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A NEW SPECIES OF THE HOVER FLIES GENUS *EPISTROPHE* WALKER, 1852 (DIPTERA: SYRPHIDAE) FROM THE RUSSIAN FAR EAST

V. A. Mutin

*Amur State University of Humanities and Pedagogy, Kirova str. 17/2,
Komsomolsk-na-Amure, 681000, Russia. E-mail: valerimutin@mail.ru*

Summary. *Epistrophe lentiggini* sp. n. is described based on a female collected from the mainland of the Russian Far East (Khabarovskii krai: Myaochan Mountains). This species belongs to the species-group of congeners which have bare eyes, black antennae, and narrow gray or yellow sometimes medially interrupted bands on the abdominal terga.

Key words: hover flies, taxonomy, new species, East Palaearctic.

В. А. Мутин. Новый вид мухи журчалки рода *Epistrophe* Walker, 1852 (Diptera: Syrphidae) с Дальнего Востока России // Дальневосточный энтомолог. 2023. N 485. С. 1-6.

Резюме. По самке, собранной на материковой части Дальнего Востока (Хабаровский край, хр. Мяочан), описан новый вид мухи журчалки *Epistrophe lentiggini* sp. n. Новый вид относится к группе видов с голыми глазами, черными усиками и узкими серыми или желтыми, иногда медиально прерванными, перевязями на тергитах брюшка.

INTRODUCTION

At the present time the genus *Epistrophe* Walker, 1852 comprises at least 48 species with distinct generic characters (Encyclopedia of Life, 2023; Speight, 2017, 2020). At the same time members of the subgenus *Epistrophella* Dusek et Láska, 1967 are often classified as a separate genus. Species of the nominotypical subgenus can be divided into two distinct groups. Some species have unicolor black antennae, others have entirely or partly yellow antennae. Species with black antennae have entirely yellow face or yellow face with black medial vitta, at least the coloration of facial tubercle is dark, contrasting with pale background of the face. The first species-group includes: *Epistrophe diaphana* (Zetterstedt, 1843), *E. grossulariae* (Meigen, 1822), and *E. leiophthalma* (Schiner et Egger, 1853). All others species possessing dark facial vitta are divided into two subgroups. There are species with eyes dense pilose at least dorsally (*E. griseocincta* (Brunetti, 1923), *E. hirsuteron* (Curran, 1931), *E. trifasciata* He, 1987, *E. equilata* Huo, Ren et Zheng, 2007, *E. tiantaiensis* Huo, Ren et Zheng, 2007) and species with bare eyes, without visible pile. A new species of *Epistrophe* is described below.

MATERIAL AND METHODS

Specimens were studied using the binocular microscopes MBS-10. The morphological terminology follows Thompson (1999). Photographs of specimens were taken with the stereomicroscope Olympus SZX16 and digital camera Olympus DP74, and stacked using Helicon Focus software. The final illustrations were postprocessed for contrast and brightness using Adobe® Photoshop® software.

The holotype of the new species is deposited in the collection of the Federal Scientific Center of East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok, Russia.

DESCRIPTION OF NEW SPECIES

Epistrophe lentiggini Mutin, sp. n.

<https://zoobank.org/NomenclaturalActs/8CCAF669-D6C2-415F-8B76-05435BC4A793>

Figs 1–4

TYPE MATERIAL. Holotype – ♀, **Russia**: Khabarovskii Krai, Myaochan Mountains, upper Amutinka Stream, 11.VII 2002 (V. Mutin).

DESCRIPTION. Female. Body length 13.5 mm, wing length 12.5 mm. Face (Fig. 4) mainly yellowish gray densely pale-gray pollinose and with pale pile. Vitta bare, weakly shining, brownish, its medial part noticeably paler yellowish, almost yellow above. Gena (Fig. 1) brightly yellow, non-pollinose, with longer pale pile. Frons (Fig. 2) black, with black erect pile; its 1/6 anterior part almost shining, further with medial brownish densely pollinose stripe sharply constricted rearward;

densely gray pollinose along orbits. Vertex black, almost shining, with black short pile. Ocellar triangle equilateral. Occiput with pale pile. Antenna black; basoflagellomere oval, twice as long as wide.

Mesonotum (Fig. 2) black, with unclear pale pollinose pattern; almost shining sublaterally and densely pollinose laterally, with a pair of obscure submedial pale pollinose vittae. Mesothoracic pleuron densely pale pollinose, with pale pile. Scutellum yellow, with black pile.

Legs mainly yellow (Figs 1, 3), except basal half of femora black and coxae, trochanters, and subapical annulus of metatibia brownish. Proleg mainly with pale pile. Mesoleg mainly with black pile, except tibia with short pale pile. Metaleg mainly with black pile.

Wing hyaline and entirely microtrichose (Fig. 2).

Abdomen (Fig. 2) mostly black and weakly shining dorsally, mainly with black pile on terga III, IV, and V, with narrow pale-gray pollinose fascia slightly interrupted in anterior half of terga III, IV and in middle of tergum II. Tergum I almost entirely pale-gray pollinose. Sterna black, with weakly yellow marks on sterna II and III basally.

Male is unknown.

DIAGNOSIS. The female of this new species clearly differs from all other congeners by the following combination of the characters: the face with a dark medial vitta, its median part noticeably paler than sides; the antennae black; the eyes bare; the abdomen with narrow gray fasciae on terga II, III and IV; the metafemur black basally and yellow apically; the pro- and mesotarsus yellow dorsally.

DISTRIBUTION. Russia: Khabarovskii krai (Myaochan Mountains).

BIOLOGY. The holotype of the new species was caught on blooming *Aruncus dioicus* at the edge of a dark coniferous forest with *Picea jezoensis* and *Abies nephrolepis* (about 900 meters above sea level).

ETHYMOLOGY. The specific name originates from latin "*lentigini*" referring to peculiar coloration of the face, located on both sides of median vitta (Fig. 4), which looks like freckles on human face.

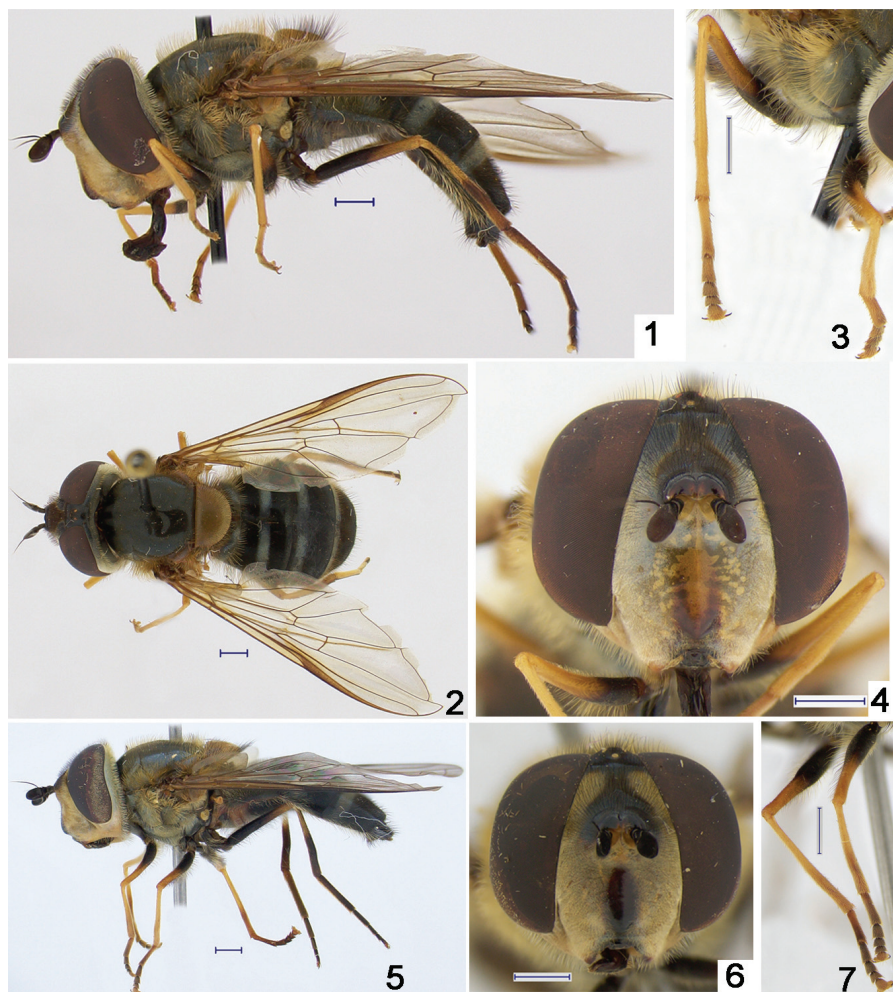
DISCUSSION

The new species differs by the original combination of characters from a number of species with bare eyes and dark facial vitta which is usually black. The types of these species have not been studied except the holotype of *Epistrophe angustifasciata* Violovitsh, 1956 (= *E. griseofasciata* (Matsumura, 1918)). Photographs of type-specimens of *E. exul* (Curran, 1929) and *E. carmichaeli* Ghorpade, 1994 are available from the Natural History Museum (2014) and Orrell T, Informatics Office (2023) which allowed to study some diagnostic characters. A few specimens of *E. sasayamana* (Matsumura, 1918) from Japan were also studied.

The female of *Epistrophe lentigini* **sp. n.** distinctly differs from females of *E. bicostata* Huo, Ren et Zheng, 2007, *E. nigritiba* Huo, Ren et Zheng 2007, and *E.*

sasayamana (Matsumura, 1918) by narrow pale (grayish steel) fasciae on abdominal terga. The coloration of the abdomen of these species is mainly yellow, pale fasciae on the terga are significantly wider (Huo, Ren & Zheng, 2007; Matsumura, 1918).

The female of *Epistrophe lentigini* **sp. n.** differs too from those of *E. exul* (Curran, 1929), *E. quinquivittata* Brunetti, 1923, and *E. sasayamana* (Matsumura, 1918) by the coloration of the metalegs. The metalegs of these species are almost entirely black, except yellow basal part of the metafemur (Natural History Museum, 2014; Brunetti, 1923).



Figs 1–7. *Epistrophe* spp. 1–4 – *E. lentigini* **sp. n.**, female, holotype; 5–7 – *E. griseofasciata*, female, holotype; 1, 5 – habitus, lateral view; 2 – habitus, dorsal view; 3, 7 – fore- and mesolegs; 4, 6 – head, frontal view. Scale bar: 1 mm.

The female of new species is similar to those of *Epistrophe angustinterstincta* Huo, Ren et Zheng, 2007 and *E. griseofasciata* in metaleg coloration, but it differs by yellow pro- and mesotarsus (Fig. 3) (the pro- and mesotarsus of *E. angustinterstincta* and *E. griseofasciata* distinctly darker than the tibiae, as in Fig. 7) as well as heterogeneous coloration of the facial vitta medially (Fig. 4) (facial vitta of *E. angustinterstincta* and *E. griseofasciata* unicolor, almost black, as in Fig. 6) (Huo, Ren & Zheng, 2007; Matsumura, 1918).

The female of *Epistrophe lentiggini* **sp. n.** can be distinguished from the female of *E. angusticincta* Huo, Ren et Zheng, 2007 by absence of black pile around the facial vitta (new species has entirely pale facial pile).

Unfortunately, a short original description of *Epistrophe carmichaeli* Ghorpadé, 1994 does not give good differences between this and newly describing species, but important diagnostic characters are visible in the photo of the holotype (female) of *E. carmichaeli* (Orrell T, Informatics Office, 2023), namely uniform coloration of the facial vitta, dark apical half of the metatibia, rather paler pile on the frons and scutellum as well as clearly yellow fasciae on the abdominal terga. The listed characters are clearly distinguished *E. carmichaeli* from the new species.

However, the color of pale markings on the abdominal terga is not always a reliable diagnostic character. Studied specimens of *E. griseofasciata* have both yellow and gray fasciae on the abdominal terga. Similar variability is inherent in species of the related genus *Leucozona*.

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