



TWO NEW SPECIES OF THE FAMILY SCATHOPHAGIDAE (DIPTERA) FROM THE CZECH AND SLOVAK REPUBLICS

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Abstract. Two new species from the Czech and Slovak Republics are described, i.e. *Coniosternum nelsoni* sp. n. from the Central Bohemia and *Norellisoma ivanae* sp. n. from Tatry Mts. Diagnoses of these two species are given and important diagnostic characters are figured.

■ Diptera, Scathophagidae, taxonomy, *Coniosternum*, *Norellisoma*, new species, Palaearctic region.

INTRODUCTION

The genus *Coniosternum* BECKER was originally described by Becker (1894) with the type-species *Scatophaga obscura* FALLÉN, 1819. The differences between the *Scatophaga* MEIGEN, 1803 and *Coniosternum* BECKER, 1894 genera are difficult to detect, e.g. Gorodkov (1986) recognises only the genus *Scatophaga*. Others authors (Sack 1937, Hackman 1956 and Šifner 1981, 2003) recognise two separate genera. The differences have been recently confirmed by methods using molecular data (Bernasconi et al. 2000).

Recently, 8 species of the genus *Coniosternum* BECKER, 1894 have been recorded including key differences (cf. Šifner 1981), and 17 species of the genus *Norellisoma* WAHLGREN, 1917 have been described or redescribed in the Palaearctic region. Simultaneously, 3 species of the genus *Conisternum* and 7 species of the genus *Norellisoma* have been mentioned or described in the Czech and Slovak Republics (Šifner 1997, 2003).

In this paper, all localities by code of grid mapping according to Zelený (1972) are indicated.

SYSTEMATIC PART

***Coniosternum nelsoni* sp. n.**

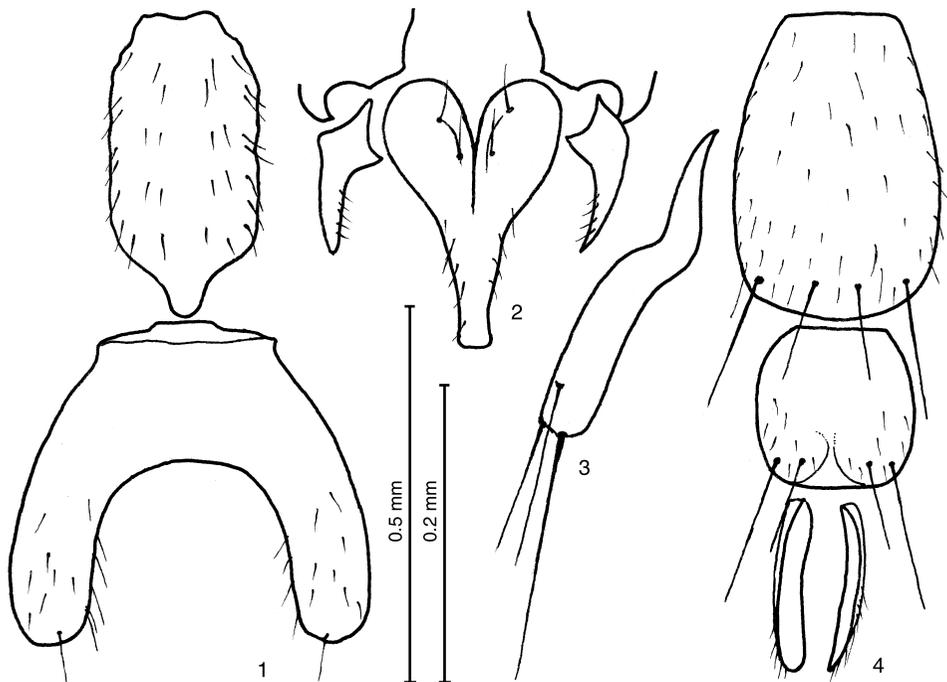
(Figs 1–4)

Holotype: male, Czech Republic, 5950, Chyňava, 10 km N of Beroun, Skalka hill with a little pool, 417 m a.s.l., vegetation about a dung-hill on field, 1. 11. 2002, Šifner leg.

Allotype: female, identical data.

Paratypes: 3 ♂ ♀, 3 ♂ ♀, 1.11.2002; 1 ♂, 13. 11. 2002; 3 ♂ ♀, 3 ♂ ♀, 21. 11. 2002; 1 ♂, 29. 11. 2002; 1 ♂, 1. 12. 2002; 1 ♂, 26.10.2001 (all leg. and coll. Šifner).

Diagnosis: Body length 5–6 mm, ground colour dark. Head: in lower third yellow-brown, orbital setae 3, frontal setae 4, orbits dark but grey dusted, parafacials, face and

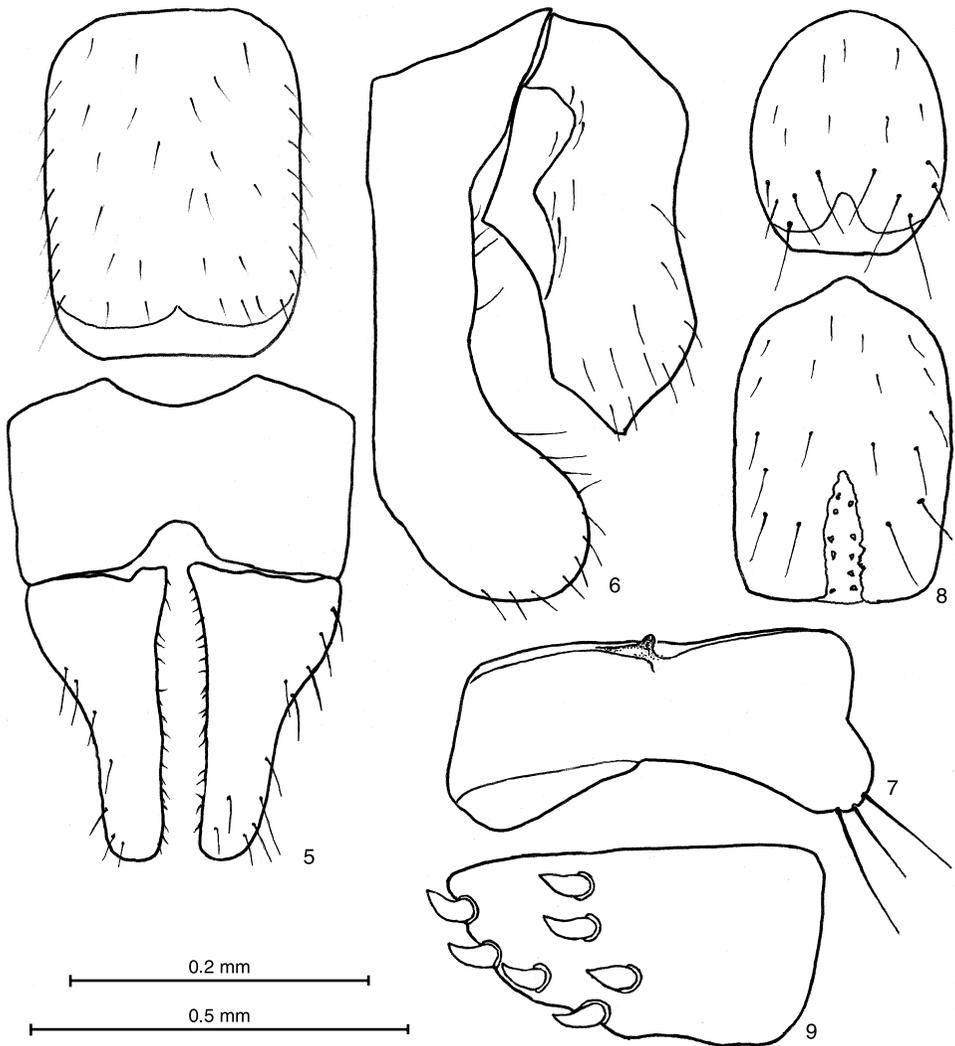


Figs 1–4. *Coniosternum nelsoni* sp. n., paratypes: (1) 4th and 5th abdominal sternites of male; (2) surstyli and cerci of male; (3) right praegonite of male; (4) 6th–8th abdominal sternites of female (Scale 0.5 mm: Figs 1, 2, 4; scale 0.2 mm: Fig. 3.).

genae brown, scapus, pedicellus and first flagellomere dark, arista bare and thickened basally, palpi yellow, genae brown with yellowish hairs. Thorax – acrostichal setae sparse, number of dorsocentral setae 5, humeral setae 2, presutural seta 1, intraalar setae 2, prealar seta 1, supraalar seta 1, postalar setae 2, two pairs of scutellar setae in equal size, notopleural setae 2, mesopleural setae 3–4, katepisternal seta 1, katepisternum in lower part with long yellow hairs, wings hyaline, both cross-veins not darkened, all femora yellow-brown apically. Abdomen: male – 4th sternite prolonged, caudally with a projection, lobes of 5th sternite long, slightly arched inwards and without distinct bristles (Fig. 1), surstylus short and pointed apically, cerci fused and narrowed apically (Fig. 2), praegonite with two apical bristles and one subapical on inner side (Fig. 3); female – 8th sternites long, 7th more or less circular, 6th prolonged, both sternites with four bristles caudally (Fig. 4).

Differential diagnosis: The species *Coniosternum nelsoni* sp. n. differs from the nearest species *Coniosternum jezeki* ŠIFNER, 1981 by the following characters: *Coniosternum nelsoni* sp.n., male – surstyli fused and narrowed apically, praegonite with three bristles, i.e. two apical and one subapical on inner side, female – 8th sternite long; *Coniosternum jezeki* ŠIFNER, 1981, male – cerci separated and large apically, praegonite with two apical bristles, female – 8th sternites short.

Derivatio nominis: The name of this species is dedicated to my colleague and friend, Scottish entomologist J. M. Nelson (Edinburgh).



Figs 5–9. *Norellisoma ivanae* sp. n., male, holotype: (5) 4th and 5th abdominal sternites; (6) surstylus and circus; (7) praegonite. *Norellisoma ivanae* sp. n., female, paratype: (8) 6th and 7th abdominal sternites; (9) 8th abdominal sternite (Scale 0.5 mm: Figs 5, 6, 8, 9; scale 0.2 mm: Fig. 7.).

Norellisoma ivanae sp. n.
(Figs 5–9)

Holotype: male, Slovakia, 6784, Tatry Mts, Roháčská dolina valley, 1200 m a.s.l., 24. 6. 1980, Šifner leg.

Allotype: female, identical data.

Paratypes: 2 ♀, identical data (all leg. and coll. Šifner).

Diagnosis: Body length 6–7 mm, ground colour dark. Head: orbital setae 2, frontal setae 2–3, frontal vitta yellow-brown, orbits dark, parafacials, face and genae brown to dark

brown, scapus and pedicellus yellow, first flagellomere dark but its inner side yellow to yellow-white, arista black and sparsely pubescent, vibrissal callus with one vibrissa only, palpi yellow. Thorax: acrostichal setae sparse and very short, number of dorsocentral setae 5, humeral seta 1, presutural seat 1, intraalar setae 2–3 very short, supraalar seta 1, postalar setae 2, 1 pair of discal scutellar setae, notopleural setae 2, mesopleural setae 1–2, anepisternal and prostigmal setae only hairlike, katepisternal seta 1, all femora black and only yellow to brown apically, all tibiae and tarsomeres yellow to brown, veins of wings brown. Abdomen: male – 4th sternite rectangular, sparsely bristled and slightly sclerotized caudally, lobes of 5th sternite long and narrowed apically with short bristles medially (Fig. 5), surstylus slightly arched inwards and enlarged apically, cercus long and pointed apically in lateral and caudal view (Fig. 6), praegonite wide, with three apical bristles (Fig. 7); female – 6th sternite more or less oval, 7th sternite slightly divided caudally into two sclerites, with four distinct bristles (Fig. 8), 8th sternite with seven thorns in apical half (Fig. 9).

Differential diagnosis: The species *Norellisoma ivanae* sp. n. differs from the nearest species *Norellisoma femorale* (LOEW, 1864) by the following characters: *Norellisoma ivanae* sp. n. – first flagellomere dark but on inner side yellow to yellow-white, praegonite of male with three apical bristles and 4th sternite abdominal is long and rectangular, 6th sternite abdominal of female is oval. *Norellisoma femorale* (LOEW, 1864) – first flagellomere entire dark, praegonite of male with two apical bristles and 4th abdominal sternite of male is more or less six – angle, 6th abdominal sternite of female is very indented proximally.

Derivatio nominis: The name is derived from the name Ivana.

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