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Three new species of the ectoparasitic mites of the genus *Syringophiloidus* Kethley, 1970 (Acari: Syringophilidae) from passeriform birds from Slovakia

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Abstract. Three new quill mite species of the genus *Syringophiloidus* Kethley, 1970 (Acari: Syringophilidae) from Slovakia are described and figured: *S. bombycillae* sp. n. from the waxwing *Bombycilla garrulus* (L.) (Passeriformes: Bombycillidae), *S. schoeniclus* sp. n. from the reed bunting *Emberiza schoeniclus* L. (Passeriformes: Emberizidae) and *S. montanus* sp. n. from the tree sparrow *Passer montanus* (L.) (Passeriformes: Ploceidae). A key to all known species of the genus *Syringophiloidus* is given.

The fauna of the ectoparasitic mites of the genus *Syringophiloidus* Kethley, 1970 includes 11 described species. Most of them are associated with passeriform birds of the families Corvidae, Fringillidae, Hirundinidae, Ploceidae, Turdidae, Sturnidae, Motacillidae, Parulidae and Laniidae (Table 1) (Fritsch 1958, Clark 1964, Chirov and Kravtsova 1995, Bochkov and Mironov 1998, Bochkov 2001, Bochkov and Apanaskevich 2001, Skoracki et al. 2001). One species was described from the Apodiformes (Apodidae) (Fain et al. 2000). Species of this genus are small to medium-sized mites and they live in various parts of plumage: inside the quills of the primaries, secondaries, alulars, rectrices, greater coverts and tail coverts (Kethley 1970, Casto 1974).

In the present paper are given descriptions of three new species of the genus *Syringophiloidus* associated with passeriform birds from Slovakia: the waxwing *Bombycilla garrulus* (L.) (Bombycillidae), the reed bunting *Emberiza schoeniclus* L. (Emberizidae) and the tree sparrow *Passer montanus* (L.) (Ploceidae). The Bombycillidae and Emberizidae are new host families for the genus *Syringophiloidus*. All these new species were found inside the quills of secondary feathers.

MATERIALS AND METHODS

Syringophilid mite specimens were acquired from the bird collection deposited in the Department of Natural History, the Šarišské Múzeum, Bardejov, Slovakia. Flight feathers (5th right secondary), undertail and body (from the ventral area) feathers were removed and examined. Mites were mounted in a polyvinylolactophenol medium in microscopic slides and studied with a differential interference (Nomarski) contrast Olympus BH 2 microscope.

The nomenclature of idiosomal setae follows that of Fain (1979) in the version adapted for the family Syringophilidae (Bochkov and Mironov 1998). The terminology and leg chaetotaxy follows these of Kethley (1970) and Grandjean (1944). Bird taxonomy follows that of Morony et al. (1975). All measurements are given in micrometres (μm). The setal measurements of holotypes are incomplete, because some setae were broken.

Abbreviations for the institutions where the type materials are deposited: UAM – Department of Animal Morphology, A. Mickiewicz University, Poznań, Poland, SMB - Department of Natural History, the Šarišské Múzeum, Bardejov, Slovakia, ZIN – Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia.

RESULTS

Syringophiloidus bombycillae sp. n. Figs. 1-8

Female (Figs. 1, 2, 5, 6). Total body length of holotype 725 (750-925 of 7 paratypes).

GNATHOSOMA. Gnathosoma punctated ventrally. Hypostomal apex as in Fig. 5. Peritremes M-shaped, each transversal branch with 5-7 chambers, each longitudinal branch with 10-12 chambers (Fig. 6). Stylophore 180 (180-195) long.

IDIOSOMA. Propodosomal plate well sclerotised, the bases of setae *vi*, *ve*, *sci*, *d1* and *sce* on this plate. Setae *vi*, *ve* and *sci* weakly serrate. Length ratio of setae *vi* : *ve* : *sci* 1 : 1.6-1.8 : 4.7. Hysterosomal plate fused to pygidial plate, weakly sclerotised, margins indistinct; bases of setae *l1*, *d2* and *l2* on or near this plate, setae *l4* and *d4* on this plate. Setae *d2* closer to *l1* than to *l2*. The ratio of distances between setal bases *l1*-*d2* : *d2*-*l2* 1 : 2. Length ratios of setae *d5* : *l5* and *d4* : *l4* 1 : 14-15 and 1 : 7-8.8, respectively. Paragenital setae *pg1* 1.2-1.4 times longer than *pg2*. Two pairs of anal setae. Dorsal plates not punctated. Cuticular striations as in Figs. 1 and 2.

LEGS. All coxae punctated. Epimeres I parallel and adjoining to epimeres II. Setae *p*' and *p*" of legs III and IV with 6-7 tines. Setae *tc*' of tarsi III and IV twice shorter than *tc*" III and IV. Setae *3c* three times longer than *3b*.

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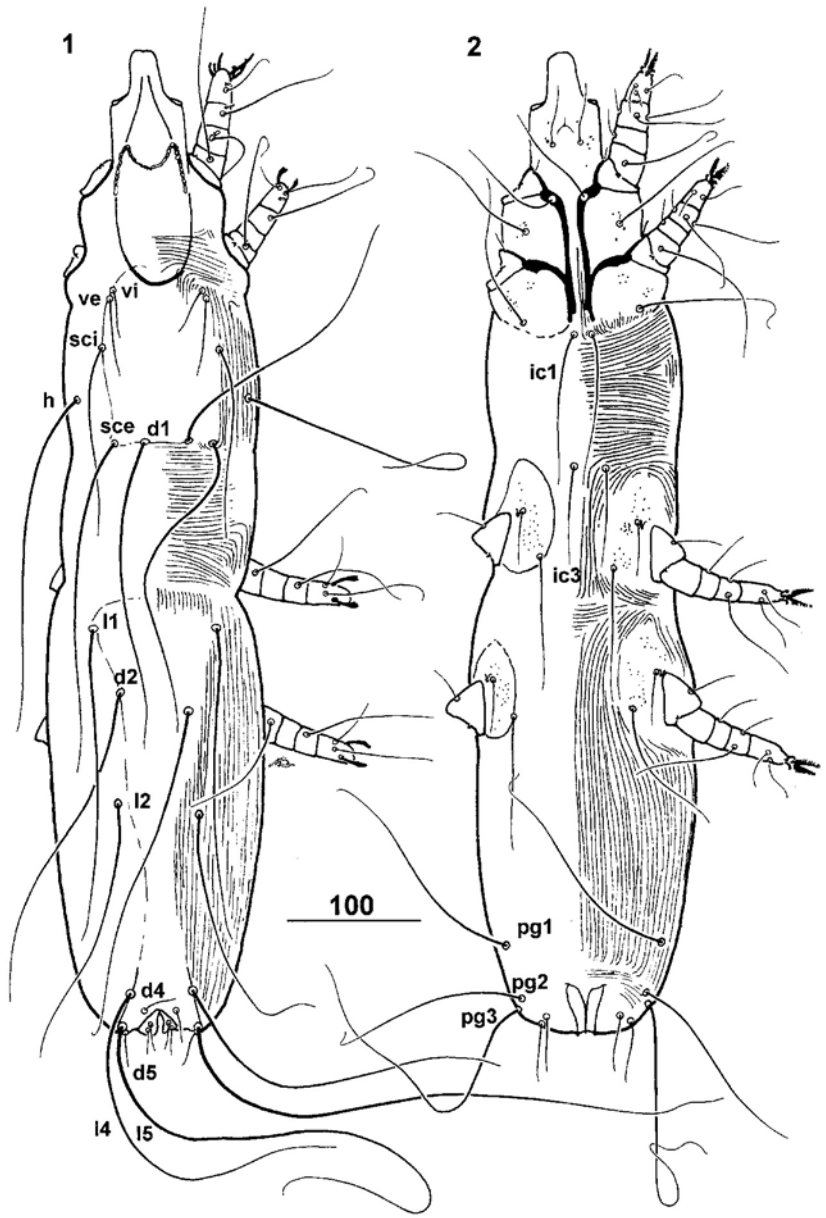


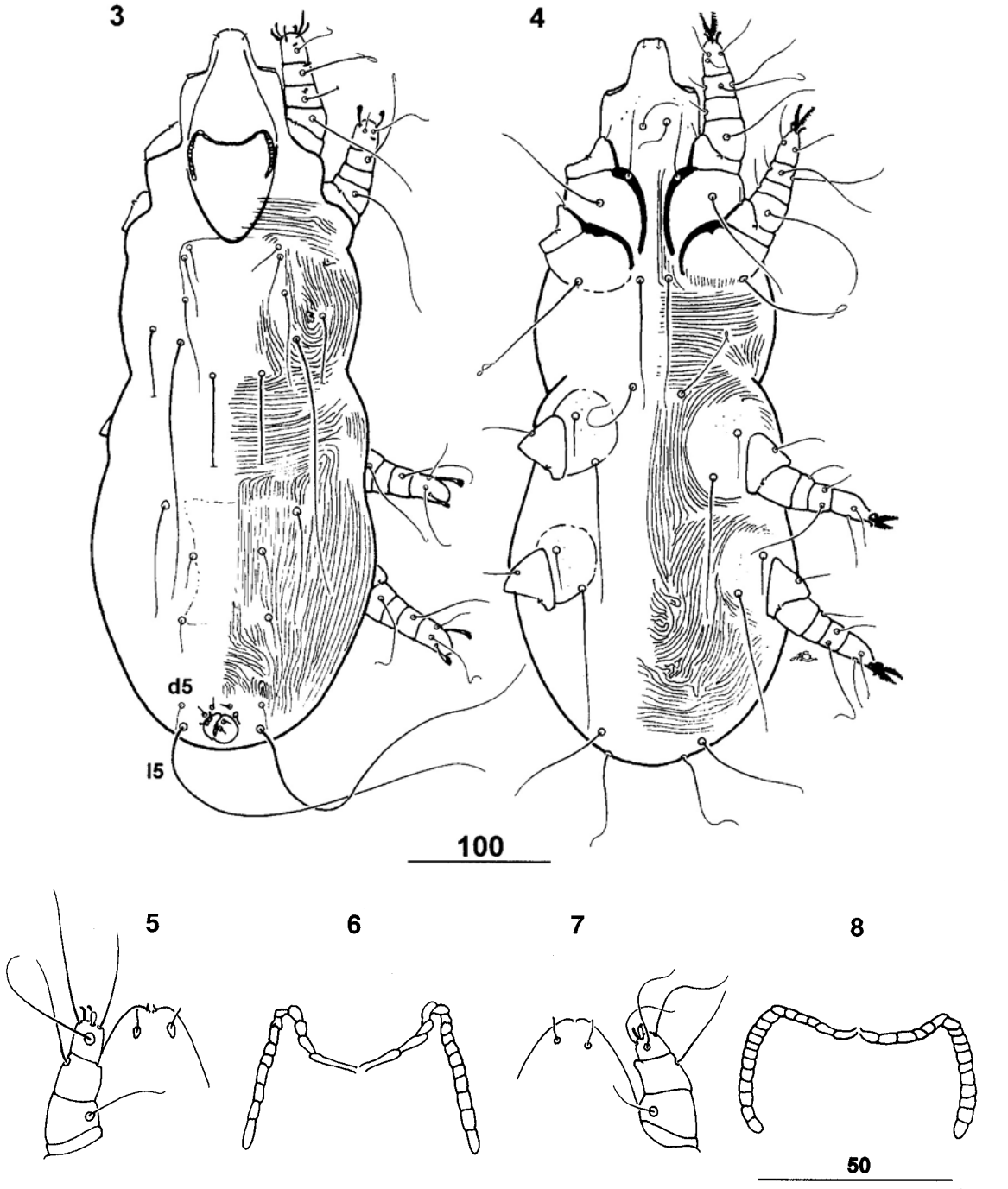
Figs. 1, 2. *Syringophiloidus bombycillae* sp. n., female. **Fig. 1.** Dorsal view. **Fig. 2.** Ventral view. Scale bar in μm.

Length of setae and distance between setal bases (n = 7): *vi* 35 (30-45); *ve* 60 (55-70); *sci* 165 (130); *h* 250 (195-240); *sce* 250 (225-250); *l1* 250 (225-260); *l2* (190-215); *l5* (405-450); *d5* 30 (30); *d1* (225-245); *d2* 250 (250); *l4* 295 (255-265); *d4* (30-35); *a1* 25 (20-25); *a2* 25 (20-25); *g1* (35-40); *g2* (35-40); *ic1* (100-150); *ic3* (70); *sc1* (10); *sc2* (15); *sc3* 50 (40-50); *sc4* (30-40); *pg1* 190 (165-200); *pg2* (135-165); *pg3* 245 (240-250); *3b* 30-35; *3c* 100-105; *tc*' of tarsi III and IV (40-50); *tc*" of tarsi III and IV (90-100); *vi-vi* 85 (80-85); ve-ve 90 (90); *sci-sci* 105 (100-105); *h-h* 120 (120-130); *d1-d1* 35 (30-35); *sce-sce* 85 (70-85); *vi-ve* 10 (7-10); *ve-sci* 25 (25-35); *sci-sce* 85 (70-80); *l1-l1* 95 (95-100); *d2-d2* 60 (60-65); *l2-l2* (115); *l1-d2* 50 (50-60); *d2-l2* 95 (100-115).

Male (Figs. 3, 4, 7, 8). Total body length of one paratype 450.

GNATHOSOMA. Hypostomal apex as in Fig. 7. Peritremes M-shaped, each transversal branch with 6 chambers, each longitudinal branch with 9-13 chambers (Fig. 8). Stylophore 165 long.

IDIOSOMA. Propodosomal plate weakly sclerotised, margins indistinct, not punctated. Bases of setae *vi*, *ve*, *sci*, and *d1* on this plate; bases of setae *sce* near this plate. Length ratio of setae *vi* : *ve* : *sci* 1 : 1.5 : 2. Hysterosomal plate poorly developed or absent. Small pygidial plate present, setae *d5* and *l5* on this plate. Setae *d2* closer to *l1* than to *l2* or equidistant to *l1* and *l2*. Length ratio of setae *d5* : *l5* 1 : 11-13. Two pairs of anal setae. Paragenital setae *pg1* 1.6-1.8 times longer than *pg2*. Cuticular striations as in Figs. 3 and 4.



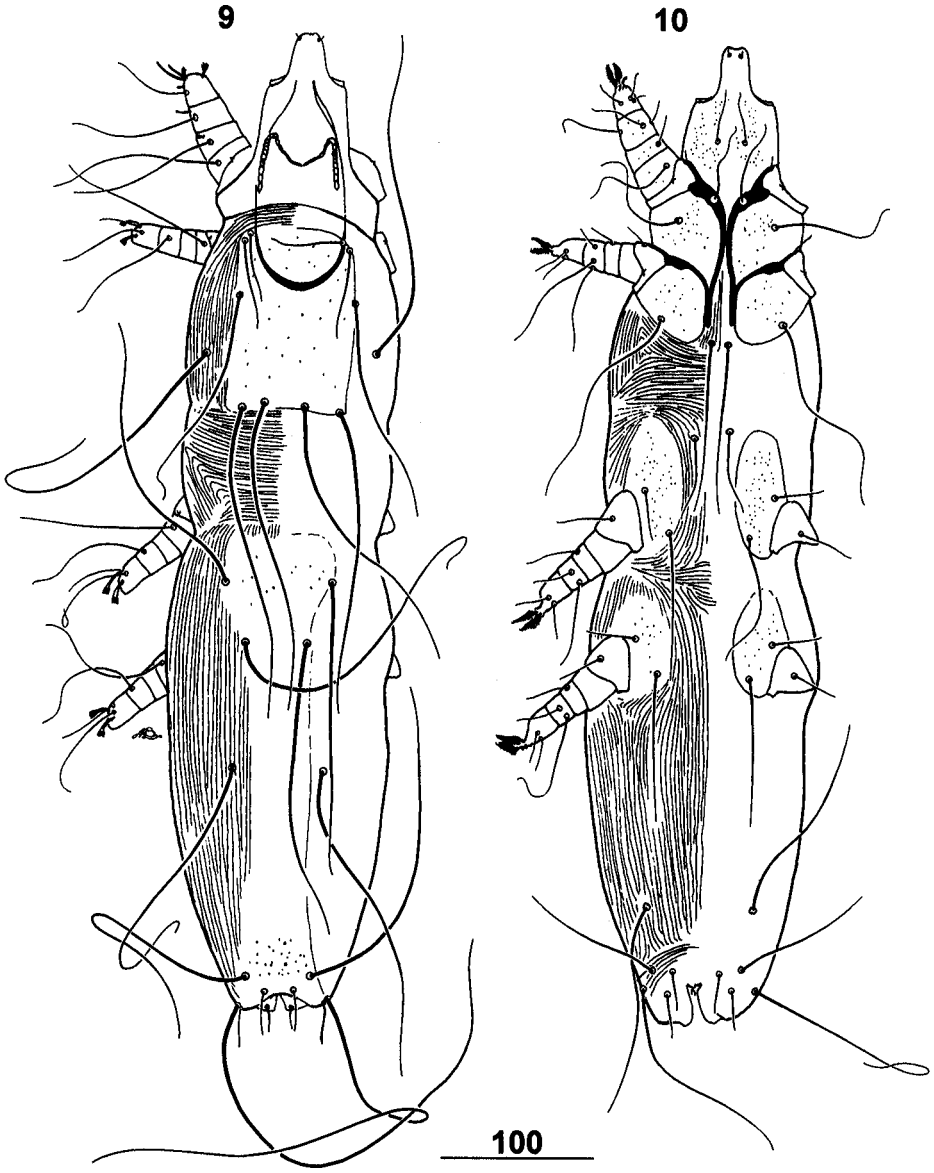
Figs. 3-8. *Syringophiloidus bombycillae* sp. n. **Fig. 3.** Male, dorsal view. **Fig. 4.** Male, ventral view. **Fig. 5.** Hypostomal apex, female. **Fig. 6.** Peritremes, female. **Fig. 7.** Hypostomal apex, male. **Fig. 8.** Peritremes, male. Scale bars in μm.

LEGS. All coxae well sclerotised, not numerously punctated or without punctation. Epimeres I divergent, not fused to epimeres II. Setae *p*' and *p*" of legs III and IV with 6-8 tines. Setae *tc*' of tarsi III and IV 2.3-2.6 times shorter than *tc*" III and IV.

Length of setae and distance between setal bases (n = 2): *vi* 25-30; *ve* 45; *h* 60; *sce* 190; *l1* 70; *l2* 15-20; *l5* 260-275; *d5* 20-25; *sc1* 10; *sc2* 15; *sc3* 30-35; *sc4* 25; *pg1* 110-140; *pg2* 60-90; *tc*' of tarsi III and IV 30; *tc*" of tarsi III and IV 70-80; *vi-vi* 75; *ve-ve* 85; *sci-sci* 85-90; *h-h* 120-130; *d1-d1* 35-45; *sce-sce* 90-105; *vi-ve* 7; *ve-sci* 20-25; *sci-sce* 35-45; *sci-d1* 60-65; *l1-l1* 90-100; *d2-d2* 50; *l2-l2* 50; *l1-d2* 35; *d2-l2* 45.

T y p e h o s t : *Bombycilla garrulus* (L.) (Passeriformes: Bombycillidae), the waxwing.

S i t e : Quills of secondary feathers.



Figs. 9, 10. *Syringophiloidus schoeniclus* sp. n., female. **Fig. 9.** Dorsal view. **Fig. 10.** Ventral view. Scale bar in μm.

T y p e l o c a l i t y : Bardejov, Slovakia; 14.12.1962; leg. T. Weisz.

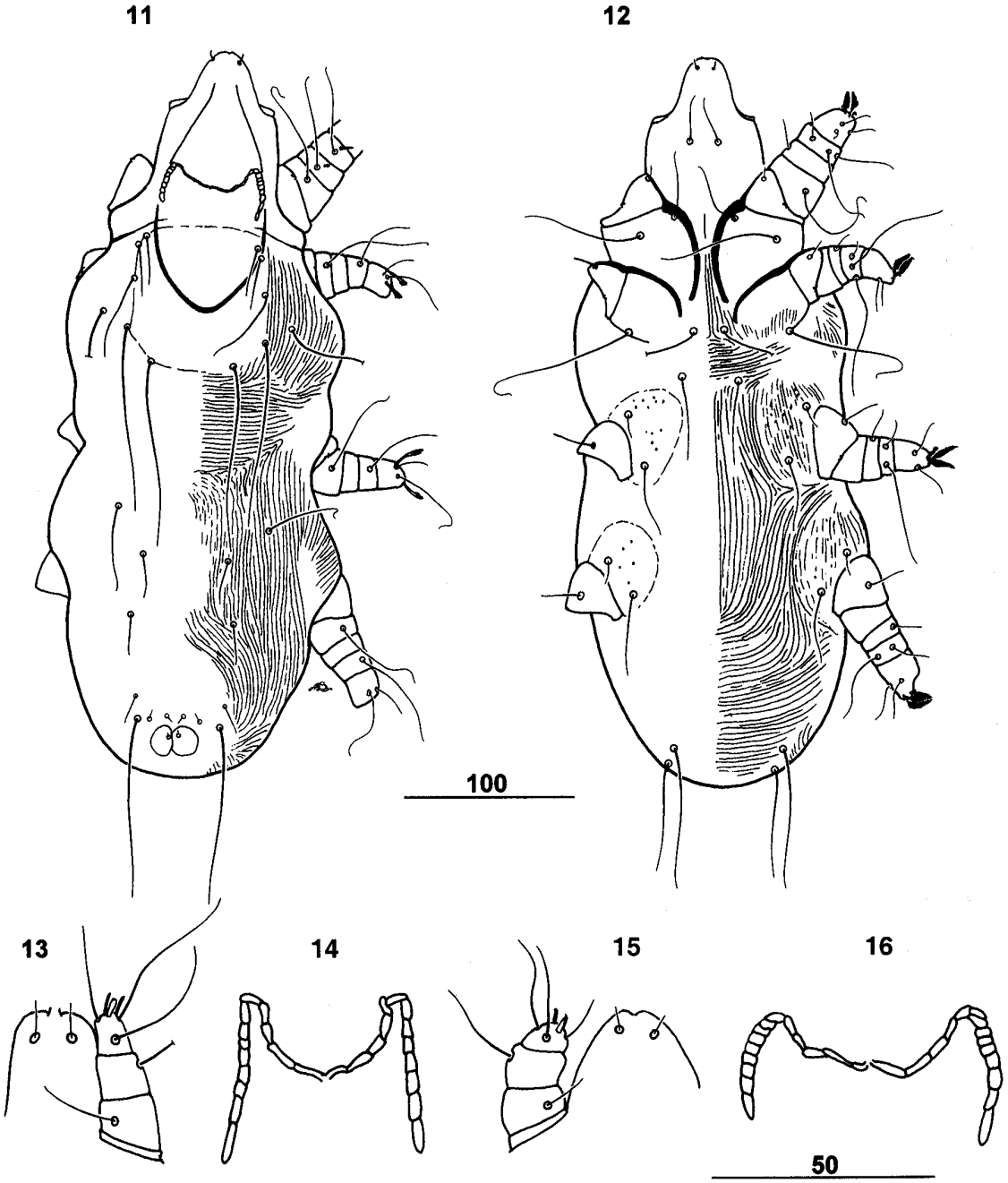
T y p e s p e c i m e n s : Holotype female and 8 paratype females, 3 paratype males and 2 paratype nymphs.

D e p o s i t i o n o f m a t e r i a l : Holotype (No. S-14.1.1), 4 female, 2 male and 2 nymphal paratypes (Nos. S-14.1.2 – S-14.1.9) are deposited at UAM; 2 female paratypes (Nos. S-14.1.10, S-14.1.11) are deposited at SMB; 2 female and 1 male paratypes (Nos. S-14.1.12 – S-14.1.14) are deposited at ZIN.

E t y m o l o g y : The name *bombycillae* refers to the generic name of the host – *Bombycilla garrulus*.

Differential diagnosis. *Syringophiloidus bombycillae* is closest to *S. graculae* Fain, Bochkov et Mironov, 2000 from *Gracula religiosa intermedia* (Passeriformes: Sturnidae). In both species, the females have the setae *vi* and *ve* shorter than 90 and *sci* longer than 90; the males, have setae *l1* much longer than setae *d2* and *l2*.

This new species is distinguished from *S. graculae* by the following characters: In females of *S. bombycillae*, the total body length is 725-925, the transversal branches of peritremes have 5-7 chambers and the length of setae *sci* and *l5* is 130-165 and 405-450, respectively; in males the length of setae *h* and *l5* is 60 and 260-270, respectively. In females of *S. graculae* the total body length is 615-680, the transversal branches of peritremes have 3 chambers and the length of setae *sci* and *l5* is 190-245 and 290-305, respectively; in the males, length of setae *h* and *l5* is 130-140 and 145-150, respectively.



Figs. 11-16. *Syringophiloidus schoeniclus* sp. n. **Fig. 11.** Male, dorsal view. **Fig. 12.** Male, ventral view. **Fig. 13.** Hypostomal apex, female. **Fig. 14.** Peritremes, female. **Fig. 15.** Hypostomal apex, male. **Fig. 16.** Peritremes, male. Scale bars in μm.

Syringophiloidus schoeniclus sp. n. Figs. 9-16

Female (Figs 9, 10, 13, 14). Total body length of holotype 675 (650-750 of 10 paratypes).

GNATHOSOMA. Gnathosoma punctated ventrally. Hypostomal apex as in Fig. 13. Peritremes M-shaped, each transversal branch with 4-5 chambers, each longitudinal branch with 7-9 chambers (Fig. 14). Stylophore 175 (170-180) long.

IDIOSOMA. Propodosomal plate well sclerotised and punctated. The bases of setae *vi*, *ve*, *sci*, *sce* and *d1* on this plate. Setae *vi*, *ve* and *sci* serrate. Length ratio of setae *vi* : *ve* : *sci* 1 : 1.1 : 2.3. Hysterosomal plate fused to pygidial plate, anterior and posterior parts with punctation. The bases of setae *l1* and *d2* on this plate. Setae *d2* closer to *l1* than to *l2*. The ratio of distances between setal bases *l1-d2* : *d2-l2* about 1 : 2. Length ratios of setae *d5* : *l5* and *d4* : *l4* 1 : 12.5-13.2 and 1 : 8-8.8,

respectively. Paragenital setae *pg1* 1.6-1.8 times longer than *pg2*. Only one pair of anal setae present. Cuticular striations as in Figs. 9 and 10.

LEGS. All coxae well sclerotised and punctated. Epimeres I parallel and adjoining the epimeres II. Setae *p*' and *p*" of legs III and IV with 6 tines. Setae *tc*' of tarsi III and IV 1.4-1.6 times shorter than *tc*" III and IV. Setae *3c* 3.1-3.4 times longer than *3b*.

Length of setae and distance between setal bases (n = 10): *vi* 55 (40-55); *ve* 60 (50-65); *sci* 130 (130-165); *h* (215-250); *sce* (215-230); *l1* (190-220); *l2* (170-230); *l5* 355 (330-375); *d5* (25-30); *d1* 215 (200-225); *d2* 205 (200-205); *l4* 240 (220-240); *d4* (25-30); *a1* 20 (20-25); *a2* absent; *g1* 25 (20-30); *g2* 25 (20-30); *ic1* (110-130); *ic3* (70); *pg1* (150-165); *pg2* 85 (105); *pg3* 175 (150-170); *3b* (25-35); *3c* (85-110); *sc1* (10); *sc2* (15); *sc3* 40 (40-50); *sc4* (25-35); *tc*' of tarsi III and IV 50 (40-50); *tc*" of tarsi III and IV 70 (70-80); *vi-vi* 60; *ve-ve* 70; *sci-sci* 80 (80-95); *h-h* 115 (120); *d1-d1* 25 (30); *sce-sce* 65 (70); *vi-ve* 7 (7-10); *ve-sci* 40 (35-40); *sci-sce* 75 (75); *l1-l1* 70 (70); *d2-d2* 40 (40); *l2-l2* 60 (60); *l1-d2* 40 (50); *d2-l2* 90 (85).

Male (Figs. 11, 12, 15, 16). Total body length of two paratypes 400 and 430.

GNATHOSOMA. Gnathosoma not punctated ventrally. Hypostomal apex as in Fig. 15. Peritremes M-shaped, each transversal branch with 5-6 chambers, each longitudinal branch with 8 chambers (Fig. 16). Stylophore 150-165 long.

IDIOSOMA. Propodosomal plate well sclerotised, without punctation. The bases of setae *vi*, *ve*, *sci*, and *d1* on this plate. Length ratio of setae *vi* : *ve* : *sci* 1 : 1.3-1.5 : 2-2.5. Setae *l2* about twice longer than *d2* and *l2*. Pygidial plate present. Length ratio of setae *d5* : *l5* 1 : 5.5-6.3. One pair of anal setae. Paragenital setae *pg1* and *pg2* subequal in length. Cuticular striations as in Figs. 11 and 12.

LEGS. Coxae of legs III and IV weakly sclerotised. Epimeres I slightly divergent and not fused to epimeres II. Setae *p*' and *p*" of legs III and IV with 6 tines. Setae *tc*' of tarsi III and IV 2.3 times shorter than *tc*" III and IV.

Length of setae and distance between setal bases (n = 2): *vi* 15-20; *ve* 25-30; *sci* 40; *sce* 115; *l1* 40-45; *l2* 15-20; *l5* 95-110; *d1* 105-110; *d2* 20; *d5* 15-20; *pg1* 70-80; *ic3* 40; *pg2* 60-70; *3b* 10-15; *3c* 45; *sc3* 20-25; *sc4* 15-25; *tc*' of tarsi III and IV 20; *tc*" of tarsi III and IV 45; *vi-vi* 65; *ve-ve* 70-75; *sci-sci* 70; *h-h* 100-115; *d1-d1* 45; *sce-sce* 80-85; *vi-ve* 3-5; *ve-sci* 20-30; *sci-d1* 40-45; *sci-sce* 25-30; *l1-l1* 80-85; *d2-d2* 50-55; *l2-l2* 60; *l1-d2* 25-30; *d2-l2* 30-35.

T y p e h o s t : *Emberiza schoeniclus* L. (Passeriformes: Emberizidae), the reed bunting.

S i t e : Quills of secondary feathers.

T y p e l o c a l i t y : Slovenská Kajňa, Slovakia; 10.03.1975, leg. T. Weisz.

T y p e s p e c i m e n s : Holotype female, 16 paratype females, 2 paratype males, 3 paratype nymphs and 1 paratype larva.

D e p o s i t i o n o f m a t e r i a l : Holotype (No. S-15.1.1), 12 female, 1 male, 2 nymphal and 1 larval paratypes (Nos. S-15.1.2 – S-15.1.17) are deposited at UAM; 2 female paratypes (Nos. S-15.1.18, S-15.1.19) are deposited at SMB; 2 female and 1 male paratypes (Nos. S-15.1.20 – S-15.1.22) are deposited at ZIN.

E t y m o l o g y : The name *schoeniclus* refers to the specific name of the host – *Emberiza schoeniclus*.

Differential diagnosis. This new species is distinguished from all species of the genus *Syringophiloidus* by the presence of one pair of anal setae in both sexes. Within the genus, *S. schoeniclus* belongs to the species with short setae *vi* and *ve* (shorter than 90) and long setae *sci* (longer than 90): *S. motacillae* Bochkov et Mironov, 1998, *S. seiurus* (Clark, 1964), *S. graculae* Fain, Bochkov et Mironov, 2000, *S. presentalis* Chirov et Kravtsova, 1995 and *S. bombycillae* (this paper).

Syringophiloidus montanus sp. n. Figs. 17-23

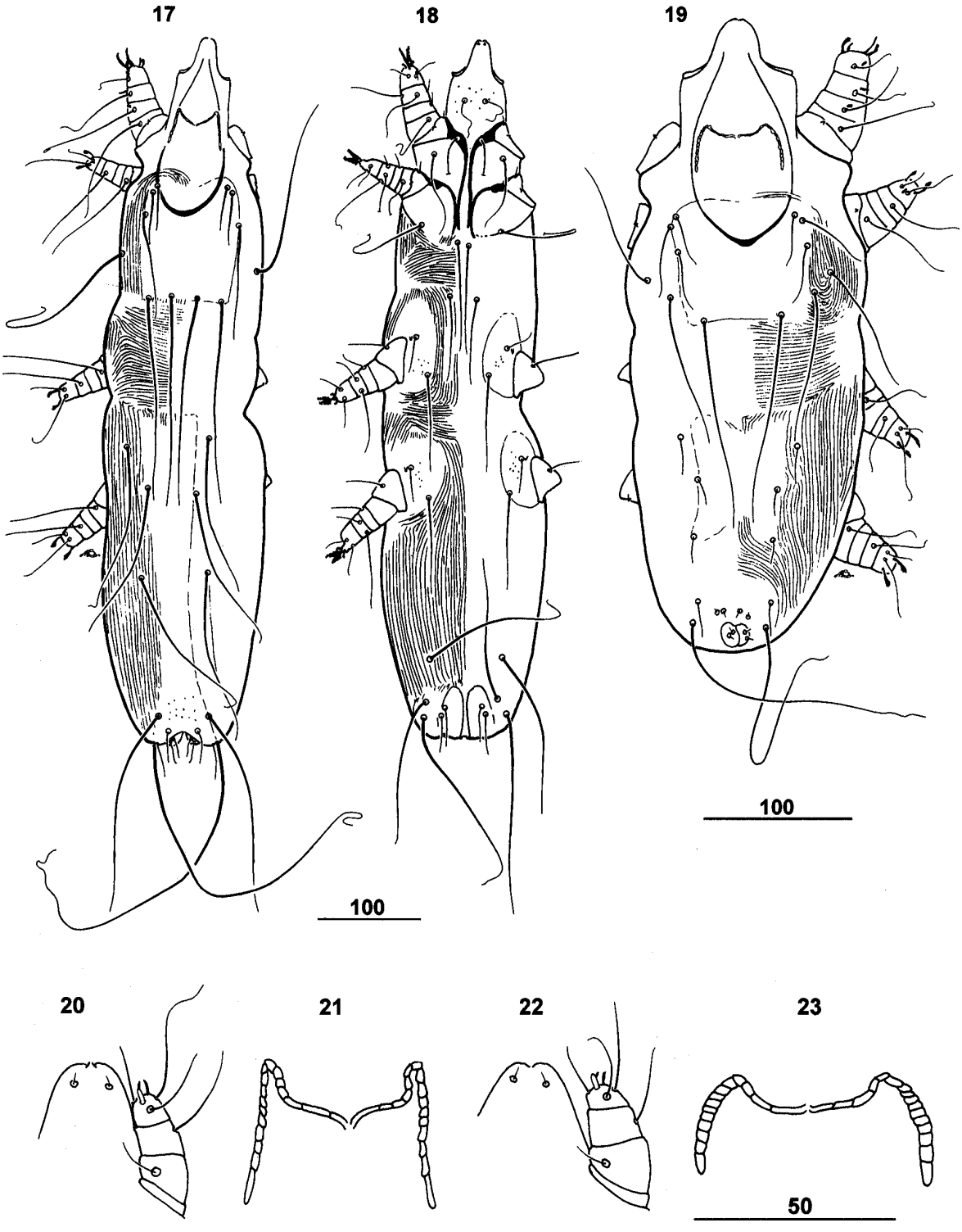
Female (Figs 17, 18, 20, 21). Total body length of holotype 675 (675-785 of 10 paratypes).

GNATHOSOMA. Gnathosoma punctated ventrally. Hypostomal apex as in Fig. 20. Peritremes M-shaped, each transversal branch with 6-7 chambers, each longitudinal branch with 9-10 chambers (Fig. 21). Stylophore 175 (175-180) long.

IDIOSOMA. Propodosomal plate well sclerotised, posterior margin indistinct, without punctation. The bases of setae *vi*, *ve*, *sci*, *sce* and *d1* on this plate. Setae *vi*, *ve* and *sci* serrate. Length ratio of setae *vi* : *ve* : *sci* 1 : 1.6 : 3-3.4. Hysterosomal plate present, fused to pygidial plate, punctated in posterior part, median part of this plate weakly sclerotised. The bases of setae *d2* on this plate. Setae *d2* closer to *l1* than to *l2*. The ratio of distances between setal bases *l1-d2* : *d2-l2* about 1 : 1.6. Length ratios of setae *d5* : *l5* and *d4* : *l4* 1 : 14 and 1 : 10, respectively. Paragenital setae *pg1* and *pg2* subequal in length. Two pairs of anal setae present. Cuticular striations as in Figs. 17 and 18.

LEGS. All coxae well sclerotised. Coxae of legs I and II not numerously punctated or without punctation. Coxae of legs III and IV punctated. Setae *p*' and *p*" of legs III and IV with 5-6 tines. Setae *tc*' of tarsi III and IV twice shorter than *tc*" III and IV. Setae *3c* 2.5-2.8 times longer than *3b*.

Length of setae and distance between setal bases (n = 10): *vi* 35 (30-40); *ve* 50 (50-60); *sci* 105 (90-135); *h* 180 (140-160); *sce* 190 (160-180); *l1* 170; *l2* 170 (150-160); *l5* 355 (340-420); *d5* 25 (20-25); *d1* 205 (180-190); *d2* 170; *l4* (200-210); *d4* 25 (20-25); *a1* and *a2* (15-20); *g1* and *g2* 30 (30); *ic1* (90-110); *ic3* 80 (80-110); *pg1* 150 (155-180); *pg2* 140 (140-165); *pg3* (180-190); *3b* 35 (30-40); *3c* (85-100); *sc1* (10); *sc2* (15); *sc3* 40 (30-40); *sc4* 35 (30); *tc*' of tarsi III and IV 35



Figs. 17-23. *Syringophiloidus montanus* sp. n. **Fig. 17.** Female, dorsal view. **Fig. 18.** Female, ventral view. **Fig. 19.** Male, dorsal view. **Fig. 20.** Hypostomal apex, female. **Fig. 21.** Peritremes, female. **Fig. 22.** Hypostomal apex, male. **Fig. 23.** Peritremes, male. Scale bars in μm.

Table 1. Quill mites of the genus *Syringophiloidus* and their hosts.

Species	Host
S. glandarii (Fritsch, 1958)	*Garrulus glandarius** (Corvidae) *Coccothraustes coccothraustes* (Fringillidae)
S. delichonum Bochkov, 2001	*Delichon urbica** (Hirundinidae)
S. bombycillae sp. n.	*Bombycilla garrulus** (Bombycillidae)
S. montanus sp. n.	*Passer montanus** (Ploceidae)
S. schoeniclus sp. n.	*Emberiza schoeniclus** (Emberizidae)
S. minor (Berlese, 1887)	*Passer domesticus** *Passer montanus* (Ploceidae) *Turdus iliacus* (Turdidae) *Sturnus vulgaris* (Sturnidae)
S. motacillae Bochkov et Mironov, 1998	*Motacilla flava** (Motacillidae)
S. presentalis Chirov et Kravtsova, 1995	*Sturnus vulgaris** (Sturnidae) *Garrulus glandarius* (Corvidae) *Turdus pilaris* (Turdidae)
S. seiurus (Clark, 1964)	*Seiurus aurocapillus** (Parulidae) *Melospiza melodia* *Helmintheros vermivorus* (both Fringillidae)
S. weiszii Skoracki, Hromada et Tryjanowski, 2001	*Lanius excubitor** (Laniidae)
S. cypsiuri Fain, Bochkov et Mironov, 2000	*Cypsiurus parvus* (Apodidae)
S. graculae Fain, Bochkov et Mironov, 2000	*Gracula religiosa intermedia** (Sturnidae)
S. dendrocittae Fain, Bochkov et Mironov, 2000	*Dendrocitta rufa rufa** (Corvidae)
S. carpodaci Bochkov et Apanaskevich, 2001	*Carpodacus erythrinus** (Fringillidae)

* type host

(35-40); *tc*" of tarsi III and IV 70 (70); *vi-vi* 65 (60-75); *ve-ve* 75 (70-80); *sci-sci* 90 (80-90); *h-h* 125 (120-125); *d1-d1* 25 (20-25); *sce-sce* 70 (65-75); *vi-ve* 5 (2-5); *ve-sci* 35 (35-40); *sci-sce* 75 (70-75); *l1-l1* 80 (75-80); *d2-d2* 45 (35-45); *l2-l2* 60 (60); *l1-d2* 55 (45); *d2-l2* 80 (75).

Male (Figs. 19, 22, 23). Total body length of four paratypes 425-440.

GNATHOSOMA. Gnathosoma not punctated ventrally. Hypostomal apex as in Fig. 22. Peritremes M-shaped, each transversal branch with 4-6 chambers, each longitudinal branch with 9-11 chambers (Fig. 23). Stylophore 150-155 long.

IDIOSOMA. Propodosomal plate weakly sclerotised, without punctation. The bases of setae *vi*, *ve*, *sci* and *d1* on this plate. Setae *vi*, *ve* and *sci* subequal in length. Hysterosomal plate weakly sclerotised without punctation. The bases of setae *d2* on this plate. Setae *l1*, *d2* and *l2* subequal in length. Pygidial plate small. Length ratio of setae *d5* : *l5* 1 : 10-12.5. Two pairs of anal setae. Paragenital setae *pg1* 1.3-1.5 times longer than *pg2*. Cuticular striations as in Fig. 19.

LEGS. All coxae without punctation. Coxae of legs III and IV weakly sclerotised, margins indistinct. Epimeres I highly divergent, not fused to epimeres II, often adjoining them. Setae *p*' and *p*" of legs III and IV with 6 tines. Setae *tc*' of tarsi III and IV 3.3 times shorter than *tc*" III and IV.

Length of setae and distance between setal bases (n = 4): *vi* 30-35; *ve* 40-50; *sci* 35-45; *h* 80-90; *sce* 120; *l1* 20; *l2* 10-15; *l5* 190-205; *d1* 145; *d2* 10-15; *d5* 15-20; *ic3* 70; *3b* 25; *3c* 55-60; *pg1* 30-40; *pg2* 25; *sc3* 25; *sc4* 25. *tc*' of tarsi III and IV 15; *tc*" of tarsi III and IV 50-55; *vi-vi* 70-85; *ve-ve* 80-90; *sci-sci* 80-90; *h-h* 110-125; *d1-d1* 40-50; *sce-sce* 80-100; *vi-ve* 2-5; *ve-sci* 20-35; *sci-d1* 50; *sci-sce* 30; *l1-l1* 75-85; *d2-d2* 50-55; *l2-l2* 55; *l1-d2* 30-35; *d2-l2* 40.

Type host: *Passer montanus* (L.) (Passeriformes: Ploceidae), the tree sparrow.

Site: Quills of secondary feathers.

Type locality: Bardejov, Slovakia; 24.02.1957; leg. T. Weisz.

Type specimens: Holotype female, 30 paratype females, 4 paratype males and 6 paratype nymphs.

Deposition of material: Holotype (No. S-16.1.1), 26 female, 2 male and 6 nymphal paratypes (Nos. S-16.1.2 – S-16.1.35) are deposited at UAM; 2 female paratypes (Nos. S-16.1.36, S-16.1.37) are deposited at SMB; 2 female and 2 male paratypes (Nos. S-16.1.38 – S-16.1.41) are deposited at ZIN.

Etymology: The name *montanus* refers to the specific name of the host – *Passer montanus*.

Differential diagnosis. *Syringophiloidus montanus* is closest to *S. minor* (Berlese, 1887) from *Passer domesticus* (Passeriformes: Ploceidae). In both species the females have the gnathosoma punctated ventrally, setae *vi* and *ve* serrate and shorter than 90 and the hysterosomal plate with punctation in posterior part. This new species is distinguished from *S. minor* by the following characters. In the females of *S. montanus* the transversal branches of peritremes have 6-7 chambers and the length of setae *vi*, *ve* and *sci* is 30-40, 50-60 and 90-135, respectively. In the males the transversal branches have 4-6 chambers and the length of setae *tc*' and *tc*" of tarsi III and IV is 15 and 50-55, respectively; the length of paragenital setae *pg1* and *pg2* is 30-40 and 25, respectively. In the females of *S. minor*, the transversal branches have 8-10 chambers and the length

of setae *vi*, *ve* and *sci* is 25-30, 30-40 and 50-70, respectively. In the males the lateral branch has 8-9 chambers and the length of setae *tc*' and *tc*" of tarsi III and IV is 20-25 and 35-45, respectively; the length of paragenital setae *pg1* and *pg2* is 70-85 and 50-60, respectively.

Key to species of *Syringophiloidus* (females)
(after Fain et al. 2000; with modifications)

1 One pair of anal setae present ..... *S. schoeniclus*
– Two pairs of anal setae present 2
2 Setae *ve* at least 90 long 3
– Setae *ve* shorter than 90 6
3 Setae *ve* longer than 130 ..... *S. cypsiuri*
– Setae *ve* shorter than 130 4
4 Propodosomal setae smooth, total body length over 800 ..... *S. delichonum*
– Propodosomal setae serrate, total body length under 700 5
5 Longitudinal branches of peritremes with 7-9 chambers (in males, 7-9), length of setae *vi* and *l5* 50 and 375-405, respectively (length of paragenital setae *pg1* in males more than 150) ..... *S. weiszii*
– Longitudinal branches of peritremes with 11-14 chambers (in males, 13-14); length of setae *vi* and *l5* 35 and 310-320, respectively (length of paragenital setae *pg1* in males 90-110) ..... *S. glandarii*
6 Setae *sci* shorter than 80 7
– Setae *sci* longer than 80 8
7 Setae *vi*, *ve* and *sci* thin, setae *sci* 30-35 long .... *S. dendrocittae*
– Setae *vi*, *ve* and *sci* thick, setae *sci* 45-65 long .... *S. minor*
8 Transverse branches of peritremes with more than 4 chambers 9
– Transverse branches of peritremes with less than 4 chambers 12
9 Setae *h* shorter than 180 ..... *S. montanus*
– Setae *h* longer than 180 10
10 Dorsal plates and coxae not numerously punctuated or without punctation ..... *S. bombycillae*
– Dorsal plates and coxae strongly punctuated 11
11 Setae *vi*, *ve* and *l1* 20-25, 35-40 and 120-140 long, respectively, setae *pg2* shorter than 100 .... *S. seiurus*
– Setae *vi*, *ve* and *l1* 35-40, 50-65 and 160-190 long, respectively, setae *pg2* longer than 100 .... *S. carpodaci*
12 Propodosomal plate strongly punctuated .... *S. motacillae*
– Propodosomal plate not numerously punctuated or without punctation 13
13 Setae *sci* 190-245 long (setae *sci* and *l1* in males 110-125 and 80-90 long, respectively) .... *S. graculae*
– Setae *sci* 80-100 long (setae *sci* and *l1* in males 35-55 and 25-35 long, respectively) ..... *S. presentalis*

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