

TAXONOMIC NOTES ON SOME PALAEARCTIC SPECIES OF  
THE WEEVIL GENUS *TYCHIUS* WITH THE DESCRIPTION  
OF FIVE NEW SPECIES  
(Coleoptera, Curculionidae)

ROBERTO CALDARA (\*)

INTRODUCTION

In recent years I have studied many specimens of Palearctic *Tychius* Germar, 1817 (Curculioninae, Tychiini) from public and private collections. Among them, I have found five new species, as well as specimens that allow improvement of the taxonomic knowledge of two other species.

In the text I used the following acronyms: APCB Attila Podlussány private collection, Budapest; BMNH The Natural History Museum, London (M.V.L. Barclay), ECCR Enzo Colonnelli private collection, Rome; HNHM Hungarian Natural History Museum, Budapest (O. Merkl); JPCM Jean Pelletier private collection, Monnaie; MKCB Michael Košťál private collection, Brno; MMCT Massimo Meregalli private collection, Turin; MNHN Muséum National d'Histoire Naturelle, Paris (H. Perrin); PWCP Patrick Weill private collection, Pau; RCCM: Roberto Caldara private collection, Milan. The species are listed according to the sequence of the groups in Caldara (1990).

***Tychius podlussanyi* n. sp.** (fig. 1)

TYPE SERIES. "Portugal, Braga: Salto / 1991.V.16, leg Podlussány", 1 male holotype (HNHM) and 2 males and 1 female paratypes (2 APCB, 1 RCCM).

HOLOTYPE. Length 3.0 mm. Body robust, oval. Rostrum black with reddish apex, long (rostrum length/pronotum length 0.98), in lateral view

(\*) Via Lorenteggio, 37 - 20146 Milano, Italy. E-mail: roberto.caldara@gmail.com

regularly curved and of the same width from base to apex (fig. 6), in dorsal view very slightly narrowed from base to apex, striate-punctate to near apex, in basal third with coricate, dense subelliptical reddish brown scales (length/width 4-7). Frons slightly wider than rostrum at base. Eyes distinctly convex. Antennae reddish, with funicle of seven segments, with first segment 1.3x as long as wide, distinctly more robust and 1.3x longer than second segment which is 1.2x as long as wide, other segments gradually more transverse, club elongate oval.

Pronotum black, with dense and regular punctures completely hidden by coricate, very dense, reddish brown, wide (length/width 3-5) elliptical scales, weakly transverse (width/length 1.16), with moderately rounded sides, widest at middle, moderately convex. Elytra blackish brown, oval, somewhat short (length/width 1.29), 1.33x wider than pronotum, with sides somewhat rounded, widest at middle, convex; interstriae completely hidden by recumbent, very dense reddish brown and white, broad (length/width 2-4) subelliptical scales arranged in three more or less regular rows, with a median row of moderately long seta-like scales; stria weakly visible, with a row of scales slightly finer than the seta-like ones covering interstriae. Femora black, unarmed, profemora without fringe of scales; tibiae reddish, protibiae without tooth along inner margin; tarsi reddish, with first segment 1.3x as long as wide, second segment transverse, third segment distinctly wider than second and bilobed, claws with processes as long as claw. Abdomen completely covered with broad, subelliptical, white scales. Aedeagus as in *T. hispanus* Velazquez & Caldara, 1989 (Caldara & Velazquez 1991).

PARATYPES. Length 2.8-3.3 mm. Female as male except rostrum very long (rostrum length/pronotum length 1.23) (fig. 7), more shining and less punctured in apical half. Spermatheca as in *T. parallelus* (Panzer, 1794) except ramus twice as long, and spiculum ventrale as in *T. parallelus* (see Caldara 1990). Two paratypes have the scales of the dorsal vestiture completely reddish brown.

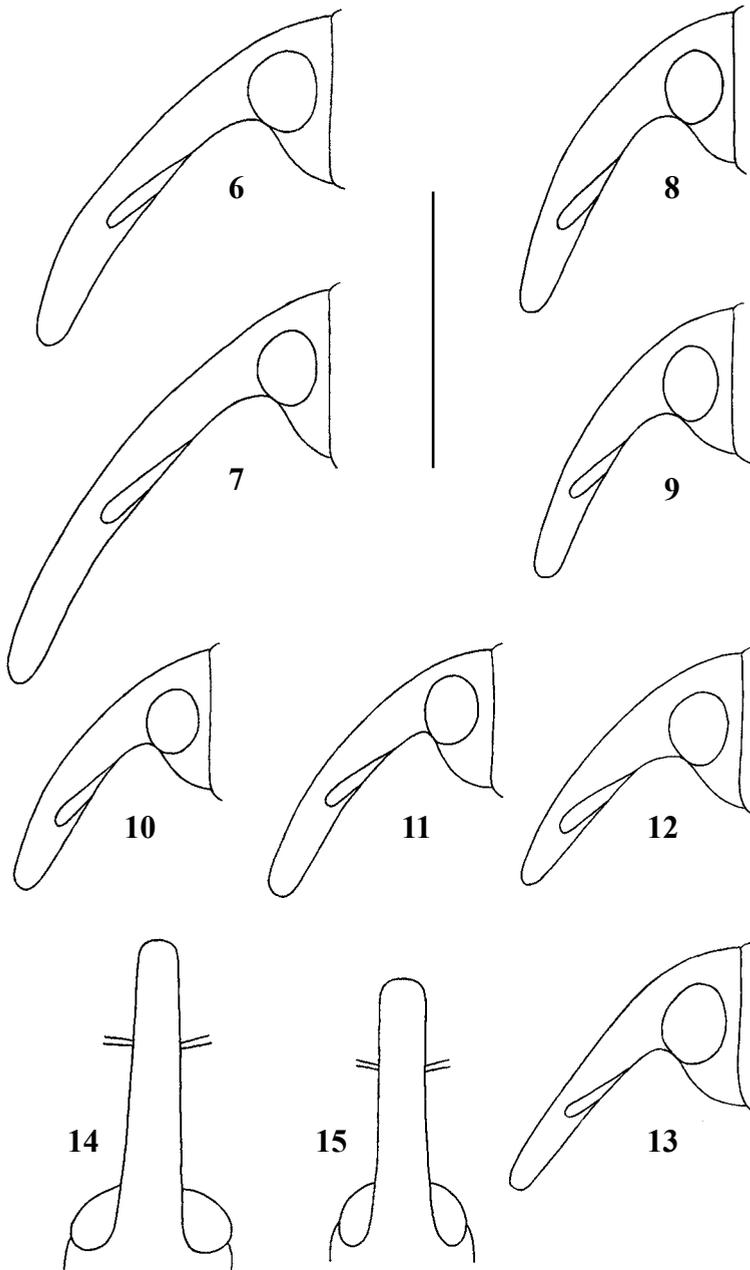
ETYMOLOGY. This species is named in honour of its collector, Attila Podlussány, who sent me many interesting specimens useful for my works.

DISTRIBUTION. Northern Portugal.

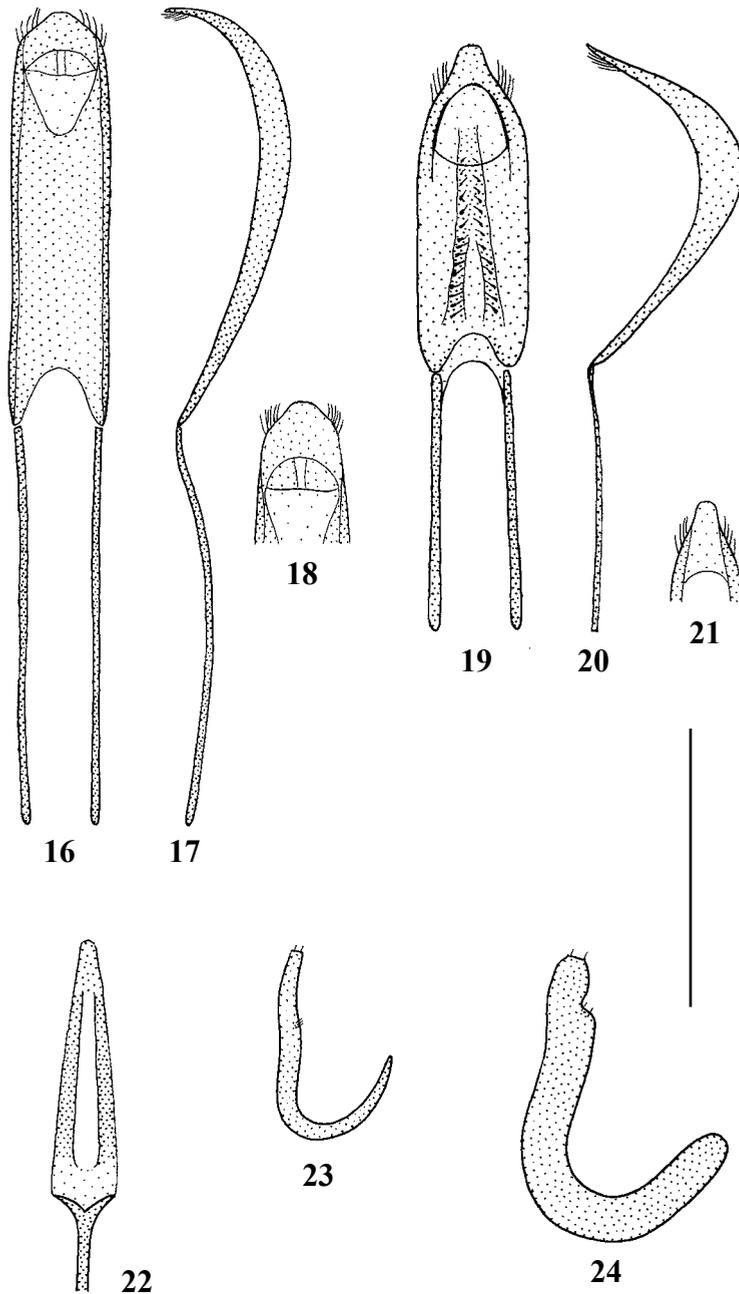


Figs. 1-5 – Habitus of *Tychius podlussanyi* female paratype (1); *T. weilli* female paratype (2); *T. magnithorax* male paratype (3); *T. ucrainicus* holotype (4); *T. zagrosianus* female paratype (5). Not at the same scale.

REMARKS. This species belongs to the *T. parallelus* group (Caldara 1990), and is closely related to *T. hispanus* Velazquez & Caldara, 1989, from which it differs distinctly in the shape of the rostrum which is longer, especially in the female, in lateral view more regularly and less mark-



Figs. 6-15 – Rostrum in lateral view of *Tychius podlussanyi* male (6) and female (7); *T. zagrosianus* male (8) and female (9); *T. ucrainicus* male (10) and female (11); *T. weilli* male (12) and female (13). Rostrum in dorsal view of *T. zagrosianus* male (14); *T. ucrainicus* male (15). Scale bar = 1.0 mm (figs. 6-11 and 14-15), 0.5 mm (figs. 12-13).



Figs. 16-24 – *Tychius lacteoguttatus* aedeagus in dorsal (16) and lateral (17) view, and apex (18); *T. weilli* aedeagus in dorsal (19) and lateral (20) view, and apex (21), spiculum ventrale (22), spermatheca (23); *T. magnithorax*, spermatheca (24). Scale bar = 0.5 mm.

edly curved and in dorsal view with sides distinctly parallel. It is possible that there may be other differences in the colour of the dorsal vestiture, but the obvious variability of this character in the specimens of the type series of *T. podlussanyi* suggests caution in the use of this character. However, no specimen of *T. hispanus* has a completely reddish brown vestiture, since it is usually bicoloured (light brown and white) and the few nearly unicolorous specimens have greyish scales.

### **Tychius u c r a i n i c u s** n. sp. (fig. 4)

TYPE SERIES. "Ukraina mer. or., Pryazovs'ka vysochyna, Michael Košťál leg. / Ukrainka pr. Mariopol', Kamiani mohyly, 200 m, N 47°17.7' E 37°04.7', 11.VI.2005", 1 male holotype (MKCB) and 1 female paratype (RCCM).

HOLOTYPE. Length 2.3 mm. Body elongate, suboval, slender. Rostrum black in basal half and reddish in apical half, moderately long (rostrum length/pronotum length 0.82), in lateral view moderately and regularly curved and weakly tapered from antennal insertion to apex (fig. 10), in dorsal view parallel sided from base to apex (fig. 15), striate-punctate to antennal insertion, then only moderately punctate, in basal half with coricate, moderately dense subelliptical greyish scales (length/width 3-5). Frons moderately wider than rostrum at base. Eyes moderately convex. Antennae reddish, with funicle of seven segments, with first segment 2.0x as long as wide, distinctly more robust and 1.8x longer than second segment which is 1.3x as long as wide, other segments gradually more transverse, club moderately elongate oval. Pronotum black, with dense and regular punctures almost completely hidden by coricate, somewhat dense, greyish, moderately elongate (length/width 5-7) subelliptical scales, at sides partly broader (length/width 3-4), weakly transverse (width/length 1.20), with moderately rounded sides, widest at middle, weakly convex. Elytra blackish brown, oval, elongate (length/width 1.54), 1.20x wider than pronotum, with sides weakly rounded, widest in basal third, weakly convex; interstriae almost completely hidden by recumbent, somewhat dense greyish, broad (length/width 1.5-2.5), rounded to subelliptical scales arranged in two somewhat regular rows, with a median row of moderately long seta-like scales; striae weakly visible, with a row of scales as fine as the seta-like scales covering interstriae. Femora reddish, unarmed, profemora without fringe of scales; tibiae reddish, protibiae without tooth along inner margin; tarsi reddish, with first segment 1.4x as long as wide, second segment transverse, third segment distinctly

wider than second and bilobed, claws with processes as long as two thirds of claw. Abdomen completely covered with broad, subelliptical, greyish scales. Aedeagus as in *T. intrusus* Faust, 1889 (Caldara 1990).

PARATYPE. Length 2.2 mm. As male except rostrum weakly longer (rostrum length/pronotum length 0.91), of same width in lateral view from base to apex (fig. 11), more shining and less striate-punctate. Spermatheca and spiculum ventrale as in *T. intrusus* (see Caldara 1990).

ETYMOLOGY. The name of this species refers to the country where it was collected, the Ukraine.

DISTRIBUTION. South-eastern Ukraine.

REMARKS. This species belongs to the *T. intrusus* group (Caldara 1990) and is closely related to *T. callidus* Caldara, 1990, from which it differs by the more elongate and more slender body, the broad scales covering the sides of the pronotum sparser, and those covering the elytral interstriae smaller and not imbricated. In Ukraine it can only be confused with *T. subsulcatus* Tournier, 1874, with which it shares the shape of the body but from which it clearly differs in the vestiture of the elytral interstriae, since in *T. subsulcatus* the broad scales are not arranged in two regular rows. *T. ucrainicus* is also closely related to *T. zagrosianus* (see Remarks of this latter species).

### **Tychius zagrosianus** n. sp. (fig. 5)

TYPE SERIES. "Iran mer., Fars, Kuhhā-ye Zāgros Mts., Michael Košťál leg. / Khaneh Zenyan pr. Shiraz, 2000 m, N 29°36.7' E 52°16.3', 26.IV.2006 / Astragalus sp.", 1 male holotype (MKCB) and 1 male and 2 females paratypes (2 MKCB, 1 RCCM); same data as holotype except "Shul pr. Shiraz, 2100 m, N 29°58.6' E 52°10.7', 7.V.2006", 2 males and 1 female paratypes (2 MKCB, 1 RCCM).

HOLOTYPE. Length 2.5 mm. Body elongate, suboval, slender. Rostrum black in basal half and reddish in apical half, moderately long (rostrum length/pronotum length 0.88), in lateral view moderately curved in basal third then almost straight to apex and weakly tapered from base to apex (fig. 8), in dorsal view weakly narrowed from base to apex (fig. 14), striate-punctate to antennal insertion then only moderately punctate, in basal half with coricate, moderately dense subelliptical light brown and white scales (length/width 3-5). Frons moderately wider than rostrum at

base. Eyes distinctly convex. Antennae reddish, with funicle of seven segments, with first segment 2.2x as long as wide, distinctly more robust and 1.5x longer than second segment which is 1.8x as long as wide, other segments gradually more transverse, club moderately elongate oval. Pronotum blackish brown, with dense and regular punctures almost completely hidden by coricate, dense, on disc light brown and white along midline, moderately elongate (length/width 5-7), subelliptical scales, at sides with white broad (length/width 3-4) scales, weakly transverse (width/length 1.17), with moderately rounded sides, widest at middle, weakly convex. Elytra blackish brown, elongate (length/width 1.47), 1.20x wider than pronotum, with sides parallel in basal half then gradually narrowed, weakly convex; interstriae almost completely hidden by recumbent, somewhat dense greyish brown and light brown, broad (length/width 1.5-2.5), rounded to subelliptical scales arranged in two somewhat regular rows, with a median row of moderately long light brown seta-like scales; striae weakly visible, with a row of scales as fine as the seta-like ones covering the interstriae. Femora reddish, unarmed, profemora with fringe of scales; tibiae reddish, protibiae without tooth but distinctly angulate at middle along inner margin; tarsi reddish, with first segment 1.4x as long as wide, second segment moderately transverse, third segment distinctly wider than second and bilobed, claws with processes as long as two thirds of claw. Abdomen completely covered with broad, subelliptical, whitish scales. Aedeagus as in *T. intrusus* (see Caldara 1990).

PARATYPES. Length 2.4-2.7 mm. Female as male except rostrum moderately longer (rostrum length/pronotum length 0.96) (fig. 9), in dorsal view more distinctly narrowed from base to apex, more shining and less striate-punctate, profemora without fringe of scales, protibiae not angulate at middle along inner margin. Spermatheca and spiculum ventrale as in *T. intrusus* (see Caldara 1990). Apart from sexual characters, the paratypes do not differ significantly from the holotype.

ETYMOLOGY. The name of this species refers to the mountains where it was collected.

DISTRIBUTION. South-western Iran.

REMARKS. This species also belongs to the *T. intrusus* group (Caldara 1990) and is closely related to *T. callidus* and *T. ucrainicus*, with which

it shares the shape of the male genitalia. It differs from both species by the elytra rectangular and not oval, the eyes more convex and the shape of the rostrum, which in dorsal view is more narrowed from base to apex, the legs in male with profemora with fringe of scales and protibiae angulated at middle along the inner margin.

### **Tychius boroveci** Caldara, 1995

*Tychius boroveci* Caldara, 1995: 124.

REMARKS. This species was described based on a single female collected in south-western Bulgaria. I have now also examined three males labelled as follows: “N: 54, 13.V.1954, Bosna, P. Angelov [in Cyrillic]” (MMCT); “N: 194, 27.V.1958, Asanovgrad, P. Angelov [in Cyrillic]” (RCCM); “Rep. Makedonia, Prov. Mak. Brod, Treska-valley, 4 km N / of Devic, 98.VI.3, leg. Orosz András” (APCB).

I can confirm that this species is similar to *T. amabilis* Faust, 1894. However the shape of the median lobe and that of the rostrum are more similar to those of *T. reitteri* Faust, 1889, which is another species known from the Balkans (Caldara 1990). From this species *T. boroveci* differs by the smaller size (length 1.8-2.2 mm vs 2.3-2.7 mm), the pronotum less transverse and with sides only weakly rounded, the broad scales partly covering the elytral interstriae slightly longer and smaller, distinctly sub-elliptical (in *T. reitteri* from subrounded to oval). By the present new data *T. boroveci* is now known from the whole Bulgaria and the neighbouring Republic of Macedonia.

### **Tychius conspersus** Rosenhauer, 1856

*Tychius conspersus* Rosenhauer, 1856: 273. Caldara, 1990: 204

REMARKS. This species was described from specimens collected at Cádiz (southern Spain), which I was not able to trace when I revised the Palearctic *Tychius* (see Caldara 1990). Subsequently other careful searches, especially in Oberthur's collection (MNHN), which includes Rosenhauer's collection, were unsuccessful.

The most impressive characters reported in the original description are: “Oblongus...; prothoracis basi maculis tribus cretaceis, elytris sutura et lateribus fusco-cinereis maculisque albidis adspersis...; femori-

bus postice dentatis“. On this basis I supposed that this species could be similar to *T. grenieri* C. Brisout, 1861 (Caldara 1990), known also from southern Spain, except for the presence of three light maculae of scales on the pronotum. Vice versa, this character is present in another species, *T. antoinei* Hustache, 1932, closely related to *T. grenieri* but up to now known from Morocco and the Balearic Islands. However recently I was able to examine specimens of *T. antoinei* collected near Cádiz (MKCB) and perfectly corresponding to the original description of *T. conspersus*. Therefore, following the provisions of the Article 75 of the ICZN (1999) I decided to designate a male of these specimens as the neotype of *T. conspersus*. It is labelled: “E - Andalusien, Conil / Cadiz, 27.II.07, Mes-sutat / Tychius antoinei Hustache, det. P. Sprick / Tychius antoinei Hustache, Michael Košťál 2009 [all white, rectangular, printed] / Neotypus, Tychius conspersus Rosenh., des. R. Caldara 2010 [red. printed]”. The specimen is 2.7 mm long, well preserved and set on a white rectangular card. It is deposited at BMNH. The type locality of *T. conspersus* becomes now: Conil (Cádiz prov., Andalucía, Spain). Therefore I propose the following synonymy:

*Tychius conspersus* Rosenhauer, 1856 = *T. antoinei* Hustache, 1944  
**n. syn.**

### **Tychius lacteoguttatus** Desbrochers, 1875

*Tychius lacteoguttatus* Desbrochers, 1875: 24; Caldara, 1990: 127.

REMARKS. The unique male of this species previously examined, the holotype, was not dissected (Caldara 1990). Recently I examined another male collected in Turkey (Osmanlye, Nur Dağı Yarpuz, m 900, 24.V.2001, leg. Audisio in ECCR), which I dissected. The median lobe (figs. 16-18) differs from that of the related species *T. grenieri* and *T. conspersus* (see Caldara 1990) because longer and narrower and with explanate apical portion ending in a blunted tip.

### **Tychius weilli** n. sp. (fig. 2)

TYPE SERIES. “Syrie (Homs), Kafram, 14-VI-2002, P. Weill leg.”, 1 male holotype (MNHN), and 1 male paratype (RCCM); “Kafram, 14-VI-02, Syrie, P. Weill”, 1 female paratype (PWCP).

HOLOTYPE. Length 1,7 mm. Body elongate, slender. Rostrum black

with apex reddish, short (rostrum length/pronotum length 0.77), in lateral view with sides subparallel to antennal insertion then distinctly and gradually tapered to apex, distinctly curved at antennal insertion (fig. 12), in dorsal view with sides slightly and gradually narrowed from base to apex, striate-punctate to antennal insertion then with sparse punctures and smooth and shining, in basal half with somewhat dense white, moderately elongate (length/width 5-7), subrectangular scales. Frons as wide as rostrum at base. Eyes weakly convex. Antennae with scape and first segment of funicle reddish then dark brown, with funicle with seven segments, with first segment 2.0x as long as wide, distinctly more robust and 1.5x longer than second segment which is 1.5x longer than wide, other segments gradually more transverse, club elongate oval. Pronotum black, with dense and regular punctures slightly visible between moderately dense, white, rectangular, moderately elongate (length/width 6-8) scales, weakly transverse (width/length 1.18), with sides weakly rounded, widest at middle, weakly convex. Elytra black at base then reddish brown, elongate (length/width 1.60), rectangular, 1.17x wider than pronotum, parallel-sided; interstriae somewhat visible between sparse elongate (length/width 6-8), rectangular, white scales, with only a few wider (length/width 4-6), subelliptical scales on first interstria, all recumbent, arranged in 1-2 rows; striae weakly visible, with a row of scales slightly shorter than those covering interstriae. Femora black, unarmed, profemora without fringe of scales; tibiae reddish, protibia without tooth along inner margin; tarsi reddish with first segment 1.5x longer than wide, second segment transverse, third segment distinctly wider and bilobed, claw with processes almost as long as claw. Abdomen covered with somewhat dense, white, subelliptical wide scales. Aedeagus as in figs 19-21.

PARATYPES. Length 1.6-1.7 mm. Female as male except rostrum slightly longer (rostrum length/pronotum length 0.84), in lateral view straight in apical two thirds (fig. 13), weakly punctate in apical half. Spermatheca as in fig. 23 and spiculum ventrale as in fig. 22. Apart from sexual characters, the paratypes do not differ significantly from the holotype.

ETYMOLOGY. This species is named in honour of its collector, Patrick Weill, who collected many interesting weevils in Syria and Lybia during the last ten years.

DISTRIBUTION. Syria.

REMARKS. This species belongs to the *T. stephensi* Schoenherr, 1836 group (Caldara, 1990), and appears to be related to *T. pusillus* Germar, 1842, from which it differs by the antennae blackish brown from the second segment of the funicle (in *T. pusillus* the first four segments are reddish), the shape of the rostrum, which in the male is more curved and in the female straighter in the apical two thirds, the pronotum slightly narrower and less rounded at sides, the protibiae in male without a tooth along the inner margin, the median lobe parallel sided and distinctly pointed at apex, the spiculum ventrale with two narrow sclerotized arms converging from base to apex.

### **Tychius magnithorax** n. sp. (fig. 3)

TYPE SERIES. "TR [Turkey] (Osmaniye) - Nur Dađı Yarpuz - m 900, 24.V.2001 - E. Colonnelli", 1 male holotype (ECCR); "Galaat al Hosn (Distr. Homs), 28-IV-2002, Syrie, Pelletier leg.", 1 male paratype (JPCM); "Hosn, 05-V-2004, Syrie, P. Weill", 1 female paratype (PWCP).

HOLOTYPE. Length 3,0 mm. Body robust, elongate. Rostrum black with reddish apex, short (rostrum length/pronotum length 0.67), in both lateral and dorsal view subparallel sided to antennal insertion then distinctly and gradually tapered to apex, in lateral view almost straight, on dorsum distinctly striate-punctate to apex, in basal half with somewhat dense, white, moderately elongate (length/width 5-7), subrectangular scales. Frons as wide as rostrum at base. Eyes distinctly convex. Antennae reddish, with funicle with six segments, with first segment 1.7x as long as wide, distinctly more robust and 1.5x longer than second segment which is 1.3x longer than wide, other segments gradually more transverse, club elongate oval. Pronotum black, with dense and regular punctures slightly visible between moderately dense, mostly cupreous reddish, rectangular, moderately elongate scales with a few white scales intermixed (length/width 5-7), distinctly transverse (width/length 1.35), with sides distinctly rounded, widest at middle, weakly convex. Elytra black at base then reddish brown, elongate (length/width 1.58), rectangular, only 1.05x wider than pronotum, parallel-sided; interstriae moderately visible between somewhat dense, elongate (length/width 5-9), rectangular, mostly cupreous reddish with only a few white scales, and broad (length/width 3-4), subelliptical white scales arranged at humeri and around scutellum, all recumbent, irregularly arranged; striae weakly visible, with a row of white scales slightly shorter than the long

ones covering interstriae. Femora black, unarmed, profemora without fringe of scales; tibiae reddish, protibiae with robust tooth along inner margin just before middle; tarsi reddish with first segment 1.5x longer than wide, second segment transverse, third segment distinctly wider and bilobed, claw with processes almost as long as claw. Abdomen covered with dense, white, subelliptical wide scales. Aedeagus as in *T. cuprifer* (Panzer, 1799) (Caldara, 1990).

PARATYPES. Length 2.9-3.2 mm. Female as male except rostrum slightly longer (rostrum length/pronotum length 0.72), in lateral view slightly more tapered from antennal insertion to apex, weakly punctate in apical half, protibiae slightly angulate along inner margin just before middle. Spermatheca as in fig. 24 and spiculum ventrale as in the other species of the group (Caldara 1990). Apart from sexual characters, the two paratypes do not differ significantly from the holotype.

ETYMOLOGY. The name refers to the very wide pronotum, that is almost as wide as the elytra.

DISTRIBUTION. Southern central Turkey, Syria.

REMARKS. This species belongs to the *T. cuprifer* group (Caldara 1990) and appears to be closely related to *T. cuprifer*, from which it differs by the tooth of the inner margin of the protibiae placed almost at middle, the pronotum distinctly more transverse and almost as wide as the elytra, the rostrum shorter, more robust and distinctly narrowed in its apical part, the eyes more convex.

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#### SUMMARY

Five new species belonging to the weevil genus *Tychius* Germar, 1817 are here described: *Tychius magnithorax* n. sp. (southern central Turkey, Syria), *T. podlussanyi* n. sp. (northern Portugal), *T. ucrainicus* n. sp. (eastern Ukraine), *T. weilli* n. sp. (Syria), *T. zagrosianus* n. sp. (south-western Iran). For each taxon a description, habitus photograph, figures of rostrum and genitalia when useful for taxonomy, and differential characters from the closely related species are provided. A neotype is designated for *Tychius*

*conspersus* Rosenhauer, 1856, and the following synonymy is proposed: *T. conspersus* Rosenhauer, 1856 = *T. antoinei* Hustache, 1944 **n. syn.** Finally the male of *T. boroveci* Caldara, 1995 and the male genitalia of *T. lacteoguttatus* Desbrochers, 1875 are described for the first time.

#### RIASSUNTO

*Note tassonomiche su alcune specie paleartiche del genere Tychius con la descrizione di cinque nuove specie (Coleoptera, Curculionidae).*

Vengono descritte cinque nuove specie appartenenti al genere *Tychius* Germar, 1817: *Tychius magnithorax* n. sp. (parte meridionale della Turchia centrale, Siria), *T. podlussanyi* n. sp. (Portogallo settentrionale), *T. ucrainicus* n. sp. (Ucraina orientale), *T. weilli* n. sp. (Siria), *T. zagrosianus* n. sp. (Iran sud-occidentale). Per ogni specie sono riportati la descrizione, i caratteri differenziali dalle specie affini, la fotografia dell'habitus, i disegni di rostro e genitali quando utili alla loro separazione. È designato il neotypus di *Tychius conspersus* Rosenhauer, 1856. Viene proposta la seguente sinonimia: *T. conspersus* Rosenhauer, 1856 = *T. antoinei* Hustache, 1944 **n. syn.** Infine per la prima volta sono descritti il maschio di *T. boroveci* Caldara, 1995 e l'edeago di *T. lacteoguttatus* Desbrochers, 1875.

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