

New records of the family Chyromyidae (Diptera: Brachycera) for mainland Portugal

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Chyromyidae (Diptera: Brachycera) is a family which includes flies whose size ranges from small to minute, and has a worldwide distribution (the only region from where it is not known is Antarctica). The genus *Gymnochiromyia* Hendel, 1933 is also well distributed, being known from the Nearctic, Palaearctic and the Afrotropical Region (Ebejer, 2008). Species of this genus usually occur in drier habitats, mostly vegetated coastal dunes and marshes, and specimens have been reared from organic detritus in the hollows of trees and some vertebrate nests and burrows. The little that is known about the biology and ecology of Chyromyidae has been summarised (Ebejer, 2009). *Aphaniosoma melitense* Ebejer, 1993 is widespread in Southern Europe and the Mediterranean coast, ranging from Spain and Morocco in the West to Romania, Egypt and Israel in the East (Ebejer, pers.com.).

Chyromyidae was first recorded on the Fauna Europaea database (Ebejer, 2002) as occurring on mainland Portugal. Dr Ebejer informs us (in lit.) that this was based on a specimen of *G. flavella* (Zetterstedt, 1848) that he examined. The specimen, a female, is in the Natural History Museum, London, and bears the data: Portugal, Sao Ramao [sic], 17.VI.1977, B.R. Pitkin & D. Hollis. *Chyromyia flava* (Linnaeus, 1758) was also recently recorded from mainland Portugal (Carles-Tolrá, 2009).

Three more species are here recorded for the first time from mainland Portugal. Two belong to the genus *Gymnochiromyia*, and were collected in dunes in Arcozelo - Vila Nova de Gaia - Portugal (41° 3'11.53"N; 8°39'17.32"W). The specimens are in the personal collection of M.J. Ebejer (UK). All these three species of *Gymnochiromyia* are known from Spain (Carles-Tolrá, 2001). The other species is *Aphaniosoma melitense*, found in Canidelo - Vila Nova de Gaia - Portugal (41° 8'10.12"N; 8°39'43.67"W). This is the first time the genus *Aphaniosoma* Becker, 1903 is recorded for mainland Portugal. The specimens are in the personal collection of the authors.

There are many species described in the genus *Aphaniosoma*. Although the most recent revision of the European fauna is that of Ebejer (1998), more species from Iberia and its islands have been described since (Carles-Tolrá, 2001; Ebejer & Baez, 2001). Therefore, it is expected that several more species will be discovered in Portugal.

***Aphaniosoma melitense* Ebejer, 1993**

Portugal: 1♂, 2♀ Canidelo, Vila Nova de Gaia, 11.IX.2009, captured using sweep netting, leg. R. Andrade; 5♂, 1♀ Canidelo, Vila Nova de Gaia, 22.IX.2009, captured using sweep netting, leg. R. Andrade.

***Gymnochiromyia homobifida* Carles-Tolrá, 2001**

Portugal: 1♂, Arcozelo, Vila Nova de Gaia, 16.VI.2009, captured using yellow water trap, leg. R. Andrade.

***Gymnochiromyia inermis* Collin, 1933**

Portugal: 2♀, Arcozelo, Vila Nova de Gaia, 19.V.2009, captured using yellow water trap, leg. R. Andrade; 1♀, Arcozelo, Vila Nova de Gaia, 22.V.2009, captured using yellow water trap, leg. R. Andrade.

The site at Arcozelo is a small park called "Parque de Dunas da Aguda", which aims to protect the dune species and disseminate knowledge of their ecological importance. Therefore, the site is more protected than the surrounding area, which already suffers from intense human pressure. The vegetation of the dunes where the specimens of *Gymnochiromyia* were collected is composed mainly of the following: *Artemisia crithmifolia*, *Medicago maritima*, *Pancreatium maritimum* and *Helichrysum italicum*. The site at Canidelo is a sandy spit at the mouth of the river Douro. The place is very disturbed by human activity and exotic vegetation.

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