



## First Record of *Euricania brevicula* (Hemiptera: Ricaniidae) from Kinmen Islands with Notes on Host Plants

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### ABSTRACT

*Euricania brevicula* Xu, Liang & Jiang, 2006 (Hemiptera: Fulgoromorpha: Ricaniidae) has been known from southern China. In the present study, the first record of *E. brevicula* in Kinmen, as well as information about its host plants, are reported. The former record of *E. ocellus* (Walker, 1851) in Kinmen and the potential influence of *E. brevicula* on crops are also discussed.

**Key words:** New record, planthopper, Auchenorrhyncha, Taiwan, agriculture

### Introduction

The genus *Euricania* Melichar, 1898 (Hemiptera: Fulgoromorpha: Ricaniidae) is currently composed of 35 species from the Palearctic, Oriental, and Australian Regions (Ren *et al.*, 2015). *Euricania brevicula* Xu, Liang & Jiang, 2006 was originally known from southern China (Fujian, Guangxi, and Guangdong). This species is highly similar in appearance to *E. ocellus* (Walker, 1851), a common species in Taiwan, but it can be distinguished by the longer sublateral carinae of frons and shorter dorsal spinose processes of male phallobase (Xu *et al.*, 2006).

Kinmen Islands, a group of 12 small offshore islands, harbor a fauna that is not different from coastal areas of the neighboring Asian mainland. Recently, several specimens of *Euricania*

collected from Kinmen were identified as *E. brevicula*, a species that has never been recorded from these islands. The present study reports the new country record of *E. brevicula*. Information about the host plants of the species is also provided for the first time.

### Materials and Methods

To examine the morphology of the male genitalia, abdomens were removed by tweezers and heated for about 10 minutes in a 10% solution of potassium hydroxide (KOH). The pieces were examined in ethanol and preserved in glycerol. Photographs of specimens and male genitalia were taken and stacked using a Leica DVM6 digital microscope. Photographs were optimized using Adobe Photoshop CS6 software (Adobe Systems Inc).

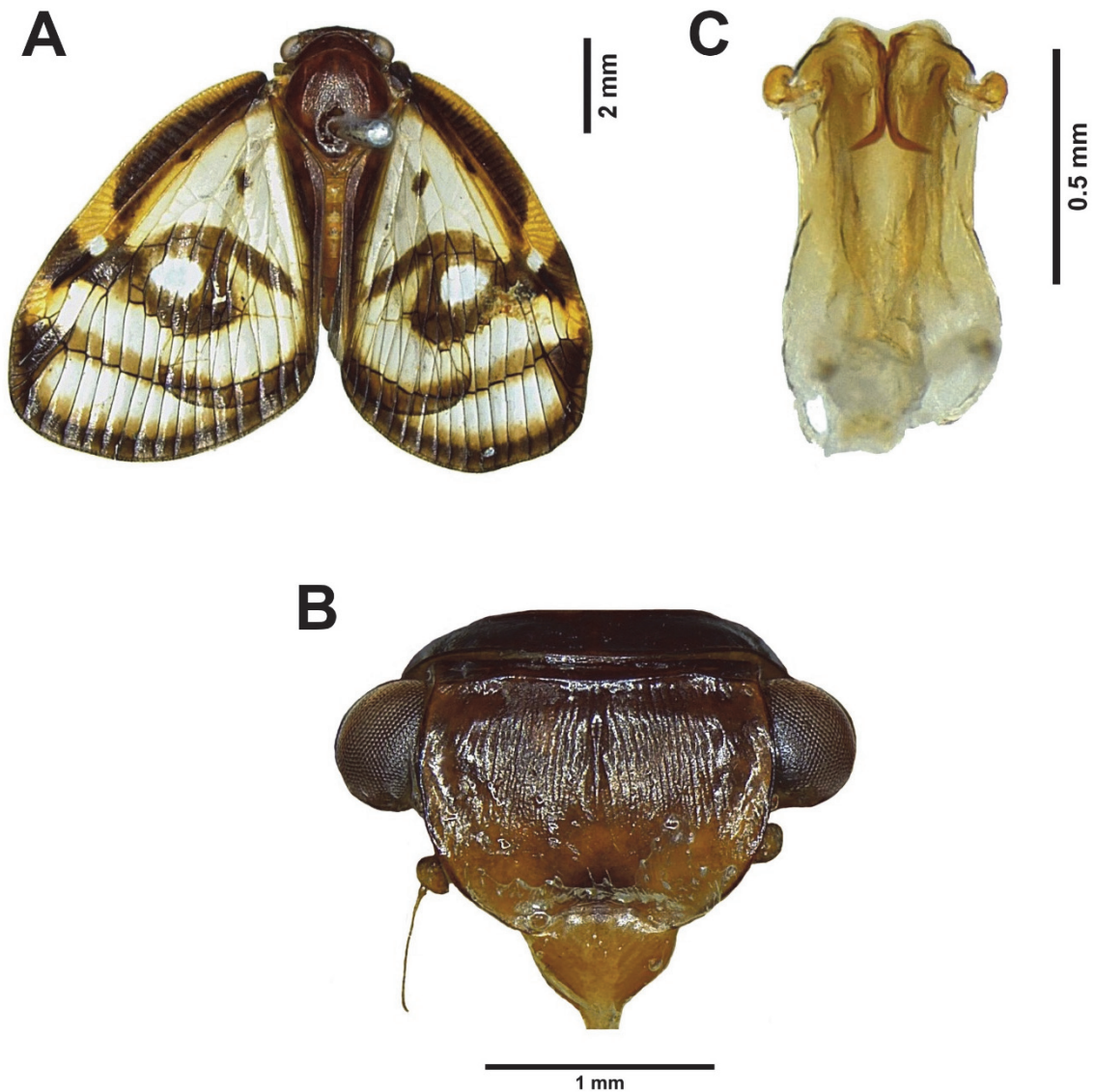


Fig. 1. *Euricania brevicula* Xu, Liang & Jiang, 2006, adult male. A. Habitus, dorsal view. B. Frons. C. Aedeagus (phallobase), dorsal view.

Voucher specimens are deposited in the Taiwan Agricultural Research Institute, Taichung, Taiwan.

## Results

### *Euricania brevicula* Xu, Liang & Jiang, 2006

(Figs 1, 2)

*Euricania brevicula* Xu, Liang & Jiang, 2006: 3.

**Material examined.** KINMEN: Peichuehshan (北鷓山), 8 males, 1 female, 28-VI-2023, C.-F. Lee (TARI).

**Diagnosis.** According to Xu *et al.* (2006), this

species can be distinguished from *E. ocellus* by the following characters: (1) in *E. brevicula* the sublateral carinae of the frons are nearly as long as the median carina (Fig. 1B), while in *E. ocellus* they are obviously shorter; (2) in *E. brevicula* the dorsal spinose processes of male phallobase are shorter than one-half the length of phallobase (Fig. 1C), while in *E. ocellus* they are longer than one-half the length of phallobase.

**Distribution.** China, Taiwan (Kinmen, new record).

**Host plant.** *Psidium guajava* L. (Myrtaceae), *Citrus reticulata* Blanco (Rutaceae), *Morus australis* Poir. (Moraceae), *Dimocarpus longan* Lour. (Sapindaceae), *Litsea glutinosa* (Lour.) CB Rob. (Lauraceae).

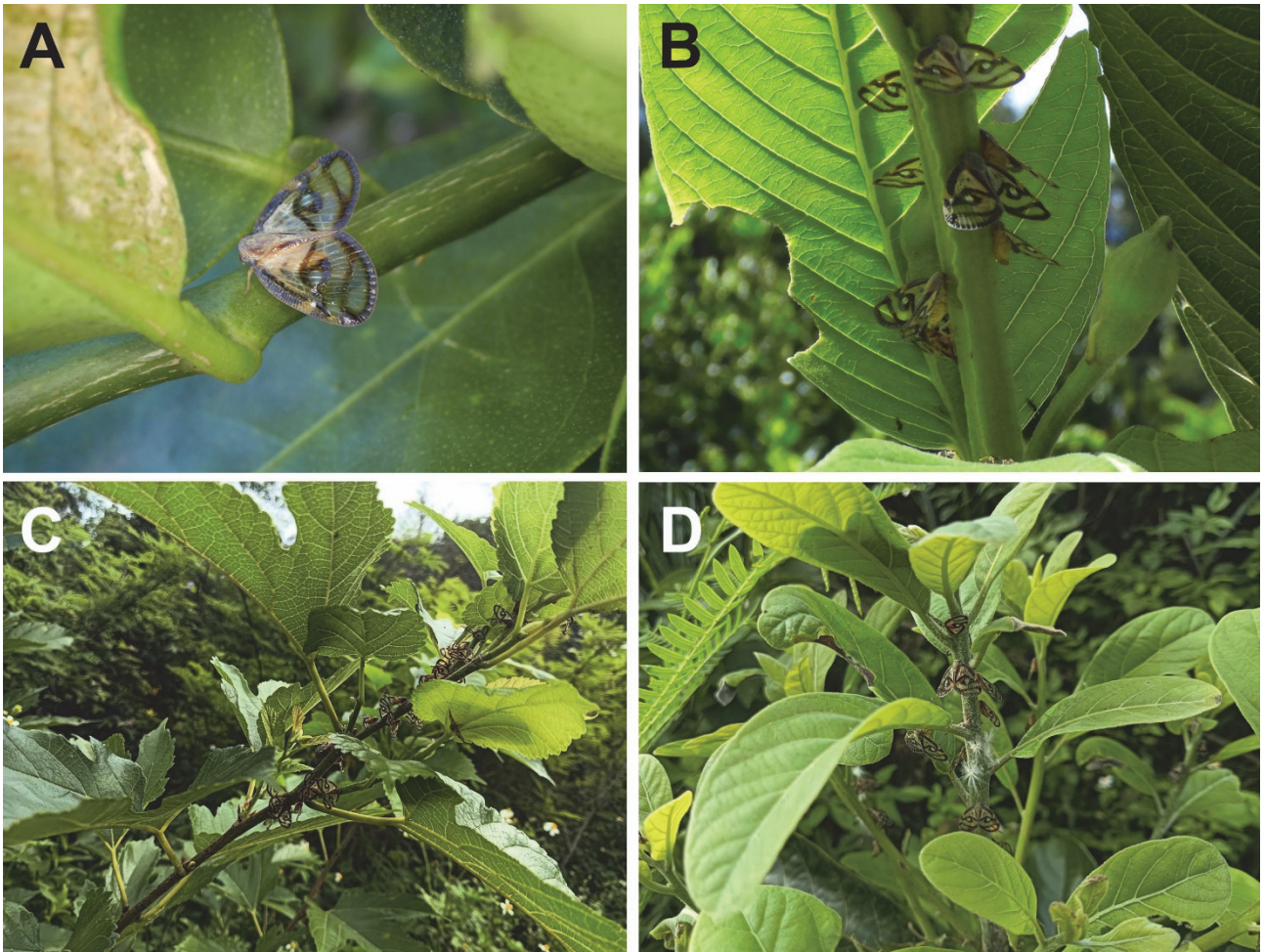


Fig. 2. *Euricania brevicula* Xu, Liang & Jiang, 2006, individuals in the field. A. An individual on Mandarin orange (*Citrus reticulata* Blanco, Rutaceae). B. Individuals on guava (*Psidium guajava* L., Myrtaceae). C. Individuals on Chinese mulberry (*Morus australis* Poir., Moraceae). D. Individuals on *Litsea glutinosa* (Lour.) CB Rob. (Lauraceae).

## Discussion

The present study reports *Euricania brevicula* from Kinmen for the first time. This record is not surprising, as the species have already been known from neighboring continental regions of China. The species may also be distributed in Matsu, another group of neighboring islands, because some of its host plants, such as *Morus australis*, have been found on these islands (Tzeng *et al.*, 2014). However, to validate this inference, further surveys of insect fauna on Matsu Islands are required. *E. ocellus*, a species with a similar wing pattern, has also been reported from Kinmen (Shih *et al.*, 2004; Chang, 2011, 2017) without providing information regarding the depository of voucher specimens, making these records unverifiable. It is possible that these records of *E. ocellus* from

Kinmen at least partly pertain to *E. brevicula*. Currently, only specimens of *E. brevicula* are available from the islands in concern, so records of *E. ocellus* in Kinmen are in need of verification.

*Euricania brevicula* seems to have a broad host range. A total of five plant species were confirmed as the hosts of *E. brevicula* in the course of the present study, each of them belonging to different families. Most of the hosts reported herein are cash crops, such as guava (*Psidium guajava*), Mandarin orange (*Citrus reticulata*), Chinese mulberry (*Morus australis*), and longan (*Dimocarpus longan*). A large number of individuals were detected on these crops (Fig. 2) in a recent survey on the insect fauna of the Kinmen Islands, suggesting that *E. brevicula* could be a potential pest in agriculture. Further research on the biology of the species may help to understand its influence on crops.

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# 短突疏廣翅蠟蟬（半翅目：廣翅蠟蟬科）在金門的首次紀錄以及寄主植物記述

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## 摘 要

短突疏廣翅蠟蟬 (*Euricania brevicula* Xu, Liang & Jiang, 2006) 原本只被記錄於中國南部。本研究報導了短突疏廣翅蠟蟬在金門的首次紀錄以及寄主植物資訊。除此之外，本文亦討論眼紋疏廣翅蠟蟬 (*E. ocellus* (Walker, 1851)) 過去在金門的紀錄以及短突疏廣翅蠟蟬對作物的潛在影響。

**關鍵詞：**新紀錄、蠟蟬、頸喙亞目、臺灣、農業