A new species of the genus Tenuipalpus (Prostigmata: Tenuipalpidae) with remarks on a conceivable ovipositor in flat mites

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A new mite species Tenuipalpus bacuri sp. nov. (Prostigmata: Tenuipalpidae) from Platonia insignis Mar. (Clusiaceae) is described from Brazil (Para). Setal notation are as in Mesa et al. 2009; all measurements are in micrometres.

Tenuipalpus bacuri Flechtmann and Noronha sp. nov.
(Figs. 1–15)

Diagnosis. Tenuipalpus bacuri sp. nov. related to T. garciniae Meyer and Bolland, 1984 but its dorsal integumentary pattern much less elaborate and all dorsal idiosomal setae in female short, setiform and slightly serrate, except for very long pair of caudolateral setae h2 in garciniae dorsocentral setae sub-spatulate.

FEMALE: (n = 10). Dimensions of holotype (measurements of paratypes): body length (from tip of dorsopropodosomal anterior extension to caudal end) 275 (260–303); greatest width 180 (165–185). Dorsum (Fig. 1): median area of propodosoma smooth and enveloped laterally and posteriorly by ridge formed of few elongate cells; propodosoma laterally with fine irregular longitudinal striae. Hysterosoma with median transverse ridge at level of setae of second pair of dorsocentral setae (d1) and smaller and weaker ridge at level of third pair of dorsocentral setae (e1). Posteriorly to setae e1 irregular longitudinal striae and caudally striae transverse. One pair of large circular pores mediolaterally on opisthosoma. Propodosoma extends anteriorly in 2 elongate tips reaching middle of femur of leg I, each with small basal ancillary lobe. First 2 pairs of propodosomal setae (v2 and sc1) as well as hysterosomal setae c1, d1, d2, and e1 minute, slightly serrate; third pair of dorsopropodosomal setae, sc2, and humeral setae, c3, 3–4 times as long as setae of second pair of dorsopropodosomals, serrate. Caudolateral setae e2, f1, f2, and h1 serrate, slightly longer than humeral setae, and h2 flagellate, long. Venter (Figs. 3–4): Podosoma with pair of short anterior setae (3a) and pair of long posterior setae (4a), about 4 times as long as long 3a. Genital and ventral plates fused, bearing 1 pair of pregenital setae and 2 pairs of genital, long, smooth setae. Two pairs of anal setae present. Gnathosoma: palpus 3 segmented (Fig. 9); terminal segment short, as long as wide, with rod-like elongate solenidion. The second segment largest and bearing long pectinate seta. Gnathosoma venter with 1 pair of setae. Legs (Figs. 5–8): Setation (solenidia in parentheses), from coxae to tarsi: 12–1–4–2–4–5?2; II 2–1–4–2–5–7?2; III 1–1–2–0–3–5?; IV 1–1–1–0–3–4?1.

Note on female morphology. Internally, underneath the caudal one third of the genitoventral shield, a somewhat complex set of “ridges” or “folds” radiating from the center (Fig. 3) resemble a folded structure similar to the ovipositor in Tetranychidae (Lustgraaf 1977) and is here regarded as such. However, it could be merely the distal folded part of the oviduct, as suggested by Alberti & Coons (1999) for the Tetranychidae. A similar structure was illustrated in the drawing of the female of T. moraesii Feres and Hernandezes, 2006, however, the authors did not make any further reference to it.

MALE: unknown.

LARVA: (n = 5). 135–158 long, 93–114 wide. Dorsum (Figs. 10): median area of propodosoma with small ovoid beads forming reticulate pattern; randomly dispersed beads on dorsolateral anterior areas. Remaining of propodosoma with striae, longitudinal laterally and transversely centrally. Setae v2 and sc1 minute; sc2 long, serrate. Striae entirely transverse at level of setae c1 and d1 and irregularly longitudinal caudally. Entire complement of dorsalsetae of adult female present, except for setae c3, which absent. Venter (Fig. 11): integument transversally striate except for longitudinal striae around genital-anal area. One pair of anterior ventral setae (3a) and 2 pairs of anal setae present.