
The species group of *Eumerus tricolor* (Fabricius, 1798) in the Iberian Peninsula: taxonomy and systematics

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Abstract

The genus *Eumerus* Meigen, 1822 (Eristalinae: Merodontini) comprises 250+ described species worldwide. Within this genus, the *Eumerus tricolor* group is the largest of all those defined so far, and one of the groups with the highest level of morphological similarity. The *E. tricolor* group has 37 described species, of which nine are reported from the Iberian Peninsula. The aims of this work are (1) to update the taxonomic knowledge of the Iberian species of this group and (2) to confirm the validity of putative new species through morphological and molecular data (5' and 3' end regions of the Cytochrome *c* oxidase subunit I). The new species were found to be similar to *Eumerus sabulonum* (Fällen, 1847) and *Eumerus grandis* Meigen, 1822 and collected in southern Spain and Pyrenees, respectively. The systematic position of the new species in the framework of the *E. tricolor* group are assessed and discussed. Other novel taxonomic and faunistic data of species of the *E. tricolor* group from the Iberian Peninsula are provided. This research belongs to the 'Fauna Ibérica' project (PGC2018-095851-A-C65) of the 'Ministerio de Ciencia, Innovación y Universidades', as well as to Pablo Aguado-Aranda's PhD (PRE2019-087508) and to the UATALENTO17-08 of the 'Vicerrectorado de Investigación y Transferencia del Conocimiento' of the University of Alicante.

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