

NOTA / NOTE

Fibla (Fibla) hesperica Navás, 1915 (Raphidioptera, Inocelliidae)
in Portugal

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Abstract: This paper reviews the knowledge on the snakefly *Fibla (Fibla) hesperica* Navás, 1915 (Raphidioptera, Inocelliidae) in Portugal. The dataset obtained comprises two previous records from literature, four unpublished records from the period 1996-1999 and four additional records from the period 2008-2021 retrieved from the online platform BioDiversity4All. The known distribution of *Fibla (Fibla) hesperica* in Portugal is significantly improved, with northern and southern extensions, by means of three new districts added to the two previously known and the first localities within a Nature Reserve and two Natura 2000 sites.

Key words: Raphidioptera, Inocelliidae, *Fibla (Fibla) hesperica*, distribution, Portugal.

Resumen: *Fibla (Fibla) hesperica* Navás, 1915 (Raphidioptera, Inocelliidae) en Portugal. En este estudio se presenta una revisión del conocimiento sobre el rafidióptero *Fibla (Fibla) hesperica* Navás, 1915 (Raphidioptera, Inocelliidae) en Portugal. La información obtenida incluye dos registros bibliográficos previos, cuatro nuevos registros del periodo 1996-1999 y cuatro registros adicionales del periodo 2008-2021 obtenidos de la plataforma online BioDiversity4All. La distribución conocida de *Fibla (Fibla) hesperica* en Portugal se amplía significativamente hacia el norte y el sur, gracias a tres nuevos distritos que se suman a los dos previamente conocidos y las primeras localidades en un Parque Natural y dos sitios Natura 2000.

Palabras clave: Raphidioptera, Inocelliidae, *Fibla (Fibla) hesperica*, distribución, Portugal.

Recibido: 7 de septiembre de 2021

Aceptado: 9 de septiembre de 2021

Publicado on-line: 18 de septiembre de 2021

Fibla (Fibla) hesperica Navás, 1915 (Raphidioptera, Inocelliidae) is a snakefly species described from São Fiel (Castelo Branco, Portugal) by NAVÁS (1915). It is the only species of Inocelliidae known to occur in the country since an earlier record of *Fibla (Fibla) maclachlani* (Albarda, 1891) from the same locality (NAVÁS, 1908, as "*Inocellia Mac Lachlani* Albarda.") that in fact pertains to *Fibla (Fibla) hesperica* (cf. NAVÁS, 1915: 478).

Although a century has elapsed since its description, and despite a recent and very relevant contribution to the study of the Neuropterida of Portugal (OLIVEIRA *et al.*, 2021), in which the species is not featured, the known Portuguese distribution of this Iberian endemic remains limited to the type locality (NAVÁS, 1915, 1928) and a single additional one (Lisboa: Azambuja: Mata das Virtudes), from where it was recorded over 80 years ago (SEABRA, 1939). Quite the reverse occurs in Spain, where the number of records is substantially higher, with records that span most of the country with the notable exception of the north-western quadrant (cf. MONSERRAT & TRIVIÑO, 2013: Map 19 and MONSERRAT & PAPENBERG, 2015: fig. 171). The only addition to the data summarised in these two studies a record from the south-westernmost province of Huelva (GONZÁLEZ-MOLINÉ, 2019).

This study presents new Portuguese records of the species obtained between 1996 and 1999 (i.e., roughly 60 years after the latest record from the country). Additionally, the online platform

BioDiversity4All (<https://www.biodiversity4all.org>) was searched for Portuguese records of *Fibla (Fibla) hesperica* and the taxonomic identity of the four records retrieved (detailed below) was verified.

Map 1 summarizes the known Portuguese (district level) and Spanish (province level) distribution ranges, in the latter case exclusively from literature compilation. The new districts are marked with an asterisk (*) in the "Material Examined" and "BioDiversity4All Portuguese records" sections.

Material examined

Castelo Branco district:

- Covilhã municipality:
 - Ponte do Isidro (Serra da Estrela Natural Park and "PTCON0014 Serra da Estrela" Natura 2000 site) (40.256276, -7.700003, 803 m a.s.l., 29TPE15), 08/10/1998 (1 ♂; larva collected under bark of *Eucalyptus globulus* Labill.; the date of pupation and adult emergence was not recorded).
- Idanha-a-Nova municipality:
 - Rosmaninhal (39.733041, -7.079282, 363 m a.s.l., 29SPD69), 13/03/1999 (1 ♀).

*Guarda district:

- Vila Nova de Foz Côa municipality:
 - Almendra (40.998111, -7.060341, 459 m a.s.l., 29TPF64), 24/11/1997 (1 ♀, MHNCUP/ART/37745; larva collected under bark of *Eucalyptus globulus* Labill., pupa in 25/01/1998 and adult emergence in 15/02/1998).
 - Near Almendra train station, on the left bank on the river Douro ("PTCON0022 Douro Internacional" Natura 2000 site) (41.035520, -7.002870, 137 m a.s.l., 29TPF64), 11/04/1996 (1 ♀).

BioDiversity4All Portuguese records

*Évora district:

- Montemor-o-Novo municipality:
 - Monte do Padre (38.636751, -8.233511, 218 m a.s.l., 29SNC67), 18/03/2019 (1 ♀) (Ivo Rosa, url: <https://www.biodiversity4all.org/observations/21362082>).

*Faro district:

- Faro municipality:
 - Faro (city) (37.024946, -7.927558, 17 m a.s.l., 29SNA99), 07/03/2008 (1 ♂) (Valter Jacinto, url: <https://www.biodiversity4all.org/observations/18984570>).
- São Brás de Alportel municipality:
 - Near Farrobo (37.166355, -7.911041, 295 m a.s.l., 29SNB91), 06/04/2021 (1 ♀) (Patrícia Nascimento, url: <https://www.biodiversity4all.org/observations/73303603>).

*Guarda district:

- Guarda municipality:
 - Quinta da Portela (Parque Natural da Serra da Estrela and "PTCON0014 Serra da Estrela" Natura 2000 site) (40.5592, -7.3169, 577 m a.s.l., 29TPE49), 17/05/2018 (1 ♀) (Marcel Hospers, url: <https://www.biodiversity4all.org/observations/52805041>).

Comments

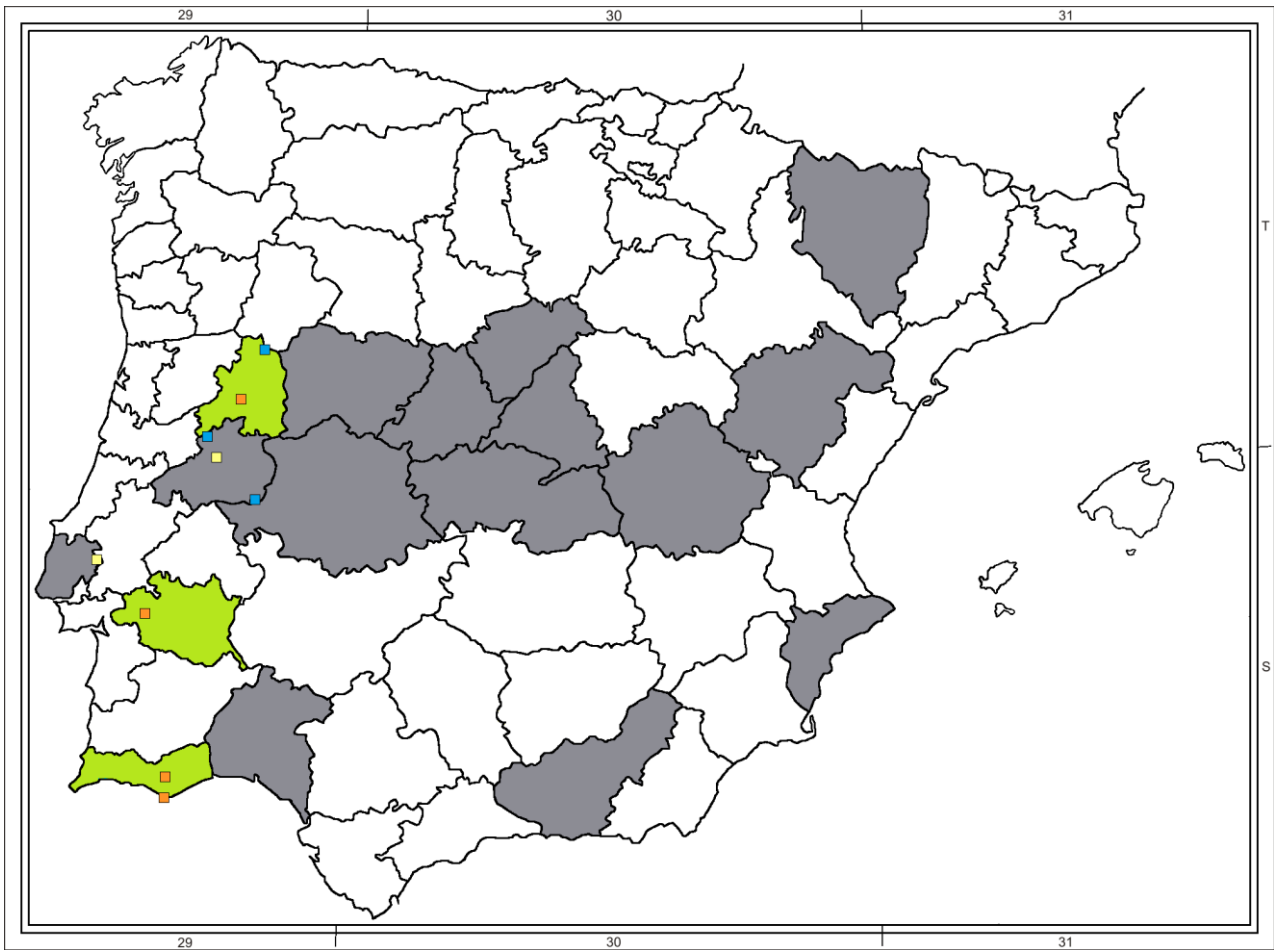
The new data presented in this study and the records retrieved from the online platform BioDiversity4All (eight specimens in total), significantly improve the known distribution of *Fibla* (*Fibla*) *hesperica* in Portugal, as shown in Map 1. In this respect, we highlight several improvements:

- (1) Three new districts (Évora, Faro, and Guarda) were added to the two previously known (Castelo Branco and Lisbon);
- (2) The first localities within a Nature Reserve (Serra da Estrela Natural Park) and two Natura 2000 sites (PTCON0014 Serra da Estrela and PTCON0022 Douro Internacional);
- (3) The northern and southern extensions of the distribution, provided by the records from Vila Nova de Foz Côa municipality and from the Évora and Faro districts, respectively.

The localities of the eight specimens provide an altitudinal range in the country that extends from the sea level (17 m in Faro) to 803 m in Ponte do Isidro (Covilhã). The adult phenology derived from this dataset is concentrated in the spring months, the earliest observations occurring in March and the latest in May.

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Map 1. - Iberian distribution of *Fibla (Fibla) hesperica* Navás, 1915, with the previously known Portuguese districts and Spanish provinces (in grey), the new Portuguese districts (in green), and the MGRS 10x10 km squares of the collecting/observation sites in Portugal (material examined sites in blue, Biodiversity4All records in orange, literature sites in yellow).