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A new water mite species (Hydrachnidia: Aturidae) from Turkey: *Barbaxonella taurusensis* sp. nov.

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Abstract: *Barbaxonella taurusensis* n. sp. is described and a list of species of the water mite family Aturidae Thor, 1900 from Turkey is given. *Barbaxonella taurusensis* n. sp. is the second species of genus *Barbaxonella* Lundblad, 1954 recorded from Turkey.

Key words: Aturidae, water mite, new species, Turkey

Türkiye'den yeni bir su kenese türü (Hydrachnidia: Aturidae): *Barbaxonella taurusensis* sp. nov.

Özet: *Barbaxonella taurusensis* n. sp. tanımlanmış ve Aturidae Thor, 1900 familyasının Türkiye'den bilinen türlerinin listesi verilmiştir. *Barbaxonella taurusensis* n. sp. *Barbaxonella* Lundblad, 1954 cinsinin Türkiye'den kaydedilen 2. türüdür.

Anahtar sözcükler: Aturidae, su kenese, yeni tür, Türkiye

Introduction

The family Aturidae Thor, 1900 is the most diverse of the water mites, and occurs on every continent except Antarctica (Cook, 1974). Turkey has a rich water mite fauna, which increased considerably recently with detailed taxonomical studies. So far, 19 species of the Aturidae are known from Turkey (Aşçı et al., 2009, 2010; Esen et al., 2011): *Albaxona (Albaxona) lundbladi* Motaş & Tanasachi, 1947;

Albia (Albia) stationis Thon, 1899; *Aturus (Aturus) crinitus* Thor, 1902; *A. (A.) intermedius* Protz, 1900; *A. (A.) karamani* Viets, 1936; *A. (A.) natangensis* Protz, 1900; *A. (A.) scaber* Kramer, 1875; *Axonopsis (Hexaxonopsis) romijni* Viets, 1923; *A. (H.) serrata* Walter, 1928; *Woolastookia (H.) rotundifrons* (Viets, 1922); *Axonopsis (Navinaxonopsis) persica* Pešić, 2004; *A. (Paraxonopsis) vietsi* Motaş & Tanasachi, 1947; *Barbaxonella (Barbaxonella) bingolensis* Esen,

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Pešić & Erman, 2011; *Brachypoda* (*Hemibrachypoda*) *mutila* (Walter, 1928); *Javalbia* (*Javalbicula*) *turcica* Esen, Pešić & Erman, 2011; *Kongsbergia* (*Kongsbergia*) *materna* Thor, 1899; *K. (K.) persica* Pešić, 2005; *Ljanina* (*Ljanina*) *bipapillata* Thor, 1898; and *L. (L.) macilenta* Koenike, 1908.

Material and methods

Water mites were collected, preserved, and prepared according to the methods described in the literature (Viets, 1936; Cook, 1974; Gerecke, 2003). All of the samples were examined under a trinocular microscope (Olympus CX41) with a drawing attachment. The composition of the material is given as: (males/females/deutonymphs). The following abbreviations are used in the text: CPG: Private collection of Yunus Ömer Boyacı in Süleyman Demirel University Eğirdir Fisheries Faculty (Isparta, Turkey), L: length, W: width, and P-1: palp, first segment. All of the measurements are given in micrometers.

Results and discussion

Family Aturidae Thor, 1900

Subfamily Axonopsinae Viets, 1929

Genus *Barbaxonella* Lundblad, 1954

Barbaxonella taurusensis sp. nov.

Diagnosis. Male: Caudal projections medially touching (but not fused), forming a hollow crescent-shaped space at posterior end of the body and at their tips, a reversed V-shaped indentation with thick and short hairs, the ventral part of the gonopore anteriorly elongated and triangular. Acetabula arranged in an equilateral triangular shape.

Description

Holotype. Male. Body with straight anterior margin, caudally extended (Figure 1a). Caudal projections medially touching each other, not fused, and forming anteriorly a hollow crescent-shaped space and a reversed V-shaped indentation at the tip; the posterolateral parts of dorsal shield densely pilose (Figure 1b). Caudal projections touching medially

and shortly below the furrow, posteriorly with a reversed V-shaped indentation and rows of thicker and shorter hairs. Idiosoma L/W 495/345, dorsal shield L/W 375/300. Lateral glandularia 3 and 4 not on the dorsal shield, eyes with 2 lenses. Dorsum covered with a solid and large dorsal shield bearing 4 pairs of glandularia and postocularia. Distance between pre-antenniform hairs 83. Capitulum short-nosed and with short hairs, L 88; ventral surface of P-2 straight, the area of dorsodistal end of P-4 densely haired (Figure 1c); chelicera L 92. Palps slender, dorsal L of palp segments: 25-45-34-65-30 = 199, height: 20-30-25-20-10. Anterior coxae not extending to anterior end of body. Capitular bay L/W 83/43. Genital field located in the posterior part of the body and completely fused with the ventral shield, with 3 pairs of acetabula arranged in equilateral triangle. Leg segments L (in respective order I-IV): 50-38-47-71-80-84 = 370, 52-42-53-80-90-96 = 413, 54-59-61-70-83-118 = 445, 74-56-56-65-122-118 = 491.

Female: Unknown.

Type Material. Holotype (CPG), male. Dissected and slide mounted in Hoyers fluid small, sandy, and slow flowing tributary of the Köprüçay River, 1280 m a.s.l., 18.06.2008, leg. Y.Ö. Boyacı, Eğirdir, Isparta, Turkey. Paratypes (CPG): same data as holotype (2/0/0).

Remarks

To date, 37 genera have been described within the subfamily Axonopsinae, and the genus *Barbaxonella* includes so far 6 known species (Pešić and Gerecke, 2003; Valdecasas, 2008). *Barbaxonella taurusensis* nov. sp. was found in a small, sandy, and slow flowing tributary of the Köprüçay River. The males of the species resemble *Barbaxonella bingolensis* Esen, Pešić & Erman, 2011 with the presence of a transversal ridge separating the posterior part of the dorsal shield, lateral parts of which being anterolaterally directed; anteriorly straight and caudally extended body, the posterolateral parts of dorsal shield densely pilose, along with similar capitulum morphology. Males of *Barbaxonella taurusensis* are separated from *Barbaxonella bingolensis* basically in the anteriorly elongated triangular shape of the ventral part of

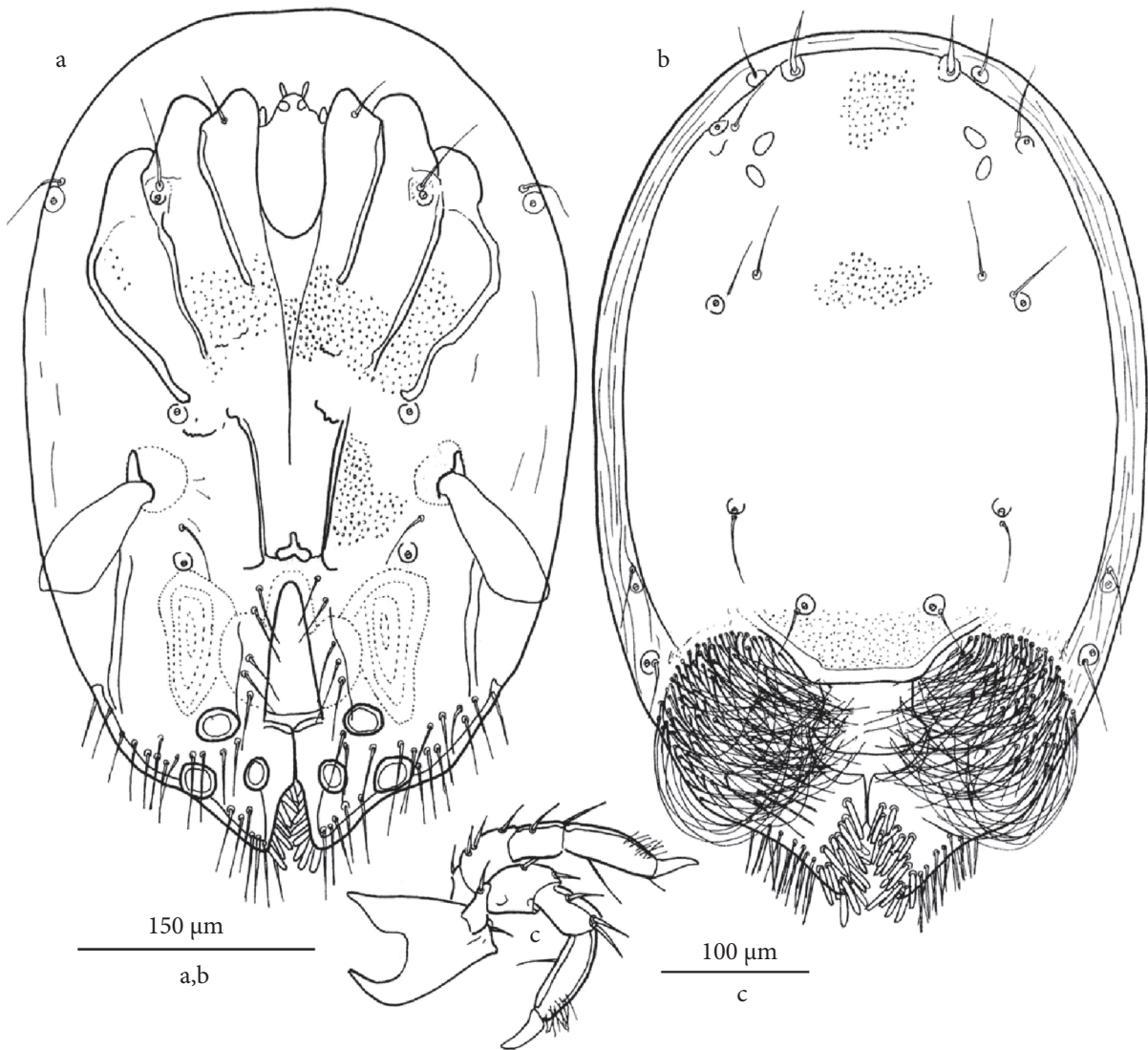


Figure 1. *Barbaxonella taurusensis*, holotype male: a) idiosoma ventral, b) idiosoma dorsal, and c) gnathosoma.

the gonopore; caudal projections extending beyond posterior idiosoma margin, touching medially and forming distally a V-shaped indentation with thick and short hairs; arrangement of acetabula in an equilateral triangle and presence of a group of anterodorsal setae on P-4.

Etymology. Named after the Taurus Mountains.

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