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DESCRIPTION OF THE FEMALE OF *OECOTHEA USHINSKII* GORODKOV (DIPTERA: HELEOMYZIDAE)

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ABSTRACT

The female of *Oecothea ushinskii* Gorodkov, 1959 is described, based on Spanish material. When comparing the palpi and, especially, the postabdomen with those of *Oecothea fenestralis* (Fallén), its relatest species, distinct differences among both species are verified.

Key words**:** *Oecothea ushinskii*, female description, genital study, Heleomyzidae.

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RESUMEN

Descripción de la hembra de Oecothea ushinskii *Gorodkov (Diptera, Heleomyzidae)*. Se describe la hembra de *Oecothea ushinskii* Gorodkov, 1959, en base a material procedente de España. Al comparar los palpos y, especialmente, el postabdomen con los de *Oecothea fenestralis* (Fallén), su especie más próxima, se comprueba que existen claras diferencias entre ambas especies.

RESUM

*Descripció de la femella d'*Oecothea ushinskii *Gorodkov (Diptera, Heleomyzidae).* Es descriu la femella d'*Oecothea ushinskii* Gorodkov, 1959, en base a material procedent d'Espanya. Al comparar els seus palps i, especialment, el seu postabdomen amb els d'*Oecothea fenestralis* (Fallén), la seva espècie més próxima, es comprova que existeixen clares diferències entre totes dues espècies.

INTRODUCTION

Oecothea Haliday, 1837 is a genus with 17 species described from the palaearctic region (GORODKOV, 1984), and distinguished from the rest of Palaearctic Heleomyzidae by the presence of spines on the middle tibiae (GORODKOV, 1959). It is mainly distributed over the ex URSS and Mongolia, and only 4 species have been up to now recorded from Europe: *O. fenestralis* (Fallén, 1820), *O. hungarica* Papp, 1980, *O. praecox* Loew, 1862 and *O. ushinskii* Gorodkov, 1959. In the Iberian fauna, on the other hand, only 2 species are known: *O. fenestralis* and *O. ushinskii* (CARLES-TOLRÁ, 1992, 1993).

Some years ago my colleague Javier Blasco-Zumeta (Pina de Ebro) sent to me dipterological material collected at Retuerta de Pina, a very arid zone of northeastern Spain situated at the Monegros region, Zaragoza. Among this material 4 males and 5 females of genus *Oecothea* were found. One male specimen belonged to *fenestralis*, which is a very common species in Europe, having already been recorded from Spain; the three other male specimens were identified as *ushinskii*, a species originally described from the ex URSS and Soviet Middle Asia. The type material of *ushinskii* were only three males, therefore the females were unknown (GORODKOV, 1959). On the other hand, the remaining 5 female specimens had most probably to belong to *fenestralis* and/or *ushinskii*.

For identification of specimens GORODKOV'S (1959) key was used, but unfortunately it is only a male key, as many species of *Oecothea* are only known from this sex. On the other hand, as it is indicated by GORODKOV (1959): «the structure of the female genitalia is much less useful in the taxonomy. They are more uniform than the male terminalia, and their weaker sclerotization makes working with them more difficult. In several species no external differences could be found in the female genitalia. Finally, the females of several species are unknown». Nevertheless, there were 2 figures of the female postabdomen of *fenestralis* in GORODKOV'S (1959) paper. The postabdomen of the 5 females collected in the Retuerta de Pina coincided with those of Gorodkov's figures. But it was not clear if it is possible to distingish the females both of *fenestralis* and *ushinskii* from each other. Therefore, only the results concerning the four males were published (CARLES-TOLRÁ, 1993).

After that, the same collector provided more material of *Oecothea* from the same locality, 2 males and 3 females altogether. Following GORODKOV'S (1959) paper, the two males were identified again as *fenestralis* and *ushinskii*, one specimen of each one. The surprise came when studying the abdomen, particularly the postabdomen, of the 3 females, as it was observed that they distinctly differed from the postabdomen of the 5 females of the first shipment. So the females could be separated into two groups. Following GORODKOV'S (1959) figures part of the females were identified as *fenestralis*, and, according to male identification, the rest of females were assumed to belong to *ushinskii*.

Furthermore, another character to differenciate both species and not mentioned by GORODKOV (1959) was found, it refers to the chaetotaxy present in the palpi of both sexes.

This new difference, together with those present in the postabdomen has generated the realization of this paper and are described as follows.

MATERIAL AND METHODS

The material was collected by means of various collecting methods (coloured dishes, light trap, pitfall with beer, Malaise trap, burrow of rabbits, drowned in a rainwater cistern), which are indicated in each case.

DESCRIPTION OF THE FEMALES

Oecothea ushinskii Gorodkov, 1959. Fem. nov.

Head orangish. Occiput and ocellar triangle brownish. Face brownish at its base. Antennal grooves brownish. Antenna orangish, 3rd antennal joint brownish. Arista micropubescent. Palpus: orangish, with 2-3 long ventral hairs (1 apical and 1-2 postmedial) (Fig. 4); apical hair longer and thicker; general small pilosity less abundant. Chaetotaxy: 1 ors, vte, vti, oc, pvt convergent, vi, peristomal hairs in a regular row.

Thorax brown, humeral callus orangish, notopleura and supraalar zone somewhat orangish. Scutellum pilose, orangish, brownish in the middle. Chaetotaxy: 1 hu, 1+3 dc, 1 prst, 2 np, 1 sa, 2 pa, 2 sc, 1 st, 1 prth.

Wing transparent, without shadows. Haltere whitish.

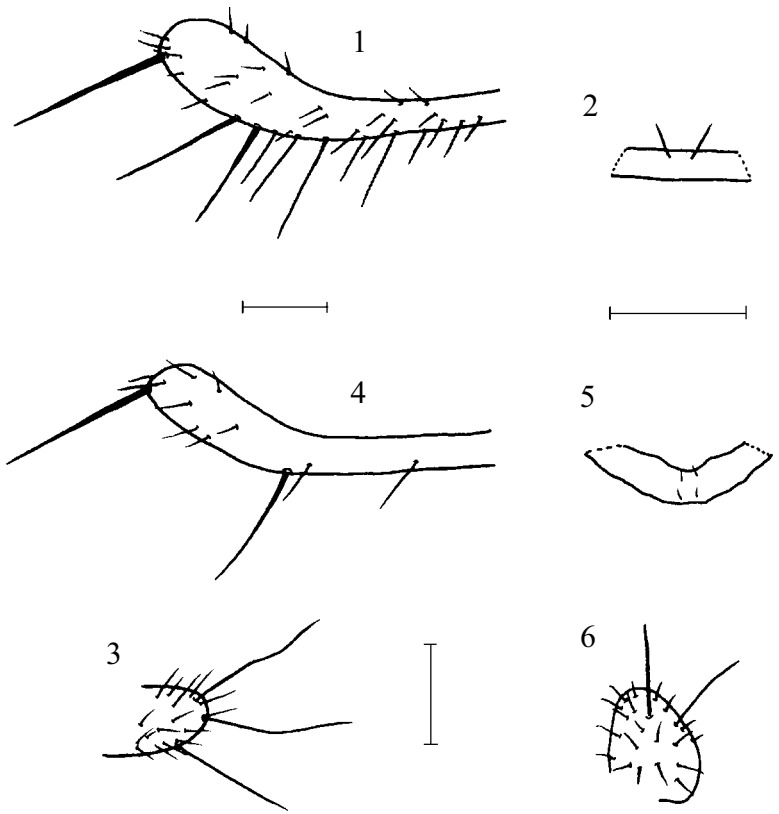
Legs orangish; fore femur brownish; mid tibia with 2 median anterodorsal bristles (most basal one shorter) and 1 posterodorsal bristle (as long as the basal anterodorsal), apex with 4-5 long bristles.

Abdomen: tergites 1-5 brownish, tergites 6-8 orangish, tergite 7 and sternite 7 touching, but not fused. Epiproct (Fig. 5) with minute hairs, without outstanding hairs. Female cercus (Fig. 6) with 2 long hairs, as long as the cercus, well visible in dorsal view: 1 preapical and 1 thiner posterolateral; general small pilosity thick.

Total body length: 4.4-5.5 mm.

Material examined: Zaragoza: Pina de Ebro (Retuerta de Pina): 20.XI.1991 1 ♀ (pitfall with beer), 9.XII.1991 1 ♀ (coloured dishes), 10.III.1992 1 ♀ (drowned in a rainwater cistern), 14.XI.1994 1 ♂ (burrow of rabbits). Material deposited in alcohol in author's collection.

Distribution: south european territory of ex URSS, Soviet Middle Asia and Spain.



Figures 1-6. *Oecothea fenestralis*: 1) palpus in lateral view; 2) epiproct in dorsal view; 3) female cercus in lateral and dorsal view. *Oecothea ushinskii*: 4) palpus in lateral view; 5) epiproct in dorsal view; 6) female cercus in lateral and dorsal view. Scales: 0.1 mm.

Oecothea fenestralis (Fallén, 1820)

Description as that of *O. ushinskii*, differing from this species by the following characters:

Palpus: distal part with a more or less regular row of long hairs in its ventral side (Fig. 1); apical hair longer and thicker; general small pilosity abundant. This character is also useful to separate the males of both species.

Abdomen: tergites 1-6 brownish, tergites 7-8 orangish, tergite 7 and sternite 7 totally fused, forming a complete ring. Epiproct (Fig. 2) with al least 2 long hairs, and the other ones minute, if present. Female cercus (Fig. 3) with 3 long

apical more or less sinuate hairs, longer than the cercus, well visible in lateral view: one hair diagonally upwards directed, another one horizontally and the third one diagonally downwards directed; general small pilosity thin.

Material examined: Zaragoza: Pina de Ebro (Retuerta de Pina): 22.IV.1990 1 ♀ (coloured dishes), 19.VIII.1990 1 ♀ (light trap), 19.IV.1991 1 ♀ (pitfall with beer), 25.IV.1991 1 ♂, 1 ♀ (coloured dishes), 20.VI.1991 1 ♀ (Malaise trap), 10.IV.1994 1 ♂ (burrow of rabbits).

Distribution: all continents excepting Africa. This species is recorded for the first time from the province of Zaragoza.

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