

# First record of *Cnephidia serraticornella* (Zeller, 1839) in the Iberian Peninsula (Lepidoptera: Pyralidae, Phycitinae)

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## Abstract

The presence of *Cnephidia serraticornella* (Zeller, 1839) in the Iberian Peninsula is confirmed through a single specimen collected in El Hondo Natural Park to the south of the Alicante province (Spain). This species was found in the lepidopteran collection of Dr J. A. de la Calle kept at the Department of Zoology in Murcia University.

**Keywords:** Lepidoptera, Pyralidae, Phycitinae, *Cnephidia serraticornella*, species distribution, collection review, Alicante, Spain.

## Primera cita de *Cnephidia serraticornella* (Zeller, 1839) en la Península Ibérica (Lepidoptera: Pyralidae, Phycitinae)

## Resumen

Se constata la presencia de la especie *Cnephidia serraticornella* (Zeller, 1839) en la Península Ibérica mediante un único ejemplar capturado en el Parque Natural El Hondo, localizado al sur de la provincia de Alicante (España). Este espécimen se encontraba en la colección lepidopterológica del Dr. J. A. de la Calle depositada en el Departamento de Zoología de la Universidad de Murcia.

**Palabras clave:** Lepidoptera, Pyralidae, Phycitinae, *Cnephidia serraticornella*, distribución, revisión de colección, Alicante, España.

## Introduction

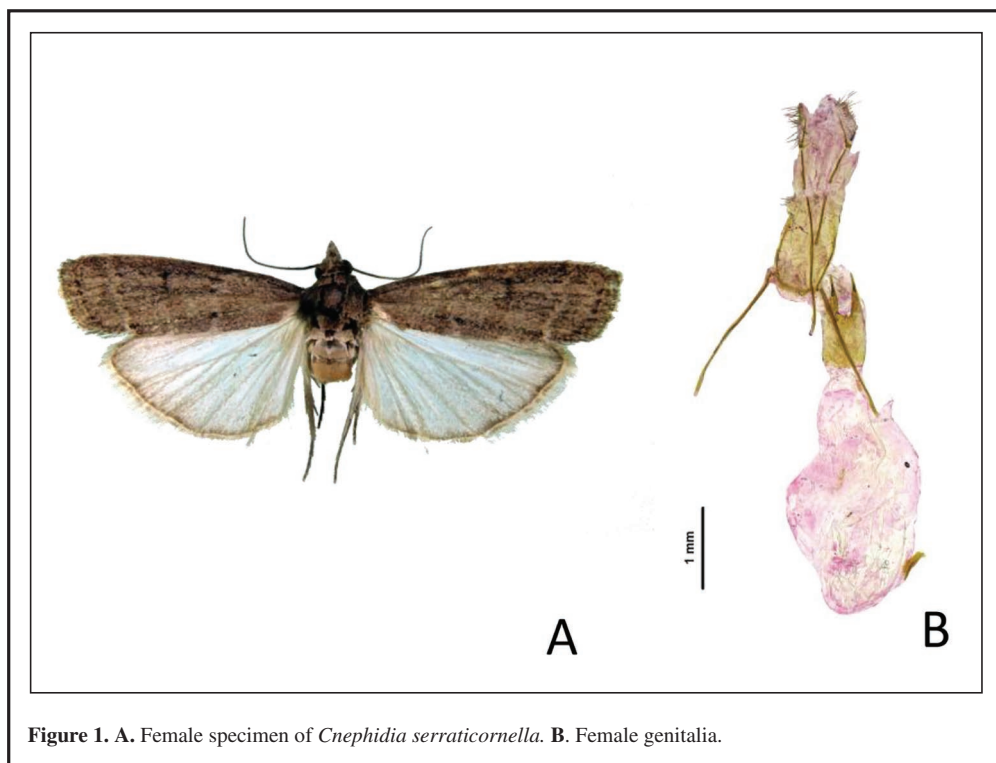
During recent studies carried out in the Noctuidae collection of Dr. José A. de la Calle, one specimen belonging to the genus *Cnephidia* Ragonot, 1893 was found.

In Europe, approximately 444 species belonging to the subfamily Phycitinae Zeller, 1839 are known of which 218 have been cited in the Iberian Peninsula (Vives Moreno 2014). *Cnephidia serraticornella* was described by Zeller (1839) as *Nephtopteryx serraticornella*, probably from southern Europe. The species has been assigned to different genera such as *Serrulacera* Amsel, 1955 (Amsel 1955), *Insalebria* Filipjev, 1924 (Leraut, 2014), and later, Slamka (2019) transferred it to the genus *Cnephidia* Ragonot, 1893. The nominal subspecies is distributed throughout the Balkan Peninsula, Slovakia, Hungary, Ukraine, Russia, Turkey, Syria, Iran, and part of Central Asia (Leraut 2014; Slamka 2019), while *C. serraticornella rungsella* (Lucas, 1942) is distributed in Morocco and *C. serraticornella kaiouanensis* (Leraut, 2003) in Algeria and Tunisia (Leraut 2014; Slamka 2019).

In this paper, we recorded the first locality in the Iberian Peninsula providing its habitat features in southwestern Europe.

## Material and Methods

The specimen was examined externally to evaluate possible differences in its coloration and wing shape and was dissected using standard procedures (Hausmann 2001) with minor modifications. The female adult image (Figure 1A) was taken with a Nikon D70 digital camera and z-stacked using the software Zerene. Female morphology of genital structures (Figure 1B) was studied using a Zeiss Stemi 508 stereomicroscope with a Zeiss Axiocam ICc5 digital camera. The specimen is deposited in the Research Collection of Animal Biology (RCBA-UMU) in the Department of Zoology and Physical Anthropology of Universidad de Murcia (Spain) where the lepidopteran collection of Dr J. A. de la Calle is stored.



**Figure 1.** A. Female specimen of *Cnephidia serraticornella*. B. Female genitalia.

## Results and Discussion

Specimen examined labeled as: SPAIN, Alicante, Elche, P.[antano] del Hondo, 5 m, 30SXH92, 1 ♀, 27-IX-1983, leg. J. A. de la Calle.

The wing pattern and morphology of the female genitalia of the specimen collected in the Alicante province match that illustrated in Leraut (2014) and Slamka (2019) (Figure 1). Female wingspan 28 mm. Forewings are beige, and lines and spots are barely visible. Antemedial line poorly defined, lighter than the background color and marked with two darker points. Postmedial line is also inconspicuous and serrated. Spots are dark, although poorly differentiated. Hindwings are whitish.

The specimen is differentiated from the subspecies *C. serraticornella rungsella* which is characterized by the bright orange-brown forewings, while that is similar to the subspecies *C.*

*serraticornella kairouanensis* that has light buff-brown forewings. However, Slamka (2019) considers these subspecies as forms of the typonominal species.

The specimen has been identified with a label that reads “Elche 8 km cerca del P.[antano] del Hondo, Alicante, 27-9-1983” (“Elche 8 km near the lagoon of El Hondo, Alicante, 9-27-1983”). After 40 years since its capture, it has not been possible to accurately determine the sampling station, although the surroundings of the lagoon are characterized by the presence of open spaces that are dry enough for the installation of the 125W mercury vapor lamp with which Dr. de la Calle usually worked. In the same entomological box, a female of the crambid *Agriphila tersella* (Lederer, 1855) labeled from the same locality was found. This species is known to fly in saline areas (Slamka 2008; Leraut 2012) like those surrounding the study area.

The El Hondo Natural Park, in the municipality of Elche, is located in the Bajo Vinalopó region in the south of the province of Alicante. The original wetland of the El Hondo lagoon occupied an alluvial plain into which the Vinalopó River and all the surrounding ravines flow, forming a large swampy area isolated from the Mediterranean Sea. In the 1940s, this wetland was converted into a regulatory reservoir to serve the extensive agricultural areas that surround it. The vegetation that colonizes the El Hondo lagoon is conditioned by the humidity and salinity of the soil. The permanent bodies of water, fresh or brackish, occupy a significant area of the park and are bordered by large expanses of reeds (*Phragmites australis* (Cav.) Trin. and *Bolboschoenus maritimus* (L.) Palla) and cattails (*Typha* spp.). The halophilic communities that thrive in soils with high concentrations of salt, highlighting the plants of the genera *Suaeda*, *Salicornia*, *Halocnemom*, *Polygonum*, *Limonium*, etc. are also important. The plant mosaic is completed, but with a residual character, by hygrophilous meadows, wastelands, reed beds of *Arundo donax* L. and introduced tree species such as palm (*Phoenix* sp.) and eucalyptus (*Eucalyptus* sp.).

The immature stages are unknown, and imagoes have been captured in steppe habitats flying between the months of March and September (Slamka 2019).

The study area has been sampled on the dates on which the specimen was captured without success, so it is not possible to offer information on the current situation of the species in study area.

## Acknowledgements

To Dr José A. de la Calle for allowing us to study his entomological collection. This work has been funded by the Séneca Foundation (Ref. 19908/GERM/15) of the Autonomous Community of the Region of Murcia.

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(Recibido para publicación / *Received for publication 25-X-2023*)

(Revisado y aceptado / *Revised and accepted 20-XII-2023*)

(Publicado / *Published 30-IX-2024*)

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