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# The identity of the genus *Scatocoenosia* Schnabl, 1915 (Diptera: Muscidae)

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## Abstract

A re-description is given of the problematic genus and species *Scatocoenosia cordyluraeformis* Schnabl, 1915. Illustrations of the male and female terminalia, and images of the female holotype and the male of this species, are given. The synonymy of *Scatocoenosia* Schnabl, 1915 with *Spilogona* Schnabl, 1911 is confirmed, and notes are given on the relationships of *S. cordyluraeformis* with other *Spilogona* species.

**Key words:** Russia, Wrangel Island, *Spilogona*, synonym

## Introduction

The genus *Scatocoenosia*, with a single species *cordyluraeformis*, was described in great detail by Schnabl (in Becker *et al.* 1915: 2–4) from a single female "gefangen in der Karskaja Tundra d. 21. VII 1909" and deposited in the Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia (ZISP). Since that time it has remained problematic. In his catalogue of World Muscidae, Séguy (1937: 205) placed the species (as "*cordyluroeformis*") in the genus *Coenosia* Meigen without synonymising or commenting on the genus-group name *Scatocoenosia*. Hennig (1962: 620) studied the holotype and noted that the visible characters suggested an assignment of the species to the genus *Spilogona* Schnabl. However, on the basis of a single female that is not in good condition he was unable to draw any more detailed conclusions. Based on Hennig's comments, Pont (1986: 164, 166) synonymised *Scatocoenosia* Schnabl with *Spilogona*, and transferred the species *Scatocoenosia cordyluraeformis* Schnabl, 1915 to *Spilogona*. Subsequently, Pont (2004: 80) studied the holotype and confirmed its assignment to *Spilogona*. Finally, Sorokina & Pont (2010: 57) listed the species in their enumeration of Siberian Muscidae and noted that the species had not been found since the original description.

Recently the present authors were independently able to study the holotype again. The holotype is not in good condition (Fig. 1A), with many setae knocked off, and because of the very black and shining ground-colour of the fly it is often difficult to assess whether the scars from broken-off setae are present or not. So the species, and to a certain extent the genus too, have remained enigmatic.

However, during a recent visit to the Zoological Institute RAS (St Petersburg), one of us (V.S.) found, in material collected by K. Gorodkov, what appear to be the male and female of this species, in good condition and collected in the Chukotka Autonomous Okrug in the Far East of Russia. Another male and female, in very poor condition and clearly trapped and then retrieved from alcohol, have also been found in O. Khruleva's material from Wrangel Island. In this paper we confirm the assignment of *Scatocoenosia cordyluraeformis* to the genus *Spilogona*, re-describe both sexes and give illustrations of the male and female terminalia.

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## Discussion

Schnabl himself (l.c.) described this species as a small, slender, shining metallic, blackish Coenosiinae, and as a remarkable transitional form between his Scatomyzinae (i.e. Scathophagidae) and his coenosiines and limnophorines. There is no way that this typological statement can be justified phylogenetically, and it is clear to us that the characters listed in the description show unequivocally that this species belongs to the Limnophorini and to the genus *Spilogona*. As was pointed out by Schnabl, it has a number of characters that are apomorphous within the genus *Spilogona*, such as the enlarged palpus in the female, the reduced calypters, the narrow wing with reduced alula, and the strongly spinulose costa. These, combined with the dichoptic male head and largely shining black thorax and abdominal sides, give it a unique position in Palaearctic *Spilogona*. Among Nearctic species, it most closely resembles *Spilogona dorsostriata* Huckett and *Spilogona albinepennis* Huckett, both of which have dichoptic males, 4 postsutural dorsocentrals, several ventral setae on mid tibia, and strong semi-erect setulae on the costa, but it clearly differs by its thoracic and abdominal colour and dusting. *Spilogona murina* Huckett also has dichoptic males, several ventral setae on mid tibia, and strong semi-erect setulae on the costa, but differs from *S. cordyluraeformis* by possessing only 3 pairs of postsutural dorsocentrals and by its thoracic and abdominal colour and dusting.

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