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STUDIES OF QUEENSLAND TETRANYCHIDAE. 2. TETRANYCHUS DIANELLAE SP.N., A SPIDER MITE FOUND ON DIANELLA CAERULEA SIMS

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SUMMARY

Tetranychus dianellae **sp. n., a spider mite found on the Queensland native plant** *Dianella caerulea* **Sims, is described and figured. It is distinguished from other similar species on the shape of the aedeagus and on other features.**

Tetranychus dianellae sp. n.

Holotype: Male, Allotype: Female; and Paratypes: Queensland: Perwillowen, via Nambour, on *Dianella caerulea* Sims, 27.vi.1966 and 5.vii.1966 (D. A. Ironside).

Holotype and allotype on separate slides in Hoyer's medium in Queensland Museum Nos. W2495 and W2494 respectively, together with a paratype female No. W2498, in Heinz PVA medium, preparation specially made to show integumentary lobes; other paratypes three males, six females, on slides in Hoyer's medium, and other specimens of males and females preserved in Oudeman's fluid, in collection of Queensland Department of Primary Industries.

Male.—Dimensions of mounted holotype 390μ (to tip of palpi) x 195μ; mounted paratypes (375μ–420μ) x (180μ–210μ); palpus with terminal sensillum about twice as long as wide (Figure 1A); peritreme hooked (Figure 1B); empodium I with trifid proximoventral spurs and no dorsomedian claw (Figure 1C); four tactile and two sensory setae proximal to duplex setae on tarsus I;

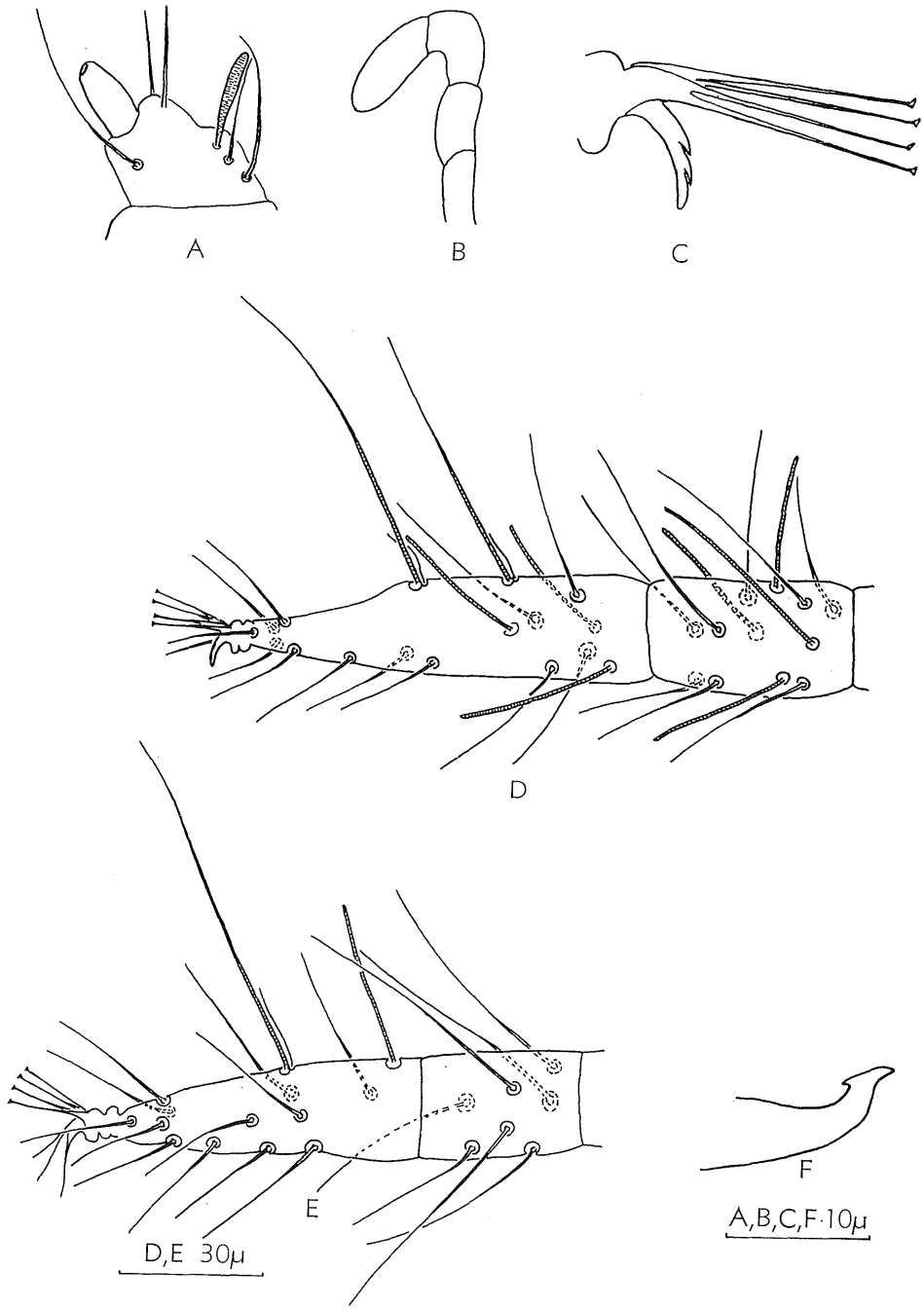

Fig. 1.—*Tetranychus dianellae,* male. A, Palpus, terminal segment. B, Termination of peritreme. C. Empodium I. D, Tibia and tarsus I. E, Tibia and tarsus II. F, Aedeagus.

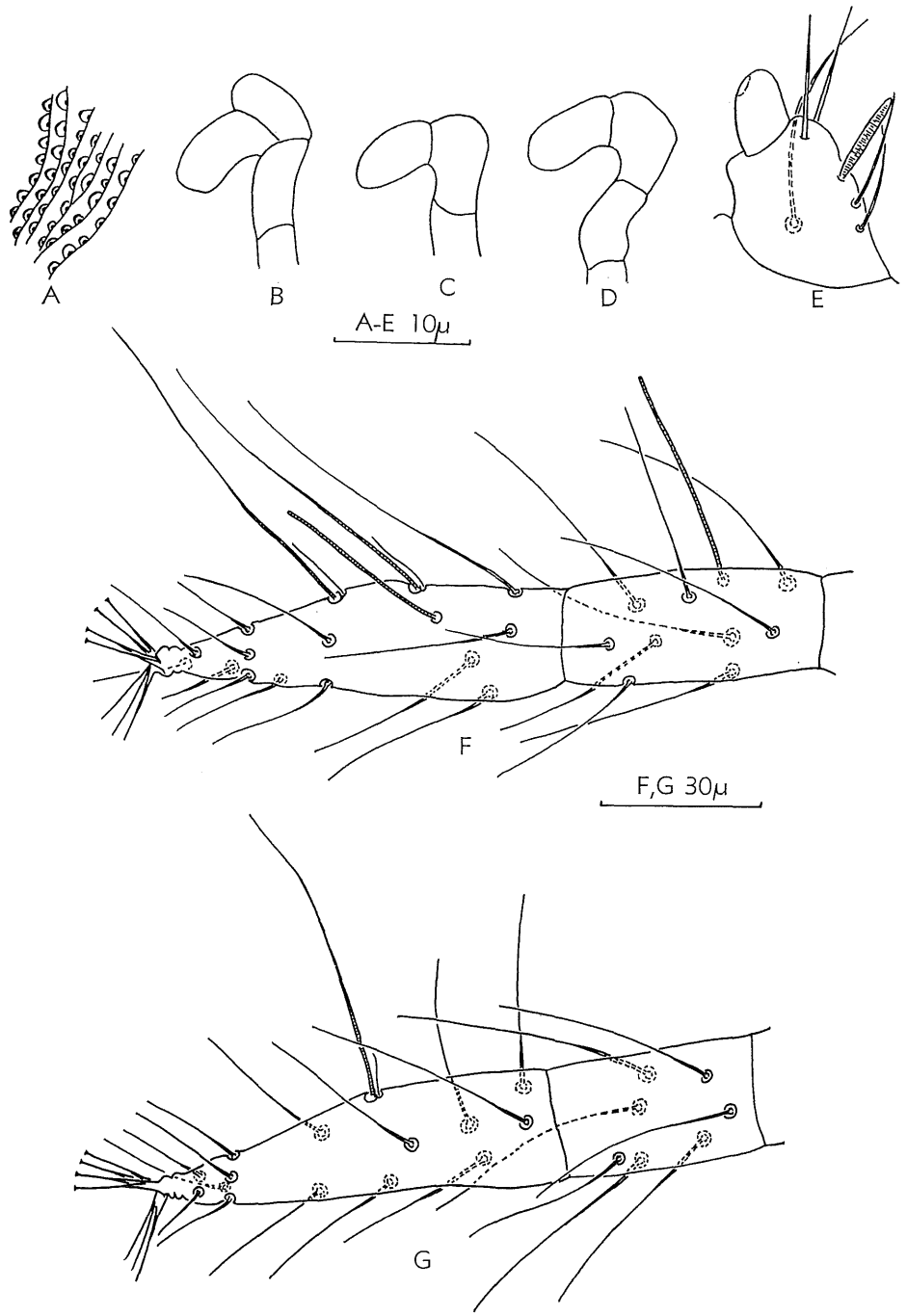

Fig. 2.—*Tetranychus dianellae,* female. A, Dorsal cuticular lobes in region of third pair of dorso-central hysterosomal setae. B, C, D, Termination of peritreme. E, Palpus, terminal segment. F, Tibia and tarsus I. G, Tibia and tarsus II.

eight or nine tactile and three or four sensory setae on tibia I (Figure 1D); seven tactile setae on tibia II (Figure 1E), empodium II with three pairs of proximoventral hairs; five tactile setae on tibia III, seven on tibia IV; aedeagus bent dorsad, with the dorsally directed stem very short, ending in a knob inclined at a small angle with the main shaft, with a short anterior angulation and a longer posterior angulation (Figure 1F).

Female.—Dimensions of mounted allotype 525μ (to tip of palpi) x 315μ; mounted paratypes (510μ–570μ) x (300μ–345μ); dorsal setae finely tapering, not set on tubercles, pubescent, dorso-centrals more than twice as long as the intervals between longitudinally adjacent setae; stylophore about 1·4 times as long as wide, slightly flattened in front or very slightly emarginate; dorsal striae longitudinal sometimes slightly irregularly so, between the third pair of dorso-central setae, with transverse striae forming a broadly triangular or diamond shaped pattern posterior to these setae, then with longitudinal striae between the inner sacral setae; lobes on dorsal striae small and variable in size, semi-circular, separated at the base, with slightly dense tips and each with a basal spot (Figure 2A); lobes on the ventral striae between the hysterosomal setae similar to the dorsal lobes but much broader, extending forward to the first pair of ventral hysterosomal setae, ventral propodosoma without lobes; ventral striae longitudinal in the area just forward of the genital flap; peritreme hooked, but hook small and variable (Figures 2B,C,D); terminal sensillum of the palpus stout, about one-and-one-half times as long as wide (Figure 2E); tarsus I with four tactile setae proximal to duplex setae, tibia I with nine tactile setae and one sensory seta (Figure 2F); tibia II with seven tactile setae (Figure 2G); tibia III with six tactile setae, tibia IV with six or seven tactile setae; empodia with three pairs of proximoventral hairs, without dorso-median claw.

The adult females in life appear very dark green, some almost completely black, with large dark lateral food spots, the gnathosoma and legs pink. Male coloration is similar, but not so dark. The mites occur on the undersides of the leaves and spin a moderate amount of webbing. The eggs are spherical and amber coloured.

Diagnosis.—Of the species of *Tetranychus* with longitudinal striae between the third pair of dorso-central setae, the aedeagus of *T. dianellae* most resembles those of *T. marianae* McGregor and *T. phaselus* Ehara, but differs in the knob not being inclined at a large angle to the stem and in lacking the long posterior angulation of the aedeagus of the latter species. Other differences may be found in the structure of the peritreme and of empodia I and II of the males. The coloration of living females of *T. dianellae* appears to be different from the coloration of females of the other species, those of *T. phaselus* being yellowish red (Ehara 1960) and *T. marianae* carmine (Pritchard and Baker 1955).

REFERENCES

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