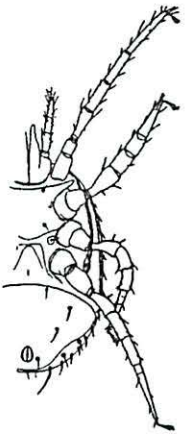

Fig. 3.8. **Female:** a ventral (a BANKS 1914)

Subgenus *Borinquolaelaps* Fox, 1946 n. comb.

Type species: *Borinquolaelaps dentatus* Fox, 1946

According to the type species, the subgenus *Borinquolaelaps* n. comb. includes species having a remarkably large anus and a number of tricarinate setae on the dorsum.

Key 4: The known species of the subgenus *Borinquolaelaps* Fox, 1946 n. comb.

1(4) The two metapodal shields fused, but the two plates still recognisable; most ds pectinate.

2(3) Leg IV (= 480) distinctly longer than the ids, ds Z5 = 45, ids = 370 (Fig. 4.1.):
L. pellitus Karg, 1994
– Galapagos.

3(2) Leg IV (= 391) distinctly shorter than the ids, ds Z5 = 65 – 74, ids = 443 (Figs 4.2.1. – 4.2.2.):
L. athiashenriotae De Leon, 1963
– North America, Louisiana.

4(1) The two metapodal shields clearly separated; most ds simple or tricarinate.

5(14) Margin of te polydont.

6(9) Ventra remarkably broad, length : width = about 4 : 5.

7(8) Most ds tricarinate, sternal shield with an oval-shaped structure, ids = 450 – 470 (Fig. 4.3.):
L. multidentatus Karg, 1994
– Galapagos.

8(7) Most ds simple, sternal shield smooth, ids = 358 (Fig. 4.4.):
L. nomus Athias-Henriot, 1959
– North Africa.

9(6) Ventra about as long as wide.

10(11) Sternal shield with a large oval-shaped structure, most ds tricarinate, ventra = 150 long and 150 broad, macrochaetae on leg IV = 70 – 80, ids = 440 (Fig. 4.5.):

L. leptoscuti Karg, 1994

– Galapagos.

11(10) Sternal shield without oval-shaped structure.

12(13) Most ds relatively short, i4 = ½ – ⅓ the distance of i4 – i5; I1, I2, I3 and I4 shorter than the distances between them, sternal shield smooth, length of ventra = 120 – 130, macrochaetae on leg IV = 60 – 65, ids = 370 – 390 (Figs 4.6.1. – 4.6.2.):

L. trigonus Karg, 1994

– Galapagos.

13(12) Most ds long, i4 = longer than ½ the distance between i4 – i5, ds I1 reaches I2, I2 reaches I3, I3 reaches I4, sternal shield with a longitudinally directed structure, length of ventra = 150, macrochaetae on leg IV = 90 – 100, ids = 407 (Figs 4.7.1. – 4.7.2.):

L. analis Evans, 1958

– Africa.

14(5) Margin of te trispinate or with lateral groups of little points.

15(16) Margin of te trispinate, sternal shield without a circular structure, ds relatively short and robust, scimitar-like, i4 = ½ the distance between i4 – i5; ds I1, I2, I3 and I4 shorter than their distances, ids = 500 (Fig. 4.8.):

L. dentatus (Fox, 1946)

syn.: *Borinquolaelaps dentatus* Fox, 1946

– Puerto Rico.

16(15) Margin of te with lateral points, sternal shield with a circular structure.

17(18) Ventra as long as wide, ds I2 = ½ the distance between I2 – I4, I3 = I3 – I4, leg I shorter than the ids, leg IV with macrochaetae = 70 – 90, ids = 400 – 470 (Fig. 4.9.):

L. operculi Karg, 1980

– Venezuela.

18(17) Ventra broader than long, ds relatively long, I2 = the distance between I2 – I4, Z4 = the distance between Z4 – Z5, ds I3 is lost, leg I longer than the ids, ids = 490 (Fig. 4.10.):

L. dupliramus Karg, 1994

– Galapagos.

Subgenus *Borinquolaelaps* Fox, 1946 n. comb.

Lasioseius pellitus Karg, 1994

(Fig. 4.1.)

Karg, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216

Types: Museum für Naturkunde Berlin (Germany)

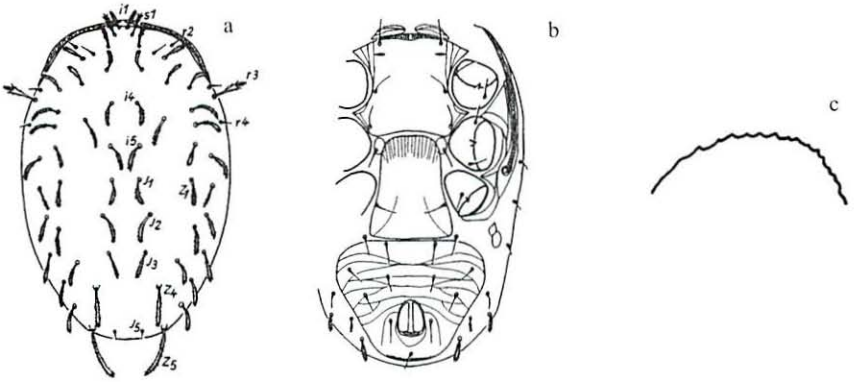

Fig. 4.1. **Female:** a dorsal, b ventral, c tectum (a – c Karg 1994)

Lasioseius athiashenriotae De Leon, 1963

(Figs 4.2.1. – 4.2.2.)

De Leon, W. (1963): A new genus and twelve new species of mites from Mexico and southeast United States (Acarina, Blattisocidae). – Fla. Entomol. **46** (2): 197 – 207

Types: deposition unknown to the authors

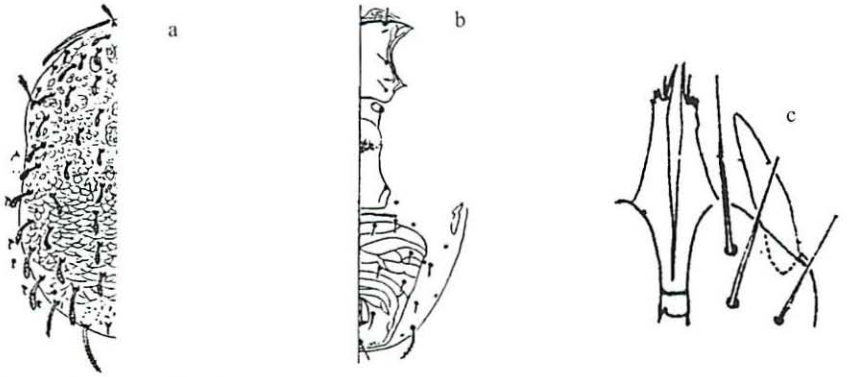

Fig. 4.2.1. **Female:** a dorsal, b ventral, c hypostome (a – c De Leon 1963)

Fig. 4.2.2. **Male:** a spermatodactyl (a De Leon 1963)

Lasioseius multidentatus Karg, 1994

(Fig. 4.3.)

KARG, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216

Types: Museum für Naturkunde Berlin (Germany)

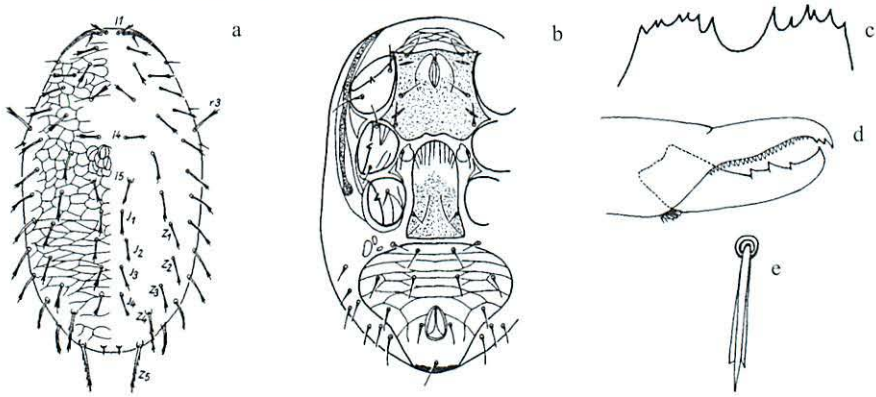

Fig. 4.3. **Female:** a dorsal, b ventral, c tectum, d chelicera, e dorsal seta I4 (a – e KARG 1994)

Lasioseius nomus Athias-Henriot, 1959

(Fig. 4.4.)

ATHIAS-HENRIOT, C. (1959): Phytoseiidae et Aceosejidae (Acarina, Gamasina) d' Algérie. III. Contribution au Aceosejinae. – Bull. Soc. Hist. Nat. Afr. N. **50**: 158 – 195

Holotype: deposition unknown to the authors

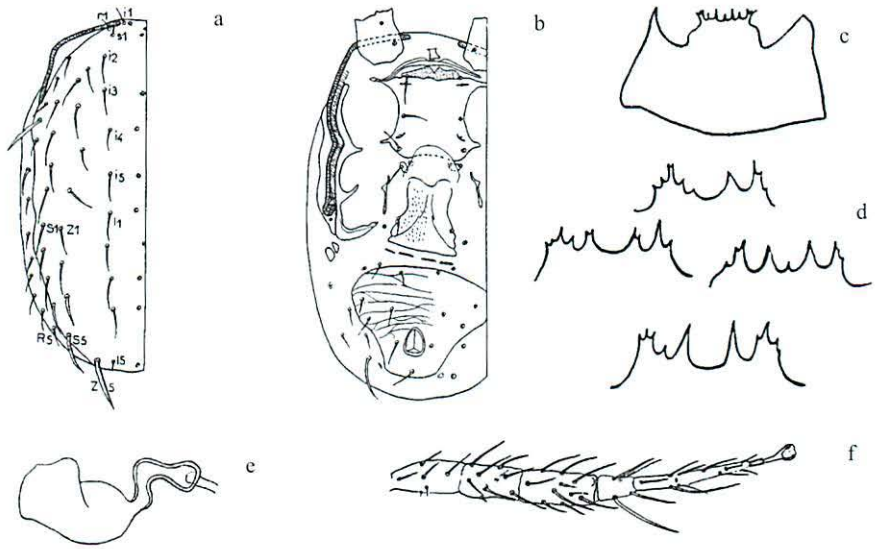

Fig. 4.4. **Female:** a dorsal, b ventral, c tectum, d variations of the tectum, e spermatheca, f leg IV (a – c, e ATHIAS-HENRIOT 1959; d, f HURLBUTT 1971)

Lasioseius leptoscuti Karg, 1994

(Fig. 4.5.)

KARG, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216
Types: Museum für Naturkunde Berlin (Germany)

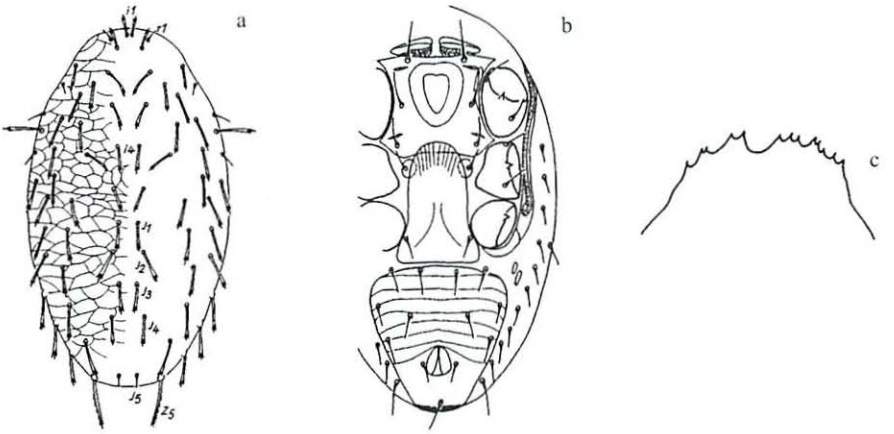

Fig. 4.5. **Female:** a dorsal, b ventral, c tectum (a – c KARG 1994)

Lasioseius trigonus Karg, 1994

(Figs 4.6.1. – 4.6.2.)

KARG, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216
Types: Museum für Naturkunde Berlin (Germany)

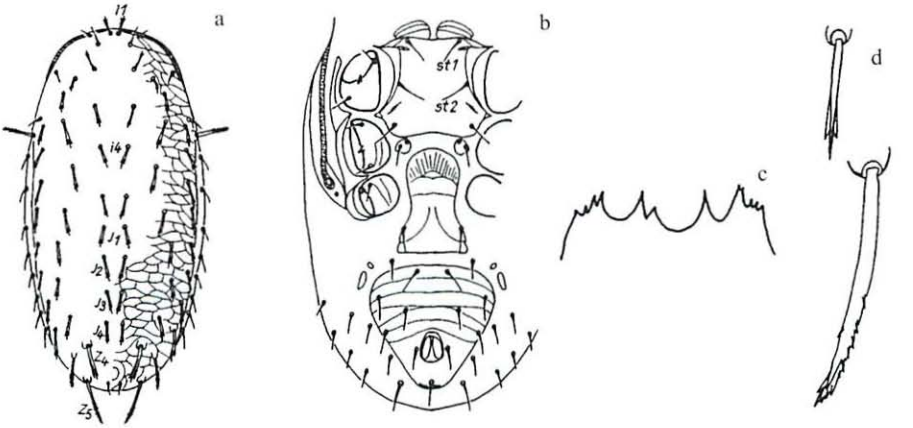

Fig. 4.6.1. **Female:** a dorsal, b ventral, c tectum, d dorsal setae I3, Z5 (a – d KARG 1994)

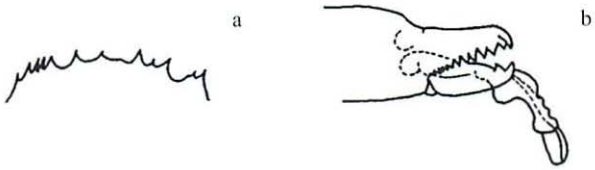

Fig. 4.6.2. **Male:** a tectum, b chelicera (a, b KARG 1994)

Lasioseius analis Evans, 1958

(Figs 4.7.1. – 4.7.2.)

EVANS, G. O. (1958): Some mesostigmatic mites from a nest of social spiders in Uganda. – Ann. Mag. Nat. Hist. **1**: 580 – 590

Holotype: British Museum (Natural History), London (United Kingdom)

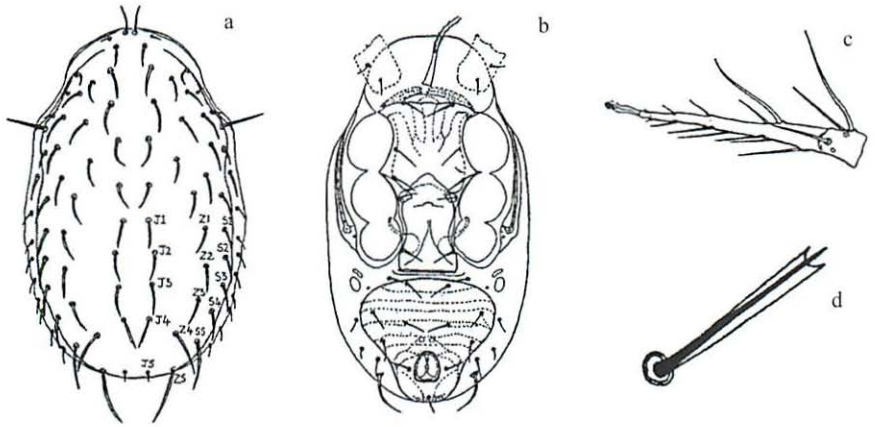

Fig. 4.7.1. **Female:** a dorsal, b ventral, c tarsus IV, d dorsal seta (a – d EVANS 1958)

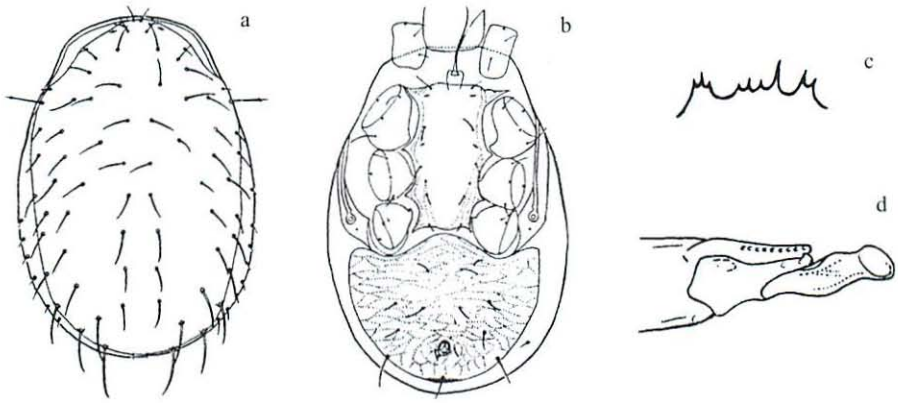

Fig. 4.7.2. **Male:** a dorsal, b ventral, c tectum, d chelicera (a – d GU & GUO 1996)

Lasioseius dentatus (Fox, 1946)

(Fig. 4.8.)

Fox, I. (1946): A new genus, *Borinquolaelaps*, and new species of mites from rats in Puerto Rico. – J. Parasitol. **32** (5): 445 – 452

Types: Department of Medical Zoology, School of Tropical Medicine, San Juan (Puerto Rico)

Synonym: *Borinquolaelaps dentatus* Fox, 1946

A new genus, *Borinquolaelaps*, and new species of mites from rats in Puerto Rico. – J. Parasitol. **32** (5): 445 – 452

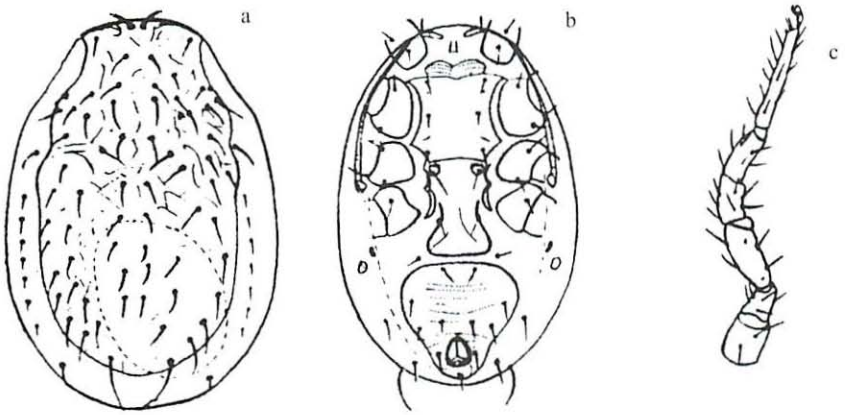

Fig. 4.8. **Female:** a dorsal, b ventral, c leg I (a – c Fox 1946)

Lasioseius operculi Karg, 1980

(Fig. 4.9.)

Karg, W. (1980): Die Raubmilbengattung *Lasioseius* Berlese, 1916. – Zool. Jb. Syst. **107**: 344 – 367

Types: Museum für Naturkunde Berlin (Germany)

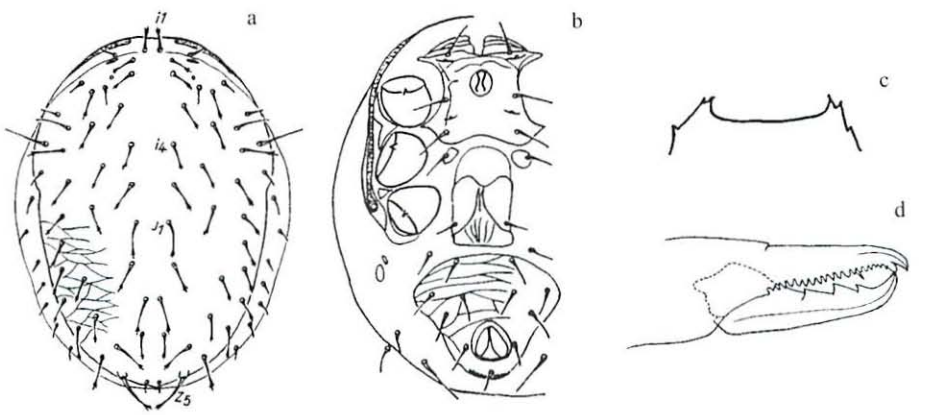

Fig. 4.9. **Female:** a dorsal, b ventral, c tectum, d chelicera (a – d Karg 1980)

Lasioseius dupliramus Karg, 1994

(Fig. 4.10.)

KARG, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216

Types: Museum für Naturkunde Berlin (Germany)

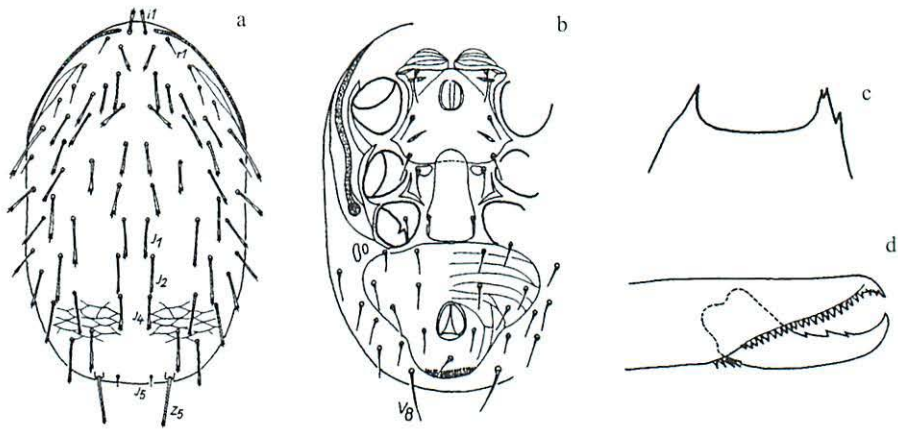

Fig. 4.10. **Female:** a dorsal, b ventral, c tectum, d chelicera (a – d KARG 1994)

Subgenus *Crinidens* Karg, 1980 n. comb.

Type species: *Lasioseius corticeus* Lindquist, 1971

The subgenus includes species having tricarinate setae on the dorsum, a ventra bearing 5 – 7 pairs of setae and without a remarkably large anus.

The subgenus is grouped into three species complexes with the following distinguishing features:

Ventra with 6 – 7 pairs of setae:

Lasioseius-ometisimilis-complex: **Key 5**

Ventra with 5 pairs of setae and leg I shorter than the idiosoma:

Lasioseius-ometes-complex: **Key 6**

Ventra with 5 pairs of setae and leg I longer than the idiosoma, tarsus IV mostly with macrochaetae:

Lasioseius-glomerulus-complex: **Key 7**

Key 5: The known species of the *Lasioseius-ometisimilis*-complex (including 7 new species from Ecuador)

1(4) Number of ds reduced.

2(3) Posterior region without I2 and I4, ids = 253 – 271 (Fig. 5.1.):

L. sagittarius Ishikawa, 1976

– Malaysia.

3(2) Posterior region of I-setae series without I2 and I3, ds I1 and I4 = the length of i5, Z5 = 65, leg I = 383, leg IV = 418, ids = 360 – 395 (Fig. 5.2.):
L. peritremus Nasr & Abou-Awad, 1987
– Egypt.

4(1) Number of ds not reduced.

5(8) The two metapodal plates fused, but the platelets still visible.

6(7) Most of ds smooth and acicular, but i1, r3, I3 and I4 tricarinate, I5, Z4, Z5 and S5 pectinate, leg I = 370, ids = 400 – 420 (Figs 5.3.1. –5.3.2.):
L. breviacutus n. sp.
– Ecuador.

7(6) Most of ds tricarinate, leg I = 363 – 398, ids = 434 – 470 (Figs 5.4.1. – 5.4.3.):
L. spectabilis De Leon, 1963
– North America.

8(5) The two metapodal plates clearly separate.

9(28) Margin of te with three well developed branches.

10(23) Nearly all ds tricarinate.

11(14) The first pair of sternal setae localised anteriorly to the shield.

12(13) Dorsally, many small tubercles form a network structure, the whole sternal shield dotted, length of I4 = ½ the distance between I4 – I5, ids = 500 (Figs 5.5.1. – 5.5.2.):
L. epicriodopsis De Leon, 1963
– North America.

13(12) Dorsally, lines form a net-like structure, sternal shield only posteriorly dotted, length of I4 = the distance between I4 – I5, leg I = 350, leg II = 312, leg III = 307, leg IV = 475, ids = 390 – 448 (Fig. 5.6.):
L. tomokoae Ishikawa, 1969.

14(11) The first pair of sternal setae on the shield.

15(16) The middle branch of te twice as long as the lateral branches, dorsum strongly reticulate, ids = 635 (Fig. 5.7.):
L. lacunosus Westerboer, 1963
– Europe.

16(15) The middle branch of te about as long as the lateral branches, dorsum weakly reticulate.

17(18) Ventra remarkably wide, width : length = 4 : 3, tricarinate form of ds clearly visible, sternal shield with two oval structures next to one another, middle branch of te three-pronged, leg I = 450, ids = 470 – 510 (Figs 5.8.1. – 5.8.2.):
L. cochlearis n. sp.
– Ecuador.

18(17) Ventra only slightly wider than long, ds weakly tricarinate and short, no seta reaching the next seta of the series, middle branch of te cuspidate.

19(20) Ventra with a remarkably long postanal seta (= 46), lateral processes of te furcate, leg I = 500, ids = 540 – 570 (Fig. 5.9.):

L. postanalis n. sp.
– Ecuador.

20(19) Postanal seta not prolonged: 25 – 33, lateral processes of te terminally three-pronged or serrate.

21(22) Lateral processes of te serrate, middle point shorter than the lateral processes, leg I = 450, most ds tricarinate, however Z4 and Z5 pectinate, ids = 460 – 500 (Fig. 5.10.):

L. laciniatus n. sp.
– Ecuador.

22(21) Lateral processes of the te three-pronged, middle point a little longer than the lateral branches, caudal ds I4, Z4, Z5, S4 and S5 pectinate, ids = 450, (Fig. 5.11.):

L. tricuspidis n. sp.
– Ecuador.

23(10) Only ds i1, r3 and 3 – 6 pairs of setae of the posterior region of dorsum tricarinate.

24(25) Sternal shield and genital shield with fine comma-like structures, middle branch of te three-pronged, distally broadened, ids = 410 – 430 (Figs 5.12.1. – 5.12.2.):

L. fissurae Karg, 1980
– Venezuela.

25(24) Sternal shield and genital shield smooth, middle process of te distally cuspidate.

26(27) Middle process of te longer than the lateral processes, ventra 225 wide, 140 long, ids = 420 – 450 (Fig. 5.13.):

L. patellae n. sp.
– Ecuador.

27(26) Middle process of te very short: = 1/3 the length of the lateral processes, ventra 220 wide, 170 long, ids = 490 (Fig. 5.14.):

L. cynari Chant, 1963
– North America.

28(9) Margin of te irregularly serrate, or undulate.

29(30) Leg I remarkably long (about 900), tarsus I = 300 – 320, tibia I = 160, ventra broad, length : width = 4 : 7, ids = 535 – 565 (Figs 5.15.1. – 5.15.2.):

L. podocinoides Berlese, 1916
– Africa.

30(29) Leg I not so long.

31(32) Peritremata extend behind the stigma, many tubercles dorsally form a net-like structure, leg I very short (= 250), ids = 410 (Fig. 5.16.):

L. floralis Karg, 1976
– Chile.

32(31) Peritremata never extend behind the stigma.

33(36) Ds I5 about as long as ds I1 and I2.

34(35) Caudal ds relatively long: I5 = 36, I4 = 41, Z5 = 64, ids = 530 (Figs 5.17.1. – 5.17.2.):

L. japonicus Ehara, 1965
– Japan.

35(34) Caudal ds relatively short, Z4 shorter than the distance between Z4 – Z5, I4 shorter than ½ the distance between I4 – I5, ids = 550 – 570 (Fig. 5.18.):

L. penicilliger Berlese, 1916 sensu HUGHES, 1961
– Europe.

36(33) Ds I5 remarkably shorter than the other setae of the I-series.

37(38) The tricarinate forms of ds consist of thin bristles, margin of te serrate, ids = 520 – 533 (Figs 5.19.1. – 5.19.2.):

L. furcisetus Athias-Henriot, 1959
– North America, Europe.

38(37) Dorsum with well developed tricarinate ds.

39(42) Sternal shield with a circular or net-like structure.

40(41) Sternal shield with a circular stucture, most ds 32 – 53 long, Z5 = 64, ventra broad, width : length = 3 : 2, lateral processes of te long, no middle point, leg I = 460, ids = 460 (Fig. 5.20.):

L. oculus Karg, 1980
– Venezuela.

41(40) Sternal shield with a median longitudinal net-like pattern, lateral points of te shorter than the middle point, ids = 520 (Figs 5.21.1. – 5.21.2.):

L. ometisimilis Hirschmann, 1963
– Europe.

42(39) Sternal shield smooth, most ds 20 – 25 long, Z5 = 50, te with a short middle point, leg I = 400, ids = 420 (Fig. 5.22.):

L. pluracuspidis n. sp.
– Ecuador.

Subgenus *Crinidens* Karg, 1980 n. comb.

Lasioseius-ometisimilis-complex

Lasioseius sagittarius Ishikawa, 1976

(Fig. 5.1.)

Ishikawa, K. (1976): Taxonomic investigation on mesostigmatid mites (Acarina) from Pasoh Forest Reserve, Malay Peninsula. – Nature and Life in Southeast Asia **7**: 231 – 252

Holo- and paratypes: Matsuyama Shinomone Junior College (Japan)

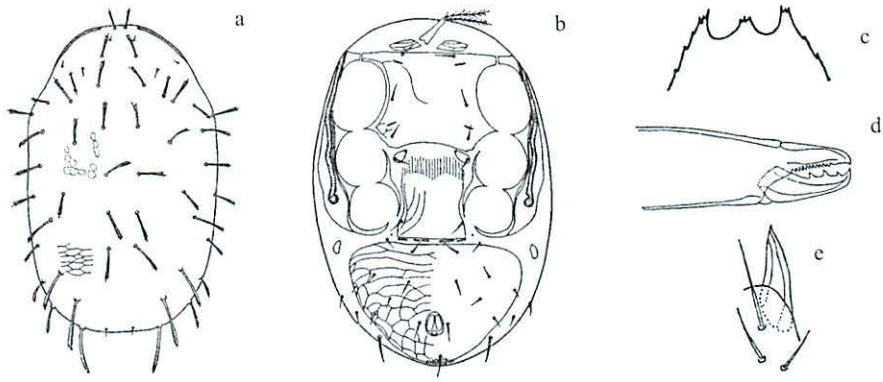

Fig. 5.1. **Female:** a dorsal, b ventral, c tectum, d chelicera, e corniculus (a – e Ishikawa 1976)

Lasioseius peritremus Nasr & Abou-Awad, 1987

(Fig. 5.2.)

Nasr, A. K. & B. A. Abou-Awad (1987): Description of some ascid mites from Egypt (Acari, Ascidae). – Acarologia **28** (1): 27 – 35

Holo- and paratypes: National Research Centre, Dokki-Cairo (Egypt)

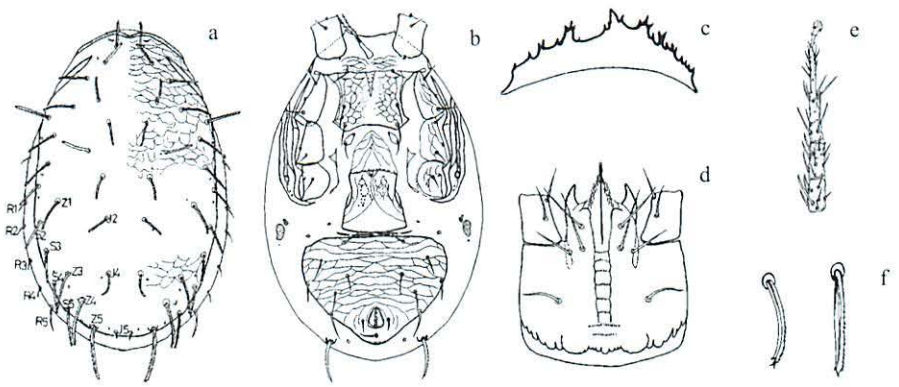

Fig. 5.2. **Female:** a dorsal, b ventral, c tectum, d hypostome, e leg IV, f dorsal setae (a – f Nasr & Abou-Awad 1987)

Lasioseius breviacutus n. sp.

(Figs 5.3.1. – 5.3.2.)

Holotype: ♀ Ecuador 1989, prov. Pichinca, near Antisana, 3300 m a.s.l., brookside pasture, moss and soil

Paratypes: 8 ♀, 1 ♂, 1 deutonymph; lava flow of Antisanilla: 7 ♀, 2 deutonymphs

Deposition of types: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by very short ds, mostly acicular, and by a connected pair of metapodal plates.

Ids ♀ 400 – 420 x 250 – 280, dorsum reticulated, most ds smooth and 15 – 16 long, however ds i1 and r3, I3, I4, Z2 and Z3 tricarinate, Z4, Z5, S4 and S5 pectinate, i1 = 24, r3 = 35, i4 = 18, I3, I4 = 20, Z4 = 36, Z5 = 45, S5 = 30, sternal shield anteromedially with a crevice-like structure, sternal setae 10 – 24 long, ventra reticulate, length : width = 7 : 10, ps = 30 long and pectinate, te with a long middle point, legs: I = 400, II = 330, III = 310, IV = 410, tarsus IV with 2 macrochaetae 40 and 42 long. Ids ♂ 420 x 230, spermatodactyl spoon-like, distally rounded.

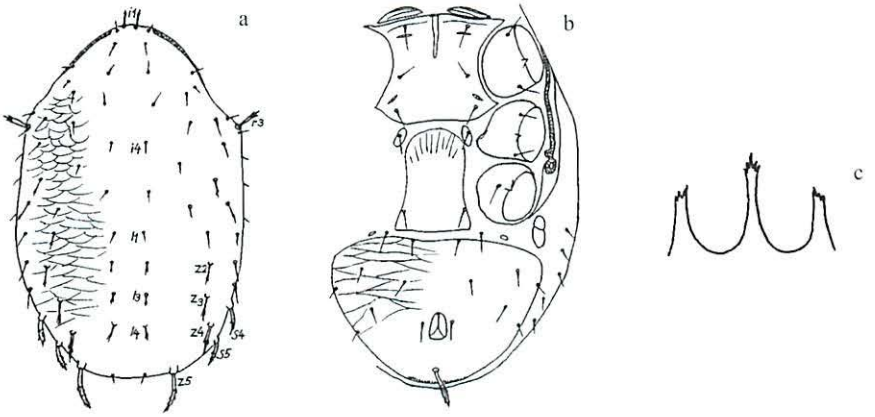

Fig. 5.3.1. **Female:** a dorsal, b ventral, c tectum (a – c original drawings by the authors)

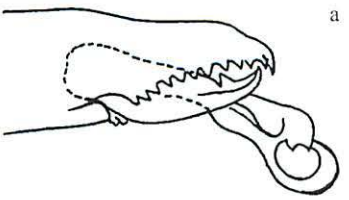

Fig. 5.3.2. **Male:** a chelicera (a original drawing by the authors)

Lasioseius spectabilis De Leon, 1963

(Figs 5.4.1. –5.4.3.)

De Leon, D. (1963): A new genus and twelve new species of mites from Mexico and southeast United States (Acarina, Blattisocidae). – Fla. Entomol. **46** (2): 197 – 207

Types: deposition unknown to the authors

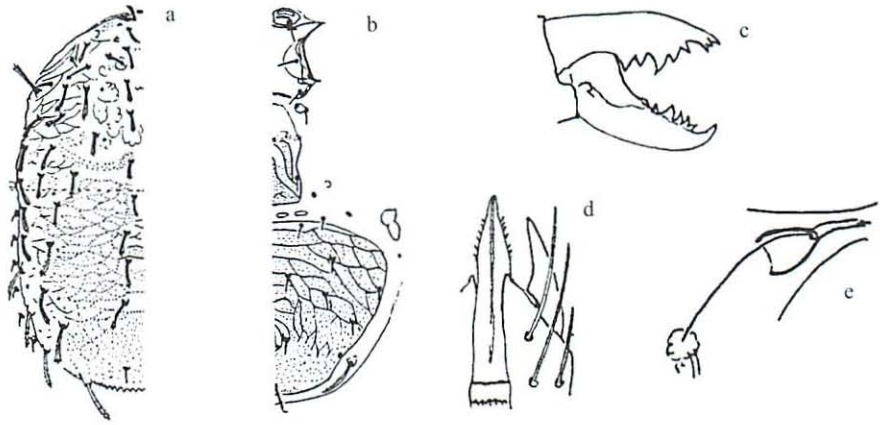

Fig. 5.4.1. **Female:** a dorsal, b ventral, c chelicera, d hypostome, e spermatheca (a – e De Leon 1963)

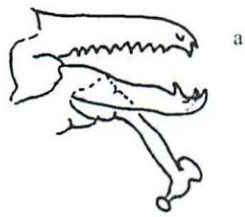

Fig. 5.4.2. **Male:** a chelicera (a De Leon 1963)

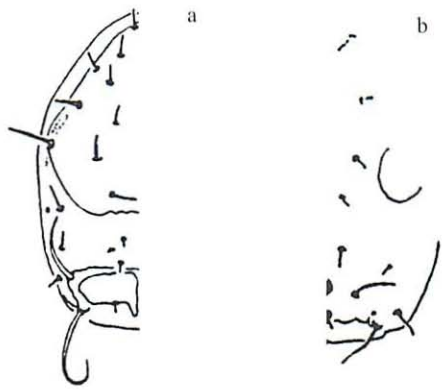

Fig. 5.4.3. **Larva:** a dorsal, b ventral (a, b De Leon 1963)

Lasioseius epicriodopsis De Leon, 1963

(Figs 5.5.1. – 5.5.2.)

De Leon, D. (1963): A new genus and twelve new species of mites from Mexico and southeast United States (Acarina, Blattisocidae). – Fla. Entomol. **46** (2): 197 – 207

Types: deposition unknown to the authors

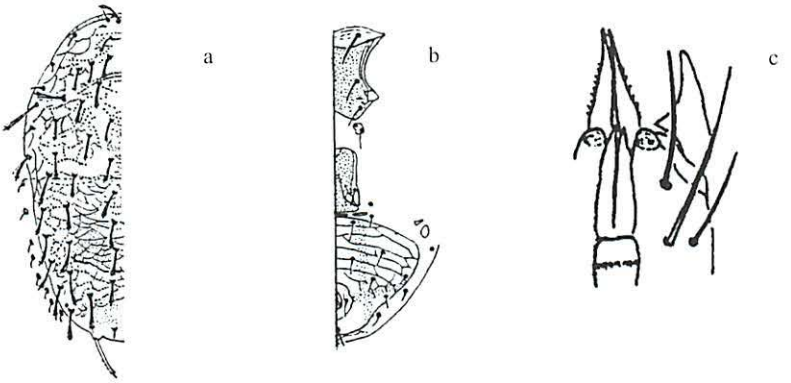

Fig. 5.5.1. **Female:** a dorsal, b ventral, c hypostome (a – c De Leon 1963)

Fig. 5.5.2. **Male:** a spermatodactyl (a De Leon 1963)

Lasioseius tomokoae Ishikawa, 1969

(Fig. 5.6.)

Ishikawa, K. (1969): Studies on the mesostigmatid mites in Japan. IV. Family Blattisocidae Garman. – Rep. Res. Matsuyama Shinonome Jr. Coll. **4** (1): 111 – 139

Holo- and paratypes: Biological Laboratory, Matsuyama Shinomone Junior College, Matsuyama (Japan)

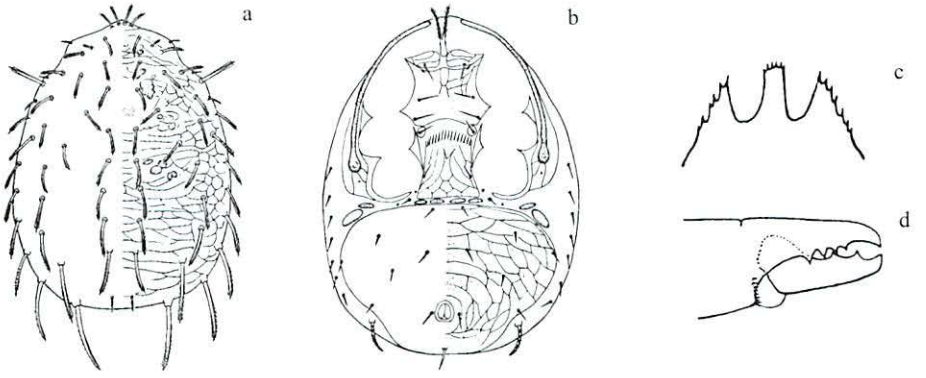

Fig. 5.6. **Female:** a dorsal, b ventral, c tectum, d chelicera (a – d Ishikawa 1969)

Fig. 5.6. (cont.) **Female:** e hypostome, f pedipalpus (e – f ISHIKAWA 1969)

Lasioseius lacunosus Westerboer, 1963

(Fig. 5.7.)

WESTERBOER, I. (1963): Die Familie Podocinidae Berlese, 1916. – In: STAMMER, H. J. (ed.), Beiträge zur Systematik und Ökologie mitteleuropäischer Acarina, Band II, Mesostigmata 1. Akad. Verlagsgesellschaft, Leipzig: 179 – 450

Types: deposition unknown to the authors

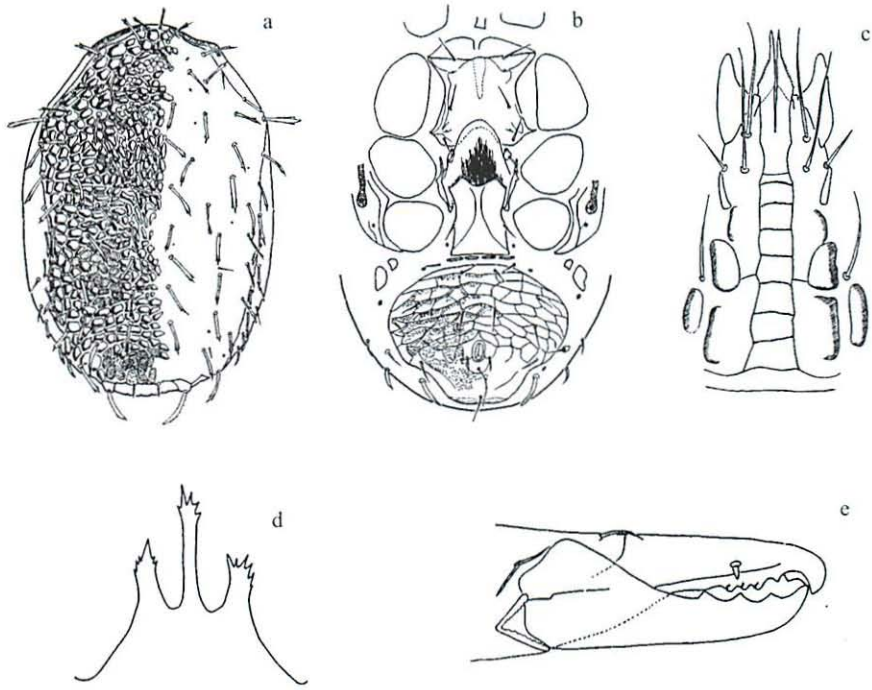

Fig. 5.7. **Female:** a dorsal, b ventral, c hypostome, d tectum, e chelicera (a – e WESTERBOER 1963)

Lasioseius cochlearis n. sp.

(Figs 5.8.1. – 5.8.2.)

Holotype: ♀ Ecuador 1989, prov. Imbabura, 53 km from Otavalo, 285 m a.s.l., moss hanging from trees and in moss from flat stones

Paratypes: 10 ♀, 10 ♂, 4 deutonymphs

Deposition of types: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by clearly visible tricarinate ds, a remarkably broad ventra, two oval structures on the sternal shield and a thin middle branch of te that is terminally tricuspid.

Ids ♀ 470 – 510 x 290 – 340, dorsum posteriorly reticulate, most ds clearly tricarinate however Z4, Z5, S4 and S5 pectinate, i1 = 30, s1 = 25, i3 = 25, i4 = 20, I1 = 25, I2 = 26, I3 = 30, I4 = 35, r3 = 40, Z4 = 42, Z5 = 60, sternal shield medially with two oval structures, setae 22 – 25 long, ventra 150 long, 200 wide, with 7 pairs of setae, mostly 18 – 22 long, only V7 = 8, ps = 35 long, one of the metapodal plate 3 times as large as the other plate, te with a very thin middle branch that is terminally tricuspid, lateral branches serrate, digitus fixus of the chelicera with 15 – 16 teeth, legs: I = 450, II = 350, III = 300, IV = 500. Ids ♂ 360 – 380 x 200 – 250, spermatodactyl like a ring, ids deutonymph 400 x 220.

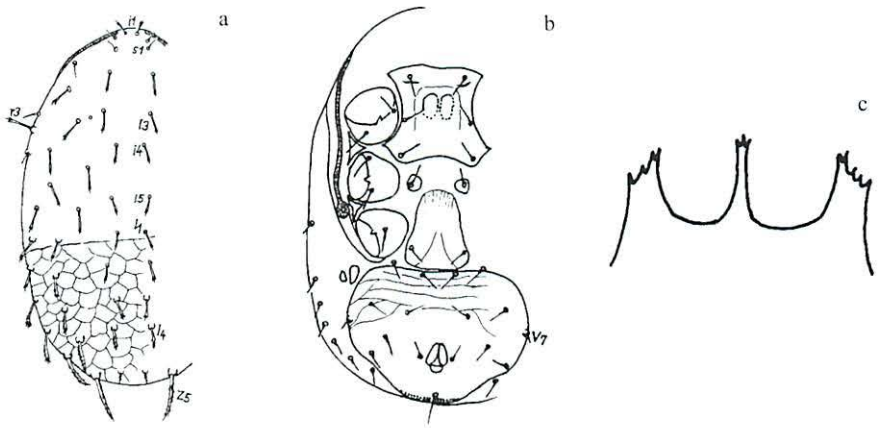

Fig. 5.8.1. **Female:** a dorsal, b ventral, c tectum (a – c original drawings by the authors)

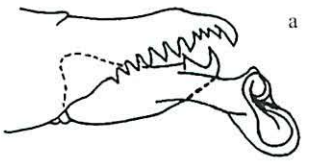

Fig. 5.8.2. **Male:** a chelicera (a original drawing by the authors)

Lasioseius postanalis n. sp.

(Fig. 5.9.)

Holotype: ♀ Ecuador 1989, prov. Pichinca, near Antisana, 3300 m a.s.l. an roots spanning over waterfalls and from moss

Paratype: 1 ♂

Deposition of types: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by relatively short ds that are weakly tricarinate, a remarkably long postanal seta and furcate lateral processes of the tectum.

Ids ♀ 540 – 570 x 320 – 340, dorsum reticulate, most ds short: i1 = 32, i4 = 25, I1 = 27, I3 = 32, I4 = 37, ds r3 longer: = 53, caudal setae pectinate and long: = 60 – 65, I5 = 17, sternal shield smooth, sternal setae 28 – 33 long, genital shield punctate, ventra reticulate, with 7 pairs of setae, mostly 30 long, however adanal setae = 20, marginal setae = 12 and ps = 46, middle point of te cuspidate, lateral branches furcate, digitus fixus of chelicera with 15 teeth, legs: I = 500, II = 420, III = 400, IV = 540.

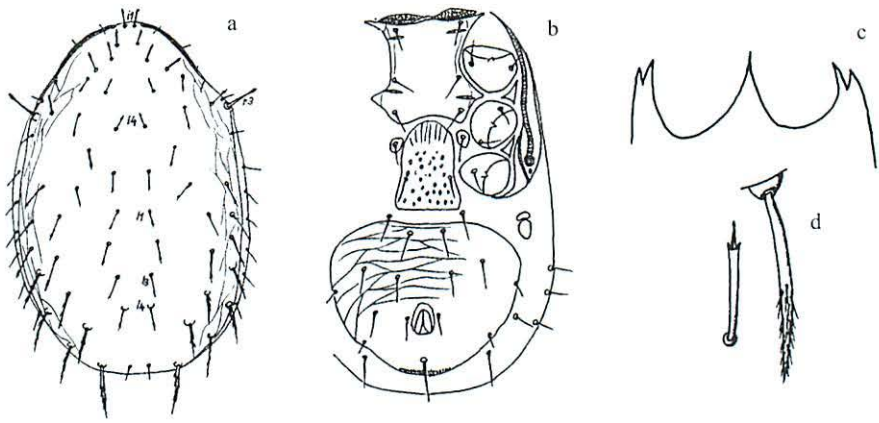

Fig. 5.9. **Female:** a dorsal, b ventral, c tectum, d dorsal setae (a – d original drawings by the authors)

Lasioseius laciniatus n. sp.

(Fig. 5.10.)

Holotype: ♀ Ecuador 1990, prov. Pichinca, near Quito, 2250 m a.s.l., from moss

Paratypes: 2 ♀, 1 ♂

Deposition of types: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by a triangular ventra, distinct trispinate short ds and a te with 3 branches of equal length, middle branch pointed, lateral processes serrate.

Ids ♀ 460 – 500, posterior half of dorsum weakly reticulate, anterior half with transverse lines, most ds short, 20 – 25 long and trispinate, however ds r3 = 40, I4 = 33, Z4 = 40, Z5 = 60, Z4 and Z5 pectinate, anterior margin and posterior area of sternal shield punctate, prestern-al with two projections, genital shield with comma-like structures, ventra reticulate, bearing 7 pairs of setae, ventra 160 long, 200 wide, setae of venter mostly 18 – 25 long, however two marginal setae of ventra only 10 long and the ps = 26 long, lateral branches of te distally ser-

rate, middle branch pointed, legs: I = 450, II = 380, III = 330, IV = 500, praetarsus I relatively long (= 25) with reduced claw (= 5), claws of legs II – IV = 12 long.

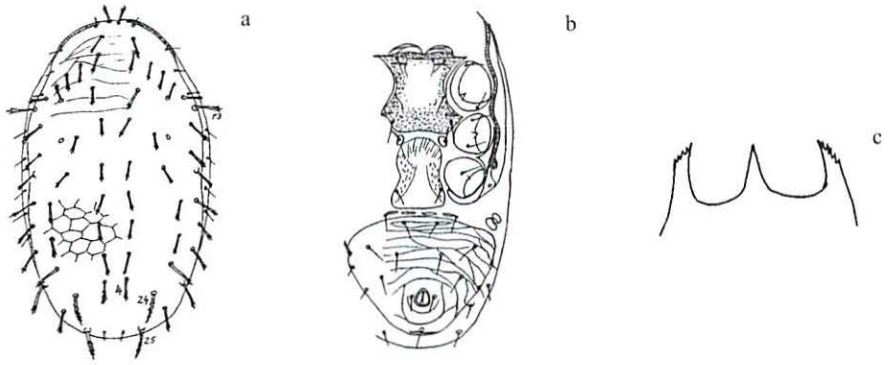

Fig. 5.10. **Female:** a dorsal, b ventral, c tectum (a – c original drawings by the authors)

***Lasioseius tricuspidis* n. sp.**

(Fig. 5.11.)

Holotype: ♀ Ecuador 1989, prov. Pichinca, primary forest, »hanging litter« and large withered mossy leaves

Paratypes: 2 ♀

Deposition of types: Staatliches Museum für Naturkunde Görlitz (Germany)

Distinctive in having short slightly tricarinate ds and three-pronged lateral branches of te, ventra with short setae.

Ids = 450 x 270, dorsum reticulate, ds short: no seta reaching the next seta of the series, i1 = 25, i4 = 20, r3 = 35, I1 = 20, I3 = 25, I4 = 30, Z4 = 40, Z5 = 50, S4 = 35, S5 = 40, most ds slightly tricarinate, however I4, Z4, Z5, S4 and S5 pectinate, sternal shield with a scale-like pattern, sternal setae 20 long, ventra with 5 pairs of setae, mostly = 20 long, ps = 30, ventra 145 long, 185 wide, te with cuspidal median process and three-pronged lateral branches, legs: I = 430, II = 390, III = 350, IV = 490, tarsus IV with macrochaetae.

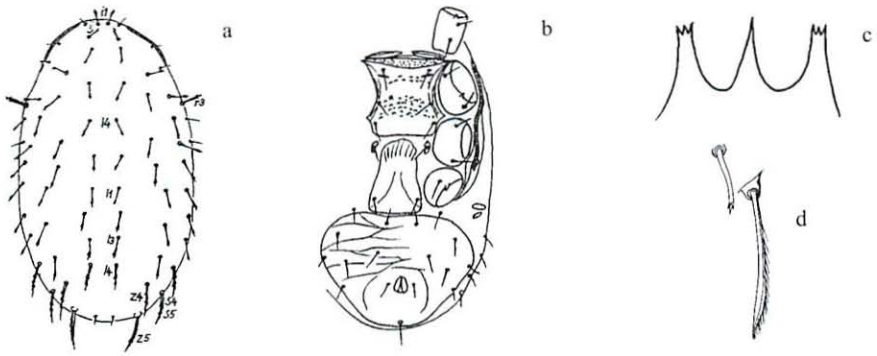

Fig. 5.11. **Female:** a dorsal, b ventral, c tectum, d dorsal setae (a – d original drawings by the authors)

Lasioseius fissurae Karg, 1980

(Figs 5.12.1. – 5.12.2.)

KARG, W. (1980): Die Raubmilbengattung *Lasioseius* Berlese, 1916. – Zool. Jb. Syst. **107**: 344 – 367
Types: Museum für Naturkunde Berlin (Germany)

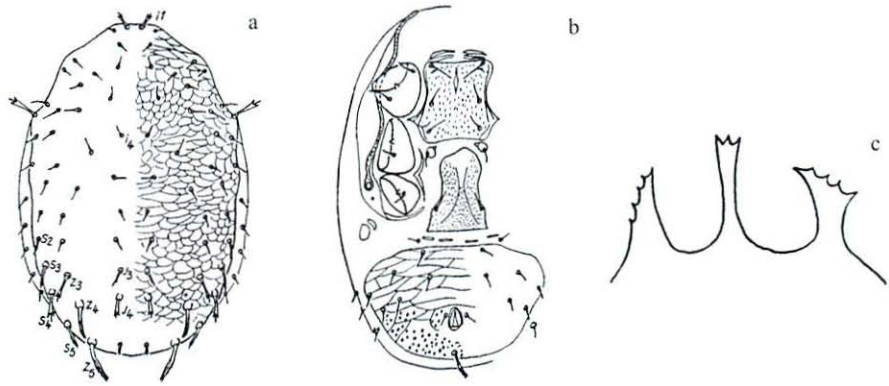

Fig. 5.12.1. **Female:** a dorsal, b ventral, c tectum (a – c KARG 1980)

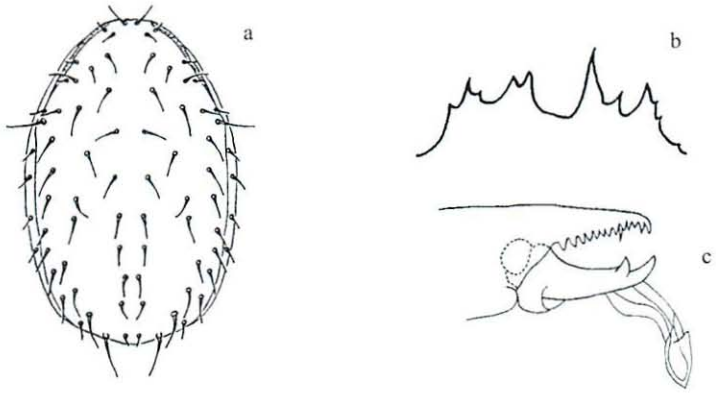

Fig. 5.12.2. **Male:** a dorsal, b tectum, c chelicera (a – c KARG 1980)

Lasioseius patellae n. sp.

(Fig. 5.13.)

Holotype: ♀ Ecuador 1989, prov. Carchi, 2600 m a.s.l., tussocks of dry grass, leaves and litter

Deposition of type: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by short acicular ds on the anterior half of the dorsum and thick, long and caudally pectinate ds on the posterior half of dorsum, middle branch of te cuspidate.

Ids ♀ 420 – 450 x 260 – 280, dorsum reticulate, ds of anterior half mostly short and acicular, only i1 and i3 tricarinate, caudal ds (Z3, Z4, Z5, S5) thick and pectinate, also the short ds I5 pectinate, some ds of the posterior half of dorsum tricarinate: S2, S3, Z1, I3 and I4, various length of ds: i1 = 24, i2 = i3 = 15, i4 = 14, i5 = 15, I2 = 18, I3 = 22, I4 = 30, r3 = 35, Z1

= 18, Z2 = 20, Z3 = 38, Z4 = 40, Z5 = 46, sternal shield smooth, ventra reticulate, 140 long, 225 wide, with 7 pairs of setae, V1 = 17, V2 = 20, marginal setae 7 – 10 long, ps = 27 and pectinate, one of the metapodal plates 4 times as long as the other plate, middle branch of te cuspidate and longer than the lateral branches, these terminally serrate, digitus fixus of chelicera with 14 – 16 teeth, spermatheca like a short funnel, legs: I = 370, II = 300, III = 250, IV = 400.

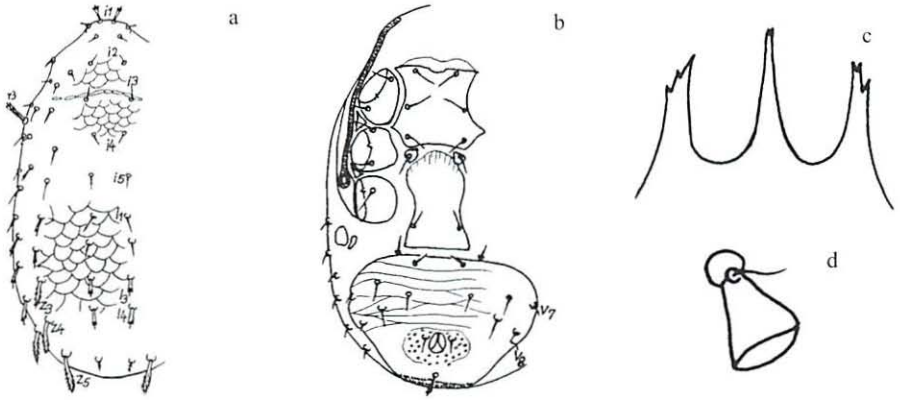

Fig. 5.13. Female: a dorsal, b ventral, c tectum, d spermatheca (a – d original drawings by the authors)

Lasioseius cynari Chant, 1963

(Fig. 5.14.)

CHANT, D. A. (1963): The subfamily Blattisocinae Garman (= Aceosejinae Evans) (Acarina, Blattisocidae Garman) (= Aceosejidae Baker & Wharton) in North America, with descriptions of new species. – Can. J. Zool. **41**: 243 – 305

Holotype: United States National Museum, Washington D. C. (USA)

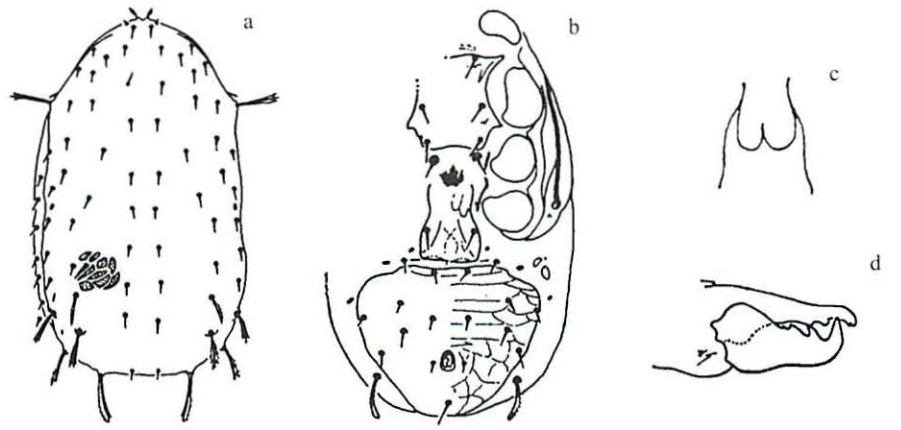

Fig. 5.14. **Female:** a dorsal, b ventral, c tectum, d chelicera (a – d CHANT 1963)

Lasioseius podocinoides Berlese, 1916

(Figs 5.15.1. – 5.15.2.)

Berlese, A. (1916): Centuria prima di Acari nuovi. – Redia **12**: 19 – 67
Types: Berlese Acaroteca, Istituto Sperimentale per la Zoologia Agraria, Florence (Italy)

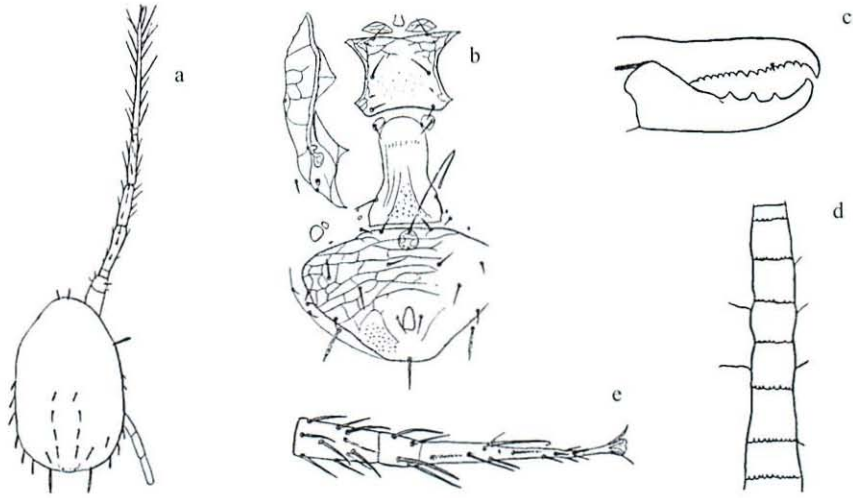

Fig. 5.15.1. **Female:** a dorsal, b ventral, c chelicera, d hypostome, e leg IV (a – e Hurlbutt 1971)

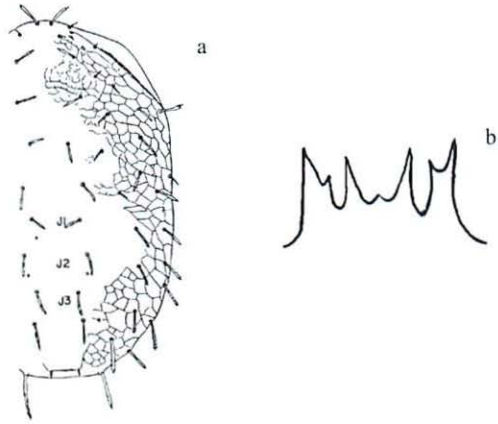

Fig. 5.15.2. **Male:** a dorsal, b tectum (a, b Hurlbutt 1971)

Lasioseius floralis Karg, 1976

(Fig. 5.16.)

Karg, W. (1976): Zur Kenntnis der Überfamilie Phytoseioidea Karg, 1965. – Zool. Jb. Syst. **103**: 505 – 546
Holotype: Hungarian Natural History Museum, Budapest (Hungary)

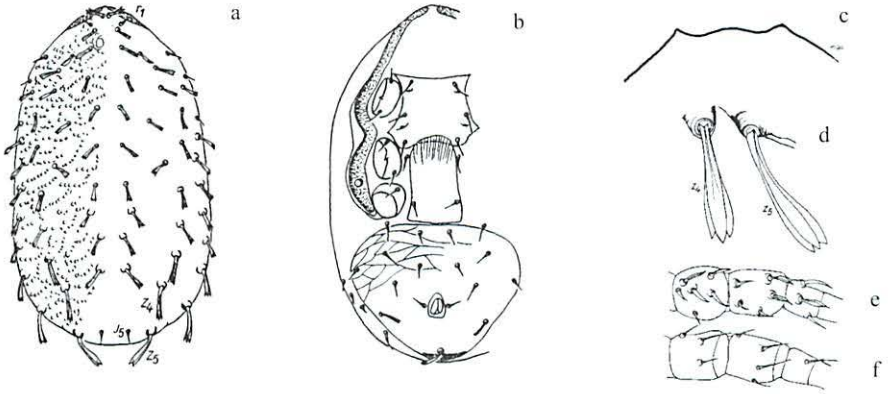

Fig. 5.16. **Female:** a dorsal, b ventral, c tectum, d dorsal setae Z4, Z5, e leg IV dorsal, f leg IV ventral (a – f KARG 1976)

Lasioseius japonicus Ehara, 1965

(Figs 5.17.1. – 5.17.2.)

EHARA, S. (1965): A new species of *Lasioseius* Berlese (Acarina, Blattisocidae) from mite culture. – Acta Arachnol. **19** (2): 25 – 28

Holo- and paratypes: Zoological Institute, Faculty of Sciences, Hokkaido University (Japan)

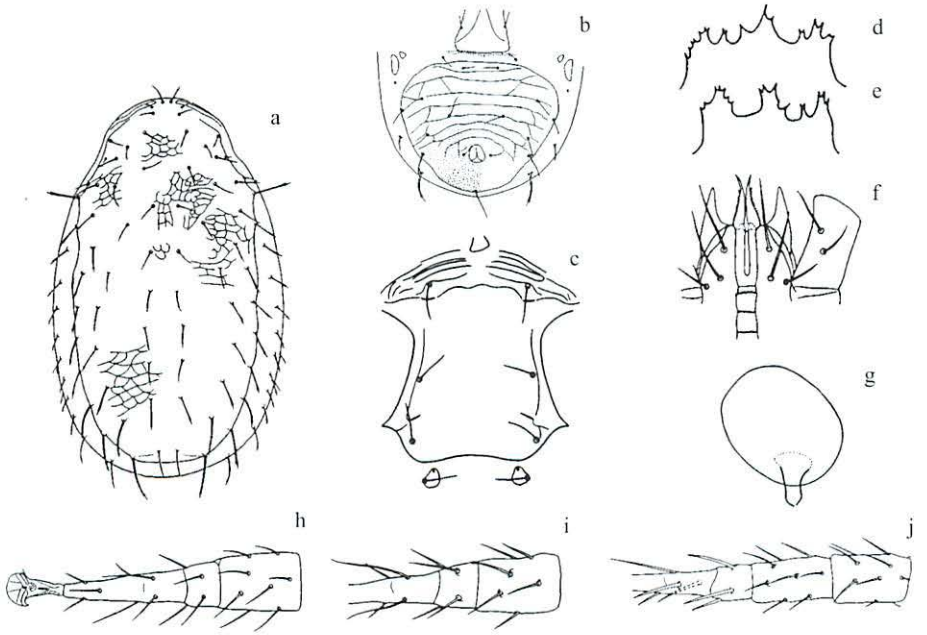

Fig. 5.17.1. **Female:** a dorsal, b ventral, c sternum, d, e tectum, f hypostome, g spermatheca, h leg II, i leg III, j leg IV (a – j EHARA 1965)

Fig. 5.17.2. **Male:** a spermatodactyl (a EHARA 1965)

Lasioseius penicilliger Berlese, 1916 sensu HUGHES, 1961

(Fig. 5.18.)

BERLESE, A. (1916): Centuria prima di Acari nuovi. – Redia **12**: 19 – 67
Types: deposition unknown to the authors

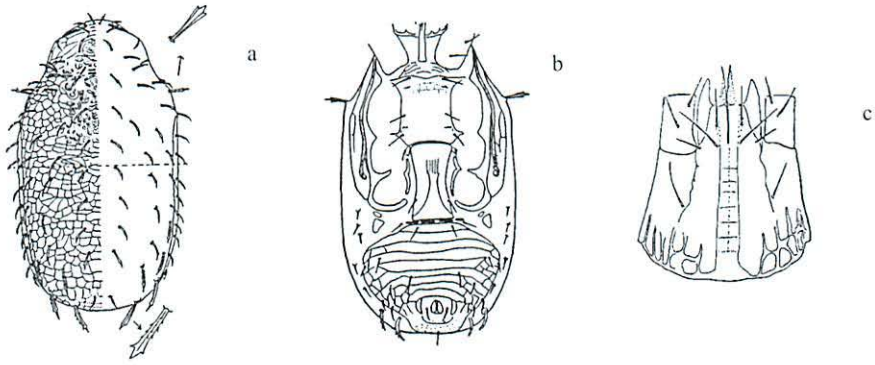

Fig. 5.18. **Female:** a dorsal, b ventral, c hypostome (a – c HUGHES 1961)

Lasioseius furcisetus Athias-Henriot, 1959

(Figs 5.19.1. – 5.19.2.)

ATHIAS-HENRIOT, C. (1959): Phytoseiidae & Aceosejidae (Acarina, Gamasina) d' Algérie. III. Contribution au Aceosejinae. – Bull. Soc. Hist. Nat. Afr. N. **50**: 158 – 195
Syntypes: Laboratoire d'Acarologie de l'Ecole Pratique des Hautes Etudes, Paris (France)
Paratypes: Laboratoire de Zoologie Agricole de l'Ecole Nationale d'Agriculture d'Alger porte l'indication (Egypt)

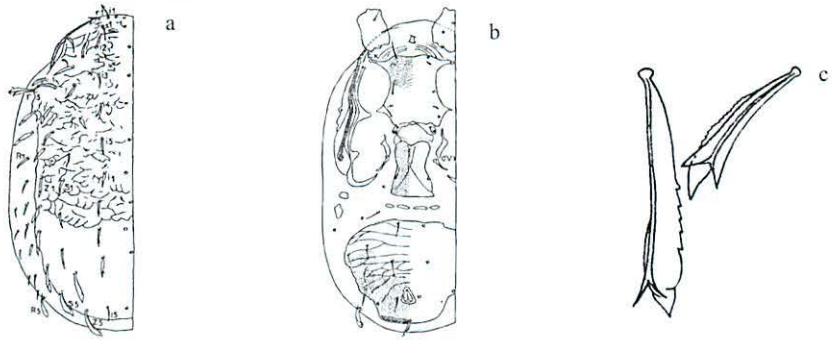

Fig. 5.19.1. **Female:** a dorsal, b ventral, c dorsal setae (a – c ATHIAS-HENRIOT 1959)

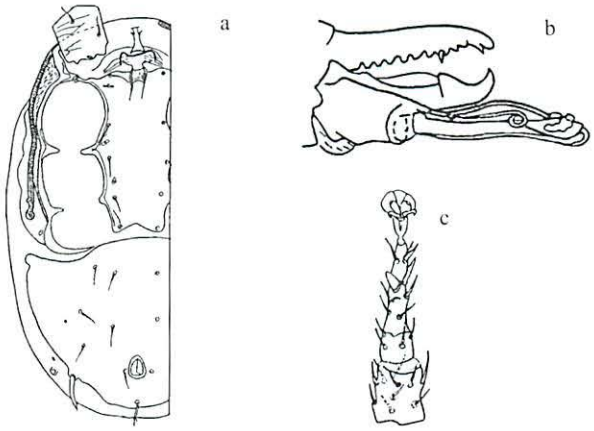

Fig. 5.19.2. **Male:** a ventral, b chelicera, c leg II (a – c ATHIAS-HENRIOT 1959)

Lasioseius oculus Karg, 1980

(Fig. 5.20.)

KARG, W. (1980): Die Raubmilbengattung *Lasioseius* Berlese, 1916. – Zool. Jb. Syst. **107**: 344 – 367
Types: Museum für Naturkunde Berlin (Germany)

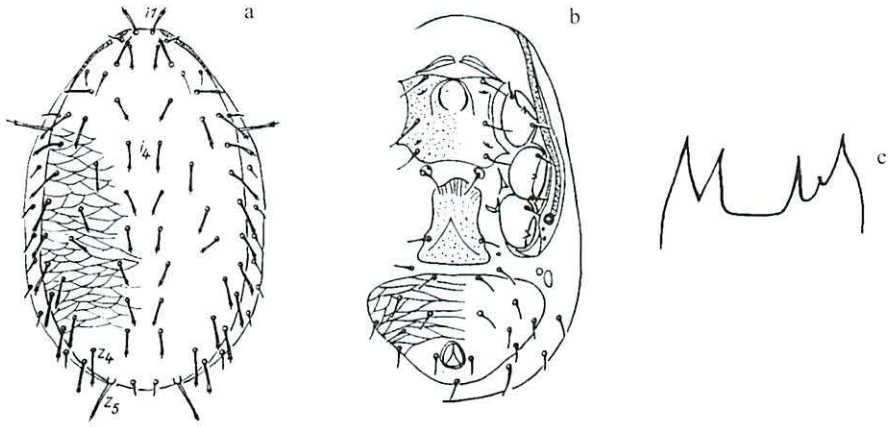

Fig. 5.20. **Female:** a dorsal, b ventral, c tectum (a – c KARG 1980)

Lasioseius ometisimilis Hirschmann, 1963

(Figs 5.21.1. – 5.21.2.)

HIRSCHMANN, W. in WESTERBOER, I. (1963): Die Familie Podocinidae Berlese, 1916. – In: STAMMER, H. J. (ed.): Beiträge zur Systematik und Ökologie mitteleuropäischer Acarina, Band II, Mesostigmata 1. Akad. Verlagsgesellschaft, Leipzig: 179 – 450
Types: Zoologische Staatssammlungen München (Germany)

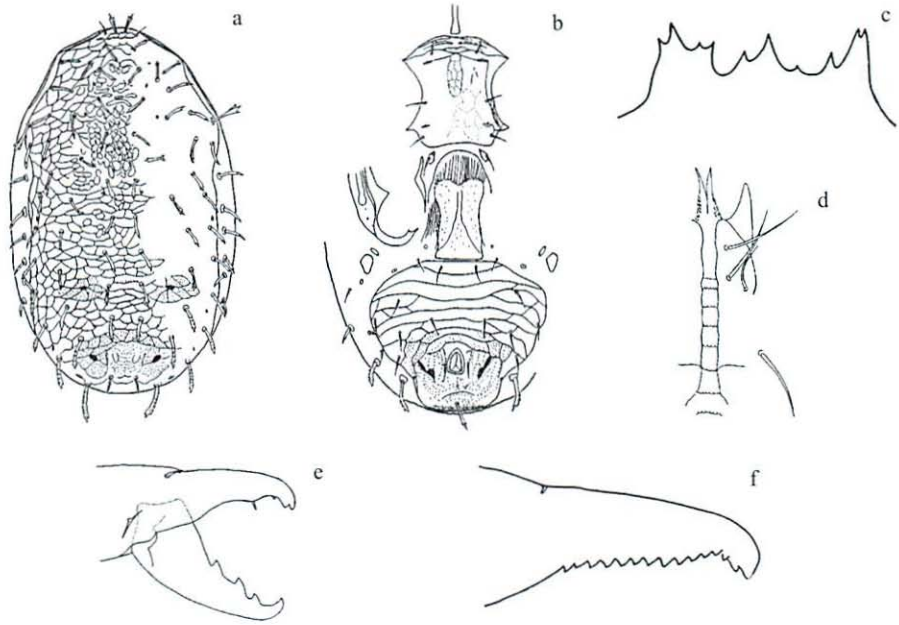

Fig. 5.21.1. **Female:** a dorsal, b ventral, c tectum, d hypostome, e chelicera, f digitus fixus (a – f HIRSCHMANN 1963)

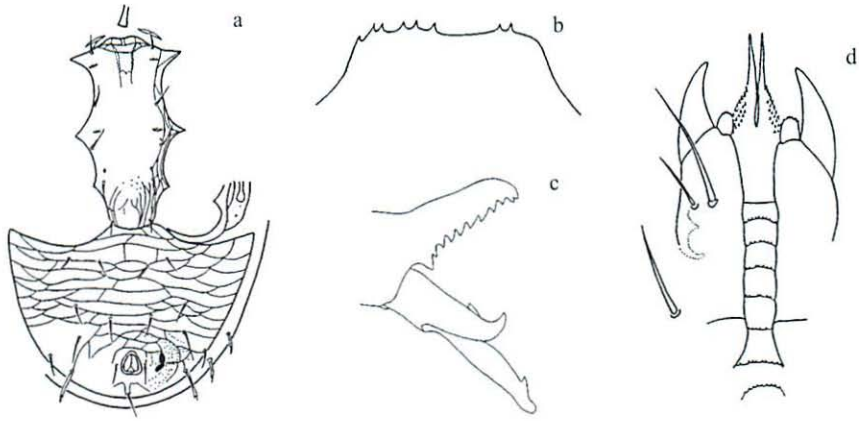

Fig. 5.21.2. **Male:** a ventral, b tectum, c chelicera, d hypostome (a – d HIRSCHMANN 1963)

Lasioseius pluracuspidis n. sp.

(Fig. 5.22.)

Holotype: Ecuador 1990, prov. Pichinca, near Alluriguin, 700 m a.s.l., rain forest, moulding, lying tree trunk

Deposition of type: Staatliches Museum für Naturkunde Görlitz (Germany)

Characterised by relatively short tricarinate ds with serrate margins, te with serrate margin showing a single short middle point, leg I about as long as the idiosoma.

Ids 400 – 420 x 200 – 210, most ds short and tricarinate, shoulder setae r3 remarkably longer, caudal setae long and pectinate, i1 = 25, i4 = 20, r3 = 45, I1 = 20, I2 = 25, I4 = 20, I5 = 10, Z4 = 45, Z5 = 50, sternal shield smooth, presternal region lineate, sternal setae 25 – 30 long, digitus fixus of chelicera with 20 teeth, te with serrate margin, but a short separate middle point, legs: I = 400, II = 380, III = 360, IV = 500, macrochaetae on tarsus: 60 and 40 (metatarsus) long.

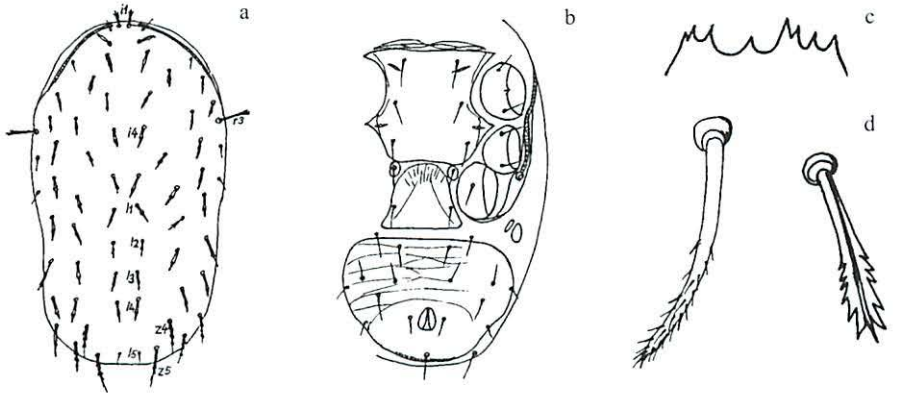

Fig. 5.22. **Female:** a dorsal, b ventral, c tectum, d dorsal setae (a – d original drawings by the authors)

Key 6: The known species of the *Lasioseius-ometes*-complex (including a new species from Ecuador)

1(20) Margin of te serrate or smooth.

2(3) Only a few ds tricarinate (r3, Z4, Z5), caudal ds pectinate, ventra broader than long, surface of sternal shield with many dots, ds Z5 = 60, r3 = 52, leg I = 335 – 390, leg IV = 478 – 481, ids = 405 – 430 (Fig. 6.1.):

L. scapulatosimilis Karg, 1980

syn.: *L. scapulatus* sensu ATHIAS-HENRIOT, 1959

– North Africa.

3(2) Most ds tricarinate.

4(19) Ds Z5 and sometimes Z4 and caudal S-setae pectinate.

5(10) Only ds Z5 and sometimes S5 are pectinate.

6(9) Ventra as long as wide or longer than wide.

7(8) Ventra about as long as wide, most ds moderately short (16 – 24) and weakly tricarinate, ds Z4 and Z5 longer (33 – 37), te coarsely denticulate, digitus fixus of chelicerae with a row of 5 – 6 teeth, leg I = 330 – 335, leg IV = 305 – 330, ids = 378 – 421 (Figs 6.2.1. – 6.2.2.):

L. kinikinik Walter & Lindquist, 1989

– North America, Colorado.

8(7) Ventra longer than wide, ds Z5 pectinate, margin of te smooth, Z5 = 3x length of i4, ids = 370 (Fig. 6.3.):

L. quadrisetosus Chant, 1960

– India, Assam at Burnihat on *Citrus*.

9(6) Ventra distinctly broader than long, in the middle of sternal shield an oval-shaped structure with a net pattern, ds i4 = 40, Z4 = 60, Z5 = 75, S5 = 60, leg I = 400 – 410, ids = 570 – 590 (Fig. 6.4.):

L. zerconoides Willmann, 1954

– Europe.

10(5) Beyond ds Z5, also other caudal ds pectinate.

11(16) Ventra broader than long or as long as wide.

12(15) In the middle of the sternal shield a structure of two parallel longitudinal lines or an oval-shaped reticulate structure.

13(14) Parallel lines on sternal shield, ds Z4 = 55, Z5 = 58, leg I = 340, leg IV = 410, ids = 390 – 415 (Figs 6.5.1. – 6.5.2.):

L. bilineatus Karg, 1976

– Chile.

14(13) An oval-shaped reticulate structure on the sternal shield, Z4 = 52, Z5 = 55, leg I = 380 – 400, leg IV = 420 – 430, ids = 430 – 450 (Fig. 6.6.):

L. cortisimilis Karg, 1994

– Galapagos.

15(12) Surface of sternal shield with many dots, leg I = 470, leg IV = 548, ids = 534 (Fig. 6.7.):

L. mumai De Leon, 1963

– North America, from fungus on *Magnolia*.

16(11) Ventra longer than wide.

17(18) Surface of sternal shield smooth, I1, I2 and I3 not reaching the next seta of the series, ds Z4 = 38 – 59, Z5 = 60 – 87, ids = 330 – 460 (Figs 6.8.1. – 6.8.2.):

L. cuppa Walter & Lindquist, 1997

– Australia, Queensland, from leaves in a montane tropical rain forest.

18(17) Surface of sternal shield reticulate, ds I1 and I2 reaching the next seta of the series, s1, z2 short (= 20), ids = 330 – 350 (Fig. 6.9.):

L. wondjina Walter & Lindquist, 1997

– Australia, from leaves in a lowland tropical rain forest.

19(4) Caudal ds as well as the other ds tricarinate, surface of sternal shield with fine comma-like structures, leg I = 390 – 400, leg IV = 410, ids = 440 – 654 (Figs 6.10.1. – 6.10.5.):

L. corticeus Lindquist, 1971

– North and South America.

20(1) Margin of te with some longer branches, as a rule most ds tricarinate.

21(24) Te with 3 smooth branches.

22(23) Ds Z5 (= 52) about 1½ times as long as i4, dorsum with scaly structures, leg I = 390, ids = 430 (Fig. 6.11.):

L. queenslandicus (Womersley, 1956)

syn.: *Platyseius queenslandicus* Womersley, 1956, *L. athiasae* Nawar & Nasr, 1991

– Australia.

23(22) Ds Z5 remarkably long, about 3 times as long as ds i4 and distally pectinate, on the margin of the dorsum 4 pairs of distinct accessory plates, ids = 470 (Fig. 6.12.):

L. meridionalis Chant, 1963

– North America, on bulb roots and orchid plants.

24(21) Other form of te.

25(52) Margin of te with 2 – 4 branches or groups of points, branches may be split terminally.

26(51) All branches of te split terminally.

27(28) Sternal shield with posterior margin deeply excavated to level of setae pair st2, te with 3 – 4 groups of points, ids = 560 – 580 (Figs 6.13.1. – 6.13.5.):

L. ometes (Oudemans, 1903)

syn.: *Hypoaspis ometes* Oudemans, 1903

– Europe, tunnel of wood-boring beetles.

28(27) Posterior margin of sternal shield nearly straight.

29(30) Dorsum covered with little tubercles, sternal shield medially with a structure consisting of a net-like pattern, ids = 330 – 350 (Fig. 6.14.):

L. tuberculatus Karg, 1980

– Ecuador.

30(29) Dorsum without tubercles, mostly with net-like structures.

31(32) Ds I5 (= 36) longer than i1, as long as I1, ids = 410 (Fig. 6.15.):

L. manyarae Hurlbutt, 1972

– Africa, Tanzania.

32(31) Length of ds I5 reduced, shorter than i1.

33(38) The first seta pair of the sternal shield (st1) located separately on jugular shields, sternal shield with a structure consisting of a net pattern.

34(35) Ds Z3 nearly reaching ds S5, median point of te longer than lateral branches, branches of te longer than broad, length of anus : length of ventra = 1 : 5, 7 macrochaetae on leg IV = 43, ds I1, I2, I3 and I4 = 30, Z5 = 50, ids = 390 – 430 (Figs 6.16.1. – 6.16.2.):

L. fimetorum Karg, 1971

– Europe.

35(34) Length of ds Z3 = ⅔ the distance between Z3 and S5, median point of te as long as or shorter than the lateral branches.

36(37) Median point of te as long as the lateral branches, the three branches as long as wide, length of anus : length of ventra = 1 : 6, macrochaetae on leg IV = 35, ds Z5 = 47, ids = 430 (Figs 6.17.1. – 6.17.2.):

L. sugawarai Ehara, 1964

– Japan.

37(36) Median point of te shorter than the lateral branches, the three branches longer than wide, length of anus : length of ventra = 1 : 7.6, ids = 421 (Fig. 6.18.):

L. tridentatus Baker, Delfinado & Abbatiello, 1976

– North America.

38(33) The first seta pair of the sternal shield (st1) located on the shield.

39(40) Ventra remarkably broad, length : width = 3 : 4, margin of te with 3 – 4 groups of points, ds Z4 = 47, Z5 = 50, leg I = 310 – 340, leg IV = 320 – 360, ids = 330 – 380 (Figs 6.19.1. – 6.19.2.):

L. rostratus Karg, 1996

– New Caledonia.

40(39) Ventra about as long as wide.

41(42) Te with 3 branches, relatively long and slender, terminally finely furcate; ds terminally broad and tricarinate, sternal shield with calix-like structure, ids = 360 (Fig. 6.20.):

L. plumatus Karg, 1980

– Venezuela.

42(41) Branches of te formed otherwise.

43(46) Margin of te with 3 branches.

44(45) Middle branch of te terminally trispinate, twice as long as lateral branches; most ds 30 – 34, Z5 = 47, ids = 400 (Figs 6.21.1. – 6.21.2.):

L. liuchungfui Samsinak, 1964

– China, province Canton, in caves of *Neotermes*.

45(44) Te with long pointed branches having variably toothed margins, ds remarkably short, slightly trifid, length of i3 = 1/3 the distance i3 – i4, I1 = 1/2 the distance I1 – I2, Z5 about as long as the other setae but thicker and more distinctly tricarinate, ids = 590 – 625 (Figs 6.22.1. – 6.22.5.):

L. elegans Fain, Hyland & Aitken, 1977

– Trinidad, from flowers of *Heliconia trinidatis*.

46(43) Te with 2 – 3 broad groups of points.

47(48) Te with 2 groups of points, ds relatively long, I2, I3, Z2, Z3 and Z4 reaching the next seta of the series, Z5 = 54, ids = 360 – 379 (Fig. 6.23.):

L. sewai Nasr & Abou-Awad, 1987

– Egypt, Sewa, New Valley province.

48(49) Te with 3 groups of points, ds relatively short, no seta reaching the next seta of the series.

49(50) Sternal shield on the anterior half medially with two longitudinal rows of quadrangular sculptures, ds spatulate serrate, distally trispinate, relatively short, I1 = 1/2 the distance of I1 – I2, leg I = 422, ids = 484 (Fig. 6.24.):

L. kargi Kandil, 1980

– Hungary, various localities: Velem, Vértes, Szendehely, Németbánes, Sikfőcut.

50(49) Sternal shield medially punctate, ds slender trispinate, I1 = ⅔ the distance I1 – I2, ids = 466 – 490 (Fig. 6.25.):

L. neometes McGraw & Farrier, 1969
– North America, from *Dentroctonus* sp.

51(26) Only the middle branch of te is split terminally, lateral branches simple and smooth, ds Z5 and r3 longer than the other ds, ids = 385 – 423 (Fig. 6.26.):

L. nambirimae Krantz, 1962
– Africa.

52(25) Margin of te with a pair of lateral points, te in the middle with 1 – 2 smooth points or irregularly serrate.

53(58) Te with 2 smooth median points.

54(55) Ventra remarkably broader than long, length : width = 3 : 4, ds Z4 = 55, Z5 = 55, sternal shield with many fine dots, leg I = 360, leg IV = 470, ids = 370 – 380 (Figs 6.27.1. – 6.27.2.):

L. tetraspinosus Karg, 1980
– Cuba.

55(54) Ventra about as long as broad.

56(57) Surface of sternal shield with many fine dots, ds relatively long, all setae of posterior half of dorsum reaching the next seta of the series, Z4 = 75, Z5 = 67, leg I = 420, leg IV = 530, ids = 460 (Fig. 6.28.):

L. euarmatus Karg, 1994
– Galapagos, from ferns.

57(56) Anterior margin of sternal shield with an incision in the middle, ds short, no seta of posterior half of dorsum reaching the next seta of the series, ds Z4 = 41, Z5 = 48, leg I = 390, leg IV = 400, (Fig. 6.29.):

L. inconspicuus Westerboer, 1963
– Europe.

58(53) Te in the middle with one smooth point or irregularly serrate.

59(62) Te with one smooth median point, most ds tricarinate, ds Z4 and Z5 terminally broad and serrate.

60(61) Shoulder setae r3 remarkably long, as long as the caudal setae Z5 (= 42), sternal shield on the anterior half with a median field with a net-like structure, ids = 370 (Figs 6.30.1. – 6.30.2.):

L. reticulatus Bhattacharyya, 1968
– India, West Bengal.

61(60) Shoulder setae r3 shorter than the caudal setae, sternal shield punctate, caudal ds Z4 = 45, Z5 = 51, ids = 435 (Fig. 6.31.):

L. thermophilus Willmann, 1942
– Europe near a thermal spring.

62(59) Te in the middle irregularly serrate, dorsum with relatively short but distinctly tricarinate ds, including the caudal setae, ds Z5 = 50 long, sternal shield smooth, ventra length : width = 6 : 7, ids = 400 – 420 (Fig. 6.32.):

L. serradentis n. sp.
– Ecuador.

Subgenus *Crinidens* Karg, 1980 n. comb.

Lasioseius-ometes-complex

Lasioseius scapulatosimilis Karg, 1980

(Fig. 6.1.)

KARG, W. (1980): Die Raubmilbengattung *Lasioseius* Berlese, 1916. – Zool. Jb. Syst. **107**: 344 – 367
Holotype: Laboratoire d'Acarologie de l'Ecole Pratique des Hautes Etudes, Paris (France)
Synonym: *Lasioseius scapulatus* sensu ATHIAS-HENRIOT, 1959
Phytoseiidae & Aceosejidae (Acarina, Gamasina) d' Algerie. III. Contribution au Aceosejinae. – Bull. Soc. Hist. Nat. Afr. N. **50** (5/6): 158 – 195

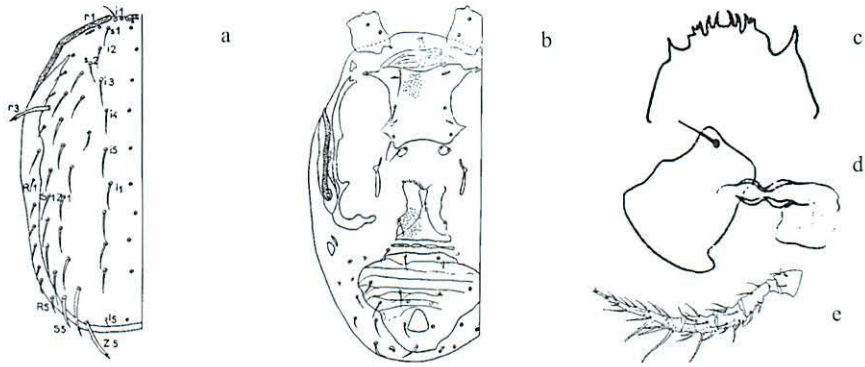

Fig. 6.1. **Female:** a dorsal, b ventral, c tectum, d spermatheca, e leg IV (a – e ATHIAS-HENRIOT 1959)

Lasioseius kinikinik Walter & Lindquist, 1989

(Figs 6.2.1. – 6.2.2.)

WALTER, D. E. & E. E. LINDQUIST (1989): Life history and behavior of mites in the genus *Lasioseius* (Acari, Mesostigmata, Ascidae) from grassland soils in Colorado, with taxonomic notes and description of a new species. – Can. J. Zool. **67**: 2797 – 2813
Holotype: United States National Museum, Washington D. C. (USA)
Paratypes: Canadian National Collection of Insects and Arachnids, Ottawa (Canada), Field Museum of Natural History, Chicago (USA)

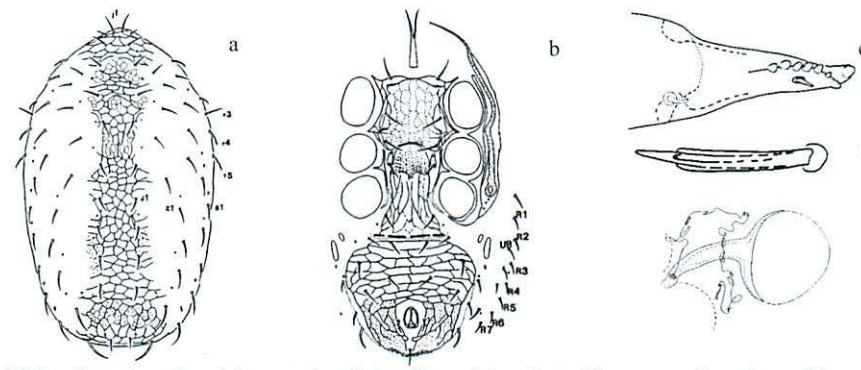

Fig. 6.2.1. **Female:** a dorsal, b ventral, c digitus fixus, d dorsal seta I3, e spermatheca (a – e WALTER & LINDQUIST 1989)

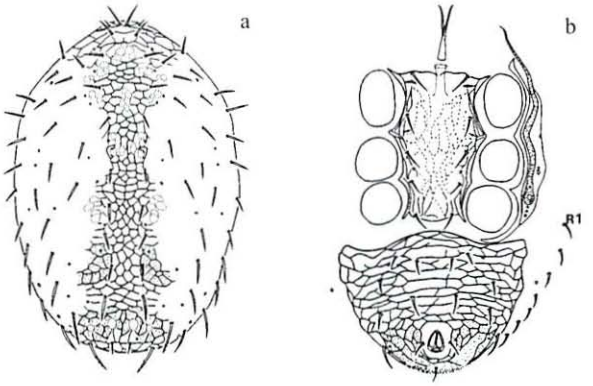

Fig. 6.2.2. **Male:** a dorsal, b ventral (a, b WALTER & LINDQUIST 1989)

Lasioseius quadrisetosus Chant, 1960

(Fig. 6.3.)

CHANT, D. A. (1960): Descriptions of five new species of mites from India (Acarina, Phytoseiidae, Aceosejidae). – Can. Entomol. **92**: 58 – 65

Holotype: Canadian National Collection, Belleville (Canada)

Paratypes: Canadian National Collection, Belleville (Canada), Citrus Experiment Station, Riverside, California (USA)

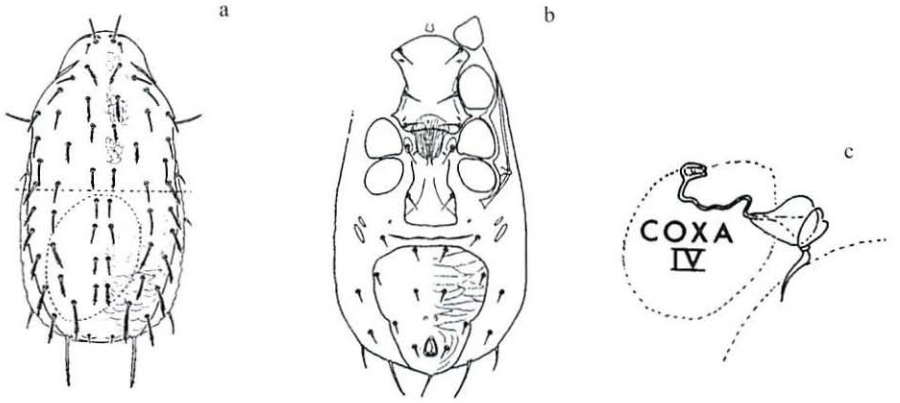

Fig. 6.3. **Female:** a dorsal, b ventral, c spermatheca (a – c CHANT 1960)

Lasioseius zerconoides Willmann, 1954

(Fig. 6.4.)

WILLMANN, C. (1954): Mährische Acari, hauptsächlich aus dem Gebiete des Mährischen Karstes. – Cesk. Parasit. **1**: 213 – 268

Types: Zoologische Staatssammlung München (Germany)

Note: This species was examined and new figures drawn based on the original material of C. Willmann.

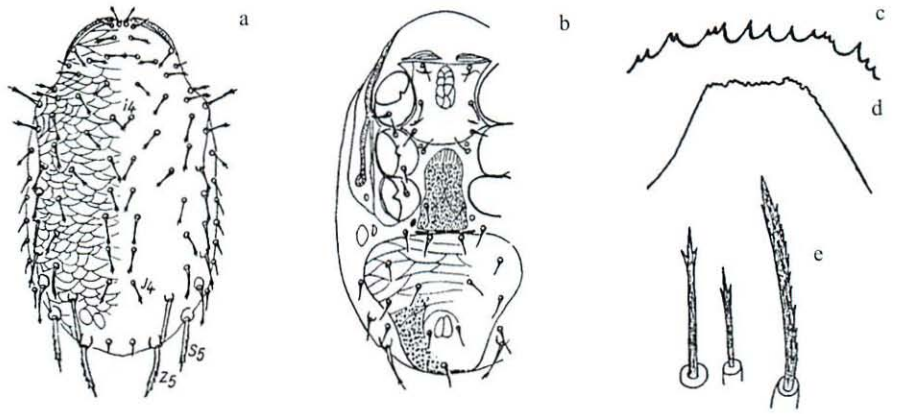

Fig. 6.4. **Female:** a dorsal, b ventral, c, d tectum, e dorsal setae (a – c KARG 1980; d, e WILLMANN 1954)

Lasioseius bilineatus Karg, 1976

(Figs 6.5.1. – 6.5.2.)

KARG, W. (1976): Zur Kenntnis der Überfamilie Phytoseioidea Karg, 1965. – Zool. Jb. Syst. **103**: 505 – 546

Types: Hungarian Natural History Museum, Budapest (Hungary), Museum für Naturkunde Berlin (Germany)

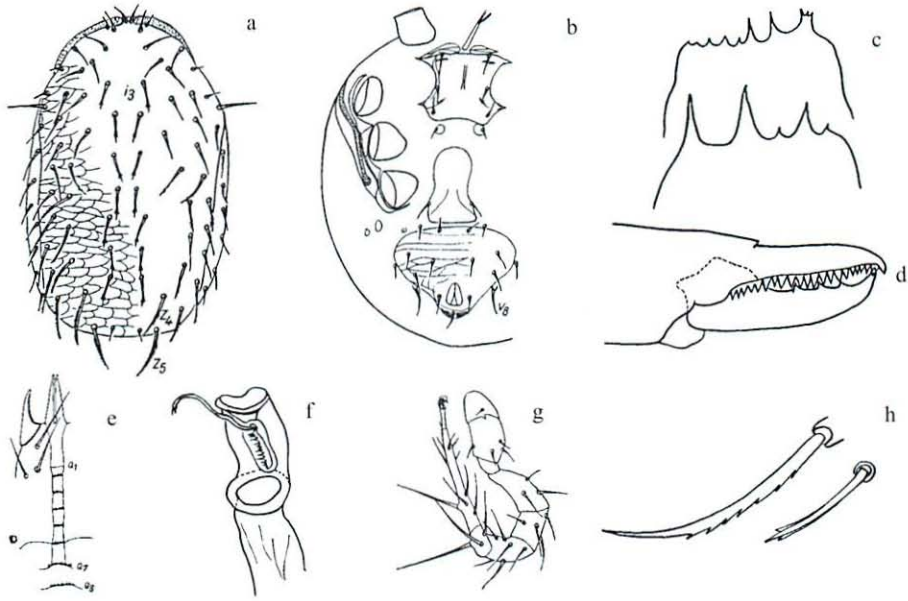

Fig. 6.5.1. **Female:** a dorsal, b ventral, c tectum, d chelicera, e hypostome, f spermateca, g leg IV, h dorsal setae Z4, i3 (a – h KARG 1976)

Fig. 6.5.2. **Male:** a tectum, b chelicera (a, b KARG 1976)

Lasioseius cortisimilis Karg, 1994

(Fig. 6.6.)

KARG, W. (1994): Raubmilben der Cohors Gamasina Leach (Acarina, Parasitiformes) vom Galapagos-Archipel. – Mitt. Zool. Mus. Berl. **70** (2): 179 – 216
Types: Museum für Naturkunde Berlin (Germany)

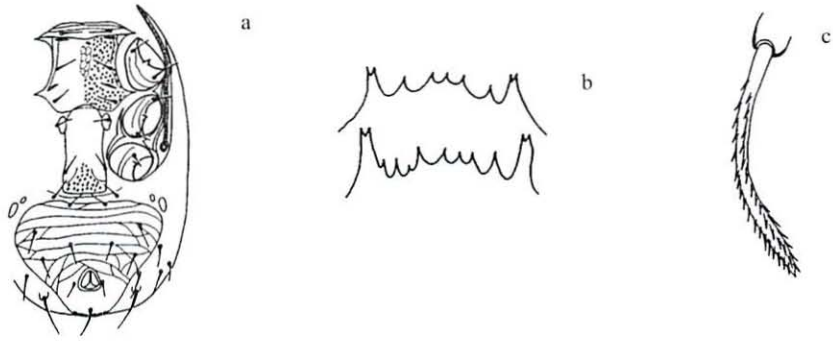

Fig. 6.6. **Female:** a ventral, b tectum, c dorsal seta Z5 (a – c KARG 1994)

Lasioseius mumai De Leon, 1963

(Fig. 6.7.)

DE LEON, W. (1963): A new genus and twelve new species of mites from Mexico and southeast United States (Acarina, Blattisocidae). – Fla. Entomol. **46** (2): 197 – 207
Types: deposition unknown to the authors

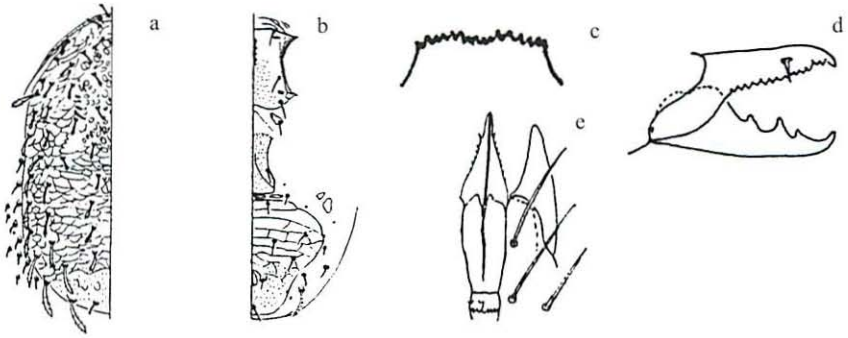

Fig. 6.7. **Female:** a dorsal, b ventral, c tectum, d chelicera, e hypostome (a – e DE LEON 1963)

Lasioseius cuppa Walter & Lindquist, 1997

(Figs 6.8.1. – 6.8.2.)

WALTER, D. E. & E. E. LINDQUIST (1997): Australian species of *Lasioseius* (Acari, Mesostigmata, Ascidae): the *porulosus* group and other species from rainforest canopies. – Invertebr. Taxon. **11**: 525 – 547

Holotype: University of Queensland Institute Collection, Department of Zoology and Entomology, St. Lucia, Queensland (Australia)

Paratypes: Queensland Department of Primary Industry, Meiers Road, Indooroopilly, University of Queensland Institute Collection, Department of Zoology and Entomology, St. Lucia, Queensland (Australia)

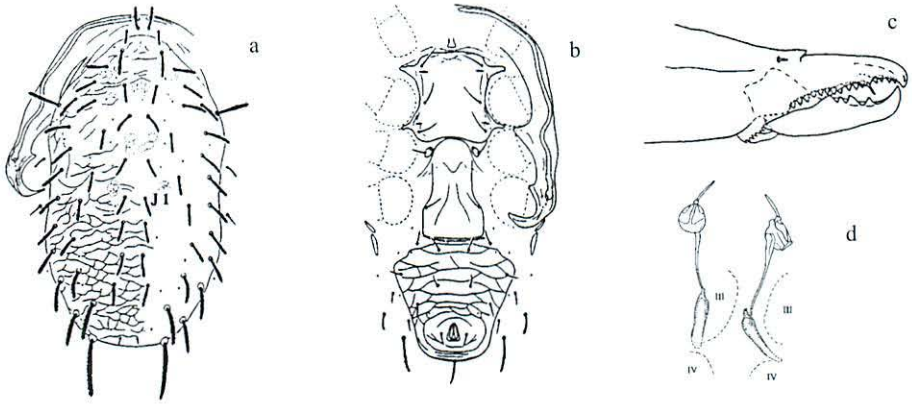

Fig. 6.8.1. **Female:** a dorsal, b ventral, c chelicera, d spermatheca (a – d WALTER & LINDQUIST 1997)

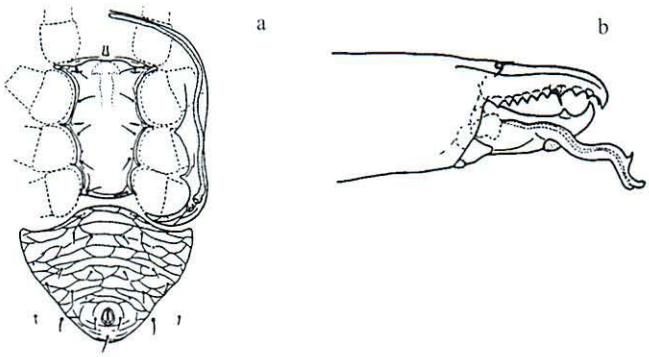

Fig. 6.8.2. **Male:** a ventral, b chelicera (a, b WALTER & LINDQUIST 1997)

Lasioseius wondjina Walter & Lindquist, 1997

(Fig. 6.9.)

WALTER, D. E. & E. E. LINDQUIST (1997): Australian species of *Lasioseius* (Acari, Mesostigmata, Ascidae): the *porulosus* group and other species from rainforest canopies. – Invertebr. Taxon. **11**: 525 – 547

Holotype: University of Queensland Institute Collection, Department of Zoology and Entomology, St. Lucia, Queensland (Australia)

Paratypes: Queensland Department of Primary Industry, Meiers Road, Indooroopilly, University of Queensland Institute Collection, Department of Zoology and Entomology, St. Lucia, Queensland (Australia)

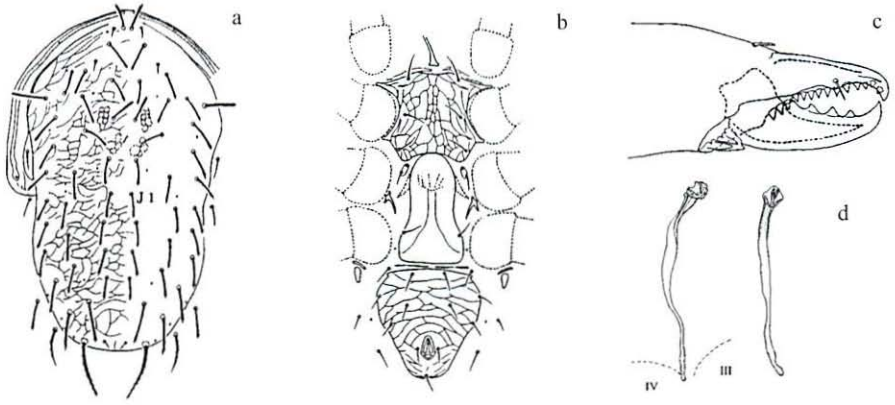

Fig. 6.9. **Female:** a dorsal, b ventral, c chelicera, d spermatheca (a – d WALTER & LINDQUIST 1997)

Lasioseius corticeus Lindquist, 1971

(Figs 6.10.1. – 6.10.5.)

LINDQUIST, E. E. (1971): New species of Ascidae (Acarina, Mesostigmata) associated with forest insect pests. – Can. Entomol. **103**: 919 – 942

Holotype: United States National Museum, Washington D. C. (USA)

Paratypes: Canadian National Collection, Ottawa (Canada), Southern Forest Experiment Station, Pineville, United States National Museum, Washington D. C. (USA)

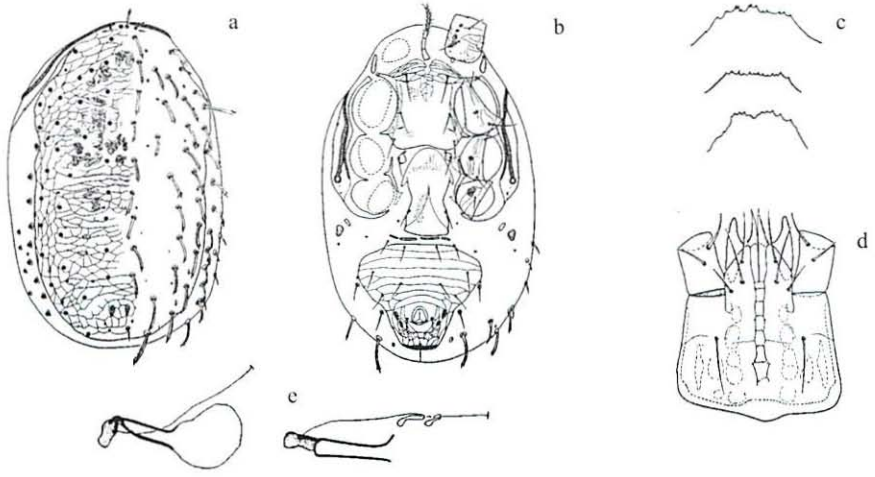

Fig. 6.10.1. **Female:** a dorsal, b ventral, c tectum, d hypostome, e spermatheca (a – e LINDQUIST 1971)

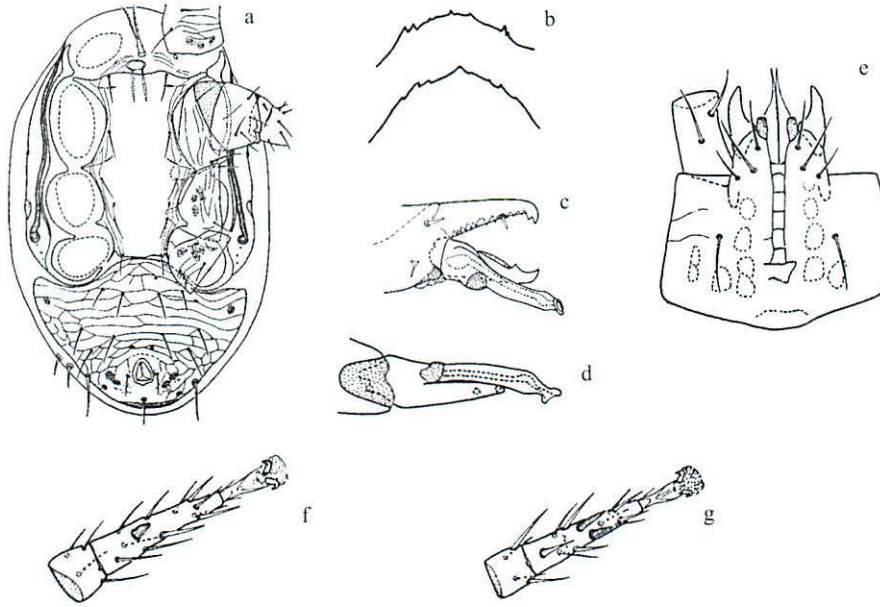

Fig. 6.10.2. **Male**: a ventral, b tectum, c, d chelicera, e hypostome, f tarsus II, g tarsus III (a – g LINDQUIST 1971)

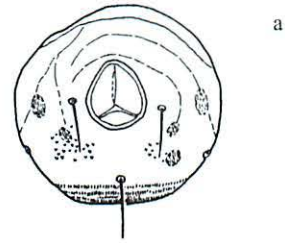

Fig. 6.10.3. **Deutonymph:** a anal shield (a LINDQUIST 1971)

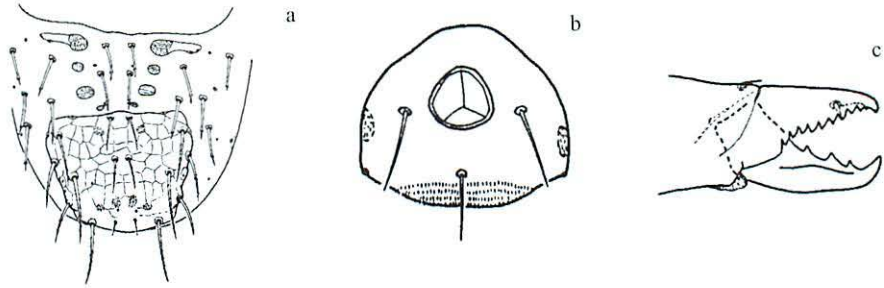

Fig. 6.10.4. **Protonymph:** a dorsal, b anal shield, c chelicera (a – c LINDQUIST 1971)

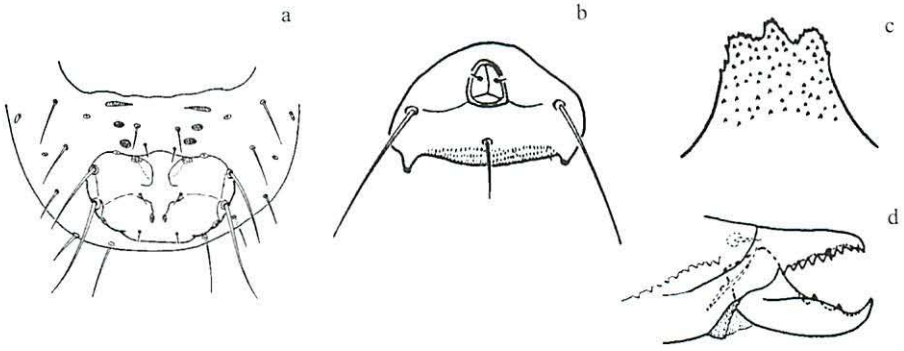

Fig. 6.10.5. **Larva:** a dorsal, b anal shield, c tectum, d chelicera (a – d LINDQUIST 1971)

Lasioseius queenslandicus (Womersley, 1956)

(Fig. 6.11.)

WOMERSLEY, H. (1956): On some new Acarina-Mesostigmata from Australia, New Zealand and Guinea. – J. Linn. Soc., Zool. **42** (288): 505 – 599

Types: South Australian Museum, North Terrace, Adelaide (Australia)

Synonyms: *Platyseius queenslandicus* Womersley, 1956
On some new Acarina-Mesostigmata from Australia, New Zealand and Guinea. – J. Linn. Soc., Zool. **42** (288): 505 – 599

Lasioseius athiasae Nawar & Nasr, 1991
Lasioseius athiasae, a new species from Egypt (Mesostigmata, Ascidae). – Acarologia **32** (4): 303 – 310

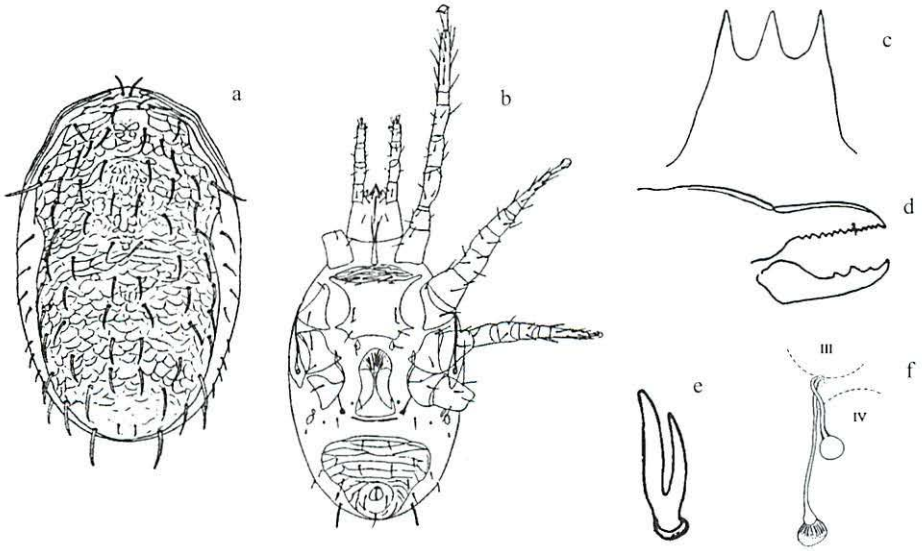

Fig. 6.11. **Female:** a dorsal, b ventral, c tectum, d chelicera, e seta on palpal tarsus, f spermatheca (a – e WOMERSLEY 1956; f WALTER & LINDQUIST 1997)

Lasioseius meridionalis Chant, 1963

(Fig. 6.12.)

CHANT, D. A. (1963): The subfamily Blattisocinae Garman (= Aceosejinae Evans) (Acarina, Blattisocidae Garman) (= Aceosejidae Baker & Wharton) in North America, with descriptions of new species. – Can. J. Zool. **41**: 243 – 305

Holotype: United States National Museum, Washington D. C. (USA)

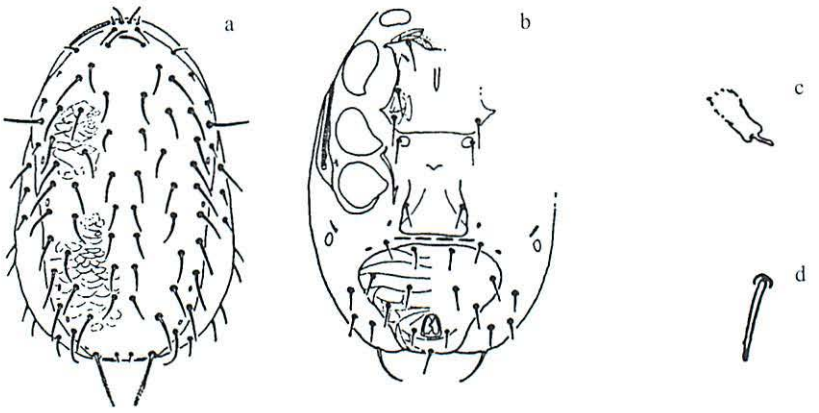

Fig. 6.12. **Female:** a dorsal, b ventral, c coxal gland, d seta (a – d CHANT 1963)

Lasioseius ometes (Oudemans, 1903)

(Figs 6.13.1. – 6.13.5.)

OUDEMANS, A. C. (1903): Acarologische Aanteekeningen VIII. – Entomol. Ber. (s-Gravenhage) **1** (14): 100 – 103

Types: deposition unknown to the authors

Synonym: *Hypoaspis ometes* Oudemans, 1903
Acarologische Aanteekeningen VIII. – Entomol. Ber. (s-Gravenhage) **1** (14): 100 – 103

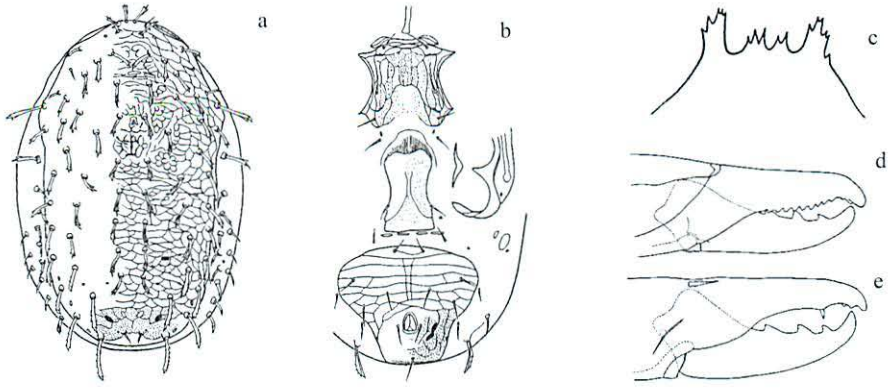

Fig. 6.13.1. **Female:** a dorsal, b ventral, c tectum, d chelicera from inside, e chelicera from outside (a – e WESTERBOER 1963)