

Two new *Platypygus* Loew, 1844 (Diptera, Bombyliidae) species for Turkey

Abdullah HASBENLİ* Metin AKTAŞ*

Summary

In this study, the species of *Platypygus cyrksanthemi* Loew and *P. ridicundus* (Costa) were determined. These species are the first record for Turkish Bombyliid fauna.

Introduction

Bombyliids are mostly medium to large flies with a covering of soft hair or coloured scales. The adults visit flowers and feed on nectar, rarely on pollen of flowering plants. Most of them have a very swift flight. They can feed during the flight by hovering over the flower. So that, there are important pollinators of some plants. All known bombyliid larvae parasitize the eggs, larvae and pupae of the species of Hymenoptera, Coleoptera, Lepidoptera, Orthoptera, Diptera, Neuroptera and some arachnoids. All these can be considered beneficial to man (Greathead, 1980 and Zaitzev, 1989). Up to now, a few research has been made related with Bombyliidae fauna of Turkey. Only three species of *Platypygus* Loew, 1844 (*Platypygus bellus* Loew, 1869, *P. kurdorum* Paramonov, 1929, *P. melleus* Loew, 1856) were recorded from Turkey (Francois, 1966 and Evenhuis, 1983).

Material and Method

We collected eight bombyliid specimens belonging to the two species of *Platypygus* from Western Mediterranean area of Turkey in 1992. These two species

* Gazi Üniversitesi, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Teknikokullar, Ankara
Alınış (Received) : 8.11.1994

[*P. chrysanthemi* Loew, 1844 and *P. ridibundus* (Costa, 1863)] are the first record for Turkey. A key is given to identify all five species of *Platypygus* known from Turkey, three of which were recorded before. The diagnostic characters of *P. bellus*, *P. kurdorum* and *P. melleus* used in key were taken from Engel (1932-1937).

Specimens were identified and compared with Bombyliid specimens preserved in the authors' collection and figures were drawn by authors.

All specimens are deposited in the authors' collection in Gazi University, Faculty of Science and Arts, Department of Biology, Teknikokullar, Ankara.

Key to the species of *Platypygus* of Turkey

1. Antennae placed middle of the mouth margin and ocellar tubercle, face as long as frons 2
- Antennae placed near the mouth margin, face shorter than frons.
.....*melleus* Loew, 1856
2. The hairs of mesonotum and abdomen distinctly appear and black colored..... 3
- Mesonotum without hairs or light colored hairs..... 4
3. Body shining. Middle and lateral black bands of mesonotum narrowly jointed at fore margin but widely jointed at hind margin. Yellow scutellum with black marked which is narrow crescent shaped at the base.....*chrysanthemi* Loew, 1844.
- Body mat. Mesonotal bands variable from reddish to brownish. Middle and lateral bands of mesonotum do not reach to the hind margin. Scutellum completely yellow....
..... *ridibundus* (Costa, 1863)
4. Blackish gray bands of mesonotum with short and light color hairs. These bands completely combined and middle bands reach from anterior margin to posterior margin. Halteres stalk yellow and knob whitish. Legs yellow and last tarsal segments blackish.....*bellus* Loew, 1869.
- Mesonotum bare, 3 black bands separated with yellow interstice. Halteres and legs yellow. only last three tarsal segments black.....*kurdorum* Paramonov, 1929

Results

Family: *Bombyliidae* Latreille, 1802

Subfamily: *Platypyginae* Verrall, 1909

Platypygus chrysanthemi Loew, 1844

Antennae are placed in the centre between mouth margin and ocellar tubercle. Lateral and bottom parts of heart shaped black mark are yellow until mouth margin (Figure 1). Occiput is shining black with short black hairs. Antennae are mat black, third segments of antennae are pear-shaped. Third antennal segment two times as long as

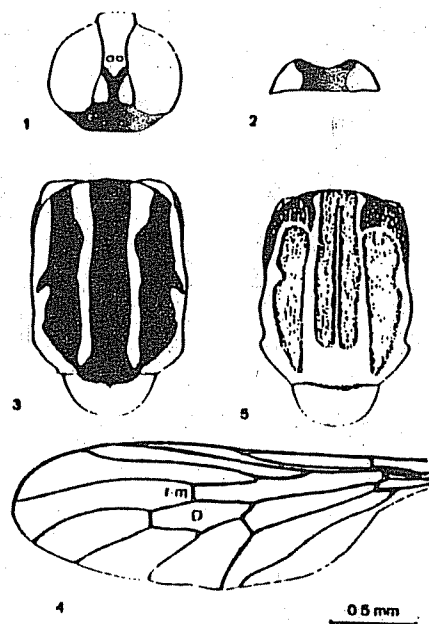


Fig. 1-5. *Platipygus cyrhanthemis* 1. head (dorsal view) 2. pronotum (dorsal view)
3. mesonotum and scutellum (dorsal view) 4. wing, *Platipygus ridibundus*
5. Thorax (dorsal view).

their whip length. Proboscis extend to forward. There is wide and black mark on the big pronotum (Figure 2). There are short and black hairs on this mark. Thorax shining sulphuric yellow colored. Middle and lateral black bands of mesonotum are jointed like an arrow-head at fore margin but widely jointed at hind margin (Figure 3). Mesonotum with black hairs. The hairs are densely placet at the lateral. Pleura is shining yellow and bare. The interval parts of sternopleura, middle and hind coxae are black colored. Legs and coxae are yellow, but only last three tarsal segments are dark. Wings are light fume and with brown veins. r-m cross vein is lies after the middle of the discal cell (Figure 4). Squama alaris and halteres are yellow. There is a small reddish mark on the upper part of the knob of the halter. Abdominal tergites are generally black colored. There are yellow bands at posterior margins of tergites. These bands are narrow at the middle parts. Especially, black colored parts of abdomen with black hairs. Female abdomen wider than thorax. Scutellum is yellow colored and with black marked which is narrow crescent shaped at the base. All stermites are whitish yellow. Male genitalia are yellow but the forecpes of dististylus black and basistylus blackish brown colored.

Body 4-4.5 mm.; wings 3.5 mm.

Locality: Isparta, Kovada I. Lake 850 m., 21 June, 1992, 1 male, 2 females.

The first record for Turkey.

Distribution: Greece (Engel, 1932-1937, Francois, 1966, Zaitzev, 1989), Yugoslavia (Engel, 1932-1937, Zaitzev, 1989), Lebanon (Zaitzev, 1989), Syria (Zaitzev, 1989), Egypt (Zaitzev, 1989).

***Platypygus ridibundus* (Costa, 1863)**

Antennae are placed middle of the mouth margin and ocellar tubercle. Frons yellow colored but only anterior part of ocellar tubercle with black colored. Occiput and antennae are mat black colored. Pear-shaped third antennal segments are as long as their whip's length.

Mesonotum with reddish brown middle and lateral bands. The part between these bands is yellow. Middle band longer than lateral bands at the anterior, but shorter at the posterior. At the anterior, there are blackish brown marks at the sides of middle band (figure 5). There are black hairs on the mesonotum. Lateral hairs of mesonotum are longer and dense. Scutellum yellow colored and with black hairs. The middle part of pronotum shining blackish. Pleura yellow, mesopleura with short hairs and metapleura with black mark under the scutellum. Legs and coxae are yellow, but only last three tarsal segments are dark colored. The wings are hyaline but at the anterior submargin region are yellowish and with brownish veins. r-m cross vein is lies after the middle of the discal cell. Squama alaris yellow.

In female, first abdominal tergite is black, 2-4 orange and the other abdominal parts light yellow colored. In male, abdominal tergites 2-4 with brown cross bands on their anterior margins and the other abdominal parts yellow colored. First abdominal tergite is like as in female. The sternites and male genitalia are yellow colored, but only the tip of the dististylus black.

Body 3-4 mm.; wings 2.5-3 mm.

Locality: Antalya, Alanya, Şehler Village 300 m. 8 May, 1992, 3 male, 2 females.

First record for Turkey.

Distribution: from Spain to Bulgaria, Russian, Ukrainian, Moldavian, Georgian, Azerbaijan, Armenian, Egypt (Engel, 1932-1937; Zaitzev, 1989).

Özet

Türkiye için iki yeni *Platypygus* Loew, 1844 türü (Diptera, Bombyliidae)

Bu çalışmada *Platypygus cyrhanthemi* Loew ve *P. ridibundus* (Costa) türleri tespit edilmiş olup bu türler Türkiye Bombyliid faunası için yeni kayıttır.

References

- Engel, E.O., 1932-1937. 25. Bombyliidae. In Lindner, E. (ed): Die Fliegen der palaearktischen Region 4 (3): 1-619. Stuttgart, Germany.
- Evenhuis, N.L., 1983. Braunschweig, Germany. An Indexed bibliography of Bombyliidae (Insecta, Diptera) 493 pp.
- Francois, F.J., 1966. Materiaux nouveaux pour une faune des Bombyliidae (Diptera) de Grece. *Bull. Anns Soc. r. ent. Belg.*, **102**: 155-189.
- Greathead, D.J., 1980. Insects of Saudi Arabia. Diptera: Fam. Bombyliidae. *Fauna of Saude Arabia*, **2**: 291-337.
- Zaitzev, V.F., 1989. Bombyliidae. In A. Soos, *Catalogue of Palearctic Diptera* **6**: 43-227. Amsterdam, Netherlands.