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## The syrphids of Serra do Courel, Northern Spain and description of a new *Cheilosia* Meigen species (Diptera: Syrphidae)

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### Abstract

The syrphids (Syrphidae) of Serra do Courel, a mountainous locality of just over 20,000ha at the west end of the Cantabrian Mountains, northern Spain are poorly known. The Scottish based, Malloch Society visited the locality in May 2012 and collected a total of 462 specimens of 98 syrphid species and 36 genera. These represent the first syrphid records from Serra do Courel. The area has many meadows and small woodlands or ‘soutos’ and these habitats combined were the most productive, 69 spp. recorded. *Cheilosia lucense* Ricarte **sp. nov.** is described from Courel and compared with other species of the *alpina* group. Six other syrphid species were new to the Iberian Peninsula, three of which belong to the saproxylic genus, *Brachyopa*. In common with studies elsewhere in the Cantabrian Mountains, *Cheilosia* was the most diverse genus and 21 species were recorded. The syrphid fauna of the Cantabrian Mountains includes 203 species of which 24 are here added and a species checklist provided.

**Key words:** Iberian Peninsula, Cantabrian Mountains, species checklist, *Cheilosia lucense* **sp. nov.**, male genitalia, meadows

### Introduction

Spain has the greatest species diversity in Europe due to its geographic position, the physical characteristics of the Iberian Peninsula and the long and diverse history of human use (Álvarez-Uría & Zamorano 2007). More than 50% of European endemic animal species occur in Spain. Annually, between 250 and 300 new invertebrate species are described from Spain and over 70% are insects (Moreno *et al.* 2005), indicating that insect biodiversity is far from being worked out.

Syrphids (Diptera: Syrphidae) are one of the better studied insect groups in Europe (Rotheray & Gilbert 2011, Speight 2012). A total of 395 species are recorded from Spain (Ricarte *et al.* 2013). In the last decade many new syrphid species have been discovered in this country (e.g. Marcos-García *et al.* 2007, 2011) or added to the Spanish fauna (e.g. Ricarte & Marcos-García 2010, Ricarte *et al.* 2010, 2013). However, knowledge of regional faunas is patchy. The syrphids of areas such as the western Pyrenees, northern Spain or Cabañeros, central Spain are well studied (Marcos-García 1985a, b, Ricarte & Marcos-García 2008), but those of other areas relevant to biodiversity, such as the Sierra Nevada, southern Spain are still poorly assessed (Marcos-García & Ricarte 2013). Other areas of Spain have been studied for syrphids but incompletely, this is the case for the Cantabrian Mountains which are poorly known at their western end (Marcos-García 1990a, b). Within this part of the Cantabrian Mountains is Serra

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