Studies and Reports
Taxonomical Series 15 (2): 399-433, 2019

Studies on the genus *Taphrocerus* (Coleoptera: Buprestidae: Agrilinae) part IX.

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Taxonomy, new species, lectotype designations, new records, Coleoptera, Buprestidae, *Taphrocerus*, Neotropical Region

Abstract. Eight species are newly described and illustrated as follows: *T. bahianus* sp. nov. (Brazil), *T. brulei* sp. nov. (French Guiana), *T. fallax* sp. nov. (Brazil), *T. jaroslavi* sp. nov. (French Guiana), *T. milca* sp. nov. (Guyana), *T. senilis* sp. nov. (Paraguay), *T. trinidadensis* sp. nov. (Trinidad and Tobago) and *T. wygodzinskyi* sp. nov. (Brazil). The new species are compared to the most related taxa. Lectotypes of *T. joukli* Obenberger, 1924, *T. ogloblini* Obenberger, 1934, *T. preissi* Obenberger, 1924, *T. temporalis* Obenberger, 1934 and *T. unicolor* Obenberger, 1924 are designated. Records new to country are presented for *T. temporalis* (Brazil) and *T. unicolor* (Brazil).

INTRODUCTION

The present paper is further in the series of studies on the genus *Taphrocerus* Solier, 1833 resulting from the study of type material and examination of extensive number of specimens from various institutions and private collections all over the world. Species of the genus *Taphrocerus* are very similar to each other and their determination is only possible by comparison of specimens/species directly together with the study of male genitalia (if possible).

MATERIALS AND METHODS

Lectotype designations are provided in order to preserve the stability of nomenclature by fixing the status of the specimen as the sole name-bearing type of a particular nominal taxon (in agreement with article 74.7 ICZN (1999). Designation of all lectotypes (and all available paralectotypes) are provided with printed white label with red border containing all relevant data as: type status (red capital letters), taxon name in the original combination, author name, year of publication, an inscription J. Marek design., year of designation.

Abbreviations for lectotype designations: the slash mark \ is used to indicate data from separate labels; my notations are in parentheses [ ], with the abbreviation [h] = handwritten, [p] = printed, [Obenberger´s MS] = Obenberger´s manuscript.

Designation of holotype specimens are provided with printed red label with black margin. Designation of paratype(s) specimen(s) is provided by white label with wide red border and red capital letters paratype. Data from locality labels are cited „verbatim“.

Further abbreviations used in the text: ( ) = my remarks and additions; the slash mark / is used to indicate data from separate labels; HT = holotype, PT (PTs) = paratype (paratypes),

ST = syntype, ST 1 (ST 2, ST 3 …) - specimen labelled as syntype number 1 (nr 2, nr 3 …); DV = dorsal view, FV = frontal view, FVV = fronto-ventral view, LV = lateral view; (p) = printed, (h) = handwritten.

A Canon D-550 digital camera with the Canon MP-65 mm f/2.8 1-5x macro lens was used to captured the colour images, multiple photographs taken were combined with Helicon Focus image software, occasional exceptions are noted at relevant places.

Specimens were measured to the nearest 0.05 mm. The length of body was measured as distance between anterior margin of the head and the apex of elytra, the width of body was measured across the widest part (usually at humeri). The pronotal length was measured in the middle, the width across the widest part (usually the beginning of basal third). The elytral length was measured as the maximal perpendicular distance between anterior margin (base) and the tip of elytra. The length of aedeagus was measured as distance between its base and apex of the parameres, the width across the widest part.

The following collection codens are used throughout the text:

BMNH The Natural History Museum, London, United Kingdom;
JMSC collection of Jaroslav Marek, Sýkořice, Czech Republic (it will be deposited in NMPC);
MNHN Muséum national d´Histoire naturelle, Paris, France;
NMPC National Museum, Praha, Czech Republic.

RESULTS

LECTOTYPE DESIGNATIONS

Taphrocerus joukli Obenberger, 1924

(Figs. 1, 1a)

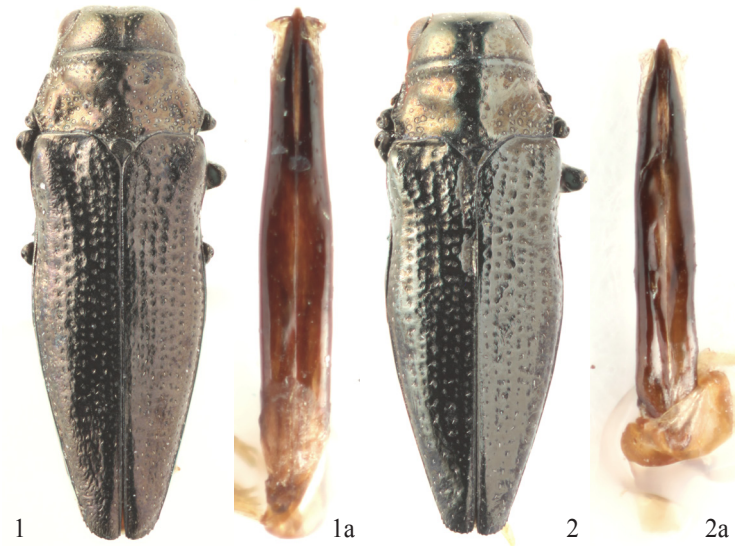
Taphrocerus Joukli Obenberger, 1924: 60, 78-79

Type specimens studied. *Taphrocerus joukli*: lectotype (NMPC, ♂) by present designation: „Resistencia, Argentina [h] \ TYPUS [p] [red label with black margin] \ Taphrocerus Joukli m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p]“. The exact number of syntypes unknown.

Other specimens examined. ARGENTINA: „Argentina, Mis., 20 km N Wanda, 1-22-1989, C W & L B. O´Brien & G. Wibmer / T 1043“ (1 ♂, JMSC); „Argentina, B. Aires, Isla Martin Garcia, xi. 1991.“ (1 ♂, JMSC).

Distribution. Argentina (Resistencia (prov. Chaco) (Obenberger 1924).

Remarks. *T. joukli* is very similar to *T. pauligenus* Obenberger, 1934 (Figs. 2, 2a, 4b, 4c) (described from Brazil, Sao Paulo) externally and by male genitalia. For distinguishing these two species see Table A in Marek 2019a.



Figs. 1-2a: 1- *T. joukli* Obenberger, 1924, LT, ♂, 3.80 mm (NMPC), 1a- aedeagus, 1.25 mm; 2- *T. pauligenus* Obenberger, 1934, LT/ST1, ♂, 4.00 mm (NMPC), 2a- aedeagus, 1.30 mm.

***Taphrocerus ogloblini* Obenberger, 1934**
(Figs. 3, 3a)

Taphrocerus Ogloblini Obenberger, 1934: 25, 53.

Type specimens studied. *Taphrocerus ogloblini*: lectotype (NMPC, ♂) by present designation: „Sta Anna. Ogl. Missiones [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Ogloblini m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus ogloblini Obenberger, 1934 SYNTYPE 12 V. Kubáň labeled 2014 [p] [red label]“. Paralectotypes: the same data as lectotype except for syntype label (missing) (1 ♂, NMPC); „Loreto. Arg. Ogloblin 28 [h] \ TYPUS [p] [red label with black margin] \ Taphrocerus Ogloblini m. Typ [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus ogloblini Obenberger, 1934 SYNTYPE 1 [ST 2 - ST5 respective] V. Kubáň labeled 2014 [p] [red label]“ (4 ♂♂, 1 ♀, NMPC); the same data but without „28“ (year) and with syntype(s) label(s) nr. 6-8 (3 ♀♀, NMPC); the same data but without „28“ and with „III.“ (month) and syntype(s) label(s) nr. 9-10 (1 ♂, 1 ♀, NMPC); „Sta Anna. Arg. Missiones [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Ogloblini m. Typ [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus ogloblini Obenberger, 1934 SYNTYPE 11 [13 respective] V. Kubáň labeled 2014 [p] [red label]“ (1 ♂, 1 ♀, NMPC); „Sta Anna. Arg. Mis. Černosvitov lgt. [h] \ TYPUS [p] [red label with black margin] \ Taphrocerus Ogloblini m. Typ [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus ogloblini Obenberger, 1934 SYNTYPE 14 V. Kubáň labeled 2014 [p] [red label]“ (1 ♀, NMPC). The exact number of syntypes unknown.

Other specimens examined. ARGENTINA: „Argentina: Mis., Iguazu Nat. Park, Hosteria Hoppe., c. 140 m, Malaise trap,10-11. iv. 1974 C. R. Vardy, B. M. 1974-204“ (1 spec., BMNH).

Diagnosis. Small (2.80 mm), elongate, oval, about 2.65 times as long as wide, widest near pronotal base, at humeri and at the middle of elytra, moderately convex above, rather strongly lustrous; head black with slight golden-coppery lustre, pronotum black with rather strong golden-coppery tinge, elytra and scutellum black; beneath black with very strong coppery tinge including legs and antennae; sparsely regularly covered by very short thin white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Redescription of lectotype. Head rather large, wide, sides very slightly attenuate anteriorly (DV); clypeus very widely „V-shaped“, strongly shagreened, separated from frons by a fine carina, epistomal pores large, circular, separated by their own diameter; frons finely shagreened, rather widely depressed at middle, the depression merging into short but distinct sulcus towards vertex, impunctate, with „fronto-clypeal pubescent stripe“ (♂) of rather sparse white setae; vertex rather strongly convex, very feebly, almost inconspicuously depressed at middle longitudinally, with a fine groove at middle longitudinally, finely shagreened, sparsely punctate by very small ocellate and simple punctures (intermixed), each puncture with a short thin white seta; eyes medium-sized, oval, rather poorly visible from above, very slightly projecting beyond outline of head; antennae rather short, narrow.

Pronotum moderately convex, 2.00 times as wide as long, widest before the base; shallowly and rather widely transversely depressed along anterior margin, largely and shallowly so lateroposteriorly, rather deeply and narrowly along the sides, with very vague shallow depression on the disc at middle; with a very vague prominence lateroposteriorly; anterior margin very widely regularly rounded, posterior margin biemarginate, widely and feebly emarginate in front of scutellum, very slightly wider than base of elytra, sides subparallel at anterior third, then slightly arcuately dilated to near of base and then shortly constricted to the base; surface rather strongly shagreened except for the disc laterally, which is almost smooth, with rather small ocellate punctures at the anterior transverse depression and at the depression on the disc and with medium-sized ocellate punctures at the laterobasal depressions, each puncture with a thin white seta; scutellum small, triangular, anterior margin regularly and rather strongly rounded, shagreened, lustrous.

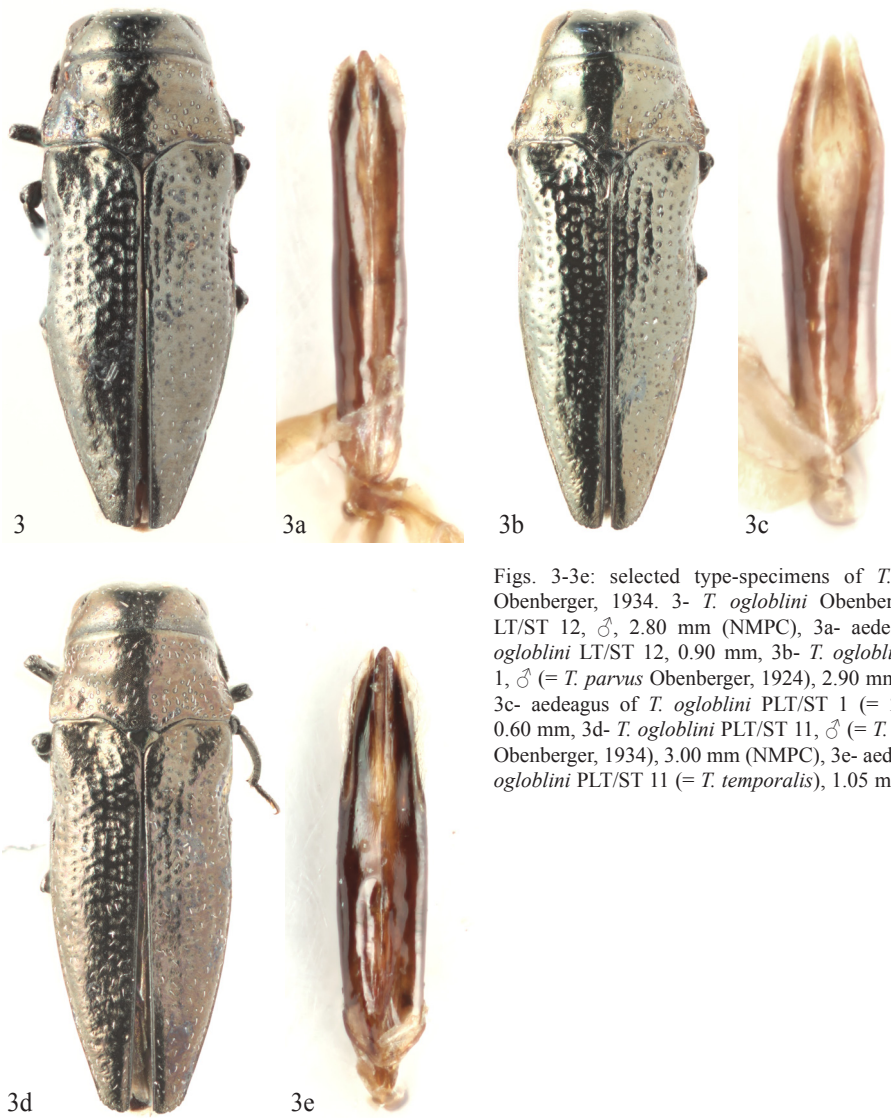
Elytra moderately convex, 2.00 times as long as wide, widest at humeri and at the middle, the same width as pronotum at the widest part; lateral margins slightly and rather widely emarginate behind humeri, regularly rounded at middle, then very widely arcuately tapering towards rather widely and conjointly rounded apices; apices almost inconspicuously serrate; humeral swelling moderately developed, laterobasal depression small and rather shallow; surface strongly shagreened, punctures in rows longitudinally larger and deeper at basal third becoming more or less suddenly very fine, almost inconspicuous at apical half; short thin white setae sparsely in somewhat irregular rows longitudinally; posthumeral elytral carina absent.

Ventral side strongly shagreened, moderately lustrous, abdomen punctate by large „U-turned-up-shaped“ punctures on first visible sternite, rather sparsely pubescent by white setae laterally and apically; anal ventrite rather narrowly rounded, preapical groove following outline of margin regularly semicircular, wide; antennal grooves deep and narrow; posternal process elongate, strongly shagreened, asetose, impunctate, with long and rather deep depression longitudinally at middle, sides distinctly constricted between procoxae, rather strongly dilated behind, apex rhomboidal.

Aedeagus (Fig. 3a).

Measurements. Length 2.80 mm; width 1.05 mm.

Distribution. Argentina (Misiones) (Obenberger 1934).



Figs. 3-3e: selected type-specimens of *T. ogloblini* Obenberger, 1934. 3- *T. ogloblini* Obenberger, 1934, LT/ST 12, ♂, 2.80 mm (NMPC), 3a- aedeagus of *T. ogloblini* LT/ST 12, 0.90 mm, 3b- *T. ogloblini* PLT/ST 1, ♂ (= *T. parvus* Obenberger, 1924), 2.90 mm (NMPC), 3c- aedeagus of *T. ogloblini* PLT/ST 1 (= *T. parvus*), 0.60 mm, 3d- *T. ogloblini* PLT/ST 11, ♂ (= *T. temporalis* Obenberger, 1934), 3.00 mm (NMPC), 3e- aedeagus of *T. ogloblini* PLT/ST 11 (= *T. temporalis*), 1.05 mm.

Remarks. There are mixed three different species in Obenberger´s type-serie of *T. ogloblini* stored in NMPC (see Figs. 3-3e above). Some of the paralectotypes are conspecific with *T. parvus* Obenberger, 1924 (lectotype designation see Marek 2018c: 444) and with *T. temporalis* Obenberger, 1934 (lectotype designation see above). The Obenberger´s description is combination of features of all three species. For this reason I connect the redescription of *T. ogloblini* lectotype (see above).

I know about two next syntypes/paralectotypes of *T. ogloblini* which are stored in MNHN but I didn´t have the opportunity to study them in detail. Nevertheless it seems (according

to its habitus) that one specimen is conspecific with the lectotype of *T. ogloblini* designated herein and the second one is conspecific with the lectotype of *T. parvus*.

***Taphrocerus preissi* Obenberger, 1924**
(Figs. 4, 4a)

Taphrocerus Preissi Obenberger, 1924: 61, 81.

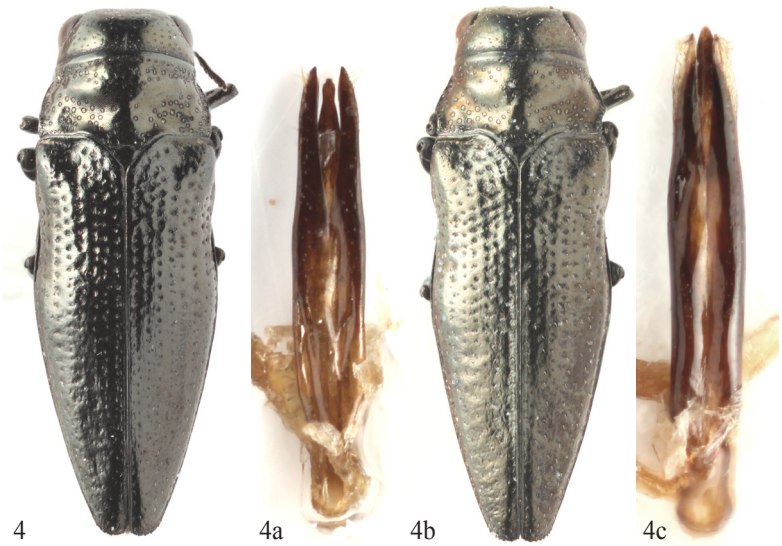
Type specimens studied. *Taphrocerus preissi*: lectotype (NMPC, ♂) by present designation: „São Paulo [h] [!not Obenberger´s MS!] \ TYPUS [p] [red label with black margin] \ Taphrocerus Preissi m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus preissi OBENBERGER, 1924 SYNTYPE 2 V. Kubáň labeled 2014". Paralectotypes: „Sao Paulo Mráz [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Preissi m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus preissi OBENBERGER, 1924 SYNTYPE 1 [ST 3 respective] V. Kubáň labeled 2014" (2 ♂♂, NMPC). The exact number of syntypes unknown.

Other specimens examined. BRAZIL: „SAO PAULO Brs. Mráz (p) / T. preissi (h) sensu J. Obenberger (p)" (1 ♂, NMPC)*.
*This specimen was located by Obenberger beside the specimens mentioned above (see Type specimens studied) before the rearrangement of collection alphabetically in 2014, but it is not labelled neither „Typus" label nor Obenberger´s determination label. For this reason I labelled it by label „T. preissi sensu J. Obenberger" but I do not include it to the type-serie of *T. preissi* (PLT/ST). (note: in contrast to specimens collected by Jaro Mráz and described by Obenberger in 1934 as new species (Jaro Mráz died in 1926).

Diagnosis. Medium-sized (3.70-3.80 mm), broadly oval, about 2.85 times longer than wide, widest just before the middle of elytra, moderately convex above, rather strongly lustrous; above black, head and pronotum with very slight golden reflections, beneath black, legs and antennae black with slight coppery tinge; almost inconspicuously and very sparsely pubescent by extremely short thin white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Redescription of lectotype. Head large, wide, rather markedly narrower than posterior pronotal margin, sides subparallel (DV); clypeus very widely „V-shaped", strongly shagreened, separated from frons by rather well elevated carina, epistomal pores large, slightly elongate transversely, separated more than their own diameter; frons moderately convex, strongly shagreened, very slightly depressed at middle, the depression merging into deep but very short sulcus towards vertex, sparsely punctate by simple punctures above clypeus, impunctate at middle transversely and rather densely ocellate-punctate by very small punctures above the middle towards vertex, with a few extremely short white setae around epistomal pores and laterally only; vertex strongly convex (FV), with a fine groove at middle longitudinally, rather finely shagreened, sparsely punctate by small ocellate punctures, each puncture with extremely short, almost inconspicuous thin white seta; eyes large, rather well visible from above, widely oval, very slightly projecting beyond outline of head; antennae rather long, antennomeres 6-11 widened.

Pronotum moderately convex, 1.86 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, largely and rather deeply so lateroposteriorly, narrowly so along the sides, with shallow depression on the disc at middle



Figs. 4-4c: selected type-specimens of *T. preissi* Obenberger, 1924. 4- *T. preissi* Obenberger, 1924, LT/ST 2, ♂, 3.70 mm (NMPC), 4a- aedeagus of *T. preissi* LT/ST 2, 1.05 mm, 4b- *T. preissi* PLT/ST 1, ♂ (= *T. pauligenus* Obenberger, 1934), 3.80 mm (NMPC), 4c- aedeagus of *T. preissi* PLT/ST 1 (= *T. pauligenus*), 1.25 mm.

and in front of scutellum; with moderately elevated longitudinal bump lateroposteriorly; anterior margin widely regularly rounded, posterior margin strongly biemarginate, very slightly narrower than elytra at base, widely emarginate in front of scutellum, sides shortly subparallel anteriorly, then arcuately dilated to the beginning of basal third, very narrowly and shallowly emarginate, then subparallel to just before the base and then very shortly constricted to the base; surface strongly shagreened, with medium-sized ocellate punctures at the depressions, each puncture with extremely short thin white seta, somewhat more distinct along the sides; scutellum medium-sized, triangular, widely rounded anteriorly, rather strongly shagreened, moderately lustrous.

Elytra moderately convex, somewhat flattened at apical half, slightly wider at humeri than pronotum at the widest part, 2.19 times as long as wide, widest just before the middle; lateral margins slightly and widely emarginate behind humeri, rather widely regularly rounded at middle, then very slowly arcuately tapering towards rather narrowly, slightly separately rounded apices; apices serrate by a few shallow but sharp teeth; humeral swelling rather well developed, laterobasal depression medium-sized and rather deep; surface rather strongly shagreened, punctures in rows longitudinally larger and deeper at basal half becoming fine posteriorly, almost inconspicuous at apical fourth, which is slightly corrugate; pubescent by extremely short, almost inconspicuous thin white setae; posthumeral elytral carina absent.

Ventral surface strongly lustrous, strongly shagreened, abdomen very sparsely pubescent by extremely short, almost inconspicuous thin white setae, rather densely punctate by large „U-turned-up-shaped“ punctures; anal ventrite narrowly rounded, somewhat protruding apically, preapical groove following outline of margin regularly semicircular, wide; antennal grooves widened on prosternum and rather deep and long; prosternal process broadly elongate, sides regularly dilated behind, apex rhomboidal, asetose, coarsely corrugate.

Aedeagus (Fig. 4a).

Sexual dimorphism. Female unknown.

Measurements. Length 3.70-3.80 mm (lectotype 3.70 mm); width 1.30-1.35 mm (lectotype 1.30 mm).

Variability. Except for the size observed in the specimen of *T. preissi* sensu Obenberger (see Other specimens examined above): pronotal base is very slightly wider than base of elytra; scutellum is cordiform; prosternal process is slightly constricted between procoxae, rather strongly dilated behind and with rather deep longitudinally oval depression on the apex at middle.

Distribution. Brazil (Sao Paulo) (Obenberger 1924).

Remarks. There are mixed two different species in Obenberger´s type-serie of *T. preissi* stored in NMPC (see Type specimens studied above). Both paralectotypes of *T. preissi* (PLT/ST 1 and PLT/ST 3) are conspecific with *T. pauligenus* Obenberger, 1934 lectotype (lectotype designation see Marek 2016b: 405). The Obenberger´s description (Obenberger 1924: 81) and characters of morphology given in his key ten years later (Obenberger 1934: 32) are combination of features of both species. For this reason I connect the redescription of *T. preissi* lectotype (see above).

T. preissi and *T. pauligenus* can be distinguished mainly by general body shape (*T. preissi* is more stouter, about 2.85 times longer than wide, *T. pauligenus* is more slender, about 2.98 times longer than wide), by pronotum (widest just before the base in *T. preissi*, at the beginning of basal third in *T. pauligenus*) and very well by apex of phallus (median lobe) of male genitalia (see Figs. 4a, 4c, 2a).

Taphrocerus temporalis Obenberger, 1934
(Figs. 5, 5a)

Taphrocerus temporalis Obenberger, 1934: 24, 51-52.

Type specimens studied. *Taphrocerus temporalis*: lectotype (NMPC, ♂) by present designation: „Loreto. Arg. III. [March] Ogl [h] \ TYPUS [p] [red label with black margin] \ T. temporalis m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus temporalis Obenberger, 1934 SYNTYPE 1 V. Kubáň labeled 2014 [p] [red label]". Paralectotypes: the same data as lectotype except for syntype label nr. 2 (1 ♂ , NMPC); the same data as lectotype without „III." (March) and with syntype(s) label(s) nr. 3 and 8 (1 ♂, 1 ♀, NMPC); the same data as lectotype except for „IV" (April) and with syntype label nr. 5 (1 ♂, NMPC); „St. Anna, Ogl., Missiones [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus temporalis m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus temporalis Obenberger, 1934 SYNTYPE 4 [ST 6 and ST 7 respective] V. Kubáň labeled 2014 [p] [red label]" (3 ♀♀, NMPC). The exact number of syntypes unknown.

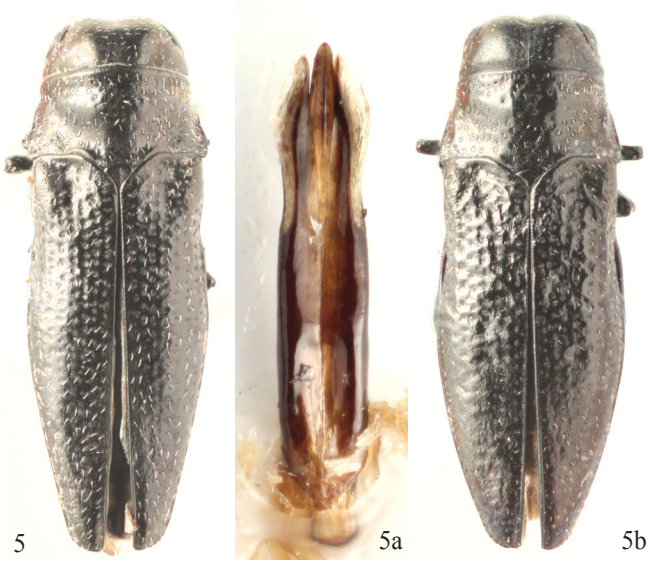
Other specimens examined. BRAZIL: „Santa Cath. / 10569 / Fry Coll., 1905-100." (1 ♀, BMNH).

Distribution. Argentina (Misiones) (Obenberger 1934), new to Brazil (Santa Catharina).

Remarks. There are mixed two different species in Obenberger´s type-serie of *T. temporalis*

stored in NMPC (see Type specimens studied above). One paralectotype (PLT/ST 7) (Fig. 5b) is conspecific with *T. unicolor* Obenberger, 1924 lectotype (lectotype designation see below). The Obenberger´s description and characters of morphology given in a key (Obenberger 1934) correspond to *T. temporalis* lectotype designated herein.

I know about the next paralectotype of *T. temporalis* that is stored in MNHN but I didn´t have the opportunity to study it in detail. Nevertheless it seems (according to its habitus) that it is conspecific with the lectotype of *T. temporalis* designated herein.



Figs. 5-5b: selected type specimens of *T. temporalis* Obenberger, 1934. 5- *T. temporalis* Obenberger, 1934, LT/ST 1, ♂, 3.60 mm (NMPC), 5a- aedeagus of *T. temporalis* LT/ST 1, 1.15 mm, 5b- *T. temporalis* PLT/ST 7, ♀ (= *T. unicolor* Obenberger, 1924), 3.10 mm (NMPC).

***Taphrocerus unicolor* Obenberger, 1924**
(Figs. 5b, 6)

Taphrocerus unicolor Obenberger, 1924: 62, 82

Type specimens studied. *Taphrocerus unicolor*: lectotype (NMPC, ♀) by present designation: „Reimoser, Paraguay, San Luis [p] \ TYPUS [p] [red label with black margin] \ T. unicolor m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus unicolor Obenberger, 1924 SYNTYPE 1 V. Kubáň labeled 2014 [p] [red label]". Paralectotypes: the same data as lectotype except for syntype label nr. 2 (1 ♀, NMPC, note: = *T. senilis* sp. nov. HT see bellow); „Reimoser, Argentinien, S. Lorenzo [p] \ TYPUS [p] [red label with black margin] \ T. unicolor m. Type [h] [Obenberger´s MS] Det. Dr. Obenberger [p] \ Taphrocerus unicolor Obenberger, 1924 SYNTYPE 3 V. Kubáň labeled 2014 [p] [red label]" (1 ♀, NMPC). The exact number of syntypes unknown.

Other specimens examined. ARGENTINA: „Argentina, Corr., 2 km N Sta Ana, (15 km NE Corrientes), I-19-1989" (1 ♀, JMSC); „ARGENTINA, Misiones, Posadas, iv. 1992" (1 ♂, JMSC). BRAZIL: „Brazil: Mato Grosso, 12°50´ S 51°45´ W, ii. 1968, B. E. Freeman / Roy. Soc.-Roy. Georg. Soc., Xavantina-Cachimbo Exped. 1967-69 / Cerradão / Brit. Mus. 1973-272" (1 ♂, BMNH).

Distribution. Argentina (Misiones) (Obenberger 1924), Paraguay (Itapúa) (Obenberger 1924), new to Brazil (Mato Grosso).

Remarks. There are mixed two different species in Obenberger´s type-serie of *T. unicolor* stored in NMPC (see Figs. 6, 6a below). The paralectotype/syntype 2 of *T. unicolor* is described as a new species herein (see *T. senilis* sp. nov. bellow). The Obenberger´s description corresponds to the *T. unicolor* lectotype. For distinguishing *T. unicolor* and *T. senilis* sp. nov. see Table A bellow.

I know about the next syntype/paralectotype of *T. unicolor* that is stored in MNHN but I didn´t have the opportunity to study it in detail. Nevertheless it seems (according to its habitus) that it is conspecific with the lectotype of *T. unicolor* designated herein.

6 6a

Figs. 6-6a: selected type-specimens of *T. unicolor* Obenberger, 1924. 6- *T. unicolor* Obenberger, 1924 LT/ST 1, ♀, 3.10 mm, (NMPC); 6a- *T. unicolor* PLT/ST 2, ♀, (= *T. senilis* sp. nov., HT), 3.30 mm (NMPC).

DESCRIPTIONS OF NEW SPECIES

Taphrocerus senilis sp. nov.

(Fig. 6a)

Type locality. Paraguay, San Luis (Itapúa Dpt.).

Type specimens. Holotype (♀):„Reimoser, Paraguay, San Luis. (p) / TYPUS (p) (red label with black margin) / Taphrocerus unicolor m. Type (h) (Obenberger´s MS) Det. Dr. Obenberger (p) / Taphrocerus unicolor Obenberger, 1924 SYNTYPE 2 V. Kubáň labeled 2014 (p) (red label)“ (NMPC).

Diagnosis. Medium-sized (3.30 mm), rather broadly elongate, oval, robust, about 2.7 times longer than wide, widest just before the pronotal base and just before the middle of elytra, moderately convex above, very lustrous; above uniformly black with very feeble coppery lustre, somewhat more intensive on vertex and at pronotal depressions, beneath black with very slight coppery lustre including legs and antennae; sparsely and regularly covered by thin but rather long white setae, in almost regular rows on elytra longitudinally; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head rather large, wide, distinctly narrower than posterior pronotal margin; clypeus widely „V-shaped“, very strongly shagreened, moderately lustrous, separated from frons by well elevated carina, epistomal pores large, circular, separated more than their own diameter; frons moderately convex, strongly shagreened, deeply and widely depressed at middle, the depression becoming in short but deep sulcus towards vertex, with a few short thin white setae around the epistomal pores and along the inner sides of the eyes only, impunctate; vertex strongly convex, strongly and widely protruding (FVV), slightly depressed at middle, more deeper anteriorly, with a fine groove at middle longitudinally, strongly shagreened, sparsely punctate by small ocellate punctures, sparsely covered by thin but rather long white setae; eyes rather small, feebly visible from above, oval, very slightly projecting beyond outline of head; antennae rather short, antennomeres 6-10 widened.

Pronotum moderately convex, 1.97 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, largely and rather shallowly so lateroposteriorly, with shallow circular depression on the disc at middle; with very vague prominence lateroposteriorly; anterior margin almost straight laterally, markedly angulate at middle, posterior margin strongly biemarginate, markedly wider than elytra at base, slightly and widely emarginate in front of scutellum, sides slightly emarginate at anterior fourth, then wavelike dilated to just before the base and then very shortly constricted to the base; surface rather strongly shagreened at the depressions, finely shagreened on the disc laterally, with medium-sized ocellate punctures at the depressions and small ocellate punctures in a row on the disc transversely, each puncture with a thin long white seta; scutellum medium-sized, very widely cordiform, very widely rounded anteriorly, strongly shagreened, slightly depressed at middle, moderately lustrous.

Elytra* moderately convex, very slightly narrower at humeri than pronotum at the widest part, 2.14 times as long as wide, widest just before the middle; lateral margins very feebly emarginate behind humeri, widely regularly rounded at middle, then very slowly, widely arcuately tapering towards narrowly and almost conjointly rounded apices; apices rather strongly but bluntly serrate laterally; humeral swelling well developed, laterobasal depression medium-sized and rather deep; surface strongly shagreened, punctures in rows longitudinally larger and deeper at basal half becoming fine and shallow apically; thin long white setae sparsely in rows longitudinally; posthumeral elytral carina absent.

Ventral side strongly lustrous, very strongly shagreened, abdomen ocellate-punctate by rather large circular punctures opened posteriorly, with thin but rather long white setae laterally and apically; anal ventrite narrowly rounded, with wide semicircular emargination on apical margin, preapical groove following outline of margin regularly semicircular, wide; antennal grooves long and rather wide; prosternal process elongate, slender relatively, moderately lustrous, strongly shagreened, asetose, impunctate, with longitudinally elongate depression between procoxae, apex narrowly regularly rounded (not dilated!).
*The left elytron is slightly deformed at humerus.

Sexual dimorphism. Male unknown.

Measurements. Length 3.30 mm; width 1.20 mm.

Differential diagnosis. Although the holotype of *T. senilis* sp. nov. was included by Obenberger among three syntypes of *T. unicolor* stored in NMPC, it is well distinguished from the lectotype of *T. unicolor* (lectotype designation and Fig. 6 see above). *T. senilis* sp. nov. belongs together with *T. unicolor* to the *T. dudai* species-group (see also Marek 2016b: 407), which is characterized by general shape of body, small to medium-sized, by uniformly darkness colouration of dorsal side, absence of pronotal prehumeral and elytral posthumeral carinae and namely by base of pronotum, which is distinctly wider than base of elytra (mostly wider than elytra at humeri). *T. senilis* sp. nov. can be distinguished from *T. unicolor* by the characters given in Table A bellow.

Table A. Diagnostic characters of *T. senilis* sp. nov. and *T. unicolor* Obenberger, 1924.

	T. senilis (♀)	*T. unicolor* (♀)
Body shape	wider, broadly oval, less than 2.8 times as long as wide	narrower, cylindrical, more than 2.9 times as long as wide
Head (DV)	less convex anteriorly, wider (about 3.3 times as wide as long)	more convex anteriorly, narrower (about 2.9 times as wide as long)
Pronotum	wider (about 2.0 times as wide as long)	narrower (about 1.8 times as wide as long)
Pronotal anterior margin	almost straight laterally, angulate at middle	very widely, regularly arcuately rounded
Pronotal ocellate punctures	distinctly larger	distinctly smaller
Pubescence of dorsal side	longer thin white setae	shorter thin white setae

Etymology. The specific epithet is the Latin adjective *senilis* (senior, elder) to stress the distinct pubescence of thin but long white setae of this species.

Remarks. The Obenberger´s description of *T. unicolor* corresponds to the *T. unicolor* lectotype (Fig. 6).

Taphrocerus brulei **sp. nov.**
(Figs. 7, 7a)

Type locality. French Guiana, Kourou, Guatemala.

Type specimens. Holotype (♂): „GUYANE Francaise, Kourou, Guatemala, 15. xii. 2006, Snížek lgt.“, (JMSC).

Diagnosis. Medium-sized (3.30 mm), elongate, cylindrical, slender, about 3.2 times longer than wide, widest at humeri and just before the middle of elytra, rather moderately convex above, strongly lustrous; above black, head with strong golden-coppery tinge, pronotum with strong aeneous and golden reflections, elytra with dark coppery tinge and strong bright golden-coppery tinge at humeri, scutellum with bright coppery lustre; beneath black, legs and antennae black with strong coppery tinge; with sparse and extremely short, almost inconspicuous thin white setae above; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head large, wide, slightly narrower than posterior pronotal margin, sides subparallel (DV); clypeus very widely „V-shaped“, strongly shagreened, separated from frons by well elevated carina, epistomal pores large, slightly elongate transversely, separated by their own diameter; frons moderately convex, strongly shagreened, moderately depressed at middle longitudinally, the depression merging into short but distinct sulcus towards vertex, sparsely punctate by simple punctures, with a few very short white setae above clypeus and along the inner sides of the eyes only; vertex moderately convex, strongly shagreened, with small but deep depression anteriorly at middle, with a fine groove at middle longitudinally, sparsely ocellate-punctate by very small punctures, each puncture with very short thin white seta; eyes rather large, narrowly ovoid, very slightly projecting beyond outline of head, well visible from above; antennae medium-sized, narrow.

Pronotum rather strongly convex anteriorly, moderately convex at posterior half, 1.65 times as wide as long, widest just behind the middle; very narrowly transversely depressed along anterior margin, largely and shallowly so lateroposteriorly, very shallowly so on the disc at middle and in front of scutellum; with a vague longitudinal bump lateroposteriorly; anterior margin very widely, regularly rounded, almost the same width as posterior one (!), posterior margin rather feebly biemarginate, rather strongly emarginate in front of scutellum, slightly narrower than base of elytra, sides very slowly arcuately dilated at anterior half, then slightly emarginate and then very slightly dilated to the base; surface strongly shagreened, sparsely and almost regularly ocellate-punctate by small punctures, each puncture with extremely short thin white seta; scutellum rather small, regularly cordiform, rather strongly rounded anteriorly, lustrous.

Elytra moderately convex, slightly wider at humeri than pronotum at the widest part, 2.34 times as long as wide, widest at humeri and just before the middle; lateral margins rather deeply and narrowly emarginate behind humeri, widely regularly rounded at middle, then very slowly arcuately tapering towards rather widely and very slightly separately rounded apices; apices minutely but distinctly serrate by sharp teeth; humeral swelling moderately developed, laterobasal depression small but rather deep, well distinct; surface finely shagreened, punctures in rows longitudinally larger and deeper at basal third only becoming more finer posteriorly, almost inconspicuous at apical fourth, which is somewhat corrugate; regularly and sparsely covered by extremely short, almost inconspicuous white setae; posthumeral elytral carina absent, an obsolete fold present at apical third near the sides.

Ventral surface strongly shagreened, moderately lustrous, abdomen punctate by small circular punctures opened posteriorly on first visible sternite, pubescent by short thin white setae laterally and apically; anal ventrite narrowly rounded, with shallow emargination on apical margin, preapical groove following outline of margin narrowly semicircular, narrow; antennal grooves rather shallow, wide and long; prosternal process elongate, strongly shagreened, asetose, coarsely irregularly punctate, sides feebly constricted between procoxae, slightly dilated behind, apex rhomboidal.

Aedeagus (Fig. 7a).

Sexual dimorphism. Female unknown.

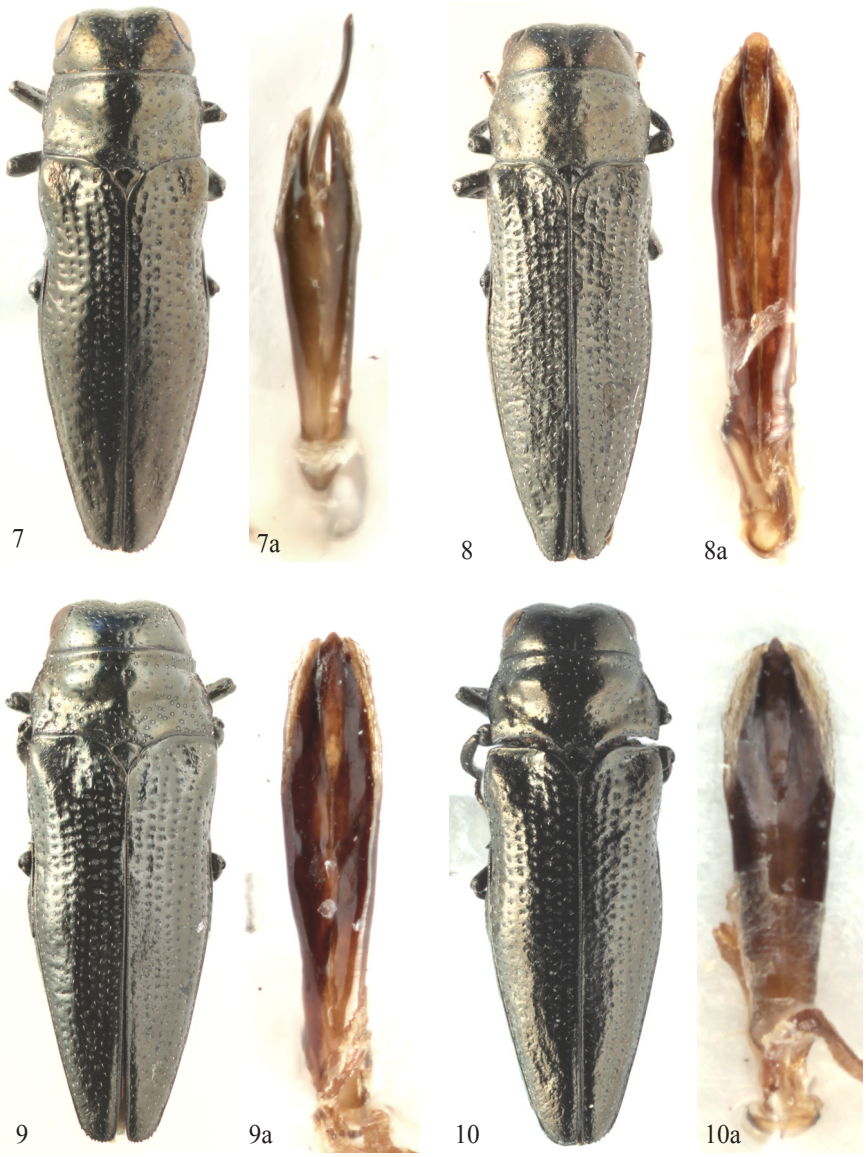
Measurements. Length 3.30 mm; width 1.05 mm.

Differential diagnosis. Although *T. brulei* sp. nov. is very similar to *T. alutaceicollis* Obenberger, 1934 (Figs. 8, 8a) (described from French Guiana also) by its colouration and body shape, it belongs in fact to taxonomically very difficult species complex around *T. obscurellus* Obenberger, 1934 (Figs. 9, 9a) by its characters of morphology. The complex differs from very similar Amazonian complex around *T. kubani* Marek, 2017 namely by slightly narrower pronotal base than base of elytra (distinctly wider in *T. kubani* complex). *T. brulei* sp. nov. is very similar to *T. obscurellus* and *T. abscondus* Marek, 2018 (Figs. 10, 10a) (both described from French Guiana also) and it can be distinguished by the characters given in Table B bellow.

Table B. Diagnostic characters of *T. brulei* sp. nov., *T. obscurellus* Obenberger, 1934 and *T. abscondus* Marek, 2018.

	T. brulei (♂)	*T. obscurellus* (♂)	*T. abscondus* (♂)
Size and body shape	smaller (3.30 mm); slender (more than 3.1 times longer than wide), cylindrical	larger (3.30-4.20 mm); stouter (less than 2.9 times longer than wide), from conical (larger specimens) to oval (smaller specimens)	smaller (3.00-3.55 mm); slender (more than 3.00 times longer than wide), oval
Colouration of dorsal side	black, head with strong golden-coppery tinge, pronotum with strong aeneous and golden reflections, elytra with dark coppery tinge and strong bright golden-coppery tinge at humeri, scutellum with bright coppery lustre	uniformly „deeply“ black, pronotum sometimes with very feeble bronze-green reflections	black with more or less strong golden-coppery lustre
Vertex	densely and coarsely punctate anteriorly	densely and coarsely punctate anteriorly	sparsely and finely punctate anteriorly
Eyes	larger, narrowly ovoid (LV), well visible from above	larger, oval (LV), less visible from above	smaller, slightly reniform (LV), less visible from above
Width of anterior pronotal margin	wider relatively - more than 0.9 of width of posterior pronotal margin	narrower relatively - less than 0.9 of width of posterior pronotal margin	narrower relatively - less than 0.9 of width of posterior pronotal margin
Elytral lateral margins	more deeply and narrowly emarginate behind humeri	more shallowly and widely emarginate behind humeri	more shallowly and widely emarginate behind humeri
Aedeagus	slender, about 4.7 times longer than wide; apical semimembranous part very small, almost inconspicuous; parameres straight dilated at basal two-third, then angulate and straight constricted apically (Fig. 7a)	slender, about 4.4 times longer than wide; apical semimembranous part narrow, less distinct; parameres almost regularly arcuately rounded laterally from base to apex (Fig. 9a)	stouter, about 3.8 times longer than wide; apical semimembranous part wide, well distinct; parameres straight dilated at basal two-thirds, then arcuately constricted apically (Fig. 10a)

Etymology. Named in honour of Stephane Brûlé (Salagnon, France), specialist in Coleoptera, especially Buprestidae of French Guiana; patronymic.



Figs. 7-10a: 7- *T. brulei* sp. nov., HT, ♂, 3.30 mm, 7a- aedeagus, 0.90 mm; 8- *T. alutaceicollis* Obenberger, 1934, LT, ♂, 3.70 mm (NMPC), 8a- aedeagus, 0.95 mm; 9- *T. obscurellus* Obenberger, 1934, LT, ♂, 4.00 mm (NMPC), 9a- aedeagus, 1.35 mm; 10- *T. abscondus* Marek, 2018, HT ♂, 3.55 mm (JMSC), 10a- aedeagus, 0.85 mm.

Taphrocerus jaroslavi sp. nov.
(Figs. 11, 11a)

Type locality. French Guiana, Cayenne, Mt. Bourda.

Type specimens. Holotype (♂): „GUYANE Francaise, Cayenne, Mt. Bourda, J. Marek lgt., v. 1992“ (JMSC). Paratypes (21): the same data as holotype (3 ♂♂, 1 ♀, JMSC); the same data but „iv. 1992“ (4 ♂♂, 3 ♀♀, JMSC); the same data but „ix. 1992“ (2 ♀♀, JMSC); „Guyane Francaise, Mont Grand Matoury, 5.-14. 9. 1995, M. Kocian lgt.“ (1 ♂, 1 ♀, JMSC); the same data but „2.-11. 10. 1995“ (1 ♀, JMSC); „French Guyane, 6.-14. ix. 1995, Matoury env., Mont Grand Matoury, M. Trýzna lgt.“ (2 ♂♂, 3 ♀♀, JMSC).

Diagnosis. Medium-sized (3.35-3.70 mm), rather broadly oval, about 2.85 times longer than wide, widest just before the middle of elytra, moderately convex above, very strongly lustrous; above black, head and pronotum with very slight golden reflections, beneath black including legs and antennae; sparsely pubescent by short thin white setae, in rows longitudinally on elytra; prehumeral pronotal carina absent; posthumeral elytral carina absent but more or less well distinct fold (with blunt edge) present at apical fourth near the sides.

Description of holotype. Head rather large, wide, rather distinctly narrower than posterior pronotal margin, sides subparallel (DV); clypeus very widely „V-shaped“, strongly shagreened, separated from frons by a fine carina, epistomal pores large, circular, separated less than their own diameter; frons moderately convex, finely shagreened, rather slightly depressed at middle, the depression merging into deep and narrow sulcus towards vertex, impunctate, with a few short white setae around epistomal pores and laterally only; vertex strongly convex (FV), with a fine groove at middle longitudinally, rather strongly shagreened, very sparsely punctate by very small ocellate punctures, each puncture with extremely short white seta; eyes large, rather well visible from above, broadly oval, slightly projecting beyond outline of head; antennae narrow and rather long.

Pronotum moderately convex, 1.82 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, largely and rather deeply so lateroposteriorly, narrowly so along the sides, with very shallow depression on the disc at middle and in front of scutellum; with moderately elevated longitudinal bump lateroposteriorly; anterior margin widely rounded, almost straight at middle, posterior margin strongly biemarginate, very slightly wider than elytra at base, widely emarginate in front of scutellum, sides shortly subparallel anteriorly, then arcuately dilated to the beginning of basal third, very narrowly but rather deeply emarginate, then arcuately dilated to just before the base and then very shortly constricted to the base; surface rather finely shagreened, almost smooth on the disc laterally, with medium-sized ocellate punctures at the depressions, each puncture with a short thin white seta; scutellum medium-sized, widely cordiform, widely rounded anteriorly, rather strongly shagreened, moderately lustrous.

Elytra moderately convex, very slightly wider at humeri than pronotum at the widest part, 2.11 times as long as wide, widest just before the middle; lateral margins slightly and rather narrowly emarginate behind humeri, rather widely regularly rounded at middle, then very slowly, almost straight tapering towards rather narrowly, very slightly separately

rounded apices; apices serrate by a few shallow but sharp teeth laterally; humeral swelling rather well developed, laterobasal depression medium-sized and rather deep; surface finely shagreened, punctures in rows longitudinally larger and deeper at basal half and near suture, almost inconspicuous laterally and at apical third; pubescent by short thin white setae in rows longitudinally, somewhat more distinct at apical half; posthumeral elytral carina absent but more or less well distinct fold (with blunt edge) present at apical fourth near the sides.

Ventral surface strongly lustrous, strongly shagreened, abdomen rather densely pubescent by white setae laterally and apically, sparsely punctate by „U-turned-up-shaped“ punctures; anal ventrite narrowly rounded, with rather deep emargination on apical margin, preapical groove following outline of margin regularly semicircular, narrow; antennal grooves wide and rather shallow; prosternal process elongate, sides slightly constricted between procoxae, moderately dilated behind, apex rhomboidal, with shallow sulcus longitudinally, asetose, rather coarsely punctate.

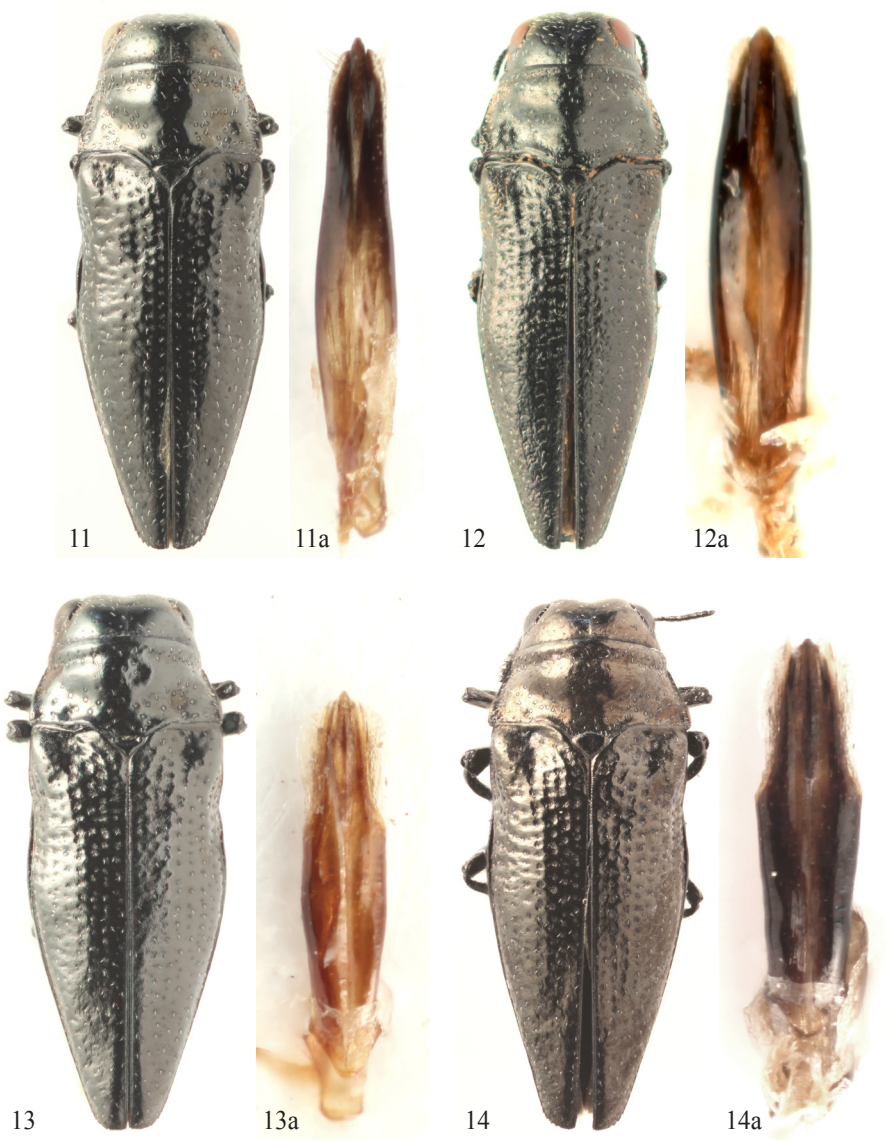
Aedeagus (Fig. 11a).

Sexual dimorphism. Male is somewhat more slender than female; anal ventrite is more broadly rounded and the emargination on apical margin is deeper and more distinct in female.

Measurements. Length 3.35-3.70 mm (holotype 3.35 mm); width 1.15-1.25 mm (holotype 1.15 mm).

Variability. Not apparent except for the size.

Differential diagnosis. *T. jaroslavi* sp. nov. belongs among larger number of species of *T. wagneri* species-group (definition of species-group in prep.). From similar *T. scutellatus* Obenberger, 1934 (Figs. 13, 13a) (described from French Guiana) and *T. subglaber* Fisher, 1925 (Figs. 14, 14a) (described from Trinidad) it differs mainly by distinct pubescence of dorsal side (almost inconspicuous both *T. scutellatus* and *T. subglaber*) and from another similar species with the same known area of distribution *T. chassaini* Marek, 2018 (Figs. 12, 12a) (described from French Guiana also) it can be distinguished by the characters given in table C bellow (see also Differential diagnosis under *T. trinidadensis* sp. nov. bellow). *T. jaroslavi* sp. nov. is also very similar to *T. winteri* Obenberger, 1924 (Figs. 16, 16a) (described from Brazil, Rio de Janeiro) habitually and namely by male genitalia but differs by more distinct pubescence of dorsal side, less prominent eyes beyond outline of head, almost straight tapering elytra towards apices at apical two-fifths and by very strongly lustrous surface of dorsal side (finely shagreened).



Figs. 11-14a: 11- *T. jaroslavi* sp. nov., HT, ♂, 3.35 mm, 11a- aedeagus, 0.95 mm; 12- *T. chassaini* Marek, 2018, HT, ♂, 3.75 mm (JMSC), 12a- aedeagus, 0.80 mm; 13- *T. scutellatus* Obenberger, 1934, LT, ♂, 2.95 mm (NMPC), 13a- aedeagus, 0.95 mm; 14- *T. subglaber* Fisher, 1925, specimen ♂ from Tobago, 3.40 mm (JMSC), 14a- aedeagus, 1.00 mm.

Table C. Diagnostic characters of *T. jaroslavi* sp. nov. and *T. chassaini* Marek, 2018.

	T. jaroslavi	*T. chassaini*
Dorsal surface	rather finely shagreened → very strongly lustrous	strongly shagreened → markedly less lustrous, almost dull
Frons (DV) (♂♂)	wider relatively, about 0.6 of width of anterior pronotal margin	narrower relatively, about 0.5 of width of anterior pronotal margin
Pronotal maximal width	widest just before the base	widest at the beginning of basal fourth
Pronotal sides	dilated posteriorly; narrowly but distinctly emarginate at the beginning of basal third	dilated to the beginning of basal fourth, then constricted to the base; without any emargination
Pronotal base	slightly wider than base of elytra	of the same width as base of elytra
Pronotal punctation	larger ocellate punctures (markedly larger than punctures on the vertex)	smaller ocellate punctures (almost the same size as punctures on the vertex)
Scutellum	wider, about 5.0 times narrower than elytral base	narrower, about 6.0 times narrower than elytral base
Aedeagus	slender, about 6.0 times longer than wide; parameres arcuately rounded at basal half, emarginate at apical one; apex of phallus (median lobe) markedly more narrower (Fig.11a)	stouter, about 5.0 times longer than wide; parameres regularly arcuately rounded from base to apex; apex of phallus (median lobe) markedly more wider (Fig. 12a)

Etymology. The species is dedicated to my father Jaroslav as my thanks for his love and patience; patronymic.

Taphrocerus trinidadensis sp. nov.

(Figs. 15, 15a)

Type locality. Trinidad, Chaguaramas, 10°43´13´´ N / 61°36´47´´ W.

Type specimens. Holotype (♂): „TRINIDAD W.I., Chaguaramas, 22. 11. 2005 M. T., leg. C. J. Zwakhals, 10°43´13´´ N / 61°36´47´´ W“ (JMSC).

Diagnosis. Medium-sized (3.30 mm), elongate, rather broadly oval, stout, 2.87 times longer than wide, widest at humeri and just before the middle of elytra, moderately convex above, rather strongly lustrous; above and beneath uniformly black including legs and antennae, clypeus with strong coppery tinge; pubescent by very sparse and very short, almost inconspicuous thin white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head large, wide, slightly narrower than posterior pronotal margin; clypeus very widely „V-shaped“, strongly shagreened, separated from frons by very obsolete carina, epistomal pores large, elongate transversely, separated more than their own diameter; frons feebly convex, slightly and widely depressed at middle, rather finely shagreened, asetose, impunctate; vertex strongly convex (FV), rather finely shagreened, very slightly depressed at middle anteriorly, with a fine groove at middle longitudinally,

sparsely punctate by very small ocellate punctures, each puncture with extremely short thin white seta; eyes medium-sized, rather broadly oval, very slightly projecting beyond outline of head, moderately visible from above; antennae rather short, antennomeres 6-11 widened.

Pronotum moderately convex, 1.89 times as wide as long, widest at the beginning of basal third and just before the base; narrowly transversely depressed along anterior margin, more deeper laterally and almost interruptly at middle, largely and rather shallowly depressed lateroposteriorly, narrowly and rather deeply so along the sides at anterior half, with very shallow depressions on the disc at middle and in front of scutellum; with very vague prominence lateroposteriorly; anterior margin widely arcuately rounded, posterior margin rather feebly biemarginate, very widely emarginate in front of scutellum, slightly but distinctly narrower than base of elytra, sides subparallel at anterior fifth, then straight dilated to the beginning of basal third, then slightly but distinctly emarginately constricted and then feebly dilated to just before the base and then very shortly constricted to the base; surface strongly shagreened, rather sparsely ocellate-punctate by medium-sized punctures at the depressions, each puncture with a short thin white seta; scutellum medium-sized, widely cordiform, strongly shagreened, rather strongly lustrous.

Elytra moderately convex, 2.18 times as long as wide, widest at humeri and just before the middle, slightly wider at humeri than pronotum at the widest part; lateral margins slightly and rather widely emarginate behind humeri, rather narrowly rounded at middle, then very slowly arcuately tapering towards broadly and slightly separately rounded apices; apices rather strongly serrate laterally by sharp teeth; humeral swelling moderately developed, laterobasal depression medium-sized and shallow; surface strongly shagreened, punctures in rows longitudinally larger and deeper at basal half becoming more finer posteriorly but distinct to the apex; sparsely pubescent by extremely short, almost inconspicuous thin white setae in rows longitudinally; posthumeral elytral carina absent.

Ventral side moderately lustrous, strongly shagreened, abdomen rather densely punctate by circular punctures opened posteriorly, very sparsely, almost inconspicuously pubescent by extremely short white setae laterally and apically; anal ventrite rather narrowly rounded, apical margin somewhat protruding posteriorly, with wide and shallow emargination, preapical groove following outline of margin regularly semicircular, wide; antennal grooves wide, rather shallow; prosternal process rather shortly elongate, strongly shagreened, sides constricted between procoxae, strongly dilated behind, apex rhomboidal, surface asetose, impunctate, with shallow, widely oval depression at middle.

Aedeagus (Fig. 15a).

Sexual dimorphism. Female unknown.

Measurements. Length 3.30 mm; width 1.15 mm.

Differential diagnosis. *T. trinidadensis* sp. nov. belongs to the same species-group as *T. kociani* sp. nov. described above - *T. wagneri* species-group (definition and revision in prep.) and it can be distinguished from both *T. kociani* sp. nov. and *T. chassaini* (see above) namely by extremely short, almost inconspicuous pubescence of dorsal side (well distinct setae in *T. kociani* sp. nov. and *T. chassaini*). From another two species of the *T. wagneri* species-group distributed in the

Amazonia including the South American shelf islands along the north coast (*T. subglaber* Fisher, 1925 and *T. scutellatus* Obenberger, 1934 (see Figs. 13, 14 above) it can be distinguished namely by slightly but distinctly narrower base of pronotum than base of elytra (slightly wider in *T. scutellatus* and *T. subglaber*). *T. trinidadensis* sp. nov. is the most similar to *T. winteri* Obenberger, 1924 (Figs. 16, 16a) (described from Brazil, Rio de Janeiro) by body shape and many details of morphology including male genitalia. For distinguishing these two species see Table D bellow.

Table D. Diagnostic characters of *T. trinidadensis* sp. nov. and *T. winteri* Obenberger, 1924.

	T. trinidadensis (♂)	*T. winteri* (♂)
Frons (DV)	wider, about 0.6 of width of anterior pronotal margin	narrower, about 0.5 of width of anterior pronotal margin
Vertex (FV)	more convex	less convex
Eyes	smaller, broadly oval (FV); very slightly projecting beyond outline of head (DV); poorly visible from above	larger, almost circular (FV); strongly projecting beyond outline of head; well visible from above
Pronotum	narrower, about 1.9 times wider than long	wider, about 2.0 times wider than long
Aedeagus	more convex; parameres slightly dilated apically at basal two thirds (Fig. 15a)	more flattened; parameres slightly constricted apically at basal two thirds (Fig. 16a)
Distribution	Trinidad	Brazil, so far known from state Rio de Janeiro only

Etymology. The species is named after the country (island) of the origin (Trinidad); adjective.

Figs. 15-16a: 15- *T. trinidadensis* sp. nov., HT, ♂, 3.30 mm, 15a- aedeagus, 0.80 mm; 16- *T. winteri* Obenberger, 1924, specimen ♂ from Brazil, Rio de Janeiro (JMSC), 3.75 mm, 16a- aedeagus, 0.80 mm.

***Taphrocerus fallax* sp. nov.**
(Figs. 17, 17a)

Type locality. Brazil, State Sao Paulo, Marcilac, 23°55´S, 46°39´W.

Type specimens. Holotype (♂): „Brasil: São Paulo St., Marcilac, 23°55´S, 46°39´W / 9. ii. 1969, V. N. Alin“ (JMSC).

Diagnosis. Medium-sized (3.95 mm), elongate, subcylindrical, about 2.94 times longer than wide, widest at humeri and just before the middle of elytra, moderately convex above, rather strongly lustrous; above black with very strong purple-violet tinge, beneath black with coppery tinge including legs, antennae black with slight bluish lustre; sparsely regularly covered by very short thin white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head medium-sized, slightly narrower than posterior pronotal margin; clypeus very widely „V-shaped“, strongly shagreened, epistomal pores large, elongate transversely, separated less than their own diameter (almost touching); frons feebly convex, rather widely and deeply depressed at middle, the depression merging into obsolete sulcus towards vertex, sparsely and finely punctate by simple punctures, with a few short thin white setae above epistomal pores only; vertex rather strongly convex (FV), rather strongly shagreened, with a fine groove at middle longitudinally, sparsely ocellate-punctate by small punctures, each puncture with a short thin white seta; eyes large, widely reniform, rather strongly projecting beyond outline of head; antennae long and narrow, antennomeres 6-11 widened.

Pronotum moderately convex, 1.91 times as wide as long, widest at the beginning of basal third; unsculptured relatively, narrowly and shallowly transversely depressed along anterior margin, almost interruptly at middle, very shallowly depressed lateroposteriorly, with rather deep sulcus along the sides at anterior half; without any bump or prominence lateroposteriorly; anterior margin very widely regularly rounded, posterior margin rather feebly biemarginate and widely emarginate in front of scutellum, slightly but distinctly narrower than base of elytra, sides very shortly subparallel anteriorly, then almost straight dilated to the beginning of basal third, bluntly angulate and then straight constricted to the base; surface rather strongly shagreened, sparsely and almost regularly ocellate-punctate by rather small punctures, each puncture with a short thin white seta; scutellum rather small, cordiform, moderately shagreened, lustrous.

Elytra moderately convex, somewhat flattened at apical half, slightly wider at humeri than pronotum at the widest part, 2.24 times as long as wide, widest at humeri and just before the middle; lateral margins slightly and widely emarginate behind humeri, rather narrowly rounded just before the middle, then very slowly arcuately tapering towards rather narrowly and separately rounded apices; apices rather bluntly serrate, slightly spathulate; humeral swelling moderately developed, laterobasal depression rather small but deep, well marked; surface strongly shagreened at basal two thirds, rather finely shagreened at apical third,

which is somewhat corrugate, punctures in rows longitudinally larger and deeper at basal third becoming fine posteriorly, disappearing at apical fifth; sparsely and almost regularly pubescent by short thin white setae; posthumeral elytral carina absent.

Ventral side strongly shagreened, abdomen sparsely punctate by „U-turned up-shaped" punctures, larger on first visible sternite and becoming more smaller apically, with an extremely short, almost inconspicuous thin white setae along the sides only; anal ventrite rather narrowly rounded, preapical groove following outline of margin rather narrow, regularly semicircular; antennal grooves long and deep, widened on prosternum; prosternal process broadly elongate, sides slightly and regularly dilated behind, apex rhomboidal, surface strongly shagreened, asetose, impunctate.

Aedeagus (Fig. 17a).

Sexual dimorphism. Female unknown.

Measurements. Length 3.95 mm; width 1.35 mm.

Differential diagnosis. See Differential diagnosis of related *T. wygodzinskyi* sp. nov. and Table E Diagnostic characters of *T. fallax* sp. nov., *T. vimmeri* Obenberger, 1924, *T. ecuadorensis* Marek, 2018 and *T. wygodzinskyi* sp. nov. below.

Etymology. The specific epithet is the Latin adjective *fallax* (deceptive, false); named in reference to its external similarity to *T. vimmeri*, *T. ecuadorensis* and *T. wygodzinskyi* sp. nov. (see Figs. 17, 18, 19, 20 bellow).

Taphrocerus wygodzinskyi sp. nov.

(Figs. 20, 20a)

Type locality. Brazil, Minas Gerais, Vicosa.

Type specimens. Holotype (♂): „VICOSA, MINAS GERAIS., 9 - 1943, WYGODZINSKY LEG. / (empty red label)" (NMPC). Paratype: „SITIO BONFIM, NOVA FRIBURGO, EST. RIO 8 - II - 1945, WYGOD. COL." (1 ♀, NMPC).

Diagnosis. Medium-sized (3.75-3.95 mm), rather broadly elongate, about 2.7 times longer than wide, widest at humeri (♂) or at humeri and before the middle of elytra (♀); rather strongly (♂) or moderately (♀) convex above, elytra somewhat flattened at apical third along the suture, very lustrous; above „deeply" black, head and elytra with very slight purple lustre, pronotum with very slight bluish lustre and slight golden-coppery tinge at lateroposterior depressions, beneath uniformly „deeply" black including legs, antennae black with strong purple tinge; above regularly covered by very sparse and almost inconspicuous, very short thin white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head large, wide, rather distinctly narrower than posterior pronotal margin; clypeus very widely „V-shaped", strongly shagreened, separated from frons by very

fine carina, epistomal pores large, circular, separated more than their own diameter; frons very feebly convex, strongly shagreened, unsculptured relatively, with shallow and rather wide sulcus between the eyes transversely above clypeus, very sparsely punctate by fine simple punctures, with a few thin white setae around the epistomal pores only; vertex feebly convex (FVV), very slightly and widely depressed at middle anteriorly (DV), with very fine groove at middle longitudinally, sparsely ocellate-punctate by very small punctures, regularly but almost inconspicuously pubescent by extremely short thin white setae; eyes large, broadly oval, very feebly projecting beyond outline of head; antennae rather short and narrow.

Pronotum moderately convex, 2.00 times as wide as long, widest at the beginning of basal fourth; unsculptured relatively, rather widely and very shallowly transversely depressed along anterior margin, almost interruptly at middle, largely and shallowly depressed lateroposteriorly, very shallowly depressed in front of scutellum; with a narrow sulcus along the sides; with very vague prominence lateroposteriorly; anterior margin widely rounded, somewhat more arcuately at middle, posterior margin rather strongly biemarginate, rather widely and deeply emarginate in front of scutellum, distinctly narrower than base of elytra, sides straight dilated posteriorly at anterior fifth, then arcuately, more stronger dilated to the beginning of basal fourth, then shortly arcuately constricted and then shortly but distinctly emarginately constricted to the base; surface strongly shagreened at middle longitudinally, somewhat more finely shagreened laterally, sparsely ocellate-punctate by small punctures at the depressions, the punctures at the transverse anterior depression are distinctly smaller than at lateroposterior ones, each puncture with a short thin white seta; scutellum rather large, cordiform, very strongly arcuately rounded anteriorly, strongly shagreened, moderately lustrous.

Elytra rather strongly convex, somewhat flattened at apical half, distinctly wider at humeri than pronotum at the widest part, 2.12 times as long as wide, widest at humeri; lateral margins feebly and widely emarginate behind humeri, rather narrowly rounded at middle, then very slowly arcuately tapering towards rather narrowly and separately rounded apices; apices rather strongly serrate; humeral swelling moderately developed, laterobasal depression small but rather deep, well marked; surface very feebly shagreened, strongly shagreened around scutellum only, punctures in very irregular rows longitudinally larger and deeper at basal third becoming more finer posteriorly, almost disappearing at apical third which is somewhat corrugate; sparsely pubescent by very short thin white setae; posthumeral elytral carina absent.

Ventral surface strongly shagreened, very lustrous, abdomen punctate by medium-sized „U-turned up-shaped“ punctures on first visible sternite and by small circular punctures opened posteriorly on the next ones, sparsely regularly covered by extremely short thin white setae; anal ventrite rather narrowly rounded, somewhat protruding apically, with wide and rather flat emargination on apical margin, preapical groove following outline of margin wide, rather narrowly rounded; antennal grooves deep and rather long, somewhat widened on prosternum; prosternal process broadly elongate, sides regularly dilated behind, apex rhomboidal, surface strongly shagreened, impunctate, with a few thin white setae and with shallow, longitudinally oval depression.

Aedeagus (Fig. 20a).

Sexual dimorphism. Male is somewhat more slender than female (body 2.75 times longer than wide in male, 2.67 in female, pronotum 2.00 times wider than long in male, 2.14 in female, elytra 2.12 times longer than wide in male, 2.07 in female) and distinctly more convex above; the maximal width of body is at humeri in male and at humeri and before the middle of elytra in female; the pronotal base is almost the same width as base of elytra in female (distinctly narrower in male); anal ventrite and preapical groove following outline of margin is more widely rounded in female; the flat emargination on apical margin of anal ventrite is distinctly wider in female.

Measurements. Length 3.75-3.95 mm (holotype 3.75 mm); width 1.35-1.45 mm (holotype 1.35 mm).

Variability. Except for the size observed in less intensive golden-coppery tinge at lateroposterior pronotal depressions in the paratype.

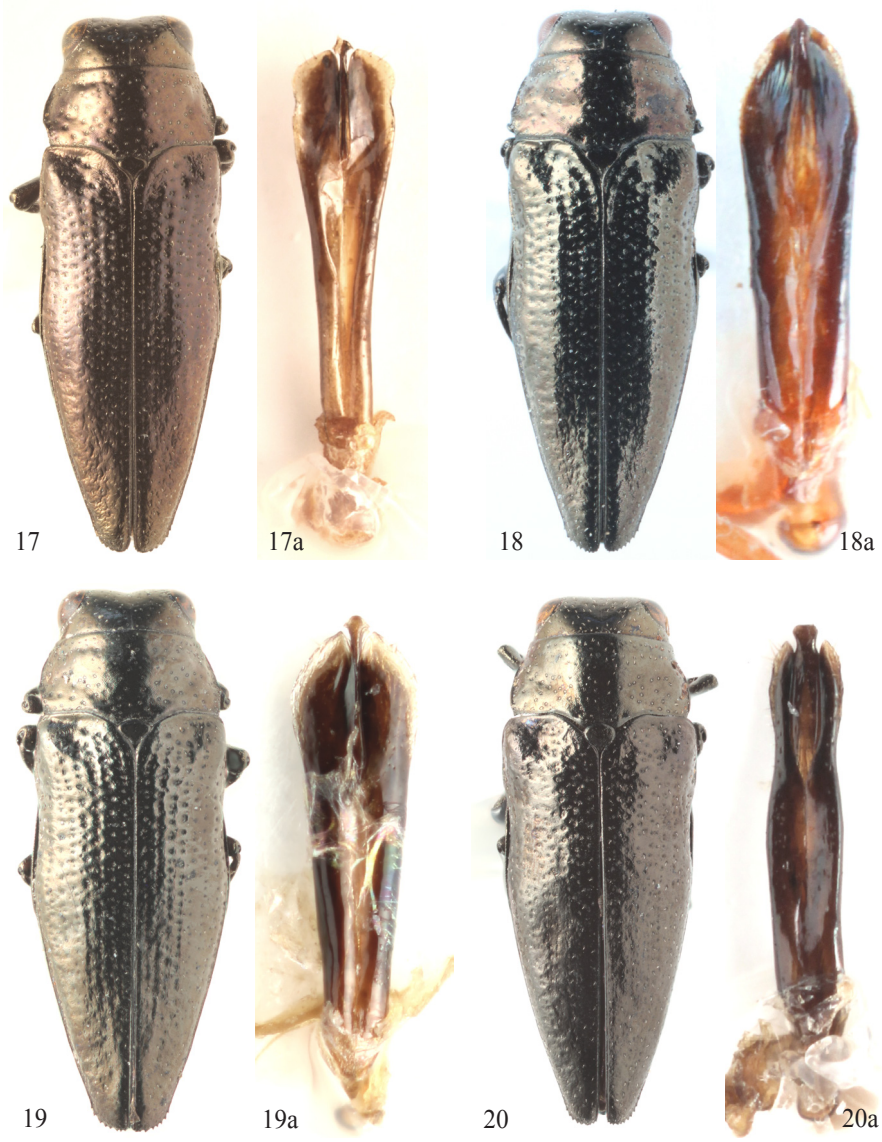
Differential diagnosis. *T. wygodzinskyi* sp. nov. and *T. fallax* sp. nov. (see above) are very similar to *T. vimmeri* Obenberger, 1924 (Figs. 19, 19a) (described from Brazil, Sao Paulo), *T. winteri* Obenberger, 1924 (Figs. 16, 16a) (described from Brazil, Rio de Janeiro) and *T. ecuadorensis* Marek, 2018 (Figs. 18, 18a) (described from Ecuador, Gualaquiza). From *T. winteri* it can be distinguished namely by unsculptured pronotum relatively and strongly by male genitalia, for distinguishing *T. wygodzinskyi* sp. nov., *T. fallax* sp. nov., *T. vimmeri* and *T. ecuadorensis* see Table E bellow.

Etymology. Named in honour and memory of Petr Wolfgang Wygodzinsky (1916-1987), collector of the type specimens, a German entomologist who worked in Argentina, Brazil, and the United States (alternate spellings of his name include Peter Wygodzinsky and Pedro Wygodzinsky). He studied several groups of insects in detail, but is known, especially, for his work on the hemipteran family Reduviidae. He worked in the American Museum of Natural History as an assistant curator (later curator) from 1962 until the end of his career.

Remarks. The holotype and the paratype of *T. wygodzinskyi* sp. nov. were located originally (before rearrangement of Obenberger´s collection of *Taphrocerus* alphabetically in 2014) by Obenberger behind the next three specimens collected by Wygodzinsky (2 ♂♂ labelled: „Angra dos Reis, Japuhyba, 2-1944, Wygodzinsky l.“ and 1 ♀ with the same locality data as *T. wygodzinskyi* sp. nov. holotype). These three specimens only have Obenberger´s determination labels: „Taphrocerus Wygodzinskii (error!) m. type Det. Dr Obenberger“ (Obenberger´s unpublished manuscript name), the red labels with black margin „Typus“ and labels: „popsat!“ (means „to describe!“), but all three specimens are conspecific with syntype of *T. vimmeri* Obenberger, 1924 (Figs. 19, 19a) stored in NMPC. Nevertheless I follow Obenberger´s idea of naming this new species according to its collector.

Table E. Diagnostic characters of *T. fallax* sp. nov., *T. vimmeri* Obenberger, 1924, *T. ecuadorensis* Marek, 2018 and *T. wygodzinskyi* sp. nov.

	T. fallax ♂	*T. vimmeri* ♂	*T. ecuadorensis* ♂	*T. wygodzinskyi* ♂
Colouration of dorsal side	monochromatic: black with very strong purple-violet tinge	monochromatic: black with very strong golden-brown tinge	slightly bicoloured: head, pronotum and scutellum black with purple-brown tinge and very strong golden reflection, elytra black with slight golden reflections	„deeply“ black, head and elytra with very slight purple lustre, pronotum with very slight bluish lustre and slight golden-coppery tinge lateroposteriorly
Body	more than 2.9 times longer than wide; the maximal width of body at humeri and just before the middle of elytra	about 2.6 times longer than wide; the maximal width of body before the middle of elytra	about 2.8 times longer than wide; the maximal width of body at humeri and just before the middle of elytra	about 2.7 times longer than wide; the maximal width of body at humeri
Eyes (DV)	moderately projecting beyond outline of head	strongly projecting beyond outline of head	feebly projecting beyond outline of head	very feebly projecting beyond outline of head
Pronotum	about 1.90 times wider than long, posterior margin distinctly narrower than elytral base	about 2.05 times wider than long, posterior margin almost the same width as elytral base	about 1.90 times wider than long, posterior margin almost the same width as elytral base	about 2.00 times wider than long, posterior margin distinctly narrower than elytral base
Elytral apices	separately rounded, bluntly serrate, slightly spathulate	conjointly rounded, sharply serrate, not spathulate	separately rounded, sharply serrate, slightly spathulate	separately rounded, sharply serrate, not spathulate
Aedeagus	parameres subparallel at basal two-fifths, then dilated proximally, about 4.1 times longer than wide, very narrowly emarginate (almost touching) on inner margin at apical half (DV); phallus (median lobe) almost invisible at apical half, pointed at the top (DV) (Fig. 17a)	parameres regularly dilated from base proximally, about 3.5 times longer than wide, very narrowly emarginate (almost touching) on inner margin at apical half (DV); phallus (median lobe) almost invisible at apical half, rounded at the top (DV) (Fig. 19a)	parameres regularly dilated from base proximally, about 4.0 times longer than wide, strongly emarginate on inner margin at apical half (DV); phallus (median lobe) well visible at apical half, pointed at the top (DV) (Fig. 18a)	parameres subparallel at basal two-fifths, then emarginate, about 5.2 times longer than wide, strongly emarginate on inner margin at apical third (DV); phallus (median lobe) well visible at apical third, widely rounded at the top (DV) (Fig. 20a)



Figs. 17-20a: 17- *T. fallax* sp. nov., HT, ♂, 3.95 mm, 17a- aedeagus, 1.35 mm; 18- *T. ecuadorensis* Marek, 2018, HT, ♂, 3.55 mm (JMSC), 18a- aedeagus, 1.00 mm; 19- *T. vimmeri* Obenberger, 1924, ST, ♂, 3.80 mm (NMPC), 19a- aedeagus, 0.90 mm; 20- *T. wygodzinskyi* sp. nov., HT, ♂, 3.75 mm, 20a- aedeagus, 0.95 mm.

Taphrocerus bahianus sp. nov.
(Figs. 21, 21a)

Type locality. Brazil, Bahia, Itaparica.

Type specimens. Holotype (♂): „Brazil, Bahia, Itaparica, 18. vii. 1982, P. Maret lgt.“ (JMSC). Paratype: „Bahia / Reed / Fry Coll. 1905-100.“ (1 ♀, BMNH).

Diagnosis. Medium-sized (3.55-3.80 mm), rather broadly elongate, stout, about 2.8 times longer than wide, widest at humeri, moderately convex above, elytra somewhat flattened at apical half, very lustrous; uniformly black with very slight purple reflections above, beneath black including legs, antennae black with purple tinge; sparsely pubescent by short thin white setae, elytra with an ornamental pubescence of somewhat longer white setae; prehumeral pronotal carina present, with sharp edge, well elevated; posthumeral elytral carina present, well elevated, with sharp edge, entire.

Description of holotype. Head medium-sized, slightly but distinctly narrower than posterior pronotal margin; clypeus very widely „V-shaped“, strongly shagreened, moderately lustrous, separated from frons by well elevated carina, epistomal pores large, elongate transversely, separated more than their own diameter; frons strongly convex, strongly shagreened, with wide shallow transverse depression anteriorly above clypeus, the depression merging into short but deep sulcus towards vertex, with two rather strongly elevated bumps laterally, coarsely rugose at the depression, with wide and rather dense „fronto-clypeal pubescent stripe“ (♂) of long, somewhat widened white setae; vertex strongly convex, widely protruding (FVV), finely shagreened, with a fine, short but well marked longitudinal carina at middle posteriorly, sparsely ocellate-punctate by very small punctures, each puncture with a short thin white seta; eyes medium-sized, oval, very slightly projecting beyond outline of head, moderately visible from above; antennae rather short, antennomeres 7-11 widened.

Pronotum moderately convex, 1.95 times as wide as long, widest at the beginning of basal third; rather widely and shallowly transversely depressed along anterior margin, largely and rather deeply so lateroposteriorly, very shallowly so on the disc at the middle and in front of scutellum; with well elevated sharp prehumeral carina at basal two -thirds laterally; anterior margin very widely rounded, posterior margin strongly biemarginate, widely emarginate in front of scutellum, very slightly narrower than base of elytra, sides very shortly subparallel anteriorly, then straight dilated to the beginning of basal third, strongly angulate and then straight constricted to the base; surface rather strongly shagreened, sparsely ocellate-punctate by small punctures at the depressions and in the middle longitudinally, each puncture with a short thin white seta; scutellum triangular, very widely rounded anteriorly, rather strongly shagreened, moderately lustrous.

Elytra moderately convex, somewhat flattened apically, 2.14 times as long as wide, widest at humeri, distinctly wider at humeri than pronotum at the widest part; lateral margins rather deeply and narrowly emarginate behind humeri, rather strongly rounded at middle, then very slowly arcuately tapering towards narrowly and conjointly rounded apices; apices serrate by very small but sharp teeth; humeral swelling well developed, laterobasal

depression small but rather deep; surface finely shagreened, punctures in rows longitudinally very fine, larger and deeper at basal third only becoming fine posteriorly and disappearing at apical fourth; somewhat obsolete ornamental pubescence (pattern) of rather long and somewhat widened white setae as follows: a few setae anterolaterally, a few setae at the beginning of second-fourth along suture, very sparse and rather narrow stripe transversely at the middle, two (1+1) spots of somewhat denser setae at the beginning of apical fourth, apical fifth very sparsely but markedly pubescent; posthumeral elytral carina present, well elevated, entire, with sharp edge, extending from subhumeri to near of apex.

21

21a

22

22a

23

23a

Figs. 21-23a: 21- *T. bahianus* sp. nov., HT, ♂, 3.80 mm, 21a- aedeagus, 1.00 mm; 22- *T. nigritulus* Waterhouse, 1889, specimen ♂ from Venezuela, 3.25 mm (JMSC), 22a- aedeagus, 0.95 mm; 23- *T. collarti* Cobos, 1959, specimen ♂ from French Guiana, 3.60 mm (JMSC); 23a- aedeagus, 1.05 mm.

Ventral surface strongly shagreened, abdomen very lustrous, ocellate-punctate by rather small punctures opened posteriorly, sparsely pubescent by rather long thin white setae laterally and apically; anal ventrite narrowly rounded, somewhat protruding apically, preapical groove following outline of margin rather narrowly rounded, wide; antennal grooves rather short, wide; prosternal process shortly elongate, wide, very strongly shagreened, asetose, sides slightly constricted between procoxae, very strongly dilated behind, apex rhomboidal, with a few very large simple punctures.

Aedeagus (Fig. 21a).

Sexual dimorphism. Female is somewhat stouter (body about 2.82 times longer than wide in male, about 2.73 times longer than wide in female); presence of „fronto-clypeal pubescent stripe" of rather dense and somewhat widened white setae in male.

Measurements. Length 3.55-3.80 mm (holotype 3.80 mm); width 1.30-1.35 mm (holotype 1.35 mm).

Variability. Not apparent except for the size.

Differential diagnosis. *T. bahianus* sp. nov. belongs to *T. nigritulus* species-group, which is characterized namely by black colouration, very lustrous dorsal side, presence both prehumeral pronotal and posthumeral elytral carinae (well elevated with sharp edge), very similar elytral ornamental pubescence (pattern) and by male genitalia (dilated proximally, with well visible (wide) semimembranous part at apical third laterally). *T. bahianus* sp. nov. is the most similar to *T. nigritulus* Waterhouse, 1889 (Figs. 22, 22a) (described from Panama and known from Costa Rica and Venezuela also) and to *T. collarti* Cobos, 1959 (Figs. 23, 23a) (so far known from French Guiana only) and it can be distinguished by the characters given in Table F bellow.

Table F. Diagnostic characters of *T. bahianus* sp. nov., *T. nigritulus* Waterhouse, 1889 and *T. collarti* Cobos, 1959.

	T. bahianus (♂)	*T. nigritulus* (♂)	*T. collarti* (♂)
General shape of body	stouter, about 2.8 times longer than wide; widest at humeri; elytra at humeri markedly wider than pronotum at the widest part	slender, about 3.1 times longer than wide; widest at humeri and at the middle of elytra; elytra at humeri slightly wider only than pronotum at the widest part	slender, about 3.1 times longer than wide; widest at humeri and at the middle of elytra; elytra at humeri slightly wider only than pronotum at the widest part
Frons (DV)	deeply, narrowly depressed at middle	deeply, narrowly depressed at middle	slightly, widely depressed at middle
Eyes	medium-sized, very slightly projecting beyond outline of head, moderately visible from above	large, more strongly projecting beyond outline of head, well visible from above	medium-sized, very slightly projecting beyond outline of head, poorly visible from above

Pronotum	widest at the beginning of basal third	widest just before the base	widest just before the base
Scutellum	wider, about 1.5 times wider than long	narrower, about 1.2 times wider than long	wider, about 1.5 times wider than long
Elytral apices	conjointly rounded	separately rounded	separately rounded
Aedeagus	semimembranous apical part less widened; apex of phallus (median lobe) protruding apically and rounded (Fig. 21a)	semimembranous apical part more widened; apex of phallus (median lobe) narrowly pointed (Fig. 22a)	semimembranous apical part more widened; apex of phallus (median lobe) protruding apically and cut (Fig. 23a)
Known distribution	Brazil - Bahia	Costa Rica, Panama, Venezuela	French Guiana

Etymology. Named after the type locality, Brazilian state Bahia; adjective.

Taphrocerus milca sp. nov.
(Figs. 24, 24a)

Type locality. Guyana c., Surama lake, 04°15´N, 59°04´W.

Type specimens. Holotype (♂): „GUYANA c., Surama lake, 04°15´N 59°04´W, 12. vi. 2003“ (JMSC).

Diagnosis. Large (4.00 mm), broadly elongate, rather stout, about 2.9 times longer than wide, widest at humeri and before the middle of elytra, lustrous; above black, head and pronotum with slight purple reflections, elytra with feeble bluish tinge; beneath black with slight purple lustre including legs and antennae; elytra with an ornamental pubescence of rather dense and long white setae; pronotal prehumeral carina present, well elevated, with sharp edge; posthumeral elytral carina present, well elevated, entire, with sharp edge.

Description of holotype. Head large, rather wide, slightly narrower than posterior pronotal margin; clypeus very widely „V-shaped“, strongly shagreened, moderately lustrous, separated from frons by a fine carina; epistomal pores large, elongate transversely, separated less than their own diameter; frons moderately convex, feebly shagreened at anterior half and rather strongly so at posterior one, slightly depressed transversely above clypeus, the depression merging at middle into rather deep and very narrow sulcus towards vertex, impunctate, with rather sparse and wide „fronto-clypeal pubescent stripe“ (♂) of white setae; vertex strongly convex, strongly shagreened, depressed at middle longitudinally, with rather deep sulcus at anterior part, the sulcus becoming in a fine groove posteriorly, sparsely punctate by simple punctures anteriorly and by small ocellate punctures at posterior half, sparsely pubescent by thin white setae, markedly longer anteriorly; eyes medium-sized, broadly oval, very feebly projecting beyond outline of head, rather well visible from above; antennae long and narrow, antennomeres 6-11 widened.

Pronotum rather strongly convex, 1.84 times as wide as long, widest at the beginning of basal third; narrowly transversely depressed along anterior margin, somewhat more deeper laterally, largely and deeply depressed lateroposteriorly, narrowly so along the sides,

with very shallow circular depression on the disc at middle; prehumeral carina present lateroposteriorly and reaching to the middle of pronotum, well elevated, with sharp edge; anterior margin very widely rounded, lobe very feebly protruding, posterior margin rather strongly biemarginate, almost straight in front of scutellum, distinctly narrower than base of elytra, sides shortly subparallel anteriorly, then arcuately dilated to the beginning of basal third, angulate and then slightly emarginately constricted to the base; surface strongly shagreened, ocellate-punctate by medium-sized and a few large punctures at the depressions and in front of scutellum, each puncture with a thin white seta, the setae are distinctly longer lateroposteriorly; scutellum rather large, regularly triangular, almost straight anteriorly, strongly shagreened, moderately lustrous.

Elytra moderately convex, somewhat flattened at apical half, 2.22 times as long as wide, widest at humeri and before the middle, rather distinctly wider at humeri than pronotum at the widest part; lateral margins slightly and narrowly emarginate behind humeri, rather widely rounded at middle, then very widely arcuately, almost straight tapering towards rather widely and slightly separately rounded apices; apices minutely serrate by sharp teeth laterally; humeral swelling rather well developed, laterobasal depression small but rather deep, well marked; surface strongly shagreened at basal half, finely so at apical one, punctures in rows longitudinally larger and deeper at basal third becoming finer posteriorly and very fine, almost inconspicuous at third-fourth, disappearing at apical fourth; with an ornamental pubescence (pattern) of long, wide and dense white setae as follows: two (1+1) rather large and somewhat longitudinally oval spots at middle of basal fourth near suture, an obsolete and irregular transverse stripe at the middle, consisting of six (3+3) more or less circular spots and wide „V-turned-up-shaped“ transverse stripe at the beginning of apical fourth; apical fifth sparsely but distinctly pubescent by thin white setae; posthumeral elytral carina well elevated, entire, with sharp edge.

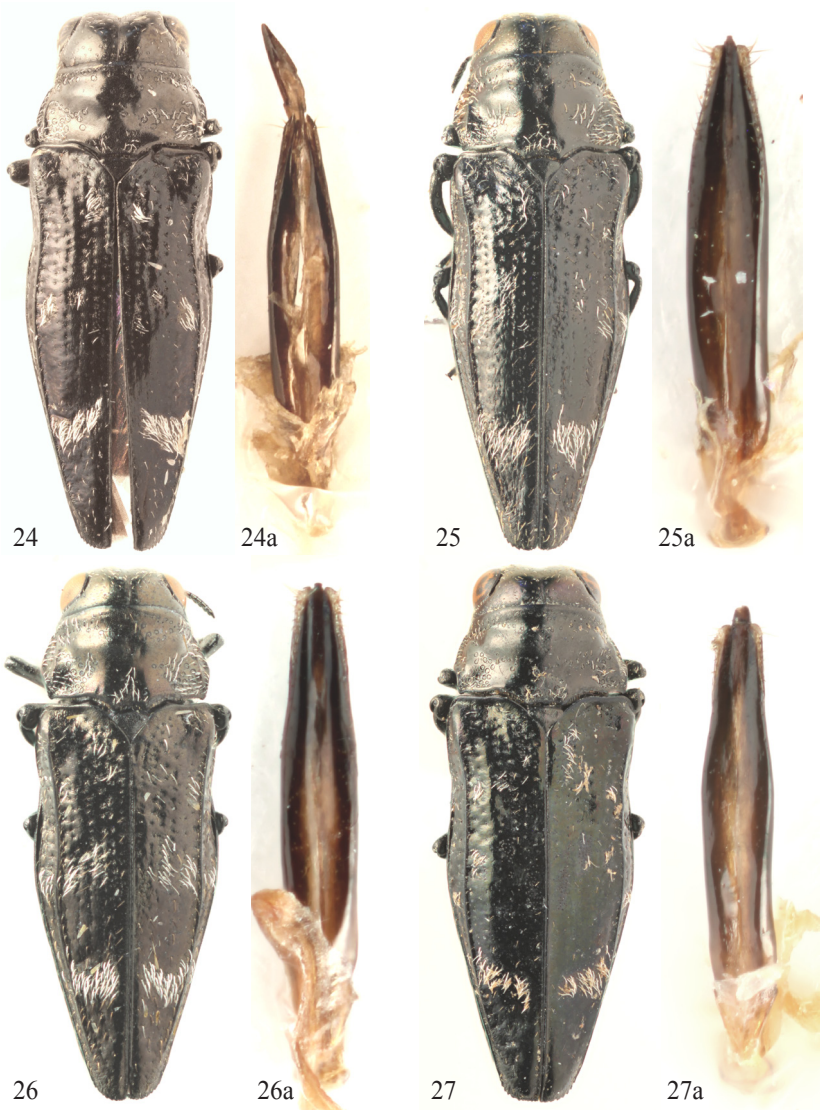
Ventral surface strongly shagreened, abdomen moderately lustrous, punctate by medium-sized „U-turned-up-shaped“ punctures on first visible sternite, sparsely pubescent laterally by rather long thin white setae; anal ventrite rather widely rounded, with wide emargination on apical margin, preapical groove following outline of margin widely rounded apically, wide; antennal grooves long, widened on prosternum; prosternal process rather shortly elongate, sides very strongly constricted between procoxae, very strongly dilated behind, apex rhomboidal, surface somewhat bumpy, strongly shagreened, asetose, impunctate.

Aedeagus (Fig. 24a).

Sexual dimorphism. Female unknown.

Measurements. Length 4.00 mm; width 1.40 mm.

Differential diagnosis. *T. milca* sp. nov. belongs to an extremely difficult complex of very similar species around *T. fasciatus* Waterhouse, 1889 (Figs. 26, 26a) characterized by colouration, characteristic elytral ornamental pubescence (pattern), presence of entire, sharp, well elevated posthumeral elytral carina, presence of well elevated, sharp prehumeral pronotal carina mostly and by maximal width of pronotum at the beginning of basal third or fourth.



Figs. 24-27a: 24- *T. milca* sp. nov., HT, ♂, 4.00 mm, 24a- aedeagus, 1.10 mm; 25- *T. saintantoinnei* Marek, 2016, HT, ♂, 4.10 mm (JMSC), 25a- aedeagus, 1.35 mm; 26- *T. fasciatus* Waterhouse, 1889, specimen ♂ from French Guiana, 3.90 mm (JMSC), 26a- aedeagus, 1.20 mm; 27- *T. hypocrita* Obenberger, 1934, ST 1, ♂, 4.30 mm, 27a- aedeagus, 1.20 mm.

The complex differs from the closely related, extremely difficult species complex too around *T. tavakiliani* Marek, 2016 mainly by presence of sexual dimorphism (presence of „fronto-clypeal pubescent stripe“ in male). Very similar species of the complex can be distinguished from *T. milca* sp. nov.: *T. costatus* Waterhouse, 1889 (described from Guatemala, Vera Paz and Mexico, Cordova) strongly by male genitalia (parameres strongly dilated proximally),

slightly by elytral ornamental pubescence (extension), by narrower scutellum relatively etc.; *T. major* Cobos, 1978 (described from Brazil, Minas Gerais) by strong blue tinge of elytra, more slender body (about 3.1 times longer than wide), larger pronotal ocellate punctures, distinctly narrower head, male genitalia etc.; *T. simillimus* Obenberger, 1924 (described from Brazil, Sao Paulo) by more slender body (more than 3.1 times longer than wide), more narrower elytra (about 2.4 times longer than wide), more separately rounded elytral apices, etc.; *T. pertyi* Obenberger, 1934 (described from „Brasilia" without precise locality data) by more slender body (about 3.1 times longer than wide), colouration of dorsal side (strong purple-violet tinge, especially on elytra), etc. The most similar species *T. saintantoinnei* Marek, 2016 (Figs. 25, 25a) (described from French Guiana), *T. fasciatus* Waterhouse, 1889 (Figs. 26, 26a) (described from Panama, Chiriquí) and *T. hypocrita* Obenberger, 1934 (Figs. 27, 27a) (described from Brazil, Sao Paulo) can be distinguished by characters given in Table G bellow.

Table G. Diagnostic characters of *T. milca* sp. nov., *T. saintantoinnei* Marek, 2016, *T. fasciatus* Waterhouse, 1889 and *T. hypocrita* Obenberger, 1934.

	T. milca (♂)	*T. saintantoinnei* (♂)	*T. fasciatus* (♂)	*T. hypocrita* (♂)
Pronotum	wider, more than 1.8 times wider than long, anterior margin feebly arcuately rounded	narrower, about 1.6 times wider than long, anterior margin more stronger arcuately rounded	narrower, about 1.6 times wider than long, anterior margin more stronger arcuately rounded	wider, more than 1.7 times wider than long, anterior margin more stronger arcuately rounded
Prehumeral pronotal carina	strongly elevated, sharp, extending to the half of pronotal length	strongly elevated, sharp, extending to the half of pronotal length	feebly elevated, obsolete, with a blunt edge mostly	missing, a vague longitudinal bump presents only
Scutellum	wider relatively (elytra at humeri about 4.8 times wider than width of scutellum)	narrower relatively (elytra at humeri about 5.3 times wider than width of scutellum)	wider relatively (elytra at humeri about 4.9 times wider than width of scutellum)	narrower relatively (elytra at humeri about 5.3 times wider than width of scutellum)
Elytra	less attenuate posteriorly at apical half	more attenuate posteriorly at apical half	more attenuate posteriorly at apical half	less attenuate posteriorly at apical half
Aedeagus	parameres about 5.00 times longer than wide, straight constricted proximally at apical third, apex of phallus (median lobe) narrowly pointed (Fig. 24a)	parameres about 5.40 times longer than wide, widely arcuately constricted proximally at apical third, apex of phallus (median lobe) narrowly cut (Fig. 25a)	parameres about 5.60 times longer than wide, slightly emarginately constricted proximally at apical third, apex of phallus (median lobe) widely cut (Fig. 26a)	parameres about 5.40 times longer than wide, distinctly emarginately constricted proximally at apical third, apex of phallus (median lobe) rounded (Fig. 27a)

Etymology. Named in honour of my friend Milena (Milča) Dušková (Vavřičková) (Radimovice u Želče, Czech Republic), my pretty schoolfellow in 1984-1989; noun in apposition.

ACKNOWLEDGEMENTS. I would like to thank the curators in National Museum in Prague (Czech Republic), namely to Jiří Hájek and Lukáš Sekerka for possibility to make photos of the specimens mentioned in this paper. Thanks are due to the curators in The Natural History Museum in London (United Kingdom), namely Maxwell V. L. Barclay, for loan and possibility of examining material in their care and to Henry Hespenheide (Los Angeles, U.S.A.) for providing me with his very rich and important material of South American *Taphrocerus*.

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Received: 5.6.2019
Accepted: 30.6.2019
Printed: 5.10.2019