# A NEW GENUS AND TWELVE NEW SPECIES OF MITES FROM MEXICO AND SOUTHEAST UNITED STATES (ACARINA: BLATTISOCIDAE)[1]

DONALD DE LEON
Erwin, Tennessee

Most of the mites described in the following paper were collected from decaying fruit or from under the bark of dead trees; in both habitats they were associated with nematodes, acarids, oribatids, other mesostigmatids, and a variety of insects in various stages of development. A few species were taken from within the coralla of flowers. Although a considerable amount of time was spent observing the mites in an effort to determine their food, feeding was not observed.

In the descriptions all measurements are in microns. The letters ADS and PDS stand for "anterior dorsal shield" and "posterior dorsal shield", respectively as defined by Evans (1958); in the designation of setae the lettering used by Hirschmann (1962) has been followed. Leg measurements are from the base of the coxa to the pretarsal claws; tarsal lengths include the pretarsi and the pretarsi all bear claws and pulvilli. All drawings are of females unless otherwise indicated.

The species listed from Erwin, Tennessee, were collected some 14 miles south of Erwin at an elevation of about 2700 feet; the native woody vegetation is composed chiefly of rhododendron, laurel, and mixed hardwoods with a scattering of hemlock and white pine.

## *Proctolaelaps regalis*, n. sp.

(Figures 1-2)

*Proctolaelaps regalis* belongs to the species group having the rostral seta slender, the fixed digit with a row of closely-set teeth, and the dorsal setae of moderate lengths; it is distinct from other members of this group in not having seta i1, i2, s1. The male is unknown.

FEMALE: Dorsal shield (Figure 1, left) 409 long, 270 wide; ADS with 19 pairs, PDS with 22 pairs of setae; seta r1 14, I1-4 26, Z1-4 29, Z5 51, S1 26, S2 28, S3 24, S4 27, S5 19 long. Tectum not observable. Principal shields of ventral surface (Figure 1, right) with prominent reticulations; anal shield 88 long, 64 wide. Rostrum (Figure 2) with seta C1 26, C2 19, C3 36 long. Chelicerae with fixed digit 32 long and with a row of about 15 small teeth, movable digit poorly oriented, but with at least 2 fairly large teeth. Legs rather stout; leg I 326, II 289, III 284, IV 376 long; tarsus IV 136 long, without macrosetae. Spermatheca not observable.

*Holotype*: Female, Coral Gables, Florida, June 5, 1956 (D. De Leon), from fallen fruit of *Eugenia jambos*.

## *Proctolaelaps neptunis*, n. sp.

(Figures 3-5)

*Proctolaelaps neptunis* belongs to the species group having the anterior

[1] Cost of engraving borne by a grant from the Pinellas Foundation, Inc., St. Petersburg, Florida.

rostral seta coarse and stout; it differs from the one other species in the group, *P. hypudaei* (Oud.), in having the corniculus tridentate, the ADS with 21 pairs of setae, and in other characters.

FEMALE: Dorsal shield (Figure 3, left) moderately sclerotized, reticulate only anterolaterally, 336 long, 220 wide and the ADS with 21 pairs of seta, the PDS with 20 pairs of setae; r1 15, r5 33, i1 23, I1 29, I2 32, I3 34, I4 43, I5 8, Z1 31, Z2 27, Z3 29, Z4 31, Z5 55, S5 26 long. Tectum not observable. Principal shields of ventral surface (Figure 3, right) normal; sternal shield faintly reticulated anteriorly; anal shield 85 long, 74 wide. Rostrum (Figure 3A) with seta C1 25, C2 15, C3 21 long. Chelicerae (Figure 4) with fixed digit 17 long. Legs rather stout; leg I 400, II 285, III 279, IV 431; tarsus IV 162 long, metatarsus with a macroseta 60 long, tarsus proper with a macroseta 86 long.

MALE: Dorsal shield 239-253 long, 178 wide. Ventrianal shield with 5 pairs of preanals. Corniculus somewhat more slender and more strongly curved than female's, the tip bifid in 1 specimen and apparently simple in others, rostral setae resemble female's. Spermatodactyl (Figure 5) 27 long.

*Holotype*: Female, Key Largo, Florida, January 6, 1959 (D. De Leon), from seaweed on shore slightly above average tide level. *Paratypes*: 2 females, 2 males collected with holotype.

### *Proctolaelaps lobatus*, n. sp.
(Figures 6-10)

*Proctolaelaps lobatus* belongs to the species group having the anterior rostral seta slender, the fixed digit with a row of closely-set teeth, and the setae of the dorsal shield short; it differs from all others in this group in having 21 pairs of setae on the ADS and 20 pairs of setae on the PDS.

FEMALE: Body whitish to light brown; dorsal shield (Figure 6, left) 456-529 long, 301 wide; seta i1 20, r1 17, s1 22, I1 15, Z1 16, Z5 38-42, S5 16 long; interscutal scapular seta 26 long. Tectum not observable. Principal shields of ventral surface (Figure 6, right) without reticulations; anal shield 95 long, 90 wide. Rostrum (Figure 7) with seta C1 33, C2 22, and C3 48 long. Chelicerae (Figure 8) with fixed digit 28 long; tip of movable digit closes at a point well short of tip of fixed digit (the point indicated by arrow in drawing). Legs rather slender; leg I 443, II 334, III 361, IV 478 long; tarsus IV 171 long and without macrosetae. Spermatheca and duct (Figure 9) about 150 long.

---

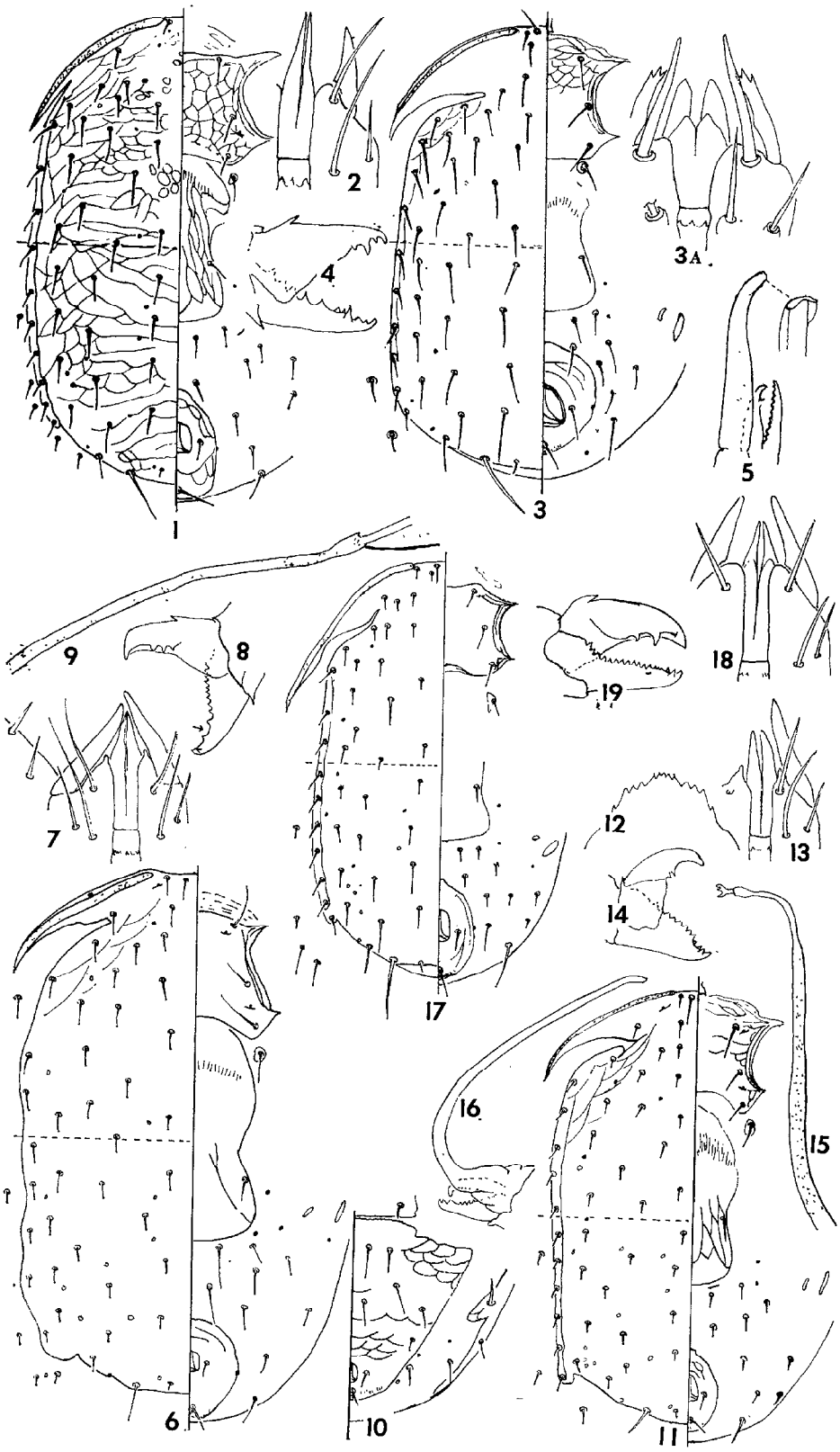
Figures 1-2.—*Proctolaelaps regalis*, n. sp. 1, dorsum (left) and venter (right); 2, rostrum.

Figures 3-5.—*Proctolaelaps neptunis*, n. sp. 3, dorsum (left) and venter (right); 3A, rostrum; 4, chelicerae; 5, spermatodactyl.

Figures 6-10.—*Proctolaelaps lobatus*, n. sp. 6, dorsum (left) and venter (right); 7, rostrum; 8, chelicerae; 9, spermatheca; 10, male ventrianal shield.

Figures 11-16.—*Proctolaelaps micropilis*, n. sp. 11, dorsum (left) and venter (right); 12, tectum; 13, rostrum; 14, chelicerae; 15, spermatheca; 16, spermatodactyl.

Figures 17-19.—*Proctolaelaps brevicomis*, n. sp. 17, dorsum (left) and venter (right); 18, rostrum; 19, chelicerae.


1
2
3
3A
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

MALE: Dorsal shield 399 long, 289 wide with chaetotaxy as for female. Ventrianal shield (Figure 10) 159 long, 253 wide. Spermatodactyl 130 long, similar in shape to that of *P. micropilis*. Legs unarmed.

*Holotype*: Female, Key Largo, Fla., December 8, 1958 (D. De Leon), in flower of *Lantana involucrata*. *Paratypes*: 1 female, collected with holotype; 1 female, 3 males, Coral Gables, Fla., May 25, 1956 in flower tube of *L. camara*.

*Proctolaelaps micropilis*, n. sp.

(Figures 11-16)

*Proctolaelaps micropilis* belongs to the species group having the rostral seta slender, the fixed digit with a row of closely-set teeth, and the ADS and PDS each with 22 pairs of setae. The minute setae of the dorsum distinguish it from other members of this group.

FEMALE: Dorsal shield (Figure 11, left) weakly sclerotized, 473 long, 322 wide; seta i1 25-30, r1 11, I5 10, Z5 30 long, all other setae 12-16 long. Principal shields of ventral surface (Figure 11, right) normal; anal shield 84-94 long, 81 wide. Rostrum (Figure 13) with seta C1 33, C2 22, C3 39 long. Chelicerae (Figure 14) with fixed digit 32 long. Legs rather slender; leg I 399, II 329, III 343, IV 461 long; tarsus IV 163 long and without macrosetae. Spermatheca (Figure 15) with duct 85 long.

MALE: Dorsal shield 417 long, 299 wide with chaetotaxy as for female. Ventrianal shield reticulated, 181 long, 199 wide with 7 pairs of preanal setae. Spermatodactyl (Figure 16) about 145 long.

*Holotype*: Female, Coral Gables, Florida, November 24, 1954 (D. De Leon), from withered flower of *Eriobotrya japonica*. *Paratypes*: 1 female, South Miami, Fla., October 14, 1954; 3 female, 1 male, 2 nymphs collected with holotype. Usually 1 female and 2 to 3 nymphs along with 2 to 3 eggs were present in a single flower.

*Proctolaelaps brevicomis*, n. sp.

(Figures 17-19)

*Proctolaelaps brevicomis* belongs to the species group having the rostral seta slender, the fixed digit with a row of closely-set teeth, and the ADS and PDS each with 22 pairs of setae. It resembles *P. micropilis* in general appearance, but differs most noticeably from that species in having some setae of the dorsal shield much longer than others and seta z2 larger and coarser than the other setae on the ADS. The male and immature stages are unknown.

FEMALE: Dorsal shield (Figure 17, left) lightly sclerotized and without reticulations, 393 long 210 wide; r1 14, s1 8, i1 19, z2 23, I1 19, I2 17, I3 28, I4 24, I5 13, Z1 17, Z2 19, Z3 24, Z4 33, Z5 58, S5 28 long. Tectum not observable. Principal shields of ventral surface (Figure 17, right) normal; anal shield 89 long, 69 wide. Rostrum (Figure 18) with seta C1 22, C2 17, C3 22 long. Chelicerae (Figure 19) with fixed digit 21 long. Legs rather short and stubby; leg I 326, II 237, III 252, IV 339 long; tarsus IV 99 long, without macrosetae. Spermatheca not observable.

*Holotype*: Female, Florida City, Fla., March 7, 1959 (D. De Leon), from leaf of *Sabal palmetto*.

*Neojordensia tennesseensis*, n. sp.

(Figures 20-23)

*Neojordensia tennesseensis* appears to be closely related to *N. lawrencei* Evans; it differs most noticeably from that species in having proportionally shorter setae on the dorsal shield, the ventrianal shield longer than wide, and five pairs of interscutal setae. Hirschmann (1962) suppresses *Neojordensia* Evans placing it under *Iphidozercon* Berlese, but *Neojordensia* seems to me to warrant its having generic status.

FEMALE: Body dark brown, dorsal shield (Figure 20, left) smooth and shining with only the anterior and posterior ends reticulated, the ADS with 23, the PDS with 20 pairs of setae; seta i1 19, I1 11, I2 11, I3 11, I4 15, Z1 14, Z2 14, Z3 15, Z4 25, Z5 40 long. The tectum is shown in Figure 21. Principal shields of ventral surface (Figure 20, right) with sternal shield prominently reticulated; peritrematal shield fused with exopodal shield in region of coxa IV. Rostrum (Figure 22) with seta C1 22, C2 14, C3 23 long. Chelicerae (Figure 23) with fixed digit 30 long. Legs rather slender and short; leg I 324, II 232, III 235, IV 325 long; tarsus IV 109 long, without macrosetae. Spermatheca not observable.

*Holotype*: Female, Erwin, Tennessee, October 10, 1961 (D. De Leon), from punky hardwood log.

*Orolaelaps*, n. gen.

Melicharine mites resembling *Lasioseius* in chaetotaxy of dorsal shield, but chelicerae resembling those of *Proctolaelaps*. Seta I1, 3, and 4 and S5 missing from PDS. Dorsal shield entire. Sternal shield with v1 very coarse and spine-like, v2 very coarse with distal end obliquely faced, v3 slender; a yoke-shaped thickening (indicated by dotted lines in Figure 24) extends internally across shield between v1 and v2. All legs with pulvilli and claws. The male and immature stages are not known.

Type species: *Orolaelaps quisqualis*, n. sp.

*Orolaelaps quisqualis*, n. sp.

(Figures 24-27)

FEMALE: Dorsal shield (Figure 24, left) light brown, moderately sclerotized with entire surface reticulated, 316 long, 191 wide; ADS with 20, PDS with 11 pairs of setae; seta i1 10, r1 26, I2 36, I5 4, Z1 32, Z2 28, Z3 36, Z4 41, Z5 44, S1 35, S2 36-47, S3 37, S4 42 long. Tectum with anterior margin somewhat variable as shown in Figure 25. Principal ventral shields (Figure 24, right) with prominent reticulations; sternal shield with v1 24 long, 4 wide, v2 17 long, 5 wide, posterior medial part of shield without reticulations; anal shield 60 long, 49 wide. Rostrum (Figure 26) with seta C1 8, C2 6, C3 15 long. Chelicerae (Figure 27) with fixed digit 16 long, apparently without *pilus dentilis*. Legs short and stout; leg I 282, II 228, III 223, IV 292 long; tarsus IV 104 long, without macrosetae; setae of legs rather long and slender. Spermatheca not observable.

*Holotype*: Female, Erwin, Tennessee, October 2, 1960 (D. De Leon), from apple decaying on ground. *Paratypes*: 5 females, Erwin, Tenn., August 27-September 12, 1962, from apples decaying on ground.

*Lasioseius spectabilis*, n. sp.
(Figures 28-32)

The female of *Lasioseius spectabilis* closely resembles *L. muricatus* (C. L. Koch) especially in having juglaria, but it clearly differs from that species in being much smaller, in having the dorsal shield setae flanged and the metapodalia fused with each other; the male differs most noticeably in being more heavily armed and in lacking the bifid elevation on the ventrianal shield; the larva also differs from the illustration given for *muricatus* by Hirschmann (1962).

FEMALE: Dorsal shield (Figure 28, left) 434-470 long, 266-302 wide, the ADS with 23, the PDS with 15 pairs of setae; i1 24, r1 12, I1 32, I4 42, Z1 31-37, Z4 56, Z5 60, S1 31-42, S5 53 long. Tectum not observable. Principal shields of ventral surface are shown in Figure 28, right; ventrianal shield 182-200 long, 237-276 wide with 6 pairs of preanal setae. Rostrum (Figure 29) with seta C1 30, C2 17, C3 33 long. Peritrematal shield not fused with exopodal in region of coxa IV. Chelicerae (Figure 30) with fixed digit 26 long and with 5 to 6 large teeth proximally. Leg I slender, 363-398 long; tarsus I 118 long; legs II-IV stout; leg II 281-320, III 281-320, IV 440 long; tarsus IV 156 long; metatarsus with a macroseta 45 long, tarsus proper with a macroseta 42 long, both setae tapering to a rather coarse point. Spermatheca (Figure 31) with cervix 11 long, situated between coxae III and IV.

MALE: Dorsal shield 395 long, 256 wide; chaetotaxy as for female; a lobe present anterior of r2 with its inner edge bearing a narrow, sclerotized, crescent-shaped body about 27 across. Leg I slender; femur I with a conical basal spur 18 long on posterior margin, a short, simple seta projects from the spur at about mid-length; leg II stout, femur II with a posterodistal knob from which a coarse seta projects, both together about 30 long; leg III stout, femur III with a spur about 18 long situated at about mid-length on anterior margin; leg IV greatly enlarged, femur IV 100 long, 81 wide; genu IV 88 long, 72 wide; coxa IV with a very large, conical spur about 110 long with a nearly right-angle bend about 35 from tip (in one specimen this spur is shorter and lacks bend); femur IV with a spur about 35 long on posterior margin; tarsus IV with 2 small rounded knobs at about mid-length, the proximal knob the smaller; a coarse macroseta 56 long set on a short tubercle is situated dorsal of larger knob; macroseta of metatarsus 63 long and tapering to a slender point. Spermatodactyl (Figure 32) 23 long.

---

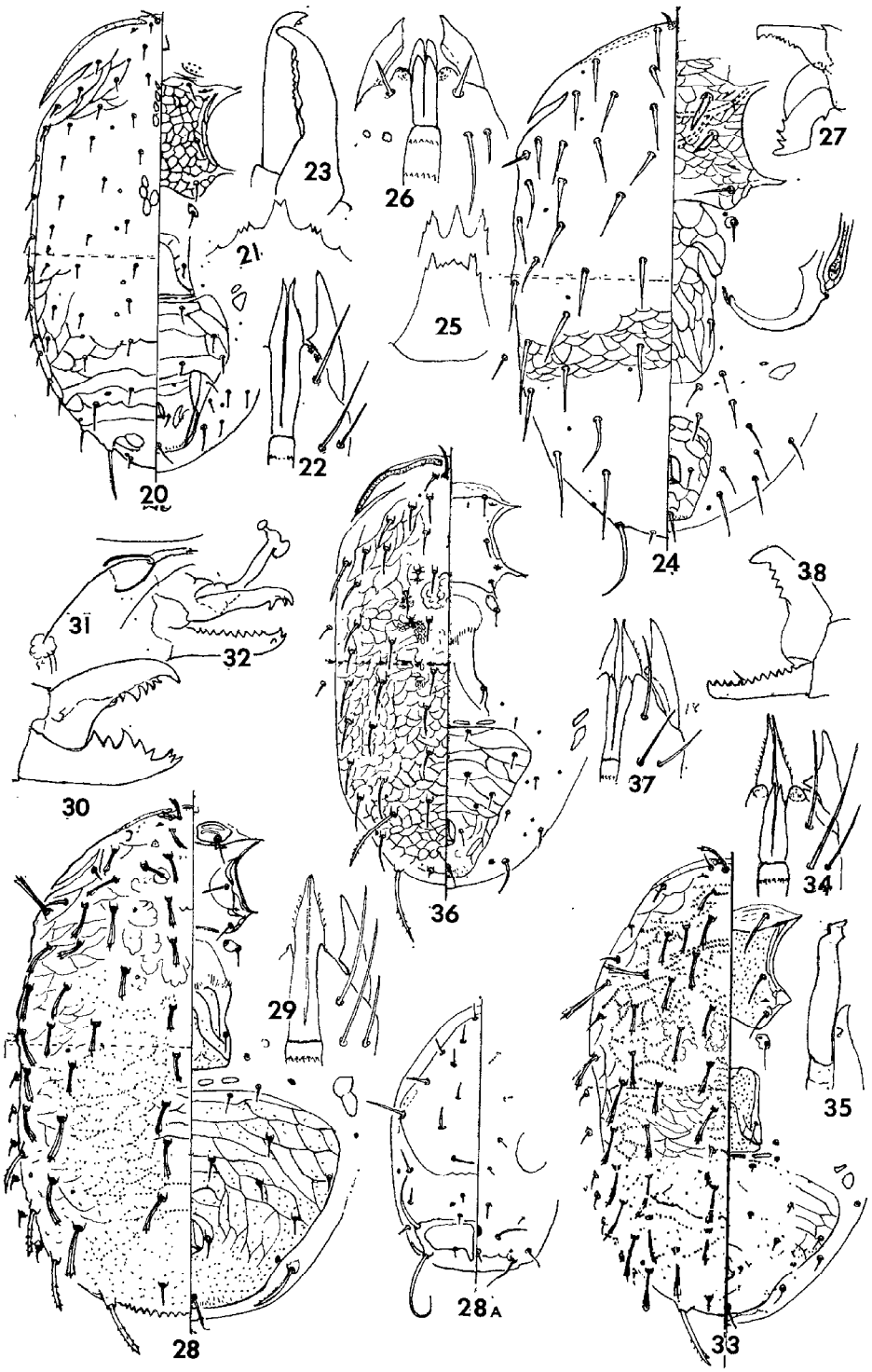
Figures 20-23.—*Neojordensia tennesseensis*, n. sp. 20, dorsum (left) and venter (right); 21, tectum; 22, rostrum; 23, chelicerae.

Figures 24-27.—*Orolaelaps quisqualis*, n. gen., n. sp. 24, dorsum (right) and venter (left); 25, tectum showing variation; 26, rostrum; 27, chelicerae.

Figures 28-32.—*Lasioseius spectabilis*, n. sp. 28, dorsum (left) and venter (right); 28A, dorsum (left) and venter (right) of larva; 29, rostrum; 30, chelicerae; 31, spermatheca; 32, spermatodactyl.

Figures 33-35.—*Lasioseius epicriodopsis*, n. sp. 33, dorsum (left) and venter (right); 34, rostrum; 35, spermatodactyl.

Figures 36-38.—*Lasioseius porulosus*, n. sp. 36, dorsum (left) and venter (right); 37, rostrum; 38, chelicerae.


20
21
22
23
24
25
26
27
28
28A
29
30
31
32
33
34
35
36
37
38

LARVA: The chaetotaxy of the dorsum of the body and the posterior ventral part is shown in Figure 28A.

*Holotype*: Female, Erwin, Tenn., September 19, 1962 (D. De Leon), in association with fruiting body of fungus, *Peniphora gigantea*, on log of *Pinus strobus*. *Paratypes*: 2 females, 2 males, 2 nymphs, 1 larva, collected with holotype; 1 male, 1 nymph from under bark of dead *Liriodendron tulipifera*, October 2, 1962.

### *Lasioseius epicriodopsis*, n. sp.

(Figures 33-35)

*Lasioseius epicriodopsis* is distinct from all other members of this genus in having the ADS with rows of small tubercles and macrosetae on genu, tibia, and tarsus of leg IV.

FEMALE: Dorsal shield (Figure 33, left) 500 long, 316 wide, the ADS with 22, the PDS with 15 pairs of setae; i1 37, r1 18, r5 60, I1 37, Z1 36, Z4 49, Z5 60, S1 36, S5 38 long. Tectum trilobed. The principal shields of the ventral surface are shown in Figure 33, right; ventrianal shield 166 long, 235-261 wide; sternal, genital, and ventrianal shields covered with what appear to be small pits. Rostrum (Figure 34) with seta C1 32, C2 22, C3 43 long. Chelicerae with fixed digit 40 long, with a row of 16 small, rounded teeth, movable digit with a row of 8 rounded knobs. Leg I slender, 525, II 407, III 382, IV 656 long; tarsus IV 224-247 long; genu IV with 2 macrosetae, the proximal 46, the distal 38 long, the tips blunt; tibia IV with a blunt-tipped macroseta 43 long; metatarsus IV with a blunt-tipped macroseta 49 long and a bulbous-tipped macroseta 96 long, tarsus proper with a bulbous-tipped macroseta 91 long, situated at about mid-length. Spermatheca not observable.

MALE: Dorsal shield 383 long, 230 wide, rather abruptly narrowed beginning at a point about on level with posterior margins of coxae IV; chaetotaxy resembling that of female, but most setae simple. Legs unarmed except for a spine, 8 long, on a small tubercle on rear margin of femur II. Spermatodactyl (Figure 35) 28 long.

*Holotype*: Female, Erwin, Tenn., September 11, 1962 (D. De Leon), from under the bark of a *Liriodendron tulipifera* log. *Paratypes*: 4 females, 1 male, collected with holotype.

### *Lasioseius porulosus*, n. sp.

(Figures 36-38)

*Lasioseius porulosus* resembles *L. quadrisetosus* Chant; it differs most noticeably from that species in having most of the setae of the dorsal shield simple, the sternal shield about as wide as long, the ventrianal shield much longer than wide, and in the position of the pores of that shield.

FEMALE: Dorsal shield (Figure 36, left) 405 long, 220 wide, lightly sclerotized with reticulations rather faint; ADS with 16, PDS with 15 pairs of setae; i1 26, r1 17, r5 37 (r2-4 not present), I1 23, Z1 27, Z4 63, Z5 69, S5 32 long. Tectum not observable. The principal shields of the ventral surface are shown in Figure 36, right; ventrianal shield 155 long, 141 wide; peritrematal shield fused with exopodal in region of coxa IV, the exopodal shield forming a short, rather wide, bluntly pointed hook behind coxa IV.

Rostrum (Figure 37) with seta C1 23, C2 14, C3 18 long. Chelicerae (Figure 38) with fixed digit 28 long. Legs slender; leg I 398, II 337, III 308, IV 460 long; tarsus IV 163 long, macroseta of metatarsus 43, of tarsus proper 49 long. Spermatheca not observable.

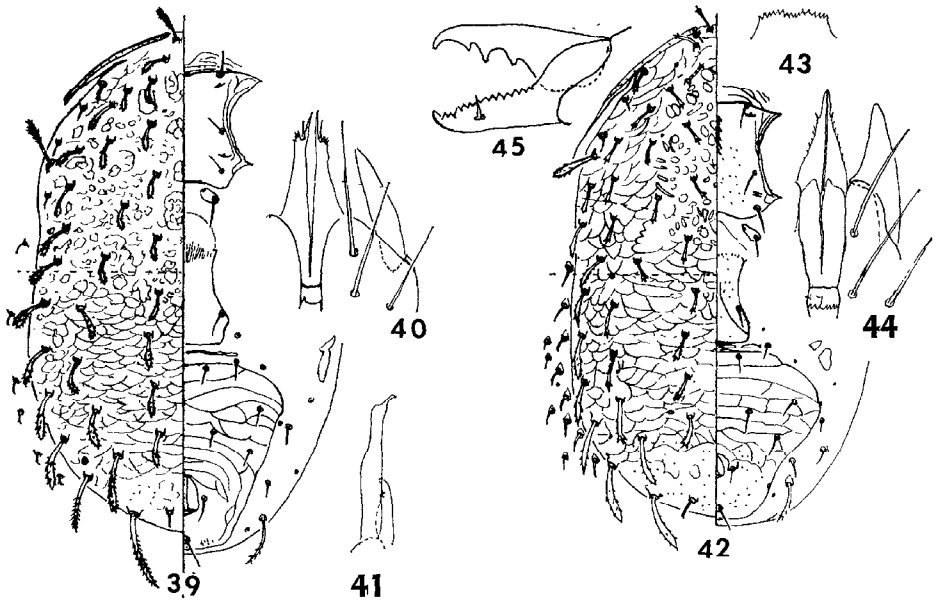
*Holotype*: Female, Erwin, Tenn., June 11, 1960 (D. De Leon), on *Leucothoë Catesbaei*. *Paratype*: 1 female, Erwin, Tenn., August 3, 1960, on nettle.

*Lasioseius athiashenriotae*, n. sp.

(Figures 39-41)

*Lasioseius athiashenriotae* appears to be allied to *L. humberti* A.-H.; it differs most noticeably from that species in having most of the setae of the dorsal shield strongly pectinate, r1 missing, fewer interscutal setae lateral of the dorsal shield, and the metapodalia fused.

FEMALE: Dorsal shield (Figure 39, left) 443 long, 260 wide; ADS with 19-21 pairs of setae (r6 is on the shield in some specimens and off the shield in others on one or both sides; the same applies to r7 which is shown off the shield in the drawing), s1 in some specimens is almost in the position where r1 would be if present; PDS with 15 pairs of setae; i1 24, r5 43, I1 26, Z1 29, Z4 48-58, Z5 65-74, S1 35, S5 52 long; 5-7 interscutal setae lateral of dorsal shield. Tectum not observable. The principal shields of the ventral surface are shown in Figure 39, right; ventrianal shield 159 long, 163 wide; accessory metapodal fused to primary, together 27-38 long; peritrematal shield fused with exopodal in region of coxa IV. Rostrum (Figure 40) with seta C1 26, C2 17, C3 23 long. Fixed digit 24 long with a row of about 12 small teeth, *pilus dentilis* very small. Legs slender; leg I 346, II 301, III 289, IV 391 long; tarsus IV 150 long, macroseta of




Figures 39-41.—*Lasioseius athiashenriotae*, n. sp. 39, dorsum (left) and venter (right); 40, rostrum; 41, spermatodactyl.

Figures 42-45.—*Lasioseius mumai*, n. sp. 42, dorsum (left) and venter (right); 43, tectum; 44, rostrum; 45, chelicerae.

metatarsus 32-42 long, serrate, macroseta of tarsus proper 33-36 long, weakly serrate. Spermatheca not observable.

MALE: Dorsal shield 335 long, 195 wide with chaetotaxy as for female; ventrianal shield 126 long, 179 wide with 5 pairs of preanal setae. Spermatodactyl (Figure 41) 27 long.

*Holotype*: Female, Boutte, Louisiana, December 15, 1956 (D. De Leon), on *Lonicera* sp. *Paratypes*: 2 females, Cordoba, Vera., Feb. 4 and 5, 1957, on *Erythrina* sp. and *Xanthoxylon* sp.; 1 male, 1 female Florida City, Fla., Mar. 7, 1959, on herbaceous plant. Additional specimens were collected on *Pithecollobium* near Veracruz, Vera; specimens are also at hand from Winter Park, Fla., collected by M. H. Muma and recorded as feeding on white fly fungus on orange plant. The mite is named in honor of Mme. C. Athias-Henriot, Acarologist, Ecole Nationale d'Agriculture d'Alger.

*Lasioseius mumai*, n. sp.
(Figures 42-45)

*Lasioseius mumai* appears to be allied to *L. athiashenriotae*, but differs most noticeably from that species in having 22 pairs of setae on the ADS, 12 pairs of setae lateral of the dorsal shield, and two pairs of metapodal shields.

FEMALE: Dorsal shield (Figure 42, left) brown, 534 long, 300 wide with 37 pairs of setae; reticulation prominent; posterior of Z4 shield punctate; i1 28, r1 13, r5 54, I1 29, Z1 34, Z4 56, Z5 59, S1 40, S4 57, S5 60 long. Tectum (Figure 43) without lobes. The principal shields of the ventral surface are shown in Figure 42, right and are punctate as indicated; ventrianal shield 190 long, 233 wide; peritrematal shield fused with exopodal in region of coxa IV. Rostrum (Figure 44) with seta C1 35, C2 20, C3 38 long. Chelicerae (Figure 45) with fixed digit 34 long. Legs rather stout; leg I 470, II 389, III 385, IV 548 long; tarsus IV 184 long, macroseta of metatarsus 47 long, of tarsus proper 43 long. Setae of legs and dorsal shield set on small tubercles. Spermatheca not observable.

*Holotype*: Female, Erwin, Tennessee, September 21, 1962 (D. De Leon), from fungus on *Magnolia* log. The species is named in honor of Dr. Martin H. Muma, Entomologist, Citrus Experiment Station, Lake Alfred, Florida.

Types and paratypes of the above-named species are in the author's collection. The Canadian National Museum, however, has received specimens of *Orolaelaps quisqualis, Lasioseius athiashenriotae, L. spectabilis,* and *L. epicriodopsis.*

NEW LOCALITY RECORDS FOR SOME DESCRIBED SPECIES:

*Proctolaelaps*

*curtipilis* (Chant).—East of Perrine, Florida, female and nymphs from Kafir corn, Sept., 1956.

*hypudaei* (Oud.).—South Miami, Fla., female from *Aeschynanthus Lobbians*, May, 1955; Erwin, Tenn., female from *Kalmia latifolia*. Aug., 1960.

*utahensis* (Chant).—Erwin, Tenn., males, females, and nymphs from decaying apples and from under the bark of log of *Liriodendron tulipifera*.

*Melichares*

*dentriticus* (Berl.).—South Miami, Fla., female from grapefruit twig, Oct., 1954; Erwin, Tenn., females from *Rhododendron* sp. and *Blephia ciliata,* Aug., 1960 and from decaying apples, Nov., 1962.

*Neojordensia*

*orientalis* Chant.—South Miami, Fla., female from *Sanpaulia* sp., Sept., 1954.

*Lasioseius*

*arboreus* Chant.—Erwin, Tenn., males, females, and immature stages from strawberry plants, haypile, decaying apples, and from under dead bark of oak, birch, and willow, Sept., Oct., 1961, 1962.

*confusus* Evans.—Erwin, Tenn., female from decaying apple, Aug., 1962.

*ometes* (Oud.).—Erwin, Tenn., males and females from under bark of logs of *Quercus* sp., *Liriodendron tulipifera* and *Pinus strobus,* Sept., 1962.

*phytoseioides* Chant.—Coral Gables, Fla., from floor sweepings of old house, July, 1955.

*scapulatus* Kennett.—Veracruz, Vera., female from *Sida acuta,* Dec., 1956.

ACKNOWLEDGMENTS

Dr. Evert E. Lindquist, Entomologist, Research Branch, Canada Department of Agriculture, who is preparing a paper on this family, obligingly went over the species described here; his work prevented duplication in several instances. Mr. G. Owen Evans of the British Museum (Natural History) kindly verified the identification of *L. ometes.*

LITERATURE CITED

*Athias-Henriot, C.* 1959. Phytoseiidae et Aceosejidae d'Algérie. III. Contribution aux Aceosejidae. Bull. Soc. d'Hist. Nat. d'Afr. du Nord. 50 (Mai/Juin): 158-195.

*Chant, D. A.* 1960. Descriptions of five new species of mites from India (Acarina: Phytoseiidae, Aceosejidae). Canad. Ent. 92: 58-65.

*Evans, G. O.* 1958. A revision of the British Aceosejinae (Acarina: Mesostigmata). Zool. Soc. London., Proc. 131 (Part 2): 177-229.

*Hirschmann, W.* 1962. Acarologie—Gangsystematik der Parasitenformes. Gamasiden. Folge 5, Teil 5: 1-56, pls. 1-21, 31, 32. Hirschmann-Verlag., Fürth/Bay.