

ACULOPS EUGENIAE KEIFER (ACARINA: ERIOPHYIDAE)¹

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INTRODUCTION: Aculops eugeniae Keifer was described by Keifer (1977:7) from heavily infested leaves of Surinam cherry, Eugenia uniflora Linnaeus, collected by J. Debaby, 3-VI-1976, in Miami (fig. 1). This is a gall-making species of Aculops closely related to Aculops alachuae Keifer. Keifer (1977:7) stated that both species have rust mite structures but are now gall makers, which suggests they were once free living.

DISTRIBUTION: This mite has been collected only in Miami, but more intensive collecting on the host plant probably will extend the range.

DIAGNOSIS: Aculops eugeniae is characterized by the 4-rayed featherclaws and can be separated from A. alachuae by having less granules on the sides of the shield, and the ribs on the female genital coverflaps are not as strong. A. alachuae also has granules on the coxae.

DESCRIPTION: Female is fusiform, light yellowish white, 145-155 μ long and 38 μ wide. Rostrum 20 μ long, projecting down (fig. 2S); antapical setae 4 μ long (fig. 2S); shield 30 μ long, by 39 μ wide, subtriangular in the dorsal view with sides convex to some extent (fig. 3DA). Shield design of lines: median line broken and irregular, on rear 1/2 of shield (fig. 3DA). Admedian lines complete from sides of narrow anterior lobe, subparallel, somewhat curving out on rear 1/2 and ending at rear either curved in or out (fig. 3DA). First submedian line short, projecting diagonally outward for short distance from admedian at about 1/5 and ending at about 1/2. Second submedian line from side of admedian just behind anterior shield lobe, running diagonally outward to about 1/3 then strongly curving inward nearly to admedian at 3/5 and recurving outward and ending just on outer side of dorsal tubercle. A transverse line at rear shield margin curves across just in front of dorsal tubercle and intersects 2nd submedian line. Dorsal tubercles 24 μ apart (fig. 3DA). Foreleg from trochanter base 29 μ long; tibia 8 μ long, with 5 μ long seta from 1/4; tarsus 6 μ long; claw 7 μ long (fig. 4Ll). Featherclaw 4-rayed (fig. 5F). Hindleg 25 μ long. Abdominal thanosome with about 36 tergites and 53 sternites (fig. 2S). Abdominal microtubercles touching rear ring margins but not pointed (fig. 6ES). Lateral seta 18 μ long, on sternite 6 behind shield (fig. 2S). First ventral seta 45 μ long, on sternite 18; 2nd ventral seta 11 μ long on sternite 36 (fig. 2S). Telosomal seta 16-17 μ long. Accessory seta 2-4 μ long. Female genitalia 12 μ long and 20 μ wide (fig. 7AP1); female genital coverflap with about 8 rather weak longitudinal ribs; seta 16 μ long (fig. 8GF1). Male about 125 μ long.

CONTROLS: If controls are necessary, the Department of Entomology and Nematology, University of Florida, recommends Kelthane. A second application should be applied within 7 to 10 days.

LITERATURE CITED:

Keifer, H. H. 1977. Eriophyid Studies. California Dept. Agric. C-13:1-24.

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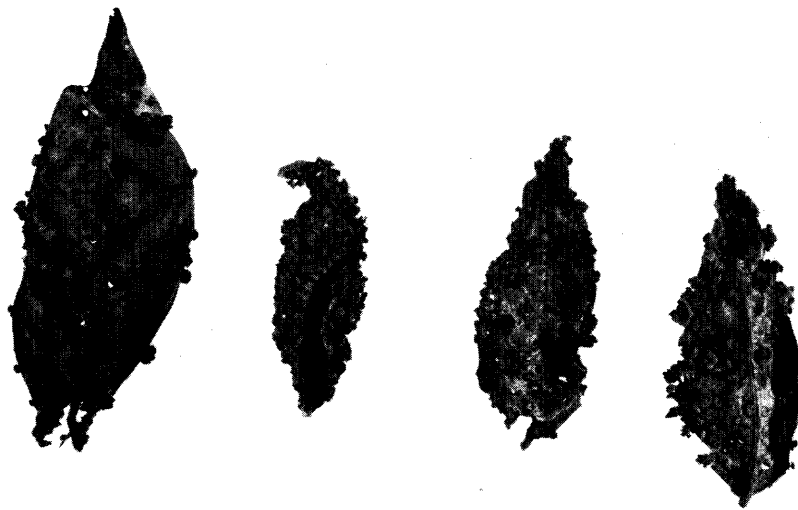


Fig. 1. Infested leaves of Eugenia uniflora.

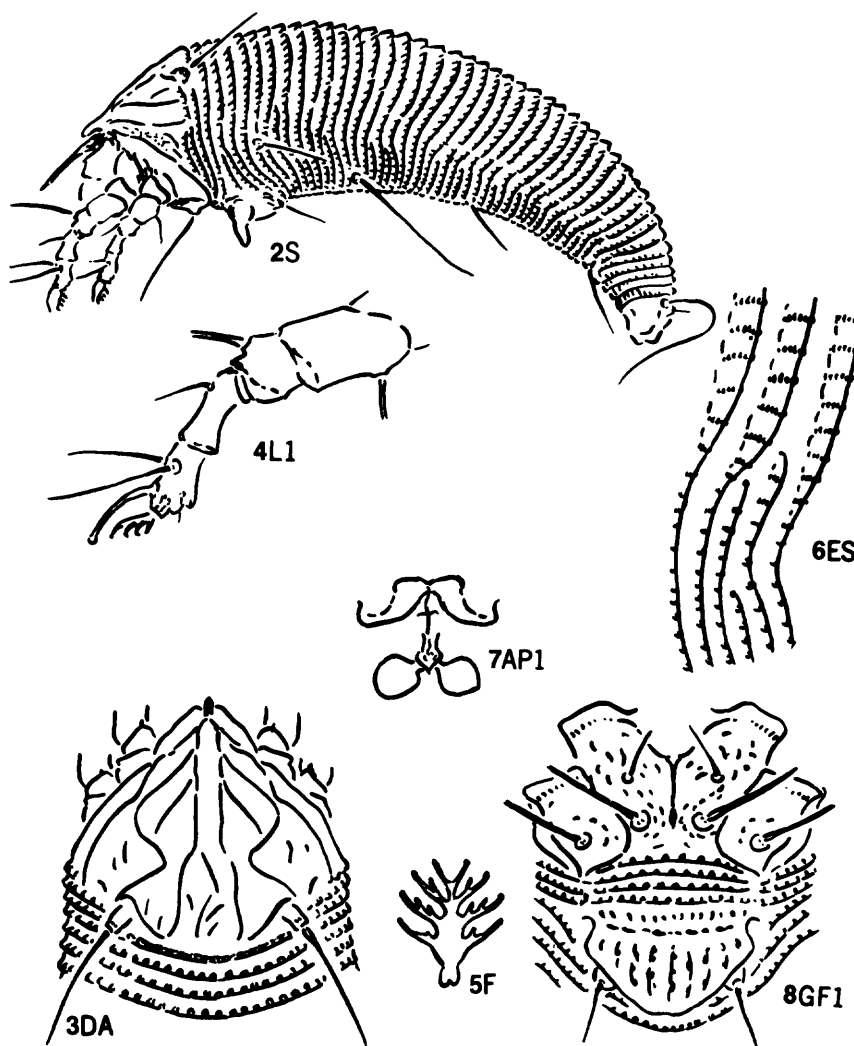


Fig. 2-8. Aculops eugeniae Keifer, adult female. 2S. Side view of mite. 3DA. Delineation of cephalothoracic shield. 4L1. First left leg. 5F. Featherclaw. 6ES. Lateral rings and microtubercles on thanosome. 7AP1. Internal female genital structures. 8GF1. Female genital structures and coxae.