

Notes on some Abacetina (Coleoptera: Carabidae: Pterostichini), with descriptions of a new genus and new species

Заметки о некоторых Abacetina (Coleoptera: Carabidae: Pterostichini), с описанием нового рода и новых видов

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Carabidae, Pterostichini, новый род, новый вид, новая синонимия, Вьетнам.

ABSTRACT. Seven Oriental and two Afrotropical species of Abacetina (Coleoptera: Carabidae: Pterostichini) are reviewed. A new genus, *Holcoferonia* **gen.n.**, and new four species, *H. tenuimargo* **sp.n.** and *Tiferonia trapezicollis* **sp.n.** from Vietnam, *T. sumatrensis* **sp.n.** from Sumatra, and *Holconotus elongatus* **sp.n.** from Namibia are described. *Holconotus lioderus* Tschitschérine, 1898, **stat.rest.**, is resurrected from synonymy of *H. ferrugineus* Schmidt-Göbel, 1846, with lectotype designated, and *H. sinuatus* Tschitschérine, 1898 is re-described based on male holotype. Relations between *Holcoferonia* **gen.n.**, *Holconotus* and *Tiferonia* are briefly discussed, based on mental comparative analysis of some characters, including those of leg setation, male and female genitalia.

РЕЗЮМЕ. Дан обзор 7 ориентальных и 2 афротропических видов Abacetina (Coleoptera: Carabidae: Pterostichini). Описаны новый род *Holcoferonia* **gen.n.** и 4 новых вида: *H. tenuimargo* **sp.n.** и *Tiferonia trapezicollis* **sp.n.** из Вьетнама, *T. sumatrensis* **sp.n.** с Суматры, и *Holconotus elongatus* **sp.n.** из Намибии. *Holconotus lioderus* Tschitschérine, 1898, **stat.rest.**, восстановлен из синонимов *H. ferrugineus* Schmidt-Göbel, 1846 с обозначением лектотипа, а *H. sinuatus* Tschitschérine, 1898 переописан по голотипу. На основе сравнительного анализа морфоструктур, включая хетотаксию ног и строение гениталий самца и самки, кратко обсуждены взаимоотношения *Holcoferonia* **gen.n.**, *Holconotus* and *Tiferonia*.

Introduction

Oriental representatives of the subtribe Abacetina (Carabidae, Pterostichini) belonging to the genera *Aristotopus* LaFerté-Sénéctère, 1853, *Cosmodiscus* Sloane, 1907, and *Metabacetus* Bates, 1892 has been reviewed just before [Fedorenko, 2021]. In this paper, we review the next two allied genera, *Holconotus* Schmidt-Göbel, 1846, and *Tiferonia* Darlington, 1962, and describe their another ally, *Holcoferonia* **gen.n.**

Acronyms used are as follows: MPSU — the Moscow Pedagogical State University; NHML — Natural History Museum, London; SIEE — the author's reference collection at A.N. Severtsov Institute of Ecology & Evolution, Russian Academy of Sciences, Moscow; ZISP — Zoological Institute, Russian Academy of Sciences, St. Petersburg; ZMMU — Zoological Museum of the Moscow State University; ZSM — Siberian Zoological Museum, Novosibirsk.

The following parameters and ratios were analyzed: maximum body length measured between apices of closed mandibles and sutural angle of elytra (BL); length of elytron, measured from the highest point of basal margin to sutural angle (EL); maximum width of elytra (EW); width of head across eyes (HW); length of eye in sagittal plane (OL); width of pronotum between apical (PA) or basal (PB) angles; length of pronotum along median line (PL); distance between pronotal apex and level of maximum width of pronotum, measured along mid-line (PLw); maximum width of pronotum (PW). The measurements were taken using an eyepiece micrometer, to two decimal places. The means are given in round brackets for the ratios. Data on labels of type

specimens are in quotes; slash shows new line. All labels are printed, with handwritten text given in italics.

Results

Holconotus Schmidt-Göbel, 1846

Schmidt-Göbel, 1846: Tab.2, Fig.6; Chaudoir, 1876: 352; Tschitschérine, 1898: 451; Darlington, 1962: 561; Will, 2020a: 162; 2020b: 139. — *Fouquetius* Maindron, 1906: 251; Andrewes, 1930: 167. — *Abacetus*: Chaudoir, 1869: 399 (part.).

Type species: *Holconotus ferrugineus* Schmidt-Göbel, 1846 (by monotypy).

DIAGNOSIS. With characters of Abacetina. Body (Figs 1–5) otherwise macropterous, small, pale coloured, flattened, more so at pronotal base, and glabrous; legs minutely and sparsely pilose, antennomeres 1–3 with additional setae, palps setulose. Eyes slightly flattened, gena with vertical postocular sulcus. Body setation complete, except for submentum bisetose, mentum setae and elytral discal setae missing. Pronotal basal bead distinct except medially, apical bead obliterate medially; prosternal process beaded. Elytra parallel-sided, flat, convex laterally and apically, with lateral edge serrate; striae punctate, 5th mostly reaching apex, 7th obliterate behind humerus; intervals 8 and 9 subequally wide; 5th and 3rd confluent before apex. Umbilicate seta series (USS) divided into anterior group (six umbilicate setae, US) and posterior group (eight US). Abdomen densely punctate, sternites crenate along bases. Legs rather slender, protibia not apically dilated, with 2+1 lateroapical spinules, apical one being stronger; mesotibia with two small anterolateral setae and inner setal brush consisting of many setae arranged into a row; metatibia without outer setae. Tarsi without dorsolateral sulci, dorso-apical setae (DAS) inseparable from dorsal pilosity, tarsomere 5 with dorsolateral seta, two ventral and two (additional) dorsal setae. Profemur generally trisetose at posterior face; modified in male, with 1–2 large ventral tubercles or teeth (Figs 6–10). Protarsomeres 1–3 more or less distinctly dilated and biserially squamose ventrally in male, neither dilated nor latero-apically toothed in female. Spermatheca long convoluted.

REDESCRIPTION. Unnecessary until a revision of the genus is made elsewhere.

Aedeagus (Figs 11–28): median lobe more or less abruptly geniculate, with apex lamellate. Internal sac membranous, without or with slightly sclerotized patches. Female genitalia (Figs 32–34) examined in *H. ferrugineus* only.

GEOGRAPHIC DISTRIBUTION. Four Afrotropical, one Madagascan and three Oriental species are recognized within the genus; the latter include *H. gigas* (Andrewes, 1937) from Myanmar, *H. lioderus* from Indochina, and *H. ferrugineus* ranging in India to Indochina.

HABITATS AND HABITS. See under *H. lioderus*.

COMMENTS. Will [2020a, b] discussed relationships between *Holconotus*, *Tiferonia* and *Melanchrous* and demonstrated that the former two genera were closely related, as they shared postocular sulcus as the character unique within not only Abacetina but also Carabidae as a whole. He also transferred *H. brunneus* (Jedlička, 1935) from *Holconotus* to *Tiferonia*, and my comparison between examined species of the two genera has revealed that *H. crassimargo* Tschitschérine, 1898 and an undescribed species need erection of a new genus for themselves.

The examined species of *Holconotus* are very similar in both appearance and many external characters. However, four of them have been found to have the profemur modified in a particular manner in male. Also, I consider it advisable to

describe in passing a new African species from ZISP collection, as well as aedeagi and body ratios in the species at my hand, including the holotype of *H. sinuatus* Tschitschérine, 1898.

Holconotus lioderus Tschitschérine, 1898, **stat.rest.**

Figs 2, 9–10, 11–12, 17, 21–22, 32–34.

Tschitschérine, 1898: 453–454 ('Siam'); Andrewes, 1930: 167 (*Fouquetius ferrugineus* var.). — *ferrugineus*: Lorenz, 1998: 238 (part.); 2005: 259 (part.).

MATERIAL. Two syntypes, ♀♀ (ZISP), labelled: '*Siam*', '*lioderus* m./ T. Tschitscherin *Typ.*'. One of them is here designated as lectotype.

145 specimens (SIEE), ♂♂, ♀♀: 18 specimens, Southern Vietnam, **Dong Nai** Province, Cat Tien National Park, 20–26.X.2004 (D. Fedorenko); 127 specimens, same data, except for 11.X–4.XII.2004 or 17.V–19.VI.2005, at light; ♂ (MPSU), same locality, env. Cat Tien village, 5–10.VI.1995 (A. Napolov); 2♀♀ (MPSU), Northern Vietnam, 160 km NNW of Hanoi, env. Na Hang, 26.V–14.IV.1996 (A. Napolov).

DIAGNOSIS. The Oriental species distinctive from *H. ferrugineus* in having the body slenderer and the pronotum impunctate (*vs.* punctate) between the basal sulci and the lateral margins. Besides, the profemur is strongly ventrally dentate (*vs.* edentate), with posterior medioventral seta lost, in male (*vs.* the three posterior setae present, including basal and apical ones, in males of the other three species examined).

REDESCRIPTION. BL 3.7–4.5 mm. Body (Fig. 2) shiny red, without dorsal microsculpture other than sparse microscopic punctures over head and almost imperceptible, extremely short pilosity at pronotal apical angles and at humeri. Labrum dull from coarse meshed microsculpture, more or less isodiametric along middle and slightly longitudinal on each side. Antennomeres 1–3 sparsely setulose, pedicel with some longer setules near apex.

Head; frontal sulci very angulate, parallel and deep anteriorly, with about two very coarse and dense to confluent punctures at bottom, strongly abruptly diverging and increasingly shallow behind, with a few finer punctures, obliterate just at anterior supra-ocular seta. Labrum with rounded angles, apical margin truncate, subsinuate at middle. Antennae long, surpassing pronotal base by apical two segments.

Pronotum quadrate, slightly cordate, two fifths wider than long, PW/PL 1.38–1.43 (1.41, n=5), three fourths wider than head, PW/HW 1.70–1.77 (1.74), broadest before middle, PLw/PL 0.51–0.59 (0.55), with apical angles large and correct. Sides sinuate in front of nearly right and sharp basal angles. Base almost two fifths wider than apex, PB/PA 1.35–1.44 (1.37); basal sulci a third as long as pronotum, deep, slightly curved, with convexity inward, almost reaching base, conspicuously converging apicad, crenulate or minutely punctate at bottom. Apical bead extremely fine, obliterate in middle third, almost imperceptible on sides. Lateral bead entire and fine, lateral groove finely yet distinctly punctate. Basal bead very fine, obliterate just medially and often also at basal angles. Median line fine, more or less distinct, obliterate basally and apically.

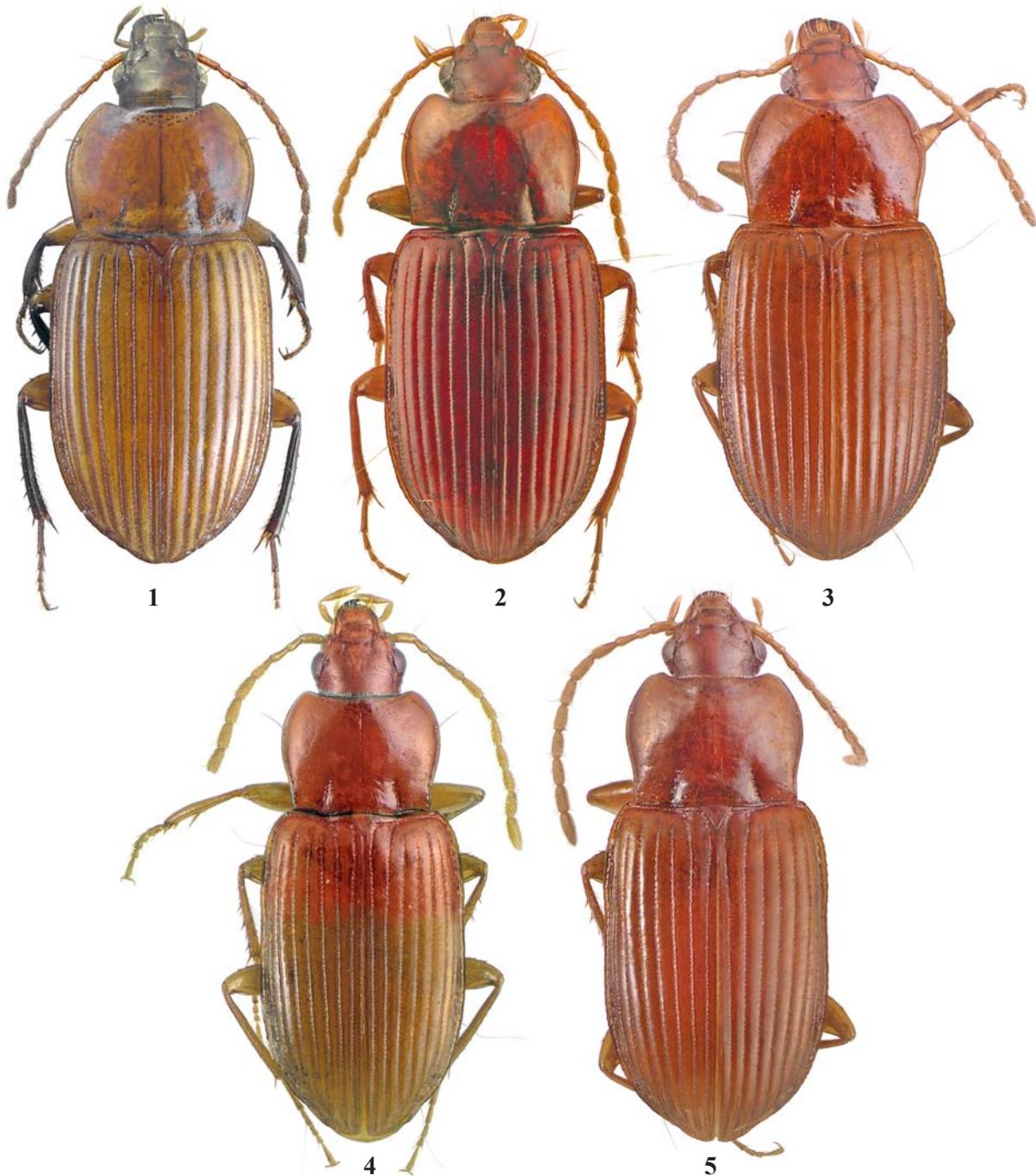
Elytra half longer than wide, EL/EW 1.52–1.53 (1.52), EW/PW 1.21–1.24 (1.22), parallel-sided. Humeri distinct, with a minute tooth which is distinct in posteromesal view; basal ridge nearly transverse, humeral angle obtuse. Striae deep, finely and densely punctate, obliterate at bases, deeper toward lateral margin and still more so apically; stria 7 obliterate in basal 1/3–1/4, with two proximate apical setae, posterior one small and often imperceptible. Intervals almost flat on disc, convex laterally, very so in apical third. USS: anterior group and posterior group widely separated; US9 and US10 arranged in a transverse row, adjoining stria 8 or 9, respectively.

Ventral side: metaventrite except along middle, metapleura and entire abdomen moderately and very densely punctate, mesoventrite laterally and mesopleura finely and densely rugulose and punctate, sides of prosternum finely punctate. Abdominal sternites V–VII conspicuously crenate along bases; urite VIII as in Figs 29–30.

Legs minutely setulose, tibiae and tarsi more distinctly so. Metafemur bisetose. Mesotibia with two, rather small, anterolateral spiniform setae, of which distal is distant from

posterolateral seta, inner setal brush consisting of multiple (about a dozen), nearly unspecialized setae of increasing length; metatibia externally asetose. Legs sexually dimorphic, conspicuously modified in male so that profemur a third from base has a strong ventral tooth (Figs 9–10) and mesotibia is tuberculate along inner margin. Protarsomeres 1–3 distinctly dilated in male.

Aedeagus (Figs 11–12, 17, 21–22): median lobe strongly geniculate in lateral view, *i.e.*, abruptly curved two fifths from

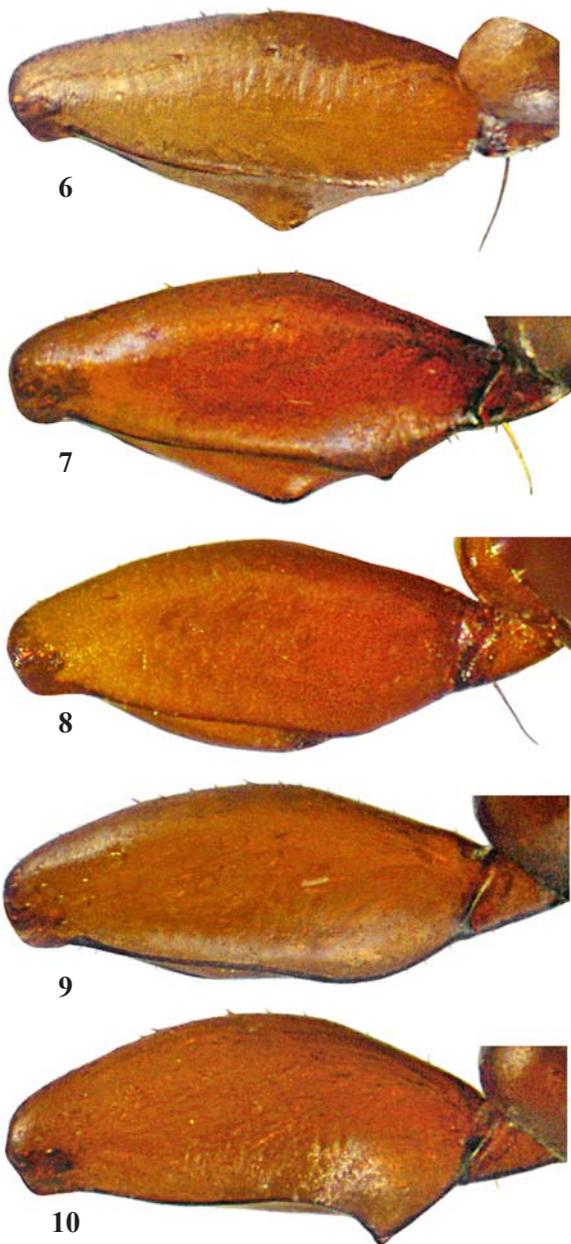


Figs 1–5. Dorsal habitus: 1 — *Holconotus gigas*, lectotype; 2 — *H. lioderus*, lectotype; 3 — *H. ferrugineus*, ♂ from Yangon; 4 — *H. elongatus* **sp.n.**, holotype; 5 — *H. sinuatus*, holotype.

Рис. 1–5. Габитус дорзально: 1 — *Holconotus gigas*, лектотип; 2 — *Holconotus lioderus*, лектотип; 3 — *H. ferrugineus*, ♂ из Янгона; 4 — *H. elongatus* **sp.n.**, голотип; 5 — *H. sinuatus*, голотип.

base, angle between basal and apical parts being slightly acute; dorsal side totally membranous in apical three fifths; apex lamellate in lateral view, large obtrapezoidal in ventral view. Internal sac with two sclerotized regions in middle third.

Female pregenital segment, genitalia and reproductive tract as in Figs 32–34: urite IX ventrally membranous and glabrous, except for a crescent paramedian sclerite which bears a row of dense setae along apical margin; laterotergite apically slender, quadrate and sparsely setulose; gonosubcoxite apically glabrous, gonocoxite robust, shorter than gonosubcoxite, with a very strong ensiform ventral seta near base, no dorsal setae.



Figs 6–10. Right profemur, frontal view: 6 — *Holconotus elongatus* sp.n.; 7 — *H. sinuatus*, holotype; 8 — *H. ferrugineus*; 9–10 — *H. lioderus*; 6–8, 10 — ♂♂; 9 — ♀.

Рис. 6–10. Правое бедро, фронтально: 6 — *Holconotus elongatus* sp.n.; 7 — *H. sinuatus*, голотип; 8 — *H. ferrugineus*; 9–10 — *H. lioderus*; 6–8, 10 — ♂♂; 9 — ♀.

GEOGRAPHIC DISTRIBUTION. Widespread in Indochina: Thailand, Cambodia, southern Vietnam.

HABITATS AND HABITS. Of altogether 145 adult specimens examined from the Cat Tien National Park, eight were taken at light, at the edge of a lowland semideciduous monsoon forest, in the early wet season (17.V–19.VI.2005), and the rest in the early dry season (11.X–4.XII.2004), including 119 specimens at a similarly positioned light and 18 specimens hand collected in the forest, in bark crevices or from under slightly exfoliated bark scales of living trees, at 0.5–2 m above ground.

COMMENTS. Tschitschérine [1898] described *H. lioderus* as distinctive from another similar species, *H. ferrugineus*, known that time from Indochina chiefly in having the body slenderer and the pronotum smooth (vs. distinctly punctate) between the basal sulcus and lateral margin. Andrewes [1930] reported the two taxa from Thailand, Cambodia and southern Vietnam (as Cochin-China) and recognized *H. lioderus* as a variety only. Based probably on this fact Lorenz [1998; 2005] listed *H. lioderus* among two synonyms of *H. ferrugineus*.

The elytral striae were found to join one another preapically in a different manner. Out of 14 specimens (i.e., 28 elytra) examined from a local population, most had striae 7, 6 and 5 confluent apically in succession, with the intervals 8 and 5+3 reaching the apex, and the others had intervals 6 and 8 (25%) or 7 and 8 (14%) confluent on one or both elytra, resulting in stria 7 abruptly obliterated before apex. Primary pattern defined by the intervals 7, 5 and 3 confluent apically in succession was observed in ca. 11% of the cases, stria 5 otherwise reaching apex.

Holconotus ferrugineus Schmidt-Göbel, 1846
Figs 3, 8, 20, 27–28.

Schmidt-Göbel, 1846: Tab.2, Fig.6 (Burma: Tenasserim?); Chaudoir, 1869: 399 (*Abacetus*); 1876: 352; Bates, 1892: 364; Tschitschérine, 1898: 453–454; Andrewes, 1923: 57; 1930: 167 (*Fouquetius*); Habu, 1961: 285; Lorenz, 1998: 238 (part.); 2005: 259 (part.). — *kovacsi* Csiki, 1929: 515.

MATERIAL. Nine specimens (ZISP), labelled: ♂, 'Rangoon [= Yangon], Birmania, Fea, 1884'; ♀, 'Birma'; ♀, 'Birma', 'Motsch.', 'к. Чичерина', '*Cholconotus ferrugineus* Sch.'; 2 ♀♀ (glued on paper rectangles on one pin), '*Holconotus ferrugineus* Schm., Birma', 'Coll. Solsky'; 3 ♀♀, Palon, (Pegu), L.Fea. VIII-IX.87', one of them with additional label '*Hoplionotus ferrugineus* Chd.' and another one with labels 'Ex Musaeo H.BATES, 1899', '*Holc. ferrugineus* Chd., Tschitscherin det.', 'HOLCONOTUS Schm.-Goeb. — Chaud.'; ♀, 'Madras', 'Ex Musaeo H.BATES, 1899', '*Holc. ferrugineus* Chd., Tschitscherin det.', '1907, к. Чичерина'. — Aedeagus examined in the male.

DIAGNOSIS. See the respective section for the previous species.

REDESCRIPTION. No differences from *H. lioderus* except as follows: Body more robust (Fig. 3), BL 3.4–4.7 mm. Frontal sulci very deep anteriorly. Pronotum broader, half wider than long, PW/PL 1.45–1.55 (1.48, n=7), four fifths wider than head, PW/HW 1.75–1.83 (1.81). Base almost half wider than apex, PB/PA 1.43–1.52 (1.47), distinctly, sparsely to moderately, punctate outside basal sulci. Elytra slightly shorter, EL/EW 1.46–1.50 (1.48); intervals 6 and 8 confluent before apex. Profemur not modified in male, i.e., without ventral tubercle or tooth (Fig. 8). Protarsomeres 1–3 indistinctly dilated in male.

Aedeagus (Figs 20, 27–28): median lobe in lateral view much less abruptly curved, with apex in ventral view widely rounded and very short.

GEOGRAPHIC DISTRIBUTION. India, Myanmar, Thailand.

HABITATS AND HABITS. No data.

Holconotus gigas (Andrewes, 1937)

Fig. 1.

Andrewes, 1937: 563 (*Fouquetius*; Burma: Tharawaddy and Prome).

MATERIAL. Two syntypes, (NHML): ♀ glued on paper rectangle, in very good condition, except that antennomeres 10–11, right middle leg, and metatarsomere 5 are lost, labelled: 'Tharawaddy./ Burma./ G.Q. Corbett', red 'Type', 'H.E. Andrewes Coll./ B.M. 1945-97.', '*Fouquetius/ gigas/ Andr./ H.E. Andrewes det.*', here designated as lectotype. Another ♀ (pinned, very dirty), labelled: 'Prome', 'H.E. Andrewes Coll./ B.M. 1945-97.' and 'Co-/type' (circle margined with green).

DIAGNOSIS. Very large for the genus, BL 6.8–7 mm, with infuscated tibiae. Mentum with one pair of very short setae (*vs.* missing in the other examined species).

REDESCRIPTION. Body (Fig. 1) shiny pale red and glabrous, without microsculpture. Labrum, palps, antennomeres 1–3 and legs minutely and sparsely setulose; legs more distinctly so.

Head and eyes small, angle between them very obtuse, postocular groove fine yet distinct. Gena rather long; eye in lateral view, combined with gena in front of postocular groove nearly round in outline. Labrum quadrate, barely transverse, sexsetose. Clypeus truncate, frontoclypeal suture distinct, frontal sulci angulate, short, parallel and very deep anteriorly, strongly diverging toward and reaching anterior supra-ocular seta behind, shallower and vaguely punctate at bottom there. Mandibles very incurved, dorsal scrobal ridge barely convex in basal half, ventral one slightly more so and visible from above. Antennomeres 3–11 densely pubescent.

Pronotum subquadrate, somewhat obtrapezoidal, flat in basal half, very convex before, almost half wider than long, PW/PL 1.44–1.46, twice or more as wide as head, PW/HW 2.0–2.05, broadest in middle, PLw/PL 0.50; apical angles angles right and very sharp, distinctly projecting, apical margin straight in between. Sides rounded, less so in basal half. Base nearly truncate, scarcely oblique laterally, about half wider than apex, PB/PA 1.52–1.54; basal angles obtuse, indistinctly incised in front of minute and indistinct apical teeth. Basal and apical transverse impressions vague, median line fine in between, very shallow behind the former. Basal sulci moderately deep, running on about basal third, converging apicad, finely punctate at bottom. Each side between sulcus and lateral margin with a group of ca. 20 fine punctures concentrated midway; left side and a vague trace of short outer sulcus. Apical bead very fine, obliterate in middle third. Lateral bead very fine, barely wider basad; lateral groove narrow, deep, finely punctate, punctures moderately dense, evenly spaced, arranged in a row. Basal bead very fine, traceable on each side except medially and laterally.

Elytra very convex laterally and apically, with apical slope almost vertical, nearly parallel-sided, with a short and distinct preapical sinuation and plica, apices rounded combined, EL/EW 1.39–1.45, EW/PW 1.18–1.19. Base slightly oblique, humeri very obtuse yet distinct, with microscopic tooth. Basal ridge entire, straight, slightly oblique toward suture; humeral angle obtuse and sharp. Lateral edge very finely serrate, hardly more distinctly in apical half. Striae deep, very deep in apical third, finely and densely punctate, very distinctly punctate in lateral groove; 6th abruptly shortened behind base for a short distance, 7th increasingly shallow basad in basal 1/3, obliterate just basally, 8th basally adjoining lateral groove. Intervals 1–4 barely convex on disc, otherwise intervals convex, costate in apical third, 6th and 8th, as well as 3rd and 5th, confluent pairwise before apex in succession. USS: anterior group and posterior group widely separated; US3, US10 and US14 large, US3 and US14 adjoining stria 8 and 9; US9 and US10 adjoining

stria 8 or 9, respectively, US10 just distal to US9.

Legs as for other species (females only examined).

GEOGRAPHIC DISTRIBUTION. Only known from two localities in Myanmar.

HABITATS AND HABITS. No data.

Holconotus sinuatus Tschitschérine, 1898

Figs 5, 7, 13–14, 18, 23–24.

Tschitschérine, 1898: 453–454 (Boma, Congo).

MATERIAL. Holotype ♂ (ZISP), labelled: 'Boma/ M. Tschof-fen', '*Holconotus/ sinuatus* m. [handwritten]/ Tschitscherin det. Aedeagus examined in the holotype.

DIAGNOSIS. See the redescription.

REDESCRIPTION. Hardly different from *H. ferrugineus* in the following characters (Fig. 5): BL 4.3 mm. Pronotum slenderer and narrower, PW/PL 1.37, PW/HW 1.66, with base barely narrower, PB/PA 1.41, and prebasal sinuation of lateral margin longer; PLw/PL 0.59. Pronotal apical bead imperceptible. Elytra similar, EL/EW 1.51, EW/PW 1.27; intervals 6 and 8 confluent before apex. Profemur modified in male, ventrally with a small yet distinct tubercle a third from base and posteroventral carina (with which ventral groove is limited posteriorly) conspicuously dilated at middle in form of a wide blunt tooth (Fig. 7). Protarsomeres 1–3 only slightly dilated in male.

Aedeagus (Figs 13–14, 18, 23–24): median lobe in lateral view curved at a slightly obtuse angle; apex lamellate, in ventral view wide obtrapezoidal, rather widely rounded apically.

Holconotus elongatus Fedorenko, **sp.n.**

Figs 4, 8, 15–16, 19, 25–26.

MATERIAL. Holotype and paratype, 2♂♂ (ZISP), labelled: 'NAMIBIA: Kavango Pr./ Shamwura Rest Camp/ 130 km E Rundu, 1090 m./ 18.0262° S 20.785096° E./ 13–31.XII.[20]13. S. Murzin lg.'. Aedeagus examined in the males.

DIAGNOSIS. A slender, medium-sized, African species having pronotal base sparsely punctate outside basal sulci, elytra long, parallel-sided, with rather rounded humeri; profemur with a large tubercle at middle of posteroventral margin. Of the African and Madagascan congeners, *H. rufus* (Chaudoir, 1876) is much larger, with BL 5.5 mm, while both *H. africanus* Tschitschérine, 1898 and *H. madagascariensis* Tschitschérine, 1900, have the pronotum differently shaped due either to the apex subtruncate or to the base nearly as wide as the elytral bases combined. For differences of *H. sinuatus* see its redescription above.

DESCRIPTION. As for the other reviewed species of the genus except as follows: Body slender (Fig. 4), BL 3.8–4.1 mm. Pronotum subquadrate, a third wider than long, PW/PL 1.32, two thirds wider than head, PW/HW 1.65–1.67, broadest two fifths from apex, PLw/PL 0.61–0.63. Sides rounded, subsinuate a fourth from base. Base a third wider than apex, PB/PA 1.30–1.33, slightly trisinuate and slightly oblique in lateral thirds. Apical angles a little projecting, apical bead imperceptible. Elytra long, EL/EW 1.60–1.63, EW/PW 1.25–1.28; either intervals 6 and 8 or 7 and 8 confluent before apex, or 8th reaching apex. Profemur modified in male, ventrally with a posteroventral carina conspicuously dilated at middle in form of a wide blunt tooth (Fig. 8). Protarsomeres 1–3 moderately dilated in male.

Aedeagus (Figs 15–16, 19, 25–26) as in *H. sinuatus*, except that apex of median lobe in ventral view is slightly shorter and subtriangular rather than obtrapezoidal.

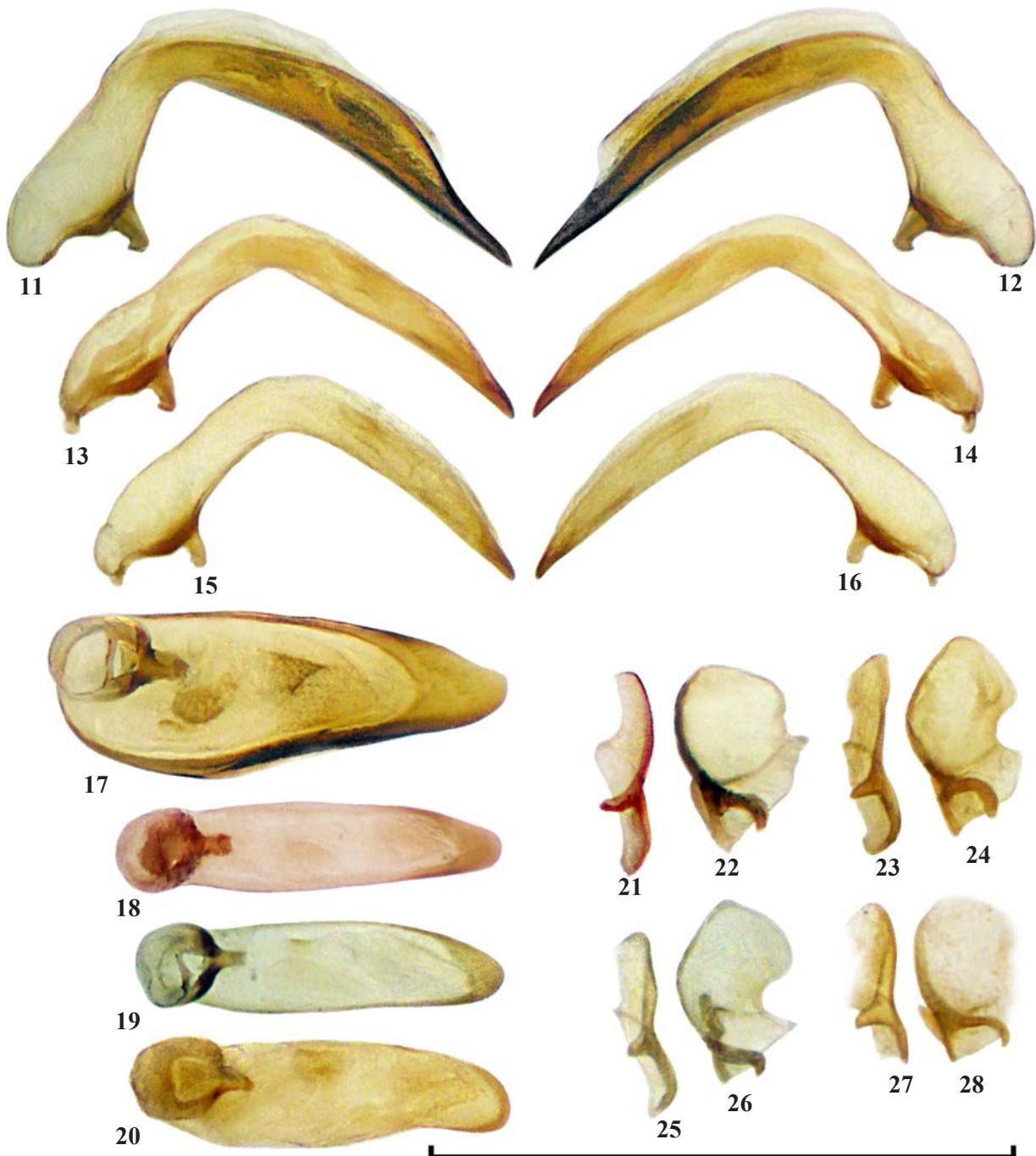
NAME. Refers to the slender body, with long elytra.

GEOGRAPHIC DISTRIBUTION. Only known from the type locality.

HABITATS AND HABITS. No data.

***Tiferonia* Darlington, 1962**

Darlington, 1962: 500, 560; Will, 2020a: 165; 2020b: 133.

Type species: *Tiferonia parva* Darlington, 1962 (by original designation).COMMENTS. This genus was originally erected for two species, *T. parva* from New Guinea and *T. brunnea* (Jedlička, 1935) from the Philippines. Will [2020b] revised this genusjust recently, with two additional species included, *T. leytensis* Will, 2020, described from the Philippines and *T. schoutedeni* (Straneo, 1943) transferred to the genus from *Melanchrous* Andrewes, 1940. He diagnosed *Tiferonia* from its allies by four substantial characters in the diagnosis and re-description: deep postocular sulcus, smooth elytral margins, the lack of the elytral discal setae, and the basal three

Figs 11–28. Aedeagus: 11–12, 17, 21–22 — *Holconotus lioderus*; 13–14, 18, 23–24 — *H. sinuatus*, holotype; 15–16, 19, 25–26 — *H. elongatus* sp.n.; 20, 27–28 — *H. ferrugineus*, ♂ from Yangon; 11–20 — median lobe; 21, 23, 25, 27 — right paramere; 22, 24, 26, 28 — left paramere; 11, 13, 15, 21, 23, 25, 27 — left aspect; 12, 14, 16, 22, 24, 26, 28 — right aspect; 17–20 — ventral aspect. Scale bar: 1 mm.

Рис. 11–28. Эдеагус: 11–12, 17, 21–22 — *Holconotus lioderus*; 13–14, 18, 23–24 — *H. sinuatus*, голотип; 15–16, 19, 25–26 — *H. elongatus* sp.n.; 20, 27–28 — *H. ferrugineus*, ♂ из Янгона; 11–20 — средняя доля; 21, 23, 25, 27 — правая парамера; 22, 24, 26, 28 — левая парамера; 11, 13, 15, 21, 23, 25, 27 — слева; 12, 14, 16, 22, 24, 26, 28 — справа; 17–20 — вентрально. Масштаб: 1 мм.

protarsomeres dilated narrowly in male.

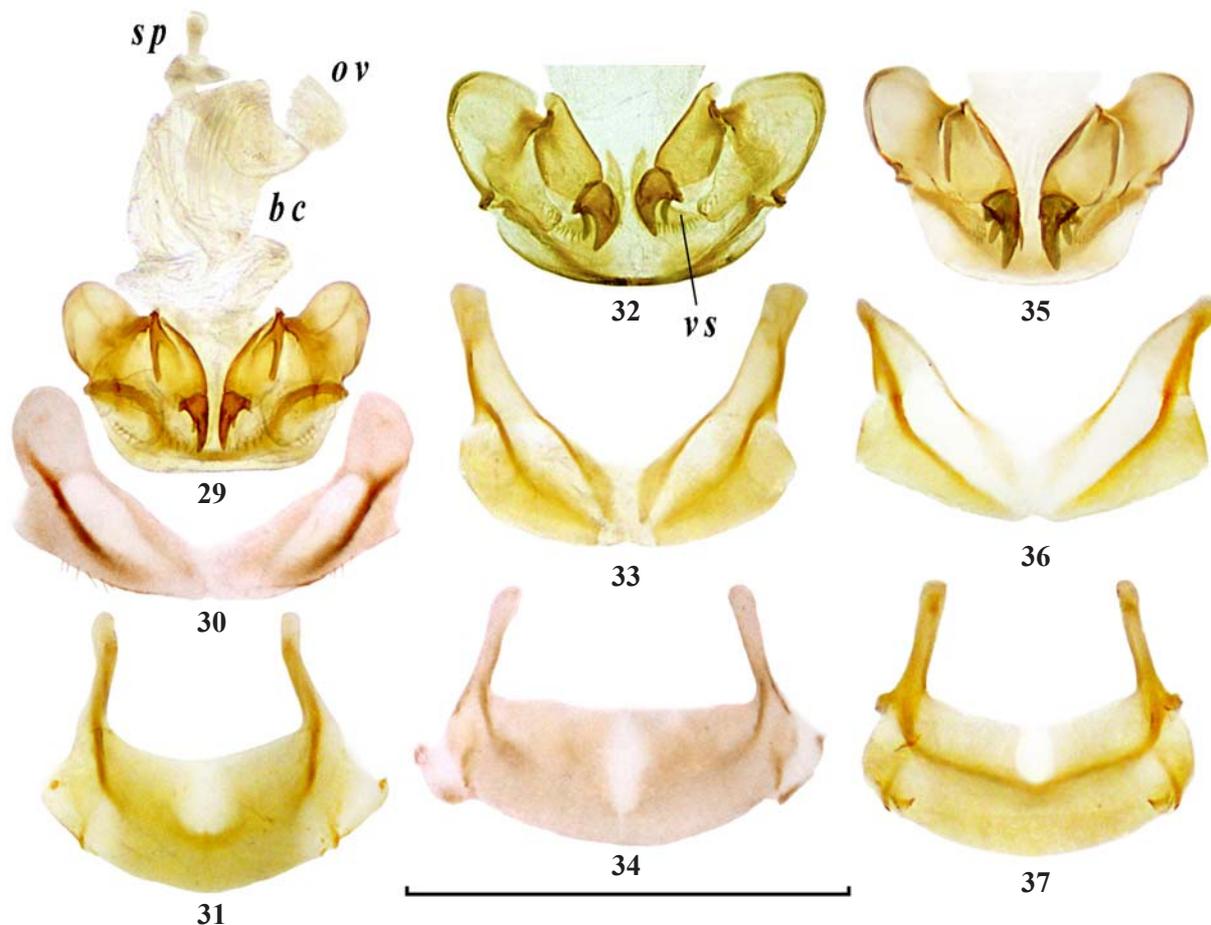
Additional characters to separate *Tiferonia* from *Holconotus* (and from allied genera) are or at least may be as follows: Body convex, dorsum iridescent in most species; legs sparsely and microscopically setulose, pedicel with a few short additional setae. Body setation almost complete (anterior supra-ocular seta wanting in some species). Pronotum without basal bead. Prosternal process not beaded. Elytral stria 7 more shallow or obliterate behind humerus and interrupted before apex so that its apical section with two apical setae at bottom is directly extended basad into stria 5; striae 8 and 9 nearly confluent a fourth from base, with interval 9 indistinct in basal fourth. USS: 6-1-7, *i.e.*, with intermediate seta US7 between anterior and posterior groups. Abdominal sternites smooth at bases. Legs and their spiniform armature strong, protibia slightly dilated apicad, with 2+1 strong latero-apical spinules; mesotibia with 3-4 spiniform anterolateral setae; inner setal brush divided into two, long and separate, distal setae and proximal group consisting of 4-5 curved lamellate setae. Tarsi without dorsolateral sulci, tarsomeres 1-3 with DAS, tarsomere 5 with one dorsolateral and one ventral seta, both medial in position. Profemur posteriorly trisetose. Protarsomeres 1-3 very slightly dilated in male. Female laterotergite IX wide apically (Fig. 29); gonosubcox-

ite minutely setulose at apex; gonocoxite slender, with small dorsal and ventral setae.

Elytral striae vary between species of *Tiferonia* considerably, from reaching basal ridge to obliterate basally and from smooth to distinctly punctate.

Two, more or less distinct species groups, are traceable within the genus, one including *T. parva*, *T. leytenis* and an undescribed species from Borneo (K. Will, personal communication) and the other including the rest of the species, among them two undescribed species from Thailand or South Africa. The first group is defined by the head with two supra-ocular setae on each side in couple with a well impressed basal sulcus of the pronotum, and the members of the second group share single supra-ocular seta, combined with a nearly indistinct pronotal basal sulcus. This difference may suggest that the latter group needs erection of a new subgenus or even genus for itself. However, at least one species of the genus, *T. schoutedeni*, is intermediate in the characters discussed, since it has the head bisetose, pronotal basal sulci shallow, and body appearance characteristic of the second group. Thus more material should be examined to solve the problem.

GEOGRAPHIC DISTRIBUTION. The species of the genus have hitherto been known from New Guinea, Philippines, and tropical Africa only, suggesting widely gaped Palearctic-



Figs 29-37. Urites VIII and IX in female: 29-31 — *Tiferonia trapezicollis* sp.n.; 32-34 — *Holconotus lioderus*; 35-37 — *Holcoferonia crassimargo*; 29 — urite IX and reproductive tract; 30, 33, 36 — sternite VIII; 31, 34, 37 — tergite VIII; 32, 35 — urite IX; bc — bursa copulatrix; ov — common oviduct; sp — spermatheca; vs — ventral sclerite. Scale bar: 1 mm.

Рис. 29-37. Уриты VIII и IX самки: 29-31 — *Tiferonia trapezicollis* sp.n.; 32-34 — *Holconotus lioderus*; 35-37 — *Holcoferonia crassimargo*; 29 — урит IX и репродуктивный тракт; 30, 33, 36 — стернит VIII; 31, 34, 37 — тергит VIII; 32, 35 — урит IX; bc — копулятивная сумка; ov — непарный яйцевод; sp — сперматека; vs — вентральный склерит. Масштаб: 1 мм.

cal range of the genus. Records of new, described or undescribed, species in Vietnam, Thailand, on Sumatra and Borneo, fill some of these gaps with themselves, thereby driving the distribution pattern toward a more continuous one.

Tiferonia trapezicollis Fedorenko, **sp.n.**

Figs 29–31, 38, 40–41, 48, 52–53.

MATERIAL. Holotype ♂ (ZMMU), labelled: 'S[outhern] Vietnam, N[orthern part of] Dongnai [Dong Nai] Pr.[ovince]/ Nam Cat Tien Nat[ional]. Park/ Exped[ition]. Russ[ian].-Vietnamese/ Tropical Centre/ at light HQL450 5./ leg. D.Fedorenko .VI.2005'. Paratypes, 4♀ (SIEE), with same labels, except for 28–29.XI.2004 or 3–4.XII.2004, or 21.V.2005, or 3.VI.2005.

DIAGNOSIS. A *Tiferonia* species with single, posterior, supra-ocular seta; pronotum obtrapezoidal, without basal sulci; elytral striae almost smooth. Within the genus, it is very similar to *T. brunnea* and *T. sumatrensis* **sp.n.** in body appearance, obliterate pronotal basal sulci, and single, posterior, supra-ocular seta only present (*vs.* two in the other congeners described). — *Tiferonia brunnea* has the pronotum narrower and less trapezoidal, PW/PL 1.34, PW/HW 1.74, PB/PA~1.6, broadest closer to middle, PLw/PL 0.44, elytral intervals more convex, and body paler in color, with pronotum red.

DESCRIPTION. BL 3.9–4.5 mm. Body (Fig. 38) very shiny, head and elytra black, pronotum dark reddish brown, clypeus apically, labrum, mouthparts, legs, antennae, ventral side, elytral apices, suture in apical third, and lateral margin outside stria 8 behind humeri and in apical third red; pronotum along base and at apical angles more or less reddish, elytral sides behind humeri and reflexed lateral margin in middle third slightly to indistinctly reddish brown. Pronotum and especially elytra strongly iridescent, with bluish reflections prevailing. Dorsal microsculpture coarse isodiametric on head, including labrum, slightly more superficial on clypeus, becoming slightly transverse on a level with supra-

ocular setae, obliterate behind; pronotal and elytral microsculpture very superficial, consisting of very dense transverse lines. Body glabrous, pilosity vestigial: scape with additional, somewhat verticillate, setae closer to apex, legs sparsely and microscopically setulose (the setules are hardly traceable on tibiae, otherwise indistinct or almost so).

Head small, eyes rather small and convex; frontal sulci moderately deep, impunctate, rather short S-shaped, slightly diverging behind clypeus and posteriorly, more diverging in between, reaching about the level of eye midlength, slightly extended onto clypeus. Labrum slightly convex at apical margin. Antennae just reaching pronotal base.

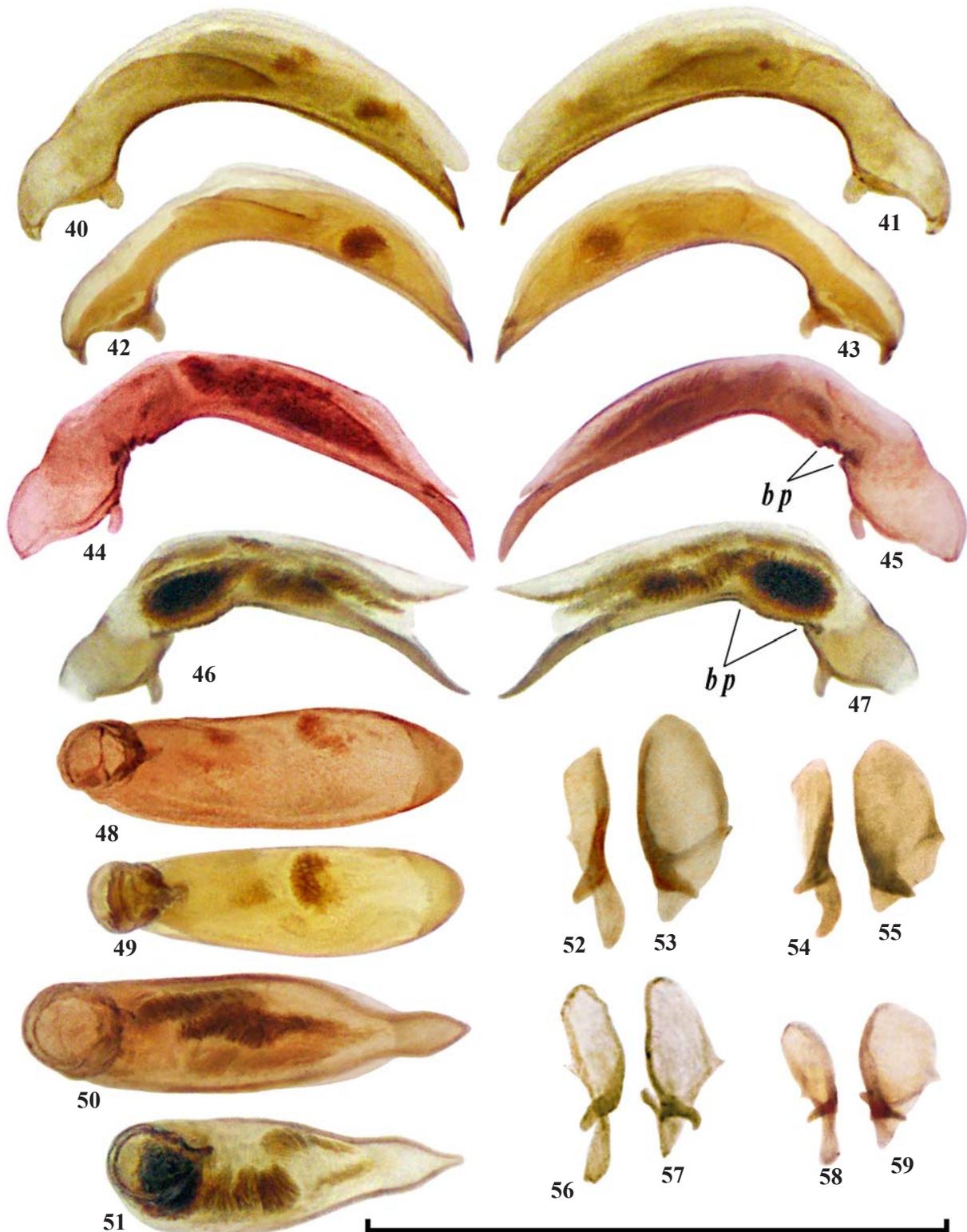
Pronotum obtrapezoidal, half wider than long, PW/PL 1.45–1.52 (1.48, n=5), almost twice as wide as head, PW/HW 1.85–1.94 (1.90), broadest a third from base, PLw/PL 0.27–0.35 (0.31), sides nearly parallel in basal third and strongly converging before, apical angles slightly projecting, very slightly acute to very slightly obtuse porrect; disc very convex in apical half. Base much wider than apex, PB/PA 1.67–1.74 (1.71), basal angles hardly more than right; basal sulci totally obliterate. Lateral bead fine and entire, with lateral groove smooth, basal bead missing, apical bead very fine, obliterate in middle third. Median line vague or almost so.

Elytra more than two fifths longer than wide, EL/EW 1.42–1.47 (1.44), wide at bases, slightly wider than pronotum, EW/PW 1.14–1.17 (1.16), nearly parallel-sided, with slight preapical situations and blunt apices. Humeri very distinct, sharp, minutely toothed; basal ridge nearly transverse, humeral angle slightly obtuse. Striae moderately deep, finely yet distinctly crenulate, obliterate at bases, deep close to apex; stria 7 more shallow in basal 1/3–1/4, with two apical setae, posterior seta being small and thence hard to detect. Intervals nearly flat, convex close to apex. USS with intermediate seta (US7) equidistant from anterior and posterior groups or slightly closer to the latter; US9 and US10 adjoining stria 8.



Figs 38–39. Dorsal habitus: 38 — *Tiferonia trapezicollis* **sp.n.**, paratype ♀; 39 — *T. sumatrensis* **sp.n.**, holotype.

Рис. 38–39. Габитус, дорзально: 38 — *Tiferonia trapezicollis* **sp.n.**, паратип ♀; 39 — *T. sumatrensis* **sp.n.**, голотип.



Figs 40–59. Aedeagus: 40–41, 48, 52–53 — *Tiferonia trapezicollis* sp.n., holotype; 42–43, 49, 54–55 — *T. sumatrensis* sp.n.; 44–45, 50, 56–57 — *Holcoferonia crassimargo*; 46–47, 51, 58–59 — *H. tenuimargo* sp.n., holotype; 40–51 — median lobe; 52, 54, 56, 58 — right paramere; 53, 55, 57, 59 — left paramere; 40, 42, 44, 46, 52, 54, 56, 58 — left aspect; 41, 43, 45, 47, 53, 55, 57, 59 — right aspect; 48–51 — ventral aspect. Scale bar: 1 mm.

Рис. 40–59. Эдеагус: 40–41, 48, 52–53 — *Tiferonia trapezicollis* sp.n., голотип; 42–43, 49, 54–55 — *T. sumatrensis* sp.n.; 44–45, 50, 56–57 — *Holcoferonia crassimargo*; 46–47, 51, 58–59 — *H. tenuimargo* sp.n., голотип; 40–51 — средняя доля; 52, 54, 56, 58 — правая парамера; 53, 55, 57, 59 — левая парамера; 40, 42, 44, 46, 52, 54, 56, 58 — слева; 41, 43, 45, 47, 53, 55, 57, 59 — справа; 48–51 — вентрально. Масштаб: 1 мм.

Ventral side smooth, metaventricle laterally, metepisterna, and base of abdominal sternite II finely to moderately punctate, abdomen more finely rugulose and punctate along sides. Urite VIII as in Figs 35–36.

Legs strong. Metacoxal sulcus obliterate laterally. Metafemur bisetose. Mesotibia with 3–4 spiniform anterolateral setae, posterolateral seta on a level with distal anterolateral seta. Legs faintly sexually dimorphic: protarsomeres 1–3 very slightly dilated, with biserially squamose ventral pad, in male, not dilated and latero-apically toothed in female.

Aedeagus (Figs 40–41, 48, 52–53): median lobe arcuate, in dorsal/ventral view broadest a fourth from apex; apex lamellate, short, wide, widely rounded. Internal sac with two, postmedian and preapical, slight sclerotizations at left margin.

Female pregenital segment, genitalia and reproductive tract as in Figs 29–31: Urite IX ventrally membranous and sparsely setulose; laterotergite apically rounded, with a row of setae along apical margin; gonosubcoxite with three, very short, closely set, spiniform apical setae; gonocoxite slender, shorter than gonosubcoxite, with double preapical nematiform seta and two small setae at middle, ventral and dorsal. Spermatheca convoluted, of about six turns.

NAME. Refers to the shape of pronotum.

GEOGRAPHIC DISTRIBUTION. Known from the type locality only.

HABITATS AND HABITS. All the specimens have been collected at light at night, at the edge of a lowland semideciduous monsoon forest, ca. 150 m distant from the Dong Nai River.

Tiferonia sumatrensis Fedorenko, **sp.n.**

Figs 39, 42–43, 49, 54–55.

MATERIAL. Holotype ♂ (ZISP), with a handwritten label: 'Sumatra/ Indrapoera/ E. Weyers'.

DIAGNOSIS. A *Tiferonia* species that shares single supra-ocular seta with *T. brunnea* and *T. trapezicollis* **sp.n.** It is very slightly different from the former chiefly in the pronotum infuscated, almost black (*vs.* red), and slightly wider relative to the head (PW/HW 1.86 *vs.* 1.73), and from the latter in only having the pronotum differently shaped, with basal angles barely more obtuse.

DESCRIPTION. As for the previous species except as follows: Body barely slenderer (Fig. 39), BL 3.7 mm. Pronotum reddish along all margins.

Head small, eyes rather small and convex; frontal sulci angulate, parallel behind clypeus, then strongly diverging and straight. Labrum apically truncate, with rounded angles. Pronotum quadrate, half wider than long, PW/PL 1.44, almost twice as wide as head, PW/HW 1.86, broadest just behind middle, PLW/PL 0.46, sides rounded, less so in basal half; apical angles slightly acute and a little projecting. Base barely more than half wider than apex, PB/PA 1.56, basal angles slightly obtuse. Basal sulci almost obliterate, hardly traceable as very superficial lines running parallel on second sixth. Median line very fine, obliterate in basal and apical fourths. Elytra: EL/EW 1.46, EW/PW 1.13. Legs: mesotibia with 3 spiniform anterolateral setae.

Aedeagus (Figs 42–43, 49, 54–55) similar to that of *T. trapezicollis* **sp.n.**

NAME. Refers to the type locality of the species.

GEOGRAPHIC DISTRIBUTION. Known from the type locality only.

HABITATS AND HABITS. No data.

Holcoferonia Fedorenko, **gen.n.**

Type species: *Holconotus crassimargo* Tschitschérine, 1898.

DIAGNOSIS. Same characters as for *Tiferonia* except as

follows: Legs impilose. Submentum bisetose. Pronotal basal bead obliterate medially, vague laterally. Prosternal process apically beaded. Elytral lateral edge serrate. USS with anterior (6 US) and posterior (8 US) groups widely separated. Abdomen densely punctate. Tarsi either without dorsolateral sulci or metatarsomere 1 with anterolateral sulcus. Protarsomeres 1–3 not dilated, without ventral pad in male, similarly toothed at latero-apical angles in sexes. Aedeagus distinctive.

DESCRIPTION. Body (Figs 60–61) small, compact, and glabrous; setation complete, except that submentum is bisetose and elytral discal setae missing. Secondary pilosity much reduced so that palps are only setulose, scape with very few, mostly 1–2, setules; but pedicel with distinct additional, somewhat verticillate, setae. Dorsal microsculpture isodiametric on head, coarse on labrum, nearly indistinct on pronotum and elytra.

Head with eyes rather small, convex or slightly flattened; frontal sulci short, angulate, parallel and very deep anteriorly, more shallow and strongly diverging behind, disappearing at anterior supra-ocular seta. Labrum convex at apical margin. Antennae almost reaching pronotal base. Mentum without labial pits, bisetose.

Pronotum quadrate, slightly cordate, with apical angles correct. Basal sulci parallel, very deep, two fifths as long as pronotum. Lateral bead entire and fairly thick, more so toward base; median line distinct, crenulate, obliterate just apically and basally. Lateral groove, basal sulci, and base between these and lateral margin punctate.

Elytra as for *Tiferonia*, except that lateral margin is distinctly serrate in basal half, indistinctly so behind; epipleura unevenly coarsely punctate.

Ventral side: metaventricle except along middle, metapleura and entire abdomen moderately and very densely punctate, mesoventricle laterally and mesopleura finely and densely rugulose and punctate, sides of prosternum finely punctate. Abdominal sternites V–VII conspicuously crenate along bases.

Aedeagus (Figs 44–47, 50–51, 56–59): median lobe with ventral margin slightly bisinuate in basal half and finely transversely plicate just distal to base; apex in dorsal/lateral view lanceolate and pointed. Internal sac with a few distinctly sclerotized patches.

Pregenital segment, genitalia and reproductive tract in female (Figs 35–37): sternite VIII apically glabrous (*vs.* setulose in *Tiferonia*); urite IX ventrally glabrous; laterotergite narrowly rounded at apex, setulose ventro-apically; gonosubcoxite glabrous; gonocoxite robust, with laterobasal angle tooth-like and curved dorsad, double nematiform seta, and two very strong ensiform setae, dorsal and ventral. Spermatheca convoluted yet short, with only 2–3 turns.

NAME. Compound feminine, abbreviated combination of *Holconotus* + *Tiferonia*.

GEOGRAPHIC DISTRIBUTION. The genus includes two species which are only known from Indochina.

HABITATS AND HABITS. No data, except that all the specimens examined have been collected at light, together with those of *T. trapezicollis* **sp.n.** and *H. lioderus*.

COMMENTS. *Holcoferonia* **gen.n.**, *Tiferonia* and *Holconotus* are more closely related *inter se* than to the other abacetines defined by the antennal pedicel centrally articulated to the scape. This conclusion is based on the following shared characters: distinct postocular sulcus, discal setae primarily absent from the elytra, tarsomeres 1–3 with latero-apical angles toothed in female, elytral stria 7 weakened or obliterate toward base, and pronotum not laterally explanate-reflexed. Besides, (1) maxillary and labial palps are setulose, (2) the tarsomere 5 ventrally setose, (3) legs otherwise more or less distinctly pilose, and (4) antennomeres 1–3 (*Holcono-*

tus) or 1 and 2 (*Holcoferonia* **gen.n.**), or only antennal pedicel (*Tiferonia*) have additional setae (because these four characters are certain to have emerged from finest body pilosity, they all can be reduced to this latter character). Additionally, the dorsal seta on the scape is distant about a third from apex (*vs.* a fourth in *Metabacetus*, *Aristopus* and *Cosmodiscus*), yet this difference may reflect considerable differences of the taxa compared in body size.

Most characters suggest closer relationships between *Holcoferonia* **gen.n.** and *Tiferonia* than between these two and *Holconotus*. The former two taxa share similar elytral striation and tibial setation, including elytral interval 9 reduced anteriorly; stria 5 secondarily reaching apex (*vs.* stria 7); mesotibia with inner setal brush divided into three (*vs.* continuous); mesotibial anterolateral setae strong, 3–4 in number, with distal seta being on a level with posterolateral seta; protibial latero-apical spines equally strong; and protarsomeres 1–3 not or narrowly dilated (*vs.* distinctly dilated) in male. Another synapomorphy is the female gonocoxite IX less flattened dorso-ventrally than that of *Holconotus*, with laterobasal angle shifted and curved dorsad. Many other shared characters are symplesiomorphies balanced with apotypic states observed in *Holconotus*, such as mentum setae much to totally reduced in size, tibiae and tarsi distinctly pilose, tarsomere 5 with additional ventral and dorsal setae, US9 and US10 proximate and arranged into a transverse row, male profemur ventrally toothed in most species, and female genitalia very distinctive.

Similarity between *Holcoferonia* **gen.n.** and *Holconotus* is due chiefly to (1) serrate lateral edges of elytra. The two taxa share also (2) widely interrupted elytral USS, (3) the bisetose submentum, and (4) the prosternal process distinctly beaded. Character (4) is symplesiomorphous, character (3) apotypic yet of little value, probably homoplastic, and char-

acters (1–3) are only substantial, certainly apotypic yet not improbably homoplastic.

As for *Tiferonia* it has female genitalia most similar to those of *Metabacetus*. The gonostyli are more or less ground-plan in both, including the gonosubcoxite with apical setae and the gonocoxite not or barely modified, with all fixed setae retained, two preapical nematiform and two ensiform, ventral and dorsal. On the other hand, *Metabacetus* is farther advanced because it has the laterotergite modified, with a long and apically setose process, and the other genera are still more so, since some fixed setae have been lost in them or the gonocoxite has become peculiar in shape.

Holcoferonia crassimargo Tschitschérine, 1898,
comb.n.

Figs 37–38, 43, 76, 108–109, 114, 120–121.

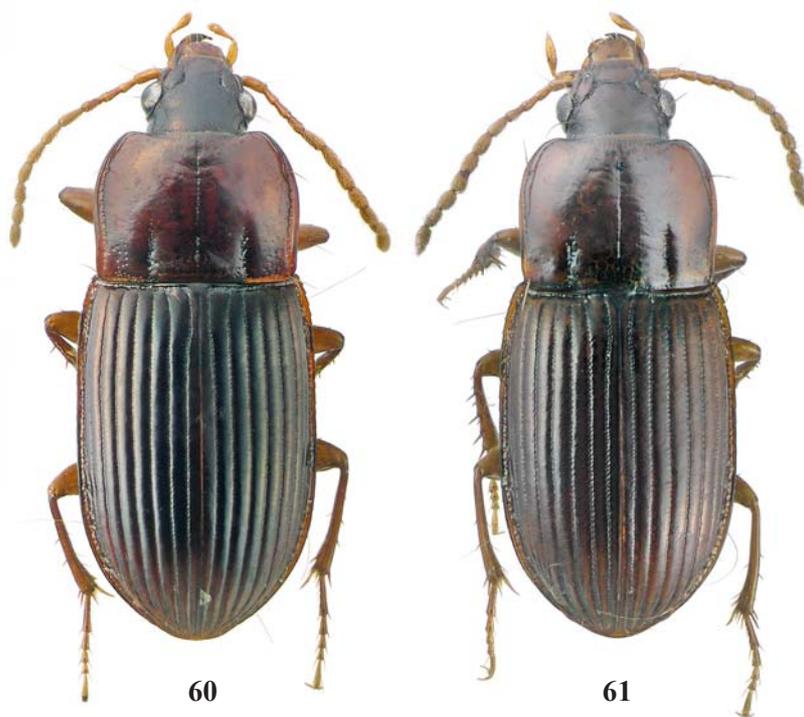
Tschitschérine, 1898: 453–454 (*Holconotus*; Pnom-Penh, Cambodia). — *ferrugineus*: Bates, 1889: 277; Andrewes, 1921: 179 (part.).

MATERIAL. 2♂♂, 5♀♀ (SIEE): Southern Vietnam, Dong Nai Province, Cat Tien National Park, at light, 27.X–4.XII.2004 (D. Fedorenko).

DIAGNOSIS. Larger species, with pronotal lateral bead much thicker basally than apically, pronotum more distinctly punctate outside basal sulci, abdominal sternite VII only laterally punctate, and aedeagus distinctive.

REDESCRIPTION. BL 4.3–4.6 mm. Body (Fig. 76) shiny, dark reddish brown, elytra basally, apically and laterally paler, pronotum deep red; legs, antennae and mouthparts red; venter red to reddish brown. Elytra very slightly opalescent due to microsculpture consisting of nearly indistinct, dense, transverse lines.

Pronotum a third wider than long, PW/PL 1.32–1.39 (1.35, n=5), three fourths wider than head, PW/HW 1.72–1.80 (1.75), broadest just medially, PLw/PL 0.50–0.56 (0.52),



Figs 60–61. *Holcoferonia* spp, habits: 60 — *H. crassimargo*; 61 — *H. tenuimargo* **sp.n.**, paratype.

Рис. 60–61. *Holcoferonia* spp, внешний вид: 60 — *H. crassimargo*; 61 — *H. tenuimargo* **sp.n.**, паратип.

sides nearly parallel and subsinuate to straight in basal half, rounded before. Base truncate, half wider than apex, PB/PA 1.48–1.58 (1.52), basal angles hardly more than right, with a nearly indistinct minute tooth; apex almost truncate, apical angles barely projecting, right and blunt. Lateral bead fine at apical angles, thick behind anterolateral seta; lateral groove almost as wide as lateral bead, finely and densely punctate inside; basal bead vague outside basal sulci, apical fine, obliterate in middle fifth. Basal region halfway between lateral margin and basal sulcus with a group of a few more or less dense punctures reminiscent of a vestigial outer basal sulcus half as long as basal sulcus proper (in one paratype, only two fine punctures are present).

Elytra half longer than wide, EL/EW 1.49–1.53 (1.51), wide at bases, slightly wider than pronotum, EW/PW 1.14–1.19 (1.17), parallel-sided, very slightly narrower at humeri than behind. Striae deep, very distinctly crenulate rather than punctate, striae 8, 9, and often also 7 in basal half, finely punctate, stria 7 very shallow to obliterate in basal third. Intervals very convex, costate apically. Stria 5 (= apical section of stria 7) with two apical setae.

Ventral side: sides of meso- and metathorax, and abdomen laterally coarsely and densely punctate; propleura mesally, mesepisterna, abdominal sternites in basal halves more finely punctate along middle, very finely and densely strigose along extreme bases.

Aedeagus (Figs 108–109, 114, 120–121): median lobe with transverse basal plication short and apex nearly straight in lateral view. Left paramere narrow. Internal sac distinctive, with sclerotized patches confined to apical three fifths.

GEOGRAPHIC DISTRIBUTION. Cambodia and southern Vietnam.

Holcoferonia tenuimargo Fedorenko, **sp.n.**

Figs 77, 110–111, 115, 122–123.

MATERIAL. Holotype ♂ (ZMMU), labelled: ‘S[outhern] Vietnam, N[orthern part of] Dongnai [Dong Nai] Pr.[ovince]/ Nam Cat Tien Nat[ional]. Park/ Exped[ition]. Russ[ian].-Vietnamese/ Tropical Centre/ at light HQL450 19./ leg. D.Fedorenko .VI.2005’. Paratypes, 3♂♂, 3♀♀ (SIEE), with same labels, except for 17–25.V. or 5.VI., or 11.VI.2005.

DIAGNOSIS. Smaller species, with pronotal lateral bead barely thicker basally than apically, pronotum not or indistinctly punctate outside basal sulci, entire abdominal sternite VII punctate, and aedeagus distinctive.

REDESCRIPTION. Hardly different from the previous species in the following points: BL 3.1–3.6 mm. Body (Fig. 77) more reddish, elytral pale regions more extensive. Elytra without microsculpture and thence without opalescent luster. Head slightly wider so that pronotum only two thirds wider than head, PW/HW 1.64–1.66 (1.65). Pronotum otherwise similar in shape, PW/PL 1.30–1.36 (1.33, n=5), PLw/PL 0.52–0.57 (0.54), with apex wider, PB/PA 1.40–1.47 (1.43). Both lateral bead and lateral groove thin. Elytra: EL/EW 1.48–1.51 (1.49), 1.15–1.19 (1.17).

Aedeagus (Figs 110–111, 115, 122–123): median lobe with transverse basal plication long, running on second fourth, and apex slightly upturned at tip in lateral view. Left paramere wide. Internal sac with a large sclerotized patch in second fourth.

NAME. Refers to the narrow lateral bead of the pronotum.

GEOGRAPHIC DISTRIBUTION. Only known from the type locality.

HABITATS AND HABITS. As for *H. crassimargo*, except that the adults have been collected in a different season, early wet

instead of early dry, which suggests that *H. crassimargo* and *H. tenuimargo* **sp.n.** are sympatric yet allochronous species.

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