

Quill mites of the genus *Syringophilopsis* Kethley, 1970 (Acari: Syringophilidae) from North American birds

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Abstract. Seven mite species belonging to the genus *Syringophilopsis* Kethley, 1970 (Acari: Prostigmata: Cheyletoidea) are recorded from 10 passeriform host species from the USA. Three new species are described and illustrated: *Syringophilopsis polioptilus* sp. n. from *Polioptila caerulea* (Linnaeus) (Poliophilidae); *S. empidonax* sp. n. from *Empidonax hammondi* (Vesey) and *Empidonax wrightii* Baird (Tyrannidae); and *S. sialiae* sp. n. from *Sialia mexicana* Swainson (Turdidae). In addition, records of new hosts are given: *Turdus migratorius* Linnaeus (Turdidae) for *Syringophilopsis turdus* (Fritsch, 1958); three tyrannid species (Tyrannidae), *Myiarchus crinitus* (Linnaeus), *M. cinerascens* (Lawrence) and *Tyrannus verticalis* Say for *S. tyranni* Bochkov et Galloway, 2004; *Euphagus cyanocephalus* (Wagler) (Icteridae) for *S. elongatus* (Ewing, 1911); and two parulid species (Parulidae), *Dendroica graciae* Baird and *Wilsonia pusilla* (Wilson) for *S. dendroicae* Bochkov et Galloway, 2001. All known species of the genus *Syringophilopsis* from the Nearctic Region are summarized in tabular form. *Syringophilopsis porzanae* Bochkov et Galloway, 2004 is reassigned to the genus *Ascetomylla* Kethley, 1970.

The genus *Syringophilopsis* was established by Kethley (1970) and at present is the most diverse taxon of the family Syringophilidae; it is subdivided into three complex-groups: *fringilla*, *turdus* and *elongatus* (Bochkov and Galloway 2001). Until now, 30 species of this genus have been described from various areas including the Palaearctic, Ethiopian, Nearctic and Neotropical Regions (Bochkov and Mironov 1999, Bochkov et al. 2000, Fain et al. 2000, Bochkov and Galloway 2001, 2004, Skoracki 2004).

This genus has well-defined characters which distinguish this taxon from the closely related genera i.e. *Torotroglia* Kethley, 1970, *Megasyringophilus* Fain, Bochkov et Mironov, 2000 and *Neosyringophilopsis* Skoracki et Sikora, 2005. Females of *Syringophilopsis* have harpoon-like movable digit of the chelicerae, each with three teeth; the hypostomal apex is ornamented by 1–2 pairs of protuberances (smooth in males); the lateral hypostomal teeth are absent; the propodonotum bears six pairs of smooth setae and is partially covered by the propodonotal shield which is often deeply cleft on anterior margin; the hysteronotum is devoid of sclerites or bears less or more sclerotized hysteronotal and pygidial shields, where the hysteronotal shield is restricted only to bases of setae *d2* (in males the hysteronotal shield is also variable – may be present or absent, free or fused with pygidial shield); paragenital series is with three pairs of setae; legs are with full complement of setae and the apodemes I are divergent and fused with the apodemes II.

The members of this genus are large-sized mites (950–1,360 µm) which parasitize quills of two types of wing feathers: primaries and secondaries (Kethley 1970). Most of these species are associated with passeriform birds from 17 families: Cardinalidae (1 quill mite species), Corvidae (1), Emberizidae (3), Estrildidae (1), Fringillidae (2), Hirundinidae (3), Icteridae (2), Laniidae (3), Motacillidae (2), Muscicapidae (1), Parulidae (1), Ploceidae (3), Poliophilidae (1), Sturnidae (1), Sylvidae (4), Turdidae (4), and Tyrannidae (2). Only two known species of this genus are associated with coraciiform avian hosts.

The quill mite fauna of the genus *Syringophilopsis* of North America is very poorly known with only six species recorded from this area previous to this paper (Kethley 1970, Bochkov and Galloway 2001, 2004). This paper deals with the descriptions of three new species from passerines: *Syringophilopsis polioptilus* sp. n. from *Polioptila caerulea* (Linnaeus) (Poliophilidae), *S. empidonax* sp. n. from *Empidonax hammondi* (Vesey) and *Empidonax wrightii* Baird (Tyrannidae), and *S. sialiae* sp. n. from *Sialia mexicana* Swainson (Turdidae). In addition, *S. turdus* is recorded for the first time in North America from a previously unrecorded host species. Data about host associations and distribution of all known species of the genus *Syringophilopsis* from the Nearctic Region are summarized in Table 1.

MATERIALS AND METHODS

Passerines examined in this study were collected from various localities in California and Texas between the years 2001 and 2005. Feathers were completely removed from each specimen and examined under an Olympus ZSX12 compound microscope at $\times 7$ –20 magnification. If quill mites were present, the feather was dissected under the microscope and individual mites were removed. Mites mounted for morphological examination were first cleared in lactophenol and then mounted on slides in Hoyer's medium.

Mites were examined using an Olympus BH2 microscope with differential interference contrast optics. The nomenclature of idiosomal setae is based on that of Fain (1979) in the version adapted for the family Syringophilidae (Bochkov and Mironov 1998) and the chaetotaxy for the legs is that of Grandjean (1944). Bird taxonomy is that of Dickinson (2003). The position of each feather on the wing was recorded using the feather nomenclature of Pyle (1997): L (left), R (right), p (primary), and s (secondary). All measurements, including scale bars in figures, are given in micrometres (μm). Abbreviations for institutions where the materials are deposited: NMNH – Smithsonian National Museum of Natural History, USA; AMU – Department of Animal Morphology, Adam Mickiewicz University, Poznań, Poland.

RESULTS

Family: Syringophilidae Lavoipierre, 1953

Subfamily: Syringophilinae Lavoipierre, 1953

Genus: *Syringophilopsis* Kethley, 1970

Syringophilopsis polioptilus sp. n. Figs. 1–10

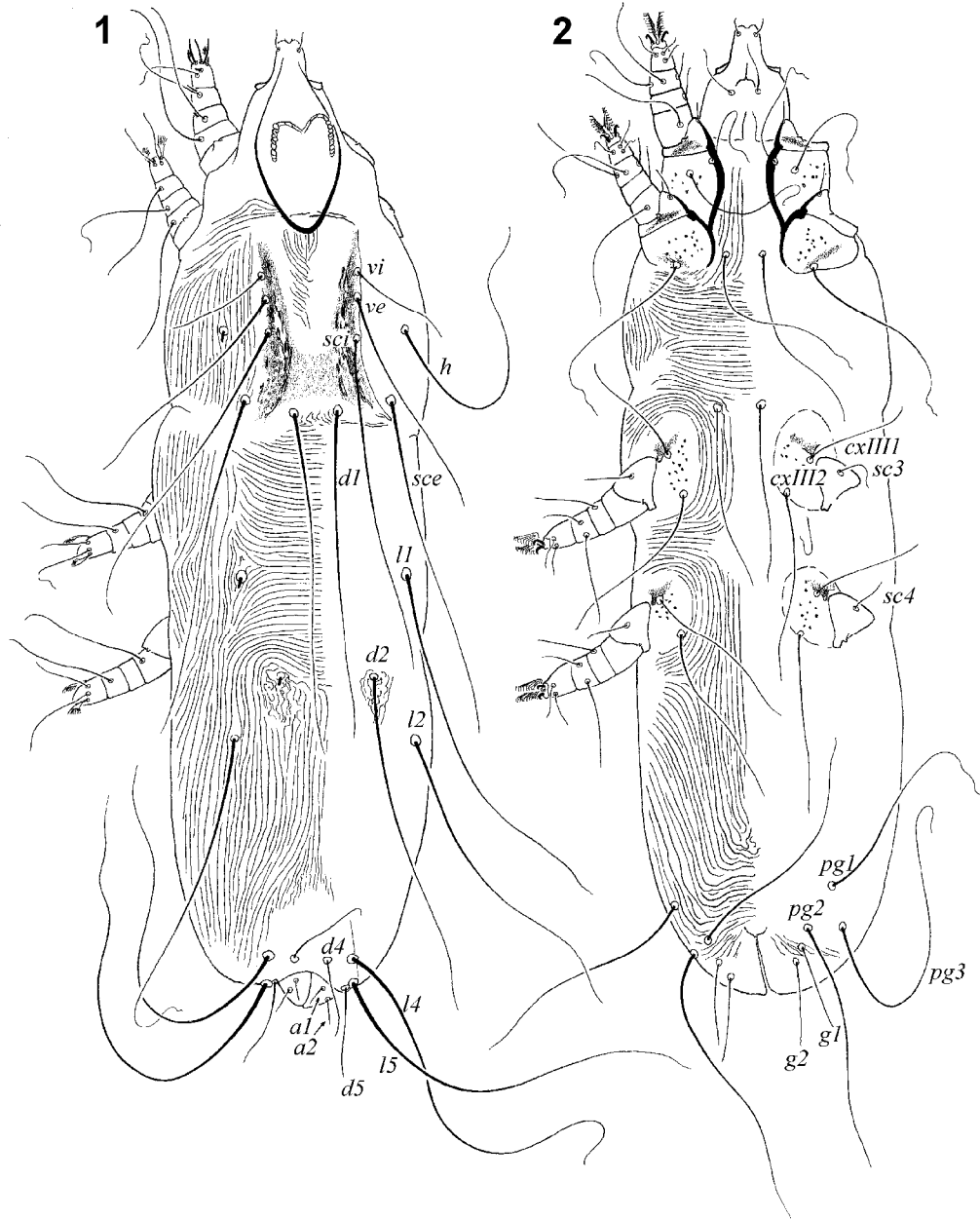
Female (Figs. 1–7). Total body length of holotype 1,030 (995–1,030 in 5 paratypes). *Gnathosoma*. Hypostomal apex with 1 pair of minute, sharp-ended protuberances and 2 pairs of small, blunt-ended hypostomal lips (Fig. 3). Each branch of M-shaped peritremes with 15–18 chambers (Fig. 4). Cheliceral digit 140 (140) long. Stylophore slightly constricted posteriorly, 200 (190–205) long. *Idiosoma*. Propodonal shield concave on anterior margin, punctated and sculptured, bearing bases of setae *vi*, *ve*, *sci* and *d1*. Setae *sce* situated slightly anterior to level of setae *d1*. Length ratio of setae *vi:ve* 1:1.8–2.3. True hysteronotal shields absent, but punctated area around bases of setae *d2* present (Figs. 5, 6). Setae *d2* situated 1.4 times closer to *l2* than to *l1*. Pygidial shield present, with indistinct anterior margin. Setae *d4* and *d5* subequal and about 5–6 times shorter than *l4* and *l5*. Paragenital setae (*pg1*–*3*)

Table 1. Quill mite species of the genus *Syringophilopsis* Kethley, 1970 from the Nearctic Region; p.p. – present paper.

Quill mite species	Host species	Distribution	References
<i>dendroicae</i> Bochkov et Galloway, 2001	<i>Dendroica coronata</i> Linnaeus (Parulidae)	Canada	Bochkov and Galloway 2001
“	<i>Dendroica graciae</i> Baird (Parulidae)	USA	p.p.
“	<i>Wilsonia pusilla</i> (Wilson) (Parulidae)	USA	p.p.
<i>elongatus</i> (Ewing, 1911)	<i>Agelaius phoeniceus</i> (Linnaeus) (Icteridae)	USA, Canada	Clark 1964, Kethley 1970, Hood and Welch 1980
“	<i>Quiscalus quiscula</i> (Linnaeus) (Icteridae)	Canada, USA	Clark 1964, Bochkov and Galloway 2001
“	<i>Quiscalus mexicanus</i> (Gmelin) (Icteridae)	USA	Casto 1976
“	<i>Euphagus carolinus</i> (Müller) (Icteridae)	USA	Clark 1964
“	<i>Euphagus cyanocephalus</i> (Wagler) (Icteridae)	USA	p.p.
“	<i>Pheucticus melanocephalus</i> (Swainson) (Cardinalidae)	USA	Casto 1976
<i>hylocichla</i> (Clark, 1964)	<i>Catharus (=Hylocichla) fuscescens</i> (Stephens) (Turdidae)	USA	Clark 1964
<i>icteri</i> Bochkov et Galloway, 2001	<i>Icterus galbula</i> (Linnaeus) (Icteridae)	Canada	Bochkov and Galloway 2001
<i>passerinae</i> (Clark, 1964)	<i>Passerina cyanea</i> (Linnaeus) (Cardinalidae)	USA	Clark 1964
<i>tyranni</i> Bochkov et Galloway, 2004	<i>Tyrannus tyrannus</i> (Linnaeus) (Tyrannidae)	Canada	Bochkov and Galloway 2004
“	<i>Tyrannus verticalis</i> Say (Tyrannidae)	USA	p.p.
“	<i>Myiarchus crinitus</i> (Linnaeus) (Tyrannidae)	USA	p.p.
“	<i>Myiarchus cinerascens</i> (Lawrence) (Tyrannidae)	USA	p.p.
<i>turdus</i> (Fritsch, 1958)	<i>Turdus migratorius</i> Linnaeus (Turdidae)	USA	p.p.
<i>polioptilus</i> sp. n.	<i>Polioptila caerulea</i> (Linnaeus) (Poliopitilidae)	USA	p.p.
<i>empidonax</i> sp. n.	<i>Empidonax hammondi</i> (Vesey) (Tyrannidae)	USA	p.p.
“	<i>Empidonax wrightii</i> Baird (Tyrannidae)	USA	p.p.
<i>sialiae</i> sp. n.	<i>Sialia mexicana</i> Swainson (Turdidae)	USA	p.p.

more than 3 times longer than genital setae (*g1*, *g2*). Cuticular striations as in Figs. 1 and 2. *Legs*. Coxal fields punctated. Fan-like setae *p'* and *p''* of legs III and IV with 9–10 tines (Fig. 7). Setae *tc'''III–IV* about 1.4 times longer than *tc'''III–IV*. Setae *cxIII2* 1.2–1.4 times longer than *cxIII1*. *Length of setae*: *vi* 110 (110–155); *ve* 250 (255–280); *sci* (325–340); *h* (315–325); *sce* 320

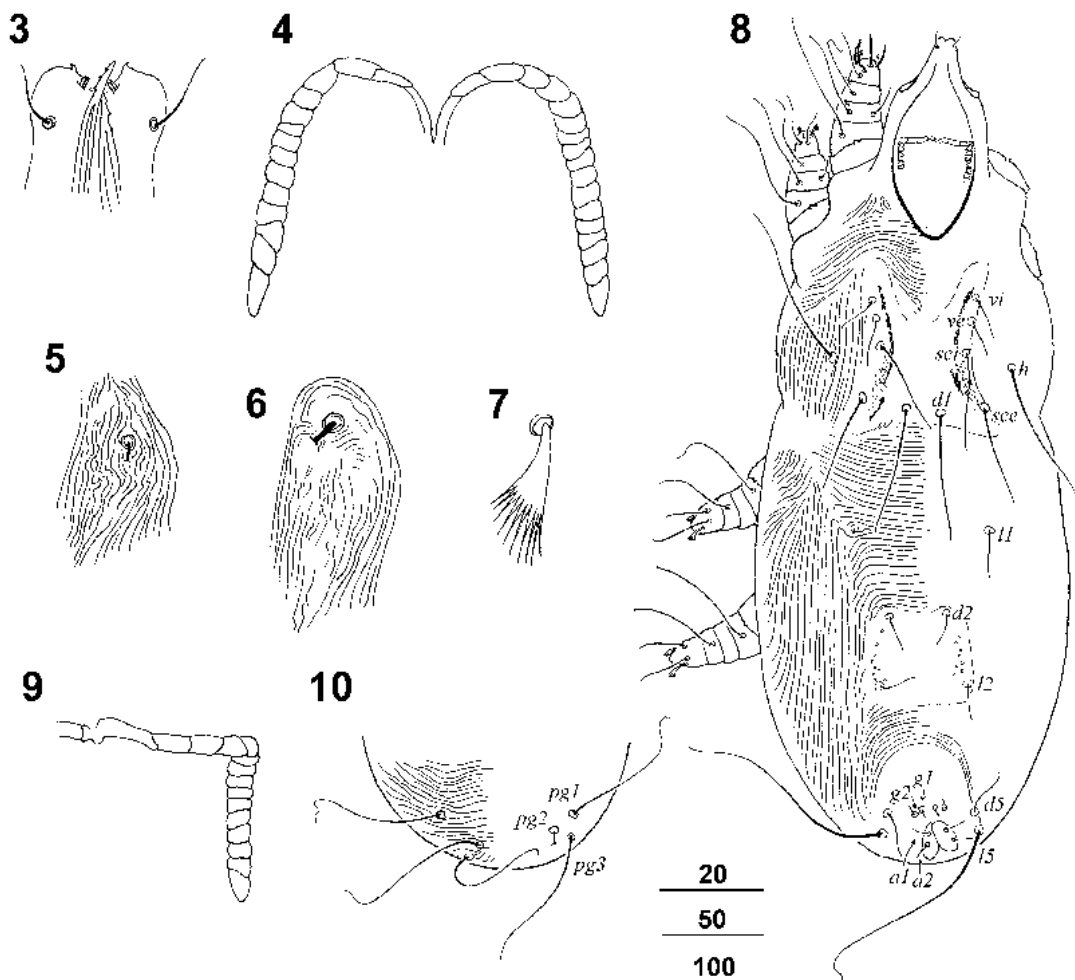
(335–400); *l1* 340 (350–375); *l2* 320 (330–365); *l4* 355 (355–405); *l5* 395 (400–455); *d1* 330 (330); *d2* 320 (350–380); *d4* 70 (70–85); *d5* 70 (70–85); *a1* (30–35); *a2* (30–35); *g1* (65–70); *g2* (65–70); *pg1* 245 (245–280); *pg2* 220 (240–280); *pg3* 280 (285–355); *sc3* 60 (50–60); *sc4* 60 (50–60); *tc'''III–IV* 125; *tc'''III–IV* 170; *cxIII1* 195 (155–180); *cxIII2* 275 (180–250).



Figs. 1, 2. *Syringophilopsis polioptilus* sp. n., female. **Fig. 1.** Dorsal view. **Fig. 2.** Ventral view.

Male (Figs. 8–10). Total body length 680 in one paratype. *Gnathosoma*. Hypostomal apex rounded and without protuberances. Each transverse branch of peritremes with 5 chambers, each longitudinal branch with 8–10 chambers (Fig. 9). Cheliceral digit 130 long. Stylophore slightly constricted posteriorly, 165 long. *Idiosoma*. Propodonal shield concave on anterior margin, punctated and sculptured on lateral margins. Setae *sce* situated slightly anterior to level of setae *d1*. Hysteronotal shield present, punctated, not fused to pygidial

shield, carrying bases of setae *d2* and *l2*. Setae *l1* slightly (1.3 times) longer than *d2* and *l2*. Setae *d2* situated 1.4 times closer to *l2* than to *l1*. Pygidial shield with indistinct anterior margin. Paragenital setae *pg1*–*pg3* subequal in length. Cuticular striations as in Figs. 8, 10. *Legs*. Fan-like setae *p'* and *p''* of legs III and IV with 8 tines. Setae *cxIII2* 1.4 times longer than *cxIII1*. *Length of setae*: *vi* 50; *ve* 50; *sci* 90; *h* 145; *sce* 80; *l1* 45; *l2* 35; *l5* 185; *d1* 110; *d2* 35; *d5* 35; *pg1* 120; *pg2* 125; *pg3* 120; *cxIII1* 65; *cxIII2* 90.



Figs. 3–10. *Syringophilopsis polioptilus* sp. n., female (Figs. 3–7) and male (Figs. 8–10). **Fig. 3.** Hypostomal apex. **Fig. 4.** Peritremes. **Figs. 5, 6.** Cuticular striation around bases of seta *d2*. **Fig. 7.** Fan-like seta *p'* of leg III. **Fig. 8.** Dorsal view. **Fig. 9.** Peritreme. **Fig. 10.** Posterior part of opisthosoma in ventral view. Scale lines 20 μm (Figs. 3, 4, 7, 9), 50 μm (Figs. 5, 6), 100 μm (Figs. 8, 10).

Type host: *Polioptila caerulea* (Linnaeus, 1766) (Passeriformes: Polioptilidae).

Site: Quills of primary feathers (Lp8, 9, Rp9).

Type locality: USA, Texas, Johnson Co., Garen Ranch, 21 March 2004, G. Spicer coll. (GSS#1354).

Type specimens: Female holotype and paratypes: 6 females, 1 male, 8 nymphs and 1 larva.

Specimens deposited: Holotype and most paratypes deposited at NMNH, 1 female paratype at AMU.

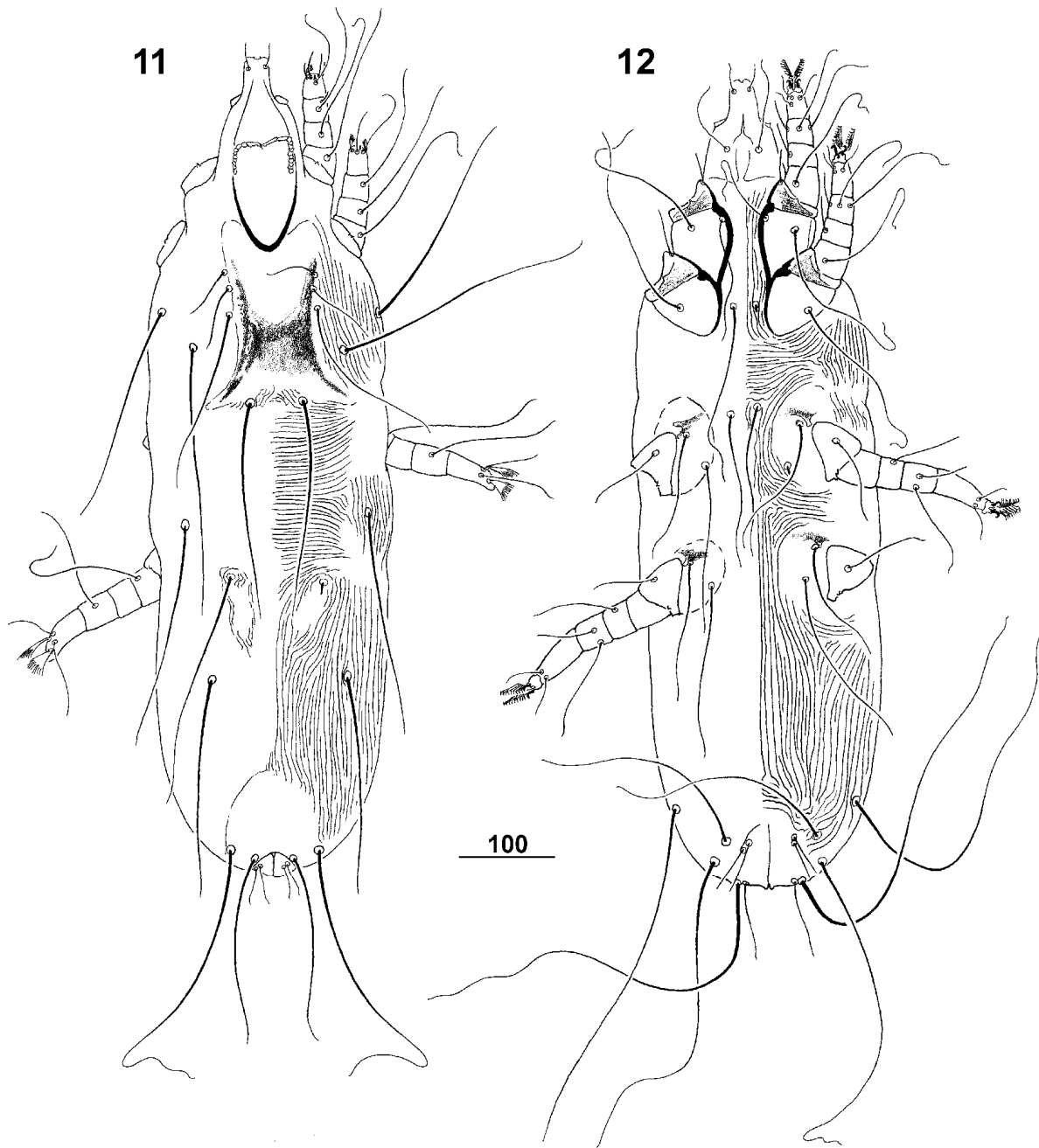
Etymology: The name *polioptilus* refers to the generic name of the host – *Polioptila caerulea*.

Differential diagnosis. *Syringophilopsis polioptilus* is morphologically similar to *S. sturni* Chirov et Kravtsova, 1995 described from *Sturnus vulgaris* Linnaeus (Passeriformes: Sturnidae) from Kirghizia (Chirov and Kravtsova 1995). In both species, females have the hypostomal apex with 1 pair of protuberances, paragenital setae *pg2* are more than 4 times longer than the

genital setae, and the length ratio of setae *vi:ve* is 1:2. This new species is distinguished from *S. sturni* by the following characters: in females of *S. polioptilus*, the length of the stylophore and chelicerae is 190–205 and 140, respectively; the hysteronotal shields are absent, but punctated areas around bases of setae *d2* are present. In females of *S. sturni*, the length of the stylophore and chelicerae is 230–240 and 180–185, respectively; the unpunctated hysteronotal shields around bases of setae *d2* are present.

***Syringophilopsis empidonax* sp. n.** Figs. 11–18

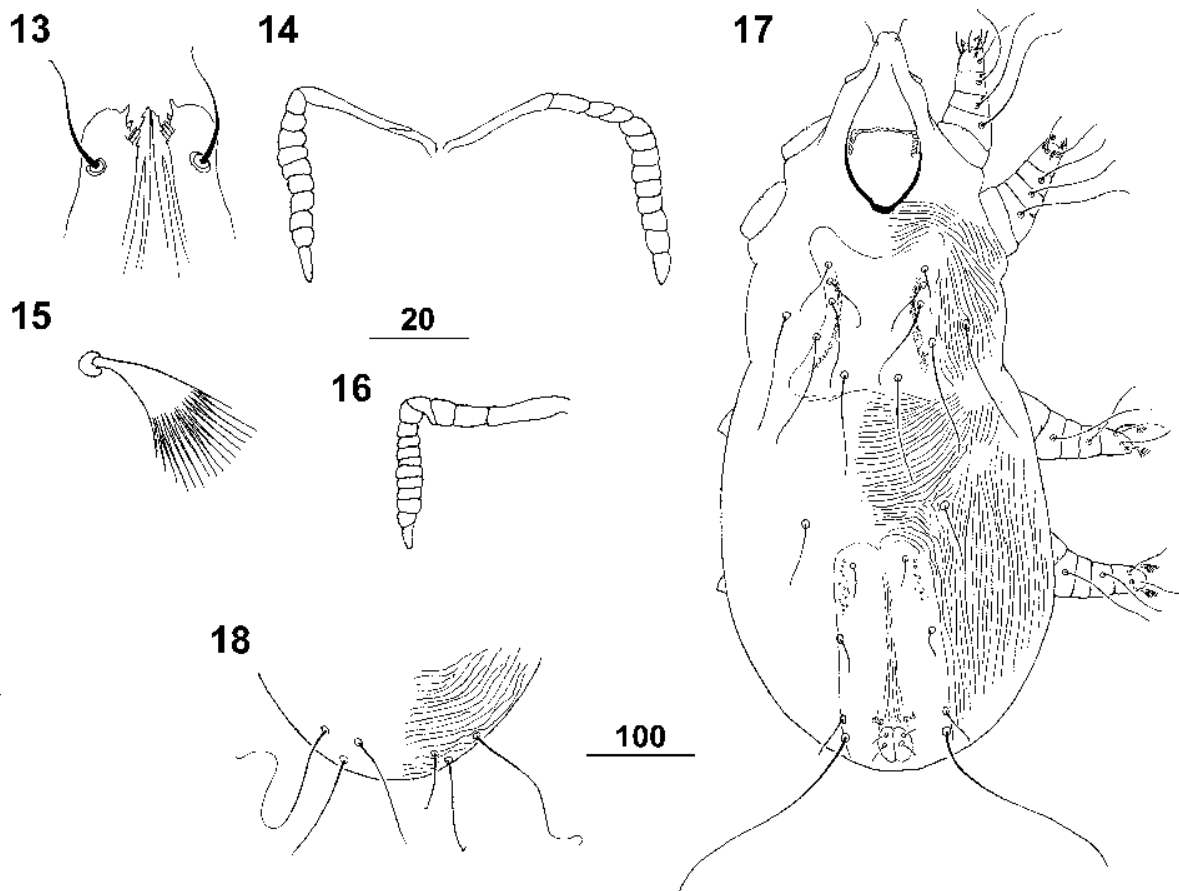
Female (Figs. 11–15). Total body length of holotype 820 (830–855 in 2 paratypes). **Gnathosoma.** Hypostomal apex with 2 pairs of minute protuberances and 2 pairs of small, blunt-ended hypostomal lips (Fig. 13). Each branch of M-shaped peritremes with 12–13 chambers (Fig. 14). Cheliceral digit 130 (140) long. Stylophore rounded posteriorly, 195 (185–195) long. **Idio-**



Figs. 11, 12. *Syringophilopsis empidonax* sp. n., female. **Fig. 11.** Dorsal view. **Fig. 12.** Ventral view.

soma. Propodonotal shield concave on anterior margin, punctated and sculptured, bearing bases of setae *vi*, *ve*, *sci* and *d1*. Setae *sce* situated distinctly anterior to level of setae *d1*. Length ratio of setae *vi:ve* 1:1.3–1.5. Hysteronotal shields around bases of setae *d2* present. Distance between bases of setae *d2–l1* and *d2–l2* subequal. Pygidial shield present, anterior margin indiscernible. Setae *d4* twice longer than *d5*. Paragenital setae *pg1* and *pg3* subequal in length, both slightly (1.2–1.4 times) longer than *pg2*. Cuticular striations as in Figs. 11 and 12. *Legs.* Coxal fields not punctated. Fan-like setae *p'*

and *p''* of legs III and IV with 16 tines (Fig. 15). Setae *tc'''III–IV* about 1.4–1.5 times longer than *tc'''III–IV*. Setae *cxIII2* 1.2–1.3 times longer than *cxIII1*. Length of setae: *vi* 55 (55–70); *ve* 70 (80–90); *sci* 170 (220); *h* 235 (230–295); *sce* (280); *l1* 255 (205); *l2* 235 (200–255); *l4* 365; *l5* 420; *d1* 255 (215); *d2* 215 (215); *d4* 190 (180); *d5* 90 (80–90); *a1* 35 (35–40); *a2* 40 (35–40); *g1* 45 (45–55); *g2* 55 (45–65); *pg1* 365 (260–360); *pg2* 250 (230); *pg3* 350 (260–350); *sc3* 85 (80); *sc4* 85 (80); *tc'''III–IV* 55 (50–55); *tc'''III–IV* 80 (75–80); *cxIII1* 170 (155–170); *cxIII2* 230 (195–225).



Figs. 13–18. *Syringophilopsis empidonax* sp. n., female (Figs. 13–15) and male (Figs. 16–18). **Fig. 13.** Hypostomal apex. **Fig. 14.** Peritremes. **Fig. 15.** Fan-like seta *p'* of leg III. **Fig. 16.** Peritreme. **Fig. 17.** Dorsal view. **Fig. 18.** Posterior part of opisthosoma in ventral view.

Male (Figs. 16–18). Total body length 680 in one paratype. *Gnathosoma*. Hypostomal apex rounded, without protuberances. Each transverse branch of peritremes with 4 chambers, each longitudinal branch with 11 chambers (Fig. 16). Cheliceral digit 140 long. Stylophore rounded posteriorly, 170 long. *Idiosoma*. Propodotal shield slightly concave on anterior margin, punctated on lateral margins. Setae *sce* situated distinctly anterior to level of setae *d1*. Hysteronotal shield present, fused to pygidial shield, punctated in anterior part, bearing bases of setae *d2*, *l2*, *d5* and *l5*. Setae *l1* twice longer than *d2* and *l2*. Distance between bases of setae *d2–l1* and *d2–l2* subequal. Cuticular striations as in Figs. 17 and 18. *Length of setae*: *vi* 40; *ve* 40; *sci* 105; *h* 165; *sce* 115; *l1* 65; *l2* 30; *l5* 215; *d1* 85; *d2* 35; *d5* 40. **Type host**: *Empidonax hammondii* (Vesey, 1858) (Passeriformes: Tyrannidae).

Site: Quills of secondary feathers (Rs5).

Type locality: USA, Texas, Jeff Davis Co., Fort Davis, 12 April 2005, G. Spicer coll. (GSS#1612).

Type specimens: Female holotype and paratypes: 2 females, 1 male and 4 nymphs.

Specimens deposited: Holotype and most paratypes deposited at NMNH, 1 female paratype at AMU.

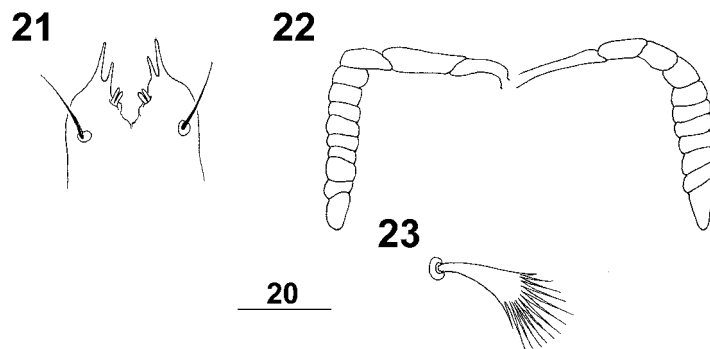
Etymology: The name *empidonax* refers to the generic name of the host – *Empidonax hammondii*.

Additional material: 1 female and 5 nymphs from secondary quill (Ls6) of the same host species and locality as type material, 13 April 2005, G. Spicer coll. (GSS#1424). All material deposited at NMNH. Five females and 4 nymphs from secondary and primary quills (Rp1, Ls1) of *Empidonax wrightii* Baird, 1858; USA, Texas, Jeff Davis Co., Fort Davis, 13 April 2005, G. Spicer coll. (GSS#1326). All material deposited at NMNH, except 1 female at AMU.

Differential diagnosis. This new species is most similar to *S. fringilla* (Fritsch, 1958) described from *Fringilla coelebs* Linnaeus (Passeriformes: Fringillidae) from Germany (Fritsch 1958). In both species, females have the hypostomal apex with 2 pairs of minute protu-



Figs. 19, 20. *Syringophilopsis sialiae* sp. n., female. **Fig. 19.** Dorsal view. **Fig. 20.** Ventral view.



Figs. 21–23. *Syringophilopsis sialiae* sp. n., female. **Fig. 21.** Hypostomal apex. **Fig. 22.** Peritremes. **Fig. 23.** Fan-like seta *p'* of leg III.

berances, the hysteronotal shields present, and setae *d4* and *d5* unequal in length. *Syringophilopsis empidonax* is distinguished from *S. fringilla* by the following characters: in females of *S. empidonax*, setae *sce* are situated distinctly anterior to the level of setae *d1* and setae *d4* are twice longer than *d5*. In females of *S. fringilla*, setae *sce* and *d1* are situated at the same transverse level and setae *d4* are about twice shorter than *d5*.

***Syringophilopsis sialiae* sp. n.** Figs. 19–23

Female (Figs. 19–23). Total body length of holotype 1,065 (950–1,150 in 4 paratypes). *Gnathosoma*. Hypostomal apex with 2 pairs of large, sharp-ended protuberances and 2 pairs of small, blunt-ended hypostomal lips (Fig. 21). Each lateral branch of M-shaped peritremes with 3 chambers, each longitudinal branch with 8–9 chambers (Fig. 22). Cheliceral digit 215 (205–215) long. Stylophore constricted posteriorly, 270 (260–280) long. *Idiosoma*. Propodonal shield concave on anterior margin, punctated and sculptured, bearing bases of setae *vi*, *ve*, *sci* and *d1*. Setae *sce* situated distinctly anterior to level of setae *d1*. Length ratio of setae *vi:ve* 1:1.2–1.4. Hysteronotal shields paired, punctated, bearing setae *d2*. Distance between bases of setae *d2–l1* and *d2–l2* subequal. Pygidial shield present, with distinct anterior margin. Setae *d4* and *d5* subequal in length and about 4–5 times shorter than *l5*. Paragenital setae *pg1* and *pg3* subequal in length, both 3.8–4 times longer than *pg2*. Cuticular striations as in Figs. 19 and 20. *Legs*. Coxal fields sparsely punctated. Fan-like setae *p'* and *p''* of legs III and IV with 13 tines (Fig. 23). Setae *tc'''III–IV* about 1.3–1.5 times longer than *tc'III–IV*. *Length of setae*: *vi* 90 (90–100); *ve* 105 (105–130); *sci* 305 (305); *h* (250–320); *sce* 330 (295–370); *l1* 265 (330); *l2* 280 (270–315); *l4* (420–430); *l5* 405 (415–500); *d1* (355–400); *d2* 265 (250–340); *d4* (80–105); *d5* 105 (80–105); *a1* and *a2* 45 (35–45); *g1* and *g2* 70 (70–80); *pg1* 265 (260–300); *pg2* 70 (70–80); *pg3* 265 (250–310); *sc3* and *sc4* (55–60); *tc'''III–IV* 70 (60–70); *tc'III–IV* 90 (80–105).

Male. Unknown.

Type host: *Sialia mexicana* Swainson, 1832 (Passeriformes: Turdidae).

Site: Quills of primary feathers (Lp1).

Type locality: USA, Texas, Jeff Davis Co., Fort Davis, 12 April 2005, G. Spicer coll. (GSS#1617).

Type specimens: Female holotype and 4 female paratypes.

Specimens deposited: Holotype and 3 female paratypes deposited at NMNH, 1 female paratype at AMU.

Etymology: The name *sialiae* refers to the generic name of the host – *Sialia mexicana*.

Differential diagnosis. *Syringophilopsis sialiae* is most similar to *S. kazmierski* Skoracki, 2004 described from *Ficedula hypoleucos* (Pallas) and *F. parva*

(Bechstein) (Passeriformes: Muscicapidae) from Poland (Skoracki 2004). In both species, females have the hypostomal apex with 2 pairs of protuberances, paragenital setae *pg2* and genital setae *g1* and *g2* are subequal in length, two hysteronotal shields are present, and setae *sce* are situated anterior to the level of setae *d1*. This new species is distinguished from *S. kazmierski* by the following characters: in females of *S. sialiae*, the hypostomal apex has 2 pairs of large protuberances, the stylophore is 260–280 long; the length ratio of setae *pg1:pg2:pg3* is 3.8–4:1:3.8–4, the pygidial shield is well sclerotized and has a discernible anterior margin. In females of *S. kazmierski*, the hypostomal apex has 2 pairs of minute protuberances; the stylophore is 160–180 long; the length ratio of setae *pg1:pg2:pg3* is 2.3:1:3, and the pygidial shield is weakly sclerotized and has an indiscernible anterior margin.

***Syringophilopsis turdus* (Fritsch, 1958)**

This species inhabits the quills of secondary feathers of several avian hosts belonging to the genus *Turdus*: *T. pilaris* (type host) from Germany and Poland, *T. philomelos* Brehm from Russia and Poland, *T. iliacus* Linnaeus from Poland, and *T. albicollis* Vieillot from Argentina (Fritsch 1958, Bochkov and Galloway 2001, Skoracki and Sikora 2002, Skoracki 2004). Below, we give the record of a new host – *T. migratorius* Linnaeus from USA.

Material examined: 4 females, 1 male and 1 nymph from secondary quill (Rs3) of *Turdus migratorius* Linnaeus (Passeriformes: Turdidae), USA, California, Madera Co., Sierra National Forest, 2000, G. Spicer coll. (GSS#35). All material deposited at NMNH, except 1 female at AMU.

***Syringophilopsis tyranni* Bochkov et Galloway, 2004**

Until now this species has been known only from the type host, *Tyrannus tyrannus* (Linnaeus) (Passeriformes: Tyrannidae) from Canada (Bochkov and Galloway 2004) and there were no other data since its description. Below, we give the records of three new hosts for *S. tyranni*.

Material examined: Two females from secondary quill (Ls2) of *Myiarchus crinitus* (Linnaeus) (Passeriformes: Tyrannidae); USA, Texas, Hood Co., Jones Ranch, 20 April 2005; G. Spicer coll. (GSS# 1672). All material deposited at NMNH. Four females from primary and secondary quills (Rp1, Ls1) of *Myiarchus cinerascens* (Lawrence) (Tyrannidae); USA, Texas, Jeff Davis Co., Fort Davis, 13 April 2005, G. Spicer coll. (GSS#1342). All material deposited at NMNH, except 1 female at AMU. One female and 4 nymphs from secondary quill (Rs5) of *Tyrannus verticalis* Say, 1823 (Tyrannidae); USA, California, Lake Co., N. Lake Pillsbury, 11 June 2003, G. Spicer coll. (GSS#1583). Two females from secondary quill (Rs7) of the same host species, locality, date and collector, (GSS#1582). All material from this host species deposited at NMNH, except 1 female at AMU.

Syringophilopsis elongatus (Ewing, 1911)

This species was reported from four icterid avian hosts (Icteridae): *Agelaius phoeniceus* (Linnaeus) (type host), *Euphagus carolinus* (Müller), *Quiscalus quiscula* (Linnaeus), and *Quiscalus mexicanus* (Gmelin), and from one cardinalid species *Pheucticus melanocephalus* (Swainson) (Ewing 1911, Clark 1964, Casto 1976, Kethley 1970, Hood and Welch 1980, Bochkov and Galloway 2001). Below, we give the record of a new host – *Euphagus cyanocephalus* (Wagler).

Material examined: One female and 2 nymphs from secondary quills (Rs3, 4) of *Euphagus cyanocephalus* (Wagler) (Passeriformes: Icteridae); USA, California, Shasta Co., Glenburn, 2005, G. Spicer coll. (GSS#1574). All material deposited at NMNH.

Syringophilopsis dendroicae Bochkov et Galloway, 2001

This species was described from *Dendroica coronata* Linnaeus (Passeriformes: Parulidae) from Canada (Bochkov and Galloway 2001) and there were no other data since the original description. Below, we give records of two new hosts: *Dendroica graciae* Baird and *Wilsonia pusilla* (Wilson) from the USA.

Material examined: Three females and 2 nymphs from primary quill (Rp2) of *Dendroica graciae* Baird (Passeriformes: Parulidae); USA, Texas, Jeff Davis Co., Fort Davis, 12 April 2005, G. Spicer coll. (Rp2, GSS #1614). All material deposited at NMNH, except 1 female at AMU. Two females, 4 males and 1 nymph from primary quills (Lp3,4) of the same host species and locality, 14 April 2005, G. Spicer coll. (GSS#1593). All material deposited at NMNH, except 1 female and 1 male at AMU. Six females, 2 males and 6 nymphs from primary quill (Rp6) of *Wilsonia pusilla* (Wilson) (Parulidae); USA, California, Sierra Co., Beartrap Meadow, 4 August 2005, G. Spicer coll. (GSS#1447). Four nymphs from primary quill (Rp8) of the same host species, locality, date and collector, (GSS#1455). All material from this host species deposited at NMNH, except 1 female and 1 male at AMU.

Ascetomylla porzanae (Bochkov et Galloway, 2004) comb. n.

Syn. *Syringophilopsis porzanae* Bochkov et Galloway, 2004

The species *Syringophilopsis porzanae* Bochkov et Galloway, 2004 was described from *Porzana carolina* (Linnaeus) (Gruiformes: Rallidae) based on material from Canada (Bochkov and Galloway 2004). Possibility of studying the type material (female and male) enabled the designating of the real status of this species. This taxon has characters that perfectly correspond to those of *Ascetomylla* Kethley, 1970, e.g. the leg setae *dFII*, *dFIII* and *dFIV* are absent and the propodonotal shield is divided longitudinally. Mites of the genus *Syringophilopsis* have the legs with full complement of setae and the propodonotal shield is entire, and therefore, we reassigned *S. porzanae* to the genus *Ascetomylla*.

Material examined: 2 females from *Porzana carolina* (Linnaeus), Canada, Manitoba, Delta Marsh, University Field Station, 19 May 2000, T.D. Galloway and D. Holder coll. This material was borrowed from A.V. Bochkov (Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia).

Remarks. To this time, the genus *Ascetomylla* was represented only by the type species *A. gallinula* Kethley, 1970 described from *Gallinula chloropus* (Linnaeus) (Rallidae) from the Union of South Africa (Kethley 1970). The second species, transferred to this genus here, can be distinguished from *A. gallinula* by the following characters: in females of *A. porzanae*, the length ratio of setae *vi:ve:sci* is 1:2:2.5, the longitudinal branch of the peritremes has 11–14 chambers. In males the length ratio of setae *II:d2:l2* is 2:1:1. In females of *A. gallinula*, the length ratio of setae *vi:ve:sci* is 1:3:3, the longitudinal branch of the peritremes has 18–19 chambers. In males the length ratio of setae *II:d2:l2* is 1:1:1.

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