Euscelidius variegatus (Kirschbaum, 1858),
a new leafhopper record to Madeira Archipelago
(Hemiptera, Cicadellidae)

Fábio Reis 1 & Dora Aguin-Pombo 1, 2

1Department of Biology, University of Madeira, Campus da Penteada,
9000-390 Funchal, Madeira, Portugal
2CEM, Centre for Macaronesian Studies, Campus da Penteada,
9000-390 Funchal, Madeira, Portugal

Reis, F. & D. Aguin-Pombo (2003). Euscelidius variegatus (Kirschbaum, 1858)
(Hemiptera, Cicadellidae), una nueva cita para el archipiélago de Madeira.

ABSTRACT: A new record of Euscelidius variegatus is reported for the first
time to Madeira. Data on its distribution and bioecology on this Island are
included.
Keywords: Cicadellidae, Leafhoppers, Euscelidius, new record, Madeira.

RESUMEN: Euscelidius variegatus se cita por primera vez para Madeira. Se
incluyen también datos sobre su distribución y bioecología en esta isla.
Palabras Clave: Cicadellidae, cigarrillas, Euscelidius, nueva cita, Madeira.

INTRODUCTION

The genus Euscelidius Ribaut, 1972 includes in Europe two species, E. variegatus
(Kirschbaum, 1858) and E. schenckii (Kirschbaum, 1868), both vectors of various disease
micro-organisms which are responsible for important economic damage to plant cultures
(Bráck, 1979; Nielson, 1979). E. variegatus is considered a vector species of many wild
and/or worldwide cultivated plant disease agents as the Chrysanthemum yellows (CY)
phytoplasma (Palermo et al., 2001), the corn stunt spiroplasma (Alivizatos, 1987), Aster
yellows MLO (Severin, 1947), the Clover Phyllody disease (Gianotti, 1969) among others
(Jensen, 1969). Furthermore, in laboratory tests it was also able to infect grapevine with
the Grapevine Flavescence Dorée MLO (Caudwell et al., 1970; Lherminier et al., 1989),
presently a devastating disease to vineyards in some European countries.

Euscelidius variegatus is widely distributed in the western Palaeartic Region (Nast,
1987) being an immigrant in North America (Jensen, 1969). In the Palaeartic Region it has
been recorded from North Africa (Tunisia, Algeria, Morocco) up to Poland extending
southeast to Moldavia and Ukraine up to Caucasus and Transcaucasia (Armenia, Azerbaijan). In Asia, it is present in Tajikistan reaching Siberia in the Northeast. Its great potential as a colonizer is remarkable, not only for being capable to establish on islands close to continents such as Great Britain, Sardinia, Sicily and Balearic Islands but also, because it has been spread through oceanic islands of two Macaronesian archipelagos: the Azores (São Miguel, Graciosa, São Jorge, Pico and Faial) and the Canary Islands (La Palma, Tenerife, La Gomera and Fuerteventura). Surprisingly, this species was unknown so far from Madeira. This work records this species from Madeira and adds information on host plant and habitat associations.

MATERIAL AND METHODS

All specimens except one were sampled with a sweeping net in 11 localities:


RESULTS

Specimens from Madeira correspond to Ribaut’s description (1952) in external morphology and body size. The overall body length was 4.09±0.25 mm (3.77–4.66 mm, n=25) in males while in females was 4.61±2.72 mm (4.32–5.10 mm, n=15). It was observed differences in the thickness and curvature of the hooked apical part of aedeagus. Four different types of aedeagus were recognized among the 42 males studied (Figure 1). Of these, type A was the most common being observed in 37 specimens, type B in 3 and types C and D in 1 individual each. The longest apical setae of styles varied in number from 3 to 8 setae (Figure 1).

Distribution. This species is widely distributed in Madeira occurring from 130 m up to 1175 m in the interior parts of the island. Like in Azores and Canary Islands it was found in dry and coastal areas, in swampy places and agricultural fields (Lindberg, 1941; Sergel & Baez, 1990). In Madeira as in Azores, this species was found associated to herbaceous vegetation growing with Pinus and Eucalyptus (Lindberg, 1941).
Figure 1. *Euscelidius variegatus*. A-D. Aedeagus in lateral view showing different types of variation. E. Right style in ventral view with apical setae.

Bioecology. Adults were observed from April to November but they were more common from October to November. According to the food plant records it is considered a polyphagous species. In addition to the three plant families recorded in this study: Gramineae (*Brachypodium sylvaticum, Brachiaria mutica*), Leguminosae (*Trifolium repens* var. *repens*) and Umbelliferae (*Apium nodiflorum*), it feeds also on species of Chenopodiaceae, Labiatae, Malvaceae, Solanaceae and Vitaceae (DeLong & Severin, 1947; Alma *et al.*, 1988; Quartau, 1980; Cardoso, 1974).
ACKNOWLEDGEMENTS

We want to thank all the students and colleagues that have collaborated with material for this study.

REFERENCES


Fecha de recepción: 22 enero 2003                      Fecha de aceptación: 30 octubre 2003