Zootaxa 2556: 40–50 (2010)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Description of the immature female instars of *Ceroplastes rusci* (Linnaeus) (Hemiptera: Coccidae)

GIUSEPPINA PELLIZZARI[1], ALESSIO RAINATO[1], GEORGE J. STATHAS[2]

[1]*University of Padua, Department of Environmental Agronomy and Crop Production- Entomology, Viale dell'Università 16, 35020 Legnaro, Italy. E-mail: giuseppina.pellizzari@unipd.it*

[2]*Highest Technological Educational Institute of Kalamata, Department of Crop Production, Laboratory of Agricultural Entomology and Zoology, 24100 Antikalamos, Kalamata, Greece*

Abstract

The immature female instars of the fig wax scale, *Ceroplastes rusci* (L.), are redescribed and illustrated here with the aim of improving our knowledge on its morphology and phenology by the correct identification of the pest stages present on the host plant. A key to different instars is also provided. The biology of this species, which has recently increased in abundance in fig cultivation areas in Messinia (Greece), is briefly discussed.

Key words: Soft scales, fig wax scale, identification key, female nymphs morphology

Introduction

Recently, several studies have been devoted to the *Ceroplastes* species (Hemiptera, Coccidae) with the aim of clarifying their native areas, present distribution, morphology (mainly of young stages and males) and describing new species (Pellizzari & Camporese 1994; Camporese & Pellizzari 1994; Qin & Gullan 1994; 1995; Qin *et al*. 1994; 1998; Wakgari & Giliomee 1998; Ben-Dov *et al*. 2000; Rainato & Pellizzari 2008, 2009; Peronti *et al*. 2008). The genus *Ceroplastes* has a worldwide distribution, possibly assisted by human activity, and includes several notorious plant pests. Among the latter is the fig wax scale, *Ceroplastes rusci* (Linnaeus), which is considered to be native to the Afrotropical region (Qin *et al*. 1994; 1998), where it is recorded in several countries, but is widespread in the Palaearctic Region and is also known in the Neotropics and in a very few Oriental countries (Irian Jaya and Vietnam) (Ben-Dov *et al*. 2009).

Ceroplastes rusci (Linnaeus) is widely distributed throughout coastal areas of the Mediterranean, and was the first *Ceroplastes* species recognized in this area, where it has been known since Theophrastus' times (370 B.C.–285 B.C.)[1] (Silvestri & Martelli 1908). *C. rusci* has a wide range of host plants, and is occasionally a pest in Citrus groves and tropical fruit orchards, but appears to be most abundant on such common Mediterranean maquis plants as *Ficus carica, Myrtus communis, Nerium oleander, Pistacia lentiscus* and *P. terebinthus* (Balachowsky & Mesnil 1935). However, the favourite host plant is the fig (thus its common name) on which heavy infestations are quite common (Bodkin 1927; Balachowsky & Mesnil 1935; Khasawinah & Talhouk 1964; Argyriou & Santorini 1980).

This paper was stimulated by the heavy infestations of *C. rusci* on fig cultivations presently occurring in Messinia, District of Kalamata (Greece), where fig is the second most important fruit crop after olive. In Messinia, the fig cultivation areas approach 1800 hectares, with about 80.000 fig trees and the annual fig production reaches roughly 4000 tons/year; dried figs are usually exported to American, Canadian, Australian, European and Arabian markets.

1. According to Silvestri & Martelli (1908) Theophrastus described the symptoms of *C. rusci* infestation on fig in his book "De causis plantarum".

 Accepted by C.J. Hodgoson: 5 Jul. 2010; published: 2 Aug. 2010