

**ORNITHOCHEYLETIA PHYLLOSCOPI SP.N.  
(ACARIFORMES:CHEYLETIDAE), NEW SPECIES OF  
PARASITIC MITE FROM THE WILLOW WARBLER**

**ORNITHOCHEYLETIA PHYLLOSCOPI SP.N.  
(ACARIFORMES:CHEYLETIDAE) — НОВЫЙ ВИД  
ПАРАЗИТИЧЕСКОГО КЛЕЩА С ПЕНОЧКИ ВЕСНИЧКИ**

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phylloscopi* sp.n., *Phylloscopus trochilus*.

Ключевые слова: Cheyletidae, *Ornithocheyletia*, *Ornithocheyletia  
phylloscopi* sp.n., *Phylloscopus trochilus*.

**ABSTRACT**

A new species of parasitic cheyletid mites, *Ornithocheyletia phylloscopi* sp.n. (Cheyletidae), is described from the willow warbler *Phylloscopus trochilus* L. (Paseriformes: Sylviidae) basing on materials collected in Leningrad region (Russia) and in Kiev region (Ukraine). The females of *O.phylloscopi* differ from females of the closely related *O.leiothrix* Fain, 1972 by lesser size of idiosoma and by barbed setae vs1 on tarsi II-III. Heteromorphic male of *O.phylloscopi* differs from that of *O.leiothrix* by narrower rostrum with narrowed and shortened lateral lobes, and by the slit-like lateral recesses posterior to these lobes.

## РЕЗЮМЕ

Новый вид паразитического хейлетоидного клеща *Ornithocheyletia phylloscopi* sp.n. (Cheyletidae) описан с пеночки веснички *Phylloscopus trochilus* L. (Passeriformes: Sylviidae) по материалам из Ленинградской (Россия) и Киевской (Украина) областей. Самки *O.phylloscopi* отличаются от самок близкого вида *O.leiothrix* Fain, 1972 меньшими размерами идиосомы и опушенными щетинками vs 1 лапок II-III. Гетероморфный самец *O.phylloscopi* отличается от такового *O.leiothrix* более узким рострумом с сильно суженными и более короткими лопастями, а также наличием на роструме щелевидных боковых корманов позади этих лопастей.

So far, the genus *Ornithocheyletia* Volgin, 1964 has included 27 species [Fain, 1981]. All representatives of this genus are permanent skin ectoparasites of birds. The hosts of these mites recorded up to now belong to the following bird orders: Psittaciformes, Galliformes, Columbiformes, Piciformes, Passeriformes. Among mites of the genus *Ornithocheyletia*, about one half of the species is associated with passerine birds. On the territory of former USSR only one species has been described, *O.dubinini* Volgin, 1964 from the sturling *Sturnus vulgaris* L., 1758 in Moldova [Volgin, 1964].

This paper presents the description of the new species *O.phylloscopi* sp.n. from the willow warbler *Phylloscopus trochilus* L., 1758. The materials for the description were collected by S.V. Mironov in Leningrad region (Russia) in 1981 and by V.T. Gorgol in Kiev region (Ukraine) in 1982.

In the description we have used the idiosomal chetotactic nomenclature worked out by Fain [1979] for the family Cheyletidae and the legs chetotactic one elaborated Atyeo et al. [1984] and Ide & Kethley [1977]. All measurements are given in micrometers (mkm) and displayed in the Table. Holotype and paratypes are deposited in Zoological Institute of Russian Academy of Sciences (Saint-Petersburg, Russia).

*Ornithocheyletia phylloscopi* Bochkov, Mironov et Gorgol, sp.n.

Fig. 1-2.

Female (holotype). The structure of gnathosoma is typical for the genus *Ornithocheyletia* (Fig.1). Rostrum wide, rounded, peritremes of 3

*Ornithocheyletia phylloscopi* sp.n.

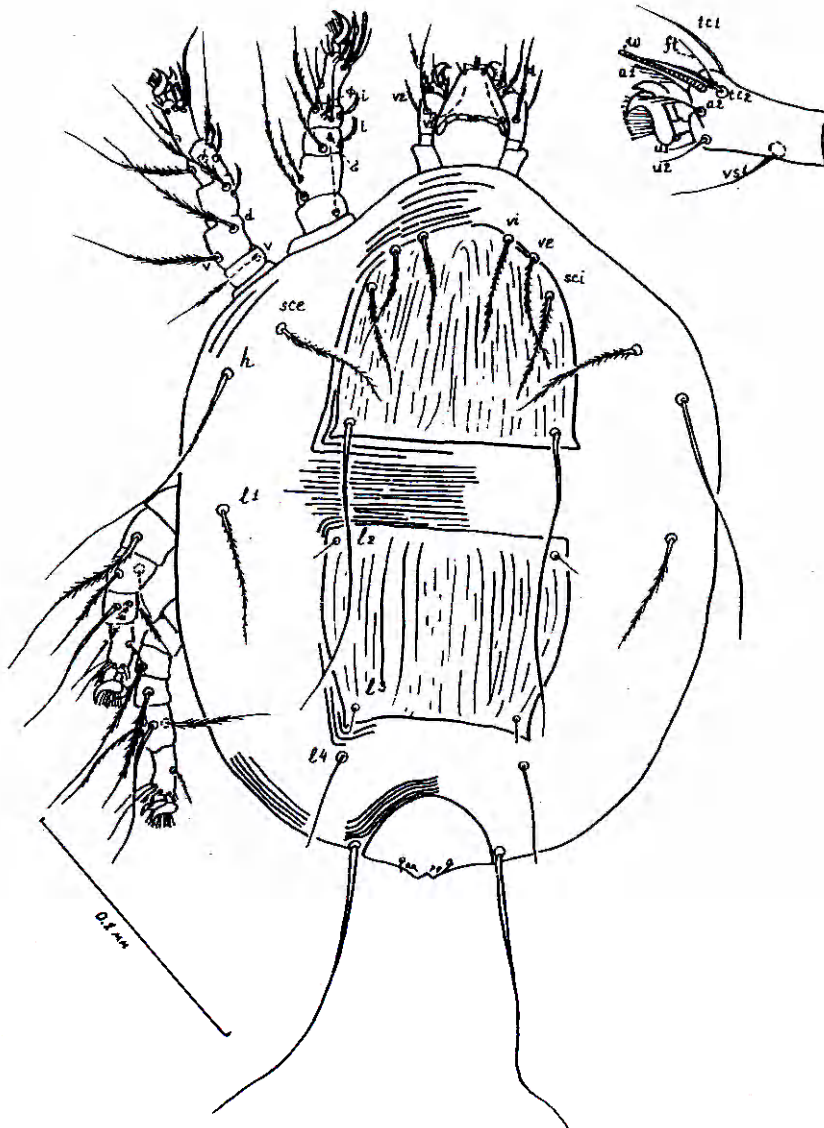


Fig.1. Dorsal view of the female *Ornithocheyletia phylloscopi*.  
Рис.1. Самка *Ornithocheyletia phylloscopi* дорсально.

pairs of segments. Femur of palp with 3 setae: setae **d**, **v2** barbed, **v1** smooth. Genu of palp with 2 barbed setae **d** and **v**. Tibia of palp with 3 setae: setae **d** barbed, **v** and **i** smooth.

Idiosoma. Propodosoma shield striated, its anterior part widely rounded, posterior margin straight. Border of this shield clear, well distinct from the surface of idiosoma. Posterior angles of the shield attenuated. The shield with 4 pairs of setae: setae **vi** and **ve** barbed, situated on anterior margin of the shield, setae **sci** also barbed and distant from margin of the shield; setae **d1** smooth, situated in posterior angles of the shield. Setae **sce** barbed, placed off the shield at the level of its midlength. Setae **h** smooth, situated on the dorsal surface of the body. Hysterosomal shield rectangular, with straight anterior margin, convex lateral margins and concave posterior one; posterior angles attenuated, surface of shield striated. This shield carries 2 pairs of smooth setae **l2** and **l3**, situated in its anterior and posterior angles respectively. Other lateral setae displaced off the hysterosomal shield: setae **l1** barbed, **l4** and **l5** smooth. Distance between bases of setae **l1** 139 (in paratypes 112 – 146).

Ventral setae of idiosoma **ic1**, **ic3**, **ic4**, **g1-g3** smooth, about 34 (30 – 36 in paratypes); setae **g4**, **g5** barbed, slightly shorter than other ventral idiosomal setae.

Legs. Distal part of tarsus I, II with big dorsal tuber, tarsus III, IV with less developed tuber. Setae **vs1** of tarsus I smooth, those of tarsi II-IV barbed; setae **a1**, **a2** of all tarsi bristle-like. The solenidion **phi** of tibia I stick-like. Setae **v** of trochanter II barbed. Seta **d** of tibiae III, IV smooth.

Heteromorphic male (paratype). Gnathosoma hyperotrophied (Fig. 2a,b). Rostrum long and narrow, dorsal setae of rostrum hair-like, ventral setae barbed. There are two small lobes on lateral sides of medial part of the rostrum; lateral margins of the rostrum posterior to these lobes with a pair of slit-like recesses with sclerotized internal margin. Peritremes of 2 pairs of segments. Femur of palp elongated, cylindrical, without extensions, with 3 barbed setae (**d**, **v1**, **v2**), and with small tooth-like processus at the base of setae **v2**. Genu of palp with 2 barbed setae (**d**, **v**). All other setae of tibia and tarsus except setae **d** hair-like. Solenidium of palpal tarsus mace-like, claws of palpa without basal indentation. Ventral setae of palpal coxa barbed, situated on small tubers, lateral margins of palpal coxae with one big acute lateral extension.

*Ornithocheyletia phylloscopi* sp.n.

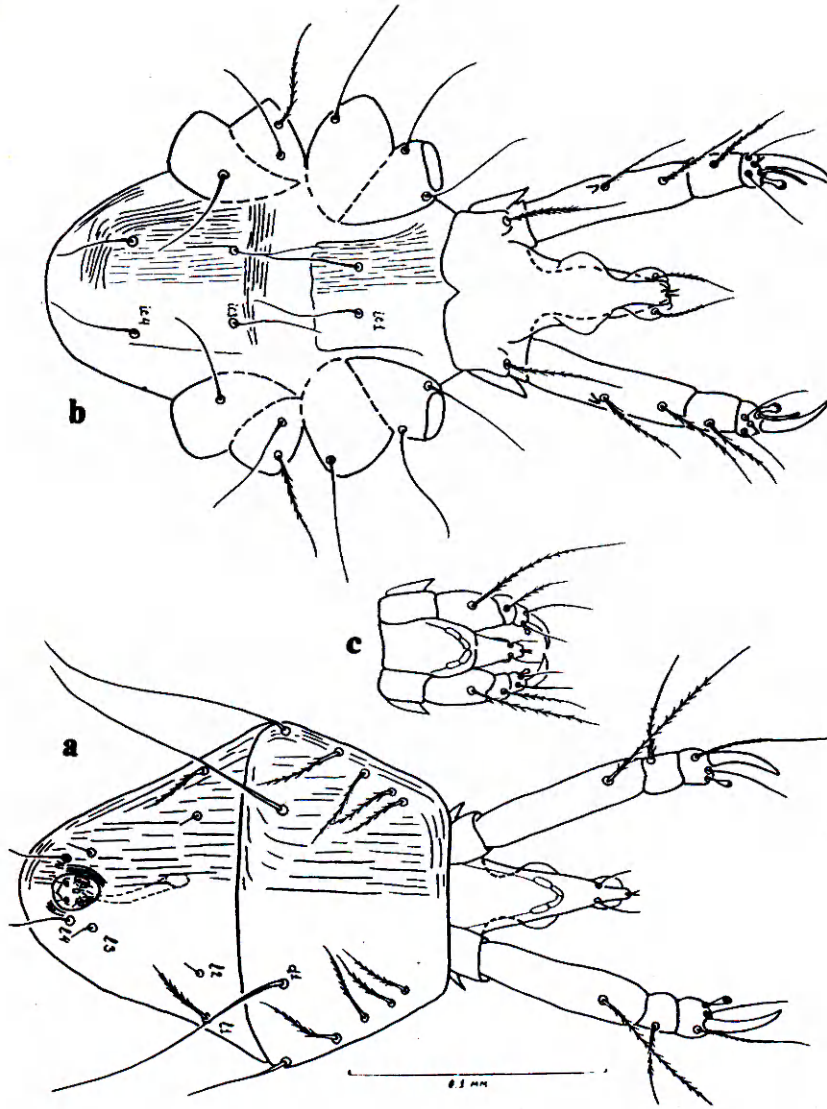


Fig.2. *Ornithocheyletia phylloscopi*, male: a — heteromorphic male, dorsal view, b — ibid, ventral view, c — gnathosoma of homeomorphic male, dorsal view.  
 Рис.2. *Ornithocheyletia phylloscopi*, самец: а — гетероморфный самец, дорсально, б — то же вентрально, с — гнатосома гомеоморфного самца дорсально.

Table.  
Measurements of females and males *Omithocheyletia phylloscopi* sp.n.

Character	females		males	
	holotype	paratypes (n=10)	heteromorhic paratypes (n=3)	homeomorphic paratypes (n=1)
Gnathosoma				
Length	49	47–56	49–81	50
Width	45	42–45	45–67	39
Palpae femur				
Length	22	22–24	35–67	30
Width	13	11–13	11–22	12
Idiosoma				
Length	247	243–256	153–166	171
Width	157	153–175	121–135	130
Propodosomal shield				
Length	72	67–78	81–85	83
Width	78	78–96		
Hysterosomal shield				
Length	67	56–67		
Width	76	76–90		
vi	36	36–45	24–31	27
ve	37	36–42	24–31	29
sci	38	38–45	33–42	43
sce	45	42–49	33–44	36
d1	112	112–123	115–135	112
h	130	112–135	110–126	101
l1	45	38–45	29–42	33
l2	11	11–15	9–11	9
l3	15	13–18	10–12	11
l4	36	36–45	40–47	42
l5	126	123–141		



### Ornithocheyletia phylloscopi sp.n.

Idiosoma. Dorsal shields of idiosoma touching each other and occupying nearly all dorsal surface of the body. Propodosomal shield is trapezoid in form, with 5 pairs of setae (**vi**, **ve**, **sci**, **sce** barbed, **d1** smooth). Humeral setae **h** smooth, situated dorso-laterally. Hysterosomal shield with unclear border, with 4 lateral setae (**I1** — barbed, **I2-I4** — smooth). The length of aedeagus 43 (in other paratypes 33-45). Genital apparatus as in Fig.2a.

Ventral setae of idiosoma smooth, approximately equal in length. Legs chaetotaxy as in female.

Homeomorphic male (paratype). Gnathosoma significantly smaller than in heteromorphic male, resembling that of female. Rostrum rounded on anterior tip, without lateral lobes and sclerotized recesses (Fig. 2c). Coxa of palp with one small lateral process. The form of idiosoma, structure of dorsal shields and legs, form and disposition of setae on idiosoma and on legs as in heteromorphic male.

### DIFFERENTIAL DIAGNOSES

New species is most closely related to *Ornithocheyletia leiothrix* Fain, 1972 from the yellow mesia *Leiothrix lutea* Scopoli, 1786 (Timaliidae), which has been described from South-East Asia [Fain, 1972, 1981]. The female of *O.phylloscopi* sp.n. differs from the female *O.leiothrix* by the smaller size of idiosoma (247-256 x 153-175) and by the barbed setae **vs1** of tarsi II-III. In female *O.leiothrix* the idiosoma is 270 x 195 (according to the description of holotype) and the setae **vs1** of all tarsi are smooth. Heteromorphic male *O.phylloscopi* sp.n. differs from that of *O.leiothrix* by narrower rostrum, by small, narrower and shorter rostral lobes and by the presence of slit-like recessions posterior to these lobes. In heteromorphic male *O.leiothrix* the lobes and the rostrum are wider and spread from most part of the tip of the rostrum to its base, but recessions are absent.

Homeomorphic males cannot be compared, because this form has not been described in *O.leiothrix*.

Type material. Holotype: female (T-Ch-52), paratypes: 30 females, 1 homeomorphic male from willow warbler *Phylloscopus trochilus* L. — Russia, Leningrad region, willage Gumbaritsy, 25.08.1981, S.V.Mironov; paratypes: 2 females, 3 heteromorphic males, 1 nymph from the same host — Ukraine, Kiev region, willage Lebedivka, 6.10.1982, V.T.Gorgol.

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