

## Notes on Mediterranean *Teuchophorus* species with the description of a new species from the nature reserve in El Kala, north east Algeria (Diptera, Empidoidea, Dolichopodidae)

by Patrick GROOTAERT, Andreas STARK & Henk J.G. MEUFFELS

### Summary

*Teuchophorus samraouii* sp. n. is described and illustrated. It was found in the nature reserve of El Kala in the north east of Algeria. A lectotype for *T. bipilosus* Becker, 1908 is designated and a re-description is given.

### Introduction

The rather small genus *Teuchophorus* is represented in western Europe by about eight species. The genus belongs to the Sympycninae and the males in western Europe are easily recognized by their thickened costa. This "generic" character is however not reliable in other regions of the world. MEUFFELS & GROOTAERT (1986) showed that in Papua New Guinea there was a variety of *Teuchophorus* species with and without costal swellings. The boundaries with the genus *Sympycnus* in this respect are thus fading away in that region (GROOTAERT, 1993).

The Mediterranean dolichopodid fauna is poorly known and even quite recently MEUFFELS & GROOTAERT (1990) described *T. cristulatus* from Sicily. The present study issued from a collection of dolichopodids from a humid meadow along a small river in the nature reserve of El Kala. This area is very diversified with permanent and non-permanent lakes, swamps, rivers and many small, isolated, green areas among a mainly xerophilous vegetation. Hence the great importance of the site for bird migration. An additional peculiarity is the presence of afrotropical faunal elements in the El Kala area which belongs in fact to the palaeartic region (SAMRAOUI *et al.*, 1993).

The western European male *Teuchophorus* species can easily be distinguished by the form and the ornamentation of the hind tibiae (OLEJNÍČEK, 1981; NEGROBOV *et al.*, 1984). But, although there are few and easily recognizable species there remains a lot of confusion about the identity of several species especially in the Mediterranean region. STROBL (CZERNY & STROBL, 1909: 188) described *T. tenuemarginatus* which is not mentioned in NEGROBOV's catalogue (1991). It is a species

without costal swelling and it is not known yet what it really represents.

The present new species from El Kala is closely related to *T. bipilosus* which BECKER (1908) described from the Canary Islands. The types of *T. bipilosus* are revised here and a re-description is given. The records of VAILLANT (1952) from the south of Algeria and additional data show that *T. bipilosus* is indeed a widespread Mediterranean species.

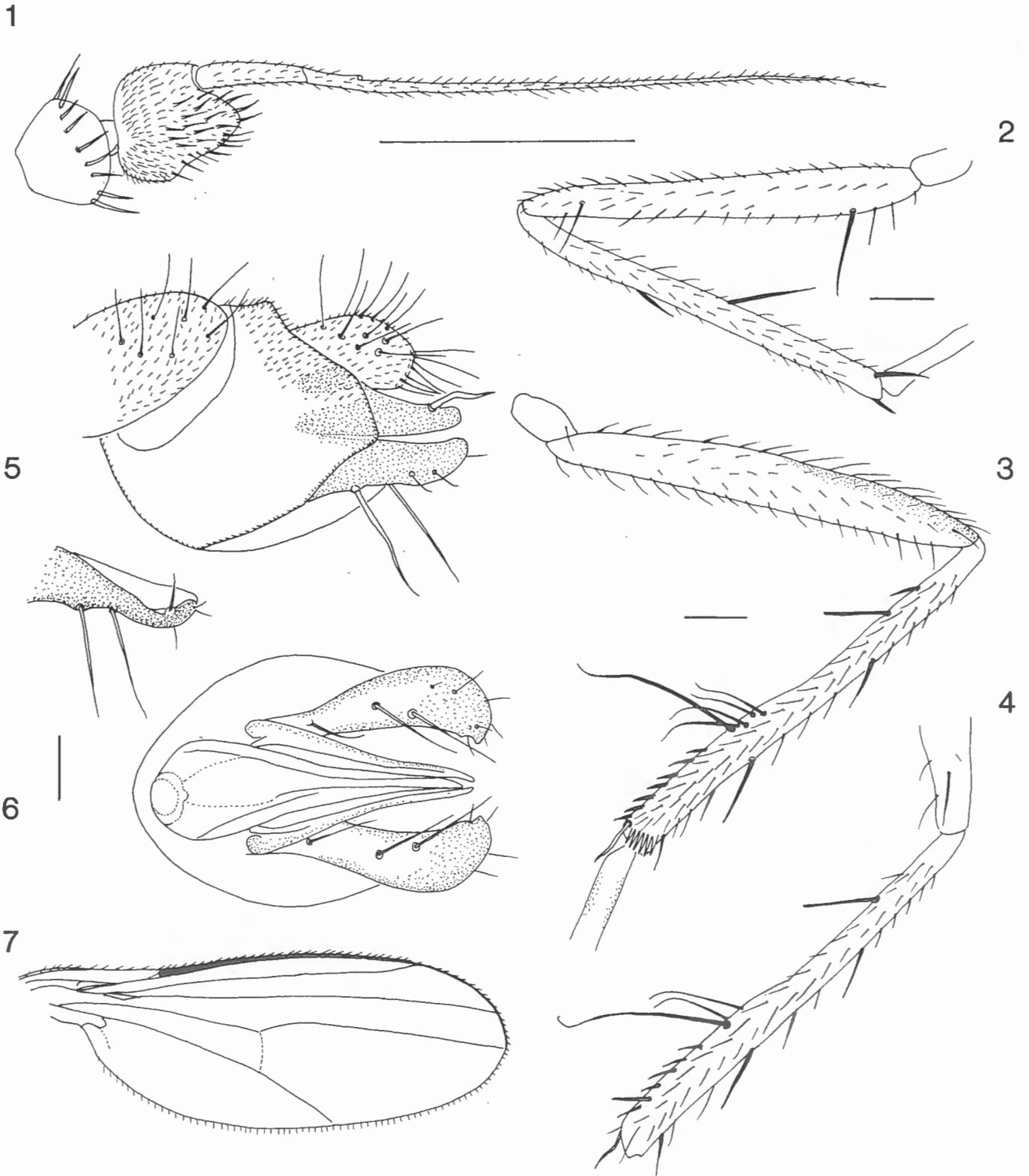
### Taxonomic account

#### *Teuchophorus samraouii* sp. n. (Figs 1-7)

#### Male

**Head.** Frons shining dark metallic purple, thinly pollinose. Face covered by a dense white dust; below, at its narrowest point, slightly narrower than the distance between the two ocellar bristles. Palpi very small, dark brown with short black bristles and a very short black apical bristle. Rostrum brownish yellow. Occiput dark metallic green, covered with a white dusting. Two long, black ocellar and two vertical bristles; two very short and thin postocellars; postvertical bristles not differentiated. Postocular hairs uniseriate, the five uppermost black and stronger than the paler (not yellow) ones beneath. Antennae (Fig. 1) short, brownish black; third segment as long as deep, with a more or less blunt tip. Arista dorsal, pubescent, about six times as long as third segment; basal arista segment slightly shorter than third antennal segment.

**Thorax.** Mesonotum and scutellum with dark metallic ground colour, moderately subshining, covered with a thin white dusting. Pleurae of the same colour as the mesonotum. Bristles black. Acrostichals uniseriate in front, narrowly biseriate behind. Six long dorsocentrals. Two strong marginal scutellars. No propleural bristles.



Figs 1-7. - *Teuchophorus samraouii* sp. nov. paratype male: 1. antenna; 2. mid femur and tibia posteriorly; 3. hind femur and tibia posteriorly; 4. hind tibia anteriorly; 5, 6. hypopygium with detail of surstylus; 7. wing. Scale 0.1 mm.

*Legs.* Coxae and legs yellow; mid and hind coxae slightly brownish; tip of hind femur dorsally darkened; all tarsi gradually browned from tip of first segments onward. *Fore leg.* Fore coxa anteriorly with short yellowish hairs; tip with short brownish yellow bristles. Femur with a tiny posteroventral preapical bristle. Tibia a little shorter than femur, without bristles, anterodorsally with a very short and inconspicuous serration. Length ratio of fore femur, tibia and tarsal segments: 0.54, 0.48, 0.44, 0.13, 0.1, 0.1, 0.08. *Mid leg* (Fig. 2). Coxa anteriorly with very short brownish hairs. Femur ventrally near base with three to four bristles: the most apical bristle strong, black and nearly twice as long as femur is wide, the other bristles shorter and pale; a posteroventral near tip and a shorter preapical. Tibia about as long as femur; one anterodorsal, one posterodorsal on basal third, just beyond middle a very strong ventral bristle; tip with a crown of preapicals. Length ratio of mid femur, tibia and tarsal segments: 0.67, 0.62, 0.34, 0.16, 0.13, 0.08, 0.08.

*Hind leg* (Figs 3,4). Coxa with a fine, black exterior bristle. Femur dorsally with bristle-like hairs, longest on apical half. Tibia as long as femur, thin on basal half, slightly swollen on apical half. On basal quarter a strong, blunt, black ventral bristle, slightly longer than tibia is wide. On apical third a very long, black ventral bristle four times as long as tibia is wide and with a fine curled tip; basally of that bristle and slightly posteroventrally a tuft of four to five black bristles about half as long as the long bristle. Ventrally on apical third, a row of short spine-like bristles. Dorsally a row of rather short bristles of unequal length. Length ratio of hind femur, tibia and tarsal segments: 0.69, 0.69, 0.19, 0.24, 0.14, 0.13, 0.06.

*Wings* (Fig. 7) slightly brownish tinged. A broad costal swelling. Tp short, oblique, about half as long as apical part of M 3+4. M 1+2 upturned immediately after Tp. No anal vein. Halteres yellow. Squamae yellowish with black cilia.

*Abdomen* dorsally brownish, dusted, with short black hairs and marginal bristles. Hypopygium (Figs 5-6) small, dark brown; cerci pale brownish with short, pale hairs.

*Length:* body: 1.28-1.44 mm; wing: 1.84-1.92 mm.

#### Female

Third antennal segment shorter than wide. Fore femur with weak antero- and postero-ventral preapicals. Mid femur apically with a few posteroventral bristles, one longer than femur is wide; no ventral bristles. Mid tibia with one posterodorsal, two anterodorsal and two strong preapical bristles. Hind tibia cylindrical with two to three dorsal bristles and a dorsal preapical. Costa not thickened, as is usual in female *Teuchophorus*.

*Length:* body: 1.28-1.36 mm; wing: 1.92-2 mm.

#### Derivatio nominis

The species is dedicated to our colleague Dr. Boudjema SAMRAOUI of the University of Annaba.

#### Type material

Algeria, El Kala (nature reserve), 29 September 1993: holotype male and 19 ♂, 16 ♀ paratypes preserved on pins in the collections of the "Koninklijk Belgisch Instituut voor Natuurwetenschappen" (one couple in the collection of Dr. B. SAMRAOUI). Legs and genitalia of a paratype male in slides n° 93.10.5.1, 93.10.5.2 and 93.10.5.3.

#### Discussion

The present new species is closely related to *T. bipilosus*, but the latter has two strong and two less strong ventral bristles on the mid femora, no ventral bristle on the basal quarter of the hind tibiae, the peculiar row of posteroventral bristles on the hind tibiae is situated apically of the two long ventral bristles and the squamae bear pale brownish cilia. In *T. samraouii* sp.n. there is only one strong ventral bristle near the base of the mid femora, a long, blunt-tipped ventral bristle is the base of the hind tibiae and the tuft of bristles are basad of the long ventral bristle on the apical third of the hind tibia.

#### *Teuchophorus bipilosus* BECKER, 1908 (Figs 8-9)

*Teuchophorus bipilosus* BECKER, 1908: 47

*Teuchophorus longipilus* STROBL, in CZERNY & STROBL, 1909: 187

*Teuchophorus bipilosus* BECKER, 1918: 114, Fig. 283

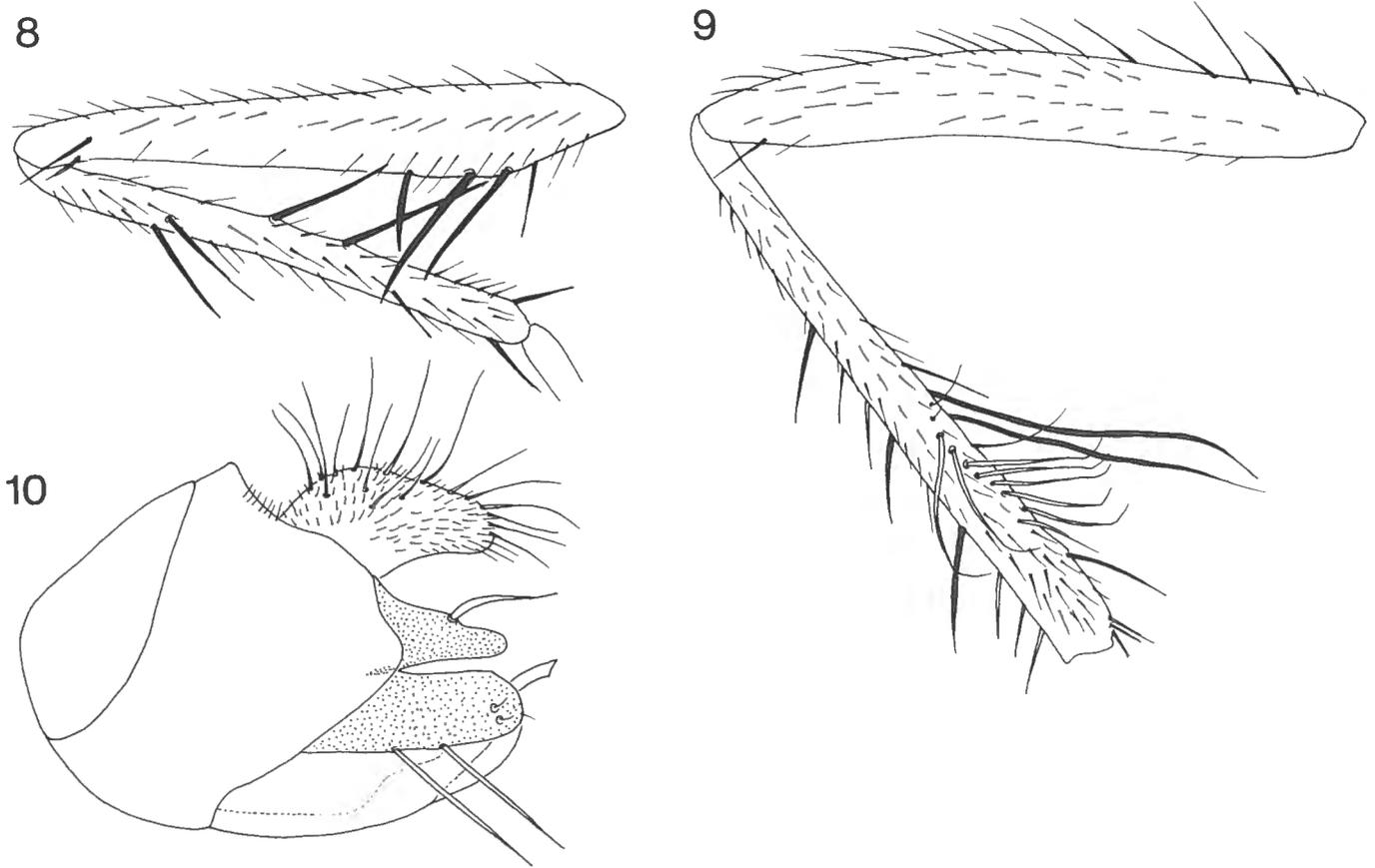
*T. bipilosus cupreoobscurus* SANTOS ABREU, 1929: 78

*T. bipilosus* BECKER, in VAILLANT, 1952: 8, Figs 16-19

#### Male

*Head.* Frons subshining dark purple-violet and thinly covered with greyish dust, becoming denser to the edge of the eyes. Face at lower part nearly parallel-sided and here silvery dusted. Palpi dark brown, bearing some hairs but also a longer dark apical bristle which is as long as palpus. Occiput covered with whitish dust, subshining greenish-brown. Two long black ocellar bristles, two long dark verticals and two short, but not very thin postocellars. Postocular hairs at occiput dark brown becoming whitish at the sides of the head. Antenna with third segment about as long as wide at base.

*Thorax.* Mesonotum on disc shining metallic, greenish, but not very glossy and becoming more dull and dusted to the side. Humerus not metallic, but yellowish-brown.



Figs 8-10. - *Teuchophorus bipilosus* BECKER paralectotype male (Teneriffe 46689 XII): 8. mid femur and tibia posteriorly; 9. Hind femur and tibia posteriorly; 10. hypopygium. Scale 0.1 mm.

Pleurae very thinly silvery-white dusted [and therefore remarkably contrasting with the mesonotum]. All bristles on thorax brownish-black and very long, except acrostichals. The latter are short, biserial posteriorly. Acrostichals on a darker stripe which is especially well visible at front part of mesonotum. Dorsocentrals and marginal scutellars very long. A long humeral bristle.

**Legs.** Uniformly yellow, becoming a little bit darker to the terminal segments of all tarsi. Coxa I pale yellow with pale hairs and apically with some darker (but not really brown) hairs. Coxae II, III a little brownish at base. *Fore leg* without strong bristles, but femur with a fine, short posteroventral preapical bristle. *Mid leg* (Fig. 8). Mid femur ventrally with three rather strong and one weaker bristle in basal third. Mid tibia with an antero- and a posterodorsal bristle in basal quarter, two very strong ventral bristles and a dorsal bristle just beyond middle, and a pair of preapical bristles. *Hind leg*: coxa III with a long fine black external bristle. Femur dorsally with longer brownish, bristle-like hairs becoming shorter and more adpressed apically. Hind tibia slightly thickened on apical half and bent in lateral view. Ventrally with two very long black bristles near middle and posteriorly with about seven pale yellowish-brown bristles with curled tips. Dorsally with 3-4 black bristles.

*Wings* with a brownish tinge, the costal swelling broad at base, not reaching the region above the cross vein. Squamae yellow, but cilia pale brownish.

*Abdomen* slightly metallic shining, brownish, no dust. Hairs light brownish, with marginal bristles longer and black, at sides more than twice as long as the hairs. Hypopygium: small, spherical, brownish glossy.

**Length:** Male lectotype: body (without antennae): 1.8 mm; wing: 2.45 mm.

#### *Female*

All characters very similar to the male, even antenna etc. The bristling of the legs is as follows: Mid tibia: 1 anterodorsal in the basal third; 2 posterodorsals; 1 ventral near middle of tibia; 1 anterodorsal and 1 posterodorsal preapical. Hind tibia: 3 longer dorsal bristles with 2 shorter ones in the interspace between the former; 1 posterior bristle in basal third; 1 ventral bristle a little bit below middle of tibia.

**Length:** body (very "dried" and shrunken): 1.7 mm; wing: 2.53 mm.

*Material examined*

*Type material*: Lectotype male: Canary Islands, Teneriffe, 46785 - I, and 4 ♂♂, 2 ♀♀ paralectotypes from same sample. P. Orotava 51207. V. [P. means Porto], 2 ♀♀ on one pin; Orotava 46901 I, 2 ♂♂ on one pin; Orotava 46868 I, 1 ♀; Orotava 46864 I, 1 ♀; Orotava 46864 I, 1 ♀; P. Orotava 51207 V, 2 ♂♂ on one pin; P. Orotava 51207 V, 2 ♂♂ on one pin; Laguna 47594 IV, 1 ♀; Alassio 48392 V, 1 ♂; Teneriffe 46689. XII, 1 ♂. All conserved in the Zoological Museum in Berlin.

*Additional material*: France, Banyuls-sur-mer, 11-18.VI.1954, 7 ♂♂, 2 ♀♀; Le Thonolet 15.VI.1954, 1 ♂, 2 ♀♀; St. Cyprien, 12.VI.1954, 1 ♀ (leg. M. BEQUAERT, coll. K.B.I.N., Brussels).

*Discussion*

VAILLANT (1952) reports *T. bipilosus* from the south of Algeria. The drawing he gives of the hind tibia corresponds entirely to BECKER's types (Canary Islands) and to our material from France. However, it differs from the figures given by OLEJNÍČEK (1981; schematically redrawn from BECKER, 1918, OLEJNÍČEK *in litt.*) and NEGROBOV *et al.* (1984; drawn from material from the Krasnodar region according to OLEJNÍČEK *in litt.*). It is almost sure that the latter represents a different species. Hence, it is concluded that *T. bipilosus* is a widespread Mediterranean species which is not, as was suspected, endemic on the Canary Islands.

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Department of Entomology,  
Koninklijk Belgisch Instituut voor Natuurwetenschappen,  
Vautierstraat 29, B-1040 Brussels, Belgium  
Sebener Strasse 190, D-06114 Halle, Germany  
Rijksweg 103, NI-6325 AC Vilt, Netherlands

