

## **RICANIA JAPONICA (HEMIPTERA: RICANIIDAE): FOUND IN THE WESTERN BLACK SEA, TURKEY**

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**ABSTRACT:** The exotic species *Ricania japonica* Melichar, 1898 (Hemiptera: Ricaniidae) was collected for the first time in the Western Black Sea Region, Turkey in 2017. It is Far East origin and assumed to be invaded from Georgia in 2006 to the Eastern Black Sea Region of Turkey, and then a sudden outbreak occurred and has increased its distribution area to the West of Turkey.

**KEY WORDS:** *Ricania japonica*, Ricaniidae, new record, Western Black Sea, Turkey

The family Ricaniidae includes over 45 genera and 450 species worldwide (Chou et al., 1985; Xu et al., 2006; Ginezdilov, 2009). In the genus *Ricania*, the Japanese planthopper, *Ricania japonica* Melichar, 1898, is a polyphagous sap-feeding insect which can be found on various trees, fruit, vegetable and ornamental plants, shrubs and weeds. Species of the genus *Ricania* identified so far in Turkey are *Ricania simulans* (Walker, 1851) (Ak et al., 2013; Gokturk & Mihli, 2015); *Ricania aylae* Dlabola, 1983 (Demir & Demirsoy, 2009) and *Ricania hedenborgi* Stål, 1865 (Lodos & Kalkandelen, 1981; Tezcan & Zeybekoglu, 2001). In some sources, it is stated that records of *R. simulans* in Turkey are misidentifications of *R. japonica* (Demir, 2009). *Ricania japonica* has been confirmed with our study. Similarly, Demir (2009) reported that *R. aylae* may be a synonym of *R. hedenborgi*. Further studies are needed to assess precisely accurate diagnosis, distribution and impacts on native ornamental and crop plants in Turkey. The aim of the present paper is to provide new information on the distribution of this species introduced in Turkey and clarify confusion in the identification of species.

### **MATERIAL AND METHODS**

Sampling was made on plants in Akçakoca, Düzce during September 2017 (Fig. 1). Materials have been collected by visual inspections of the plants. The material collected was brought to the laboratory. The samples were separated individually and labelled for identification. Dried specimens were used for the description. The confirmation of the species determination was made by Iliia Gjonov (Sofia University, Bulgaria). The specimens were deposited in the Duzce University, Faculty of Agriculture and Natural Science, Turkey.

### **RESULTS AND DISCUSSION**

Details of the examined material of the species is given below:

Subfamily Ricaniinae

Tribe Ricaniini

Genus *Ricania* Germar, 1818

***Ricania japonica* Melichar, 1898**

(Fig. 2)

**Syn.** *Ricania episcopalis* Uhler, 1896

**Material examined:** Düzce: Akçakoca, Turkey, 41°5'17.452" N and 31°7'26.314" E, 153 m, 21.IX.2017, leg. Sevcan Oztemiz (1 specimen, 7 samples: 4♀♀; 3♂♂), on hazelnut.

**Distribution in Turkey:** This species was previously reported in Rize, Artvin, Trabzon provinces (Demir, 2009; Ak et al., 2013; Gokturk & Mihli, 2015).

**Distribution in the World:** Japan, China, Korea, Georgia, Ukraine, Bulgaria and Oriental region (Dlabola, 1967; Nast, 1972, 1987; Ginezdilov & Sugonyaev, 2009; Gjonov, 2011).

*Ricania* species have been recorded on crops, such as bean, cucumber, tomato, aubergine, maize, apple, pear, cherry, grapevine, fig, citrus, kiwifruit and tea (Tezcan & Zeybekoglu, 2001; Demir 2009; Ak et al., 2015). In the study, we found on hazelnut in Akçakoca, Düzce.

**CONCLUSION**

The Ricaniidae fauna of Western part of Turkey was revealed with the result obtained with this study. It would be necessary to carry out further research into the distribution of the species and monitoring of its population in Turkey to determine the spread of *R. japonica* in different hosts. As in *R. japonica*, it would be useful to gather regular information about the species composition, coverage, and impact of the invasive species in Turkey which has been exposed to new introductions more in the last decade.

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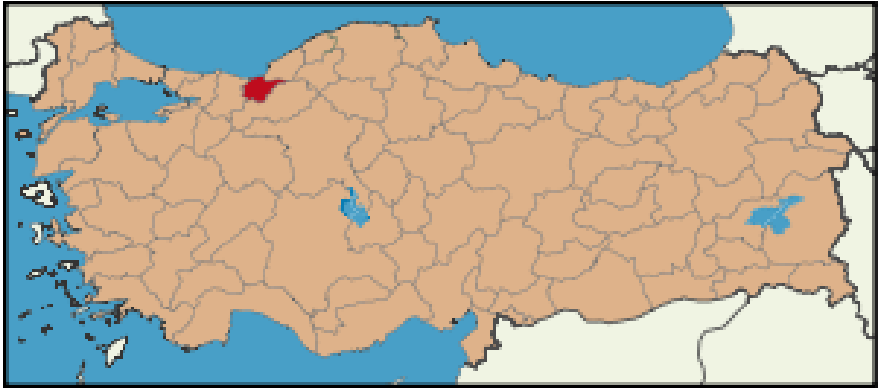


Figure 1. The locality of *Ricania japonica* in Turkey.



Figure 2. Adults of *Ricania japonica*.