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A NEW HOVERFLY SPECIES OF THE GENUS *EUMERUS* MEIGEN, 1822 (DIPTERA: SYRPHIDAE) FROM THE RUSSIAN FAR EAST

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Summary. A new species of hoverfly, *Eumerus antennalis* **sp. n.**, is described and illustrated based on a male found in the Khingansky Nature Reserve (Amurskaya Oblast). This species is similar to *Eumerus flavitarsis* Zetterstedt, 1843, but differs from it and other similar species by elongated postpedicel and almost bare dichoptic eyes.

Key words: Syrphidae, *Eumerus*, taxonomy, new species, Amurskaya Oblast, Russia.

В. А. Мутин. Новый вид мухи журчалки рода *Eumerus* Meigen, 1822 (Diptera: Syrphidae) с Дальнего Востока России // Дальневосточный энтомолог. 2025. N 516. С. 21-24.

Резюме. Из Хинганского заповедника в Амурской области по самцу описан новый вид мухи-журчалки *Eumerus antennalis* **sp. n.** Новый вид близок к *E. flavitarsis* Zetterstedt, 1843, но отличается от него и близких видов удлиненным третьим члеником усиков и почти голыми дихоптическими глазами.

INTRODUCTION

The genus *Eumerus* Meigen, 1822 is one of the most diverse taxon of the hoverflies (Diptera: Syrphidae) within Palearctic; moreover, a few new species were described recently from this region (Gilasian *et al*., 2022; Barkalov & Mutin, 2022, 2024; etc.). More than a dozen species of the genus *Eumerus* are distinguished by the specialized hind legs of the males, namely their flattened metatarsus, covered with snow-white pile. In addition, the second abdominal tergum of both sexes has a pair of more-or-less large translucent yellow maculae. A typical member of this group is *E. flavitarsis* Zetterstedt, 1843, distributed in the temperate latitudes of Eurasia. Other similar species are known mainly from the Far East and Southeast Asia. Probably they all belong to a monophyletic group together with other species which have males with balloon-like cerci. Recent molecular studies have shown that *E. flavitarsis* and *E. argyropus* Loew, 1848, whose tergites lack visible yellow maculae, together with *E. ornatus* Meigen, 1822 whose males have unmodified metatarsi, all belong in a monophyletic group (Aguado-Aranda *et al*., 2022). The diagnostic morphological characters of these species are a narrow frons, a partially or completely reddish-orange postpedicel, balloon-like cerci on the male genitalia and the specific shape of the anterior surstylar lobe

(Speight *et al*., 2021). The long eye contiguity of males, noted as a character of the *E. ornatus* species group (Gilasian *et al*., 2022), is not applicable to Asian species with dichoptic eyes, which are more similar to *E. flavitarsis* in other aspects.

All species that, like *E. flavitarsis*, have yellow maculae on the second tergite and flattened metatarsi with snow-white pile in males, can be divided into two complexes. The males of the first complex have holoptic, and the second dichoptic eyes. There are species among the first complex with the eyes almost bare or sparsely pilose, as in *E. flavitarsis*, *E. ehimensis* Shiraki et Edashige, 1953, *E. japonicus* Matsumura, 1916, *E. kuyuensis* Huo, Ren et Zheng, 2007, *E. nicobarensis* Schiner, 1868, and *E. xiaohe* Huo, Ren et Zheng, 2007. On the other hand, the eyes of *E. elegantissimus* Stackelberg, 1930 are covered with dense long pile. All previously described species with dichoptic eyes in males, such as *E. auratus* (Walker, 1857), *E. nepalensis* Brunetti, 1908, *E. niveus* Huo, Ren et Zheng, 2007, *E. okinawaensis* Shiraki, 1930, *E. okinawellus* Matsumura, 1916, and *E. rufitibiis* Sack, 1922, also have long dense pile covering their eyes. A male with almost bare dichoptic eyes, which was found in the Khingansky Nature Reserve, is described below as new species.

MATERIAL AND METHODS

The holotype of the new species is deposited in the Federal Scientific Center of East Asia Terrestrial Biodiversity, Vladivostok, Russia (FCBV). The morphological terminology follows Thompson (1999) with later additions (van Steenis *et al*., 2023).

Photographs were taken with an Olympus SZX16 stereomicroscope and an Olympus DP74 digital camera and stacked using Helicon Focus software. The final illustrations were post-processed for contrast and brightness using Adobe® Photoshop® software.

DESCRIPTION OF NEW SPECIES

***Eumerus antennalis* Mutin, sp. n.**

https://zoobank.org/NomenclaturalActs/2B4DDE17-1E58-475F-BE57-087671EEA3DD 0

Figs 1–5

TYPE MATERIAL. Holotype – ♂, **Russia**: Amurskaya Oblast, Khingansky Nature Reserve, 29 km SW Kundur village, Gryaznaya River, floodplain meadow, 48°54'10"N 130°30'28"E, 5–6.VIII 2023, leg. D.N. Kochetkov (FCBV).

DESCRIPTION. Male. Body length 6.1 mm, wing length 4.2 mm. Face and frons with white pile and dense pruinosity hiding the main background. Vertex and occiput shining black, with rare pale pile. Ocellar triangle equilateral. Eyes dichoptic, rather bare; very short rare pile barely visible. Distance between eyes a little less than that between the posterior ocelli (Fig. 3). Antennae mainly orange except for the blackish scape, basal pedicel and dorso-apical postpedicel. Postpedicel elongated oval, almost rectangular; ratio of width to length is 1: 1.6. Arista orange basally and darkened apically, a little longer than postpedicel.

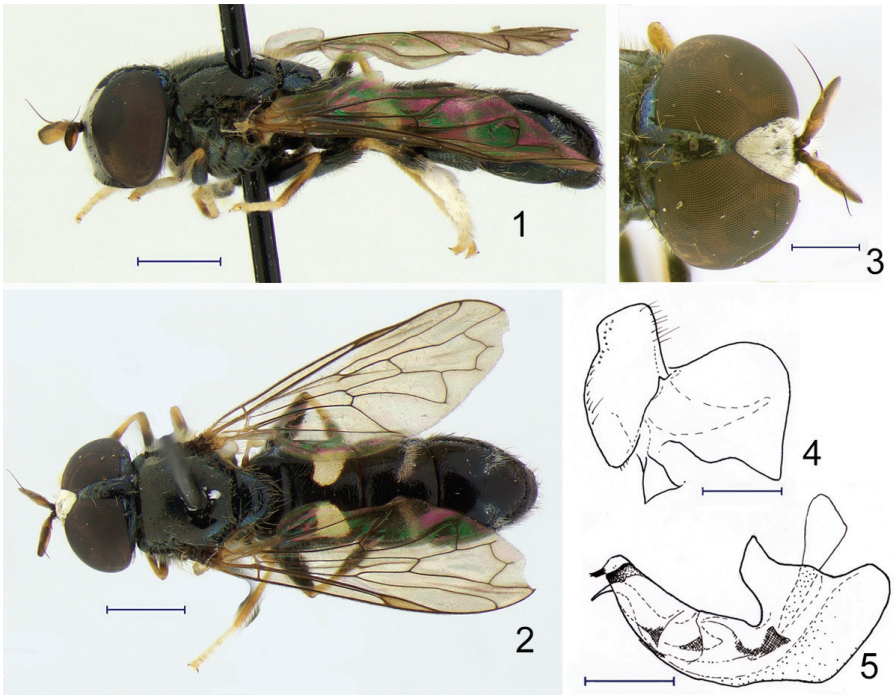
Scutum shining black, with short erect yellowish pile, without visible pruinose vittae. Scutellum shining black, with yellowish pile, which is longer apically. Pleuron weakly pruinose, with yellowish pile. Coxae and trochanters black. Femora mainly black except yellow apex, with pale yellow pile, longest on postero-ventral surface and very short and adpressed on antero-dorsal surface of pro- and mesofemur. Metafemur with a pair of setose carinae; anterior row with 4 setae, posterior row with 7 setae. Pro- and mesotibia mainly yellow, with subapical diffused blackish annulus, yellowish pilose. Metatibia yellow on basal 2/5 and black on apical 3/5, yellow pilose. Pro- and mesotarsus white, with argento-white pile.

Metatarsus strongly flattened, with snowy-white pile dorsally and yellowish-white pilose ventrally; basitarsomere 1.5x longer than second tarsomere, and ratio of its length to width is 7: 3. Wing hyaline, pterostigma yellow.

Abdomen black, with a pair of large oblique trapezoid yellow maculae on tergum II and narrow oblique pruinose maculae on terga III-IV. Terga II-III with yellow pile; tergum IV mainly pale pilose except black short pile on postero-medial surface. Tergum VIII black pilose. Sterna II-III brownish, narrow rectangular. Sternum IV sub-trapezoid; posterior margin moderately concave, with a pair of lateral tufts of long strong pile, without spines or laminae.

Posterior surstylar lobe short, with an apex bevelled forward (Fig 4). Hamus gradually curved and tapered towards the top (Fig 5). Cerci globular brownish.

Female is unknown.



Figs 1–5. *Eumerus antennalis* sp. n. 1 – habitus, lateral view; 2 – habitus, dorsal view; 3 – head dorsally; 4 – epandrium, lateral view; 5 – hypandrium, lateral view. Scale bars: 1, 2 = 1.0 mm; 3 = 0.5 mm; 4–5 = 0.2 mm.

DIAGNOSIS. The male of this new species clearly differs from all other congeners with the snow-white pile on the metatarsus and yellow maculae on tergum II by the following combination of characters: elongated postpedicel, which is 1.6 times longer than wide; dichoptic eyes with short, barely noticeable pile; ratio of basimetatarsomere to the second metatarsomere is 1,5 : 1, ratio of basimetatarsomere length to its width is 7 : 3.

DISTRIBUTION. Russia: Amurskaya Oblast (Khinganskii Nature Reserve).

BIOLOGY. The holotype of the new species was caught in floodplain meadow.

ETYMOLOGY. The specific name refers to elongated postpedicel atypical for congeneric species.

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