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

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Taxonomy, new species, new synonymy, lectotype designation, Coleoptera, Buprestidae, Taphrocerus

Abstract. The sixth part of the study on the genus *Taphrocerus* Solier, 1833 (Coleoptera: Buprestidae: Agrilinae) is presented. Eight species are newly described as follows: *T. admirabilis* sp. nov. (Trinidad and Tobago), *T. affinis* sp. nov. (Brazil, Surinam), *T. jirii* sp. nov. (Surinam), *T. kubani* sp. nov. (French Guiana), *T. paradoxus* sp. nov. (French Guiana), *T. purpureus* sp. nov. (Ecuador), *T. seriatus* sp. nov. (Brazil) and *T. venezuelae* sp. nov. (Venezuela). The following nomenclatural change is proposed: *T. nicolayi* Obenberger, 1924 (= *T. fabichi* Obenberger, 1934 syn. nov.). Lectotypes of *T. fabichi* and *T. nicolayi* are designated. A correction of type-depositing for *T. hornburgi* Marek, 2017 and *T. michaeli* Marek, 2017 is proposed.

INTRODUCTION

The present paper belongs to the series of studies on the genus *Taphrocerus* Solier, 1833 resulting from the study of the type material and examination of extensive number of specimens mostly from the South America. These studies serves as basis for revision of this large and taxonomically difficult buprestid genus.

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 Lectotype specimens are provided by 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.

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 by 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".

Abbreviations used in the text: () = my remarks and additions, HT = holotype, AT = allotype, PT (PTs) = paratype (paratypes), ST = syntype, ST1 (ST2, ST3 ...) = 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; (Obenberger's MS) = Obenberger's manuscript.

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, occasional exceptions are noted at relevant places.

Specimens were measured to the nearest 0.05 mm.

The following collection codens are used throughout the text:

- BMNH The Natural History Museum, London, Great Britain;
- DEI Deutsches Entomologisches Institut, Eberswalde, Germany;
- HNHM Hungarian Natural History Museum, Budapest, Hungary;
- HMCM collection of Hans Mühle, München, Germany;
- JMSC collection of Jaroslav Marek, Sýkořice, Czech Republic (it will be deposited in NMPC);
- MHCB collection of Michael Hornburg, Berlin, Germany;
- MNHN Muséum national d'Histoire naturelle, Paris, France;
- MUSM Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru;
- NMPC Národní Museum, Praha, Czech Republic;

UFSZ Museo di Storia Naturale dell Universita di Firenze Sezione di Zoologia (La Specola), Firenze, Italy.

RESULTS

DESCRIPTIONS OF NEW SPECIES

Taphrocerus purpureus sp. nov.

(Figs. 1, 1a)

Type locality. Ecuador, N Machala, S Naranjal.

Type specimens. Holotype (\mathcal{Z}): "Ecuador SW, 5. ii. 2011, N Machala, S Naranjal, M. Snížek lgt." (JMSC). Paratypes (3 \mathcal{Z}): the same data as holotype, (JMSC).

Diagnosis. Medium-sized (3.05-3.40 mm), elongate, fusiform, convex above, lustrous; above uniformly brown with very strong purple tinge and slight violet reflections, scutellum black; beneath dark brown with coppery lustre including legs and antennae; sparsely covered by thin but rather long white setae, in regular rows on elytra longitudinally; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head medium-sized, wide, slightly narrower than anterior pronotal margin; clypeus very widely "V-shaped", strongly shagreened, matt, separated from frons by very obsolete carina, epistomal pores large, slightly elongate transversely, separated by their own diameter; frons moderately convex, widely and deeply depressed at middle longitudinally, finely shagreened, with short thin white setae in a row transversely above clypeus, at middle longitudinally and along inner margins of the eyes; vertex convex, finely shagreened, impunctate, sparsely pubescent by thin but rather long white setae; eyes medium-sized, semicircular, very slightly projecting beyond outline of head; antennae rather long and narrow.

Pronotum rather strongly convex, 1.85 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, broadly and shallowly so along posterior margin, rather deeply but narrowly so at apical half along the sides; with a very vague longitudinal prominence at middle laterally; anterior margin regularly widely rounded, posterior margin biemarginate, widely emarginate in front of scutellum, sides almost parallel in first-sixth, than almost straight dilated to basal fourth, than very shortly but markedly emarginate and then slightly constricted to the base; surface finely shagreened, with small ocellate punctures at the depressions and on the disc, each puncture with thin but rather long white seta; scutellum medium-sized, widely cordiform, finely shagreened.

Elytra moderately convex, slightly wider at humeri than pronotum at base, 2.24 times as long as wide, widest at humeri and just before the middle; lateral margins slightly emarginate behind humeri, rather widely rounded at middle, than straight tapering towards almost conjointly rounded apices; apices rather strongly serrate; humeral swelling rather well developed, laterobasal depression small and shallow; surface finely shagreened, punctures in longitudinal rows larger and deeper in basal third, disappearing apically, apical third coarsely corrugate; thin, rather long white setae in regular rows longitudinally; posthumeral elytral carina absent.

Ventral surface strongly shagreened, lustrous; abdomen punctate by small shallow "Uturned-up-shaped" punctures, regularly, sparsely covered by thin long white setae; anal ventrite elongate, widely regularly rounded at apex, preapical groove following outline of margin very wide, regularly semicircular; antennal grooves long, narrow; prosternal process elongate, very slightly dilated behind, apex subrhomboidal, surface finely shagreened with wide and rather deep groove at middle longitudinally.

Aedeagus (Fig. 1a).

Sexual dimorphism. Female unknown.

Measurements. Length 3.05-3.40 mm (holotype 3.40 mm); width 1.10-1.20 mm (holotype 1.20 mm).

Variability. Except for the size no relevant difference is apparent among the type specimens.

Differential diagnosis. *T. purpureus* sp. nov. is similar and probably closely related to *T. exiguus* Obenberger, 1934 (Figs. 2, 2a) (see also Marek 2014, 2015, 2017) from which it can be distinguished by characters given in Table A bellow. It resembles also *T. purpureipennis* Waterhouse, 1889 (described from Panama, Taboga Island), *T. joukli* Obenberger, 1924 (described from Argentina, Resistencia) and *T. mixtus* Marek, 2016 (described from Brazil, Santa Catharina) by purple colouration of dorsal side but it differs by general shape of body, markedly different male genitalia, as well as many other details of morphology (see Marek 2016b).

Etymology. The specific epithet is from the Latin adjective *purpureo* (purple). The name reflects the purple colouration of the dorsal side.

	T. purpureus	T. exiguus
Colouration	above uniformly brown with very strong purple tinge and slight violet reflections	above uniformly black with bronze lustre, pronotum sometimes with slight green reflections
General shape of body	fusiform	cuneiform
Eyes	smaller; very slightly projecting beyond outline of head	larger; more projecting beyond outline of head
Pronotum	small ocellate punctures in the pronotal depressions	medium-sized ocellate punctures in the pronotal depressions
Elytra	straight tapering towards apices at apical third	very widely arcuately tapering towards apices at apical third
Aedeagus	slender (parameres about 5.5 times longer than their maximal width); dilated proximal part of parameres the same width as width of parameres at middle (Fig. 1a)	more robust (parameres about 4.5 times longer than their maximal width); dilated proximal part of parameres narrower than width of parameres at middle (Fig. 2a)

Table A. Diagnostic characters of T. purpureus sp. nov. and T. exiguus Obenberger, 1934.

Remarks. The type specimens of *T. purpureus* sp. nov. were mentioned in Marek (2014) under *T. exiguus* (Remarks and Other material examined (erroneously given as $2 \stackrel{\circ}{\supset} \stackrel{\circ}{\bigcirc}$ and $2 \stackrel{\circ}{\subsetneq} \stackrel{\circ}{\bigcirc}$). After study of additional male specimens of *T. exiguus* from large area of distribution (see Marek 2017) I consider that the morphological characters and differences in male genitalia of *T. purpureus* sp. nov. are distinctive and stable for specific status.



Figs. 1-2a: 1- *T. purpureus* sp. nov., HT, *A*, 3.40 mm, 1a- aedeagus, 1.00 mm; 2- *T. exiguus* Obenberger, 1934, LT, *A*, 3.30 mm, 2a- aedeagus, 1.05 mm.

Taphrocerus paradoxus sp. nov. (Figs. 3, 3a)

Type locality. French Guiana, Saint Laurent du Maroni.

Type specimens. Holotype (\mathcal{J}): "Guyane Francaise, St. Laurent du Maroni, J. Marek lgt. v. 1993" (JMSC). Paratypes (109): the same data as holotype ($\mathcal{J} \mathcal{J} \mathcal{J}$, $\mathcal{J} \mathcal{Q} \mathcal{Q}$, JMSC); "Guyane Francaise, Cayenne Mt. Bourda, J. Marek lgt. iv. 1992" ($\mathcal{I} \mathcal{J}$, JMSC); the same data but "v. 1992" ($\mathcal{I} \mathcal{J}$, JMSC); "Guyane Francaise, Acarouany - Javouhey, J. Marek lgt. v. 1993" ($\mathcal{I} \mathcal{J}$, JMSC); "Guyane Francaise, Kourou, Guatemala, 19. viii. 2006, Snížek lgt." ($\mathcal{I} \mathcal{Q}$, JMSC); the same data but "15. xii. 2006" ($\mathcal{I} \mathcal{J} \mathcal{J} \mathcal{J} \mathcal{Q} \mathcal{Q}$, 20 specimens sex not examined, JMSC, MHCB).

Diagnosis. Medium-sized (3.55-4.00 mm), elongate, rather strongly attenuate posteriorly, moderately convex above, moderately lustrous; above slightly bicolorous: head and pronotum black with rather strong golden-green tinge, elytra and scutellum black; beneath black including legs and antennae, moderately lustrous; sparsely pubescent by short thin white setae, in regular rows on elytra longitudinally; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head medium-sized, slightly narrower than anterior pronotal margin; clypeus very widely "V-shaped", very strongly shagreened, matt, separated from frons by a fine carina; epistomal pores rather large, very slightly elongate transversely, separated by their own diameter; frons feebly convex, shallowly, rather widely transversely depressed above clypeus, narrowly and deeply sulcate at middle longitudinally, strongly shagreened, with a row of short thin white setae along inner sides of the eyes and with sparse "fronto-clypeal pubescent stripe" (\mathcal{J}) of somewhat longer white setae; coarsely corrugate and shallowly punctate by simple punctures at the transverse depression; vertex moderately convex, strongly shagreened, narrowly but rather deeply depressed anteriorly, with rather deep longitudinal sulcus at middle anteriorly becoming in fine groove towards anterior pronotal margin, sparsely punctate by small ocellate punctures, sparsely pubescent by very short thin white setae; eyes medium-sized, oval, slightly projecting beyond outline of head; antennae long and narrow.

Pronotum convex, 1.71 times as wide as long, widest at the beginning of basal third; rather deeply transversely depressed along anterior margin, narrowly laterally, widely at middle, very widely transversely depressed along posterior margin, somewhat deeply laterally, with rather deep sulcus along the sides; without any elevation at lateroposterior angles; anterior margin very widely rounded, posterior margin biemarginate, rather narrowly and deeply emarginate in front of scutellum, sides shortly subparallel anteriorly, than very widely arcuately dilated to the beginning of basal third, angulate and feebly emarginately constricted to the base, base narrower than base of elytra; surface strongly shagreened, coarsely corrugate at the depressions, sparsely, almost regularly punctate by small ocellate punctures, each puncture with a short thin white seta; scutellum medium-sized, widely cordiform, rather strongly rounded anteriorly, strongly shagreened, matt, markedly depressed at middle.

Elytra moderately convex, somewhat flattened apically, markedly wider at humeri than pronotum at base, 2.30 times as long as wide, widest at humeri; elytral margins slightly and

widely emarginate behind humeri, rather narrowly rounded just before the middle, than very slowly, widely arcuately tapering towards narrowly conjointly rounded apices; apices rather strongly serrate; humeral swelling well developed, laterobasal depression small and shallow; surface finely shagreened, punctures in longitudinal rows larger and deeper at basal third, becoming fine apically, almost inconspicuous at apical third; thin short white setae regularly in rows longitudinally; posthumeral elytral carina absent.

Ventral side strongly shagreened, moderately lustrous, abdomen densely punctate by medium-sized shallow "U-turned-up-shaped" punctures, very sparsely pubescent by very short, almost inconspicuous white setae, somewhat densely along the sides and apically; anal ventrite elongate, narrowly rounded, with a wide shallow emargination on apical margin, preapical groove following outline of margin very wide, narrowly rounded apically; antennal grooves deep and rather narrow; prosternal process feebly constricted between procoxae, strongly dilated behind, apex subrhomboidal, surface strongly shagreened, coarsely irregularly punctate.

Aedeagus (Fig. 3a).

Sexual dimorphism. Observed in presence of sparse "fronto-clypeal pubescent stripe" of white setae in male, missing or a few white setae above clypeus laterally only in female.

Measurements. Length 3.55-4.00 mm (holotype 3.85 mm); width 1.10-1.30 mm (holotype 1.25 mm).

Variability. Except for the size and the sexual dimorphism (see above) no relevant difference is apparent among the type specimens.



Figs. 3-4a: 3- *T. paradoxus* sp. nov., HT, ♂, 3.85 mm, 3a- aedeagus, 0.80 mm; 4- *T. aeneocollis* Fisher, 1925, specimen ♂ from Trinidad, 3.05 mm, 4a-aedeagus, 0.80 mm.

Differential diagnosis. *T. paradoxus* sp. nov. belongs to a complex of very similar species around *T. finitimus* Obenberger, 1924 (described from Costa Rica) (see also Marek 2017) by its morphological characters but it can be easily distinguished from all known species of this complex by markedly more attenuate body posteriorly and by male genitalia (Fig. 3a), which is the most similar to the male genitalia of *T. aeneocollis* Fisher, 1925 (Figs. 4, 4a) (described from Trinidad). From *T. aeneocollis* it can be distinguished by larger size, more slender body, narrower head, strongly attenuate elytra apically, as well as many other details of morphology.

Etymology. The specific epithet is from the Latin adjective *paradoxum* (paradoxical). The name reflects the fact, that although this species was underscribed previously, it is one of the most common species of *Taphrocerus* in French Guiana by my observations.

Taphrocerus seriatus sp. nov. (Figs. 5, 5a)

Type locality. Brazil, Marajó.

Type specimen. Holotype (♂): "Brasil, Pará, Marajó, 5. viii.1982, P. Maret lgt.", (JMSC).

Diagnosis. Small (2.90 mm), elongate, robust, cuneiform, rather strongly convex above, elytra flattened at apical half, lustrous; entire uniformly black with very feeble golden reflections including legs and antennae, clypeus black with rather strong coppery tinge; sparsely covered by thin short but well marked white setae, somewhat densely on pronotum, in regular rows on elytra longitudinally; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head rather large, wide, very slightly narrower than anterior pronotal margin; clypeus widely "V-shaped", strongly shagreened, matt, separated from frons by a fine carina, epistomal pores large, circular, separated by their own diameter; frons feebly convex, narrowly depressed above clypeus transversely, rather widely and deeply so at middle, sulcate at middle longitudinally, finely shagreened, impunctate, with a row of short white setae along inner sides of the eyes and above clypeus transversely; vertex moderately convex, slightly depressed at middle, with very fine groove at middle longitudinally, finely shagreened, sparsely punctate by small ocellate punctures, each puncture with a short white seta; eyes medium-sized, narrowly oval, very slightly projecting beyond outline of head; antennae long and narrow.

Pronotum rather strongly convex anteriorly, somewhat flattened posteriorly, 1.80 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, very widely so along posterior margin, more deeply laterally, narrowly and deeply so along the sides; with a vague longitudinal bump lateroposteriorly; anterior margin widely regularly rounded, posterior margin rather feebly biemarginate, feebly emarginate in front of scutellum, slightly wider than elytra at base, sides subparallel at anterior fifth, than regularly arcuately dilated to just before the base and then shortly constricted to the base; surface rather strongly shagreened at the depressions, with medium-sized ocellate punctures at the depressions, each puncture with a thin but rather long white seta; scutellum medium-sized, widely cordiform, widely rounded anteriorly, finely shagreened, lustrous. Elytra convex, moderately flattened apically, the same width at humeri as pronotum at base, 2.09 times as long as wide, widest at humeri; lateral margins rather narrowly and feebly emarginate behind humeri, widely regularly rounded at middle, than very widely arcuately tapering towards almost conjointly, rather narrowly rounded apices; apices shallowly bluntly serrate; humeral swelling rather well developed, laterobasal depression rather small and shallow; surface finely shagreened, punctures in longitudinal rows larger and deeper at basal half becoming fine apically; thin, rather short white setae in sparse but regular rows longitudinally from base to apex; posthumeral elytral carina absent, but an obsolete fold presents at apical third along the sides.

Ventral surface strongly shagreened, abdomen feebly lustrous, punctate by small "Uturned-up-shaped" punctures, sparsely pubescent by short thin white setae; anal ventrite elongate, subtruncate apically, with a shallow emargination on apical margin, preapical groove following outline of margin wide, regularly semicircular; antennal grooves deep, long, somewhat widened on prosternum; prosternal process elongate, sides constricted between procoxae, strongly dilated behind, apex rhomboidal, surface rather strongly shagreened, irregularly punctate by simple punctures.

Aedeagus (Fig. 5a).

Sexual dimorphism. Female unknown.

Measurements. Length 2.90 mm; width 1.05 mm.

Differential diagnosis. For distinguishing of this species from the most similar species see Differential diagnosis of related *T. kubani* sp. nov. bellow.

Etymology. The specific epithet is from the Latin adverb *seriatim* (in a row) to stress the regular rows of setae on elytra.

Taphrocerus kubani sp. nov.

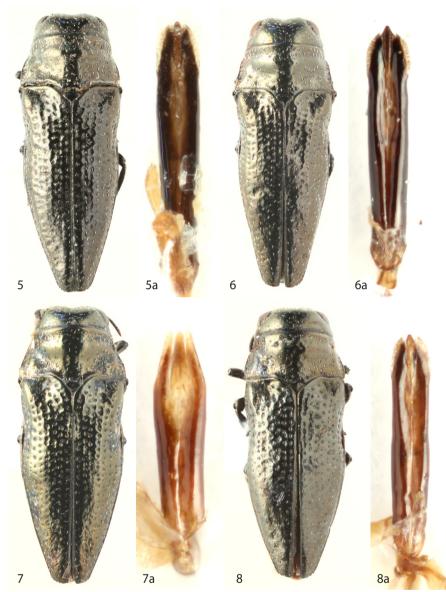
(Figs. 6, 6a)

Type locality. French Guiana, Fourgassier.

Type specimen. Holotype (♂): "Guyane Francaise, Fourgassier env. MSA, iii. 1993, J. Marek lgt.", (JMSC).

Diagnosis. Medium-sized (3.00 mm), elongate, robust, cuneiform, rather strongly convex above, elytra moderately flattened apically, lustrous; above and beneath uniformly black with very feeble coppery lustre, legs, antennae and clypeus black with rather strong coppery tinge; sparsely covered by thin short but well marked white setae, almost regularly dispersed on dorsal side; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head medium-sized, narrower than anterior pronotal margin; clypeus widely "V-shaped", strongly shagreened, moderately lustrous, separated from frons by a fine carina, epistomal pores large, moderately elongate transversely, separated by their own diameter; frons moderately convex, rather widely and deeply depressed at middle, finely sulcate at middle longitudinally, finely shagreened, impunctate, with a row of rather long white setae along inner margins of the eyes and above clypeus transversely; vertex



Figs. 5-8a: 5- *T. seriatus* sp. nov., HT, ♂, 2.90 mm, 5a-aedeagus, 0.90 mm; 6- *T. kubani* sp. nov., HT, ♂, 3.00 mm, 6a- aedeagus, 1.00 mm; 7- *T. parvus* Obenberger, 1924, 2.95 mm, specimen ♂ from Argentina, Missiones, 7a-aedeagus, 0.60 mm; 8- *T. ogloblini* Obenberger, 1934, ST 12, ♂, 2.80 mm, 8a- aedeagus, 0.90 mm.

convex, slightly depressed anteriorly at middle, with a fine groove at middle longitudinally, finely shagreened, sparsely punctate by small ocellate punctures, each puncture with rather long white seta; eyes medium-sized, widely oval, feebly projecting beyond outline of head; antennae rather short and narrow.

Pronotum strongly convex anteriorly, somewhat flattened posteriorly, 1.85 times as wide as long, widest at base; narrowly transversely depressed along anterior margin, almost interruptly at middle, very widely so along posterior margin, narrowly so along the sides; with a vague prominence lateroposteriorly; anterior margin very widely rounded, somewhat more arcuately laterally, posterior margin rather strongly biemarginate, markedly wider than elytra at base, feebly emarginate in front of scutellum, sides shortly subparallel anteriorly, than slowly, almost straight dilated to the base; surface finely shagreened, very finely shagreened (almost smooth) on the disc laterally, with small ocellate punctures at the depressions, each puncture with a thin but rather long white seta; scutellum medium-sized, widely cordiform, widely rounded anteriorly, finely shagreened, lustrous.

Elytra moderately convex, slightly narrower at humeri than pronotum at base, 2.05 times as long as wide, widest at humeri and just before the middle; lateral margins rather narrowly and feebly emarginate behind humeri, widely regularly rounded at middle, than straight tapering towards almost conjointly, rather narrowly rounded apices; apices shallowly but sharply serrate; humeral swelling well developed, laterobasal depression small but rather deep; surface finely shagreened, punctures in longitudinal rows large and deep at basal third, disappearing apically; thin, rather short white setae sparsely in rows longitudinally, somewhat irregular at apical third; posthumeral elytral carina absent.

Ventral surface strongly shagreened, abdomen very lustrous, punctate by small, very narrow "U-turned-up-shaped" punctures, sparsely pubescent by thin white setae, markedly longer laterally and apically; anal ventrite elongate, rather narrowly rounded apically, with a shallow quadrate emargination on apical margin, preapical groove following outline of margin wide, rather narrowly rounded apically; antennal grooves deep and narrow; prosternal process very elongate, sides constricted between procoxae, strongly dilated behind, apex rhomboidal, rather deeply depressed at middle, surface strongly shagreened.

Aedeagus (Fig. 6a).

Sexual dimorphism. Female unknown.

Measurements. Length 3.00 mm; width 1.10 mm.

Differential diagnosis. Both *T. kubani* sp. nov. and *T. seriatus* sp. nov. (described above) belong to a large, difficult complex of species characterized by general shape of body, uniformly black or dark brown colouration of dorsal side with golden, coppery, purple or green reflections, very lustrous above, by pronotum with a vague prominence lateroposteriorly, elytra without posthumeral carina, by sparse but well markant pubescence of dorsal side of thin white setae and namely by pronotal base wider than base of elytra. From the most similar species of this complex (*T. purpureipennis* Waterhouse, 1889 (see Marek 2016b), *T. parvus* Obenberger, 1924 (Figs. 7, 7a), *T. missionarius* Obenberger, 1934 (see Marek 2016b), *T. ogloblini* Obenberger, 1934 (Figs. 8, 8a), *T. temporalis* Obenberger, 1934 (see Marek, 2016b), *T. latimentulae* Marek, 2016 (see Marek 2016b) and *T. mixtus* Marek, 2016 (see Marek 2016b) it can be distinguished by different male genitalia and by a comparison of specimens only.

Etymology. It's pleasure for me to name this species after Vítězslav Kubáň (Brno, Czech Republic), curator in National Museum in Prague, well-known specialist in Buprestidae, especially in *Coraebini*.

Taphrocerus jirii sp. nov. (Fig. 9)

Type locality. Surinam, Paramaribo-Kwatta.

Type specimen. Holotype (♀): "Suriname, Paramaribo-Kwatta, ix. 2001, leg. A. Teunissen", (JMSC).

Diagnosis. Large (4.55 mm), broadly elongate, stout, rather strongly convex above, elytra flattened apically, lustrous; dorsal surface bicolorous: head, pronotum and scutellum bright brown with violet tinge and strong golden-purple lustre, elytra black with feeble violet tinge and with two (1+1) small bright brown spots with strong golden-purple lustre anterolaterally; beneath black with coppery lustre including legs and antennae; elytra with an ornamental pubescence of white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head rather large, wide, slightly narrower than anterior pronotal margin; clypeus widely "V-shaped", finely shagreened, separated from frons by a fine carina, epistomal pores large, circular, separated by their own diameter; frons widely depressed, grooved longitudinally at middle, finely shagreened, coarsely rugose along inner sides of the eyes, with a few short white setae anterolaterally; vertex strongly convex, slightly depressed at middle anteriorly, with short fine carina at middle longitudinally extending from anterior pronotal margin to the depression; very finely shagreened and very sparsely, almost inconspicuously punctate by small ocellate punctures, sparsely covered by short thin white setae; eyes medium-sized, reniform, very slightly projecting beyond outline of head; antennae long, narrow.

Pronotum strongly convex, 1.76 times as wide as long, widest just before the base; narrowly transversely depressed along anterior margin, deeply laterally, interruptly at middle, broadly and shallowly depressed along posterior margin; with a very vague prominence at lateroposterior angles longitudinally; anterior margin very widely regularly rounded, posterior margin slightly narrower than elytra at base, biemarginate, very widely emarginate in front of scutellum, sides slightly dilated at anterior fourth, than more strongly dilated at second and third-fourth, than almost subparallel to just before the base; surface very finely shagreened, almost smooth, sparsely punctate by very small ocellate punctures in the depressions and on the disc longitudinally, each puncture with a short thin white seta; scutellum medium-sized, very widely triangular, widely rounded anteriorly, rather strongly shagreened, lustrous.

Elytra convex, slightly flattened apically, 2.00 times as long as wide, widest at humeri and just before the middle; lateral margins rather feebly and widely emarginate behind humeri, widely rounded at middle, than almost straightly tapering towards conjointly rounded apices; apices strongly serrate; humeral swelling feebly developed, basal depression small and shallow; surface very finely shagreened, simple punctures in longitudinal rows small,

well marked at basal half only, very fine, almost inconspicuous at apical third; sparsely covered by short thin white setae in rows longitudinally and by longer and wider white setae creating an ornamental pubescence as follows: a few setae at basal fourth near suture, wide irregular stripe just behind the middle transversely, consisting of six (3+3) narrow stripes longitudinally, two (1+1) transversely elongate spots at the beginning of apical fourth; posthumeral elytral carina absent.

Ventral surface very lustrous, finely shagreened, abdomen densely punctate by mediumsized ocellate punctures, sparsely regularly covered by very short thin white setae; anal ventrite subtruncate, with a very long and wide quadrate emargination on apical margin (\mathcal{Q}); preapical groove following outline of margin regularly semicircular, wide; antennal grooves long and narrow; prosternal process broadly elongate, sides constricted between procoxae, dilated behind, apex subrhomboidal, surface rather finely shagreened, irregularly punctate by a few simple punctures.

Sexual dimorphism. Male unknown.

Measurements. Length 4.55 mm; width 1.65 mm.

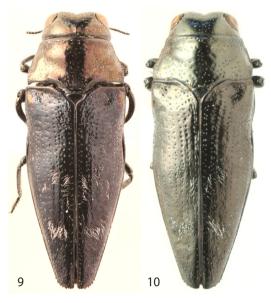
Differential diagnosis. *T. jirii* sp. nov. belongs to the complex of species characterized by large size, general shape of body, convex and rather very lustrous dorsal side, characteristic pubescent design (pattern) on elytra, without prehumeral pronotal and posthumeral elytral carinae and with strongly serrate apex of elytra*. From the most morphologically similar species of this complex *T. gentilis* (Gory, 1841) (Fig. 10) (described from French Guiana, Cayenne) it can be distinguished by the colouration and by the characters given in Table B bellow.

Remarks.* Habitually very similar and taxonomically very difficult complex of species around *T. mexicanus* Waterhouse, 1889 (with extremely similar male genitalia and rather strongly variable in the shape of head and pronotum, including f.e. *T. embriki* Obenberger, 1934, *T. pseudovolitans* Obenberger, 1941, *T. bucki* Cobos, 1958 etc.) differs mainly by pronotal punctation, which consists from the medium-sized to large ocellate punctures (markedly small ocellate punctures in *T. gentilis* species complex) and male genitalia (more or less the same width and subparallel in distal and proximal thirds, slightly dilated at middle in *T. mexicanus* species complex, markedly wider at distal third than at proximal one in *T. gentilis* species complex).

	T. jirii	T. gentilis
Colouration of dorsal side	bicolorous: head and pronotum bright brown with violet tinge and strong golden-purple lustre, elytra black with slight violet tinge	monochromatic: uniformly black, head and pronotum exceptionally with feeble green or coppery reflections
Vertex	with short, fine carina at middle longitudinally	with fine groove at middle longitudinally
Shape of posterior pronotal angles	acute	more or less rectangular
Prosternal process	more robust, less than 1.5 times as long as wide	more slender, more than 2.0 times as long as wide
Abdomen	black with strong coppery tinge	uniformly "deeply" black

Table B. Diagnostic characters of T. jirii sp. nov. and T. gentilis (Gory, 1841).

Etymology. Named in honour of my brother Jiří (Praha, Czech Republic), with love and many thanks.



Figs. 9-10: 9- *T. jirii* sp. nov., HT, \bigcirc , 4.55 mm; 10-*T. gentilis* (Gory, 1841), specimen \bigcirc from French Guiana, Cayenne, 4.60 mm.

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

Type locality. Brazil, Pará, Tucurui.

Type specimens. Holotype (\mathcal{J}): "Brasil, Pará, Tucurui 29. v. 1985" (JMSC). Paratypes (13): the same data as holotype (1 \mathcal{J} , JMSC); "Paramaribo, Suriname \ Taphrocerus paranaensis Obenb., det. Apt 1953" (3 $\mathcal{J}\mathcal{J}$, 3 $\mathcal{Q}\mathcal{Q}$, 3 specimens sex not examined, HNHM, JMSC); "Pernambuco. Bras., E. Horváth. 1930 \ T. volitans Gory, det Apt 1953" (\mathcal{J} , JMSC); "Pernambuco, leg. Horváth \ T. volitans Gory, det. Apt 1953" (1 \mathcal{J} , 1 specimen sex not examined, HNHM, JMSC).

Diagnosis. Large (3.80-4.40 mm), broadly elongate, stout, convex above, elytra moderately flattened apically, lustrous; above black, elytra with strong violet tinge and purple reflections, pronotum sometimes with golden-brown lustre, beneath black with violet, dark blue or golden-brown tinge including legs, antennae black with slight coppery lustre; sparsely shortly pubescent by thin white setae, elytra with an ornamental pubescence of wider and longer white setae; prehumeral pronotal and posthumeral elytral carinae absent.

Description of holotype. Head medium-sized, wide, narrower than anterior pronotal margin; clypeus widely "V-shaped", strongly shagreened, feebly lustrous, separated from frons by a fine carina, epistomal pores medium-sized, circular, separated by their own diameter; frons widely and deeply depressed at middle, sulcate at middle longitudinally, finely shagreened, with rows of very short thin white setae along clypeus transversely, inner sides of the eyes and at middle longitudinally; vertex moderately convex, with very fine, almost inconspicuous groove at middle longitudinally, very finely shagreened, sparsely punctate by

small ocellate punctures, almost regularly but sparsely covered by short white setae; eyes medium-sized, ovoid, slightly projecting beyond outline of head; antennae long and narrow.

Pronotum moderately convex, 2.02 times as wide as long, widest at the beginning of basal fourth; narrowly and very shallowly transversely depressed along anterior margin, interruptly at middle, broadly depressed lateroposteriorly; with a vague prominence lateroposteriorly; anterior margin very widely regularly rounded, posterior margin slightly narrower than elytra at base, biemarginate, widely emarginate in front of scutellum, sides straight dilated to the beginning of basal fourth, than obtusely angulate and constricted to the base; surface finely shagreened, sparsely punctate by medium-sized ocellate punctures at the depressions and on the disc, each puncture with a short thin white seta; scutellum medium-sized, very widely triangular, widely rounded anteriorly, strongly shagreened, lustrous.

Elytra moderately convex, flattened apically, 1.92 times as long as wide, widest at humeri and just before the middle; lateral margins rather feebly emarginate behind humeri, widely rounded at middle, than almost straight tapering towards widely, slightly separately rounded apices; apices strongly and sharply serrate; humeral swelling moderately developed, basal depression small but rather deep; surface finely shagreened, simple punctures in rows longitudinally well marked at basal half only, disappearing apically; apical third coarsely corrugate; sparse and very short thin white setae in rows longitudinally, absent in third-fourth in the middle of each elytron; an ornamental pubescence of longer white setae as follows: sparse but rather wide perisutural stripe behind scutellum, irregular interrupted transverse stripe just behind the middle becoming in sparse perisutural stripe at third-fourth, two (1+1) more dense transversely elongate spots at the beginning of apical fourth; posthumeral elytral carina absent.

Ventral surface feebly lustrous, strongly shagreened, abdomen densely punctate by irregular ,,U-turned-up-shaped" punctures, sparsely covered by very short white setae; anal ventrite widely rounded, preapical groove following outline of margin regularly semicircular, very wide; antennal grooves long and narrow; prosternal process slightly constricted between procoxae, slightly dilated behind, apex rhomboidal, surface strongly shagreened, irregularly coarsely punctate.

Aedeagus (Fig. 11a).

Sexual dimorphism. Observed in: elytra more attenuate at apical half in male; and ventrite elongately rounded in female.

Measurements. Length 3.80-4.40 mm (holotype 4.00 mm); width 1.55-1,75 mm.

Variability. Except for the size observed in: male paratypes from Brazil, Pará, Tucuru is somewhat darker, slightly slender (pronotum 1.93 times wider than long, elytra 1.95 times longer than wide), elytra slightly spatulate at apex, frons somewhat more depressed (DV) and the elytral ornamental pubescence is somewhat denser; some paratypes from Surinam have more intensive golden-brown lustre on pronotum together with golden-brown tinge of abdomen or less dense setae in elytral ornamental pubescence.

Differential diagnosis. *T. affinis* sp. nov. belongs to the *T. gentilis* species-complex (see Differential diagnosis and Remarks under *T. jirii* sp. nov. above) and it is similar to *T. meridionalis* Obenberger, 1934 (Figs 12, 12a) (described from Argentina, Chaco) and to *T.*

jirii sp. nov. by colouration of elytra (black with very strong violet tinge), widely triangular scutellum and by sharply serrate apices of elytra. It can be distinguished by more robust and wide body, vertex with almost inconspicuous groove at middle longitudinally (well marked and deep groove in *T. meridionalis*, short but well elevated sharp carina in *T. jirii* sp. nov.), as well as other details of morphology.

Etymology. The specific epithet is the Latin adjective *affinis* (related) and reflects the similarity of this species to the species mentioned above.



Figs. 11-12a: 11- *T. affinis* sp. nov., HT, ♂, 4.00 mm, 11a- aedeagus, 0.95 mm; 12- *T. meridionalis* Obenberger, 1934, ST, ♂, 3.60 mm, 12a-aedeagus, 1.05 mm.

Taphrocerus admirabilis sp. nov. (Figs. 13, 13a)

Type locality. Trinidad and Tobago, Trinidad, Chaguaramas.

Type specimen. Holotype (♂): "Trinidad W. I., Chaguaramas, 22. xi. 2005 M. T., leg. C. J. Zwakhals, N: 10°43.13' W: 61°36.47'", (JMSC).

Diagnosis. Medium-sized (3.55 mm), broadly elongate, convex above, elytra flattened, moderately lustrous; above uniformly dark coppery with feeble purplish reflections, beneath black with coppery reflections including legs and antennae; sparsely pubescent by very long thin white setae; elytra with an ornamental pubescence; prehumeral pronotal carina absent; posthumeral elytral carina present, well elevated, entire, extending from humeri to near of apex.

Description of holotype. Head medium-sized, wide, slightly narrower than anterior pronotal

margin; clypeus widely "V-shaped", rather strongly shagreened, separated from frons by a fine carina, epistomal pores medium-sized, circular, separated by their own diameter; frons flat, widely depressed at middle, grooved at middle longitudinally, densely punctate by simple punctures lateroanteriorly, finely shagreened towards vertex, sparsely pubescent by rather long thin white setae above clypeus; vertex strongly convex, very slightly depressed at middle, finely grooved at middle longitudinally, very finely shagreened and very sparsely, almost inconspicuously punctate by shallow simple punctures, sparsely covered by short thin white setae; eyes large, semicircular, slightly projecting beyond outline of head; antennae rather long, narrow (antennomeres 7-11 missing in the left antenna).

Pronotum convex, 1.67 times as wide as long, widest at the beginning of basal third; rather widely and shallowly transversely depressed along anterior margin, widely so along posterior margin, more deeply laterally and in front of scutellum, narrowly and deeply depressed lateroanteriorly; with a large bump longitudinally at lateroposterior angles extending to anterior half; anterior margin regularly rounded, posterior margin rather feebly biemarginate, very widely emarginate in front of scutellum, sides almost straight dilated to the beginning of basal third, than angulate and slightly emarginately constricted to the base; surface strongly shagreened on the disc becoming fine so laterally and posteriorly, rather densely punctate by large ocellate punctures on the disc, lateroposteriorly and in front of scutellum, each puncture with a long thin white seta; scutellum large, triangular, strongly shagreened, feebly lustrous.

Elytra moderately convex, flattened apically, 2.20 times as long as wide, widest just before the middle; lateral margins rather feebly and widely emarginate behind humeri, widely rounded at middle, than straight tapering towards widely conjointly rounded apices; apices strongly serrate laterally; humeral swelling feebly developed, basal depression very small and shallow; surface strongly shagreened, simple punctures in longitudinal rows well marked at basal half, disappearing apically, apical fourth coarsely corrugate; with sparse rows of long thin white setae along the sides and with an ornamental pubescence of long thin white setae as follows: regular but very sparse pubescence at basal fourth, sparse and rather wide transverse stripe at the middle, two (1+1) large but sparse spots at the beginning of apical fourth, regular and sparse pubescence at apical fifth; posthumeral elytral carina entire, well elevated, extending from humeri to near of apex.

Ventral surface rather finely shagreened, feebly lustrous, abdomen punctate by small elongate "U-turned-up-shaped" punctures, sparsely pubescent by very thin but long white setae, densely laterally and apically; anal ventrite subtruncate, finely serrate apically, with a shallow and very wide emargination on apical margin; preapical groove slightly subtruncate, rather narrow; antennal grooves long and narrow; prosternal process strongly constricted between procoxae, strongly dilated behind, apex subrhomboidal, surface finely shagreened, with shallow and rather wide groove at middle longitudinally.

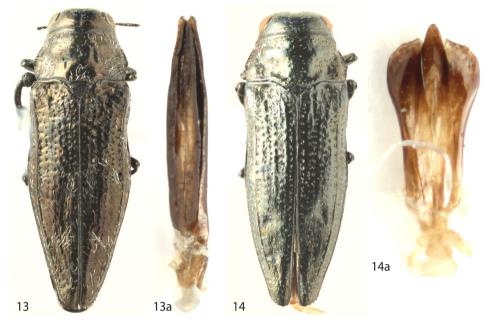
Aedeagus (Fig. 13a).

Measurements. Length 3.55 mm; width 1.10 mm.

Differential diagnosis. *T. admirabilis* sp. nov. is similar to *T. theryi* Obenberger, 1924 (Figs 14, 14a) (described from Brazil, Sao Paulo) by general shape of body and sculpture of dorsal

side. It differs mainly by strongly different male genitalia, pubescence and colouration of dorsal side, as well as other details of morphology.

Etymology. The specific epithet is the Latin adjective *admirabilis* (peculiar) reflects the unusual details of morphology, pubescence and male genitalia.



Figs. 13-14a: 13- *T. admirabilis* sp. nov., HT, *A*, 3.55 mm, 13a- aedeagus, 1.05 mm; 14- *T. theryi* Obenberger, 1924, ST1, *A*, 3.40 mm, 14a- aedeagus, 0.75 mm.

Taphrocerus venezuelae sp. nov. (Figs. 15, 15a)

Type locality. Venezuela, Carabobo, Mun. Bejuma, Via Palmichal C. M., 10°16.58 N, 68°15.16 W.

Type specimens. Holotype (\eth): "Venezuela, Carabobo, Mun. Bejuma, Via Palmichal C. M., 10°16.58 N, 68°15.16 W, leg. V. Brachat 16. i.-5. ii. [20]09" (JMSC). Paratypes (4): the same data as holotype ($2 \eth \image$, 1 \bigcirc , JMSC, MHCB); "Maracay Venezuela \ Taphrocerus squamulatus Kerr. Det. Dr. Obenberger" ($1 \eth$, NMPC*).

Diagnosis. Medium-sized (3.60-3.75 mm), convex above, very lustrous; slightly bicolorous above: head and pronotum black with golden-green lustre, elytra and scutellum black; beneath black including legs and antennae; sparsely pubescent by thin but rather long white setae, elytra with an ornamental pubescence of denser longer white setae; prehumeral pronotal carina absent; posthumeral elytral carina present, well elevated, entire, sharp.

Description of holotype. Head medium-sized, slightly narrower than anterior pronotal margin; clypeus very widely "V-shaped", strongly shagreened, matt, separated from frons

by a fine carina; epistomal pores large, slightly elongate transversely, separated by their own diameter; frons rather deeply and widely depressed at middle, finely shagreened, with rows of short white setae along inner sides of the eyes and with somewhat longer but sparse white setae in the middle above clypeus; vertex convex, finely shagreened, very slightly depressed at middle longitudinally, finely grooved longitudinally at middle, very sparsely punctate by simple shallow punctures, sparsely covered by thin white setae; eyes medium-sized, ovoid, slightly projecting beyond outline of head; antennae rather short, narrow.

Pronotum convex, 2.00 times as wide as long, widest just before the base; very feebly transversely depressed along anterior margin, largely and deeply so lateroposteriorly, narrowly and very deeply so anterolaterally; with rather well elevated longitudinal bump laterally at middle; anterior margin widely rounded, almost straight at middle, posterior margin strongly biemarginate, feebly and widely emarginate in front of scutellum, sides almost straight dilated to just before the base, than slightly constricted to the base; surface very finely shagreened, sparsely punctate by small ocellate punctures in the depressions, on the disc longitudinally and in front of scutellum, each puncture with a short white seta; scutellum medium-sized, rather widely triangular, widely rounded anteriorly, finely shagreened, lustrous.

Elytra moderately convex, slightly wider at humeri than pronotum at base, 1.98 times as long as wide, widest at humeri and at the beginning of third-fifth; elytral margins feebly emarginate behind humeri, widely regularly rounded at middle, than very widely, almost straight tapering towards narrowly separately rounded apices; apices strongly serrate; humeral swelling well developed, laterobasal depression rather small but deep; surface very finely shagreened, punctures in longitudinal rows small and shallow, almost inconspicuous at apical half; thin short white setae sparsely in rows longitudinally, somewhat condensed at apical fifth; an ornamental pubescence of longer and wider setae as follows: sparse and wide perisutural stripe behind scutellum, sparse irregular stripe transversely just behind the middle, two (1+1) transversely elongate spots at the beginning of apical fourth of denser white setae; posthumeral elytral carina well elevated, entire, sharp, reaching from humeri to very near of apex.

Ventral surface rather strongly shagreened, lustrous, abdomen densely punctate by small and shallow "U-turned-up-shaped" punctures, sparsely regularly pubescent by short thin white setae; anal ventrite elongate with very wide and rather deep emargination on apical margin, preapical groove following outline of margin narrowly rounded apically, wide; antennal grooves deep and narrow; prosternal process constricted between procoxae, strongly dilated behind, apex widely subrhomboidal, surface strongly shagreened, coarsely irregularly punctate.

Aedeagus (Fig. 15a).

Sexual dimorphism. No essential difference is apparent among the type specimens.

Measurements. Length 3.60-3.75 mm (holotype 3.70 mm); width 1.50-1.60 mm (holotype 1.55 mm).

Variability. Except for the size no essential difference is apparent among the type specimens.

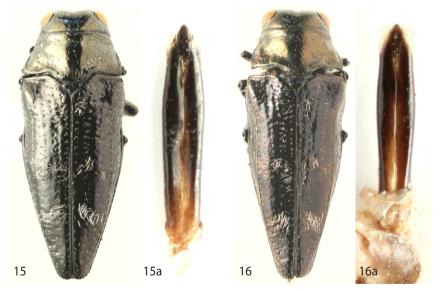
Differential diagnosis. T. venezuelae sp. nov. is very similar to T. pseudomirai Marek,

2016 (Figs. 16, 16a) (described from Ecuador, Machala) by its shape of body, the elytral ornamental pubescence (pattern), male genitalia and by many details of morphology. It strongly differs by colouration (see also Table C - Diagnostic characters of *T. venezuelae* sp. nov. and *T. pseudomirai* below).

	T. venezuelae	T. pseudomirai
Colouration	slightly bicolorous: head and pronotum black with golden-green lustre, elytra and scutellum black	strongly bicolorous: head and pronotum golden-brown, elytra and scutellum metallic violet-brown with purple reflections
Shape of body	more robust, 2.60 times longer than wide, widest at humeri and at the beginning of elytral third-fifth (fusiform)	more slender, 2.70 times longer than wide, widest at humeri (conical)
Eyes	smaller, less projecting beyond outline of head	larger, more projecting beyond outline of head
Scutellum	larger, widely triangular	smaller, widely cordiform
Elytra	slightly wider at humeri than pronotum at base	markedly wider at humeri than pronotum at base

Table C. Diagnostic characters of T. venezuelae and T. pseudomirai Marek, 2016.

Remarks. *Although Obenberger determined the paratype of *T. venezuelae* sp. nov. stored in NMPC as *T. squamulatus* Kerremans, 1896 (described from "Bahia" (Brazil)), *T. squamulatus* is well distinguished by larger size, wider head, extremely narrowly transverse triangular scutellum, markedly denser elytral ornamental pubescence of wider cream-white setae and namely by presence of obsolete posthumeral elytral carina at apical third only (well



Figs. 15-16a: 15- *T. venezuelae* sp. nov., HT, *A*, 3.75 mm, 15a- aedeagus, 1.00 mm; 16- *T. pseudomirai* Marek, 2016, HT, *A*, 3.80 mm, 16a-aedeagus, 0.95 mm.

elevated, entire, sharp, extending from humeri to very near of apex in *T. venezuelae* sp. nov.) and is related to *T. krepelkai* Marek, 2015 (see Marek 2015).

The name "*T. venezuelae* Obenberger" is sometimes listed in various collections. Really, there are two specimens in NMPC $(1 \triangleleft, 1 \triangleleft)$ labelled: "Apure. Venez. [h] \ TYPUS ("Cotype" respectively (\bigcirc)) [p] [red label with black margin] \ Taphrocerus Venezuelae m. Type [h] [Obenbergers' MS] Det. Dr. Obenberger [p]". The name was never published ("unpublished manuscript name") and the specimens are conspecific with the lectotype of *T. exiguus* Obenberger, 1934.

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

NEW SYNONYMY

Taphrocerus nicolayi Obenberger, 1924

(Figs. 17, 18)

Taphrocerus nicolayi Obenberger, 1924: 72-73. Taphrocerus fabichi Obenberger, 1934: 46. syn. nov.

Type material studied. *Taphrocerus nicolayi*: lectotype (NMPC, \bigcirc), by present designation: "America borealis Coll. Obenberger [p] [white label with black margin] \ TYPUS [p] [red label with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p] \ Taphrocerus nicolayi Obenberger, 1924 SYNTYPE 1 V. Kubáň labeled 2014 [p] [red label]". Paralectotypes: the same data as lectotype except of syntype label: "Taphrocerus nicolayi SYNTYPE 2 V. Kubáň labeled 2014 [p] [red label]" (1 \bigcirc , NMPC); the same data as lectotype except of determination and syntype labels, but with label: "Taphrocerus nicolayi [h] sensu J. Obenberger [p]" (2 $\bigcirc \bigcirc$, NMPC*); "Hewlett, L. I. [p] \ TYPUS [p] [red label] with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p]" (1 \bigcirc , MNHN); "U.S.A.: Massachussets, Southboro, mai 1923 \ TYPUS [p] [red label with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p]" (1 \bigcirc , NMPC, \bigcirc), by present designation: "Brasil [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger, 1934: lectotype (NMPC, \bigcirc), by present designation: "Brasil [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger, 1934: lectotype (NMPC, \bigcirc), by present designation: "Brasil [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Fabichi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p]" (2 \bigcirc), by present designation: "Brasil [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Nicolayi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p] \ ex. coll. Obenberger [p] \ ex. coll. Dr. F. Lotte" (sex not examined, IRSNB). Exact number of syntypes unknown. *Taphrocerus fabichi* Obenberger, 1934: lectotype (NMPC, \bigcirc), by present designation: "Brasil [p] \ TYPUS [p] [red label with black margin] \ Taphrocerus Fabichi m. Type [h] [Obenberger's MS] Det. Dr. Obenberger [p]". Exact

*Although these two specimens are without the Obenberger's determination labels, I contribute them into the type series of *T. nicolayi* for some reasons: they are labelled by the identical printed locality labels as LT/ST1 and PLT/ST2 and the labels TYPE (p) (red label with black margin) by Obenberger; they were pined beside the LT/ST1 and PLT/ST2 by Obenberger (before restructuralization of Obenberger's collection of *Taphrocerus* alphabetically together with labelling of syntypes in 2014); Obenberger did not give the number of specimens in his descriptions of *Taphrocerus*, he pined the determination labels only under syntype(s) at the beginning of the line in larger syntype-series, and adds the determination labels under unlabelled syntype specimens in case of exchange them only. (for example, there are 43 specimens of *T. theryi* Obenberger's determination labels, but a lot of additionally determined and labelled syntypes; (by Obenberger) are distributed in many collections all over the world (MNHN, 3 syntypes; BMNH, 5 syntypes; IRSNB, 1 syntype; DEI, 1 syntype; UFSZ, 1 syntype; etc.).

The lectotype of *T. fabichi* is conspecific with the lectotype of *T. nicolayi*. The name *T. fabichi* is a new subjective synonym of the name *T. nicolayi*.

Other specimens examined: USA: NY: "Orange Co., Bach-Long Pond., Bear Mount. St. Park, 250 m, 21. vi. 1984, l: Gv Rosen" (2 $\bigcirc \bigcirc$, HMCM); "Ingham Co., MICH., T4N, R1 W Sec 24, 26. ix. 1971, Stanley G. Wellso" (1 \Diamond , 2 $\bigcirc \bigcirc$, JMSC); USA, Washington, D. C., 38°56′02′′ N 77°02′58′′ W, 25. vii. 2014, Rock Creek Park forests margins and clearing, P. Kment & Xie Q. lgt." (1 \bigcirc , NMPC); "ILL. Lake Co. \ Libertyville \ B. Benesh coll." (1 \bigcirc , NMPC); "US.A. Texas \ Taphrocerus Nicolayi Obenb., Det. Dr. Obenberger" (1 \bigcirc , NMPC); "USA 23. V. 1994, Ga, Atlanta env., Alatoona lake, M. Kocian lgt." (1 \Diamond , 1 \bigcirc , JMSC). **Distribution.** ?Brazil? (under *T. fabichi***), U.S.A. (eastern United States**), Canada (Ontario (Bright 1987)).

Remarks. Obenberger (1934) get the diagnostic characters for distinguishing *T. fabichi* from *T. nicolayi* in his key as: "the width of frons (the same width as length in *T. fabichi*, markedly wider than long in *T. nicolayi*), the lateral epistomal pores (small in *T. fabichi*, larger in *T. nicolayi*) and the width of genae (faces) (one-half of diameter of the eye in *T. fabichi*, one-third of diameter of the eye in *T. nicolayi*)". In fact, there are no relevant differences between the *T. fabichi* and *T. nicolayi* lectotypes.

**The distribution given in literature is a little problematic according to misdetermination of this species by some authors by my observations (see also note in Knull 1944: 91). It is mixed with *T. chevrolati* Obenberger, 1924, *T. schaefferi* Nicolay et Weiss, 1920, *T. albodistinctus* Knull, 1954 and with smaller specimens of *T. gracilis* (Say, 1825). The data for Brazil (under *T. fabichi* syn. nov.) is very doubtful, I haven't seen any other specimen southern of the U.S.A., the Obenberger's mistake of locality label is probable.



Figs. 17-18: 17- *T. nicolayi* Obenberger, 1924, LT/ST 2, \bigcirc , 3.40 mm, (NMPC, "America borealis Coll. Obenberger"); 18- *T. fabichi* Obenberger, 1934, LT, \bigcirc , 3.30 mm (NMPC, "Brasil").

ERRATUM

In the Studies on the genus *Taphrocerus* (Coleoptera: Buprestidae: Agrilinae) part V. (Marek 2017) the erroneous type-depositing were given for holotypes of *T. hornburgi* and *T. michaeli*. The right data are: *Taphrocerus hornburgi* Marek, 2017 (holotype \Im , MUSM); *Taphrocerus michaeli* Marek, 2017 (holotype \Im , MUSM).

ACKNOWLEDGEMENTS. I would like to thank the curators in National Museum in Prague, namely Jiří Hájek, Vítězslav Kubáň and Lukáš Sekerka for possibility of examining material in their care and for possibility to make

photos of the specimens mentioned in this paper. Thanks are due also to Michael Hornburg (Berlin) and Stephan Gottwald (Berlin) for possibility of examination (and donation partially) the interesting and important material of *Taphrocerus* in their collections.

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