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THE MITE *ORIBATA LAMELLATA* AND RELATED SPECIES.

By

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(Figures 1-6.)

IN 1927 the Trustees of the Australian Museum kindly sent me four types of *Oribata lamellata* Rainbow¹ for study². In 1929 I received the remaining specimens. Eight of the latter have been recorded³, and I now proceed to report on the last specimens, which are *Udetaliodes funafutiensis* Jacot⁴. To summarise this investigation, the type material comprised *U. hawaiiensis wakensis* Jacot⁵, nine specimens; *U. funafutiensis*, five specimens; *U. lamellatus*, two specimens. Theoretically I should have restricted the specimens of *U. h. wakensis* as types of *O. lamellatus*, but could not guess they were so abundant from the first lot received. The original description of the pseudostigmatic organs and the dimensions do not fit *U. h. wakensis*. Thus, the original description must have been based on the larger specimens, probably *U. funafutiensis*.

Udetaliodes funafutiensis Jacot.

1929. *Udetaliodes funafutiensis* Jacot, Trans. Amer. Micro. Soc., xlviii, 23 February, 1929, p. 38.

Diagnostic Characters.—Pseudostigmatic organs projecting well beyond pseudostigmata; rostrum crossed by two strongly developed transverse ribs; cephalo-prothoracic pocks strong, crowded, distinctly grouped in two raised, clearly defined, widely separated groups; pseudostigmatic organ head without bristles (Figure 1); anterior rim of notogaster finely, strongly wrinkled, especially on ventral face (Figure 2); anterior area of notogaster sculptured by faint network which is coarser and more irregular dorso-mesially (Figure 2); genital covers (Figure 4) with regular, rather fine areolations on mesial half, lateral half coarsely, irregularly areolated, bristles 5/2 (which is probably the complete number for this genus); anal covers with more ribs than in *U. bataviensis*⁶ due to a tendency to bifurcate (Figure 3).

Legs I (Figure 6) with bristles short, stout, ribbed, rapier-like. Ventral edge of tibiae with straight bristles almost as long as height of segment; middle bristle of dorsal face of tibiae stout, rapier-like. I find no evidence of a ventro-distal flange on femora I. Size (average), 0.94 x 1.48 mm.

Cotypes.—Five specimens under fallen damp leaves and sticks beneath bushes of *Pemphis acidula* (or *Ngia*) growing on a low breccia scarp on western side of the north arm of the mangrove swamp, Island of Funafuti, slides K2181 b and c.

¹Rainbow.—Australian Museum Memoir III, 25 February, 1897, pp. 105 and 109, pl. ii, fig. 3.

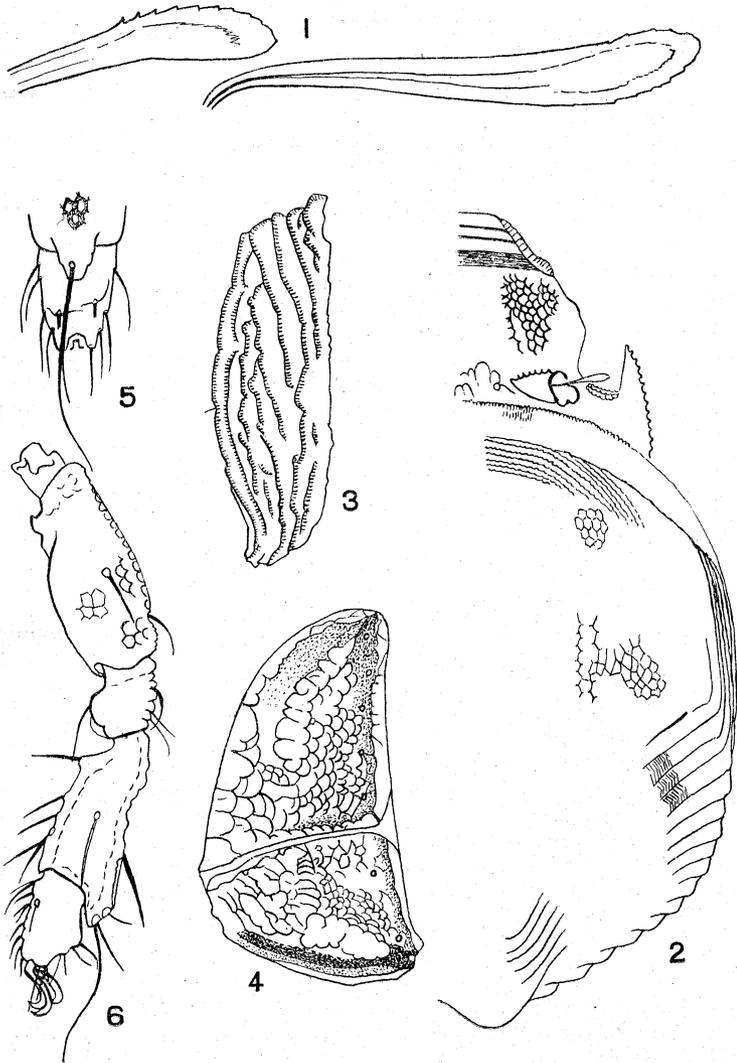
²Jacot.—Transactions American Micro. Soc., xlviii, 23 February, 1929, p. 36.

³Jacot.—Bernice Pauahi Bishop Museum Bulletin 121, 7 April, 1934.

⁴Jacot.—*Loc. cit.*, 1929, p. 38.

⁵Jacot.—*Loc. cit.*, 1934, pl. xvi.

⁶Jacot.—*Loc. cit.*, 1929, pl. vii, fig. 13.



Udetaliodes funafutiensis Jacot, adult.

Figure 1.—Pseudostigmatic organs; ratio $\times 440$.

Figure 2.—Dorsal aspect, legs omitted; ratio $\times 60$.

Figure 3.—An anal cover; ratio $\times 100$.

Figure 4.—Genital covers; ratio $\times 120$.

Figure 5.—Tarsus I, dorsal aspect, unguis hooks omitted; ratio $\times 100$.

Figure 6.—Legs I; ratio $\times 75$.

Figure 5 is included to show breadth of distal end of tarsus and its two edges, each supporting bristles. The ventral face bristles are so crowded that two have been omitted from Figure 6 near the distal end.

As already stated ⁷ this species bears characters common to both *U. lamellatus* and *U. bataviensis* Sellnick⁸. The legs are more like those of *U. bataviensis* but the bristles are shorter, especially those of the tarsi.

The key to these three species should therefore read:—

1. Surface of pseudostigmatic organ head barbed; rostrum and genital covers finely sculptured in a waved design; cephalo-prothoracic pocks loosely scattered, sometimes quite faint; anterior rim of notogaster smooth; anterior area of girdle smooth except along lateral edge; length 1.1 mm.

U. bataviensis.

- 1A. Surface of pseudostigmatic organ head without barbules; cephalo-prothoracic pocks strong, crowded, distinctly grouped in two raised, clearly defined, widely separated groups; anterior rim of notogaster finely, strongly wrinkled, especially on ventral face; length 1.4 mm.

2.

2. Anterior area of notogaster sculptured by rivet-heads; pseudostigmatic organ head with elongate areolations; tibiae I with rather fine bristle in middle of dorsal face, and fine curved bristles on ventral face.

U. lamellatus.

- 2A. Anterior area of notogaster sculptured by a faint network; pseudostigmatic organ head without areolations; tibiae I with stout bristle in middle of dorsal face; and stout, straight bristles on ventral face.

E. funafutiensis.

⁷Jacot.—*Loc. cit.*, 1929, p. 38.

⁸Sellnick.—*Treubia*, vi, December, 1925, p. 463.