Borkhausenia crimnodes Meyrick, 1912 (Lepidoptera, Oecophoridae), a new species for Cantabria and Spain

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Abstract

After the discovery of this species in central Portugal in 2012, the first sighting in Spain was made in the summer of 2024 in San Pedro de Rudagüera (Cantabria, northern Spain). Its possible relationship with the importation of wood from the Southern Hemisphere (where the species originates) makes this sighting a new approach to its distribution in the Iberian Peninsula.
Key words: Lepidoptera, Oecophoridae, Cantabria, Spain.

Resumen

Tras descubrirse ésta especie en el centro de Portugal en 2012, se da la primicia de su avistamiento en el verano de 2024 en San Pedro de Rudagüera (Cantabria, norte de España). Su posible relación con la importación de madera del Hemisferio Sur (de donde es originaria la especie) hace de éste avistamiento un enfoque nuevo relativo a su distribución en la Península Ibérica.
Palabras clave: Lepidoptera, Oecophoridae, Cantabria, España.

Introduction

In this contribution to the knowledge of the Lepidoptera of Cantabria, we present a new species for the Cantabrian and Spanish fauna with allochthonous characteristics, namely *Borkhausenia crimnodes* Meyrick, 1912. Identification was confirmed from Corley et al. (2017) which figures the genitalia dissection of a male *B. crimnodes* found at a site in Beira Litoral and the photograph of this specimen. The first Portuguese specimens were found in five different localities in central-western Portugal (Beira Litoral), not far from two local paper mills. The species appears to be slowly expanding northwards and has recently been located in the vicinity of Porto (Corley *et al*., 2024). Following thorough taxonomic, morphological, genitalic and genetic (DNA barcoding) comparisons it was concluded that the specimens found in Portugal were probably imported from South Africa or South America. Although the family Oecophoridae is very strongly represented in Australia, origin from that country was considered unlikely.

The only male specimen found and studied in Cantabria (Fig. 1) coincides in its morphological and genitalia characters (Fig. 2) with its counterparts from different parts of the Southern Hemisphere and Portugal where the species is located.

Material and methods

The specimen was captured by sweeping the vegetation with an entomological net on 26.viii.2024 in a field of wet grassland in a terraced area, where cattle graze regularly. The field is surrounded by a small mixed copse of *Quercus robur* L. and *Quercus ilex* L., as well as other species such as: *Ilex aquifolium* L., *Laurus nobilis* L., *Sambucus nigra* L., *Castanea sativa* Mill., etc., which in turn is surrounded by extensive Eucalyptus plantations.

Genitalia dissection was performed using the standard procedure of maceration of the abdomen in potassium hydroxide. Microscopy and macrophotographic images were taken with a Leica camera and enhanced with a photographic programme and are deposited with the specimen in the authors' private collection. At the time of writing, presumably all the literature concerning this species in Cantabria has been consulted, but no results have been obtained. The geographical coordinates are given in the MGRS system, datum WGS84.

Abbreviations

Fig Images and maps depicted in the text.
mm millimetres.

Results

Figure 1. Male *Borkhausenia crimnodes* Meyrick, 1912, San Pedro de Rudagüera, 26.viii.2024.

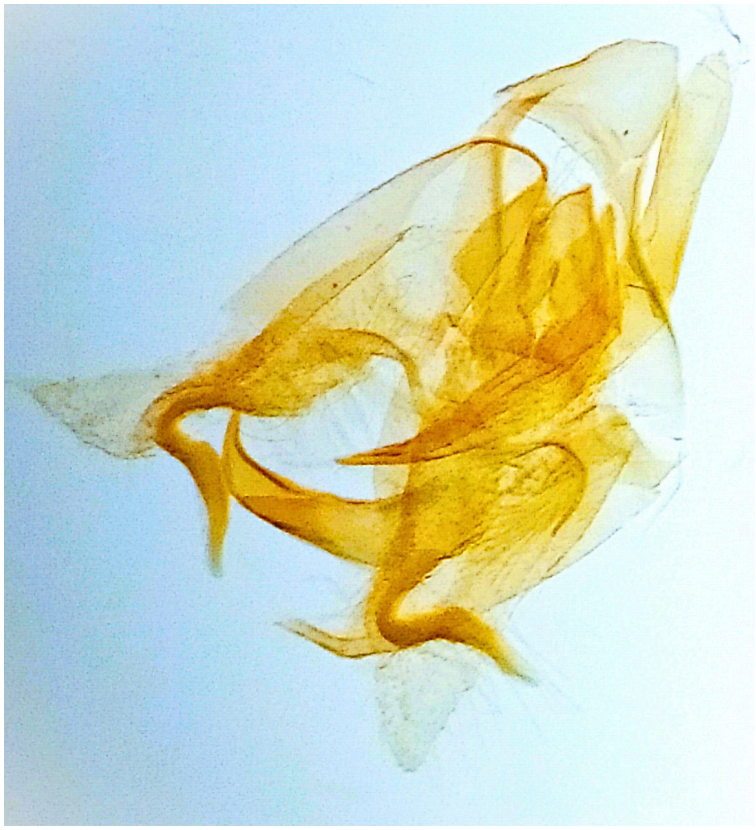

Figure 2. *Borkhausenia crimnodes* Meyrick, 1912, male genitalia, San Pedro de Rudagüera, 26.viii.2024.

Bionomics

In Corley *et al*. (2017) it is stated: 'The larval food of *B. crimnodes* is unknown, but is likely to be some form of dried plant matter or fungi'.

Habitus

The wingspan of Portuguese specimens is between 9 and 13 mm. In the case of the Rudagüera specimen it is 13 mm.

Discussion

The capture of a male specimen of this species in a site near the coast of Cantabria in northern Spain (San Pedro de Rudagüera, 30TVP0602) raises the question as to whether the species has managed to spread from Portugal, which appears unlikely as it has not been located in intermediate places, and the new locality is very distant from the location of the Portuguese records, (see the attached map, Fig. 3).

Both the Spanish and Portuguese localities have in common the presence of paper mills nearby. This gives a possible answer to how this species has reached its present location in Cantabria. It could have been imported directly through timber shipments from the Southern Hemisphere, as has been suggested for its arrival in the neighbouring country.

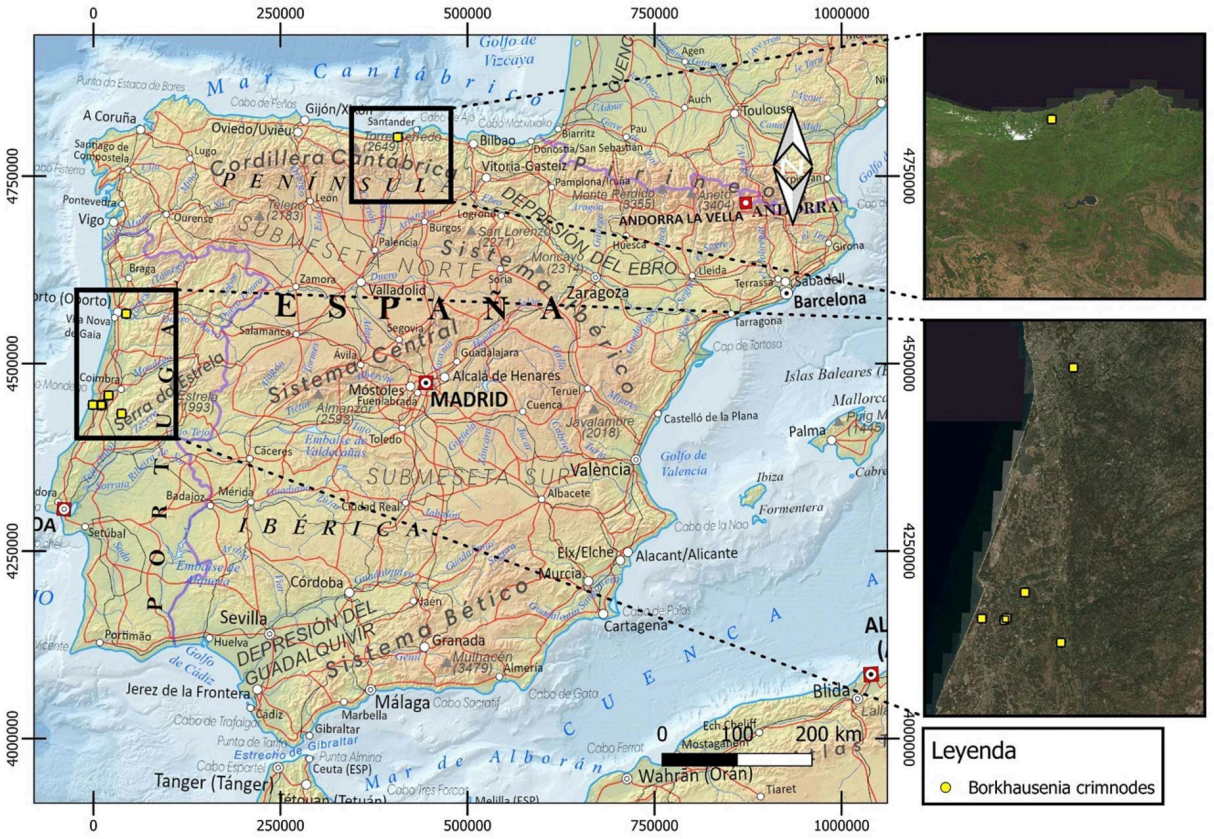

Figure 3. Current distribution of *Borkhausenia crimnodes* Meyrick, 1912.

The main characteristic of this coincidence lies in the fact that the vegetation in the areas close to their location (both in Portugal and in Spain) has been altered as many plots of land have been dedicated to the planting of Eucalyptus trees to supply wood to these pulp mills. In the same way, there has been some importation of wood into both countries from other parts of the world, which has been confirmed for the paper mill near the Spanish locality. Corley *et al*. (2017) state: 'Those *Borkhausenia* species with known larvae feed on plant detritus, so it is likely that this is also the case for *B. crimnodes*. Species with this larval behaviour are easily transported by human trade over considerable distances and the resulting adults can easily find suitable food sources for oviposition'.

It remains to be seen how well established *B. crimnodes* is in Spain and if it will spread in succeeding years as it has done in Portugal.

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