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Miltogramma drabermonkoi sp. n. from Ukraine (Diptera: Sarcophagidae: Miltogramminae)

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ABSTRACT. *Miltogramma drabermonkoi* sp. n. is described and illustrated. Three specimens were collected on sandy coasts of the Sivash salty lagune in southern Ukraine. *M. drabermonkoi* can be separated from the morphologically close species by head morphology.

KEY WORDS: Sarcophagidae, Miltogramminae, *Miltogramma*, new species, Ukraine, Palaearctic Region.

INTRODUCTION

In its broad definition (PAPE 1996) the genus *Miltogramma* Meigen, 1803 contains 116 species distributed mainly in arid and semi-arid areas of the Old World, with 39 species so far described from the Palaearctic Region (PAPE 1998). According to the alternative classification of Verves (1989, 1994) the subtribe Miltogrammatina [= *Miltogramma sensu* PAPE (1996) with the addition of genus *Euphyto* TOWNSEND, 1908] is split into 14 genera and contains 145 species (VERVES & KHROKALO 2006). Whether it is considered a genus or a subtribe, this taxon needs systematic revision as it is suspected to be paraphyletic. The biology of most *Miltogramma* species remains unknown, but all species with a described biology are kleptoparasites (inquilines) of solitary Apidae in general, the fly larva feeding on pollen balls provisioned by the bee host. The larvae of several species are known as inquilines of nests of Sphecidae too (ZEROVA et al. 2006).

Three specimens of Miltogramminae flies identified as *Miltogramma* [after PAPE (1996), ROHDENDORF (1930) and VERVES (1989, 1994)] were collected by hand net on sandy

coasts of the Sivash - a salt lagoon of southern Ukraine along the northeastern coast of Crimea. Detailed studies proved that they belong to a new species. Species is named in honor of the eminent Polish dipterologist, Professor Agnieszka DRABER-MOŃKO.
Terminology follows Merz and Haenni (2000) with few modification proposed by SZPILA and PAPE (2007). Figures were produced from photographs made with the use digital camera Nikon 8400 mounted on Nikon SMZ1500 stereomicroscope.

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DESCRIPTION

Miltogramma drabermonkoi sp. n.

(Figs 1-8)

Diagnosis

Attempt to identification of specimens of *M. drabermonkoi* using key provided by ROHDENDORF (1930, 1935) points on species *Miltogramma* (*Myochromum*) *syrtorum* ROHDENDORF, 1935. Both species share following characters: gena with yellow setae, yellowish-grey pollination of the thorax and abdomen without dark spots, stripes or bands, almost parallel frons and the presence of dorsal erect hairs on 2nd - 4th tarsomeres of fore tarsus of male. Specimens of *M. drabermonkoi* can be easily separated from *M. syrtorum* by the entirely yellow antennae, the shorter (not crossing over frons) frontal bristles and shorter bristles on ocellar triangle (bristles shorter than width of ocellar triangle) and higher number of erect hairs (6-8) on 2nd - 4th tarsomeres (males).

Description

Female. Frons almost parallel-sided, at vertex and at level of antennal base 0.33–0.35x head width, frons in the nearest part 0.31–0.33x head width (Fig. 3). Frontal stripe widening backwards, at level of vertex 1.7x as wide as at level of antennal insertion stripe; at level of middle of frons 1.5–1.6x as wide as one fronto-orbital plate. Flagellomere 1.5–1.7x as long as pedicel; arista thickened in basal 0.6–0.7. Frons in profile distinctly angular (Fig. 2); parafacial plates at level of antennal base 0.17–0.21x eye height; gena 0.10–0.12x eye height. Palpi short, not widened at apex. Proboscis long, prementum more than 3x length of

Fig. 1. *Miltogramma drabermonkoi* sp. n.: habitus of holotype specimen.

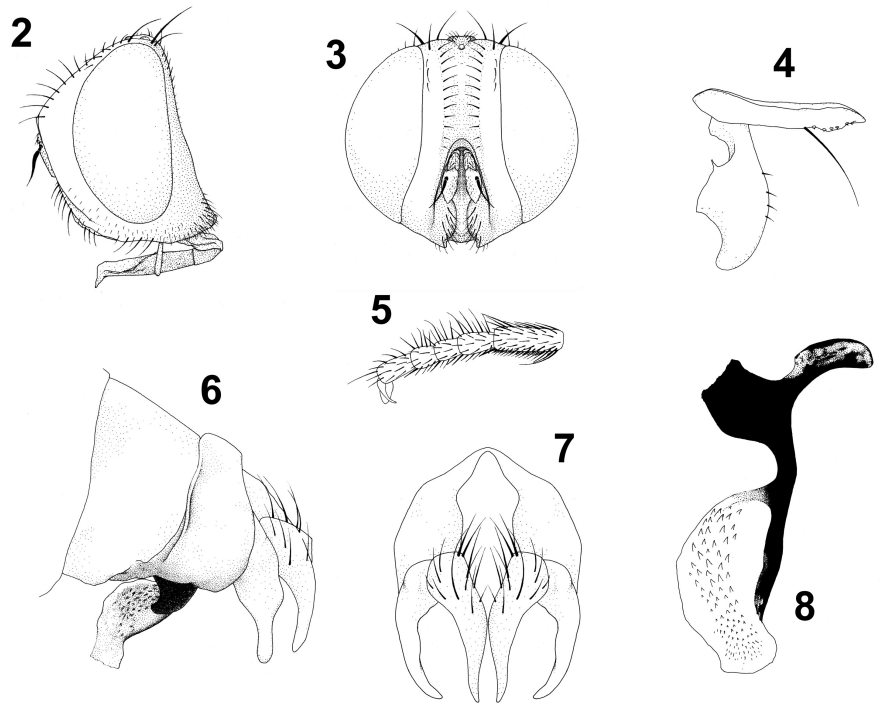
palpi and more than 6x as long as wide. One regular row of postocular setae; occipital setae all black; inner and outer vertical setae strong and almost equal in length; bristles on ocellar triangle fine and short, shorter than width of triangle; 10–15 frontal bristles, short and not crossed over frons; orbital bristles 1+2–3, only upper (reclinate) and one pair of proclinate orbital setae strong, other proclinate bristles fine and short; fronto-orbital plate and parafacial plate almost bare, with very fine and short yellowish-white setae only; 7–12 oral bristles of mid length, paired; vibrissa indistinct; gena with mid-long yellow setae and 4–5 stronger black setae along lower margin. Frontal stripe in fore part yellow, almost without pollinosity; other parts of head intensely greyish-yellow dusted; antennae entirely yellow, arista fuscous; palpi yellow; occiput densely light grey pollinated.

Thorax covered by short black hairs. Chaetotaxy: acrostichals 0+1; dorsocentrals 2–3+4–5, fine and short, only the 1–2 hindmost pairs more or less strong; intra-alars 1+2; notopleurals 2, notopleural surface with 1–2 black hairs. Scutellum with 3 pairs of strong marginal bristles. Midtibia with one long and one short anterodorsals. Costal spine absent, cell R_{4+5} open, vein r_{4+5} with 2–3 short black setae at base, medial vein obtuse-angled, dm-cu slightly s-liked curved, almost straight; ratio of 3rd and 5th costal sections 1:1.3. Thorax light grey dusted, longitudinal stripes of mesonotum unclear, linear. Legs light grey dusted, tarsi black, wings hyaline, basicosta and epaulette yellow. Abdominal tergite 1+2 without medio-marginals, 3rd and 4th tergites with a row of medio-marginal bristles. Abdomen light yellowish-grey pollinated with slightly checkering pattern.

Male. Differs from female by presence of numerous (6–8) short erect setae on dorsal surface of tarsomeres 2–4 of fore tarsus (Fig. 5), and by stronger thoracic bristles. Genitalia small, black, light pollinated. Cercus slightly curved and tapering into a moderately pointed

tip (Figs 6, 7). Surstylus as long as cercus, in lateral view straight and broad at the base, narrowed in mid and distal parts (Fig. 6); cercus in dorsal view slightly curved and tapering into a moderately pointed tip (Fig. 7). Broad base of pregonite with an incision (Fig. 4); pregonite slightly curved and tapering to form a rounded tip; dorsal surface with four small bristles. Postgonite elongate, with a strong bristle situated one-third away from the tip (Fig. 4); several sensilla present between base of bristle and tip of postgonite. Phallus with a weakly differentiated ventral plate; membranous part of distiphallus with numerous denticles increasing in size from broad tip base of phallus (Fig. 8).

Body length: 7.0–8.0 mm (for both sexes).



Figs 2-8. *Miltogramma drabermonkoi* sp. n., details of morphology: 2 – female head, lateral view; 3 – female head, anterior view; 4 – pregonite and postgonite; 5 – fore tarsus of male, lateral view; 6 – cercus and surstylus, lateral view; 7 – cercus and surstylus, dorsal view; 8 – aedeagus, lateral view.

Type material

Holotype: female, Ukraine, Kherson Region, environs of Genichesk, coast of Sivash, sandy area, 8.07.1998, Yu. Verves. Paratypes: female, same locality as holotype, 12.07.1998; male, ibid., 24.07.1998, Yu. Verves.

We have decided to designate the female specimen as holotype because the head of male specimen is partly squashed. Holotype and paratypes are deposited in the Natural History Museum of Denmark, Zoological Museum.

REFERENCES

MERZ B., HAENNI J.P. 2000. Morphology and terminology of adult Diptera (other than terminalia), pp. 21-51. [in:] L. PAPP, B. DARVAS, (eds.). Contributions to a manual of Palaearctic Diptera (with special reference to flies of economic importance). Science Herald Press; Budapest.

PAPE T. 1996. Catalogue of the Sarcophagidae of the world (Insecta: Diptera). Mem. Entomol. Internat. **8**: 1-558.

PAPE T. 1998. Sarcophagidae, pp. 649-678. [in:] L. PAPP, B. DARVAS, (eds.). Contributions to a manual of Palaearctic/European Diptera. Science Herald; Budapest.

SZPILA K., PAPE T. 2007. Rediscovery, redescription and reclassification of *Beludzhia phylloteliptera* (Diptera: Sarcophagidae: Miltogramminae). Eur. J. Entomol. **104**: 119-137.

ROHDENDORF B.B. 1930. 64 h. Sarcophaginae, [in:] E. LINDNER (ed.). Die Fliegen der palaearktischen Region 11 [Lieferung 39]. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart. pp. 1-48.

ROHDENDORF B.B. 1935. 64 h. Sarcophaginae, [in:] E. LINDNER (ed.). Die Fliegen der palaearktischen Region 11 [Lieferung 88]. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart. pp. 49-128.

VERVES Yu.G. 1989. The phylogenetic systematics of the miltogrammatine flies (Diptera, Sarcophagidae) of the world. Japan J. Med. Sci. Biol. **42**: 111-126.

VERVES Yu.G. 1994. A key to genera and subgenera of Palaearctic Miltogrammatinae (Diptera: Sarcophagidae) with a description of a new genus. Dipt. Res. **5**: 239–247.

VERVES Yu.G., KHROKALO L.A. 2006. 123. Fam. Sarcophagidae - sarcophagids, pp. 64-178 [In Russian]. [in:] A.S. Leley (ed.). Key to the insects of Russian Far East. Vol. 6. Diptera and Siphonaptera. Part 4. Dal'nauka; Vladivostok.

ZEROVA M.D., ROMASENKO L.P., SERYOGINA, L.Ya., VERVES Yu.G. 2006. Natural insect enemies of solitary bees of the fauna of Ukraine [In Ukrainian]. Veles; Kyiv. 236 p.

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