

<https://doi.org/10.25221/fee.547.2>

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**FIRST RECORD OF THE GENUS *CERATINOSTOMA* MEADE, 1885
(DIPTERA: SCATHOPHAGIDAE) FROM RUSSIA AND MOROCCO**

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Summary. Flies of the monotypic genus *Ceratinostoma* Meade, 1885 were firstly recorded from Russia (Murmansk oblast) and North Africa (Morocco) The diagnosis of the genus and redescription of *Ceratinostoma ostiorum* (Curtis, 1832), as well as illustrations of legs, terminalia of both sexes, and male sternites 4 and 5 are provided.

Key words: Diptera, Scathophagidae, *Ceratinostoma ostiorum*, fauna, first records, European Russia, North Africa.

А. Л. Озеров, М. Г. Кривошеина. Первое указание рода *Ceratinostoma* Meade, 1885 (Diptera: Scathophagidae) для фауны России и Марокко // Дальневосточный энтомолог. 2026. N 547. С. 28-32.

Резюме. Двукрылые монотипического рода *Ceratinostoma* Meade, 1885 впервые отмечены в фауне России (Мурманская область) и Северной Африки (Марокко). Даны диагнозы рода и переописание *Ceratinostoma ostiorum* (Curtis, 1832), а также иллюстрации ног, гениталий обоих полов и стернитов 4 и 5 самца этого вида.

INTRODUCTION

The Scathophagidae are a small family of calyptrate Diptera distributed throughout the world, except for the Australasian and Oceanian regions. The world fauna currently comprises about 400 species in 65 genera (Chagnon & Sinclair, 2020; Iwasa, 2020, 2021; Bernasconi & Šifner, 2021; Iwasa & Sasaki, 2022; Ozerov & Krivosheina, 2024a, 2024b; Han & Shin, 2025; Iwasa, 2026). The number of genera currently varies depending on the approach to generic-level classification of the family by different authors. The fauna of Scathophagidae of Russia includes 199 species in 27 genera (Ozerov & Krivosheina, 2023a, 2023b; 2024a, 2024b).

Genus *Ceratinostoma* Meade, 1885 is monotypic and contains only *C. ostiorum* (Curtis, 1832). The species is distributed along the sea coast from France and Britain to Norway (Šifner, 2008), and is also known in North America. The indication of the species in the European part of Russia and in Siberia (see Šifner, 2008: 157) was erroneous. Larvae of *C. ostiorum* breed in heaps of thick, moist seaweed washed up on beaches (Ferrari, 1987).

The terminology used in the descriptions follows McAlpine (1981) and Stuckenberg (1999, for postpedicel).

In collection of the Zoological Museum, Lomonosov Moscow State University (ZMMU) specimens of *C. ostiorum* from Russia and Morocco were found.

RESULTS

Genus *Ceratinostoma* Meade, 1885

Ceratinostoma Meade, 1885. Type-species: *Ceratinostoma maritimum* Meade, 1885 [= *Scatophaga ostiorum* Curtis, 1832], by subsequent designation of Sack, 1937. Gender: neuter.

DIAGNOSIS. Medium-sized flies (4–8 mm long). Palpus long, about as long as proboscis, dorsally densely covered with spinous setulae, ventrally with dense long hairs, without strong apical or subapical seta. Mid femur anteriorly at the middle with one or two strong setae among the hairs (Fig. 1). Anepisternum covered with hairs completely or almost completely, with hairs posterior to anterior spiracle. Katepisternum with one strong seta in upper posterior corner. Postmetacoxal bridge absent.

Ceratinostoma ostiorum (Curtis, 1832)

Figs 1–7

Scatophaga ostiorum Curtis, 1832. Type-localities: "rocks washed by the sea, at Dover... estuary of the river at Belfast" (England and N. Ireland).

Scatophaga oceana Macquart, 1838. Type-locality: "plage du Dunkerque" (France).

Scatomyza borealis Zetterstedt, 1838. Type-locality: "Björkvik et Giebostad... Trondhjems Amt Norvegiae ad Naes... (Lapponia Norvegica in littore Oceani)" (Norway).

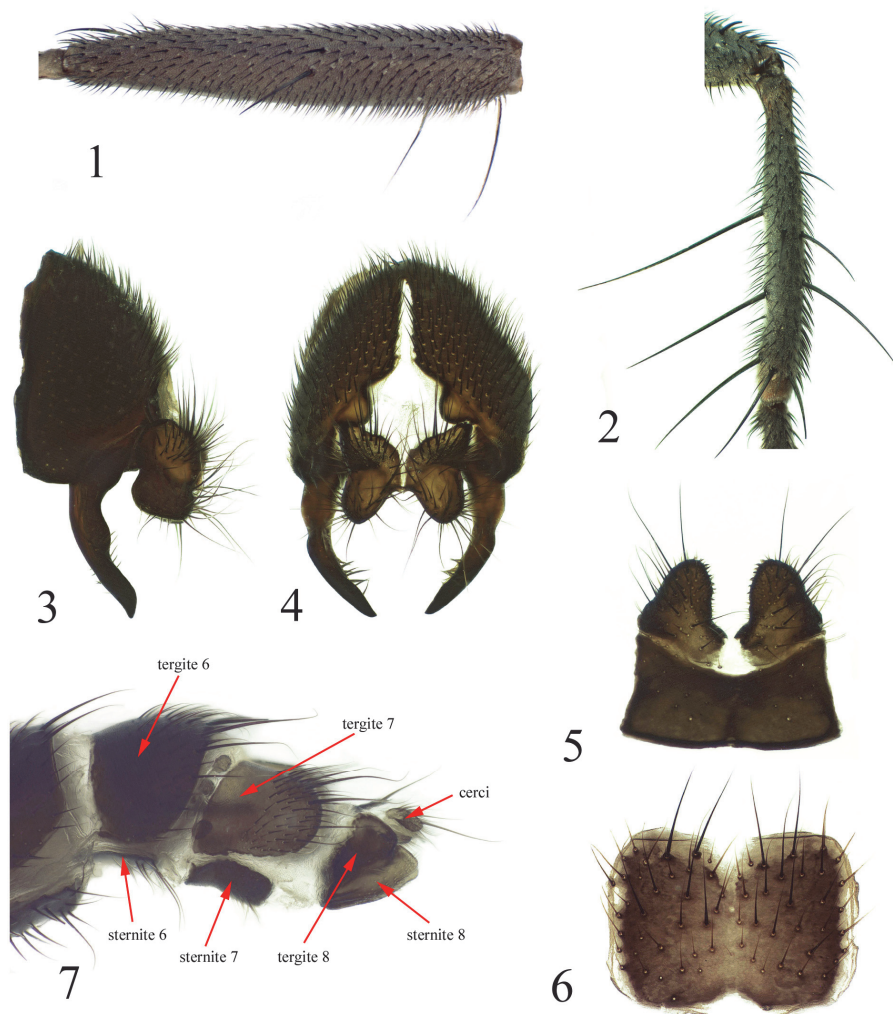
Lispa lestremensis Bigot, 1885. Type-locality: "Lestrem (département du Nord)" (France).

Ceratinostoma maritimum Meade, 1885. Type-localities: "Welsh coast... near Cardiff..., at Ilfracombe... at Donglas, Isle of Man..." (Britain).

MATERIAL EXAMINED. **Russia:** Murmansk Oblast, Kandalaksha National Reserve, 26 km WNW of Uмба, Gorely Island, along of stream, 20.VI.2025, 2 ♀, coll. I. Solodkii (ZMMU); **Morocco:** Oualidia laguna (32.746°N 9.024°E), 30.IV.2012, 22 ♂, 4 ♀, coll. N. Vikhrev (ZMMU).

REDESCRIPTION. Male and female. *Head.* Frontal vitta and fronto-orbital plate black, with delicate from greyish to brownish reflection; ocellar triangle black. Face blackish, with delicate whitish reflection. Gena from yellow to blackish, with delicate whitish reflection. Postcranium black, greyish dusted. 3 orbital, 3–7 frontal, 1 inner vertical, 1 outer vertical, 1 ocellar, 1 postocellar setae present. Antenna black; postedicel about twice as long as wide. Arista pubescent. Palpus long, about as long as proboscis, yellow.

Thorax black, densely pale grey dusted; scutum with a greyish stripe down the middle. Acrostichals setulose in 3–4 irregular rows, dorsocentrals 2+3, intra-alars 1+2, supra-alars 1+2, notopleurals 2, postpronotals 2. Proepisternum and proepimeron each covered with hairs; additionally, proepisternum with 2 black setulae near lower margin, and proepimeron with 1 black setula anteriorly. Anepisternum covered with hairs on all surface and with 3 black setae on upper posterior margin. Katepisternum covered with hairs and with 1 strong seta in posterodorsal corner. Anepimeron bare. Scutellum greyish dusted, covered with hairs, with a pair of strong basal scutellar and a pair of strong apical scutellar setae.



Figs 1–7. *Ceratinostoma ostiorum* (Curtis): 1 – mid femur, anteriorly; 2 – fore tibia, posterior view; 3 – epandrium cerci and surstyli, lateral view; 4 – same, dorsal view; 5 – male sternite 5; 6 – male sternite 4; 7 – ovipositor, lateral view.

Legs. All coxae black, greyish dusted. All femora greyish dusted, black. All tibiae and tarsi from brownish to blackish. Fore femur covered with black hairs, longer ventrally, with 1–2 dorsal setae near apex. Fore tibia (Fig. 2) with 2–3 dorsal, 1 anterodorsal, 1 posterodorsal, 3 long and strong posterior, 1 anteroventral, and a ring of apical setae. Mid femur anteriorly at the middle with one or two strong setae among the hairs (Fig. 1), with 1 preapical posterior, and 1 preapical posterodorsal setae. Mid tibia with 2–3 anterodorsal, 2–3 posterodorsal, 1 anterior, 1–2 posterior, 1 ventral setae, also with a ring of apicals. Hind femur with a row of

anterodorsal setae. Hind tibia with 2–3 posterodorsal, 2–3 anterodorsal, 1 anteroventral, 1 posterior, 1 preapical dorsal, 1 preapical anterodorsal and 1 apical anteroventral setae.

Wing tinged with brownish. Veins blackish, crossveins not darkened.

Abdomen black, densely pale grey dusted, covered with black hairs. Tergites 5 and 6 each with a row of thin marginal setae.

Male sternite 4 almost 1.5 times as long as wide (Fig. 6). Male sternite 5 with moderately long and rounded lobes (Fig. 5). Epandrium cerci and surstyli as in Figs 3, 4.

Ovipositor short and compact, more or less cylindrical; proctiger shifted dorsally (Fig. 7). Tergite 7 with narrow membranous area dividing it medially into two sclerites. Tergite 8 with wide membranous area dividing it medially into two small sclerites. Sternite 8 also divided medially into two sclerites, each fused together with tergite 8 along lateral line. Three oval spermathecae present.

MEASUREMENTS. Body-length 6.4–7.8 mm; wing-length 5.8–6.7 mm.

DISTRIBUTION. Europe: on littoral from France and Britain east to Norway (Šifner, 2008); Russia (**first record**): Murmansk oblast; Morocco (**first record**); North America: from southeastern Quebec west to Massachusetts.

ACKNOWLEDGEMENTS

We are very grateful to Ivan Solodkii and Nikita Vikhrev (Lomonosov Moscow State University) for collecting and providing such interesting material for investigation.

The study was conducted under the state assignment of Lomonosov Moscow State University (A.L. Ozerov) and the state assignment of A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences (M.G. Krivosheina).

REFERENCES

- Bernasconi, M.V. & Šifner, F. 2021. Annotated supplements to catalogues of the family Scathophagidae (Diptera) in the world, with new taxonomic data, notes on some species and new list of species. *Linzer Biologische Beiträge*, 52: 1267–1306. DOI: 10.5167/UZH-204063
- Chagnon, M.E. & Sinclair, B.J. 2020. Revision of the Nearctic species of *Gimnomera* Rondani (Diptera: Scathophagidae), with morphological phylogeny and DNA barcodes. *Zootaxa*, 4853(3): 369–403. DOI: 10.11646/zootaxa.4853.3.3
- Ferrar, P. 1987. A guide to the breeding habits and immature stages of Diptera Cyclorrhapha. *Entomonograph*, 8(1–2): 1–907.
- Han, S. & Shin, S. 2025. First records of the genus *Acerocnema* Becker (Diptera: Scathophagidae) from South Korea, with a new species and a newly recorded species using DNA barcodes. *Zootaxa*, 5653(3): 440–450. DOI: 10.11646/zootaxa.5653.3.9
- 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.
- Iwasa, M. 2021. Three new species and six new records of Scathophagidae (Diptera) from Japan, with a key to the Japanese genera. *Zootaxa*, 4981(3): 531–553. DOI: 10.11646/zootaxa.4981.3.6
- Iwasa, M. 2026. A contribution to the knowledge of Scathophagidae (Diptera) from Japan, with description of a new species. *Entomological Science*, 29: e-2623. DOI: 10.1111/ens.12623

- Iwasa, M. & Sasaki, H. 2022. Review of the genera *Norellisoma* Hendel and *Milania* Šifner (Diptera: Scathophagidae) from Japan, with description of a new species. *Entomological Science*, 25: e-2512. DOI:10.1111/ens.12512
- McAlpine, J.F. 1981. Morphology and terminology-adults. P. 9–63. In: McAlpine, J.F., Peterson, B.V., Shewell, G.E., Teskey, H.J., Vockeroth, J.R., Wood, D.M. (Coordinators). *Manual of Nearctic Diptera. Vol.2*. Research Branch. Agriculture Canada. Monograph 27, Ottawa.
- Ozerov, A.L. & Krivosheina, M.G. 2023a. 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: P.95–122. DOI: 10.15298/rusentj.32.1.12
- Ozerov, A.L. & Krivosheina, M.G. 2023b. A new species of *Cordilura* Fallén, 1810 (Diptera: Scathophagidae) from Russian Far East. *Far Eastern Entomologist*, 475: 1–5. DOI: 10.25221/fee.475.1
- Ozerov, A.L. & Krivosheina, M.G. 2024a. A new species of *Scatomyza* Fallén, 1810 (Diptera: Scathophagidae) from Ethiopia. *Russian Entomological Journal*, 33(1): 136–138. DOI: 10.15298/rusentj.33.1.14
- Ozerov, A.L. & Krivosheina, M.G. 2024b. A new species of *Scathophaga* Meigen, 1803 (Diptera: Scathophagidae) from Kyrgyzstan. *Far Eastern Entomologist*, 497: 1–5. DOI: 10.25221/fee.497.1
- Šifner, F. 2008. A catalogue of the Scathophagidae (Diptera) of the Palaearctic region, with notes on their taxonomy and faunistics. *Acta Entomologica Musei Nationalis Pragae*, 48(1): 111–196.
- Stuckenberg, B.R. 1999. Antennal evolution in the Brachycera (Diptera), with a reassessment of terminology relating to the flagellum. *Studia Dipterologica*, 6: 33–48.

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