

Description of *Charadriphilus lyudmilae* gen. et sp. n. (Acari: Syringophilidae) from *Scolopax rustica* (Aves: Scolopacidae) in NW Russia

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Charadriphilus lyudmilae gen. et sp. n. is described from quills of the woodcock *Scolopax rustica* (Aves: Charadriiformes: Scolopacidae) captured in NW Russia. The new genus is distinguished from the genus *Bubophilus* Kethley, 1970 by the presence of medial protuberances on the hypostomal apex, the epimeres I not fused with the epimeres II, segmented lateral branches of peritremes, and the setae *h* situated closer to setae *sci* than to setae *sce*.

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Introduction

The mites of the family Syringophilidae (Acari: Cheyletoidea) are permanent ectoparasites of birds (Kethley, 1970). These mites are located inside quills of different types of feathers. About 59 species and 24 genera of syringophilid mites are known from birds of 12 orders (Kethley, 1970; Bochkov & Mironov, 1998; Skoracki, 1999). However, it is suggested, that the real world fauna of the Syringophilidae might include about 5000 species (Johnston & Kethley, 1973). 27 species of syringophilid mites, belonging to 14 genera, are recorded or suggested for the territory of the former USSR (Bochkov & Mironov, 1998).

The present paper describes a syringophilid mite belonging to a new genus and species, *Charadriphilus lyudmilae* gen. et sp. n. It was collected from *Scolopax rustica* (L.) (Charadriiformes: Scolopacidae) in NW Russia (Leningrad Prov.). The mites were collected by D.C. from alive bird captured for bonding.

The morphological terminology and leg chaetotaxy used in the descriptions follow those of Kethley (1970), but the nomenclature of idiosomal setae follows that of Fain (1979), elaborated for the family Cheyletidae. We use the latter nomenclature because it allows com-

parison of chaetoms and recognition of homologies in all families of Cheyletoidea.

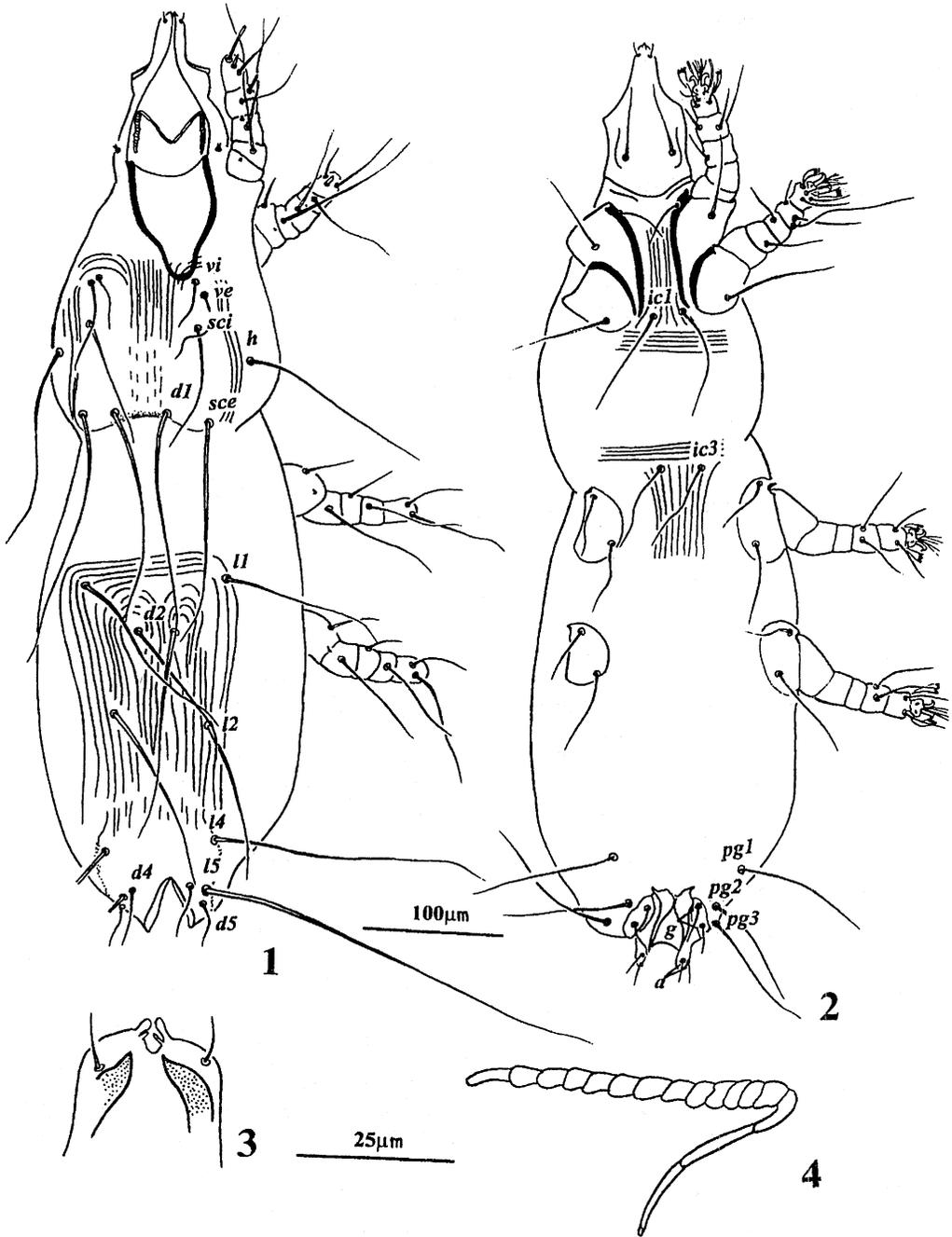
All measurements are given in micrometers (μm).

The holotype and paratypes are deposited in the Zoological Institute, Russian Academy of Sciences, St.Petersburg, Russia.

Genus *Charadriphilus* gen. n.

Type species: Charadriphilus lyudmilae sp. n.

Description. Female. With characters of subfamily Syringophilinae. Hypostomal apex with medial protuberances, slightly ornamented. Lateral hypostomal teeth absent. Cheliceral digit edentate. Peritremes M-shaped: lateral branches with few chambers; longitudinal branches with numerous chambers. Stylophore extending to anterior edge of propodosomal plate. All dorsal setae smooth. Propodosomal plate weakly sclerotized. Hysterosomal plate absent. Pygidial plate present, with indistinct anterior margin. Setal pattern of propodosoma arranged 2-1-1-2. Setae *l1*, *l2*, *l4*, *l5*, and *d2* long; setae *d4* and *d5* short. Setae *h* closer to setae *sci* than to setae *sce*. Setae *d2* closer to setae *l1* than to setae *l2*. Genital and anal series with 2 pairs of setae; paragenital series with 3 pairs of setae. Epimeres I slightly divergent,



Figs 1-4. *Charadriphilus lyudmilae* gen. et sp. n. (female holotype). 1, body, dorsal view; 2, body, ventral view; 3, hypostomal apex, ventral view; 4, peritreme.

not fused with epimeres II. Coxal region III-IV weakly sclerotized. Cuticular striations as in Figs 1, 2. All legs subequally thick. Legs with full complement of setae. Claws without basal angle, about 1/2-1/3 length of empodium.

Male. Unknown.

Order of hosts: Charadriiformes. Types of feathers inhabited: secondaries.

Included species: type species only.

Comparison. *Charadriphilus* gen. n. is closely related to the monotypic genus *Bubophilus* Philips & Norton, 1978. The single species of this genus, *B. ascalaphus*, was described ex *Bubo virginianus* (Gmelin) (Aves: Strigiformes) from USA (Philips & Norton, 1978). Both genera possess the following combination of characters: all leg setae present; peritremes M-shaped; epimeres I weakly divergent; setae *d4* and *d5* short; 2 pairs of genital and anal setae; 3 pairs of paragenital setae; claws of normal shape; lateral hypostomal teeth absent; all body setae smooth; setal pattern of propodosoma arranged 2-1-1-2, etc.

The new genus is distinguished from *Bubophilus* by characters as follows. In *Charadriphilus*, hypostomal apex with medial protuberances; epimeres I not fused with epimeres II; lateral branch of peritreme segmented; setae *h* closer to setae *sci* than to setae *sce*. In *Bubophilus*, hypostomal apex without protuberances; epimeres I fused with epimeres II; lateral branch of peritreme with one chamber; setae *h* closer to setae *sce* than to setae *sci*.

Charadriphilus is also related to the genus *Niglarobia* Kethley, 1970. Species of both genera are associated with birds of the family Scolopacidae. The new genus differs from *Niglarobia* in the presence of setae *vs*'I (these setae are absent in *Niglarobia*) and the absence of basal angle in claws (these angles are well developed in *Niglarobia*).

Etymology. The *Charadri* refers to the order name of hosts; *philus* (Greek) means "lover of".

Charadriphilus lyudmilae sp. n.

(Figs 1-4)

Holotype. (T-Sy-13), ♀, Russia, Leningrad Prov., Tosno Distr., Pogi village, quills of *Scolopax rustica* (secondaries), 21.IX.1999 (D.V. Chistyakov).

Paratypes. 3 F, collected with the holotype.

Description. Female. Total length including gnathosoma 675 (650-697 in 3 paratypes);

width at level of setae *h* 175 (168-180). Gnathosoma: hypostomal apex (Fig. 3) slightly ornamented; two pairs of median protuberances present. Peritremes (Fig. 4): lateral branch with 3 chambers; longitudinal branch with 13 chambers. Dorsal idiosoma (Fig. 1): propodosomal plate not divided; length of setae: *vi* 36 (29-38), *ve* 63 (56-67), *sci* 123 (90-129), *sce* 168 (146-168), *h* 225 (207-230), *d1* 162 (150-162), *d2* 160 (141-162), *d4* 47 (36-47), *d5* 48 (38-48), *ll* 148 (135-148), *l2* 139 (132-144), *l4* 264 (247-264), *l5* 405 (360-405). Ventral idiosoma (Fig. 2): cuticular striations as in Fig. 2; length of setae: *ic1* 101 (80-101), *ic3* 79 (75-85), *pg1* 123 (105-123), *pg2* 69 (67-78), *pg3* 139 (120-139). Legs: setae *a'* and *a''* with 6-7 tines, *a'* subequal to *a''*; setae *sc3* and *sc4* subequal, not extend beyond genua; setae *vFTI* not extending to ambulacrum; setae *tc*'III-IV about half as long as setae *tc*'III-IV.

Etymology. The species is named in honour of Dr. Lyudmila Chistyakova (Biological Research Institute of the Saint Petersburg State University, Russia).

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