What is *Teramocerus* Schoenherr, 1840? A new definition from revision and phylogeny of the group (Insecta, Coleoptera, Brentidae)

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ABSTRACT
The Neotropical genus *Teramocerus* Schoenherr, 1840 is redefined on the basis of a taxonomic revision and of a phylogeny. In addition to several other characters of the external morphology, detailed examination of sclerites and ornamentation of the internal sac of aedeagus was used for the first time in Brentidae Billberg, 1820, providing several new characters, with also potential interest for the study of the tribe Acratini and possibly the family. Two new synonymies are proposed at generic level: *Acratus* Lacordaire, 1865, n. syn. for *Teramocerus* and *Proteramocerus* Kleine, 1921, n. syn. for *Teramocerus*. Five new species are described from Amazonian Basin and French Guiana: *Teramocerus amazonicus* n. sp., *T. brulei* n. sp., *T. curtirostris* n. sp., *T. pulchriformis* n. sp. and *T. trichosternon* n. sp. Because of the synonymy between *Proteramocerus* and *Acratus* with *Teramocerus*, seven new combinations are proposed: *Teramocerus appendiculatus* (Soares & Scivittaro, 1972) n. comb., *T. badius* Boheman, 1840, comb. rev., *T. forficula* (Soares & Scivittaro, 1972) n. comb., *T. opacus* (Perty, 1832) n. comb., *T. pulcher* (Soares & Dias, 1971) n. comb., *T. suturalis* (Lund, 1800) n. comb., and *T. zellibori* (Soares & Dias, 1971) n. comb. Several new synonymies are given at specific level: *Acratus fidelis* Kleine, 1927, n. syn. for *Teramocerus badius*, *Proteramocerus aeneus* Soares & Dias, 1971, n. syn for *T. eletus* Kleine, 1927, *P. oliveirai* Soares & Dias, 1971, n. syn. for *T. eletus* Kleine, 1927, *P. emendatus* Kleine, 1927, n. syn. for *T. janthinus* Boheman, 1840, *P. eminens* Kleine, 1927, n. syn. for *T. janthinus*, *P. villens* Soares & Dias, 1971, n. syn. for *T. janthinus*, *Brenthus acutipennis* Boheman, 1833, n. syn. for *T. opacus*, *T. obscurus* Perroud, 1853, n. syn. for *T. opacus*. *Trachelizus helmenreichii* Redtenbacher, 1868 is removed from synonymy with *Teramocerus suturalis* and transferred to the genus *Nemobrenthus* Sharp, 1895, giving the new combination *Nemobrenthus helmenreichii* (Redtenbacher, 1868) n. comb. Maps are provided for examined specimens of each species. An identification key is given for males and females. In a second part, a phylogenetic analysis is made to test monophyly and species assemblage of the newly defined genus *Teramocerus*. Maximum parsimony and Bayesian analysis were performed on a matrix of 40 morphological characters of the adults and 25 taxa; 19 were supposed to belong to *Teramocerus* in the meaning given here, the six others to various Acratini and Trachelizini. Both analyses show that type species of all the genera synonymized are indeed completely included in *Teramocerus*, this genus being then monophyletic in its new definition.

KEY WORDS
Curculionoidea,
Maximum parsimony,
Bayesian inference,
morphology,
aedeagus,
endophallic sclerites,
new combinations,
new species,
new synonym.

RÉSUMÉ
Qu'est réellement le genre Teramocerus *Schoenherr, 1840 ? Une nouvelle définition basée sur la révision et la phylogénie du groupe (Insecta, Coleoptera, Brentidae).*
Le genre néotropical *Teramocerus* Schoenherr, 1840 est redéfini sur la base d'une révision taxonomique et d'une phylogénie. En plus de divers caractères de la morphologie externe, un examen détaillé des sclérites et de l'ornementation du sac interne de l'édéage a été mené pour la première fois chez les Brentidae Billberg, 1820, fournissant ainsi plusieurs caractères totalement inédits et prometteurs pour l'étude de la tribu des Acratini et peut-être de la famille entière. Deux nouvelles synonymies sont proposées au niveau générique : *Acratus* Lacordaire, 1865, n. syn. de *Teramocerus*, et *Proteramocerus* Kleine, 1921, n. syn. de *Teramocerus*. Cinq nouvelles espèces sont décrites du Bassin amazonien et de Guyane française : *Teramocerus amazonicus* n. sp., *T. brulei* n. sp., *T. curtirostris* n. sp., *T. pulchriformis* n. sp. et *T. trichosternon* n. sp. Du fait de la mise en synonymie d'*Acratus* et *Proteramocerus* avec *Teramocerus*, sept nouvelles combinaisons sont effectuées : *Teramocerus appendiculatus* (Soares & Scivittaro, 1972) n. comb., *T. badius* Boheman, 1840 comb. rev., *T. forficula* (Soares & Scivittaro, 1972) n. comb., *T. opacus* (Perty, 1832) n. comb., *T. pulcher* (Soares & Dias, 1971) n. comb., *T. suturalis* (Lund, 1800) n. comb., et *T. zellibori* (Soares & Dias, 1971) n. comb. Plusieurs nouvelles synonymies sont données au niveau spécifique : *Acratus fidelis* Kleine, 1927, n. syn. de *Teramocerus badius*, *Proteramocerus aeneus* Soares & Dias, 1971, n. syn. de *T. eletus* Kleine, 1927, *P. oliveirai* Soares & Dias, 1971, n. syn. de *T. eletus* Kleine, 1927, *P. emendatus* Kleine, 1927, n. syn. de *T. janthinus* Schoenherr, 1840, *P. eminens* Kleine, 1927, n. syn. de *T. janthinus, P. villens* Soares & Dias, 1971, n. syn. de *T. janthinus*, *Brenthus acutipennis* Boheman 1833, n. syn. de *T. opacus*, *Teramocerus obscurus* Perroud, 1853, n. syn. de *T. opacus*. *Trachelizus helmenreichii* Redtenbacher, 1868 n'est plus considéré comme synonyme de *Teramocerus suturalis* ; il est transféré dans le genre *Nemobrenthus* Sharp, 1895, donnant ainsi la nouvelle combinaison *Nemobrenthus helmenreichii* (Redtenbacher, 1868) n. comb. Des cartes sont proposées, montrant la répartition des spécimens examinés de chaque espèce. Une clé d'identification est donnée pour les mâles et les femelles. Dans une seconde partie, une analyse phylogénétique est effectuée afin de tester la monophylie et la composition spécifique du genre *Teramocerus* nouvellement défini. Des analyses cladistique en maximum de parcimonie et bayésienne ont été menées, portant sur 40 caractères morphologiques des adultes de 25 taxa; 19 d'entre eux étaient supposés appartenir à *Teramocerus* au sens de ce travail, les six autres représentant d'autres Acratini et un Trachelizini Lacordaire, 1865. Les deux analyses ont montré que les deux espèces-types des genres mis en synonymie sont en effet complètement incluses dans *Teramocerus*, ce groupe étant bien monophylétique dans sa nouvelle acception.

MOTS CLÉS
Curculionoidea,
parcimonie,
inférence bayésienne,
morphologie,
édéage,
sclérites endophalliques,
combinaisons nouvelles,
espèces nouvelles,
synonymies nouvelles.

INTRODUCTION

The genus *Teramocerus* was created by Schoenherr (1840: 556) to accommodate 15 species of various brentids from different biogeographical regions (mainly Brasil, but also Guadeloupe, Philippines and New Zealand) that he considered to be close to the genus *Brentus* Fabricius, 1787 but with slenderer body. He designated *Teramocerus janthinus* Boheman, 1840 as the type species. This assemblage was very heterogeneous and Lacordaire (1865: 465) gave later a new definition of the genus, leaving only five American species in the group: *Teramocerus janthinus*, *T. mannerheimi* Boheman, 1840, *T. gracilis* (Boheman, 1833), *T. exilis* Boheman, 1840 and *T. punctirostris* Schoenherr, 1840. He included the genus in the "Groupe Ithysténides", which gathers species from Oriental and Australian region, but adds that, however, the genus *Teramocerus* is very close to the American genus *Acratus* Lacordaire, 1865 of the "Groupe Némocéphalides" (where he transferred all the other American *Teramocerus* of Schoenherr). The main difference with this group was the much slenderer body and antennae.

Thirty years later, Sharp (1895) added one species to the genus, *Teramocerus belti* Sharp, 1895 from Central America. Later Kleine (1927a) and Meyer (1959) described *T. eletus* Kleine, 1927 and *T. mamillatus* Meyer, 1959 from Brazil. Since that time, no other species was described in this genus and Sforzi & Bartolozzi (2004) supposed that ten species were belonging to this genus. This number is now only eight because of the synonymisation of *T. exilis* and *T. mannerheimi* with *T. gracilis* by Mantilleri (2014).

Trying to identify some Acratini Alonso-Zarazaga, Lyal, Bartolozzi & Sforzi, *in* Alonso-Zarazaga & Lyal (1999) from French Guiana, it turned out to be very difficult to attribute the specimens examined to most of the genera included in this tribe, and especially to *Teramocerus*, *Acratus* and *Proteramocerus* Kleine, 1921 and it seemed clear that a redefinition and a revision of these genera was necessary to clarify their status and their specific composition. *Teramocerus* being the less speciose, it was a good point to start the revision of these three genera.

MATERIAL AND METHODS

Type-specimens of all the species included by previous authors in the genus *Teramocerus* were examined and dissected. Types of all other species of the tribe Acratini were also examined, except *Acratus bechynei* Soares, 1970, *A. gracilipes* Soares, 1970, *A. mendax* Soares, 1970, *A. nitidissimus* Soares, 1970, *A. pohli* Soares, 1970, *A. pseudoarticulatus* Soares, 1970, *A. seorsus* Soares, 1970, *A. villens* Soares, 1970, *Nemobrenthus melzeri* Kleine, 1926 and *N. pereirai* Soares & Scivittaro, 1979 that were not found in MNRJ, MPEG or MZSP, where they are supposed to be deposited; it is the same case with *A. ruber* (Erichson, 1847). Types of *Proteramocerus micans* Kleine, 1921 and *P. nitidus* Kleine, 1921 were already on loan and not available for study.

Genitalia were mounted in Euparal® under slides, after coloration with chlorazol black (Carayon 1969). Mounting genitalia under slides allows examining the sclerites of the internal sac of male aedeagus, giving important characters for taxonomical study of the tribe Acratini. This character has never been used before by any author working with brentids. It is used here for the first time in an extensive way and, as it will be shown, gives very stable diagnostic characters at species level, but allows also giving synapomorphies at genus and group of species level.

Measures were taken using a stereomicroscope Nikon SMZ1000 associated to a graduated micrometric ocular.

Phylogenetic analysis was performed with an ingroup including 24 taxa of the tribe Acratini; the outgroup consisted of one species belonging to the genus *Nemocephalus* Guérin-Méneville, 1827 (tribe Trachelizini Lacordaire, 1865; for attribution of *Nemocephalus* to Trachelizini, see Mantilleri 2014), the five others to various Acratini, including several "*Acratus*" as defined by Soares (1970), allowing to test monophyly of the newly defined genus *Teramocerus*. Table 2 presents the matrix used for processing by the software TNT 1.1 (Goloboff *et al.* 2003). Multiple state characters were not ordered. All the characters were equally weighted. An exhaustive search in maximum parsimony (MP) was performed using branch-and-bound algorithm. Characters were polarised using outgroup comparison method (Watrous & Wheeler 1981). Bootstrap support values for the trees were obtained after 500 replicates.

A Bayesian analysis was also performed, using the same data set. Bayesian Metropolis coupled Markov chain Monte Carlo (MCMC) estimation of phylogeny was made using MrBayes 3.1.2 (Huelsenbeck & Ronquist 2001). To find the best-fitting model of evolution of characters for the Bayesian analysis, I used the same comparison method between models as explained in Mantilleri (2012) except that each run was sampled every 100 generations and total number of generations was 800 000. Calculation of the Bayes factor shows there is not strong evidence to choose an evolution model instead of another one. Markov k model (Mk), which assumes equal rates of change among characters (Lewis 2001), was then used.

ABBREVIATIONS

Coll. AM	Collection Antoine Mantilleri, Paris;
CMNC	Canadian Museum of Nature, Ottawa, Canada (Dr Robert Anderson, François Génier);
IPEACS	Instituto de Pesquisas e Experimentação Agropecuárias do Centro-Sul, Rio de Janeiro, Brazil;
MLUH	Martin-Luther-Universität, Wissenschaftsbereich Zoologie, Halle, Germany (Dr Karla Schneider);
MNHN	Muséum national d'Histoire naturelle, Paris;
MNRJ	Museu Nacional, Universidade Federal do Rio de Janeiro, Brazil (Dr Marcela L. Monné);
MPEG	Museu Paraense Emilio Goeldi, Belém, Pará, Brazil (Dr Orlando T. Silveira);
MZSP	Museu de Zoologia da Universidade de São Paulo, Brazil (Dr Cleide Costa);
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden (Dr Johannes Bergsten);
NMW	Naturhistorisches Museum Wien, Austria (Dr Harald Schillhammer);
SEAG	Société entomologique Antilles-Guyane;
ZMUC	Zoological Museum, University of Copenhagen, Denmark (Dr Alexey Solodovnikov);
ZSM	Zoologische Staatsammlung, Munich, Germany (Dr Michael Balke).

Remark

In the text, acronyms MNHN-EC-EC refer to inventory numbers of type specimens of Coleoptera preserved in MNHN collection. Access to data and pictures for these specimens is possible through the following link: http://science.mnhn.fr/institution/mnhn/search.

SYSTEMATICS

Family BRENTIDAE Billberg, 1820
Subfamily TRACHELIZINAE Lacordaire, 1865
Tribe ACRATINI Alonso-Zarazaga, Lyal, Bartolozzi & Sforzi, 1999

Genus *Teramocerus* Schoenherr, 1840

Teramocerus Schoenherr, 1840: 556. — Type species: *Teramocerus janthinus* Boheman, 1840, by original designation.

Acratus Lacordaire, 1865: 463, **n. syn.** — Type species: *Brentus suturalis* Lund, 1800, by original designation.

Proteramocerus Kleine, 1921: 129, **n. syn.** — Type species: *Brenthus acutipennis* Boheman, 1833, by original designation.

DISTRIBUTION. — Neotropical region (Central America from Costa Rica as northernmost country, Amazonian Basin, Eastern Brazil). Not recorded from Antilles and Pacific slopes of Andes.

DIAGNOSIS. — Medium-sized to large brentids (11-34 mm), body slender much longer than wide (males are 7.5 to 11 × longer than wide, females 7-8 × longer than wide), metallic green and bluish, or brownish. Head not grooved. Metarostrum without paramedian grooves. Venter of head with gular suture well distinct ending in post-ocular median fovea, without longitudinal groove (Fig. 8C). Antennomeres 3-11 not transverse; 9-10 cylindrical, much longer than broad, with numerous short hairs; 11 the longest, not or hardly curved. Pronotum much longer than broad, longitudinally grooved, not punctate. Scutellum with deep fovea (Fig. 8E), not inserted between elytra at its apex. Elytra without hole or deep depression

at base at the place of insertion on mesonotum; base well distinct, steep. Striae 1-2 well distinct; 3-8 hardly distinct or only represented by rows of superficial punctures; 9 well marked on posterior half, not reaching base of elytra; 10 deep at base, vanishing posteriorly. Apex of elytra with one tooth. Prosternum glabrous, prosternal suture well distinct. Prosternellum well distinct. Metathorax smooth, not grooved, weakly foveate or depressed in front of metacoxae. Femora pedunculate. First tarsal segment longer than broad; tarsomeres 2-3 impressed on upper side. Sternites V-VI smooth; sternite VII almost completely smooth, with few fine punctures mostly at apex. Membranous tergites of abdomen not dark.

Males. Prorostrum deflexed, not grooved, shorter than metarostrum and mesorostrum together, slightly enlarged and notched at apex, carinate on sides at base, not punctate. Tegmen with parameroid lobes well developed. Penis pointed at apex, with short apodemes (temones). Internal sac with one proximal pointed sclerite; frena well developed, comma-shaped.

Females. Prorostrum straight, cylindrical, not grooved, longer than mesorostrum and metarostrum together. Tergite VIII dentate at apex (Fig. 15B). Epipleurites VIII with one large accessory gland (Fig. 15C). Spermatheca falcate, without constrictions at base. Vagina with two lateral glands; the size of these glands may vary between individuals of the same species, probably depending on the maturity or sexual activity. Coxites not fused, apical styli well distinct.

Remarks

Considering the characters of the type species of the genera *Teramocerus*, *Acratus* and *Proteramocerus*, including characters of the internal sac of the aedeagus, it is obvious that these three names designate the same group of species. For this reason, I propose the following new synonymies: *Acratus* Lacordaire, 1865, n. syn. for *Teramocerus* Schoenherr, 1840, and *Proteramocerus* Kleine, 1921, n. syn. for *Teramocerus* Schoenherr, 1840.

Kleine (1938: 126) erroneously considered *Belorhynchus gracilis* Boheman, 1833 as the type species of *Teramocerus*. However, Schoenherr (1840: 557) had fixed *T. janthinus* as the type species by original designation.

In the genus, species are listed as follow: first, the type species *T. janthinus*; then, species are grouped following the affinities revealed by the phylogenetic analysis.

Teramocerus janthinus
Boheman, 1840
(Figs 1; 7J-M; 11D-G)

Teramocerus janthinus Boheman *in* Schoenherr, 1840: 558. — Lacordaire 1865: 466. — Schönfeldt 1908: 70. — Kleine 1938: 126. — Blackwelder 1947: 774. — Sforzi & Bartolozzi 2004: 589.

Proteramocerus emendatus Kleine, 1927a: 448, **n. syn.** — Kleine 1938: 127. — Blackwelder 1947: 774. — Soares & Dias 1971: 58. — Sforzi & Bartolozzi 2004: 583.

Proteramocerus eminens Kleine, 1927a: 447, **n. syn.** — Kleine 1938: 127. — Blackwelder 1947: 774. — Soares & Dias 1971: 59. — Sforzi & Bartolozzi 2004: 584.

Proteramocerus villens Soares & Dias, 1971: 69, **n. syn.** — Sforzi & Bartolozzi 2004: 587.

Type material. — *T. janthinus*: ♂ holotype (Fig. 1A), "Amer. mer., Ménètriès, typus, NHRS-JLKB 000020288" (NHRS); *P. emendatus*: ♂ holotype (Fig. 1D), "Fulgid., [illegible word] ♂, Bras.; Bowring, 63 47*; prép. micro. n°AM-NHM 00011" (NHM); *P. eminens*: ♂ holotype (Fig. 1C), "Minas Geraes; Fry coll., 1905 100; prép. micro. n°AM-NHM 00010" (NHM); *P. villens*: ♂ holotype [not examined], "Itapura [20°39'S 51°31'W], X.1938" (MZSP); 2 ♂ and 2 ♀ paratypes, "Anhangaí, XII.1926, Spitz" (IPEACS); 4 ♂ and 5 ♀ paratypes, "Piraçununga, X.1950, O. Schubart" (MZSP and IPEACS); 1 ♂ paratype, "Leopoldo Bulhões, XII.1933, Spitz" (MZSP); 1 ♂ paratype, "Arapongas, XII.1952, A. Maller" (MNRJ); 1 ♂ and 1 ♀, "Rolândia, XII.1943, III.1946, Diringshofen" (MZSP).

Material examined. — **South America**. ♂ holotype *T. janthinus*; 1 ♂, Amér. Sud, Mniszech, ex musaeo G. Power (MNHN).
Bolivia[?]. 1 ♂, de Chiquitos à Mojos, D'Orbigny, 1834 (MNHN).
Brazil. ♂ holotypes of *P. emendatus* and *P. eminens*; 1 ♂, Sete Lagoas [19°28'S, 44°15'W] (MLUH); 1 ♂ paratype *P. villens*, Piraçununga [22°00'S, 47°25'W], 10.X.1950, O. Schubart, prép. micro. n°AM-MZSP 00001 (MZSP); 2 ♂ et 1 ♀, Jatahy [17°53'S, 51°43'W], État de Goyaz, Ch. Pujol, 1895-96 (MNHN); 5 ♂ et 1 ♀, Jatahy (MNHN); 1 ♂ et 2 ♀, Et. de Sao Paulo, val du rio Pardo [22°56'S, 49°38'W], E. Gounelle, XII.1898 (MNHN); 2 ♂ et 2 ♀, Serra de Baturite (Céara) [4°12'S, 38°56'W], E. Gounelle, I.1895 (MNHN); 1 ♀, Minas Gerais, Sertao de Diamantina [18°13'S, 43°41'W], Fazenda das Melancias, X-XI.1902, E. Gounelle (MNHN); 1 ♂ et 3 ♀, Trinidade [16°39'S, 49°29'W] (MNHN).
French Guiana[?]. 1 ♂, Cayenne [4°55'N 52°20'W], *T. fulgidus* ex col. Dejean, exemp. provenant de Mannerheim (MNHN); 1 ♀, *idem*, Chevrolat, prép. micro. n°AM00268 (MNHN).

Distribution. — Brazil (East). See remarks below for other records, and map (Fig. 16B).

Description

Males

Measurements. Length of head (rostrum included): 6.4-13.8 mm; length of body (from front margin of pronotum to apex of elytra): 9.8-20.0 mm; width across humeral calli: 1.5-3.0 mm. Pattern of coloration as in females. Habitus: Fig. 1A, C-E.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, carinate on sides. Eyes quite large but shorter than temples. Head smooth, tapering backwards, with weak inter-ocular fovea; collar constriction well marked. Sides of head (Fig. 7J) almost without pores; venter with two rows of pores below eyes. Sides of metarostrum smooth, venter with two longitudinal rows of small sensorial pores and numerous setae reaching base of prorostrum (Fig. 7J), without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum not punctate, microreticulate. Elytra depressed at base of interstria 5. Apex of elytra extended by one large blunt tooth formed by interstriae 3, 9 and 11 (interstria 3 often quite thin and elevated at apex) (Fig. 7K). Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with one row of punctures. Legs with meso- and metacoxae with rare setae; trochanters

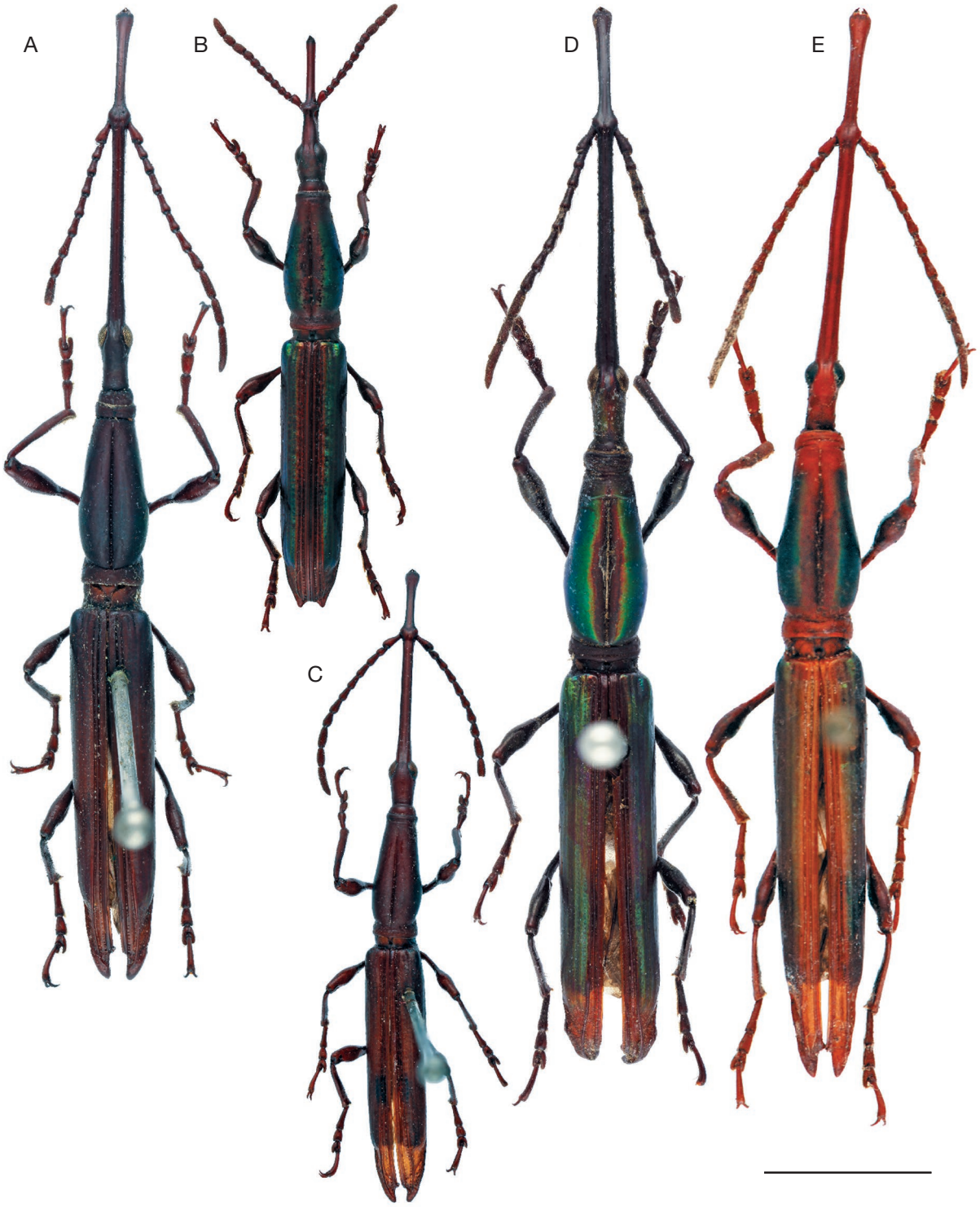

FIG. 1. — **A-E**, *Teramocerus janthinus* Boheman, 1840: **A**, ♂ holotype; **B**, ♀; **C**, ♂ holotype of *Proteramocerus eminens* Kleine, 1927; **D**, ♂ holotype of *P. emendatus* Kleine, 1927; **E**, ♂ paratype of *P. villens* Soares & Dias, 1971. Scale bar: 5 mm.

with one or two raised setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibia with one calcar on inner side, but not very acute. First tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen (Fig. 7M) with sternites III-IV, glabrous, smooth, with very weak longitudinal median depression. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 11D). Internal sac with one proximal hook-like sclerite and most distally with few very small spiny sclerifications on walls of internal sac (Fig. 11D-G).

Females

Measurements. Length of head (rostrum included): 4.2-6.2 mm; length of body (from front margin of pronotum to apex of elytra): 10.9-16.7 mm; width across humeral calli: 1.7-2.8 mm. Brown-red, elytra and pronotum with metallic glints, greenish to bluish; median part of pronotum brown-red; head, interstria 1-2 and apex of elytra not metallic. Habitus: Fig. 1B.

Head. Mesorostrum weakly elevated, hardly grooved longitudinally. Metarostrum without median carina at middle, not carinate on sides, without paramedian grooves. Eyes longer than temples, quite bulging. Head weakly foveate between eyes, tapering backwards, collar constriction well distinct. Sides of head and metarostrum with very few sensorial pores. Venter of head with few sensorial pores forming two rows below eyes. Venter of metarostrum with two rows of pores reaching base of mesorostrum; no elevated area separating two rows of pores at middle.

Antennae. Antennae with segments 2-8 slightly longer than broad, subconical, with few long setae; 9 1.5 × longer than 8.

Thorax. Pronotum microreticulate, not punctate. Elytra depressed at base of interstria 5. Apex of elytra extended by one blunt tooth formed mainly by interstria 9 and 11 (Fig. 7L). Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with row of weak punctures hardly distinct. Legs with meso- and metacoxae with 5-6 setae; trochanters with one or two raised setae; femora laterally with shallow longitudinal groove, glabrous except metafemora with hairs below peduncle. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth, without groove; sternite VII almost completely smooth except few very fine punctures mostly at apex. Vagina not sclerified.

Remarks

Dissection and examination of the holotypes of *Proteramocerus emendatus* and *P. eminens* revealed conspecificity of these two specimens with *Teramocerus janthinus*, their genitalia being very similar, especially the shape of the proximal hook-like sclerite of the internal sac. Externally, the holotype of *P. eminens* represents a brownish variation; *P. emendatus* is a teratological case with the tooth at apex of elytra not well developed and directed downwardly. For these reasons, I consider *Proteramocerus emendatus* Kleine, 1927, n. syn. for *Teramocerus janthinus* Boheman, 1840 and *P. eminens* Kleine, 1927, n. syn. for *T. janthinus* Boheman, 1840.

I was not able to examine the holotype of *Proteramocerus villens* as it was not found in MZSP (C. Costa pers. comm.) Only a male paratype was available (Fig. 1E); dissection of genitalia left no room for doubt about conspecificity of this specimen with *Teramocerus janthinus*. So, despite I could not examine the holotype, I am proposing here the following new synonymy: *Proteramocerus villens* Soares & Dias, 1971, n. syn. for *Teramocerus janthinus* Boheman, 1840.

The citation of *T. janthinus* from Cayenne, French Guiana, is doubtful. Indeed, with the help of SEAG, I was able to examine large series of recently collected brentids from French Guiana but no specimen of this species has ever been collected there. The two citations are old records from collections of Dejean and Chevrolat, and the specimens were probably collected in another place in South America. The citation from Bolivia must also be taken with caution. Indeed, all the other records are clearly from Eastern Brazil (except for the very doubtful ones from French Guiana) and the distribution for this species is probably limited to this area; *T. janthinus* is probably not present in the Amazonian Basin.

Teramocerus opacus (Perty, 1832) n. comb.
(Figs 2D-G; 7N-O; 11H)

Arrhenodes opacus Perty, 1832: 69.

Nematocephalus opacus – Schönfeldt 1908: 67; 1910: 41.

Proteramocerus opacus – Kleine 1927b: 54; 1938: 127. — Blackwelder 1947: 775. — Soares & Dias 1971: 67. — Sforzi & Bartolozzi 2004: 587.

Brenthus acutipennis Boheman *in* Schoenherr, 1833: 350, **n. syn.**

Teramocerus acutipennis – Boheman *in* Schoenherr 1840: 560. — Sharp 1895: 78.

Acratus acutipennis – Schönfeldt 1908: 68; 1910: 41.

Teramocerus obscurus Perroud, 1853: 446 **n. syn.** — Schönfeldt 1908: 70. — Kleine 1938: 126. — Blackwelder 1947: 774. — Sforzi & Bartolozzi 2004: 590.

Proteramocerus acutipennis – Kleine 1921: 129; 1927b: 54; 1938: 127. — Blackwelder 1947: 774. — Soares & Dias 1971: 46. — Sforzi & Bartolozzi 2004: 581.

Type material. — *Arrhenodes opacus*: ♂ holotype (Fig. 2D), "Brasilia, *Brenthus opacus* Prty" (ZSM); *Brenthus acutipennis*: ♂ holotype (Fig. 2E), "typus; Brasilia, Mannerheim; ♂; Gattung *Proteramocerus* Kln; NHRS-JLKB 000020314; holotype" (NHRS); *Teramocerus obscurus*: ♂ holotype (Fig. 2F), "*obscurus* Perroud, Brésil; type; *Acratus* Lacord.; ex coll. B. P. Perroud; Muséum Paris, 1958, coll. M. Pic; MNHN-EC-EC1884".

Material examined. — **South America**. 2 ♂, Amer. Sud, Mniszech, ex musaeo G. Power (MNHN); 1 ♀, ex musaeo Desbrochers 1913 (MNHN).
Brazil. ♂ holotype *T. obscurus*. — ♂ holotype *B. acutipennis* (NHRS). — ♂ holotype *A. opacus* (ZSM); 1 ♀, Brésil, A. Saint-Hilaire, 1815 (MNHN); 1 ♂ et 1 ♀, Chevrolat, ex musaeo G. Power (MNHN); 2 ♀, Mniszech, ex musaeo G. Power (MNHN); 1 ♂ et 1 ♀, ex musaeo Desbrochers 1913 (MNHN); 1 ♂, Brésil, Perroud, ex musaeo Desbrochers 1913 (MNHN); 1 ♀, Santa Catarina, Thomson, ex musaeo G. Power (MNHN); 1 ♂ et 1 ♀, Espirito Santo, ex musaeo Desbrochers 1913, prép. micro. n°AM00341 (MNHN); 2 ♀, Rio, 1844 et 1846, de Castelnau (MNHN); 1 ♂ et 1 ♀, Rio de Janeiro [22°55'S, 43°13'W], P. Germain, 1883 (MNHN); 1 ♂,

Tijuca (Rio) [23°00'S, 43°22'W], E. Gounelle, XII.1884 (MNHN); 1 ♂ et 2 ♀, Minas Gerais, Caraça [20°06'S, 43°29'W], E. Gounelle, XII.1889 (MNHN); 2 ♀, Caraça, P. Germain, VII-XII.1884 (MNHN); 1 ♂, Bahia, ex musaeo Desbrochers 1913 (MNHN); 2 ♂, Cachimbo [9°42'S, 38°34'W], Prov. de Bahia, Ch. Pujol, 1890 (MNHN); 1 ♀, Constancia [21°23'S, 46°48'W], I.1857, J. Gray (MNHN); 1 ♂, rio Piracicaba, P. Germain, II.1885 (MNHN); 1 ♂, Et. de Sao Paulo, val du rio Pardo [22°56'S, 49°38'W], E. Gounelle, XII.1898 (MNHN).

DISTRIBUTION. — Brazil (East). See map (Fig. 16C).

DESCRIPTION

Males

Measurements. Length of head (rostrum included): 5.7-10.2 mm; length of body (from front margin of pronotum to apex of elytra): 9.9-16.9 mm; width across humeral calli: 1.5-2.7 mm. Body entirely brownish, not metallic, sometimes bronzed. Habitus: Fig. 2D-F.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, not or weakly carinate on sides. Eyes quite large but shorter than temples. Head smooth, tapering backwards, with weak inter-ocular fovea; collar constriction well marked. Sides of head almost without pores (Fig. 7N); venter with two rows below eyes. Sides of metarostrum smooth, venter with two longitudinal rows of small sensorial pores and quite few setae hardly reaching base of mesorostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum not punctate, microreticulate. Elytra depressed at base of interstria 5. Apex of elytra extended by one large blunt tooth formed by interstria 9 and 11 (Fig. 7O); interstria 3 not thin and elevated at apex. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with one row of small and shallow punctures hardly distinct. Legs with mesocoxae, metacoxae and trochanters with rare setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibia with very short calcar on inner side. First tarsal segment shorter than 2-3 together; segment 2 hardly longer than broad.

Abdomen. Abdomen with sternites III-IV, glabrous, smooth except punctures in front part of sternite III along metacoxae, with very weak longitudinal median depression. Tegmen with parameroid lobes rounded at apex, with few setae. Internal sac with one proximal hook-like sclerite and most rearward with numerous spiny sclerifications well distinct on walls of internal sac (Fig. 11H).

Females

Measurements. Length of head (rostrum included): 4.9-6.6 mm; length of body (from front margin of pronotum to apex of elytra): 11.4-18.6 mm; width across humeral calli: 1.7-2.7 mm. Pattern of coloration as in males. Habitus: Fig. 2G.

Head. Mesorostrum weakly elevated, hardly grooved longitudinally. Metarostrum without median carina at middle or carina weak, not carinate on sides, without paramedian grooves. Eyes shorter than temples, quite bulging. Head weakly foveate between eyes, tapering backwards, collar constriction well distinct. Sides of head and metarostrum with very few sensorial pores. Venter of head with few sensorial pores forming two rows below eyes. Venter of metarostrum with two rows of pores reaching base of mesorostrum; no elevated area separating the two rows of pores at middle.

Antennae. Antennae with segments 2-8 slightly longer than broad, subconical, with few long setae; 9 almost 1.5 × longer than 8.

Thorax. Pronotum microreticulate, not punctate. Elytra depressed at base of interstria 5. Apex of elytra extended by one blunt tooth formed mainly by interstria 9. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with one row of weak punctures hardly distinct. Legs with mesocoxae, metacoxae and trochanters bearing setae; femora laterally with shallow longitudinal groove, glabrous except metafemora with hairs below peduncle. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove; sternite VII with few very fine punctures mostly at apex. Vagina not sclerified.

REMARKS

Types of *Brenthus acutipennis* and *Teramocerus obscurus* present the same characters as those of the type of *Arrhenodes opacus* and then they must be considered as conspecific. For this reason, I propose the following new synonymies: *Brenthus acutipennis* Boheman, 1833, n. syn. for *Arrhenodes opacus* Perty, 1832 and *Teramocerus obscurus* Perroud, 1853, n. syn. for *Arrhenodes opacus* Perty, 1832.

Arrhenodes opacus is a species sharing several characters with *Teramocerus janthinus*: mesorostrum and metarostrum of males together are much longer than prorostrum, the scutellum is deeply foveate, the elytra have no hole or deep depression at base at the place of insertion on mesonotum, the apex of elytra has one tooth, the femora are strongly pedunculate, the first metatarsal segment is longer than broad, the penis is tapered at apex with short temones, and the internal sac has one hook-like sclerite. For all these reasons, I consider these two taxa

as congeneric and I propose the following new combination: *Teramocerus opacus* (Perty, 1832) n. comb.

Acratus opacus is similar to *T. janthinus* but may be distinguished by the usually very different coloration pattern. In *T. janthinus*, males have numerous setae under the rostrum reaching the base of prorostrum. Females of *T. janthinus* may be distinguished, apart from pattern of coloration, by a usually smaller apical elytral tooth.

Teramocerus badius
Boheman, 1840 comb. rev.
(Figs 2A-C; 7A-I; 11B-C)

Teramocerus badius Boheman *in* Schoenherr, 1840: 563.

Acratus badius – Schönfeldt 1908: 68; 1910: 42.

Proteramocerus badius – Kleine 1921: 129; 1927b: 54; 1938: 127. — Blackwelder 1947: 774. — Sforzi & Bartolozzi 2004: 582.

Acratus fidelis Kleine, 1927a: 469, **n. syn.**; 1927b: 74; 1938: 170; 1939: 36. — Blackwelder 1947: 776. — Sforzi & Bartolozzi 2004: 565.

TYPE MATERIAL. — *T. badius*: ♂ holotype (Fig. 2A), "Bras." (MLUH) [the description of Boheman matches with a male; in the collection of MLUH, there are two specimens, 1 ♂ and 1 ♀; the female cannot be part of the type-series, the male is then considered as holotype]; *A. fidelis*: ♂ lectotype (Fig. 2B), "Fry, Rio Jano; prép. micro. n°AMNHM00026" (NHM), designated by Sforzi & Bartolozzi (2004); 1 ♂ paralectotype, *idem* lectotype (NHM).

MATERIAL EXAMINED. — **Brazil**. ♂ holotype *T. badius* (MLUH). — ♂ lectotype and ♀ paralectotype *A. fidelis* (NHM); 1 ♂, Minas Gerais, Caraça [20°06'S, 43°29'W], E. Gounelle, XII.1885 (MNHN); 1 ♂ and 2 ♀, Caraça, P. Germain, VII-XII.1884, prép. micro. n°AM00342 (MNHN); 1 ♀, Et. de São Paulo, Ribeirão Pires [23°43'S, 46°25'W], XI.1898, E. Gounelle (MNHN); 1 ♀, Rio de Janeiro [22°55'S, 43°13'W], Mniszech (MNHN).

DISTRIBUTION. — Brazil (East). See map (Fig. 16B).

DESCRIPTION

Males

Measurements. Length of head (rostrum included): 6.1-7.2 mm; length of body (from front margin of pronotum to apex of elytra): 11.3-14.9 mm; width across humeral calli: 1.9-2.5 mm. Brown-red with more or less distinct darker postmedian area on elytra. Habitus: Fig. 2A-B.

Head. Prorostrum much shorter than metarostrum and mesorostrum together (Fig. 7A). Mesorostrum slightly grooved, without paramedian grooves extending backward. Metarostrum subcylindrical, without groove or carina. Eyes much shorter than temples, quite prominent. Head slightly elongate, convex, smooth, barely foveate between eyes, collar constriction slightly marked. Sides of head and metarostrum with very few sensorial pores (Fig. 7B). Venter of metarostrum with quite numerous sensorial pores with setae, more or less aligned on two rows (Fig. 7C). Venter of prorostrum not carinate.

Antennae. Antennae with segments 2-8 similar, longer than broad, broader at apex with some pretty long setae.

Thorax. Pronotum slightly elongate, shallowly grooved (groove vanishing before the apex). Elytra weakly depressed at base of interstria 5; first elytral stria well marked all along, second shallower and not reaching base. Apex of each elytra with one short acute tooth formed by interstriae 9 and 11 (Fig. 7D). Prosternum hardly depressed in front of rather prominent procoxae, without punctation in front of them. Mesothorax with some coarse punctures on sides. Mesanepisternum slightly punctate; mesepimeron not very elongated forwardly, roughly punctated. Metanepisternum with weak unpunctated longitudinal groove. Legs with coxae and trochanters with one or two raised stiff setae; femora elongated, glabrous; tibiae without special character, without calcar on inner side of metatibiae; tarsal segment 1 shorter than 2-3 together; 2 as long as broad; segments 2-3 of all legs impressed above.

Abdomen. Abdomen (Fig. 7E) not very long, hairy on median rear part of sternite III, slightly grooved longitudinally. Tegmen with parameroid lobes slightly elongate and lobate (Fig. 11B). Internal sac with hook-like sclerite, base swollen (Fig. 11B, C); walls of internal sac with numerous small sclerites.

Females

Measurements. Length of head (rostrum included): 4.7-5.8 mm; length of body (from front margin of pronotum to apex of elytra): 10.0-11.8 mm; width across humeral calli: 1.7-2.2 mm. Pattern of coloration as in males. Habitus: Fig. 2C.

Head. Mesorostrum elevated, slightly grooved longitudinally. Metarostrum not carinate at middle or on sides, without paramedian grooves (Fig. 7F). Eyes shorter than temples, weakly prominent. Head not foveate between eyes, collar constriction deep. Sides of head and metarostrum with one or two sensorial pores (Fig. 7G). Venter of head with few sensorial pores. Venter of metarostrum with two rows of sensorial pores hardly reaching mesorostrum; no elevated area separating the two rows of pores at middle (Fig. 7H).

Antennae. Antennae with segments 2-8 slightly longer than broad, subconical, with few long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum microreticulate. Elytra not or hardly depressed at base of interstria 5. Apex of elytra extended by one short tooth formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with large and sometimes confluent punctures. Metanepisternum with row of punctures. Legs with trochanters and coxae bearing one or two raised setae; femora not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

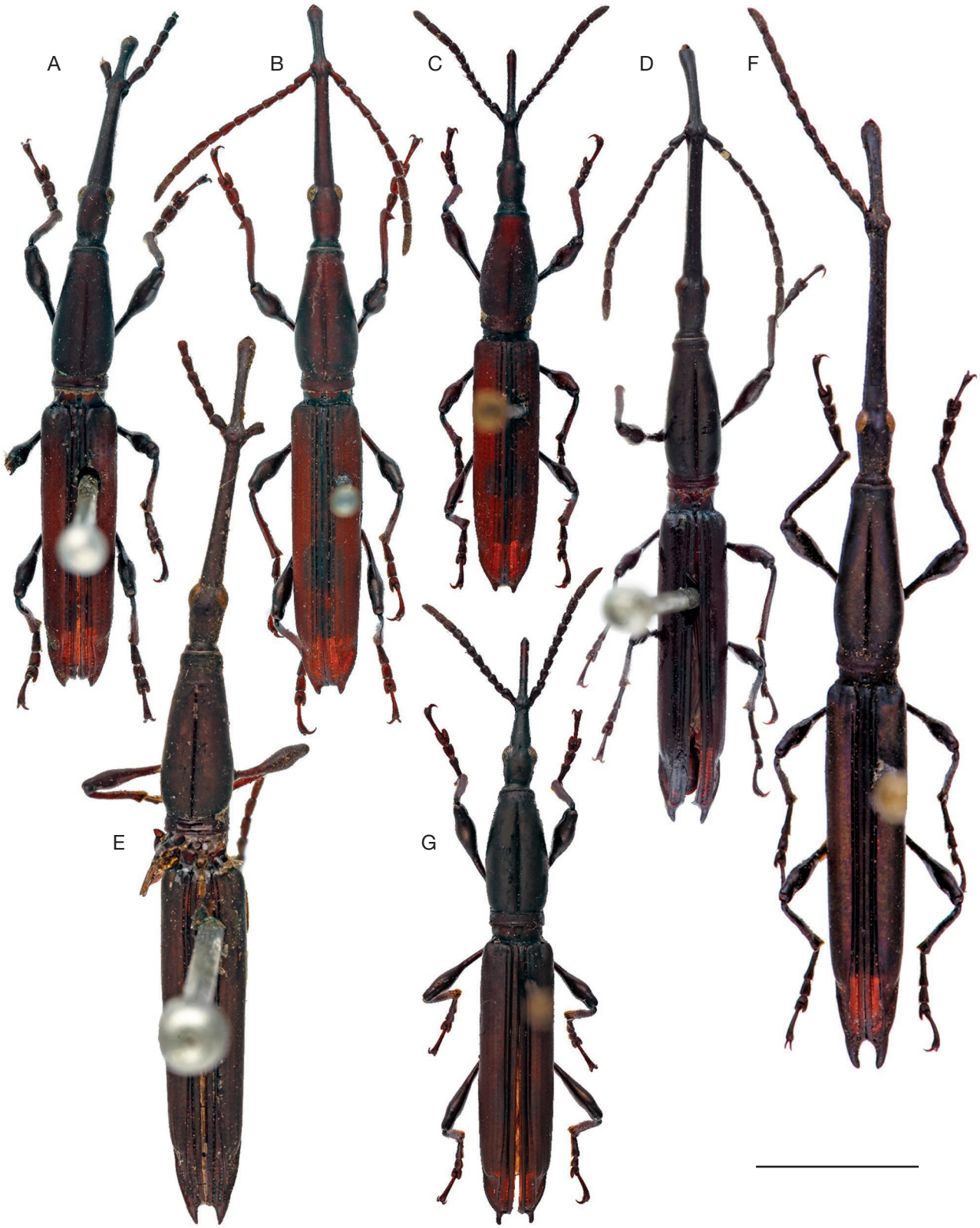

FIG. 2. — **A**-**C**, *Teramocerus badius* Boheman, 1840 comb. rev.: **A**, ♂ holotype; **B**, ♂ lectotype of *Acratus fidelis* Kleine, 1927; **C**, ♀; **D**-**G**, *Teramocerus opacus* (Perty, 1832) n. comb.: **D**, ♂ holotype; **E**, ♂ holotype of *Proteramocerus acutipennis* (Boheman, 1833); **F**, ♂ holotype of *Teramocerus obscurus* Perroud, 1853; **G**, ♀. Scale bar: 5 mm.

Abdomen. Abdomen (Fig. 7I) with sternites III-IV convex, with one or two hardly distinct setae on sternite III, smooth except punctures in front part of sternite III along metacoxae, without groove. Vagina not sclerified.

Remarks

The type of *Acratus fidelis* presents the same characters as those of the type of *Teramocerus badius* comb. rev. and then these two taxa must be considered as conspecific. For this reason, I propose the following new synonymy: *Acratus fidelis* Kleine, 1927, n. syn. for *Teramocerus badius* Boheman, 1840 comb. rev.

Teramocerus suturalis
(Lund, 1800) n. comb.
(Figs 3; 8; 11A)

Brentus suturalis Lund, 1800: 63. — Fabricius 1801: 546. — Olivier 1807: 433.

Brenthus [sic] *suturalis* – Gyllenhal *in* Schoenherr 1833: 354. — Schoenherr 1840: 550.

Acratus suturalis – Lacordaire 1865: 463. — Schönfeldt 1908: 68; 1910: 42. — Kleine 1927b: 74; 1938: 36; 1939: 36. — Blackwelder 1947: 776. — Soares 1970: 241.

Type material. — *Brentus suturalis* was described on one female specimen (Lund, 1800) (Fig. 3A-B): "Type; Essequibo, Smidt, Mus: S & T. L., *Suturalis*, ♀ T. Lund, F.; zmuc 00021676; prép. micro. n°AM-ZMUC 00003; holotype" (ZMUC).

Material examined. — **Brazil**. 1 ♀, Amazone, ex musaeo G. Power (MNHN); 1 ♂, Brésil, ex musaeo G. Power, prép. micro. n°AM00232 (MNHN); 1 ♂ et 1 ♀, Amaz., H. W. Bates (MNHN); 1 ♀, Pará, Óbidos [1°54'S, 55°31'W], M. de Mathan, 2e trimestre 1878, prép. micro. n°AM00219 (MNHN); 1 ♂, Mato Grosso, Cuiabá [15°35'S, 56°05'W], prép. micro. n°AM00228 (MNHN).
Costa Rica. 2 ♂ and 2 ♀, Las Horquetas [10°20'N, 83°57'W], VI.1969, prép. micro. n°AM00336 (MNHN); 1 ♂, Heredia, Est. Biol. La Selva, 10°26'N 84°01'W, 50-150 m, III.1995, coll. Ronald Vargas (CMNC); 1 ♀, *idem*, VII.1992 (CMNC); 2 ♂, Heredia, P. N. Braulio Carillo, Est. Magsasay [10°24'N 84°03'W], 200 m, XII.1990, M. Zumbado & R. Aguilar (CMNC); 1 ♀, Puntarenas, R. B. Carara, Est. Quebrada Bonita [9°50'N 84°58'W], 50 m, V.1994, R. M. Guzman (CMNC).
French Guiana. 1 ♀, Cayenne [4°55'N, 52°20'W], ex musaeo G. Power, prép. micro. n°AM00276 (MNHN); 1 ♀, Réserve du Trésor [4°35'N, 52°18'W], 6.XII.2009, S. Brûlé, P.-H. Dalens & E. Poirier leg. (coll. AM); 1 ♀, Saül [3°37'N, 53°12'W], 20.XII.2010, S. Brûlé, P.-H. Dalens & E. Poirier leg., prép. micro. n°AM00177 (MNHN); 1 ♀, *idem*, 4.I.2011, prép. micro. n°AM00175 (MNHN); 1 ♂, montagne des Chevaux [4°43'N 52°25'W], 17.III.2013, P.-H. Dalens leg. (coll. AM).
Guyana. ♀ holotype (ZMUC).
Trinidad and Tobago. 1 ♂, Morne Bleu, 2700' [10°43'N 61°15'W, 820 m], 6.VIII.1969, H. & A. Howden (CMNC).

Distribution. — Brazil, Costa Rica, French Guiana, Guyana, Trinidad and Tobago. Citations from Costa Rica and Trinidad and Tobago are new country records. The occurrence in Bolivia (Sforzi & Bartolozzi 2004: 569) has not been verified. Probably present at least from Costa Rica to all the Amazonian Basin and Guiana Shield. See map (Fig. 16A).

Description

Males

Measurements. Length of head (rostrum included): 5.3-13.2 mm; length of body (from front margin of pronotum to apex of elytra): 10.5-19.6 mm; width across humeral calli: 1.9-3.1 mm. Body metallic greenish; legs, antennae and prorostrum brown-red; first elytral interstria brown reddish; abdomen with metallic glints. Habitus: Fig. 3C-D.

Head. Prorostrum much shorter than metarostrum and mesorostrum together (Fig. 8A). Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with median carina, hardly carinate on sides. Eyes quite large but shorter than temples. Head smooth, tapering backwards, with weak inter-ocular fovea; collar constriction not well marked. Sides and venter of head with sensorial pores (Fig. 8B-C). Sides of metarostrum smooth, venter with two longitudinal rows of sensorial pores vanishing well before reaching mesorostrum, without median carina or grooves. Venter of meso- and prorostrum smooth.

Antennae. Antennae (Fig. 8D) with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum microreticulate. Elytra not depressed at base of interstria 5 (Fig. 8E). Apex of elytra extended by one large tooth formed mainly by interstriae 9, 10 and 11 (Fig. 8F-G). Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with coxae and trochanters bearing one or two raised setae; femora (Fig. 8I) strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibia (Fig. 8H) with one calcar on inner side, but not very acute. First tarsal segment shorter than 2-3 together; segment 2 as long as broad (Fig. 8I, J).

Abdomen. Abdomen (Fig. 8K) with sternites III-IV, glabrous, smooth except punctures in front part of sternite III along metacoxae, with shallow longitudinal median depression. Tegmen with parameroid lobes rounded at apex with few setae (Fig. 11A). Internal sac with one proximal hook-like sclerite without swollen base, and few longitudinal sclerifications most rearward (Fig. 11A).

Females

Measurements. Length of head (rostrum included): 4.0-7.1 mm; length of body (from front margin of pronotum to apex of elytra): 9.1-18.9 mm; width across humeral calli: 1.8-3.1 mm. Pattern of coloration as in males. Habitus: Fig. 3A, B.

Head. Mesorostrum elevated, slightly grooved longitudinally. Metarostrum with median carina at middle, slightly carinate on sides, without paramedian grooves (Fig. 8L). Eyes longer than temples, quite bulging. Head hardly foveate between

FIG. 3. — **A**-**D**, *Teramocerus suturalis* (Lund, 1800) n. comb.: **A**, **B**, ♀ holotype, dorsal and lateral view; **C**, **D**, ♂, dorsal and lateral view. Scale bar: 5 mm.

eyes, tapering backwards, collar constriction weak. Sides and venter of head with few large sensorial pores (Fig. 8M-N). Sides and venter of metarostrum with large sensorial pores, arranged in two rows below, not reaching mesorostrum; no median elevated area separating both rows of pores.

Antennae. Antennae (Fig. 8O) with segments 2-8 slightly longer than broad, subconical, with few long setae; antennomere 9 1.5 × longer than 8.

Thorax. Pronotum microreticulate. Elytra not depressed at base of interstria 5. Apex of elytra (Fig. 8Q) extended to form one tooth formed mainly from interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax (Fig. 8P) with few punctures on sides; mesanepisternum and mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with trochanters bearing one or two raised setae; femora not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

Abdomen. Abdomen (Fig. 8R) with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove. Vagina not sclerified.

Remarks

The concept of *Acratus suturalis* as understood by previous specialists (Richard Kleine, Benedicto Soares) was erroneous and refers to a completely different species (probably not yet formally described), sharing no characters with *Acratus* [see the key, description and drawings given by Soares (1970)]. Identifications made by these authors in the collections must be carefully verified as all those I checked were not correct.

I examined the female holotype of *Trachelizus helmenreichii* Redtenbacher, 1868 preserved in NMW. This taxon was synonymized with *Acratus suturalis* by Kleine (1927b). Out of the metallic sheen of elytra, the holotype of *T. helmenreichii* shares no synapomorphies with *Teramocerus* and represents clearly a species very distinct of *T. suturalis* n. comb. and I remove it from synonymy. It is morphologically similar to *Nemobrenthus aeneipennis* Sharp, 1895 and it is then transferred to the genus *Nemobrenthus* Sharp, 1895, leading to the following new combination: *Nemobrenthus helmenreichii* (Redtenbacher, 1868) n. comb.

Teramocerus appendiculatus
(Soares & Scivittaro, 1972) n. comb.
(Figs 5A; 13A)

Proteramocerus appendiculatus Soares & Scivittaro, 1972: 1. — Sforzi & Bartolozzi 2004: 582.

Type material. — ♂ holotype (Fig. 5A), "Tabatinga, Amazonas Brasil [4°14'S, 69°56'W], XI.1958, F. M. Oliveira; typus; prép. micro. n°AM-MNRJ 00002" (MNRJ); 1 ♂ and 1 ♀ paratypes, "Benjamin Constant, IX.1955, IV.1957, I. C. Lima" (MNRJ).

Material examined. — **Brazil**. ♂ holotype (MNRJ).

Distribution. — Brazil (Amazonian Basin); only known from the type-series. See map (Fig. 16A).

Description

Males

Measurements. Length of head (rostrum included): 9.9 mm; length of body (from front margin of pronotum to apex of elytra): 14.2 mm; width across humeral calli: 2.1 mm. Dark brown to blackish, head and especially pronotum and even more elytra greenish blue with metallic sheen. Habitus: Fig. 5A.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum grooved, without lateral grooves extending backward. Metarostrum carinate on sides, without median groove but with longitudinal carina along its entire length. Eyes fairly large, shorter than temples. Head elongated, slightly wrinkled on rear part, foveate between eyes. Sides of head and metarostrum with few sensorial pores. Venter of head with two lines of sensorial pores converging forward towards metarostrum. Metarostrum, mesorostrum and base of prorostrum with numerous small sensorial pores with quite long setae, confusingly arranged, without smooth median area. Venter of prorostrum not carinate.

Antennae. Antennae with all segments much longer than broad; antennomeres 1-8 broadening from base to apex, with few fairly long setae; segments 3-8 of similar length, second a little shorter, 8th with many short setae; segments 9-11 with numerous short setae, long setae almost completely missing; segments 9-10 a little longer than 8.

Thorax. Elytra not depressed at base of interstria 5; first elytral stria well marked along entire length, second shallower, not really reaching the base of elytra and forming one row of punctures on rear part; stria 9 well marked in posterior half, wide and punctated at apex, forming indistinct punctures in front. Apex of each elytron with one tooth formed by interstriae 1, 3, 9 and 11 (interstria 3 joining interstria 9). Prosternum not depressed in front of bulging procoxae, with few large pits in front of them. Mesothorax punctated on sides and in front of mesocoxae. Mesanepisternum with coarse punctation; mesepimeron very elongated forward, with one line of coarse, tight, confluent punctation. Metanepisternum with longitudinal line of punctation. Metacoxae with few setae; trochanters with one or two long and stiff yellowish setae; femora elongated, metafemora with stiff reddish setae on underside; apex of metatibia with one calcar on inner side, but not very acute; tarsal segment 1 as long as 2-3 together; 2 longer than wide; segment 1 of metatarsi longitudinally carinate, segment 2 carinate only at apex; segment 5 of mesotarsi setose on the underside.

Abdomen. Abdomen elongate, smooth, with broad longitudinal groove on sternites III-IV and large yellowish setae mainly at apex of sternite III; sternite VII weakly setose. Tegmen with

parameroid lobes elongate, lobate, with quite numerous apical setae (Fig. 13A). Internal sac with one large hook-like sclerite with swollen base (Fig. 13A).

REMARKS
This species is closely allied to *Teramocerus eletus*. Indeed, it shares with it almost all the characters described above. It differs mainly by the segment 8 of antenna with numerous short setae (few short setae in *T. eletus*), the shape of the elytral apex (interstria 3 connected to interstria 9), the metatarsi 2 more weakly carinate, the abdomen with setae and, above all, by the absence of a cluster of small aligned spicules more or less arranged in a bowl, the wall of the internal sac without micro-spicules.

Females
Female unknown to me.

REMARKS
Because of the synonymy of *Proteramocerus* with *Teramocerus*, and because of the characters of male genitalia, *P. appendiculatus* is transferred to *Teramocerus*, leading to the following new combination: *Teramocerus appendiculatus* (Soares & Scivittaro, 1972) n. comb.

Teramocerus eletus Kleine, 1927
(Figs 5B-D; 10A-H; 13B-D)

Teramocerus eletus Kleine, 1927a: 446; 1927b: 508. — Blackwelder 1947: 774. — Sforzi & Bartolozzi 2004: 589.

Proteramocerus aeneus Soares & Dias, 1971: 47, **n. syn.** — Sforzi & Bartolozzi 2004: 582.

Proteramocerus oliveirai Soares & Dias, 1971: 65, **n. syn.** — Sforzi & Bartolozzi 2004: 586.

TYPE MATERIAL. — *Teramocerus eletus*: ♂ holotype (Fig. 5B), Santarem [2°37'S, 54°42'W]; prép. micro. n°AM-NHM00005" (NHM); *Proteramocerus oliveirai*: ♂ holotype (Fig. 5D), "Estirao do Equador [4°32'S, 71°37'W], R. Javari, Amazonas, Brasil, Outubro 1958, F. W. Oliveira; prép. micro. n°AM-MNRJ00010" (MNRJ); 1 ♂ and 1 ♀ paratypes, same data (MNRJ); 1 ♀ paratype, "Manaus [3°04'S, 60°00'W], 1958" (MNRJ); 2 ♂ and 1 ♀ paratypes, "Rio Javari, B. Constant, XI.1962" (MZSP); *Proteramocerus aeneus*: ♂ holotype (Fig. 5C), "Brasil, Traira, Municipio de Obidos [1°53'S, 55°31'W], Estado do Pará, Dirings; prép. micro. n°AM-MZSP00005" (MZSP); 1 ♂ paratype, same data (MZSP).

MATERIAL EXAMINED. — **Brazil**. ♂ holotype *T. eletus*. — ♂ holotype *P. oliveirai*. — ♂ holotype *P. aeneus*; 1 ♂, Amaz., H. W. Bates; prép. micro. n°AM00280" (MNHN); 1 ♂, Brésil, Prov. Matto Grosso, P. Germain 1886, prép. micro. n°AM00236 (MNHN).

DISTRIBUTION. — Brazil (Amazonian Basin). See map (Fig. 16A).

DESCRIPTION
Males
Measurements. Length of head (rostrum included): 9.5-13.2 mm; length of body (from front margin of pronotum to apex of elytra): 17.2-18.2 mm; width across humeral calli: 2.1-2.6 mm. Dark brown to blackish, head but above all pronotum and elytra with bright green to greenish blue metallic glints. Habitus: Fig. 5B-D.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum grooved, without lateral grooves. Metarostrum carinate on sides, without median groove but with longitudinal carina entire length. Eyes quite large, as long as temples. Head longer than broad, foveate between eyes, with weak wrinkles (sometimes missing) behind eyes. Sides of head with few sensorial pores (Fig. 10A). Sides of metarostrum with very sparse pores. Venter of head with two lines of pores converging forward on metarostrum. Metarostrum, mesorostrum and base of prorostrum with numerous small sensorial pores, arranged somewhat in confuse way, with quite long setae, without smooth median area (Fig. 10B). Venter of prorostrum not carinate.

Antennae. Antennal segments (Fig. 10C) much longer than broad; segments 1-8 broader at apex than at base, with few quite long setae; antennomeres 3-8 of same length, 2nd slightly shorter; segments 9-11 with numerous short setae, long setae almost completely missing; segments 9-10 slightly longer than 8; 11 more than 1.5 × longer than 10.

Thorax. Pronotum elongate. Elytra not depressed at base of interstria 5; stria 1 well distinct from base to apex; stria 2 less deep, not reaching exactly the base of elytra and forming one row of punctures at apex; stria 9 well distinct behind, very large and punctate at apex, weakly distinct and in form of punctures at base. Apex of each elytron (Fig. 10D) ending in one large tooth formed by interstriae 1, 9 and 11, interstria 3 not connected to 9. Prosternum not depressed in front of bulging procoxae, with few large punctures in front of them. Mesothorax punctate on sides and in front of mesocoxae. Mesanepisternum with coarse punctations; mesepimeron with line of coarse and very tight, confluent punctations. Metanepisternum with longitudinal line of punctations. Metacoxae with few setae; trochanters bearing one or two raised yellowish setae; femora very long, metafemora with stiff reddish setae on lower side; tibiae without special character, apex of metatibiae with one calcar on inner side, but not very acute; tarsal segment 1 shorter than 2-3 together; segment 2 longer than broad; segment 5 of mesotarsi hairy on lower side (Fig. 10E); metatarsi 1 and 2 (Fig. 10F-G) longitudinally carinate.

Abdomen. Abdomen (Fig. 10H) elongate, glabrous, smooth, with large median groove on sternites III-IV; sternite VII slightly setose. Tegmen with parameroid lobes elongate, slightly truncate at apex, with long and numerous apical setae (Fig. 13B). Internal sac with two types of sclerites: proximally, one large hook-like sclerite with swollen base; more rearward, cluster of small aligned spicules more or less arranged in "ball", wall of internal sac covered with micro-spicules arranged without apparent order (Fig. 13B).

Females
Female unknown to me.

Remarks

Dissections of the male genitalia of the types of *Proteramocerus aeneus* and *P. oliveirai* revealed the typical cluster of spicules, character shared with *Teramocerus eletus*. Moreover, externally, the shape of the apical tooth of elytra and the mesotarsi 5 hairy on lower side confirms the conspecificity of these three taxa. Then I propose the following new synonymies: *Proteramocerus aeneus* Soares & Dias, 1971, n. syn. for *Teramocerus eletus* Kleine, 1927, and *P. oliveirai* Soares & Dias, 1971, n. syn. for *Teramocerus eletus* Kleine, 1927.

Teramocerus zellibori
(Soares & Dias, 1971) n. comb.
(Figs 5E; 10I-K; 13E)

Proteramocerus zellibori Soares & Dias, 1971: 71. — Sforzi & Bartolozzi 2004: 71.

Type material. — ♂ holotype (Fig. 5E), "Rio Parauary [3°51'S, 57°32'W], Amaz., 15.3.37, coll. Zellibor-Hauff; prép. micro. n°AM-MNRJ00011" (MNRJ); 27 ♂ and 10 ♀ paratypes, "Manaus [3°04'S, 60°00'W], XII.1959, C. Elias" (MNRJ); 1 ♂ paratype, "Pinhal, XII.1951, A. Maller" (MNRJ).

Material examined. — **Brazil**. ♂ holotype (MNRJ).

Distribution. — Brazil (Amazonian Basin). See map (Fig. 16A). I was not able to examine any of the paratypes. The occurrence of *T. zellibori* n. comb. in Manaus is highly probable, but the male from Santa Catarina, Pinhal [26°37'S, 49°24'W] is very doubtful, considering the locality data.

Description

Males

The holotype, only specimen known to me, is in poor condition: head and prosternum are completely missing. I give below the description of the remaining part of the body.

Measurements. Length of elytra: 11.2 mm; width across humeral calli: 2.1 mm. Elytra golden green, sutural interstria and legs reddish (Fig. 5E).

Thorax. Elytra hardly depressed at base of interstria 5. Apex of each elytron ending in one large dorso-ventrally flattened and rimmed tooth, formed by interstriae 9 and 11, interstria 3 not connected to 9. Mesothorax punctate on sides; mesanepisternum and mesepimeron with large punctures. Metanepisternum with row of small and shallow punctures hardly distinct. Legs with mesocoxae, metacoxae and trochanters bearing few setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibiae with one short calcar on inner side. First tarsal segment longer than 2-3 together; first metatarsomere strongly elevated, very narrow, carinate (Fig. 10I-J); segment 2 as long as broad.

Abdomen. Abdomen (Fig. 10K) with sternites III-IV glabrous, smooth except punctures in front part of sternite III along metacoxae, without longitudinal median depression; sternite VII with fine setae. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 13E). Internal sac with one proximal hook-like sclerite, swollen at base, walls of the internal sac without small spicules (Fig. 13E).

Females

Female unknown to me.

Remarks

Because of the synonymy of *Proteramocerus* with *Teramocerus*, and because of the characters of male genitalia, *P. zellibori* is transferred to *Teramocerus*, leading to the following new combination: *Teramocerus zellibori* (Soares & Dias, 1971) n. comb.

Teramocerus amazonicus n. sp.
(Figs 4G; 9A-E; 12B)

Holotype. — ♂, "Teffé (Ega) [3°21'S, 64°43'W], Amazones, M. de Mathan, IV^e^ 78 et I^er^ 79; Muséum Paris 1952 coll. R. Oberthür; prép. micro. n°AM00260; *Teramocerus amazonicus* n. sp., A. Mantilleri det. 2014; holotype; MNHN-EC-EC4476". Fig. 4G.

Paratypes. — 1 ♂, Teffé (Ega), Amazones, M. de Mathan, 1^er^ trimestre 1879, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00258, MNHN-EC-EC4477; 3 ♂, Sto Paulo d'Olivença [3°27'S, 68°56'W], Amazones, M. de Mathan, prép. micro. n°AM00253, AM00261, MNHN-EC-EC4478-EC-EC4480; 1 ♂, Amazones, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00277, MNHN-EC-EC4481; 1 ♂, Amazone, Jekel 650, Muséum Paris 1952 coll. R. Oberthür, MNHN-EC-EC4482.

Type locality. — Brazil, Amazonas, Tefé, 3°21'S, 64°43'W.

Distribution. — Brazil (Amazonian Basin). See map (Fig. 16D).

Etymology. — The adjectival specific epithet used to name this new species refers to its distribution in the Amazonian Basin.

Diagnosis (males). — Elytra and pronotum metallic green; antennomeres 3-8 much longer than broad; mesorostrum and metarostrum together more than 1.5 × longer than prorostrum; setae on venter of rostrum not reaching prorostrum; apical tooth of elytra not rimmed, section circular; first metatarsal segment not carinate on upper side; sternites III-IV of abdomen with narrow and deep longitudinal depression.

Description

Males

Measurements. Length of head (rostrum included): 4.9-7.7 mm; length of body (from front margin of pronotum to apex of elytra): 10.0-14.5 mm; width across humeral calli: 1.6-2.3 mm. Elytra metallic green; pronotum metallic but sometimes much less shiny than elytra; head, rostrum, antennae, first elytral interstriae and legs reddish. Habitus: Fig. 4G.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina sometimes missing, not or very weakly carinate on

FIG. 4. — **A**, **B**, *Teramocerus brulei* n. sp.: **A**, ♂ holotype; **B**, ♀ paratype; **C**, **D**, *T. forficula* (Soares & Scivittaro, 1972) n. comb.: **C**, ♂ holotype; **D**, ♀; **E**, **F**, *T. curtirostris* n. sp.: **E**, ♀ paratype; **F**, ♂ holotype; **G**, *T. amazonicus* n. sp.,♂ holotype; **H**, *T. trichosternon* n. sp.,♂ holotype. Scale bar: 5 mm.

sides. Eyes large, prominent, shorter than temples. Head smooth, tapering backwards, with weak inter-ocular fovea sometimes missing; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum almost glabrous and without pores; venter with two longitudinal rows of setae, without median carina or grooves, sensorial pores small, not reaching base of prorostrum. Venter of prorostrum smooth.

Antennae. Antennae (Fig. 9A) with segments 2-8 much longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum more than 2 × longer than broad, not punctate. Elytra hardly depressed at base of interstria 5. Apex of elytra extended by quite massive tooth formed mainly by interstriae 9 and 11, not flattened dorso-ventrally, without outer rim (Fig. 9C). Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum with large punctures; mesepimeron almost smooth. Metanepisternum with row of punctures hardly distinct. Legs with mesocoxae, metacoxae and trochanters setose; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few short thick hairs below at base. Tibiae quite long, hairy on inner side; calcar on inner side at apex of metatibia very short (Fig. 9B). First tarsal segment shorter than 2-3 together; segment 2 hardly longer than broad (Fig. 9D).

Abdomen. Abdomen (Fig. 9E) with sternites III-IV glabrous, smooth, with deep but quite narrow longitudinal median depression. Tegmen with parameroid lobes elongate, rounded at apex, with few setae (Fig. 12B). Penis elongate; internal sac with short proximal hook-like sclerite pointed at apex, elongate, with hole at base allowing insertion of ejaculatory duct; few tiny sclerifications proximally on wall of internal sac and small spicules rearward (Fig. 12B).

Females

I am not able to attribute with certainty any of the female examined to this taxon.

Teramocerus brulei n. sp.
(Figs 4A-B; 9F-J; 12A; 15B-D)

Holotype. — ♂, "Guyane française, montagne des Chevaux, 27.II.2013, S. Brûlé, P.-H. Dalens & E. Poirier leg.; collection A. Mantilleri; prép. micro. n°AM00339; *Teramocerus brulei* n. sp., A. Mantilleri det. 2014; holotype; MNHN-EC-EC4460" (Fig. 4A).

Paratypes. — 2 ♂, *idem* holotype, 18.I.2009, prép. micro. n°AM00172, AM00332, MNHN-EC-EC4462, EC4463; 1 ♂, *idem* holotype, 9.II.2010 (coll. AM); 1 ♀, *idem* holotype, 17.III.2010 (coll. AM); 1 ♂, *idem* holotype, 16.I.2011 (coll. AM); 1 ♀, *idem* holotype, 7.I.2012 (coll. AM); 1 ♂, *idem* holotype, 24.II.2013, MNHN-EC-EC4464; 1 ♀, *idem* holotype, 11.III.2013, prép. micro. n°AM00340, MNHN-EC-EC4461; 2 ♂, *idem* holotype, 11.III.2013 (coll. AM); 1 ♂, *idem* holotype, 24.III.2013, P.-H. Dalens leg. (coll. AM); 1 ♀, *idem* holotype, 31.III.2013, MNHN-EC-EC4465.

Type locality. — French Guiana, montagne des Chevaux, 4°43'N, 52°25'W.

Etymology. — This species is dedicated to Mr. Stéphane Brûlé (*Société entomologique Antilles-Guyane*) who spends a lot of time collecting and sorting out many very interesting Brentidae from French Guiana, and who kindly sends them to me for study.

Distribution. — French Guiana. See map (Fig. 16D).

Diagnosis (males). — Golden green species; setae on venter of rostrum not reaching prorostrum; apical tooth of elytra not rimmed, section circular; first metatarsal segment not carinate on upper side; sternites III-IV of abdomen with large, shallow and glabrous longitudinal depression.

Description

Males

Measurements. Length of head (rostrum included): 3.7-5.4 mm; length of body (from front margin of pronotum to apex of elytra): 8.3-12.0 mm; width across humeral calli: 1.5-2.3 mm. Metallic golden green except rostrum, antennae, first elytral interstria and legs reddish. Habitus: Fig. 4A.

Head. Prorostrum much shorter than metarostrum and mesorostrum together (Fig. 9F). Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, weakly carinate on sides. Eyes large, prominent, slightly longer than temples. Head smooth, hardly tapering backwards, with weak inter-ocular fovea sometimes missing; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum almost glabrous and without pores; venter with two longitudinal rows of small sensorial pores sometimes very hairy, often reaching base of prorostrum, without median carina, grooves or smooth area. Venter of prorostrum smooth.

Antennae. Antennae (Fig. 9G) with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum 2 × longer than broad, not punctate. Elytra not depressed at base of interstria 5. Apex of elytra extended by quite small tooth formed mainly by interstriae 9 and 11, not much dorso-ventrally flattened, without outer rim (Fig. 9H). Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum with deep punctures; mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with mesocoxae, metacoxae and trochanters bearing setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibia with acute calcar on inner side. First tarsal segment longer than broad, shorter than 2-3 together; segment 2 slightly longer than broad (Fig. 9I).

Abdomen. Abdomen (Fig. 9J) with sternites III-IV glabrous, smooth, with quite large longitudinal median depression. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 12A). Internal sac with short proximal hook-like sclerite pointed at the apex, with hole at base allowing insertion of ejaculatory duct; few tiny proximal sclerifications on wall of the internal sac and small spicules rearward (Fig. 12A).

Females

Measurements. Length of head (rostrum included): 3.5-4.3 mm; length of body (from front margin of pronotum to apex of elytra): 8.3-10.9 mm; width across humeral calli: 1.5-2.0 mm. Pattern of coloration as in males. Habitus: Fig. 4B.

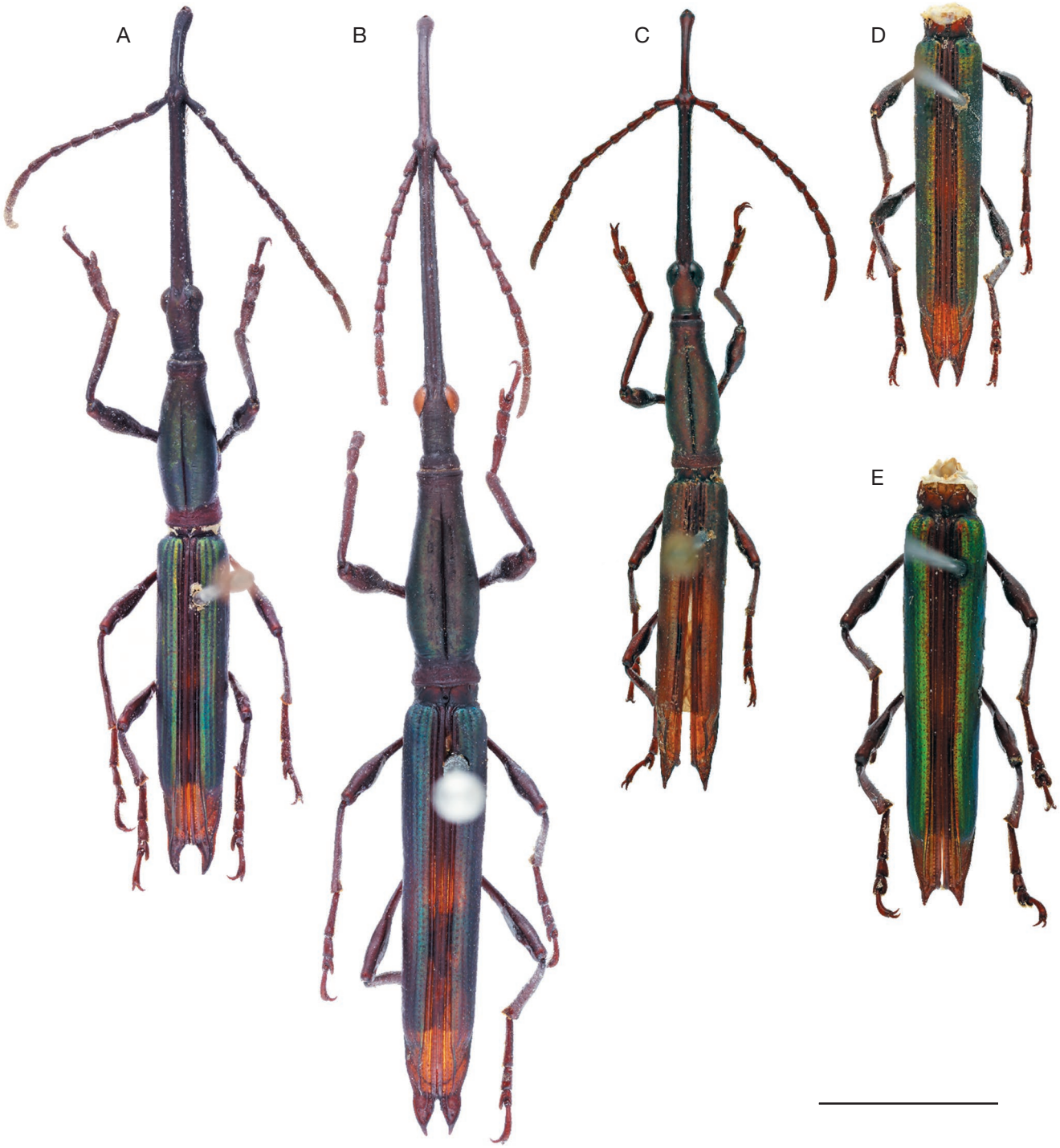

FIG. 5. — **A**, *Teramocerus appendiculatus* (Soares & Scivittaro, 1972) n. comb.,♂ holotype; **B**-**D**, *T. eletus* Kleine, 1927,♂: **B**, holotype of *A. eletus*; **C**, holotype of *Proteramocerus aeneus* Soares & Dias, 1971; **D**, holotype of *P. oliveirai* Soares & Dias, 1971; **E**, *T. zellibori* (Soares & Dias, 1971) n. comb.,♂ holotype. Scale bar: 5 mm.

Head. Mesorostrum elevated, slightly grooved longitudinally. Metarostrum without median carina, not carinate on sides, without paramedian grooves. Eyes longer than temples, quite bulging. Head foveate between eyes, tapering backwards, collar constriction weak. Sides and venter of head with few large sensorial pores. Sides and venter of metarostrum with large sensorial pores, arranged in two rows below, reaching base of mesorostrum; no median elevated area separating both rows of pores.

Antennae. Antennae with segments 2-8 slightly hardly longer than broad, subconical, with few long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum almost 2 × longer than broad, not punctate. Elytra not depressed at base of interstria 5; interstria 3 quite elevated at base. Apex of each elytron extended as one tooth formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of shallow punctures. Legs with mesocoxae, metacoxae and trochanters setose; femora not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove. Tergite VIII: Fig. 15B. Epipleurites VIII: Fig. 15C. Coxites, genital tract and spermatheca: Fig. 15D; vagina not sclerified.

Teramocerus curtirostris n. sp.
(Figs 4E-F; 9K-N; 12D; 15E)

Holotype. — ♂, "Guyane française, montagne des Chevaux, 4.II.2013, S. Brûlé, P.-H. Dalens & E. Poirier leg.; collection A. Mantilleri; *Teramocerus curtirostris* n. sp., A. Mantilleri det. 2014; holotype; MNHN-EC-EC4468". Fig. 4F.

Paratypes. — 1 ♂, *idem* holotype, 6.II.2011, MNHN-EC-EC4469; 1 ♀, *idem* holotype, 13.II.2011, prép. micro. n°AM00173, MNHN-EC-EC4470; 1 ♀, *idem* holotype, 20.II.2011, prép. micro. n°AM00178, MNHN-EC-EC4471; 1 ♂, Cayenne, Montabicourt 30, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00259, MNHN-EC-EC4472; 1 ♂, ex musaeo Desbrochers 1913, Muséum Paris 1952 coll. R. Oberthür, MNHN-EC-EC4473; 1 ♂, Guyane franç., coll. A. Bonhoure 1909, MNHN-EC-EC4474; 1 ♂, Franc. Guyana, Roura, 21.XII.1998-8.I.1999, P. Krásenský leg, prép. micro. n°AM00250, MNHN-EC-EC4475; 1 ♀, *idem* holotype, 18.I.2009 (coll. AM); 1 ♀, *idem* holotype, 1.II.2011 (coll. AM); 1 ♂, *idem* holotype, 13.II.2011 (coll. AM); 1 ♀, *idem* holotype, 20.II.2011 (coll. AM); 1 ♀, *idem* holotype, 28.III.2011 (coll. AM); 1 ♂, *idem* holotype, 4.XII.2011 (coll. AM); 1 ♂, *idem* holotype, 3.I.2013 (coll. AM); 1 ♂, *idem* holotype, 27. I.2013 (coll. AM); 1 ♀, *idem* holotype, 4.II.2013 (coll. AM); 1 ♀, *idem* holotype, 16.II.2013 (coll. AM); 1 ♀, *idem* holotype, 24.II.2013 (coll. AM); 1 ♂, *idem* holotype, 27.II.2013 (coll. AM); 1 ♂ et 2 ♀, *idem* holotype, 11.III.2013 (coll. AM); 1 ♂, *idem* holotype, 24.III.2013 (coll. AM).

Type locality. — French Guiana, montagne des Chevaux, 4°43'N, 52°25'W.

Distribution. — French Guiana. See map (Fig. 16D).

Etymology. — The adjectival specific epithet refers to the short length of metarostrum and mesorostrum of males compared to prorostrum.

Diagnosis (males). — Elytra and pronotum metallic green; antennomeres 3-8 slightly longer than broad; mesorostrum and metarostrum together much less than 1.5 × longer than prorostrum; setae on venter of rostrum not reaching prorostrum; apical tooth of elytra not rimmed, section circular; first metatarsal segment not carinate on upper side; sternites III-IV of abdomen with narrow and deep longitudinal depression.

Description

Males

Measurements. Length of head (rostrum included): 4.0-6.4 mm; length of body (from front margin of pronotum to apex of elytra): 10.5-15.2 mm; width across humeral calli: 1.7-2.6 mm. Elytra metallic green, pronotum and head with metallic sheen; first elytral interstriae often metallic purplish; rostrum, antennae and legs dark. Habitus: Fig. 4F.

Head. Prorostrum slightly shorter than metarostrum and mesorostrum together (Fig. 9K). Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, without median carina, not carinate on sides. Eyes quite large, as long as or slightly longer than temples. Head smooth, hardly tapering backwards, with weak inter-ocular fovea; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum with few pores or pores missing, venter with two longitudinal rows of sensorial pores pubescent, reaching base of metarostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae (Fig. 9L) with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum 2 × longer than broad, not punctate. Elytra not depressed at base of interstria 5; interstria 3 quite elevated at base. Apex of each elytron extended as one conical tooth not dorso-ventrally flattened, formed mainly by interstriae 9 and 11. Prosternum with few shallow punctures in front of bulging procoxae, area in front of procoxae slightly depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with confluent punctures. Metanepisternum with row of hardly distinct punctures. Legs with mesocoxae, metacoxae and trochanters setose; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibia with short calcar on inner side. First tarsal segment shorter than 2-3 together; segment 2 slightly longer than broad (Fig. 9M).

Abdomen. Abdomen (Fig. 9N) with sternites III-IV glabrous, not punctate, with deep longitudinal groove in the median part; sternite VII finely punctate. Tegmen with parameroid lobes rounded at apex, with setae (Fig. 12D). Internal sac with one proximal hook-like sclerite pointed at apex, base enlarged with hole prolonged by a tube, allowing insertion of ejaculatory duct; very numerous tiny sclerifications and spicules on wall of internal sac (Fig. 12D).

Females

Measurements. Length from tip of rostrum to apex of elytra: 13.7-22.3 mm; Length of head (rostrum included): 3.9-5.9 mm; length of body (from front margin of pronotum to apex of elytra): 9.6-16.2 mm; width across humeral calli: 1.7-2.8 mm. Dark metallic green except rostrum, antennae, first elytral interstriae and legs dark brown. Habitus: Fig. 4E.

Head. Mesorostrum elevated, slightly grooved longitudinally. Metarostrum without median carina, not carinate on sides, without paramedian grooves. Eyes longer than temples, quite bulging. Head foveate between the eyes, tapering backwards, collar constriction well distinct. Sides and venter of head with few large sensorial pores. Sides and venter of metarostrum with large sensorial pores, arranged in two rows below, reaching base of mesorostrum; no median elevated area separating both rows of pores.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with few long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum almost 2 × longer than broad, not punctate. Elytra not depressed at base of interstria 5; interstria 3 quite elevated at base. Apex of each elytron extended as one acute tooth formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of shallow punctures. Legs with mesocoxae, metacoxae and trochanters bearing setae; femora not or slightly depressed laterally at base, glabrous except metafemora with stiff hairs below at base. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 as long as broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove. Coxites, genital tract and spermatheca: Fig. 15E; vagina with transverse sclerifications.

Teramocerus forficula
(Soares & Scivittaro, 1972) n. comb.
(Figs 4C-D; 9Q-V; 12E; 15A)

Proteramocerus forficula Soares & Scivittaro, 1972a: 3. — Sforzi & Bartolozzi 2004: 585.

Type material. — ♂ holotype (Fig. 4C), "Tabatinga [4°14'S, 69°56'W], Amazonas, Brasil, Nov. 1958, F. M. Oliveira; prép. micro. n°AM-MNRJ00004" (MNRJ); 1 ♀ paratype, same data (MNRJ); 2 ♂ and 4 ♀ paratypes, "Rio Javari, B. Constant" (MZSP); 1 ♀ paratype, "Obidos, XII.1961, Diringshofen" (MZSP); 1 ♂ paratype, "Fazenda Taperinha, prox. Santarém, 29.XII.1967-9.I.1968" (MZSP).

Material examined. — **Brazil**. ♂ holotype (MNRJ); 3 ♂ and 1 ♀, Amaz., *H. W. Bates*, prép. micro. n°AM00235, AM00241, AM00263 (MNHN); 1 ♂, Jatahy [17°53'S, 51°43'W], État de Goyaz, Ch. Pujol, 1895-96, prép. micro. n°AM00234 (MNHN); 1 ♂, Jatahy (MNHN); 1 ♂, Amazones, Fonteboa [2°31'S, 66°06'W], Dr Hahnel (MNHN); 1 ♀, Teffé [3°21'S, 64°43'W], Amazonas, M. de Mathan, 1.I-31.III.1879, prép. micro. n°AM00273 (MNHN); 1 ♂, Amazonas, Manaus, 1 km W Taruma Falls [3°04'S, 60°00'W], 11.I.1981, 100 m, G. Ekis, primary forest, on bark (MPEG).
Peru. 1 ♀, Pérou, Huambo [9°39'S, 74°56'W], M. de Mathan; prép. micro. n°AM00269 (MNHN).

Distribution. — Brazil, Peru. See map (Fig. 16B).

Description
Males
Measurements. Length of head (rostrum included): 4.0-10.7 mm; length of body (from front margin of pronotum to apex of elytra): 7.8-17.8 mm; width across humeral calli: 1.4-3.1 mm. Head, pronotum and elytra with green metallic glints; rostrum, antennae and legs reddish. Habitus: Fig. 4C.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum grooved, without lateral grooves. Metarostrum carinate on sides, without median groove but with longitudinal carina on all length. Eyes quite large, as long as or longer than temples. Head longer than broad, not or hardly foveate between eyes, tapering backward. Sides of head and metarostrum with sensorial pores. Venter of head with numerous sensorial pores. Metarostrum, mesorostrum and base of prorostrum with numerous small sensorial pores, arranged somewhat in a confuse way, with quite long setae, without smooth median area. Venter of prorostrum not carinate.

Antennae. Antennae with segments much longer than broad, becoming longer from base to apex of antennae; segments 9-11 with numerous short setae, long setae almost completely missing; segments 9-10 slightly longer than 8.

Thorax. Pronotum elongate, smooth. Elytra hardly depressed at base of interstria 5; stria 1 well distinct from base to apex; stria 2 less deep, not reaching exactly base of elytra and forming row of punctures at apex; stria 9 well distinct behind, very large and punctate at apex, weakly distinct and in form of punctures at base. Apex of each elytron as one tooth often very acute, formed by interstriae 9 and 11 (Fig. 9T), interstria 3 sometimes connected to 9 (Fig. 9S). Prosternum not depressed in front of bulging procoxae, with few large punctures in front of them. Mesothorax punctate on sides and in front of mesocoxae. Mesanepisternum with coarse punctations; mesepimeron with few large punctations. Metanepisternum with longitudinal line of shallow punctations. Legs with meso- and metacoxae with small tuft of setae, trochanters with one or two raised yellowish setae; femora very long, metafemora with stiff reddish setae on venter side; apex of metatibia with one quite acute calcar on inner side (Fig. 9U); first tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen (Fig. 9V) elongate, smooth, with a median groove on sternites III-IV and few yellowish setae. Tegmen with parameroid lobes elongate, quite rounded at apex, with few apical setae (Fig. 12E). Internal sac with two types of sclerites: proximally, one large hook-like sclerite with swollen base; more rearward, two clusters of small spicules arranged without order, most proximal one with smallest spicules (Fig. 12E).

Description
Females
Measurements. Length of head (rostrum included): 4.6-6.5 mm; length of body (from front margin of pronotum to

apex of elytra): 10.4-15.9 mm; width across humeral calli: 1.9-2.7 mm. Pattern of coloration as in males. Habitus: Fig. 4D.

Mesorostrum. Mesorostrum elevated, slightly grooved longitudinally. Metarostrum slightly elevated at middle, not carinate on sides, without paramedian grooves. Eyes longer than temples, quite bulging. Head foveate between eyes, tapering backwards, collar constriction well distinct (Fig. 4Q). Sides and venter of head with large sensorial pores. Sides and venter of metarostrum with large sensorial pores, arranged in two rows below, reaching mesorostrum; smooth but not elevated median area separating both rows of pores.

Antennae. Antennae (Fig. 4R) with segments 2-8 slightly longer than broad, subconical, with few long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum 2 × longer than broad, microreticulate, not punctate. Elytra weakly depressed at base of interstria 5. Apex of each elytron extended as one very acute tooth formed mainly by interstria 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum with large punctures; mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with trochanters bearing one or two raised seta; femora not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 slightly longer than broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove. Spermatheca and coxites: Fig. 15A; vagina sclerified.

Remarks

Because of the synonymy of *Proteramocerus* with *Teramocerus*, and because of the characters of male genitalia, *P. forficula* is transferred to *Teramocerus*, leading to the following new combination: *Teramocerus forficula* (Soares & Scivittaro, 1972) n. comb.

Teramocerus trichosternon n. sp.
(Figs 4H; 9O-P; 12C)

Holotype. — ♂, "Sto Paulo d'Olivença [3°27'S, 68°56'W], Amazones, M. de Mathan; Muséum Paris, 1952, coll. R. Oberthür; prép. micro. n°AM00337; *Teramocerus trichosternon* n. sp., A. Mantilleri det. 2014; holotype; MNHN-EC-EC4466". Fig. 4H.

Paratype. — 1 ♂, "Brésil, prov. Mato Grosso, P. Germain 1886; Muséum Paris, 1952, coll. R. Oberthür; MNHN-EC-EC4467".

Type locality. — Brazil, Amazonas, São Paulo de Olivença, 3°27'S, 68°56'W.

Distribution. — Brazil (Amazonian Basin). See map (Fig. 16D).

Etymology. — The specific epithet derives from the strongly hairy sternites III-IV of abdomen.

Diagnosis (males). — Dark metallic species; setae on venter of rostrum not reaching prorostrum; apical tooth of elytra not rimmed, section circular; first metatarsal segment not carinate on upper side; sternites III-IV of abdomen with large, shallow and strongly pubescent longitudinal depression.

Description

Males

Measurements. Length of head (rostrum included): 3.9-4.1 mm; length of body (from front margin of pronotum to apex of elytra): 8.9-9.1 mm; width across humeral calli: 1.5-1.6 mm. Elytra metallic green, pronotum and head metallic green (paratype) or not metallic (holotype); rostrum, antennae, legs and elytral sutura reddish. Fig. 4H.

Head. Prorostrum slightly shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, without median carina, not carinate on sides. Eyes quite large, longer than temples. Head smooth, hardly tapering backwards, with weak interocular fovea; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum with few pores, venter with two longitudinal rows of sensorial pores weakly pubescent, reaching base of metarostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 short, slightly longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum 2 × longer than broad, not punctate. Elytra not depressed at the base of interstria 5; interstria 3 quite elevated at base. Apex of each elytron as one conical tooth not dorso-ventrally flattened, formed mainly by interstria 9 and 11. Prosternum with few shallow punctures in front of bulging procoxae, area in front of procoxae slightly depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with confluent punctures. Metanepisternum with row of hardly distinct punctures. Legs with mesocoxae, metacoxae and trochanters setose; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with hairs below at base. Tibiae quite long, hairy on inner side; calcar on inner side at apex of metatibia quite acute. First tarsal segment shorter than 2-3 together (Fig. 9O); segment 2 slightly longer than broad.

Abdomen. Abdomen (Fig. 9P) with sternites III-IV longitudinally depressed along midline, depression not very deep; sternite III strongly hairy in depression; sternite VII with very fine punctures. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 12C). Internal sac with one proximal hook-like sclerite acute at apex, enlarged and with hole at base, allowing insertion of ejaculatory duct; few tiny sclerifications proximally on wall of internal sac, and small spicules rearward (Fig. 12C).

Females

Females unknown.

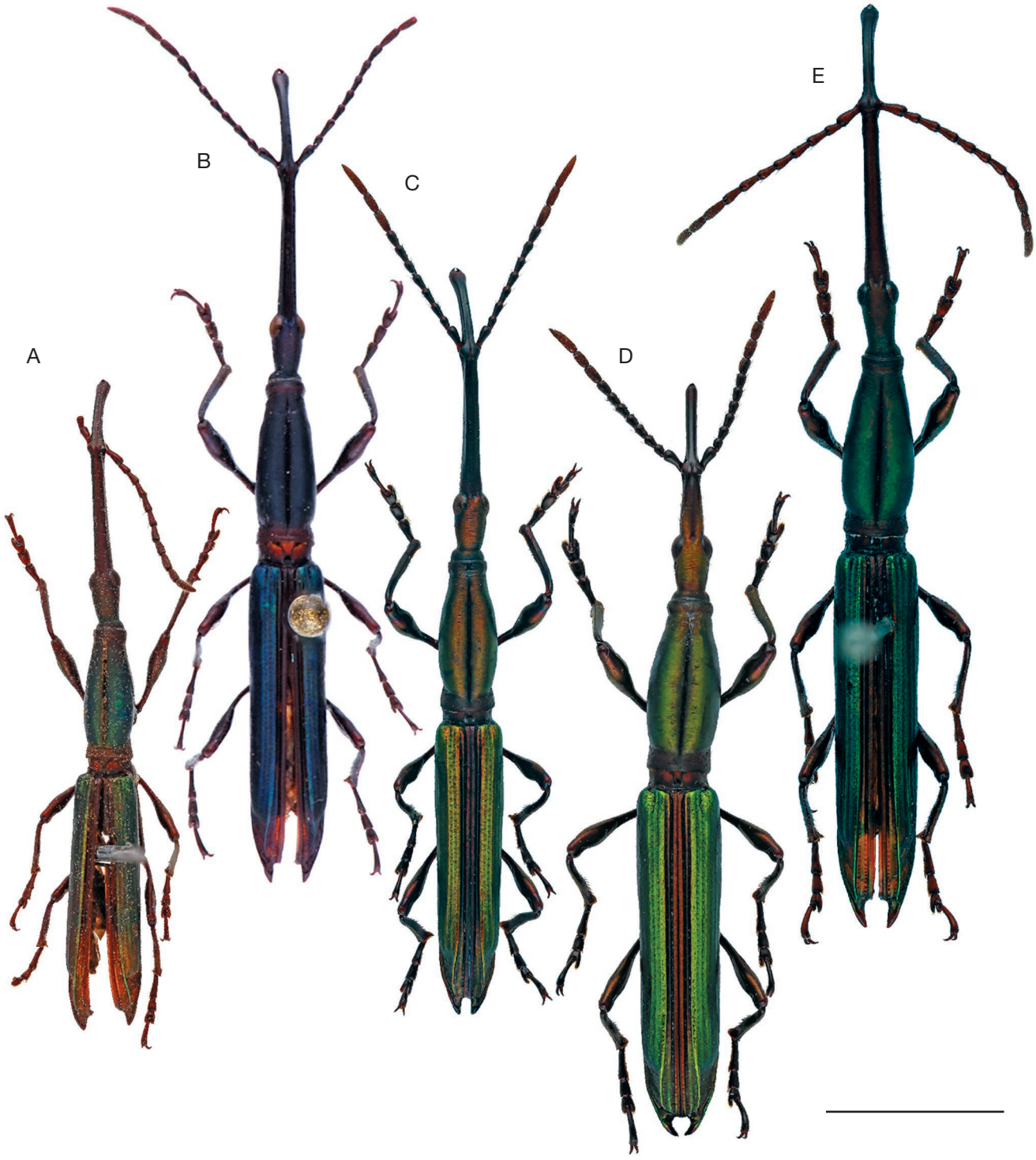

FIG. 6. — **A**, *Teramocerus pulcher* (Soares & Dias, 1971) n. comb.,♂ paratype; **B-D**, *T. pulchellus* Perroud, 1853: **B**, ♂ holotype; **C**, ♂; **D**, ♀; **E**, *T. pulchriformis* n. sp.,♂ holotype. Scale bar: 5 mm.

Teramocerus pulchellus Perroud, 1853
(Figs 6B-D; 10L-O; 14A)

Teramocerus pulchellus Perroud, 1853: 450. — Schönfeldt 1908: 70. — Blackwelder 1947: 774. — Sforzi & Bartolozzi 2004: 590.

TYPE MATERIAL. — ♂ holotype (Fig. 6B), "*pulchellus* Perroud, Cayenne [4°55'N 52°20'W]; nova species; type; ex coll. B. P. Perroud; Muséum Paris, 1958, coll. M. Pic; prép. micro. n°AM00167; MNHN-EC-EC2825" (MNHN).

MATERIAL EXAMINED. — **French Guiana**. ♂ holotype *T. pulchellus* (MNHN); 1 ♂, coll. C. Bar, prép. micro. n°AM00330 (MNHN); 1 ♀, montagne des Chevaux [4°43'N 52°25'W], 8.II.2009, S. Brûlé, P.-H. Dalens & E. Poirier leg. (coll. AM); 1 ♂, *idem*, 15.II.2009, prép. micro. n°AM00168 (MNHN); 1 ♀, *idem*, 25.I.2009 (coll. AM); 1 ♀, *idem*,

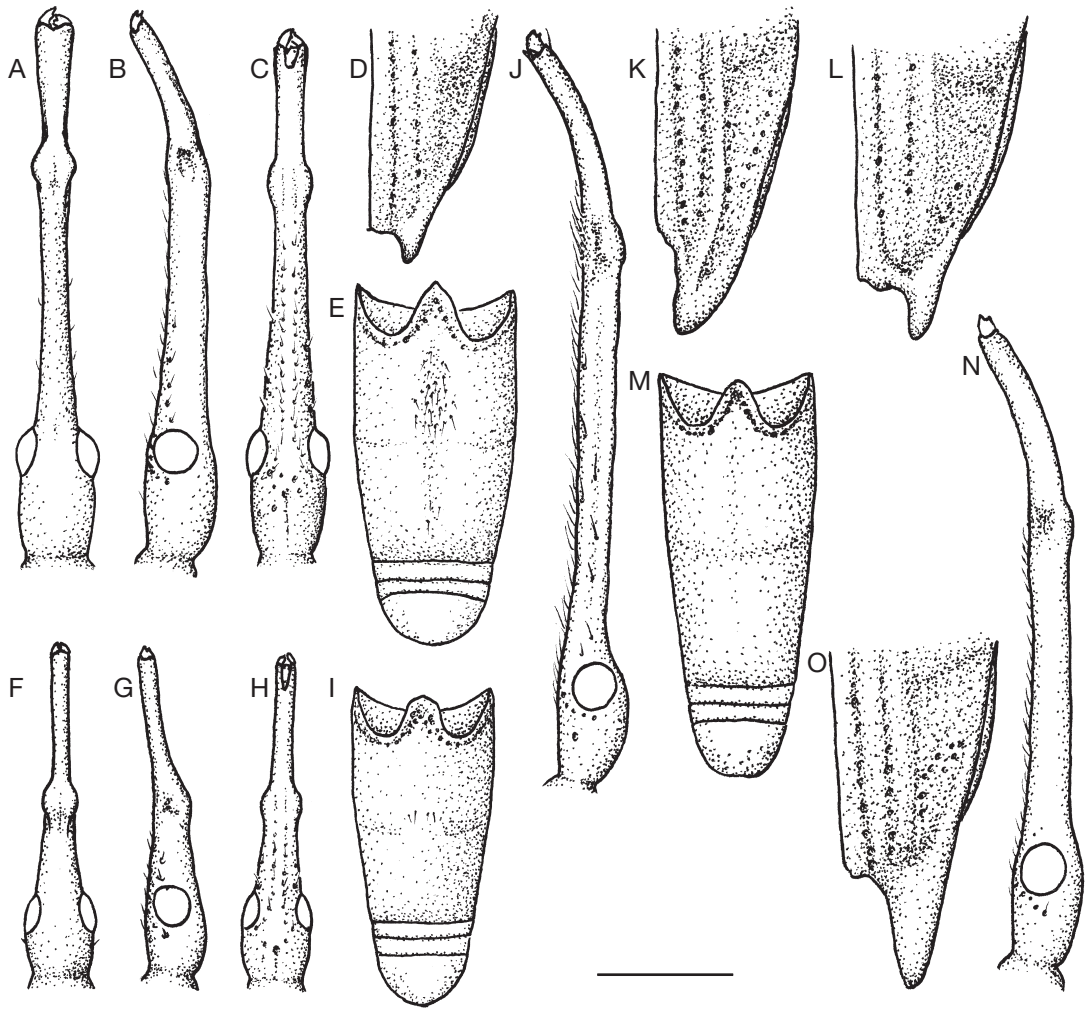

FIG. 7. — **A-I**, *Teramocerus badius* Boheman, 1840 comb. rev.; **A-E**,♂: **A**, head, dorsal side; **B**, head, lateral view of left side; **C**, head, venter side; **D**, apex of right elytra, dorsal side; **E**, abdomen; **F-I**,♀: **F**, head, dorsal side; **G**, head, lateral view of left side; **H**, head, venter side; **I**, abdomen; **J-M**, *T. janthinus* Boheman, 1840: **J**, ♂, head, lateral view of left side; **K**, ♂, apex of right elytra, dorsal side; **L**, ♀, apex of right elytra, dorsal side; **M**, ♂, abdomen; **N-O**, *T. opacus* (Perty, 1832) n. comb.,♂: **N**, head, lateral view of left side; **O**, apex of right elytra, dorsal side. Scale bar: A-C, E-J, M, N, 2 mm; D, K, L, O, 1 mm.

19.II.2009 (coll. AM); 2 ♀, *idem*, 23.II.2009, prép. micro. n°AM00169 and AM00171 (MNHN); 1 ♂ and 1 ♀, *idem*, 19.XII.2009 (coll. AM); 1 ♂ and 1 ♀, *idem*, 28.XII.2009 (coll. AM); 3 ♂, *idem*, 9.I.2010, prép. micro. n°AM00170 (MNHN, coll. AM); 2 ♀, *idem*, 3.I.2010 (coll. AM); 1 ♀, *idem*, 24.I.2010 (coll. AM); 1 ♂, *idem*, 19.XII.2010 (coll. AM); 1 ♂, *idem*, 7.II.2011 (coll. AM); 1 ♂ and 1 ♀, *idem*, 4.XII.2011 (coll. AM); 1 ♀, *idem*, 24.XII.2011 (coll. AM); 1 ♀, *idem*, 31.XII.2011 (coll. AM); 1 ♂ and 1 ♀, *idem*, 7.I.2012 (coll. AM); 2 ♀, *idem*, 14.I.2012 (coll. AM); 1 ♂ and 2 ♀, *idem*, 22.I.2012 (coll. AM); 2 ♀, *idem*, 5.II.2012 (coll. AM); 1 ♀, *idem*, 19.II.2012 (coll. AM); 1 ♀, *idem*, 3.I.2013 (coll. AM); 1 ♂, *idem*, 24.III.2013 (coll. AM); 1 ♂, réserve des Nouragues [4°04'N, 52°44'W], 19.II.2009, S. Brûlé, P.-H. Dalens & E. Poirier leg. (MNHN); 1 ♀, *idem*, 5.II.2010 (coll. AM).

DISTRIBUTION. — French Guiana. The occurrence in Brazil (Sforzi & Bartolozzi 2004: 590) has not been verified. See map (Fig. 16C).

DESCRIPTION

Males

Measurements. Length of head (rostrum included): 4.4-10.2 mm; length of body (from front margin of pronotum to apex of elytra): 7.5-16.3 mm; width across humeral calli: 1.4-2.4 mm. Metallic green except rostrum, base of pronotum and elytral sutura; legs and antennae dark, last segments of antennae often brownish in fresh specimens; elytral sutura dark brownish to metallic violet. Habitus: Fig. 6B,C.

Head. Prorostrum much shorter than metarostrum and mesorostrum together (Fig. 10L). Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, carinate on sides. Eyes quite large but shorter than temples. Head smooth, tapering backwards, with interocular fovea; collar constriction well marked. Sides of head with few pores (Fig. 10M); venter with two rows of pores below eyes. Sides of metarostrum smooth, venter with two longitudinal rows of small sensorial pores weakly pubescent, reaching base of mesorostrum or prorostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

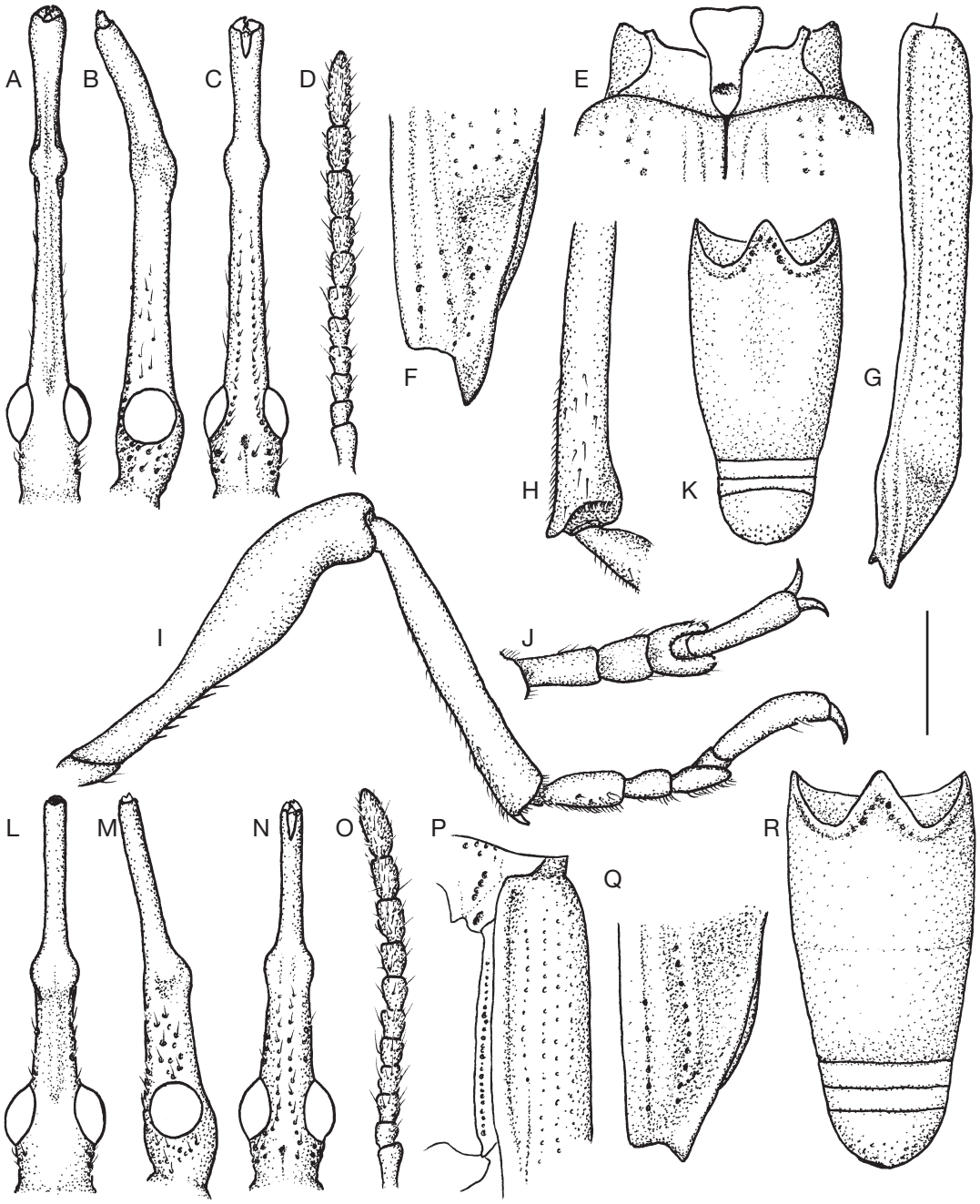

FIG. 8. — *Teramocerus suturalis* (Lund, 1800) n. comb., morphological details: **A**-**K**,♂; **A**, head, dorsal side; **B**, head, lateral view of left side; **C**, head, venter side; **D**, left antenna; **E**, base of elytra with scutellum; **F**, apex of right elytra, dorsal side; **G**, left elytra, lateral view; **H**, apex of metatibia; **I**, left posterior leg, lateral view; **J**, metatarsi, upper side; **K**, abdomen; **L**-**R**,♀; **L**, head, dorsal side; **M**, head, lateral view of left side; **N**, head, venter side; **O**, left antenna; **P**, base of elytra, meso- and metathorax, lateral view of left side; **Q**, apex of right elytra, dorsal side; **R**, abdomen. Scale bar: A-D, G, K-O, R, 2 mm; E, F, H-J, P-Q, 1 mm.

Thorax. Pronotum more than 2 × longer than broad, not punctate. Elytra depressed at base of interstria 5. Apex of each elytron as one large dorso-ventrally flattened and rimmed tooth (Fig. 10O), formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with meso- and metacoxae bearing few setae; trochanters with one or two setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; calcar on inner side at apex of metatibiae quite acute. First tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen (Fig. 10K) with sternites III with very thin hair, IV glabrous; sternites III-IV smooth, with not very

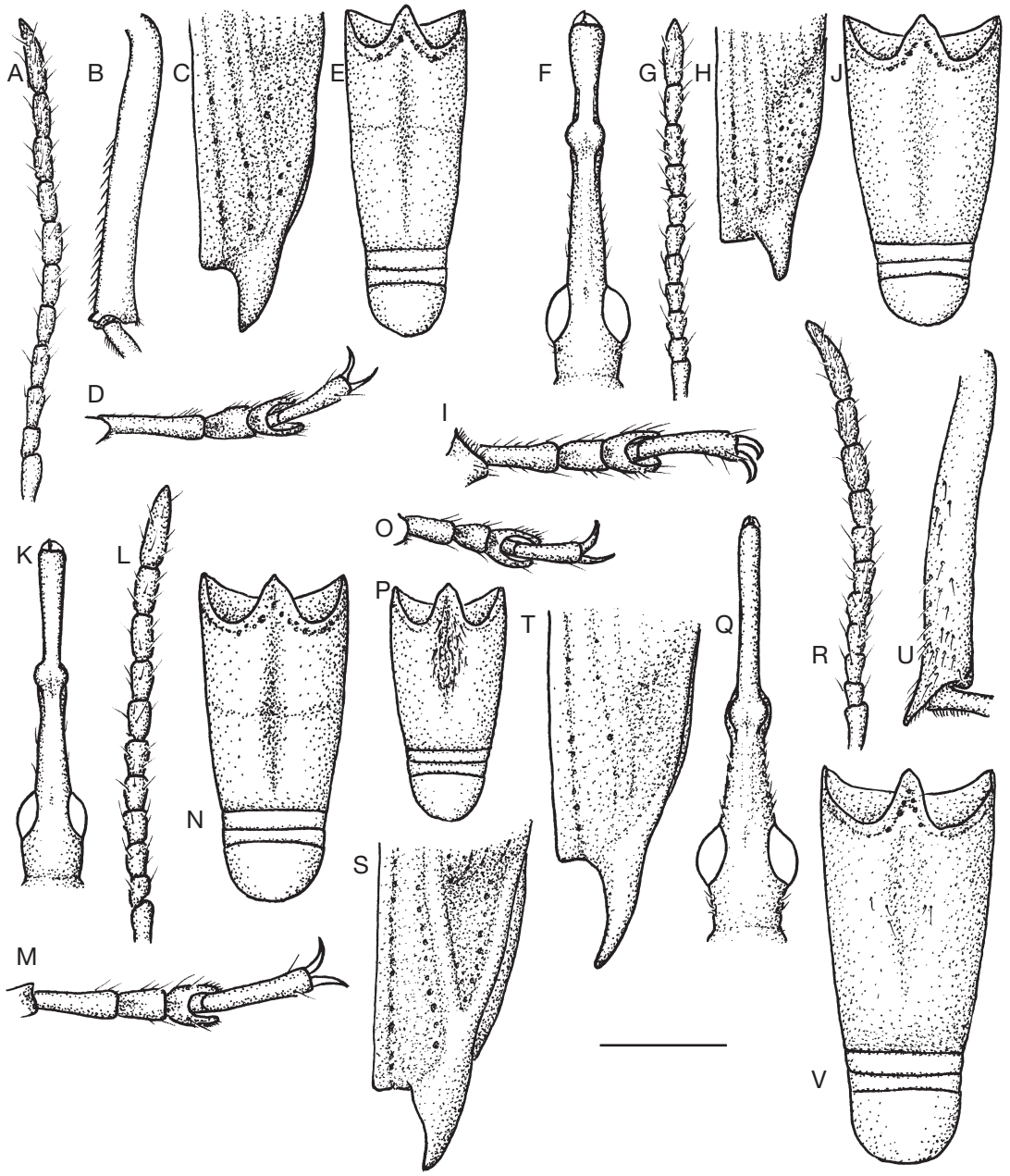

Fig. 9. — **A-E**, *Teramocerus amazonicus* n. sp.,♂: **A**, left antenna; **B**, apex of metatibia; **C**, apex of right elytra, dorsal side; **D**, metatarsi, upper side; **E**, abdomen; **F-J**, *T. brulei* n. sp.,♂: **F**, head, dorsal side; **G**, left antenna; **H**, apex of right elytra, dorsal side; **I**, metatarsi, upper side; **J**, abdomen; **K-N**, *T. curtirostris* n. sp.,♂: **K**, head, dorsal side; **L**, left antenna; **M**, metatarsi, upper side; **N**, abdomen; **O-P**, *T. trichosternon* n. sp.,♂: **O**, metatarsi, upper side; **P**, abdomen; **Q-V**, *T. forficula* n. comb.; **Q**, ♀, head, dorsal side; **R**, ♀, left antenna; **S-T**,♂, apex of right elytra, dorsal side; **U**, ♂, apex of metatibia; **V**, ♂, abdomen. Scale bar: A-C, F-G, J-L, N, P-R, V, 2 mm; D-E, H, I, M, O, S-U, 1 mm.

deep longitudinal median depression. Sternites VIII and IX: Fig. 14A. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 14A). Internal sac with one proximal hook-like sclerite truncate at apex, and most rearward with few spicules (Fig. 14A).

Females

Measurements. Length from tip of rostrum to apex of elytra: 11.0-22.2 mm; Length of head (rostrum included): 3.5-5.9 mm; length of body (from front margin of pronotum to apex of elytra): 8.4-16.2 mm; width across humeral calli: 14.7-24.4 mm. Pattern of coloration as in males. Habitus: Fig. 6D.

Head. Mesorostrum weakly elevated, hardly grooved longitudinally. Metarostrum with weak longitudinal elevation at middle, not carinate on sides, without paramedian grooves. Eyes as long as temples, quite bulging. Head weakly foveate between eyes, tapering backwards, collar constriction well distinct. Sides of head and metarostrum with sensorial pores. Venter of head with few sensorial pores forming two rows below eyes. Venter of metarostrum with two rows of pores

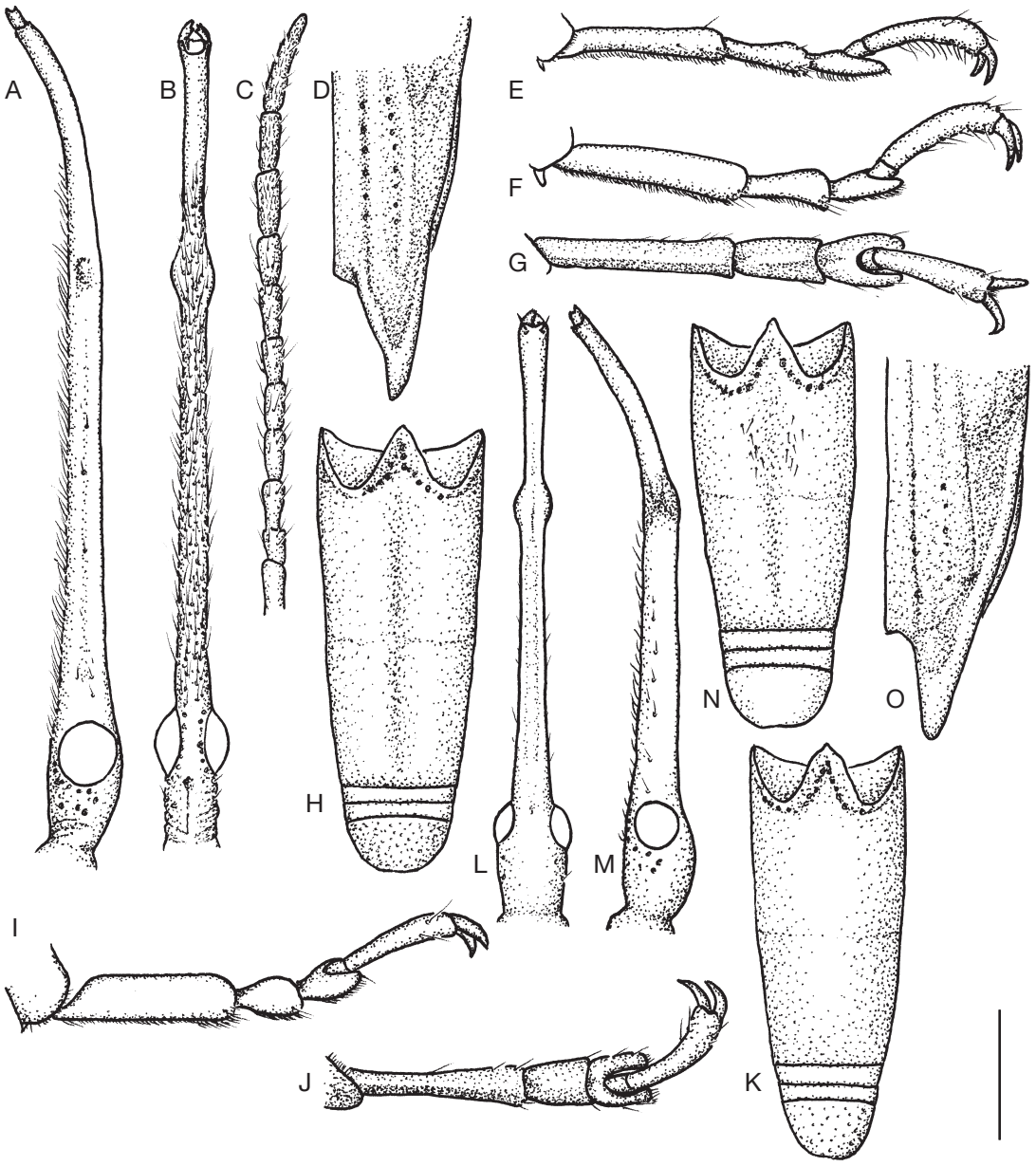

FIG. 10. — **A-H**, *Teramocerus eletus* Kleine, 1927,♂: **A**, head, lateral view of left side; **B**, head, venter side; **C**, left antenna; **D**, apex of right elytra, dorsal side; **E**, mesotarsi, lateral view; **F**, metatarsi, lateral view; **G**, metatarsi, upper side; **H**, abdomen; **I-K**, *T. zellibori* (Soares & Dias, 1971) n. comb.,♂: **I**, metatarsi, lateral view; **J**, metatarsi, upper side; **K**, abdomen; **L-O**, *T. pulchellus* Perroud, 1853,♂: **L**, head, dorsal side; **M**, head, lateral view of left side; **N**, abdomen; **O**, apex of right elytra, dorsal side. Scale bar: A-C, H, K-N, 2 mm; D-G, I-J, O, 1 mm.

reaching base of mesorostrum; no median elevated area separating both rows of pores.

Antennae. Antennae with segments 2-8 slightly longer than broad, subconical, with few quite short setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum more than 2 × longer than broad, not punctate. Elytra depressed at base of interstria 5. Apex of each elytron as one tooth often slightly dorso-ventrally flattened, rimmed, formed mainly by interstriae 9 and 11. Prosternum with few punctures in front of bulging procoxae, area in front of procoxae slightly depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of shallow punctures. Legs with meso- and metacoxae bearing few setae; trochanters with one or two setae; femora laterally with shallow longitudinal groove, glabrous except metafemora with hairs below peduncle. Tibiae quite long, hairy on inner side. First tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen with sternites III-IV convex, glabrous, smooth except punctures in front part of sternite III along metacoxae, without groove. Vagina not sclerified.

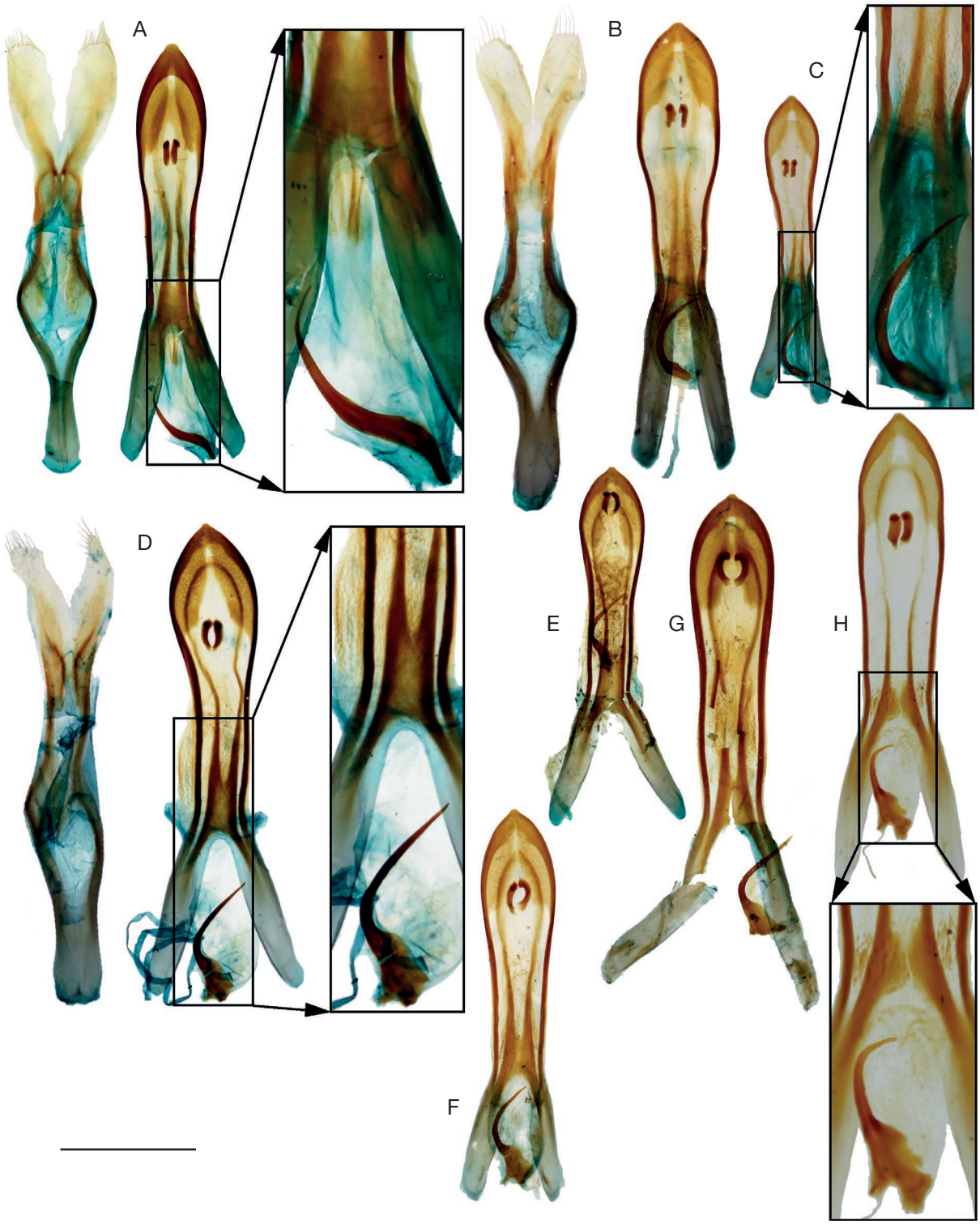

FIG. 11. — *Teramocerus* spp.,♂, genitalia: **A**, *T. suturalis* (Lund, 1800) n. comb. (tegmen and penis); **B**, **C**, *Teramocerus badius* Boheman, 1840 comb. rev.: **B**, holotype (tegmen and penis); **C**, *Acratus fidelis* Kleine, 1927, lectotype (penis), **D**-**G**, *T. janthinus* Boheman, 1840: **D**, tegmen and penis; **E**, *Proteramocerus villens* Soares & Dias, 1971, paratype (penis); **F**, *P. eminens* Kleine, 1927, holotype (penis); **G**, *P. emendatus* Kleine, 1927, holotype (penis); **H**, *T. opacus* (Perty, 1832) n. comb., penis of the holotype of *T. obscurus* Perroud, 1853. Scale bar: 1 mm.

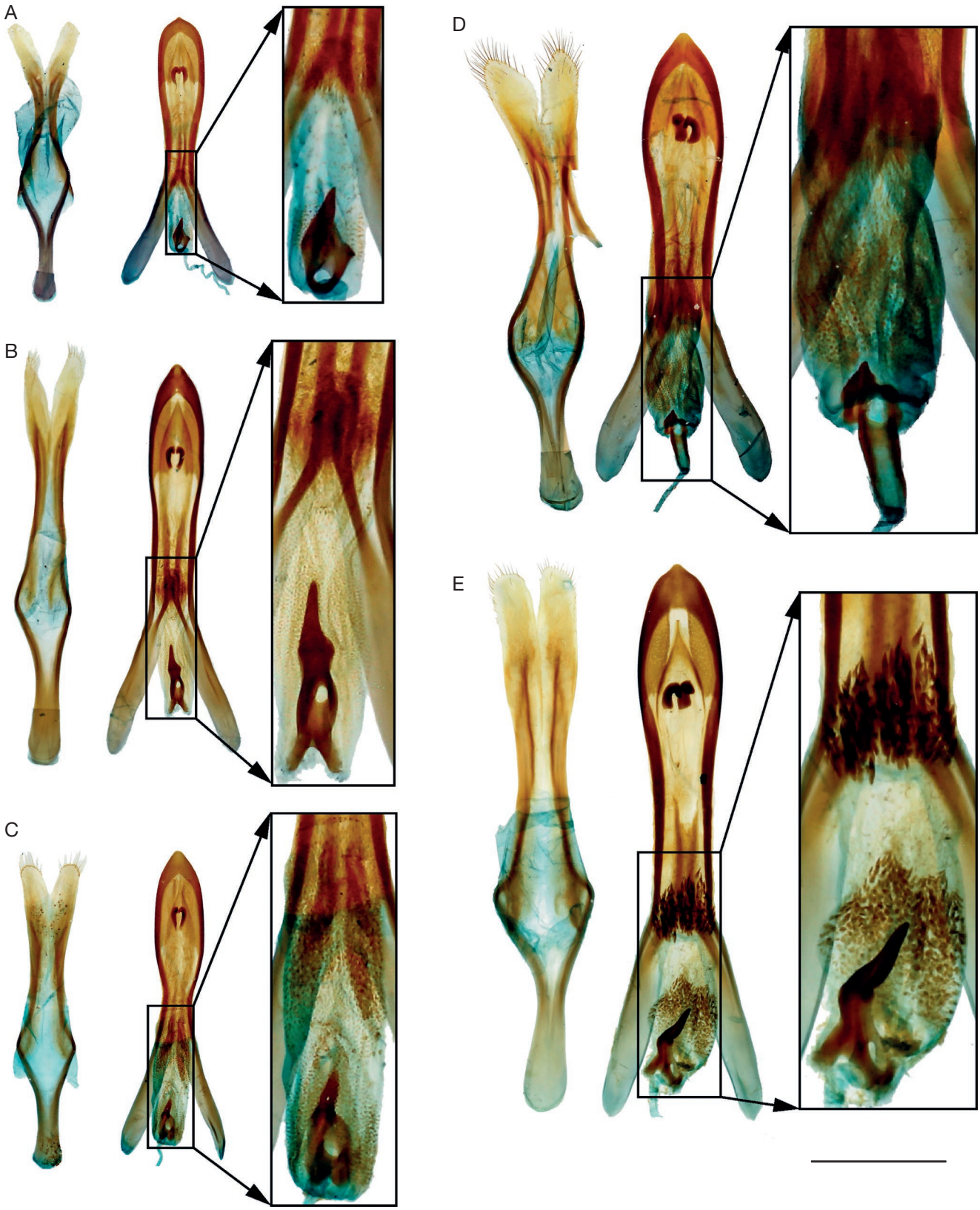

Fig. 12. — *Teramocerus* spp.,♂, genitalia; **A**, *T. brulei* n. sp., holotype (tegmen and penis); **B**, *T. amazonicus* n. sp., holotype (tegmen and penis); **C**, *T. trichosternon* n. sp., holotype (tegmen and penis); **D**, *T. curtirostris* n. sp., paratype (tegmen and penis); **E**, *T. forficula* (Soares & Scivittaro, 1972) n. comb. (tegmen and penis). Scale bar: 1 mm.

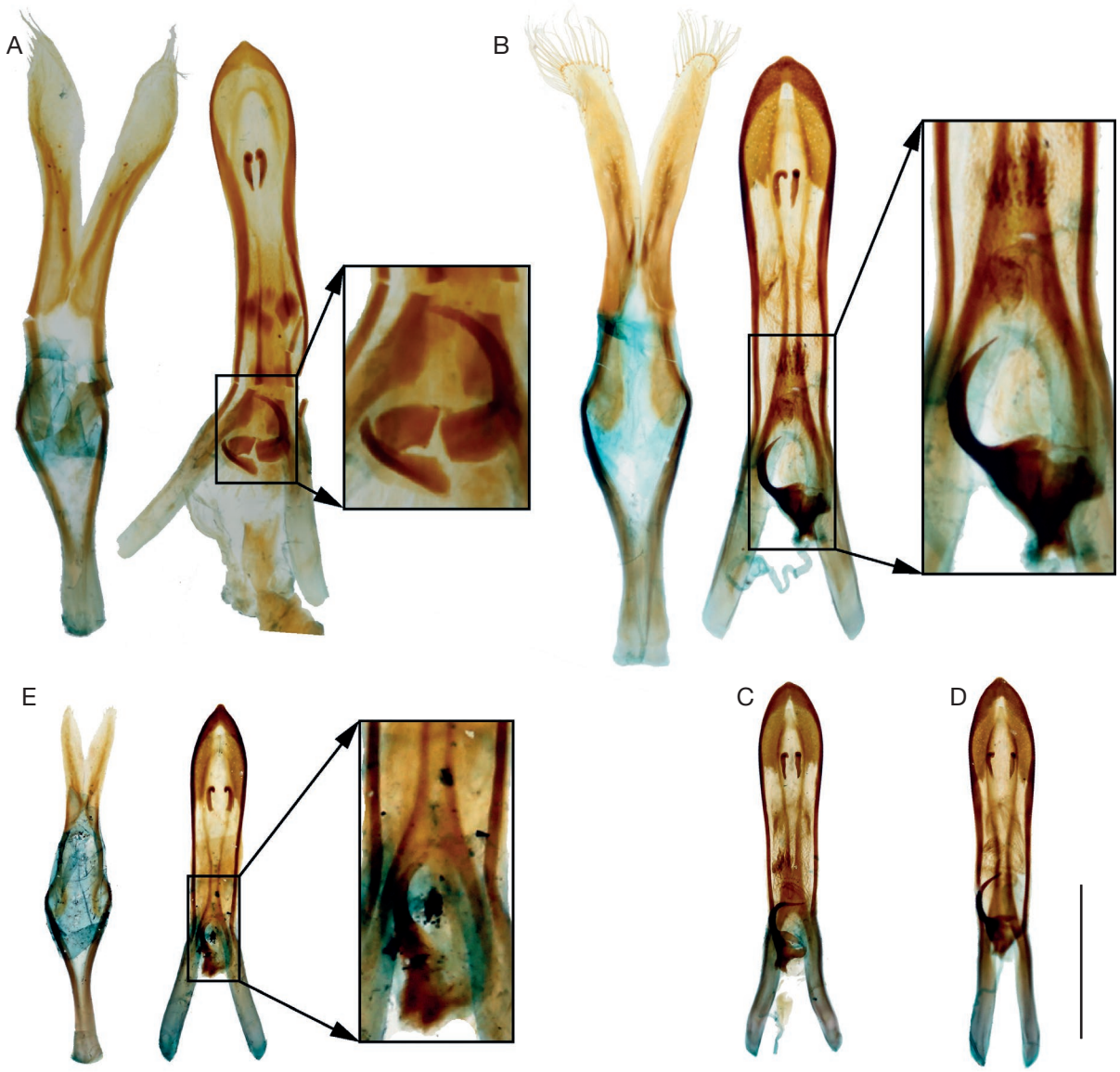

FIG. 13. — *Teramocerus* spp.,♂, genitalia; **A**, *T. appendiculatus* (Soares & Scivittaro, 1972), holotype (tegmen and penis); **B-D**, *T. eletus* Kleine, 1927: **B**, holotype (tegmen and penis); **C**, *Proteramocerus aeneus* Soares & Dias, 1971, holotype (penis); **D**, *P. oliveirai* Soares & Dias, 1971, holotype (penis); **E**, *T. zellibori* (Soares & Dias, 1971) n. comb., holotype (tegmen and penis). Scale bar: 1 mm.

Teramocerus pulcher
(Soares & Dias, 1971) n. comb.
(Figs 6A; 14B)

Proteramocerus pulcher Soares & Dias, 1971: 67. — Sforzi & Bartolozzi 2004: 587.

TYPE MATERIAL. — ♂ holotype, "Santarém [2°27'S, 54°43'W], Mujó, XII.1921, *H. C. Boy*" (IPEACS) [not examined]; 1 ♂ paratype, "Mangabeira, Mocajuba, 1953, O. M. Rego" (MNRJ); 1 ♂ paratype, "Xingu" (MNRJ); 2 ♂ and 2 ♀ paratypes, "Macapá, I.1958" (MNRJ); 1 ♂ paratype, "Benjamin Constant, XI.1962, A. Silva" (MZSP); 1 ♂ paratype, "Benjamin Constant, Rio Javari, XII.1960, Diringshofen" (MZSP); 1 ♂ paratype, "Manaus, XII.1958, C. Elias" (MNRJ); 3 ♂ paratypes, "Tabatinga, F. M. Oliveira" (MNRJ); 1 ♂ paratype (Fig. 6A), Sao Carlos, Porto Velho, Terr. Guaporé [9°04'S, 64°06'W], XII.1944, A. Parko, prép. micro. n°AM-MNRJ00009" (MNRJ).

MATERIAL EXAMINED. — **Brazil**. ♂ paratype *P. pulcher*, Sao Carlos, Porto Velho, Terr. Guaporé [9°04'S, 64°06'W], XII.1944, A. Parko, prép. micro. n°AM-MNRJ00009" (MNRJ); 6 ♂, Teffé [3°21'S, 64°43'W], Amazonas, M. de Mathan, X.1878-III.1879, prép. micro. n°AM00238, AM00240 and AM00262 (MNHN); 1 ♂, Ega [= Teffé], ex musaeo H. W. Bates 1893 (MNHN).

DISTRIBUTION. — Brazil (Amazonian Basin). See map (Fig. 16C).

DESCRIPTION
Males

Measurements. Length of head (rostrum included): 4.6-10.1 mm; length of body (from front margin of pronotum to apex of elytra): 8.6-15.9 mm; width across humeral calli: 1.3-2.4 mm. Metallic green except rostrum, base of pronotum and elytral sutura reddish. Habitus: Fig. 6A.

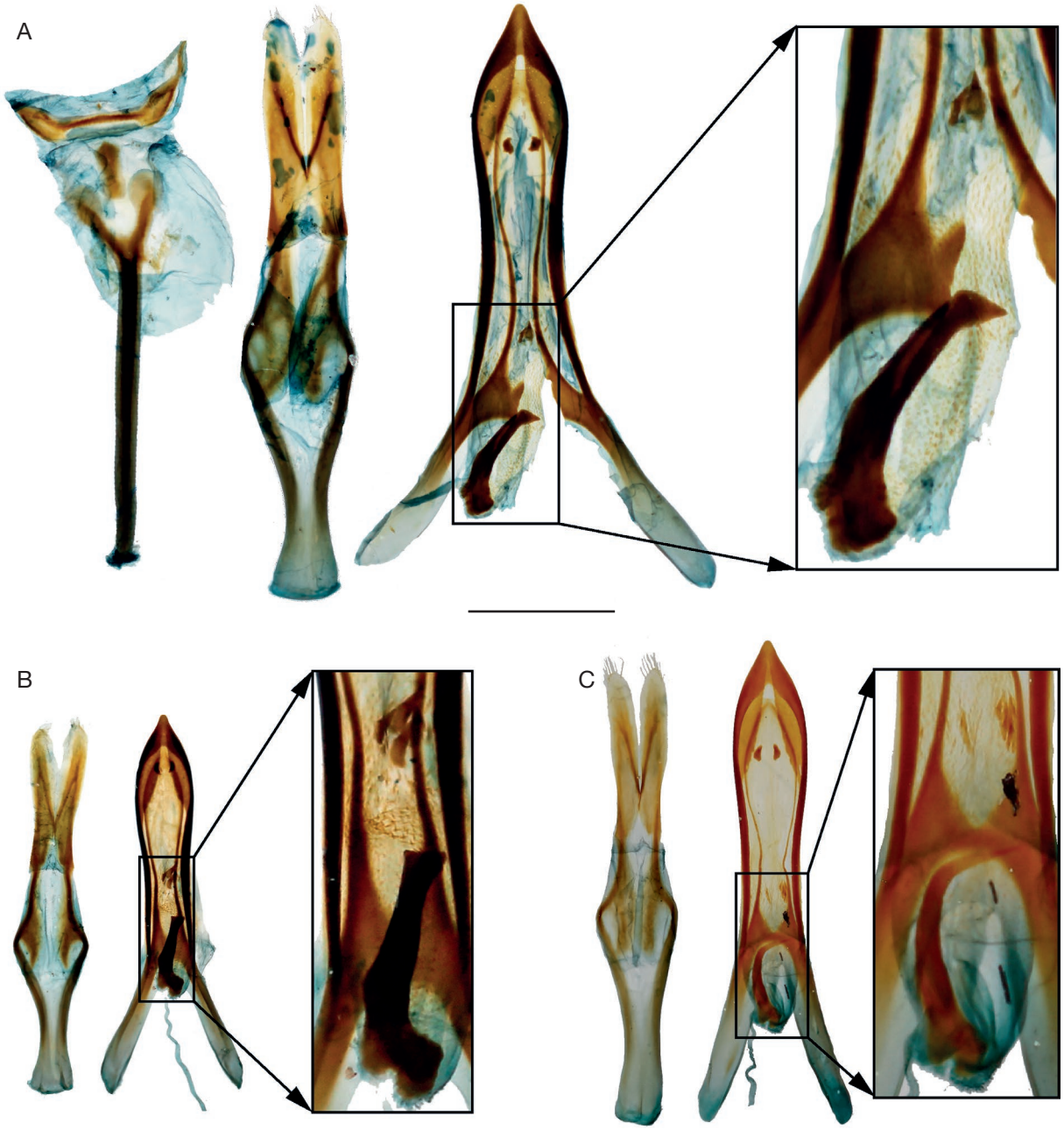

FIG. 14. — *Teramocerus* spp.,♂, genitalia; **A**, *T. pulchellus* Perroud, 1853, holotype (sternites VIII and IX, tegmen and penis); **B**, *T. pulcher* (Soares & Dias, 1971) n. comb., paratype (tegmen and penis); **C**, *T. pulchriformis* n. sp., holotype (tegmen and penis). Scale bar: 1 mm.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, weakly carinate on sides. Eyes quite large but shorter than temples. Head smooth, tapering backwards, with inter-ocular fovea; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum with few pores, venter with two longitudinal rows of small sensorial pores weakly pubescent, hardly reaching base of mesorostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum more than 2 × longer than broad, not punctate. Elytra depressed at base of interstria 5. Apex of each elytron as one large dorso-ventrally flattened and rimmed tooth formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with

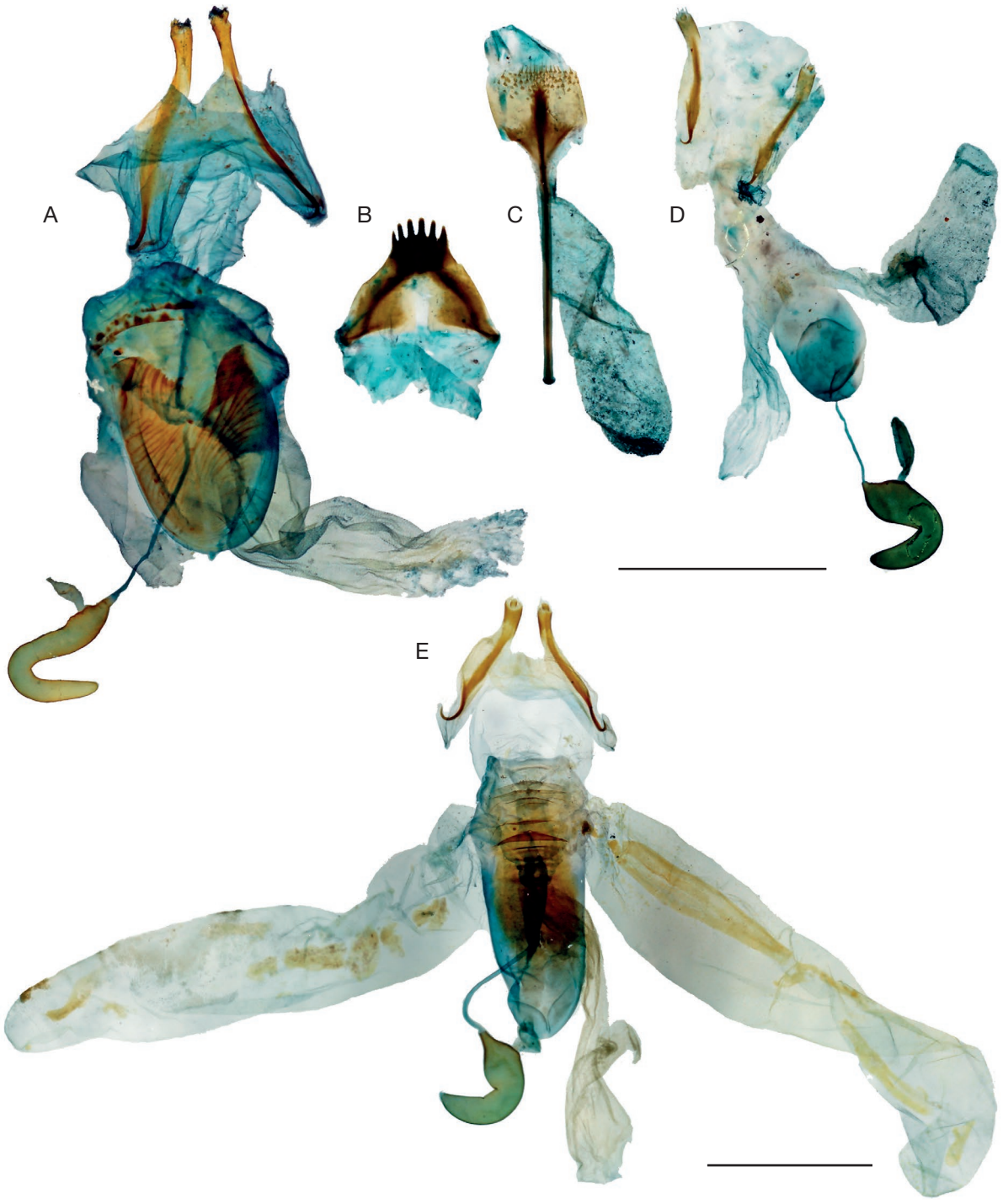

Fig. 15. — *Teramocerus* spp.,♀: **A**, *T. forficula* n. comb., genital tract; **B-D**, *T. brulei* n. sp.: **B**, tergite VIII; **C**, epipleurites VIII; **D**, genital tract; **E**, *T. curtirostris* n. sp., genital tract. Scale bars: 1 mm.

mesocoxae, metacoxae and trochanters bearing few setae; femora strongly pedunculate, not depressed laterally, glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; calcar on inner side at apex of metatibiae quite acute. First tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen with sternites III with very thin hair, IV glabrous; sternites III-IV smooth, with quite large and shallow longitudinal median depression. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 14B). Internal sac with one proximal hook-like sclerite truncate at apex, and most rearward with few spicules (Fig. 14B).

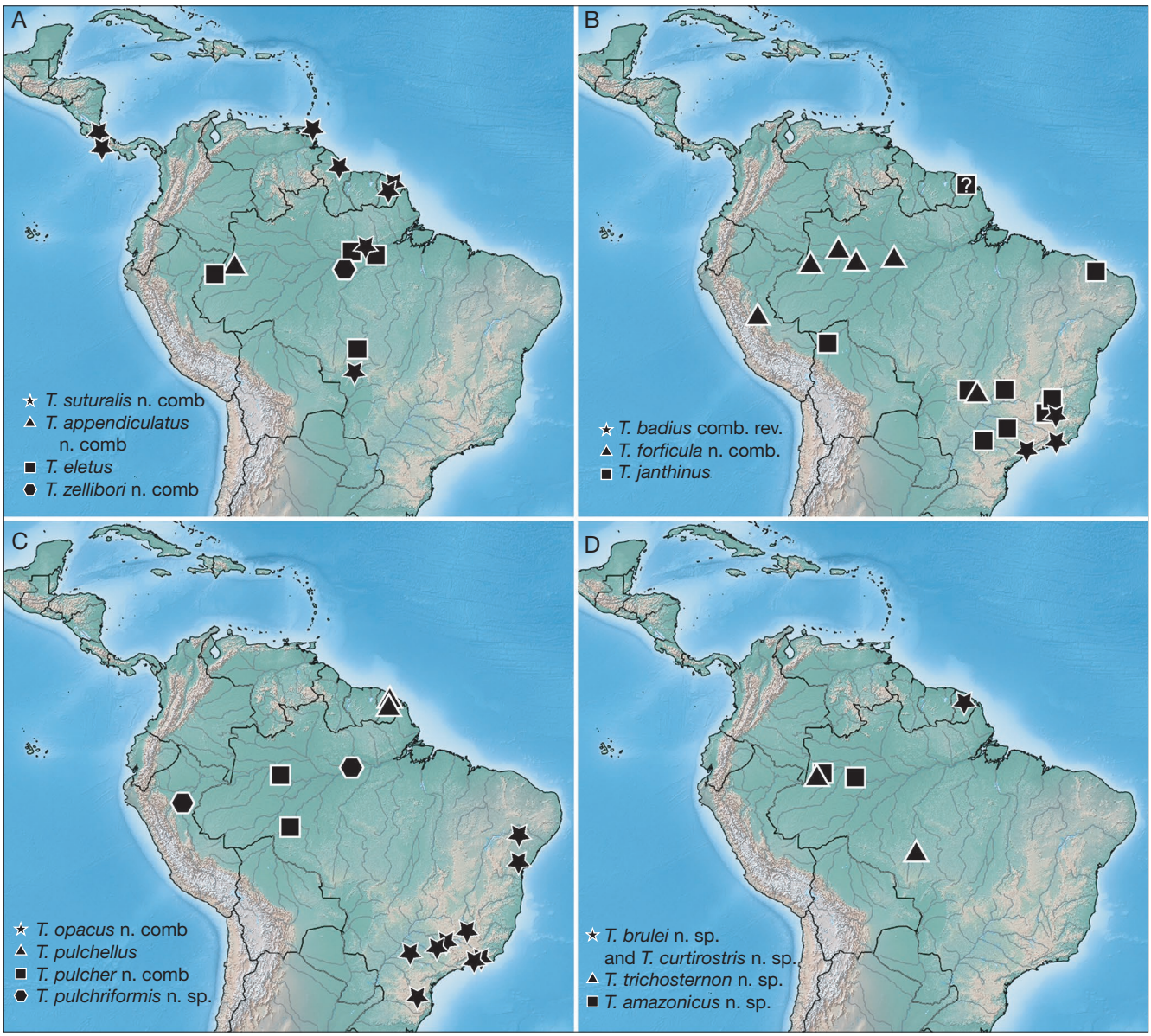

Fig. 16. — Distribution maps of the specimens of *Teramocerus* examined: **A**, *T. suturalis* (Lund, 1800) n. comb., *T. appendiculatus* (Soares & Scivittaro, 1972), *T. eletus* Kleine, 1927 and *T. zellibori* (Soares & Dias, 1971) n. comb.; **B**, *T. badius* Boheman, 1840 comb. rev., *T. forficula* n. comb. and *T. janthinus* Boheman, 1840; **C**, *T. opacus* (Perty, 1832) n. comb., *T. pulchellus* Perroud, 1853, *T. pulcher* (Soares & Dias, 1971) n. comb. and *T. pulchriformis* n. sp.; **D**, *T. brulei* n. sp., *T. curtirostris* n. sp., *T. trichosternon* n. sp. and *T. amazonicus* n. sp.

Females

I am not able to attribute with certainty any of the female examined to this taxon, and I was not able to examine any of the two female paratypes.

Remark

Because of the synonymy of *Proteramocerus* with *Teramocerus*, and because of the characters of male genitalia, *P. pulcher* is transferred to *Teramocerus*, tleading to the following new combination: *Teramocerus pulcher* (Soares Dias, 1971) n. comb.

Teramocerus pulchriformis n. sp.
(Figs 6E; 14C)

Holotype. — ♂, "Colombien; ex musaeo Desbrochers 1913; prép. micro. n°AM00255; *Teramocerus pulchriformis* n. sp., A. Mantilleri det. 2014; holotype; MNHN-EC-EC4483" (MNHN). Fig. 6E.

Paratypes. — 1 ♂, Amaz., H. W. Bates, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00251, MNHN-EC-EC4484"; 1 ♂, Colombia, coll. Armitage, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00331, MNHN-EC-EC4485"; 1 ♂, ex musaeo Desbrochers 1913, Muséum Paris 1952 coll. R. Oberthür, prép.

TABLE 1.— Forty characters of the adults used in the phylogenetic analysis. The different states of characters are indicated in brackets as coded in the matrix. For *Teramocerus zellibori* (Soares & Dias, 1971) n. comb., as I was able to examine only the male holotype whose head and prothorax is missing, I completed the data matrix using the description provided by Soares & Dias (1971).

1. Body at least partly metallic (1) or body not metallic (0).
2. Temples of males longer than eyes (1) or shorter than eyes (0).
3. Together, meso-and metarostrum of male longer than 1.5 × the length of prorostrum (1) or shorter than 1.5 × the length of prorostrum (0).
4. Median longitudinal part of metarostrum slightly elevated, forming a low carina (1) or this part of metarostrum without low longitudinal carina (0).
5. Sides of males' metarostrum with well distinct sensorial pores (1) or sensorial pores hardly distinct or missing (0).
6. Interocular fovea well distinct (1) or weak or missing (0).
7. Venter of rostrum with long hairs (1) or with shorter hairs (0).
8. Venter of rostrum with sensorial pores reaching base of prorostrum (1) or sensorial pores not reaching the base of prorostrum (0).
9. Venter of metarostrum with a median longitudinal carina (1) or without median longitudinal carina (0).
10. Antennomeres 9-11 much longer than broad (1) or hardly longer than broad (0).
11. Scutellum with a deep fovea (1) or without deep fovea (0).
12. Scutellum inserted between elytra at its apex (1) or not inserted between elytra (0).
13. Elytra with hole or deep depression at base at insertion on mesonotum (1) or elytra without hole or depression (0).
14. Striae 1-2 well distinct (1) or only stria 1 well distinct (0).
15. Apex of males' elytra with a rimmed and more or less flattened tooth (2), with a non-rimmed and cylindrical tooth (1) or apex of elytra without tooth (0).
16. Elytral tooth of female rounded at apex (2), pointed or angulous (1), or no elytral tooth (0).
17. Legs dark (1) or legs brownish-reddish (0).
18. Metacoxae of males quite hairy (1) or with only 1 or 2 setae or glabrous (0).
19. Femora of males pedunculate (1) or not pedunculate (0).
20. Metafemora foliate at base (1) or not foliate at base (0).
21. First tarsal segment longer than broad (1) or not longer than broad (0).
22. First metatarsal segment of male longer or as long as 2-3 together (1) or shorter (0).
23. Tarsomeres 2-3 impressed on upper side (1) or not impressed on upper side (0).
24. Underside of mesotarsi 5 hairy (1) or at most with few long setae (0).
25. First metatarsal segment obviously carinate on upper part (1) or not carinate (0).
26. Sternites III-IV of male with deep and narrow depression (2), with large and shallow depression (1) or not depressed (0).
27. Sternites III-IV of male pubescent (1) or almost glabrous (0).
28. Abdomen of male with two paramedian projections at apex of sternite III (1) or without paramedian projections (0).
29. Sternites V-VI smooth (0) or punctate (1).
30. Sternite VII almost completely smooth (0) or with well-marked punctures (1).
31. Membranous tergites of abdomen dark (1) or not dark (0).
32. Tegmen with parameroid lobes well developed (1) or reduced (0).
33. Penis strongly pointed at apex (2), moderately pointed at apex (1) or rounded at apex (0).
34. Temones short (1) or quite long (0).
35. Internal sac with a single large pointed sclerite (1) or sclerite differently shaped (0).
36. Base of single sclerite with a hole where ejaculatory duct is branched (3), enlarged but without hole (2), not enlarged and without hole (1) or no single sclerite (0).
37. Sclerite of internal sac thin, hook-shaped (1), hook-shaped but truncate at the apex (2) or differently shaped (0).
38. Anterior part of internal sac with numerous quite large spicules arranged in a tight group (2), with a small group of quite large spicules (1), or without large spicules (0).
39. Frena well developed (1) or reduced (0).
40. Females with sclerotized vagina (1) or vagina completely membranous (0).

micro. n°AM00249, MNHN-EC-EC4486; 1 ♂, Amaz. inf., Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00333, MNHN-EC-EC4487; 1 ♂, Amazones, Obydos [1°53'S, 55°31'W], M. de Mathan (2e trimestre 1878), G. Power vidit, Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00254, MNHN-EC-EC4488; 1 ♂, Amazones, Tarapote [6°29'S, 76°21'W], M. de Mathan (4e trimestre 1885), Muséum Paris 1952 coll. R. Oberthür, prép. micro. n°AM00334, MNHN-EC-EC4489.

TYPE LOCALITY. — Colombia.

DISTRIBUTION. — Brazil, Colombia, Peru (Amazonian Basin). The specimen from Colombia is not mapped on Fig. 16C as the data is too vague.

ETYMOLOGY. — This species is named after its very close similarity with *Teramocerus pulcher* n. comb., making the two species impossible to discriminate without examination of male genitalia.

DIAGNOSIS (MALES). — Elytra and pronotum metallic green; antennomeres much longer than broad; setae on venter of rostrum not reaching prorostrum; apical tooth of elytra rimmed, more or less dorso-ventrally flattened; legs brownish-reddish; first metatarsal segment not carinate on upper side; proximal sclerite of internal sac forming hook with sharp apex.

DESCRIPTION

Males

Measurements. Length of head (rostrum included): 4.5-10.4 mm; length of body (from front margin of pronotum to apex of elytra): 8.3-15.5 mm; width across humeral calli: 1.3-2.3 mm. Elytra, pronotum and head metallic green; rostrum, antennae, legs and elytral sutura reddish. Habitus: Fig. 6E.

Head. Prorostrum much shorter than metarostrum and mesorostrum together. Mesorostrum elevated, longitudinally grooved. Metarostrum not grooved, with weak median carina, weakly carinate on sides. Eyes quite large but shorter than or

TABLE 2. — Matrix used for data processing.

Nemocephalus monilis (Fabricius, 1787)	00101111010000010010100000001100100001 10
Teramocerus amazonicus n. sp.	11100000011001110110101002000001111300 1?
Proteramocerus appendiculatus Soares & Scivittaro, 1972	11111111011001 2?01101111111000011113101?
Proteramocerus badius (Boheman, 1840)	01100000011001120010101000010000111121010
Teramocerus belti Sharp, 1895	11110111010001210010111010010100010000000
Teramocerus brulei n. sp.	10100011011001110110101001000001111300 10
Teramocerus curtirostris n. sp.	10000010011001111111010100200000111130011
Teramocerus eletus Kleine, 1927	10110111011001 2?01101011110000011112121?
Acratus exquisitus Kleine, 1927	01101000010101110000101000000001100000000
Proteramocerus filum (Sharp, 1895)	11100100010111 2?10101110000001000000000?
Proteramocerus forficula Soares & Scivittaro, 1972	10111011011001110110101002100001111302 11
Neacratus glabratus (Lund, 1800)	01101100100001001001001001100111000000000
Teramocerus gracilis Boheman, 1833	01110111011001211010111000010010010?0000
Teramocerus janthinus Boheman, 1840	11110010011001120010101000000000111121010
Teramocerus mamillatus Meyer, 1959	11110111011001211010111000010000021000000
Proteramocerus opacus (Perty, 1832)	01110000011001121010101000000000111121010
Acratus plumirostris (Boheman, 1840)	01100011010101000001101000000000100000000
Teramocerus pulchellus Perroud, 1853	11110101011001211110101001100001211221 10
Proteramocerus pulcher Soares & Dias, 1971	11111100011001 2?01101010011000012112211?
Teramocerus pulchriformis n. sp.	11111101011001 2?01101010020000012112111?
Teramocerus punctirostris Schoenherr, 1840	01111011010001000010111000101100000000000
Teramocerus trichosternon n. sp.	10001000011001 1?01101010011000011113001?
Acratus suturalis (Lund, 1800)	11110000011001210010101001000001111111010
Acratus tarsatus (Gyllenhal, 1833)	01101000010111001010001000000001000000 10
Proteramocerus zellibori Soares & Dias, 1971	1?1?1?11?110012?01101110100000011112101?

as long as temples. Head smooth, tapering backwards, with inter-ocular fovea; collar constriction well marked. Sides and venter of head with few pores. Sides of metarostrum with few pores, venter with two longitudinal rows of small sensorial pores weakly pubescent, sometimes reaching base of prorostrum, without median carina or grooves. Venter of prorostrum smooth.

Antennae. Antennae with segments 2-8 longer than broad, subconical, with long setae; 9 less than 1.5 × longer than 8.

Thorax. Pronotum more than 2 × longer than broad, not punctate. Elytra weakly depressed at base of interstria 5. Apex of each elytron as one large dorso-ventrally flattened and rimmed tooth formed mainly by interstriae 9 and 11. Prosternum with few large punctures in front of bulging procoxae, area in front of procoxae depressed. Mesothorax with few punctures on sides; mesanepisternum punctate; mesepimeron with deep confluent punctures. Metanepisternum with row of punctures. Legs with mesocoxae, metacoxae and trochanters setose; femora strongly pedunculate, not depressed laterally (except profemora), glabrous except metafemora with few hairs below at base. Tibiae quite long, hairy on inner side; apex of metatibiae with acute calcar on inner side. First tarsal segment shorter than 2-3 together; segment 2 longer than broad.

Abdomen. Abdomen with sternites III-IV glabrous, smooth, with quite deep and narrow longitudinal median depression. Tegmen with parameroid lobes rounded at apex, with few setae (Fig. 14C). Internal sac with one proximal hook-like sclerite acute and not truncate at apex, and most rearward with few spicules (Fig. 14C).

Females

I am not able to attribute with certainty any of the female *Teramocerus* examined to this taxon.

SPECIES *INCERTAE SEDIS*

Two additional species may be part of *Teramocerus*: *Proteramocerus micans* Kleine, 1921 and *P. nitidus* Kleine, 1921. The type series of these two taxa were already on loan to another person and it was impossible, despite several requests, to have any information or even pictures of these specimens. Both descriptions by Kleine (1921) do not allow knowing the identity of these taxa. Nothing contradicts that they belong to *Teramocerus*, but also nothing proves it as there is no information about the shape of the scutellum, the base of elytra and the genitalia in the original descriptions. Kleine (1927c) reports *P. micans* from Costa Rica; as *T. suturalis* n. comb. is the sole species of the genus *Teramocerus* known from this country, it is possible that *P. micans* is its synonym. *P. nitidus* seems to be quite close to *P. micans*. Soares & Dias (1971) cite these two species but their descriptions are only translations of Kleine's text and give no additional information. In the collections of the MNHN, two specimens have an identification label as *P. nitidus*, written by R. Kleine: one is a female of *T. janthinus*, the other one is a male of *Teramocerus mamillatus* Meyer, 1959… As usual with R. Kleine, identifications in the collections are very fanciful and completely unreliable, even for taxa described by himself. No further information about the identity of *P. nitidus* can be drawn from these two specimens.

Taxa listed in the part material and methods (except for the two species above), and for which the types were not found, very probably do not belong to *Teramocerus* considering the descriptions and drawings available (Kleine 1926; Soares 1970; Soares & Scivittaro 1979).

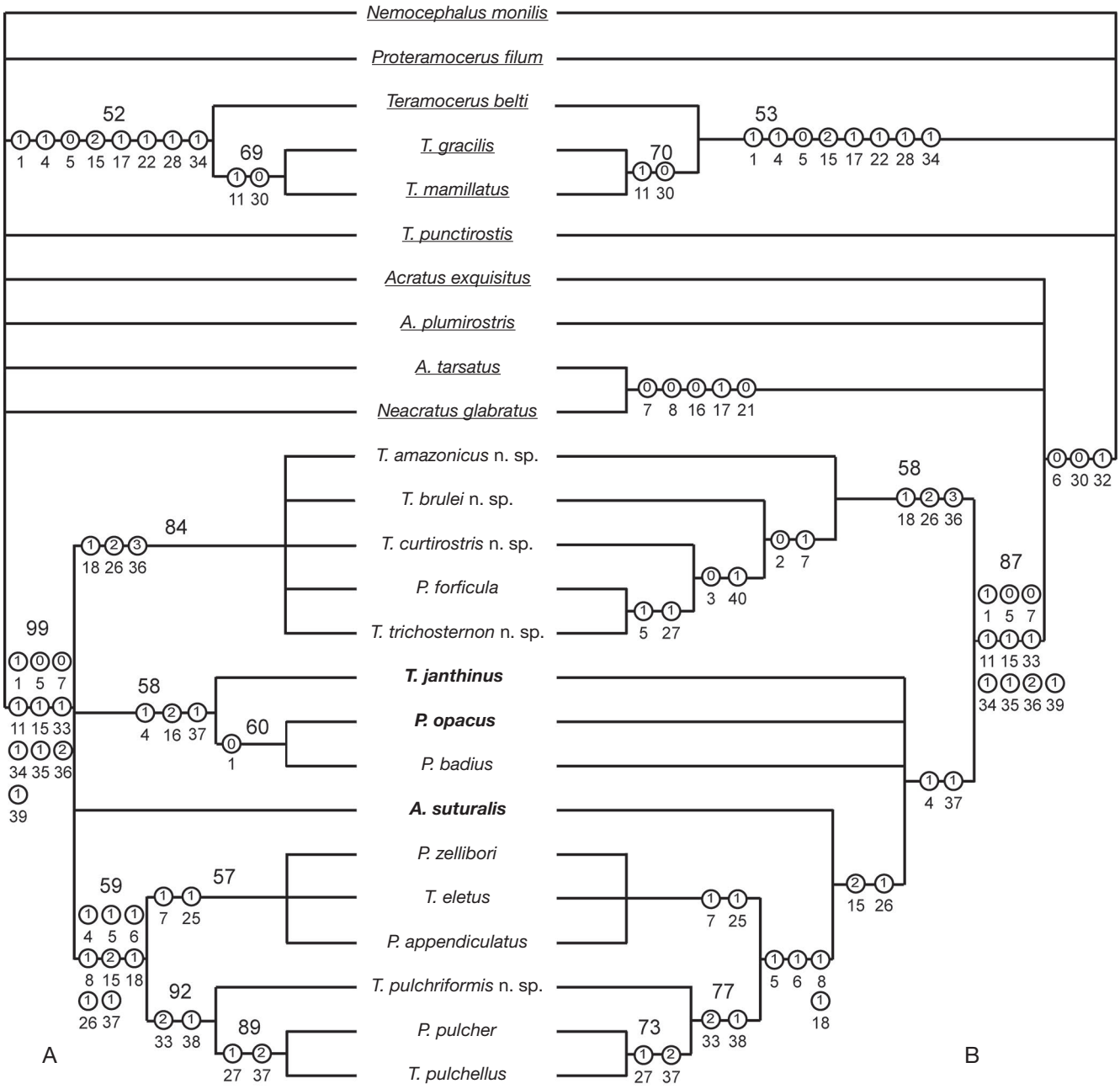

FIG. 17. — **A**, 50% majority rule cladogram obtained after the Bayesian analysis; large numbers above branches are the posterior probability (%) for the respective node; **B**, Strict consensus cladogram of six trees resulting of the Maximum Parsimony analysis; length = 118 steps, large numbers above branches are bootstrap values when > 50%. For both trees, white circles are apomorphies for each node (with character number below the circle and state of the character in the circle). Autapomorphies are not indicated. Taxa names written in black belong to *Teramocerus* Schoenherr, 1840; underscored ones are excluded from *Teramocerus*. Taxa written in bold are type species of *Acratus* Lacordaire, 1865, *Proteramocerus* Kleine, 1921 and *Teramocerus* (for *Proteramocerus*, type species is *P. acutipennis* (Boheman, 1833), junior synonym of *P. opacus* (Perty, 1832)).

PHYLOGENY

Forty characters of the morphology of adults, including genitalia structures, were used in the phylogenetic analysis (Table 1).

After searching for all the equi-parsimonious shortest trees using branch-and-bound method (all the characters being equal-weighted), six trees of 118 steps (Consistency Index: 0.407: Retention Index: 0.668) were retained. A strict consensus was obtained from those trees (Fig. 17B). It shows that the genus *Teramocerus*, in the new sense given in this study, forms a monophyletic group (bootstrap value = 87%) well supported by ten synapomorphies, one being unambiguous: the internal sac of the aedeagus possesses a single large more or less pointed sclerite in its proximal part. This character is found nowhere else in the tribe Acratini and is shared by the type species of the genera *Acratus* (Fig. 11A), *Proteramocerus* (Fig. 11H) and *Teramocerus* (Fig. 11D), confirming the synonymy of these three taxa. The nine other synapomorphies

Identification key to species of the genus *Teramocerus* Schoenherr, 1840

Identification of male specimens of the genus *Teramocerus* based solely on external morphological characters may sometimes be tricky. Indeed, great variation may be observed at intraspecific level (size, colouration, shape of elytral tooth) and the dissection of genitalia is often necessary. For females, it is even harder and sometimes impossible in our state of knowledge; moreover, genitalia are very homogeneous for most of the species. It also has to be noticed that females of *T. appendiculatus* (Soares & Scivittaro, 1972) n. comb., *T. eletus* Kleine, 1927, *T. zellibori* (Soares & Dias, 1971) n. comb., *T. amazonicus* n. sp., *T. trichosternon* n. sp., *T. pulcher* (Soares & Dias, 1971) n. comb. and *T. pulchriformis* n. sp. are not known to me and are not included in the key.

1. Prorostrum bent down, slightly enlarged and notched at apex, carinate on sides at base, shorter than mesorostrum and metarostrum together (Fig. 8A-B) ..... Males 2
— Prorostrum straight, cylindrical, longer than mesorostrum and metarostrum together (Fig. 8L-M) .... Females 16

2. First metatarsal segment obviously carinate on upper side (Fig. 10F-G, I-J) 3
— First metatarsal segment not carinate on upper side 5

3. Mesotarsi 5 hairy on underside (Fig. 10E) 4
— Mesotarsi 5 with at most few long setae on underside ..... *Teramocerus zellibori* (Soares & Dias, 1971) n. comb.

4. Sternite III with thick setae; elytral interstria 3 connected to 9 at apex ..... *T. appendiculatus* (Soares & Scivittaro, 1972) n. comb.
— Sternite III without thick setae (Fig. 10H); elytral interstria 3 not connected to 9 at apex (Fig. 10D)..... *T. eletus* Kleine, 1927.

5. Elytra without metallic sheen 6
— Elytra with metallic sheen 7

6. Segment 2 of protarsi almost as broad as long; sternite III hairy (Fig. 7E) ..... *T. badius* Boheman, 1840 comb. rev.
— Segment 2 of protarsi longer than broad; sternite III glabrous ..... *T. opacus* (Perty, 1832) n. comb.

7. Venter of metarostrum strongly hairy, with long dense setae reaching base of prorostrum 8
— Venter of metarostrum with sparser and shorter setae, not reaching base of prorostrum 9

8. Median longitudinal part of pronotum usually not metallic; apical tooth of elytra quite massive, not very sharp (Fig. 7K) ..... *T. janthinus* Boheman, 1840
— Median longitudinal part of pronotum metallic; apical tooth of elytral generally thin, curved and sharp (Fig. 9S-T) ..... *T. forficula* (Soares & Scivittaro, 1972) n. comb.

9. Apical tooth of elytra not rimmed, section circular (Fig. 9C, H) 10
— Apical tooth of elytra rimmed, more or less dorso-ventrally flattened (Figs 8F, 10O) 13

10. Sternites III-IV with narrow but deep longitudinal depression (Fig. 9E, N)..... 11
— Sternites III-IV with large but shallow longitudinal depression..... 12

11. Antennomeres 3-8 much longer than broad; mesorostrum and metarostrum together more than 1.5 × longer than prorostrum..... *T. amazonicus* n. sp.
— Antennomeres 3-8 slightly longer than broad; mesorostrum and metarostrum together much less than 1.5 × longer than prorostrum..... *T. curtirostris* n. sp.

12. Golden green species; median depression of sternites III-IV glabrous (Fig. 9J) ..... *T. brulei* n. sp.
— Darker species; median depression of sternites III-IV strongly pubescent (Fig. 9P)..... *T. trichosternon* n. sp.

13. Antennomeres quite short (Fig. 8D); apical tooth of elytra not sharp, triangular (Fig. 8F)..... *T. suturalis* (Lund, 1800) n. comb.
— Antennomeres much longer than broad; apical tooth of elytra sharp (Fig. 10O)..... 14

14. Legs dark..... *T. pulchellus* Perroud, 1853
— Legs brownish-reddish..... 15

15. Proximal sclerite of internal sac forming hook with sharp apex (Fig. 14C)..... *T. pulchriformis* n. sp.
— Proximal sclerite of internal sac truncate at apex, not sharp (Fig. 14B) ..... *T. pulcher* (Soares & Dias, 1971) n. comb.

16. Brownish to reddish, elytra without metallic sheen 17
— Elytra with metallic sheen 18

17. Reddish species; side of metarostrum without well distinct sensorial pores; sternite III with few setae; elytral punctation more distinct ..... *T. badius* Boheman, 1840 comb. rev.
— Brownish species; side of metarostrum with well distinct sensorial pores; sternite III glabrous; elytral punctation weak ..... *T. opacus* (Perty, 1832) n. comb.
18. Apical tooth of elytra small, not acute (Figs 1B, 3A) 19
— Apical tooth of elytra quite large, more acute (Fig. 4B-C, E) 20

19. Apical tooth of elytra triangular (Fig. 8Q); pronotum metallic even on median groove ..... *T. suturalis* (Lund, 1800) n. comb.
— Apical tooth of elytra rounded at apex (Fig. 7L); pronotum usually not metallic on median groove..... *T. janthinus* Boheman, 1840

20. Apical tooth of elytra rimmed, more or less dorso-ventrally flattened ..... *T. pulchellus* Perroud, 1853
— Apical tooth of elytra not rimmed, its section circular 21

21. Legs dark, femora with light metallic sheen; vagina with transverse sclerifications (Fig. 15E)..... *T. curtirostris* n. sp.
— Legs brownish reddish, without metallic sheen; vagina sclerified or not 22

22. Apical tooth of elytra usually large and very acute; vagina heavily sclerified (Fig. 15A) ..... *T. forficula* (Soares & Scivittaro, 1972) n. comb.
— Apical tooth of elytra smaller, not very acute; vagina without sclerification (Fig. 15D) ..... *T. brulei* n. sp.

supporting this clade, body at least partly metallic, venter of rostrum with short hairs, scutellum with a deep fovea, apex of male elytra with apical tooth, penis pointed at apex, temones short, base of single sclerite of internal sac enlarged but without hole, and frena well developed) are not unambiguous and are subject to convergences with taxa excluded from *Teramocerus* or to reversions. Inside *Teramocerus*, several subgroups are revealed by the phylogenetic analysis. One gathers the five species (*T. amazonicus* n. sp., *T. brulei* n. sp., *T. curtirostris* n. sp., *T. forficula* n. comb. and *T. trichosternon* n. sp.) having a very special sclerite in the internal sac, with a hole on which ejaculatory duct is branched. This character is unique in Acratini. Two other ambiguous synapomorphies support this clade: metacoxae of males quite hairy, and abdomen of males with deep and narrow depression (reversion in *T. brulei* n. sp. and *T. trichosternon* n. sp.). All other *Teramocerus* are grouped together but bootstrap value is low, < 50%. The three species from Eastern Brazil (*T. janthinus*, *T. opacus* n. comb. and *T. badius* comb. rev.) form a basal polytomy. Then all the species with rimmed and more or less flattened tooth at apex of male elytra are gathered, *T. suturalis* n. comb. being the most exobasal species. And finally the three species with carinate metatarsi and the three species (*T. pulchriformis* n. sp., *T. pulcher* n. comb. and *T. pulchellus*) with very pointed penis and having a small group of quite large spicules in the internal sac have sister-group relationship. Only the group of *T. pulchellus* has strong bootstrap support value (77%).

Results obtained with Bayesian analysis (Fig. 17A) show no incongruence with MP analysis. There is a strong support for monophyly of *Teramocerus* in the sense given in this study (Bayesian posterior probability: 99%). Inside *Teramocerus*, the same main subgroups are found. The main differences are that there is a polytomy at the base of the clade *Teramocerus*, with four branches, and that *T. janthinus*, *T. opacus* n. comb. and *T. badius* comb. rev. are grouped together in a single clade on the base of the shape of the elytral tooth of the females (more or less rounded at apex).

DISCUSSION

The results of the phylogenetic analyses show with no doubt that *Teramocerus*, in its new sense, forms a well-defined monophyletic group of 15 known species, some previously belonging mainly to *Proteramocerus* and *Acratus*. Both genera have to be synonymized with *Teramocerus*, their type species being included in the same clade. All other "*Teramocerus*" must be excluded and their generic attribution will have to be reassessed based on an extensive phylogenetic study of the whole tribe Acratini. It is the same case with *Acratus* and *Proteramocerus*: these groups were not monophyletic entities. These problems are mainly the consequence of misinterpretation of the type species of *Acratus* (*A. suturalis*) by subsequent authors, leading to the creation of the genus *Proteramocerus* by Kleine (1921) and description of several *Acratus* on a wrong basis, and by the mistake made by Kleine (1938) to give *Belorhynchus gracilis* as the type species of *Teramocerus* instead of *T. janthinus*.

At this time it is not possible to know the closest group of *Teramocerus* as the analysis shows large basal polytomy. Relationships inside *Teramocerus* are also unclear. Two groups are found in both analyses with support values > 50%: the Guyano-Amazonian groups of *T. pulchellus* (three species) and *T. forficula* n. comb. (five species). The group formed by species living in Eastern Brazil (*T. janthinus*, *T. opacus* n. comb. and *T. badius* comb. rev.) form a clade only in the

case of the Bayesian analysis; with Maximum Parsimony, their positions and relationships remain unclear. It would not be surprising that these three species derive from the same ancestor and form a distinct group. For many other organisms, this part of the South American continent is home to very particular taxa that are not found anywhere else: see for example, among many others, Smith (1962) for plants, Boucher (2006) for Coleoptera Passalidae, Ribeiro (2006) for freshwater fishes.

Concerning the study of the morphological characters, the genitalic characters, and above all those provided by the internal sac of the aedeagus, are proved to be of great interest for the study of the tribe Acratini. These characters have never been studied before and, in the present study, provided several synapomorphies. It allowed a better definition of the genus *Teramocerus* but also to make subgroups inside the genus; they are also particularly stable inside a species and can be used for identification of doubtful specimens when external morphology fails. The use of these structures in the taxonomy and phylogeny of various groups of beetles is quite common and, with no doubt, their study will lead to a better understanding of the Acratini (and probably of many other groups of Brentidae), providing new characters quite independent from adaptation to the environment.

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