

Four New *Xenillus* Species from the Neotropical Region (Acari: Oribatei)

By

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Abstract. Four species, *X. irregularis*, *X. deformatus*, *X. fecundus* and *X. diversisetosus* spp. n. are described. A key is given to the species-group of *X. ornatus* (COVARRUBIAS, 1967).

In our undetermined materials deriving from the Neotropical Region there are still numerous *Xenillus* species awaiting a thorough study and detailed description. The present contribution is devoted to the description of 4 species whose status has been unambiguously clarified. The recent examinations reveal that the shape of sensillus and the development of lamellae, especially so the form of lamellar cuspides, are highly variable within any one species. In every case it seems inevitable to characterize the taxa with the combination of various features. The present paper was written by strictly observing these viewpoints.

Xenillus irregularis sp. n.

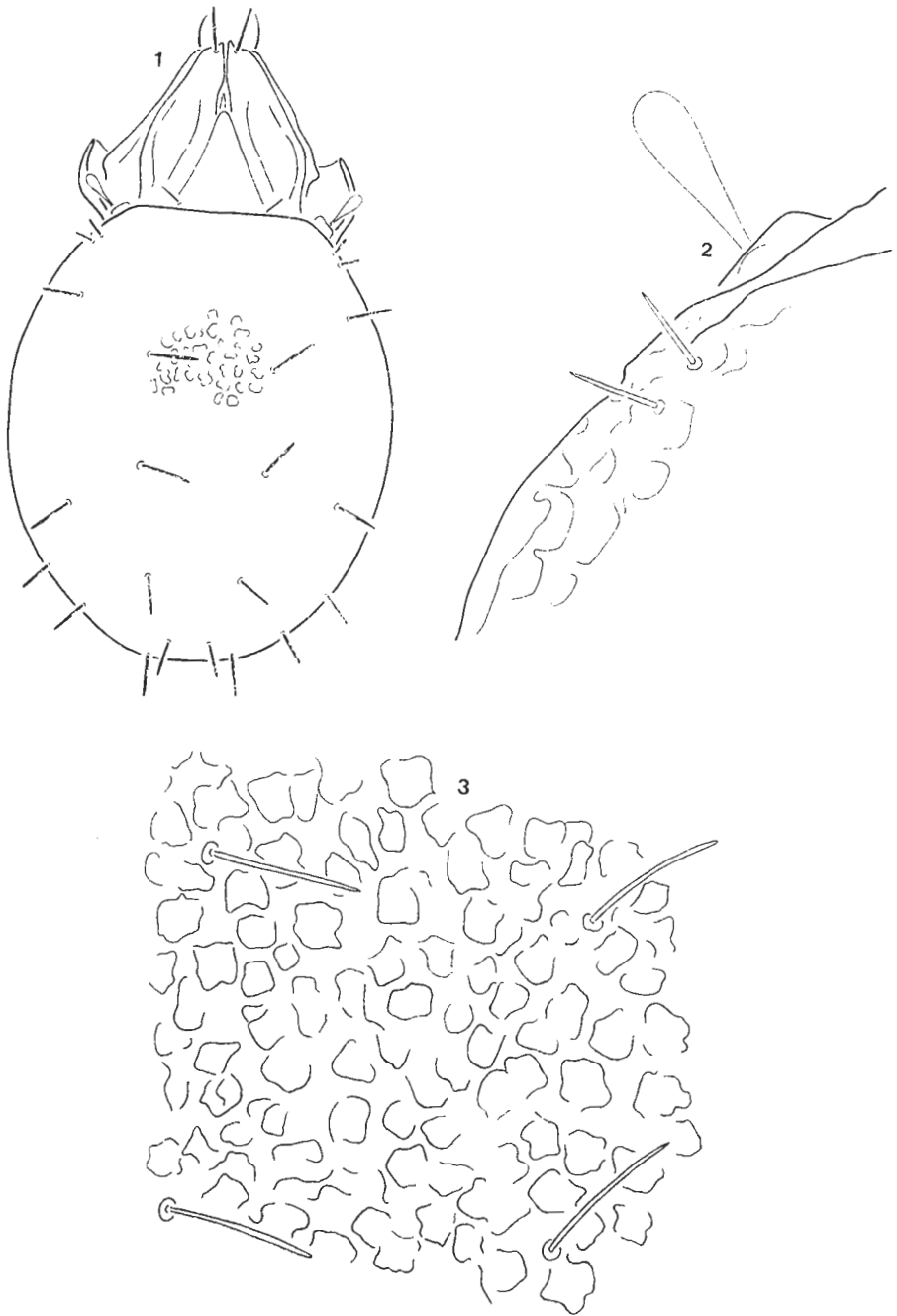
(Figs. 1–3)

Length 681 μm , width 361 μm .

Prodorsum: Sensillus fusiform, short, with a gradually dilated, elongate head; more than three times longer than broad at the broadest part; with broadly rotundate end. Lamellar setae straight, erect, divergent, smooth. Lamellae converging. Lamellar cuspides long, free; intercuspidal triangle long, free. Outer tip of lamellae rotundate, inner tip rotundately acuminate. Rostral setae slightly inward curved, smooth. Interlamellar setae short, smooth. Lamellae without foveolae.

Notogaster: 11 pairs of short, bacilliform, straight, erect, smooth notogastral setae. Setae c_1 and c_2 shorter than the remaining notogastral setae, originating near to each other. Notogaster with irregularly polygonal foveolae; their contours often interrupted.

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Figs. 1–3. *Xenillus irregularis* sp. n. 1: Dorsal view; 2: Sensillus, setae c_1 and c_2 ; 3: Central part of notogaster (with setae da and dm)

Locus typicus: Ecuador, Cotopaxi, about 4000 m. Leg.: J. BALOGH and P. BALOGH. Habitat: moss and detritus under páramo grass; holotype: 1 specimen.

Remarks: There are five species of *Xenillus* in the Neotropical Region having short, fusiform sensillus, but none of them has short, bacilliform, straight, smooth notogastral setae; short interlamellar setae and irregularly polygonal foveolae with often interrupted contours.

Xenillus deformatus sp. n.

(Figs. 4–7)

Length 647 μm , width 467 μm .

Prodorsum: Sensillus long, setiform, straight, with gradually dilated, fusiform end. The apical part of dilated end with some cilia. Interlamellar setae short, setiform. Lamellae broad, covering the rostral part of prodorsum. Lamellar cuspides obliquely truncate; their inner tip pointed, outer tip absent. Intercuspidal triangle long, pointed. Lamellar cuspides basally at level with intercuspidal triangle each with one semicircular line. Lamellae without foveolae.

Notogaster: 11 pairs of short, bacilliform, straight, smooth notogastral setae. Notogastral heterotrichy: setae c_2 , p_1 , p_2 and p_3 shorter than the remaining notogastral setae. Notogaster with irregularly deformed, partly evanescent foveolae; foveolae mostly longitudinally elongate.

Locus typicus: Peru, 102 km W from Pucallpa, rest of a primary rain forest. Habitat: humus with roots under the litter. Holotype: one specimen.

Remarks: This new species belongs to the artificial species-group *Xenillus subnudus* – *Xenillus laurencei*. The species of this group have long sensillus mostly with dilated, disciform or paddle-shaped end. There are 8 species in this group, but only three have smooth, setiform, short notogastral setae: *X. peruensis*, *X. columbianus* and *X. butantanensis*. However, these species have quite different lamellar cuspis and notogastral sculpture.

Xenillus fecundus sp. n.

(Figs. 8–11)

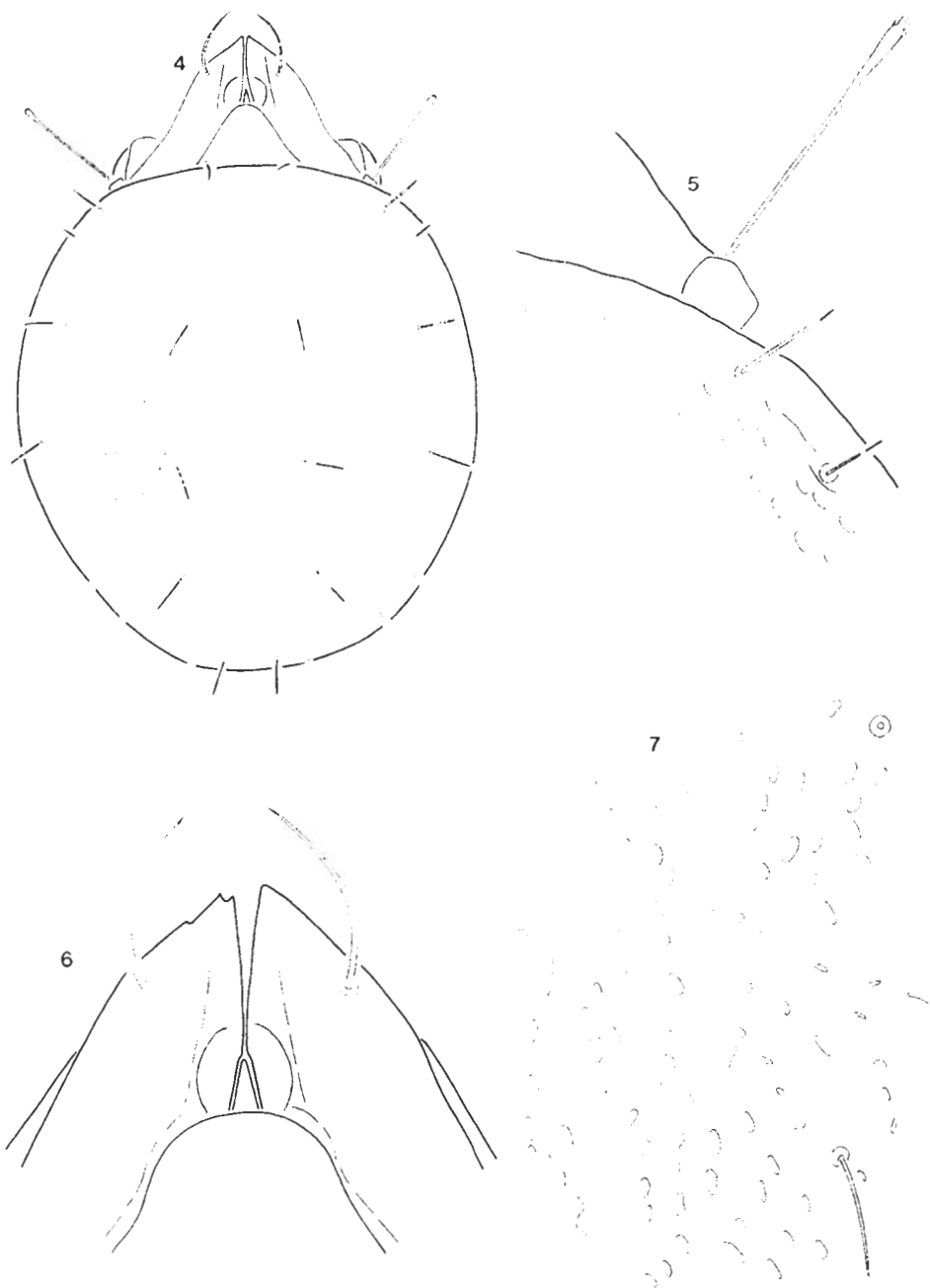
Length 746–830 μm , width 484–631 μm .

Prodorsum: Sensillus lanceolate; in their first third setiform, then lanceolately dilated with long, setiform, finely ciliate end. Lamellae narrow, with short, bicuspidate cuspis and with long, divergent, finely ciliate lamellar setae. Surface of cuspis sparsely foveolate. Rostral region not covered, rostral setae fine, long, unilaterally and sparsely ciliate. Interlamellar setae long, ciliate.

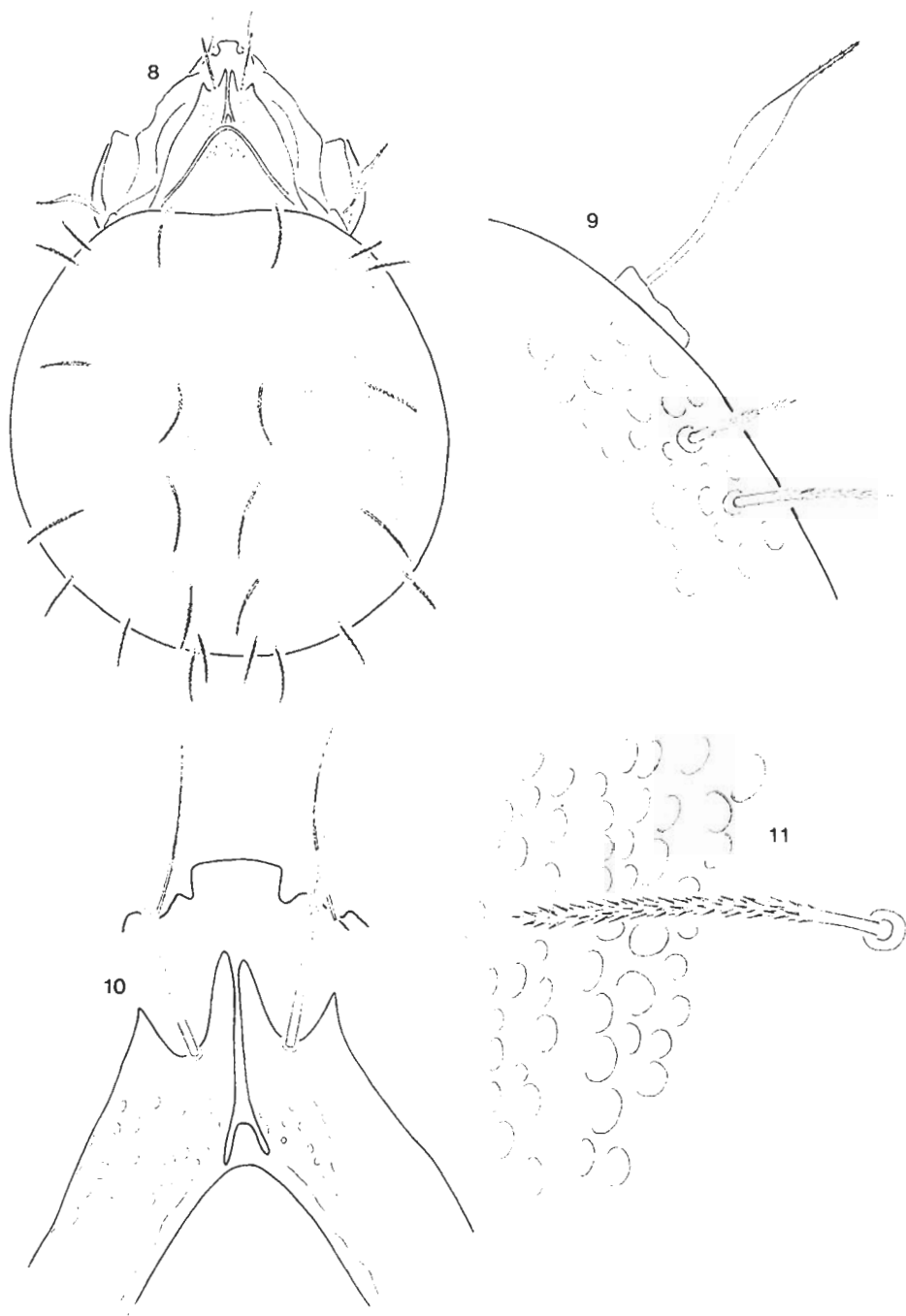
Notogaster: 11 pairs of medium long, densely ciliate setae. Setae c_1 and c_2 shorter than the remaining notogastral setae, originating near to each other. Notogaster densely foveolated. Inside of hysterosoma with 10(?) transparent eggs (hence the specific name).

Locus typicus: Brasil, Campinas, near to “Americana”, secondary vegetation. Habitat: litter and humus, interwoven with roots. Holotype: 1 ex.; 2 paratypes from the same locality.

Remarks: See after the next species.



Figs. 4–7. *Xenillus deformatus* sp. n. 4: Dorsal view; 5: Sensillus, setae c_1 and c_2 ; 6: Lamellar cuspides; 7: Central part of notogaster, left side (with alveoles of setae da and with seta dm)



Figs. 8–11. *Xenillus fecundus* sp. n. 8: Dorsal view; 9: Sensillus, setae c_1 and c_2 ; 10: Rostrum and lamellar cuspides; 11: Lateral part of notogaster, left side (with seta $1a$)

Xenillus diversisetosus sp. n.

(Figs. 12–15)

Length 578 μm , width 369 μm

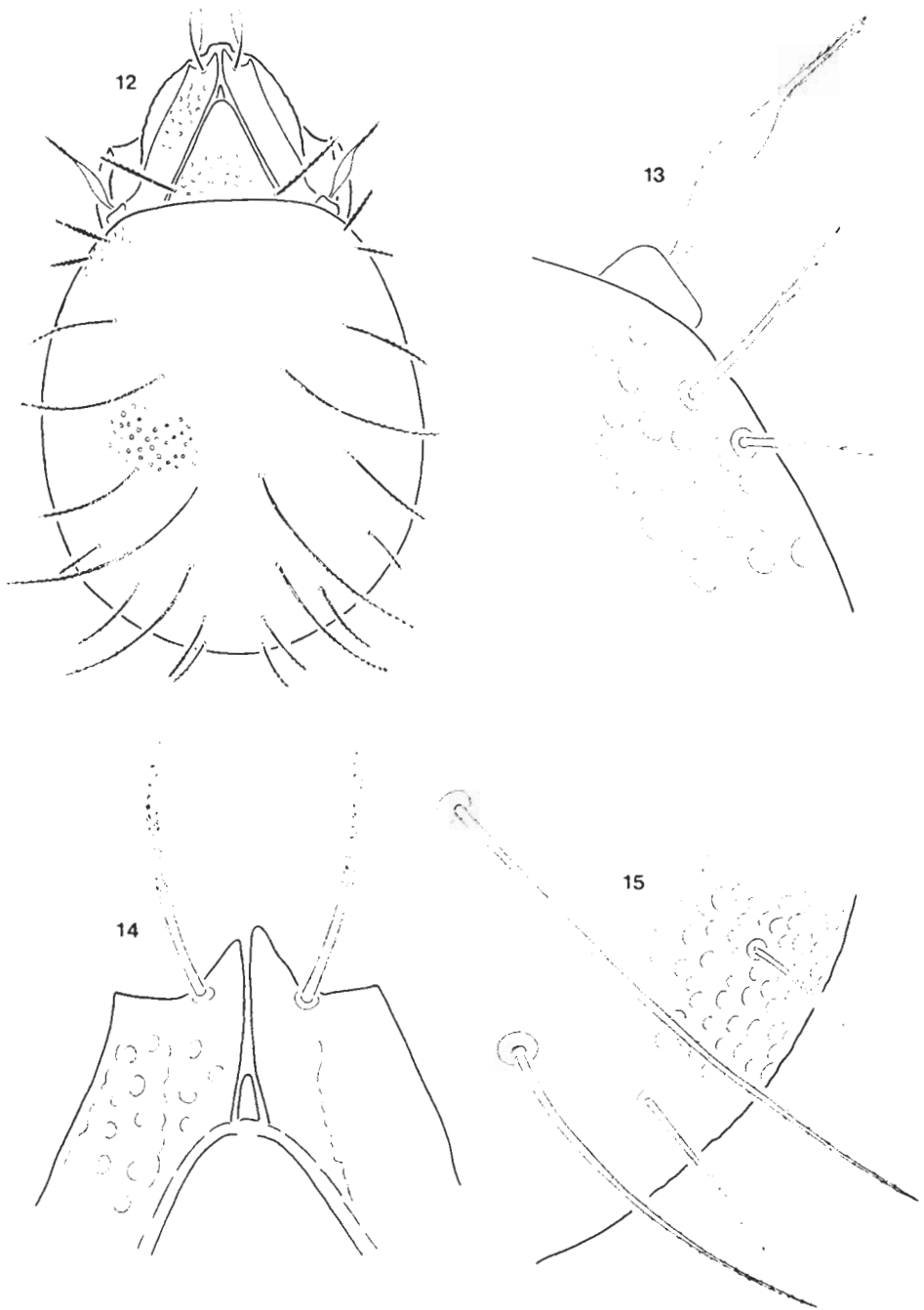
Prodorsum: Sensillus lanceolate; first setiform, then lanceolately dilated with long, setiform, finely ciliate end. Lamellae long, with bicuspidate cusps and with arcuately divergent, finely ciliate lamellar setae. Interlamellar setae long, ciliate. Lamellae and the interlamellar area sparsely foveolated. Lamellar cuspides reaching rostrum.

Notogaster: 11 pairs of notogastral setae with strong notogastral heterotrichy. Setae c_2 the shortest; c_1 , p_1 and p_3 slightly longer; setae da , dm and dp (that is the three pairs in median row) the longest; setae la , lm , lp and p_2 shorter than setae d . Notogaster densely foveolated.

Locus typicus: Chile, Santana near Taropoto, Nov. 1968, leg. Dr. H. FRANZ.
Habitat: soil.

Remarks: The species-group *X. ornatus* (COVARRUBIAS, 1967) (sensillus lanceolate with long, setiform, finely ciliate end) has five species. The identification key of these species is as follows:

- 1 (2) Notogastral heterotrichy: three pairs of median setal rows, i.e. setae da , dm and dp much longer than the remaining notogastral setae, their apical half sparsely ciliate. Length 578 μm , width 369 μm . (Chile.)
diversisetosus sp. n.
- 2 (1) Notogastral setae — excepting setae c_1 and c_2 — the same length.
- 3 (4) Interlamellar area granulated. Lamellae longitudinally lineolated. Notogaster with slit-like fissures. Length 1020 μm , width 673 μm . (Chile.)
ornatus (COVARRUBIAS, 1967)
- 4 (3) Interlamellar area foveolated. Notogaster either with rotundate or with elongate and medially dimidiated foveolae.
- 5 (6) Interlamellar setae shorter than lamellae. Notogastral setae short: setae da shorter than distance $da-dm$. Setae c_1 and c_2 much shorter than sensillus. Length 746–830 μm , width 484–631 μm . (Brasil.)
fecundus sp. n.
- 6 (5) Interlamellar setae as long as or longer than lamellae. Notogastral setae long: setae da as long as or longer than distance $da-dm$. Setae c_1 and c_2 as long as or longer than the sensillus.
- 7 (8) Lamellar cuspides separate; intercuspidal triangle absent. Notogaster with circular foveolae. Length 861 μm , width 502 μm . (Chile.)
disjunctus BALOGH & MAHUNKA, 1977
- 8 (7) Lamellar cuspides touching. Notogaster with elongate and medially dimidiated foveolae. Length 834–1009 μm , width 512–594 μm . (Paraguay.)
longipes MAHUNKA, 1984



Figs. 12–15. *Xenillus diversisetosus* sp. n. 12: Dorsal view; 13: Sensillus, setae c_1 and c_2 ; 14: Lamellar cuspides; 15: Posterior part of notogaster, right side (with setae dm , dp , p_2 and p_3)

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