

## A New Species of the *Hilara intermedia*-group (Diptera: Empididae) from Turkey

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### ABSTRACT

*Hilara caglari* Çiftçi sp. nov. from *Hilara intermedia*-group of species is described from Sivas province (central Anatolia) of Turkey. The male genitalia and foreleg of the new species are illustrated and distinguished from other Palaearctic congeners. The *Hilara intermedia*-group from Europe and Middle East now includes a total of 27 species, 2 of which are distributed in Turkey.

*Key words:* *Hilara*, distribution, dance flies, new species, Sivas.

## INTRODUCTION

The *Hilara intermedia*-group was defined by Collin (1961) under the name *Hilara quadrivittata*-group with 11 species. Later, Chvála (2002, 2005, 2008) and Chvála and Merz (2009) revised the European *H. intermedia*-group and added new species to the group, recognizing 23 species from Europe and the Middle East. With the works of Çiftçi et al. (2012), Kustov et al. (2013) and Kanavalová et al. (2018), this number has increased to 26. Chvála (2002) divided the *H. intermedia*-group into three well-defined species complexes, the *H. intermedia* complex, *H. quadrifasciata* complex and *H. brevivittata* complex.

The *Hilara intermedia*-group is little known from Turkey, represented by only one species so far, *Hilara balikesirensis* Çiftçi, Hasbenli & Koç, 2012, described from northwest Anatolia (Çiftçi et al., 2012).

In this paper, a new species is described from Sivas, in central Anatolia. The *Hilara intermedia*-group is now represented in Europe and the Middle East by 27 species.

## MATERIAL AND METHODS

This study is based on three male specimens collected from Sivas province (central Anatolia) of Turkey in 2021. For illustration, the male genitalia and fore leg were dissected and cleared in 10% KOH for 24 h at 30°C. All figures were drawn using a binocular microscope with an ocular grid. After drawing, genital parts and fore leg were stored in a small capsule with glycerol and the capsule pinned along with the specimen. In this study, the morphological nomenclature of Cumming and Wood (2017) was followed.

The specimens in this study were collected by A. Hasbenli, Ü. Çağlar and Ş.B. Can during the post-construction monitoring studies within the scope of the Trans Anatolian Natural Gas Pipeline Project (TANAP) and are housed in the Zoological Museum of Gazi University (ZMGU).

## RESULTS

### *Hilara caglari* Çiftçi sp. nov. (Figs. 1-5)

Diagnosis. Medium sized species of the *Hilara intermedia*-group with dense light grey dusting. Body about 3-3.5 mm long, occiput dull grey and halter yellow. Scutum with four distinct black stripes in dorsal view, acrostichal bristles two-serial on apical half, three to four serial on posterior half of scutum. Prothoracic collar with long pale bristle on each side. Legs black, fore tibia with long dorsal bristles. Abdomen lighter grey dusting with pale hairs.

Description. *Male*. Head dark grey, face and frons light grey dusting and frons wider than base of postpedicel, face narrower. Occiput uniformly with grey dusting. Upper postocular bristles black, hairs below neck, much finer and paler. Equally long

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ocellar and frontal bristles at least as long as postpedicel with stylus. Antenna black. Antennal stylus thickened, slightly shorter than postpedicel. Palpus black, grey dusting with fine, brownish ventral hairs, preapical bristle long, black. Labrum shiny black, longer than half length of head.

Thorax light grey, scutum with slightly light brownish dusting in lateral view. Scutum with four distinct black stripes in dorsal view, scutum with brownish dusting and two outer stripes almost invisible in anterior view. In posterior view, two outer stripes much wider and nearly converge in middle with two inner stripes. Bristles and hairs on thorax mostly black, only anterior part of scutum and humeral area with short pale hairs including first two rows of acrostichal and dorsocentral bristles. Acrostichal and dorsocentral bristles short, hair-like, much shorter than antennal stylus. Acrostichal bristles two-serial on apical half, three to four serial on posterior half; dorsocentral bristles uniserial, becoming longer posteriorly, ending with two rather long prescutellar pairs. Large marginal bristles fine, as long as two thirds of postpedicel with stylus: one fine humeral, one fine intrahumerals, three notopleurals, one long, two to three short and fine supra-alars, one postalar and two pairs of scutellar bristles. Notopleural depression anteriorly with small black hairs. Supra-alar and post-alar bristles longer than humeral and intrahumeral bristles, nearly as long as scutellar bristles. Prothoracic collar with long pale bristle on each side, between them with row of pale hairs, proepisternum and sides of prosternum with very short, fine pale hairs.

Wings almost clear, slightly brownish. Veins blackish, anal vein distinct at base. Pterostigma brownish, slightly visible. Costal bristle long and black. Squama pale with whitish fringes; halter light yellow with slightly brownish stem.

Legs short and stout, with black and greyish dusting. Coxae light grey like pleura with pale hairs; mid and hind coxae laterally with one or two black bristle-like fine hairs. All femora and tibiae with pale and black hairs, pale hairs shorter and finer. Fore femur posteroventrally with fine long hairs at least as long as depth of fore femur. Mid femur anteroventrally with black bristle-like hairs, much longer and thicker on apical half. Hind femur dorsally with black hairs as long as depth of hind femur. Hairs on tibiae denser than femora and pale hairs reduced. Fore tibia (Fig. 1) dorsally with one row of very long bristles and posteroventrally with fairly long and fine bristle-like black hairs and shorter fine pale hairs. Mid tibia anteriorly and posteriorly with long, dense brownish hairs and black bristles, black bristles slightly longer than hairs. Hind tibia with short black hairs, slightly longer dorsal bristle-like hairs as long as depth of hind tibia. Tarsal segments with short black hairs. Fore basitarsus (Fig. 1) oval slightly longer than half length of fore tibia and slightly wider than tip of fore tibia.

Abdomen light grey dusting as thorax, abdominal hairs short, longer and yellowish on basal segments, black on posterior segments. Hind marginal bristles rather short but distinct and black, only pale on first and second terga. Black hind marginal bristles much longer than pale ones. Genitalia (Figs. 2-5) rather small and darker coloured. Tip of hypandrium simple (Fig. 3), epandrial lamella posteriorly with long bristly hairs. Apical projection of epandrial (Figs. 4-5) lamella shining black, spinose with blunt tip.

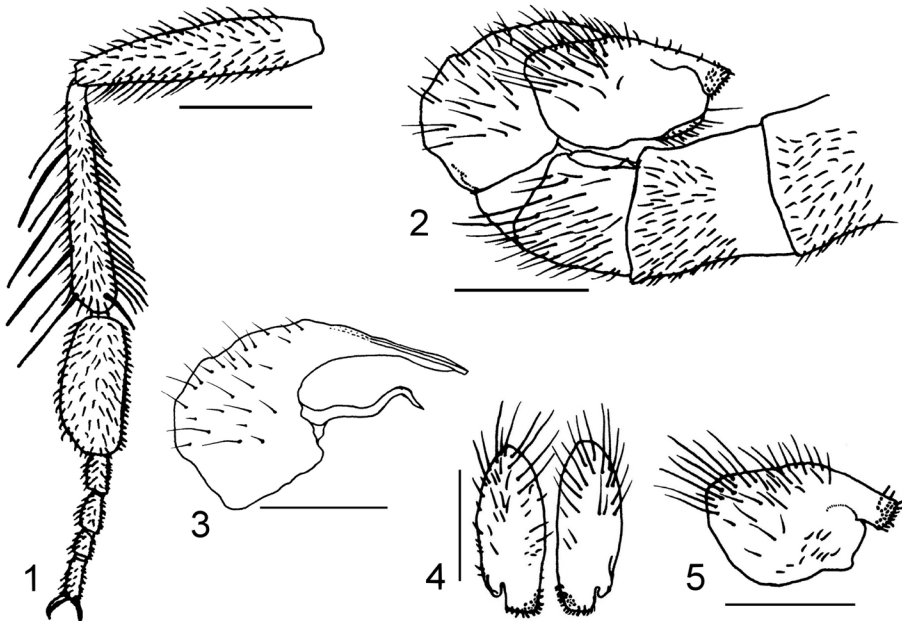
Length: Body 3-3.5 mm, wing 3.3-3.8 mm

Female. Unknown.

Type material. Holotype: Turkey, ♂, Sivas, Yıldızeli, Belcik village, 1260 m, 39°49'N / 36°15'E, 19.05.2021, det. M.C. Çiftçi. Paratypes: 2 ♂♂, same locality and date as holotype.

Derivatio nominis. This species is named after Dr. Üzeyir Çağlar who helped to collect the specimens.

Remarks. *Hilara caglari* Çiftçi sp. nov. is a species of *Hilara intermedia*-group by its densely grey dusting body with dull grey occiput, four dark-striped scutum and spinose apical projection of epandrial lamella and resembles *Hilara intermedia* (Fallén) and *Hilara tetragramma* Loew because of lighter grey dusting body, thoracic pattern and pale bristle on each side of prothoracic collar. *Hilara caglari* can be easily distinguished from *H. intermedia* by its spinose apical projection of epandrial lamella, where the apical projection of *H. intermedia* is small and needle-like. Also, *H. tetragramma* is distinguished from *H. caglari* by its larger body, the absence of prominent bristles on its legs and different shape of the epandrial lamella. *Hilara caglari* is more similar to *H. primula* Collin in being of medium-sized body, two-serial acrostichal bristles in front and epandrial lamella with blunt spinose apical projection. *Hilara caglari* is clearly differentiated from *H. primula* with characters such as lighter grey dusting body, pale bristle on each side of the prothoracic collar, shorter male fore basitarsus and fore tibia posteroventrally with long and fine bristle-like black hairs.



Figs. 1-5. *Hilara caglari* spec. nov. 1. Fore leg; 2. Postabdomen; 3. Hypandrium; 4. Epandrial lamella in dorsal view; 5. Epandrial lamella. Scale: 0,3 mm.

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