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TWO NEW SPECIES OF *COENOSIA* MEIGEN (DIPTERA, MUSCIDAE) FROM RUSSIA

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Two new species of the genus *Coenosia* Meigen are described from Russia: *C. ozerovi* **sp. n.** from the Caucasus (North Ossetia-Alania) and *C. kosterini* **sp. n.** from West Siberia (Omsk).

KEY WORDS: Diptera, Muscidae, *Coenosia*, new species, Russia.

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Из России описаны два новых вида рода *Coenosia* Meigen: *C. ozerovi* **sp. n.** из Северной Осетии-Алании (Кавказ) и *C. kosterini* **sp. n.**, из Омска (Западная Сибирь).

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INTRODUCTION

From my personal observations on the genus *Coenosia*, their populations seem to tend to be rather local and short-living. This peculiarity leads to existence of many *Coenosia* species still to be described. Herewith two new species are described. The holotypes and paratypes of the new species are deposited in the Zoological Museum of Moscow University (ZMUM).

***Coenosia ozerovi* Vihrev, sp. n.**

Figs 1, 2

MATERIAL. Holotype – ♂, Russia, Severnaya Osetiya-Alaniya, near Verkhniy Zaramag (42.694°N, 43.991°E), 1600m, 16.VII 1989 (A.Ozerov). Paratypes: 2 ♂, 1 ♀, the same label as holotype; 2 ♂, Russia, Severnaya Osetiya-Alaniya, 10km S-E from Alagir (42.936°N, 44.270°E), 1600m, 17, 28.VI 1990 (A.Ozerov).

DESCRIPTION. MALE. Length: body 4.9-5.5 mm, wing 3.9-4.8 mm. A dark species with dense grey pollinosity.

Head in lateral view distinctly narrowed in lower part. Eyes bare. Frons about 1/3 of head width, frontal triangle short, ending at level of posterior frontal seta. Interfrontalia black in upper view and brown in anterior view, parafrontalia, parafacialia, face and gena whitish dusted, occiput grey. Parafrontalia 2/3, parafacialia 1/3, gena 1,5 times as wide as width of postpedicel. Parafrontalia with 2 strong and 1-2 weak intermediate inclinate frontal and 1 proclinate orbital setae. Antenna black, inserted at middle of eye, postpedicel 3 times as long as wide, its tip slightly pointed dorsally. Arista pubescent, total aristal hairing about 1/3 as wide as width of postpedicel. Palpi black, prementum of proboscis black, glossy.

Thorax. Scutum and scutellum brownish, without distinct vittae. Pleura and notopleura brownish-grey. Dorsocentrals 1+3, acrostichal setulae in 1-2 irregular rows (1-2 *prst ac* distinctly longer than others), 2 strong intra-alar, 2 proepisternal, 2 pair scutellar setae, katepisternal 1:1:1.

Wings narrow. Veins yellow (basally) to brownish-yellow (apically). Costa on anterior surface with strong spines about as long as crossvein *r-m*. Costa continuing to apex of M1+2. Crossvein *r-m* placed well above the point where vein R1 enters costa. Calypters yellow, lower one projecting far beyond upper one. Halteres yellow.

Legs relatively long. Coxae, femora and tibiae dark-grey dusted, but all knees yellowish (more distinct on fore knee, less on mid knee, only slightly on hind knee) and apices of fore and mid tibiae also yellowish (less distinct on mid tibia). Fore tarsus characteristic: basitarsus blackish in basal part and brown in apical part to entirely brownish-grey, tarsomeres 2 to 4 brownish-yellow to whitish-yellow, tarsomer 5 pure black and widened (Fig. 1a); ventral surface of fore tarsus lighter than dorsal, tarsomeres 1 to 4 yellow to yellowish-white, but apical tarsomer 5 still pure black and though more contrasting to the rest of tarsus. Mid and hind tarsi more dirty-dark in colour, but apical tarsomer 5 still pure black and contrasting with tarsomer 4, especially so on ventral surface. Fore femur with a row of *pd*, a dense row of about 10 *pv* and a row of short but strong *av* in basal half. Fore tibia with a submedian *p*-seta. Mid femur with a complete row of long *pv-v* setae (the longest in middle), with a row of *a*-setae in basal 2/3, 2 *p*-preapical, 1 *a*-preapical. Mid tibia with strong submedian *ad* and *pd*. Hind femur with a complete row of *ad*, 1 *d* and 2 *pd* preapicals, 3-5 *av* in apical half, a complete row of fine long *pv*. Hind tibia with submedian strong *ad* and less strong *pd*, with 3 subequal *av* in medial third, preapicals: long *d*, shorter *ad*. Ground setae on tibiae long and dense. Pulvilli and claws elongate.

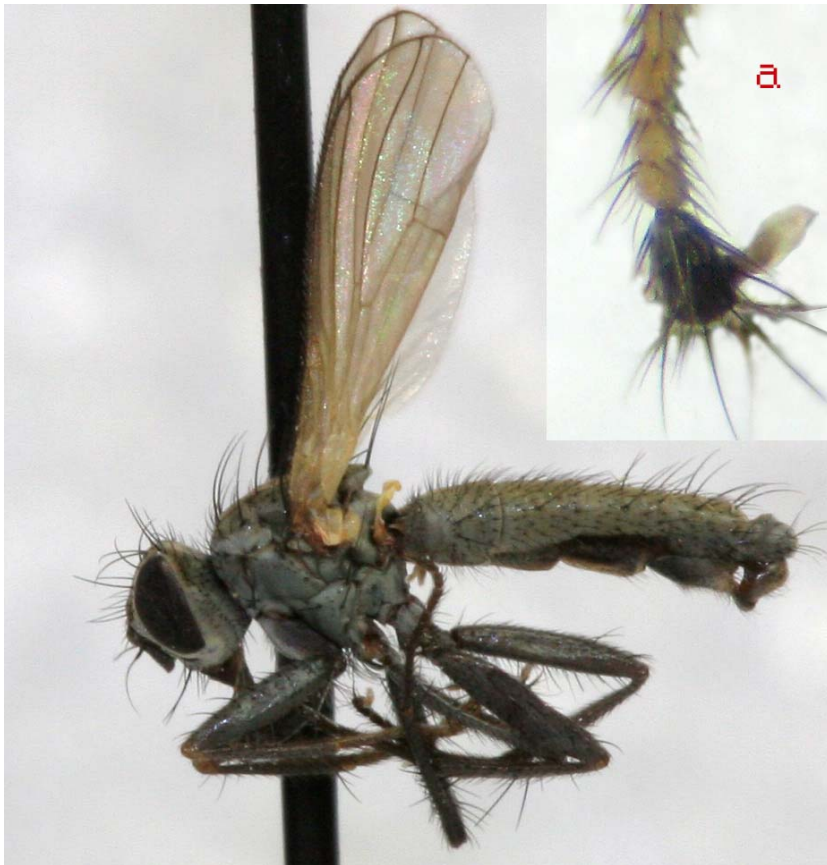


Fig. 1. *Coenosia ozerovi* sp. n.: holotype, lateral view; a – apex of fore tarsus (dorsal view).



Fig. 2. *Coenosia ozerovi* sp. n.: a – male terminalia, lateral view; b – male terminalia ventral view; b1 – cercal plate; c – general view of abdomen; d – sternite 5.

Abdomen unusually long and narrow with nearly parallel sides. Tergites yellowish-grey dusted, without any drawing, excluding indistinct trace of dark median vitta in posterior view. Tergal setae: tergites 1+2 and 3 with 1 pair of lateral discals each, tergites 4 and 5 each with 3 pairs of discals and 3 pairs of marginals. Male terminalia shown on Fig. 2.

FEMALE. Length: body 5.4 mm, wing 4.8 mm. Similar to male, but abdomen only slightly narrowed and elongate. Apical tarsomeres of all legs blackish and still slightly contrasting with brown colour of adjacent tarsomeres. Hind tibia with 3 *av* on one leg and 2 *av* on other leg, but in both cases the upper *av* seta twice shorter.

DIAGNOSIS. A new species is an unmistakable *Coenosia* due to the following characters: the fore tarsus modified, with the apical tarsomer black and slightly widened, contracting with the whitish-yellow 3-d and 4-th tarsomeres; abdomen unusually long and narrow throughout, without any distinct pattern on tergites; a large species, body size about 5mm. Modified tarsi and elongated abdomen are much less distinct in female and requires more careful examination. New species falls together with *C. patelligera* in the key given for European species of *Coenosia* (Gregor et al., 2002). For the separation of two these species the following key is proposed:

- 1(2) Male. t2 with ad, t3 with 1pd and with 3av; male terminalia as shown in Fig. 2.
 Caucasus *C. ozerovi* sp. n.
 2(1) Male. t2 without ad, t3 without pd and with only 1av; male terminalia as shown in Fig. 3. Female unknown. Rare European (Submediterranean, probably also high-mountain) species *C. patelligera* Rondani, 1866

HABITAT. All specimens were collected by sweeping on an alpine meadow. Seems to be an exclusively mountain fly, as both collecting sites are at about 1600 m. In rather a rich material collected by A.Ozerov around Alagir, but at altitudes 500-800 m this species is absent.

ETYMOLOGY. Named after the collector, Dr. A. Ozerov (Moscow).

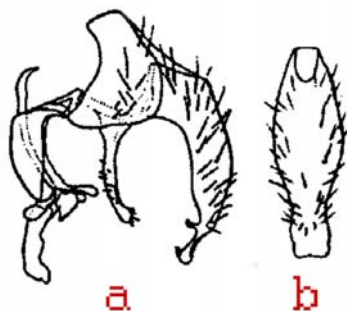


Fig. 3. *Coenosia patelligera* Rondani, 1866 (after Hennig, 1964): a – male terminalia; b – cercal plate.

***Coenosia kosterini* Vikhrev, sp. n.**

Fig 4

MATERIAL. Holotype – ♂, Russia, West Siberia, suburbs of Omsk, lake at Vorovskiy str., (54.89°N, 73.35°E), 30.VI 2008 (O. Kosterin).

DESCRIPTION. MALE. Length: body 2.5 mm, wing 2.5mm.

Head. Frons about 1/3 of head width. Parafrontalia, interfrontalia, parafacialia, face and gena yellow, occiput grey dusted. Border between interfrontalia and parafrontalia badly distinct, frontal triangle indistinct, interfrontalia only slightly wider than each parafrontalia, parafacialia linear, gena about as wide as postpedicel. Parafrontalia with 2 strong and long inclinate frontal and 1 proclinate orbital setae, frontal setae 2,5-3 times as long as orbital seta. In addition to strong black setae, several fine yellow setulae present on lower part of parafrontalia, these setulae are badly visible on background of yellow frons. Antenna entirely bright yellow, postpedicel 2,5-3 times as long as wide, dorsal tip of postpedicel spine-like. Arista long, short pubescent, with hairs shorter than basal diameter of arista, arista hairs yellowish. Palpi entirely yellow, prementum of proboscis brownish. Setae on upper part of head black, but genal setae and vibrissa yellow.

Thorax. Pleura, scutum and scutellum evenly grey dusted. Dorsocentrals 1+3, acrostichal setulae in 2 irregular rows, 1 intra-alar, 1 proepisternal, 2 pair scutellar setae, katepisternal 1:1:1.

Wings clear, veins yellow, brownish in apical half. Costal spine small, but distinct from the costal setulae. Costa continuing to apex of M1+2. Crossvein *r-m* placed at level where vein R1 enters costa. Calypters white, lower one projecting far beyond upper one. Halteres yellow.

Legs including coxae and all tarsi yellow, only hind coxa with grey dusting. All femora bottle-like thickened. Pulvilli and claws of fore tarsus reduced, pulvilli and claws of mid and hind tarsi small, but present. Tarsal segments of all legs short. Setae on all coxae yellow.

Fore femur with a row of *pd* and *pv* setae. Fore tibia with a submedian *p*-seta. Mid femur with 2 *av* at base and at middle, with 2 *pv* in basal 1/3. I can not find any trace of usual preapical setae on mid femora. Mid tibia with a submedian *pd*, without *ad*. Hind femur with 3 *av* (subbasal, median and preapical), with 2 preapical *ad* and 1 preapical *pd*. Hind tibia with submedian *ad* and *pd*.

Abdomen relatively short and thick. Tergites grey dusted with indistinct paired dark spots on tergites 4 and 5. Tergite 5 with black, long, inward curved setae (2 pairs of discal and 4-5 pairs of marginal setae), tergite 6 with 1 pair of such setae. Sternite 5 enlarged, covered with remarkable beard of numerous downward directed yellow setae, which are as long as width of abdomen. In consideration of this characteristic beard, I came to decision not to dissect abdomen of the only holotype specimen so far available.

FEMALE. Unknown.



Fig. 4. *Coenosia kosterini* sp. n., male holotype: head and lateral view.

DIAGNOSIS. This small *Coenosia* with 1 proepisternal seta, and postpedicel with spine-like dorsal tip belongs to Hennig's *Coenosia flavimana* species-group. The combination of entirely yellow legs and antenna, thickened femora, shortened tarsi, yellow vibrissa, yellow setae on gena and coxae, long black setae on tergites 5 to 6 and dense long yellow setae on sternite 5 makes *C. kosterini* sp. n. unmistakable.

HABITAT. The fly was collected by sweeping at a lake bank.

ETYMOLOGY. Named after the collector Dr. O. Kosterin (Novosibirsk).

REFERENCES

Gregor, F., Rozkosny, R., Bartak, M. & Vanhara, J. 2002. The Muscidae (Diptera) of Central Europe. Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis, Biologia 107. 280 p.

Hennig, W. 1964. Family Muscidae. – In: Lindner, E. (Ed.). Die Fliegen der Palaarktischen Region 63b. Stuttgart. 1110 p.