

## Two new species of the genus *Docosia* Winnertz (Diptera: Mycetophilidae) from Russia and Turkmenistan

### Два новых вида рода *Docosia* Winnertz (Diptera: Mycetophilidae) из России и Туркменистана

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**КЛЮЧЕВЫЕ СЛОВА:** Diptera, Mycetophilidae, *Docosia*, Россия, Туркменистан, таксономия, описание, новый вид.

**ABSTRACT.** Two new species of *Docosia* Winnertz, 1863 — *Docosia helveoloides* and *D. turkmenica* **spp.n.** are described from Astrakhan region (Russia) and Turkmenistan. Illustrations of male terminalia are provided.

**РЕЗЮМЕ.** Приводятся описания двух новых видов грибных комаров рода *Docosia* Winnertz, 1863 — *Docosia helveoloides* и *D. turkmenica* **spp.n.** из Астраханской обл. России и из Туркменистана с иллюстрациями терминалий самцов.

#### Introduction

Until recently genus *Docosia* Winnertz, 1863 was rather poorly studied group of Mycetophilidae. In the catalogue of Palaearctic Diptera Hackman designated only 16 species [Hackman, 1988]. In less than 20 years the number of species increases in more than two times because of several important works [Chandler, 1994; Chandler et al., 2006; Kurina, 2006; Laštovka, Ševčík, 2006; Xu et al., 2003, 2005]. During the revision of the material collected by the author in Turkmenistan and by S.A. Kapralov in Astrakhan region of Russia two new *Docosia* species were found. Their description is given below.

#### Material and methods

The material was collected in Astrakhan region by S.A. Kapralov and in Turkmenistan by the author. Male terminalia were detached and heated in 10% KOH solution, neutralized by a solution of acetic acid, washed in water and then stored in glycerine. The morphological terms used here mainly follow Söli [1997]. Type material is deposited in the Zoological Museum of Moscow State University (ZMUM).

#### Species description

##### *Docosia helveoloides* Zaitzev **sp.n.**

Figs 1–3.

**MATERIAL EXAMINED.** Holotype ♂, RUSSIA: Astrakhan region, Akhtubia Distr., Baskunchak Lake, 4.V.2010, Kapralov leg. (in ethanol). Paratypes: 3 ♂♂, same as holotype (ZMUM).

**DESCRIPTION. Male.** General dark brown, wing length 2.7–2.9 mm.

Head dark brown with pale setae. Mouthparts dark brown, two basal palpal segments brown, other yellow. Antenna uniformly dark brown. Sixth flagellomere 1.7 times as long as wide.

Thorax entirely dark brown. Mesonotum covered with pale setae. Scutellum with two strong and four much weaker bristles. Propleuron with two strong bristles. Laterotergite bare.

Wings hyaline. Radial veins and  $rm$  brownish, other veins pale yellowish. M-stem and basal parts of  $M_1$  and  $M_2$  very faint.  $R_1$ ,  $R_5$ ,  $rm$ ,  $M_1$ ,  $M_2$ , stem of  $M_{3+4}+Cu_1$ ,  $M_{3+4}$ ,  $Cu_1$  and A setose. Stem of M-fork 1.2 times as long as  $rm$ . Haltere pale yellow.

Legs. Coxae pale yellow with darkened basal parts. Femora yellow. Tibia and tarsi brownish. Mid tibia with 3–4 a, 3–4 d, 2 p, 4 v. Hind tibia with 6–10 a, 5–6 d, 3–5 p, 2–3 v. Ratio of tibia to first tarsomere for front, mid and hind legs: 1.2–1.3, 1.3–1.4, 1.6–1.7.

Abdomen dark brown. Tergite IX ovate. Cerci with 7 combs. Ventral lobe of gonostylus bifurcate, dorsal lobe with numerous short spines in apical half.

**Female.** Unknown.

**BIOLOGY.** Unknown.

**ETYMOLOGY.** The species' name indicates its resemblance to *D. helveola* Chandler.

**DIAGNOSIS.** The new species most closely resembles *D. helveola* Chandler described from Israel [Chandler, 1994], but differs by the ovoid tergite IX, the structure of gonostylus and aedeagus; male cerci with 7 combs, while they are with 14 combs in *D. helveola*.

*Docosia turkmenica* Zaitzev **sp.n.**

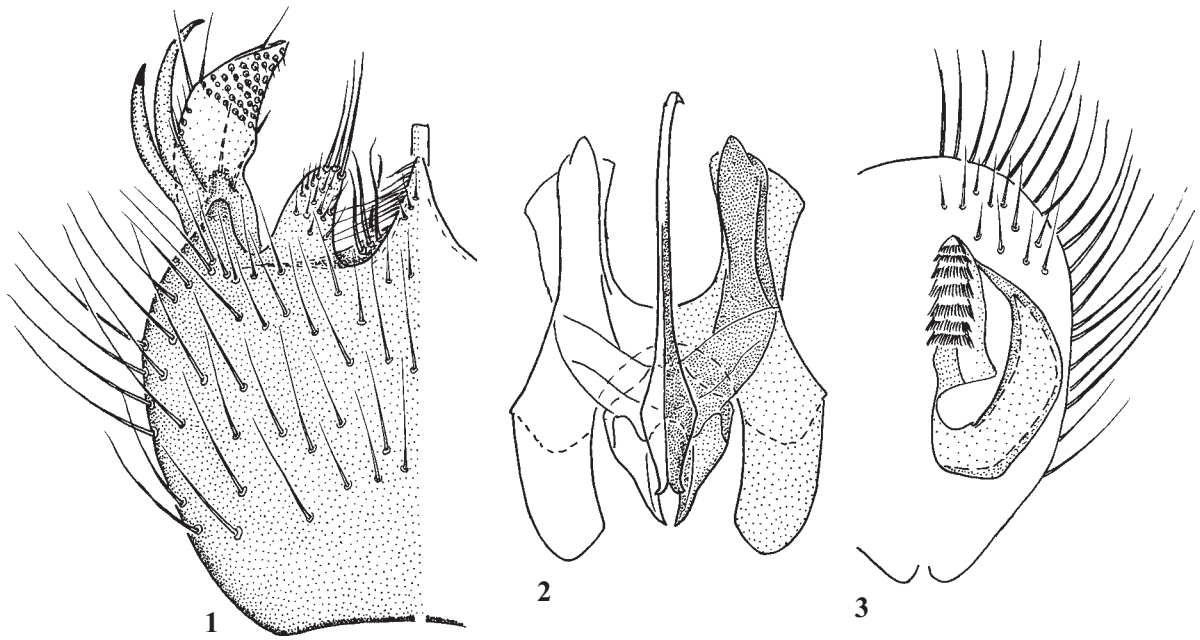
Figs 4-6.

MATERIAL EXAMINED. Holotype ♂, TURKMENISTAN: Kara-Kala Distr., 11.IV.1989, A. Zaitzev leg. (dry-mounted, glued to an insect pin). Paratypes: 3 ♂♂, same as holotype (ZMUM).

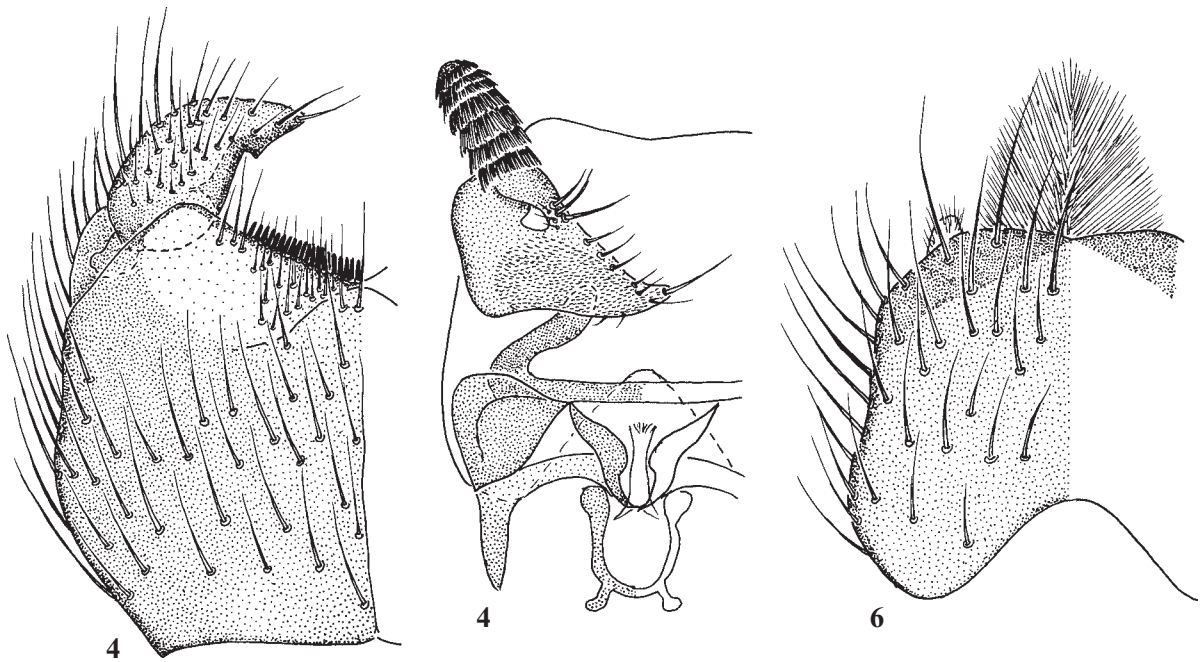
DESCRIPTION. **Male.** General black, wing length 2.7-3.19 mm.

Head black with numerous pale setae. Mouthparts dark brown, palps yellow, the first palpal segment slightly darkened at least at the basal half. Antenna uniformly dark brown. Sixth flagelomere 1.5 times as long as wide.

Thorax entirely black. Mesonotum shining black covered with pale bristles and scattered with yellowish white setae. Scutellum with two strong and four much weaker



Figs 1-3. *Docosia helveoloides* sp.n.: 1 — male terminalia; 2 — aedeagus; 3 — tergite IX; 1, 3 — ventral view.  
Рис. 1-3. *Docosia helveoloides* sp.n.: 1 — терминалии самца; 2 — эдеагус; 3 — IX тергит; 1, 3 — снизу.



Figs 4-6. *Docosia turkmenica* sp.n.: 4 — male terminalia; 5 — tergite IX and aedeagus; 6 — tergite IX; 5-6 — ventral view; 7 — dorsal view.  
Рис. 4-6. *Docosia turkmenica* sp.n.: 4 — терминалии самца; 5 — IX тергит и эдеагус; 6 — IX тергит; 5-6 — снизу; 7 — сверху.

bristles. Propleuron with two strong bristles. Laterotergite bare.

Wings hyaline. Radial veins and *rm* brown, other veins pale yellowish. M-stem and basal parts of *M*<sub>2</sub> very faint. *R*<sub>1</sub>, *R*<sub>5</sub>, *rm*, *M*<sub>1</sub>, *M*<sub>2</sub>, stem of *M*<sub>3+4</sub>+*Cu*<sub>1</sub>, *M*<sub>3+4</sub>, *Cu*<sub>1</sub> and *A* setose. Stem of M-fork 1.3 times as long as *rm*. Haltere pale yellow.

Legs. Fore coxa yellow with black basal part; mid and hind coxae black. Femora yellow; hind femur darkened apically. Tibia and tarsi brownish. Mid tibia with 3–4 a, 3–4 d, 2–3 p, 3–5 v. Hind tibia with 9–13 a, 7–8 d, 3–4. Ratio of tibia to first tarsomere for front, mid and hind legs: 1.2–1.3, 1.3–1.4, 1.7–1.8.

Abdomen entirely black. Terminalia dark brown. The apical margin of tergite IX with emargination. Cerci with 7 combs. Gonocoxites with distinct apical emargination and with numerous black spines.

**Female.** Unknown.

**BIOLOGY.** Unknown.

**ETYMOLOGY.** The species' name indicates the first record being from Turkmenistan.

**DIAGNOSIS.** The new species resembles *D. carbonaria* Edwards, 1941, but differs clearly in the form of gonostylus and tergite IX.

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