

Two New Water Mite Records (Acari, Hydrachnida, Hygrobatidae) for the Turkish Fauna

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Özet. Bu çalışmada, Türkiye'nin su kenesi (Acari, Hydrachnida, Hygrobatidae) faunası için yeni kayıt olarak belirlenen *Atractides fissus*'un dişisi ve *Atractides arcutus*'un erkeğinin yapısal özellikleri ve orijinal çizimleri verilmiştir. Bu türlerin genel karakteristikleri tanımlanmıştır ve değişik organlarının ölçümlerine ait bilgiler verilmiştir. Ayrıca, bu türlerin dünyadaki dağılımları gözden geçirilmiştir.

Anahtar Kelimeler. Acari, Hydrachnida, Hygrobatidae, yeni kayıt, Türkiye.

Abstract. In this study, the structural properties and the original drawings of *Atractides fissus* and *Atractides arcuatus* are given as new records for the Turkish water mite (Acari, Hydrachnida, Hygrobatidae) fauna. The general characteristics of the two species are described and information about the measurements of their various organs is given. Furthermore, the distribution of these species is discussed.

Keywords. Acari, Hydrachnida, Hygrobatidae, new record, Turkey.

1. Introduction

Species of *Atractides* Koch, 1837 are observed in all biogeographical areas except for Australia and Antarctica [1,2]. So far, 22 *Atractides* species are known from Turkey [3,4,5]. In this study, the morphological characteristics and zoogeographical dispersions of *Atractides fissus* and *Atractides arcuatus*, which are a new discovery in the fauna of Turkey, are provided.

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2. Material and Method

Water mites were collected, preserved, and prepared according to the methods described by [1,2,6]. All samples were examined under stereo (Leica MZ60, Germany) and compound microscopes (Olympus CX41, Japan) with drawing attachments. All measurements are given in micrometers (μm).

3. Results

Family. Hygrobatidae

Genus. *Atractides* Koch, 1837

Type Species. *Atractides spinipes* Koch, 18370

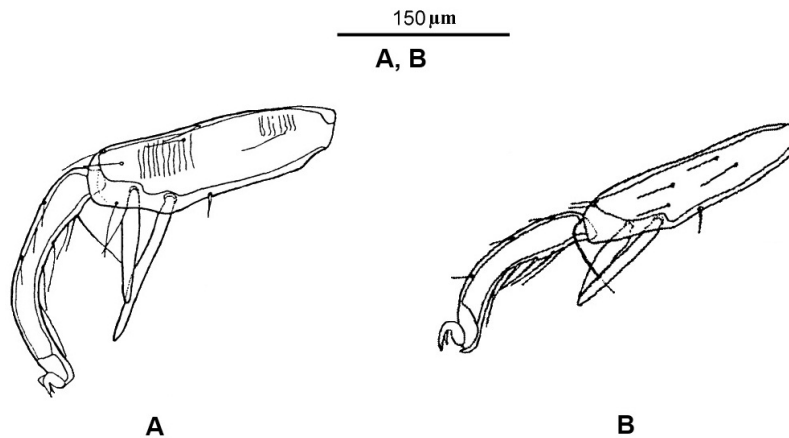


FIGURE 1. *Atractides fissus*, A) IV.Leg/5-6, *Atractides arcuatus*, B) IV.Leg/5-6.

Atractides fissus Walter, 1927

Female; the body size is 700/584, round in shape, and the integument has lines. The capitulum is narrow nebbled, length 112, chelicerae 210 and nail 68. The palp segments bear no indentations, and there is an abundance of dorsal setae on P4. The length of palp segments is 27-68-78-95-34=302, height: 34-51-40-30-13. IV.L/5 is fine and bends prominently forward in the second half, S_1 setae on IV.L/5 are longer than setae S_2 (Figure 1A). The length of leg segments are 64-84-98-168-182-146=742, 56-70-84-112-130-140=592, 56-70-84-140-168-154=672, 98-104-140-186-238-196=962 respectively. The length of the gonad plate is 108, genital area is 154, gonad indentations are small.

Examined Samples and Habitat. Beşköy stream, 12.05.1991, 10 ♀♀, Ereğli; Habiller village, 29.08.1992, 1 ♀; Şeytan pınarı, 09.08.1992, 9 ♀♀, Hadim, Konya.

Distribution. This species is known in France and Switzerland [7].

Atractides arcuatus Thor, 1904

Male; the body size is 504/420 and the integument is smooth. The capitulum is short nebbed, the length is 130, chelicerae is 162, nail is 58. The palp is coarsely structured and small. P4 carries eight setae on top. The length of the palps is 30-61-54-85-28=258, height 34-51-44-46-14. IV. L/5 and 6 are relatively small and delicate, setae S₁ on IV.L/5 are longer than S₂ and the distortion on IV.L/6 is minor (Figure 1B). The length of leg segments are 42-70-112-168-168-126=686, 40-56-84-126-126-140=572, 54-70-100-154-168-160=706, 98-100-168-216-238-196= 1016 respectively. The sides of the gonad plates are flat, the top and bottom edges are smooth, there is an abundance of setae on top.

Examined Samples and Habitat. 02.05.1992, 2 ♂♂, Kaynak Suları, Hatıp, Konya.

Distribution. The species is known in Hungary, Caucasus and Turkistan and Algeria.

4. Discussion

This species has been defined based on the characteristics of the male specimens collected in France. This was followed by the discovery by Lundblad [8] of the female and the observation that the palp structure of the species resembled by *A. nodipalpis fonticola*. It differs from another close species which is *A. rivalis* by the long and weak IV. L/6. The characteristics of the organs of the females and particularly the palp of the allotype are smaller [8].

Atractides (s.str.) *arcuatus* has been caught in two countries in Europe and Algeria in North Africa [7,9,10]. For this species a detailed definition on male and female specimens was made by Thor [9]; later definitions did not make a point of the structural characteristics and measurements; the Turkish specimens correspond to the description of the population given by Thor.

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