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A NEW SPECIES OF THE GENUS *EREMOBELBA* (ACARI : ORIBATEI) FROM DARJEELING, WEST BENGAL, INDIA

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ABSTRACT

A new species of the genus *Eremobelba* Berlese (Acari : Oribatei : Eremobelbidae), viz., *E. himalayensis* is described from the soil of tea garden in the district of Darjeeling, West Bengal, India.

INTRODUCTION

The genus *Eremobelba* was instituted by Berlese (1908) with *Eremaeus leprosus* Haller, 1884 as the type-species. The genus was first reported by Haq (1976) from South India. Later Ghosh and Bhaduri (1978) described a new species under the genus from Nagaland, India. Another new species under the genus is described here for the first time from West Bengal, India. All measurements are in microns.

Eremobelba himalayensis sp. nov.

(Figs. 1-2)

Female : Colour light brown ; length of the body : 530-535 ; width of the body : 289-312.

Prodorsum crown-shaped, with granular cerotegument ; tip of the rostrum slightly protruded ; rostral setae barbed unilaterally on the outer side, curved inwards, inserted laterally far behind and extends beyond the tip of the rostrum, 50-52 long, nearly as long as their mutual distance ; lamellar setae smooth, nearly as thick as the rostral setae, arise on a prominent knob-like lamellar apophyses, slightly beyond the level of insertion of rostral setae, 51-55 long, more than half as long as their mutual distance ; interlamellar setae sparsely barbed bilaterally, situated far behind a strap-like big transverse ridge, on a faint indistinct converging ridge off the bothridium, 98-102 long, twice as long as lamellar setae, more than 3 times as long as their mutual distance ; exobothridial setae 1 pair, smooth, 55-67 long, a little longer than the lamellar setae, situated antero-lateral to the bothridium ; bothridium depressed, cup-like, anterior rim covered by an inverted coma-like bothridial ridge ; sensillus long, filiform, barbed sparsely and unilaterally, directed postero-laterad, 148-156 long, slightly longer than the interlamellar setae ; 2 semilunar structures enclosed in 2 rounded bodies present in the interpseudostigmatic region ; dorsosejugal suture straight ; a thick, broad, slightly curved, lateral lamellar ridge, occupied the middle of prodorsum on either side.

Notogaster oval, slightly less wider anteriorly, with 2 minor projections laterally at

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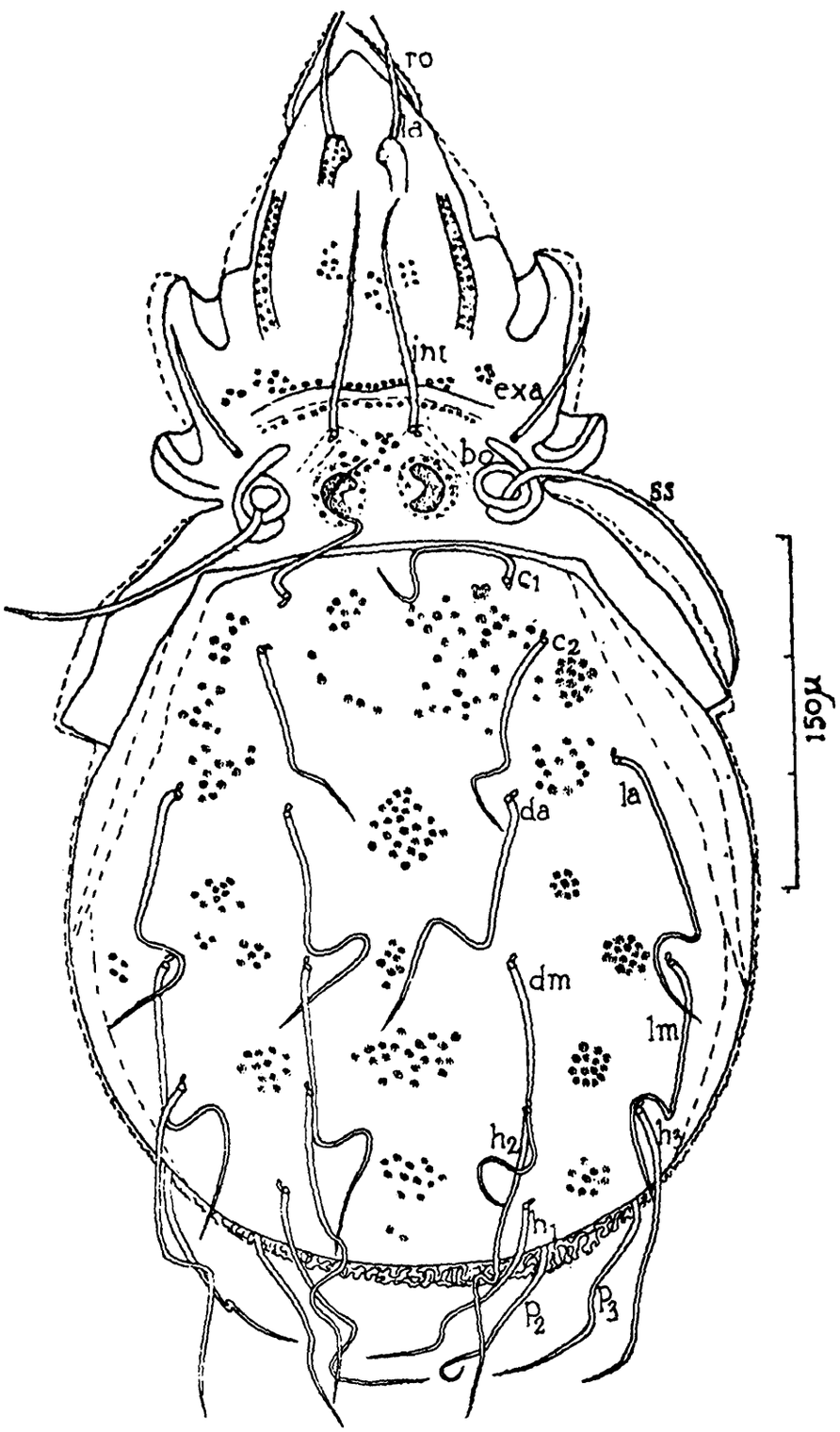

Fig. 1. *Eremobelba himalayensis* sp. nov. (Dorsal View), *ro*=rostral seta, *la*=lamellar seta, *int*=interlamellar seta, *exa*=anterior exobothridial seta, *ss*=sensillus, *bo*=bothridium, c_1, c_2, *da*, *dm*, *la*, *lm*, h_1, h_2, h_3, p_2, p_3=notogastral setae.

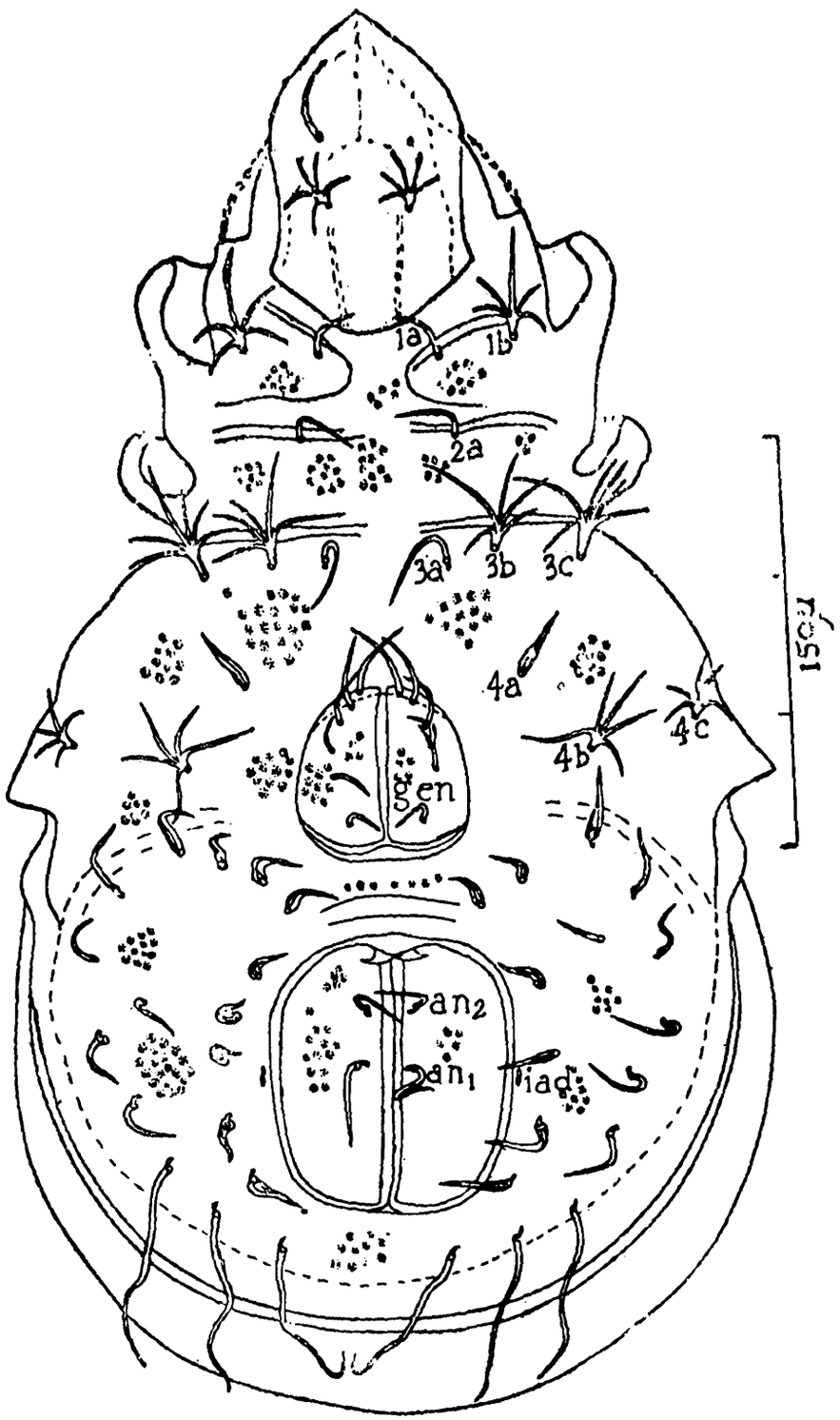

Fig. 2. *Eremobelba himalayensis* sp. nov. (Ventral View), an_1, an_2=anal setae, *iad*=adanal fissure, *gen*=genital plate, *1a, 1b, 2a, 3a, 3b, 3c, 4a, 4b, 4c*=epimeral setae.

the end of the dorsosejugal suture, covered with dense slimy granular cerotegument; notogastral setae 11 pairs, elongated, 86-160 long, flagelliform, invariably curved at the distal half, inserted on rounded follicles with minute peg-like projections; setae c^1, c_2, *da*,

dm and h_2 centro-dorsal, *la*, *lm* and h_3 lateral, h_1, p_2 and p_3 postero-lateral; mutual distance c_2-c_2 > c_1-c_1 ; distance c_1-c_1 = *da*-*da* = h_2-h_2 = *dm*-*dm* ; distance c_1-c_2 more than thrice the distance c_2-*da* ; distance c_2-*da* = c_2 *la* = *da*-*dm* = *la*-*lm*.

Ventral plate with cerotegumental granulations, with asymetrical distribution of the setae, i. e., right half with 19 setae and left half with 16 setae in majority of the cases ; all setae being simple and short except the last 3 pairs which are very long with flagelliform tips ; setae on the adanal and aggenital region are shorter and thicker in comparison to it's surrounding counterparts ; each anal plate more than twice as long as broad, with 2 simple, curved setae, 27-31 long, inserted in the inner margin at the anterior half of each plate, setae $an_1 > an_2$; adanal fissure, *iad* minute, slit-like, closely lateral to the outer margin of each plate medially ; each genital plate twice as long as broad, with 6 simple, slightly curved setae, 18-35 long, placed at the middle of each plate, their mutual distances gradually diminishing anteriorly and length gradually increasing anteriorly ; genital and anal plates closely approximated, the intervening distance being equal to the maximum width of a genital plate and interrupted by a strap-like, slightly arched, transverse, preanal tectum much closer to the anal than to the genital plates.

Epimera I and II separate, III and IV fused, all with granular cerotegument ; epimeral setal formula 2-1-3-3 ; epimeral setae *1a*, *2a and 3a* simple, thin, *4a* simple twice as thick as the former three ; setae *1b*, *3b*, *4b* and *4c* pentaradiate where as setae *3c* hexaradiate, although setae *3b* is hexaradiate and *3c* is pentaradiate as observed in two paratypes.

Tarsi of legs monodactylous, claws are slightly curved.

Holotype : Adult ♀, INDIA : W. Bengal : Darjeeling, Singtom Tea Estate (from decomposed leaves of *Thea sinensis*), 1500m., 20.ix. 1978 (*B. K. Mondal* Coll.) ; paratypes : 3 adult ♀ ♀, same data as for holotype ; paratypes : 7 adults ♀ ♀, INDIA : W. Bengal : Darjeeling, Mohurgong Tea Estate (from humus), 117 m., 4. x. 1978 (*B. K. Mondal* Coll.) ; paratypes : 7 adult ♀ ♀, INDIA : W. Bengal : Darjeeling, Sukna Tea Estate (from loose humus), 135 m., 24. x. 1978 (*B. K. Mondal* Coll.) ; deposited in the laboratory of the Department of Zoology, Presidency College, Calcutta.

Of all the *Eremobelba* species and of the 9 Oriental species in particular, the present new species bears the greatest similarities with *E. flexuosa* Hammer, 1979 described from Java specially in the nature of lamellar, exobothridial and notogastral setae and semilunar structures behind the interlamellar setae. It can, however, be distinguished from the above mentioned species by the presence of lateral prodorsal lamellar ridge, lesser number of epimeral setae, star-shaped epimeral setae *4c*, increased number of aggenital-adanal setae, besides a few other characters. It, therefore, seems reasonable to consider as a new species.

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*Not seen in original.