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Description of the first species of the water mite genus *Aturus* Kramer, 1875 from the Himalaya Mountains (Acari: Hydrachnidia: Aturidae)

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The genus *Aturus* Kramer, 1875 has a worldwide distribution but is absent in the Australasian region (Smit 2020). Worldwide 140 *Aturus* species are known (without synonyms and *species incertae*, Joel Hallan pers. comm.), two species are described from India (*Aturus scutelliferus* Walter, 1928; *Aturus hiotosomus* Cook, 1967), but no species have been reported from the Himalayan Mountains.

The purpose of this paper is to describe the first *Aturus* species of the Himalaya Mountains. The analyzed specimen was collected in one of the tributaries of the Mangde Chhu river in central Bhutan.

The following abbreviations have been used: Cx-I—first coxae; Dgl-1—dorsoglandularia 1; Lgl-1—lateroglandularia 1; P1-5—palp segments 1-5. Length of palp segments are given as dorsal length (not following the curve of the dorsal margin); length of venter is measured from the anterior tip of Cx-I till the posterior idiosoma margin. All measurements are given in µm. The holotype will be lodged in the National Biodiversity Centre (NBC), Serbithang, Thimphu, Bhutan.

Family Aturidae Thor

Subfamily Aturinae Thor

Genus *Aturus* Kramer

Aturus bhutanensis sp. nov.

Type material. Holotype male [one fourth leg missing], Chuserbu stream, Bhutan, 6 November 2021, altitude 2666 m a.s.l, 27.502465N 90.317826E, leg. M.M. Gurung (NBC)

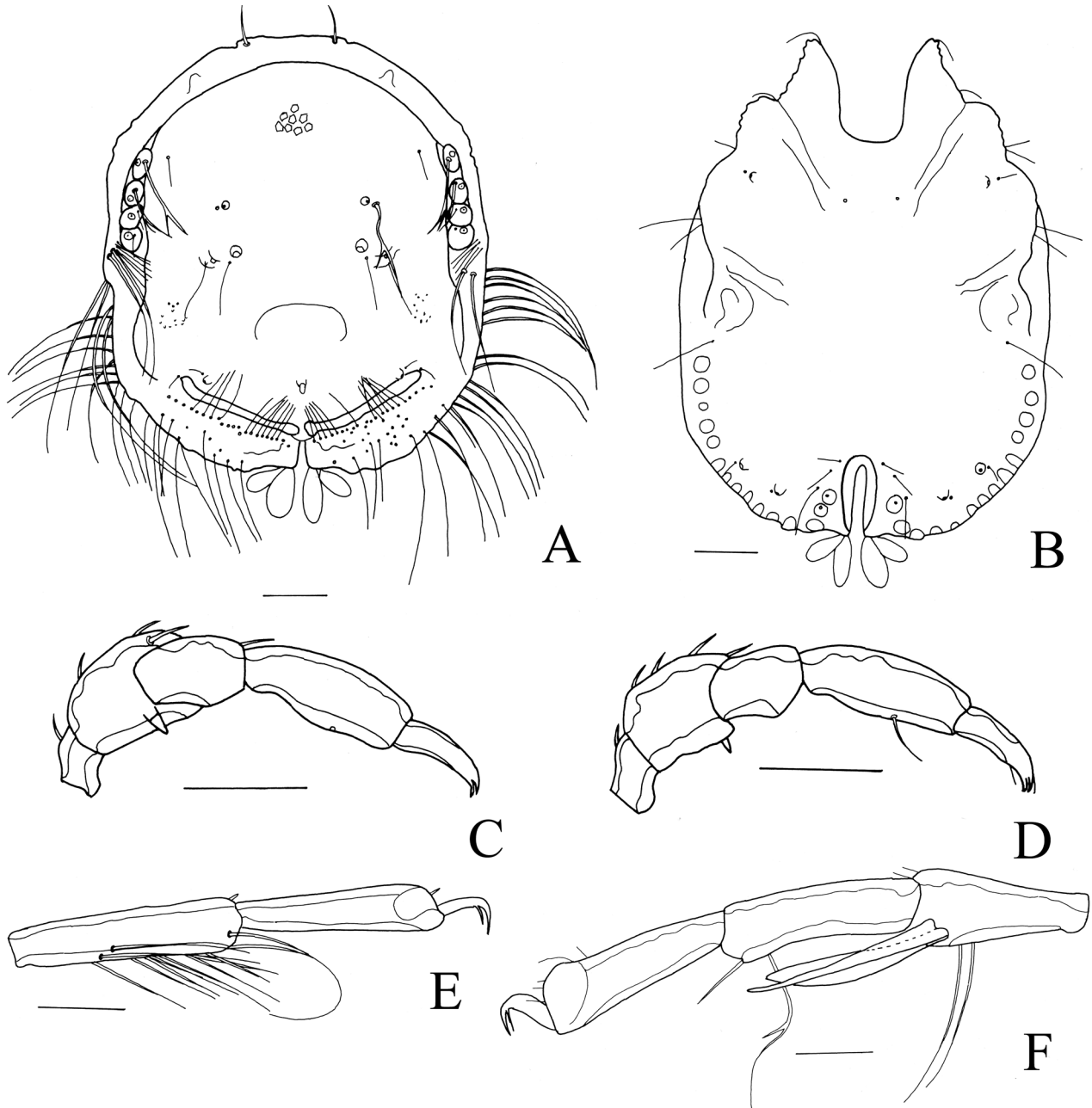
Diagnosis. Idiosoma posteriorly with a median cleft, lateral of this cleft two pairs of hyaline blade-like setae, dorsal shield posteriorly with a pair of sclerotized ridges, posterior to these ridges a row of 22–23 pairs of setae; setae of Lgl-1, Lgl-2 and Dgl-1 bifurcated. P2 distally with a large ventro-medial seta.

Description. Male: Idiosoma dorsally 324 long and 288 wide, ventrally 381 long. Integument reticulated. Lgl-1 and Lgl-2 with bifurcated setae, Lgl-3 and Lgl-4 with simple setae. Posterior to the four platelets bearing the Lgl a group of small setae. Postocularia well separated on the level of Lgl-1. Dgl-1 with bifurcated setae. Posterior part of dorsal shield with a pair of sclerotized ridges, posterior to these a row of 22–23 pairs of setae; anterior to these ridges an open elliptical structure encompassing an area of non-reticulated integument. Idiosoma margin with numerous long setae, especially the most anterior of these setae larger than the more posterior setae. Posterior margin of the idiosoma with a cleft, lateral to the cleft two pairs of inflated setae, the lateral pair smaller than the central pair. Coxal suture lines incomplete. Near posterior margin of venter a row of 12–13 acetabula. Length of P1-5: 25, 55, 50, 74, 40. Near ventral margin of P2 a short, pointed seta on a short setal tubercle. Length of I-leg-4–6: 82, 85, 70. Length of IV-leg-4–6: 118, 124, 130. IV-leg-4 disto-ventrally with two stout, sword-like setae, ventral margin with two slender long setae; IV-leg-5 with five setae (not well visible in mounted fourth leg) and a long bifurcated seta. III-leg-5 with nine setae near ventral margin on one (lateral?) side, two longer setae on the other (medial?) side and two ventro-distal setae being the longest of all setae of the third leg. Leg claws with a clawlet.

Female: Unknown. Several females have been collected on other locations, but without accompanying males. These females could not be assigned to the new species.

Etymology. Named after the country from where the new species was collected.

Remarks. Several *Aturus* species have the posterior margin with balloon-like setae as in the new species. Due to the presence of bifurcated setae of Lgl-1, Lgl-2 and Dgl-3, *Aturus intermedius* Protz, 1900 and *Aturus caucasicus* Tuzovskij, 2022 are the most similar to the new species. Though both species lack the sclerotized pair of ridges of the dorsal shield (Gerecke 2014, Tuzovskij 2022) and the row of setae posterior to these ridges.



1A-F *Aturus bhutanensis* sp. nov., holotype male. A = dorsum; B = venter; C = left palp medial view; D = right palp lateral view; E = III-leg-5-6; F = IV-leg-4-6. All scale bars 50 μ m.

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