

Description of three new species of *Tychius* GERMAR from southwestern Asia (Coleoptera: Curculionidae)

R. CALDARA & B.A. KOROTYAEV

Abstract

Three new species belonging to the genus *Tychius* GERMAR are described: *T. gibbipennis* sp.n. (E. Turkey) of the *T. gigas* group, *T. sumericus* sp.n. (W. Iraq) of the *T. intrusus* group and *T. gillerforsi* sp.n. (W. Turkey) of the *T. stephensi* group.

Key words: Coleoptera, Curculionidae, taxonomy, *Tychius*, new species, southwestern Asia

Introduction

Recently, we had the opportunity to examine many specimens of *Tychius* GERMAR from the Palearctic region received from many colleagues. Among these we found some specimens belonging to three species new to science which are described herein.

The acronyms used in the text are: NHMH (Naturhistoriska Centralmuseet, Helsingfors); IZSP (Institute of Zoology, Russian Academy of Sciences, St. Petersburg, Russia); BC (Borovec collection, Nechanice, Czech Republic); CC (Caldara collection, Milano, Italy); E (Elytra); P (Prothorax); R (Rostrum); L (length); W (width).

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Tychius gibbipennis sp.n. (Figs. 1, 2, 5 - 7, 16)

Holotype ♂: TR- Anatolia or., Buglan Gecidi, 1640 m, Murat Daglari, 13.6.1991, S. Kadlec lgt. (BC). **Paratype:** 1 ♀, same data as holotype (CC).

Description - Male. Length 3.4 mm.

Integument: blackish brown except apex of rostrum, antennae and tarsi reddish brown; dorsum with uniformly pale, yellowish brown vestiture and elongate and broad scales; broad scales elliptical to lanceolate, recumbent, covering scutellum and elytra where they are slightly imbricated and arranged in 2 - 3 irregular rows on each interstria, denser and more distinctly imbricated on basal half of interstria 1; elongate scales subrecumbent, completely covering pronotum, irregularly arranged and more numerous on basal portion of elytral interstriae and arranged in 1 - 2 uneven median rows on remaining portion of interstriae. Elytral striae scarcely visible, with row of narrow, elongate scales. Venter densely covered with broad as well as elongate, plumose, whitish scales.

Head: eyes moderately convex. Frons slightly wider than rostrum at base. Rostrum shorter than prothorax (RL/PL = 0.77), feebly narrowed from base to apex in dorsal view, slightly curved

and distinctly narrowed from antennal insertion to apex (Fig. 1) in lateral view. Antennal funicle 7-segmented, segment 1 slightly more robust and two times as long as segment 2.

Prothorax: moderately transverse ($W/L = 1.17$); sides distinctly rounded from base, widest just behind middle, moderately convex on dorsum.

Elytra: elongate-oval ($W/L = 1.35$), slightly wider than prothorax ($EW/PW = 1.27$), markedly convex at basal half of interstria 1.

Legs: profemur with fringe of white scales; metafemur with minute denticle; tibiae lacking tooth at middle of inner margin; tarsi robust, segment 3 bilobed, distinctly wider than segment 2; claws with processes $2/3$ as long as claw.

Median lobe of aedeagus: similar to that of other species of the *T. gigas* group, but apex lacking lateral denticles (Figs. 5 - 7).

Female. Length 3.5 mm. Rostrum narrower and slightly longer than in male ($RL/PL = 0.91$), subcylindrical, sides subparallel in dorsal and lateral views, slightly evenly curved (Fig. 2). Spiculum ventrale with two narrow arms only slightly more sclerotized than remaining apical portion; spermatheca with robust body and nodus and with ramus distinctly extending past insertion of spermathecal duct. Both spiculum ventrale and spermatheca not distinguishable from those of other species of the group (CALDARA 1990).

Comparative notes: This small species of the *T. gigas* group (CALDARA 1990) is easily distinguished 1) by the marked convexity of elytral interstria 1, 2) by the elytral vestiture of broad scales that are scarcer, more elongate and more numerous and longer than in the other species of the group, and 3) by the lack of denticles at the apex of the median lobe.

Etymology: The name emphasizes the marked longitudinal convexity of the basal portion of the elytral interstria 1.

Tychius sumericus sp.n.

(Figs. 3, 8 - 12, 17)

Holotype ♂: Iraq, al-Anbar, Ar Rutbah-Qaim, 8-9.3.1980, R. Linnavuori (NHMH). **Paratypes**: 1 ♂, same data as holotype (IZSP); 2 ♀♀: Iraq, Karbala, Ain Al Tamar- Ramadi, 7.3.1980, R. Linnavuori (NHMH, CC).

Description - Male (holotype). Length 3.1 mm.

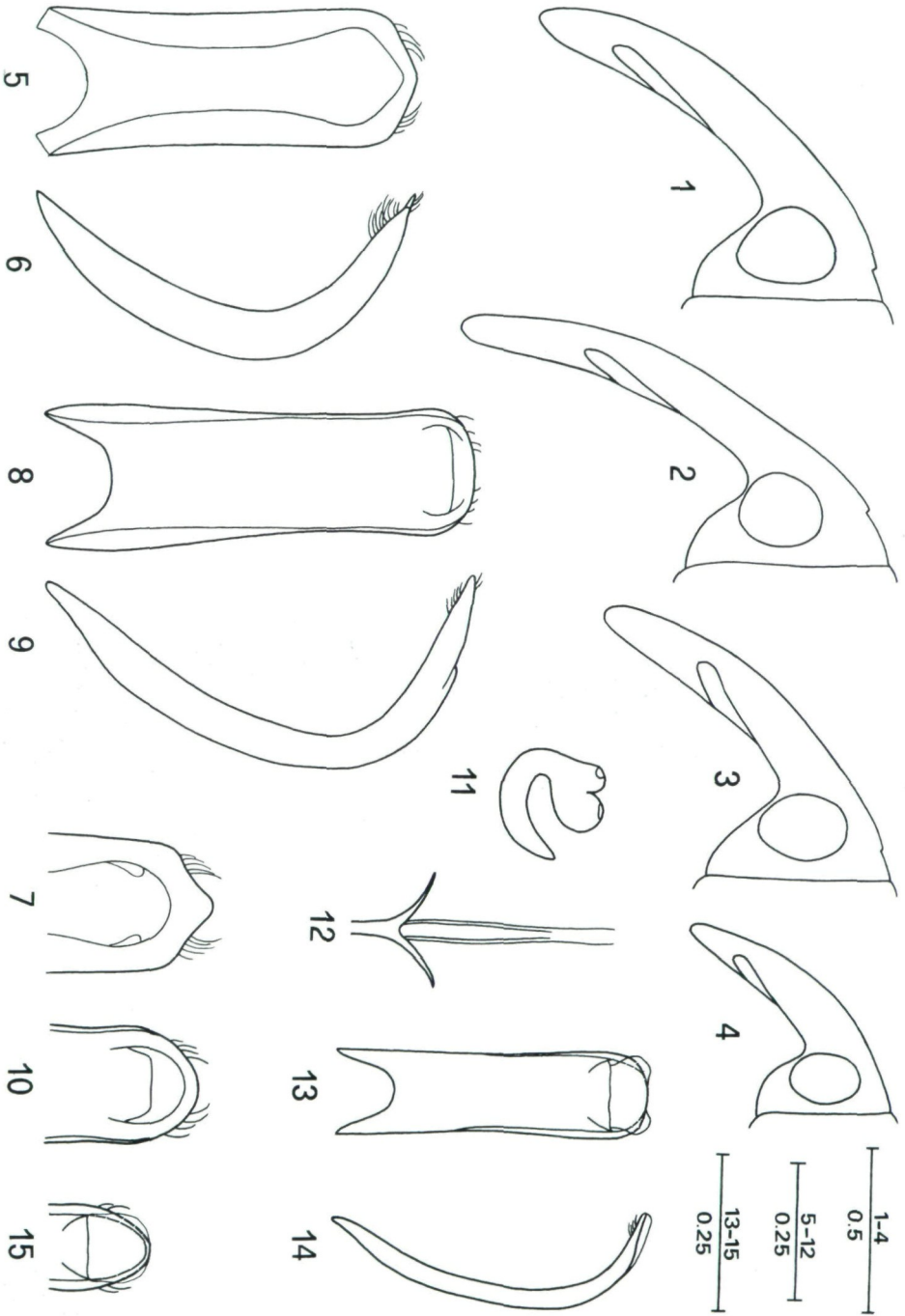
Integument: head and basal half of rostrum, prothorax and abdomen dark brown, remaining portions reddish brown; dorsum with densely arranged scales of two types: 1) broad, whitish and 2) elongate, pale brown. The first type of scales suboval to subelliptical with emarginate apex, flat to concave, covering sides and medio-basal portion of pronotum and elytral interstriae, where they are arranged in double rows. The second type of scales covers pronotal disc and elytral interstriae, where they are arranged in one median row, and on the poorly distinguishable striae. Venter densely covered with broad whitish scales.

Head: eyes distinctly convex. Frons as wide as rostrum at base. Rostrum moderately robust, short ($RL/PL = 0.70$); regularly narrowed from base to apex in dorsal view; tapered from antennal insertion to apex (Fig. 3) in lateral view. Antennal funicle 7-segmented; segment 1 robust, two times as long as segment 2.

Prothorax: nearly as long as wide ($W/L = 1.06$), widest at base, with subrectilinear sides weakly narrowed in basal $2/3$, flattened on dorsum.

Elytra: robust, elongate, subrectangular ($L/W = 1.51$, $EW/PW = 1.23$), moderately convex.

Legs: femora unarmed, profemur with fringe of white elongate scales; protibia with sharp median tooth along inner margin; tarsal segment 3 bilobed, distinctly wider than segment 2; claws with processes $2/3$ as long as claw.



Figs. 1 - 15: 1 - 2) Rostrum of *Tychius gibbipennis* sp. n. male (1) and female (2); 3) Rostrum of *T. sumericus* sp. n. male; 4) Rostrum of *T. gillertorsi* sp. n. male; 5 - 7) Median lobe of *T. gibbipennis* sp. n. in dorsal (5) and lateral (6) view, and apex (7); 8 - 10) Median lobe of *T. sumericus* sp. n., in dorsal (8) and lateral (9) view, and apex (10); 11 - 12) Spiculum ventrale (11) and spermatheca (12) of *T. sumericus* sp. n.; 13 - 15) Median lobe of *T. gillertorsi* sp. n., in dorsal (13) and lateral (14) view, and apex (15). Scales in mm.

Median lobe of aedeagus as in Figs. 8 - 10.

Female. Length 3.6 - 3.7 mm. Rostrum short, only slightly longer than in male ($RL/PL = 0.72 - 0.74$) and similar in shape; profemur lacking fringe of scales; protibia lacking tooth. Spiculum ventrale: Fig. 11; spermatheca: Fig. 12.

Variability: The prothorax varies slightly in length ($W/L 1.06 - 1.12$). In the two females the elongate scales are more numerous than in the holotype and male paratype and arranged in multiple rows on elytral interstriae 2-4 especially in basal half where the broad scales are sparse.

Comparative notes: This species belongs to the *T. intrusus* group (CALDARA 1990) and, because of the close similarity of the male genitalia, it appears related to *T. intrusus* FAUST. However, *T. sumericus* is distinguished by several major characters: the shape of the prothorax which is distinctly more elongate and with sides subrectilinear and slightly narrowed from base, the rostrum which is distinctly tapered from antennal insertion to apex especially in the female, the male protibiae with median tooth, the more robust elytra and the shape of the spiculum ventrale.

Etymology: The Latin adjective refers to the ancient people inhabiting the region where the species was collected.

***Tychius gillerforsi* sp.n.**
(Figs. 4, 13 - 15, 18)

Holotype ♂: Turkey, Antalya, Elmali, 23.V.1991, G. Gillerfors (CC).

Description: Length 2.0 mm.

Integument: blackish except rostrum from antennal insertion to apex, antennae, apical 2/3 of elytra, tibiae and tarsi reddish; dorsum distinctly visible between whitish scales, which are usually elongate, hair-like and slightly raised; only at base of pronotum, scutellum and elytral interstria 1 scales are wider, subelliptical and recumbent. Elytral interstriae with scales arranged in 2 - 3 irregular rows. Striae with a row of scales slightly narrower than those covering interstriae. Venter covered with white, not imbricated, subelliptical scales.

Head: eyes large, slightly convex. Frons as wide as rostrum at base. Rostrum robust, short ($RL/PL = 0.75$), with sides gradually narrowing from base to apex in dorsal view; distinctly tapered in apical half (Fig. 4) in lateral view. Antennal funicle 7-segmented, segment 1 distinctly more robust and two times as long as segment 2.

Prothorax: robust, moderately transverse ($W/L = 1.18$); sides distinctly rounded from base, widest just behind middle; convex on dorsum.

Elytra: elongate-oval ($L/W = 1.41$), slightly wider than prothorax ($EW/PW = 1.18$), widest in basal third; sides slightly curved, gradually narrowed from base to apex, moderately convex.

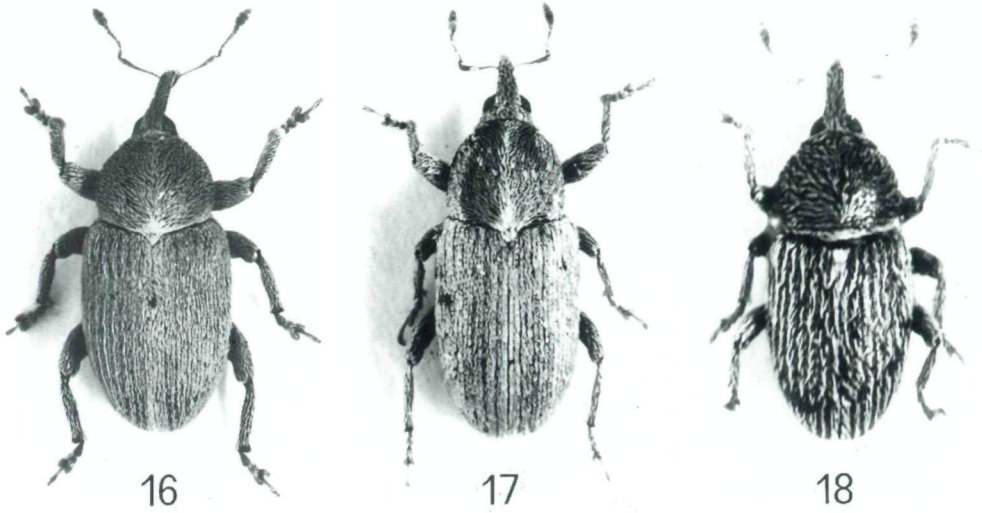
Legs: robust, femora unarmed, profemur lacking fringe of scales; inner margin of protibia lacking median tooth; tarsal segment 3 bilobed, distinctly wider than segment 2; claws with processes 2/3 as long as claw.

Median lobe of aedeagus: Figs. 13 - 15.

Female unknown.

Comparative notes: *Tychius gillerforsi* belongs to the *T. stephensi* group (CALDARA 1990), but it is difficult to establish to which species it is most closely related. The new species is distinctive if one considers the shape of the rostrum, which is robust and tapered apically, the somewhat globose prothorax, the sparse hairlike elytral scales, the forelegs lacking sexual features and the shape of the median lobe of the aedeagus.

Etymology: The species is named after the collector Gosta Gillerfors (Varberg, Sweden).



Figs. 16 - 18: Habitus photographs; 16) *Tychius gibbipennis* sp.n.; 17) *T. sumericus* sp.n.; 18) *T. gillerforsi* sp.n. Not in scale.

References

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Dr. Roberto CALDARA
Piazza Bolivar 7, I - 20146 Milano, Italy

Dr. Boris A. KOROTYAEV
Institute of Zoology, Russian Academy of Sciences, St. Petersburg, Russia

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