

NOTA / NOTE

Symphorobius Banks, 1904, a new hemerobid genus for the Azorean archipelago (Neuroptera: Hemerobiidae).Agostino Letardi¹, Nuno Bicudo da Ponte² & Paulo A.V. Borges³¹ ENEA, C.R. Casaccia, UTAGRI ECO, Via Anguillarese 301, IT-00123, Roma (ITALY). e-mail: agostino.letardi@enea.it² Ponta Delgada, São Miguel, Açores (PORTUGAL). e-mail: bikudo10@gmail.com³ cE3c - Centre for Ecology, Evolution and Environmental Changes / Azorean Biodiversity Group and Universidade dos Açores - Departamento de Ciências Agrárias, Rua Capitão João d'Ávila, Pico da Urze 9700-042 Angra do Heroísmo, Terceira, Açores (PORTUGAL).

Abstract: *Symphorobius* Banks, 1904 (Neuroptera: Hemerobiidae) is recorded for the first time for the Azorean archipelago. The Azorean Neuroptera fauna is now composed by eight species and five genera belonging to two families.

Key words: Neuroptera, Hemerobiidae, *Symphorobius*, Portugal, Açores, faunistics, new record.

Resumo: *Symphorobius* Banks, 1904, um novo género de hemeróbidos para o arquipélago dos Açores (Neuroptera: Hemerobiidae). É apresentado nesta nota o primeiro registo do género *Symphorobius* Banks, 1904 (Neuroptera: Hemerobiidae) para os Açores. A fauna de Neuroptera dos Açores é agora composta por oito espécies, cinco géneros e duas famílias.

Palavras-chave: Neuroptera, Hemerobiidae, *Symphorobius*, Portugal, Açores, faunística, novo registo.

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The neuropterological fauna of the Azorean archipelago is particularly poor and simple: only seven species and four genera belonging to two families (Chrysopidae and Hemerobiidae) are reported for the Azores by Ventura (2010) (see also the *Azorean Biodiversity Portal* at <http://www.azoresbioportal.angra.uac.pt>) and in the *Fauna Europaea* database (http://www.faunaeur.org/species_list.php) (Aspöck et al., 2015).

Due to the young geological age and the geographical isolation of the Azores, there is a general low diversity in the indigenous arthropod fauna and lacewings are not an exception (Ventura et al., 2007). The low biodiversity and the strong influence of anthropogenic impact have probably contributed to a greater susceptibility to human introductions, mostly from European countries from where most of the inhabitants of the archipelago come (Borges et al., 2013). Almost all the lacewings fauna of the Azores has an European origin (Aspöck et al., 2001) and the only endemic species (*Hemerobius azoricus* Tjeder, 1948) shows clear affinity to species inhabiting Madeira and Canary islands (Ohm, 1973), supporting the hypothesis of a biogeographical link between the Azores and the other mid-Atlantic islands and a colonization route from Europe to Azores through mid-Atlantic islands. But the allochthonous colonization is an ongoing process, so the detection of other species of lacewings in Azores can be expected.

At the beginning of 2015, a couple of brown lacewing specimens have been collected in São Miguel, the largest and most human populated Azorean island. One is the quite common and widespread *Micromus angulatus* (Stephens, 1836), a species mainly found on low vegetation such as grass and herbs, but that can also move into shrubs and deciduous trees. Like other lacewings, it hibernates as an imago

and is able to develop in mass. *M. angulatus* is probably the most important predator of aphids among the Hemerobiidae on crops such as maize and wheat as well as in orchards. There are at least two generations each year but possibly up to five; imagines can be singly found throughout the whole year, with highest abundances in August and September (Stelzl & Devetak, 1999). The other specimen belongs to the genus *Symphorobius* Banks, 1904, which is reported for the Azorean archipelago for the first time (Table 1).

Materials

Micromus angulatus (Stephens, 1836)

PT, Ponta Delgada, São Miguel, Açores, 08.III.2015, Nuno Bicudo da Ponte legit, in his home garden with a few plants, mostly *Passiflora molissima*, 1♀ (A. Letardi det.; "Dalberto Teixeira Pombo" Collection, University of the Azores, Terceira, Portugal).

Symphorobius sp.

PT, Ponta Delgada, São Miguel, Açores, 18.I.2015, Nuno Bicudo da Ponte legit, in his home garden with a few plants, mostly *Passiflora molissima*, 1♂ (A. Letardi det.; "Dalberto Teixeira Pombo" Collection, University of the Azores, Terceira, Portugal).

Discussion

The brown lacewing collected on January in Ponta Delgada belongs with no doubt to genus *Symphorobius* (see forewing in Fig. 1). More than one hundred species have been described within this genus (Oswald, 2013), but this group of brown lacewings has to be deeply revised. The specimen collected is a male but unfortunately its general condition is really bad (antennae are lost and specimen is now preserved in alcohol but probably after a dried desiccation). Nevertheless it does not belong to any indigenous European

species. Recently, some brown lacewing species have colonized the Iberian Peninsula from South America (Monserrat et al., 2013); one of these, *Symphorobius gayi* Navás, 1910, a widespread species in southern South America recently introduced in Nigeria, Portugal and Easter Island, seems very similar to the specimen collected in the Azores (Monserrat, pers. com.). Further potential captures of other specimens of this brown lacewing should specify the exact specific determination of this taxon, nevertheless present finding corroborates the remark that Ponta Delgada is not only the principal port of entry for goods and people arriving in the Azores but also for allochthonous fauna.

Acknowledgements

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Fig. 1. - Forewing of *Symphorobius* sp.



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Table 1. - Distribution of Neuroptera in the islands of the Azorean archipelago (Island abbreviations as follows: az - Azores; cor - Corvo; flo - Flores; gra - Graciosa; ter - Terceira; pic - Pico; sjg - São Jorge; fai - Faial; smg - São Miguel; smr - Santa Maria).

	az	cor	flo	gra	ter	pic	sjg	fai	smg	smr
<i>Chrysoperla agilis</i> Henry, Brooks, Duelli & Johnson, 2003	X	X	X	X	X	X	X	X	X	X
<i>Chrysoperla lucasina</i> (Lacroix, 1912)	X	X	X	X	X	X	X	X	X	X
<i>Hemerobius azoricus</i> Tjeder, 1948	X		X	X	X	X	X	X	X	X
<i>Hemerobius humulinus</i> Linnaeus, 1758	X		X		X	X	X	X	X	
<i>Hemerobius stigma</i> Stephens, 1836	X				X				X	
<i>Micromus angulatus</i> (Stephens, 1836)	X				X	X		X	X	X
<i>Wesmaelius subnebulosus</i> (Stephens, 1836)	X				X	X	X	X	X	
<i>Symphorobius</i> sp.									X	