

New species of *Platypalpus* Maquart (Diptera, Hybotidae, Tachydromiinae) from Turkey

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Abstract

The genus *Platypalpus* is reported for the first time in Turkey with 9 species. Three species are described as new for science: *Platypalpus anatolicus*, *P. ionicus* and *P. olivetorum*. The Turkish records are compared with the West European fauna.

Keywords: Diptera, Hybotidae, *Platypalpus*, new species, Turkey.

Introduction

The *Platypalpus* fauna of southern Europe and the Palaearctic part of North Africa is not well known. Almost nothing is known from the Middle East, except for a short paper by COLLIN (1959). In their monograph on the Mediterranean fauna GROOTAERT & CHVÁLA (1992) described 23 new species, but mainly from the western part of the Mediterranean region. The eastern part remains terra incognita.

In the present paper nine species of *Platypalpus* are reported that have been collected during a short stay in early spring of 1995 in Kusadaci on the east coast of the Mediterranean sea. The collections were made in some wasteland and in an olive orchard by simple sweep netting the vegetation. Many more species are expected to occur in the region, but simply needs being collected and described.

Systematic account

Platypalpus anatolicus spec. nov.
(Figs 1-4)

Material examined:

Holotype male: Turkey, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Paratypes: 4 males, 24 females. Same provenance as holotype.

Diagnosis

A medium-sized black species of the *albiseta*-group. Third antennal segment about 3

times as long as wide, arista 1.5 times as long as third segment. Pleura dusted except for sternopleuron. Fore femur with short ventral bristles. Legs yellow. Fore femur with only short ventrals. Bi-serial acrostichals.

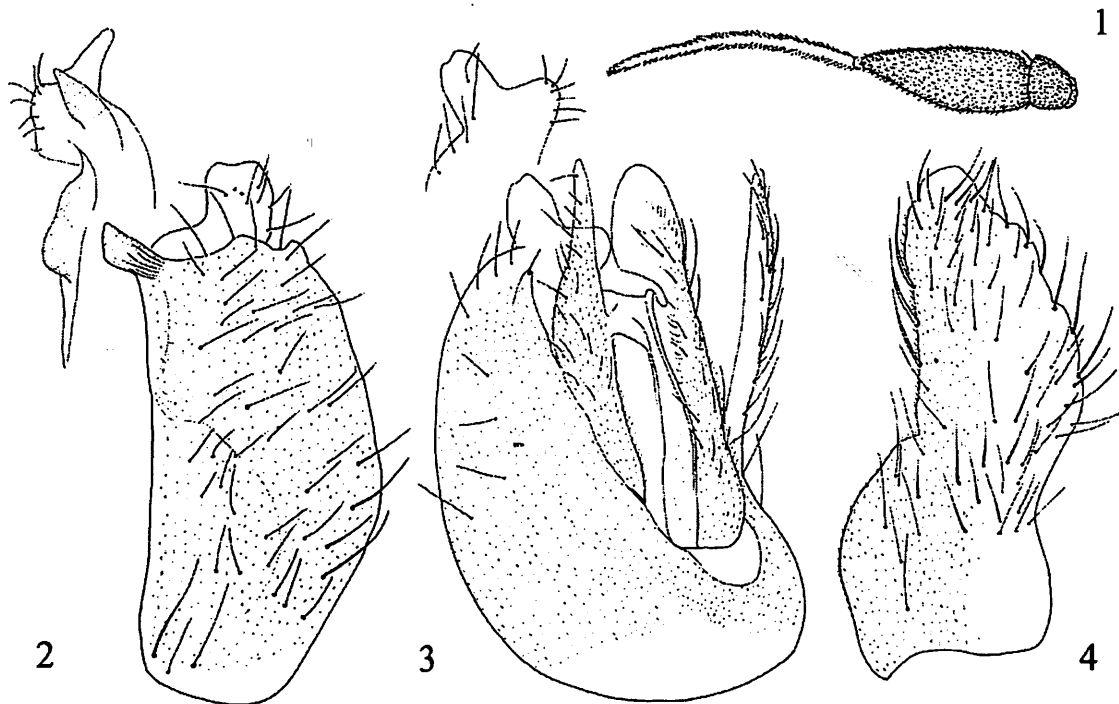
Male

Body length: 1.7 mm; wing: 2.5 mm.

Head. Frons half as narrow as second antennal segment. Frons greyish dusted. Face almost linear, dull black. A pair of long anterior ocellars and a pair of posteriors, half as long, black. One pair of verticals, black, twice as long as ocellars. Postoculars multiseriate, black above, white below. Antenna (Fig. 1) black, conical, 3 times as long as wide. Arista, white, a little longer than third segment. Palp hidden, black in ground-colour, with long black apical bristle. Proboscis short (but retracted), black.

Thorax black in ground-colour, mesonotum shining black, but sides grey dusted; only exterior side of humerus a little grey dusted, scutellum completely dusted. Pleura grey dusted, sternopleuron completely shining black (including hypopleuron). Long bristles pale brownish. Acr biseriate, quite long for the *albiseta*-group; dc uniseriate, ending in two longer prescutellars. Humeral a fine hair, 1 notopleural; scutellum with a pair of apicals with a short hair at each side. Squama brown, cilia pale. Halter with yellowish brown stem, yellow knob.

Legs yellow, anterior coxa yellow, posterior 4 coxae brown; apical four tarsomeres of all legs



Figs 1-4. *Platypalpus anatolicus* sp. nov., male. 1. Antenna; 2. Right epandrial lamella; 3. Epandrium with cerci; 4. Left epandrial lamella.

brown. Fore coxa with lateral and apical bristles yellow; as wide as coxa is wide. Fore femur swollen, as wide as mid femur, with a double row of yellow ventral bristles, half as long as femur is wide. Fore tibia tubiform, not swollen. Mid femur, with a row of about 5 black posteroventral bristles as long as femur is wide. Mid tibia without spur. Hind femur slender, ventrally with a row of white bristly hairs half as long as femur is wide.

Wing brownish tinged, veins brown. Costal bristle long, black. Basal cells equally long. Vein M slightly diverging from R4+5, converging near tip and ending parallel in costa. Vein closing anal cell recurrent.

Abdomen shining black; tergite 1 completely brownish dusted, set with short white hairs. Genitalia (Figs 2-4). Cerci long, as long as epandrial lamellae; left cercus with a rounded tip; right cercus pointed. Right surstylus with several sclerotized appendages.

Female

Body length: 2 mm; wing: 2.1 mm.

In most respects identical to male. Tergites shining black, but segment 7, 8 and cerci, grey dusted.

Derivatio nominis: The species is named after the region where it occurs.

Discussion:

Within the *albiseta*-group, the new species runs to the *niveiseta*-subgroup that has dusted pleura and rather short ventral bristles on the fore femur. In the key of GROOTAERT & CHVÁLA (1992) it runs to couplet 53 and it comes next to *P. niveisetoides* CHVÁLA, 1973. However the latter species has the left epandrial lamella with a blunt tip, a still larger left cercus, a very short right cercus, and only minute appendages on the left surstylus. The third antennal segment is almost 4 times as long as wide while it is only 3 times as long as wide in *P. anatolicus* new species.

Platypalpus ionicus spec. nov.

(Figs 5-8)

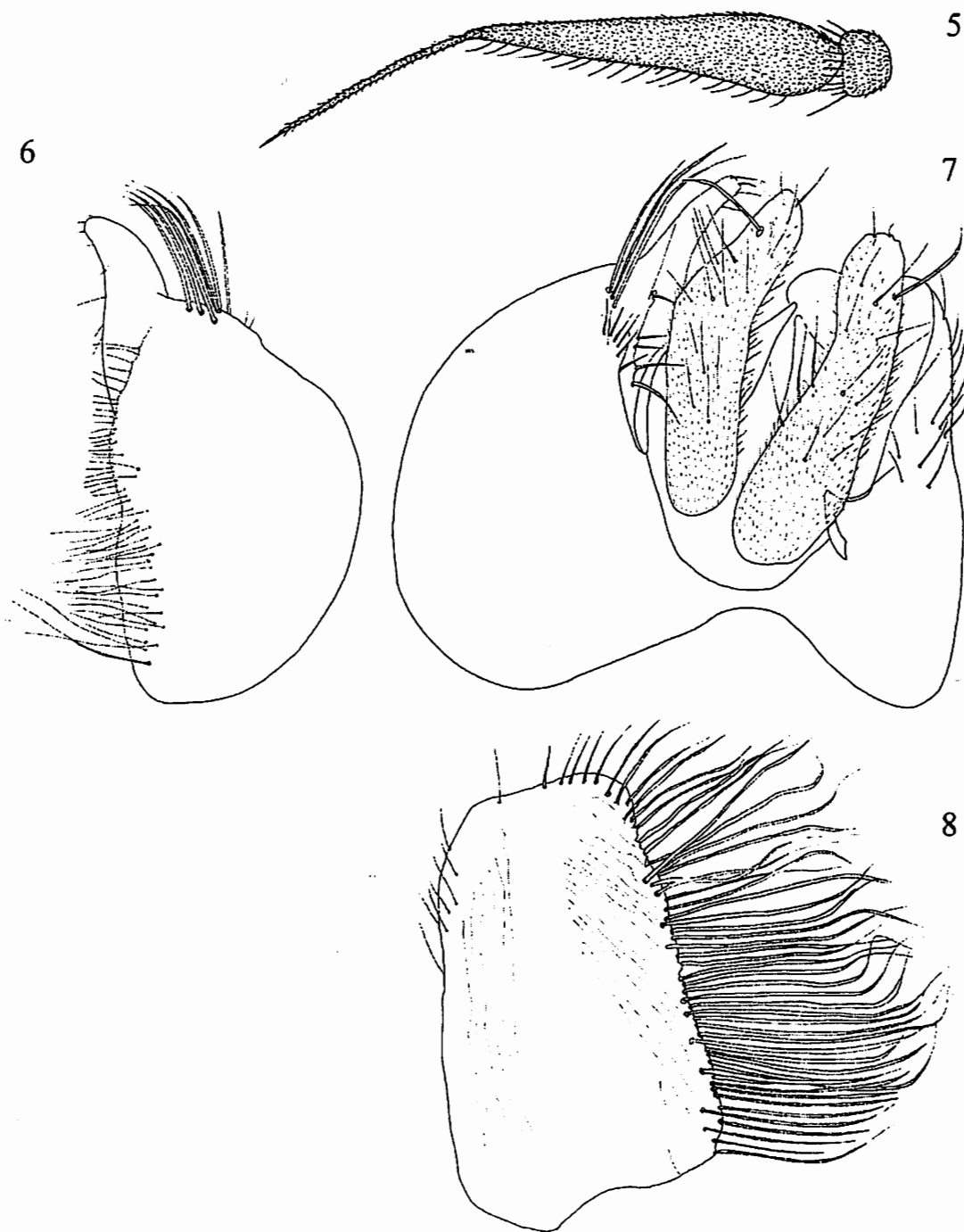
Material examined:

Holotype male: Turkey, Kuşadası, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Paratypes: 4 males, 24 females. Same provenance as holotype.

Diagnosis

A rather large black species of the *pallidiventris*-group. Third antennal segment long, almost 5 times as long as wide, arista a little longer than half-length third antennal segment. Spur on mid tibia in male as long as



Figs 5-8. *Platypalpus ionicus* sp. nov., male. 5. Antenna; 6. Right epandrial lamella; 7. Epandrium with cerci; 8. Left epandrial lamella.

tibia is wide, with a recurved tip; in female spur also as long as tibia is wide, but with a sharp tip.

Male

Body length: 3 mm; wing: 3.25 mm.

Head. Frons in front as wide as second antennal segment gently widening towards ocellar triangle. Frons greyish dusted. Face a little narrower above than front of frons, silvery

dusted. Ocellar bristles half as long as third antennal segment, proclinate, black. One pair of verticals, black, a little longer than ocellars. Postoculars multiseriate, black above, white below. Antenna (Fig. 5) completely black, conical, 4-5 times as long as wide. Arista densely pubescent, a little longer than half-length third antennal segment. Palp elongate ovoid, black in ground-colour, thinly greyish

dusted, with white apical bristle. Proboscis less than half as long as head, black.

Thorax black in ground-colour, mesonotum thinly grey dusted. Pleura grey dusted, sternopleuron largely shining. Long bristles on thorax brownish to black, shorter hairs pale. Acr, triseriate in front, but otherwise biseriate; dc biseriate, ending in two longer, black prescutellars. Humeral long, inclinate, 2 notopleurals; scutellum with a pair of apicals with a short hair at each side. Squama pale brownish, cilia white. Halter with yellowish stem, white knob.

Legs yellow, including all coxae yellow; knee mid leg black; hind tibia with tip a little brown; all tarsomeres annulated black, terminal tarsomere almost completely black. Fore coxa with lateral and apical bristles yellow; as wide as coxa is wide. Fore femur swollen, but half as wide as mid femur, with a double row of yellow ventral bristles, half as long as femur is wide. Fore tibia tubiform, not swollen, with long pale ventral pubescence, a few dorsal short brown bristles. Mid trochanter yellow. Mid femur, much swollen, with two black anterior bristles in apical quarter, short; a row of pale posteroventrals nearly half as long as femur is wide. Mid tibia with spur as long as tibia is wide, with a short, recurved hook at tip. Hind femur slender, nearly as wide as fore femur, ventrally with a row of pale hairs half as long as femur is wide; hind tibia dorsally with a row of about 6 erect pale hairs as long as tibia is wide.

Wing brownish tinged, veins brown. Costal bristle long, black. R1 ending in a contrastingly darker brownish swelling in costa. Lower basal cell longer than upper cell. vein R4+5 and M running parallel until ending in costa. Vein closing anal cell almost straight.

Abdomen shining black, but tergite 1 and 2 paler brown; tergite 1 completely brown dusted, set with long white hairs at sides. Genitalia (Figs 6-8). The whole exterior border of left epandrial lamella set with long bristles.

Female

Body length: 3 mm; wing: 3.75-4 mm.

Arista longer than in male, a little shorter than third antennal segment is long. Spur on mid tibia black, large flat and pointed, as long as tibia is wide. Mid femur generally with a single black anterior bristle in apical third, but sometimes there are two (one strong, one weaker) in apical quarter. Abdomen like in

male, segments 7, 8 and cerci grey dusted.

Derivatio nominis: The species is named after the region where it occurs.

Discussion:

Platypalpus ionicus belongs to the *pallidiventrifera*-group of species and to a subgroup around *P. optivus* (COLLIN) and *P. dalmatinus* (STROBL) that possess a long third antennal segment, 3-4 seriate acr and a huge mid femur. Using the key of GROOTAERT & CHVÁLA (1992) the species runs to couplet 96 to the group of species with acr irregularly 3 to 4 serial and legs completely yellow, except for the black annulated tarsi. The acr are 4-seriate in *P. dalmatinus* and the third antennal segment is 4-5 times as long as wide and has the arista as long as third segment. The arista is much shorter than the third antennal segment in *P. ionicus*.

Platypalpus kirtlingensis GROOTAERT, 1986

Platypalpus kirtlingensis GROOTAERT, 1986: 187 (Figs. 1-7).

P. kirtlingensis GROOTAERT & CHVÁLA 1992: 173 (Figs. 183-189)

12 males, 29 females, TURKEY, Kuşadası, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Distribution: Belgium, France, Germany, Great Britain, Czech, Spain, Malta, ex-Yugoslavia, Rumania, Turkey.

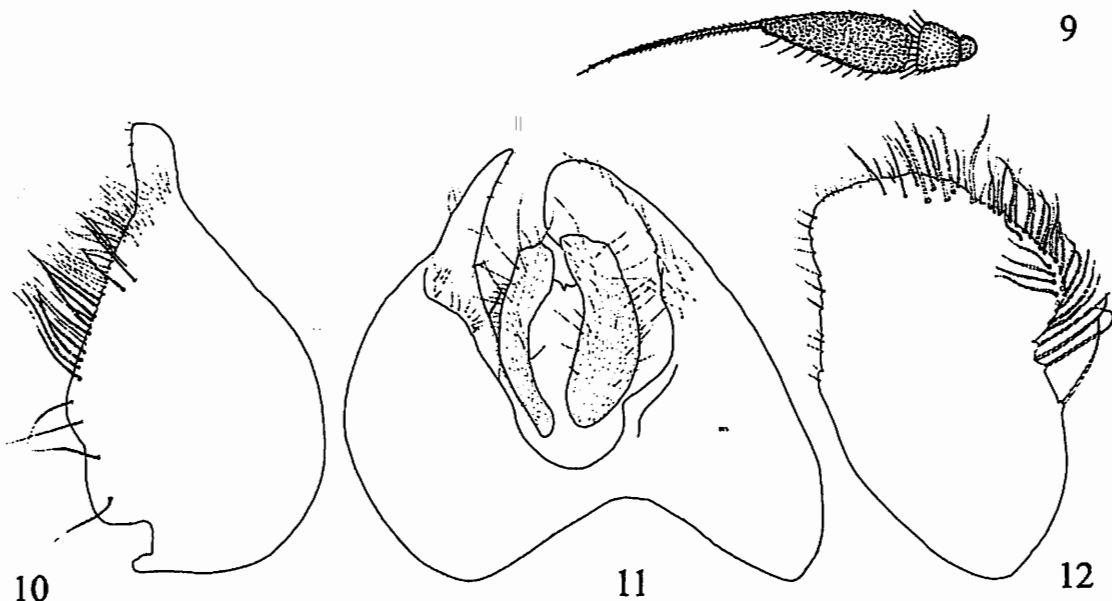
P. kirtlingensis is very abundant in the samples here in Turkey. In western Europe this species is not very often recorded and generally found together with another small species *P. pictitarsis*. The latter is also commoner in the Mediterranean. In western Europa, both species are mainly observed in grassland and in fields planted with wheat and corn. Due to their smaller size they might be better adapted to hunt on narrow leaves of Graminaceae than other *Platypalpus* species. They might be colonizers as well that invade quickly disturbed land, what explains their presence in wasteland and fields.

Platypalpus olivetorum spec. nov. (Figs 9-12).

Material examined:

Holotype male: Turkey, Kuşadası, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Paratypes: 4 males, 24 females. Same provenance as holotype.



Figs 9-13. *Platypalpus olivetorum* sp. nov., male. 9. Antenna; 10. Right epandrial lamella; 11. Epandrium with cerci; 12. Left epandrial lamella.

Diagnosis:

A medium-sized black species of the *minutus*-group.

Male

Body length: 2.6 mm; wing: 2.75 mm.

Head. Frons in front as wide as second antennal segment gently widening towards ocellar triangle. Frons greyish dusted. Face as wide as frons in front, silvery dusted. Ocellar bristles shorter than third antennal segment, proclinate black. One pair of weak verticals, black, as long as ocellars. Postoculars multiseriate, pale brownish above, white below. Antenna completely black, conical, 2.5 times as long as wide. Arista 1.5 times as long as third segment. Palp elongate ovoid, black in ground-colour, thinly greyish dusted, with white apical bristle. Proboscis $2/3$ as long as head is high, black.

Thorax black in ground-colour, mesonotum thinly grey dusted; outer side of humerus subshining. Pleura grey dusted, sternopleuron largely shining. long bristles brownish, shorter hairs pale. Acr, biseriate, rows close together, diverging; dc uniseriate, ending in a long prescutellar. Humeral small, 2 notopleurals; scutellum with a pair of apicals with a short hair at each side. Squama yellowish, cilia white. Halter with brown stem, yellowish knob.

Legs with yellow, black pattern, black with yellow tip, black, with a broad black ring in middle leaving extreme base and tip yellow,

with a broad black ring in middle leaving extreme base and tip yellow; knee with sides black; hind tibia with base and tip brown; all tarsomeres annulated black, terminal tarsomere almost completely black. Fore coxa covered with dense long white hairs. Fore femur much swollen, as wide as mid femur, ventrally densely set with long white hairs, as long as femur is wide. Fore tibia tubiform, with long pale ventral pubescence, no black dorsal bristles present. Mid trochanter yellow. Mid femur, with a row of pale posteroventrals nearly as long as femur is wide. Mid tibia extreme base of mid tibia black, rest yellow, with a long pointed spur. Hind femur with a central black ring, leaving base and tip largely yellow, slender, ventrally with a row of dense pale hairs as long as femur is wide, dorsally with a row of about 6 erect pale hairs as long as tibia is wide.

Wing clear, veins brown. Costal bristle long, yellow. R1 ending in a darker brownish swelling in costa. lower basal cell longer than upper cell. vein M slightly diverging from r4+5, converging near tip and slightly diverging when ending in costa. Vein closing anal cell.

Abdomen shining black, set with long white hairs at sides. Genitalia (Figs 10-12). Cerci small enclosed in epandrial lamellae. Left epandrial lamella with short bristles on exterior border.

Female

Body length: 2.25-2.4- mm; wing: 2.5-2.75 mm.

Derivatio nominis: The name *olivetorum* alludes to the presence of the species in an olive orchard.

Discussion:

The black ring on the hind femur can be wider so that base and tip are only narrowly yellowish.

Platypalpus olivetorum sp. nov. belongs to the minutus-group. It has a thinly (somewhat subshining) mesonotum and a short humeral bristle distinct for that group. The fore tibia has an indistinct rim-like projection resembling a little that of *P. minutus* (MEIGEN). The latter has a median shining stripe on mesonotum, not present in the new species. The right surstylus has a split in *minutus* and is V-shaped in its sister species *australominutus*. In *P. olivetorum* the surstylus is not split. The right cercus does not bear ventral spines.

***Platypalpus pallidiventris* (MEIGEN, 1822)**

4 females, Turkey, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Platypalpus pallidiventris was often confused in the past with *P. longiseta*, but the former has a completely black third antennal segment and all tarsomeres are annulated black. The latter has a black third antennal segment, but its base is yellow, ventrally; only the last tarsomere is black in males, though less sharply black in female.

Distribution: *Platypalpus pallidiventris* and *P. longiseta* are very common in Non-Mediterranean western Europe and are generally occurring together. *P. pallidiventris* is always the most abundant in the samples, while *P. longiseta* is generally only represented by a few specimens. Both are ubiquitous and occur in a variety of habitats like wasteland, fields, parks, forest borders and other disturbed land. Here *P. longiseta* is the most abundant. It might be that the populations of *P. longiseta* are better adapted to a Mediterranean climate that is rather continental in Kuşadasi.

***Platypalpus stigma* (Collin, 1926)**

30 males, 38 females, TURKEY, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

Male with third antennal segment black, but basal quarter yellow; 3 times as long as wide, arista as long. Female with third antennal

segment completely black, a little shorter than in male: 2.5 times as long as wide and arista as long or slightly longer. Mesonotum densely grey dusted, but with a subshining stripe between acrostichals in male, shining in female. Palp in male is pale in ground-colour, densely white dusted, elongate, twice as long as wide. Palp heart-shaped and much smaller in female than in male, brown in ground-colour and dusky dusted.

Clypeus in male densely white dusted with a narrow shining black median line. In female the central part of the clypeus is shining black while the borders are yellowish dusted.

Distribution: Great-Britain, Belgium, Italy, Switzerland, Spain and Turkey. Widespread in western non-Mediterranean Europe, but very rare.

***Platypalpus longiseta* (ZETTERSTEDT, 1842)**

8 males, 14 females, TURKEY, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

All diagnostic characters are present such as: Male with much swollen fore tibia; third antennal segment black, but base ventrally yellowish. Apical tarsomere of all legs with apical half contrastingly black, other tarsomeres yellow. The structure of the male genitalia is identical to western European specimens.

Distribution: Common all over western Europe.

Discussion:

See under the discussion of its sister-species *P. pallidiventris*.

***Platypalpus* spec. 1**

1 female, TURKEY, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

A species with 2 pairs of black vertical bristles. A short third antennal segment. 4-seriate acrostichals. A long spur on the mid tibia.

***Platypalpus* spec. 2**

1 female, TURKEY, Kuşadasi, 12-15.IV.1995, leg. P. GROOTAERT (on pin, RBINS).

A species with a pair of short yellow vertical bristles. Palp black in ground-colour. Mesonotum densely grey dusted, pleura dusted except for shining black sternopleuron. All hairs and bristles on thorax yellow. Acr irregularly triseriate. 2 notopleurals. A long black pointed

spur on mid tibia.

The species clearly belongs to the *pallidiventris*-group; but since the antennae are missing, it is difficult to place.

References

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