Bulletin of Insectology ***69*** *(1): 159-160, 2016*
ISSN 1721-8861

A second Palaearctic record of *Monoxia obesula* (Coleoptera Chrysomelidae Galerucinae)

David MIFSUD
Institute of Earth Systems, Division of Rural Sciences and Food Technology, University of Malta, Msida, Malta

Abstract

Monoxia obesula Blake is here recorded for the first time from Malta. This constitutes the second record for the Palaearctic Region, as the species was previously found in Sardinia (Italy) in 2013. In Malta, *M. obesula* was found on *Chenopodium album*, which represents a new host-plant record for this beetle.

Key words: *Monoxia obesula*, *Chenopodium album*, Malta.

Introduction

The recorded leaf beetle fauna of Malta (Coleoptera Chrysomelidae, excluding Bruchinae) is composed of some 60 species (Cameron and Caruana Gatto, 1907), but more species are known to occur and old records are in need of taxonomic updates. In November of 2015, large populations of a species of Chrysomelidae were found resting on vertical walls in full sunshine and it was clear that the beetles belonged to a species unknown to me from this territory. A quick search in the area immediately revealed that these beetles were feeding on *Chenopodium album* L. Species identification of the beetles proved to be problematic using the two volume work of Palaearctic Chrysomelidae (Warchałowski, 2010) until I got hold of the work of Clark *et al*. (2014), and it was then immediately clear that it was an exotic species, *Monoxia obesula* Blake (figure 1). Maltese specimens of *M. obesula*, including male genitalia, perfectly agreed with the extensive description provided by Clark *et al*. (2014).

Figure 1. *Monoxia obesula* ♀. Scale bar = 1 mm. (In colour at www.bulletinofinsectology.org)

Material examined

Malta, St. Thomas Bay, 30.xi.2015, 19 males and 23 females on *Chenopodium album*, leg. D. Mifsud.

Host-plant data and damage

In North America (Nebraska), this species is associated with *Atriplex dioica* Rafinesque, a plant that occurs in saline habitats (Clark *et al*., 2014), and with *Chenopodium* sp. (Clark *et al*., 2004). In Sardinia, the species was found associated with both *Atriplex halimus* L. and *Atriplex portulacoides* L. in brackish water environments. In Malta, the species was found on *C. album* in a coastal area. Damage on *Atriplex* by *M. obesula* was reported as so intense in Sardinia that, from May to October, many plants were almost completely devoid of their leaves (Clark *et al*., 2014). Severe damage was also observed in Malta on *C. album*, with entire plants dying because of the intense larval damage.

Distribution

M. obesula was described from Texas (Blake, 1939) and was also found in Nebraska (Clark *et al*., 2014). Clark *et al*. (2014) remark that both areas probably represent the natural distribution for *M. obesula* and that the species most likely occurs natively in several other central states. *M. obesula* was also reported from Maryland (Santiago-Blay and Virkki, 1996), but this occurrence was apparently an accidental introduction that faced extinction after a year or two (Clark *et al*., 2014). The accidental introduction of this species in Italy (Sardinia) and Malta probably took place via trade of agricultural products or ornamental plants. The fact that the species was found in two rather distant places in Europe may indicate that the species is already more widespread.

Acknowledgements

First and foremost, I would like to thank my ten-year-old son Andre who was the first to spot these beetles while we were playing some football in St. Thomas Bay (Malta). I also thank Jan Bezděk (Czech Republic) who guided me to the proper literature so that I could identify this species. I also thank Shawn Clark (USA) who confirmed my identification and provided useful comments regarding the present communication.

References

BLAKE D. H., 1939.- A study of Leconte's types of the beetles of the genus *Monoxia*, with descriptions of new species.- *Proceedings of the United States National Museum*, 87 (3072): 145-171.

CAMERON M., CARUANA GATTO A., 1907.- A list of the Coleoptera of the Maltese Islands.- *The Transactions of the Entomological Society of London*, 26 (3): 383-403.

CLARK S. M., LEDOUX D. G., SEENO T. N., RILEY E. G., GILBERT A. J., SULLIVAN J. M., 2004.- *Host plants of leaf beetle species occurring in the United States and Canada (Coleoptera: Megalopodidae, Orsodacnidae, Chrysomelidae, excluding Bruchinae)*.- Special Publication no. 2 of the Coleopterists Society, USA.

CLARK S. M., RATTU A., CILLO D., 2014.- *Monoxia obesula* Blake, 1939, a species native to the U.S.A. and adventive to Sardinia, Italy (Coleoptera: Chrysomelidae: Galerucinae: Galerucini).- *Zootaxa*, 3774 (1): 83-89.

SANTIAGO-BLAY J. A., VIRKKI N., 1996.- Evolutionary relationships within *Monoxia* (Coleoptera: Chrysomelidae: Galerucinae): chromosomal evidence for its intrageneric classification.- *Caryologia*, 49 (3-4): 257-265.

WARCHAŁOWSKI A., 2010.- *The Palaearctic Chrysomelidae identification keys*. vol 1 and 2.- Natura optima dux Foundation, Warszawa, Poland.

Author's address: David MIFSUD, Institute of Earth Systems, Division of Rural Sciences and Food Technology, University of Malta, Msida MSD 2080, Malta.
(david.a.mifsud@um.edu.mt)

Received January 26, 2016. Accepted April 4, 2016.