
Diversity of the Iberian *Cheilosia* Meigen (Diptera: Syrphidae), including new taxonomic findings for the genus

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Abstract

The high species diversity and the substantial levels of morphological similarity amongst species determine the great taxonomic complexity in the genus *Cheilosia* Meigen, 1838. With 57 species, *Cheilosia* is the hoverfly genus with the highest species richness in the Iberian Peninsula. Since Gil-Collado's monograph of the Spanish fauna of hoverflies, in 1930, there have not been further general studies dealing with the *Cheilosia* of this geographical region, apart from scattered works describing a few new species and adding distributional data on the faunas of certain peninsular areas. In this framework, the Iberian diversity of *Cheilosia* is currently under scrutiny, based on recent fieldwork in different Spanish ecosystems and revision of major entomological collections in terms of Iberian Syrphidae. We present here an updated overview of the knowledge of the Iberian *Cheilosia*, including the assessment of the validity of two new species, one allied with *Cheilosia melanura* (Becker, 1889) and other with *Cheilosia mutabilis* (Fallén, 1817). Morphology and molecular characters were studied for both species. This research is part of Iván Ballester-Torres' PhD and belongs to the Fauna Ibérica project (PGC2018-095851-A-C65) of the Spanish Ministry of Science, Innovation and Universities, as well as to the UTALENTO17-08 of the "Vicerrectorado de Investigación y Transferencia del Conocimiento", University of Alicante.

Keywords: *Cheilosia*, Iberian Peninsula, *Cheilosia melanura*, *Cheilosia mutabilis*, new species

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