

A new **Platypalpus** species
related to
P. pictitarsis (Becker, 1902)
(Diptera Empidoidea Hybotidae)
from western Europe

by P. GROOTAERT *

Summary

Platypalpus kirtlingensis sp. n. is described and illustrated from large populations in Great-Britain, Belgium and France. The closely related *P. pictitarsis* (Becker, 1902) is redescribed from the holotype (Egypt) and compared with material from Great-Britain, Belgium, France and Cyprus.

Résumé

Platypalpus kirtlingensis sp. n. est décrit et illustré de Grande Bretagne, de Belgique et de France. L'apparenté *P. pictitarsis* (Becker, 1902) est redécrit, basé sur l'holotype (Égypte) et comparé avec du matériel provenant de Belgique, de Grande Bretagne, de France et de Chypre.

Actually *Platypalpus pictitarsis* seems to be a rather variable species. It was originally described from Egypt by BECKER (1902). COLLIN (1961) had the occasion to see the types and found them identical with the British material. However, he distinguished two forms: one form with black coxae and darkened palpi and a second form with yellow coxae and pale palpi. The latter form was marked as "var" in his collection. Upon examination of the male genitalia, it appeared that both forms can be considered as two different species. There are more undescribed species related to *P. pictitarsis* (BECKER) (cf. CHVÁLA, 1981) but they will be dealt with in another paper.

***Platypalpus kirtlingensis* sp. n.**

"prope *pictitarsis* BECKER, sensu Collin var. pale legs"

A medium-sized species with one pair of vertical bristles, yellow basal antennal

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segments and a long pointed spur on middle tibiae. Acrostichals biserial, almost on one line, strongly diverging. A small anterior notopleural bristle present. All coxae yellow. Palpi yellow in male, dusky in female. Bristles on side of left periandrial lamella simple.

male:

Frons in front hardly narrower than second antennal segment and about twice as wide opposite hind ocelli, dull greyish. Anterior pair of ocellar bristles about twice as long as second antennal segment. One pair of yellow vertical bristles about twice as wide apart as width of frons opposite hind ocelli. Occiput dull grey, its pubescence short and pale yellowish above, longer and whitish below. Face narrower than front of frons, silvery dusted including clypeus. Antennae (Fig. 2) with yellow basal segments. First segment hardly distinguishable. Third segment black, two to two and a half times as long as deep. Arista black, twice as long as third segment. Palpi yellow, small and ovoid with a long subterminal bristle, twice as long as palpus. Palpi further covered with whitish pile and bristles. Proboscis black, half as long as head is high.

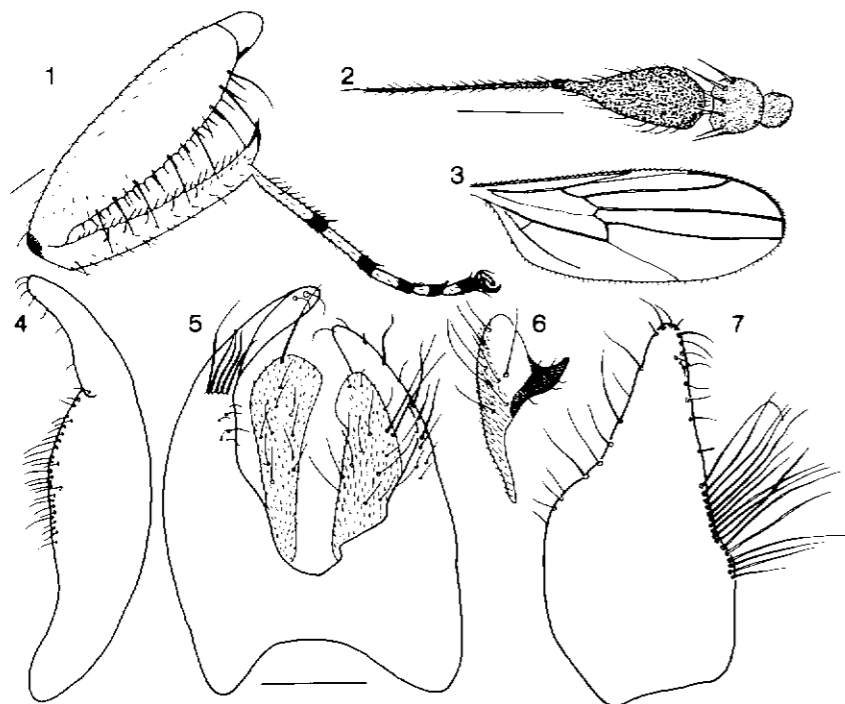


Fig. 1-7: *Platypalpus kirtlingensis* sp. n. paratype: 1 middle leg posteriorly; 2 antenna; 3 wing; 4 right periandrial lamella; 5 periandrium; 6 left cercus; 7 left lamella. Scale 0.1 mm.

Thorax black in ground-colour, densely greyish dusted. Anterior half of sternopleura shining black. All hairs and bristles yellowish. Acrostichals longer than second antennal segment; biserial but the rows so close together as to be almost uniserial; hairs diverging. Dorsocentrals a little longer, uniserial (though a lot of hairs outside the row make it appear biserial), ending in two longer and stronger bristles behind. A long humeral, two notopleurals (lower one the shortest) and a bristly hair behind humeri, perhaps representing an anterior notopleural. A long postalar and two apical scutellar bristles with a small hair near each.

Legs yellow, including coxae but all tarsi narrowly annulated black. Basal two thirds of front femora thickened; with a double row of yellow ventral hairs, half as long as femur is deep. Front tibiae tubular with some fine brownish bristles above and some hairs beneath as long as tibia is deep. Middle femora (Fig. 1) much stouter than front femora, nearly 1.5 times as deep. Posteroventral bristles yellow, basal ones the longest, the others half as long as femur is deep. Anteriorly a yellow bristle on apical fourth. Middle tibiae with a pointed spur with a black tip, longer than tibia is deep. Hind femora slender with a row of ventral bristles almost as long as femur is deep. Hind tibiae with some fine dorsal bristles.

Abdomen shining black with sides of first, and a narrow band on basal margin at sides of following segments, dusted greyish. Pubescence rather long about sides, yellowish white. Hypopygium (fig. 4-7) long, about a third of the abdomen, shining black. Left periandrial lamella with an elongated tip. Left cercus in dorsal view with a pointed tip, in lateral view with a sclerotised, pointed extension (Fig. 6).

Wings (Fig. 3) almost hyaline, veins yellowish on basal half, brownish towards tip. Crossveins separated for a distance longer than upper crossvein. Lower crossvein slightly oblique. Vein R 4+5 and M almost parallel. Vein closing anal cell recurrent. Anal vein faintly indicated. Squamulae and halteres white.

Length: body: 2.4-2.9 mm; wing: 1.9-2.2 mm.

Female:

Almost identical to the male. Palpi sometimes dusky; coxae yellowish. Hind margin of sixth sternite, whole of seventh, eighth segment and cerci dusted greyish.

Length: body: 2.8-3.2 mm; wing: 2.2-2.4 mm.

Material examined:

Holotype ♂: Great-Britain: Kirtling, 6.VI.1921 (coll. J. COLLIN, Oxford).
Paratypes: Great-Britain: Kirtling, 12.VI.1921, 3 ♂, 5 ♀; 5.VI.1921, 1 ♂; 6.VI.1921, 1 ♀; Wicken Fen (Camb), 7.VI.1912, 1 ♂; Windsor Forest (Berkshire) 12.VI.1869, 1 ♂; Walton-on Naze, 1.VI.1908, 1 ♂; 5.VI.1908, 1 ♀; 13.VII.1912, 1 ♀.
Belgium: Gembloux, 14.VI.1982, 4 ♀; 17.VI.1982, 1 ♂; 21.VI.1982, 3 ♀; 5.VII.1982, 1 ♂, 2 ♀; 7.V.1984, 1 ♀; 19.VI.1984, 1 ♂; 26.VI.1984, 9 ♂, 8 ♀; 28.VI.1984, 1 ♂, 1 ♀; 12.VII.1984, 1 ♀; 2.VII.1984, 1 ♀; 9.VIII.1984, 1 ♀; 23.VIII.1984, 1 ♀; (leg. C. FASSOTTE); BLERET, 26.VII.1984, 1 ♂, (leg. C. FASSOTTE); LIERNU, 25.VI.1984, 1 ♂, 3 ♀; 5.IX.1984, 2 ♀ (leg. Ch. GASPAR); Poperinge, 7.VI.1985, 1 ♀; 14.VI.1985, 1 ♂; VII.1985, 2 ♂; 6.VII.1985, 1 ♀; 29.IX.1985, 1 ♂, 1 ♀ (leg. M. POLLET); Erpent, 26.VII.1984, 1 ♀ (leg. C. FASSOTTE); Zandvoorde (Zoute Kreek),

7.VII.1985, 1 ♀ (leg. G. HAGHEBAERT). All preserved in alcohol in the coll. of the K.B.I.N.

France: St. Cyr en Arthies (Val d'Oise), leg. J.P. CHAMBON, 25.VI.1985, 10 ♂, 24 ♀; 28.VI.1985, 34 ♂, 24 ♀; 2.VII.1985, 15 ♂, 47 ♀; 11.VII.1985, 12 ♂, 1 ♀; 15.VII.1985, 31 ♂, 2 ♀; 19.VII.1985, 23 ♂, 2 ♀; 23.VII.1985, 18 ♂, 6 ♀. Most material preserved in alcohol at the K.B.I.N.

Roumania: Burgas, Min. ban., 26.V.1973, 2 ♂, 1 ♀ (leg. BESCHOVSKY).
Czechoslovakia: Bohemia centr. Slany, 10.VII.1965, 1 ♂ (leg. M. CHVÁLA).

Derivatio nominis:

The name *kirtlingensis* refers to the type locality Kirtling.

Discussion

In general the third segment is black but in most specimens from the type locality the third segment was yellowish on the basal border below.

Platypalpus pictitarsis (BECKER, 1902)

Tachydromia pictitarsis BECKER, 1902, Mitt. Zool. Mus. Berl. 2, 44.
P. ruficornis MACQUART, 1850 preocc.

A medium-sized species with one pair of vertical bristles, yellow basal antennal segments and a long pointed spur on middle tibiae. Acrostichals biserial, almost on one line, strongly diverging. A small anterior notopleural bristle present. In general all coxae black and basal half of front femora black. Palpi brownish black. Left periandrial lamella with bifurcated bristles on side.

Male

Frons narrow, in front as wide as the second antennal segment; dull greyish. Face narrower than frons, silvery grey dusted, including clypeus. Anterior pair of ocellar bristles about twice as long as second antennal segment. One pair of yellow vertical bristles about twice as wide apart as the distance between the hind ocelli. Occiput grey dusted. Postocular bristles whitish, long and dense below. Antennae (Fig. 8) with basal segments yellowish. First segment small, sometimes brownish; second segment usually with the apical border darkened. Third antennal segment black, about two to two and a half times as long as deep. Arista one and a half times as long as third segment. Palpi brownish black, rectangular with a long pale subterminal bristle which is twice as long as the palpus.

Thorax grey dusted except for the polished sternopleura. All hairs and bristles yellowish. Acr longer than second antennal segment, biserial but the rows very close together, diverging. Dc longer and stronger than acr, the rows ending in two pairs of long prescutellars. A long humeral, two notopleurals with a small hair in front (half as long as

the lower notopleural) perhaps representing the anterior notopleural. A long postalar and two scutellars with a small hair near each.

Legs yellow but all coxae and usually also trochanters black. Very often the anterior half of the front femora (Fig. 9) black but they may be brownish or even yellowish. All tarsi sharply annulated black. Front coxae with dense whitish hairs in front. Front femora thickened in basal two thirds; with a double ventral row of pale hairs, slightly shorter than femur is deep. Front tibiae tubular with a few (2-3) bristly hairs dorsally. Middle femora slightly deeper than front femora, with a row of yellow posteroventral bristles about half as long as femur is deep. Middle tibiae with a large pointed apical spur with a black tip. Hind femora slender with an anteroventral row of bristly hairs nearly as long as femur is deep.

Abdomen shining black with a very narrow dusted stripe on the basal margin of all tergites. Pubescence whitish, somewhat longer at sides than at middle. Venter shining black. Hypopygium (Fig. 10-13) rather long and large (almost a third of the length of the complete abdomen). Tip of the left periandrial lamella (Fig. 13) wider than in *P. kirtlingensis*; the fan of the bristles on the left margin much denser and composed of bristles having their base fused over at least a third of their length. Tip of left cercus more or less pointed but forming a sort of a cap (Fig. 12-13).

Wings hyaline, veins yellowish on basal half, brownish on apical half. Crossveins separated for a distance longer than upper crossvein. Lower crossvein slightly oblique. Vein R 4+5 straight, vein M slightly diverging near middle eventually ending parallel in

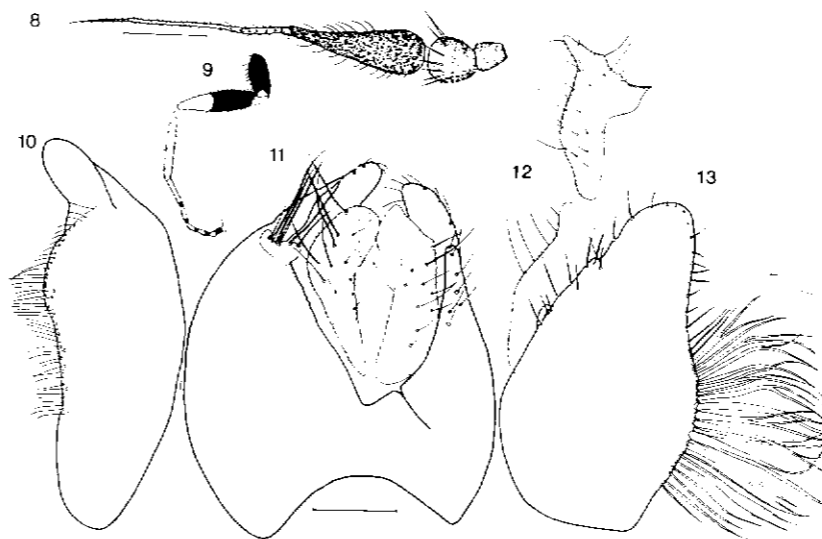


Fig. 8-13: *Platypalpus pictitarsis* (Becker, 1902) ♂: 8 antenna; 9 front leg; 10 right periandrial lamella; 11 periandrium; 12 left cercus; 13 left lamella. Scale 0.1 mm.

the costa. Vein closing anal cell recurrent. Squamulae and halteres white.
Length: body 2.6-3 mm; wing: 1.8-1.9 mm.

Female

Almost identical to the male. Front coxae with only base darkened, posterior four coxae black, trochanters yellowish. Tip of sixth tergite, sixth sternite, whole of seventh, eighth segment and cerci dusted greyish. Tip of the eighth sternite dilated.

Material examined

Lectotype ♂ Egypt: B. el. Karun 4483 6III; paralectotype ♂ with same data (coll. BECKER Berlin).

Great-Britain: Devil's Ditch (Cams), 7.VI.1937, 1 ♀; Newmarket, 22.VI.1921, 1 ♂; Walton-on-Naze, 18.VI.1908, 1 ♂ (coll. J. COLLIN, Oxford).

Belgium: Liernu, 25.VI-1.VII.1984, 1 ♀ (leg. Ch. GASPAR); Gembloux, 5-12.VII.1982, 1 ♂, 1 ♀; 12-19.VII.1982, 2 ♀ (leg. C. FASSOTTE, Mal. trap); 14-21.VI.1982, 4 ♂; 21-28.VI.1984, 1 ♂ (coll. KBIN).

France: St. Cyr en Arthies (leg. J.P. CHAMBON), 25.VI.1985, 1 ♂, 1 ♀; 28.VI.19085, 1 ♂; 2.VII.1985, 1 ♂; 11.VII.1985, 5 ♂; 15.VII.1985, 12 ♂, 1 ♀; 19.VII.1985, 47 ♂, 1 ♀; 23.VII.1985, 5 ♂.

Roumania: Burgas, Min. bar. 26.V.1973, 1 ♂ (leg. BESCHOVSKY).

Czechoslovakia: Bohemia cent. Celakovice, 18.V.1974, 1 ♂ (leg. M. CHVÁLA).

Cyprus: Yermasogia river, 5.III.1956, 1 ♂; 10.IV.1957, 1 ♀; Limassol, 15.III.1958, 1 ♀; Pera pedi (2,000 ft), 16.IV.1959, 2 ♀ (leg. G. MAVROMOUSTAKIS).

Discussion

Note the high variability in the staining of the legs. Coxae are always black, very often the trochanters too and in general the basal half or more of the front femora. However, there are specimens with brownish or even yellow front femora. COLLIN compared this variability with that in *P. annulipes* (MEIGEN).

General discussion

In his discussion on *P. pictitarsis*, COLLIN (1961, p. 169) drew already the attention on the problems in identifying this species. *P. pictitarsis* and *P. kirtlingensis* can be easily confused with small *P. pallidiventris* especially by the presence of a small so-called anterior notopleural bristle. In the former the two rows of acrostichals are very close together (almost on one row) and diverging. Further differences are that the verticals are more separated and the structure of the hypopygium is completely different. Further they resemble also *P. calceatus* and *P. ecalceatus* in size but both these species have no annulated tarsi.

The easiest way to separate *P. kirtlingensis* from *P. pictitarsis* is by the colour of the coxae. In *P. pictitarsis* all coxae are black, while in *P. kirtlingensis* the coxae are yellow.

part from the hypopygium, there are few differences between the two species. In general the palpi of *P. pictitarsis* are somewhat darker brown.

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