

# Notes on Turkish *Tachysphex* Kohl (Hymenoptera: Sphecidae)

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*Abstract:* Two new species of the genus *Tachysphex*, viz. *T. magnaemontis* Hensen and *T. picnic* Van Ooijen are described. Records of other species are given as far as they add significant new information to the knowledge of their distribution in Turkey.

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## Introduction

Several Dutch Hymenopterists collected in Turkey recently, in 1977 (J. Timmer), 1983 (J. Timmer & P. van Ooijen) and 1985 (R. Hensen, P. van Ooijen and C. Zwakhals). Localities all over Turkey were visited. Of the large amount of interesting material collected, the specimens of the genus *Tachysphex* are treated here. The Turkish fauna is very rich in species of this genus; 39 were known until now. This is partly due to the fact that most *Tachysphex* favour a semi-arid habitat, partly to the fact that Turkey consists of several very different faunal areas: the Southern and Western coastal areas have a Mediterranean fauna; the North coast is temperate; Anatolia and Eastern Turkey have a strong Iranian-Central Asian element; in the lower South-Eastern part desert-species may be encountered. The two new species which are described here were both collected at Mount Uludağ, a high, isolated mountain near Bursa, at the West coast. It seems not unlikely that the Turkish fauna harbours still more undiscovered species.

We are much indebted to Dr. W. J. Pulawski (CAS, San Francisco), for critically reviewing the manuscript.

The collections in which the material is preserved are abbreviated as follows: CAS

California Academy of Science, San Francisco, USA; CH Coll. R. Hensen; CO Coll. P. van Ooijen; ZMA Zoological Museum Amsterdam.

Geographical names in capitals in the following records (e.g. URFA) refer to names of provinces.

### *Tachysphex angustatus* Pulawski, 1967

BINGÖL: Genç, 1000 m, 12.viii.1985, R. Hensen (1 ♀, CH). In Turkey recorded only from Central Anatolia (AMASYA, KONYA) (Pulawski, 1967: 405).

### *Tachysphex fugax* Radoszkowski, 1877

ISTANBUL: 25 km N of Üsküdar: Anadolu Kavağı, 15.vii.1985, P. v. Ooijen (♀, CO): URFA: Halfeti, 425 m, 7.viii.1985, R. Hensen (1 ♀, CH). Pulawski (1971: 182) states one record from Turkey (BURSA).

### *Tachysphex* c.f. *liriformis* Pulawski, 1967

BITLIS: Van, 13-14.vii.1977, J. Timmer (1 ♀, ZMA). The specimen agrees with the description given by Pulawski (1971: 307, 309), except for the sculpture of the fifth tergite, of which the apical depression is im-

punctate. *T. liriformis* has been recorded from two localities in Southern central Anatolia.

***Tachysphex magnaemontis* Hensen sp. n.**  
(figs. 1-3)

*Etymology*

The name of this species is derived from its type-locality: ulu = magnus = great, dağ = mons = mountain.

*Diagnosis*

This species is characterized by its obsolete pygidium; the sixth tergite bears only faint traces of this structure. Within Palearctic *Tachysphex* a similar situation is found only in *erythropus* (Costa), but in *magnaemontis* the pygidium is still weaker. Other diagnostic characters are: clypeal bevel large, smooth and shiny, with a few large punctures (fig. 3); mesoscutum posteriorly and scutellum sparsely finely punctate, smooth and shiny between the punctures; foretarsal rake consisting of relatively few and short spines (fig. 2). In Pulawski's (1971) key, the species runs to couplet 32, *T. malkovskiy* Pulawski and *T. radoszkowskyi* (Morawitz); *magnaemontis* is immediately distinguished from these by the absence of a pygidium and the short foretarsal rake.

*Holotype*

♀, "Turkey; (Bursa); Bursa, 30 km S.: Mt Uludağ; 1900 m; 26.viii.1985; leg. R. Hensen" (CH).

Body length 13.0 mm, length of forewing 7.5 mm (wings are worn).

*Coloration*

Black, first, second and third metasomal segments red, fourth tergite and sternite with red anterolateral spots. Wings light brown.

*Pubescence*

Clypeus and frons largely glabrous, only along the orbits and frontoclypeal suture with sparse white tomentum; genae rather

sparsely pubescent, setae as long as MOD (midocellar diameter); mesopleuron and propodeum sparsely pubescent, setae less than half MOD, those of dorsum of propodeum forwardly inclined; mid and hind femora ventrally glabrous; tergites without pruinosity.

*Description of holotype*

*Head:* Median lobe of clypeus (fig. 1) convex; clypeal bevel nearly reaching the dorsal margin medially; clypeal lip nearly straight, medially not emarginate, laterally stepped; ocellar scars comma-shaped, their long axes making an obtuse angle; post-ocellar furrow deep, its posterior margin rectangular; gena 0.6 times as wide as eye in lateral view. Labrum flat, short, apically narrowly emarginate; mouthparts not elongate. Width of clypeus 2.7 times shortest interocular distance; shortest interocular distance 0.6 times length of first flagellomere; first flagellomere 2.1 times as long as wide. Sculpture: apical area of median lobe of clypeus smooth, shiny, with a few scattered coarse punctures; frons medially densely coarsely punctate, interspaces smaller than the punctures; vertex sparsely finely punctate.

*Mesosoma:* Mesoscutum on anterior half and posteriorly along the sides densely, finely punctate, remaining part and scutellum only with scattered small punctures, smooth and shiny; mesopleuron laterally punctate-reticulate, dull, ventrally smooth and shiny, with scattered punctures; propodeum finely reticulate-rugose, interspaces shagreened, dull, laterally, longitudinally strigose, interspaces smooth. Foretarsal rake (fig. 2) consisting of six short stiff spines; trochanters and mid and hind femora ventrally nearly impunctate, smooth and shiny; fourth segment of hind tarsus as long as wide, its outer apical margin emarginate up to two thirds of segment length; apico-ventral margin of fifth tarsomere straight. Forewing: fourth abscissa of radial vein



nearly as long as second and third combined.

*Metasoma*: Tergites with broad apical depressions, the second one attaining tergal midlength in the middle; sixth tergite only posteriorly with faint traces of a narrow pygidial area (fig. 3), its surface everywhere distinctly convex; tergites very sparsely punctulate, interspaces finely shagreened, but shiny, apical depressions impunctate; sternites sparsely punctulate, more strongly shagreened, less shiny.

*Paratype*: ♀, same data as holotype (CAS). Smaller than holotype, body length 11.2 mm, length of forewing about 6.5 mm. Propodeum dorsally longitudinally rugose, not reticulate.

*Systematics*: *Tachysphex magnaemontis* has

to be placed in the *pompiliformis*-group, as it was defined by Pulawski (1971), on basis of the combination of a number of characters, the most important of which are: short mouthparts, presence of an episternal sulcus, pygidium neither very densely punctate, nor very broad, fourth tarsomere slender, frons not swollen. The group is based on symplesiomorphies only, and probably should be splitted. In that case, *magnaemontis* may be placed in a monotypic species-group, based on the obsolete pygidium, and the short foretarsal rake.

*Tachysphex persa* Gussakovskij, 1933

BURDUR: Çeltikçi, 2.ix.1983, Van Ooijen (1 ♀, CO). The westernmost locality according to Pulawski (1971: 330) is near Ankara, in central Anatolia; the present record refers to the West coast.



Figs. 1-6. 1-3, *Tachysphex magnaemontis* sp. n., holotype, ♀. 1, clypeus; 2, left fore leg, posterior view; 3, sixth metasomal tergite. 4-6, *Tachysphex picnic* sp. n., holotype, ♀. 4, clypeus; 5, left fore leg, posterior view; 6, sixth metasomal tergite. 1, 2, 3: scale-line; 4, 5: 1.5 × scale-line; 6: 3 × scale-line.

*Tachysphex picnic* Van Ooijen sp. n.  
(figs. 4-6)

*Diagnosis:* The very short fourth tarsomeres, the prehensile claws, and the spineless foretibiae indicate that this species is a member of the *obscuripennis*-group (Bohart & Menke, 1976: 269; part of the *bicolor* [recte *brullii*]-group of Pulawski, 1972: 203, 223). From all species of this group, *picnic* differs in having a broad gena, no bands of pruinosity on the metasomal tergites, a relatively broad pygidial plate, and a combination of sculptural characters. Apart from these characters, *picnic* is most similar to *radiatus* Gussakovskij, *blattivorus* Gussakovskij and *coriaceus* (A. Costa). Differences with *radiatus* are: vertex not shagreened, propodeal dorsum only anteromedially striate, and metapleuron only dorsally, tibiae black, basis of metasoma red. Differences with *coriaceus* are: frons shagreened, frons, vertex and mesonotum finely, sparsely punctate. Differences with *blattivorus* are: dorsal corners of median clypeal lobe hardly punctate, punctuation of vertex and mesonotum fine, sparse, tibiae black, metasomal basis red. Pulawski's (1971: 35) key would lead as far as no. 64.

*Holotype*

♀, "Turkey, Bursa, Uludağ, 5.ix.1983, leg. P. v. Ooijen" (CO).

*Description of holotype*

Body length 7.3 mm, length of forewing 5.3 mm.

*Coloration*

Black, mandibles brown in the middle; tegulae light brown on posterior half; tarsi lighter apically; first two tergites dull red, remaining tergites with reddish shine.

*Pubescence*

Lower frons with fine white pubescence; genae almost glabrous, setae shorter than MOD; flagellum with white pubescence;

propodeal dorsum with setae shorter than MOD, inclined posterad; posterior margins of tergites without bands of pruinosity.

*Head:* Clypeus (fig. 4) with median lobe convex, lip with small median emargination, laterally stepped; post-ocellar furrow deep, with rectangular posterior margin; labrum convex; mouthparts not elongate; width of clypeus 2.7 times shortest interocular distance; shortest interocular distance 1.9 times length of first flagellomere; first flagellomere 2.1 times as long as wide; gena 0.8 times as wide as eye in lateral view. Sculpture: median lobe of clypeus shiny, sparsely foveolate, dorsal corners with only a few small punctures; frons and vertex bearing fine, even punctation, punctures slightly more than one diameter apart, frons shagreened, vertex smooth, shiny between the punctures.

*Mesosoma:* Mesonotum shiny, finely punctate, punctures on disc more than two diameters, on anterior slope half a diameter apart; mesopleurae shiny, densely punctate; propodeal dorsum finely reticulate, anterior half longitudinally strigose; sides of propodeum shiny, obliquely striate, these striae continuing on dorsum as short, weak rugae. Legs: fourth tarsomere of all legs wider than long, fifth swollen on outer side, bearing dense setosity on inner side, apicoventral margin produced into a short triangular lobe; rake spines of fore tarsus (fig. 5) longer than succeeding tarsomere, fore tibia apically with two similar spines; femora of fore leg strongly swollen and shiny on inner side; middle and hind tibiae as well as tarsi spiny. Forewing: fourth abscissa of radial vein as long as first and half of second abscissa, third slightly longer than second.

*Metasoma:* Tergites with broad apical depressions, the second one occupying over half tergal length medially; tergites and sternites finely shagreened, dull, apical depressions a little shiny, especially posteriorly; pygidial plate (fig. 6) broad, clearly

bordered, sides slightly convex, shiny, with some large punctures.

#### *Paratype*

♀, "Turkey; (Bursa); Bursa, 30 km S.: Mt Uludağ; 1900 m; 26.viii.1985; leg. R. Hensen" (CH). Body length 8.1 mm, length of forewing 6.0 mm (wings are worn).

#### *Etymology*

The name is a souvenir from my first visit with Mr. Jan Timmer to the Ulu Dağ. Arriving there quite hungry we tried to get some breakfast. To our surprise we could only get a kilo of Şiş Kebab or a quarter kilo of Köfte (meat balls). To our even greater surprise it was served quite raw. Some minutes later a boy turned up with a charcoal barbecue. We had to prepare our own meal, all restaurants on the Ulu Dağ turned out to be so-called PicNic places. Our gastronomical capabilities being quite inferior to the Turkish, we burned the stuff and half an hour later we started collecting. The Arabian family at the next table appreciated the idea a lot more.

#### *Tachysphex pompiliformis* (Panzer, 1805)

AĞRI: Diyadin, 21.viii.1983, Van Ooijen (1 ♂, CO); BITLIS: Tatvan, 1750 m, 16.viii.1985, R. Hensen (2 ♂, CH); KARS: 20 km W. of Sarikamis, 2100 m, 5.vii.1985, C. Zwakhals (1 ♂, CH). This species was not observed yet in the eastern part of the country. The specimens from Tatvan are much darker than the European and West Turkish specimens, only the first tergite is slightly fuscous medially. They resemble specimens from Iran and Kazakhstan in this respect.

#### *Tachysphex pulcher* Pulawski, 1967

AĞRI: Doğubayazit, 20.viii.1983, Van

Ooijen (1 ♂, 1 ♀, CO); BİNGÖL: Genç, 15 km S., 1400 m, 13.viii.1985, R. Hensen (CH). In Turkey only recorded from the central part of the country (ANKARA, KONYA) (Pulawski, 1971: 282); the present records are from the Eastern part of the country.

#### *Tachysphex subdentatus* F. Morawitz, 1893

BİNGÖL: Genç, 15 km S., 1400 m, 13.viii.1985, R. Hensen (1 ♀, CH); ANTALYA: Demirtaş, 100 m, 29.vii.1985, R. Hensen (1 ♂, CH). Within Turkey previously only known from Western Anatolia (AFYON, KONYA, NIĞDE) (Pulawski, 1971: 98), the present records are from Eastern Turkey and from the Mediterranean coast.

#### *Tachysphex plicosus* (A. Costa, 1867)

ANTALYA: Demirtaş, 100 m, 29.vii.1985, R. Hensen (1 ♂, 1 ♀, CH). Within Turkey only known from the South-Eastern part of the country (Pulawski, 1971: 260), here recorded from the Mediterranean coast.

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