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**Short Communication**

# First record of *Kermes hermonensis* Spodek and Ben-Dov (Hemiptera: Sternorrhyncha: Coccoidea: Kermesidae) in Turkey

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## ABSTRACT

In this note we report the presence of *Kermes hermonensis* Spodek and Ben-Dov (Hemiptera: Sternorrhyncha: Coccoidea: Kermesidae) in Turkey and add *Quercus infectoria* as a new host plant record.

*Key words: Kermes, Quercus,* new record.

## INTRODUCTION

The family Kermesidae (Hemiptera: Sternorrhyncha: Coccoidea) includes about 100 species (placed in 10 genera) that develop almost exclusively on trees belonging to the family Fagaceae.

*Kermes* Boitard, the type genus of the family, is the most species-rich genus of the Kermesidae genera. *Kermes* species in the Palaearctic region number 33 species and all species were recorded on from *Quercus* spp. (Ben-Dov *et al*., 2013; Spodek and Ben-Dov, 2014).

Most of the earlier descriptions of *Kermes* species were based on the post-reproducing adult female; however the first-instar stage was also used in systematic studies of the family (Bodenheimer, 1953; Balachowsky, 1950, 1953; Borchsenius, 1960; Pellizzari *et al*., 2012; Spodek and Ben-Dov, 2014).

Ten species have been recorded in Turkey, belonging to the genera *Kermes* and *Nidularia* Targioni Tozzetti (Ülgentürk *et al*., 2013). Özkök (1941) described *K. safinazae* Özkök, and Bodenheimer (1951, 1953) described from Turkey these three species *K. bekirii* Bodenheimer, *K. muhlisi* Bodenheimer, and *K. sadrii* Bodenheimer.

The most comprehensive study on Kermesidae species of Eastern Mediterranean was carried out by Spodek and Ben-Dov (2014) and they presented a taxonomic

revision of the six Kermesidae species from Israel, namely, *K. echinatus* Balachowsky, *K. greeni* Bodenheimer, *K. nahalali* Bodenheimer, *K. spatulatus* Balachowsky, *Nidularia balachowskii* Bodenheimer, and *K. hermonensis* Spodek and Ben-Dov was described as a new species.

In most species of Kermesidae, the dorsum of post-reproducing female highly sclerotized, and no waxy ovisac is secreted. However, the adult female of *K. hermonensis* is covered with a thick layer of white wax that encloses its entire body and the body does not eventually sclerotize. The adult female of the two species of *Nidularia*, *N. japonica* and *N. pulvinata*, also produce a waxy ovisac posterior to female's body (Spodek and Ben-Dov, 2014).

In Israel, *K. hermonensis* was collected so far at two localities in the Golan Heights, at Mt. Hermon Nature Reserve (1600 meters asl) off *Quercus look* Kotschy and at Mezar Nature Reserve (400 meters asl) off *Quercus ithaburensis* Decaisne.

In this note we report the presence of *K. hermonensis* in Turkey and add *Q. infectoria* as a new host plant record.

## MATERIAL AND METHODS

Samples were collected from ornamental plants from Diyarbakır in Turkey. Each sample was placed into a plastic bag and taken to the laboratory for examination. Specimens were prepared for light microscopy using the slide-mounted method of Kosztarab and Kozár (1988) and identified according to key Spodek and Ben-Dov (2014).

Both dry and mounted of other materials are deposited in the Scale Insect Collection in Çukurova University, Adana, Turkey (KPCT).

## RESULTS

### *Kermes hermonensis* Spodek and Ben-Dov

Material examined: Turkey, Diyarbakır, Silvan, 15.vii.2012, 10 ♀♀, 25 first instar nymphs, *Quercus infectoria* Oliv. (Fagaceae), coll: A. F. Tuğrul.

*K. hermonensis* as a new described species deserves more studies to determine its distribution in the Middle East where this species might be more common. On the other hand further studies should be done on determining host plant specialization thus *Quercus* species might be important indicator for its distribution.

## COMMENTS

It was collected on the branch of the host plant. The kermesid density was high on the infected trees (Fig. 1).

Fig. 1. *K. hermonensis* Spodek and Ben-Dov on *Quercus infectoria* Oliv. (Photos by H. BOLU).

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