

SHORT COMMUNICATION

New data on hoverflies (Diptera: Syrphidae) from the Azorean island Pico (Portugal)

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INTRODUCTION

The hoverfly fauna of the Azores currently comprises 23 species (Smit 2010), but the current state of knowledge concerning these species differs for each island. In the year 1938, R. Frey and R. Storå recorded the first seven hoverfly species on Pico Island (Frey 1945), and these very same ones were still mentioned by Rojo et al. (1997). Smit (2010) added one more species to this list (Table 1). In the summer of 2014, the author of this article sampled hoverflies on Pico Island in several habitats. In this paper, the results will be presented.

MATERIAL & METHODS

Hoverflies were collected on several days between 23 June and 4 July 2014. The flies were caught by net and sacrificed by toxic exposure to chopped cherry laurel (*Prunus laurocerasus*). Specimens were stored in the collection of the author. The nomenclature used follows the checklist of Smit (2010).

RESULTS

Altogether 11 species were collected:
Episyrphus balteatus (De Geer, 1776)

Prainha: 2♀ (23 June 2014), Prainha de Cima, 1 km SW: >100 (27 June 2014), Calheta de Nesquim, 1 km N: >100 (28 June 2014), Arrife, 2 km N: 1♀ (02 July 2014), Cabeço das Cabras: >100 (03 July 2014), Silveira, Hotel Aldeia da Fonte: >30 (04 July 2014).

Eristalis arbustorum (Linnaeus, 1758)

Calheta de Nesquim, 1 km N: 1♀ (28 June 2014), Prainha: 4♂♂ (23 June 2014). Reported for the first time from Pico Island

Eristalis tenax (Linnaeus, 1758)

Arrife, 2 km N: 1♂ 1♀ (02 July 2014), Calheta de Nesquim, 1 km N: 2♀♀ (28 June 2014), Prainha de Cima, 1 km SW: 1♂ (27 June 2014), Prainha: 2♂♂ (23 June 2014), Silveira, Hotel Aldeia da Fonte: 1♂ (04 July 2014).

Eupeodes corollae (Fabricius, 1794)

Arrife, 2 km N: 1♂ 1♀ (02 July 2014), Calheta de Nesquim, 1 km N: 1♂ (28 June 2014), Lajes do Pico, harbour: 1♂ (04 July 2014), Prainha: 1♂ (23 June 2014)

Meliscaeva auricollis (Meigen, 1822) (Fig. 1)

Prainha de Cima, 1 km SW: 2♀♀ (27 June 2014)

Myathropa florea (Linnaeus, 1758)

Prainha: 1♂ (23 June 2014). Reported for the first time from Pico Island



Fig. 1. (left) *Meliscaeva auricollis* (Meigen, 1822). Male, (right) the endemic *Sphaerophoria nigra* Frey, 1945. Male (both on 27 June 2014, Prainha de Cima).

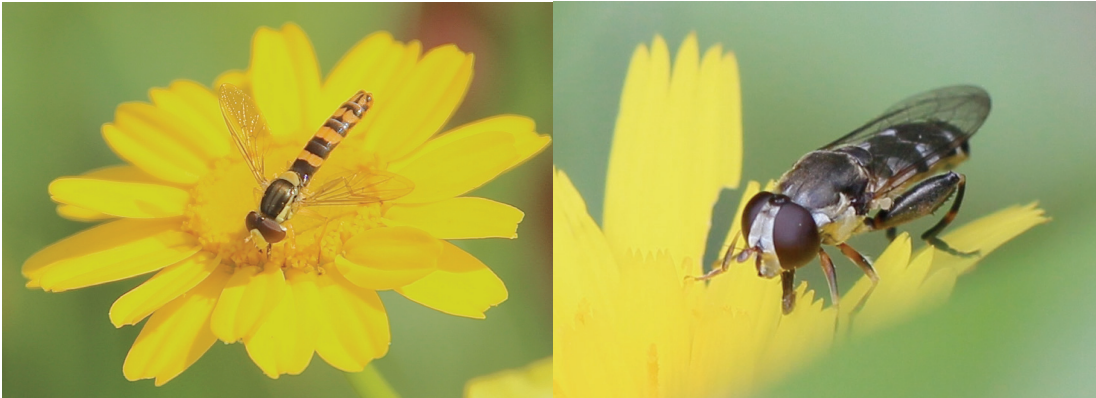


Fig. 2 (left) *Sphaerophoria scripta* (Linnaeus, 1758). Male (28 June 2014, Calheta de Nesquim); (right) *Syritta pipiens* (Linnaeus, 1758). Female (27 June 2014, Prainha de Cima).

Sphaerophoria nigra Frey, 1945 (Fig. 1)
Arrife, 2 km N: 2♂♂ (02 July 2014), Prainha de Cima, 1 km SW: 3♂♂ (27 June 2014).

Sphaerophoria scripta (Linnaeus, 1758) (Fig. 2)
Arrife, 2 km N: 2♂♂ (02 July 2014), Cabeço das Cabras: 2♂♂ (03 July 2014), Calheta de Nesquim, 1 km N: >100♂♂ (28 June 2014), Lajes do Pico, harbour: >50♂♂ (04 July 2014), Prainha de Cima, 1 km SW: 30♂♂ (27 June 2014), Prainha: 2♂♂ (23 June 2014), Silveira, Hotel Aldeia da Fonte: 2♂♂ (04 July 2014).

Syritta pipiens (Linnaeus, 1758) (Fig. 2)
Arrife, 2 km N: 1♀ (02 July 2014), Cabeço das

Cabras: 1♂ (03 July 2014), Calheta de Nesquim, 1 km N: 1♂ 1♀ (28 June 2014), Lajes do Pico, harbour: 2♂♂ (04 July 2014), Prainha de Cima, 1 km SW: 2♂ 1♀ (27 June 2014), Prainha: 2♂♂ (23 June 2014), Silveira, Hotel Aldeia da Fonte: 1♂ (04 July 2014).

Xanthandrus azorensis Frey, 1945
Arrife, 2 km N: 2♂♂ (02 July 2014)

Xylota segnis (Linnaeus, 1758)
Prainha de Cima, 1 km SW: 1♂ 2♀♀ (27 June 2014). Reported for the first time from Pico Island.

Table 1. History of the Pico Island hoverflies checklist and a comparison to the fauna of the Azores. * New record for Pico Island.

Species	Pico Frey	Pico Smit	Pico This study	Azores Smit
<i>Baccha elongata</i> (Fabricius, 1775)				x
<i>Chryxotoxum intermedium</i> (Meigen, 1822)				x
<i>Episyrphus balteatus</i> (De Geer, 1776)	x	x	x	x
<i>Eristalinus aeneus</i> (Scopoli, 1763)				x
<i>Eristalis arbostorum</i> * (Linnaeus, 1758)			x	x
<i>Eristalis tenax</i> (Linnaeus, 1758)	x	x	x	x
<i>Eumerus amoenus</i> (Loew, 1848)				x
<i>Eumerus strigatus</i> (Fallén, 1817)				x
<i>Eupeodes corollae</i> (Fabricius, 1794)	x	x	x	x
<i>Melanostoma mellinum</i> (Linnaeus, 1758)				x
<i>Meliscaeva auricollis</i> (Meigen, 1822)	x	x	x	x
<i>Myathropa florea</i> * (Linnaeus, 1758)			x	x
<i>Platycheirus albimanus</i> (Fabricius, 1781)				x
<i>Platycheirus rosarum</i> (Fabricius, 1787)				x
<i>Sphaerophoria nigra</i> Frey, 1945	x	x	x	x
<i>Sphaerophoria philanthus</i> (Meigen, 1822)				x
<i>Sphaerophoria rueppellii</i> (Wiedemann, 1830)				x
<i>Sphaerophoria scripta</i> (Linnaeus, 1758)	x	x	x	x
<i>Syrirta pipiens</i> (Linnaeus, 1758)		x	x	x
<i>Syrphus ribesii</i> (Linnaeus, 1758)				x
<i>Xanthandrus azurensis</i> Frey, 1945	x	x	x	x
<i>Xanthandrus comtus</i> (Harris, 1776)				x
<i>Xylota segnis</i> * (Linnaeus, 1758)			x	x
Total number	7	8	11	23

DISCUSSION

With addition of the three new records, the checklist for Pico Island currently includes 11 species, two of which are classified as endemic to this island: *Sphaerophoria nigra* and *Xanthandrus azurensis*. These were described by Frey (1945). Thus, the numbers correspond to approximately 48% of all known hoverfly species from Azores (see Smit 2010). In accordance with Rojo et al. (1997), *Sphaerophoria scripta* (females in particular) is the most common hoverfly. Overall, however, the occurrence of all species does not reach the amount sometimes reported from continental Europe. Most insects were observed in flower-filled meadows and lanes, almost exclusively on yellow flowers of the family Compositae. White Umbelliferae (in particular *Daucus carota*) were visited far less frequently. Only *Sphaerophoria*

scripta and *Eristalis tenax* were observed there. Another important food plant was parsley (*Petroselinum crispum*), particularly in villages (visited by *Episyrphus balteatus*, *Eristalis arbostorum*, *Eristalis tenax*, *Eupeodes corollae*, *Sphaerophoria scripta*, *Syrirta pipiens*). In one case, *E. corollae* and *S. scripta* were observed laying eggs in aphid colonies present on marigolds (*Calendula officinalis*).

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