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An Additional Locality Record for the Rare Distributed *Pasira marinadolina* P.V. Putshkov & Moulet, 2004 (Hemiptera: Heteroptera: Reduviidae) in Turkey with Description of Macropterous Female

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ABSTRACT: In this study, a macropter female specimen of *Pasira marinadolina* P.V. Putshkov & Moulet, 2004 was determined in Edirne province in 2021. This finding is the second locality record of this species in Turkey. In this study, the description of the macropter form is given and the differences between it and the related species *Pasira basiptera* Stål, 1859 are discussed.

KEYWORDS: *Pasira marinadolina*, macropterous female, description, Turkey.

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INTRODUCTION

There are 4 species of the genus *Pasira* Stål, 1859 (Heteroptera: Reduviidae: Reduviinae) in the Palearctic Region, and 3 of them are distributed in the Western Palearctic (Aukema, 2020). Of these species, *Pasira perpusilla* (Walker, 1873) is distributed in the southwestern part of China in the Eastern Palearctic. *Pasira basiptera* Stål, 1859, one of the species distributed in the Western Palearctic, is the most widely distributed species of the genus, and its distribution is known from southern Europe and especially in the Balkans, in North Africa and in the Middle East, Arabian Peninsula, Caucasus

in western Asia and in central Asia. *Pasira lewisi* (Miller, 1951) is distributed only in the Canary Islands in the Palearctic Region. The presence of *Pasira marinadolina* P.V. Putshkov & Moulet, 2004 has been known until now from Ukraine and the European part of Turkey in Europe and from Azerbaijan and Armenia in Asia (Aukema, 2020).

Pasira Stål, 1859 is represented by two species in Turkey. Of these, *Pasira basiptera* has only been given from Anatolia so far (Dursun & Salur, 2013).

Pasira marinadolina P.V. Putshkov & Moulet, 2004 was recorded for the first time by Çerçi & Koçak (2016) from Esenyurt in the European side of Istanbul province in Turkey.

Pasira marinadolina P.V. Putshkov & Moulet, 2004

Material: Edirne: Center (Trakya University-Balkan Campus), 20.05.2021, 1 macropterous female.

Distribution in Turkey: İstanbul-Esenyurt (Çerçi & Koçak, 2016), Edirne (the present study)

General Distribution: Europe: Turkey (European part), Ukraine. Asia: Azerbaijan, Armenia, Turkey (Asian part) (Aukema, 2020).

Description of macropterous female: Head black, brownish in distal, with, golden bristles equal to the length of the diameter of the first segment of the antenna; and very deep transverse sulcus in dorsal; anterior part in front of the sulcus about twice as long as its posterior part; first two segments of antenna yellowish brown. Pronotum dark brown, posterior corners and posterior margin thinly lighter - reddish brown; anterior part about 1.2 times as long as posterior part; anterior lobe of the pronotum with two oblique lateral impressions, as in the micropter form of this species Scutellum brownish black, with rare and short bristles; the carina-shaped lateral edges joined distally and elongated and formed a "Y"-shaped structure, which is much better seen in the lateral view. Corium in proximal (up to the distal part of clavus) reddish yellow (lighter in distal of clavus) the rest (including membrane) brown, lateral margins and dorsal with short and golden bristles, veins prominent.

Connexivum unicolar, yellowish brown. Legs, reddish yellow with short golden bristles, tibiae slightly darker, tarsi pale yellow. Size 6,1mm. (Fig. 1).

Comments and remarks: This species was previously given only based on on brachypter specimens (P.V. Putshkov & Moulet, 2004, 2009; Çerçi & Koçak, 2016). The record given by Çerçi & Koçak (2016) from İstanbul in the European part of Turkey is based on 6 brachypyter specimens of *Pasira marinadolina*. While the authors listed the differences of this species from *Pasira basiptera*, they reported that *P. marinadolina* was always micropterous unlike *P. basiptera*. However, as later presented its photographs on the Doğal Hayat web-site by Barış Çerçi, and our study shows that *P. marinadolina* also has macropter forms.

Remarks: P.V. Puthkov & Moulet (2009) stated that the only known micropter form of *P. marinadolina* is very similar to *P. basiptera*, except for the male genitalia. Unfortunately, we were not able to compare the species in terms of male genitalia, as the only sample we have is female. Apart from male genitalia, another difference is that *P. marinadolina* has two oblique lateral impressions on anterior lobe of the pronotum. This diagnostic character given by P.V. Puthkov & Moulet (2009) for the pronotum of micropter form is also seen in the macropter form. Additionally, the pronotum is completely blackish-brown, only the proximal corners and margins are lighter reddish-brown (Fig. 1). However the pronotum in the macropter form of *P. basiptera* is chocalat brown, strangled in its middle, this hollow disc with a strong transverse groove seperated two sub-equal lobes. Pronotum bulging in the anterior, with a medio-longitudinal short furrow generally not reaching the posterior edge and delimiting two erased

Figure I. *Pasira marinadolina* P.V. Putshkov & Moulet, 2004. a. Habitus (dorsal view) b. Head, pronotum and scutellum (dorsal view)

bumps in the posterior; posterior margin convex and narrowly thinned (See P.V. Putshkov & Molulet, 2009 p. 514, Fig. 95 -a).

Other differences mentioned for the species of genus *Pasira* in the key given by P.V. Putshkov & Moulet (2009) are on the colorations of the connexivum. The connexivum in *P. basiptera* is bicolored and reddish or brownish with black spots, rarely completely yellow/yellowish. The pronotum in *P. marinadolina* is one colored and is given as yellow or yellowish by the authors (P.V. Putshkov & Moule, 2009). In our specimen, the connexivum is yellowish brown as one colored. Çerçi & Koçak (2016) stated that this character is not valuable because the connexivum coloration of microptereous specimens of *P. marinadolina* in their study is bicolored as in *P. basiptera*.

Ecology: *P. marinadolina* occurs on stony slopes covered by sparse vegetation. Adults are mostly found under stones from September to June, but they also live in plant debris, under bushes and overwinter as an adult (Puthkov & Moulet, 2009). Puthkov & Moulet (2009) reported that they collected specimens of *P. marinadolina* at the entrance of a fox hole. In this study, a single specimen was caught inside the building of Biology Department in the Trakya University Campus. Since it was cold and rainy in May and June of 2021, this individual was probably inside the building to protect from the cold.

REFERENCES

Aukema, B., 2020, Catalogue of Palaearctic Heteroptera. Naturalis Biodiversity Center. Available from https://catpalhet.linnaeus.naturalis.nl/ (Accessed on 15.09-2021).

Çerçi, B., Koçak, Ö., 2016, Contribution to the knowledge of Heteroptera (Hemiptera) fauna of Turkey. *Journal of Insect Biodiversity*, 4(15): 1-18.

Dursun A., Salur A. 2013. Presence of *Sphedanolestes sanguineus* (Fabricius, 1794) in Turkey, followed by an annotated checklist of Reduviidae (Hemiptera: Heteroptera), *Turkish Journal of Zoology* 37: 610-620.

Putshkov, P.V., Moulet, P., 2004, Un *Reduvius* Fabricius, 1775 et une *Pasira* Stål, 1859 nouveaux pour la faune d'Europe (Heteroptera, Reduviidae, Reduviinae). *Nouvelle Revue d'Entomologie,* 20(2003): 247-254.

Putshkov P. V., Moulet, P, 2009, *Hémiptères Reduviidae d'Europe occidentale*. Fédération Française des Sociétés de Sciences Naturelles, Faune de France 92: 688 pp.