Two species of *Sapromyza* new to Slovakia with note on *S. zetterstedti* Hendel 1908

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Abstract: *Sapromyza viciospunctata* and *S. bisigillata* are introduced as new species to Slovakia. A brief description and photographs of adults as well as drawing of terminalia are provided. The presence of *S. zetterstedti* in the territory of Slovakia is briefly discussed.

Key words: Diptera, Lauxaniidae, *Sapromyza viciospunctata*, *S. bisigillata*, *S. zetterstedti*, Slovakia, first record.

Introduction

Lauxaniid fauna of Slovakia is fairly well known. Including some recent additions, there are 75 species currently known altogether (Dvořáková & Gaimari 2009, Dvořáková & Roháček 2009, Semelbauer & Kozánek 2009, Semelbauer & Kozánek 2011, Semelbauer 2015). Two species treated as members of genus *Sapromyza* are recorded as being new to Slovakia: *Sapromyza viciospunctata* Czerny 1932 and *S. bisigillata* Rondani 1868. Shatalkin's (2000) key with its English translations (Schacht et al. 2004) and Papp's (1979) key were used for the determination of the specimens.

Results

Sapromyza viciospunctata Czerny 1932

Sapromyza viciospunctata (Fig 1) is a small dull fly. Overall, in appearance and colouring, it resembles species *Poecilolycia vittata* (Walker 1849). *S. viciospunctata* can be easily recognized by high gena (almost as high, as the height of the eye), only one brown medial stripe (*P. vittata* has two medial stripes) and by the structure of the terminalia.

Fig 1: *Sapromyza viciospunctata*, female, lateral view. Author: Pierre Bornand.

The species is by far known from the Russian Far East (Primorye region) and Europe, namely France, Swiss, Italy, Austria, Czech Republic and European part of Russia (Dvořáková & Gaimari 2009, Merz 2015). The species is considered as to be very rare (Papp 1979).

Three specimens (1♀, 2♂) were found in a Malaise trap excavated on 16.6.2006 in the Kopáč (near the Danube river) installed by Vidlička & Majzlan (DFS: 7967). As far as terminalia were not depicted up to date, a brief description and illustration is provided here.

Male terminalia (Fig 2). The epandrium is narrow, relatively high; on inner side below the level of cerci is present a paired sclerite. The cerci are free, elongated and slightly curved distally. The subepandrium is not differentiated. The hypandrium is rectangular when viewed from above. The aedeagus is modified into sclerotised hood, with a pair of whip-like outgrowths. A pair of gonites is basally fused with small phallapodema. The ejaculatory apodeme is rather small.

Fig 2: Male terminalia of *Sapromyza viciesspunctata*. **A, B** – terminal segment, lateral and posterior view. **C-E** – genital complex, lateral, ventral and dorsal view.

***S. bisigillata* Rondani 1868**

The *S. bisigillata* is a yellow-coloured, medium sized fly. The species is recognizable by its black palpi and a pair of black dots on the seventh abdominal tergite. The species is known in western (Spain, France, Italy, Switzerland) and southern Europe (former Yugoslavia) and also in the near east (Turkey, Israel) (Merz 2015, Shatalkin 2000).

A single female was caught in a Malaise trap in Kamenica nad Hronom, on 18.9.2010 (DFS: 8187) (Fig 3).

Fig 3: *Sapromyza bisigillata*, female, lateral view. The characters of this species are clearly visible: black palpus and single pair of black dots on 7th abdominal tergite.

Fig 4: *Sapromyza zetterstedti*, male, lateral view. The species is characteristic in presence of two pairs of black spots on abdominal tergites and brown rectangular spot on the occiput (not visible on this picture).

Sapromyza zetterstedti Hendel 1908

A rare small to medium sized yellow-orange fly (Papp 1979). It is typical in having 2 pairs of black dots on the last abdominal tergites and brown rectangular spot on the occiput (Fig 4). A depiction of male terminalia was published in Remm & Elberg (1978), but is provided also here (Fig 5).

The following specimens were recorded from three Malaise traps in High Tatra Mountains (leg. Vidlička & Majzlan): **Zuberec** (DFS: 6783): 20.VI.2011, 1♀, 4. VII.2011, 1♀, 11.VII.2011, 1♀. **Podbanské** (DFS: 6885): 30.VI.2008, 2♂, 7.VII.2008, 2♀, 14.VII.2008, 1♀. **Tatranská Javorina** (DFS: 6787): 21.VI.2010, 1♂.

Fig 5: Male terminalia of *S. zetterstedti*, the specimen originates from the High Tatras. **A** – epandrium in posterior view, **B** – terminalia in anterior view, **C** – terminalia in lateral view, **D** – terminalia in ventral view.

The species was introduced in the territory of Slovakia since the time of the first check list of Diptera of the former Czechoslovak republic (Ježek 1987). However, another species was recently discovered by the author, which can be easily confused with *S. zetterstedti* (Semelbauer, in preparation). Specimens introduced as *S. zetterstedti* in Semelbauer & Kozánek (2009) belong to the yet undescribed species. Rather unexpectedly, the new species

seems to be more common in the territory of Slovakia than *S. zetterstedti*. According to the original description (Zetterstedt 1847), the species should occur very rarely in southern parts of Sweden; adults can be spotted in July. This is in compliance with the finding of the species in the High Tatra Mountains. On the other hand, the new species occurs in warm parts of western Slovakia. Consequently, the older material needs revision to confirm the specific status of specimens determined as *S. zetterstedti*.

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Dva nové druhy rodu *Sapromyza* pre Slovensko s poznámkou k druhu *S. zetterstedti* Hendel 1908

Druhy *Sapromyza viciospunctata* Czerny 1932 a *S. bisigillata* Rondani 1868 sú uvedené ako nové pre faunu Slovenska.

Druh *S. viciospunctata* (2♂ a 1♀) bol nájdený v Malaisého pasci inštalovanej na ostrove Kopáč v blízkosti Bratislavy (DFS 7967), vzorka bola označená dátumom 16.6. 2006. Nakoľko samčie terminálie druhu *S. viciospunctata* neboli dosiaľ zobrazené, je kresba uvedená v tejto práci.

Druh *S. bisigillata* je dokladovaný fotografiou jedinej samice vybratej zo vzorky Malaisého pasce označenej dátumom 18.9.2010 z lokality Kamenica nad Hronom (DFS 8187).

Niekoľko jedincov druhu *S. zetterstedti* Hendel 1908 bolo nájdených v Malaisého pasciach vo Vysokých Tatrách (Zuberec, DFS: 6783, 20.VI.2011, 1♀, 4. VII.2011, 1♀, 11.VII.2011, 1♀. Podbanské, DFS: 6885, 30.VI.2008, 2♂, 7.VII.2008, 2♀, 14.VII.2008, 1♀. Tatranská Javorina, DFS: 6787, 21.VI.2010, 1♂.). Jedná sa o vzácny druh popísaný pôvodne zo Škandinávie. Autor zároveň upozorňuje, že bol objavený ďalší, dosiaľ nepopísaný druh, ktorý sa na *S. zetterstedti* podobá. Je preto možné, že v minulosti došlo k zámene týchto dvoch druhov a dokladový materiál z územia bývalého Československa bude vhodné revidovať.

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