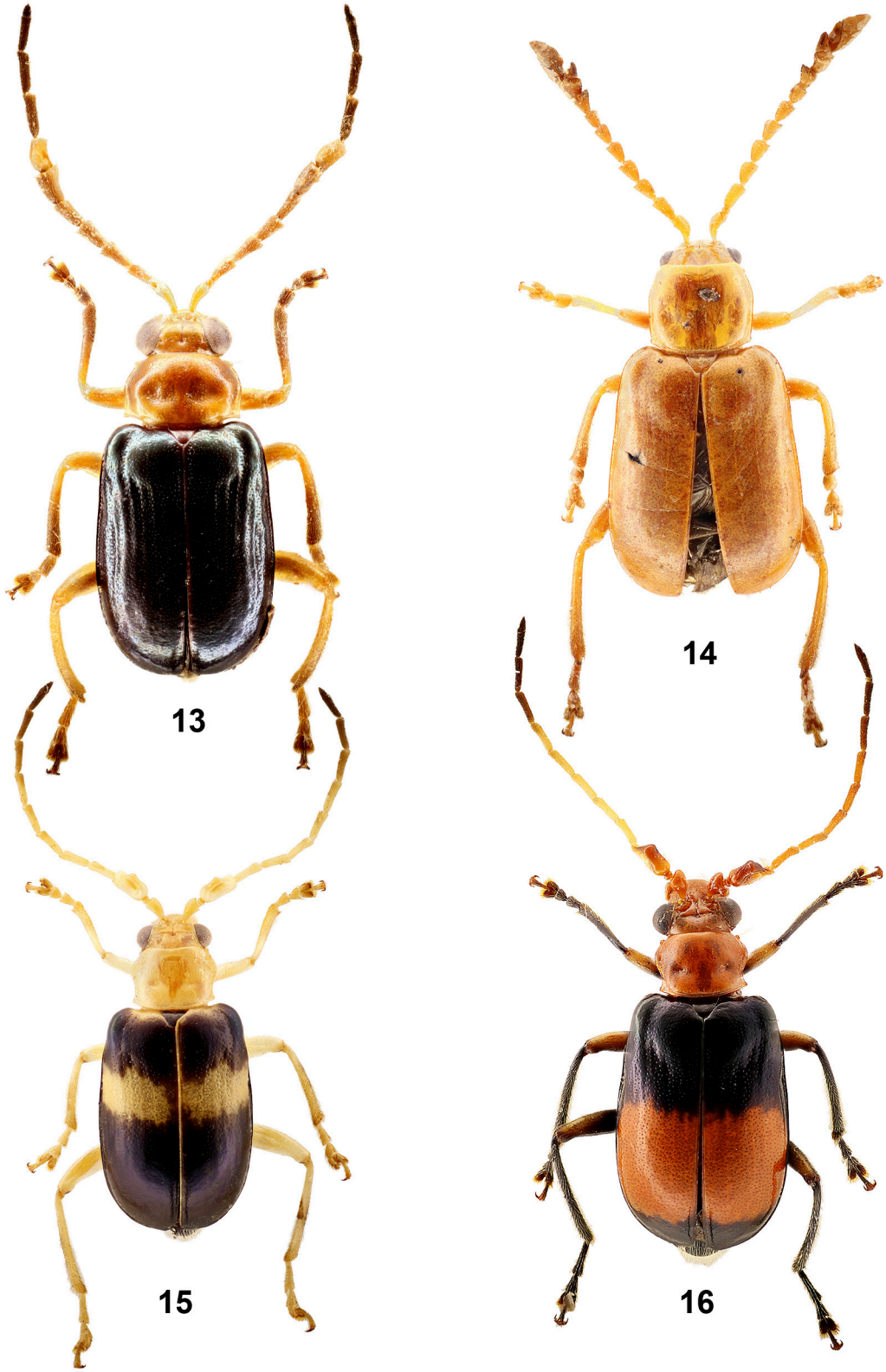


Figs 9–12. *Taumacera*, general view.

9–11 – *T. antennata*: 9 – male, black elytra, 10 – male, reddish elytra, 11 – male, brown elytra; 12 – *T. pseudoantennata* **sp. n.**, female, paratype (Maninjau Lake).

Рис. 9–12. *Taumacera*, общий вид.

9–11 – *T. antennata*: 9 – самец, черные надкрылья, 10 – самец, красноватые надкрылья, 11 – самец, коричневые надкрылья; 12 – *T. pseudoantennata* **sp. n.**, самка, паратип (озеро Маниндjay).



Figs 13–16. *Taumacera*, general view.

13 – *T. pseudoantennata* **sp. n.**, male, holotype; 14 – *T. pseudonigricornis* **sp. n.**, male, holotype; 15 – *T. sinabungensis* **sp. n.**, male, holotype; 16 – *T. trizonalis* **sp. n.**, male, holotype.

Рис. 13–16. *Taumacera*, общий вид.

13 – *T. pseudoantennata* **sp. n.**, самец, голотип; 14 – *T. pseudonigricornis* **sp. n.**, самец, голотип; 15 – *T. sinabungensis* **sp. n.**, самец, голотип; 16 – *T. trizonalis* **sp. n.**, самец, голотип.

setae placed on lateral margin near anterior and posterior angles. Pronotal surface lustrous, covered with rare small punctures and fine microsculpture; with pair of large transverse depressions.

Scutellum triangular, transverse (about 1.7 times as wide as long). Surface impunctate, covered with very fine microsculpture. Elytra about 1.5 times as long as wide, slightly widened at posterior third. Elytra with indistinct ribs more prominent on sides, elytral surface shagreened, densely and confusedly covered with distinct punctures, somewhere arranged in indistinct pairs rows. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface lustrous with rare small punctures and very fine microsculpture. Macropterous.

Legs moderately long and narrow, covered with pale semi-adpressed setae. All tibiae slightly curved, without spurs. Apex of metatibiae with moderately long and wide process pointed at apex. Protarsomere I long and slightly enlarged, about 1.4 times as long as wide; protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 18 : 9 : 11 : 25; width ratio of protarsomeres I–III as 13 : 11 : 15. Mesotarsomere I 1.3 times as long as wide. Length ratio of mesotarsomeres I–IV as 20 : 8.5 : 10 : 25; width ratio of mesotarsomere I–III as 13 : 10 : 13. Metatarsomere I moderately long and robust, straight; about 3 times as long as wide. Length ratio of metatarsomeres I–IV as 31 : 13 : 11 : 30; width ratio of metatarsomeres I–III as 10 : 11 : 13. Tarsal claws appendiculate. Ventral sparsely covered with pale setae, denser at side of abdomen.

Procoxal cavities closed posteriorly. Metasternum has deep concave metasternal process with finely split apex as in Fig. 53. Last abdominal ventrite trilobed; median lobe slightly depressed with almost straight truncated apex. Pygidium convex with widely rounded apex.

Aedeagus comparatively short and wide (Figs 17–19), about 3.9 times as long as wide, expanding in apical third where it more than 1.6 times wider than in basal two-thirds, with convergent apical processes forming acute triangular apex. In lateral view apex of aedeagus slightly bent down apical. Apical half of ventral side of aedeagus with elongate median furrow consisting of two separate parts: very deep lanceolate depression and starting from it narrow and less deep groove continuing to apex. Length of aedeagus 2.8 mm, width 0.72 mm.

Remark: aedeagus of holotype is slightly deformed on upper side, so the images of dorsal view and lateral view of aedeagus were taken from paratype.

Paratypes. Males are similar to the holotype, one paratype from Crocker Range has elytral areas near scutellum and along suture with green tint; one paratype from Crocker Range collected 24.04.2015 and the paratype from Mesilau have elytra entirely metallic green. Body length 8.2–8.7 mm.

Female unknown.

Differential diagnosis. *Taumacera alexklimenkoi* **sp. n.**, having slender antennae with slightly modified antennomeres and elytra with indicated elytral ribs, belongs to the *viridis* species-group. *Taumacera alexklimenkoi* **sp. n.** differs from others congeners in unique combinations of characters: antennae with enlarged antennomeres IX–X, antennomeres III–VIII with protruding setae, antennomeres III–XI with longitudinal rib on each; metatibiae with moderately long and wide process at apex and the rather short and wide (in comparison with other *Taumacera*) aedeagus, strongly expanding at the apical third and with two characteristic depressions on its ventral side.

Etymology. The new species is named after my late friend Aleksey Klimenko who accompanied me during field work in Malaysia in 2012–2014 and collected the holotype of this new species.

Taumacera bezdeki **sp. n.**
(Figs 2, 3, 20–22, 54, 67, 87)

Material. Holotype, ♂ (ZIN): "Borneo Isl., Sabah, Keningau distr., Trus Madi Mts, h~1250m, N 05°26′35″, E 116°27′5″, 24-26.III.2012, P. Romantsov leg.". Paratypes: 1♂ (JB), "Borneo Isl., Sabah, Keningau distr., Trus Madi Mts, h~1160m, 2-8.VII.2005, A. Klimenko leg."; 2♂ (PR), the same locality as holotype, but "2-8.VII.2011, A. Klimenko leg."; 1♂ (PR), the same locality as holotype, but "16-18.III.2012, P. Romantsov leg."; 2♀ (PR), the same data, but "17.III.2012"; 1♂ (PR), the same data, but "23.III.2012"; 1♂, 1♀ (PR), the same data, but "24-27.III.2012"; 2♀ (PR), the same data, but "17-27.III.2012"; 1♂, 1♀ (PR), the same data, but "27.III.2012"; 1♀ (PR), the same data, but "4.IV.2013"; 1♂ (PR), the same data, but "6.IV.2013"; 1♂ (PR), the same data, but "7.IV.2013"; 2♂ (PR), the same data, but "8.IV.2013"; 2♀ (PR), the same data, but "9.IV.2013".

Description. Holotype. Head brown, pronotum brown with blurred light brown strokes. Apex of mandibulae black. Elytra bicolour: light brown (somewhere with blurred brown strokes) in anterior two-thirds, reddish in posterior third with smooth transition between them. Antennae and legs brown. Underside of body brown with metathorax and abdomen black (excluding apical half of penultimate ventrite and last ventrite light brown). Body length 5.7 mm. General view as in Fig. 2.

Body moderately oblong and convex, slightly widened posteriorly, about 2.2 times as long as wide. Head impunctate, labrum rather large, with triangular concave apical margin. Labrum surface moderately convex, impunctate, lustrous in anterior half, slightly shagreen in basal one. Penultimate maxillary palpomere moderately (1.5 times wider than previous one) swollen, apical palpomere short (about 2 times shorter than previous one), conical. Frontoclypeus triangular, evenly convex. Genae not very short, about 2.4 times shorter than transversal diameter of eye and about 3.3 times shorter than longitudinal diameter of eye. Frontal tubercles slightly convex, moderately broad, rectangular with produced inner anterior angles; divided by thin longitudinal groove and delimited posteriorly by short straight impression. Surface of frontal tubercles impunctate, covered with fine microsculpture. Eyes large, strongly convex, oval (1.35 times as long as wide); interocular space 1.65 times as wide as transverse diameter of eye. Vertex with small slightly elongate fossa in front of junction of frontal tubercles; vertex surface impunctate, slightly transverse wrinkled. Antennae very long, about 1.65 times longer than body length, without enlarged antennomeres. Antennomere I large, stout, club-shaped, antennomere II short, almost round. Antennomere IV straight, widened at apex. Antennomere IV–IX slightly curved and widened at apex (antennomere VI and VII somewhat more curved than rest ones). Antennomeres X and XI long, cylindrical, the latter of them pointed at apex, with weak constriction in apical quarter. Antennomeres I and II glabrous, antennomeres III–X with protruding setae (longer on antennomeres III–VII), last antennomere covered with short semi-adpressed setae. Length ratio of antennomeres I–XI as 25 : 6 : 35 : 40 : 38 : 34 : 37 : 35 : 39 : 42 : 43, width ratio as 9 : 5.5 : 8 : 7.5 : 7 : 7 : 8 : 8 : 7 : 6 : 6.

Pronotum transverse, 1.53 times as wide as long (broadest at anterior half), 1.45 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins very slightly sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles very slightly swollen, not protruding; posterior angles obtuse. All angles with setigerous pore bearing long pale seta. Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface moderately lustrous, impunctate, covered with fine transverse microsculpture; with pair of oval depressions.

Scutellum triangular, transverse (1.45 times as wide as long); its surface with rare punctures and fine microsculpture. Elytra 1.54 times as long as wide, slightly widened at posterior third. Surface moderately densely and confusedly covered with distinct punctures with flat interstices. Humeral calli well developed.

Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs moderately long and narrow, covered with pale semi-adpressed setae. All tibiae without spurs. Meso- and metatibiae very slightly curved, apex of metatibiae with rather narrow (about 4 times as long as wide) and long (only about 2 times shorter than metatarsomere I) process with narrowly rounded apex (Fig. 67). Protarsomere I rather long and slightly enlarged (nearly 1.8 times as long as wide); protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 16 : 9 : 10 : 19; width ratio of protarsomeres I–III as 9 : 7 : 11. Mesotarsomere I about 1.8 times as long as wide. Length ratio of mesotarsomeres I–IV as 16 : 8 : 9 : 18; width ratio of mesotarsomere I–III as 9 : 7 : 11. Metatarsomere I moderately long, straight; about 3.3 times as long as wide. Length ratio of metatarsomeres I–IV are as 23 : 11 : 10 : 20; width ratio of metatarsomeres I–III as 7 : 8 : 10.5. Tarsal claws appendiculate.

Ventral side sparsely covered with pale setae (denser and long on ventrites of abdomen). Procoxal cavities closed posteriorly. Metasternum with deep concave metasternal process, rather widely split at apex. Last abdominal ventrite trilobed; with wide rectangular slightly depressed median lobe. Pygidium convex with widely rounded apex.

Aedeagus moderately long and narrow (Figs 20–22), 6 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view slightly sinuous. Ventral side of aedeagus with relatively narrow median furrow in basal half, passing into rather deep lanceolate depressions in apical half. Length of aedeagus 1.8 mm, width 0.3 mm.

Paratypes. Most of males are similar to the holotype, but 3 males have three-coloured elytra: brown with red or brown with red and black as in Fig 3; one male has elytra entirely brown. Females have short antennae (shorter than body length) with antennomeres without long setae; metasternum without metasternal process; metatibiae without process, but posterior margin of metathorax with very short triangular ledge barely protruding between metacoxae and many times shorter than them, apex of this ledge short split; last abdominal ventrite not trilobed. Body of females colouration is similar to the holotype, but one female has elytra with slightly more developed red colouring: anterior half brown and posterior one reddish; one female has elytra entirely brown. Spermatheca as in Fig. 87. Body length of males 5.2–6.2 mm, of females 6.7–7 mm.

Differential diagnosis. *Taumacera bezdeki* **sp. n.** cannot be assigned to any species-group listed by Bezděk [2019]. Males of *T. bezdeki* **sp. n.** have antennae with long setae and metatibiae with a long process. This combination of characters, shared with *T. moseykoi* **sp. n.**, is unusual for *Taumacera* species especially in the Oriental region. Some African species of this genus have similar characters but not in combination of them. Some Oriental *Taumacera* species have metatibial process but do not have protruding setae on antennomeres. Males of *T. bezdeki* **sp. n.** can be easily distinguished from *T. moseykoi* **sp. n.** in the shape of metatibial process, which is longer and narrower (stick-shaped) in the former and shorter and wider (lobe-shaped) in the latter. Besides, *T. bezdeki* **sp. n.** has two- or three-coloured elytra (brown with red or brown with red and black) and brown tibiae. *Taumacera moseykoi* **sp. n.** has one-coloured ones (brown or metallic green) and darkened tibiae.

Etymology. This new species is named after Jan Bezděk, a well-known specialist in Chrysomelidae, who made a great contribution to the study of members of the genus *Taumacera*.

Taumacera carinatipennis **sp. n.**
(Figs 4, 23–25, 55, 66)

Material. Holotype, ♂ (ZIN): "Borneo Isl., Sabah, Keningau distr., Trus Madi Mts, h~1250m, N 05°26′35″, E 116°27′5″, 2-8.VII.2011, A. Klimenko leg". Paratypes: 1♂ (PR), the same locality as holotype, but "20-22.III.2012, P. Romantsov leg."; 1♂ (PR), the same locality, but "27.III.2012, P. Romantsov leg."; 1♀ (PR), the same locality, but "06.IV.2013, P. Romantsov leg."; 1♂ (NHM), "Borneo, Sabah, Crocker Range, IV.2013, Kota Kinabalu-Tambunan, N 05°51′33.7″, E 116°17′24.1, at light sheet, B. H. Garner, M. V. L. Barclay, H. Mendel & A. Giusti. BMNH(E) 1221424".

Description. Holotype. Upper- and underside of body, antennae and legs brown with slightly darker occiput and central part of pronotum. Apex of mandibulae black. Body length 6.5 mm. General view as in Fig. 4.

Body rather wide, oblong, moderately convex, slightly widened posteriorly, about 2.1 times as long as wide. Head impunctate, labrum large, with very slightly concave apical margin. Labrum surface convex, impunctate, shining, covered with barely visible microsculpture. Penultimate maxillary palpomere moderately (1.65 times wider than previous one) swollen, apical palpomere short (almost 2 times shorter than previous one), conical. Frontoclypeus triangular, evenly convex. Genae short, about 3.2 times shorter than transversal diameter of eye and almost 4 times shorter than longitudinal diameter of eye. Frontal tubercles flat, moderately broad, rectangular with produced inner anterior angle, touch each other but with thin deep groove along line of contact. Surface of frontal tubercles lustrous, impunctate. Posterior margin of frontal tubercles slightly separated from vertex with weak depression. Eyes large, strongly convex, oval (1.25 times as long as wide); interocular space 1.5 times as wide as transverse diameter of eye. Vertex with small rounded fossa in front of junction of frontal tubercles; surface impunctate, covered with indistinct transverse wrinkles. Antennae rather long, slightly extended beyond apex of elytra (about 1.1 times longer than body length), without enlarged antennomeres. Antennomere I large, stout, club-shaped, antennomere II very short. Antennomere IV slightly curved, other ones more or less cylindrical. Antennomere XI cylindrical, pointed at apex, with weak constriction in apical quarter. Antennomeres III–XI with low, thin longitudinal rib on dorsal side of each (almost indistinct on antennomere III). Length ratio of antennomeres I–XI as 23 : 5 : 23 : 28 : 28 : 28 : 28 : 30 : 30 : 30 : 32, width ratio as 11 : 6 : 8 : 8 : 7 : 7 : 7.5 : 8 : 7 : 6 : 5. Two basal antennomeres lustrous with very sparse short setae; antennomeres III–XI shagreen, quite densely covered with short semi-adpressed setae.

Pronotum slightly transverse, just 1.16 times as wide as long (broadest at anterior half), 1.55 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins very slightly sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles very slightly swollen, not protruding; posterior angles obtuse. All angles with setigerous pore bearing long pale seta. Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface moderately lustrous, covered with very rare and small punctures and distinct microsculpture; with pair of shallow and rather broad depressions.

Scutellum triangular, transverse (about 1.4 times as wide as long) with impunctate, slightly transversely wrinkled surface. Elytra about 1.6 times as long as wide, slightly widened at posterior third. Surface lustrous covered with rather large and deep punctures arranged in 9 rows (excluding short scutellar row) separated by highly convex, obtuse interstices. Punctures in rows closely spaced, in places paired. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

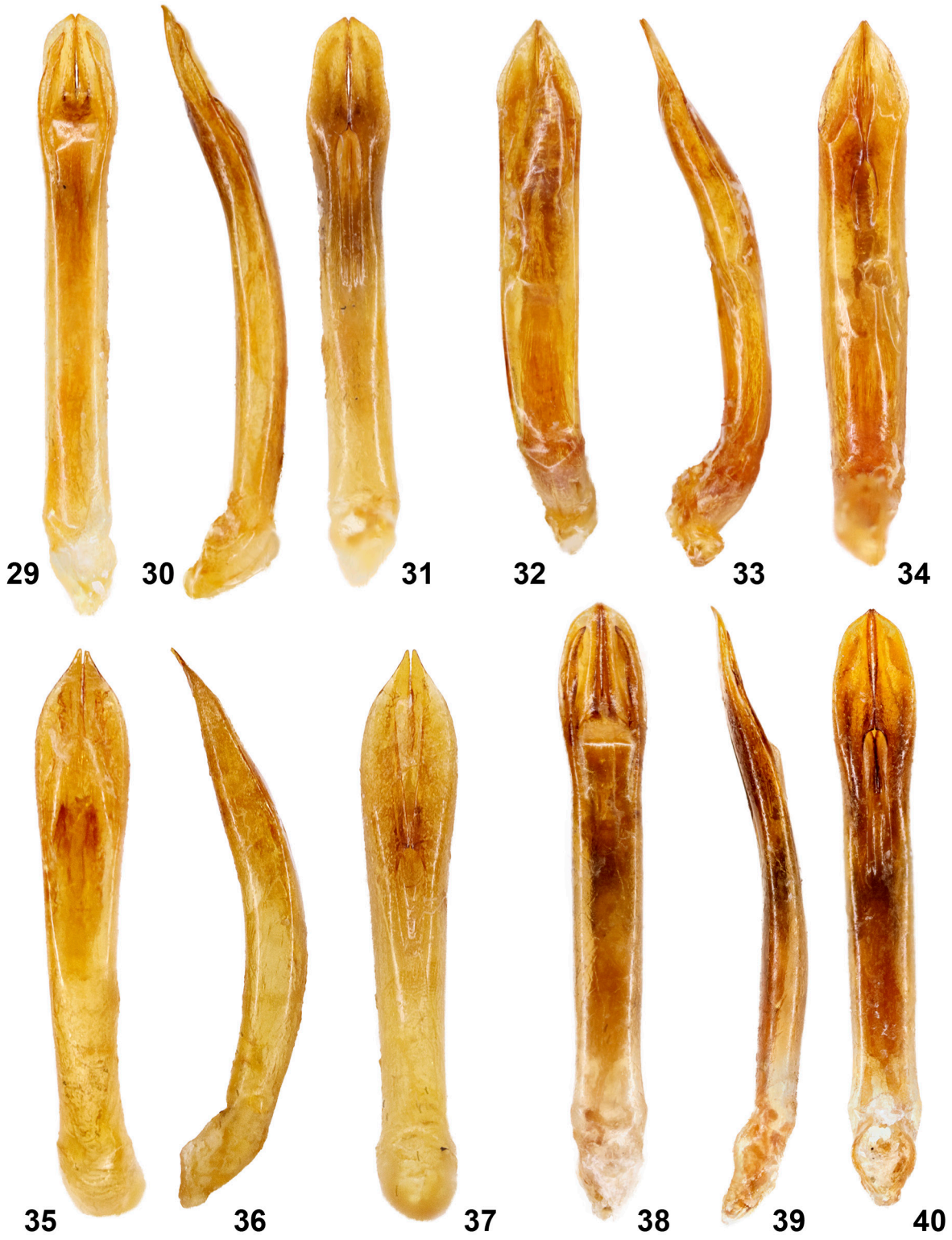
Legs moderately long and narrow, covered with pale semi-adpressed setae. All tibiae without spurs. Metatibiae curved, their

Figs 17–28. *Taumacera*, aedeagi.

17–19 – *T. alexklimenkoi* **sp. n.**, holotype; 20–22 – *T. bezdeki* **sp. n.**, holotype; 23–25 – *T. carinatipennis* **sp. n.**, holotype; 26–28 – *T. lamellicornis* **sp. n.**, holotype. 17, 20, 23, 26 – dorsal view; 18, 21, 24, 27 – lateral view; 19, 22, 25, 28 – ventral view.

Рис. 17–28. *Taumacera*, эдеагусы.

17–19 – *T. alexklimenkoi* **sp. n.**, голотип; 20–22 – *T. bezdeki* **sp. n.**, голотип; 23–25 – *T. carinatipennis* **sp. n.**, голотип; 26–28 – *T. lamellicornis* **sp. n.**, голотип. 17, 20, 23, 26 – вид сверху; 18, 21, 24, 27 – вид сбоку; 19, 22, 25, 28 – вид снизу.



Figs 29–40. *Taumacera*, aedeagi.

29–31 – *T. antennata*; 32–34 – *T. kinabaluensis*; 35–37 – *T. moseykoi* **sp. n.**, paratype; 38–40 – *T. pseudoantennata* **sp. n.**, holotype. 29, 32, 35, 38 – dorsal view; 30, 33, 36, 39 – lateral view; 31, 34, 37, 40 – ventral view.

Рис. 29–40. *Taumacera*, эдеагусы.

29–31 – *T. antennata*; 32–34 – *T. kinabaluensis*; 35–37 – *T. moseykoi* **sp. n.**, паратип; 38–40 – *T. pseudoantennata* **sp. n.**, голотип. 29, 32, 35, 38 – вид сверху; 30, 33, 36, 39 – вид сбоку; 31, 34, 37, 40 – вид снизу.

Figs 41–52. *Taumacera*, aedeagi.

41–43 – *T. pseudonigricornis* **sp. n.**, holotype; 44–46 – *T. sinabungensis* **sp. n.**, holotype; 47–49 – *T. trizonalis* **sp. n.**, holotype; 50–52 – *T. unicoloripennis* **sp. n.**, holotype. 41, 44, 47, 50 – dorsal view; 42, 45, 48, 51 – lateral view; 43, 46, 49, 52 – ventral view.

Рис. 41–52. *Taumacera*, эдеагусы.

41–43 – *T. pseudonigricornis* **sp. n.**, голотип; 44–46 – *T. sinabungensis* **sp. n.**, голотип; 47–49 – *T. trizonalis* **sp. n.**, голотип; 50–52 – *T. unicoloripennis* **sp. n.**, голотип. 41, 44, 47, 50 – вид сверху; 42, 45, 48, 51 – вид сбоку; 43, 46, 49, 52 – вид снизу.

apex with moderately long and wide process which bifurcate at apex with hook-shaped lower part (Fig. 66). Protarsomere I slightly enlarged, about 1.6 times as long as wide; protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 16 : 8 : 8 : 18; width ratio of protarsomeres I–III as 10 : 7 : 11. Mesotarsomere I about 1.8 times as long as wide. Length ratio of mesotarsomeres I–IV as 16 : 7 : 10 : 17; width ratio of mesotarsomeres I–III as 9 : 7 : 12. Metatarsomere I moderately long, straight; about 4 times as long as wide. Length ratio of metatarsomeres I–IV as 30 : 13 : 10 : 22; width ratio of metatarsomeres I–III as 7.5 : 8.5 : 12. Tarsal claws appendiculate.

Ventral side sparsely covered with pale setae. Procoxal cavities closed posteriorly. Metasternum with deep concave metasternal process, divergent at apex (Fig. 55). Last abdominal ventrite trilobed; median lobe very slightly depressed with straight truncated apex. Pygidium convex with very widely rounded apex.

Aedeagus moderately long and narrow (Figs 23–25), about 7 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view slightly sinuous. Apical half of aedeagus ventral side with relatively narrow median furrow forming rather deep lanceolate depressions in apical fourth. Length of aedeagus 2.2 mm, width 0.32 mm.

Paratypes. Males are similar to the holotype. Body length 6 mm. Female is similar to males, but has metasternum and metatibiae without process, body length 7.1 mm.

Differential diagnosis. *Taumacera carinatipennis* **sp. n.** cannot be assigned to any species-group listed by Bezděk [2019]. *Taumacera carinatipennis* **sp. n.** is similar to *T. khalednordini* Mohamedsaid, 2010 from Borneo which also has raised elytral interstices and bifurcate apex metatibial process with hook-shaped lower part. But this new species differs from *T. khalednordini* in filiform antennae without enlarged antennomeres in contrast to extremely enlarged antennomeres I and III in *T. khalednordini*. This new species can be also compared with Bornean species *T. kinabaluensis* (Mohamedsaid, 1999) and *T. unicoloripennis* **sp. n.** that have filiform antennae without enlarged or covered with long setae antennomeres. *Taumacera carinatipennis* **sp. n.** can be easily distinguished from them in raised interstices between punctures rows on elytra and in bifurcate apex of rather wide metatibial process with hook-shaped lower part (Fig. 66). *Taumacera kinabaluensis* and *T. unicoloripennis* **sp. n.** have elytra with flat interstices, metatibial process of the former species is narrow, long and curved (Fig. 68), metatibial process of the latter species is wide with truncated apex (Fig. 68); the apex of metatibial processes are not bifurcate in both species. In addition, *T. kinabaluensis* has different form of metasternal process with triangular apex (Fig. 56) and another form of aedeagus (Fig. 32–34). *Taumacera unicoloripennis* **sp. n.** having rounded apex of metasternal process, is similar to *T. carinatipennis* **sp. n.**, but lateral margins of metasternal process is compressed laterally (Fig. 64) in the former; in contrast rounded lateral margins in the latter (Fig. 55).

Etymology. The name of the new species refers to raised interstices between punctures rows on elytra.

Taumacera lamellicornis **sp. n.**
(Figs 5, 26–28, 57)

Material. Holotype, ♂ (PR): "Borneo Isl., Sabah Keningau distr., Trus Madi Mts, h~1250m, N 05°26′35″, E 116°27′5″, 5-12.II.2015, A. Klimenko leg".

Description. Holotype. Head brown with apical half of mandibulae black; pronotum brown with blurred light brown spots; elytra light brown with dark longitudinal lateral and sutural stripes. Antennae light brown, antennomeres IX–X with large black spot on upper side of each. Legs light brown. Underside of body brown with metasternum and abdomen black except apical margin of ventrite IV and ventrite V brown. Body length 7.2 mm. General view as in Fig. 5.

Body rather wide, oblong, moderately convex, slightly widened posteriorly, about 2.3 times as long as wide. Head impunctate. Labrum large, trapezoidal with slightly concave apical margin. Labrum surface convex, impunctate, shining, covered with barely visible microsculpture. Penultimate maxillary palpomere moderately (about 1.7 times wider than previous one) swollen, apical palpomere short (almost 2 times shorter than previous one), conical. Frontoclypeus triangular, strongly convex, especially in central part. Genae short, about 2 times shorter than transversal diameter of eye and almost 3 times shorter than longitudinal diameter of eye. Frontal tubercles flat, broad, rectangular with produced inner anterior angles, touch each other but with thin deep groove along line of contact. Surface of frontal tubercles covered with distinct microsculpture. Posterior margin of frontal tubercles not separated from vertex. Eyes large, strongly convex, oval (1.35 times as long as wide); interocular space 1.75 times as wide as transverse diameter of eye. Vertex impunctate, covered with indistinct microsculpture. Antennae rather long, slightly extended beyond apex of elytra (1.12 times longer than body length). Antennomere I large, stout, club-shaped, antennomere II almost cylindrical. Antennomeres III–VIII slightly swollen before apex. Antennomeres IX and X flattened and strongly extended, slightly depressed on upper surface. Antennomere XI flattened, pointed at apex, with constriction (seems divided into 2 parts), so antennae look false 12-segmented (see also "Note"). Length ratio of antennomeres I–XI as 37 : 10 : 37 : 31 : 33 : 23 : 26 : 12 : 45 : 34 : 37, width ratio as 17 : 7 : 9 : 9 : 9 : 9 : 9 : 10 : 26 : 19 : 12. Two basal antennomeres with very sparse short setae; antennomeres III–VIII with very sparse short setae on dorsal side and with longer setae directed downwards on ventral side. Antennomeres IX–XI with glabrous dorsal side, covered with adpressed short setae on ventral side. Pronotum transverse 1.45 times as wide as long (broadest at anterior half, its sides distinctly constricted at basal third), about 1.4 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles very slightly swollen, almost not protruding; posterior angles obtuse. Lateral margin with several short setae before anterior corners. Pronotal surface covered with microscopic punctures and microsculpture; with pair of small, rounded depressions.

Scutellum triangular, wide (about 1.3 times as wide as long). Surface impunctate, covered with barely visible microsculpture. Elytra about 1.5 times as long as wide, slightly widened at posterior third. Surface shagreened, densely and confusedly covered with small but distinct punctures. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs moderately long and narrow, covered with pale semi-adpressed setae. Protarsomere I enlarged, semi-oval, nearly as long as wide; protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 13 : 7 : 10 : 15; width ratio of protarsomeres I–III as 13 : 10 : 14. Mesotarsomere I 1.2 times as long as wide. Length ratio of mesotarsomeres I–IV as 12 : 6 : 8 : 16; width ratio of mesotarsomeres I–III as 10 : 8 : 12. Metatarsomere I long, curved; about 7 times as long as wide. Length ratio of metatarsomeres I–IV as 35 : 13 : 10 : 20; width ratio of metatarsomeres I–III as 5 : 9 : 14. Tarsal claws appendiculate. All tibiae without spurs.

Ventral side sparsely covered with pale setae. Procoxal cavities closed posteriorly. Metasternum has slightly concave

metasternal process with distinctly split apex (Fig. 57). Last abdominal ventrite trilobed; median lobe slightly depressed with straight truncated apex. Pygidium convex with widely rounded apex. Aedeagus comparatively long (Figs 26–28), subparallel, about 8 times as long as wide, with convergent apical processes forming acute triangular apex. In lateral view apex of aedeagus slightly bent down apical. Ventral side with deep elongate, expanding towards apex, median furrow in apical fourth. Length of aedeagus 2.6 mm, width 0.32 mm.

Female unknown.

Differential diagnosis. *Taumacera lamellicornis* **sp. n.** belongs to the *insignis* species-group. Male members of this group have antennomeres IX and X greatly expanded, VIII short; protarsomere I enlarged, semicircular. Except for here described new species, this group includes *T. insignis* (Baly, 1867) and *T. yamamotoi* (Mohamedsaid, 1998). *Taumacera lamellicornis* **sp. n.** differs from others groupmates in flattened antennomeres IX–XI with a black large spot on upper side of ones IX–X and in light brown elytra colouration with dark longitudinal lateral and sutural stripes. Other group members have antennomeres IX–X greatly dilated (triangular or oval) but not flattened, usually with ventral surfaces excavated and antennomere XI cylindrical with pointed apex. *Taumacera yamamotoi* has dark elytra with distinct metallic sheen and *T. insignis* has dark brown elytra usually with very weak metallic sheen. Besides, they have more enlarged (much wider then protarsomere III) protarsomere I, in contrast to moderately wide (slightly narrower than protarsomere III) protarsomere I in *T. lamellicornis* **sp. n.**

Etymology. The species name refers to its strongly flattened antennomeres IX–X.

Note. Bezděk [2022] already indicated the presence of 12-segmented antennae in representatives of the *T. cervicornis* species-group. In his opinion, antennomeres XI and XII are firmly fused in most species of this group, but separated by a distinct suture; however, in *T. cervicornis* (Baly, 1861), antennomere XII appears to be moveable.

Taumacera monstrosa (Jacoby, 1899)
(Fig. 8)

Material. 1♂ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-240m, N 03°32′52″, E 098°07′27″-N 03°33′16″, E 098°06′21″, 27.I.2018 P. Romantsov leg.".

Note. This species was described on the basis of a specimen with dorsal side of body and legs brown, except scutellum, tibiae and tarsi blackish. Image of specimen with such colouration is given in Bezděk [2019]. The author of this article collected on Sumatra a specimen which has all the features of this species including the structure of antennae and aedeagus. But this specimen has strongly darkened elytra (Fig. 8) and seems to represent a new colour form of this species.

Distribution. Peninsular Malaysia, Sumatra (northern part), Tioman.

Taumacera moseykoi **sp. n.**
(Figs 6, 7, 35–37, 58, 70, 88)

Material. Holotype, ♂ (ZIN): "MALAYSIA, N Borneo, Sabah, ~16 км NW Tambunan, Crocker Range, h~1660 m, N 05°48′47″, E 116°20′16″ 16.IV.2013, P. Romantsov leg. At light.". Paratypes: 2♂ (NHM), "MALAYSIA, Sabah, Mesilau, 8.II.1964, J. Smart. Royal Soc. Exped. B.M.1964-250"; 1♂ (NHM), the same data, but "9.II.1964"; 1♂ (NHM), the same data, but "2-3.IV.1964, 5,000 ft."; 1♂ (MSNG), "Sabah, Mt. Kinabalu, 1550 m, 23.IV.1987, Burkhardt-Löbl."; 1♂ (MSNG), the same place, but "1550-1560 m, 24.IV.1987, Burkhardt-Löbl."; 1♂, 1♀ (USNM), "Borneo: Mt. Kinabalu N.P., Headquarters 1558 m, 24.IV.1987, Beating foliage. D. E. Bright collector"; 1♂, 3♀ (USNM), the same data, but "25.IV.1987"; 2♂ (USNM), the same data, but "29.IV.1987"; 2♂, 2♀ (USNM), the same data, but "16-18.V.1987"; 1♂ (USNM), the same data, but "19-23.V.1987"; 1♂, 1♀ (FMNH), "BORNEO, SABAH, Mt. Kinabalu (1600 m), 12-16.4.1994, M. Hämäläinen"; 1♂ (PR), "Borneo Isl., Sabah, Keningau distr., Trus Madi Mts, ~1250m, N 05°26′35″, E 116°27′5″, 12-15.IV.2008, leg. S. Nikitin"; 1♂ (PR), the same locality, but "09.IV.2013, Romantsov P. leg"; 1♂, 1♀ (PR), the same data as holotype, but "11.IV.2013"; 1♂ (PR), the same data, but "12.IV.2013"; 2♂, 1♀ (JB, PR), the same data as holotype; 3♂ (PR), the same data, but "13-15.II.2015, A. Klimenko leg.".

Description. Holotype. Head brown (slightly lighter in lower half), pronotum light brown, elytra metallic green. Antennae and legs light brown with tibiae and tarsi darkened. Underside of body brown with metathorax and abdomen black. Body length 6.8 mm. General view as in Fig. 7.

Body moderately oblong and convex, slightly widened posteriorly, 2.43 times as long as wide. Head impunctate, labrum rather large, with triangularly concave apical margin. Labrum surface moderately convex, impunctate, lustrous with rare rather long setae along margins. Penultimate maxillary palpomere slightly (just 1.25 times wider than previous one) swollen, apical palpomere short (about 1.8 times shorter than previous one), conical. Frontoclypeus triangular, rather strongly convex, especially in central part. Genae very short, about 5 times shorter than transversal diameter of eye and about 6 times shorter than longitudinal diameter of eye. Frontal tubercles week convex, moderately broad, rectangular with produced inner anterior angles; divided by thin longitudinal groove and indistinctly delimited posteriorly. Surface of frontal tubercles impunctate, covered with fine microsculpture. Eyes very large and strongly convex, slightly oval (1.2 times as long as wide); interocular space narrow, about 0.9 times as wide as transverse diameter of eye. Vertex with small rounded fossa in front of junction of frontal tubercles; vertex surface impunctate, slightly transverse wrinkled. Antennae very long, about 1.6 times longer than body length, without enlarged antennomeres. Antennomere I large, stout, club-shaped, antennomere II short, almost round. Antennomere III long, straight, widened at apex. Antennomeres IV–VII long, very week curved and slightly widened at apex. Antennomeres VIII–XI long, straight, very slightly widened at apex, the latter of them pointed at apex. Antennomeres I and II glabrous, antennomeres III–X with protruding setae on under and lateral sides (longer on antennomeres III–IX), last antennomere covered with short semi-adpressed setae. Antennomeres III–XI with very low and thin longitudinal rib on dorsal side of each (almost indistinct on antennomere III). Length ratio of antennomeres I–XI as 32 : 7 : 40 : 50 : 47 : 44 : 45 : 41 : 42 : 42 : 43, width ratio as 10 : 6 : 8 : 8 : 7 : 7 : 7 : 7 : 7 : 6 : 5.5.

Pronotum transverse, 1.45 times as wide as long (broadest at anterior half), about 1.5 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins slightly sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles very slightly swollen, not protruding; posterior angles obtuse. All angles with setigerous pore bearing long pale seta. Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface lustrous, impunctate, covered with very fine microsculpture; with pair of rather deep, transverse depressions.

Scutellum triangular, transverse (1.33 times as wide as long); its surface with fine and frequent transverse wrinkles. Elytra 1.75 times as long as wide, slightly widened at posterior third. Surface moderately dense and almost confusedly (only somewhere arranged in indistinct short rows) covered with distinct and deep

Figs 53–58. *Taumacera*, metasternal processes of males.
53 – *T. alexklimenkoi* **sp. n.**, holotype; 54 – *T. bezdeki* **sp. n.**, holotype; 55 – *T. carinatipennis* **sp. n.**, holotype; 56 – *T. kinabaluensis*; 57 – *T. lamellicornis* **sp. n.**, holotype; 58 – *T. moseykoi* **sp. n.**, holotype.

Рис. 53–58. *Taumacera*, отросток заднегруди самца.
53 – *T. alexklimenkoi* **sp. n.**, голотип; 54 – *T. bezdeki* **sp. n.**, голотип; 55 – *T. carinatipennis* **sp. n.**, голотип; 56 – *T. kinabaluensis*; 57 – *T. lamellicornis* **sp. n.**, голотип; 58 – *T. moseykoi* **sp. n.**, голотип.

punctures with convex interstices. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs long and narrow, covered with pale semi-adpressed setae. All tibiae without spurs. Mesotibiae very slightly curved. Metatibiae slightly curved, their apex with wide (1.25 times as long as wide) and short (about 3.5 times shorter than metatarsomere I) process with obliquely truncated apical margin and pointed upper corner (Fig. 70). Protarsomere I long and very slightly enlarged (nearly 2.55 times as long as wide); protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 23 : 13 : 9 : 23; width ratio of protarsomeres I–III as 9 : 8 : 12. Mesotarsomere I about 2.8 times as long as wide. Length ratio of mesotarsomeres I–IV as 25 : 13 : 10 : 21; width ratio of mesotarsomeres I–III as 9 : 8 : 12. Metatarsomere I moderately long, straight; about 4.6 times as long as wide. Length ratio of metatarsomeres I–IV are as 32 : 15 : 10 : 25; width ratio of metatarsomeres I–III as 7 : 6 : 11. Tarsal claws appendiculate.

Ventral side sparsely covered with pale setae (denser and longer on ventrites of abdomen). Procoxal cavities closed posteriorly. Metasternum with rather narrow and slightly concave metasternal process relatively narrow split at apex (Fig. 58). Last abdominal ventrite trilobed; with wide rectangular, moderately depressed median lobe. Pygidium convex with widely rounded apex.

Figs 59–64. *Taumacera*, metasternal processes of males.
59 – *T. antennata*; 60 – *T. pseudoantennata* **sp. n.**, holotype; 61 – *T. pseudonigricornis* **sp. n.**, holotype; 62 – *T. sinabungensis* **sp. n.**, holotype; 63 – *T. trizonalis* **sp. n.**, holotype; 64 – *T. unicoloripennis* **sp. n.**, holotype**.**
Рис. 59–64. *Taumacera*, отросток заднегруди самца.
59 – *T. antennata*; 60 – *T. pseudoantennata* **sp. n.**, голотип; 61 – *T. pseudonigricornis* **sp. n.**, голотип; 62 – *T. sinabungensis* **sp. n.**, голотип; 63 – *T. trizonalis* **sp. n.**, голотип; 64 – *T. unicoloripennis* **sp. n.**, голотип**.**

Aedeagus moderately long and narrow (Figs 35–37), 6 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view aedeagus weak curved with slightly downward apical part. Apical half of aedeagus ventral side with rather deep median impression, consisting of two moderately narrow lanceolate depressions connected to each other. Length of aedeagus 2.2 mm, width 0.32 mm.

Paratypes. This species has two colour forms. Light form has dorsal and ventral sides of body, antennae and legs brown (except tibiae and tarsi darkened) as in Fig. 6. Another form has a colouration like the holotype: head, pronotum and antennae brown; elytra metallic green; legs brown with tibiae and tarsi darkened; ventral sides of body brown with metasternum and abdomen black (Fig. 7). Variability of colouration is not related to sex and occurs in both of them. All other characters of both these forms

Figs 65–73. *Taumacera*, metatibia of males.

65 – *T. antennata*; 66 – *T. carinatipennis* **sp. n.**, holotype; 67 – *T. bezdeki* **sp. n.**, holotype; 68 – *T. kinabaluensis*; 69 – *T. nigricornis*, syntype; 70 – *T. moseykoi* **sp. n.**, holotype; 71 – *T. pseudoantennata* **sp. n.**, paratype; 72 – *T. pseudonigricornis* **sp. n.**, holotype; 73 – *T. unicoloripennis* **sp. n.,** holotype.

Рис. 65–73. *Taumacera*, задняя голень самца.

65 – *T. antennata*; 66 – *T. carinatipennis* **sp. n.**, голотип; 67 – *T. bezdeki* **sp. n.**, голотип; 68 – *T. kinabaluensis*; 69 – *T. nigricornis*, синтип; 70 – *T. moseykoi* **sp. n.**, голотип; 71 – *T. pseudoantennata* **sp. n.**, паратип; 72 – *T. pseudonigricornis* **sp. n.**, голотип; 73 – *T. unicoloripennis* **sp. n.,** голотип.

are identical. Variability in the shape of depression on aedeagus underside (sometimes this depression has a form of narrow groove starting in basal half and widening before apex) does not correlate with body colouration. Females have short antennae (shorter than body length) with antennomeres without long setae; metasternum without metasternal process; metatibiae without process; last abdominal ventrite not trilobed. Spermatheca as in Fig. 88. Body length of males 6.6–7.3 mm, of females 6.7–8 mm.

Differential diagnosis. *Taumacera moseykoi* **sp. n.** cannot be assigned to any species-group listed by Bezděk [2019]. Males of *T. moseykoi* **sp. n.**, having unusual for *Taumacera* species combination of antennae with long setae and metatibiae with a long process, are most similar to *T. bezdeki* **sp. n.** (see also differential diagnosis for the latter). Males of *T. moseykoi* **sp. n.** can be easily distinguished from *T. bezdeki* **sp. n.** in the shape of the metatibial process, which is shorter and wider (lobe-shaped) in the former and longer and narrower (stick-shaped) in the latter. Besides, *T. moseykoi* **sp. n.** has one-coloured elytra (brown or metallic green) and darkened tibiae. *Taumacera bezdeki* **sp. n.** has two- or three-coloured elytra (brown with red or brown with red and black) and brown tibiae.

Etymology. This new species named after Alexey Moseyko, a well-known specialist in Chrysomelidae.

The *Taumacera antennata* species-group

Taumacera antennata (Mohamedsaid, 1997)
(Figs 9–11, 29–31, 59, 65, 74, 75, 86)

Differential diagnosis. Mohamedsaid [1997] described the new genus and species *Kinabalua antennata* Mohamedsaid, 1997 on the base of specimens having dilated antennomeres VII and VIII with the large sharp spine on the antennomere VIII directed backwards from Sabah. The second species, *K. musaamani*, was added by Mohamedsaid [2010]; in the mentioned work, he gave also photographs of spur on the antennomere VIII for both species. Later, *Kinabalua* was synonymized with *Taumacera* by Bezděk [2019]. According to the original descriptions *Taumacera antennata* (Mohamedsaid, 1997) differs from *T. musaamani* (Mohamedsaid, 2010) in having the brownish scutellum, black elytra and the abdomen as well as in the short straight spine on the antennomere VIII. *Taumacera musaamani* has the scutellum black; elytra and the abdomen brown; the long, curved spine on the antennomere VIII. I have a large number of specimens of such *Taumacera* collected in different localities of Sabah. These specimens collected in one place have a very variable colouration of dorsal side: the brown pronotum and black elytra; the brown pronotum and reddish elytra; whole dorsal side brown; whole dorsal side reddish. All these specimens, regardless of the body colouration, have the same structure of the aedeagus and the metasternal process. *Taumacera antennata* was described from specimens with brown pronotum and black elytra. I have specimens collected in one locality with this dorsal colouration, but the shape of their spur on the antennomere VIII changes from short, wide and pressed (Fig. 74) as in *T. antennata* to long and curved (Fig. 75) as in *T. musaamani*. I believe these species are conspecific taxa and propose the following new synonymy: *Taumacera antennata* (Mohamedsaid, 1997) = = *T. musaamani* (Mohamedsaid, 2010), **syn. n.**

Distribution. Borneo (Sabah).

Taumacera javanensis (Jacoby, 1895)
(Figs 76, 95–102)

Differential diagnosis. Bezděk [2019] unassigned this species to any species-group. Thanks to the courtesy of Michael Geiser, I was able to remote examine two syntypes of this species from NHM collection. Both syntypes have antennomeres VII and VIII dilated, the latter with the distinct spine directed backwards; bifurcate metasternal process with long, thin styles and apex of metatibiae with the process. Therefore, I assign *T. javanensis* to the *antennata* species-group.

Note. Two syntypes of NHM collection have different body colouration and the shape of the metasternal process: the first syntype has upper (Fig. 95) and underside of body brown and the metasternal process as in Fig. 101. The second syntype has elytra with darkened apex (Fig. 96); undersides of body with metathorax and abdomen blackish and the metasternal process as in Fig. 102. The first syntype with entirely brown underside of the body and having written by Jacoby's handwriting label "Java Type H.T. Dorydea javanensis Jac. type" clearly corresponds to the original description [Jacoby, 1895] of the species and therefore is designated here as a lectotype. The second syntype with darker underside, having label "Malang Java javanense" written in the same handwriting, is getting a paralectotype.

Distribution. Java (East Java Province).

Taumacera pseudoantennata **sp. n.**
(Figs 12, 13, 38–40, 60, 71, 77, 89)

Material. Holotype, ♂ (ZIN): "Indonesia, Sumatra Is., Aceh Prov., Southeast Aceh Regency, Ketambe Distr., Gunung Leuser Nat. Park, N 03°41′38.8″, E 097°38′49.1″, h=404 m, primary forest, near stream, 1.III.2017, Prosvirov leg.". Paratypes: 1♀ (PR), data as in holotype; 1♂ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~410m, at light N 03°40′49″, E 097°39′40 21.III.2017, P. Romantsov leg."; 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~414-550 m., N 03°41′01″, E 097°39′16″-N 03°41′26″, E 097°39′27″, 25.III.2017, P. Romantsov leg."; 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~357-400 m, N 03°40′56″, E 097°39′11″-N 03°41′04″, E 097°39′01″, 30.III.2017, P. Romantsov leg."; 1♀ (PR), "Indonesien, Sumatra, Aceh Prov, Bukit Lawang Vill. h~190-240m, N 03°32′52″, E 098°07′27″-N 03°33′16″, E 098°06′21″, 26.I.2018, P. Romantsov leg."; 1♀ (PR), "Indonesien, Sumatra Il., West Sumatra Prov, 20 km S Bukittinggi 6 km SWW Padang Panjang, h~410-510 m, S 0°28′58″, E 100°20′37″-S 0°28′53″, E 100°20′31″, 10.II.2018 P. Romantsov leg."; 1♀ (PR), "Indonesien, Sumatra Il., West Sumatra Prov., 16 km W Bukittinggi, Maninjau Lake, h~527-610 m, S 0°17′08″, E 100°13′46″-S 0°17′07″, E 100°13′55″, 12.II.2018, P. Romantsov leg."; 1♀ (PR), the same data, but "A. Prosvirov leg."; 1♀ (PR), the same place, but "h~695-790 m, S 0°16′18″, E 100°14′00″-S 0°16′22″, E 100°14′11″, 13.II.2018, A. Prosvirov leg."; 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, 29 km NNW Kutacane Town, Ketambe Vill., h~400m, N 03°41′8.9″, E 097°38′55.7″, 22.III.2020, A. Prosvirov leg.".

Description. Holotype. Head brown; pronotum brown with lateral margins darkened in apical two thirds; elytra black with weak, but distinct metallic blue-green sheen. Legs brown with apical antennomeres and apical half tibiae and tarsi darkened. Ventral surfaces brown with abdomen darkened. Antennae brown, antennomeres III–IX slightly darkened, three last antennomeres entirely darkened. Body length 7.8 mm. General view as in Fig. 13.

Body wide, oblong, convex, slightly widened posteriorly,

about 2.1 times as long as wide. Head impunctate. Labrum transverse, rectangular about 2 times as wide as long, its apical margin slightly concave with small notch in middle. Labrum surface convex, impunctate, opaque with several long setae. Penultimate maxillary palpomere slightly swollen (1.2 times wider than previous one), apical palpomere short (about 2 times shorter than previous one), conical. Frontoclypeus triangular, strongly convex, especially in central part with high and narrow nasal keel. Genae very short, about 7 times shorter than transversal diameter of eye and 8 times shorter than longitudinal diameter of eye. Frontal tubercles very large, square with produced inner anterior angles, touch each other but with thin deep groove along line of contact. Surface of frontal tubercles strongly convex with gently sloping slopes, covered with distinct microsculpture and with several form depressions on slope facing to vertex. Posterior margin of frontal tubercles indistinctly separated from vertex. Eyes very large, strongly convex, slightly oval (1.14 times as long as wide); interocular space narrow, 0.88 times as wide as transverse diameter of eye. Vertex impunctate with small rounded fossa in front of junction of frontal tubercles; vertex surface covered with fine microsculpture. Antennae moderately long, almost reaching elytral apex (0.97 times as long as body length). Antennomere I large, stout, club-shaped, antennomere II transverse. Antennomeres III–VI robust, widened at apex (especially ones IV and VI). Antennomeres VII and VIII dilated, antennomere VIII with distinct spine directed backwards on ventral side. This spine arises from hollowed out ventral side of antennomere VIII and its apex projects into small cavity in antennomere VII with well visible gap between spine and antennomeres surface. Last three antennomeres long, antennomeres IX and X distinctly flattened, antennomere XI slightly flattened. Antennomere XI pointed at apex, with constriction at level of apical quarter (seems divided into 2 parts) so antennae look false 12 segmented. Length ratio of antennomeres I–XI as 29 : 6 : 30 : 33 : 26 : 25 : 30 : 30 : 39 : 37 : 41, width ratio as 11 : 8 : 12 : 15 : 14 : 13 :18 : 18 : 9 : 8 : 8. Two basal antennomeres lustrous, but with microsculpture and sparse short setae; antennomeres III–XI shagreen, thickly covered adpressed short setae.

Pronotum transverse 1.57 times as wide as long (broadest at anterior half), about 1.3 times narrower than elytra at level of shoulder tubercles. Anterior margin almost straight, posterior margin slightly convex, lateral margins slightly sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles not swollen, but protruding; posterior angles sharp, protruding. All angles with setigerous pore bearing long pale seta. Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface covered with sparse, distinct punctures and reticulate microsculpture; with pair of rather large and deep, rounded depressions.

Scutellum triangular, rather narrow (about 1.5 times as wide as long). Surface impunctate with fine microsculpture and several microscopic punctures. Elytra 1.46 times as long as wide, slightly widened at posterior third. Elytral surface shagreened, densely and confusedly covered with small but distinct punctures; with several well visible longitudinal ribs and several erect setae on apical slope. Humeral calli well developed. Epipleura moderately wide at anterior third, rather suddenly narrowed at end of basal third and then gradually narrowed towards apex, where turned outward so their bottom margin visible from above. Epipleural surface impunctate and glabrous. Macropterous.

Legs moderately long, covered with pale semi-adpressed setae. All tibiae without spurs. Protibiae straight; mesotibiae very slightly and metatibiae distinctly curved. Apex of metatibiae with relatively short (about 1.5 times shorter than width of rest part of tibia) and wide (about 1.5 times narrower than maximal width of tibia) process broadly triangular form with rounded apex (Fig. 71). Protarsomere I slightly enlarged, 1.54 times as long as wide; protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 20 : 11 : 10 : 23; width ratio of protarsomeres I–III as 13 : 10 : 17. Mesotarsomere I 1.66 times as long as wide. Length ratio of mesotarsomeres I–IV as 20 : 10 : 11 : 24; width ratio of mesotarsomeres I–III as 12 : 10 : 17. Metatarsomere I straight; about 3.2 times as long as wide. Length ratio of metatarsomeres I–IV as 32 : 15 : 13 : 29; width ratio of metatarsomeres I–III as 10 : 10 : 17. Tarsal claws appendiculate.

Ventral side sparsely covered with pale setae. Procoxal cavities closed posteriorly. Metasternal process bifurcate with 2 long, not incised styles (Fig. 60). Last abdominal ventrite trilobed with wide rectangular, slightly depressed median lobe. Pygidium convex, triangular with widely rounded apex.

Aedeagus comparatively long (Figs 38–40), about 7 times as long as wide, parallel for most of length, enlarged in apical quarter with convergent apical processes forming acute triangular apex. In lateral view aedeagus sinuous in apical quarter with very slightly downward tip. Ventral side of aedeagus with relatively wide and deep longitudinal depression starting in middle and ending at level of apical processes. Length of aedeagus 2.8 mm; width 0.32 for most of length and 0.4 mm before apex.

Paratypes. The male is similar to the holotype, but has elongate black spot in middle of vertex, more darkened lateral side of pronotum and darkened metathorax. In addition, its vertex has 2 uneven rows of protruding setae along frontal tubercles. These setae are missing and probably erased in the holotype, because females have similar setae (also erased in places). Females have narrow protarsomere I; metasternum and metatibiae without processes; interocular space wider (1.06–1.13 times as wide as transverse diameter of eye) and last abdominal ventrite not trilobed. Colouration of body of females is similar to one of males. Two females from Maninjau Lake have elytra red-brown with apical area and lower edge of epipleura black with distinct metallic blue-green sheen as in Fig. 12 (this sheen clearly visible on red part of elytra in daylight) and legs brown. One female from Ketambe has abnormal colouration of elytra: left elytron black with distinct metallic blue-green sheen as in the holotype; right elytron red-brown with apical area, lateral margin and epipleura as well as several narrow, indefinitely form longitudinal stripes on disc black with distinct metallic blue-green sheen (colouration of this elytron similar to one in Fig. 12, but with more developed dark patterns) and legs brown. Spermatheca as in Fig. 89. Body length of male 7 mm, of females 7.3–8 mm.

Differential diagnosis. *Taumacera pseudoantennata* **sp. n.** belongs to the *antennata* species-group. Males of this group have antennomeres III–VI robust, widened at apex; antennomeres VII and VIII dilated, the antennomere VIII is with distinct spine directed backwards; last three antennomeres are long; the bifurcate metasternal process with two long styles and apex of metatibiae with the process. Males of *T. pseudoantennata* **sp. n.** differ from its congeners in flattened apical antennomeres (IX–XI), their combined length about 1.9 times longer than combined length of antennomeres VII and VIII. Other species of this group have these antennomeres more elongate and less flattened, their combined length 2.2 (or more) times longer than combined length of antennomeres VII and VIII. Males and females of this new species differ from others groupmates in elytra with distinct metallic sheen. This new species is most similar to *T. javanensis*, but differs in flattened apical antennomeres (antennomeres X and XI in 4.6–5.1 times as long as wide) and in presence of the metallic shine on elytra. See also a key to the *antennata* species-group.

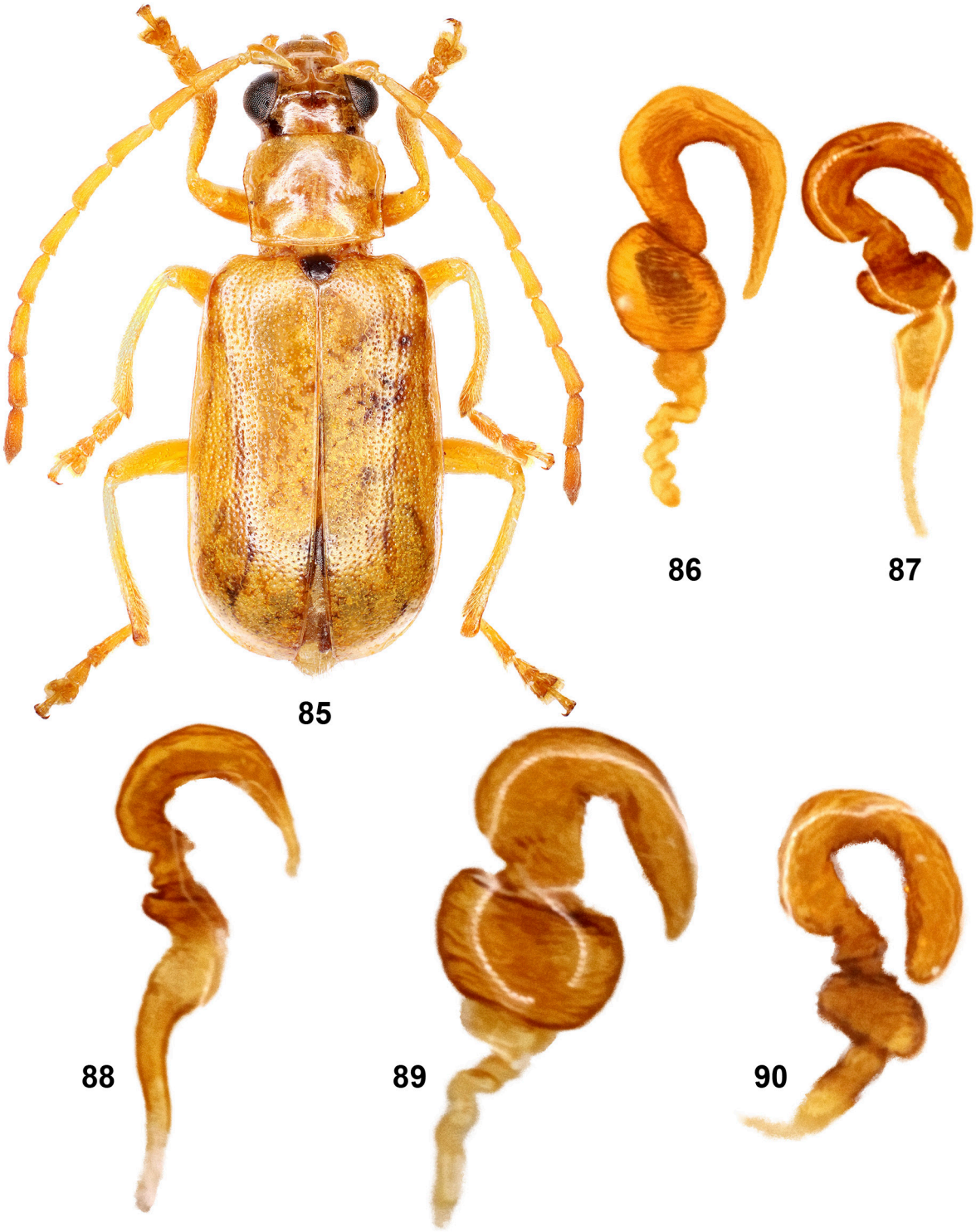
Etymology. The species name refers to similarity with *T. antennata*.

Figs 74–84. *Taumacera*, antennomeres of males.

74–77 – antennomeres VII, VIII; 78–79 – antennomeres VIII–IX; 80–84 – antennomeres II and III: 80–81 – dorsal view; 82–84 – lateral view. 74–75 – *T. antennata* with black elytra; 76 – *T. javanensis*, syntype; 77 – *T. pseudoantennata* **sp. n.**, holotype; 78 – *T. pseudonigricornis* **sp. n.**, holotype; 79 – *T. nigricornis*, syntype; 80, 83 – *T. trizonalis* **sp. n.**, holotype; 81–82 – *T. sinabungensis* **sp. n.**, holotype; 84 – *T. constricta*, holotype.

Рис. 74–84. *Taumacera*, членики усиков самца.

74–77 – членики усиков VII, VIII; 78–79 – членики усиков VIII–IX; 80–84 – членики усиков II и III: 80–81 – вид сверху; 82–84 – вид сбоку. 74–75 – *T. antennata* с черными надкрыльями; 76 – *T. javanensis*, синтип; 77 – *T. pseudoantennata* **sp. n.**, голотип; 78 – *T. pseudonigricornis* **sp. n.**, голотип; 79 – *T. nigricornis*, синтип; 80, 83 – *T. trizonalis* **sp. n.**, голотип; 81–82 – *T. sinabungensis* **sp. n.**, голотип; 84 – *T. constricta*, голотип.



Figs 85–90. *Taumacera*, general view and spermathecae.

85 – *T. unicoloripennis* **sp. n.**, male, holotype; 86–90 – spermathecae: 86 – *T. antennata*; 87 – *T. bezdeki* **sp. n.**, paratype; 88 – *T. moseykoi* **sp. n.**, paratype; 89 – *T. pseudoantennata* **sp. n.**, paratype; 90 – *T. trizonalis* **sp. n.**, paratype.

Figs 85–90. *Taumacera*, общий вид и сперматеки.

85 – *T. unicoloripennis* **sp. n.**, самец, голотип; 86–90 – сперматеки: 86 – *T. antennata*; 87 – *T. bezdeki* **sp. n.**, паратип; 88 – *T. moseykoi* **sp. n.**, паратип; 89 – *T. pseudoantennata* **sp. n.**, паратип; 90 – *T. trizonalis* **sp. n.**, паратип.

A preliminary key (on males) of the *Taumacera antennata* species-group from Malaysia and Indonesia

1(2). Antennomere III usually distinctly enlarged at apex, spur on antennomere VIII well visible. Interocular space wide, about 1.3 times as wide as transverse diameter of eye. Elytra without longitudinal ribs. Metatibial process rounded, slightly protruding (Fig. 65). Metasternal process with styles incised before apex (Fig. 59). Dorsal colouration variable: pronotum brown, elytra black; pronotum brown, elytra brownish red; entirely brown; entirely brownish red (Figs 9–11). Aedeagus as in Figs 29–31. Length of body 7–8.2 mm. Borneo ..... *T. antennata* = *T. musaamani* **syn. n.**

2(1). Antennomere III slightly enlarged at apex, spur on antennomere VIII poorly visible. Elytra with well visible longitudinal ribs. Metatibial process separated from rest part of tibia apex with deep depression, distinctly protruding. Metasternal process with styles not incised before apex as in Figs 60, 101, 102. Java, Sumatra.

3(4). Three apical antennomeres very elongate and slender, their combined length about 2.2 times longer than combined length of antennomeres VII and VIII; antennomeres X – 6.3 times and XI – 6.8 times as long as wide. Interocular space wider, 1.3 times as wide as transverse diameter of eye. Spur on antennomere VIII partly hidden in cavity of antennomere VII, tightly pressed to antennomeres body without visible gap between them (Fig. 76). Metasternal process as in Figs 101, 102. Head, pronotum and legs brown, elytra red-brown, sometimes with apex narrowly blackened (Figs 95, 96). Length of body 6.8–8 mm. Java .... *T. javanensis*

3(4). Three apical antennomeres flattened, their combined length about 1.9 times longer than combined length of antennomeres VII and VIII; antennomeres X – 4.6 times and XI – 5.1 times as long as wide. Interocular space narrow, about 0.9 times as wide as transverse diameter of eye. Spur on antennomere VIII only with its apex hidden in cavity of antennomere VII, weaker pressed to antennomeres body with well visible gap between them (Fig. 77). Metasternal process as in Fig. 60. Head and pronotum brown (the latter with lateral margins darkened), elytra black (Fig. 13), sometimes elytra red-brown with apical area and lower edge of epipleura black (Fig. 12), elytral surface with weak, but distinct metallic blue-green sheen; antennae and leg brown with apical antennomeres and apical half tibiae and tarsi darkened (sometimes whole leg brown). Length of body 7–7.8 mm. Aedeagus as in Figs 38–40. Sumatra ..... *T. pseudoantennata* **sp. n.**

Taumacera pseudonigricornis **sp. n.**
(Figs 14, 41–43, 61, 72, 78)

Material. Holotype, ♂ (PR): "Thailand, Surat Thani Pr., Khao Sok vill, h~80m, N 08°53′50″, E 98°31′14″, 21.IV.2015, P. Romantsov leg.".

Description. Holotype. Dorsal side of body, antennae (except small area on dorsoapical corner of antennomere VIII black) and legs brown. Ventral side of body brown with metasternum and abdomen darkened. Body length 7.6 mm. General view as in Fig. 14.

Body wide, oblong, convex, slightly widened posteriorly, about 2 times as long as wide. Head very long, strongly flattened dorsoventrally. Labrum transverse with almost straight apical margin. Labrum surface convex, lustrous in apical part, opaque in basal part, with several long setae. Penultimate maxillary palpomere moderately swollen (1.4 times wider than previous one), apical palpomere short (about 2 times shorter than previous one), conical. Frontoclypeus triangular, slightly convex with wide, obtuse nasal keel. Genae very long, 1.14 times longer than transversal diameter of eye and 1.37 times shorter than longitudinal diameter of eye. Frontal tubercles flat, triangular with strongly produced inner anterior angles, divided by thin longitudinal groove and distinctly delimited posteriorly with thin impression. Surface of frontal tubercles very lustrous with barely perceptible microsculpture. Eyes very narrow, week convex, oval (1.6 times as long as wide); interocular space very wide, about 3.2 times as wide as transverse diameter of eye and 2 times as wide as longitudinal diameter of eye. Vertex lustrous, its surface very slightly transverse wrinkled and covered with rare microscopic punctures. Antennae not reaching elytral apex, about 0.74 times as long as body length. Antennomere I large, stout, club-shaped, antennomere II transverse. Antennomeres III–VII robust; antennomere III almost rectangular very slightly widened at apex, IV–VII triangular, strongly widened at apex. Antennomeres VIII and IX flattened, axe-shaped. Antennomere X strongly modified with surface in basal part excavated dorsally and ventrally; anterior inner corner continues as long, glabrous and lustrous appendage. Antennomere XI long, triangular pointed at apex, modified; its dorsal surface with deep excavation in basal part for appendage of antennomere X. Length ratio of antennomeres I–XI as 25 : 5 : 20 : 19 : 18 : 17 : 17 : 15 : 18 : 25 : 41, width ratio as 11 : 7 : 11 : 13 : 12 : 13 :11 : 11 : 14 : 15 : 18 (length of antennomere X not include length of appendage; total length with it 33). Two basal antennomeres lustrous with sparse short setae; antennomeres III–XI shagreen (except cavities and appendage on antennomeres X and XI, as well as black area on dorsal-apical corner of antennomere VIII lustrous) thickly covered semi-adpressed short setae. Each of antennomeres III–VIII with distinct longitudinal rib (obtuse on antennomere III and sharp on rest ones) on dorsal surface.

Pronotum slightly transverse, 1.18 times as wide as long (broadest at anterior half), about 1.5 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave, posterior margin slightly convex, lateral margins slightly rounded. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles rounded, slightly swollen, not protruding; posterior angles obtuse. All angles with setigerous pore bearing long pale seta. Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface covered with very rare punctures and reticulate microsculpture; with pair of shallow oblique depressions.

Scutellum triangular with widely rounded apex, 1.56 times as wide as long. Surface impunctate with fine, transverse microsculpture and round depression before apex. Elytra 1.46 times as long as wide, slightly widened at posterior third. Surface confusedly covered with small but distinct punctures and reticulate microsculpture. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs moderately long, covered with pale semi-erected setae. All tibiae without spurs. Protibiae straight; meso- and metatibiae very slightly curved. Apex of metatibiae with relatively long (about 1.15 times longer than width of rest part of tibia) and moderately wide (about 1.6 times narrower than maximal width of tibia) curved process with truncated apex (Fig. 72). Dorsal surface of metatibial process slightly convex, ventral surface slightly concave, apex slightly thickened in lateral view. Protarsomere I somewhat heart-shaped, enlarged, 1.07 times as long as wide;

protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 15 : 9 : 12 : 21; width ratio of protarsomeres I–III as 14 : 10 : 15. Mesotarsomere I slightly enlarged, 1.23 times as long as wide. Length ratio of mesotarsomeres I–IV as 16 : 10 : 10 : 21; width ratio of mesotarsomere I–III as 13 : 11 : 15. Metatarsomere I straight; relatively short, about 2.6 times as long as wide. Length ratio of metatarsomeres I–IV as 26 : 13 : 13 : 22; width ratio of metatarsomeres I–III as 10 : 11 : 17. Tarsal claws appendiculate.

Ventral surface opaque and hairless on pro-, meso- and metathorax; abdomen lustrous with rather dense semi-adpressed pale setae. Procoxal cavities closed posteriorly. Metasternal process wide, pentagonal with thinly split apex (Fig. 61). Last abdominal ventrite trilobed with wide rectangular median lobe. Pygidium convex with widely rounded apex.

Aedeagus comparatively long (Figs 41–43), about 6.5 times as long as wide, parallel for most of length, gradually enlarged in apical quarter with convergent apical processes forming acute triangular apex. In lateral view aedeagus slightly evenly curved. Ventral side of aedeagus with longitudinal indistinct and shallow depression in apical half. Length of aedeagus 2.7 mm, width about 0.34 for most of length and 0.42 mm before apex.

Female unknown.

Differential diagnosis. *Taumacera pseudonigricornis* **sp. n.** belongs to the *nigricornis* species-group, members of which have clavate antennae with last two antennomeres enlarged. This species-group includes *T. nigricornis* from Java and Bali, *T. rufomarginata* (Jacoby, 1895) from Java and *T. ventralis* (Baly, 1864) from Peninsular Malaysia and Singapore. *Taumacera pseudonigricornis* **sp. n.** having head abnormally long, strongly flattened and antennomere X with large appendage, is easily distinguished from males of *T. rufomarginata* and *T. ventralis* and it is most similar to *T. nigricornis*. This new species differs from the latter in one large appendage on the antennomere X and in brown dorsal side of body, antennae and legs. *Taumacera nigricornis* has the antennomere X with two medium size appendages and other colouration with the head and the pronotum brown, elytra reddish, antennae (except two basal antennomeres) and legs blackish. See also a key below.

Etymology. The species name refers to similarity with *T. nigricornis*.

A preliminary key (on males) of the *Taumacera nigricornis* species-group from Malaysia and Indonesia

1(4). Two last antennomeres enlarged and slightly excavated, without appendages (protruding tooth-like structures) on antennomere X. Head normal, neither extremely long nor flattened.

2(3). Dorsal side of body brown. Metasternal process trapezoidal with slightly convex distal surface. Length of body 7.4 mm. Peninsular Malaysia ..... *T. ventralis*

3(2). Head and pronotum reddish, elytra black with extreme lateral margins and apex reddish. Metasternal process with concave distal surface. Length of body 6.3 mm. Java ..... *T. rufomarginata*

4(1). Two last antennomeres enlarged and strongly excavated, with one or two appendages (protruding tooth-like structures) on antennomere X. Head abnormally long, flattened and strongly compressed.

5(6). Head and pronotum brown, elytra reddish, antennae (except two basal antennomeres) and legs blackish. Antennomere X with two coarse, medium size appendages (Fig. 79). Interocular space narrower, about 2.1 times as wide as transverse diameter of eye. Metatibial process longer and more straight (Fig. 69). Length of body 6.8–7.4 mm. Java, Bali ..... *T. nigricornis*

6(5). Dorsal side of body, antennae and legs brown. Antennomere X with one large appendage. Interocular space very wide, about 3.2 times as wide as transverse diameter of eye. Metasternal process pentagonal (Fig. 61). Metatibial process shorter and more curved (Fig. 72). Length of body 7.6 mm. Malay Peninsula (Southern Thailand) ..... *T. pseudonigricornis* **sp. n.**

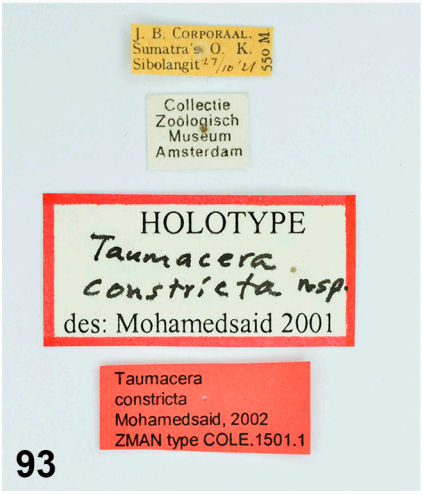
Taumacera sinabungensis **sp. n.**
(Figs 15, 44–46, 62, 81, 82)

Material. Holotype, ♂ (PR): "Indonesia, Sumatra Is., North Sumatra Prov., Karo Regency, Naman Teran Distr., ca 13 km W Berastagi Town, near Laut Tawar Lake and Mt. Sinabung, 3°11′59.3″ N, 98°23′23.1″ E, h=1470 m, forest, 16.III.2020, A. Prosvirov leg.".

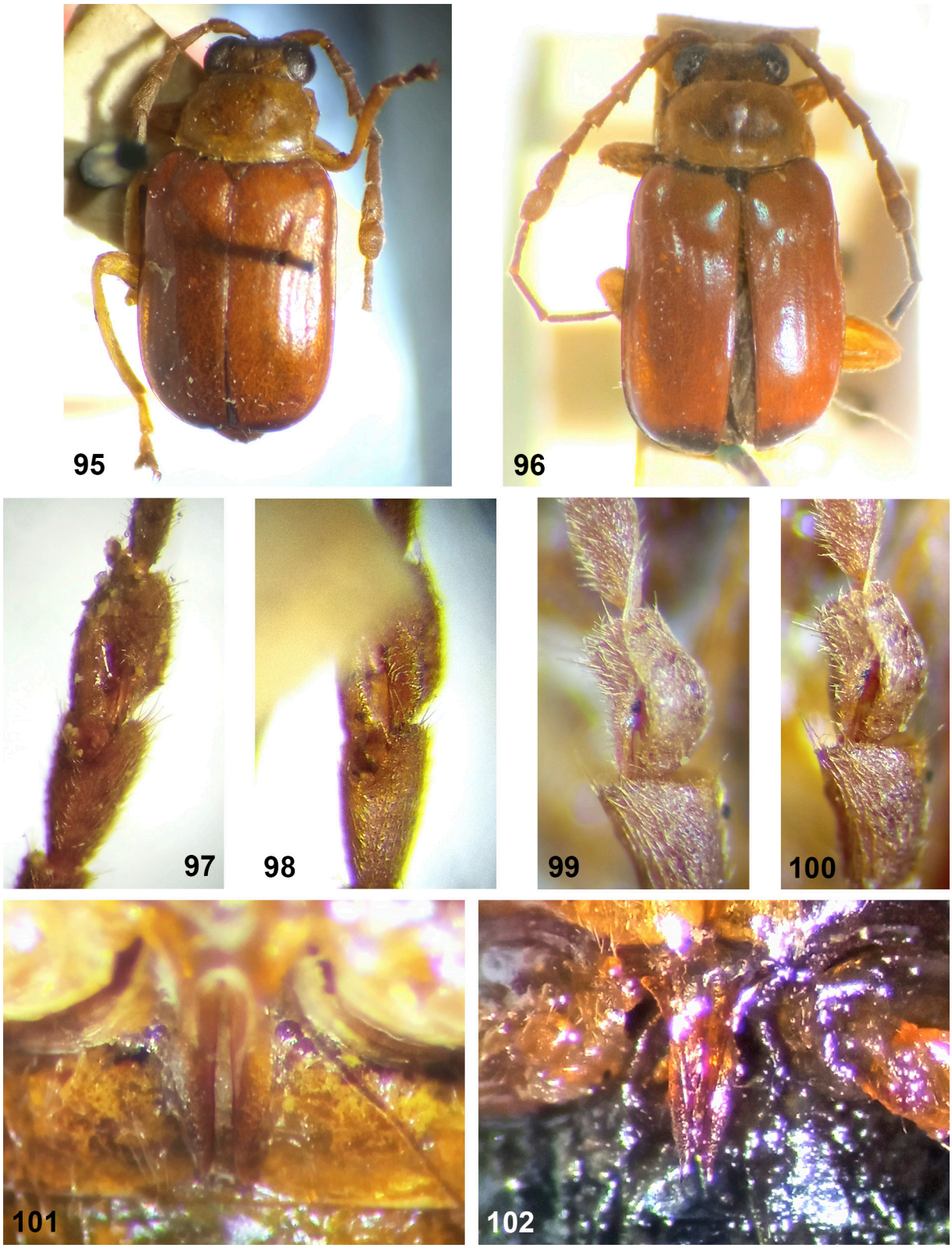
Description. Holotype. Head and pronotum brown. Elytra black with rather narrow basal (from scutellum to shoulder tubercle), broadest subbasal and very narrow sutural bands light brown. Black colour of elytra with faint bluish tint, visible only in daylight. Antennae light brown with last three antennomeres gradually darkened. Legs light brown. Underside of body brown with meso-, metathorax and abdomen black. Body length 6.2 mm. General view as in Fig. 15.

Body moderately oblong and convex, slightly widened posteriorly, 2.06 times as long as wide. Head impunctate, labrum transvere with slightly concave apical margin. Labrum surface moderately convex with fine microsculpture. Penultimate maxillary palpomere moderately (1.5 times wider than previous one) swollen, apical palpomere short (about 2 times shorter than previous one), conical. Frontoclypeus triangular, strongly convex with rugose surface. Genae long, about 2 times shorter than transversal diameter of eye and 2.3 times shorter than longitudinal diameter of eye. Frontal tubercles slightly convex, moderately broad, rectangular with produced inner anterior angles; divided by thin longitudinal groove and delimited posteriorly by thin groove. Surface of frontal tubercles lustrous and impunctate with very fine microsculpture. Eyes large and strongly convex, slightly oval (1.15 times as long as wide); interocular space 1.65 times as wide as transverse diameter of eye. Vertex with rounded, rather deep depression in front of junction of frontal tubercles; vertex surface impunctate with barely visible traces of microsculpture. Antennae rather long, about as long as body length. Antennomere I large, stout, club-shaped, antennomere II short, transverse. Antennomere III modified, strongly compressed laterally, outer surface very deeply excavated with pit in middle, inner surface depressed. Dorsal surface of antennomere III in middle with moderately high triangular protrusion upward (Fig. 82); proximal and distal part of antennomere III slightly swollen, both about same width in dorsal view (Fig. 81). Antennomeres IV–XI straight, very slightly widened at apex; the latter of them pointed at apex. Antennomeres I and II glabrous with very sparse and very short setae, visible on apical half of outer sides and inner upper corners. Antennomere III with middle length, slightly curved setae surrounding depression on outer surface and adpressed short setae on ventral side. Distal end of antennomere III with evenly spaced short setae, not forming tufts. Antennomeres IV–XI shagreen, covered with short adpressed setae. Antennomeres III–XI without traces of longitudinal ribs. Length ratio of antennomeres I–XI as 21 : 4 : 31 : 23 : 25 : 24 : 24 : 25 : 25 : 25 : 29, width ratio as 11 : 7 : 11 : 7.5 : 8 : 8 :8 : 8 : 7.5 : 6 : 6. Height of flattened antennomere III – 20.

Pronotum transverse, 1.43 times as wide as long (broadest at anterior half), about 1.6 times narrower than elytra at level



Figs 91–94. *Taumacera constricta*, holotype, general view, labels and metasternal process.
91 – dorsal view; 92 – lateral view; 93 – labels; 94 – metasternal process.
Рис. 91–94. *Taumacera constricta*, голотип, общий вид, этикетки, отросток заднегруди.
91 – вид сверху; 92 – вид сбоку; 93 – этикетки; 94 – отросток заднегруди.



Figs 95–102. *Taumacera javanensis*, syntypes, general view and details of structure.

95 – syntype 1; 96 – syntype 2; 97–100 – antennomeres VII and VIII: 97 – syntype 1, lateral view, 98 – syntype 1, ventrolateral view, 99 – syntype 2, ventrolateral view, 100 – syntype 2, ventral view; 101–102 – metasternal process: 101 – syntype 1, 102 – syntype 2.

Рис. 95–102. *Taumacera javanensis*, синтипы, общий вид и детали строения.

95 – синтип 1; 96 – синтип 2; 97–100 – членики усиков VII и VIII: 97 – синтип 1, вид сбоку, 98 – синтип 1, вид снизу и сбоку, 99 – синтип 2, вид снизу и сбоку, 100 – синтип 2, вид снизу; 101–102 – отросток заднегруди: 101 – синтип 1, 102 – синтип 2.

of shoulder tubercles. Anterior margin rather deep concave; posterior margin very slightly convex; lateral margins constricted in basal third and strongly rounded expanded in apical third, looks angulate. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles not swollen, rectangular, not protruding; posterior angles triangular, slightly protruding to sides. All angles with setigerous pore bearing long pale seta (broken at anterior corners). Several additional short setae placed on lateral margin near anterior and posterior angles. Pronotal surface shagreen, almost impunctate with pair of small, slightly oblique transverse depressions.

Scutellum triangular, 1.36 times as long as wide; its surface impunctate with fine microsculpture. Elytra 1.43 times as long as wide, distinctly widened at posterior third. Elytral apices blunt. Surface densely and confusedly covered with small but distinct punctures with finely shagreen interstices and with sparse erect setae on apical slope. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate with fine microsculpture. Macropterous. Legs rather long and narrow. All tibiae without spurs. Pro- and mesotibiae straight; metatibiae slightly curved; all tibiae sparsely covered with setae (which shorter on protibiae). Apex of metatibiae without process. Protarsomere I moderately long and slightly enlarged (1.69 times as long as wide); protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 13.5 : 10 : 10 : 20; width ratio of protarsomeres I–III as 8 : 9 : 14. Mesotarsomere I about 1.9 times as long as wide. Length ratio of mesotarsomeres I–IV as 15 : 10 : 11 : 20; width ratio of mesotarsomeres I–III as 8 : 10 : 15. Metatarsomere I moderately long (3.1 times as long as wide), straight, slightly widened at apex. Length ratio of metatarsomeres I–IV as 25 : 13 : 11 : 22; width ratio of metatarsomeres I–III as 8 : 10 : 14. Tarsal claws appendiculate.

Ventral side covered with rare pale adpressed setae on meta-, mesothorax and much denser and longer on ventrites of abdomen. Procoxal cavities closed posteriorly. Metasternum with bifurcate metasternal process, each lobe of it consists of strongly convex outer side and laminate interior side, these laminate interior sides close to each other but separated by rather wide gap. Lateral sides of metasternal process almost parallel, apex of lobes not folded to side (Fig. 62). Last abdominal ventrite trilobed with wide rectangular, slightly depressed median lobe. Pygidium convex, triangular with rounded apex.

Aedeagus (Figs 44–46) long and narrow, 7 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view aedeagus sinuated with very slightly downward tip. Apical half of aedeagus ventral side with rather deep median impression, consisting of wider and deeper medial depression and narrower lanceolate apical depression, these depressions close to each other but not connecting. Length of aedeagus 2.1 mm, width 0.3 mm.

Female unknown.

Differential diagnosis. *Taumacera sinabungensis* **sp. n.** belongs to the *T. deusta* species-group proposed by Reid [1999] for species having antennae with greatly expanded antennomere III in male. Later, he [Reid, 2001] published an identification key for the Bornean species of this group. Currently the group includes 20 species (according to Bezděk [2019]) occuring in Sundaland (from Peninsular Malaysia to the Philippines). Within this group, one can distinguish the subgroup of species with the angulate pronotum (with sides of the pronotum are constricted in the basal third and strongly roundely widened in apical third). *Taumacera sinabungensis* **sp. n.** belongs to this subgroup and it is most similar to *T. constricta* and *T. trizonalis* **sp. n.** from north Sumatra, together with which obviously forms one species complex. But this new species differs from these latter ones in different structure of the antennomere III and the metasternal process (see a key below).

Etymology. The name of the new species refers to the collecting locality situated near Sinabung Volcano.

Taumacera trizonalis **sp. n.**
(Figs 16, 47–49, 63, 80, 83, 90)

Material. Holotype, ♂ (ZIN): "Indonesien, Sumatra Il., North Sumatra Prov, Sidebuk-Debuk Place, h~1490-1800 m, N 03°13′37″, E 098°30′02″ N 03°14′11″, E 098°29′41″ 6.IV.2017, P. Romantsov leg.". Paratypes: 1♀ (JB), "N Sumatra-Berastagi, Mt. Sibayak, 1500-2000 m, 20-26.IV.1998, lgt. Vít Kabourek"; 1♂, 1♀ (PR), "Indonesien, Sumatra Il., North Sumatra Prov, Sidebuk-Debuk Place, h~1400-1670m, N 03°13′17″, E 098°30′43″ N 03°12′55″, E 098°31′00″ 15.III.2020, P. Romantsov leg.".

Description. Holotype. Head and pronotum brown. Elytra black, each elytron in posterior half with large transverse brown area starting at lateral margin, connected at suture and not reaching elytral apex. Antennae light brown with apical part of antennomere VIII and antennomeres IX–XI darkened. Legs black with inside surface of femora partly lightened (lighter on profemora). Underside of body brown with mesa-, metasternum and abdomen black. Body length 7.3 mm. General view as in Fig. 16.

Body moderately oblong and convex, widened posteriorly, about 2.2 times as long as wide. Head impunctate, labrum large, with slightly concave apical margin. Labrum surface moderately convex, impunctate, lustrous in anterior half, shagreen in basal one. Penultimate maxillary palpomere slightly (1.4 times wider than previous one) swollen, apical palpomere short (about 3 times shorter than previous one), conical. Frontoclypeus triangular, strongly convex, its surface rugose. Genae rather long, about 2.2 times shorter than transversal diameter of eye and 2.6 times shorter than longitudinal diameter of eye. Frontal tubercles rather convex, moderately broad, rectangular with produced inner anterior angles; divided by thin longitudinal groove and delimited posteriorly by thin groove. Surface of frontal tubercles lustrous and impunctate without microsculpture. Eyes large and strongly convex, slightly oval (1.2 times as long as wide); interocular space 1.5 times as wide as transverse diameter of eye. Vertex with depression along of frontal tubercles and with small pit in front of junction of frontal tubercles; vertex surface impunctate with barely visible traces of microsculpture. Antennae almost reaching elytral apex, 1.03 times shorter than body length. Antennomere I large, stout, club-shaped, antennomere II short, transverse. Antennomere III modified, strongly compressed laterally, outer surface very deeply excavated with pit in middle, inner surface depressed. Dorsal surface of antennomere III in middle with high triangular protrusion upward (Fig. 83); distal part of antennomere III flattened, excavated and twisted, looks much narrower than proximal part in dorsal view (Fig. 80). Antennomeres IV and V slightly widened and very week curved at apex. Antennomeres VI–XI straight, cylindrical; the latter of them pointed at apex. Antennomeres I and II glabrous with sparse and very short setae, visible on sides and inner upper corner. Antennomere III with long and curved setae surrounding depression on outer surface; with tuft of longest setae on outer lower corner and with adpressed medium-sized setae on ventral side. Antennomeres IV–XI shagreen, covered with short adpressed setae. Antennomeres III–XI without traces longitudinal ribs. Length ratio of antennomeres I–XI as 25 : 5 : 35 : 25 : 27 : 26 : 26 : 27 : 28 : 28 : 32, width ratio as 12.5 : 7.5 : 14 : 8 : 8 : 7 : 7 : 6.5 : 7 : 7 : 6.5. Height of flattened antennomere III – 25.

Pronotum transverse, just 1.4 times as wide as long (broadest at anterior half), about 1.5 times narrower than elytra at level of shoulder tubercles. Anterior margin slightly concave; posterior margin slightly convex; lateral margins constricted in basal third and strongly rounded expanded in apical third, looks angulate. Anterior margin unbordered, lateral and posterior margins

bordered. Anterior angles triangular, slightly protruding, not swollen with long pale seta on each; posterior angles sharp, triangular, protruding to sides. Two additional short setae placed on lateral margin near anterior angles. Pronotal surface shagreen, almost impunctate with pair of distinct, slightly oblique transverse depressions.

Scutellum triangular, 1.33 times as long as wide; its surface shagreen, impunctate. Elytra 1.45 times as long as wide, distinctly widened at posterior third. Elytral apices blunted. Surface densely and confusedly covered by small but distinct punctures with shagreen interstices and sparse erect setae on apical slope. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs rather long and narrow. All tibiae without spurs. Pro- and mesotibiae straight; metatibiae slightly curved; all tibiae sparsely covered with setae: shorter, adpressed on protibiae and longer, semi-erected on mesa- and metatibiae. Apex of metatibiae without process. Protarsomere moderately long and very slightly enlarged (1.89 times as long as wide); protarsomere I subtriangular. Length ratio of protarsomeres I–IV as 17 : 10 : 12 : 22; width ratio of protarsomeres I–III as 9 : 10 : 14. Mesotarsomere I 2 times as long as wide. Length ratio of mesotarsomeres I–IV as 18 : 10 : 11 : 23; width ratio of mesotarsomeres I–III as 9 : 10 : 14. Metatarsomere I moderately long (3.75 times as long as wide), straight, slightly widened at apex. Length ratio of metatarsomeres I–IV as 30 : 14 : 11 : 25; width ratio of metatarsomeres I–III as 8 : 10 : 14. Tarsal claws appendiculate.

Ventral side sparsely covered with rare pale adpressed setae, denser and longer on ventrites of abdomen. Procoxal cavities closed posteriorly. Metasternum with bifurcate metasternal process, each lobe consists of strongly convex outer side and laminate interior side, these laminate interior sides close to each other but separated by rather wide gap. Last abdominal ventrite trilobed with wide rectangular, slightly depressed median lobe. Pygidium convex, triangular with widely rounded apex.

Aedeagus long and narrow (Figs 47–49), about 8 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view aedeagus sinuated with very slightly downward tip. Apical half of aedeagus ventral side with rather deep median impression, consisting of wider and deeper medial depression and narrower lanceolate apical depression, these depressions close to each other but not connecting. Length of aedeagus 2.5 mm, width 0.31 mm.

Paratypes. The male is similar to the holotype, but has shorter antennae (1.14 times shorter than body length). Females have slightly narrower protarsomere I and less convex frontoclypeus than in males; simple antennae without modified antennomeres; genae about 2.4 times shorter than transversal diameter of eye; metasternum and metatibiae without apical processes and last abdominal ventrite not trilobed. Body colouration of females is similar to one of males but one female has middle and back legs entirely black; red-brown colour on dorsal side of body of another female is more faded. Spermatheca as in Fig. 90, its length 0.42 mm. Body length of male 7.4 mm, of females 7.6–8.8 mm.

Differential diagnosis. *Taumacera trizonalis* **sp. n.** belongs to the *T. constricta* species complex of the subgroup of species with the angulate pronotum of the *T. deusta* species-group (see also differential diagnosis to *T. sinabungensis* **sp. n.**). *Taumacera trizonalis* **sp. n.** is most similar to *T. constricta* and *T. sinabungensis* **sp. n.** from north Sumatra, but differs from them in the structure of antennomere III and metasternal process (see a key below).

Etymology. The name of this new species refers to its colouration with three colour zones (two black ones and a red one between them).

A preliminary key to species of *Taumacera deusta* species-group with angulate pronotum from Sumatra

1(2). Sides of pronotum not constricted, looks slightly sinuous but not angulate .... other species of the *deusta* species-group

2(1). Sides of pronotum constricted in basal third and strongly rounded in apical third, looks angulate.

3(4). Elytral interstices regularly longitudinally ridged, each elytron with about nine costae. Frontoclypeal surface smooth. Antennal segment 3 elongate, with deep median excavation. Elytra entirely black or basal half reddish-brown; length 7.5 mm. Sumatra .... *T. costatipennis* Jacoby, 1896

4(3). Elytral interstices not longitudinally ridged, without elytral costae.

5(6). Frontoclypeal surface smooth. Antennomere III elongate-oval, with deep median excavation on dorsal surface, antennomeres IV–XI with dorsal keel. Body brown except abdomen, scutellum and usually metasternum black or blackish-brown. Body length 7.5–8.5 mm. Peninsular Malaysia (Pahang), Sumatra (northern part) ..... *T. evi* Reid, 1999

6(5). Frontoclypeal surface rugose. Antennomere III otherwise modified (strongly compressed laterally, outer surface very deeply excavated with pit in middle, and inner surface depressed), antennomeres IV–XI without dorsal keel. Metasternal process with strongly convex divergent apex and with laminate plates below, separated by rather wide gap.

7(10). Distal and proximal parts of antennomere III slightly swollen, approximately same thickness in dorsal view as in Fig. 81. Its outer lower corner without long setae.

8(9). Dorsal surface of antennomere III without triangular protrusion upward (Fig. 84), dorsal and ventral margins more or less parallel to each other in basal part. Lateral sides of metasternal process slightly curved, apex of lobes just slightly folded to side. Elytra brownish with subbasal, middle and apical bands (last two connected to each other along lateral margin black bands). Metathorax and abdomen black. Legs brown, with lower surface of profemora, upper and lateral surfaces of protibiae, lower surface of mesofemora, mesotibiae, mesotarsi, outer surface of metafemora, metatibiae and metatarsi blackish. General view as in Figs 91, 92; labels as in Fig. 93; metasternal process as in Fig. 94. Body length 8–9.3 mm. Sumatra ..... *T. constricta*

9(8). Dorsal surface of antennomere III with moderately high triangular protrusion upward (Fig. 82). Lateral sides of metasternal process almost parallel, apex of lobes not folded to side (Fig. 62). Elytra black with faint bluish thin visible only in daylight and with rather narrow basal (from scutellum to shoulder tubercle), broadest subbasal and very narrow sutural bands brown. Meso-, metathorax and abdomen black. Legs brown. General view as in Fig. 15. Aedeagus as in Figs 44–46. Body length 6.2 mm. Sumatra .... *T. sinabungensis* **sp. n.**

10(7). Dorsal surface of antennomere III in middle with rather high triangular protrusion upward (Fig. 83);

distal part of antennomere III flattened, excavated and twisted, looks much narrower than proximal part in dorsal view (Fig. 80). Its outer surface with long and curved setae surrounding depression, outer lower corner with tuft of longest setae; ventral side with adpressed medium-sized setae. Lateral sides of metasternal process strongly curved, apex of lobes distinctly folded to side (Fig. 63). Head and pronotum brown, elytra black, each elytron in posterior half with large transverse brown area starting at lateral margin, connected at suture and not reaching elytral apex. Legs black with inside surface of femora partly lightened. General view as in Fig. 16. Aedeagus as in Figs 47–49. Body length 7.3–8.7 mm. Sumatra .... *T. trizonalis* **sp. n.**

Taumacera unicoloripennis **sp. n.**
(Figs 50–52, 64, 73, 85)

Material. Holotype, ♂ (PR): "MALAYSIA, Borneo, Sabah, Kundasng, 1500 m., 6.01 N, 116.59 E, 18-25.XII.2011, N. Vikhrev leg.".

Description. Holotype. Body, antennae and legs brown. Apical half of mandibulae, eyes and scutellum black. Body length 8.8 mm. General view as in Fig. 85.

Body moderately oblong and convex, slightly widened posteriorly, about 2.5 times as long as wide. Head impunctate, labrum rather large, with slightly concave apical margin. Labrum surface moderately convex, impunctate, lustrous in anterior half, shagreen in basal one, with rare long setae along anterior margin and with long seta on each posterior angle. Penultimate maxillary palpomere moderately (1.6 times wider than previous one) swollen, apical palpomere short (about 2.4 times shorter than previous one), conical. Frontoclypeus triangular, convex, especially in central part. Genae moderately short, about 3 times shorter than transversal diameter of eye and 3.8 times shorter than longitudinal diameter of eye. Frontal tubercles rather convex, moderately broad, rectangular with rather steep slopes and with produced inner anterior angles; divided by thin longitudinal groove and delimited posteriorly by thin groove. Surface of frontal tubercles lustrous and impunctate, covered with fine microsculpture. Eyes large and strongly convex, slightly oval (1.2 times as long as wide); interocular space 1.36 times as wide as transverse diameter of eye. Vertex with depression in front of junction of frontal tubercles; vertex surface impunctate, very slightly transverse wrinkled. Antennae robust, about 1.1 times shorter than body length. Antennomere I large, stout, club-shaped, antennomere II short. Antennomere III straight, widened at apex. Antennomeres IV–IX widened and very week curved at apex. Antennomeres X–XI straight, cylindrical; the latter of them pointed at apex. Antennomeres I and II glabrous, antennomeres III–XI covered with short adpressed setae; antennomeres III–IX with additional slightly longer setae (longest on ones III and IV) directed downwards on ventral side. Antennomeres III–XI with low and thin longitudinal rib on dorsal side of each. Length ratio of antennomeres I–XI as 30 : 7 : 30 : 31 : 30 : 30 : 30 : 29 : 30 : 29 : 35, width ratio as 12 : 7 : 10 : 10 : 10 : 10 : 10 : 10 : 10 : 10 : 10.

Pronotum slightly transverse, just 1.2 times as wide as long (broadest at anterior half), about 1.5 times narrower than elytra at level of shoulder tubercles. Anterior margin almost straight, posterior margin slightly convex, lateral margins sinuous. Anterior margin unbordered, lateral and posterior margins bordered. Anterior angles square, not swollen with long pale seta on each; posterior angles obtuse. Two additional short setae placed on lateral margin near anterior angles. Pronotal surface lustrous, almost impunctate, covered with reticulate microsculpture; with pair of weak transverse depressions.

Scutellum rounded, as wide as long; its surface impunctate with fine microsculpture. Elytra 1.57 times as long as wide, slightly widened at posterior third. Elytral surface densely and confusedly covered by deep punctures with almost flat interstices, covered with distinct, but fine microsculpture. Humeral calli well developed. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface impunctate and glabrous. Macropterous.

Legs long and narrow. All tibiae without spurs. Protibiae straight, covered with adpressed, short setae; meso- and metatibiae curved, sparsely covered with semi-erected, long setae. Apex of metatibiae with rectangular, wide (as wide as width of rest part of tibia) and long (just slightly shorter than maximal width of tibia) process (Fig. 73). Dorsal side of this process convex; ventral side deeply concave; its truncate apex with notch. Protarsomere I moderately long and slightly enlarged (nearly 1.57 times as long as wide); protarsomere II subtriangular. Length ratio of protarsomeres I–IV as 22 : 10 : 11 : 25; width ratio of protarsomeres I–III as 14 : 11 : 15. Mesotarsomere I about 2 times as long as wide. Length ratio of mesotarsomeres I–IV as 24 : 10 : 11 : 23; width ratio of mesotarsomeres I–III as 12 : 10 : 16. Metatarsomere I moderately long (about 3.5 times as long as wide), straight, slightly widened at apex. Length ratio of metatarsomeres I–IV as 35 : 15 : 15 : 25; width ratio of metatarsomeres I–III as 10 : 11 : 16. Tarsal claws appendiculate.

Ventral side sparsely covered with pale setae, denser and longer on ventrites of abdomen. Procoxal cavities closed posteriorly. Metasternum with large metasternal process (Fig. 64), almost reaching apical margin of abdominal ventrite I; lateral margins of metasternal process compressed in middle. Apex of metasternal process widely rounded and narrowly split. Last abdominal ventrite trilobed with wide rectangular, slightly depressed median lobe. Pygidium convex with widely rounded apex.

Aedeagus moderately long and narrow (Figs 50–52), about 6.8 times as long as wide, very slightly widened before apex, with convergent apical processes forming acute triangular apex. In lateral view aedeagus curved with very slightly downward tip. Apical half of aedeagus ventral side with rather deep median impression, consisting of wider and deeper medial depression with almost parallel lateral margins and narrower lanceolate apical depression, connected to each other. Length of aedeagus 2.5 mm, width 0.37 mm.

Female unknown.

Differential diagnosis. *Taumacera unicoloripennis* **sp. n.** cannot be assigned to any species-group listed by Bezděk [2019]. Male of *T. unicoloripennis* **sp. n.**, having simple antennae (without enlarged antennomeres or long setae on them), not modified head, the large metasternal process and metatibiae with the process, is markedly different from other *Taumacera* and can be compared only with *T. kinabaluensis*. The male of *T. unicoloripennis* **sp. n.** can be easily distinguished from males of *T. kinabaluensis* in antennae with somewhat thicker antennomeres, weaker curved metatibiae with the moderately wide and short (lobe-shaped) process (Fig. 73), the metasternal process with widely rounded apex and lateral margins compressed in middle (Fig. 64) as well as in the black scutellum. Males of *T. kinabaluensis* have antennae with thinner antennomeres, strongly curved metatibiae with the curved, long and narrow (corkscrew-shaped) process (Fig. 68), the narrower metasternal process (Fig. 56) with not compressed lateral margins and the triangular apex as well as the brown scutellum.

Etymology. The name of this new species refers to its unicolourous elytra.

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