

A Leafhopper Pest of Plants in the Mint Family, *Eupteryx Decemnotata* Rey, Ligurian Leafhopper, New to North America and Intercepted in Florida on Plants from California

INTRODUCTION: A leafhopper was intercepted on topiary rosemary plants from California at a discount store in Palatka (Putnam County, E2008-8075) by DPI inspector Sol F. Looker on 3 December 2008. There were hundreds of cast skins present, but only a single male specimen in poor condition was recovered. After dissection of that specimen, we suspected that the insect was *Eupteryx decemnotata* Rey, a European pest species. Since then, a population that was confirmed to be *E. decemnotata* was found at a nursery in Napa County, California.

This species, known as Ligurian leafhopper in Europe (named for the Ligurian Sea, adjacent to NW Italy near the border with France), has recently experienced rapid range expansion. Nickel and Holzinger (2006) attribute this spread to widespread trade and transport of catnip plants, which have become popular ornamental plants in Europe, particularly in Germany. Ligurian leafhoppers were known only from the Mediterranean area until the mid 1980s, but they have been discovered since the mid 1990s in Portugal, Switzerland, Austria, Slovenia, Greece, much of Germany, and the UK (Nickel and Holzinger 2006). Ligurian leafhopper is known to be a pest of many popular herbs in the mint family such as rosemary, sage, marjoram, catnip, mint and oregano (Nickel and Holzinger 2006).

DESCRIPTION: Ligurian leafhoppers are tiny, less than 3 mm long (Fig. 1). The pattern of spots on the head will separate this species from others in the genus. The sage leafhopper, *Eupteryx melissae* Curtis, occurs in northern US and is a pest of plants in the mint family. It has a similar wing pattern, but has fewer spots on the head. Please see the excellent British Bugs website for comparison: http://www.britishbugs.org.uk/homoptera/Cicadellidae/Eupteryx_melissae.html. The insects also can be separated by dissection and scrutiny of the male genitalia. In summary, the host, the wing pattern and the pattern of spots on the head should be sufficient for diagnosis of this species.

HOSTS: Nickel and Holzinger (2006) and Maczey and Wilson (2004) list hosts of Ligurian leafhopper. They include: *Melissa officinalis* L. (lemon balm), *Mentha x piperita* L. (peppermint), *Nepeta cataria* L. (catnip, catmint), *Nepeta* spp. *Ocimum basilicum* L. (basil), *Origanum majorana* L. (marjoram), *Origanum vulgare* L. (oregano), *Rosmarinus officinalis* L. (rosemary), *Salvia officinalis* L. (sage), *Thymus vulgaris* L. (thyme), and *Thymus* spp. all in the family Lamiaceae. *Eupteryx melissae* has a somewhat wider host range, including at least one plant in the family Malvaceae (Stewart 1988, Nickel and Holzinger 2006).



Figure 1. *Eupteryx decemnotata*, Ligurian leafhopper. (Photos: Alessandra Rung, CDFA)

Damage and Economic Importance: These leafhoppers are mesophyll feeders. They puncture cells and remove the contents, leaving air to fill the void. This produces the characteristic stippling produced by these and similar leafhoppers in the subfamily Typhlocybae. A well-known example of a leafhopper that causes similar feeding damage is the potato leafhopper, *Empoasca fabae*. The damage can be mistaken for thrips, lacebug or mite injury. In Europe, populations can be high, causing significant damage to the plants. Our Florida sample included hundreds of cast skins, indicating that the population was very high at one time. Severe damage to cultivated plants by this species was reported in Switzerland, Greece and Germany (Nickel and Holzinger 2006).

FLORIDA DISTRIBUTION: So far, we have only one collection of the Ligurian leafhopper in Florida, the find at the discount store in Putnam County. However, we have anecdotal reports of similar damage to shipments of rosemary topiaries in discount stores in other counties. It is possible that the leafhoppers may have found other related plants to feed on in some stores. Thus, inspections of potted kitchen herbs and mint-related bedding plants for sale in discount stores and supermarkets would be advised.