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## A NEW SPECIES OF THE GENUS *PROCTOPHYLLODES* (ANALGOIDEA, PROCTOPHYLLODIDAE) FROM UKRAINE

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**A New Species of the Genus *Proctophyllodes* (Analgoidea, Proctophyllodidae) from Ukraine.** Burdejnaja S. J., Kivganov D. A. — The species *Proctophyllodes luscinae* Burdejnaja et Kivganov sp. n. from the Nightingale *Luscinia megarhynchos* C. L. Brehm, 1831 and the Thrush Nightingale *L. luscina* Linnaeus, 1758 (Passeriformes) (type locality: Zmeinij Island, Ukraine) is described. The new species, belongs to the *glandarinus* species group and morphologically similar to *P. doleophyes* Gaud, 1957 from Pied Flycatcher *Ficedula hypoleuca* (Pallas, 1764).

**Key words:** *Proctophyllodes*, Analgoidea, feather mites, Ukraine, new species.

**Новый вид рода *Proctophyllodes* (Analgoidea, Proctophyllodidae) из Украины.** Бурдейная С. Я., Кивганов Д. А. — С соловьев обыкновенного *Luscinia luscina* Linnaeus, 1758 и южного *L. megarhynchos* C. L. Brehm, 1831 (Passeriformes) описан *Proctophyllodes luscinae* Burdejnaja et Kivganov sp. n. (типовая местность: Украина, о. Змеиний), принадлежащий к группе видов *glandarinus*. Новый вид морфологически сходен с *P. doleophyes* Gaud, 1957 с мухоловки-пеструшки *Ficedula hypoleuca* (Pallas, 1764).

**Ключевые слова:** *Proctophyllodes*, Analgoidea, перьевые клещи, Украина, новый вид.

### Introduction

The genus *Proctophyllodes* Robin (et Megnin), 1877, includes about 150 described species of feather mites and is the largest genus of the family Proctophyllodidae Trouessart et Megnin, 1884 (Atyeo, Braasch, 1966). Thirty species of this genus were found on 26 species of birds of the order Passeriformes in Ukraine (Кивганов та ін., 2006). As a result of studies of feather mites of sparrow birds migrating through Zmeinij Island (Ukraine), a previously undescribed species of *Proctophyllodes* was found on Thrush Nightingale *Luscinia luscina*. Holotype and some paratypes are deposited in the collection of the Museum of Zoology, I. I. Mechnikov Odessa National University (Ukraine), other type material is deposited in the collections of the Department of Zoology, I. I. Mechnikov Odessa National University (Ukraine). The sizes are given in micrometers (micron), in brackets for paratypes. The idiosomal chaetotaxy nomenclature follows D. A. Griffiths (Gaud, Atyeo, 1996).

The accepted abbreviations of some measurements:

- «a» — distance between setae *4a*;
- «b» — distance between *4a* and *ps3*;
- «c» — distance between *ps3*;
- «d» — distance between top of genital arch and setae *ps1*.

### *Proctophyllodes luscinae* Burdejnaja et Kivganov sp. n. (fig. 1–2)

**Material:** Holotype  $\sigma$  — Zmeinij Island 24.04.2004, from Thrush Nightingale *Luscinia luscina* Linnaeus; paratypes: all from the same place as in the holotype: Thrush Nightingale, 24.04.04, 2  $\sigma$ , 3  $\varnothing$ ; 22.04.04, 2  $\sigma$ , 2  $\varnothing$ ; 21.04.05, 1  $\sigma$ , 1  $\varnothing$ ; 24.04.04, 2 ; 23.04.04, 2  $\varnothing$ ; a Nightingale 2  $\sigma$ , 2  $\varnothing$  17.04.05. Typical material 2  $\varnothing$ , 1 nymphs 24.04.04; 1  $\sigma$ , 5  $\varnothing$ , 2 nymphs 22.04.04; 5  $\sigma$ , 6  $\varnothing$ , 5 nymphs 21.04.05; 5  $\sigma$ , 8  $\varnothing$ , 3 nymphs 24.04.04; 4  $\sigma$ , 2  $\varnothing$ , 2 nymphs 23.04.04 — Thrush Nightingale, 27.04.04, 1  $\sigma$ , 2  $\varnothing$ ; Nightingale, 17.04.05, 10  $\sigma$ , 3  $\varnothing$ , 9 nymphs.

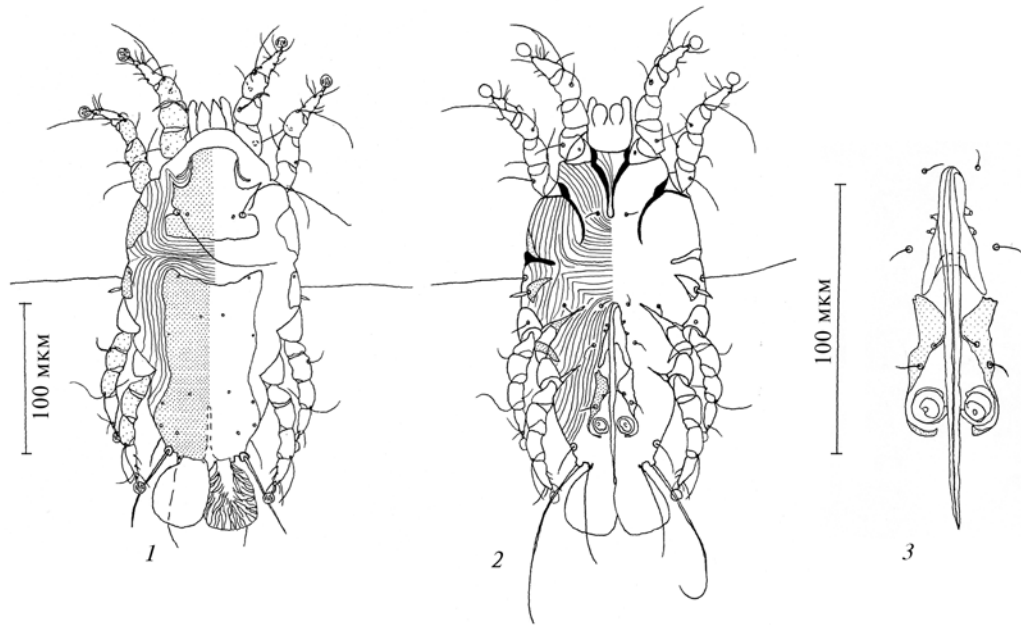


Fig. 1. *Proctophyllodes luscinae*: 1 — male, dorsal aspect; 2 — male, ventral aspect; 3 — the male genital organ.

Рис. 1. *Proctophyllodes luscinae*: 1 — самец, дорсально; 2 — самец, вентрально; 3 — генитальный орган самца.

Male (fig. 1). Length, excluding lamellae, 243.8 (237.1–254.4), width 120 (106.6–120). Propodosomal shield 67.4 (63–71.4) in length, width on posterior edge 69.1 (65.7–73.9), lateral margins entire, without lacunae. Distance between setae *se* 48.1 (43.9–48.5). Humeral shield are present and bearing setae *c2* at extreme antero-

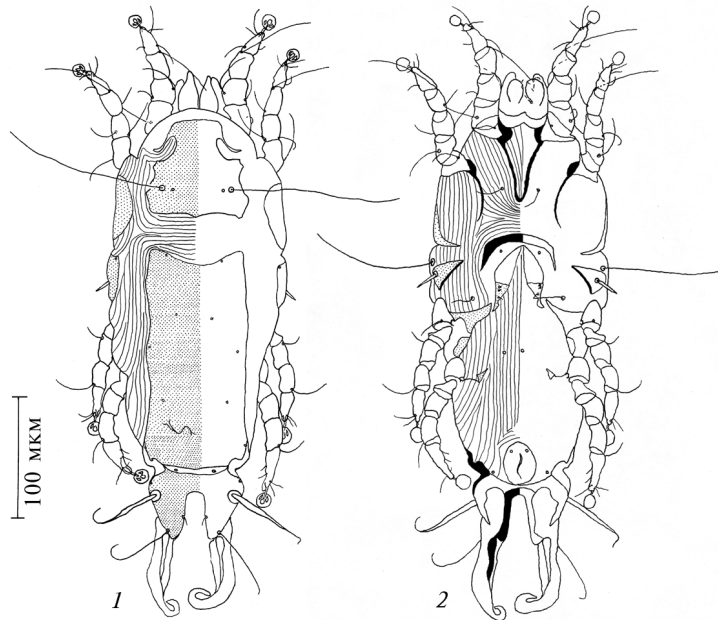


Fig. 2. *Proctophyllodes luscinae*: 1 — female, dorsal aspect; 2 — female, ventral aspect.

Рис. 2. *Proctophyllodes luscinae*: 1 — самка, дорсально; 2 — самка, вентрально.

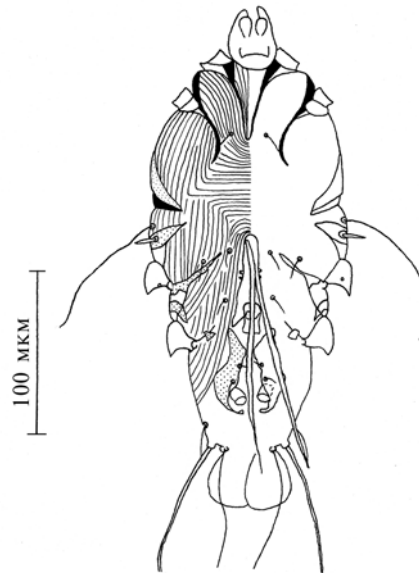


Fig. 3. *Proctophyllodes doleophyes*. Male, ventral aspect.

Рис. 3. *Proctophyllodes doleophyes*. Самец, вентрально.

medial angles. Subhumeral setae *c3* are lanceolate. Hysterosomal shield is 142.8 x 78.1 (136.1–155.4 x 71.4–81.5), without lacunae. Lamellae large, almost rounded, 50.4 (45.2–54) long, 39.9 (31.7–39.9) wide, and insignificantly recovered. Genital suckers are widely placed. Genital arch 45.6 (42.2–51.2) long and 23.1 (21–23.1) wide. Top of genital organ reaching setae *3a*, 134.6 (126.6–143.4) long (fig. 1, 3). Genital sheath wedge-shaped, without sclerotized ring at base. Opisthogastric shields represented by pair of almost longitudinal sclerite, in anterior part much wider than at level of setae *ps3*. Anal setae *4a* located on sclerite. Distances *a*: 15.3 (12.2–15.3); *b*: 7.4 (6.3–8.4); *c*: 26 (23.1–27.3); *d*: 117.6 (108.8–126).

Female (fig. 2). Length, excluding terminal appendages, 384 (366.7–391.7); width 138.2 (129.6–154.6). Propodosomal shield shape as in male, 89.3 (82.5–92.4) long, 91.4 (79.4–94.5) wide on back edge. Distances between setae *se* 61.3 (54.6–64.5). Subhumeral setae *c3* lanceolate. Hysterosomal shield 184.3 (137.8–186.2) long, 80.9 (76.9–89.3) wide, without lacunae, separated from opistosomal shield. Lobe region well separated from remaining part of hysterosome, 61.2 (61.1–67.4) long, 82.4 (71–84) long at base. Lobes brought together, terminal cleft rather narrow, Π-shaped, 42 (38.6–43.1) long, width in the posterior part 18.3 (13.9–21). Setae *h1* inserted on conjunctiva with distance between them 31.5 (25.2–32.1).

Differential diagnosis. *Proctophyllodes luscinae* sp. n. belongs to the group of *glandarinus* species, including more than 20 species. A characteristic attribute of males in this group is a very long genital organ, exceeding the beginning of terminal lamellae. The new species is similar to *P. doleophyes*, Gaud, 1957 from Pied Flycatcher (fig. 3), differing from it by the genital organ shorter, reaching setae *3a*, but not exceeding characteristic; opisthogastric shields widened in the upper part and becoming considerably narrower at the bottom (in *P. doleophyes* opisthogastric shields are approximately of the same width throughout). Small triangular shields present in *P. doleophyes* on leg IV epimerites, are absent in the new species. In size, male of the new species are smaller though have lamellae much larger than in *P. doleophyes*. In addition, the new species is found only on nightingales. Females of these species from Flycatchers,

warblers and nightingales are indistinguishable from each other. Only on Nightingales smaller specimens are found.

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