

TWO NEW SPECIES OF HYBOTID FLIES (*PLATYPALPUS SLOVENIENSIS* BEQUAERT, 1962 AND *TACHYPEZA TANAISENSE* KOVALEV IN CHVÁLA, 1975) FOR THE FAUNA OF SLOVAKIA

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ABSTRACT

Here we present faunistic data on 10 species collected at two sites in Slovakia along with the first records of *Platypalpus sloveniensis* Bequaert, 1962 and *Tachypeza tanaicense* Kovalev in Chvála, 1975 for the territory of Slovakia. The species richness of the hybotid dance flies fauna in Slovakia was increased to 274 species by the findings described in this paper.

KEYWORDS

faunistics, new records, hybotid dance flies, Slovakia

INTRODUCTION

The flies of the family Hybotidae, known also as the hybotid dance flies, represent very small to medium-sized flies species (in Europe, they do not reach a length of more than 5 mm). Hybotid dance flies are mostly predators, despite the weak ability to fly. In most cases, they hunt prey, particularly tiny arthropods, by running on vegetation, tree-trunks, rocks, or sand. There is only a small number of species catching their prey when flying (CHVÁLA 2009). The family Hybotidae was artificially included in the family Empididae s. lat. for many years. Since 1983 (CHVÁLA 1983, COLLINS & WIEGMANN 2002), the family Hybotidae has been classified as a separate monophyletic taxon. It forms a clear lineage considerably distinct from the Empididae. Among the Empidoidea, Hybotidae represent a lineage that is more basal than the main radiation of Empididae and Dolichopodidae, though hybotid are not as ancient as the genera placed in the Atelestidae (SINCLAIR & CUMMING 2006, MOULTON & WIEGMANN 2007). Among the subfamilies, the Hybotinae and Tachydromiinae represent certain clades. The status of the Ocydromiinae as a monophyletic group is less clear. In particular, it still unconfirmed whether the Trichiniinae should be included in the tribe Trichinini or even in the tribe Bicellariini or Oedaleini, or whether they are more distinct and should be distinguished as a separate subfamily (SINCLAIR & CUMMING 2006, MOULTON & WIEGMANN 2007, CHVÁLA 2009).

The last summarization of the family Hybotidae in Slovakia was made by CHVÁLA (2009) and included 170 species. Afterward, VAN DER WEELE et al. (2015) increased the number of hybotid species to 172.

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MATERIAL AND METHODS

The material of hybotid dance flies was collected in Trstenec spring area (N 48°44'20.32", E 18°28'54.27") located near the village of Diviacka Nová Ves on July 2018 by means of sweep nets, and in the city of Prešov (48°59'51.1"N 21°13'19.7"E) on June and August 2018 by hand collecting from walls of buildings and tree trunks. In both cases, the collectors were J. Oboňa and P. Manko.

The obtained material was preserved in 75% ethanol directly in the field. In the laboratory, all collected individuals were identified by R. van der Weele to the lowest possible taxonomic level. Identification and nomenclature used in this paper follow GROOTAERT & CHVÁLA (1992).

Information on distribution within Europe is provided only for species recorded from Slovakia for the first time. All of the hybotid dance flies material is deposited in the collection of the first author.

RESULTS

The present paper summarizes the data on hybotid dance flies collected randomly at two different sites in Slovakia. The first site has an exclusively natural character without significant human impact and includes several springs called collectively Trstenec. The second site is considerably influenced by human activities (urban area of the Prešov town). In Trstenec, 8 hybotid species (one species of the subfamily Hybotinae and seven of the subfamily Tachydromiinae) were found altogether. In the town of Prešov, only 3 species (all of the subfamily Tachydromiinae) were recorded.

List of hybotid records collected in Trstenec

Subfamily Hybotinae

Hybos culiciformis (Fabricius, 1775)

Material examined: 9.vii.2018, 1m

Subfamily Tachydromiinae

Tachydromiini

Platypalpus calceatus (Meigen, 1822)

Material examined: 9.vii.2018, 1f; 17.vii.2018, 2f

Platypalpus sloveniensis Bequaert, 1962

Material examined: 9.vii.2018, 1f

Comments: Previously known from Czech Republic, Hungary, and Slovenia (CHVÁLA 2014). **New for Slovakia.**

Note: *P. sloveniensis* is easily recognised by its single pair of vertical bristles, partly polished mesonotum, large apical spur on mid tibiae and very thickened mid femur,

yellow legs including coxae, yellowish antennae with long arista (GROOTAERT & CHVÁLA 1992). Despite the fact that *P. sloveniensis* is easily recognisable species, it remains unknown in many European countries.

Platypalpus pectoralis (Fallén, 1815)

Material examined: 9.vii.2018, 1m

Tachydromia microptera (Loew, 1864)

Material examined: 17.vii.2018, 1f

Tachydromia annulimana Meigen, 1822

Material examined: 2.vii.2018, 2f

Drapetini

Drapetis ephippiata (Fallén, 1815)

Material examined: 9.vii.2018, 2m

List of hybotid records collected in Prešov

Subfamily Tachydromiinae

Tachydromiini

Tachypeza tanaicense Kovalev in Chvála, 1975

Material examined: 20.vi.2018, 1m

Comments: Previously known from Czech Republic, Ukraine, and Central and South European Russia (CHVÁLA 2014). **New for Slovakia.**

Note: *T. tanaicense* is a *Tachypeza* recognised by its polished pleurae, rather small scutellar bristles that are close to one another. Its palpi, bearing besides the strong black apical bristle several black hairs, makes it easily distinguishable from *Tachypeza fuscipennis* (Fallén, 1815), which is characterized by only the strong apical bristle black (CHVÁLA 1975).

Tachydromia smithi Chvala, 1966

Material examined: 20.vi.2018, 2 m, 2 f

Drapetini

Drapetis assimilis (Fallén, 1815)

Material examined: viii.2018, 1 m

DISCUSSION

The family Hybotidae has been intensively studied in Europe by Chvála since the 1960s and it undoubtedly represents one of the best-studied and best-known groups of Diptera in Central Europe (CHVÁLA 2009). Therefore, it is very interesting that it is

still possible to find new records for a country in an urban area. However, we assume that this finding is rather exceptional and it is more likely that in urban areas or other synanthropic areas will be recorded rather neozoons than native species since non-native (invasive) species findings are more often mentioned in such environments (e.g. MEDVECKÁ et al. 2014, OBOŇA et al. 2016).

The findings presented here increased the hybotid fauna of Slovakia (CHVÁLA 2009, VAN DER WEELE et al. 2015) to 274 species due to the first records of *Platypalpus sloveniensis* and *Tachypeza tanaicense*.

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