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Asadi M., Pešić V., Saboori A.¹

**NEW RECORDS OF WATER MITES (ACARI: HYDRACHNIDIA)
FROM THE KERMAN AREA (SOUTHEASTERN IRAN)
NOVI NALAZI VODENIH GRINJA (ACARI: HYDRACHNIDIA) IZ
KERMANA (JUGOISTOČNI IRAN)**

Abstract

New faunistic records of water mites (Acari: Hydrachnidia) from the Kerman area (Southeastern Iran), are presented. Five species are identified, three of which: *Eylais planipons novata* Viets, 1942, *Hygrobates fluviatilis* (Ström, 1768), and *Atractides nodipalpis* Thor, 1899, are reported new for the water mite fauna of Iran. The ecological significance of the new records is briefly discussed.

Key words: Acari, water mites, Iran, Kerman, new records.

Izvod

Novi faunistički nalazi vodenih grinja (Acari: Hydrachnidia) iz područja Kermana (Jugoistočni Iran) su dati. Pet vrsta je identifikovano, tri od njih: *Eylais planipons novata* Viets, 1942, *Hygrobates fluviatilis* (Ström, 1768), i *Atractides nodipalpis* (Thor, 1899), registrovane su po prvi put za faunu vodenih grinja Irana. Ekološki značaj novih nalaza detaljno je diskutovan.

Ključne riječi: Acari, vodene grinje, Iran, Kerman, novi nalazi.

INTRODUCTION

The number of species of water mites reported from Iran is very limited. Sepasgosarian (1999) gives a list of 56 water mites species from Iran. Recently,

¹ Mahdieh Asadi, Prof. Dr. Alireza Saboori, Department of Plant Protection, College of Agriculture, Tehran University, Karaj, Iran; Dr. Vladimir Pešić, Department of Biology, Faculty of Sciences, YU-81000 Podgorica, Crna Gora, Yugoslavia

2 new species of the water mite families Torrenticolidae and Hygrobatidae have been reported by Pestic & Asadi (2002).

In this paper, 3 reported water mites species (Acari, Hydrachnidia) are new for the fauna of Iran. For each of the species collected, the global pattern of distribution is given, followed by the new locality records. In addition, for some species information on habitat preference or taxonomic notes are provided.

MATERIAL AND METHODS

Water mites were collected by hand netting, sorted on the spot from the living material, and conserved in Koenike's fluid.

The complete material is labeled and available in the collection V. M. Pešić, Podgorica; at a later date, the part of this material will be deposited in the collection of the Zoological Museum of Tehran University in Karaj (Iran). The indications of number of specimens are given as follows: (males/females/deutonymphs).

All measurements are expressed in μm . The following abbreviations are used: asl = above sea level, I-L-6 = Leg 1, sixth segment, P-1 = palp, first segment, L = dorsal length, Vgl = ventroglandularia, W = width.

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RESULTS

Eylais planipons novata Viets, 1942

(Figs. 1-7)

Eylais planipons magna Walter, 1931 – Walter 1931: 332.

Eylais planipons novata Viets, 1942 – Viets 1942: 211, K.O.Viets, 1957: 302, K.O.Viets, 1969: 74; K.O. Viets, 1970: 69.

Eylais canariensis Lundblad, 1962 – Lundblad 1962: 288, K.O.Viets, 1969: 74; K.O. Viets, 1970: 69.

Distribution: Algeria, Sahara, Canary Islands, Iran. The new records presented here let expect an extended distribution in the Palearctic.

Material examined: Iran: Kerman area, GhariyatoFarab, the Chari stream, 2300 m asl., 02.04.2002, leg. Asadi (0/4/1); Kerman area, Bardsir stream, 06.08.2002, leg. Asadi (0/1/0).

Description: *Female*: Variability given as minimum – maximum (in parentheses are given measurements of two females from the Canary Islands -

K.O.Viets, 1969): eye field W 262-303 (283-285), eye plates L 130-146 (125-138); gnathosoma length 488-592 (486-500); dorsal lengths of palp segments: P-1 77-115 (94-98), P-2 142-169 (140-146), P-3 135-169 (138-140), P-4 250-284 (269-278), P-5 134-150 (125-132). *Deutonymph*: (in parentheses are given measurements of three deutonymphs from the Canary Islands - K.O.Viets, 1969): eye field W 213 (188-192), eye plates L 100 (90-95); gnathosoma length 377 (288-307); dorsal lengths of palp segments: P-1 46 (56-58), P-2 102 (85-101), P-3 98 (85-100), P-4 173 (155-173), P-5 98 (87-110).

Remarks: *Eylais planipons novata* Viets, 1942, differs from *Eylais planipons planipons* Walter, 1924 in a larger eye field (W > 250, in *E. planipons planipons* W < 230), a longer gnathosoma (L > 480 in females, L > 400 in males; in *E. planipons planipons* L < 370), and particularly in a longer palp (L > 680 in males, L > 700 in females; in *E. planipons planipons* L < 580 in males, L < 550 in females) and longer P-4 (L > 220 in male, L > 250 in female; in *E. planipons planipons* L < 180). Drawings of K.O.Viets (1969) is quite conformable to our findings concerning variability of shape of the eye field (Fig. 1-5) and palps (Fig. 6-7). New for the water mite fauna of Iran.

Habitat: pools of running waters.

***Sperchon fundamentalis* Bader & Sepasgosarian, 1980**

(Figs. 8-10)

Distribution: Iran, Turkey.

Material examined: Iran: Kerman area, the Bidkhan stream, Bidkhan (area of Bardsir city near Kerman), 3000 m asl., 06.08.2002, leg. Asadi (1/3/1).

Remarks: In Figs 8-10 we give some morphological details of the specimens from Kerman. Dorsal lengths/relative lengths (in μm) of palp segments of the illustrated specimens (from Bidkhan, in parentheses are given measurements from original description): Male (Fig. 9): P-1 34.6/7.1 (37.0/6.7), P-2 107.7/22.2 (112.0/21.1), P-3 125.7/25.9 (137.0/25.9), P-4 173.0/35.7 (193.0/36.5), P-5 44.0/9.1 (50.0/9.4); Female (Fig. 8): P-1 53.5/6.6 (44.0/5.4), P-2 177.0/21.8 (175.0/21.5), P-3 221.0/27.6 (227.0/27.8), P-4 298/36.7 (306/37.5), P-5 61.5/7.6 (63.0/7.7).

Habitat: rhithrobiont. This species, in the Bidkhan stream, was found accompanied by *Hygrobates fluviatilis* (Ström, 1768), *Atractides nodipalpis* (Thor, 1899) and *Torrenticola saboorii* Pesic & Asadi, 2002.

***Hygrobates fluviatilis* (Ström, 1768)**

(Fig. 11)

Distribution: Europe, N-America (?), Iran.

Material examined: Iran: Kerman area, the Bidkhan stream, Bidkhan (area of Bardsir city near Kerman), 3000 m asl., 06.08.2002, leg. Asadi (0/1/0); Kerman area, Bardsir stream, 06.08.2002, leg. Asadi (0/4/0); Deh Bala, the river near Kerman, 03.01.2002, 2200 m asl., leg. Asadi (10/14/1); Kerman area, Kohpang, the Kohpang spring, 2450 m asl., 02.04.2002, leg. Asadi (0/3/0); Kerman area, Mohyabad (?spring), 1950 m asl., 16.07.2002, leg. Asadi (1/1/0).

Remarks: Dorsal lengths (in μm) of palp segments of the illustrated male (from Deh Bala) (Fig. 11): P-1 34; P-2 142; P-3 131; P-4 208; P-5 58. New for the water mite fauna of Iran; 1950 – 3000 m asl.

Habitat: *Hygrobatas fluviatilis*, a species in naturally conserved running waters mostly present in low numbers, but capable to build up large populations in organically polluted streams (Gerecke & Schwoerbel, 1991).

***Atractides nodipalpis* (Thor, 1899)**

(Fig. 12)

Distribution: Palearctic. At present, the high number of partly uncertain subspecies of *A.nodipalpis* described during the past 100 years complicates the analysis of its geographical distribution (Gerecke, in press.).

Material examined: Iran: Kerman area, the Bidkhan stream, Bidkhan (area of Bardsir city near Kerman), 3000 m asl., 06.08.2002, leg. Asadi (1/0/0).

Remarks: Dorsal lengths (in μm) of palp segments of the illustrated male (from Bidkhan) (Fig. 12): P-1 35; P-2 79; P-3 86.5; P-4 104; P-5 42. New for the water mite fauna of Iran.

Habitat: rhithrobiont.

***Arrenurus crenatus* Koenike, 1896**

Distribution: Palearctic.

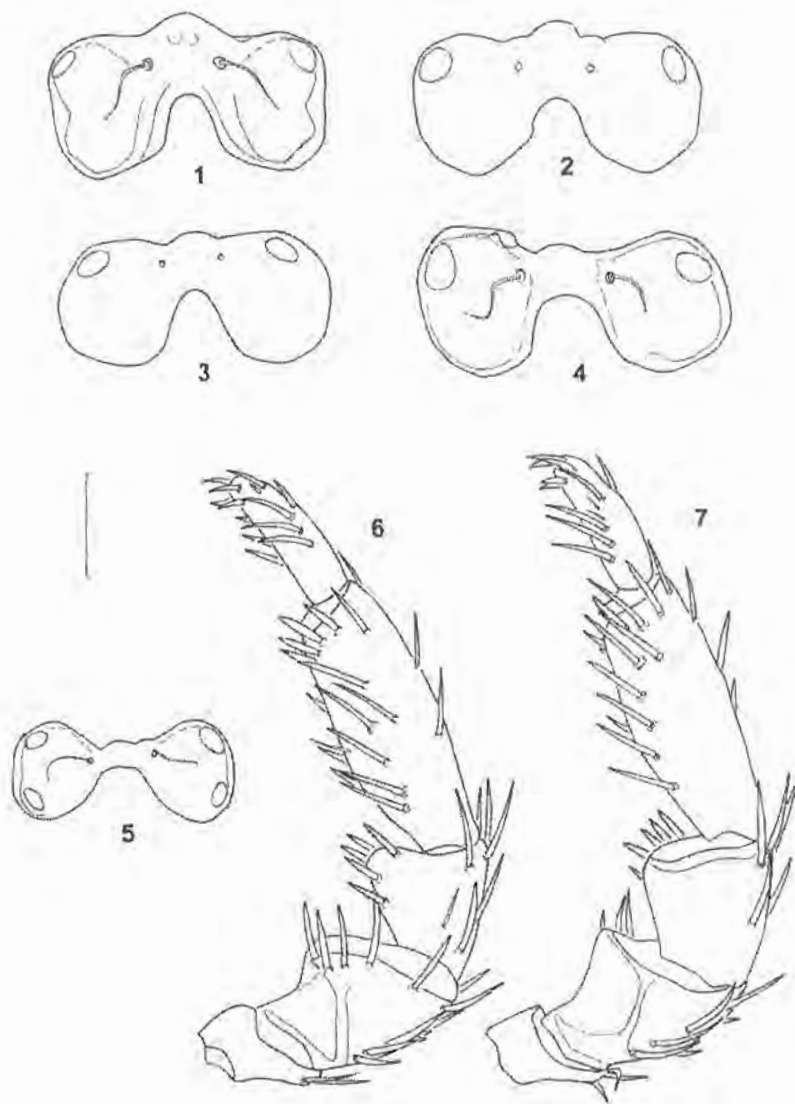
Material examined: Iran: Kerman area, Sirch stream in the Sirch village (near Kerman), 1500 m asl., 23.07.2002, leg. Asadi (0/1/0).

Habitat: ponds, pools of running waters. This species, in the Sirch stream, was found accompanied by *Atractides iranicus* Pesic & Asadi, 2002 and *Nilotonia* sp.

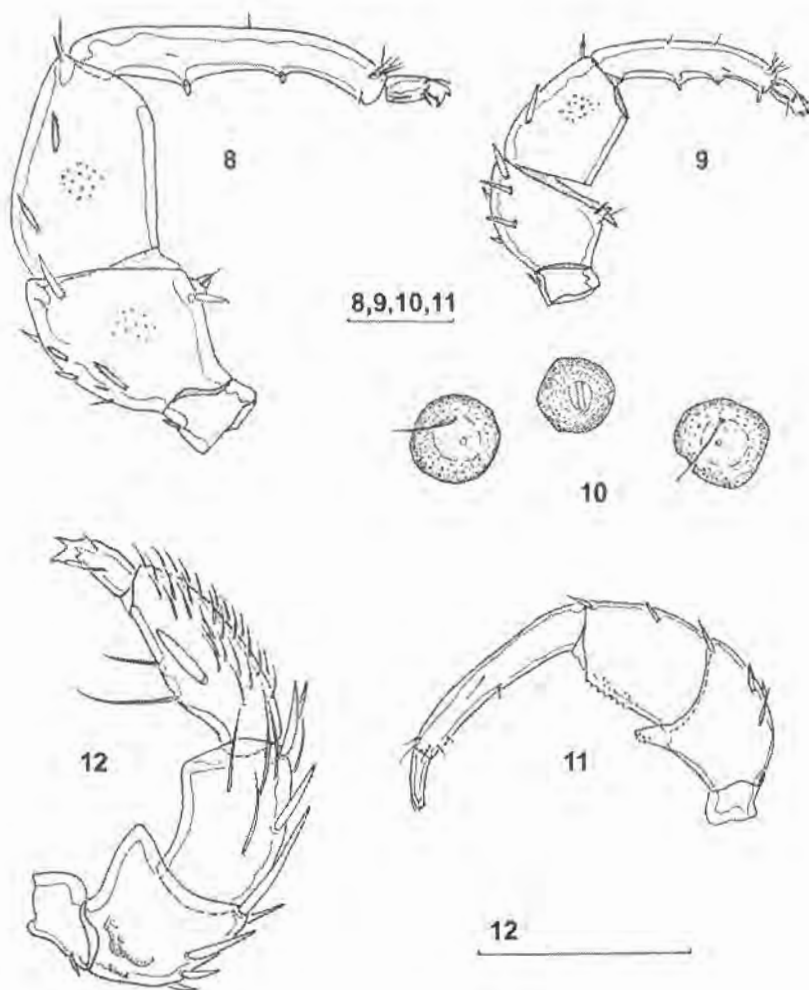
CONCLUSIONS

On basis of material collected from the Kerman area (Southeastern Iran) five species are identified, three of which: *Eylais planipons novata* Viets, 1942, *Hygrobatas fluviatilis* (Ström, 1768), and *Atractides nodipalpis* (Thor, 1899), are reported new for the water mite fauna of Iran. New data on the

morphology and distribution of the species *Sperchon fundamentalis* Bader & Sepasgosarian, 1980 and *Arrenurus crenatus* Koenike, 1896, are given.



Figs. 1-7. *Eylais planipons novata* Viets, 1942, Ghariyatolarab, 1-4, 6-7 = female, 5 = deutonymph: 1 = eye field (prep. 621); 2 = eye field (prep. 622); 3 = eye field (prep. 623); 4 = eye field (prep. 624); 5 = eye field (prep. 625); 6 - 7 = palp. Bar = 0.1 mm.



Figs. 8–12. 8–10. *Sperchon fundamentalis* Bader & Sepasgosarian, 1980, Bidkhan, 8, 10 = female, 9 = male; 8 = palp; 9 = palp; 10 = excretory pore and Vgl-3; 11 *Hygrobates fluviatilis* (Ström, 1768), Deh Bala, male: 11 = palp; 12 *Atractides nodipalpis* (Thor, 1899), Bidkhan, male: 12 = palp. Bars = 0.1 mm.

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**NOVI NALAZI VODENIH GRINJA (ACARI: HYDRACHNIDIA) IZ
KERMANA (JUGOISTOČNI IRAN)**

by

Mahdieh Asadi¹, Vladimir Pešić², Alireza Saboori¹

¹*Poljoprivredni Fakultet, Odsjek za zaštitu bilja, Karaj, Iran*

²*PMF, Odsjek za biologiju, Podgorica, Jugoslavija*

Rezime

U radu su prezentirani novi faunistički nalazi vodenih grinja (Acari: Hydrachnidia) iz područja Kermana (Jugoistočni Iran). Pet vrsta je identifikovano, tri od njih: *Eylais planipons novata* Viets, 1942, *Hygrobates fluviatilis* (Ström, 1768), i *Atractides nodipalpis* (Thor, 1899), registrovane su po prvi put za faunu vodenih grinja Irana. Fauna vodenih grinja Irana predstavljena je sada sa 61 poznate vrste što je još uvijek relativno mali broj za područje takvih hidroloških i geomorfoloških karakteristika, što ukazuje na potrebu nastavka daljih istraživanja.