

# ERIOPHYID STUDIES

## B-1

by H. H. KEIFER

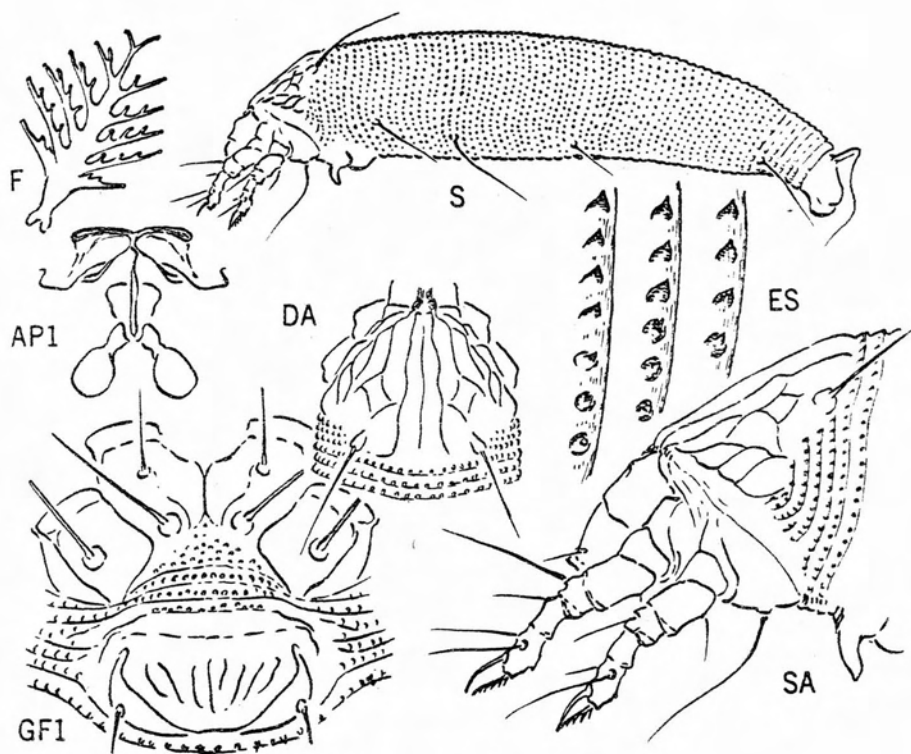


Plate I - *Acaria tuttlei*, new species

ISSUED

NOV. 17, 1960

Eriophyid Studies B-1 contains descriptions of sixteen new species of Eriophyid Mites. Of these, one, Aceria neocynodonis, is a pest of Bermuda grass in southern California, and in Arizona. Another, Ditrymacus athiasella, is a rust mite on olive in Algeria. Four of the new species are rust mites on leaves of coffee in the Congo: Epitrimerus congoensis, Calacarus coffeae, Colopodacus africanus, and Pipilomopus jevremovici. Three species come from the western Arizona desert area: Aceria tuttlei on Mexican devil weed or spiny aster; Aceria astibonis on bur sage; and Aceria daleae on dalca. Additional new species are: Aceria astrophyronis on western wheat grass in Texas and on fescue in the mountains of California; Aceria theospyri forming bead galls on native persimmon leaves in Maryland and Virginia; Aceria triplacis in white oak erineum pockets in New York State and elsewhere along the Atlantic Coast; Eriophyes callitris in the cones of sandarac in Algeria; Eriophyes junipereti on juniper twigs in Algeria; Cercodes simondsii, a curious Eriophyid living in the buds on lateral fruit spurs on desert peach in California; and Apoditryacus cordiformis on leaves of bitternut hickory in Maryland.

#### Aceria tuttlei, new species

##### Plate 1

On this species the first ventral abdominal seta is shorter than both the lateral abdominal seta and the third ventral seta, an unusual feature. A series of cells in the shield pattern along the sides of the shield is also diagnostic. I am pleased to name this mite for Dr. Donald M. Tuttle, of the Arizona Agricultural Experiment Station at Yuma.

Female 180 $\mu$ -215 $\mu$  long, 45 $\mu$ -50 $\mu$  thick, wormlike, light yellow. Rostrum 23 $\mu$  long, curved down; antapical seta 7 $\mu$  long. Shield 33 $\mu$  long, 38 $\mu$  wide, subsemicircular in anterior outline. Median line, almost complete, ending before rear shield margin. Admedian lines complete, sinuate, diverging toward rear and suddenly outcurved at rear shield margin. First submedian line extending backward toward dorsal tubercle, ending in irregular rectangle before tubercle. Lateral shield lines forming series of cells above coxae and ending before recurved partial rings. Dorsal tubercles 25 $\mu$  apart; dorsal setae 36 $\mu$  long, diverging. Forelegs 31 $\mu$  long; tibia 6.5 $\mu$  long, with 10 $\mu$  long seta from 1/4; tarsus 7.5 $\mu$  long; claw 8 $\mu$  long, tapering, downcurved; featherclaw 6-rayed. Hindlegs 27 $\mu$  long, tibia 4.5 $\mu$  long, tarsus 6.5 $\mu$  long, claw 8 $\mu$  long. Coxae unornamented; first setiferous coxal tubercles opposite anterior coxal junction, farther apart than second tubercles; second tubercles ahead of transverse line through third tubercles. Abdomen with about 60 rings; completely microtuberculate except for dorsum of last 7 or 8 rings, which bear very weak microtubercles; microtubercles moderate size, set ahead of ring margin, strongly pointed. Lateral seta 27 $\mu$  long, on about ring 9; first ventral seta 25 $\mu$  long, on ring 20; second ventral seta 10 $\mu$  long, on ring 34; third ventral 32 $\mu$  long, on ring 6 from rear. Accessory seta 4.5 $\mu$  long. Female genitalia 22 $\mu$  wide, 14 $\mu$  long; coverflap with about 8 longitudinal ribs; seta 14 $\mu$  long.

Type locality: Yuma, Arizona

Collected: October 10, 1959, by D. M. Tuttle

Host: Aster spinosus Benth. (Compositae - Astereae), Mexican devil weed

Relation to host: the mites live in the buds and at leaf bases. They cause a terminal proliferation of buds and plant stunting.

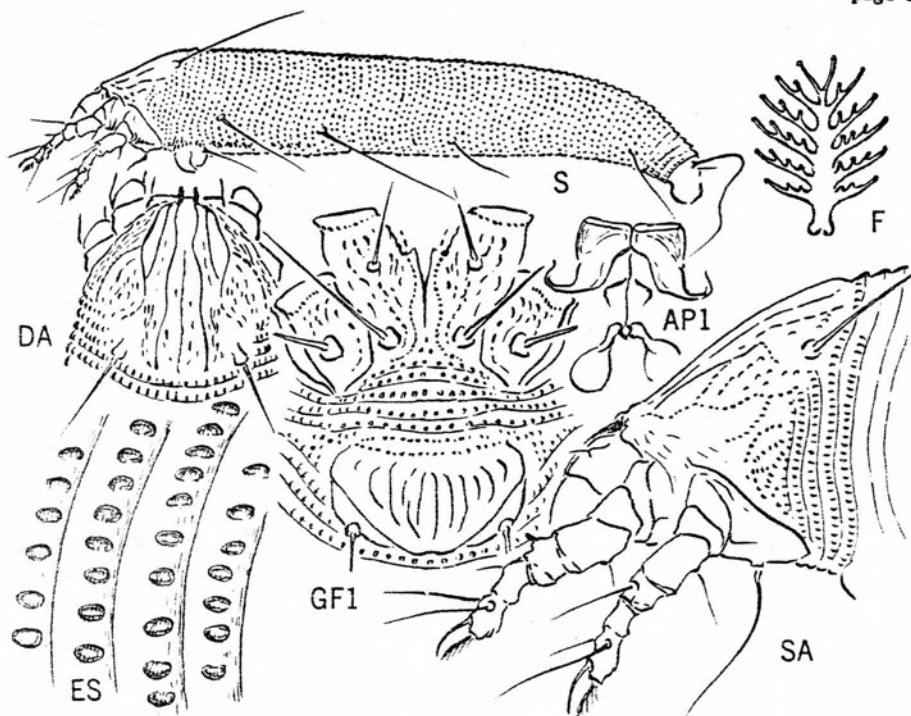
Type material: as well as the dry plant parts with mummified mites from which the slides were made, there is a type slide and 7 paratypes.

#### Aceria neocynodonis, new species

##### Plate 2

Neocynodonis, with a 6-rayed featherclaw, may be distinguished from other known grass infestors by the clear shield lines, the rounded microtubercles set ahead of the rear ring margins, and by the narrow ribs on the genital coverflap.

Female 165 $\mu$ -210 $\mu$  long, 40 $\mu$  thick, wormlike, whitish-cream color. Rostrum 23 $\mu$  long, downcurved. Shield 36 $\mu$  long, 36 $\mu$  wide, semicircular anteriorly. Median line in shield design present on posterior 2/3; admedian lines sinuate, diverging to rear; two anterior submedian lines, the first sinuate, abruptly curving outward well ahead of dor-

Plate 2 - *Aceria neccynodonis*, new species

sal tubercle, a separate line running toward rear of admedian line; second submedian short, curving from anterior margin to about 1/3 on first admedian; line of granulations running to rear margin from second submedian; rear part of shield and sides set with granulations and short dashes. Dorsal tubercles  $23\mu$  apart; dorsal setae  $45\mu$  long. Forelegs  $30\mu$  long; tibia  $5\mu$  long, with seta  $8.5\mu$  long, centrally placed; tarsus  $6\mu$  long; claw  $8\mu$  long, tapering, curved down; featherclaw 6-rayed. Hindlegs  $26\mu$  long, tibia  $4.5\mu$  long, tarsus  $5\mu$  long, claw  $8.5\mu$  long. Coxae granular, junction line between anterior coxae paralleled by lines of granulations; first coxal tubercles well ahead of second and a little farther apart; second coxal tubercles a little ahead of line through third tubercles. Abdomen with about 65 rings, completely microtuberculate, the microtubercles rounded and ahead of rear ring margin. Lateral seta  $35\mu$  long, on ring 7 behind shield; first ventral seta  $32\mu$  long, on about ring 21; second ventral seta  $7\mu$  long, on ring 38; third ventral on about ring 4 from rear,  $27\mu$  long. Accessory seta  $2.5\mu$  long. Female genitalia  $18\mu$  wide,  $10.5\mu$  long; coverflap with about 10 narrow longitudinal ribs; seta  $8.5\mu$  long.

Type locality: Brawley, Imperial County, California

Collected: June 7, 1960, by Vincent D. Roth, Farm Advisor

Host: *Cynodon dactylon* (L.) Graminae-Chlorideae), bermuda grass

Relation to host: the mites live in the terminal leaf sheaths where they cause stunting, a witches-broom effect, and general decline of the grass.

Type material: as well as mites in liquid there is a type slide and 3 paratypes.

Additional localities from which this bermuda grass mite has been received are:

California - Westmorland and El Centro, coll. by V. E. Roth, June 7, 1960

Westwood, collected June 13, 1960, by F. S. Morishita

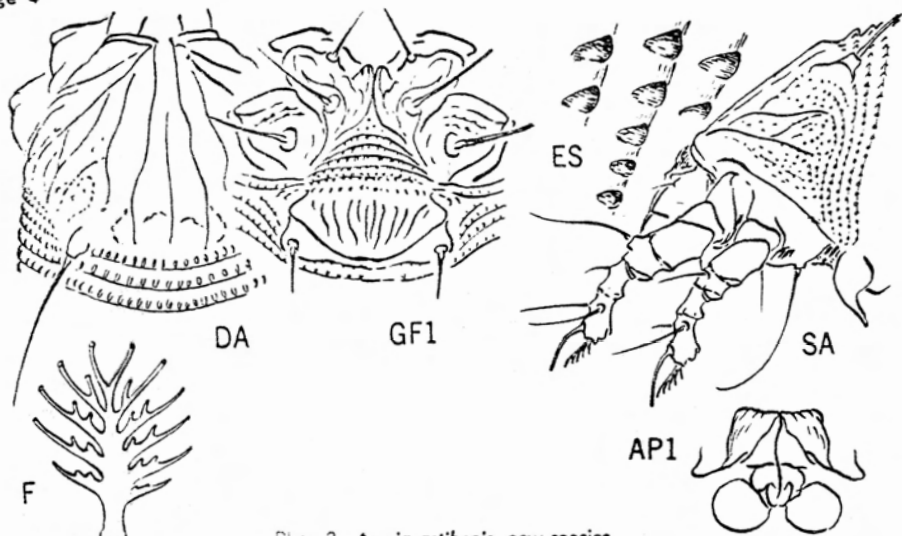
Burbank, collected June 21, 1960, by Morishita

Arizona -

Phoenix, collected September 3, 1959, by J. N. Roney, and submitted

by D. M. Tuttle of the Arizona Agricultural Experiment Station

Tucson, collected August 29, 1960, by Dr. G. M. Butler

Plate 3 - *Aceria astibonis*, new species*Aceria astibonis*, new species

## Plate 3

The 6-rayed featherclaw, the bluntly acuminate microtubercles, and the central forecoxal lobes, characterize this mite.

Female 150 $\mu$ -165 $\mu$  long, 35 $\mu$  thick, wormlike, light yellow in color. Rostrum 20 $\mu$  long, curving down. antapical seta 7 $\mu$  long. Shield 24 $\mu$  long, 33 $\mu$  wide, subsemicircular in anterior outline. Median line strong on posterior 2/3; a short curved transverse line of granules on each side before rear. Admedians complete, sinuate, diverging, slightly recurved at rear. First submedian line arising from second at about 1/6,

running back toward and obscurely forked in granular lines in front of dorsal tubercle. Second submedian line branching, connected to lateral line; sides of shield generally granular with partial body rings curving ahead below dorsal tubercle. Dorsal tubercles 22 $\mu$  apart; dorsal setae 27 $\mu$  long, diverging to rear. Forelegs 26 $\mu$  long; tibia 5 $\mu$  long, with seta 5 $\mu$  long, at 1/3; tarsus 6.5 $\mu$  long; claw 8.5 $\mu$  long, slender, curved; featherclaw 5-6-rayed. Hindlegs 24 $\mu$  long, tibia 4.5 $\mu$  long, tarsus 6.5 $\mu$  long, claw 8.5 $\mu$  long. Coxae ornamented with curved lines; anterior coxae connected centrally by a pair of ridged lobes. First coxal setiferous tubercles slightly ahead of anterior coxal junction; a little wider apart than second. Second coxal tubercles well ahead of transverse line through third coxal tubercles. Abdomen completely microtuberculate, the microtubercles bluntly acuminate and touching rear ring margin; about 60 rings. Lateral seta 23 $\mu$  long, on ring 8; first ventral seta 30 $\mu$  long, on ring 22; second ventral seta 11 $\mu$  long, on about ring 41; third ventral seta 18 $\mu$  long, on ring 5 from rear. Accessory seta 4 $\mu$  long. Female genitalia 16 $\mu$  wide, 10 $\mu$  long; coverflap with 10-12 longitudinal ribs. genital seta 12 $\mu$  long, on large tubercles.

Type locality: the flat desert about 2 miles north of Palm Canyon, Yuma Co., Arizona

Collected: April 14, 1960, by Don M. Tuttle and the writer

Host: *Franseria dumosa* Gray (Compositae - Ambrosia group), bur sage

Relation to host: the mites live among the thick surface hairs on the leaves.

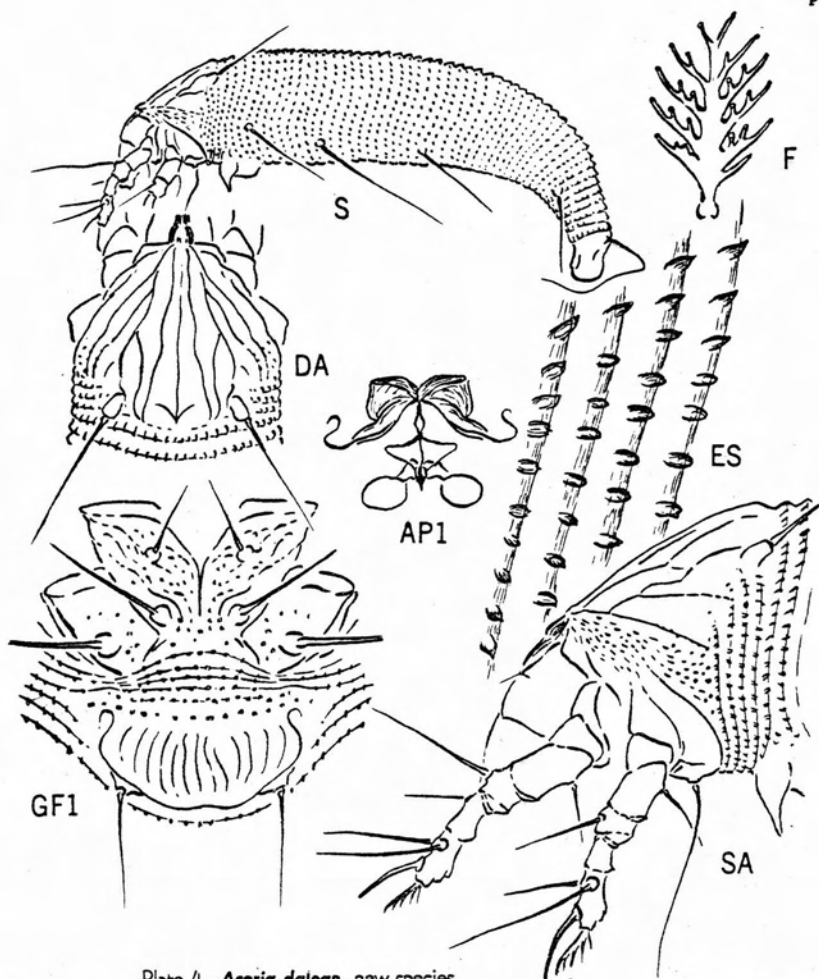
Type material: as well as dry plant parts with mites there is a type slide and nine paratype slides.

In addition the writer has made a collection of this mite on its host at Niland, Cal., April 15, 1960.

*Aceria daleae*, new species

## Plate 4

*Daleae* is one of the *Acerias* with the central shield line ending in a dart-shaped mark. It is further characterized by the pointed microtubercles, and by the long second ventral abdominal seta. All the abdominal setae tend to be longer than usual.

Plate 4 - *Aceria daleae*, new species

Female 165 $\mu$ -180 $\mu$  long, 45 $\mu$  thick, wormlike, curved, light yellow in color. Rostrum 30 $\mu$  long, curving down; antapical seta 4.5 $\mu$  long. Shield 33 $\mu$  long, 33 $\mu$  wide, subtriangular; median line faint anteriorly, ending in a dart-shaped mark at rear margin; admedian lines sinuate, diverging to rear; submedian lines branching, the first forked in front of tubercle, the second forking from first at 1/3; a lateral line along top of granular area above coxae. Dorsal tubercles 21 $\mu$  apart; dorsal setae 19 $\mu$  long, diverging to rear. Forelegs 33 $\mu$  long; tibia 7 $\mu$  long, with seta 6.5 $\mu$  long from 1/3; tarsus 10 $\mu$  long; claw 11 $\mu$  long, somewhat curved down and tapering; featherclaw 5-6-rayed. Hindlegs 19 $\mu$  long, tibia 6 $\mu$  long, tarsus 8.5 $\mu$  long, claw 12 $\mu$  long. Coxae ornamented with fine lines and granules; a short sternal line at forecoxal junction; first coxal setiferous tubercles slightly ahead of anterior coxal junction, farther apart than second tubercles; second tubercles a little ahead of transverse line through third tubercles. Abdomen with 65-70 rings, completely set with small pointed microtubercles, set on rear ring margins and projecting over. Lateral seta 40 $\mu$  long, on about ring 7; first ventral seta 60 $\mu$  long, on ring 19; second ventral 35 $\mu$  long, on ring 35; third ventral 36 $\mu$  long, on ring 7 from rear. Accessory seta 5 $\mu$  long. Female genitalia 16 $\mu$  long, 21 $\mu$  wide; coverflap with about 14 longitudinal ribs; seta 33 $\mu$  long.

Type locality: Wellton, Arizona

Collected: May 6, 1960, by Dr. Don M. Tuttle, of the Arizona Agricultural Experiment Station, Yuma.

Host: Dalea emoryi Gray (Leguminosae), indigo

Relation to host: the mites live among the hairs on the leaves, stems and are also found in the flowers, especially the lower florets.

Type material: as well as the dry plant parts with mites from which the slides were made, there is a type slide and 5 paratypes.

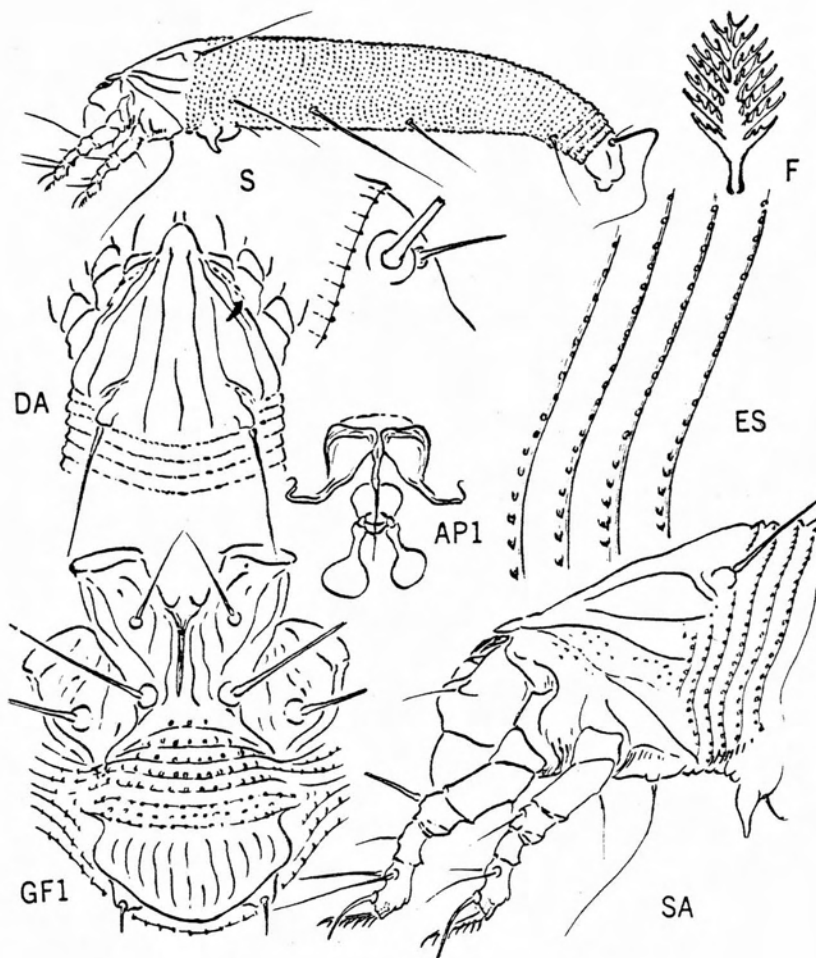


Plate 5 - *Aceria agropyronis*, new species

*Aceria agropyronis*, new species

Plate 5

*Agropyronis* is chiefly characterized by the body microtubercles. These are bead-like, pointed, and are set on the rear ring margins dorsally, drawing ahead of the rear ring margins ventrally. In this respect the new species resembles *cynodonis* Wilson. *Agropyronis* differs from *cynodonis* by having a strong shield pattern. The shield on *cynodonis* is more produced and smooth.

Female 195 $\mu$ -230 $\mu$  long, 40 $\mu$ -50 $\mu$  thick; body elongate-wormlike, color light yellowish white. Rostrum 25 $\mu$  long, curved down; antapical seta 4 $\mu$  long. Shield 42 $\mu$  long, 36 $\mu$  wide, elongate-triangular, slightly constricted anteriorly, a short acuminate projection over rostrum base. Design of clear lines: median line present on rear 1/3;

admedian lines from anterior lobe base, somewhat sinuate, diverging to rear margin; first submedian line from anterior 1/4, running toward dorsal tubercle and bending laterally on approaching tubercle; second submedian line from anterior lobe base, running back to below tubercle. A lateral line and a few granules above coxae. Dorsal tubercles 24- apart, on rear margin; dorsal setae 46 $\mu$  long, diverging to rear. Forelegs 33 $\mu$  long; tibia 6.5 $\mu$  long, with seta 9 $\mu$  long from 1/2; tarsus 8.5 $\mu$  long; claw 9 $\mu$  long, strongly downcurved; featherclaw 8-rayed. Hindlegs 31 $\mu$  long, tibia 5 $\mu$  long, tarsus 8.5 $\mu$  long, claw 10.5 $\mu$  long. Coxae with strong lines, anterior coxae with strong sternal line at junction; a subparallel line on each side of sternal line; first coxal setiferous tubercles opposite anterior coxal junction, well ahead of and slightly farther apart than second tubercles; second coxal tubercles but little ahead of transverse line through third tubercles. Abdomen with 55-60 rings; microtubercles small, pointed, dorsally bead-like, set along ring margin, ventrally set ahead of ring margin. Lateral seta 33 $\mu$  long, on about ring 7; first ventral seta 70 $\mu$  long, on ring 20; second ventral 24 $\mu$  long, on ring 34; third ventral 26 $\mu$  long, on ring 5 from rear. Accessory seta 6 $\mu$  long. female genitalia 20 $\mu$  wide, 12 $\mu$  long; coverflap with 11 or 12 longitudinal ribs; genital seta 27 $\mu$  long.

Type locality: Bushland, Texas

Collected: June 23, 1960, by N. E. Daniels, of the Texas Agricultural Experiment Sta.

Host: *Agropyron smithii* Rydb. (Graminae-Hordeae), western wheat grass

Relation to host: the mites live in longitudinally curled leaves

Type material: as well as dry grass blades with mites, from which the slides were made, there is a type slide and six paratype slides.

Additional material: a light population of this mite was discovered by the writer on *Festuca viridula* Vasey at Twin Lakes, 8000 ft. elevation, Amador County, Cal. on Aug. 3, 1955 and some further examples were recovered July 28, 1960.

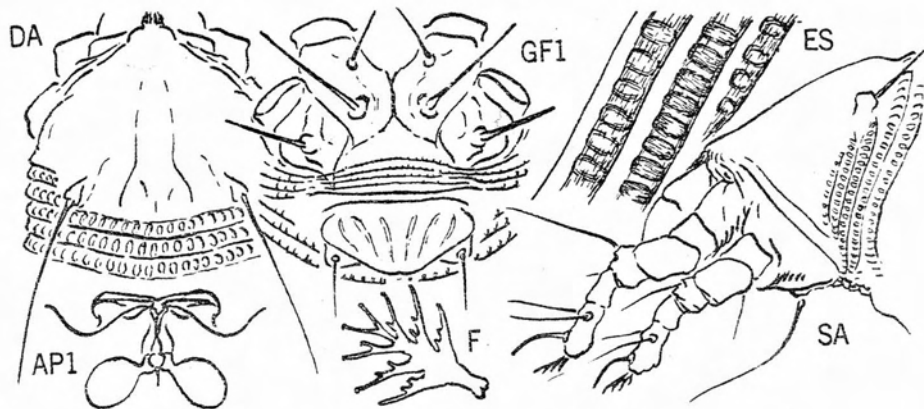


Plate 6 - *Aceria theospyri*, new species

*Aceria theospyri*, new species

Plate 6

*Theospyri* is characterized by the shield with slight markings to rear, the close-set oblong microtubercles, the 4-rayed featherclaw, and the genital coverflap with six faint diagonal ribs.

Female 150 $\mu$ -160 $\mu$  long, 40 $\mu$ -45 $\mu$  thick, wormlike, light yellowish-white in color. Rostrum 18 $\mu$  long, curved down. Shield 31 $\mu$  long, 35 $\mu$  wide, subsemicircular anteriorly, declivitous over rostrum. Shield design obscure, median line slightly indicated to rear; admedians present on rear 1/2, diverging. Shield laterally smooth. Dorsal tubercles 24 $\mu$  apart; dorsal setae 35 $\mu$  long, diverging to rear. Forelegs 29 $\mu$  long; tibia 5 $\mu$  long, with seta 4 $\mu$  long, at 1/3; tarsus 8.5 $\mu$  long, claw 10.5 $\mu$  long, tapering; featherclaw 4-rayed. Hindlegs 27 $\mu$  long, tibia 4.5 $\mu$  long, tarsus 8 $\mu$  long, claw 10 $\mu$  long. Coxae nearly unlined; anterior coxae narrowly joined centrally, the first coxal setiferous tubercles ahead of anterior junction and farther apart than second tubercles; second tubercles somewhat ahead of transverse line through third tubercles. Abdomen with about 55 rings, broadening to rear; microtubercles elongate-elliptical, flattened, close-set, touching rear ring margin. Lateral seta 25 $\mu$  long, on about ring 7; first ventral seta 35 $\mu$  long, on ring 18; second ventral 14 $\mu$  long, on ring 31;



third ventral  $17\mu$  long, on ring 5 from rear. Accessory seta absent. Female genitalia  $10\mu$  long,  $18\mu$  wide; coverflap with about six weak longitudinal ribs, somewhat diagonally converging from each side, broadened; seta  $14\mu$  long.

Type locality: Greenbelt, Maryland

Collected: August 1, 1959, by John P. Keifer and the writer

Host: Diospyros virginiana L. (Ebenaceae) persimmon

Relation to host: the mites produce small bead galls protruding on the upper leaf surface and opening on the lower surface.

Type material: as well as dry leaves containing galls with mummified mites there is a type slide and four paratype slides.

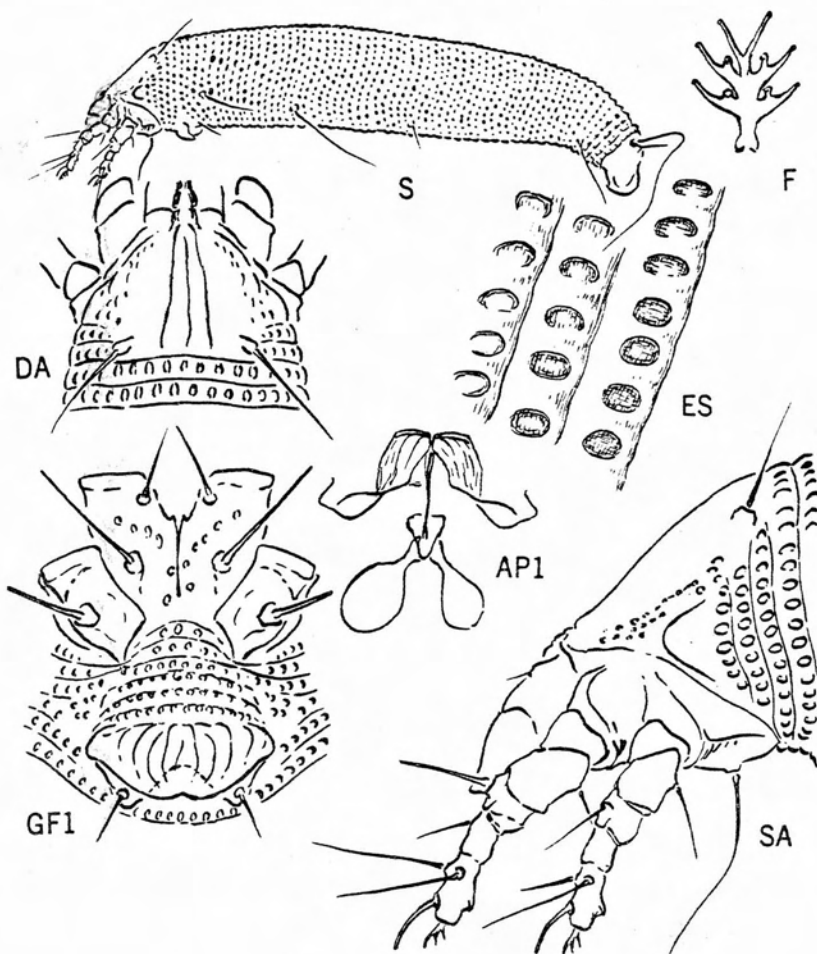


Plate 7 - *Aceria triplacis*, new species

*Aceria triplacis*, new species

Plate 7

*Triplacis* is one of the oak and walnut group of mites that have a 3-rayed feather-claw. The almost complete median line on the shield, and the narrow granular area on the side of the shield, characterize this species.



Female 190 $\mu$ -205 $\mu$  long, 35 $\mu$  thick, elongate-wormlike, dull dark yellowish. Rostrum 18 $\mu$  long, curved down; antapical seta 7 $\mu$  long. Shield 36 $\mu$  long, 30 $\mu$  wide, subtriangular in outline. Median line beginning just behind front, and complete to rear. Admedians subparallel to median, gradually diverging to rear, sometimes slightly recurving. Submedian and lateral lines obsolete; some side granulations. Dorsal tubercles 16 $\mu$  apart; dorsal setae 18 $\mu$  long, strongly diverging to rear. Forelegs 25 $\mu$  long; tibia 4.5 $\mu$  long, with seta at 1/3, 6 $\mu$  long; tarsus 6.5 $\mu$  long; claw 6.5 $\mu$  long, with slight curve and slight knob; featherclaw 3-rayed. Hindlegs 24 $\mu$  long, tibia 4.5 $\mu$  long, tarsus 6.5 $\mu$  long, claw 7 $\mu$  long. Anterior coxae with some large granulations, a moderately long sternal line at junction; first setiferous coxal tubercles ahead of anterior junction point and closer together than second tubercles; second coxal tubercles well ahead of transverse line through third coxal tubercles. Abdomen with 55-60 rings, completely microtuberculate, the microtubercles moderately large and low rounded. Lateral seta 23 $\mu$  long, on ring 5; first ventral seta 35 $\mu$  long, on ring 16; second ventral 8 $\mu$  long, on ring 29; third ventral 22 $\mu$  long, on ring 5 from rear. Accessory seta 6.5 $\mu$  long. Female genitalia 10 $\mu$  long, 18 $\mu$  wide; coverflap with 9-10 curving longitudinal ribs. Genital seta 4.5 $\mu$  long; genital tubercles somewhat acuminate to rear, inner side drawn forward under coverflap.

Type locality: Ithaca, New York

Collected: August 8, 1960, by G. R. Nielsen of Cornell University

Host: *Quercus alba* L. (Fagaceae), white oak

Relation to host: the mites form moderate sized erineum pockets on the undersides of the leaves.

Type material: as well as the dry leaves with erineum, there is a type slide and five paratype slides

This mite is widespread on the Atlantic Coast of North America, probably occurring wherever its host occurs. Examples are on hand from Maryland and Virginia. In these cases however the mites were scarce in the erineum pockets.

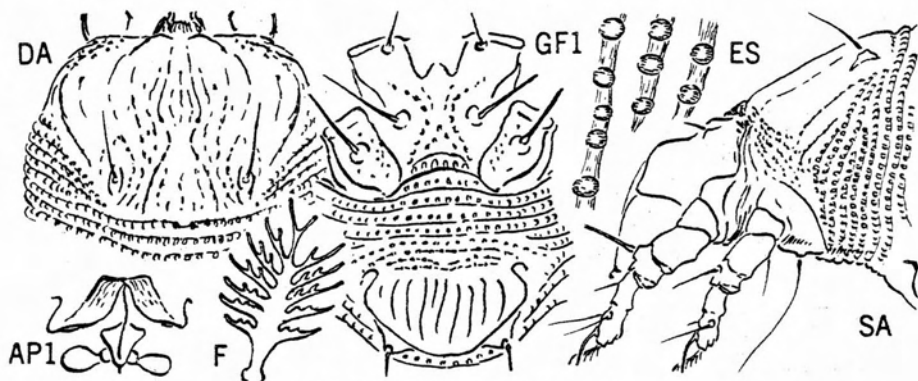


Plate 8 - *Eriophyes callitris*, new species

*Eriophyes callitris*, new species

Plate 8

*Callitris* is characterized by granular shield lines in which the admedian lines are apparently complete, the first coxal tubercles located at the extreme anterior end of the forecoxae, and the coxal granulations, which are confined mostly to the area between the second coxal tubercles.

Female 155 $\mu$ -165 $\mu$  long, 35 $\mu$  thick, dull yellowish, wormlike. Rostrum 30 $\mu$  long, curved down. Shield 22 $\mu$  long, 33 $\mu$  wide, anteriorly nearly straight across; design of lines of granulations: median line not distinct; admedian lines sinuate, curving centrally just behind center and then diverging to rear margin; shield laterally granular. Dorsal tubercles with longitudinal axis, 17 $\mu$  apart; dorsal setae 7 $\mu$  long, projecting up and forward. Forelegs 25 $\mu$  long; tibia 4.5 $\mu$  long, with seta 4.5 $\mu$  long from 1/2; tarsus 5 $\mu$  long, curved; featherclaw 6-7-rayed. Hindlegs 22 $\mu$  long, tibia 4 $\mu$  long, tarsus 4.5 $\mu$  long; claw 6.5 $\mu$  long. Coxae with some lines of granulations, the anterior coxal junction not distinct; first coxal tubercles set far ahead at anterior end of coxae and wider apart than second tubercles; second tubercles well ahead of transverse line through third setiferous coxal tubercles. Abdomen with 60-65 rings, completely microtuberculate, the microtubercles rounded and touching rear ring margin. Lateral seta 27 $\mu$  long, on ring 7; first ventral seta 35 $\mu$  long, on ring 21; second ventral 12 $\mu$  long,

on ring 39; third ventral  $17\mu$  long, on ring 5 from rear. Accessory seta absent.  
Female genitalia  $19\mu$  wide,  $15\mu$  long; coverflap with 9-10 longitudinal ribs; genital seta  $8\mu$  long.

Type locality: Berard district, Algeria

Collected: May 1, 1959 by Madame C. Athias of the Ecole Nationale d'Agriculture

Host: *Callitris articulata* Vahl. (Cupressaceae), sandarac

Relation to host: the mites occur at the bases of the cones.

Type material: as well as dry cones from which the mites were taken, there is a type slide and 3 paratype slides.

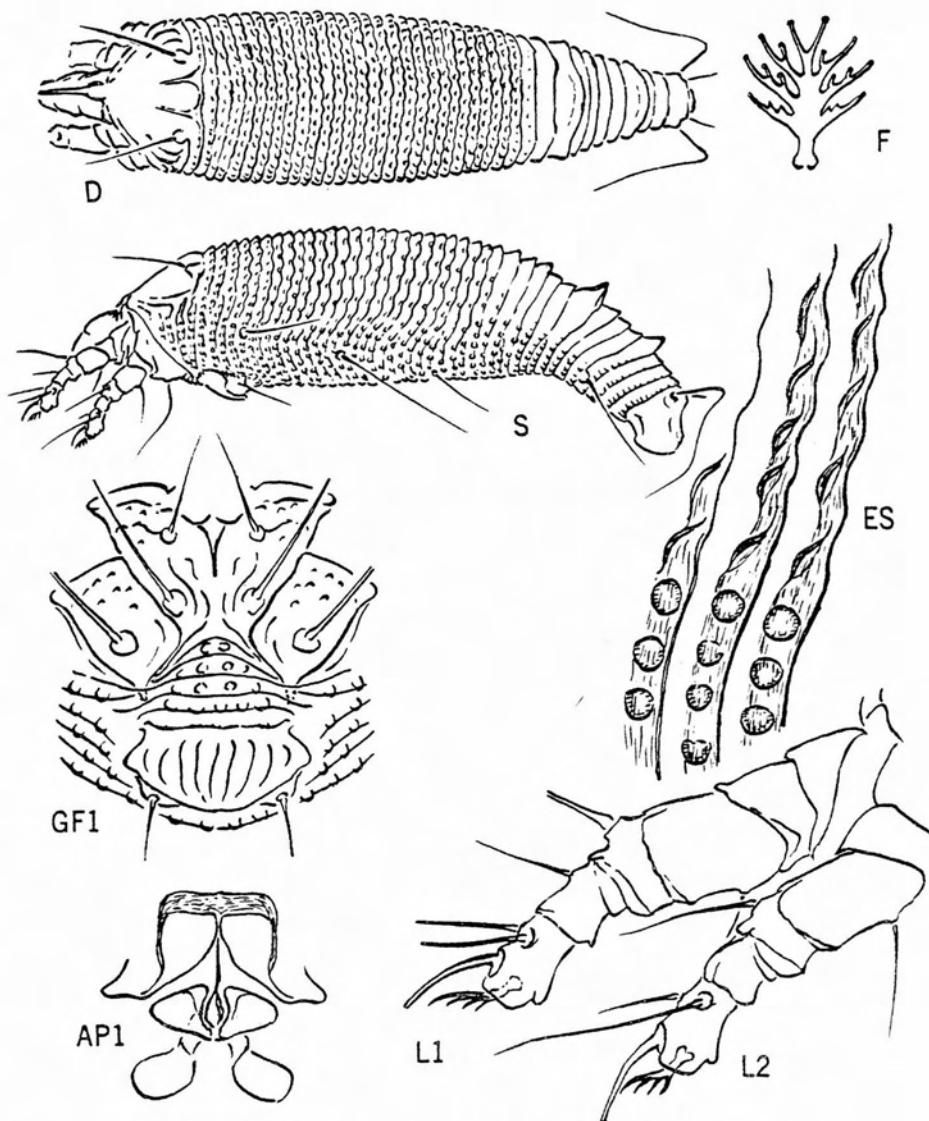


Plate 9 - *Cercodes simondsii*, new species

## Cercodes, new genus

The projecting dorsal ridges, or "teeth", on the caudum of this mite distinguish it from Erionhyes and from Pareria. The generic name is a combination of kerkos, meaning "tail", and of odous, meaning "tooth".

Body elongate, wormlike, caudum somewhat attenuate with the eleventh ring from the rear slightly produced dorsally, and the eighth and fourth rings from rear produced dorsally. Rostrum of moderate size, curved down; the recurved apical portion of oral stylet short. Legs with all usual setae; featherclaw simple. Cephalothoracic shield subtriangular, not produced over rostrum; dorsal tubercles inclined anteriorly from inside rear margin; dorsal setae pointing ahead. Female genitalia with normal length internal apodeme. Abdomen with sinuate halfrings dorsally, the dorsal microtubercles rounded and inclined anteriorly; ventral halfrings with even margins, the microtubercles round and ahead of rear ring margins. Rear attenuate section of abdomen lacking microtubercles dorsally; some ventral doubling of rings.

Genotype: Cercodes simondsi, new species

## Cercodes simondsi, new species

## Plate 9

Female 150 $\mu$ -170 $\mu$  long, 30 $\mu$ -40 $\mu$  thick, robust, wormlike with a tapering caudum; color light yellowish white. Rostrum 23 $\mu$  long, somewhat downcurved; antapical seta very small. Shield 32 $\mu$  long, 33 $\mu$  wide, anterior outline from above subsemicircular. Shield pattern largely obscure, admedians present only to rear, broad. Laterally the shield with very heavy longitudinal lines. Dorsal tubercles 20 $\mu$  apart, just ahead of rear margin; dorsal setae 20 $\mu$  long, pointing ahead. Forelegs 29.5 $\mu$  long; tibia 5 $\mu$  long, with seta 7 $\mu$  long from 1/4; claw 8 $\mu$  long, curved, tapering; featherclaw 4-rayed. Hindlegs 27 $\mu$  long, tibia 4.5 $\mu$  long, tarsus 6.5 $\mu$  long, claw 6.5 $\mu$  long. Coxae with few lines and some anterior granules; forecoxal junction with short sternal line; first setiferous coxal tubercles directly ahead of second tubercles and even with anterior coxal junction; second coxal tubercles well ahead of transverse line through third tubercles. Abdomen with 45-50 rings, completely microtuberculate except dorsal part of caudum. Lateral seta 17 $\mu$  long, on ring 5; first ventral seta 26 $\mu$  long, on ring 18; second ventral 10 $\mu$  long, on ring 27; third ventral 25 $\mu$  long, on ring 5 from rear. Accessory seta 7 $\mu$  long. Female genitalia 18 $\mu$  wide, 11 $\mu$  long; coverflap with about 8-9 longitudinal ribs; seta 6.5 $\mu$  long.

Type locality: Doyle district, Lassen County, Cal.

Collected: June 4, 1960, by W. E. Simonds, of the State Bureau of Entomology

Host: Prunus andersoni Gray (Rosaceae), desert peach

Relation to host: The mites live at the petiole bases, principally on the short lateral fruit spurs from older wood.

Additional specimens of this mite are on hand from the Coleville district of Mono County, Cal. I am pleased to name this mite for W. E. Simonds who collected it.

## Eptrimerus congoensis, new species

## Plate 10

The abdominal dorsum, plus the situation of the dorsal tubercles ahead of the rear shield margin, answer the definition of Eptrimerus. Details of shield sculpturing, and structure of the lateral parts of the tergites are unusual. This new species does not appear to be related to any other known forms assigned to the genus.

Female 165 $\mu$ -175 $\mu$  long, 60 $\mu$  wide, 40 $\mu$  thick; body fusiform, with lateral lobes of shield projecting beyond body outline; color evidently yellowish. Rostrum 23 $\mu$  long, projecting down. Shield 50 $\mu$  long, 50 $\mu$ -60 $\mu$  wide, subtriangular, with prominent lobe over rostrum, surface of this lobe wrinkled in lateral view. Shield design of curving lines and some short dashes in central area to rear. Admedian lines curving in from front edge of anterior lobe, then expanding, describing a subcircular area just behind lobe, then extending close together and ending at rear 1/4 where they join. Median line apparently absent. A sinuate submedian line running outside past tubercle; a lateral line from anterior lobe base to lateral lobes. Sides of shield anteriorly with lines of granules; lateral shield lobes with curved lines, granules, and overhanging partial rings with elongate microtubercles. Dorsal tubercles ahead of rear shield margin and 23 $\mu$  apart; dorsal setae 7 $\mu$  long, projecting up. Forelegs 30 $\mu$  long; tibia 7.5 $\mu$  long, with seta 3.5 $\mu$  long from 1/4; tarsus 6 $\mu$  long; claw 6 $\mu$  long, slender curved down and knobbed. Hindlegs 27 $\mu$  long, tibia 6 $\mu$  long, tarsus 6 $\mu$  long, claw 5.5 $\mu$  long. Coxae with curving lines; anterior coxae touching centrally; first setiferous coxal tubercles opposite anterior junction and farther apart than second tubercles; second tubercles ahead of transverse line through third tubercles. Abdomen with about 25 tergites and 55-60 sternites; first tergite with central area of short dashes; microtubercles obscure or absent from remainder of tergites on dorsum; laterally