



MAKÜ FEBED
ISSN Online: 1309-2243
<http://dergipark.ulakbim.gov.tr/makufebed>

Mehmet Akif Ersoy Üniversitesi Fen Bilimleri Enstitüsü Dergisi 7(Ek Sayı 1): 281-283 (2016)
The Journal of Graduate School of Natural and Applied Sciences of Mehmet Akif Ersoy University 7(Supplementary Issue 1): 281-283 (2016)

Araştırma Makalesi / Research Paper

First Record of the Water Mite *Atractides polyporus* (K. Viets, 1922) (Acari; Hydrachnidia; Hygrobatidae) for Turkey

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Geliş Tarihi (Received): 29.09.2016, Kabul Tarihi (Accepted): 24.11.2016

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ABSTRACT

Atractides polyporus (K. Viets, 1922) recorded first time for the fauna of Turkey. Some morphological features of females gathered from a salty, sulphurous and hypoxigenic spring site were studied in detail, diagnostic characters were illustrated, and some measurements were given together with distributional information.

Keywords: Lake Burdur, spring water, inland water, fauna

Türkiye İçin Yeni Bir Su Kenesi Kaydı: *Atractides polyporus* (K. Viets, 1922) (Acari; Hydrachnidia; Hygrobatidae)

ÖZ

Atractides polyporus (K. Viets, 1922) Türkiye faunası için ilk kez kaydedilmiştir. Tuzlu, kükürlü ve hipoksijenik bir kaynak bölgesinden toplanılan türün dişilerinin bazı morfolojik özellikleri detaylı şekilde incelenmiş, önemli karakterleri çizilmiş ve bazı ölçümlerle birlikte dağılım kayıtları verilmiştir.

Anahtar Kelimeler: Burdur Gölü, kaynak suyu, içsular, fauna

INTRODUCTION

Water mites of the genus *Atractides* Koch, 1837 have been found in all biogeographical regions except for Australia and Antarctica. Most species are found only in unimpaired waters with well conserved substratum, thus they are probably sensitive to many forms of human impact (Gerecke, 2003).

Water mite fauna of Turkey is insufficiently known, while it is recognizable with increasing number of recently described species. One of the genera among most focused on is *Atractides* Koch, 1837, known so far with 29 species from Turkey (Erman et al., 2010; Gülle

et al., 2010; Aşçı et al., 2011; Esen et al., 2013; Esen and Erman 2013).

The aim of this paper is to review the taxonomic characterizations of *A. polyporus* (Karakent Village, Burdur) that is a new record for fauna of Turkey and to contribute to water mite fauna of Turkey.

MATERIAL AND METHODS

Water mites were collected by hand netting and sorted on the spot from the living material, preserved in Koenike's fluid and dissected for slide mounting in Hoyer's fluid. All measurements are given in μm . The

following abbreviations are used: Ac= acetabulum, Cx= I = first coxae, D = dorsalia, Dgl = dorsoglandularia, H = height, L = length, I-L-6 = Leg 1, sixth segment, P-1 = palp, first segment, S-1 = large proximal ventral seta at I-L-5, S-2 = large distal ventral seta at I-L-5, Vgl= ventroglandulare, W = width. For a detailed description and discussion of the characteristics of the genus *Atractides* and a detailed methodological introduction, described by Gerecke (2003).

RESULTS

Systematics:

Family Hygrobatidae Koch, 1842

Genus *Atractides* Koch, 1837

Subgenus *Polymegapus* K. Viets, 1926

Atractides polyporus (K. Viets, 1922)

Female. Integument striated, idiosoma L/W 674/578. Muscle insertions sclerotized. Prefrontal, post ocular, Dgl-3 and D-1as paired and extended triangular plates. D-2, -3, and -5 as extended, paired irregular plates, coxal area: Cx-1 + 2 204 medial caudal margin rounded, Cx-3 medially pointed, Cx-3+4 198 (Fig. 1a). Palp segments L 38-102-79-129-52, H 41-73-52-38-14 (Fig. 1b). Genital area with 12-20 acetabula. Genital plate semicircular in shape, L 126. Gonopod 138, pregenital plate L 132, postgenital plate L 66 (Fig. 1c). Caudal of the genital plate rounded, Vgl-1 and Vgl-2 fused. I-L-5 L 161, W 32. S-1 and S-2 similar in size: S-1 67, S-2 64. I-L-6 highly reduced and distally has a bent and thin tip, L/W 70/ 23 (Fig. 1d). The lateral seta on P-4 positioned posterior to the ventral setae.

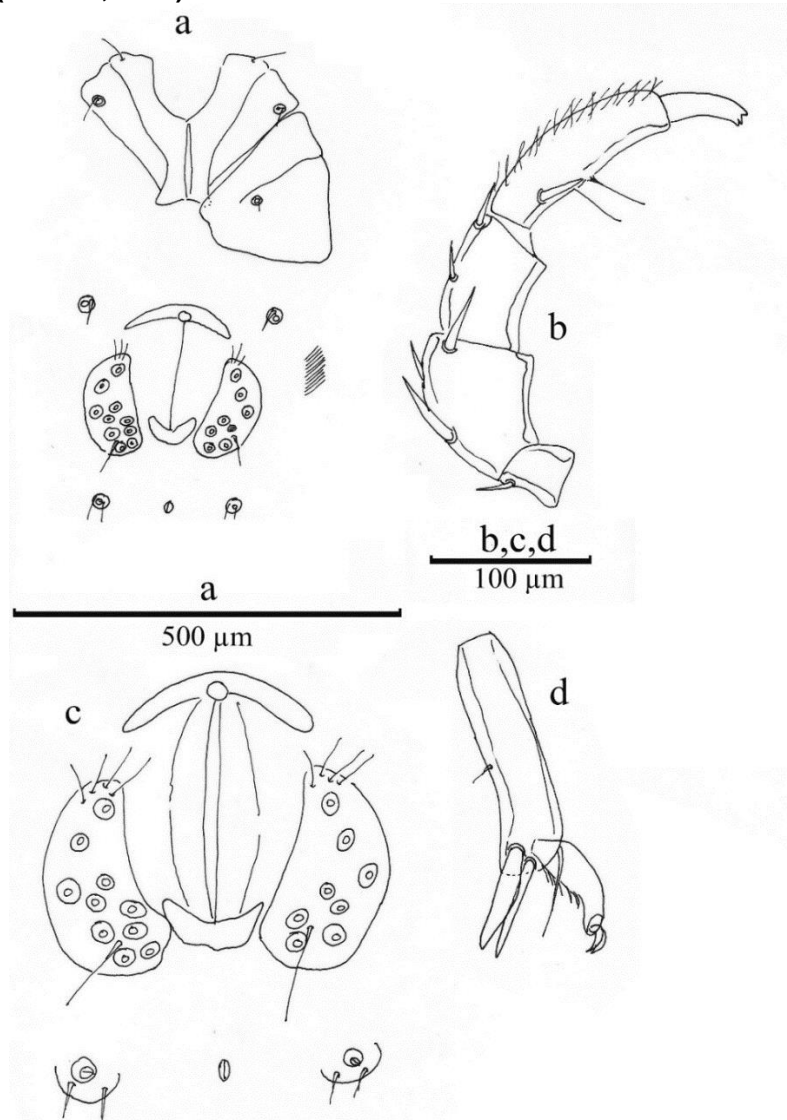


Figure 1. *Atractides polyporus* female a) Idiosoma ventral b) Palp c) Genital area d) I-L-5-6

Studied material and habitat. Burdur Lake shore, near Güvercin Tepe, Karakent, Burdur, 4 females, 08.06.2015, leg. İ. Gülle. Specimens were collected from sulphurous, salty and hypoxygenic springs with

filamentous green algae. Other characteristics of the habitat are given in Table 1.

Distribution. Northern Africa; central, western and southern Europe (Gerecke et. al., 2016).

Table 1. Habitat characteristics of *Atractides polyporus*

water quality values (08.06.2015)							
water temperature	pH	dissolved oxygen	diss. oxy. saturation	electrical conductivity	TDS	salinity	turbidity
16.3 °C	7.87	1.45 mg/L	13%	6200 µS/cm	5.350 g/L	3.4 g/L	clear

CONCLUSION AND DISCUSSION

Atractides polyporus differs from its other West Palearctic congeners by its increased number of acetabula. It is further separated from tetracetabulate *A. octoporus* Piersig, 1898 by its characteristic features of the subgenus *Polymegapus*, which includes the highly similar *A. persicus* Pešić & Asadi, 2010 which differs in having 4 acetabula, stockier S-2 and shorter I-L-6 (Gerecke, 2003).

ACKNOWLEDGEMENTS

The study was supported by Mehmet Akif Ersoy University Scientific Research Projects Coordination Unit (Project no: 177–NAP–13).

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