

A new species of the genus *Tachyura* Motschulsky, subgenus *Amaurotachys* Jeannel, from northern India (Insecta: Coleoptera: Carabidae: Bembidiini; Tachyina)

MARTIN BAEHR

Abstract

A new tachyine species, alluded to the genus *Tachyura* Motschulsky, 1862 and the subgenus *Amaurotachys* Jeannel, 1946, is described from north-western India: *Tachyura holzschuhi* nov. sp. The species is rather similar to *T. octostriata* Netolitzky, 1929 from Kashmir and Nepal and is distinguished from that species by unicolourous, castaneous colouration, some minor differences in body shape, and the differently shaped aedeagus.

Zusammenfassung

Eine neue Art der Subtribus Tachyina aus der Gattung *Tachyura* Motschulsky, 1862 und der Untergattung *Amaurotachys* Jeannel, 1946, wird aus Nordwest-Indien beschrieben: *Tachyura holzschuhi* nov. sp. Die Art ist *T. octostriata* Netolitzky, 1929 aus Kaschmir und Nepal sehr ähnlich und unterscheidet sich von dieser Art durch ungefleckt hellbraune Färbung, etwas abweichende Körperform und den abweichend gestalteten Aedeagus.

Key words: Carabidae, Tachyina, *Tachyura*, *Amaurotachys*, new species, India

Introduction

Within a collection of carabid species from different parts of the Oriental Region, received from Naturkundemuseum Erfurt for identification, I detected a small series of a Tachyine species belonging to the genus *Tachyura* Motschulsky, 1862 and the subgenus *Amaurotachys* Jeannel, 1946, that is described herein as a new species. In body shape and surface structure it is very near to *T. octostriata* Netolitzky, 1929, but is clearly distinguished by its almost uniformly pale castaneous colour, wider and not microreticulate prothorax, and the decidedly smaller and shorter aedeagus.

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. A number of species with complete striation of the elytra and usually strongly punctate striae, also with complete, but in the basal part not sulcate but punctate 8th stria, have been combined by JEANNEL (1946) to the subgenus *Amaurotachys* Jeannel, 1946, which equals the *notaphoides*-, *rhombochorus*-, and *exaratus*-groups of ANDREWES (1925, 1935). In the acceptance of this subgenus I also follow the system of KOPECKÝ (2003), whereas LORENZ (2005) takes it as synonymous of *Tachyura*.

Methods

In the taxonomic survey standard methods are used. For dissecting the genitalia, a specimen was 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 worked 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 produced part of the humerus in a straight line to the most produced part of the apex.

The types of the new species are stored in Naturkundemuseum Erfurt (NME) and in the working collection of the author at Zoologische Staatssammlung, München (CBM).

Genus *Tachyura* Motschulsky, 1862

Tachyura Motschulsky, 1862: 27. – KOPECKÝ 2003: 277, LORENZ: 2005: 208.

Type species: *Elaphrus quadrisignatus* Duftschmid, 1812.

Diagnosis: Species of this genus are characterized by absence of ocellae in the mentum, presence of a distinct basal transverse sulcus on the pronotum, presence of two discal elytral punctures, presence of a distinct recurrent stria about in the middle of the apex of the elytra, presence of the complete, deeply impressed 8th stria that in most species is sulcate but not punctate, and glabrous tarsal claws. The genus agrees with the *notaphoides*-, *rhomphorus*-, *exaratus*- and *politus*-groups of ANDREWES (1925, 1935) and DARLINGTON (1962).

Subgenus *Amaurotachys* Jeannel, 1946

Amaurotachys Jeannel, 1946: 351. – KOPECKÝ 2003: 277, LORENZ: 2005: 208.

Type species: *Tachys alberti* Burgeon, 1935 (= *Tachys nigrolimbatus* Peringuey, 1908).

Diagnosis: Species of this subgenus are characterized by complete striation of the elytra, usually rather distinct, or even coarse, punctation of the elytral striae, and in the basal half not sulcate but punctate 8th stria. The subgenus agrees with the *notaphoides*-, *rhomphorus*-, and *exaratus*-groups of ANDREWES (1925, 1935).

Tachyura holzschuhi nov. sp. (Figs 1, 2)

Type material: Holotype: ♂, „INDIA; Himalaya; U.P. Uttarkashi Distr., Gangani 14.–18.VI.1981, 1300 m leg. C. Holzschuh“ (NME). – Paratypes: 2 ♂♂, same data (CBM, NME).

Etymology: The name is a patronym and honours the collector of the species, the renowned specialist of Cerambycidae, Carolus Holzschuh.

Diagnosis: Characterized by complete striation of the elytra, coarsely punctate striae, and in basal half punctate 8th stria. Distinguished from the most similar and probably nearest related species *T. octostriata* Netolitzky, 1929 by slightly larger body size, wider, not microreticulate pronotum, in middle straight lateral margin of the elytra, almost uniformly pale castaneous colour, and reasonably smaller and shorter aedeagus.

Description: Measurements: Length: 3.2–3.6 mm; width: 1.45–1.60 mm. Ratios. Width/length of pronotum: 1.44–1.46; width widest diameter/base of pronotum: 1.21–1.26; width base/apex of pronotum: 1.35–1.38; width pronotum/head: 1.54–1.57; length/width of elytra: 1.40–1.45; width elytra/pronotum: 1.48–1.55.

Colour (Fig. 1): Upper and lower surfaces pale castaneous, apex of elytra slightly and indistinctly paler. Palpi and legs dark yellow, antenna slightly darker, pale yellow-reddish. Lower surface reddish-piceous.

Head (Fig. 1): Of average size. Eye fairly large, laterad moderately produced, orbit rather short, c. 1/3 of length of eye. Labrum anteriorly straight. Clypeus straight, clypeal suture distinct. Frons slightly convex, without any median impression. Frontal furrows not duplicated, rather short, fairly deep, curved outwards. Mandible of average size. Palpi with rather short apical palpomere. Maxillary palpus elongate, densely pilose. Antenna moderately elongate, median antennomeres (*i. e.* 6th and 7th antennomeres) c. twice as long as wide. Dorsal surface impunctate and with more or less superficial microreticulation, glossy.

Pronotum (Fig. 1): Comparatively wide, at base much wider than at apex; dorsal surface gently convex. Apex in middle straight, apical angles barely projected and shortly rounded. Lateral border markedly convex in most of its length, but near base slightly sinuate; basal angle acute and dentiform, laterad slightly projected. Base very little 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 fine, more or less distinctly impressed, not reaching apex nor base. Anterior transverse impression very shallow, posterior impression deep, slightly curved, finely crenulate, in middle with a large and deep pit. Basal grooves deep, base near lateral margin with a short, slightly oblique carina. Anterior lateral seta inserted slightly in front of middle and the widest diameter, posterior lateral seta inserted at basal angle. Surface very glossy, impunctate and without microreticulation, except in middle near apex and base.

Elytra (Fig. 1): Moderately elongate, widest in middle, lateral margin in middle straight; dorsal surface convex but depressed on disk. Humerus barely produced, faintly angulate, basal margin reaching the base of the 5th stria. Striation complete, striae deeply impressed



Fig. 1. *Tachyura holzschihi* nov. sp. Habitus. Body length: 3.6 mm.

and coarsely punctate. Only the 1st stria attains base and apex; at base it is outturned to meet the large and deep scutellary puncture which is situated at the base of the 3rd stria. All other striae slightly shortened at their bases and diminishing at the apical third of the elytra, apex widely estriate. All intervals on disk raised. 8th stria complete, deeply impressed, but sulcate only in basal half, in apical half consisting of coarse punctures. Recurrent stria short, oblique-convex, at apex slightly incurved and ending abruptly. Stria with a setiferous puncture inside at about half of its length. 3rd interval bipunctate, the anterior puncture located about at basal third, the posterior puncture located about at apical third, both adjacent to the 3rd stria. Intervals impunctate and without microreticulation, surface very glossy.

Lower surface: Impilose and glabrous. Metepisternum slightly > 1.5 x as long as wide at apex. Terminal abdominal sternum in male bisetose.

Male genitalia (Fig. 2): Aedeagus elongate and depressed, narrowed towards apex, lower surface in middle straight, in apical third very slightly concave, near apex slightly convex. Apex stout and short, 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, at apex with two elongate setae and one very short seta; the right paramere much smaller but comparatively wide, on the upper surface distinctly concave, with two elongate apical setae.

Female gonocoxites: Unknown.

Variation: Apart from slight differences in body size, very little variation noted.

Distribution: North-western India. Known only from type locality.

Collecting circumstances: Largely unrecorded, collected at median altitude at about 1.300 m.

Relationships: Probably most closely related to *T. octuguttata* Netolitzky, which is corroborated by the surface structure of the elytra, the fairly similarly structured aedeagus, and the almost identical parameres of both species.

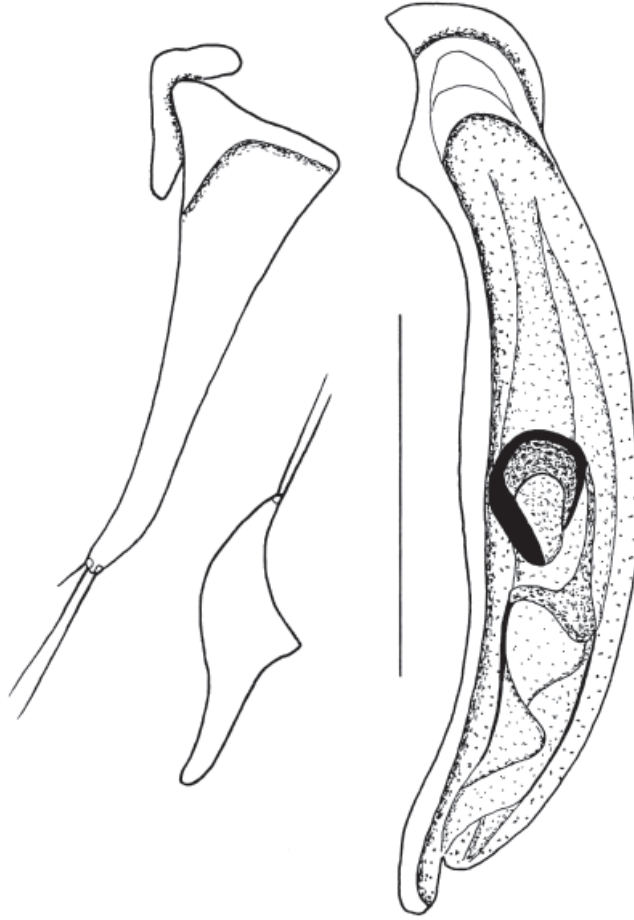


Fig. 2. *Tachyura holzschuhi* nov. sp. Male genitalia: aedeagus (left side), left and right parameres (Scale bar: 0.25 mm).

Table 1: Measurements and ratios of *Tachyura octostriata* Netolitzky and *Tachyura holzschuhi* nov. sp.

N = Number of specimens measured. l = body length (mm); w/l pr = ratio width/length of pronotum; dia/b pr = width widest diameter/base of pronotum; b/a pr = ratio width base/apex of pronotum; w pr/h = ratio width pronotum/head; l/w el = ratio length/width of elytra; w el/pr = ratio width elytra/pronotum.

	N	l	w/l pr	dia/b pr	b/a pr	w pr/h	l/w el	w el/pr
<i>octostriata</i>	3	3.0-3.1	1.37-1.40	1.19-1.24	1.16-1.22	1.29-1.30	1.45-1.48	1.67-1.72
<i>holzschuhi</i>	3	3.2-3.6	1.44-1.46	1.21-1.26	1.35-1.38	1.54-1.57	1.40-1.45	1.48-1.55

Remarks

In spite of the still very important, fundamental work of ANDREWES (1925, 1935) on the Oriental species of the subtribe Tachyina (at that time mostly included in the genus *Tachys* sensu lato), continuously additional tachyine species are being detected and described from the Oriental Region. This is due to the much intensified exploration of many South Asian countries during the previous 30–40 years, in combination with more elaborate sampling techniques, as sifting leaf litter, exposing pitfall traps, and collecting at light. The new species described in the present paper likewise was collected by a scientist who has devoted much of his activities to the exploration of several countries on the South and South-east Asian mainland.

A careful examination of unidentified material present in the various museum and private collections, in the course of a new general revision of the Oriental Tachyina, is supposed to bring to light quite a number of additional undescribed species. But, unfortunately, such work at present seems outside of the scope of any specialist.

Acknowledgement

I am indebted to Matthias Hartmann of the Naturkundemuseum Erfurt for the kind loan of the specimens.

References

- ANDREWES, H. E. (1925): A revision of the Oriental species of the genus *Tachys*. – *Annali di Museo Civico di Storia Naturale Giacomo Doria* **51**: 327–502.
- (1935): The Fauna of British India, including Ceylon and Burma. Coleoptera. Carabidae. Vol. II – Harpalinae – I. – London, Francis & Taylor, 323 pp.
- DARLINGTON, P. J. Jr. (1962): The Carabid Beetles of New Guinea. Part I. Cicindelinae, Carabinae, Harpalinae through Pterostichini. – *Bulletin of the Museum of Comparative Zoology* **126**: 319–564.
- JEANNEL, R. (1946): Faune de l'Empire français. VI. Coléoptères carabiques de la région Malgache (première partie). – Paris: Office de la Recherche Coloniale. 372 pp.
- KOPECKÝ, T. (2003): Tachyini. In *Catalogue of Palaearctic Coleoptera*, Vol. 1. Archostemata – Myxophaga – Adephaga (LÖBL, I. & A. SMETANA eds.): 273–280. – Apollo Books, Stenstrup.
- LORENZ, W. (2005): Systematic List of extant Ground Beetles of the World (Insecta Coleoptera „Geadephaga“: Trachpachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodidae). 2nd ed. – Tutzing, printed by the author. 530 pp.
- MOTSCHULSKY, V. (1839): Coléoptères du Caucase et des provinces transcaucasiennes (Continuation). – *Bulletin de la Société Impériale des Naturalistes de Moscou* **12**: 68–93.
- (1862): Entomologie speciale. Remarques sur la collection d'insectes de V. de Motschulsky. Coléoptères. – *Études Entomologiques* **11**: 15–55.

Author's address:

Dr. Martin Baehr
Zoologische Staatssammlung München
Münchhausenstr. 21
D-81247 München
e-mail: martin.baehr@zsm.mwn.de

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Veröffentlichungen des Naturkundemuseums Erfurt \(in Folge VERNATE\)](#)

Jahr/Year: 2015

Band/Volume: [34](#)

Autor(en)/Author(s): Baehr Martin

Artikel/Article: [A new species of the genus Tachyura Motschulsky, subgenus Amaurotachys Jeannel, from northern India \(Insecta: Coleoptera: Carabidae: Bembidiini; Tachyina\) 193-197](#)