

## A rare and endemic species expanded to Northern Anatolia: *Grypocoris syriacus* Reuter, 1896 (Hem., Het., Miridae)

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**ABSTRACT:** In this paper, new record distributional data on a rare Heteroptera (Hemiptera) species, *Grypocoris syriacus* Reuter, 1896 from northern Anatolia (Gerede district, Bolu province) are given.

**KEYWORDS:** *Grypocoris syriacus* Reuter 1896, Hemiptera, rare endemic species, Turkey.

**To cite this article:** Kıyak, S., Yılmaz Şahin, Ş., 2021, The A rare and endemic species expanded to Northern Anatolia: *Grypocoris syriacus* Reuter, 1896 (Hem., Het., Miridae), *J.Het.Turk.*, 3 (2):84-86

**DOI:**10.5281/zenodo.5717152

**To link to this article:** <https://www.j-ht.org/wp-content/uploads/2021/11/V32-A1.pdf>

**Received:** Aug 16, 2021; **Revised:** Sep 22, 2021; **Accepted:** Sep 27, 2021; **Published online:** Nov 30, 2021

### INTRODUCTION

New studies have been added over the years regarding the known number and distribution of Heteroptera in Turkey. In this way, while the number of newly recorded species from the fauna of Turkey increases, the distribution limits of the existing species in the fauna also expand.

In general, a species is considered rare if

it lives and found in a geographically narrow naturally area.

On the other hand, the species found naturally in only one geographical area is an endemic species.

In this study, the literatures on the taxonomy and distribution of *Grypocoris syriacus* Reuter 1896 was reviewed (Aukema & Rieger, 1999; Carvalho, 1959; Dursun & Fent, 2017; Hoberlandt, 1956;



Kerzhner, 1997; Kerzhner & Matocq, 1994; Önder, et al., 2006; Reuter, 1896a,b; Stichel, 1957-1962; Wagner, 1966; Wagner, 1970/71).

Until now, the distribution of *G.syriacus* Reuter 1896 has been limited to a local geographical area only (Eastern Medi-terranean province of Anatolia). In which case this species is "locally endemic". The *G.syriacus* Reuter, 1896 is also both rare and anatolian endemic species.

According to this study, the rare and endemic species *G.syriacus* Reuter, 1896, expanded its geographical distribution, and it was determined that this species expanded to Northern Anatolia.

## MATERIAL AND METHODS

This study was conducted in Gerede surrounding of Bolu province, a total of 6 individual specimens of the species were collected from 2 locations in the study area in 2017 (Table 1).

The specimens were collected by sweep net on the herbaceous vegetation by first author. And killed in 70% alcohol jars and were prepared based on technical and standards of data collection of the zoology museum. These were determined using identification keys by Stichel (1957-1962), and Wagner (1970/71, 1974) by second author.

Table 1. Sampling localities of specimens *G.syriacus* Reuter, 1896 from Gerede/Bolu.

Locality No	Sampling localities	Coordinates	Altitude
Loc.1-S10	Avcılar mahallesi	40°48'16"N 32°28'28"E	1261m
Loc.2-S12	Kayısopran Köyü	40°48'18"N 32°27'13"E	1344m

## RESULTS

**Family: Miridae Hahn, 1833**

**Genus: *Grypocoris* Douglas & Scott, 1868**

Type species by monotypy: *Grypocoris fieberi* Douglas & Scott, 1868. (Ref.: Wagner, 1966 (key).

**Sub Genus: *Turciocoris* Wagner, 1966**

*Turciocoris* Wagner, 1966:211 (as subgenus of *Grypocoris*).

Type species by original designation: *Grypocoris syriacus* Reuter, 1896. (Nomenclatural variant by Wagner (1974): *Grypocoris Turciocoris syriacus*)

***Grypocoris syriacus* Reuter, 1896**

Type locality: Akbez, (Hassa, Hatay)

1896 *Grypocoris syriacus* Reuter, Wien Ent. Zeit. 15:256 (n.sp) Asia Minor, Syria  
1896 *Grypocoris syriacus* Reuter, Hem. Gymn. Eur. 5:150 (descr., key)  
1910 *Grypocoris syriacus* Oshanin, Verz. Pal. Hem.: 703 (cat) (Ref.:Carvalho, 1959)

## Habitat:

The individual specimens of this species was found in the scrub and meadow areas at an altitude of 1261-1344m.

**Material examined:** (Table 1)

Loc. 1, 3♀♀ 2♂♂, 29.06.2017; Loc. 2, 1♀, 30.06.2017.

## Distribution in Turkey:

Adana, Osmaniye, Hatay, Kahramanmaraş (Reuter, 1896; Hoberlandt, 1956; Kerzhner & Josifov, 1999; Aukema & Rieger, 1999; Önder et al., 2006).

With this study, this species was recorded for the first time from the north of Anatolia. This species is endemic to Anatolia

## Distribution in Palaearctic

Turkey's Asian part (Anatolia), in the Palaearctic catalog is in located Israel with a question mark (?) and it is a suspicious record (Aukema & Rieger, 1999).

## Comments:

This species is an endemic species and

its type locality: Hatay (Hassa-Akbez).

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According to Kerzner and Matocq (1994), this species was first found in the Hatay (Hassa: Akbez) type locality by Reuter (1896) and later by Hoberlandt (1955) around Akbez (Adana, Osmaniye, Kahramanmaraş) in the Eastern Mediterranean region of Anatolia has mentioned.

Kerzner & Matocq (1994), referring to 2 original specimens of the species *Grypocoris syriacus* Reuter, 1896 state that: possibly male and female, almost completely destroyed, only some legs and the apical part of hemelytra remaining.

Until this study, *Grypocoris syriacus*, which was endemic to the eastern and South-west Mediterranean region of Turkey, appears to be limited to a small geographical area.

However, in the Palaeartic Catalogue, the distribution of this species in Anatolia, and in the as well as for Israel, is marked with a question mark and given as a suspicious record.

This study provides a better understanding of the distribution patterns of the species in the Turkish Heteroptera fauna and the spread of *G. syriacus* to a new settlement area. Six rare examples *G. syriacus* Reuter, 1896 given in this study were obtained from Gerede (Bolu districts) in the Northern Anatolia Region of Turkey.

In order to understand the Turkish entomofauna, it helps to determine the entomogeographic features that affect the distribution of the fauna.

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