

Greenomyia tomovi sp. n. from Bulgaria (Diptera: Mycetophilidae: Leiinae) and a Key to the Palaearctic Species of the Genus

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Abstract: *Greenomyia tomovi* n. sp. from Bulgaria is described and illustrated. A key to the Palaearctic species of the genus is given.

Key words: Diptera, Mycetophilidae, Leiinae, new species, East Rhodopes Mts.

Introduction

The genus *Greenomyia* Brunetti, 1912 hitherto includes 6 Palaearctic, 2 Oriental and 2 Nearctic species (MATILE 2002, KURINA *et al.* 2011). A key to the world species based on coloration is provided by MATILE (2002) and a key to females of European species by KURINA *et al.* (2011).

Material and Methods

The material of the new species is preserved in alcohol and deposited in the author's collection at the University of Plovdiv, Bulgaria (DBPC). Male terminalia were studied after maceration in warm 10% potassium hydroxide and are preserved in glycerol. Line drawings were made using Adobe Illustrator CS2 software, aided by digital images of the male terminalia. The morphological terminology follows SØLI *et al.* (2000).

Taxonomic part

Greenomyia tomovi Bechev & Pavlova sp. n.

Diagnosis: In having wing without apical or preapical dark bands *G. tomovi* is similar only to *G. stackelbergi* Zaitzev, 1982. Differs from it in coloration and male terminalia. In *stackelbergi* tergites 1, 3 and 4 are yellow, rest – black, whereas in *tomovi* tergites 2-6 are yellow-brown with thin brown pos-

terior bands. Outer lobe of gonostyle of *G. tomovi* is with 6 long setae on mediodorsal margin and inner lobe of gonostyle is narrow, in *stackelbergi* outer lobe is with 8 long setae and inner lobe is broad. Male terminalia of *tomovi* resembles *G. borealis* (Winnertz, 1863), but the outer lobe of gonostyle is below the level of apex of ventral part of gonocoxite in *tomovi* (Fig. 1) and in the great part above this level in *borealis* (see ZAITZEV 1982).

Description: Male. Body length 4.5 mm, wing length 4.2 mm, antenna length 2.2 mm (n=1).

Head yellowish, parietal part welli-w-brown, setose. Three ocelli, almost in one line. Lateral longer than the median, separated from eye margin for distance about 2 times, and from median ocellus by about their diameter. Frontal furrow distinct. Antenna with scape, pedicel and 14 flagellomeres yellow. Seventh flagellomere 1.5 times as long as wide. Apical flagellomere 1.5 times as long as penultimate. Mouthparts short, yellow. Labellum large. Palpus with 4 palpomeres, apical 4 times as long as penultimate.

Thorax yellow-brown. Scutum with setae arranged in not distinct rows, setae in a lateral row and 2 long setae in the posterior part. Anterior parapsidal suturae distinct. Scutellum with 4 long setae.

Anterior parapsidal suture distinct. Anteprepronotum and proepisternum with setae. Laterotergite with about 10 setae in posterior part. Rest pleurae and mediotergite bare.

Wing hyaline unmarked, membrane covered only with irregularly arranged microtrichia, without macrotrichia. Veins pale. Setulae present on lower side of R1 and apical part of R5. Other postcostal veins bare. Costa produced to the apex of R5. Sc ending in C before the base of stem of M-fork. Sc2 weak. Ratio R1:R-M = 1.6. Stem of M-fork little shorter than R-M. Cu-fork begins quite before the level of apex of Sc. M1, M2, CuA1 and CuA2 very weak apically. CuA2 very weak, A1 weak. Halter light yellow.

Legs (mid missing). Coxae, femora, tibiae tarsi yellowish. Tibiae with irregularly arranged brown trichia. Fore tibia with single spur, hind tibia with 2 spurs, inner longer than outer. Fore tibia with 3-4 v, 3 pv, 4 pd and 5-6 d and setae, hind tibia with 5 short ad, 8 long a and 5 long d (including the apical). Ratio fore tibia : tarsomeres 1 to 5 = 30:27:15:10:7:5.

Abdomen yellow-brown covered with short dark hairs, segments 2-6 with thin brown posterior bands.

Terminalia (Fig. 1-2). Gonostyle below the level of apex of ventral part of gonocoxite. Dorsal distal margin of gonocoxites faint emarginated. Outer lobe of gonostyle with two combs of strong blunt spines on the internal face and 6 long setae on mediodorsal margin. Inner lobe long, curved.

Female. Unknown.

Etymology: The species is named in honour of Bulgarian entomologist Dr. Vasil Tomov.

Type Material: Holotype: male, Bulgaria, East Rhodopes Mts., near Madzharovo Town, 14. 10. 2000 (DBPC).

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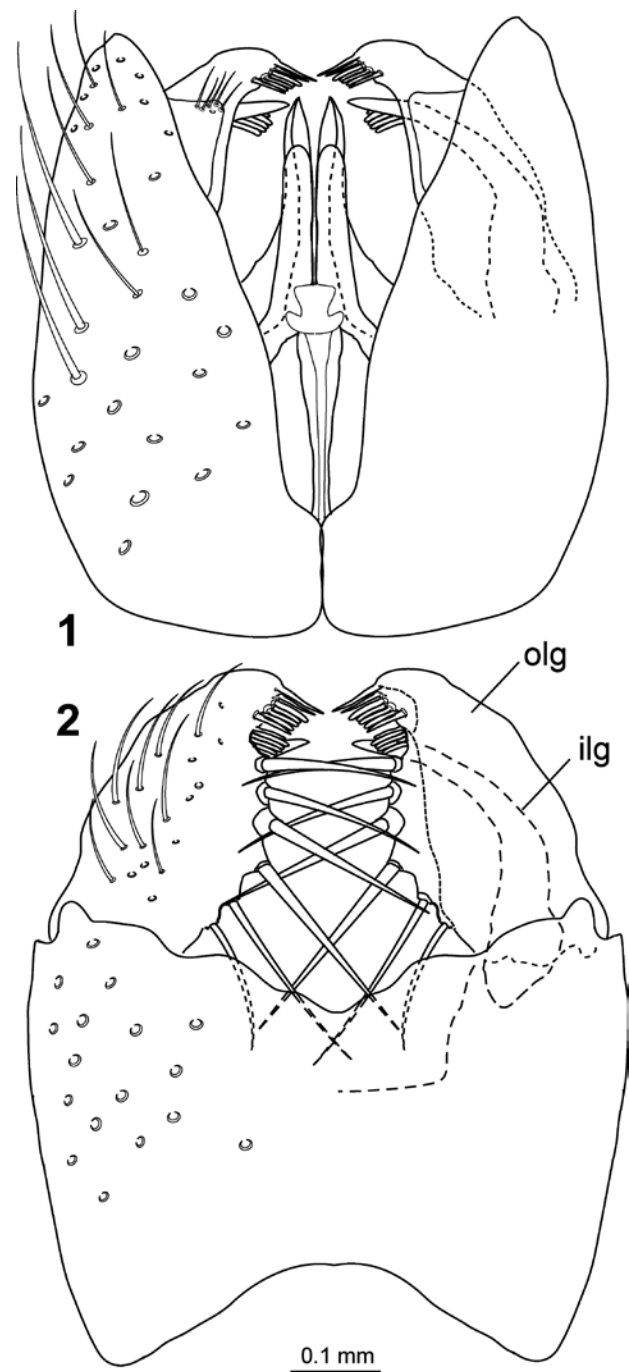


Fig. 1-2. *Greenomyia tomovi* sp. n., male terminalia. 1: ventral view; 2: dorsal view. Abbreviations: olg = outer lobe of gonostyle, ilg = inner lobe of gonostyle.

Key to the Palearctic species of *Greenomyia* (males)

1. Wing hyaline, without apical or preapical dark band. Outer lobe of gonostyle with 6 or more long setae on mediodorsal margin. 2
– Wing with apical or preapical dark band. 3
2. Scutum yellow with three fused longitudinal brown stripes. Outer lobe of gonostyle with 8 long setae on mediodorsal margin. Inner lobe of gonostyle broad. Male terminalia: Zaitzev 1982, Fig. 2, 1-2. *G. stackelbergi* Zaitzev, 1982
– Scutum yellow-brown. Outer lobe of gonostyle with 6 long setae on mediodorsal margin (Fig. 2). Inner lobe of gonostyle narrow. Male terminalia: Figs 1-2. *G. tomovi* sp. n.
3. Wing tip darkened on about apical third/quarter. Outer lobe of gonostyle with 2 long setae on mediodorsal margin. 4
– Wing with preapical dark band leaving tip hyaline. Outer lobe of gonostyle with 6 or more long setae on mediodorsal margin. 6
4. Mid and hind coxae brown to black. Male terminalia: Laštovka & Matile 1974, Figs 5-6. *G. mongolica* Laštovka & Matile, 1974
– All coxae yellow or slightly darkened basally. 5
5. All coxae yellow. Male terminalia: Laštovka & Matile 1974: Fig. 7. *G. flavicoxa* Laštovka & Matile, 1974
– Coxa 3 darkened basally. Male terminalia: Chandler & Ribeiro 1995: Fig. 21. *G. lucida* (Becker, 1908)
6. Ventral medial appendage of gonocoxite without black spines. Outer lobe of gonostyle with 8 long setae on mediodorsal margin. Male terminalia: Zaitzev 1982: Fig. 1, 1-2. *G. borealis* (Winnertz, 1863)
– Ventral medial appendage of gonocoxite with black spines. Outer lobe of gonostyle with 7-8 different in size setae (the apical ones considerably smaller) near mediodorsal margin. Male terminalia: Zaitzev 1994: Fig. 83, 2. *G. baikalica* Zaitzev, 1994

References

- CHANDLER P., E. RIBEIRO 1995. The sciaroidea (Diptera) (excluding Sciaridae) of the Atlantic Islands (Canary Islands, Madeira and the Azores). – *Boletim do Museu Municipal do Funchal (História Natural)*, Suplemento 3, 170 p.
- LAŠTOVKA P., L. MATILE 1974. Mycetophilidae (Diptera) de Mongolie. – *Acta Zoologica Academiae Scientiarum Hungaricae*, **20**: 93-135.
- MATILE L. 2002. Notes sur le genre *Greenomyia* Brunetti et description d'une espèce nouvelle des Alpes et des Apennins (Diptera: Mycetophilidae). – *Annales de la Société Entomologique de France*, **38**: 13-16.
- KURINA O., K. HEDMARK, M. KARSTRÖM and J. KJÆRANDSEN 2011. Review of the European *Greenomyia* Brunetti (Diptera, Mycetophilidae) with new descriptions of females. – *ZooKeys*, **77**: 31-50.
- SØLI G. E. E., J. R. VOCKEROTH and L. MATILE 2000. Families of Sciaroidea. – In: Papp L. and B. Darvas (Eds.): Contributions to a Manual of Palearctic Diptera (with Special Reference to Flies of Economic Importance). Appendix. Budapest, Science Herald, 49-92.
- ZAITZEV A. 1982. *Greenomyia* and *Neoclastobasis* fungus gnats (Diptera, Mycetophilidae) of the USSR. – *Vestnik Zoologii*, 25-32. (In Russian, with English summary).
- ZAITZEV A. 1994. Fungus gnats of the fauna of Russia and adjacent regions. Part 1. 288 p. (In Russian).

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