

First record of *Dolichocheza (Dolichocheza) fuscipes* Bergroth, 1889 (Diptera: Tipulidae) from Minorca, Balearic Islands (Spain)

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Abstract: *Dolichocheza fuscipes* Bergroth, 1889 previously known only from Mallorca, is reported for the first time from Minorca, which extends its known distribution range in the Balearic Islands. Images of *D. fuscipes* are provided, along with a key to separate this species from *Dolichocheza hispanica* Mannheims, 1951, the other species known from Spain and present only in its peninsular part. The site where the species was found is almost unique on the island: Barranc d'Algendar, a canyon with permanent water throughout the year. As in recent years there has been a decline in the island's aquifers due both to overexploitation and an increased in the level of nitrates, the species could be severely affected in the near future along with other insect species included in Red Book of Invertebrates of Spain.

Key words: Diptera, Tipulidae, *Dolichocheza fuscipes*, Spain, Balearic Islands, Minorca, Barranc d'Algendar.

Primer registro de *Dolichocheza (Dolichocheza) fuscipes* Bergroth, 1889 (Diptera: Tipulidae) para Menorca, islas Baleares (España)

Resumen: *Dolichocheza fuscipes* Bergroth, 1889, conocida anteriormente solo de Mallorca, se cita por primera vez para Menorca, aumentando así su rango de distribución conocido en las islas Baleares. Se ofrecen imágenes de *D. fuscipes* y una clave para separar ésta de *Dolichocheza hispanica* Mannheims, 1951, la otra especie conocida de España, citada solo de la Península. El sitio donde se encontró la especie es casi único en la isla: el Barranc d'Algendar, un cañón con agua permanente todo el año. Dado que en los últimos años se ha detectado una disminución de los acuíferos de la isla, por sobreexplotación, y un aumento de los niveles de nitratos en ellos, la especie podría verse gravemente afectada en un futuro próximo, junto a otras especies de insectos incluidas en el Libro Rojo de los Invertebrados Amenazados de España.

Palabras clave: Diptera, Tipulidae, *Dolichocheza fuscipes*, España, islas Baleares, Menorca, Barranc d'Algendar.

Currently the genus *Dolichocheza* Curtis, 1825, is represented in the Palearctic by 37 species and 333 in 11 subgenus around the world (Oosterbroek, 2012). Recently, Oosterbroek & Lantsov, 2011 published a review of the seven Western Palearctic species of the genus, which represent two subgenera: *Dolichocheza* with six species (*D. albipes* (Strom, 1768), *D. bifida* Oosterbroek and Lantsov, 2011, *D. fuscipes* Bergroth, 1889, *D. hirsuticauda* Savchenko, 1968, *D. hispanica* Mannheims, 1951 and *D. nitida* Mik, 1874) and *Oropoza* Needham, 1908 with one species, *D. modesta* (Savchenko, 1980).

During a survey conducted on 6-VI-2006 in Menorca (Balearic Islands, fig. 1) was sampled a male specimen belonging to *D. fuscipes*. The specific location was in the river of Barranc d'Algendar, at Ferreries municipality. The site (fig. 1) was covered by vegetation, creating an environment in the shade with small falls and rapids between mossy rocks.

There are two species reported from Spain, *D. hispanica* known from mainland only and *D. fuscipes*, known until now from Mallorca. *Dolichocheza fuscipes* (fig. 2) can be easily separated from *D. hispanica* since this latter species has no appendage in the middle of male tergite 9. According Oosterbroek & Lantsov, 2011, these species can be separated by the following key:

- Male: Hind margin of tergite 9 without median appendage. Female: Distance between origin of Rs and end of Sc usually half the length of Rs, at most $\frac{2}{3}$ the length of Rs. [Note that there is overlap between *D. hispanica* and *D. fuscipes*]
..... *D. (D.) hispanica*
- Male: Hind margin of tergite 9 with a median appendage (fig. 2B). Female: Distance between origin of Rs and end of Sc usually about as long as Rs but sometimes as short as half the length of Rs *D. (D.) fuscipes*

A subsequent visit to the site in 2008 revealed an almost complete clearing of vegetation in this place, with the loss of coverage on this segment of the river bed. There are few places as Bar-

ranc d'Algendar in Menorca and is currently unknown the presence of *D. fuscipes* in other localities of the island. The Barranc d'Algendar has a total length of 11 km and 32.22 km² basin and ends in Cala Galdana (Enciclopedia Libre, 2008). This type of intrusion into a space so fragile could result in loss of biodiversity, including species whose biology is associated with vegetation along streams and small rivers. From this site have been cited some insect species of interest as the only population of *Coenagrion caerulescens* (Fonscolombe, 1838) (Odonata) in the Balearics (Torralla-Burrial et al, 2011). Apart from the high influx of tourists in the area, other future problems emerge such as the overexploitation of the aquifer of the island and the increasing of the amount of nitrates in them (GOB Menorca, 2007), which undoubtedly affects directly the larval stages of many insect species. Larvae of *Dolichocheza* develop in mosses and liverworts that grow alongside small rivers, ponds, waterfalls, etc., so that the species will be affected as well.

Dolichocheza fuscipes had previously been cited at least from six locations in Mallorca, and up to 700m in altitude (Oosterbroek & Lantsov, 2011). This is the first citation of the species to Menorca, increasing its distribution in the Balearic Islands. It is not yet confirmed their presence in the Iberian Peninsula but has not ruled out this possibility, since the species has been found in southern Italy and mainland Greece.

The data of the specimen are: Barranc d'Algendar, Ferreries, Menorca, Islas Baleares, Spain. 6-VI-2006. J. Mederos and S. Nafria leg. Altitude 10m. Near Cala Galdana, 11:00h *Dolichocheza (Dolichocheza) fuscipes* Bergroth, 1889. Male. P. Oosterbroek det. IV-2011. The specimen is deposited in the author's collection under number N-V14-00071.

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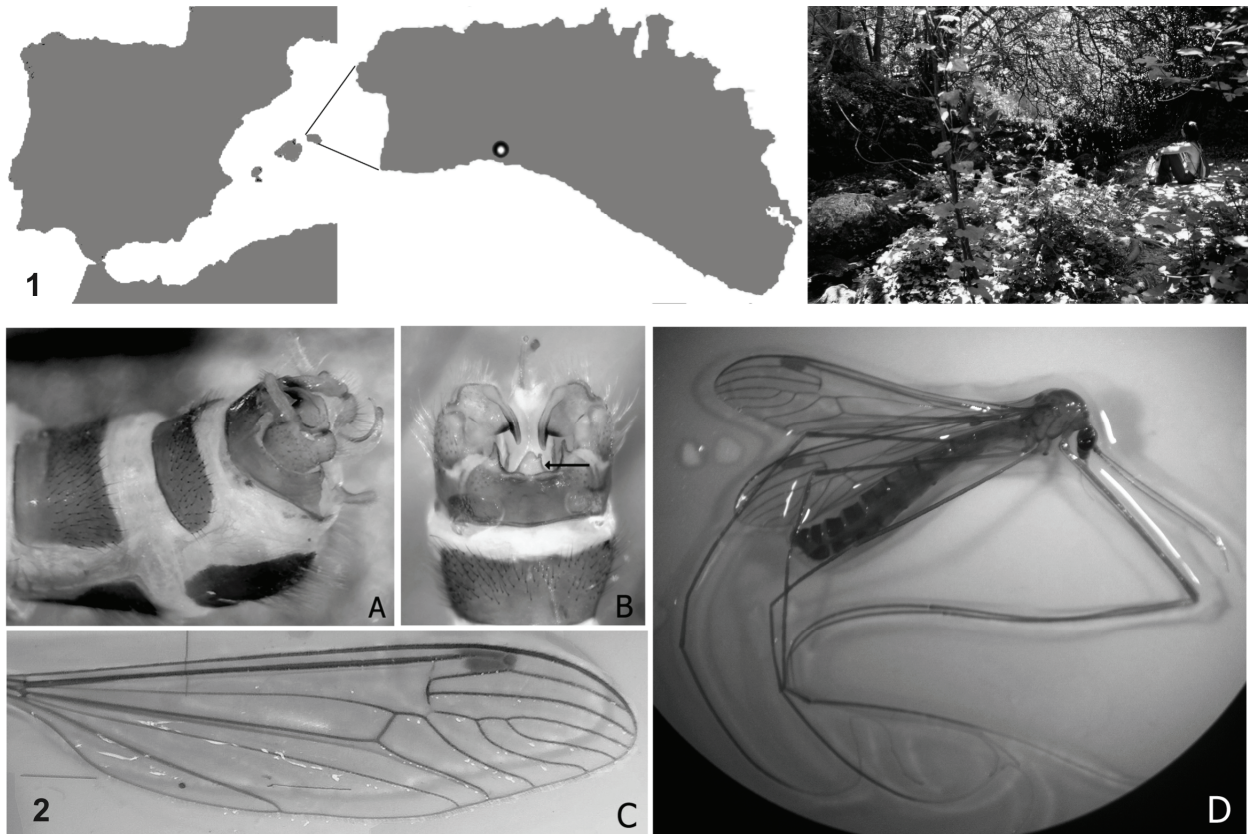


Fig. 1. Location of the Balearic Islands and Menorca (sampling site marked), and an image of the site at the moment of sampling. **Fig. 2.** Male specimen of *Dolichocheza fuscipes* from Menorca: **A.** lateral view of terminalia; **B.** dorsal view showing tergite 9 with a median appendage, **C.** wing venation and **D.** habitus.

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