

## A NEW *ATRACTIDES* KOCH, 1837 (ACARI: PARASITENGONA: HYGROBATIDAE) SPECIES FOR THE TURKISH FAUNA

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**Abstract.** In this study, the morphological characteristics, measurements, habitat and distribution information for *Atractides longirostris* (WALTER, 1925), a new record for the Turkish fauna, are presented.

**Keywords:** water mites, *Atractides*, new record, Turkey.

**Rezumat. O nouă specie de *Atractides* KOCH, 1837 (Acari: Parasitengona: Hygrobatidae) pentru fauna Turciei.** În acest studiu sunt prezentate caracteristice morfologice, dimensiunile, habitatul și distribuția speciei *Atractides longirostris* (WALTER 1925), o specie nou semnalată în fauna Turciei.

**Cuvinte cheie:** căpușe de apă, *Atractides*, semnalare nouă, Turcia.

### INTRODUCTION

Water mites of the genus *Atractides* have been found in all biogeographical regions except for Australia and Antarctica. The aim of this paper is to supply elements for an extended revision of the diversity, distribution, and ecology of *Atractides* water mites in Turkey. At present (2010), only 20 species of the genus *Atractides* are known in Turkey: *Atractides acutirostris* (MOTAŞ, ANGELIER 1927); *A. allgaier* GERECKE 2003; *A. anellatus* LUNDBLAD 1956; *A. arcuatus* THOR 1904; *A. distans* (VIETS 1914); *A. fissus* (WALTER 1927); *A. gibberipalpis* PIERSIG 1898; *A. inflatus* (WALTER 1925); *A. lunipes* LUNDBLAD 1956; *A. mitisi* (WALTER 1944); *A. nodipalpis* THOR 1899; *A. nodipalpoides* BOYACI 1995; *A. ovalis* KOENIKE 1883; *A. panniculatus* (VIETS 1925); *A. quadruporus* KOENIKE 1915; *A. rivalis* LUNDBLAD 1956; *A. oezkani* (PESIC ve ERMAN 2006); *A. robustus* (SOKOLOW 1940); *A. vaginalis* (KOENIKE 1905); *A. walteri* VIETS 1925 (ERMAN, 1990; BOYACI, 1995; AŞÇI, 2002; KÜÇÜKÖNER, 2001; BURSALI, 2002; ERMAN et al., 2007).

The water mite faunas of Eastern, North Eastern, and Central Anatolia are relatively well-known in respective order (ÖZKAN, 1989; ERMAN et al., 2007). The western half of Turkey, especially the region of Antalya is poorly-known, on the other hand, and no literature record from the province of Antalya is available (BOYACI, 1995; ERMAN et al., 2007).

During a survey of the water mite fauna of the province Antalya, *Atractides longirostris* (WALTER, 1925) was determined to be a new record for the fauna of Turkey.

### MATERIAL AND METHODS

On July 7, 2008, a single female specimen from the Eşen stream, Antalya was obtained during a faunistic survey of water mite fauna of freshwaters in province Antalya. Water mite specimens were collected with a sieve series, sorted on the spot from the living material, conserved in Koenike's fluid and dissected as described in the literature (GERECKE, 1991). The slide-mounted specimen is deposited in the private collection of the senior author.

**Abbreviations:** CPG-Private collection of Pınar Gülle. Terminology about body parts: Ac-acetabulum (numbered 1 to 3), Cx-coxae (numbered 1 to 4), I-L-n-first leg, nth segment, H-height, L-length, P-palp segment (numbered 1 to 5), S-seta, W-width. All measurements are given in  $\mu\text{m}$ .

### RESULTS AND DISCUSSIONS

#### *Atractides* KOCH 1837

Type species: *Atractides spinipes* (KOCHE 1837)

*Atractides longirostris* (WALTER 1925)

*Megapus longirostris* WALTER, 1925. Bulletin de la Société d'Histoire Naturelle Afrique Nord, Alger., 16: 189-238

**Examined material:** Antalya, the Eşen stream, July 7, 2008, 1 ♀.

**Description:** Pregenital in genital field narrow, genital plates bean-shaped (Figure 1). Mediocaudal margin of Cx-1 + 2 slightly indented, coxal plates without secondary sclerotization.

**Measurements:** Idiosoma L/W 744/636, coxal field L 357, Cx-3 W 416; Cx-1 + 2 L 89, C x-1+2 W 268, S-1 L 30, L/W 7.5, S-2 L 31, L/W 7.6; I-L-6 L 76.4, genital field L/W 113/131, gnathosoma L 140. Measurements of palpal segments are given in the Table 1.

The original description is based on the single female specimen from Algeria and so far the species was not recorded elsewhere. Except for smaller size, proportions to all measurements of body parts were congruent with that of the holotype.

Further difference with the original description and our find is in the habitats. While the holotype was collected from a rhithral habitat (LUNDBLAD, 1942; GERECKE, 2003), the specimen was collected from the mainstream connected to the sea.

*A. longirostris* is very similar to *A. pavesii* MAGLIO, 1905, a relatively widespread species of southern and central Europe, in nearly all features and measurements, including relatively strong cheliceral claw, hair-like sword seta on P-4, and the ventral setae of this segment shifted distally (GERECKE, 2003). Females distinguished by the indented mediocaudal margin of Cx-1 + 2, Vgl-1 + 2 fused, and more slender palp. Accordingly, synonymy is questionable if the highly distinct male of *A. longirostris*, described later by LUNDBLAD (1942), belongs to an undescribed species.

Table 1. Palpal segments of the *Atractides longirostris* specimen.  
Tabel 1. Segmentele palpilor unui specimene de *Atractides longirostris*.

Palp	P-1	P-2	P-3	P-4	P-5
L/W	20/9	37/22.5	56/18	63/12	18/7
(ratio)	2.2	1.7	3.1	5.25	2.5

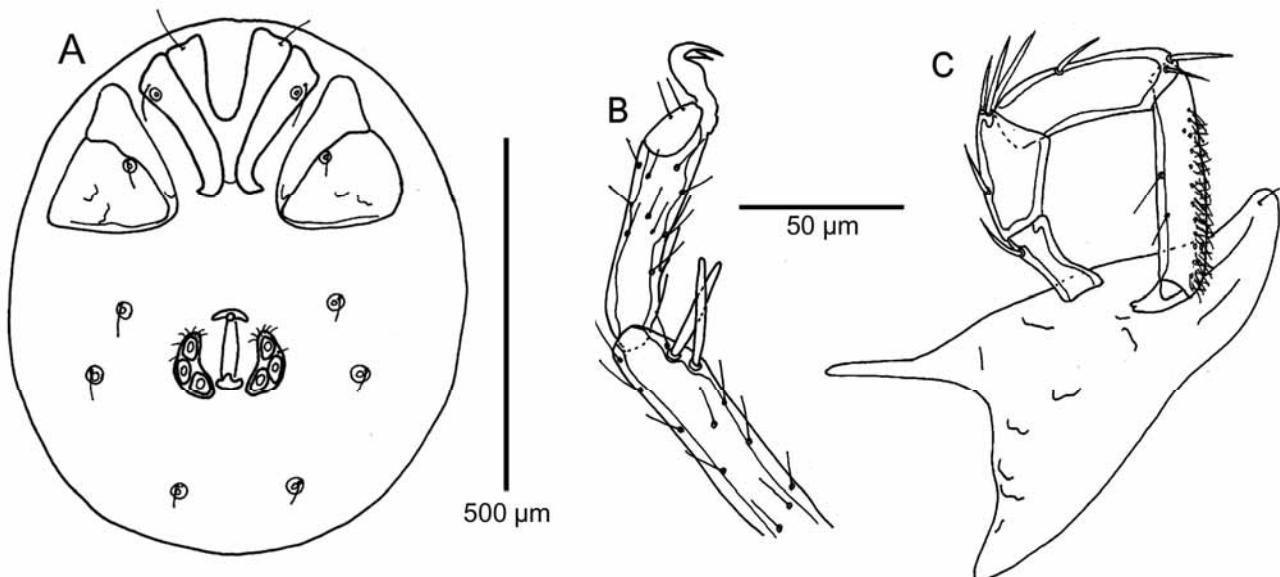


Figure 1. *Atractides longirostris*; A, ♀ ventral idiosoma; B, ♀ I-L-5 and 6; C, ♀ gnathosoma.  
Figura 1 *Atractides longirostris*; A, ♀ idiosoma ventrală; B, ♀ I-L-5 și 6; C, ♀ gnatosoma.

## CONCLUSIONS

With the addition of the new record of *A. longirostris*, the number of *Atractides* species recorded in Turkey reaches 21. Water mite fauna of Mediterranean Turkey is not known except for few records.

Future studies would serve important contributions in understanding the water mite fauna of Turkey and the biogeography of the Mediterranean area.

## REFERENCES

- AŞÇI F. 2002. *Kars, Ardahan, Artvin ve Rize İllerinin Su Kenelerinin (Hydrachnella, Acari) Sistematisk Yönden incelenmesi* (PhD Thesis). Atatürk Üniversitesi Fen Bilimleri Enstitüsü. 250 pp.
- BOYACI Y.Ö. 1995. *Konya İli ve Çevresi Su Kenelerinin (Hydrachnella, Acari) Sistematisk Yönden incelenmesi* (PhD Thesis). Atatürk Üniversitesi Fen Bilimleri Enstitüsü. 235 pp.
- BURSALI A. 2002. *Yeşilırmak Havzası Su Kenelerinin (Hydrachnella, Acari) Sistematisk Yönden İncelenmesi* (PhD Thesis). Atatürk Üniversitesi. 227 pp.
- ERMAN O. 1990. *Elazığ İli Su Kenelerinin (Hydrachnella, Acari) Sistematisk Yönden incelenmesi* (PhD Thesis). Atatürk Üniversitesi Fen Bilimleri Enstitüsü. 118 pp.
- ERMAN O., ÖZKAN M., AYYILDIZ N., DOĞAN S. 2007. Checklist of the mites (Arachnida: Acari) of Turkey. Second supplement. Zootaxa. 1532: 1-21.

- GERECKE R. 1991. *Taxonomische, faunistische und ökologische Untersuchungen an Wassermilben (Acari, Actinedida) aus Sizilien unter Berücksichtigung anderer aquatischer Invertebraten.* Lauterbornia.7: 1-304.
- GERECKE R. 2003. *Water mites of the genus Atractides Koch, 1837 (Acari: Parasitengona: Hygrobatidae) in the western Palaearctic region: a revision.* Zoological Journal of the Linnean Society. 138: 141-378.
- KÜÇÜKÖNER Z. 2001. *Van İli Su Kenelerinin (Acari, Hydrachnellae) Sistemmatik Yönden İncelenmesi.* Doktora Tezi. Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü. 208 pp.
- LUNDBLAD O. 1942. *Afrikanische Hydracarinen.* Entomologisk Tidskrift. 63(3-4): 155-209.
- ÖZKAN M. 1989. *Doğu Anadolu Su Akarları (Acari, Hydrachellae) Üzerine Araştırmalar IV.* Doğa Türk Zooloji Dergisi. 13(2): 88-108.

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