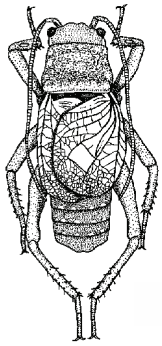

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TWO NEW HOVERFLY SPECIES OF THE GENUS *EUMERUS* MEIGEN, 1822 (DIPTERA: SYRPHIDAE) FROM RUSSIA

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Summary. Two hoverfly species, *Eumerus pilosus* Barkalov et Mutin, **sp. n.** and *Eumerus grunini* Barkalov et Mutin, **sp. n.**, are described and illustrated from Volgograd Region and Trasbaikal Region of Russia, respectively.

Key words: Syrphidae, *Eumerus*, taxonomy, new species, European part of Russia, Siberia.

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Резюме. Из России описаны и проиллюстрированы два новых вида журчалок: *Eumerus pilosus* Barkalov et Mutin, **sp. n.** и *Eumerus grunini* Barkalov et Mutin, **sp. n.** соответственно из Волгоградской области и Забайкальского края.

INTRODUCTION

Within the Palearctic Region, *Eumerus* Meigen, 1822 (Diptera, Syrphidae) is one of the most diverse hoverfly genera, with over 300 species having been described to

date and a number of new species being added annually (Mutin, 2019; Barkalov *et al*., 2020; Grković *et al*., 2021; Barkalov & Mutin, 2022). This paper describes two more new species discovered in the collections of the Zoological Museum of the Moscow State University (ZMMU) and the Zoological Institute RAS, St. Petersburg (ZISP).

The terminology follows Thompson (1999) and van Steenis *et al*. (2023). Drawings of the morphological characters of the new species were made using a grid on the eyepiece and paper lined at 2 cm intervals. Characters were redrawn in ink, scanned and then finally edited in Photoshop. The digital photographs used were taken by means of a Zeiss Stemi-2000 sterioscopic microscope "Zeiss Stemi-2000".

DESCRIPTIONS OF NEW SPECIES

***Eumerus pilosus* Barkalov et Mutin sp. n.**

https://zoobank.org/NomenclaturalActs/C88D37E5-6728-4651-8875-0EC59B219840

Figs. 1–7, 13–14

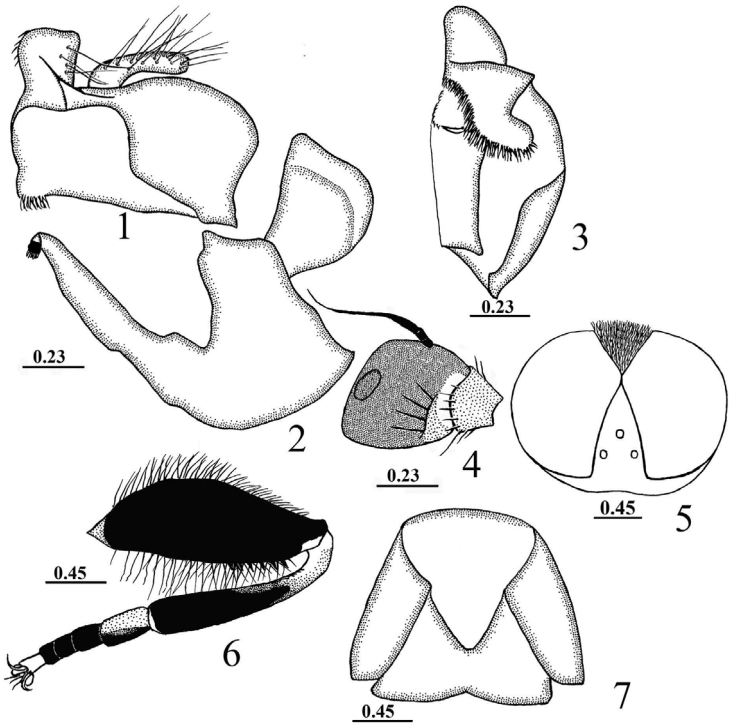
TYPE MATERIAL. Holotype – ♂, **Russia**: Volgograd Region (=Stalingrad Region), Tinguta, 14.V 1952, G. Victorov leg. [ZMMU]. Original labels in Russian: "Сталинград. обл., Тингута, 14.V.1952, Г. Викторов" / *Eumerus strigatus* Flln.; Л. Зимина det.".

DESCRIPTION. Male. Body length 7.5 mm, wing length 6.0 mm.

Head (Fig. 14). Face parallel-sided, faintly grey pollinose, with dense silvery pile. Gena very narrow, almost undeveloped. Frons narrow, covered with a silvery tomentum and very dense, hiding the main color, semi-erect silvery pile; angle approximation of eyes distinctly less than 90°. Scapus and pedicel short, dark-brown, shiny, with white pile on dorsal surface of pedicel. Basoflagellomere orange, dense grey pollinose, irregular form with antero-ventral angle, with transverse furrow in basal part, from which four longitudinal furrows extend, and with comparatively small sensory fossa apically (Fig. 4). Eyes holoptic, covered with rare light pile; contiguity of eyes about 4 facets long. Vertex narrow, shiny, black with greenish-blue reflection, with silver pile, which dense and semi-erect apically and sparse erect posteriorly. Ocellar triangle isosceles; distance between posterior ocelli is a little bit longer than distance between anterior and posterior ocelli (Fig. 5). Occiput with white pile.

Thorax. Mesonotum shiny, black, with yellow erect moderately long pile, without pollinose marks or stripes. Pleurae shiny, with yellowish pile. Legs. Coxae and trochanters black, without any spurs. Femora black, with narrowly yellow tips. Metafemur distinctly swollen and weakly curved, with apico-ventral carina bearing a row of 6 strong setae (Fig. 6). Meso- and metafemur with yellow pile postero-ventrally, which length approximately equal 2/3 width of femora. Pro- and mesotibia yellow, with black annulus in apical third; metatibia mostly black, except brownish base and yellow tip, with a row of pressed black setulae on postero-ventral surface of basal part. Pro- and mesotarsus brown dorsally and yellow ventrally; segments 1-4 of mesotarsus with a pair of strong black setae ventrally. Length of metabasitarsus

approximately equal length of tarsomeres 2-4 put together. Wings hyaline, with brown venae, mostly covered by microtrichia, except bare basal part of anterior and posterior basal cells.



Figs 1–7. *Eumerus pilosus* sp. n. 1 – epandrium laterally; 2 – hypandrium laterally; 3 – epandrium ventrally; 4 – 2-3 segments of antenna laterally; 5 – head dorsally; 6 – metaleg laterally; 7 – tip of abdomen ventrally. Scale bars in mm.

Abdomen. Black dorsally, with yellow pile laterally and black pressed pile medially. Tergites 2-4 with pair of oblique pruinose maculae. Sternum VI with comparatively long black pile. Sternum IV raised, forming a kind of keel, with deep cut on hind margin (Fig. 7), covered with long yellow pile.

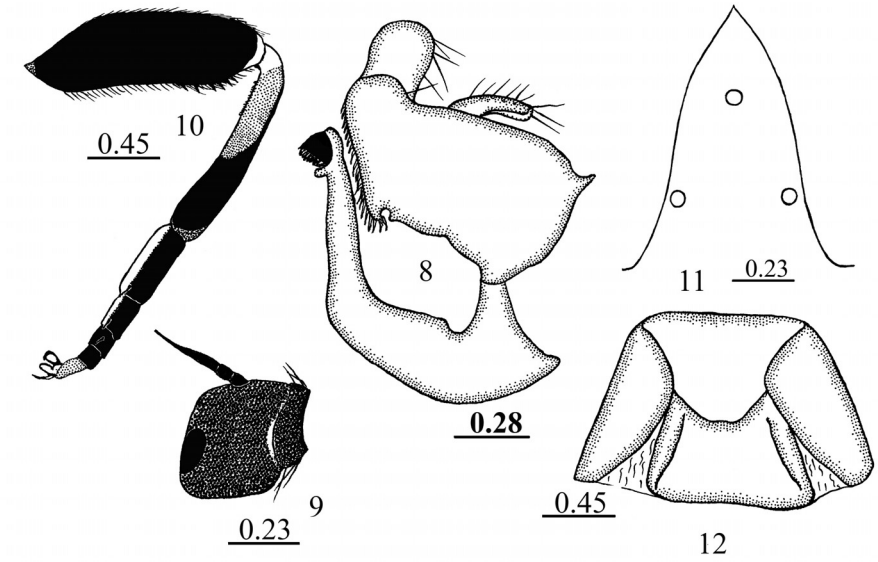
Genitalia (Figs 1-3). Posterior surstylar lobe with lateral oblique keel going to the middle of epandrium. Inner side of surstylus with numerous pile. Cercus elongated, curved, with long pile.

Female. Unknown.

DIAGNOSIS. From all species *E. pilosus* **sp. n.** differs by the combination of the following characters: the ocellar triangle is shorter in length than in width, the basoflagellomere orange, mesonotum without pruinose vittae and by construction of male genitalia.

DISTRIBUTION. The South of European part of Russia.

ETHYMOLOGY. The species name reflects the character of new species – presence on ventral surface of femora dense long white pile.



Figs 8–12. *Eumerus grunini* sp. n. 8 – male genitalia laterally; 9 – 2–3 segments of antenna laterally; 10 – metaleg laterally; 11 – ocellar triangle dorsally; 12 – tip of abdomen ventrally. Scale bars in mm.

***Eumerus grunini* Barkalov et Mutin, sp. n.**

https://zoobank.org/NomenclaturalActs/8A1D7890-1E36-467D-910B-46304D21448D

Figs. 8–12, 15–16

TYPE MATERIAL. Holotype – ♂, **Russia**: Trasbaikal Region [=Chita Region], Borzinskij district, Rudnik Abachajtuj, 12.V1959, Grunin leg. [ZISP]. Original labels in Russian: "Читинская область, Борзинский р-н, рудник Абачайтуй 12.V.1959 (Грунин)". Paratypes: 4♂, the same place and time [of them 3♂ in ZISP and 1♂ in SZMN]; 1♂, the same place but 13.V 1959, Grunin leg. [ZISP].

DESCRIPTION. Male. Body length 7.2–8.3 mm, wing length 5.0–6.0 mm.

Head (Fig. 15). Face black, finely grey pollinose, with dense erect white pile. Gena narrow, shiny. Frontal triangle with dense pressed white pile, hiding main color of frons; angle of approximation of eyes less 90º. Antenna brownish-black; basoflagellomere irregular form, grey pollinose, with comparatively big sensory fossa; arista short (Fig. 9). Eyes with dense long white pile, connected on distance approximately equal to 4 ommatidia. Vertex black, non pollinose, with white pile; ocellar triangle almost equilateral (Fig. 11). Occiput pruinose, except dorsal occiput shiny, with white pile.

Thorax. Mesonotum black, shiny, without pruinose pattern, covered with short erect white pile. Pleura shiny, with semi-erect white pile. Legs. Coxae and trochanters black, without any process. Femora black, with narrowly yellow tips; metafemur slender, with semierect yellow pile dorsally and two rows of black spikes in apico-ventral 1/3 (Fig. 10). Pro- and mesotibia mostly black, except basal 1/4-1/5 and apices narrowly brownish-yellow. Metatibia brownish in basal half and black apically, with short black procumbent setulae ventrally. Tarsi black dorsally and yellow ventrally, except entirely yellow 5th tarsomere (Fig. 10). Wing membrane mainly hyaline, yellowish basally, microtrichose except bare bases of basal cells.

Figs 13–16. *Eumerus* ssp. 13, 14 – *E. pilosus* sp. n.; 15, 16 – *E. grunini* sp. n.; (13, 15 – male laterally; 14, 16 – head dorsally). Scale bars: 13, 15 = 1.0 mm; 14, 16 = 0.5 mm.

Abdomen. Broadest on central part of tergum II and gradually tapering to top. Terga black with blueish reflection, except yellow posterior margin of tergum IV, without pruinose or yellow maculae; pilosity short pressed or semi-pressed white except some short black pile on central part. Sternites I-IV brownish. Sternum VI black, with yellow pile. Sterna IV raised medially, but without forming a keel, its posterior margin with distinct cut (Fig. 12).

Genitalia (Fig. 8). Epandrium with strong reduced anterior surstylar lobe; posterior surstylar lobe noticeably elongated, with rounded top. Cercus very small. The hypandrium is curved, tapering evenly towards the apex.

DIAGNOSIS. *E. grunini* **sp. n.** differs from known Palaearctic species by absence of any pruinose marks, vittae or maculae on mesonotum as well as on abdominal terga and by construction of male genitalia.

DISTRIBUTION. Russia: Transbaikal Region.

ETHYMOLOGY. The new species is named in honor of the famous Soviet dipterologist Konstantin Yakovlevich Grunin, who collected the type material.

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