

Tetranychus evansi

Baker & Pritchard 1960

Material examined

non-types

Taxonomy

Subfamily Tetranychinae

Tribe Tetranychini

Distribution

This species was originally described from *Mauritius, but it is now widespread across the planet, including +Australia.

There is evidence suggesting that the species originates from South America (Gutierrez and Etienne, 1986).

Taxonomy Changes

Synonymy - *Tetranychus takafujii* Ehara and Ohashi (2002) by Gotoh, et al. (2009: 247)

Diagnosis

Female

- empodia I-IV each with short to minute dorsal spur above proximoventral hairs (Fig. 1)
- tarsus I with sockets of no setae proximal to, and sockets of four tactile setae overlapping, the socket of the proximal duplex seta [note that there can be some variation in the position of the tactile setae, with the sockets of up to three tactile setae proximal]
- tarsus II with the sockets of three tactile setae and one solenidion proximal to, and three tactile setae overlapping, the socket of the duplex seta
- pregenital striae longitudinal (can be slightly weaker medially) (Figs 2, 3)
- peritreme with recurved hook (Fig. 4)
- dorsal striae between dorsal setae *e1-e1* and *f1-f1* forming diamond pattern = striae between *e1-e1* longitudinal or irregular/oblique (Fig. 5), striae between *e1-f1* transverse (Figs 6, 7), striae between *f1-f1* longitudinal (Fig. 8)
- dorsal striae between dorsal setae *f1-f2* irregular, but mostly longitudinal becoming transverse (Fig. 9)
- ventral striae without lobes
- body pale to dark orange, or brown, with paler orange legs and gnathosoma when alive

Male

- empodia I-II each with strong dorsal spur, above fused proximoventral hairs that form a ventral claw (Figs 10, 11)
- empodium III-IV similar to that of female with strong dorsal spur above proximoventral hairs (Figs 10, 11)
- aedeagus: original illustration of aedeagus is different to other specimens identified as *T. evansi*
 - original illustration (Fig. 12): aedeagus dorsally directed, with long narrow neck and distinct knob; anterior projection of knob short broad triangular; posterior projection elongate triangular, tapering to point, with tip bent slightly to posterior; dorsal margin of knob at 45° angle to shaft; dorsal margin of shaft parallel with ventral margin
 - aedeagus directed dorsally, with short stout neck and

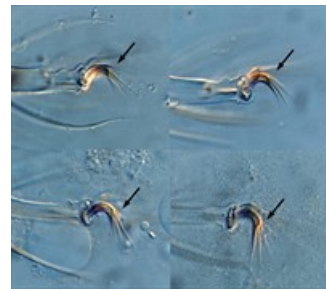


Fig. 1. *Tetranychus evansi* adult female (non-type; Australia) - detail of claws I (upper) and IV (lower) (arrows indicate minute dorsal spur).

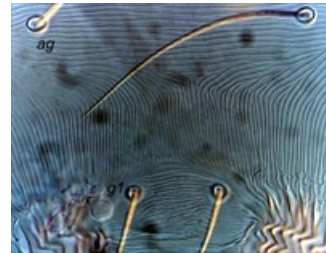


Fig. 2. *Tetranychus evansi* adult female (non-type; Australia) - detail of pregenital striae.

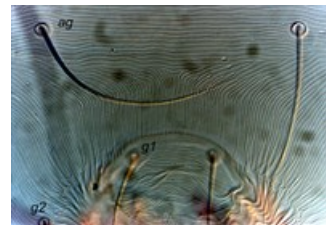


Fig. 3. *Tetranychus evansi* adult female (non-type; Australia) - detail of pregenital striae.



Fig. 4. *Tetranychus evansi* adult female (non-type; Australia) - detail of peritreme.



Fig. 5. *Tetranychus evansi* adult female (non-type; Australia) - detail of dorsal striae between setae e1-e1.

small distinct knob; anterior projection of knob short broad triangular; posterior projection narrow triangular tapering to blunt or sharp point, with tip slightly bent ventrally; dorsal margin of knob at 40° angle to shaft; dorsal margin of shaft more or less parallel or at 30° angle to ventral margin of shaft; shaft long (Figs 13-15)

- yellow to orange when alive

Hosts

Recorded on many species of plant from a broad range of families, but the species is most strongly associated with the Solanaceae. The type host is tomato, **Solanum lycopersicum* (Solanaceae).

Recorded hosts include species from the following families: Amaranthaceae, Asteraceae, Brassicaceae, Convolvulaceae, Malvaceae, Poaceae, and Solanaceae.

Similar Taxa

Tetranychus marianae McGregor 1950 (see deMoraes *et al.* 1987)

References

+http://www.pir.sa.gov.au/_data/assets/pdf_file/0005/299471/Fact_Sheet_-_Tomato_Red_Spider_Mite_-_October_2017.pdf

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Migeon, A. and Dorkeld, F. (2006-2017) Spider Mites Web: a comprehensive database for the Tetranychidae. <http://www.montpellier.inra.fr/CBGP/spmweb>

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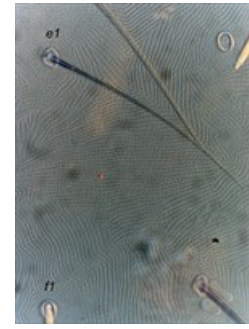


Fig. 6. *Tetranychus evansi* adult female (non-type; Australia) - detail of dorsal striae between setae e1-e1 and f1-f1.

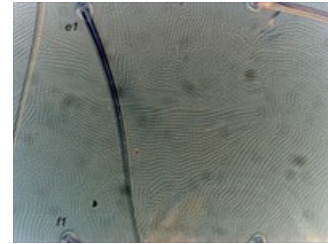


Fig. 7. *Tetranychus evansi* adult female (non-type; Australia) - detail of dorsal striae between setae e1-e1 and f1-f1.

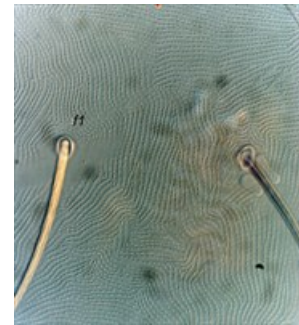


Fig. 8. *Tetranychus evansi* adult female (non-type; Australia) - detail of dorsal striae between setae f1-f1.

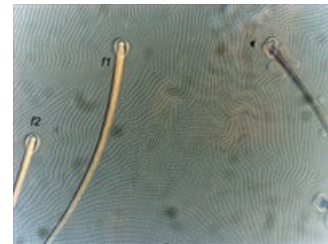


Fig. 9. *Tetranychus evansi* adult female (non-type; Australia) - detail of dorsal striae between setae f1-f2.

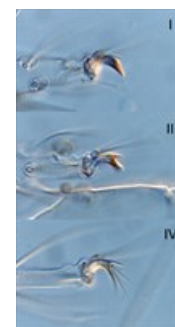


Fig. 10. *Tetranychus evansi* adult male (non-type; Australia) - detail of claws I, II, IV.

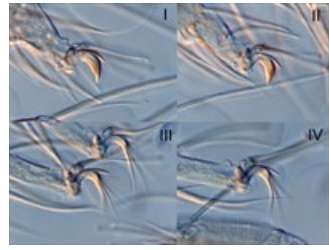


Fig. 11. *Tetranychus evansi* adult male (non-type; South Africa) - detail of claws I-IV.

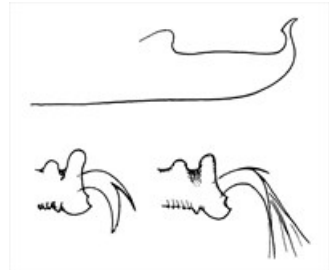


Fig. 12. *Tetranychus evansi* original description - detail of adult male aedeagus and empodium I; detail of adult female empodium I (after Baker & Pritchard 1960: 542).

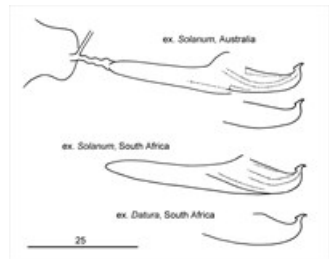


Fig. 13. *Tetranychus evansi* adult male (non-types) - detail of aedeagus of specimens from Australia (one individual at different focal points - Fig. 14) and South Africa (two different individuals - Fig. 15).



Fig. 14. *Tetranychus evansi* adult male (non-type; Australia) - detail of aedeagus at two focal points.

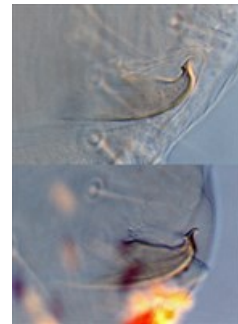


Fig. 15. *Tetranychus evansi* adult male (non-type; South Africa) - detail of aedeagus (two different individuals).