

THREE NEW *ANTENNOSEIUS* SPECIES  
(ACARINA : MESOSTIGMATA : ASCIDAE) FROM  
KUMAON HILLS, UTTAR PRADESH, INDIA

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Prior to the present work only one mite species belonging to the genus *Antennoseius* was described from India (Bhattacharyya, 1972). In the present paper descriptions of three new species are given : *Antennoseius ranikhetensis* sp. nov., *A. garurensis* sp. nov. and *A. deyi* sp. nov.

The type specimens are in the collection of the Zoological Survey of India, Calcutta.

*Antennoseius ranikhetensis* sp. nov.

*Female* : Dorsal shield reticulate and completely divided into 2 shields. Anterior dorsal shield 0.310 mm long, 0.286 mm wide, bearing 22 pairs of setae. Setae i2, s1, s2, s3, s5 and z1 spur-like and the remaining setae simple (fig. 1). Posterior dorsal shield 0.285 mm long, 0.280 mm wide, with 15 simple setae.

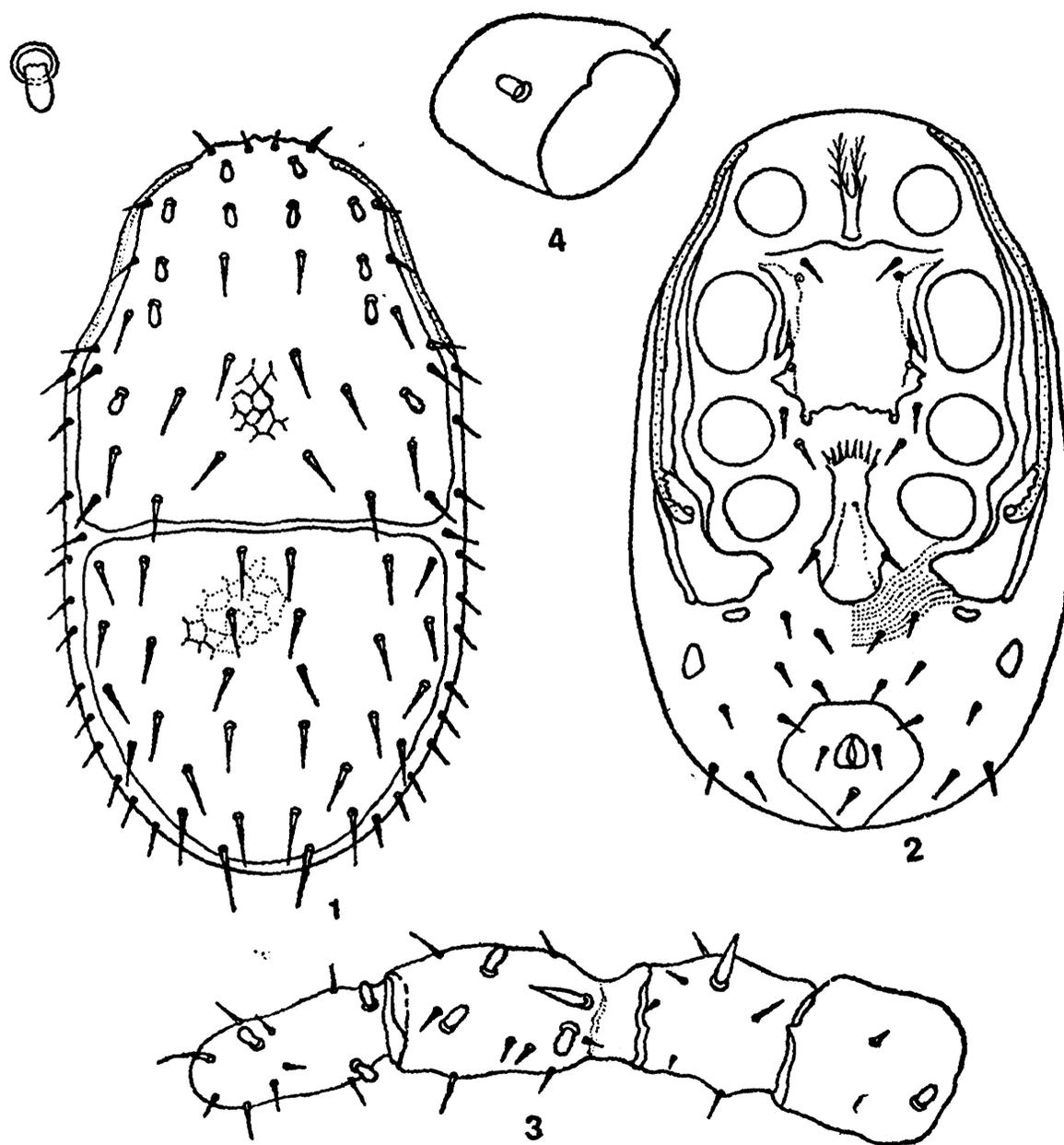
Tritosternum with a basal part and a pair of pilose laciniae. Sternal shield with characteristic shape behind st2 and bearing 2 pairs of setae (fig. 2). Setae st3 lying on interscutal membrane at level of coxa II. Metasternal seta without platelet. Genital shield round posteriorly, with a pair of setae. Anal shield with a pair of par- and a post-anal setae. Stigma level with middle of coxa IV ; peritreme extending beyond coxa I. Peritrematal shield posteriorly curve behind coxa IV and anteriorly fused with dorsal shield. Interscutal membrane behind coxae IV with 8 pairs of setae and 2 pairs of platelets.

Anterior margin of tectum with numerous small spinules. Palpal trochanter, femur and genu of pedipalp with 2, 5 and 6 setae respectively ; apotele 2-tined. Chelicera chelate dentate. Ventrally, gnathosoma with 4 pairs of setae. Corniculus conicle. Lateral margin of hypostomal processes fringed. Eight rows of deutosternal denticles present.

Leg I with ambulacrum and terminally with 4 long setae. Coxa, trochanter, femur and genu of leg I shown in fig. 3. Coxa of leg II as in fig. 4.

*Male* : Unknown.

*Locality* : Holotype female, soil under grass, Government Fruit Garden, Chaubatia, Ranikhet, Almora District, U. P., 15.4.71, Dr. S. K. Bhattacharyya.



**Figs. 1-4 :** *Antennoseius ranikhetensis* sp. nov.

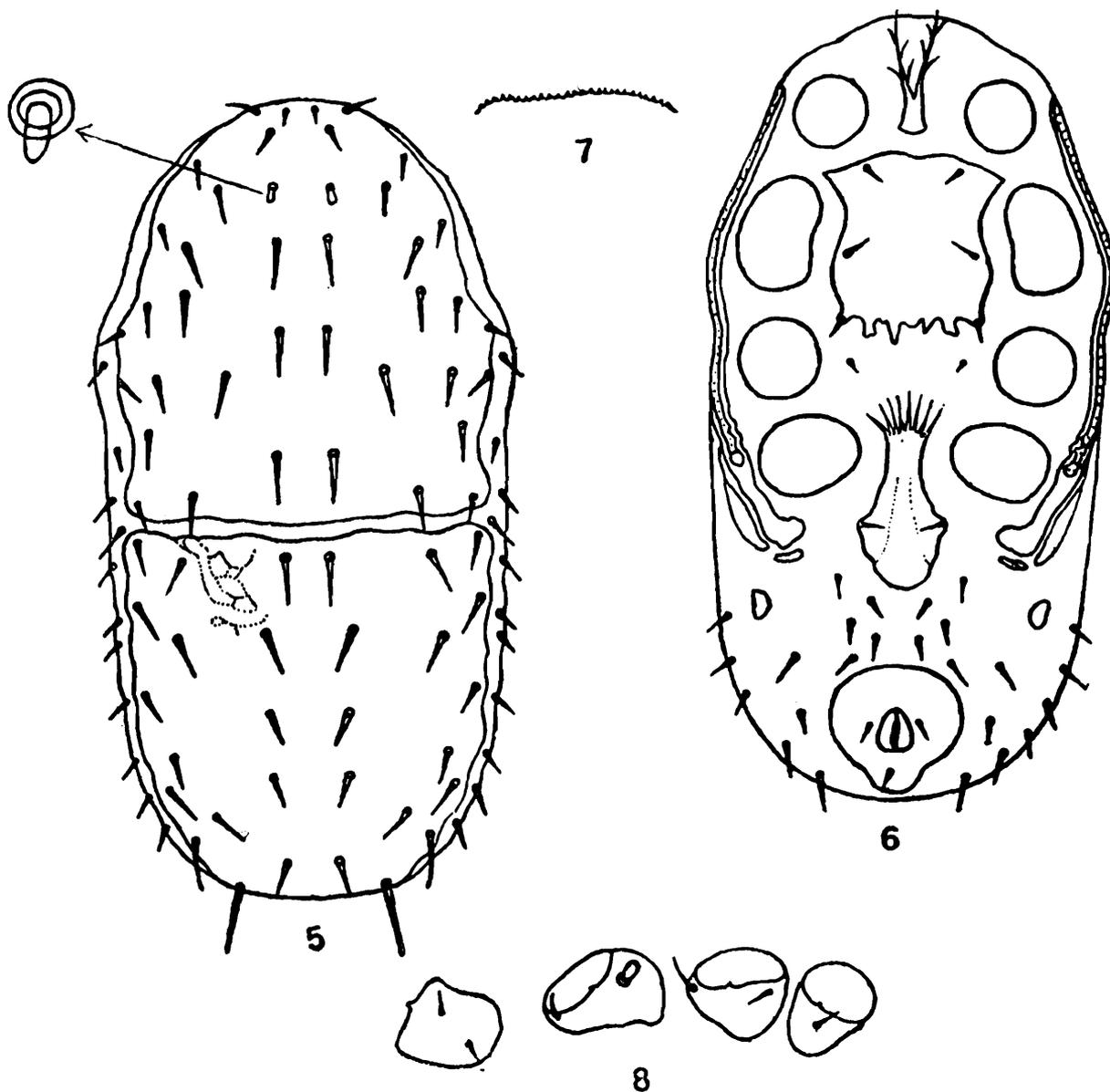
**Female :** 1. Dorsum ; 2. Venter ; 3. Coxa, trochanter, femur and genu of leg I ;  
4. Coxa of leg II.

**Remarks :** This species is unique in having x pairs of spur like setae on the anterior dorsal shield.

*Antennoseius garurensis* sp. nov.

**Female :** Dorsal shield reticulate and completely divided into 2 shields. Anterior dorsal shield 0.324 mm long, 0.288 mm wide, with 20 pairs of setae, setae i2 spur-like and the remaining setae simple. Posterior dorsal shield 0.279 mm long, 0.270 mm wide, with 15 pairs of simple setae (fig. 5).

Tritosternum with a basal part and a pair of pilose laciniae. Sternal shield faintly reticulate, posterior margin with characteristic shape, with 3 pairs of setae (fig. 6). Meta-sternal seta lying on interscutal membrane. Genital shield reticulate, with genital setae. Anal shield pear-shaped, reticulate, bearing a pair of par- and a post-anal setae. Stigma level at middle of coxa IV ; peritreme extending to coxa I. Peritrematal shield posteriorly curve



**Figs. 5-8 :** *Antennoseius garurensis* sp. nov.

**Female :** 5. Dorsum ; 6. Venter ; 7. Tectum ; 8. Coxae of legs I-IV.

behind coxa IV and anteriorly coalesced with dorsal shield. Interscutal membrane 2 pairs of platelets and 13 pairs of setae.

Anterior margin of tectum basically with numerous small spinules (fig. 7). Palpal trochanter, femur and genu of pedipalp with 2, 5 and 6 setae respectively ; apotele 2-tined. Ventral groove of gnathosoma with 8 rows of deutosternal denticles. Setae hy p. 1 longest.

Leg I with pulvillus.

Distinctive features of coxae I-IV as in fig. 8.

*Male* : Unknown.

*Locality* : Holotype female, soil under grass, Garur, Almora Dist., U. P., 25.4.71, Dr. S. K. Bhattacharyya.

*Remarks* : This new species differs from all other known species by the presence of one pair of spur-like setae on the anterior dorsal shield.

#### *Antennoseius deyi* sp. nov.

*Female* : Dorsal shield reticulate and completely divided into 2 shields. Anterior dorsal shield 0.290-0.320 mm long, 0.285-0.310 mm wide, with 19 setae. Setae i2 and i3 spur-like, setae r1 pilose and remaining setae simple (fig. 9). Posterior dorsal shield 0.250-0.285 mm long, 0.275-0.315 mm wide, with 15 pairs of setae of which 5 pairs being pilose.

Tritosternum with a basal part and a pair of pilose laciniae. Sternal shield with characteristic shape and bearing 3 pairs of setae (fig. 10). Metasternal seta lying on interscutal membrane. Genital shield round posteriorly, with a pair of setae. Anal shield with a notch at level of post-anal seta, with 3 setae. Stigma level at middle of coxae IV ; peritreme extending beyond coxa I. Peritrematal shield posteriorly curve behind coxa IV and anteriorly fused with dorsal shield. Interscutal membrane behind coxae IV with 2 pairs of platelets and 17 pairs of setae.

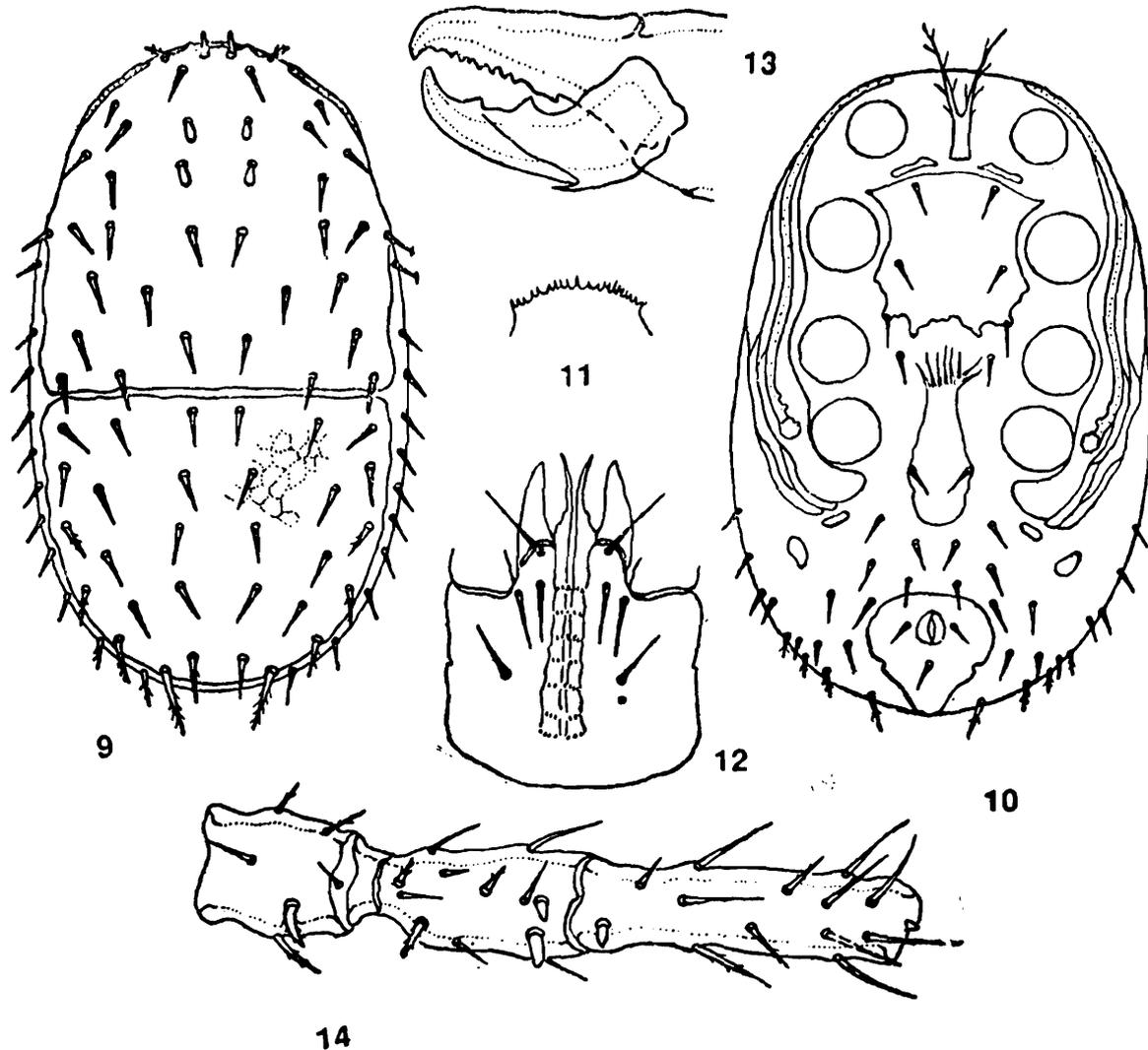
Tectum as in fig. 11. Palpal trochanter, femur and genu of pedipalp with 2, 5 and 6 setae respectively ; apotele 2-tined. Chelicera as in fig. 13. Gnathosoma delineated in fig. 12.

Leg I with ambulactum. Distinctive features of trochanter, femur and genu of leg I as in fig. 14.

*Male* : Unknown.

*Locality* : Holotype female, under moss, Madhachar, Kausani, Almora Dist., U. P., 25.4.71. One female paratype, from moss and grass, Ayarpata, Nainital Dist., U. P., 6.4.71, Dr. S. K. Bhattacharyya.

*Remarks* : This species is distinct from all other known species by the presence of three pairs of spur-like setae on the anterior dorsal shield. This species is named after Shri S. K. Dey who accompanied in the field trip.



Figs. 9-14 : *Antennoseius deyi* sp. nov.

Female : 9. Dorsum ; 10. Venter ; 11. Tectum ; 12. Gnathosoma ; 13. Chelicera ; 14. Trochanter, femur and genu of leg I.

#### ACKNOWLEDGEMENT

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#### REFERENCES

Bhattacharya, S. K. 1972. Studies on Indian Mites. 11. Three new species and two new records from Botanical Garden, Shillong. *Oriental Insects* 6 (2) : 205-215,