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Eriophyid Studies XXV

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Eriophyid Studies XXV

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This paper describes seven new mite species. Four have been sent to me from other areas for description, one is of local interest in connection with virus transmission studies on fruit trees, while another, the juniper berry mite, was previously unreported from California.

Anchiphytoptus beeri Keifer, New Species

Plate 249

Female 390-410 μ long, 50-60 μ thick, very elongate, wormlike, dull yellow. Rostrum 28 μ long, curved down. Cephalothoracic shield 36 μ long, 45 μ wide, with admedian lines indicated to rear, otherwise smooth. Anterior shield setae 30 μ apart, 7 μ long, projecting diagonally ahead. Dorsal tubercles 24 μ apart, ahead of rear margin; dorsal setae 4.5 μ long, projecting up. Forelegs 35 μ long; tibia 5 μ long, with seta and spur; tarsus 5 μ long; claw 7 μ long, straight; featherclaw 7-rayed. Hindlegs 35 μ long, tibia 4.5 μ long, tarsus 5 μ long, claw 10 μ long. Anterior coxae separate; rear coxal setae in transverse line. Abdomen with about 75 rings, the microtubercles elongate and nonacuminate, in longitudinal lines dorsally. Subdorsal seta 7 μ long, on ring 8; lateral seta 31 μ long, on about ring 5; first ventral 50 μ long, on ring 17; second ventral 40 μ long, on ring 34; third ventral 45 μ long, on ring 6 from rear. Accessory seta present. Female genitalia 33 μ wide, 30 μ long, coverflap smooth, seta 5 μ long.

Type locality: Antiguo Morelos, Tamaulipas, Mexico. **Collected:** June 18, 1956, by R. E. Beer, University of Kansas, for whom the species is named. **Host:** *Beaucarnea stricta* Lem., Liliaceae (*Nolina*). **Relation to host:** The mites are presumably found in the leaf bases. Type slide so designated, with the above data. Paratype slides six in number. The new species differs from the genotype, *lineatus*, not only by size and host but also in having two more rays on the featherclaw.

Trisetacus quadrisetus (Thom.)

This is the widespread juniper berry mite which proves to be Holarctic, having been originally described from Europe. It forms

a gall within the infested berry, destroying the seed and producing a minute terminal escape hole. On many infested Sierra junipers which the writer has examined it is difficult to find an unattacked berry. In a list of insects of New York, 1928, M. D. Leonard lists this mite from Ithaca.

Sierra Juniper, *Juniperus occidentalis* Hook., seems to be the most heavily attacked species in California. Collections by the writer are at Twin Bridges, El Dorado County, August 12, 1952, and at Sandy Camp, Hat Creek, Shasta County, August 17, 1952. Recently, C. V. G. Morgan, Canadian Department of Agriculture, has sent samples of *quadrisetus* from Vancouver Island. The host is *Juniperus scopulorum* Sarg., and the collection date April 1, 1956.

Acerimina Keifer, New Genus

This genus has the characters of *Aceria* except for the absence of seta I on the anterior coxae.

Genotype: *Acerimina cedrelae*, New Species

Acerimina cedrelae Keifer, New Species

Plate 250

Female 200 μ long, 50 μ thick, short, wormlike, dull yellow. Rostrum 23 μ long, curved down. Shield 30 μ long, 47 μ wide, with a distinct pattern on most specimens; median line present to rear; admedians complete, undulating; about three submedian lines visible, interspersed short dashes; sides of shield somewhat granular. Dorsal tubercles 33 μ apart, on rear margin; dorsal setae 13 μ long, projecting backward. Forelegs 38 μ long, tibia 10 μ long, with seta; tarsus 7 μ long; claw 8 μ long, knobbed; featherclaw 4-rayed. Hindlegs 35 μ long, tibia 8 μ long, tarsus 7 μ long, claw 8 μ long. Anterior coxae broadly connate; second setae ahead of a transverse line through third setae. Abdomen with about 55 rings, the microtubercles acuminate. Lateral seta 12 μ long, on about ring 8; first ventral seta 58 μ long, on about ring 19; second ventral 11 μ long, on ring 33; third ventral 35 μ long, on ring 6 from rear. Accessory seta present, minute. Female genitalia 23 μ wide, 16 μ long, coverflap with about 10 longitudinal furrows; seta 17 μ long.

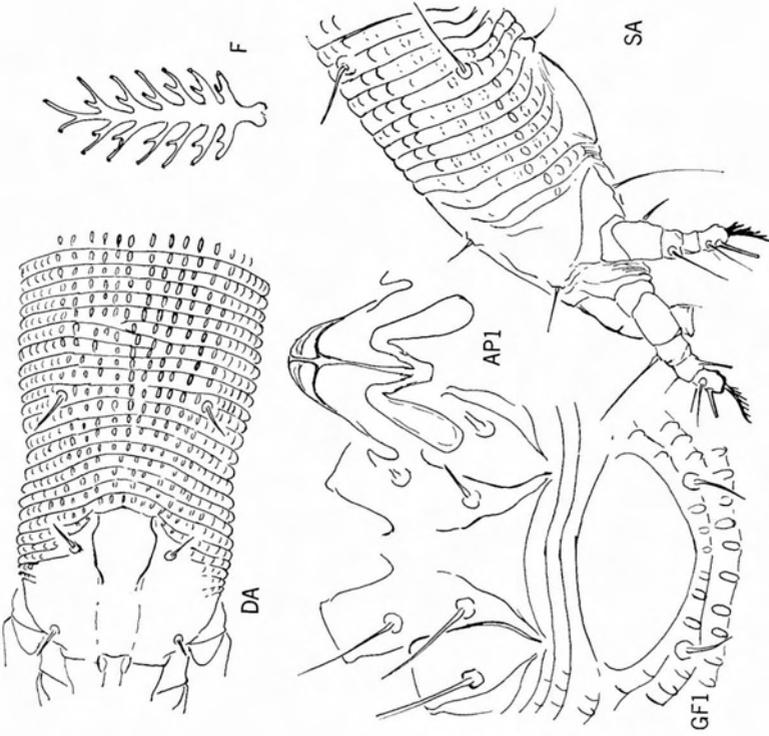
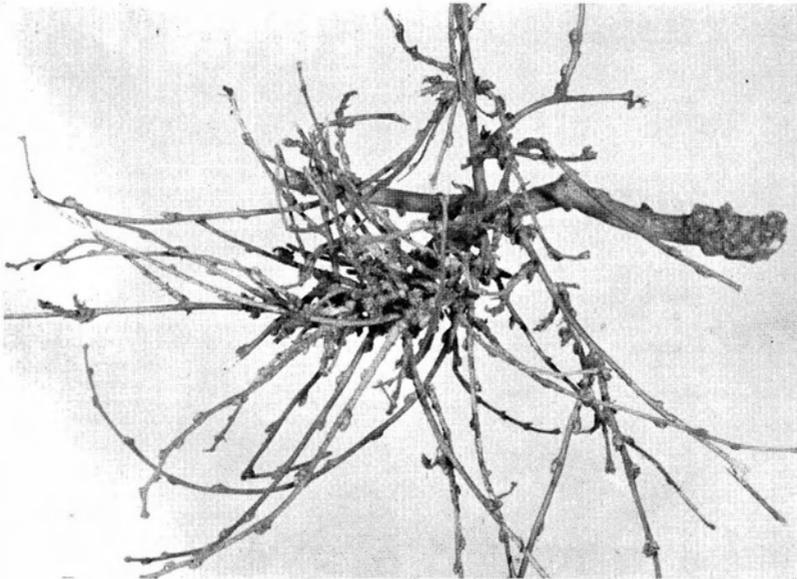


PLATE 249—*Anchiphytoptus beeri*, new species



Damage to hackberry by *Aceria snetsingeri*

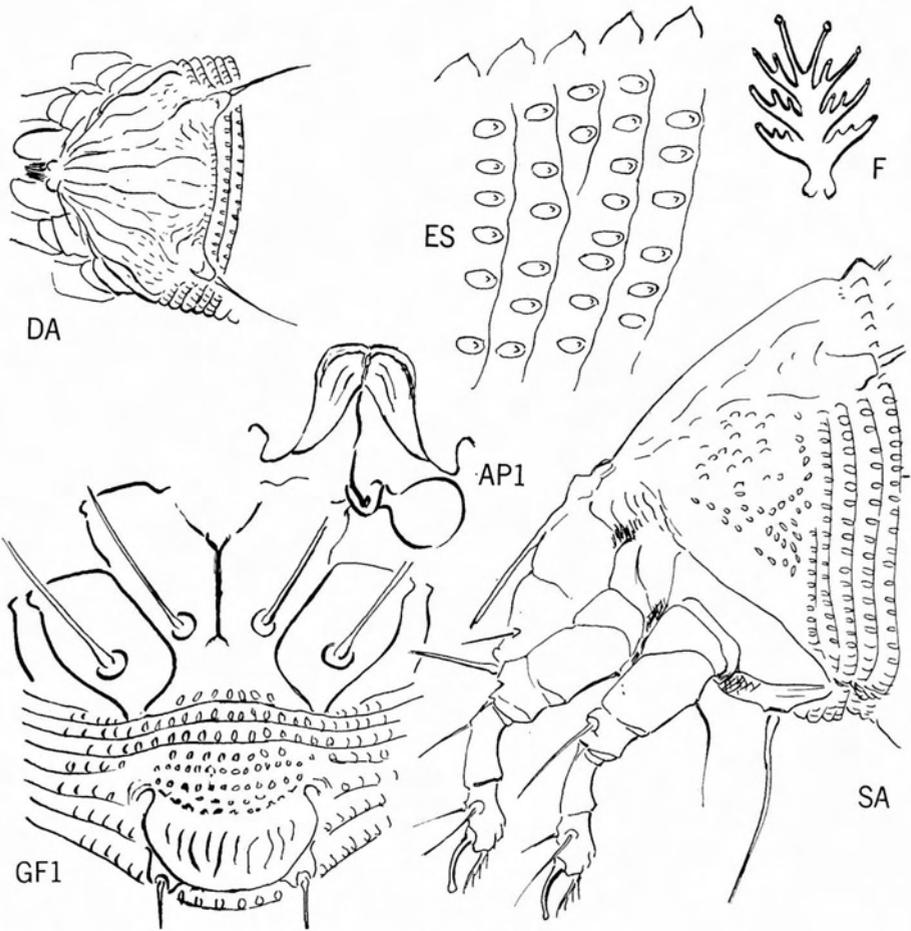


PLATE 250—*Acerimina cedrelae*, new species

Type locality: Jilliby, New South Wales. **Collected:** December 8, 1956, by K. M. Moore. **Host:** *Cedrela australis*, Meliaceae. **Relation to host:** The mites form clusters of irregular bead galls on the leaves. **Type slide:** So designated, with the above data. **Paratype slides:** Three in number.

***Aceria snetsingeri* Keifer, New Species**

Plate 251

Female 200-205 μ long, 40 μ thick, wormlike, light yellow. Rostrum 20 μ long, curving down. Shield 20 μ long, 28 μ wide, without markings except for slight indication of median line on rear margin. Dorsal tubercles 21 μ apart, on rear margin; dorsal setae 22 μ long, projecting diagonally out and backward. Forelegs 23 μ long, tibia 5 μ long, with

seta at midpoint; tarsus 5 μ long, claw 6 μ long, curved and slightly tapering; featherclaw 5-rayed. Hindlegs 20 μ long, tibia 4 μ long, tarsus 5 μ long, claw 7 μ long. Anterior coxae touching; setae II far ahead of a line through setae III. Abdomen with about 55 rings, the microtubercles large, rounded. Lateral seta 16 μ long, on about sternite 5; first ventral 16 μ long, on about sternite 14; second ventral 7 μ long, on sternite 26; third ventral seta 23 μ long, on sternite 7 from rear. Accessory seta present. Female genitalia 19 μ wide, 10 μ long, cover-flap smooth, seta 7 μ long.

Type locality: Bradley, Illinois. **Collected:** March 20, 1956, by R. J. Snetsinger, Illinois Natural History Survey. **Host:** *Celtis occidentalis* L., hackberry, Ulmaceae. **Relation to host:** The mites form a witches'-broom with numerous short shoots bearing buds

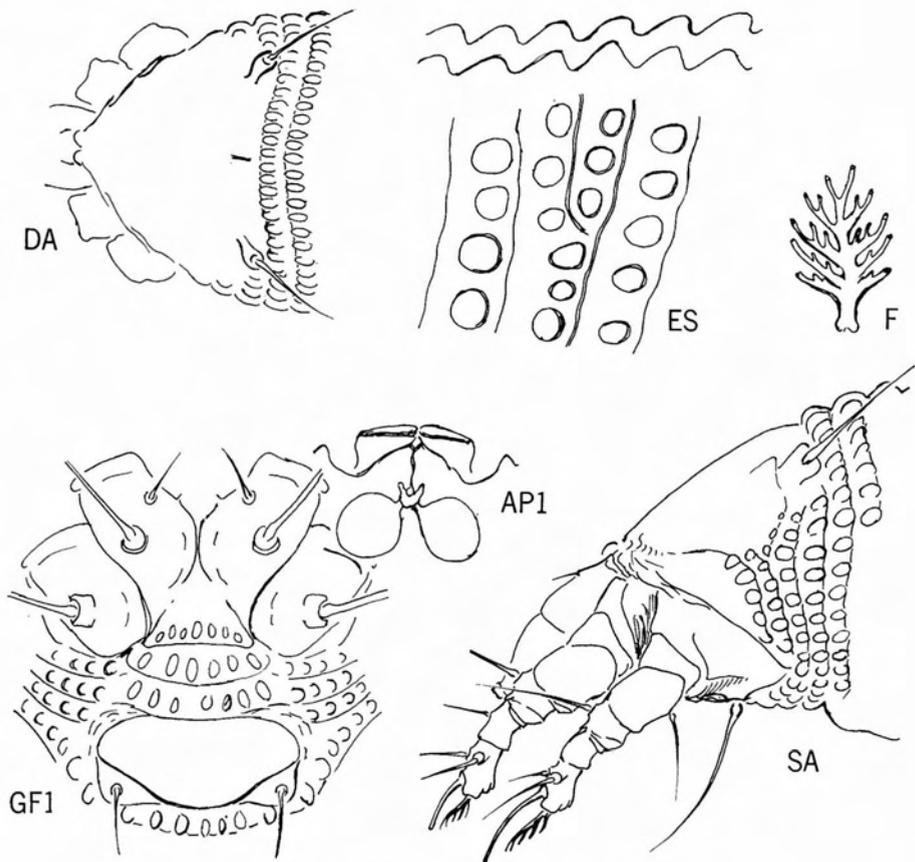


PLATE 251—*Aceria snetsingeri*, new species

but no leaves. Type slide so indicated, with the above data. Four paratype slides. The mite has a combination of distinctive characters: shield lacking a design, large microtubercles, smooth female coverflap, and 5-rayed featherclaw. The species is named for Robert Snetsinger, who asked me to describe the mite.

***Eriophyes hybridicola* Keifer, New Species**

Plate 252

Female 175-200 μ long, 40 μ thick, short, worm-like, dull yellowish. Rostrum 23 μ long, curved down. Shield 29 μ long, 34 μ wide, the design well marked: median line present on rear half, ending in a faint dart-shaped mark; admedians close, undulating, further apart to rear; submedians irregular but approximately as follows: first submedian short; second submedian undulating, ending about in front of dorsal tubercle; additional lines and dashes just lateral to tubercle, one of which roughly

parallels the second submedian, enclosing a dash or two ahead of dorsal tubercle. Shield laterally granulate, the central section margined by the usual curved line of granules. Dorsal tubercles 14 μ apart, slightly ahead of rear margin; dorsal setae 20 μ long, projecting ahead. Forelegs 26 μ long; tibia 5.5 μ long, with seta; tarsus 6 μ long; claw 6 μ long, with a slight knob; featherclaw 4-rayed. Hindlegs 24 μ long, tibia 4.5 μ long, tarsus 6 μ long, claw 6 μ long. Abdomen with 60-65 rings, completely microtuberculate, the microtubercles rounded; 7-8 microtubercles in a 10 μ distance. Anterior coxae touching; coxae granular, the median setae ahead of a line through the rear coxal setae. Lateral abdominal seta 26 μ long, on about ring 8; first ventral 35 μ long, on about ring 21; second ventral 7 μ long, on about ring 37; third ventral 19 μ long, on ring 5 from rear. Accessory seta present. Female genitalia 23 μ wide, 15 μ long, coverflap with 10-11 longitudinal furrows; seta 12 μ long.

Type locality: Wolfskill Ranch, Winters district, Solano County, California. **Collected:** April 25, 1956, by D. Y. Rosenburg,

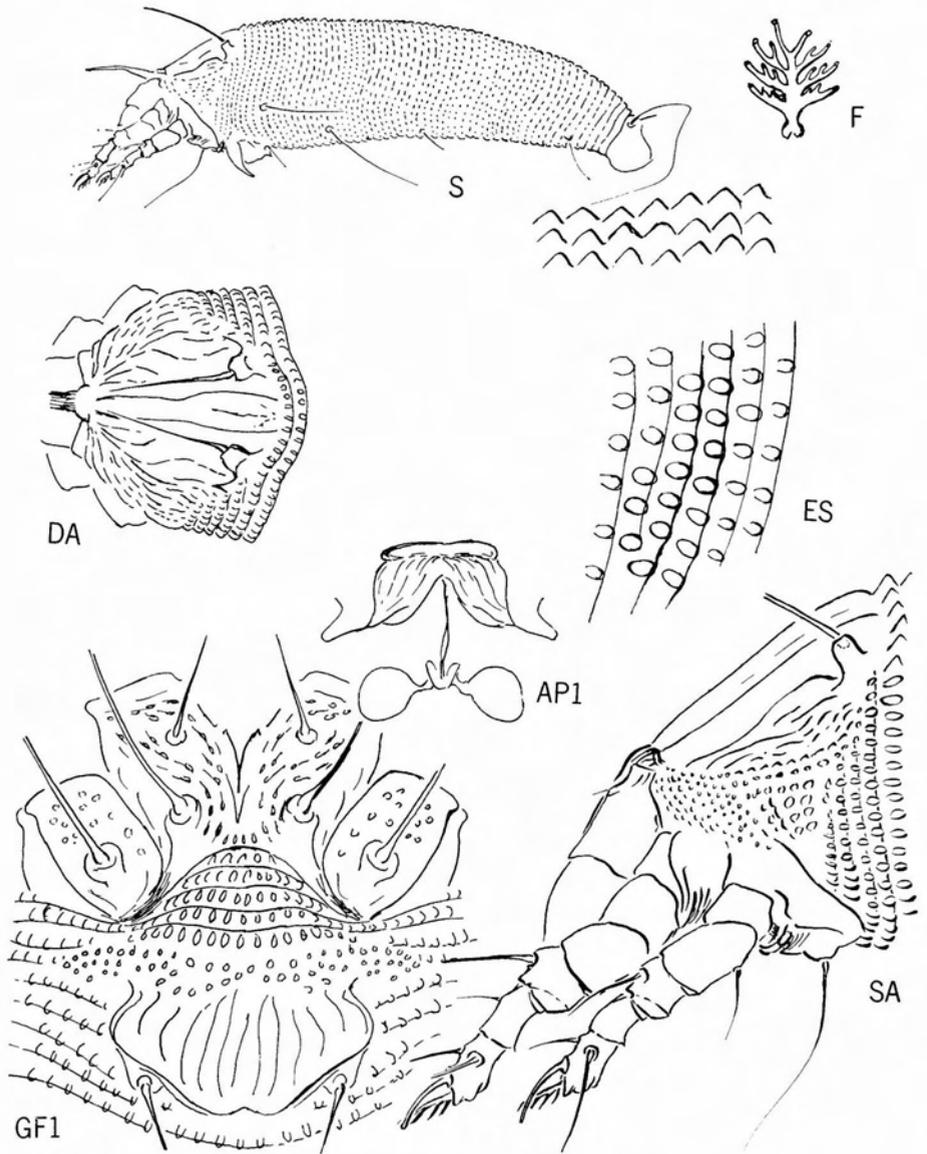


PLATE 252—*Eriophyes hybridicola*, new species

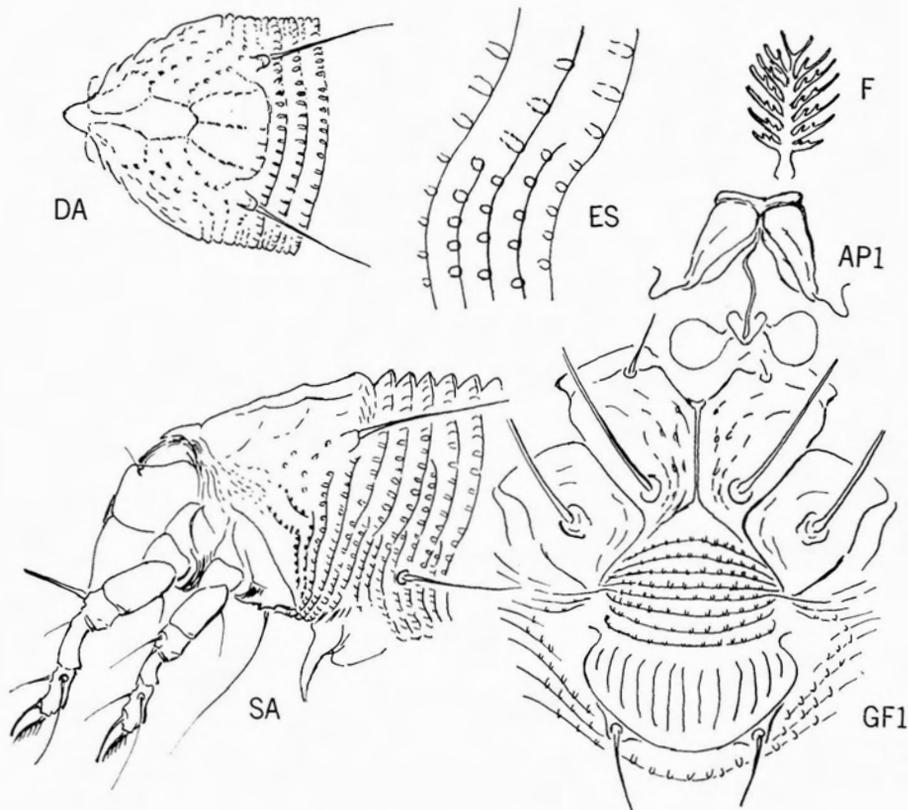


PLATE 253—*Vasates rhodensis*, new species

State Department of Agriculture. **Host:** A *Prunus* hybrid known as elephant heart. **Relation to host:** The mites inhabit the buds and petiole bases on new growth. Type slide so designated. Four paratype slides with the above data. In addition there are several slides of mites collected the same day by the writer on other *Prunus* hybrids such as the Nona variety, and on *Prunus angustifolia*. The mite is of interest in connection with possible virus transmission studies. It differs from two previously described mites on *Prunus*, namely *insidiosus* and *prunidemissae*, by the lateral shield pattern. *Eriophyes insidiosus* has a dart-shaped mark laterally on the shield, and *prunidemissae* has but a slight mark at that point.

***Vasates rhodensis* Keifer, New Species**

Plate 253

Female 180-200 μ long, 50 μ thick, spindleform, light dull yellow. Rostrum tapering, curved down, 30 μ long. Shield 38 μ long, 38 μ wide, anterior lobe short and acuminate; median line present on rear third, originating from a V-shaped line from the admedians; admedians complete, undulating; submedians represented by tubercles (as are the central lines) but these granules are not particularly indicative of lines; lateral side of shield with some lines of microtubercles and granules. Dorsal tubercles 32 μ apart; dorsal setae 27 μ long. Forelegs 38 μ long; tibia 10 μ long, with seta; tarsus 7 μ long; claw 6 μ long, small terminal knob; featherclaw 7-rayed. Hindlegs 34 μ long, tibia 7.5 μ long, tarsus 7 μ long, claw 7 μ long. Coxae somewhat granular; anterior coxae touching; first setae far ahead; second setae well ahead of transverse line through the third setae. Abdomen with about 33 tergites and 60-65 sternites; microtubercles on both tergites and sternites, being elongate dorsally; microtubercles blunt.

Lateral seta 25 μ long, on about sternite 6; first ventral 38 μ long, on sternite 22; second ventral 28 μ long, on sternite 40; third ventral 30 μ long, on sternite 5 from rear. Accessory seta present. Female genitalia 20 μ wide, 15 μ long, coverflap with about 14 longitudinal furrows, seta 15 μ long.

Type locality: Newport, Rhode Island. **Collected:** August 4, 1956, by John P. Keifer. **Host:** *Salix* sp. (This is a white pilose willow.) **Relation to host:** The mites are very numerous in the white leaf hairs. Type slide so designated with the above data. Paratype slides three in number. There is also the dry material as received bearing numerous mites. The new species is characterized in part by the 7-rayed featherclaws (empodium). The California species with 7-rayed featherclaws have pointed microtubercles, which is not the case with *rhodensis*.

Vasates celtidis Keifer, New Species

Female 175-190 μ long, 55 μ thick, spindleform, dull yellowish. Rostrum 24 μ long, projecting down. Shield 45 μ long, 50 μ wide, anterior lobe acuminate and downcurved; shield design absent, the surface smooth. Dorsal tubercles 28 μ apart, on rear margin; dorsal setae 28 μ long, stiff, projecting backward. Forelegs 35 μ long, tibia 7.5 μ long, seta present; tarsus 7.5 μ long; claw 7.5 μ long, with a small knob; featherclaw 5-rayed. Hindlegs 33 μ long, tibia 4 μ long, tarsus 5 μ long, claw 7 μ long. Coxal setae II and III almost in line; setae I well anterior and small. Abdomen with about 29 smooth tergites. From 50 to 55 sternites with numerous microtubercles which are slightly acuminate. Lateral seta 10 μ long, on about sternite 16; first ventral seta 35 μ long, on about sternite 16; second ventral 11 μ

long, on about sternite 30; third ventral 15 μ long, on sternite 4 from rear. Accessory seta present, minute. Female genitalia 25 μ wide, 18 μ long, coverflap with about 8 longitudinal furrows; seta 28 μ long.

Type locality: Bradley, Illinois. **Collected:** March 20, 1956, by R. J. Snetsinger. **Host:** *Celtis occidentalis* L., hackberry. **Relation to host:** The mites appeared in preparations which consisted mainly of the mite described above as *Aceria snetsingeri*, indicating the species is a vagrant, lurking in crevices in the witches'-broom, and perhaps also found on the leaves of hackberry. Type slide so indicated, with the above data. Paratype slides, two in number. The closest species with which the writer is acquainted is the California mite, *ambrosiae*, on ragweed. The new species differs in having a larger anterior lobe, in having no indication of microtubercles on the tergites, and in having less diagonal furrows on the coverflap.

Eriophyid Studies XXV is part of a series. The 24th installment appeared in the *Bulletin*, Vol. XLIV, No. 4, p. 159, 1955.

Designation on plates:

- API—Interior female genital structures
- DA —Dorsal view of anterior part of mite
- ES —Side view of skin structures
- F —Featherclaw (empodium)
- GF1—Coxae and female genitalia
- S —Side view of mite
- SA —Side view of anterior section of mite

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