ERIOPHYID STUDIES B-8

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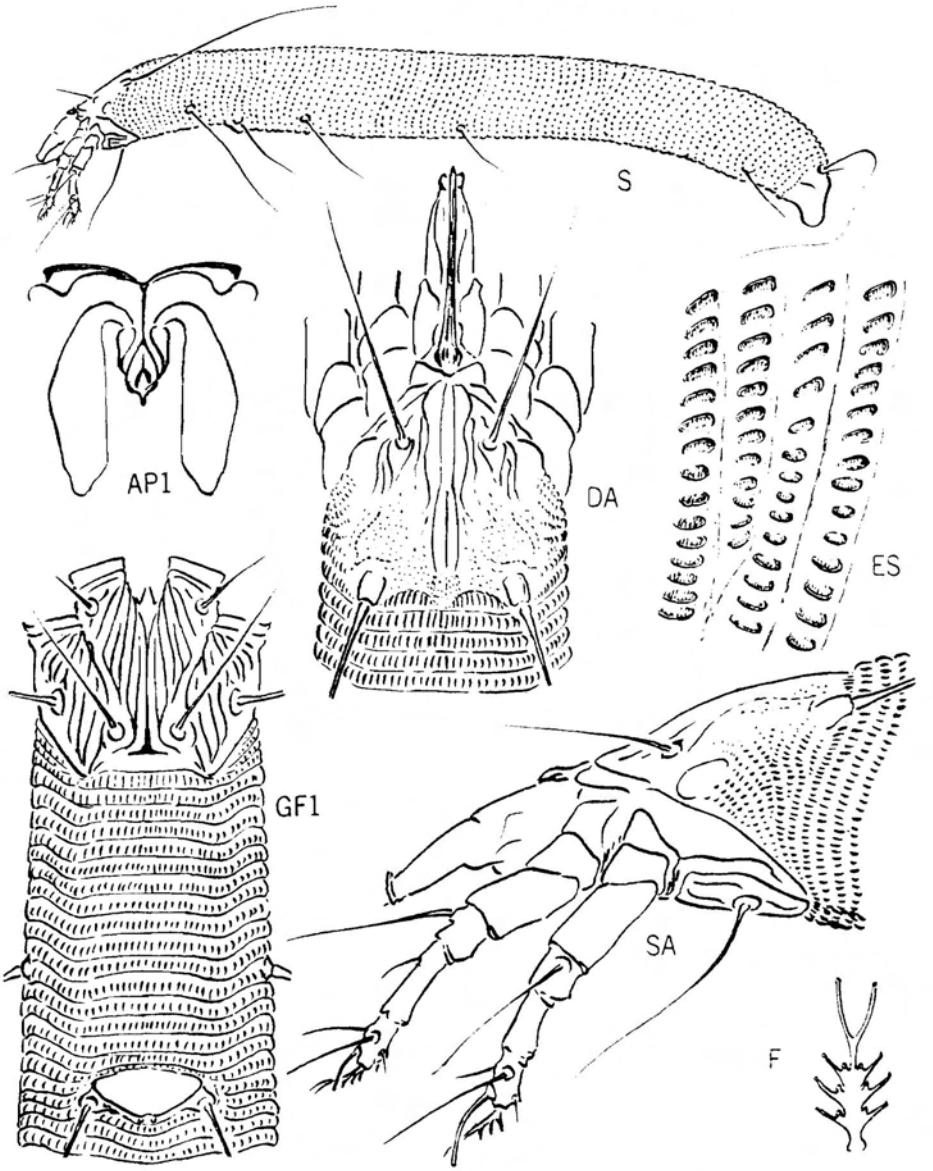

Plate 1 - Novophytoptus stipae, new species

ISSUED - July 9, 1962

Novophytoptus stipae, new species

Plate 1

The genotype, rostratae Roivainen, was described from Finland: Acta Entomologica Finnica 3:16,1947. The host is given as Carex inflata Sut.

The new species differs from the genotype by the following characters: it is 330μ or more long which is about 1/3 longer; it has 4-rayed featherclaws instead of 2 or 3; the admedian lines are completely separate from eachother instead of being anteriorly fused with the median line as depicted for rostratae, and the dorsum of the rear abdominal rings is microtuberculate.

These Novophytoptus mites are remarkable things when compared to species referred to Phytoptus and to Aceria. Stipae has the anterior shield setae characteristic of Phytoptus, but the rear shield setae project to the rear as in Aceria, not anteriorly as in Phytoptus. The new species lacks subdorsal abdominal setae so characteristic of Phytoptus, and lacks the lateral foretibial spur which is only found on species in Phytoptus and associated genera. The genitalia of Novophytoptus is unique in being situated at some distance behind the coxae, a far greater distance than on any other type of Eriophyid so far seen or described.

What then are the affinities of Novophytoptus? Does it belong with Phytoptus, or with genera associated with Eriophyes and Aceria?

The answer to the problem is found in the structure of the internal female genitalia. The spermathecae of Novophytoptus, as exemplified by stipae, are appended to stems that first project anteriorly and then recurve. This definitely allies the genus to Phytoptus and associates.

Female 330μ-360μ long, 35μ-45μ thick; very elongate, wormlike; color light yellowish white. Rostrum 30μ long, attenuate; no antapical seta discovered; oral stylet of the short type. Shield 30μ long, 30μ wide; subtriangular; median line present on rear 1/2;admedian lines complete, close, subparallel,slightly curving outward from chelicera base,recurving to front end of median and a little farther apart when enclosing median;first submedian line sinuate, from chelicera base extending back to about 2/3 and fading well ahead of dorsal tubercle;some lines around anterior tubercle; sides of shield with lines of microtubercles and an ocellar spot above second coxae. Anterior setiferous tubercles 12μ apart; setae 24μ long, projecting forward and diverging. Dorsal tubercles on rear margin, inclined to rear, 16μ apart; setae 105μ long, projecting to rear. Forelegs 33μ long; tibia 9μ long, seta 6.5μ long, from 1/4, lacking lateral spur; tarsus 5μ long, with lateral seta; claw 5μ long,with slight knob; featherclaw 4-rayed, the anterior fork produced. Hindlegs 31μ long, tibia 8.5μ long, tarsus 5μ long, with lateral seta; claw 10μ long.Coxae with a pattern of heavy regular longitudinal lines; anterior coxae broadly touching centrally;first setiferous coxal tubercles farther apart than second tubercles and near anterior end of coxae;second tubercles somewhat behind transverse line through third coxal tubercles.Abdomen with about 95 rings, completely microtuberculate, the microtubercles somewhat transverse elongate,ahead of rear ring margins. Lateral seta 46μ long, on about ring 14; first ventral seta 36μ long, on about ring 30; second ventral seta 20μ long, on about ring 50; third ventral 20μ long, on ring 9 from rear. Accessory seta 2.5μ long. Female genitalia 14μ wide, 7μ long, situated about 17 rings behind the coxae; coverflap smooth; spermathecae appended to stems that project forward and then recurve; seta 10μ long.

Type locality: Quail Springs, Joshua Tree National Monument, Cal.

Collected:April 11, 1962 by Gene Harper, of the San Bernardino County Department of Agriculture

Host: Stipa speciosa T.&R. (Graminae) desert needlegrass

Realtion to host: the mites occur in the inner rolled leaves.

Type material: a type slide
7paratype slides

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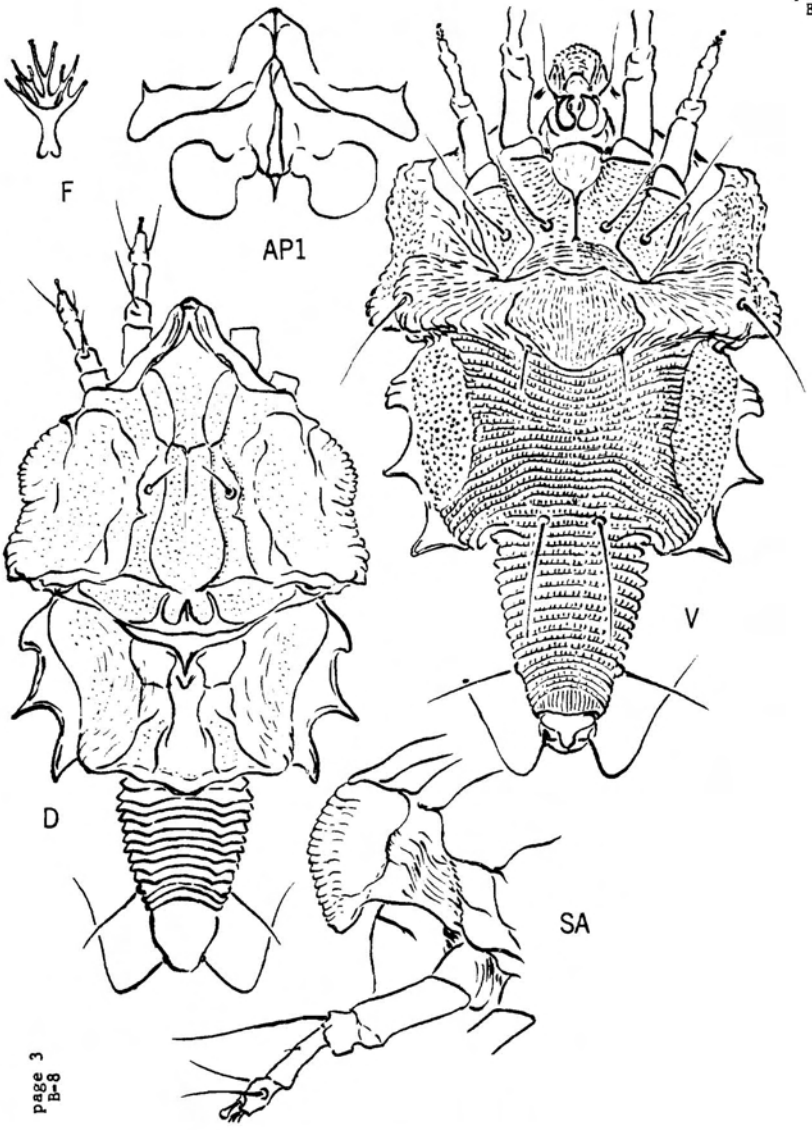

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Plate 2 - Scolocenus spiniferus, new species

Scolocenus, new genus

The genotype is similar to Tumescoptes trachycarpi K. 1939, by possessing the large lateral expansion on the anterior part of the abdomen. However, it differs from trachycarpi by having simple featherclaws, lacking the first coxal seta, having a complicated pattern on the abdominal expansion, and by the large lateral spines on this expansion. That such mites as these exist could not be imagined on the basis of other known forms of Eriophyids.

Body flattened. Shield generally subtriangular, the anterior lobe over rostrum acuminate in dorsal view and strongly curved down in lateral view; shield laterally expanded. Dorsal tubercles well ahead of posterior shield margin; dorsal setae short. Rostrum small, directed down; oral stylet short. Coxae lacking first setiferous tubercles and setae. Legs lacking femoral seta; all other setae present; featherclaw simple, not divided. Abdomen with first half flattened and laterally expanded; bearing three large lateral spines on each side; abdominal caudum slender, with dorsal longitudinal trough, flanked on each side by a subdorsal ridge, and with a lateral ridge just below. Lateral abdominal seta present, situated under expanded rear angle of shield; first ventral abdominal seta absent, second and third present. Female genitalia near coxae, the internal anterior apodeme extended moderately forward.

Genotype: Scolocenus spiniferus, new species

Scolocenus spiniferus, new species

Plate 2

Female 150μ-160μ long, 73μ wide, 30μ thick; color probably light yellowish. Rostrum 14μ long; antapical seta prominent, recurved, 9μ long. Shield 56μ long, 73μ wide; surface rough with elevated ridges and more or less irrorated with fine semitransparent spots. Median shield line slightly present centrally; admedian lines complete, sinuate, outlining a central longitudinal raised area; first submedian lines roughly paralleling admedian lines, passing just outside dorsal tubercles; a transverse line across center just ahead of dorsal tubercles. Lateral shield edges with numerous creases, pebbled just under lateral edge. Dorsal tubercles 19μ apart; dorsal setae 3μ long, projecting up. Forelegs 42μ long; tibia 10μ long, with minute seta on inner side just before 1/2; tarsus 4.5μ long; claw 4μ long, straight, with relatively large knob; featherclaw simple, 3-rayed. Hindleg 31μ long, tibia 6.5μ long, tarsus 4.5μ long, claw 3μ long. Coxae ornamented with rows of fine granulations; first setiferous coxal tubercles absent; second coxal tubercles almost on line across third setiferous coxal tubercles. Anterior abdominal buldge 40μ long, 70μ wide; above with anterior and posterior transverse ridges and pattern of lines between, laterally with three prominent spines on each side; underneath just inside spines a conspicuous pebbled area. Caudum extending from rear dorsal declivity of anterior expanded section, with 15 or 16 rings. Abdomen centrally below, from genitalia to anal lobes with microtuberculate sternites, the microtubercles elongate. Lateral abdominal seta 20 long, lateral to genitalia and under rear lateral angle of shield; first ventral seta missing; second ventral seta under rear of expanded section, 26μ long, about 16 sternites ahead of third ventral seta; third ventral seta 20μ long, laterally placed, on ring 5 from rear. Accessory seta absent. Female genitalia 24μ wide, 16μ long; coverflap with fine longitudinal lines of granules; seta 8.5μ long.

Type locality: Guinobatan, Albay Provence, Philippines

Collected: April 4, 1962, by A. E. Bigornia, and brought to me by Dr. F. O. Holmes

Host: Cocos nucifera L. (Palmaceae) coconut

Relation to host: the mites are leaf vagrants

Type material: a type slide
three paratype slides
mites in liquid and on dry leaves

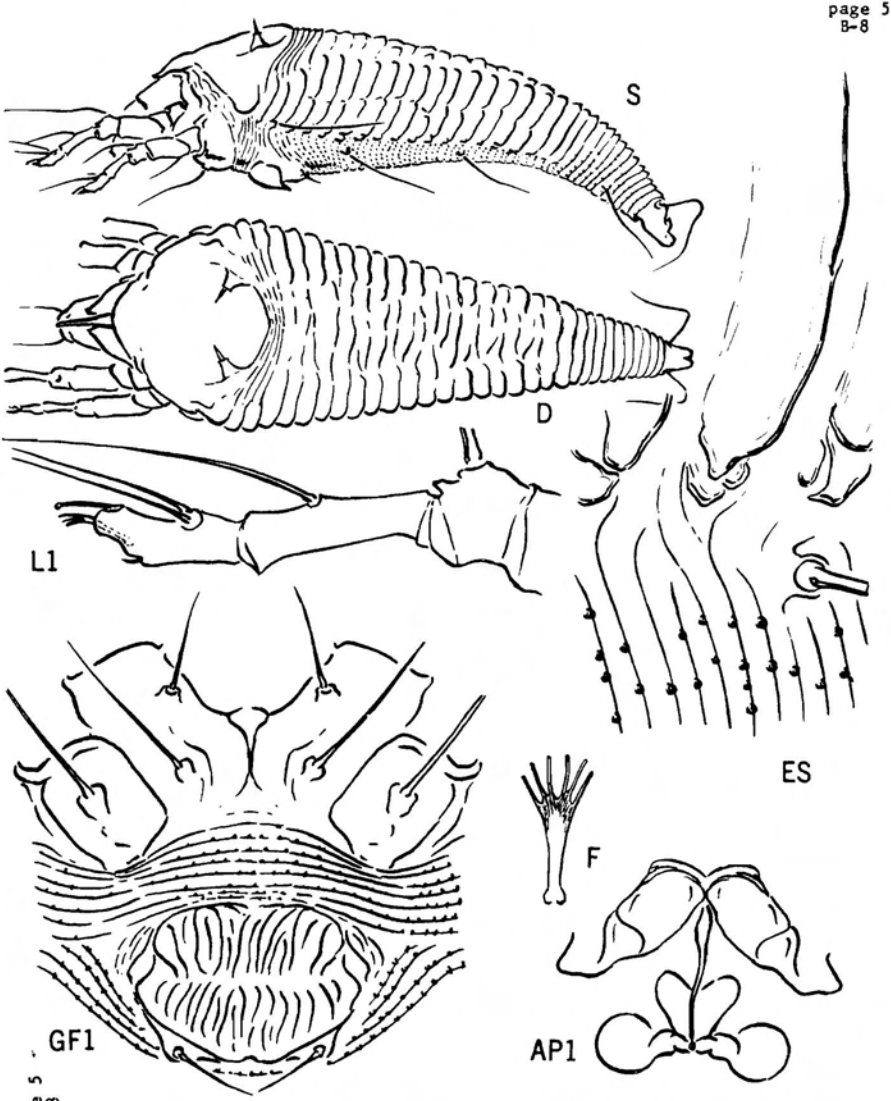

Plate 3 - Acritonotus denmarki, new species

Acritonotus, new genus

The two features that distinguish this genus are the confused nature of the central tergal strip, and the very small palmate featherclaws. This genus is possibly a member of the Epitrimerus complex of the Eriophyidae. The genus name means confused back.

Body flattened-fusiform with abdomen essentially divided into tergites and sternites. Rostrum large, curved down; oral stylet of the short type. Cephalothoracic shield subtriangular, with rounded sides; anterior lobe broad, projecting short distance over rostrum; dorsal tubercles laterally placed, axes converging posteriorly, bent forward and centrally, directing setae up and centrally. Legs with all usual setae; claw small; featherclaw (empodium) very small, palmate. Abdomen with all usual setae; a few narrow rings across dorsum at rear of shield; remainder of tergites in central longitudinal band very irregular back to area just ahead of third ventral seta ring; laterally tergites as broad fairly regular lobes extending from lateral shield angles to ending of dorsal irregular band; about 10-12 rings comprise abdominal caudum; anal lobes narrow. Female genitalia of long apodeme type but with numerous longitudinal ribs in two ranks.

Genotype: Acritonotus denmarki, new species

Acritonotus denmarki, new species

Plate 3

Female 200μ-220μ long, 73μ wide, 53μ thick; fusiform; color light yellowish. Rostrum 36μ long, curved down; antapical seta prominent, 26μ long. Shield 63μ long, 63μ wide; design absent; dorsal tubercles 33μ apart; dorsal setae 6μ long. Forelegs 53μ long; tibia 16μ long, with 30μ long seta from 2/3; tarsus 10μ long; claw 4.5μ long, nearly straight, slightly knobbed; featherclaw small, about 3-rayed on a side. Hindlegs 50μ long, tibia 13μ long, tarsus 9μ long, claw 4.5μ long. Coxae with no prominent markings; anterior coxae narrowly connate centrally; first setiferous tubercles farther apart than second, and a little ahead of anterior coxal approximation; second tubercles ahead of a transverse line through third tubercles. Abdomen with 20 or 21 broad lateral tergal lobes extending back from lateral shield angles; sternites about 85 in number back to third ventral seta; set with fine microtubercles resting on ring margins; caudum with fine ventral microtubercles. Lateral seta 40μ long, on about sternite 7; first ventral seta 36μ long, on about sternite 27; second ventral 20μ long, on about sternite 55; third ventral 23μ long, on about ring 7 from rear. Accessory seta absent. Female genitalia 26μ wide, 20μ long; coverflap with numerous longitudinal ribs in two ranks; seta 6.5μ long.

Type locality: Fort Lauderdale, Florida

Collected: March 16, 1962 and sent me by H. A. Denmark, for whom the species is named.

Host: Roystonia elata (Bartr.) (Palmaceae) Florida royal palm

Relation to host: the mites are rust mites and were said to be damaging nursery palms.

Type material: a type slide
five paratype slides

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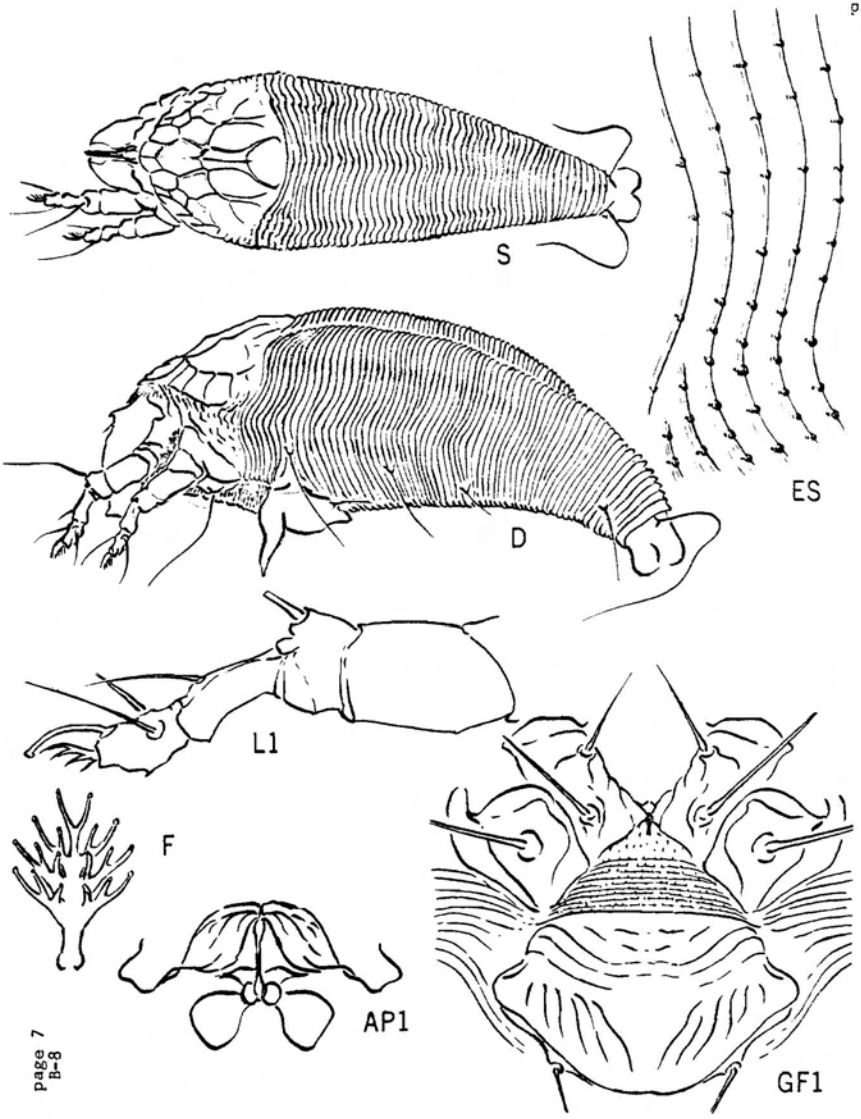


Plate 4 - Paracalacarus podocarpi, new species

Paracalacarus, new genus

Paracalacarus differs from Calacarus by possessing a middorsal abdominal ridge that ends in a weak dorsal trough about 43 tergites back from rear shield amrgin, rather than tapering along with the subdorsal ridges as in Calacarus. In addition Paracalacarus has no femoral setae. In common with Calacarus the genotype of the new genus lacks the rear patellar seta. Together these two genera differ from Cecidophyes, which is unrelated but also lacks dorsal tubercles and setae, by having the internal female genital apodeme moderately elongate.

Genotype: Paracalacarus podocarpi, new species

Paracalacarus podocarpi, new species

Plate 4

Female 150μ-200μ long, 55μ-60μ wide, 45μ-50μ thick; fusiform;color in life unknown. Rostrum 33μ long, curved down; antapical seta 13μ long. Shield about 50μ long, 53μ wide; anterior part of shield broad and projecting short distance over rostrum base.Shield design mainly a network of cells: median line faint, on center of shield; admedian lines complete but curving in and out in network pattern, approaching close to median line, double posteriorly; a row of cells from anterior center, extending along lateral margin; between this and admedians a fainter network of cells.Dorsal setae and tubercles missing. Forelegs 36μ long; tibia 10μ long, with seta 8μ long at 3/4; tarsus 6.5μ long; claw 5.5μ long,curved down,knobbed; featherclaw 4-rayed. Hindlegs 33μ long, tibia 6.5μ long, tarsus 7μ long, claw 6μ long. Coxae ornamented with a few lines; anterior coxae very narrowly connate centrally; first setiferous coxal tubercles farther apart than second and far ahead of coxal junction; second tubercles somewhat ahead of transverse line through third tubercles,and opposite anterior coxal approximation. Abdomen with about 60-65 tergites and 70-75 sternites, the microtubercles present as fine beads on ring martins, fainter dorsally; abdomen with middorsal ridge from rear shield margin, ending in a slight dorsal t ugh about 42-45 tergites to rear; a subdorsal ridge present on each side of back, from rear shield margin above lateral row of cells and fading posteriorly; a slight lateral ridge from belwo lateral shield margin, fading well before third ventral seta. Lateral seta 36μ long, on about sternite 9; first ventral seta 37μ long, on about sternite 25; second ventral 34μ long, on about sternite 41; third ventral seta 24μ long, on ring 5 from rear. Accessory seta minute. Female genitalia somewhat appressed to coxae; 33μ wide, 23μ long; coverflap with rear curving transverse lines basally, and about 6 centrally diagonal ribs on each side ahead of rear margin; seta 14μ long.

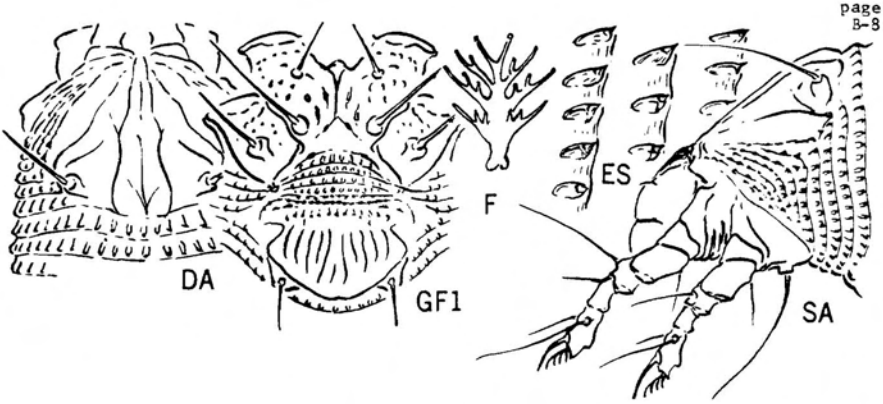
Type locality: Crescent City, Florida

Collected: March 27, 1962, and sent me by H. A. Denmark

Host: Podocarpus sp., possibly macrophylla Don (Taxaceae) a conifer

Relation to host: the mites are rust mites, causing some leaf damage

Type material: a type slide
5 paratype slides



Eriophyes catacardiae, new species

Plate 5

This new species is characterized by a weak, almost obsolete, median line on the shield, apparently ending in a dart-shaped mark. The shield also has a diagonal line extending anteriorly across the front of the dorsal tubercle. On the abdomen the microtubercles are regularly placed and are sharply pointed. Catacardiae differs from Eriophyes heteromeles K. by the pointed microtubercles, and from E. savagei K. by having the microtubercles pointed both dorsally and ventrally.

Female 135μ-150μ long, 40μ thick; wormlike; color very light yellowish white. Rostrum 23μ long, curving down; antapical seta 4μ long. Shield 26μ long, 33μ wide; median line very light, principally visible on rear 1/2, and with faint dart-shaped mark at rear; admedian lines complete, sinuate, gradually diverging to rear and recurving at rear margin; an inwardly diagonal line from just outside dorsal tubercle extending anteriorly to rear 1/3; a submedian line faintly from near anterior end of admedian line becoming stronger as it ends against a partial ring just outside dorsal tubercle; shield laterally with converging granular lines extending anteriorly from partial rings lateral to dorsal tubercle and above coxae. Dorsal tubercles 16μ apart, hardly ahead of rear shield margin; Dorsal setae 27μ long, directed ahead and strongly diverging. Forelegs 30μ long; tibia 6.5μ long, with seta 6.5μ long from basal 1/3; tarsus 8μ long; claw 8μ long, curved down; featherclaw 4-rayed. Hindlegs 29μ long, tibia 4.5μ long, tarsus 8μ long, claw 9μ long. Coxae ornamented with some curved lines bearing granulations; anterior coxae moderately connate centrally; first setiferous coxal tubercles ahead of second and opposite anterior coxal approximation; second setiferous coxal tubercles ahead of transverse line through third coxal tubercles. Abdomen with 60-65 rings, completely microtuberculate, the microtubercles sharply pointed and evenly spaced. Lateral seta 21μ long, on about ring 6 behind shield; first ventral seta 34μ long, on about ring 19; second ventral seta 14μ long, on about ring 34; third ventral 26μ long, on ring 6 from rear. Accessory seta 6.5μ long. Female genitalia 20μ wide, 14μ long; coverflap with about 10 longitudinal ribs; seta 10μ long.

Type locality: Capell Creek, Napa Co nty, California

Collected: May 12, 1960 by the writer

Host: Prunus subcordata Benth. (Rosaceae) Sierra plum

Relation to host: the mites inhabit petiole bases at the base of new shoots where the axillary buds are suppressed.

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Type material: a type slide
five paratype slides

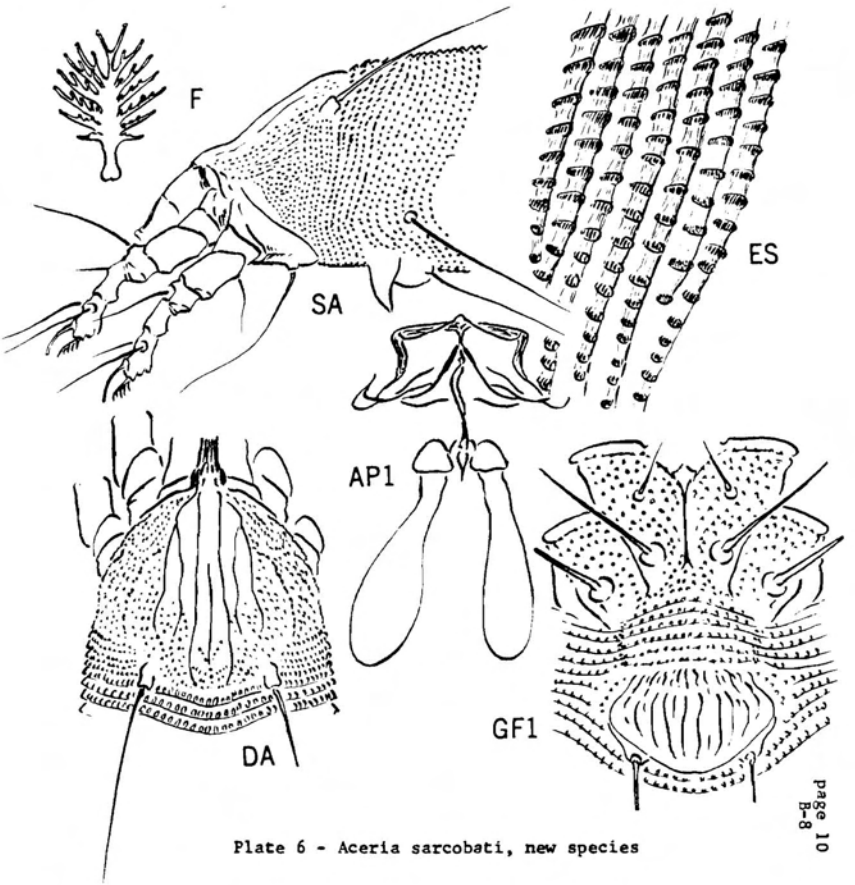

Plate 6 - Aceria sarcobati, new species

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Aceria sarcobati, new species

Plate 6

Sarcobati, with a 7-rayed featherclaw and large spermathecae, is an unusual species, standing alone among known Acerias in the western part of North America. There would seem to be two sizes of females, one from 180 to 200μ long, the other up to 250μ long. The smaller is more common.

Female 180μ-200μ long, and up to 250μ long, 35μ-50μ thick; wormlike; color light yellowish white. Rostrum 21μ long, curved down; antapical seta 7μ long. Shield 24μ-28μ long, 27μ-33μ wide; median line present on rear 2/3, ending in a granular area at rear margin, and with a dart-shaped mark of granules a short distance anterior to end; admedian lines complete, gently sinuate; first submedian line curving out from front end of admedian, then extending caudad subparallel to admedian and ending at about 3/4 ahead of dorsal tubercle; second submedian forking from first near anterior end and ending ahead of dorsal tubercle in same granular area as first; shield laterally almost entirely granular, those below dorsal tubercle in ring-like rows, those anterior to this in more or less definite longitudinal lines. Dorsal tubercles about 23μ apart; dorsal setae 30μ long. Forelegs 31μ long; tibia 8μ long, with 6μ seta from about 1/3; tarsus 7.5μ long; claw 7μ long, curved down; featherclaw 7-rayed. Hindlegs 29μ long, tibia 6.5μ long, tarsus 7μ long, claw 8.5μ long. Coxae heavily ornamented with granules in more or less curved rows; first setiferous coxal tubercles farther apart than second and opposite anterior coxal approximation, the anterior coxae broadly connate; second coxal tubercles ahead of line across third tubercles. Abdomen with 70-80 rings, completely microtuberculate, the microtubercles extending slightly past rear ring margins, obtusely acuminate dorsally, smaller laterally, more elongate ventrally past third ventral seta. Lateral seta 23μ long, on about ring 10; first ventral seta 70μ long, on about ring 23; second ventral 21μ long, on about ring 41; third ventral 33μ long, on ring 8 from rear. Accessory seta 7μ long. Female genitalia 19μ wide, 13μ long; coverflap with 12-16 longitudinal ribs, these basally differentiated into a band of short dashes; spermathecae unusually large and long, extending caudad; seta 23μ, 26μ, and 34μ long.

Males numerous, about 180μ long.

Type locality: Nye County, Nevada: one mile northwest of Beatty Airport Road and junction of highway 95. The plants were growing in an alkali sink.

Collected: May 10, 1962, by D. M. Maddox

Host: Sarcobatus vermiculatus (Hook.) (Chenopodiaceae) greasewood

Relation to host: the mites produce blister-like swellings in the leaf, issuing from a pinhole in the swelling. The infestation was not heavy.

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Type material: a type slide
4 paratype slides
leaves with galls containing mites, in liquid

I am indebted to Dr. T. C. Fuller, Botanist for the State Department of Agriculture, for the galls.

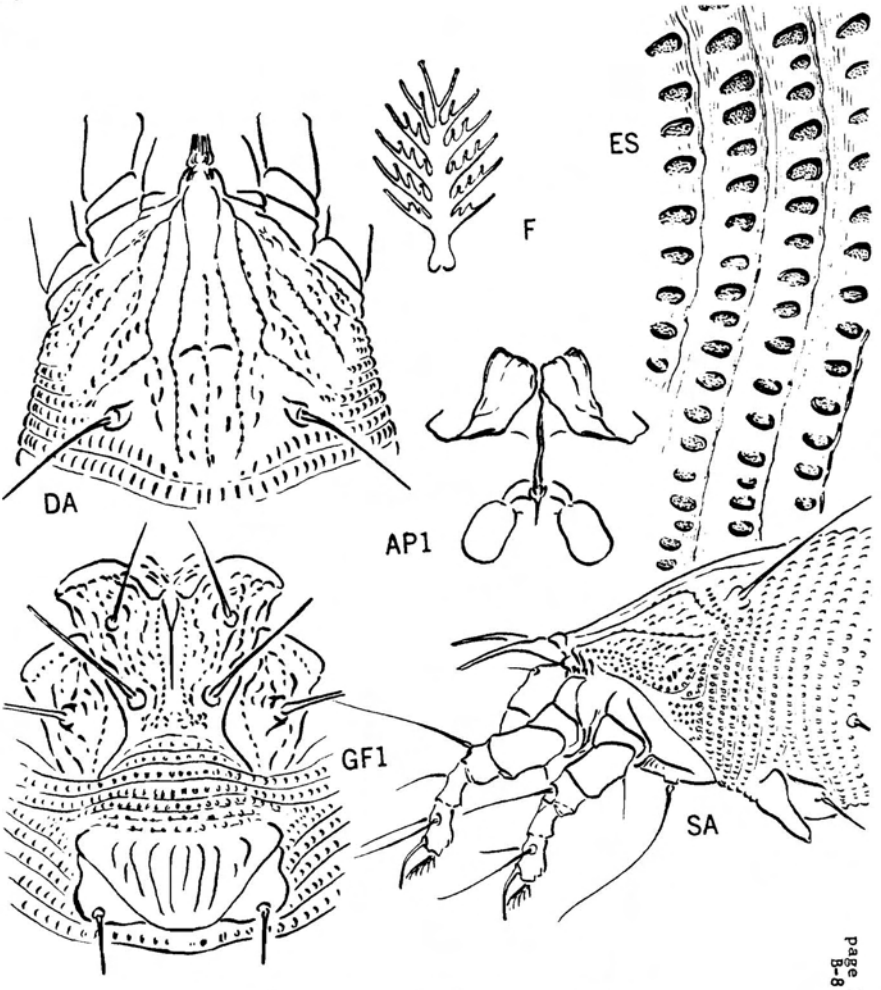

Plate 7 - Aceria zeasinis, new species

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Aceria zeasinis, new species

Plate 7

A more or less distinct broken cross line, associated with the median line just behind the middle of the shield, a different arrangement of the submedian lines before the dorsal tubercles, and larger genital setiferous tubercles, distinguishes this mite from neocynodonis K.

Female 255μ-270μ long, 40μ-50μ thick; wormlike; color light yellowish white. Rostrum 24μ long, curved down; antapical seta 6μ long. Shield about 40μ wide and long, subsemicircular anteriorly; median line of elongate dashes, on rear 3/4, with a pair of transverse cross lines at about 2/3; admedian lines complete, gently sinuate from chelicera base, most widely expanded around short cross line at about 2/3, gently recurving at rear;irregular dashes within rear area and between admedians and dorsal tubercles; first submedian from near anterior end of admedian, subparallel to admedian to area in front of dorsal tubercle, then abruptly bending outward and ending laterally to dorsal tubercle;second submedian from a short distance bask on first, curving back to parallel with first for short distance, then usually forked and fading to rear lateral to dorsal tubercle; admedians and submedian lines more or less composed of short dashes. Laterally shield generally granular, a series of partial rings below dorsal tubercles. Dorsal tubercles 22μ apart; dorsal setae 53μ long, diverging to rear. Forelegs 35μ long, tibia 7μ long, with 7μ seta at about 1/3; tarsus 7.5μ long; claw 9μ long, curved down; featherclaw 6-rayed. Hindlegs 31μ long, tibia 5μ long, tarsus 8μ long, claw 9μ long. Coxae elongate, well ornamented with lines of dots and dashes, a gently sinuate line of dots lying on each side of coxal junction; first setiferous coxal tubercles farther apart than 2nd and a little behind anterior coxal approximation; second tubercles a little ahead of transverse line across third coxal tubercles. Abdomen with about 70-75 rings, completely microtuberculate, the microtubercles rounded apically and more elongate dorsally and ventrally, ahead of rear ring margins. Lateral seta 44μ long, on about ring 9;first ventral seta 60μ long, on about ring 25; second ventral 14μ long, on about ring 42; third ventral 24μ long, on ring 5 from rear. Accessory seta 3μ long. Female genitalia moderately bowl-shaped, 23μ wide, 15μ long; coverflap with about 10 longitudinal ribs; genital seta 14μ long, on extra large setiferous tubercle.

Type locality: Auburn, Alabama

Collected: May 15, 1962 by N. A. Minton of the Auburn University School of Agriculture and sent me by Dr. E. W. Baker of the U. S. D. A. Research Service.

Host: Zea mays (Graminae-Andropogoneae) corn

Relation to host: the mites were attacking greenhouse corn, severely stunting and distorting the growth.

Type material: a type slide
6 paratype slides
mites in a weak formaldehyde solution

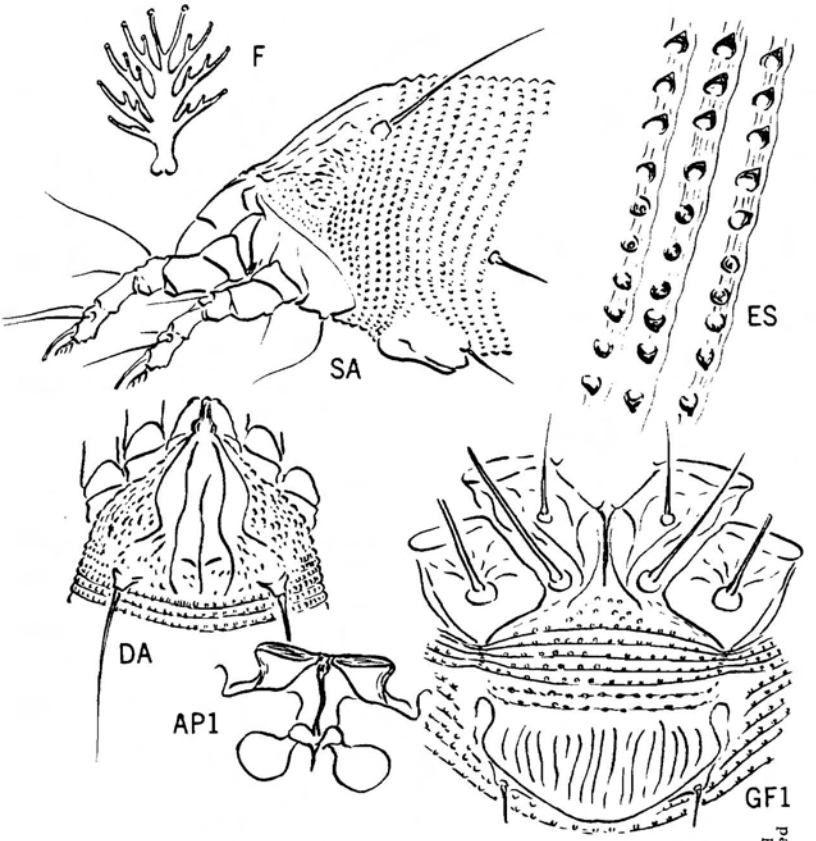

Plate 8 - Aceria knorrii, new species

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Aceria knorrii, new species

Plate 8

Pointed microtubercles and a first submedian line that abruptly curves outward in front of the dorsal tubercle, characterize this mite. It is one of the "Composite series" that have pointed or produced microtubercles.

Female from 160μ long, to 190μ-215μ long, 45μ-55μ thick; color light yellowish-white; wormlike in shape. Rostrum 23μ long, curved down; antapical seta 4.5μ long. Shield 33μ wide, 37μ long; median line present on rear 3/4, with a pair of transverse dashes associated at about 4/5, and some granulations behind them; admedians complete, gently sinuate, recurving at rear. First submedian line from near chelicera base, curving outward as it extends backward, then recurving toward admedian at about 2/3, and abruptly bending outward in front of dorsal tubercle, fading in granulations just outside tubercle. Shield laterally granular, the granulations extending somewhat in front of dorsal tubercle; partial rings belwo tubercle. Dorsal tubercles 26μ apart; dorsal setae 45μ long, subparallel or diverging to rear. Forelegs 33μ long; tibia 7.5μ long, with 5.5μ seta at about 1/4; tarsus 8.5μ long; claw 8μ long, curving down; featherclaw 4 to 5-rayed. Hindleg 31μ long, tibia 7.5μ long, tarsus 7.5μ long, claw 7.5μ long. Coxae ornamented with some lines; anterior coxae moderately connate centrally; first setiferous coxal tubercles farther apart than second tubercles, a little behind anterior coxal approximation; second tubercles about on line across third setiferous tubercles. Abdomen with 75-80 rings, completely microtuberculate, the microtubercles ahead of ring margin and acuminate. Lateral seta 20μ long, on about ring 11; first ventral seta 40-46μ long, on about ring 28; second ventral 14μ long, on about ring 45; third ventral 22μ long, on about ring 6 from rear. Accessory seta 4μ long. Female genitalia 25μ wide, 18μ long; coverflap with about 16 longitudinal ribs; genital seta 14μ long, on rather small tubercles.

Type locality: Lake Alfred, Florida

Collected: May 11, 1962, by Dr. L. C. Knorr who has sent me a number of mites and for whom I take pleasure in naming the species.

Host: Bidens pilosa L. (Compositae-Heliantheae) beggar-ticks, or known locally in Florida as railway tick-seed.

Relation to host: the mites infest the inflorescences

Type material: a type slide
three paratype slides
mites in liquid

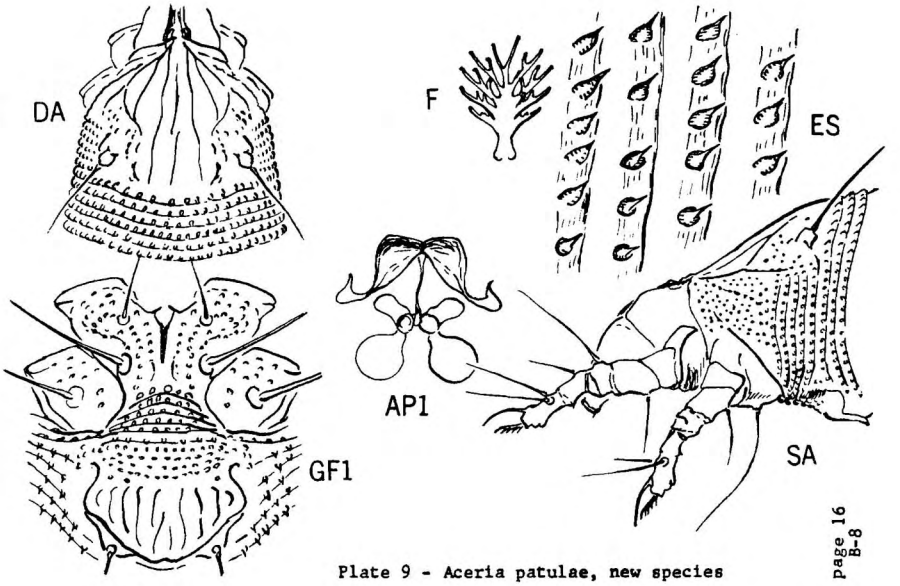

Plate 9 - Aceria patulae, new species

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Aceria patulae, new species

Plate 9

Spinulate ring granules plus the 5-rayed featherclaw, and features in the shield pattern, would seem to ally this mite with species found on various Composites. In some respects this mite resembles Aceria abilis (K.), but this latter species has an area of short dashes in front of the dorsal tubercle.

Female 170u-195u long, 35u-40u thick; wormlike; color light yellowish white. Rostrum 26u long, curved down; antapical seta 4u long. Shield 30u long, 33u wide; median line nearly complete, faint anteriorly, often broken centrally; admedian lines complete, gently sinuate, gradually diverging to rear; first submedian line forking from second just lateral to admedian near shield front, running backward toward dorsal tubercle and ending at about 2/3; second submedian running laterally from fork with first, to about 1/3, then forking, the upper line curving inward in front of dorsal tubercle and across rear end of first submedian and ending in a broken line curving backward and recurving at rear margin; the lower fork of second submedian line extending back to upper end of partial rings lateral to dorsal tubercle. Some granules in front of dorsal tubercle but not reaching admedian lines; shield laterally with granules and rows of granules. Dorsal tubercles 20u apart; dorsal setae 31u long, diverging. Forelegs 31u long; tibia 8u long, with seta 7u long at 1/4; tarsus 8.5u long; claw 7u long, curved down; featherclaw 5-rayed. Hindlegs 30u long, tibia 6u long, tarsus 8u long, claw 8u long. Coxae well granulated; anterior coxae connate centrally the sternal line short; first setiferous coxal tubercles in front of second and slightly behind anterior coxal junction; second tubercles well ahead of transverse line through third setiferous coxal tubercles. Abdomen with about 60 rings, entirely granulated, the granules =roduced into sharp points, the points longer caudally. Lateral seta 15u long, on about ring 7; first ventral seta 40u long, on about ring 20; second ventral 8.5u long, on ring 34; third ventral 18u long, on ring 6 from rear. Accessory seta 6.5u long. Female genitalia 21u wide, 15u long; coverflap with 10-12 irregular longitudinal ribs; seta 8.5u long.

Type locality: Rocky Camp, Hat Creek, Shasta County, California

Collected: May 29, 1960 by the writer

Host: Arctostaphylos patula Greene (Ericaceae) greenleaf manzanita

Relation to host: the mites live in the flower heads at the base of the flower stalk (fruit stalk) where they cause some deterioration of the stalks and tend to impare the vigor of the fruiting body.

Type materail: dry flower and fruiting heads with mites
a type slide
4 paratype slides

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Note: another host is Arctostaphylos manzanita Parry, the mites collected in El Dorado County

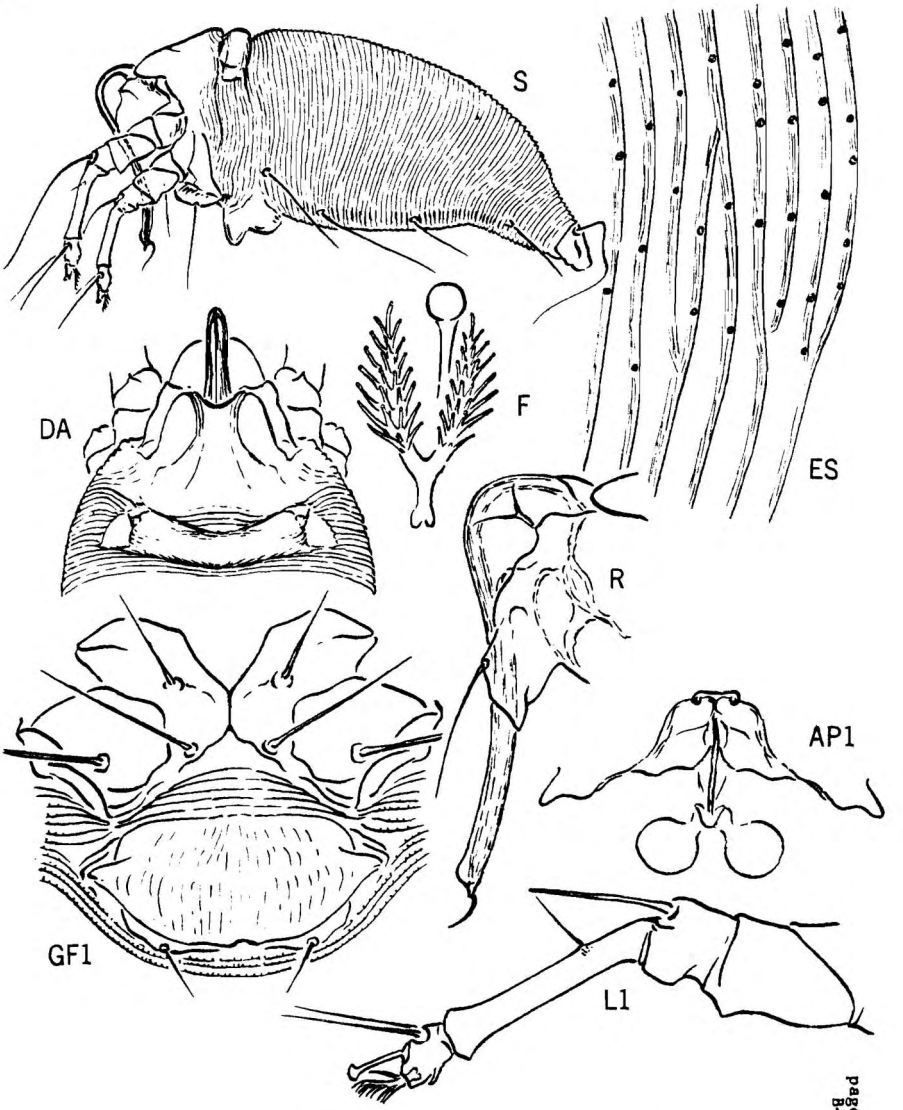

Plate 10 - Dialox stellatus, new species

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Dialox, new genus

Dialox is near Diptacus in the Rhyncaphytoptidae but differs in transverse furrow across the cephalothoracic shield at about 3/4; the presence of a rear femoral seta, and the absence of a ridge between the forecoxae. The name means two furrows, alluding to the transverse groove at 3/4 on the shield and the one along rear shield margin.

Body robust-fusiform, somewhat tapering caudum. Rostrum long and slender, curving forward apically; antapical seta long and centrally placed; subapical sensillum terminal, projecting down and recurving forward; oral stylet of long type, recurving from near base of chelicerae. Cephalothoracic shield with a prominent anterior lobe on each side of chelicera base, emarginate centrally between lobes; a prominent transverse furrow at about 3/4; dorsal tubercles situated laterally and to rear of furrow, the setae minute. Coxae with all three pair of setae, the anterior coxae moderately connate. Forelegs long and slender; all setae present except forefemoral; featherclaws divided. Abdomen robust, with irregular fine rings not divided into sternites and tergites, more rings present dorsally; all abdominal setae present. Female genitalia large, moderately close to coxae; internal anterior apodeme projecting anteriorly.

Genotype - Dialox stellatus, new species

Dialox stellatus, new species

Plate 10

Female 240μ-260μ long, 80μ-90μ thick; robust; color a light yellowish-white; in life forming a heavy covering of white wax with stellate projections. Rostrum 71μ long, projecting down and apically recurved forward; antapical seta 26μ long; subapical sensillum 7μ long, projecting down and recurved forward. Shield 50μ long, about 60μ wide; design obsolete: some fine ring-like lines centrally in front of transverse furrow. Dorsal tubercles 40μ apart, ahead of rear margin; dorsal setae minute, projecting laterally and curved forward. Forelegs 67μ long; tibia 30μ long, with 7μ long seta at about 1/3 on inside; tarsus 7μ long; claw 7μ long, straight, knobbed; featherclaw with about 8 rays on a side. Hindlegs 58μ long, tibia 23μ long, tarsus 6.5μ long, claw 6.5μ long. Coxae without ornamentation; anterior coxae moderately connate; first setiferous coxal tubercles farther apart than second tubercles, about opposite anterior coxal approximation; second setiferous tubercles slightly ahead of line across third tubercles. Abdomen with fine irregular rings, about 75-80 rings ventrally and 90-100 dorsally; rings microtuberculate, the microtubercles fine and beadlike, dorsally a little ahead of ring margins, fewer laterally, more numerous ventrally and on ring margins. Lateral seta 40μ long, on about ring 11; first ventral seta 68μ long, on ring 28; second ventral 25μ long, on about ring 48; third ventral 26μ long, on ring 9 from rear. Accessory seta minute. Female genitalia 46μ wide, 23μ long, fairly close to coxae; coverflap with faint fine longitudinal lines; seta 7μ long.

Males numerous, about size of females.

Type locality: Guinobatan, Albay Provence, Philippines

Collected: April 4, 1062 by A. E. Bigornia, and brought me by Dr. F. O. Holmes

Host: Cocos nucifera L. (Palmaceae) coconut

Relation to host: the mites live on the undersides of the leaves where they form stellate masses of white wax and appear like mineature mealybugs.

Type material: a type slide
7 paratype slides
mites on dry leaves and mites in liquid

Note on Sectipes: This genus name was established in error, see Eriophyid Studies B-7, p.18. This name is a synonym of Diptilomiopus Nal. and the type species is properly quoted as Diptilomiopus holmesi (K.)

Symbols on Plates -

AFl - Internal female genitalia
D - Dorsal view of mite
DA - Dorsal view of anterior section
ES - Side skin structures
F - Featherclaw
GFl - Female genitalia and coxae
Ll - Left foreleg
R - Rostrum
S - Side view of mite
SA - Side view of anterior section of mite
V - Ventral view of mite

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