

## A new species of the genus *Tachyura* Motschulsky, subgenus *Tachyphanes* Jeannel from eastern Turkey

(Coleoptera, Carabidae, Bembidiini, Tachyina)

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A new tachyine species of the genus *Tachyura* Motschulsky, subgenus *Tachyphanes* Jeannel from eastern Turkey is described: *Tachyura patruelis*, spec. nov. It is closely related to the widespread *T. lata* (Peyron, 1858) which has been collected together with the new species at the same locality, and is compared with the latter species. The replacement name *Tachyura conveximargo*, nom. nov. is given for the preoccupied name *Tachyura convexicollis* Baehr, 1988.

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### Introduction

While checking some specimens of the tachyine genus *Tachyura* Motschulsky from a locality in eastern Turkey, collected 1983 by the late dipterologist Wolfgang Schacht, within a series of specimens of *T. lata* (Peyron, 1858) I found a single specimen which deviates from that species by presence of only 5 impressed elytral striae, presence of a pale humeral spot on the elytra, and decidedly narrower pronotum. Because the specimen is a male, the genitalia could be checked and they proved to be likewise slightly different from those of *T. lata*. Therefore, and because no similar species is recorded from the West Palearctic, the specimen is described as a new species.

The supraspecific taxonomy of the subtribe (or tribe) Tachyina (-ini) is still discussed and several opinions exist about the status of most supraspecific groups. In this paper I follow the system of Kopecký (2003) who, apart from a number of well-defined genera, for the bulk of species acknowledged two genera, namely *Tachys* Dejean, 1821 and *Tachyura*

Motschulsky, 1862, while Lorenz (2005) included *Tachyura* as a subgenus in *Elaphropus* Motschulsky, 1839. However, these different arrangements are merely a matter of opinion.

Within the genus (or subgenus) *Tachyura* as denoted by Kopecký (2003), respectively Lorenz (2005), *T. lata* (Peyron) runs into the subgenus *Tachyphanes* Jeannel, 1946, as does the new species. Species of *Tachyphanes* are characterized by deep frontal furrows that are combined with the clypeal suture to an about horse-shoe shaped impression, and by presence of at least four deeply impressed elytral striae. The genus *Tachyura* as a whole covers about 250 species that are distributed in the Palearctic, Afrotropical, Oriental, Papuan / Australian, and Nearctic Regions. The subgenus *Tachyphanes*, however, in the West Palearctic covers only three species, some more in the Oriental and Afrotropical Regions.

A new name is given to the Australian species *Tachyura convexicollis* Baehr, 1987, because this is preoccupied.



**Fig. 1.** *Tachyura patruelis*, spec. nov. Habitus, body length: 2.7 mm.

### Methods

In the taxonomic survey standard methods are used. For dissecting the genitalia, the specimens were relaxed overnight in a jar under moist atmosphere, then cleaned for a short while in 10 % KOH. The habitus photograph was obtained by a digital camera using ProgRes CapturePro 2.6 and AutoMontage and subsequently was edited with Corel Photo Paint 14.

Measurements were taken using a stereo microscope with an ocular micrometer. Body length was measured from apex of labrum to apex of elytra, length of pronotum along midline, length of elytra from the most advanced part of the humerus to the most advanced part of the apex.

The type of the new species is stored in the working collection of the author at the Zoologische Staatssammlung München (CBM).

### Genus *Tachyura* Motschulsky, 1862

*Tachyura* Motschulsky, 1862: 27. – Kopecký 2003: 278, Lorenz: 2005: 208.

**Type species:** *Elaphrus quadrisignatus* Duftschmid, 1812

### *Tachyura conveximargo*, nom nov.

*Elaphropus convexicollis* Baehr, 1988: 253 (nom preocc.).

The name of this species which was described from Australia, is preoccupied by *Tachyura convexicollis* Jeannel, 1946, a species from Madagascar, and is herewith replaced by the new name *Tachyura conveximargo*.

### Subgenus *Tachyphanes* Jeannel, 1946

*Tachyphanes* Jeannel, 1946: 362. – Kopecký 2003: 278, Lorenz: 2005: 192 (as synonymous with *Tachyura*).

**Type species:** *Bembidium amabile* Dejean, 1831

### *Tachyura patruelis*, spec. nov.

Figs 1-3

**Types.** Holotype: ♂, “Turkey, Pr. Siirt Botan Cayi-Tal 500 m, 23.4.1983 Leg. W. Schacht” (CBM).

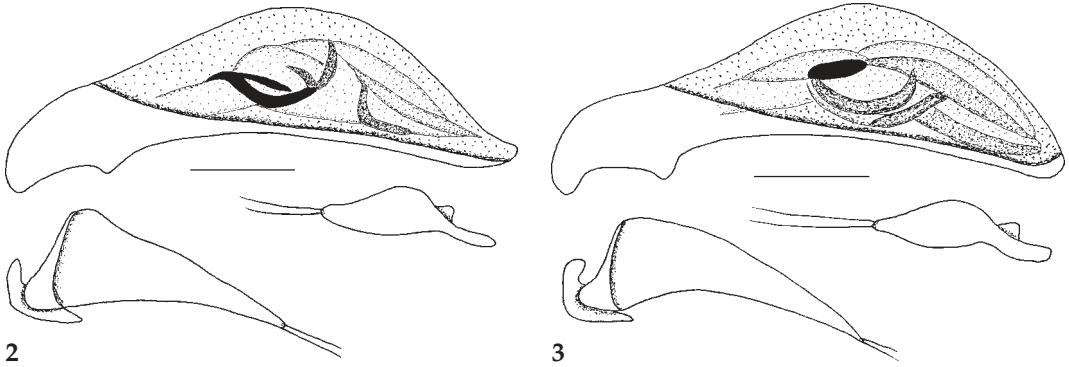
**Etymology.** The name refers to the close relationship with *T. lata* (Peyron, 1858).

**Diagnosis.** Distinguished from the nearest related species *T. lata* by narrower pronotum which is also narrower in comparison to the elytra, slightly longer, only 5-striate elytra, presence of a distinct pale humeral spot, and slightly upturned apex of the aedeagus.

### Description

**Measurements.** Length: 2.7 mm; width: 1.05 mm. **Ratios.** Width/length of pronotum: 1.08; width widest diameter/base of pronotum: 1.16; width base/apex of pronotum: 1.26; width pronotum/head: 1.35; length/width of elytra: 1.56; width elytra/pronotum: 1.38.

**Colour** (Fig. 1). Dark reddish-piceous, only labrum and mandibles slightly paler; elytra with an almost quadrate, rather ill-delimited, reddish humeral spot that is extended from 5<sup>th</sup> stria to the lateral margin but does not touch the humerus, and with a larger, oval-shaped, similarly ill-delimited, dirty yellow preapical spot from about 2<sup>nd</sup> stria to near to lateral margin; the apical part of the elytra is



**Figs 2-3.** Male genitalia: aedeagus (left side), left and right parameres (scale bars: 0.1 mm). **2.** *Tachyura patruelis*, spec. nov. **3.** *Tachyura lata* (Peyron).

dark, but the very apex inconspicuously paler. Palpi, antenna, and legs yellow. Lower surface reddish-piceous.

Head (Fig. 1). Of average size. Eye large, laterad well produced, orbit very small. Labrum anteriorly straight. Clypeus straight, clypeal suture deep. Frons slightly convex, without any impression. Frontal furrows not duplicated, very elongate, deep, straight but slightly sinuate, anteriorly running into the clypeal suture, producing an about horseshoe-like impression. Sulcus medially of the eye deep. Mandible short, palpi with elongate apical palpomere. Antenna moderately short, median antennomeres c. 1.5 × as long as wide. Dorsal surface impunctate and without microreticulation, very glossy, only labrum with superficial, isodiametric microreticulation.

Pronotum (Fig. 1). Comparatively narrow, at base much narrower than in middle, narrowed to apex; dorsal surface remarkably convex. Apex in middle slightly convex, apical angles barely projected and very widely rounded. Lateral border markedly convex in most of its length, only in basal third almost straight though oblique, not sinuate near base, but basal angle very slightly produced as an obtuse tooth. Base moderately convex. Marginal sulcus in apical half very narrow, basad still narrow but slightly widened. Apex laterally finely margined, lateral parts of base very coarsely margined. Median line extremely

fine, inconspicuous, just visible only in middle. Anterior transverse impression absent, posterior impression deep, slightly curved, in middle with three large and deep punctures. Basal grooves deep, base near lateral margin with a very short, slightly oblique carina. Anterior lateral seta inserted slightly in front of middle, about at widest diameter, posterior lateral seta inserted at basal angle. Surface very glossy, impunctate and without microreticulation.

Elytra (Fig. 1). Narrow and elongate, not ovi-form, widest slightly behind humerus, lateral margin in middle very slightly oblique; dorsal surface convex but depressed on disk. Humerus slightly produced, faintly angulate, basal margin complete. Five striae present, deeply impressed, smooth. 1<sup>st</sup> stria attaining scutellary puncture and apex, 2<sup>nd</sup> to 5<sup>th</sup> striae at base shortened, the median ones more than 5<sup>th</sup> stria. All striae except the sutural one ended far in front of apex, the lateral ones more shortened than the median ones, apex widely glabrous. All intervals on disk raised. 8<sup>th</sup> stria complete, deeply impressed, impunctate. Recurrent stria very short, oblique, with a setiferous puncture inside at about half of its length. 3<sup>rd</sup> interval bipunctate, the anterior puncture located behind basal third, the posterior puncture located about at apical two fifth, both adjacent to 3<sup>rd</sup> stria. Intervals impunctate and without microreticulation, surface very glossy.

**Table 1.** Measurements and ratios of *Tachyura lata* (Peyron) and *Tachyura patruelis*, spec. nov. N = Number of specimens measured; l = body length (mm); w/lpr = ratio width/length of pronotum; dia/bpr = width widest diameter/base of pronotum; b/apr = ratio width base/apex of pronotum; wpr/h = ratio width pronotum/head; l/wel = ratio length/width of elytra; wel/pr = ratio width elytra/pronotum.

	N	l	w/lpr	dia/bpr	b/apr	wpr/h	l/wel	wel/pr
<i>lata</i>	6	2.3-2.7	1.20-1.24	1.16-1.24	1.18-1.26	1.40-1.44	1.49-1.54	1.22-1.31
<i>patruelis</i>	1	2.7	1.08	1.16	1.26	1.35	1.56	1.38

Lower surface. Impilose and glabrous. Metepisternum  $>1.5\times$  as long as wide at apex. Terminal abdominal sternum in male bisetose.

Male genitalia (Fig. 2). Aedeagus rather elongate, stout in middle, narrowed towards apex, lower surface very slightly concave. Apex stout but rather elongate, obtusely rounded, slightly upturned. Internal sac with several slightly twisted folds and with a coiled, sclerotized rod in middle. Parameres very dissimilar, the left one very large, elongate, triangular, the right one smaller but comparatively wide, both with two elongate apical setae.

Female gonocoxites. Unknown.

Variation. Unknown.

**Distribution.** South-eastern Turkey. Known only from type locality.

**Collecting circumstances.** Largely unrecorded, holotype collected in river valley at about 500 m, together with several specimens of *T. lata* (Peyron, 1858).

**Relationships.** Certainly closely related to *T. lata*, which is also corroborated by the fairly similar aedeagus and the almost identical parameres of both species.

### Acknowledgement

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