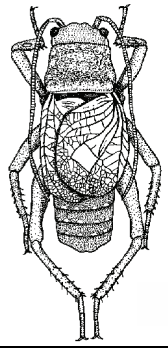

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# A NEW SPECIES OF *CORDILURA* FALLÉN, 1810 (DIPTERA: SCATHOPHAGIDAE) FROM RUSSIAN FAR EAST

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**Summary**. A new species, *Cordilura flavotibialis* **sp. n.** (Diptera: Scathophagidae), is described and illustrated based on specimen from Khabarovsky Krai. Characteristics for the differentiation of the new species from other species of *Cordilura* are given.

**Key words**: Diptera, Scathophagidae, *Cordilura*, new species, Khabarovsky Krai, Russia.

**А. Л. Озеров, М. Г. Кривошеина. Новый вид рода *Cordilura* Fallén, 1810 (Diptera: Scathophagidae) с Дальнего Востока России // Дальневосточный энтомолог. 2023. N 475. С. 1-5.**

**Резюме**. По материалу из Хабаровского края описан *Cordilura flavotibialis* **sp. n.** (Diptera: Scathophagidae). Приведены иллюстрации и указаны признаки, отличающие новый вид от других видов рода *Cordilura*.

## INTRODUCTION

*Cordilura* Fallén, 1810 is the largest genus within the family Scathophagidae and consists of 91 species distributed in the Northern Hemisphere: 46 species are known

in Palaearctic (Iwasa, 2020) and 36 in Nearctic (Vockeroth, 1965, 1987), with seven species with Holarctic distribution; two species are recorded in Oriental Region (Ozerov & Krivosheina, 2012; 2013). There are currently 38 species in Russia (Ozerov & Krivosheina, 2023).

Recent collecting trip of Nikita Vikhrev to Khabarovsky Krai in June 2022 yielded one new to science species of scathophagid flies from the genus *Cordilura*. Its description is given below.

The terminology used in the species descriptions follows Séguy (1952) (scapular seta), McAlpine (1981), Cumming & Wood (2009), and Stuckenberg (1999) (postpedicel).

The holotype of the new species is kept in the Zoological Museum, Moscow State University.

## DESCRIPTION OF NEW SPECIES

***Cordilura flavotibialis* Ozerov et Krivosheina, sp. n.**

https://zoobank.org/NomenclaturalActs/5124BB25-856A-4F1D-B0D1-3C587B7A1956

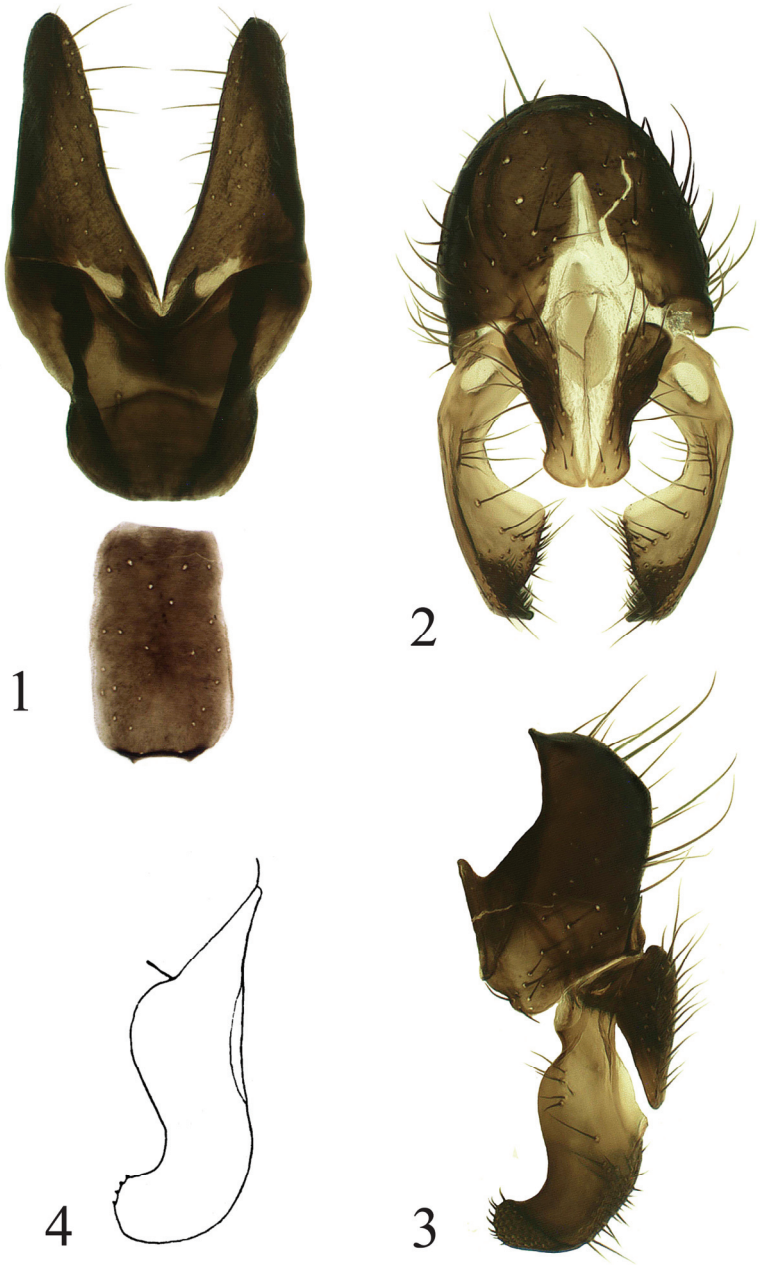
Figs 1–3

MATERIAL. Holotype – ♂, **Russia**: Khabarovsky Krai, Lososina, 49.01º N, 140.33º E, 11–13.VI 2022, leg. N. Vikhrev.

DESCRIPTION. MALE. *Head*. Frontal vitta black in upper half and yellow in lower half, whitish dusted; fronto-orbital plate black, whitish dusted. Ocellar triangle black. Face pale yellow with whitish reflections. Parafacial pale yellow and gena yellow. Postcranium black, whitish dusted. Setae: 2 orbitals, 2 frontals, 1 ocellar, 1 very long inner vertical, 1 small outer vertical and 1 small postocellar; 1 pair of strong vibrissae present. Antenna black. Postpedicel rounded apically, approximately 1.5–2 times as long as wide. Arista moderately pubescent in basal half. Palpus yellow, with a long apical seta.

*Thorax* black; scutum subshining, pleural sclerites thinly greyish dusted. Scutum with 2 postpronotal (dorsal about one half of ventral), 1+2 supra-alar (anterior postsutural seta about one half of posterior postsutural seta), 2 postalar, 1 scapular, 1+2 dorsocentral setae; acrostichal setulose in two rows, intra-alar setae absent. Proepisternum covered with pale hairs, without strong setae. Anepisternum with one strong black setae near posterior margin. Katepisternum with pale hairs in ventral corner and 1 strong black seta in posterodorsal corner. Anepimeron bare. Scutellum with a pair of strong lateral setae and a pair of apical setulae.

*Legs* completely yellow, only femora dorsally in apical half slightly darkened. Fore femur with a row of dorsal setae, and covered with long pale hairs on posterodorsal surface. Fore tibia with 1 posterodorsal, 2 anterodorsal, 2 posteroventral, 1 anterodorsal apical and 2 posterior apical setae. Mid femur with a row of thin anterior setae and with 1 posterior apical seta, additionally with 1 long hair basally on ventral surface. Mid tibia with 1 anterodorsal, 2 posterodorsal, 2 posterior setae, and with a ring of apicals. Hind femur with a row of anterodorsal setae, additionally with




Figs 1–4. *Cordilura flavotibialis* sp. n. (1–3) and *Cordilura albicoxa* James (4), males: 1 – abdominal sternites 4 (lower) and 5 (upper); 2 – epandrium, cerci and surstyli, dorsal view; 3 – same, lateral view; 4 – surstyli, dorsolateral view. (Fig. 4 after James, 1955, fig. 15).

1 long hair basally on ventral surface. Hind tibia with 2 posterodorsal, 3 anterodorsal, 1 anteroventral, 1 dorsal preapical setae, and apicals: posterior, anteroventral, and ventral.

*Wing* tinged with brownish; veins pale brown. Vein $R_1$ setulose on apical third of dorsal surface. Calypters, including margins, and halter whitish.

*Abdomen* cylindrical, blackish, thinly greyish dusted. Syntergite 1+2 with 3–4 lateral and with a row of marginal setae; tergites 3–6 each with a row of marginal setae.

Sternite 4 rectangular about 1.5 times as long as wide; sternite 5 bilobed covered with hairs on internal surface of each conical lobe (Fig. 1). Epandrium, cerci and surstyli as in Figs 2 and 3.

MEASUREMENTS. Length of body 3.9 mm. Length of wing 4.1 mm.

FEMALE. Unknown.

DIAGNOSIS and COMPARISON. This species is distinguished from congeners noted in Russia (Ozerov & Krivosheina, 2020, 2023) by the following combination of characters: postpedicel unicolor, completely black, approximately 1.5–2 times as long as wide; arista moderate pubescent, longest hairs exceeding greatest diameter of arista; scutellum with a pair of strong discal setae only, the apical scutellars weak, hair-like; legs completely yellow, only femora dorsally in apical half slightly darkened; fore coxa yellowish.

The new species is closely related to Nearctic species *C. albicoxa* James, 1955 in the structure of surstyli (compare Figs 3 and 4), but is distinguished from this species by the colour of antenna and legs. *C. albixoxa* has "first and second antennal segments brownish yellow, the second yellow above; third black, somewhat paler at the base" and "femora, and middle and hind tibiae black" (James, 1955).

DISTRIBUTION. Russia: Khabarovsky Krai.

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## REFERENCES

Cumming, J.M. & Wood, D.M. 2009. Adult morphology and terminology. P. 9–50. *In:* Brown, B.V., Borkent, A., Cumming, J.M., Wood, D.M., Woodley, N.E. & Zumbado, M. (Eds.). *Manual of Central American Diptera. Vol. 1*. National Research Council Press, Ottawa.

Iwasa, M. 2020. Contribution to the knowledge of the genus *Cordilura* Fallén (Diptera, Scathophagidae) from Japan, with descriptions of three new species. *Zootaxa*, 4748(3): 471–484. DOI: 10.11646/zootaxa.4748.3.4

James, M.T. 1955. The genus *Cordilura* in America North of Mexico. *Annals of the Entomological Society of America*, 48(1–2): 84–100.

McAlpine, J. F. 1981. Morphology and terminology-adults. P. 9–63. *In*: McAlpine, J.F., Peterson, B.V., Shewell, G.E, Teskey, H.J., Vokeroth, J.R. & Wood, D.M., Coordinators. *Manual of Nearctic Diptera. Volume 2*. Research Branch. Agriculture Canada. Monograph 27, Ottawa. VI + 674 p.

Ozerov, A.L. & Krivosheina, M.G. 2012. New species of Sepsidae and Scathophagidae (Diptera) from Vietnam. *Russian Entomological Journal*, 21(3): 331–335.

Ozerov, A.L. & Krivosheina, M.G. 2013. A new species of the genus *Cordilura* Fallén (Diptera, Scathophagidae) from Vietnam. *Far Eastern Entomologist*, 265: 16–19.

Ozerov, A.L. & Krivosheina, M.G. 2023. Contribution to the fauna of dung flies (Diptera: Scathophagidae) from Russia with a key to genera and a checklist of the Russian Scathophagidae. *Russian Entomological Journal*, 32(1): 95–122. DOI: 10.15298/rusentj.32.1.12

Séguy, E. 1952. Diptera fam. Scatophagidae. P. 1–107. *In*: Wytsman, P. (Ed.). *Genera Insectorum*. Desmett-Verteneuil Imprimeur–Editeur, Brussels.

Stuckenberg, B.R. 1999. Antennal evolution in the Brachycera (Diptera), with a reassessment of terminology relating to the flagellum. *Studia Dipterologica*, 6: 33–48.

Vockeroth, J.R. 1965. Subfamily Scatophaginae. P. 826–842. *In*: Stone, A. *et al*. (Eds.). *A catalog of the Diptera of America north of Mexico*. United States Department of Agriculture, Agriculture Handbook. No. 276.

Vockeroth, J.R. 1987. 103. Scathophagidae. P. 1085–1097. *In*: McAlpine, J.F. *et al*. (Eds.). *Manual of Nearctic Diptera. 2*. Research Branch. Agriculture Canada. Monograph 28, Ottawa.