

9-29-2017

# First Record of the Ligurian Leafhopper, *Eupteryx decemnotata* Rey (Hemiptera: Cicadellidae) in Pennsylvania

Claire Ciafre

Harrisburg, PA 17110 USA, cmciafre@gmail.com

Lawrence Barringer

Pennsylvania Department of Agriculture, lbarringer@pa.gov

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A Journal of World Insect Systematics

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Claire Ciafré  
3963 N. 6th St. Apt 2  
Harrisburg, PA 17110 USA

Lawrence E. Barringer  
Division of Entomology  
Pennsylvania Department of Agriculture  
2301 N. Cameron Street  
Harrisburg, PA 17110 USA

Date of Issue: September 29, 2017

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Insecta Mundi 0576: 1–2

ZooBank Registered: urn:lsid:zoobank.org:pub:9113F62C-6EAD-48DB-8AD1-F90EC827BACF

**Published in 2017 by**

Center for Systematic Entomology, Inc.  
P. O. Box 141874  
Gainesville, FL 32614-1874 USA  
<http://centerforsystematicentomology.org/>

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**Layout Editor for this article:** Eugenio H. Nearn

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Claire Ciafré  
3963 N. 6<sup>th</sup> St. Apt 2  
Harrisburg, PA 17110 USA  
cmciafre@gmail.com

Lawrence E. Barringer  
Division of Entomology  
Pennsylvania Department of Agriculture  
2301 N. Cameron Street  
Harrisburg, PA 17110 USA  
lbarringer@pa.gov

**Abstract.** *Eupteryx decemnotata* (Hemiptera: Cicadellidae) is reported from Pennsylvania for the first time, a **new state record**.

**Key Words.** New record, greenhouse.

## Introduction

*Eupteryx decemnotata* Rey, 1891, known as the Ligurian leafhopper, is an oligophagous pest species of potential economic importance. Known hosts for this species include only aromatic members of the mint family Lamiaceae, including *Melissa officinalis* L. (lemon balm), *Mentha x piperita* L. (peppermint), *Nepeta cataria* L. (catnip), *Ocimum basilicum* L. (basil), *Origanum majorana* L. (marjoram), *O. vulgare* L. (oregano), *Rosmarinus officinalis* L. (rosemary), *Salvia officinalis* L. (sage), and *Thymus vulgaris* L. (thyme) (Nickel and Holzinger 2006; Lubiarz and Musik 2015).

This species, native to the Mediterranean region, was first confirmed in the United States with populations in two counties in California after rosemary topiaries originating there were intercepted in Florida in 2008 (Rung et al. 2009). Since then, there have been interceptions both by truck and by dog detector at Florida ports of entry, but no records of an established population (Susan Halbert, pers. comm., February 2017). No other records of this species in the USA have been published, although a photograph of a specimen from Santa Fe County, New Mexico has been posted on BugGuide (<http://bugguide.net/node/view/1122864/bgimage>).

## Materials and Methods

On December 22, 2015, a plant inspector from the Pennsylvania Department of Agriculture (PDA) hand-collected twenty specimens from rosemary plants in a single greenhouse at a nursery in Cumberland County, Pennsylvania. Two specimens, a male and a female, were subsequently submitted to the PDA entomology lab for identification and confirmed at the Systematic Entomology Lab (SEL). The following month, twelve more adult specimens were collected in the same greenhouse from thyme, lemon balm, oregano, and rosemary. No eggs were detected in the greenhouse. Specimens are retained in the Pennsylvania Department of Agriculture's collection [PADA].

## Results

*Eupteryx decemnotata* can be distinguished from its congeners by the presence of five pairs of black spots on the head. These variable spots run from the vertex onto the frons and may be fused in some instances (Nickel and Holzinger 2006; Lubiarz and Musik 2015). *Eupteryx melissae* Curtis, the sage or mint leafhopper, is another introduced congener that is widespread in the northern United States

but has only 5–7 individual spots (Rung et al. 2009). For photos differentiating these two species, see figures 1–6 in Rung et al. (2009).

The facility disposed of nearly all plant material from the greenhouse. Remaining plants were intentionally left and sprayed to attract and kill any recently-hatched adults. These plants were then double bagged and discarded. The greenhouse was then thoroughly cleaned and permitted to reach high temperatures prior to re-use. Four subsequent inspections have been negative, and the facility now uses yellow sticky cards to monitor for this species. Following the initial detection, follow-up inspections confirmed that all nearby greenhouses at the facility were negative.

The plants in the infested greenhouse had been established there for over five years for propagation purposes. As a result, the source of this leafhopper is unknown. This species has established in central Europe and occurs as far north as southern Britain (Nickel and Holzinger 2006). It is not yet known whether this species would survive and reproduce outdoors in Pennsylvania. Surveys of known hosts in the area surrounding the greenhouses have not yet been conducted.

### Acknowledgments

The authors owe their thanks to Sven Spichiger for the use of specimens, and to Dr. James Trager and Dr. Chris Dietrich for revisions to this manuscript.

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**Received September 5, 2017; Accepted September 19, 2017.**  
**Review Editor David Plotkin.**