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New quill mites of the family Syringophilidae (Acari Cheyletoidea) parasitizing Mexican parrots

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Abstract

Two new genera and five new species of quill mites of the family Syringophilidae (Acari: Cheyletoidea) are described from parrots (Psittaciformes: Psittacidae) captured in Mexico: *Neoaulobia mironovi* sp. n. ex *Amazona finschi*, *N. mexicana* sp. n. ex *Aratinga canicularis*, *Castosyringophilus forpi* gen. n., sp. n. ex *Forpus cyanopygius*, *Terratosyringophilus pioni* gen. n, sp. n. ex *Pionus senilis* and *Megasyringophilus rhynchopsitta* sp. n. ex *Rhynchopsitta pachyrhyncha*.

Keywords: Acari, Syringophilidae, quill mites, parrots, Mexico.

Introduction

The mites of the family Syringophilidae (Acari: Cheyletoidea) are permanent parasites inhabiting in the quills cavities of feathers (KETHLEY, 1970). At the present time, this family includes two subfamilies, 27 genera and more than 100 species parasitising birds from 16 orders (KETHLEY, 1970; FAIN *et al.*, 2000). The syringophilids are associated both with birds from orders of the Paraneornites group as well as the Neornites group. Most syringophilid species are monoxenous or oligoxenous parasites and they are restricted to a single bird genus or group of closely related genera (KETHLEY & JOHNSTON, 1975). Though the order Psittaciformes includes about 73 genera and more than 340 species (HOWARD & MOORE, 1991), the fauna of syringophilids infesting these hosts is still poorly known. Until now, only eleven species of four genera, *Megasyringophilus* FAIN *et al.*, 2000, *Neoaulobia* FAIN *et al.*, 2000, *Psittaciphylus* FAIN *et al.*, 2000 and *Picobia* HALLER, 1878 have been described from parrots (SKORACKI & DABERT, 1999,

2002; FAIN *et al.*, 2000). These genera, except *Picobia*, are associated exclusively with Psittaciformes. The genus *Picobia* is associated with birds of five orders, namely Passeriformes, Piciformes, Galliformes, Columbiformes and Psittaciformes.

The present paper deals with the descriptions of two new genera and five new species of Syringophilidae associated with parrots captured in different areas of Mexico in 1981-1997.

Mites for the study using light microscopy were prepared on slides in HOYER's medium. All the measurements are given in micrometers (μm). The nomenclature of idiosomal setae follows that of FAIN (1979) in the version adapted for the family Syringophilidae (BOCHKOV & MIRONOV, 1998) and the chaetotaxy for the legs is that of GRANDJEAN (1944).

Material examined

For this study we have examined the collection of Syringophilidae deposited in the Universidad Nacional Autonoma de Mexico, Mexico (UNAM). The holotypes and most part of the paratypes are deposited in UNAM. The other paratypes are deposited in the Zoological Institute of the Russian Academy, St. Petersburg, Russia (ZISP) and in the A. Mickiewicz University, Poznan, Poland (UAM).

Systematic part

Genus *Neoaulobia* FAIN, BOCHKOV et MIRONOV, 2000

This genus has included four species until now (FAIN *et al.*, 2000; SCORACKI & DABERT, 1999).

1. Neoaulobia mironovi sp. n.
(Figs 1-2)

Female (**holotype**). Body length, including gnathosoma, 700 (650-700 in 10 paratypes), width at the level of seta *h* bases 170 (165-170). *Gnathosoma*: Hypostomal apex with one pair of very short median protuberances and 2 pairs of small finger-like lips (Fig. 2C). Peritremes M-shaped, each transversal branch with 3-5 chambers, each longitudinal branch with 4-6 chambers (Fig. 2D). *Idiosomal dorsum*: Stylophore slightly constricted posteriorly. Propodosomal plate weakly sclerotized. Hysterosomal plate fused to pygidial plate. Length of setae: *vi* 57 (57-85), *ve* 80 (75-115), *sci* 115 (115-150), *sce* 185 (150-190), *h* 205 (195-210), *d1* 180 (175-195), *d2* 55 (45-62), *d4* 27 (25-30), *d5* 35 (35-40), *l1* 170 (150-185), *l2* 80 (75-108), *l4* 95 (87-100), *l5* 365 (350-400). Seta *d2* bases situated closely to the anterior margin of the hysterosomal plate. Distance between seta *l1* and *d2* bases 25 and between seta *d2* and *l2* bases 90. *Venter*: Length of setae: *pg1* 140 (110-140), *pg2* 105 (70-105), *pg3* 200 (150-200), *g1* and *g2* about 40, *a1* and *a2* about 25. *Legs*: coxae III and IV

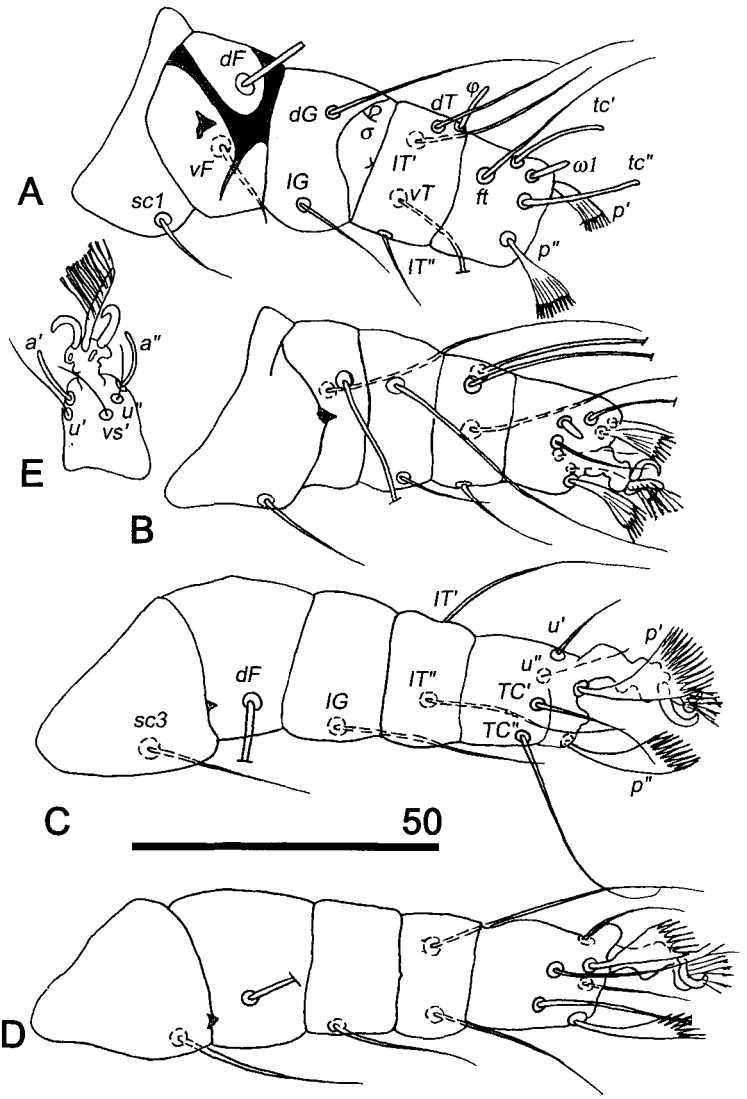

Fig. 1. *Neoaulobia mironovi* sp. nov., holotype female. A-D: Legs I-IV, dorsal view. E: tarsus I, ventral view. Scale line 50 μm.

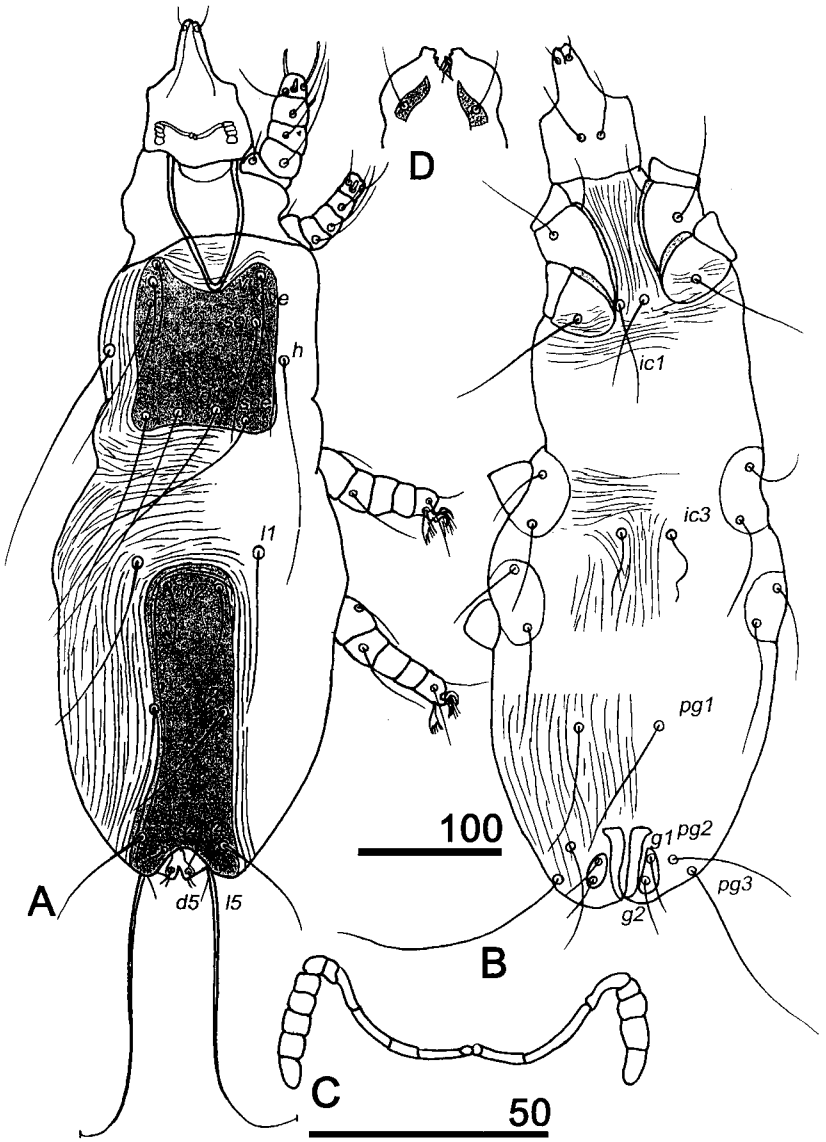

Fig. 2. *Neoaulobia mironovi* sp. nov., holotype female. A: dorsal view. B: ventral view. C: peritremes. D: hypostomal apex, ventral view. Scale lines 100 μm (A, B) and 50 μm (C, D).

weakly sclerotized. Setae *sc3* and *sc4* short, not extending beyond respective genua, 40-45 in length. Setae *dTIV* lacking. Setae *p'*, *p"* with numerous tines. Setae *tc'III-IV* about 2 times shorter than *tc"III-IV*.
Male. Unknown.

Host and locality: **Holotype** female and 14 female paratypes from *Amazona finschi*, Piaxtla, Sinaloa, Mexico, 19.VI.1982. Coll. M. CASTANEDA.

The **holotype** and 9 paratypes in UNAM, 4 paratypes in ZISP and one paratype in UAM.

Etymology: This species is named in a honour of noted-acarologist Dr. Serge V. MIRONOV (Zoological Institute Russian Academy of Sciences, St. Petersburg, Russia)

Remarks: This new species is closely related to *Neoaulobia aratinga* FAIN *et al.*, 2000 ex *Aratinga jandaya* from Brazil. In both species, the setae *dTIV* are absent and the setae *ve* and *sci* are much longer than *vi*. The new species is distinguished from *N. aratinga* by the following characters. In *N. mironovi*, the lengths of setae *vi, d2* and *l2* are 57-85, 45-62 and 75-108, respectively; the seta *d2* bases are situated very close to the anterior margin of the hysterosomal plate. In *N. aratinga*, the lengths of setae *vi, d2* and *l2* are 29-47, 74-105 and 120-166, respectively; the seta *d2* bases are situated far from the anterior margin of the hysterosomal plate.

2. Neoaulobia mexicana sp. n.
(Fig. 3)

Female (**holotype**). Body length, including gnathosoma, 600 (600-680 in 10 paratypes), width at the level of seta *h* bases 165 (155-165). *Gnathosoma*: Hypostomal apex with one pair of very short median protuberances and 2 pairs of small finger-like lips. Peritremes M-shaped, each transversal branch with 1-2 chambers, each longitudinal branch with 5-6 chambers (Fig. 3C). *Idiosomal dorsum*: Stylophore constricted posteriorly. Propodosomal plate weakly sclerotized. Hysterosomal plate fused with pygidial plate. Length of setae: *vi* 34 (23-34), *ve* 160 (140-160), *sci* 220 (200-240), *sce* 260 (240-260), *h* 270 (250-290), *d1* 250 (210-260), *d2* 35 (25-45), *d4* 22 (20-25), *d5* 18 (18-27), *l1* 130 (90-150), *l2* 50 (40-57), *l4* 57 (50-65), *l5* 350 (340-390). Seta *d2* bases situated relatively far from the anterior margin of the hysterosomal plate. Distance between seta *l1-d2* bases 30 and between seta *d2-l2* bases 80. *Venter*: Length of setae: *pg1* 115 (90-120), *pg2* 35 (35-50), *pg3* 170 (140-170), *g1* and *g2* about 30, *a1* and *a2* about 15. *Legs*: coxae III and IV weakly sclerotized. Setae *sc3* and *sc4* short, about 20, not extending beyond respective genua. Setae *dTIV* lacking. Setae *p'*, *p"* with numerous tines. Setae *tc'III-IV* about 2 times shorter than *tc"III-IV*.

Male. Body length, including gnathosoma, 480-490 (in 4 paratypes), width at the level of seta *h* bases 170-190. *Gnathosoma*: Hypostomal apex without protuberances. Transversal branch of peritremes with 1-2 chambers, longitudinal branch with 5-6 chambers. *Idiosoma*: Hysterosomal plate absent. Length of setae: *vi* 30-35 *ve* 85-97, *sci* 80-100, *sce* 170-185, *h* 140, *d1* 100, *d2*

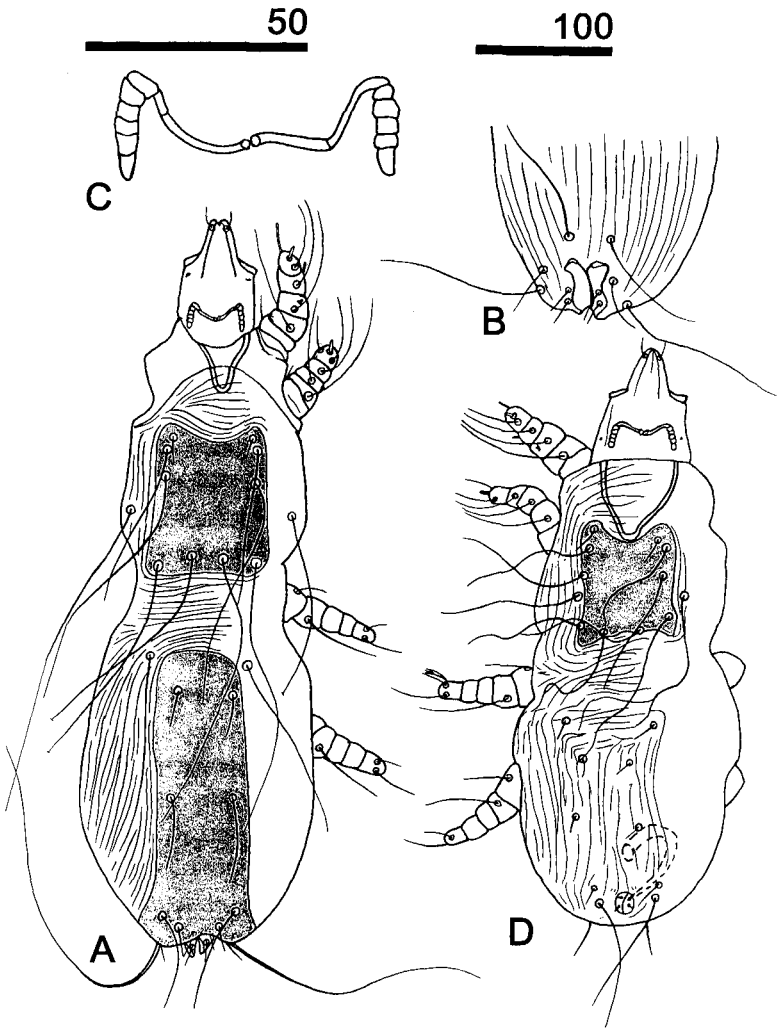

Fig. 3. *Neoaulobia mexicana* sp. nov. Holotype female (A-C). A: dorsal view. B: opisthosoma, ventral view. C: peritremes. D: male, dorsal view. Scale lines 100 μm (A, B, D) and 50 μm (C).

and *l2* 15-20, *d5* 18-25, *l1* 20-25, *l5* 150-170, *pg1* 65-70, *pg2* 35-40, *pg3* lacking. *Leg* chaetotaxy as in the female.

Host and locality: **Holotype** female and 15 female paratypes ex *Aratinga canicularis*, Huacana, Mexico, 1980. Coll. A. ESTRADA. 2 females and 2 males ex *Aratinga canicularis*, Piaxtla, Sinaloa, Mexico. 21.XII.1981. Coll. T.

PEREZ. 4 females ex the same host and locality, 19.VI.1982. Coll. M. CASTANEDA. 11 females and 2 males ex the same host, other data unknown.

The **holotype**, 10 paratypes and all additional specimens in UNAM, 4 paratypes in ZISP and one paratype in UAM.

Remarks: This new species, as the previous one, is closely related to *N. aratinga*. It is distinguished from *N. aratinga* by the following characters. In *N. mexicana*, the lengths of setae *d2, l2* and *l4* are 25-45, 40-57 and 50-65, respectively. In *N. aratinga*, the lengths of setae *d2, l2* and *l4* are 74-105, 120-166 and 70-115, respectively. *N. mexicana* differs from *N. mironovi* by the short setae *vi* 23-34 and *pg2* 35-50; moreover, the seta *d2* bases of the new species are situated relatively far from the anterior margin of the hysterosomal plate. In *N. mironovi*, the lengths of setae *vi* and *pg2* are 57-85 and 70-105, respectively; the seta *d2* bases are situated very close to the anterior margin of the hysterosomal plate.

Key to the genus *Neoaulobia* FAIN, BOCHKOV et MIRONOV, 2000
(Females)

1. Setae *vi* and *ve* subequal in length 4
- Setae *ve* much longer than *vi* 2

2. Seta *d2* bases situated far from the anterior margin of the hysterosomal shield. Setae *vi* 20-50 in length 3
- Seta *d2* bases situated close to the anterior margin of the hysterosomal shield. Setae *vi* 70-105 in length ..... *N. mironovi* sp. nov.

3. Setae *d2* 25-45, *l2* 40-57 and *l4* 50-65 in length ..... *N. mexicana* sp. nov.
- Setae *d2* 74-105, *l2* 120-166 and *l4* 70-115 in length ..... *N. aratinga* FAIN, BOCHKOV et MIRONOV, 2000

4. Setae *dTIV* present 5
- Setae *dTIV* absent ..... *N. agapornis* FAIN, BOCHKOV et MIRONOV, 2000

5. Length of setae *vi* 18-29, *l1* 38-47 and *l2* 75-100 ..... *N. psittaculae* FAIN, BOCHKOV et MIRONOV, 2000
- Length of setae *vi* 32-40, *l1* 52-75 and *l2* 112-220 ..... *N. puylaerti* (SKORACKI et DABERT, 1999)

Genus *Castosyringophilus* gen. n.

Female: Medium mites (600-1000 in length). Hypostomal apex ornamented, with 2 pairs of short finger-like lips and 2 pairs of sausage-like median protuberances. Lateral hypostomal teeth absent. Cheliceral digit edentate. Peritremes M-shaped, number of chambers in transversal branches and longitudinal branches variable. Stylophore rounded posteriorly, extending beyond to the anterior margin of the propodosomal plate. All dorsal setae smooth. Propodosomal plate weakly sclerotized, margins indistinct. Hysterosomal and pygidial plates lacking. Setal pattern of prodorsal region with 5

pairs of setae (setae *vi* lacking) arranged 2-1-1-1, seta *sce* bases situated distinctly anterior to seta *d1* bases. Setae *sce, h, d1, d2, l1-l5* long, whip-like, setae *ve, sci, d4* and *d5* short, more than 6 times shorter than other dorsal setae of idiosoma. Position of seta *d2* bases variable. Genital and anal series with 2 pairs of setae, paragenital series with 3 pairs of setae. Epimeres I very long, 1.1-1.2 times longer than gnathosoma, they are dissimilar in size and shape to epimeres II and almost fused to them at posterior part. Coxal region III-IV weakly sclerotized. Legs I 1.5 times longer than legs II. Legs I and II slightly thicker than legs III and IV. Leg setae *dFII-dFIV* and *vs'II* lacking. Setae *p'* and *p"* multiserrate. Antaxial and paraxial members of claw pair subequal, claws approximately 1/2 length of empodium.

Male: Characters as in female except: hypostomal apex without protuberances, 2 pairs of paragenital setae and epimeres I free in their posterior parts.

Type species: *Peristerophila mucuya* CASTO, 1980

Order of hosts: Columbiformes, Psittaciformes

This new genus includes 2 species, the type species and newly described here *Castosyringophilus forpi* sp. nov.

Remarks: *Castosyringophilus* is closely related to the genus *Peristerophila* KETHLEY, 1970 (parasites of Columbiformes). The females of both genera present the following combination of characters: the stylophore is rounded posteriorly, the setae *vi, dFII-dFIV* and *vs'II* are lacking, the setae *d4* and *d5* are short, the propodosomal plate is not divided, the epimeres I are slightly divergent and fused with epimeres II, there are 2 pairs of anal and genital setae, 3 pairs of paragenital setae. The new genus is distinguished from *Peristerophila* by the following characters. In *Castosyringophilus*, the gnathosomal apex bears 2 pairs of sausage-like median protuberances, the setal pattern of prodorsal region is arranged 2-1-1-1 (the seta *sce* bases are situated distinctly anterior to seta *d1* bases), the epimeres I are 1.1-1.2 times longer than gnathosoma, the legs I are 1.5 times longer than legs II. In *Peristerophila*, the gnathosomal apex is devoid the median protuberances (Fig. 4D), the setae pattern of propodosomal region is arranged 2-1-1-2 (the seta *sce* bases are situated at the same level that the seta *d1* bases), the epimeres I are distinctly shorter than gnathosoma, the legs I are 1.1-1.2 times longer than legs II.

The new genus differs from *Psittaciphilus* FAIN et al., 2000 by the same set characters and in addition by the stylophore rounded posteriorly and the absence of pocket-like structures on prodorsum.

3. Castosyringophilus forpi sp. n.
(Fig. 4)

Female (**holotype**). Body length, including gnathosoma, 580 (570 in a single paratype seriously damaged), width at the level of seta *h* bases 130 (135). *Gnathosoma*: Peritremes M-shaped, each transversal branch with 1 chamber, each longitudinal branch with 6 chambers. *Idiosomal dorsum*:

Fig. 4. *Castosyringophilus forpi* gen. nov., sp. nov., holotype female (A-C). A: dorsal view. B: ventral view. C: hypostomal apex, ventral view. *Peristerophila columba* (HIRST, 1920), female. D: hypostomal apex, ventral view. Scale lines 100 μm (A, B) and 50 μm (C, D).

Propodosomal plate weakly sclerotized, not divided. Length of setae: *ve* 25, *sci* 27, *sce* 140, *h* 185, *d1* 120, *d2* 180, *d4* 16, *d5* 20, *l1* 180, *l2* 190, *l4* 360, *l5* 400. Distance between seta *l1* and *d2* bases 45 and between *d2-l2* 70. *Venter*:

Length of setae: *pg1* 100, *pg2* 25, *pg3* 125, *g1* and *g2* about 25, *a1* and *a2* about 15. *Legs*: coxae III and IV weakly sclerotized. Setae *sc3* and *sc4* short, about 20, not extending beyond respective genua. Setae *p'*, *p''* with numerous tines. Setae *tc'III-IV* about 1.5 times shorter than *tc''III-IV*.

Male: unknown.

Host and locality: **Holotype** female and a single female paratype ex *Forpus cyanopygius*, Ruiz, Nayarit, Mexico, 14.XII.1981. Coll. M. CASTANEDA.

The **holotype** and paratype in UNAM.

Etymology: The name *forpi* refers to the generic name of the host.

Remarks: This new species is distinguished from the type species of this genus, *Castosyringophilus mucuya* (CASTO, 1980) comb. nov. described ex *Columbina passerina* (Columbiformes: Columbidae) from Texas (CASTO, 1980) by the following characters. In *C. forpi*, the body length is 570-580, the distance between seta *d2* and *l1* bases are 1.5 times longer than the distance between seta *d2- l2* bases. In *C. mucuya*, the body length is 920-1020, the distance between seta *d2* and *l2* bases are 1.5 times longer than the distance between seta *l1* and *d2* bases.

Genus *Terratosyringophilus* gen. nov.

Female: Large mites (1370-1850). Hypostomal apex ornamented, with 2 pairs of short finger-like lips and 2 pairs of sausage-like median protuberances. Lateral hypostomal teeth absent. Cheliceral digit dentate. Peritremes M-shaped, number of chambers in transversal branches and longitudinal branches variable. Stylophore rounded posteriorly, extending beyond to the anterior margin of the propodosomal plate. All dorsal setae smooth. Propodosomal plate weakly sclerotized, margins indistinct. Hysterosomal and pygidial plates lacking. Setal pattern of prodorsal region with 5 pairs of setae (setae *vi* lacking) arranged 2-1-1-1, seta *sce* bases situated distinctly anterior to seta *d1* bases. Setae *sce, h, d1, d2, l1-l5* long, whip-like, setae *d4* and *d5* short, more than 6 times shorter than other dorsal setae of idiosoma. Seta *d2* bases situated equal distant between seta *l1* and *l2* bases. Genital and anal series with 2 pairs of setae, paragenital series with 3 pairs of setae. Epimeres I very long, 1.1-1.2 times longer than gnathosoma, they are dissimilar in size and shape to epimeres II and almost fused to them in posterior part. Coxal region III-IV weakly sclerotized. Legs I 1.5 times longer than legs II. Legs I and II slightly thicker than legs III and IV. Leg setae *dFII* and *vs'II* lacking, the setae *dFIII* and *dFIV* present but replaced ventrally. Setae *p'* and *p''* multiserrate. Antaxial and paraxial members of claw pair subequal, claws approximately 1/2 length of empodium.

Male: Characters as in female except: hypostomal apex without protuberances.

Type species: *Peristerophila longisoma* CASTO, 1979

Order of hosts: Columbiformes, Psittaciformes

This new genus includes 2 species, type species and newly described below *Terratosyringophilus pioni* sp. nov.

Remarks: *Terratosyringophilus* is very closely related to the genus *Castosyringophilus*. The females of the new genus differ from *Castosyringophilus* by the following characters. In *Terratosyringophilus*, the body length is 1370-1850, the setae *dFIII* and *dFIV* are present but replaced ventrally. In *Castosyringophilus,* the body length 600-1000, the setae *dFIII* and *dFIV* are absent.

Four genera, *Peristerophila, Psittaciphilus, Castosyringophilus* and *Terratosyringophilus* form a compact generic group characterised by the absence of setae *vi, vs'II, dFII*, short setae *d4, d5* and by the full set of anal, genital and paragenital setae. These mites parasitising birds of the orders Psittaciformes and Columbiformes. The affinity of these genera could be explained, at least partly, by the hypothesis of the close phylogenetic relationships between orders of their hosts (CARROLL, 1993). The genera *Castosyringophilus* and *Terratosyringophilus* include the species parasitising columbiform birds as well as the species associated with parrots. There are two possible explanations of these facts. The first one is that mites of the both genera infested a common ancestor of Psittaciformes and Columbiformes. The second one is that mites of these genera inhabited primarily birds of one of these orders and had been secondarily transmitted onto the representatives of the another order.

4. Terratosyringophilus pioni sp. n.
(Fig. 5)

Female (**holotype**). Body length, including gnathosoma, 1530 (1370-1600 in 2 paratypes), width at the level of seta *h* bases 250 (200-250). *Gnathosoma*: Peritremes M-shaped, each transversal branch with 1 chamber, each longitudinal branch with 8-9 chambers (Fig. 5E). *Idiosomal dorsum*: Propodosomal plate weakly sclerotized, not divided. Length of setae: *ve* 350, *sci* 415, *sce* 500 (400), *h* 450, *d1* 540 (440), *d2* 475 (380), *d4* 37 (35), *d5* 70 (80), *l1* 470 (440), *l2* 510 (415), *l4* 520, *l5* 600. Distance between seta *l1* and *d2* bases 105, and between *d2-l2* 130. *Venter*: Length of setae: *pg1* 270, *pg2* 290, *pg3* 330 (300), *g1* and *g2* about 40 (35), *a1* and *a2* about 25. *Legs*: coxae III and IV weakly sclerotized. Setae *sc3* and *sc4* extending beyond respective genua, 105-115 in length. Setae *p', p"* with numerous tines (Fig. 5F). Setae *tc'III-IV* about 2 times longer *tc"III-IV*.

Male: unknown.

Host and locality: **Holotype** female and 2 female paratypes ex *Pionus senilis*, Near Cd. del Maiz, S.L.P., Mexico, 11.VIII.1985. Coll. W. ATYEO and T. PEREZ.

The **holotype** and paratype in UNAM. One paratype in ZISP.

Etymology: The name *pioni* refers to the generic name of the host.

Remarks: This new species is distinguished from the type species of this genus, *Terratosyringophilus longisoma* (CASTO, 1979) comb. nov. described ex *Zenaida asiatica* (Columbiformes: Columbidae) from Texas (CASTO, 1979)

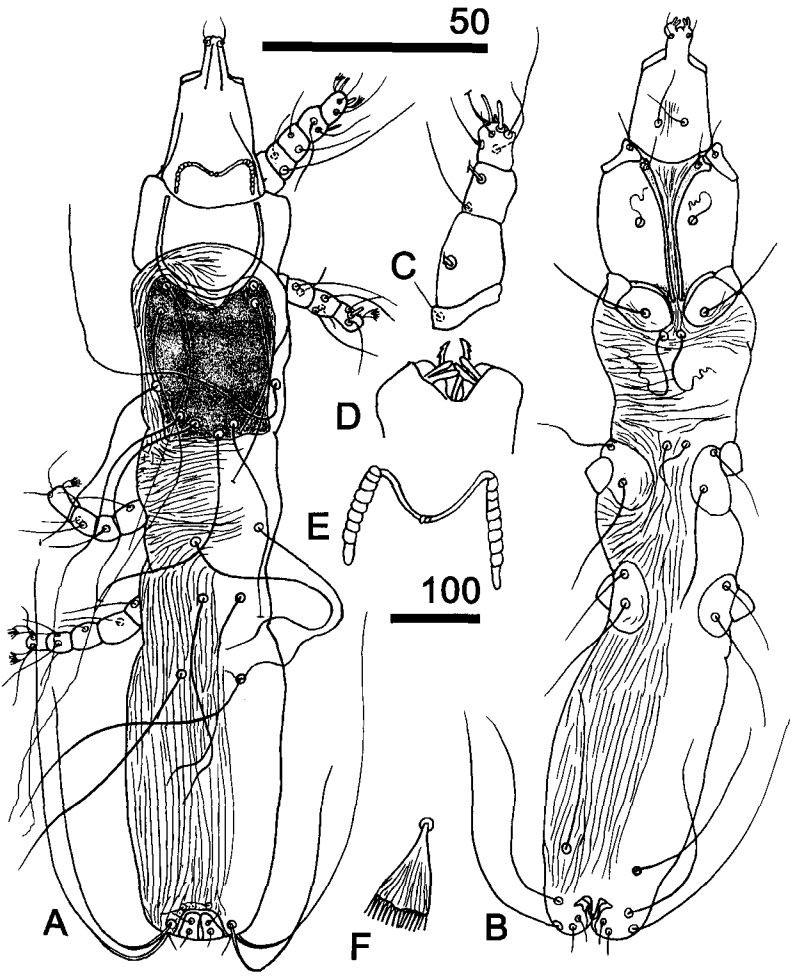

Fig. 5. *Terratosyringophilus pioni* gen. nov., sp. nov., holotype female. A: dorsal view. B: ventral view. C: palpa, dorsal view. D: hypostomal apex, ventral view. E: peritremes. F: seta *p'* of tarsus III. Scale lines 100 μm (A, B) and 50 μm (C-F).

by the following characters. In *T. pioni*, the setae *ve* and *sci* are subequal in length, while in *T. longisoma*, the setae *sci* are almost 5 times shorter than *ve*.

Genus *Megasyringophilus* FAIN, BOCHKOV et MIRONOV, 2000

This genus included three species until now (FAIN *et al.*, 2000).

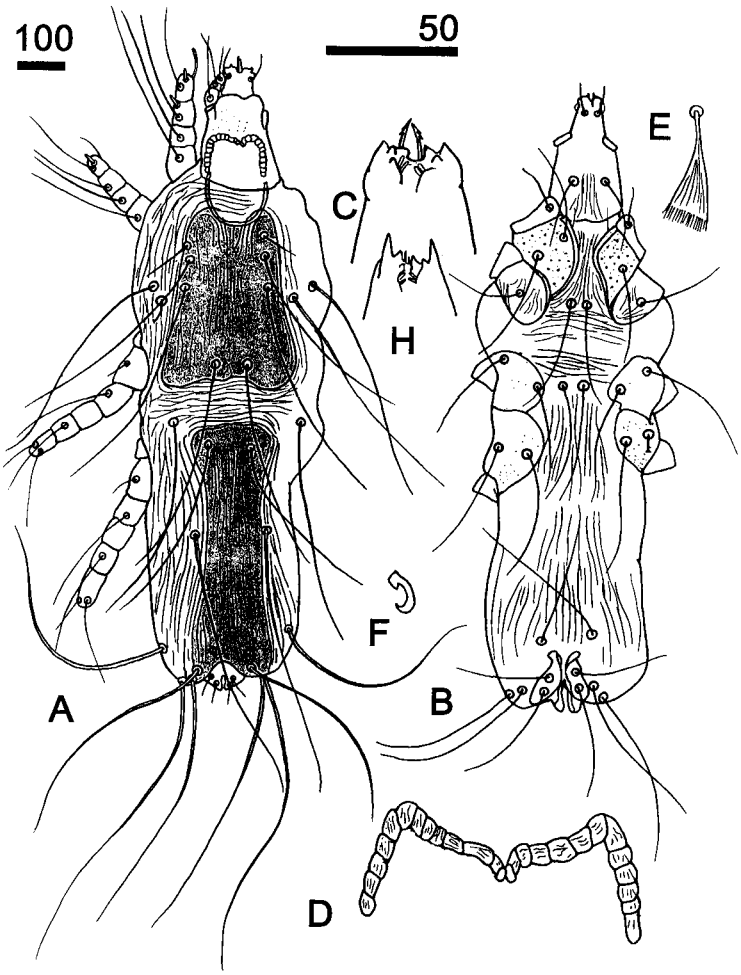

Fig. 6. *Megasyringophilus rhynchopsitta* sp. nov., holotype female (A-F). A: dorsal view. B: ventral view. C: hypostomal apex. D: peritremes. E: seta *p'* of tarsus III. F: claw of tarsus IV. *Megasyringophilus kethley* FAIN *et al.*, 2000, female. H: hypostomal apex. Scale lines 100 μm (A, B) and 50 μm (C-H).

5. Megasyringophilus rhynchopsittae sp. n.
(Fig. 6)

Female (**holotype**). Body length, including gnathosoma, 1395 (1370-1523 in 10 paratypes), width at the level of seta *h* bases 430 (420-430). *Gnathosoma*: Hypostomal apex slightly ornamented, with 3 pairs of very short median protuberances and 2 pairs of small finger-like lips (Fig. 6C).

Peritremes M-shaped, each transversal branch with 5-6 chambers, each longitudinal branch with 5-6 chambers. Cheliceral digit dentate, with 2-3 teeth. *Idiosomal dorsum*: Stylophore rounded posteriorly. Propodosomal plate weakly sclerotized, with indistinct margins. Seta *sce* bases situated behind the level of seta *h* bases. Hysterosomal plate present, fused to pygidial plate. Length of setae: *vi* 120 (105-130), *ve* 500 (475-510), *sci* 480 (475-535), *sce* 540 (490-550), *h* 540 (520-560), *d1* 450 (430-490), *d2* 465 (440-470), *d4* 510 (500-610), *d5* 600 (590-620), *l1* 535 (475-540), *l2* 490 (475-530), *l4* 630 (600-650), *l5* 650 (630-700). Distance between seta *l1* and *d2* bases 100 and between seta *d2* and *l2* bases 200. *Venter*: Length of setae: *pg1* 290 (260-300), *pg2* 390 (350-415), *pg3* 440 (420-460), *g1* 95 (90-130), *g2* 250 (230-260), *a1* and *a2* 80 (80-85). *Legs*: coxae III and IV weakly sclerotized. Setae *sc III* and *sc IV* not extending beyond respective genua, 40-45 in length. Setae *p', p"* with numerous tines. Setae *tc'III-IV* more 2 times shorter than *tc"III-IV*.

Male. Unknown.

Host and locality: **Holotype** female and 34 female paratypes from *Rhynchopsitta pachyrhyncha*, Mesa de las Guacamayas, Mpio. Janos, Chihuahua, Mexico, 26.IX.1997. Coll. T. MONTERRUBIA and J. CRUZ.

The **holotype** and 26 paratypes in UNAM, 6 paratypes in ZISP and 2 paratypes in UAM.

Etymology: The name *rhynchopsittae* refers to the generic name of the host.

Remarks: This new species is closely related to *Megasyringophilus kethley* FAIN *et al.*, 2000 ex *Aratinga jandaya* from Brazil. In both species, the setae *tc"III-IV* are longer than *tc'III-IV*, the claws of legs III and IV have a basal angle, the hypostomal apex bears 3 pairs of median protuberances. It distinguished from *M. kethley* by the following characters. In *M. rhynchopsittae*, the median protuberances of hypostome are very short (Fig. 6C), the seta *sce* bases are situated behind seta *h* bases and the hysterosomal plate is present. In *M. kethley*, the median protuberances of hypostome are well developed (Fig. 6H), the seta *sce* bases are situated anterior to seta *h* bases, and the hysterosomal shield is absent.

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