

## ***Szeptyckiana*, a new genus of the feather mite family Pterolichidae (Acari, Astigmata, Pterolichoidea) from the Black-thighed Falconet *Microhierax fringillarius* (Falconiformes, Falconidae)**

Jacek DABERT and Anna LABRZYCKA

Received: 3 April 2009

Accepted: 21 April 2009

DABERT J., LABRZYCKA A. 2009. *Szeptyckiana*, a new genus of the feather mite family Pterolichidae (Acari, Astigmata, Pterolichoidea) from the Black-thighed Falconet *Microhierax fringillarius* (Falconiformes, Falconidae). *Acta zoologica cracoviensia*, **52B**(1-2): 61-72.

**Abstract.** *Szeptyckiana*, a new genus of the feather mite family Pterolichidae (Pterolichoidea), is described based on two new species, *S. macrosetosa* sp. n. (type species), and *S. microsetosa* sp. n., collected from the wing feathers of museum specimens of the Black-thighed Falconet *Microhierax fringillarius* (DRAPIEZ, 1824) (Falconidae). This highly plesiomorphic new genus is characterized by pseudorutellar membranes with net-like pattern of hexagonal cells, complete idiosomal chaetotaxy, lanceolate setae *c*3, free epimerites I, and dagger-like setae *c*G on genua I and II. Males have very short opisthosomal lobes with tongue-shaped terminal membranes, genital and anal region not sclerotized, medium-sized aedeagus and minute adanal discs, not modified legs similar in size, tarsi IV with small apico-ventral claw, and setae *d* on tarsi IV shaped as short sticks; seta *e* absent. Females have large horseshoe-shaped epigynum, 1.4-1.7 times longer than wide, and the ends of legs IV not reaching posterior rounded margin of the body. The occurrence of two *Szeptyckiana* species on a single individual of *M. fringillarius* is the first record of feather mite lineage duplication on falconiform birds.

**Key words:** Feather mites, Astigmata, Pterolichidae, falconets, new taxa.

Jacek DABERT, Department of Animal Morphology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland.

E-mail: dabert@amu.edu.pl

Anna LABRZYCKA, Molecular Biology Techniques Laboratory, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland.

E-mail: anlab@amu.edu.pl

### I. INTRODUCTION

The family Pterolichidae TROUËSSART et MÉGNIN, 1884 with about 120 named genera and nearly 400 species is the largest and most diverse taxon among the feather mites. Representatives of this family are found on diverse non-passerine birds, mostly on terrestrial ones. Among hosts of these mites are also birds-of-prey (Falconiformes). However, the main part of falconiform acarofauna are numerous members of the family Gabuciniidae GAUD et ATYEO, 1975. The family Ptero-

lichidae is poorly represented by one subfamily Pterolichinae and three genera: *Epopolichus* GAUD, 1981, *Falcolichus* GAUD et ATYEO, 1996, and *Pseudaloptinus* DUBININ, 1956. Two later genera are restricted to Falconiformes, whereas *Epopolichus* is shared with hoopoes (Upupidae).

Feather mites remain in bird plumage also after bird's death as dried "mummies" that gives an opportunity to examine feather mites acarofauna on preserved birds in ornithological collections (DABERT & ALBERTI 2008). During systematic studies on feather mites carried out in the ornithological collections of German museums one of us (JD) found some representatives of pterolichid mites on dry skins of the two individuals of falconets, the world's smallest falconiform birds. Sampled mites belong to a new genus (with two species), distinctly different to all genera known previously from falconiform birds. The only feather mite species reported so far from falconets belong to two genera of the family Gabuciniidae: *Hieracolichus* GAUD et ATYEO, 1975 collected from *Microhierax fringillarius* (DRAPIEZ, 1824) by MÉGNIN and TROUËSSART (1884) and *Coraciacarus* DUBININ, 1956 reported from *M. caerulescens* (L., 1758) by MCCLURE and RATANAWORABHAN (1973). However, these reports are of very limited credibility, because *Coraciacarus* spp. and *Hieracolichus nisi* (CANESTRINI, 1878) are taxa not found on falcons. They represent most probably either accidental contamination or wrong species identification.

## II. MATERIALS AND METHODS

The material used in the present study was collected in the ornithological collection of the Zoological Institute and Museum, Ernst-Moritz-Arndt University, Greifswald, Germany from dry bird skins and was preserved in 70% ethanol. Before mounting, mites were softened and cleared in 10% lactic acid at +60°C for 2-3 days. For light microscope study the mites were mounted on slides in Faure medium (EVANS 1992) and investigated under the light microscope Olympus BX51 with Nomarsky differential interference contrast (DIC). Drawings were made using a camera lucida drawing device.

All measurements are given in micrometers ( $\mu\text{m}$ ). Length of gnathosoma was measured from the distal tips of palps to the basal margin of subcapitulum. Width of gnathosoma was measured at the widest section of subcapitulum. Idiosoma length was measured from the anterior margin of prodorsum to the posterior end of body (except terminal membranes in males). Width of idiosoma was measured at the level of setae *c*2. Distances between setae were measured as the shortest distance between centers of their alveoli; for setae of different rows the measure is a mean taken from both sides of the mite. Measurements separated by dash are the min-max range. Abbreviations used in measurements and taxa descriptions: L/W – length to width ratio, P/H – propodosoma to hysterosoma length ratio.

Chaetotaxy nomenclature follows that of GAUD & ATYEO (1996). Terminology of pterolichid morphology is after DABERT (2003). Scientific English and Latin names of birds as well the higher-level classification of birds are those of DICKINSON (2003). The type materials are deposited in the Department of Animal Morphology (AMU), Poznań, Poland.

## III. DESCRIPTIONS OF NEW TAXA

### *Szeptyckiana* gen. n.

**Type species.** *Szeptyckiana macrosetosa* sp. n. from *Microhierax fringillarius* (DRAPIEZ, 1824) (Falconidae).

**Diagnosis.** Both sexes: Small-sized mites, males about 230, females about 310-330 in length. Subcapitulum of gnathosoma transversely striated, pseudorutellar membranes with hexagonal reticulation (Fig. 6). Dorsal shields entire, well developed covering almost entire pronotum and hysteronotum. Supranal concavity well developed, circular. Idiosomal chaetotaxy complete, setae

*vi* paired, remnants of alveoli of setae *ve* present. Scapular setae simple; *si* minute, set close to macrosetae *se*, medially. Setae *c3* lanceolate. Epimerites I free; coxal fields I-II not sclerotized, III-IV with well developed shields along epimerites. Setae *cG* on genua I, II thickened, dagger-like. Solenidion  $\sigma$  on genu III present,  $\sigma 2$  on genu I absent.

Male: Body more stocky than in females, twice longer than wide. Opisthosomal lobes very short, separated by small interlobar cleft. Lobes with tongue-shaped terminal membranes. Genital organ medium-sized; genital and anal region without sclerotized shields. Adanal discs minute, highly regressive. All legs similar in size, relatively short and not modified. Tarsi IV with small apico-ventral claw; no other apophyses present. All tarsi with well developed ambulacra. Setae *d* on tarsi IV shaped as short sticks, *e* absent.

Female: Idiosoma more slender than in males, about three times longer than wide. Body terminus rounded with poorly expressed incision between setae *h3*. Dorsal opisthosoma with poorly developed suture lying antero-laterally to supranal concavity. All dorsal, lateral, and terminal setae of hysterosoma (except *h2* and *h3*) piliform, short. Epigynum horseshoe-shaped, not touching anterior epimerites, longer than latigenital sclerites of oviporus, 1.4-1.7 times longer than wide. Primary spermaduct of spermatheca relatively short and wide, with distal part spring-like, stretchy; secondary spermaducts shaped as very short, strongly sclerotized cylinders; copulatory opening set dorsally in supranal concavity (Fig. 5D). Legs IV not reaching posterior margin of the body.

**D i f f e r e n t i a l d i a g n o s i s.** The new genus is a highly plesiomorphic taxon devoid of clear apomorphies. That makes difficult to enumerate its specific features enabling an easy single-character distinguishing from other mites of the subfamily Pterolichinae. It is possible that the net-like pattern of pseudorutellar processes is a unique character of this genus, but temporarily this observation is useless because of lacking data about shape of this structure in nearly all remaining Pterolichidae. Also the very long epigynum of female is rather unusual in pterolichins. Most genera have arched or horseshoe shaped epigynum, at most as long as wide. Females of the new genus have epigynum 1.4-1.7 times longer than wide, a situation observed also in *Synapsilobus* GAUD et ATYEO, 1996. But this genus in comparison to *Szeptyckiana* gen. n. is very different in morphology and host range (Galliformes).

Among three genera of pterolichine mites occurring on falconiform birds two are reported from representatives of the family Falconidae: *Epopolichus* GAUD, 1981 (known also from Upupiformes) and *Falcolichus* GAUD et ATYEO, 1996. The third genus, *Pseudaloptinus* DUBININ, 1956 occurs on Accipitridae. However, the new genus is very different from all these genera as presented in the Table 1. The combination of these relatively not numerous characters enables also differentiating the new genus from all other named genera of Pterolichinae.

**E t y m o l o g y.** The new genus *Szeptyckiana* is dedicated to the memory of late Prof. Andrzej SZEPTYCKI, an outstanding Polish zoologist, an honest man, our friend and teacher.

**H o s t s.** Both known species inhabits the Black-thighed Falconet *Microhierax fringillarius* Falconiformes, Falconidae).

**R e m a r k s.** Occurrence of two or more closely related feather mite species on a single bird species is an effect of a duplication of the ancestral parasite line into several new species invading different discrete microhabitats on/in the plumage of a single host species (DABERT 2005). The most spectacular examples of such multiplication are parrots (Psittaciformes), where as much as 7 different *Fainalges* species (Xolalgidae) may occur on *Aratinga cholochlora* (PÉREZ 1995). The present finding of two different *Szeptyckiana* species inhabiting feathers of *Micohierax fringillarius* is the first report of feather mite duplication in falconiform birds.

***Szeptyckiana macrosetosa* sp. n.**

(Figs 1, 2, 5, 6B, D)

**D i a g n o s i s.** Setae *vi* in females (and probably in males) lanceolate, at least four times longer than distance between them. Terminal membranes of males tongue-shaped, as long as wide; aede-

Table 1

Characters differentiating the *Szeptyckiana* gen. n. and known pterolichine genera of falconiform birds (Falconiformes)

Character	<i>Szeptyckiana</i> gen. n.	<i>Epopolichus</i>	<i>Falcolichus</i>	<i>Pseudaloptinus</i>
Genital setae <i>g</i>	present	absent	present	present
Setae <i>c3</i>	dagger-shaped	setiform	setiform	dagger-shaped or setiform
Solenidion $\sigma$ on genu III	present	absent	present	present
Epimerites I	free	fused	free	fused
Setae <i>dl</i>	present	absent	present	absent
Setae <i>el</i>	present	absent	present	absent
Setae <i>hl</i>	present	absent	absent	absent
Terminal membranes (male)	present	absent	absent	present or absent
Paragenital apodemes (male)	absent	absent	present	absent
Apical claw on tarsi IV (male)	present	absent	present	present
Arched apodeme between trochanters IV (male)	absent	absent	absent	present
Hysteronotal shield (female)	entire	divided into three parts or with large desclerotized medio-terminal area	with separate pygidial part	with separate pygidial part
Epigynum (female)	much longer than wide	much shorter than wide	shorter than wide	much shorter than wide
Legs IV (female)	not reaching body terminus	extending body terminus	extending body terminus	extending body terminus

gus whip-like, distinctly wider at its base than in distal part. Distance between setae *hl*: *hl* in females about three times longer than diameter of supranal concavity.

**T y p e m a t e r i a l.** From *Microhierax fringillarius* (type host): 1 male holotype, 3 females paratypes, Java, 1949, collector unknown, AMU G19 (Greifswald 3254). 1 female paratype, same data, AMU G20 (Greifswald 3256).

**D e s c r i p t i o n.** Male, holotype (Figs 1, 5A, C, E, 6B, D): Gnathosoma with rectangular, transversely striated subcapitulum, length 40, width 38, L/W 1.1. Pseudorutellae with net-like pattern. Idiosoma moderately elongated, nearly rectangular, slightly narrowing terminally, length 227, width 107, L/W 2.1. Propodosoma and hysterosoma length 73 and 154, respectively, P/H 0.5. Opisthosoma rectangular with opisthosomal lobes very short, rounded, separated by wide triangular and shallow cleft; width at level of setae *ps1* 14, length 4. Terminal membranes tongue-shaped, length 17, width 17. Pronotal shield entire, covering almost the whole pronotum; shield uniformly dotted with rounded latero-terminal corners and straight posterior margin. Lateral incisions around setae *se* poorly sclerotized. Scapular shields shaped as small sclerites dorsally, extended ventrally as oval sclerites. Humeral shields not visible dorsally. Hysteronotal shield covers the whole hysteronotum. Entire shield uniformly dotted with two irregular lacunes posterior to setae *e1*. Supranal concavity circular with well sclerotized margins, lying between setae *hl*.

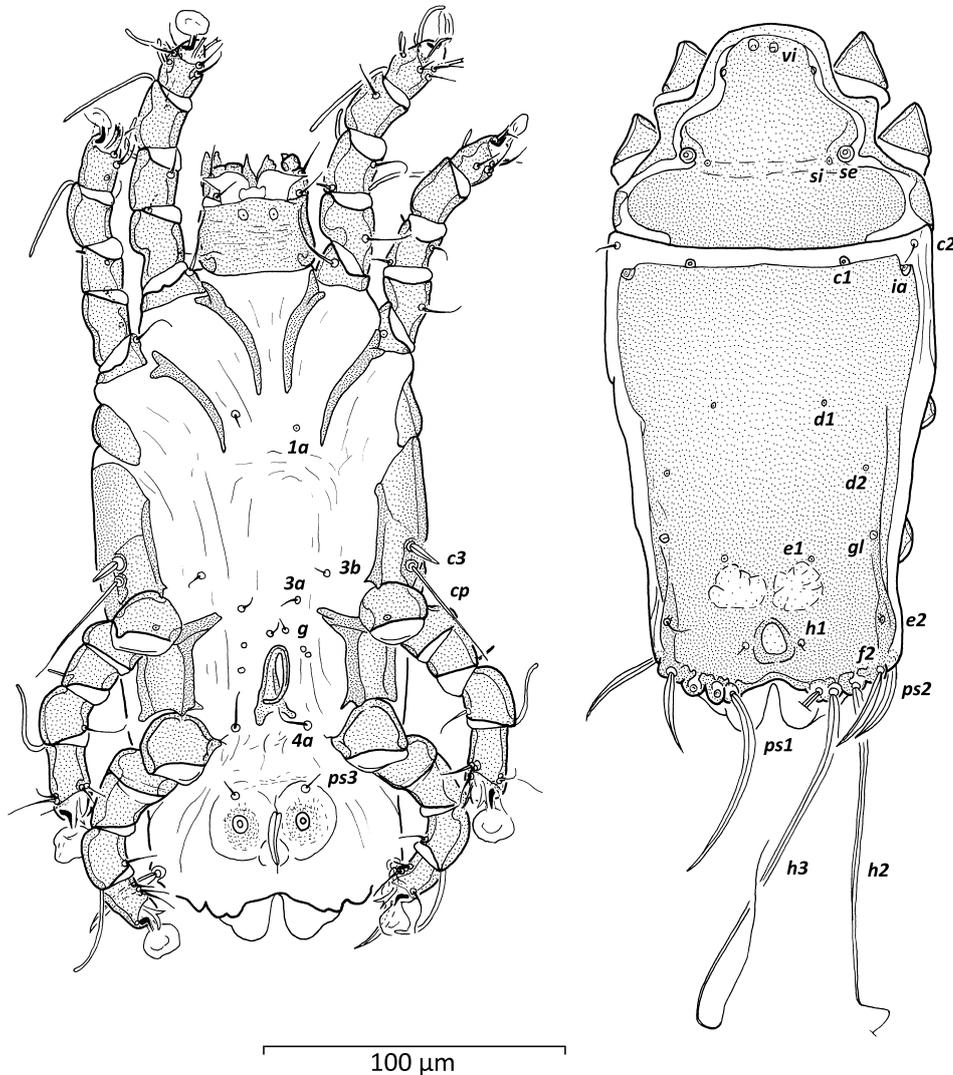


Fig. 1. Male of *Szeptyckiana macrosetosa* sp. n., ventral (left) and dorsal (right) view.

Setae *vi* probably thickened (only big alveoli remained on the slide). Setae *si* set close to *se*, medially. Cupulae *ia* with well developed surrounding sclerotization. Setae *c1* set at anterior margin of hysteronotal shield. Gland opening *gl* set much closer to the level *e1-e1* than to level *d2-d2*. Setae *h1* set at lateral margins of supranal concavity approximately in its midlength. Setae *f2*, *ps2* and *ps1* lanceolate, *f2* and *ps2* subequal in length, *ps1* about three times longer. Setae *h2* and *h3* shaped as macrosetae, subequal in length. Distance between dorsal setae: *se:se* 52, *si:si* 40, *c1:c1* 51, *d1:d1* 36, *c1:d1* 48, *c2:c2* 99, *d2:d2* 66, *c2:d2* 77, *e1:e1* 29, *e2:e2* 72, *d1:e1* 51, *d2:e2* 51, *h1:h1* 20, *e1:h1* 28, *h2:h2* 54, *h3:h3* 39, *ps1:ps1* 29, *h1:ps1* 16.

Coxal fields I and II without sclerotized shields, coxal fields III and IV with well developed shields along epimerites; lateral shields of epimerites IV shaped as longitudinal rectangles, medial shields as minute triangles. Base of aedeagus located on the level of insertions of trochanters IV.

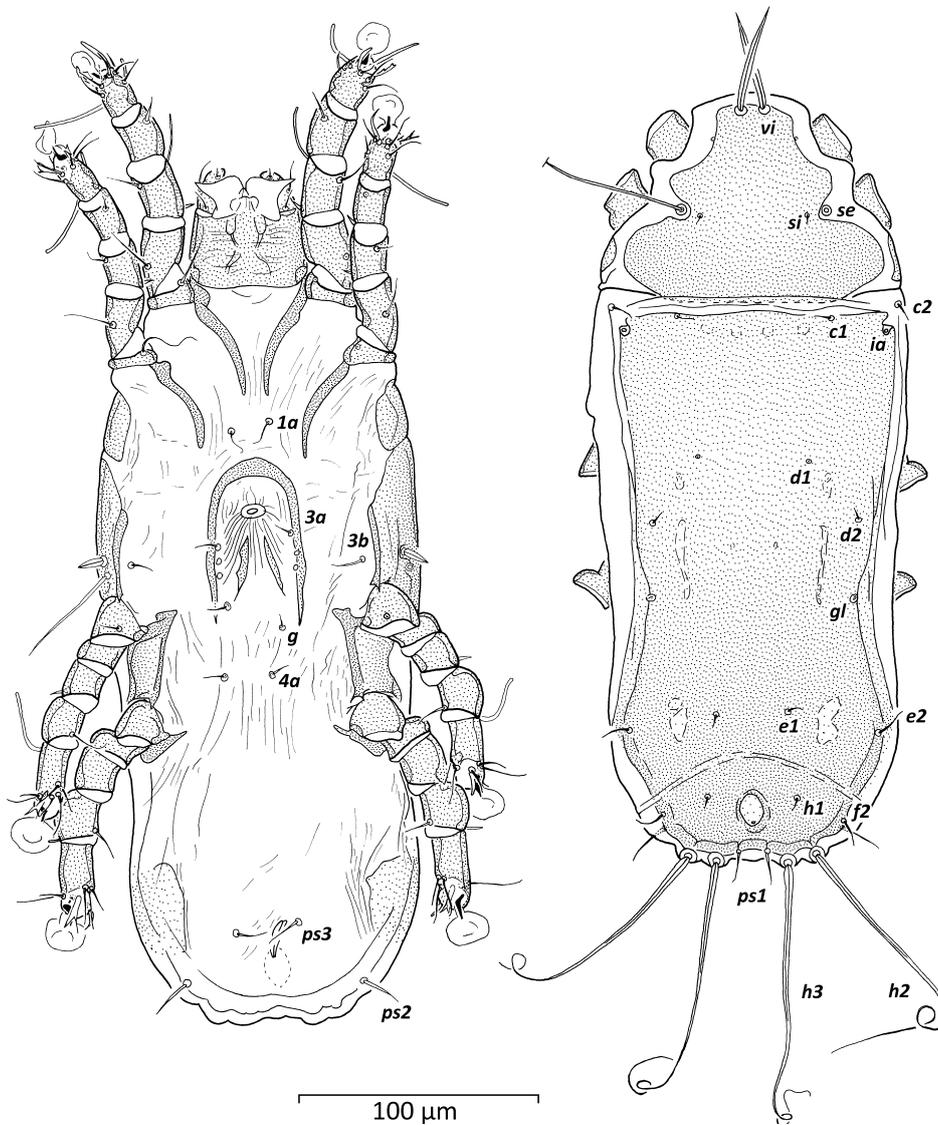


Fig. 2. Female of *Szeptyckiana macrosetosa* sp. n., ventral (left) and dorsal (right) view.

Aedeagus 46 in length directed anteriorly and bent backwards reaching its base; aedeagus gradually narrowing, several times thinner in distal part than at the base (Figs. 5A, 6D). Genital papillae set at the level of the aedeagus bend. Setae *g* inserted anterior to the genital organ and distinctly posterior to the level of setae *3a*, *3a* posterior to *3b*. Adanal discs minute, 6 in diameter, surrounded by membranes with sclerotized central part.

All legs similar in length and width. Tarsi IV with an apico-ventral triangular apophysis with acute apex (Fig. 5C). Legs IV reaching posterior margin of terminal membranes by ambulacra. Setae *cG* on genua I and II dagger-like, about twice shorter than the width of corresponding podomere (Fig. 5E). Setae *d* minute, stick-like, *e* absent on tarsi IV.

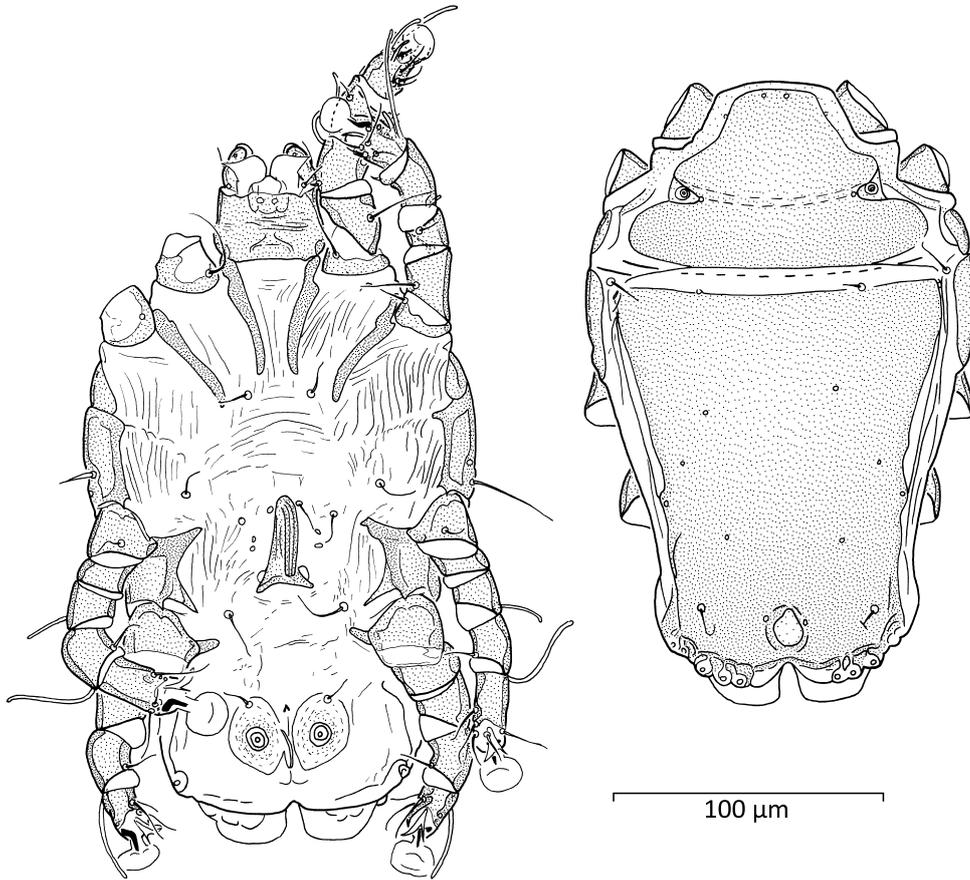


Fig. 3. Male of *Szeptyckiana microsetosa* sp. n., ventral (left) and dorsal (right) view.

Female, paratype (Figs. 2, 5B, D, E): Gnathosoma shaped as in males, length 48-52, width 44-49, L/W 1.1. Idiosoma length 311-324, width 118-130, L/W 2.4-2.6. Propodosoma and hysterosoma length 79-83 and 230-241, respectively, P/H 0.3-0.4. Body more elongated than in males with rounded posterior margin having poorly expressed, wide and shallow terminal cleft. Sclerotization of pronotum similar to that of males. Hysteronotal shield covers the entire dorsal hysterosoma. Poorly expressed arched suture delimits pygidial part of the shield. Hysteronotum uniformly dotted. Supranal concavity shaped and situated as in males; the copulatory opening situated close to posterior margin of the concavity (Fig. 5D).

Setae *vi* lanceolate, about four times longer than distance between them. Cupulae *ia* shaped as in males. Lateral setae *c2*, *d2*, *e2*, *f2* short, piliform. Distances *e1:e1* shorter than *h1:h1*, *e1:h1* equal to *h1:h1*, *h1:h1* three times longer than diameter of supranal concavity. Setae *h2*, *h3* shaped as in males; *ps1* hair-like, slightly longer than distance between them. Distance between dorsal setae: *se:se* 58-60, *si:si* 45-46, *c1:c1* 53-64, *d1:d1* 43-47, *c1:d1* 58-60, *c2:c2* 111-119, *d2:d2* 77-85, *c2:d2* 89-92, *e1:e1* 26-31, *e2:e2* 96-105, *d1:e1* 106-107, *d2:e2* 87-88, *h1:h1* 32-37, *e1:h1* 29-36, *h2:h2* 48-53, *h3:h3* 27-31, *ps1:ps1* 10-12, *h1:ps1* 24-27.

Sclerotization of coxal fields similar to that of males. Ventral bends of hysteronotal shield form weakly sclerotized opisthoventral sclerites. Epigynum shaped as a large horseshoe-like sclerite,

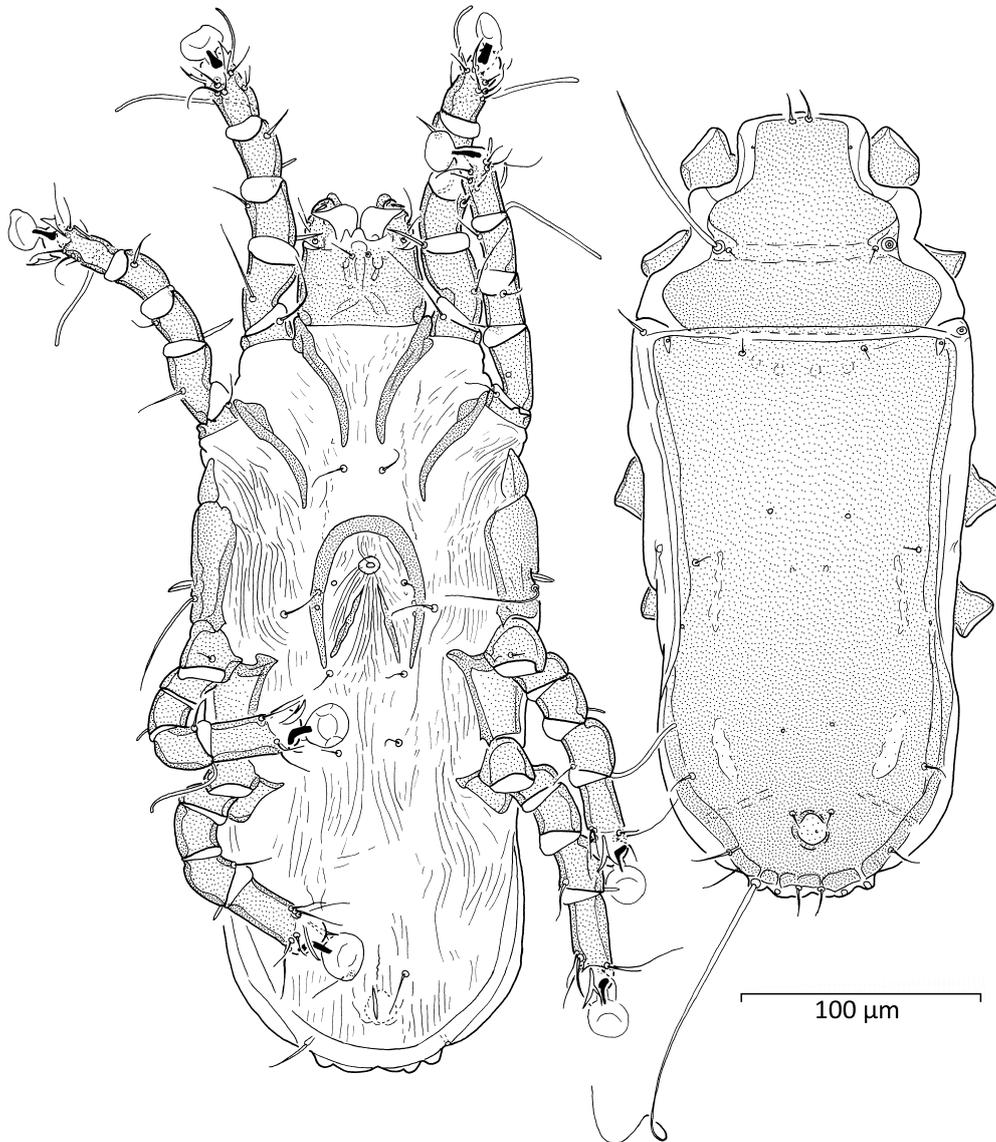


Fig. 4. Female of *Szeptyckiana microsetosa* sp. n., ventral (left) and dorsal (right) view.

width 38-46, length 65-70, L/W 1.5-1.7. Tips of the epigynum branches reach the level of setae *g* and extend beyond the ends of latigenital sclerites (Fig. 2). Genital acetabula set posterior to setae *3a* and at the level of *3b*, close to epigynum branches or on these sclerites. Distance *3b:g* about twice longer than *g:4a*, *3a:3b* approximately equal to *3b:g*.

Legs IV reaching by ambulacra the level of setae *ps3*. Genual setae *cG* I, II dagger-like, about twice shorter than the width of corresponding podomere (Fig. 5E).

Juvenile stages unknown.

**E t y m o l o g y.** The specific name (*macro*, L. – large + *saeta*, L. – hair) derives from the large lanceolate setae *vi*.

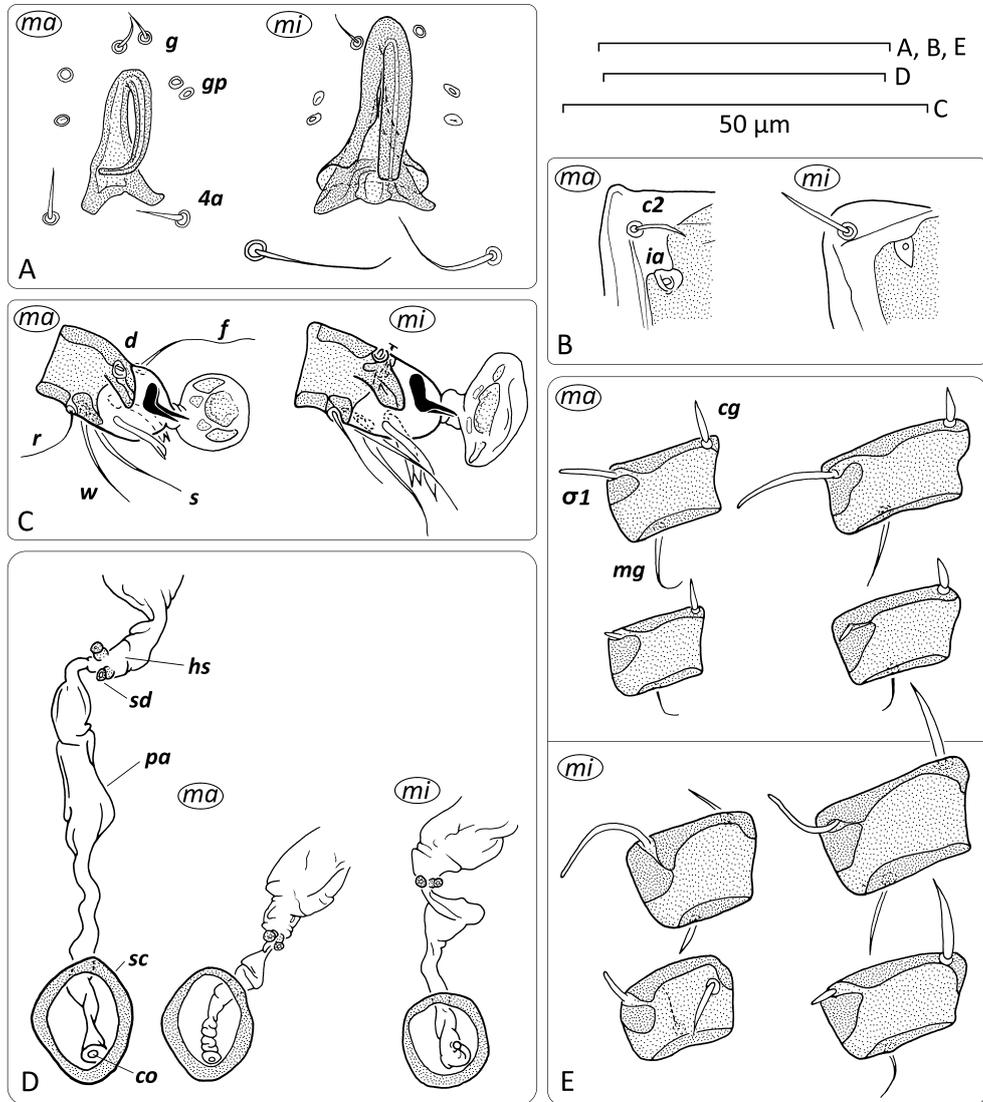


Fig. 5. Details of morphology of *Szeptyckiana* gen. n. A – genital region of male, B – cupula *ia* of female, C – tarsus IV of male, D – spermatheca of female, stretched (left) and contracted (right), E – genu I (above) and II (below) of male (left) and female (right). *ma* – *S. macrosetosa* sp. n., *mi* – *S. microsetosa* sp. n., *gp* – genital papillae, *hs* – head of spermatheca, *pa* – primary spermaduct, *sd* – secondary spermaduct, *co* – copulatory opening, *sc* – supranal concavity.

***Szeptyckiana microsetosa* sp. n.**

(Figs 3, 4, 5, 6A, C)

**D i a g n o s i s.** Setae *vi* in females (and probably in males) hair-like, at most twice longer than distance between them. Terminal membranes of males tongue-shaped, twice shorter than wide; aedeagus massive, only slightly wider at its base than in distal part. Distance between setae *h1:h1* in females as the diameter of supranal concavity.

**Type material.** From *Microhierax fringillarius* (type host): 1 male holotype, 1 female paratype, Java, 1949, collector unknown, AMU G20 (Greifswald 3256).

**Description.** Male, holotype (Figs 3, 5A, C, E, 6A, C): Gnathosoma with rectangular, transversely striated subcapitulum, length 44, width 44, L/W 1.0. Pseudorutellae with net-like pattern. Idiosoma stocky, narrowing terminally, length 226, width 148, L/W 1.5. Propodosoma and hysterosoma length 67 and 159, respectively, P/H 0.4. Opisthosoma ovate with opisthosomal lobes very short, rounded and separated by triangular cleft; width at level of setae *ps1* 11, length 5. Terminal membranes tongue-shaped, short, length 12, width 23. Pronotal shield entire, covering almost the whole pronotum; shield uniformly dotted with rounded latero-terminal corners and straight posterior margin. Lateral incisions around setae *se* poorly sclerotized. Scapular shields shaped as small sclerites dorsally, extended ventrally as oval sclerites. Humeral shields developed dorsally as longitudinal sclerites. Hysteronotal shield covers the whole hysteronotum. Entire shield uniformly dotted without lacunes. Supranal concavity circular with well sclerotized margins, lying between setae *h1*.

Setae *vi* in the male examined lost, but probably hair-like and short, since remained alveoli are small. Setae *si* set close to *se*, medially. Cupulae *ia* with well developed surrounding sclerotization. Setae *c1* set on anterior margin of hysteronotal shield. Gland opening *gl* set closer to the level *d2-d2* than to level *e1-e1*. Setae *h1* set on lateral margins of supranal concavity close to its anterior margin. Setae *f2*, *h2*, *h3*, and *ps2* absent on the slide; alveoli large as in *S. macrosetosa*. Distance between dorsal setae: *se:se* 70, *si:si* 56, *c1:c1* 60, *d1:d1* 49, *c1:d1* 42, *c2:c2* 124, *d2:d2* 73, *c2:d2* 74, *e1:e1* 42, *e2:e2* 64, *d1:e1* 52, *d2:e2* 54, *h1:h1* 15, *e1:h1* 33, *h2:h2* 63, *h3:h3* 47, *ps1:ps1* 36, *h1:ps1* 24.

Coxal fields I and II without sclerotized shields, coxal fields III and IV with well developed shields along epimerites; lateral shields of epimerites IV shaped as a square, medial shields as long and narrow triangles. Base of aedeagus located between levels of insertions of trochanters III and IV. Aedeagus 64 in length, massive, only slightly thinner in distal part than at the base, directed anteriorly and bent backwards reaching its base (Figs 5A, 6C). Genital papillae set laterally to the genital organ at the middlength of the ascended part of aedeagus. Setae *g* inserted laterally to the anterior bent of the genital organ and anterior to the level of setae *3a*, *3a* posterior to *3b*. Adanal discs minute, 6 in diameter, surrounded by membranes with sclerotized central part.

All legs similar in length, legs IV slightly wider than remaining ones. Tarsi IV with an apico-ventral triangular apophysis with blunt apex (Fig. 5C). Legs IV reaching posterior margin of terminal membranes by distal ends of tarsi. Setae *cG* on genua I and II dagger-like, about 1.5 times shorter than the width of corresponding podomere (Fig. 5E). Setae *d* minute, stick-like, *e* absent on tarsi IV.

Female, paratype (Figs 4, 5B, D): Gnathosoma shaped as in males, length 53, width 52, L/W 1.0. Idiosoma length 330, width 140, L/W 2.4. Propodosoma and hysterosoma length 89 and 241, respectively, P/H 0.4. Body more elongated than in males with rounded posterior margin having poorly expressed small terminal incision. Sclerotization of pronotum similar to that of males. Hysteronotal covers the entire dorsal hysterosoma. Poorly expressed arched suture delimitate pygidial part of the shield. Hysteronotum uniformly dotted. Supranal concavity shaped and situated as in males; the copulatory opening situated near the center of the concavity.

Setae *vi* hair-like, short, not more than twice longer than distance between them. Cupulae *ia* shaped as in males. Lateral setae *c2*, *d2*, *e2*, *f2* short, piliform. Distances *e1:e1* longer than *h1:h1*, *e1:h1* three times longer than *h1:h1*, *h1:h1* as long as the diameter of supranal concavity. Setae *h2* shaped as macrosetae, *h3* absent on the slide; *ps1* hair-like, slightly longer than distance between them. Distance between dorsal setae: *se:se* 71, *si:si* 58, *c1:c1* 50, *d1:d1* 32, *c1:d1* 70, *c2:c2* 132, *d2:d2* 92, *c2:d2* 96, *e1:e1* 20, *e2:e2* 98, *d1:e1* 90, *d2:e2* 90, *h1:h1* 16, *e1:h1* 36, *h2:h2* 47, *h3:h3* 28, *ps1:ps1* 10, *h1:ps1* 33.

Sclerotization of coxal fields similar to that in males, except for lateral longitudinal shields of epimerites IV devoid of medial shields. Opisthoventral sclerites absent. Epigynum shaped as a large horseshoe-like sclerite, width 48, length 66, L/W 1.4. Tips of the epigynum branches almost reach the level of setae *g* and extend beyond the ends of latigenital sclerites (Fig. 4). Genital acetabula set

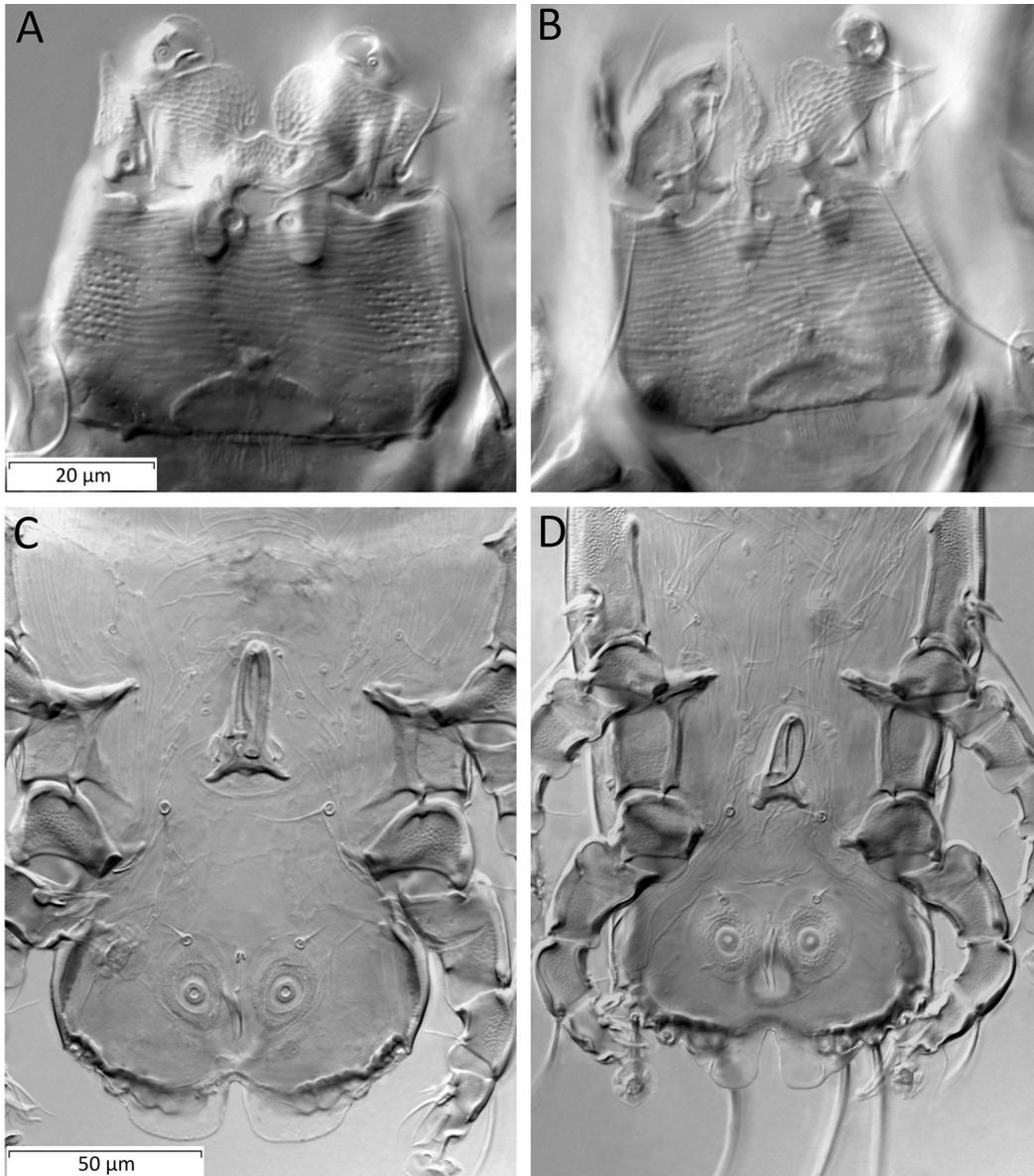


Fig. 6. Photos of male gnathosoma (A, B) and ventral hysterosoma (C, D). A, C – *S. microsetosa* sp. n., B, D – *S. macrosetosa* sp. n.

posterior to setae *3a* and at the level of *3b* on epigynum branches. Distance *3b:g* similar to the distance *g:4a*, *3a:3b* shorter than *3b:g*.

Legs IV reaching by ambulacra the level of setae *ps2*. Genual setae *cGI*, II dagger-like, approximately as long as the width of corresponding podomere (Fig. 5E), longer than in males.

Juvenile stages unknown.

E t y m o l o g y. The specific name (*micro*, L. – small + *saeta*, L. – hair) derives from the short, hair-like setae *vi*.

A c k n o w l e d g e m e n t s. We wish to thank Prof. Gerd ALBERTI, Zoological Institute and Museum, Ernst-Moritz-Arndt University, Greifswald, Germany, for making available samples of dry bird skins for the present study.

#### REFERENCES

- DABERT J. 2003. The feather mite family Syringobiidae Trouessart, 1896 (Acari; Astigmata; Pterolichoidea) of the world. Part I. Systematics of the family and description of new taxa. *Acta Parasitologica*, **48** (Supplement): 1-184.
- DABERT J. 2005. Feather mites (Astigmata; Pterolichoidea, Analgoidea) and birds as models for cophylogenetic studies. *Phytophaga*, **14**: 409-424.
- DABERT J., ALBERTI G. 2008. A new species of the genus *Coraciacarus* (Gabuciniidae, Pterolichoidea) from the huia *Heteralocha acutirostris* (Callaeatidae, Passeriformes), an extinct bird species from New Zealand. *Journal of Natural History*, **42**(43): 2763-2776.
- DICKINSON E. C. (ed.) 2003. The HOWARD & MOORE Complete Checklist of the Birds of the World. 3rd Edition. Christopher Helm, London, 1039 pp.
- EVANS G. O. 1992. Principles of acarology. CAB International, Wallingford, 576 pp.
- GAUD J., ATYEO W. T. 1996. Feather mites of the world (Acarina, Astigmata): The supraspecific taxa. *Annales du Musée royal de l'Afrique centrale, Série in-8<sup>o</sup>, Sciences zoologiques*, **277**: (Part I, Text) 1-193, (Part II, Illustrations of feather mite taxa) 1-436.
- MCCLURE H. E., RATANAWORABHAN N. 1973. Some ectoparasites of the birds of Asia, Jintana Printing Ltd, Bangkok, 219 pp.
- MÉGNIN P., TROUESSART E. L. 1884. Les Sarcoptides plumicoles. Révision du groupe des Analgesinae, et description des espèces et genres nouveaux de la collection du Musée d'Angers. (Suite) (1). *Journal de Micrographie*, **8**(1): 257-266.
- PÉREZ T. M. 1995. Seven species of *Fainalges* GAUD and BERLA (Analgoidea, Xolalgidae) from *Aratinga holochlora* (SCLATER) (Aves, Psittacidae). *Zoologica Scripta*, **24**(3): 203-223.