

## The first record of *Norellia tipularia* (Fabricius, 1794) (Diptera: Scathophagidae) for the fauna of Russia

### Первая регистрация вида *Norellia tipularia* (Fabricius, 1794) (Diptera: Scathophagidae) в фауне России

A.L. Ozerov<sup>1</sup>, M.G. Krivosheina<sup>2</sup>  
А.Л. Озеров<sup>1</sup>, М.Г. Кривошеина<sup>2</sup>

<sup>1</sup>Zoological Museum, Moscow Lomonosov State University, Bol'shaya Nikitskaya 6, Moscow 125009 Russia. E-mail: ozerov2455@rambler.ru

<sup>1</sup>Зоологический музей, Московский государственный университет им. М.В. Ломоносова, Большая Никитская ул., 6, Москва 125009 Россия.

<sup>2</sup>A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, 119071 Moscow Russia. E-mail: dipteramarina@rambler.ru

<sup>2</sup>Институт проблем экологии и эволюции им. А.Н.Северцова РАН, Ленинский проспект, 33, Москва 119071 Россия.

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КЛЮЧЕВЫЕ СЛОВА: Diptera, Scathophagidae, *Norellia*, *Norellia tipularia*, фауна, Россия, первая регистрация.

ABSTRACT. The genus *Norellia* Robineau-Desvoidy with the species *Norellia tipularia* (Fabricius, 1794) is recorded from Russia for the first time. Diagnosis for the genus *Norellia* and the description of *Norellia tipularia* are given.

РЕЗЮМЕ. Род *Norellia* Robineau-Desvoidy с видом *Norellia tipularia* (Fabricius, 1794) впервые отмечен на территории России. Приведены диагноз рода *Norellia* и описание *N. tipularia*.

### Introduction

The genus *Norellia* Robineau-Desvoidy, 1830 at the present time includes 3 species: *Norellia tipularia* (Fabricius, 1794), *Norellia spinipes* (Meigen, 1826) and *Norellia megistomycta* Feng, 2006 [Šifner, 2008].

Some of dipterologists, for example Vockeroth [1965], Gorodkov [1986, 1970], Ozerov [1993, 2008] included the species of the genus *Norellisoma* Wahlgren, 1917 in this genus also. The differences between the genera *Norellia* and *Norellisoma* are the next. In *Norellia* frons with 1 pair of orbital (*or*) setae; postocellar setae (*poc*) absent; scutellum with a pair of strong apical setae, discal scutellar setae absent (Fig. 3); forefemur with one row of long posteroventral (*pv*) setae only (Fig. 1), row of anteroventral (*av*) setae absent; vein  $A_1+CuA_2$  not reaching wing margin significantly, female abdominal sternite 8 without spines (Fig. 10). In *Norellisoma* frons with 2 pairs of orbital (*or*) setae; postocellar setae (*poc*) present; scutellum with pair of strong discal setae, apical scutellar setae absent or hair-like (Fig. 4); forefemur with rows of long posteroventral (*pv*) and anteroventral (*av*) setae (Fig. 2); vein  $A_1+CuA_2$  reach-

ing wing margin at least as a fold, female abdominal sternite 8 with numerous short spines (Fig. 11).

*Norellia tipularia* (Fabricius, 1794) and *Norellia spinipes* (Meigen, 1826) were registered in west Palaearctic. The differences between these two species were discussed by De Jong [1985]. *Norellia megistomycta* was described from China.

Larvae of the representatives of this genus develop in plants of the family Amaryllidaceae: *N. tipularia* in *Leucojum* spp., *N. spinipes* in *Narcissus* spp. [De Jong, 1985].

None of the species has been registered in the fauna of Russia up to now.

The present publication contains the diagnosis of the genus *Norellia* and the description of *N. tipularia*, which is registered for the first time for Russia herein from female specimen caught in the neighborhood of Naro-Fominsk (Moscovskaya Oblast'). Illustrations of the structure of male legs and genitalia were made from additional material got from Israel.

### *Norellia* Robineau-Desvoidy, 1830

*Norellia* Robineau-Desvoidy, 1830: 673. Gender: feminine. Type-species: *Norellia pseudonarcissi* Robineau-Desvoidy, 1830: 673, by monotypy [= *Cordylura spinipes* Meigen, 1826].

*Achantholena* Rondani, 1856: 101. Gender: feminine. Type-species: *Achantholena maculipennis* Rondani, 1856: 101, by original designation [= *Cordylura spinipes* Meigen, 1826].

DIAGNOSIS. Proepisternum covered with setulae at middle. Postocellar setae (*poc*) absent. Tibia of forelegs of both sexes with row of strong posteroventral setae (*pv*). Anepisternum covered with setulae usually along dorsal margin and in posterior part only, without setulae posterior to anterior spiracle. Scutellum with one pair of apical setae.

## Taxonomic part

### *Norellia tipularia* (Fabricius, 1794)

Figs 1, 3, 5–10.

*Musca tipularia* Fabricius, 1794: 337.

MATERIAL. 1 ♀, RUSSIA: Moscovskaya Oblast', Ozhigovo (55.453338°N, 36.884709°E), 22.VII.2010, D. Gavruyshin (ZMUM).

ADDITIONAL MATERIAL. 2 ♂♂, ISRAEL: Mt. Hermon, 1600 m, 2.VII.1986 and 7.VII.1986, A.Freidberg and F. Kaplan; 1 ♀, Upper Nahal 'Ammud [Upper N. Amud], 28.V.1981, F. Kaplan (TAU).

DESCRIPTION. Male and female. Length of body 7.1–7.8 mm. Length of wing 6.1–6.2 mm.

*Head.* Frons yellow, with whitish microtrichia along margin of eye. Ocellar triangle blackish. Face, parafacial and gena yellow, with whitish microtrichia. Post-ranium black in upper half (with black setae and setulae) and yellowish in lower half (with yellow setae and hairs). 1 orbital, 2–3 frontals, 1 ocellar, 1 inner vertical, 1 outer vertical (approximately 1/3 times as long as inner vertical) setae present; postocellar setae absent; 1 pair of strong vibrissa and 1 pair of short subvibrissa. Antenna yellow. First flagellomere rounded apically, approximately 2.5 times as long as wide. Arista black, sometimes yellow basally, with short rays; longest rays not longer than greatest diameter of arista. Palpus, clypeus and proboscis yellow.

*Thorax.* Scutum black, grey microtrichose, with yellow median stripe between dorsocentral setae along entire scutum and with lateral yellow stripe posterior to transverse suture; postpronotal lobe yellow in ventral half. Pleura mostly yellow, only anatergite and mediotergite black. Scutum with following black setae: 1 notopleural, 0+1 supra-alar, 1 postalar, and 0+1 dorsocentral; anterior margin of scutum with a pair of forward directed setae; acrosticals, postpronotals and intra-alar setae absent. Proepisternum with yellow setulae and 1 blackish or yellow seta near ventral margin. Proepimeron with several yellow hairs ventral to spiracle. Anepisternum rarely with hairs in posterior half and 1 seta near posterodorsal corner. Katepisternum with 1 seta in posterodorsal corner. Anepimeron bare. Scutellum with 1 (pair) of strong apical seta.

*Legs* entirely yellow. Forefemur with row of 6–7 long *pv*, row of 8–10 short *av*, and usually with 1 apical *pd* setae. Foretibia with 4 long *pv* setae, 1 hair-like *d* and 1 *pd* in basal half, and with 1 hair-like apical *d*. Midfemur with 2–3 thin *a* in basal half, 3–4 spine-like *pv* and 5–6 spine-like *av* in apical half, and with 1 apical *pd*. Midtibia without striking setae, except *av*, *pv* and *d* apicals. Hindfemur with 1 *ad* in basal half, 2–

3 spine-like *pv* and 4–5 spine-like *av* in apical half, and with 1 apical *ad*. Hindtibia with 2 thin *ad*, 1 *pd*, 1 preapical *d*, and 1 each of *ad* and *av* apical setae.

*Wing* tinged with brownish, veins brownish; cross-veins *r-m* and *dm-cu*, veins  $R_{2+3}$ ,  $R_{4+5}$ , M apically darkened. Vein  $A_1+CuA_2$  not reaching wing margin. Calypters, including margins, and halteres yellowish.

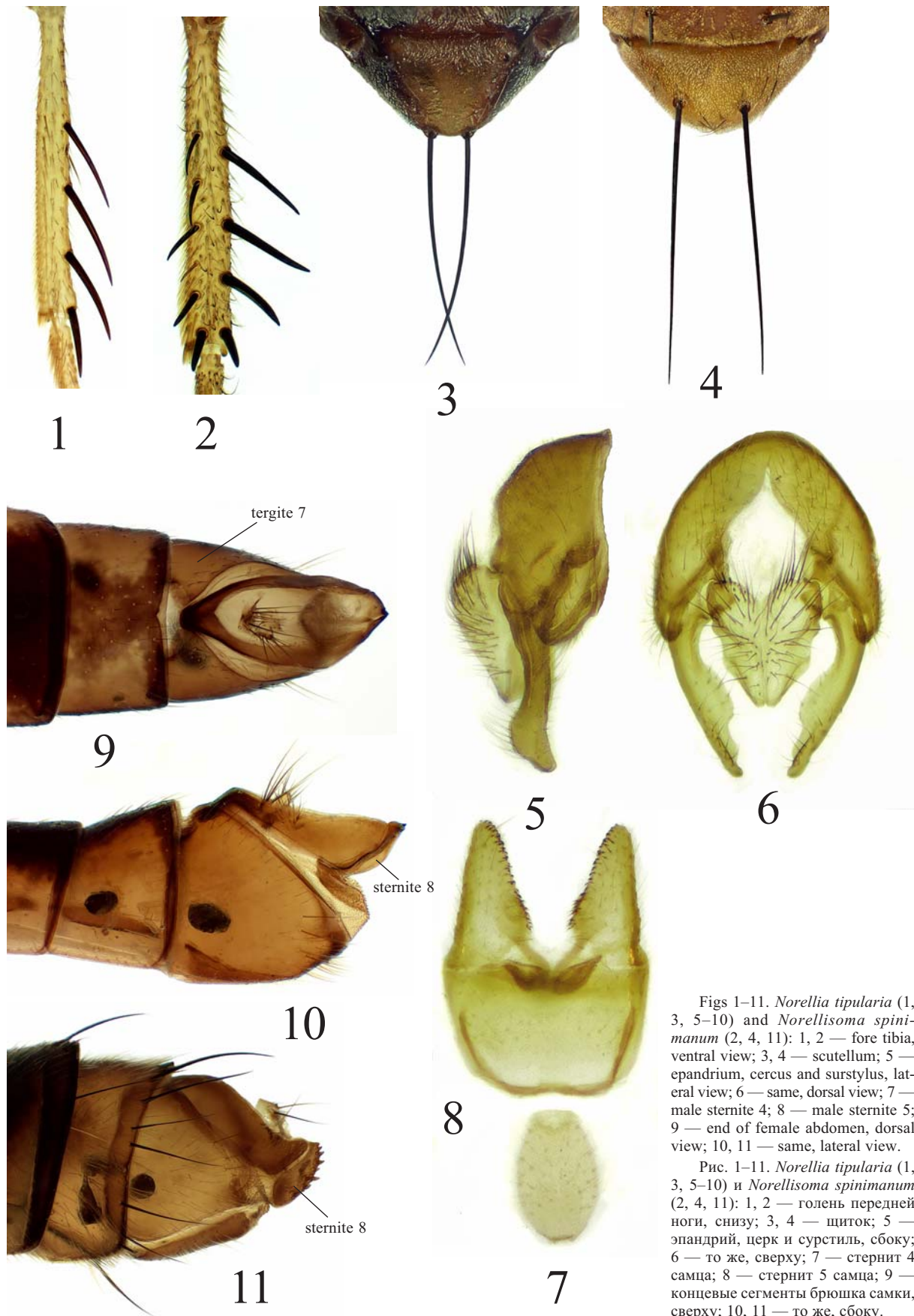
*Abdomen* shining. Tergites 1–5 black in center and yellow laterally, the rest mostly yellow. Syntergite 1+2 with 1–2 long yellowish setae laterally. Male sternites 4 and 5 as in Figs 7, 8. Epandrium, cerci and surstyli as in Figs 5, 6. End of female abdomen as in Figs. 9, 10; tergite 7 separate dorsally, sternite 8 without spines (Fig. 10).

DISTRIBUTION. France, Germany, Hungary, Italy, former Yugoslavia, Greece and Cyprus [De Jong, 1985], Israel; **Russia** (Moscovskaya Oblast') — **first record**.

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Figs 1–11. *Norellia tipularia* (1, 3, 5–10) and *Norellisoma spinimanum* (2, 4, 11): 1, 2 — fore tibia, ventral view; 3, 4 — scutellum; 5 — epandrium, cercus and surstylus, lateral view; 6 — same, dorsal view; 7 — male sternite 4; 8 — male sternite 5; 9 — end of female abdomen, dorsal view; 10, 11 — same, lateral view.

Рис. 1–11. *Norellia tipularia* (1, 3, 5–10) и *Norellisoma spinimanum* (2, 4, 11): 1, 2 — голень передней ноги, снизу; 3, 4 — щиток; 5 — эпандрий, церк и сурстийль, сбоку; 6 — то же, сверху; 7 — стернит 4 самца; 8 — стернит 5 самца; 9 — концевые сегменты брюшка самки, сверху; 10, 11 — то же, сбоку.