



***Coniosternum masneri* sp. nov., a new species of the family Scathophagidae (Diptera) from Canada**

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Abstract: A new Nearctic species of the genus *Coniosternum* Becker, 1894, *C. masneri* sp. nov., is described from Canada, and its important diagnostic characters are illustrated.

Keywords: Taxonomy, new species, Diptera, Scathophagidae, *Coniosternum*, Canada, Nearctic Region

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Introduction

The genus *Coniosternum* Becker, 1894 (type species *Scathophaga obscura* Fallén, 1819 by original designation) is represented in the Palaearctic Region by 18 species (cf. Šifner, 2008, 2013, 2016, in press). In the Nearctic Region there are currently recorded five species, including *C. masneri* sp. nov., described here. In the past, members of the genus were mostly placed into the genus *Scathophaga* Meigen, 1803 (cf. Vockeroth 1965), but a recent molecular phylogenetic study (Bernasconi et al., 1999, 2000) strongly supported the validity of *Coniosternum* as a separate genus. A morphological study of the prestomal teeth of the Scathophagidae supports a separate status for the genus *Coniosternum* as well (Nelson 1988).

Material and methods

When citing label data, a double slash (//) is used to separate data on different labels. Examined specimens are deposited in the private collection of F. Šifner, Praha (FSCP). Morphological terminology follows Cumming & Wood (2009).

Taxonomy

Coniosternum masneri sp. nov.

(Figs 1a–1e)

Type material

Holotype: m*, CANADA: Nunavut: 'Chesterfield, N.W.T., 28.7.1950, J.G.Chillcott leg. // Metatype, *Scathophaga obscurinervis* Becker, Compared by // *Scathophaga obscurinervis* Becker Det. J. R. Vockeroth // *Coniosternum masneri* s. nov., det et designated by Šifner 2017' (FSCP). Allotype: f*, same data as the holotype, except the designation is metatype (FSCP).

Description

Body length 6 mm, primary colour dark brown.

Head completely yellow grey, white dusted, including the face, orbits and genae, frontal vitta brown, parafacials dark, pedicel and first flagellomere black, arista bare and thickened in the first quarter, palpi yellow, vibrisal callus with two vibrissae and two short bristles.

Thorax. Chaetotaxy standard for the genus, with acrostichal bristles very rare. Both cross-veins only weakly darkened. All legs yellow, all coxae dark with long yellow hairs.

Abdomen. *Male*. Lobes of sternite 5 wide and slightly arched interiorly, medially with short bristles, sternite 4 wide and short, sternite 3 round and with two promontory proximally (Fig. 1a) cerci wide basally, slightly arched, pointed and densely bristled, distyli shorter than cerci (Fig. 1b), rounded caudally, praegonite short with two setae, epiphalus very short and pointed, postgonite only slightly arched (Figs 1c, 1d).

Female. Sternites 8 very small, sternite 7 in central portion only hyaline, laterally with two narrow and distinct sclerites with weak short bristles, sternites 4 to 6 more or less oval with one or two distinct bristles latero-caudally (Fig. 1e).

Differential diagnosis

The male of *Coniosternum masneri* sp. nov. distinguishes from all described Palaearctic and Nearctic species of *Coniosternum* in the shape of sternite 5, cerci and distyli (Figs 1a, 1b); the female of this species by the shape of the abdominal sternite 7, which is divided into two separate sternites connected by hyaline membrane (Fig. 1e), which is a unique character of *C. masneri* among all the congeners. For further details see the key of the Palaearctic species of *Coniosternum* (Šifner 2013).

Etymology

I dedicate this species to my long-standing friend, Czech-Canadian hymenopterologist, specialist in Proctotrupoidea (sensu lato) Lubomír "Bošík" Masner (Canadian National Collection of Insects, Agriculture & Agri-Food Canada, Ottawa, Canada).

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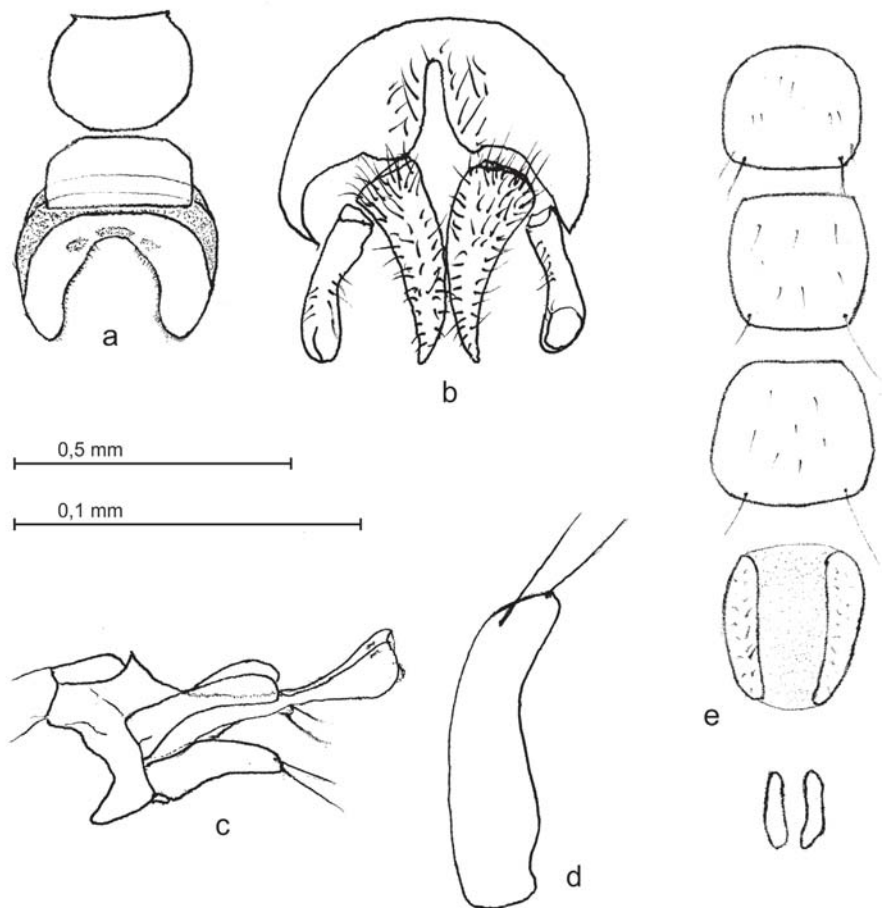


Fig. 1. *Coniosternum masneri* sp. nov.: a – male abdominal sternites 3 to 5; b – male cerci and surstyli (caudal view); c – penis apparatus with pregonite, postgonite and epiphalus; d – right pregonite with two setae; e – female abdominal sternites 4 to 8. Scale bars: 0,5 mm (a, b, e); 0,1 mm (c, d).

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