

**A rare species from Türkiye collected by light traps:
Polymerus palustris (Reuter, 1907)
(Heteroptera: Miridae)**

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ABSTRACT: In this study, which was carried out with a light trap in the Sivrihisar district of Eskişehir in September 2022, the collected Heteroptera samples were evaluated and *Polmerus palustris* (Reuter, 1907) belonging to the Miridae family was identified. *Polymerus palustris* (Reuter, 1907), which was known from only two localities before, is a rare species for the fauna of Türkiye.

KEYWORDS: *Polymerus palustris*, Miridae, Heteroptera, rare species, Türkiye.

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INTRODUCTION

Light is attractive to some Heteroptera species. In Türkiye, there are a few studies on Heteroptera obtained by using light traps (Hoberlandt, 1961; Önder & Adıgüzel 1979; Önder et al., 1981; Önder et al. 1984; Yıldırım et al., 1999; Tezcan et

al., 2010; Özgen, Örgel, Tan, 2021)

The genus *Polymerus* has 19 species in two subgenus (*Poeciloscytus* Fieber, 1858, 14 species and *Polymerus* Hahn, 1831, 4 species) in the Palaearctic Region. In Türkiye, there are 7 species (*Polymerus asperulae* (Fieber, 1861),



Polymerus brevicornis Reuter, 1879,
Polymerus cognatus (Fieber, 1858),
Polymerus palustris (Reuter, 1907),
Polymerus unifasciatus (Fabricius, 1794),
Polymerus vulneratus (Panzer, 1806),
Polymerus holosericeus Hahn, 1831)
 belonging to two subgenus (Aukema, 2020).

Polymerus palustris has been detected in two localities in Türkiye so far, one in the Thrace Region (Edirne) and the other in Anatolia (Adana).

The record in this study from Eskişehir contributed to the distribution information of the species.

MATERIALS AND METHODS

The samples were collected in Sivrihisar town of Eskişehir province with light trap in September 2022 (Figure 1). An UV lamp used approximately 1 m above the ground in the light trap (Figure 2) and the collection was made by tweezers. Collected Heteroptera samples were killed and preserved in ethyl acetate jars. Habitat characteristics of the study area are as follows; steppe plants with marly soil character are dominant.

The collection date and sample numbers of the species obtained in this study are given in the text.

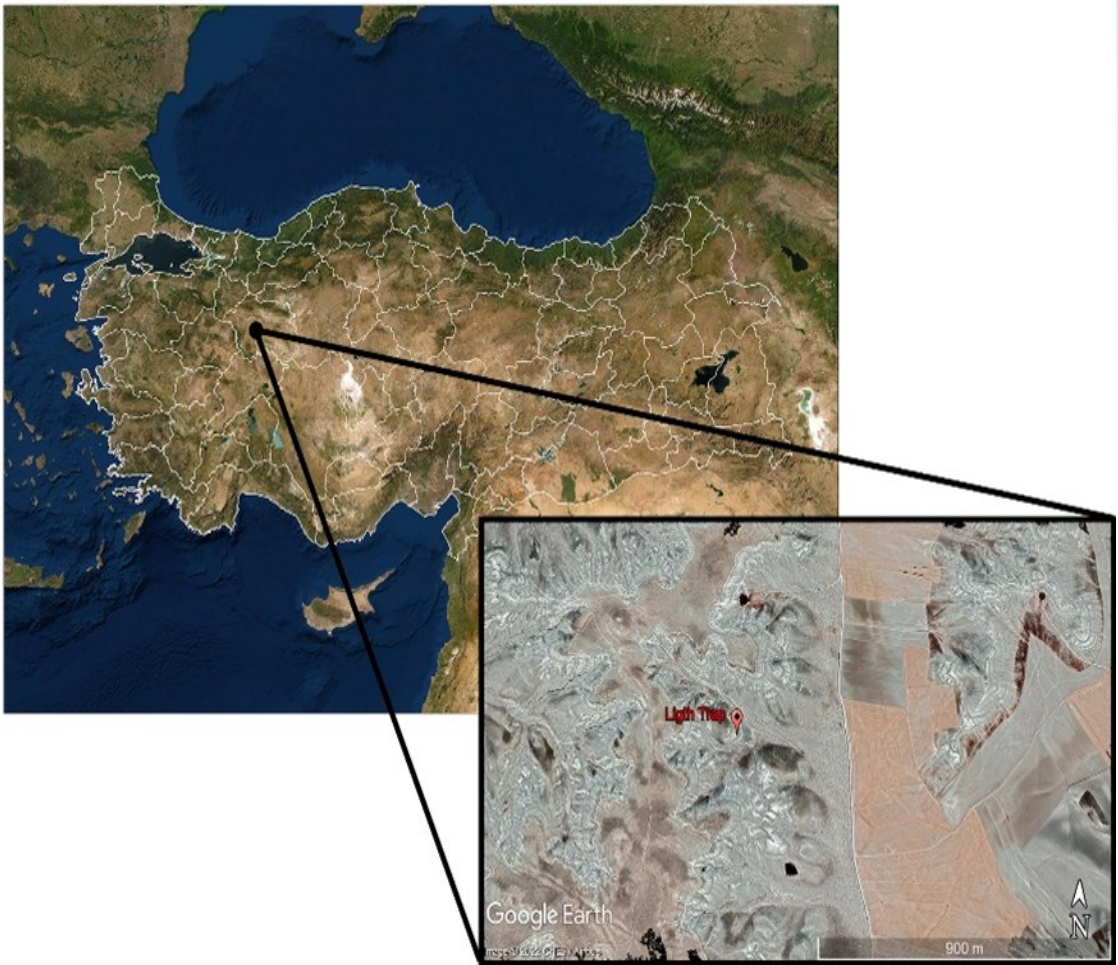


Figure 1. Map of Türkiye. Light trap setup point.



Figure 2. In this study, the place where the light trap is set up

RESULT

Family MIRIDAE Hahn, 1833

Subfamily MIRINAE Hahn, 1833

Genus *Polymerus* Hahn, 1831

Subgenus *Poeciloscytus* Fieber, 1858

***Polymerus palustris* (Reuter, 1907)
(Fig.3)**

Material examined: (Figs. 1,2) Sivrihisar-Eskişehir, 932 m., 39°21'15.10"N 31°29'50.51"E, 15.9.2022, 18 ♂♂, 8 ♀♀ (attracted to light), leg. D.E. Ersoy

Distribution on the Türkiye:

Adana (Önder et al., 2006), Edirne (Önder et al., 1984) and Sivrihisar-Eskişehir province (in this study).

General distribution:

Europe: Austria, Belgium, Bulgaria,

Byelorussia, Czech, Republic, Denmark, Estonia, Türkiye, Finland, France, Great Britain, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Netherlands, Poland, Romania, Russia (NT ST), Slovakia, Slovenia, Sweden, Switzerland, Ukraine.

Asia: China (NE), Japan, Korea, Russia (ES, FE, WS) (Aukema & Rieger, 1999); Euro-Siberian, Serbia, (Protić, 2020).

Habitat and host plants:

According to the literature, in humid places on *Galium* spp., often in swamps and forests. Imagines from June to September. Overwinters as an egg (Wagner, 1970/71); the host of the specimens of this species are *Galium* sp., *Galium palustre* and scrub and meadow. (Horváth, 1897; Göllner-Scheiding, 1978; Josifov, 1986, 1999; Gogala & Gogala 1989; Protić, 1998; Önder et al., 2006)



Figure 3. *Polymerus palustris* (Rt., 1907) habitus (♂)



Figure 4. Collected locality and habitat of *Polymerus palustris*.

DISCUSSION

In the Sivrihisar, many specimens were attracted to the light. In the second half of September, 18 ♂♂, 8 ♀♀ specimens of the species discussed in this study were found in *Galium* sp. collected in marl habitat (Figure 4).

In Türkiye, this species has been recorded from Adana and Edirne province so far (Önder et al., 1984, 2006), it is recorded for the third time with this study, therefore it is considered as a rare species for Heteroptera fauna of Türkiye. The record of *Polymerus palustris* in Edirne is also based on specimens caught in light traps (Önder et al., 1984). The fact that it was caught with a light trap in this study indicates that the species is prone to light.

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