

NEW RECORDS OF WATER MITES (ACARI: HYDRACHNIDIA) FROM TURKEY

V. PEŠIĆ¹, O. ERMAN² AND Y. ESEN²

¹Department of Biology, Faculty of Sciences, University of Montenegro, 81000 Podgorica, Montenegro

²Department of Biology, Science and Arts Faculty, Firat University, 23119, Elazığ, Türkiye

ABSTRACT: Four water mites (Acari, Hydrachnidia) are reported from Turkey; *Brachypoda baderi* Di Sabatino and Cicolani, 1990 is synonymized with *Brachypoda mutila* Walter, 1928; additionally, three water mite species (*Neumania uncinata* Walter, 1927, *Albia stationis* Thon, 1899, and *Axonopsis serrata* Walter, 1928) are reported for the first time for the fauna of Turkey.

KEY WORDS: Acari, water mites, new records, running waters, Turkey

INTRODUCTION

There is very little known about water mites from running waters in Turkey and only a few regions have been intensively studied (e.g., ÖZKAN, 1982; BOYACI AND ÖZKAN, 1994; SMIT, 1995; ÖZKAN *et al.*, 1996; PEŠIĆ *et al.*, accepted a,b). The aim of this paper is to present new data that contribute to our knowledge about the morphology, geographical distribution, and habitat preference of Turkish water mite species recently collected from running waters in the Malatya Province (Eastern Turkey).

MATERIAL AND METHODS

Water mites were collected by hand netting, sorted in the field from living material, preserved in Koenike's fluid, and dissected as described elsewhere (e.g., GERECKE, 1991).

Slide-mounted specimens and material preserved in fluid are lodged in the collection of the first author. The following abbreviations are used: I-L-6 = sixth segment of first leg; (1/2/3) = one

male, two females, three deutonymphs.

RESULTS

Family UNIONICOLIDAE

Neumania uncinata Walter, 1927

Material examined: Malatya Province, Pütürge, Mezra stream (38°13'N 38°42'E), 900 m asl., 28.08.2003, leg. Esen (0/2/0).

Remarks: Recent studies of this species in the Mediterranean area demonstrate that *N. uncinata* preferably inhabits pool areas with sand or gravel substrata in rivers and streams in lowlands or at middle elevations (PEŠIĆ AND GERECKE, in prep.).

Distribution: Europe. New for Turkey.

Family ATURIDAE

Albia stationis Thon, 1899

Material examined: Malatya Province, Arapgir, Kozluk stream, (39°04'N 38°30'E), 950 m asl., 05.07.2004, leg. Esen (0/2/0).

Distribution: Palaearctic. New for Turkey.

Axonopsis serrata Walter, 1928

Material examined: Malatya Province, Arapgir, Kozluk stream, (39°04'N 38°30'E), 950 m asl., 05.07.2004, leg. Esen (8/20/0).

Remark: *A. serrata* is a typical lenitobiont (PEŠIĆ AND GERECKE, 2003).

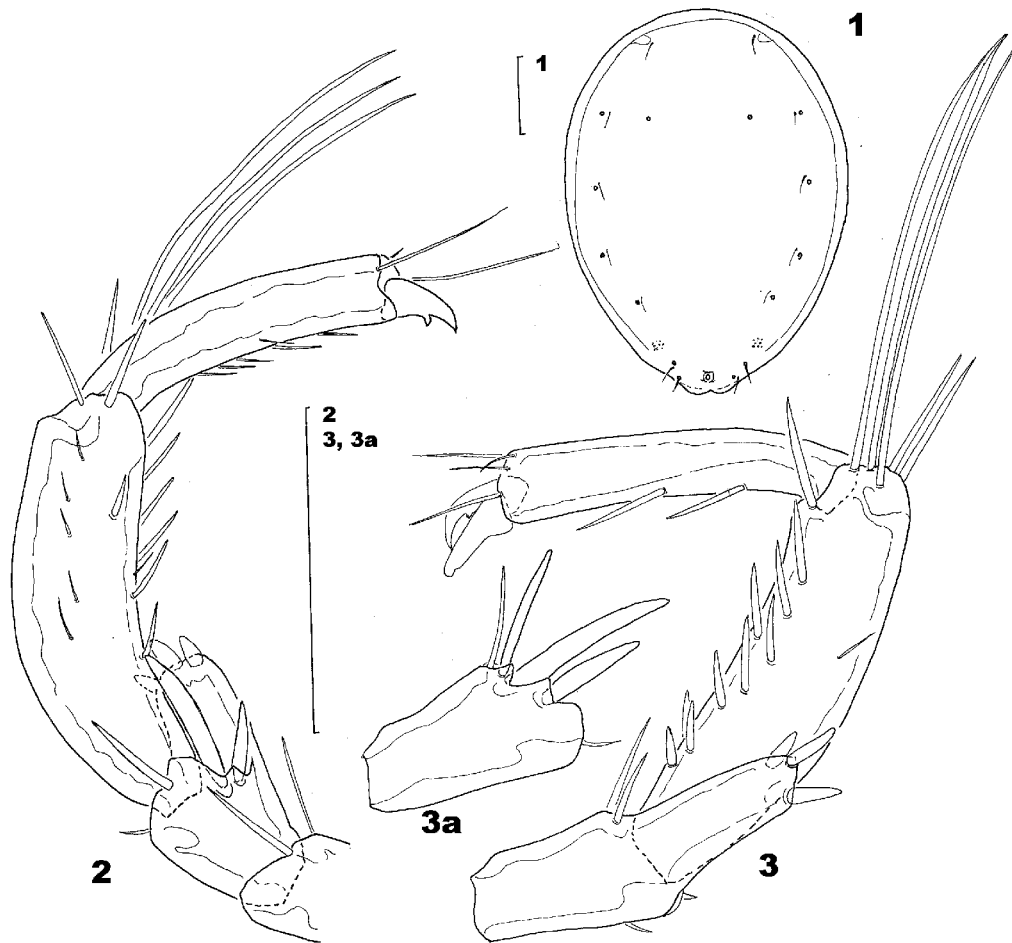
Distribution: Central and southern parts of the western Palaearctic (PEŠIĆ and GERECKE, 2003). New for Turkey.

Brachypoda mutila Walter, 1928

Brachypoda baderi Di Sabatino and Cicolani, 1990, **nov. syn.**
(Figs. 1-3)

Material examined: Malatya Province, Pütürge, Mezra stream (38°13'N 38°42'E), 900 m asl., 28.08.2003, leg. Esen (2/5/0).

Remarks: DI SABATINO AND CICOLANI (1990) described *Brachypoda (Hemibrachypoda) baderi* from a stream in Italy. In the original description, Di Sabatino and Cicolani, compared this taxon with *B. mutila*, elaborating the following differences: in males: IV-L-5 with 6-7 longer setae (10-13 short spinae in *B. mutila*), IV-L-4 short and enlarged (elongated in typical specimens of *B. mutila* – see Fig. 3), three setae at the base of the apophyse, the second of which is larger vs. the first is larger in *B. mutila*; female without free platelets, these being fused with the dorsal shield (with free platelets at the end of the dorsal shield in *B. mutila*). Our studies on *B. mutila* specimens from Turkey show considerable variability of all of these characters: we found that one juvenile



Figures 1-3. *Brachypoda mutila* Walter, 1928 (1 = female, 2-3 = male): 1 = dorsal shield, 2 = IV-L-4/6; 3 = IV-L-4/6, 3a = IV-L-4. Scale Bars = 0.1 mm.

male specimen fits well the original description of *B. baderi* concerning the shape of IV-L-4/5 (Fig. 2) and palps. Furthermore, the female with fused terminal platelets (Fig. 1) closely resembles that of *B. baderi*. The latter character shows clear geographical variability: studying the type material of *B. mutila* DI SABATINO AND CICOLANI (1990) reported the presence of two free terminal platelets, TUZOVSKIJ (1978) found that in the specimens from the Caucasus these platelets are fused with the anal platelet and separated from the dorsal shield, while in the specimens from the Taurus Mts. (Turkey) the anal platelet is fused with the dorsal shield (BOYACI AND ÖZKAN, 2004). Therefore, as suggested by TUZOVSKIJ (pers. comm.) we consider *B. baderi* a junior synonym of *B. mutila*.

Distribution: Northern Africa, Caucasus, Turkey (BOYACI AND ÖZKAN, 2004).

ACKNOWLEDGEMENTS

We are very grateful to DR PETR TUZOVSIIJ (Borok, Russia) for useful advice concerning the status of *Brachypoda baderi*.

This study was supported by the FUBAP-1000 project, Firat University, Elazig.

REFERENCES

- BOYACI, Y. AND ÖZKAN, M. (2004). Two new records of water mites (Hydrachnidia, Acari) for the Turkish fauna: *Bandakia concreta* Thor 1903 and *Brachypoda mutila* Walter 1928. *Turk. J. Zool.*, 28: 279-284.
- DI SABATINO, A. AND CICOLANI, B. (1990). *Brachypoda (Hemibrachypoda) baderi* (Acari, Hydrachnellae, Aturidae): a new species from running waters of Central Italy. *Acarologia*, 31: 373-379.
- PEŠIĆ, V. AND GERECKE, R. (2003). Water mites of the genera *Albaxona*, *Axonopsis*, *Barbaxonella* and *Erebaxonopsis* (Acari, Hydrachnidia: Aturidae: Axonopsinae) from Central Europe and the Mediterranean area. *Archiv für Hydrobiologie*, 139/4: 563-576.
- PEŠIĆ, V., ERMAN, O. AND ESEN Y. (accepted a). New records of water mites of the genus *Monatractides* K. Viets (Acari: Hydrachnidia: Torrenticolidae) from Turkey. *Turkish Journal of Zoology*.
- PEŠIĆ, V., ERMAN, O. AND ESEN Y. (accepted b). New *Torrenticola* Piersig (Acari: Hydrachnidia: Torrenticolidae) Species for the Turkish Fauna. *Turkish Journal of Zoology*.
- TUZOVSIIJ, P. (1978). K diagnozu *Brachypoda (Hemibrachypoda) mutila* (Walter, 1928) (Axonopsidae, Acariformes). *Naucnye Doklady Vissey Skol. Biol. Nauki*, 4: 47-52.
- BOYACI, Y. Ö. AND ÖZKAN, M. 1994. Konya İlinden Türkiye Faunası İçin Yeni Su Kenesi (Hydrachnellae, Acari) Türleri-I. XII. Ulusal Biyoloji Kongresi 6-8 Temmuz 1994, Edirne: VI: 191-201.
- ÖZKAN, M. 1982. Wassermilben (Acari, Actinedida) aus der Türkei. *Entomol. Basil.*, 7: 29-60.
- ÖZKAN, M., ERMAN, O. AND BOYACI, Y. Ö. 1996. Sultan Sazlığı'nin (Kayseri) Su Akari (Hydrachnellae, Acari) Faunası Üzerine Bir Araştırma. *Turkish Journal of Zoology*, 20: 95-98.
- SMIT, H. 1995. New records of water mites from Turkey, with 11 species new for the Turkish fauna (Acari: Hydrachnellae). *Storkia*, 4: 10-15.

НОВИ НАЛАЗИ ВОДЕНИХ ГРИЊА (ACARI: HYDRACHNIDIA)

ИЗ ТУРСКЕ

В. ПЕШИЋ, О. ЕРМАН И Ј. ЕСЕН

ИЗВОД

На основу анализе материјала из источне Турске дати су нови налази за четири врсте водених гриња (Acari, Hydrachnidia); врста *Brachypoda baderi* Di Sabatino and Cicolani, 1990 синонимизирана је са *Brachypoda mutila* Walter, 1928; три врсте водених гриња (*Neumania uncinata* Walter, 1927, *Albia stationis* Thon, 1899, *Axonopsis serrata* Walter, 1928) регистроване су по први пут за фауну Турске.

Accepted June 15, 2006