

**A NEW SPECIES OF THE GENUS *TEGEOCRANELLUS* BERLESE, 1913  
(ACARINA : ORIBATIDA : TEGEOCRANELLIDAE)  
FROM TRIPURA, INDIA**

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**INTRODUCTION**

Berlese (1913) established the genus *Tegeocranellus* with *T. laevis* Berlese, 1905 as the type under the family Tectocepheidae Grandjean, 1954. Later on, in the year 1987 P. Balogh placed this genus in a separate family Tegeocranellidae. In 1992 Balogh shifted the family Tegeocranellidae from the superfamily Carabodoidea to Polypterozetoidea Grandjean, 1959. They included only one genus *Tegeocranellus* Berlese, 1913 under the family Tegeoceranelidae.

The genus *Tegeocranellus* differs markedly from the genus *Tectocepheus* Berlese, 1913 in having dorsosejugal suture and shoulders on the antero-lateral sides of the notogaster. Grandjean (1962) redescribed *Tegeocranellus laevis* Berlese, 1905 and in the same year Csiszar and Jeleva reported the species *Tegeocranellus laevis* for the first time from Bulgaria. Kok (1968) described two new species, *T. knysnaesis* from Knysna and *T. sacchareus* from Jululand. Balogh and Mahunka (1969) described another new species, *T. bolivianus* from South Africa. In the year 1983, Balogh and Balogh described *T. concavus* and *T. conoexus*. According to key of Balogh and Balogh (1992) in the book 'The Oribatid Mites Genera of the World' 8 species were recorded under the genus *Tegeocranellus*.

**Generic Diagnosis :** Rostrum almost straight, prodorsum squarish, translamella may or may not be present, if present then thick, and situated apically; rostral and lamellar setae very short, arise from anterior margin of rostrum; interlamellar setae on lamella proper, sensillus longer than prodorsal setae, dorsosejugal suture present; notogaster rounded with humeral appendages; 10 pairs of simple notogastral setae; genital and anal plates large, placed close; legs monodactylous.

**Distribution :** INDIA : Orissa, Tripura. Elsewhere : Bulgaria, England, France, South Africa, U.S.A.

In the present paper a new species *T. punctatus* sp. nov. is described from the South District of Tripura. The genus *Tegeocranellus* Berlese, 1913 is reported here for the first time from India.

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The measurements of the specimens have been given in micron ( $\mu\text{m}$ ).

The type specimens are deposited in the National Zoological Collection, Zoological Survey of India, Kolkata.

## DESCRIPTION OF SPECIES

*Tegeocranellus punctatus* sp. nov.

(Figs. 1–4)

*Colour* : Dark brown.

*Measurements* : Length of the body : 221; width of the body : 146.

*Prodorsum* : Prodorsum almost square, flat; rostrum slightly elevated medially; *ro* (12) longest among prodorsal setae, thin, simple; *la* short (7), thin, simple, situated on outer straight border of lamellae, thin, simple; *in* short (5), located postero-laterally on lamellae proper; bothridium cup-shaped; sensillus long (68) with rough proximal stalk and a broadly cup-shaped distal head, beset with fine bristles at tip; lamellae very broad, extended from bothridium to base of rostrum; translamella thick, broad, forming a band little below the base of rostrum; prodorsum punctated with foveolation along translamella.

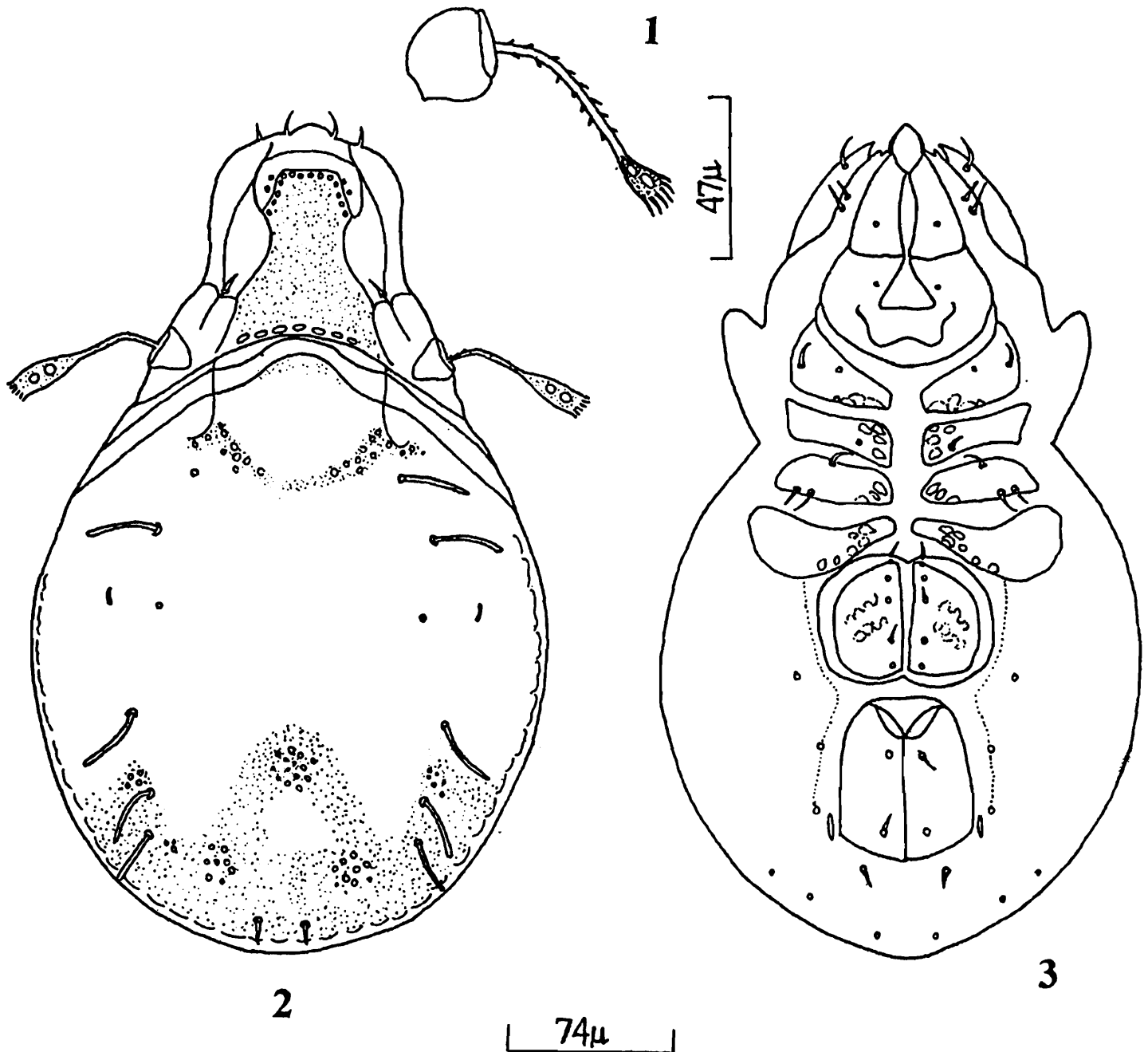
*Notogaster* : Notogaster rounded, separated from prodorsum by a convex thick dorsosejugal suture, lenticulus like flat hollow area at anterior margin; minute punctations and scattered foveolae along posterior margin of hollow portion; notogastral setae 10 pairs, moderately long (28–33), setae *ta*, *te*, *ti*, *ms*, *r*<sub>3</sub>, *r*<sub>2</sub> smooth with blunt tip, arranged laterally in a line, *r*<sub>1</sub> and all setae of the series *p* minute; middle portion of notogaster smooth, posterior part punctated with a few foveolae; *im* placed laterally near middle of notogaster.

*Epimeral Region* : Epimeres conspicuous, scatteredly foveolated, epimeral setae simple, with setal formula 2 : 1 : 3 : 0.

*Ano-genital Region* : Genital plate and anal plate large, nearly meeting each other, surrounded on both sides by two lines; genital plates (length : 59; width : 75) almost oval, with prominent markings; 6 pairs of minute genital setae arranged longitudinally along inner margin of genital plates; 1 pair aggenital setae present, anal plates (length : 75; width : 59), with 2 pairs of minute setae; adanal setae 3 pairs, short; *iad* on postero-lateral border of anal plate.

*Legs* : All legs monodactylous. *Leg chaetotaxy* : Leg I : 0–3–4–5–16+1–1; Leg II : 0–2–2–5–16–1; Leg III : 0–3–1–3–13–1; Leg IV : 0–2–1–4–13–1.

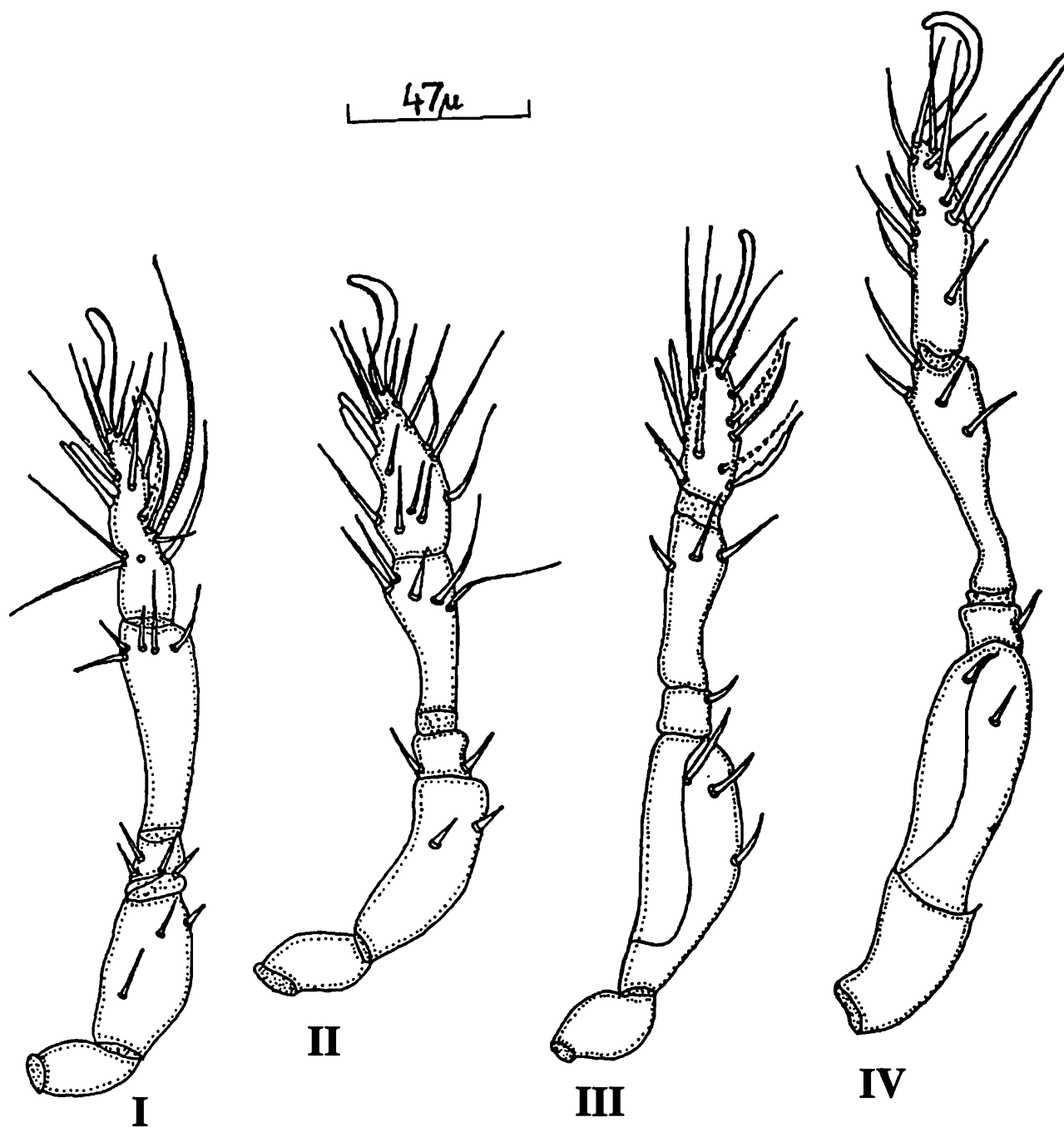
*Material examined* : HOLOTYPE : Adult female, India : Tripura, Karbuk (Amarpur), 1.iii.1992, from humus beside a narrow stream, coll. S. Saha. PARATYPES : 5 adult females, data same as for holotype.



Figs. 1-3. *Tegeocranellus punctatus* sp. nov. : 1. Sensillus; 2. Dorsal view; 3. Ventral view.

**Distribution :** INDIA : Tripura (South District).

**Remarks :** *Tegeocranellus punctatus* sp. nov. comes close to *T. laevis* Berlese, 1905 in general body shape, form of lamellae, shape and position of rostral and interlamellar setae and position of notogastral setae. The new species however, differs from *T. laevis* by rough stalk and broadly club-shaped sensillus, beset with bristles at the tip, shape of notogastral setae (with blunt tips), punctation and foveolation on prodorsum and notogaster. The new species also differs from all other species under this genus in the structure of prodorsum, shape of notogastral setae and body ornamentation.



Figs. 4. Legs (I-IV) of *Tegeocranellus punctatus* sp. nov.

### SUMMARY

The new species *Tegeocranellus punctatus* sp. nov. from Karbuk, Amarapur in Tripura, India is described and illustrated alongwith affinities with *T. laevis* Berlese, 1905.

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