A remarkable new species of the genus Eumerus (Diptera, Syrphidae) from southeastern Spain, including a deep description of preimaginal morphology and notes about their trophic habits.

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Abstract

Eumerus Meigen 1822 (Diptera: Syrphidae) is one of the most speciose hoverflies genera, comprising around 280 different species worldwide. At least 170 species are known from Palearctic region, having its highest diversity in the Mediterranean Basin. Despite this high diversity, a lot of information is still unknown e.g. phylogeny relationships, the life cycle of most species and, in particular, knowledge on their larval morphology and other preimaginal stages. In fact, so far, only the preimaginal stages of 14 species are known, although a few more have been collected but remain undescribed.

In the present communication, a new species of genus Eumerus belonging to tricolor-group is described and figured, also including description of preimaginal stages, life cycle, known distribution and host plant. Scanning Electron Microscopy were used for a deep study of the micromorphology of both, larva and pupa; in the same way, head skeleton was dissected from larvae, described and figured. A comparison of larval morphology with other species of the genus have been also done and discussed.

The information obtained in this study provides valuable information on the speciation of this genus that will help to understand its adaptive radiation.

Keywords: Eumerus, Spain, new species, preimaginal morphology, life cycle

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