

## A NEW PROSTIGMATID MITE (ACARINA; CALIGONELLIDÆ)

By E. A. MCGREGOR

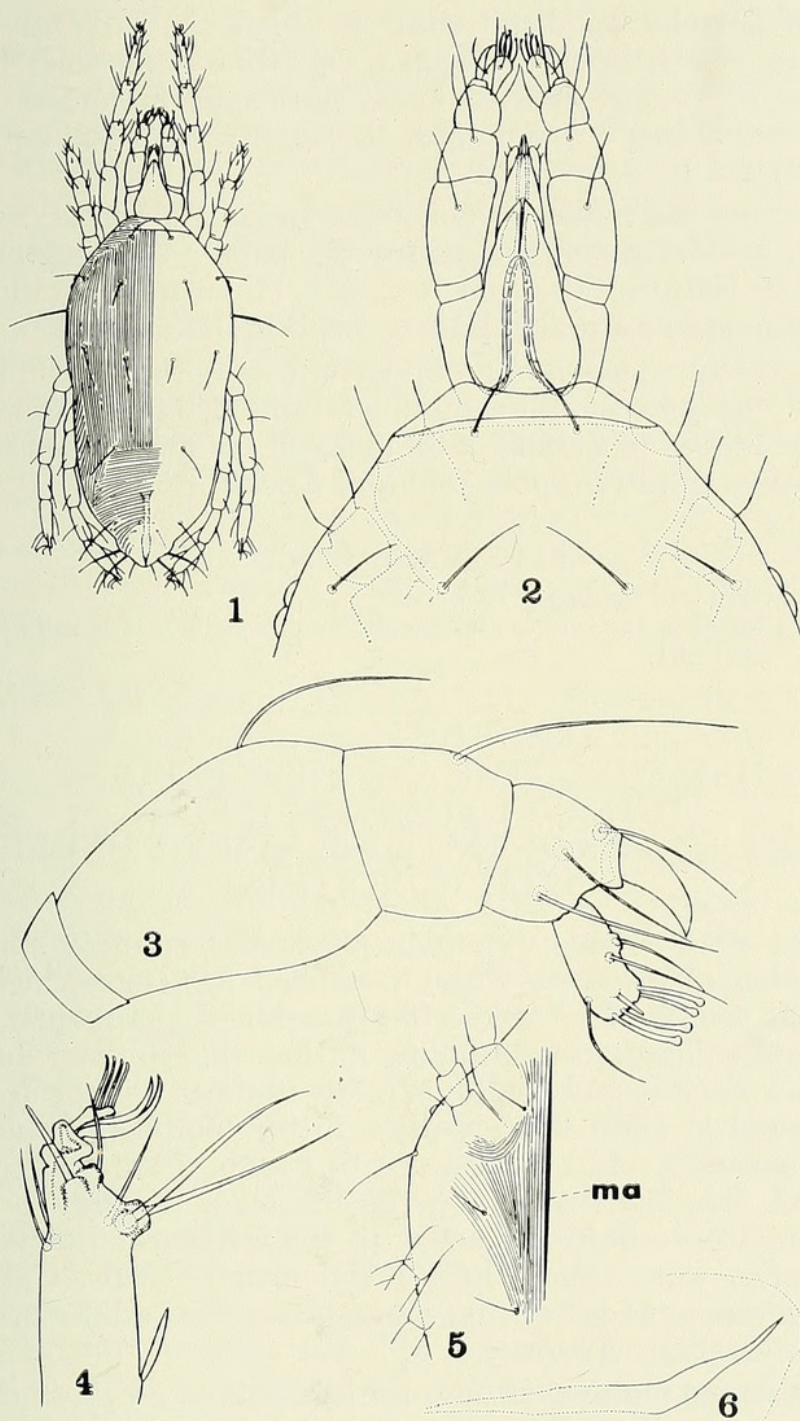
In 1935 the writer collected a mite occurring on the native fan palm at Indio, California. This acarid was entirely new to the author who, at that time, sent it to E. W. Baker for his opinion of its identity. He replied that it appeared to be a new genus and new species in the Stigmæidæ. The matter was put aside until recently when, after an interval of 24 years, Baker was again approached for his latest opinion of the mite. He replied that it is now referable to the genus *Molothrognathus*, erected by Summers and Schlinger (1955), and that the mite probably is an undescribed species. Upon comparing the mite with the three known species in the genus, the writer became convinced of its uniqueness.

### *Molothrognathus washingtonia*, new species

**MALE. GNATHOSOMA.** Stylophore conical, narrowing anteriorly to form long acuminate digits. Peritremata originating immediately behind basal sclerites of movable digits, extending posteriorly, closely straddling the median axis of stylophore, turning abruptly outward near anterior margin of idiosoma and curving in reducing caliber around the caudo-lateral angle of stylophore. Rostrum split apically into two blunt tips, reaching to base of palp-tibia. Palpus of average thickness, reaching to middle of tibia I. Claw strong, acute, about equalling palp-tarsus which is equipped as follows: A tiny spindle-shaped sensillum on outer surface subterminally; three acicular setæ; a terminal whorl of 4 stout, arched setæ with bulbous tips.

**IDIOSOMA.** Narrowly ovate, widest in humeral region, almost twice as long as greatest width. (Six males averaged 0.285 mm. long by 0.155 mm. wide.) Dorsum without plates, but striated throughout; anterior two-thirds of integument with longitudinal striæ, posterior third with transverse striæ. Two adjacent eyes each side. Eleven pairs of dorsal setæ (excluding pair of short ventro-caudal setæ); all shortish except the long scapulars. A linear structure (ma) is visible axially on venter, extending from near anterior end of idiosoma caudad to a point even with coxæ IV, remotely bordered each side by three widely spaced setæ; this is probably the median apodeme. Legs relatively small; coxal groups well separated. Sensory setæ on leg I include a small, spindle-shaped sensillum on genu, two adjacent sensilla on tibiæ, and a spindle-shaped sensillum on tarsus (all sensilla situated as described by Summers and Schlinger (1955) for *Molothrognathus leptostylus*). Tarsus II also bearing a small spindle-shaped





## PLATE 36

*Molothrognathus washingtonia*  
EXPLANATION OF FIGURES

- Fig. 1. Dorsal view of male.  
 Fig. 2. Dorsal view of gnathosoma and anterior portion of idiosoma.  
 Fig. 3. Lateral view of right palpus.  
 Fig. 4. Tip of tarsus I, lateral view.  
 Fig. 5. Anterior portion of idiosoma, right side, viewed ventrally (ma, median apodeme).  
 Fig. 6. Lateral view of aedeagus.



sensillum dorsally on distal third of segment. Tarsi each with two strong claws; between them a fingerlike empodium bearing two pairs of capitate tenent hairs. Aedeagus in lateral outline roughly resembling a boomerang, the shaft daggerlike, narrowing to a sharp tip.

HOLOTYPE. Six males on one slide, Indio, California, Sept. 12, 1935 (E. A. McGregor), *ex* native fan palm (*Washingtonia filifera*). U. S. National Museum No. 2524. (Four mites in the genus *Schizotetranychus* are also present on this slide.)

The present writer had no opportunity to observe the feeding habits of the present mite. Summers and Schlinger stated that there is evidence to indicate that mites of his genus feed on eggs of the brown mite (*Bryobia prætiosa* Koch).

#### REFERENCE CITED

- Summers, F. M., and Schlinger E. I.  
1955. Mites of the family Caligonellidae (Acarina). *Hilgardia* 23 (12): 539-561.

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### HATCHING TIME AND FIRST FEEDING INTERVAL FOR FIRST INSTAR *Triatoma protracta* AND *rubida* NYMPHS UNDER FIELD CONDITIONS

Single, adult female *Triatoma protracta protracta* and *Triatoma rubida uhleri* were closely watched for eggs which were isolated as soon as laid at the San Joaquin Experimental Range headquarters laboratory building during the summer of 1951. This is an adobe brick building with uniform indoor temperatures located at 1,000 feet elevation in the foothills of the Sierra Nevada near O'Neals, 25 miles east of Fresno, California (Wood, 1951, *Bull. So. Calif. Acad. Sci.* 50:106-112). Twenty *protracta* eggs were from adults collected in Griffith Park, Los Angeles, and 13 eggs were from adults taken near O'Neals, California. All the *rubida* eggs were from laboratory raised adults originally from Cottonwood, Arizona.

The average number of days for hatching of 33 *protracta* eggs was 18.2, range 16 to 20, with minimum temperatures between 56.9 and 60.1°F and maximum temperatures between 93.7 and 99.1°F for the time interval involved. The mean average temperature was 78.3, varying from 75.4 to 79.8. The average for 29 *rubida uhleri* eggs was 14.9 days, range 13 to 18, with minima between 51.2 and 59.5 and maxima between 86.5 and 96.6. The mean was 78, varying from 75.5 to 80.3 for the time interval involved.

The average number of hours before voluntary first feeding



1959. "A new prostigmatid mite (Acarina: Caligonellidae)." *Bulletin of the Southern California Academy of Sciences* 58, 112–114.

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