

MONATRACTIDES TUZOVSKYI SP. NOV. (ACARI: TORRENTICOLIDAE), A NEW WATER MITE FROM THE GARHWAL HIMALAYAS (INDIA)

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ABSTRACT. *Monatractides tuzovskyi* sp. nov. (Acari: Torrenticolidae), a new water mite from the Garhwal Himalayas (North India) is described.

KEY WORDS: Acari, water mites, new species, running waters, India

INTRODUCTION

Thirteen species of the genus *Monatractides* Viets, 1926 (*M. angulata* Walter, 1928; *M. pusta* Cook, 1967; *M. dadayi* Cook, 1967; *M. oza* Cook, 1967; *M. pinapalpis* Cook, 1967; *M. setivalvata* Cook, 1967; *M. nondescripta* Cook, 1967; *M. yosana* Cook, 1967; *M. devatta* Cook, 1967; *M. paratiya* Cook, 1967; *M. sakina* Cook, 1967; *M. sucira* Cook, 1967; *M. apratima* Cook, 1967) have been recorded for India (Walter 1928, Cook 1967). During a survey of the freshwater fauna of Uttaranchal State (India), several species of the water mites belonging to different genera were collected, including a new species of the genus *Monatractides* described herein.

MATERIAL AND METHODS

Water mites were collected by hand netting, sorted, preserved in Koenike's fluid, and dissected according to the standard methods (Gerecke 1991). All measurements are given in μm . The following abbreviations are used: Cx-1 = first coxae, L = dorsal length, %L = relative length, I-L-6 = Leg 1, sixth segment, P-1 = palp, first segment, W = width.

SYSTEMATICS

Family Torrenticolidae, 1902

Genus *Monatractides* Viets, 1926

Monatractides tuzovskyi Pesic, N. Kumar, K. Kumar et S. Kumar sp. nov.

Figs 1–6.

Diagnosis. Idiosoma elongated (dorsal shield L/W 1.82); fourth coxae close to each other, posterior to genital field; P-2 and P-3 each bearing heavy seta; P-4 elongated, with ventral margins, without setal tubercles.

Description. Female (holotype). Idiosoma (Fig. 2), L 831, W 483; dorsal shield (Fig. 1) L 681,

W 375, L/W 1.82; dorsal plate 631; shoulder plate L 153, W 63, L/W 2.43; frontal plate L 116, W 59, L/W 1.97; shoulder/frontal plate L ratio 1.32; gnathosomal bay L 153, gnathosomal bay U-shaped; Cx-1 total L 263, Cx-1 medial L 109; Cx-2+3 medial L 53; ratio Cx-1 L/Cx-2+3 medial L 2.41; Cx-1 medial L/Cx-2+3 medial L 5.0; fourth coxae close to each other, posterior to genital field; genital field L/W 169/132, L/W 1.28; egg diameter 166–172 (n=2); distance between genital field and excretory pore 240, genital field — caudal idiosoma margin 322; gnathosoma (Fig. 3), ventral L 185; palp (Figs 4–5) total L 180; dorsal length and relative length (given as % of total length): P-1 26 (14.4), P-2 55 (30.6), P-3 33 (18.3), P-4 46 (25.6), P-5 20 (11.1); P-2/P-4 1.2; P-2 and P-3 each bearing heavy seta; ventral side of P-4 with short setae and no tubercles; dorsal lengths of distal segments of leg I (Fig. 6): I-L-4 86, I-L-5 88, I-L-6 99.

Type material. Female holotype (dissected and mounted in Hoyer's medium). India: Uttaranchal State, Garhwal Himalayas, KhandaGad stream (tributary of Alaknanda River), 30°12' N 78°43' E, June 2006, coll. N. Kumar, K. Kumar, and S. Kumar. Paratype female (dissected and mounted in Hoyer's medium), same place as holotype, September 2006, coll. K. Kumar.

Non-type material: two females, Uttaranchal State, Garhwal Himalayas, DhundeshwarGad stream, a tributary of Alaknanda River, September 2006, coll. K. Kumar.

Type depository. The holotype and paratype are deposited in the Museum of the Natural History of Podgorica (Serbia and Montenegro).

Etymology. The new species is named after Dr. Petr Tuzovsky (Borok, Russia) in appreciation of his studies of water mites.

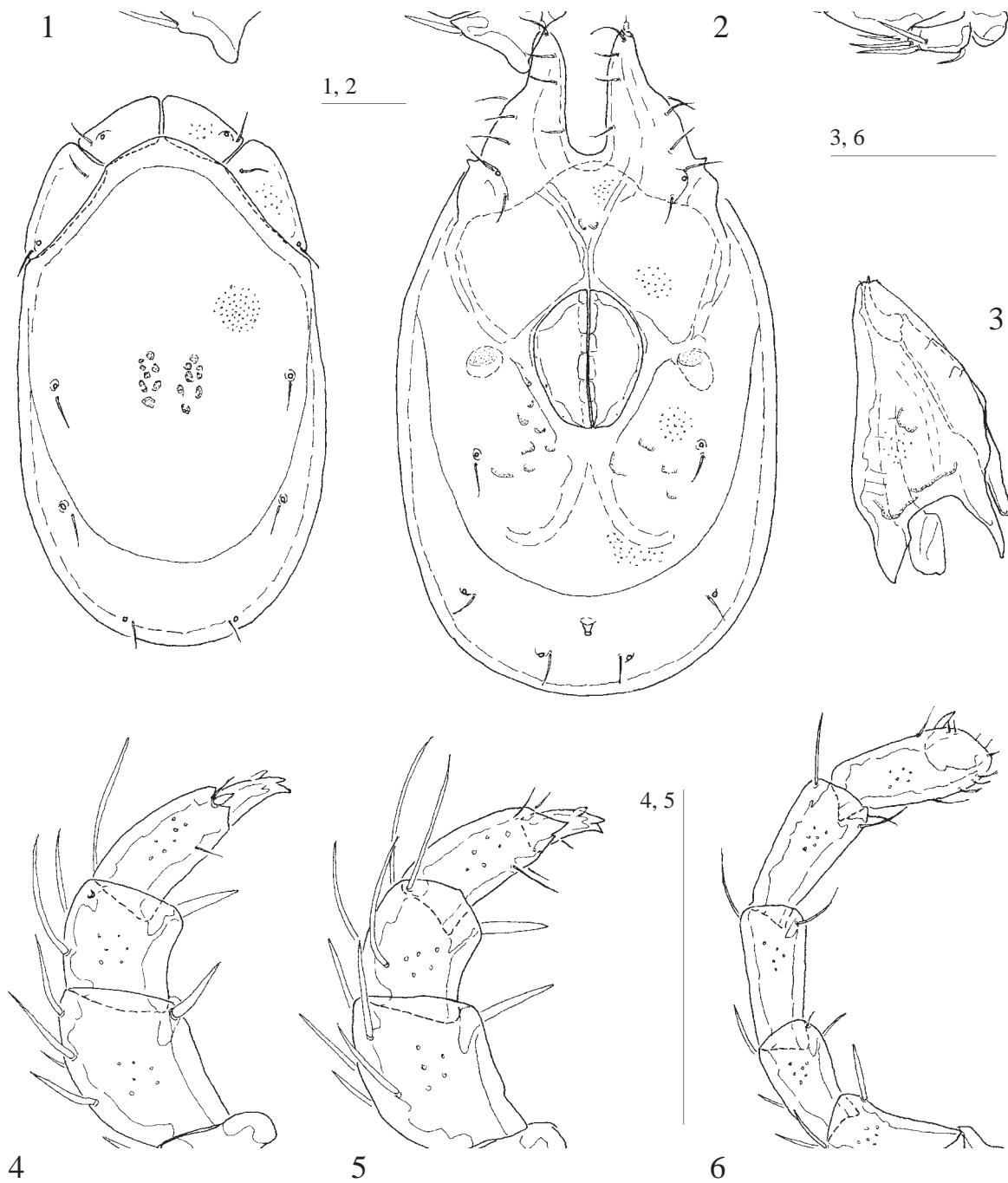


Fig. 1–6. *Monatractides tuzovskyi* Pesic et al., sp. nov., female holotype: 1 — dorsal shield; 2 — idiosoma, ventral view; 3 — gnathosoma (posterior part is broken); 4 — palp, medial view; 6 — palp, lateral view; 7 — leg I. Scale bars = 100 μ m.

Distribution. India: Uttaranchal State.

Biology. *Monatractides tuzovskyi* sp. nov., is probably a rhitrobiontic species.

Remarks. *M. tuzovskyi* sp. nov. resembles *M. apratima* Cook, 1967 (Kerala State, India), *M. apratima* f. *insulana* Lundblad, 1971 (Java), and *M. neoapratima* Wiles, 1991 (Malaysia) by the combination of the following characters: P-2 and P-3 each with a relatively heavy seta and coxae IV are

situated very close to each other and posterior to the genital field. The new species is easily distinguishable by the following features: the heavy seta of P-2 is relatively longer, and P-4 is more elongated, its ventral margins without setal tubercles. *M. tuzovskyi* sp. nov. differs from *M. neoapratima* in the shape of the gnathosomal bay (its proximal end is rounded in *M. tuzovskyi* and square in *M. neoapratima*), the shoulder platelets are swollen anteriorly in

M. tuzovskyi (not swollen in *M. neoprattima*), and the frontal platelets are narrow in *M. neoprattima* (not narrow in *M. tuzovskyi*). *M. tuzovskyi* sp. nov. can be easily distinguished from *M. aprattima* (character states follow Cook 1967, in parentheses) by the more elongated idiosoma, L/W ratio 1.7 (1.4 in *M. aprattima*), P-2 and P-3 are relatively slender (relatively stout in *M. aprattima*) and P-5 short (24–26 µm in *M. aprattima*).

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