



## One new genus and two new species of the family Scathophagidae (Diptera) from the Czech Republic<sup>1</sup>

František Šifner

*V Štíhlách 1311, CZ-142 00 Praha 4, Czech Republic*

**Abstract.** A new monotypic genus of the family Scathophagidae from the Palaearctic Region is described: *Hajekiana* gen. nov. with the type species *Hajekiana orlicensis* sp. nov. from the Czech Republic. New species *Coniosternum dvoraki* sp. nov. from the Czech Republic is described. Comments on generic classification including differential diagnoses of new genus and new species are given and diagnostic characters are illustrated.

**Key words.** Diptera, Scathophagidae, *Hajekiana* gen. nov., new species, taxonomy, faunistics, Palaearctic Region, Czech Republic.

### INTRODUCTION

The main purpose of this paper is to establish one new genus *Hajekiana* gen. nov. with the type species *Hajekiana orlicensis* sp. nov. in the tribe Cleigastrini. The tribe Cleigastrini contains in the Palaearctic Region eight genera, including *Hajekiana* gen. nov. (Šifner 2003, 2008, 2009); this new genus differs from other genera of the tribe Cleigastrini by the absence of a dorsal row of bristles on hind femora. *Coniosternum* Becker, 1894 (type species *Scathophaga obscura* Fallén, 1819 – by original designation) is represented nowadays in the Palaearctic Region by 16 species including *C. dvoraki* sp. nov. described here from the Czech Republic (Šifner 2013).

### MATERIAL AND METHODS

Morphological terminology used follows Cumming & Wood (2009). All localities are provided with the numerical codes of the faunistic grid mapping according to Pruner & Míka (1996). The abbreviations used: PLA – Protected Landscape Area, YPT – yellow pan water trap, NNR – National Nature Reservation. Examined species are deposited in the followings collections: FSPC – František Šifner private collection, Praha, Czech Republic and MML – Municipal Museum Mariánské Lázně, Czech Republic. All specimens, including the types, which are currently in the author's collection, will be deposited in National Museum collection, Praha, Czech Republic.

1 urn:lsid:zoobank.org:pub:544A2BFB-4E80-49ED-979B-66E21C8CB341

## TAXONOMY

### **Genus *Hajekiana* gen. nov.**

TYPE SPECIES: *Hajekiana orlicensis* sp. nov., here designated.

DIAGNOSIS. Principal diagnostic characters of the new genus are as follows: (1) two propisternal bristles; (2) one katapisternal bristle; (3) all femora without the rows of dorsal bristles and covered with yellow setae only; (4) wings darkened in anterior margin; (5) surstyli narrow, cerci wide with long bristles (Figs. 2 and 3); pregonite with one dorsal seta (Fig. 4); (6) lobes of sternite 5 short with long bristles (Fig. 1); and (7) all male abdominal sternites yellow with long and distinct bristles (Fig. 1).

DIFFERENTIAL DIAGNOSIS. *Hajekiana* gen. nov. can be separated from other genera of the tribe Cleigastrini by characters summarized in the following key.

ETYMOLOGY. I dedicate the genus to my friend, Czech entomologist and first collector Josef Hájek (Sopotnice, Czech Republic). The gender is feminine.

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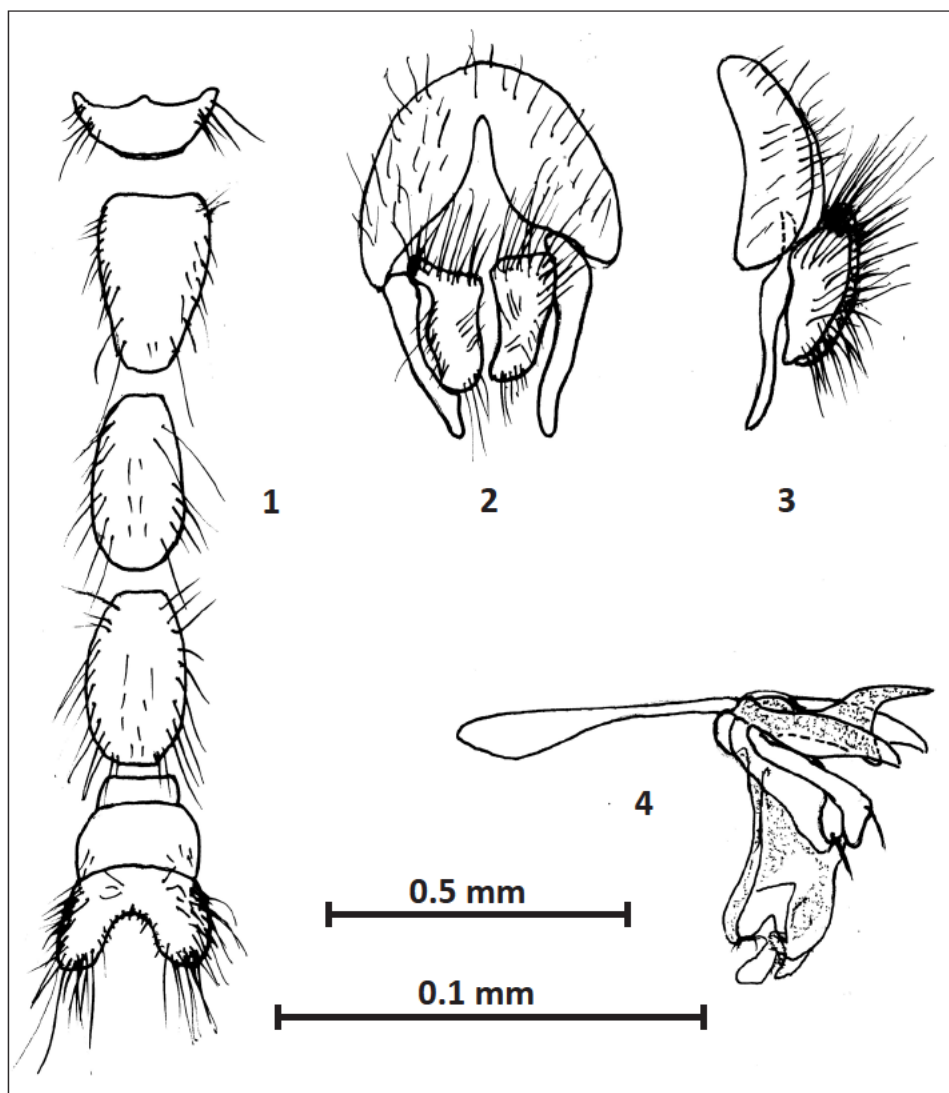
### **Key to genera of the tribe Cleigastrini**

1. Hind femora with a dorsal row of bristles . . . . . 2
- Hind femora without a dorsal row of bristles . . . . . ***Hajekiana* gen. nov.**
- 2(1) Palpi only slightly broadened lengthwise . . . . . 3
- Palpi distinctly broadened apically . . . . . ***Acerocnema*** Becker, 1894
- 3(2) Vein R<sub>1</sub> setose apically . . . . . 4
- Vein R<sub>1</sub> bare apically . . . . . 5
- 4(3) One katapisternal bristle . . . . . ***Megaphthlma*** Becker, 1954
- Three katapisternal bristles . . . . . ***Cleigastra*** Macquart, 1835
- 5(3) Two katapisternal bristles . . . . . ***Hexamitocera*** Becker, 1894
- One or three katapisternal bristles . . . . . 6
- 6(5) One katapisternal bristle . . . . . ***Jezekia*** Šifner, 2009
- Three katapisternal bristles . . . . . 7
- 7(6) Second aristomere distinctly prolonged, arista thickened beyond half of its length . . . . . ***Gonarcticus*** Becker, 1894
- Second aristomere not prolonged, arista thickened only basally . . . . . ***Spathephilus*** Becker, 1894

### ***Hajekiana orlicensis* sp. nov.**

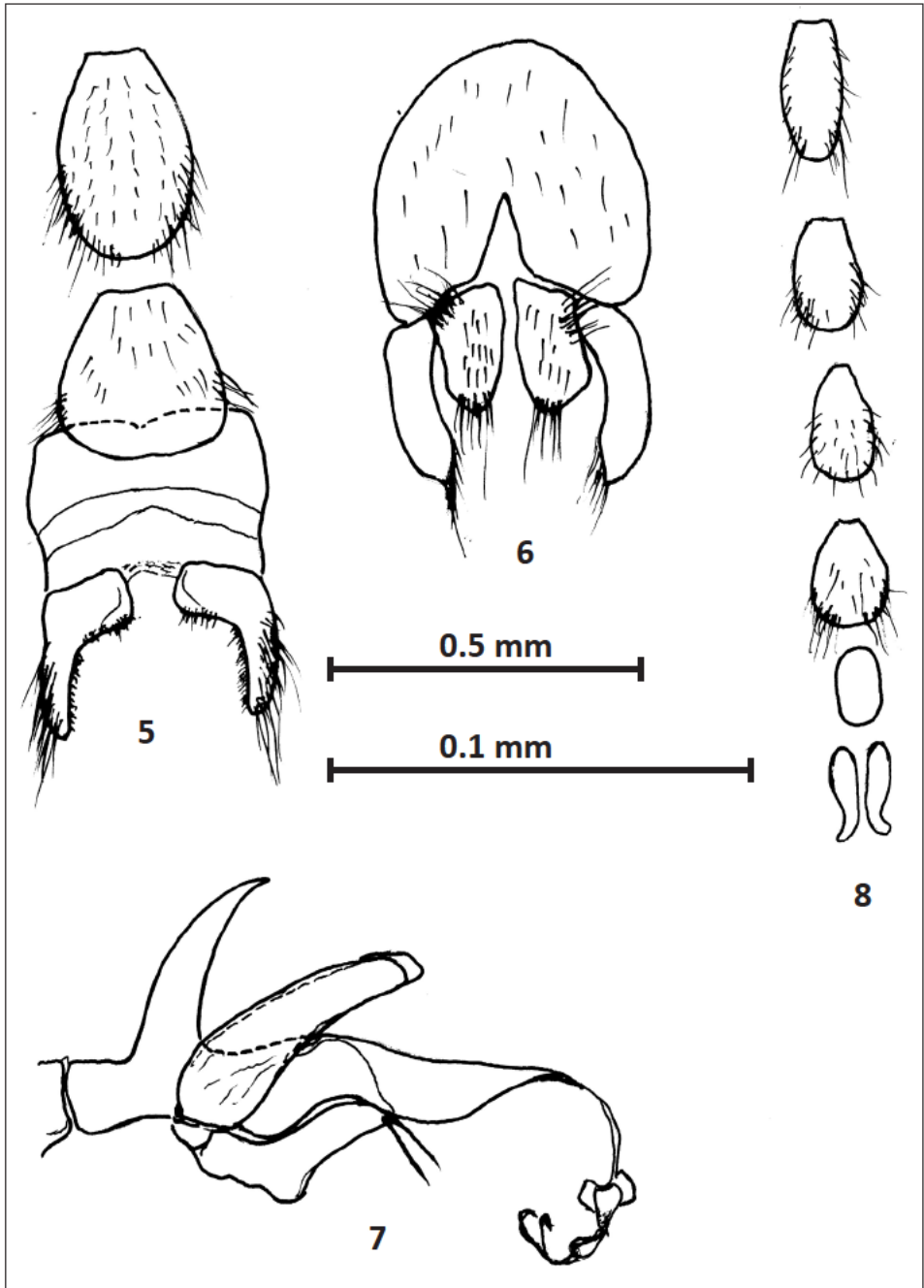
(Figs. 1-4)

TYPE MATERIAL. Holotype (FSPC): ♂, Czech Republic, PLA Orlické hory Mts, NNR Bukačka (5664), YPT, 18 July – 5 August 1994, Hájek leg.



Figs. 1-4. *Hajekiana orlicensis* sp. nov. 1-4 - male, holotype: 1 - abdominal sternites 1 to 5, 2-3 - cerci and surstyli (caudal and lateral view), 4 - penis apparatus with pregonites and epiphalus. Scale bars: 0.5 mm (Figs 1-3); 0.1 mm (Fig. 4).

**DESCRIPTION. Male.** Body length 6 mm. Primary colour yellow-brown to brown. *Head.* Three orbital bristles, four frontal bristles, frontal vitta, orbitals, parafacials, face and gennae, scapus and pedicellus brown, first flagellomere dark and basally slightly brown only, arista only shortly plumose, vibrissal callus without vibrissae including short setae, palpi brown, broadened lengthwise with very short two bristles and some fine setae. *Thorax.* Acrostichal bristles very sparse, five dorsocentral bristles, one humeral



Figs. 5-8. *Coniosternum dvoraki* sp. nov. 5-7 - male - holotype: 5 - abdominal sternites 3 to 5, 6 - cerci and surstyli (caudal view), 7 - penis apparatus with pregonites and epiphalus; 8 - female: abdominal sternites 3 to 8. Scale bars: 0.5 mm (Figs. 5, 6 and 8); 0.1 mm (Fig.7).

and two intraalar bristles, four scutellar bristles of equal size, two distinct proepisternal bristles (anterior shorter), one katepisternal bristle. Wings in anterior margin darkened, all femora unicoloured yellow-brown without the rows of dorsal bristles. *Abdomen*. Sternite 2 narrowed caudally, sternites 3 and 4 more or less oval, lobes of sternite 5 short with short bristles in middle. All sternites yellow with long distinct black bristles (Fig. 1). Surstyli straight, narrow, slightly pointed, cerci wide with long black bristles (Figs. 2 and 3). Epiphalus wide basally, pregonite slightly arched, narrowed apically and with one dorsal seta (Fig. 4). **Female** unknown.

ETYMOLOGY. The name is derived from the name of Orlické hory (Orlické hory Mts).

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### ***Coniosternum dvoraki* sp. nov.**

(Figs. 5-8)

TYPE MATERIAL. Holotype (FSPC): ♂, Czech Republic: PLA Slavkovský les [forest], Lazy, Lesný (5941), smrčina [spruce forest], pivní past [beer trap], 12-30 July 2014, L. Dvořák leg. Allotype: ♀, the same data as holotype. Paratypes (FSPC): 2 ♀♀, the same data as holotype. Paratypes (MMML): 1 ♂, 1 ♀, the same data as holotype.

DESCRIPTION. **Male**. Body length 5-6 mm, primary colour dark. *Head*. Totally grey, orbits grey and white dusted, face, gennae, frontal vitta and parafacials brown, scapus and pedicellus dark brown, first flagellomere black, arista bare, vibrissal callus with three strong vibrissae and three to five short bristles. *Thorax*. Chaetotaxy standard for the genus, basal and apical scutellar bristles of equal size, all femora yellowish-brown. *Abdomen*. Sternite 3 oval and laterally with hair-like bristles, sternite 4 broadened caudally and laterally with four distinct bristles, lobes of sternite 5 narrow, medially with short bristles and with long hair-like bristles laterally (Fig. 5). Cerci wide, separated, slightly pointed caudally with hair-like bristles, surstyli bristled only caudally (Fig. 6), epiphalus very long and pointed, pregonite slightly arched and with two setae apically (Fig. 7). **Female**. *Head* and *thorax* as in male. *Abdomen*. Sternites 3 to 6 more or less oval, yellow-brown with distinct black bristles, sternite 7 narrow, oval without bristles or setae, sternites 8 in proximal half wide, narrowed apically and slightly arched dorsally (Fig. 8).

DIFFERENTIAL DIAGNOSIS. This species is habitually very similar to all species so far described. It is recognisable from other species especially by the following combination of characters: male – the shape of abdominal sternites 3 to 5, by the shape of pregonite (it is slightly arched); female – the shape of abdominal sternites 6 to 8 and particularly the shape of sternite 7. All characters are mentioned as well in the identification key (cf. Šifner 2013).

ETYMOLOGY. I dedicate this species to Libor Dvořák, Czech entomologist and first collector.

DISTRIBUTION. Czech Republic.

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