

The fauna of Pseudopomyzidae, Micropezidae, Megamerinidae and Psilidae (Diptera) in the Gemer area (Central Slovakia)

Jindřich Roháček

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Abstract: A review of the fauna of four acalyptrate families (Diptera) in the Gemer area (Slovakia) is presented. Based on previously published records and material examined 1 species of Pseudopomyzidae, 10 species of Micropezidae, 1 species of Megamerinidae and 18 species of Psilidae are listed, each with comments about general distribution, biology, faunistic and/or nature conservation importance. *Pseudopomyza atrimana* (Meigen, 1830) (Pseudopomyzidae), *Cnodacophora stylifera* (Loew, 1870), *Neria longiceps* (Loew, 1870), *Rainieria calceata* (Fallén, 1820) (Micropezidae), *Megamerina dolium* (Fabricius, 1805) (Megamerinidae) and *Chamaepsila strigata* (Collin, 1959) (Psilidae) are the most significant species in the area belonging to rare taxa distinctly jeopardized due to association with (in Central Europe) endangered habitats. *Chamaepsila strigata*, a new species for the fauna of Slovakia, is recorded for the first time since its description from Montenegro. The first record from Austria and second record from Slovakia of *Cnodacophora stylifera* are given. New data about habitat association of these rare species are presented.

Key words: Diptera, Pseudomyzidae, Micropezidae, Megamerinidae, Psilidae, faunistics, nature conservation, Slovakia, Gemer

Introduction

Most of the representatives of all of the acalyptrate families treated below were already recorded from the Gemer area in the past. Oldest records dealing with a few species of the family Psilidae were published by the Hungarian dipterist Soós (1946) and the majority of other species of this family were later reported by Martinek (1976, 1984, 1986) and Martinek & Mocek (1995). Roháček (1981) published the first finding of Pseudopomyzidae (then as a new family for the fauna of Slovakia) and Roháček (1985) the first record of Megamerinidae from the Slovenský kras (Slovak carst). Species of Micropezidae were only reported from the Gemer area by Roháček & Barták (1990) in the framework of the revision of the Czech and Slovak fauna of this family. Most of these previously published records were based on collections performed in the study area by the Czech and Slovak dipterists, like Palásek (in 1949), V. Zeman (in 1956, 1962), R. Rozkošný (in 1966), V. Martinek (in 1971), M. Kozánek, J. Máca and V. Straka (in 1979), B. Mocek (in 1989) but mainly by J. Roháček (in 1980-1984, his unpublished records based on material from 1984 are presented here). Additional findings from the area under study have been available thanks to recent collecting efforts of J. Ševčík, who operated Malaise traps in the Muránska planina territory and also collected individually in several other parts of the Gemer area. A few other specimens, caught by a Malaise trap in Paseky nr. Tisovec, were submitted for this study by Ľ. Vidlička. Most recently (collecting trips in 2010-2012) a further significant material was collected by the author. This recently obtained material contributed to the knowledge of the hitherto poorly studied Muránska planina National Park because it added records of some rare species formerly unknown from the Gemer region and/or the whole of Slovakia. The present study belongs to a series of papers devoted to Diptera of the Gemer area (cf. Ševčík & Kurina 2011a,b; Roháček & Ševčík 2011; Roháček 2011; Ševčík 2011).

Material and methods

The account of species recorded from the Gemer area is based on critical review of all published records supplemented by data obtained from the material collected recently in this territory, identified by the author and

deposited in SMOC (unless mentioned otherwise). The nomenclature used here largely follows the most recent Checklist of Diptera of the Czech Republic and Slovakia, electronic version 2 (Jedlička et al. 2009) except some cases where the names are treated according to sources referred to. Species significant from the biogeographical, ecological or nature conservation point of view are marked by “*”, those recorded from Slovakia for the first time by “**” preceding the species’ name. Abbreviations used in text: MT = Malaise trap, SMOC = Slezské zemské muzeum, Opava, Czech Republic.

The species from the families listed below were identified using the keys and other determination tools cited in the introductory texts to these families in the above checklist (Jedlička et al. 2009) unless mentioned otherwise.

Study area

The Gemer area is here understood as the territory of three national parks in central Slovakia – Muránska planina National Park (= NP), Slovenský raj NP and Slovenský kras NP. A part of the material presented in this study was collected within the framework of the All Taxa Biodiversity Inventories project (ATBI, see www.atbi.eu) organized by Workpackage 7 (WP7) of the “European Distributed Institute of Taxonomy” (EDIT, see www.e-taxonomy.eu). All three national parks represent well-preserved karst areas with both montane and thermophilous species included, including several endemic. The results of the species inventory within the ATBI project are available at <http://www.atbi.eu/gemer/>.

Three Malaise traps were operated in the area – one at Fabova hoľa Mt. in 2009, the second in the Hrdzavá dolina valley in 2010 and the third in Poľudnica res. in 2011. For more detail see Ševčík & Kurina (2011a). In 2012 two additional Malaise traps were operated, one at the top plateau of Šiance res. (48°46'11"N, 20°04'14"E, 1000 m), the other near Muránska Lehota, in the Lehotský potok valley (48°42'58"N, 20°00'16"E, 455 m).

Synopsis of species

PSEUDOPOMYZIDAE

A very small family of Acalyptrate Diptera, with only 6 genera and about 20 species worldwide (McAlpine & Shatalkin 1998), having only one representative in Europe (Merz 2007) which is also known from Slovakia (Roháček 2009b, 2012). The biology of the members of Pseudopomyzidae is largely unknown. Most recently, decayed vegetation was suggested as the most probable development substrate for the larvae (Roháček 2012). Adults can also be attracted to the freshly cut and sappy stumps or logs of deciduous trees (Frey 1952; Merz 1998; Roháček 2009a) and to some blossoming plants in forest clearings (Schacht 1997; Stuke 2009).

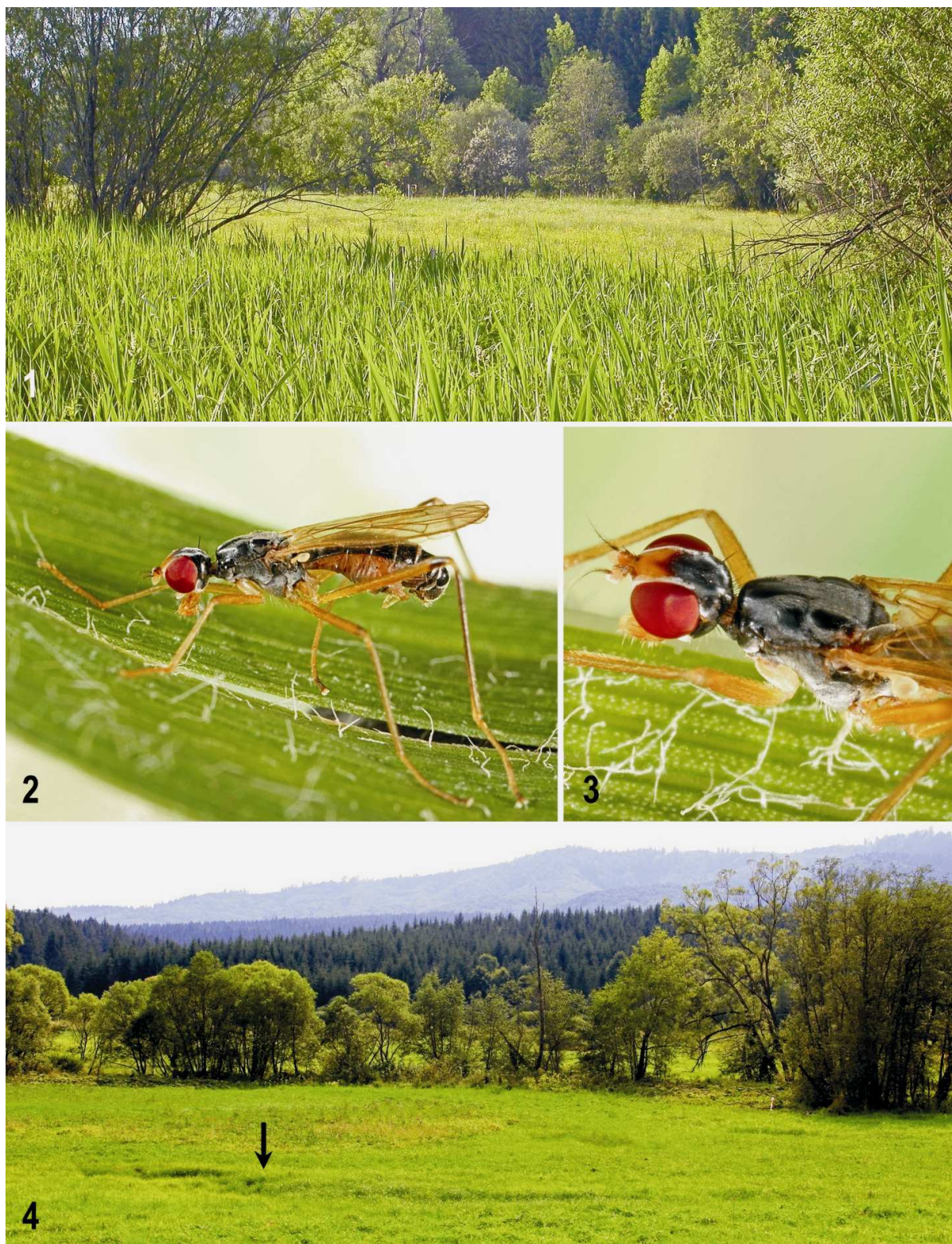
****Pseudopomyza atrimana* (Meigen, 1830) (Fig. 7)**

Literature: Slavec near Plešivec (Roháček 1981, 1986a); Muránska planina NP, Patina gamekeeper’s lodge, Muránska planina NP, Zlatno E margin (Roháček 2012).

Remarks: A temperate transpalearctic species known from Europe, Canary Is. and from the E. Palearctic area (for summary of distribution see Roháček 2012). The previous records from Slovakia were scarce. Besides the findings from Gemer territory listed above it was only reported from Dlhé nad Cirochou (Roháček 1987) and from two localities in the Poľana Mts. (Roháček 2009a). The species is considered vulnerable (VU) in the Czech Republic (Roháček 2005a) but regarding the recently increasing records and its abundant occurrence on rotting vegetation in the Muránska planina NP (Roháček 2012) it is possibly spreading in Central Europe.

MICROPEZIDAE

This predominantly tropical family is represented by only 22 species in Europe (Ozerov 2007a), 12 of which are known from Slovakia (Roháček 2009d). They are slender, small to large (3.0-16.0 mm) flies characterized by narrow wings and slender long legs. Central European Micropezidae belong to three trophic groups. *Micropeza* species have phytophagous larvae feeding in the root nodules of leguminous plants and occur in meadows and fields, *Rainieria* species develop in the rotting wood of deciduous trees and are typical elements of



Figs 1-4: *Cnodacophora stylifera* (Loew) (Micropezidae) and its habitats. 1 – Young growth of reed (*Phragmites australis*) in Enns river valley near Admont (Austria); 2 – *C. stylifera*, male from Michalová env. (Slovakia), body length 5.3 mm; 3 – same specimen, head and thorax with characteristic microtomentose pattern; 4 – boggy meadow near Michalová, arrow indicates *Carex acuta* growth where the above male was collected. Photo by J. Roháček.

dipterous communities in old forests; representatives of the Calobatinae have saprophagous larvae developing in decayed organic matter and their adults live in humid forests along rivers or creeks. The majority of data about occurrence of Micropezidae (9 species) in the territory under study have been published by Roháček & Barták (1990) based on material mainly collected by J. Roháček in early 80ties but also on specimens obtained from other collectors (see Roháček & Barták 1990). The material acquired recently added one more species. Thus, altogether 10 species are now known in the area, including the wetland *Cnodacophora stylifera*, thermophilous *Micropeza brevipennis* and *Neria longiceps* or primeval forest inhabitant *Rainieria calceata*.

***Calobata petronella* (Linnaeus, 1761)**

Literature: Muráň-Hrdzavá dolina, Slavec near Plešivec (Roháček & Barták 1990).

Material: Muránska planina NP, Tisovec 2.8 km WSW, Hlboký jarok res., 48°40'17"N, 19°54'27"E, 500 m, sweeping undergrowth of beech forest, 23.vi.2012, 1♂; Muránska planina NP, Stožky gamekeeper's lodge, 48°49'14"N, 19°56'07"E, 870 m, sweeping *Equisetum palustre* at path, 24.vi.2012, 4♂2♀, J. Roháček leg. (SMOC).

Remarks: A Palaearctic species, frequent in Central Europe. It lives along brooks, preferentially at higher altitudes (Roháček & Barták 1990).

***Cnodacophora sellata* (Meigen, 1826)**

Literature: Muráň-Hrdzavá dolina (Roháček & Barták 1990).

Material: Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping undergrowth of beech forest, 23.vi.2012, 1♀, J. Roháček leg.; Muránska planina NP, Muránska Lehota env., MT, 25.vii.-5.ix.2012, 1♀, J. Roháček & J. Ševčík leg. (SMOC).

Remarks: A West Palaearctic species, rather common in Central Europe and occurring in wet forests from lowland to mountains.

****Cnodacophora stylifera* (Loew, 1870) (Figs 2, 3)**

Material: Michalová 3.5 km NW, 48°46'50"N, 19°44'17"E, 550 m, sweeping *Carex acuta* in boggy meadow, 22.vi.2012, 1♂, J. Roháček leg. (SMOC).

New record from Austria: Steiermark: Hall-Grieshof nr. Admont, Enns valley, sweeping over boggy meadow (*Phragmites australis*, see Fig. 1), 15.vi.2006, 2♂3♀, J. Roháček leg. (SMOC).

Remarks: A temperate Palaearctic species, widespread in Asia but occurring very locally in Europe: Great Britain, The Netherlands, Germany, Slovakia, Denmark, Sweden, North Russia (Ozerov 2007a); a new country record from Austria is given above. In Slovakia it is the rarest species of Micropezidae and was formerly only recorded from two localities in the Turčianská kotlina (Roháček & Barták 1990: Klášterské lúky res. nr. Kláštor pod Znievom, Turček env.). In contrast to its congener *C. sellata* it is associated with open marshland habitats (Fig. 4), with growths of large sedge (*Carex* spp.) or reed (*Phragmites australis*, Fig. 1), see Roháček & Barták (1990), Stuke (2006) and material examined.

***Micropeza corrigiolata* (Linnaeus, 1767)**

Literature: Hradová Mt. near Tisovec, Klášter reserve near Tisovec, Suché doly near Tisovec, Domica, Kečovo, Zádiel, Háj-Hačavská dolina, Slovenský raj-Čingov (Roháček & Barták 1990).

Material: Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping undergrowth of beech forest, 23.vi.2012, 1♂, J. Roháček leg.; Muránska planina NP, Paseky nr. Tisovec, MT, 17.-19.vi.2001, 1♂, 29.vi.-4.vii.2001, 1♀ L. Vidlička leg. (SMOC).

Remarks: A widespread Palaearctic species, very common in Central Europe, most frequent in meadows and fields with leguminous plants.

****Micropeza brevipennis* von Roser, 1840**

Literature: Domica, Zádiel (Roháček & Barták 1990).

Remarks: An uncommon species known from Austria, Czech Republic, Germany, Hungary, Romania, Slovakia and Switzerland (Ozerov 2007a), thermophilous, occurring in warm open habitats (lowland meadows and alfalfa fields, steppe meadows).

***Neria cibaria* (Linnaeus, 1761)**

Literature: Tisovec, Suché doly near Tisovec, Muráň-Hrdzavá dolina, Silická planina, Kečovo, Brzotín near Rožňava, Turňa nad Bodvou (Roháček & Barták 1990, as *Compsobata*).

Material: Muránska planina NP, Fabova hoľa res., MT, 15.v.-16.vi.2009, 1♀, 16.vi.-25.viii.2009, 1♀, J. Ševčík leg.; Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping undergrowth of beech forest, 23.vi.2012, 1♂; Muránska planina NP, Tisovec 3 km W, Furmanec



Figs 5-7: 5 – Muránska planina NP, boggy shore of a small pond at Stožky gamekeeper's lodge; arrow indicates the place with *Carex* tussocks where a female of *Chamaepsila strigata* (Collin) was collected; 6 – *Chamaepsila strigata* (Collin) (Psilidae), female from the above locality, body length 3.2 mm; 7 – *Pseudopomyza atrimana* (Meigen), a mating pair from Muránska planina NP, Zlatno, body length cca 2 mm. 7 – *Neria ephippium* (Fabricius), male, body length 4.5 mm. Photo by J. Roháček.

valley, 48°41'23"N, 19°53'57"E, 490 m, sweeping vegetation along brook, 12.vii.2012, 1♀, J. Roháček leg.; Muránska planina NP, Muránska Lehota env., MT, 24.v.-22.vi.2012, 1♀, J. Roháček & J. Ševčík leg.; Muránska planina NP, Poludnica res.-Suchý dol, MT 13.vii.-8.ix.2011, J. Ševčík leg.; Muránska planina NP, Poludnica res.-Suchý dol, 48°45'26"N, 20°02'32"E, 480 m, sweeping vegetation along brook, 13.vii.2011, 1♂1♀, J. Roháček leg. (SMOC).

Remarks: A widespread Palaearctic species, very common in Central Europe, particularly in humid forested habitats, in vegetation on banks of brooks and rivers.

***Neria commutata* (Czerny, 1930)**

Literature: Muráň-Hrdzavá dolina, Slavec near Plešivec (Roháček & Barták 1990, as *Compsobata*).

Remarks: A Palaearctic species, relatively local in Central Europe, occurring mainly in lowland and submontane moist habitats, usually on overgrown shores of running waters.

***Neria ephippium* (Fabricius, 1794) (Fig. 8)**

Literature: Muráň-Hrdzavá dolina, Plešivec-Šúttník (Roháček & Barták 1990).

Material: Michalová 3.5 km NW, 48°46'50"N, 19°44'17"E, 550 m, sweeping *Carex acuta* in boggy meadow, 22.vi.2012, 2♂, J. Roháček leg. (SMOC).

Remarks: A relatively frequently collected but never abundant West Palaearctic species of poorly known biology. In contrast to most other Calobatinae, its adults occur in open grassland habitats (see Fig. 4).

****Neria longiceps* (Loew, 1870)**

Literature: Suché doly near Tisovec (Roháček & Barták 1990, as *Calobatella*).

Remarks: A thermophilous West Palaearctic species, generally rare in Central Europe and also in Slovakia (cf. Roháček & Barták 1990, Roháček 1995, 2009c). It seems to be confined to lowland, preferentially forest-steppe, habitats and is treated as a vulnerable (VU) species in the Czech Republic (Roháček 2005b).

****Rainieria calceata* (Fallén, 1820)**

Literature: Hradová Mt. near Tisovec, Suché doly near Tisovec, Zádiel (Roháček & Barták 1990).

Remarks: A remarkable European species, rather rare in Central Europe because associated with virgin (preferably beech) deciduous forests and probably developing in rotten wood of old dead trees; adults can be observed on fallen tree trunks. It was classified as vulnerable species (VU) in the Czech Republic (Roháček 2005b). Previous records from Slovakia were published by Roháček & Barták (1990) and Roháček (1995a, 2009c).

MEGAMERINIDAE

This species-poor family, with the majority of species in the Oriental Region and the East Palaearctic area, has only one species, *Megamerina dolium* (Fabricius, 1805), in Europe (Ozerov 2007b) also living in Slovakia (Roháček 2009f). It is a distinctive, medium-sized (6.0-9.0 mm), elongate, shining black fly with reddish femora and hind femur strikingly swollen and ventrally spinose. The larvae live under the bark of dead or dying deciduous trees and are predatory or necrophagous on the larvae of other subcorticolous insects (Krivosheina & Mamaev 1967). The adults can be found in woodland areas, usually near the breeding sites of the larvae, on tree trunks and leaves. This species was already reported from the area under study, based on a single specimen collected by me in 1980 (then a second record from Slovakia, see Roháček 1985).

****Megamerina dolium* (Fabricius, 1805)**

Literature: Slavec near Plešivec (Roháček 1985, 1986b).

Remarks: A Palaearctic species, relatively rare in Central Europe, restricted to lowland deciduous forests. Adults are attracted to freshly cut aspen or poplar wood. In the Czech Republic it is considered a vulnerable (VU) species (Roháček 2005c). Other records from Slovakia are also scarce (summarized by Roháček 1986b, 2009e).

PSILIDAE

This acalyptrate family is represented by almost 50 species in Europe (Pape & Beuk 2007) 34 of which were recorded from Slovakia (Barták & Carles-Tolrá 2009). Small to medium-

sized flies (2.5-12 mm), characterized by the absence of vibrissae, a costa with subcostal break at some distance from the point of its confluence with R_1 and tibiae without dorsal preapical seta, for more information see Iwasa (1998). Their phytophagous larvae usually develop in roots or stems of various plant species; larvae of some species live in wounds of trees or under bark. The generic nomenclature differs widely between various authors, cf. Shatalkin (1986), Iwasa (1998), Pape & Beuk (2007), Shatalkin & Merz (2010) so that Pape & Beuk (2007) dealing with European taxa in Fauna Europaea is followed here to conform with that of the Slovak checklist (Barták & Carles-Tolrá 2009). Most of the previous records of Psilidae from the study area were reviewed by Martinek (1986), who also summarized data from older publications. Additional records were given in Martinek & Mocek (1995). A total of 18 species are now known from the area of Gemer, including 1 species added to the fauna of Slovakia. For the identification of recently acquired material the papers listed in Barták & Carles-Tolrá (2009) but also Shatalkin & Merz (2010) were used.

***Chamaepsila (Chamaepsila) atra* (Meigen, 1826)**

Literature: Muráň (Martinek 1986), Zádiel (Martinek & Mocek 1995).

Material: Muránska planina NP, Šiance res., top plateau, MT, 25.v.-24.vi.2012, 1♂, J. Roháček & J. Ševčík leg. (SMOC).

Remarks: A Transpalearctic species, relatively common in Central Europe. Larvae probably live in roots of plants.

***Chamaepsila (Chamaepsila) buccata* (Fallén, 1826)**

syn. *gracilis* (Meigen, 1826)

Material: Muránska planina NP, Muránska Lehota env., MT, 24.v.-22.vi.2012, 1♂, J. Roháček & J. Ševčík leg. (SMOC).

Remarks: This Transpalearctic species is mainly known from temperate and southern Europe. It is not very common in Central Europe and has also been infrequently recorded from Slovakia; Martinek (1986, sub *Ch. gracilis*) listed only 3 localities in the country. Its nomenclature here follows Fauna Europaea (Pape & Beuk 2007), while it is listed under a synonym *Chamaepsila gracilis* (Meigen, 1826) in the recent "Checklist of Diptera of the Czech Republic and Slovakia" by Barták & Carles-Tolrá (2009).

***Chamaepsila (Chamaepsila) humeralis* (Zetterstedt, 1847)**

Material: Muránska planina NP, Fabova hoľa res., MT, 16.vi.-25.viii.2009, 4♂11♀ J. Ševčík leg. (SMOC).

Remarks: A temperate and North European species, common in open, particularly montane, habitats in Central Europe.

***Chamaepsila (Chamaepsila) nigra* (Fallén, 1820)**

Material: Muránska planina NP, Paseky nr. Tisovec, MT, 17.-19.vi.2001, 1♂, Ľ. Vidlička leg.; Muráň-Hrdzavá dolina, sweeping undergrowth of deciduous forest, 9.vi.1984, 1♂; Muránska planina NP, Patina gamekeeper's lodge, 48°47'10"N, 19°56'11"E, 800 m, sweeping *Calamagrostis villosa*, margin of forest, 24.vi.2012, 1♀, J. Roháček leg. (SMOC).

Remarks: A Eurosiberian species, rather common in Central Europe and also in Slovakia. It preferentially lives in open habitats.

***Chamaepsila (Chamaepsila) nigricornis* (Meigen, 1826)**

Literature: Plešivec (Martinek & Mocek 1995).

Material: Muránska planina NP, Paseky nr. Tisovec, MT, 29.vi.-4.vii.2001, 1♀, Ľ. Vidlička leg. (SMOC).

Remarks: A common European species developing in roots of *Chrysanthemum* and *Daucus* (see Iwasa 1998; Uffen & Chandler 2010) and occurring in various meadow habitats.

***Chamaepsila (Chamaepsila) nigrosetosa* Frey, 1925**

Material: Slovenský kras-Zádiel, at light, 30.viii.1980, 1♂, J. Roháček leg., V. Martinek det. (SMOC).

Remarks: A little known species, sometimes considered a synonym of *C. pallida* (Fallén, 1820). It is known from temperate and northern Europe but in Slovakia it was formerly only recorded from two localities, viz. Jurský Šúr (Martinek 1985, 1986) and Snina-Cirocha river (Roháček 1995b). The above record did remain unpublished by Martinek (1986) and, therefore, it is presented here.

***Chamaepsila (Chamaepsila) pectoralis* (Meigen, 1826)**

Literature: Muráň-Hrdzavá dolina, Plešivec (Martinek 1986), Zádiel (Martinek, 1984, 1986), Háj-Hačavská dolina (Martinek 1986).

Remarks: A European species, rather common in Central Europe but host plants of its larvae are unknown.

***Chamaepsila (Chamaepsila) rosae* (Fabricius, 1794)**

Literature: Muráň (Martinek 1976, 1986).

Material: Muránska planina NP, Fabova hoľa res., MT, 15.v.-16.vi.2009, 1♂, J. Ševčík leg.; Muránska planina NP, Veľká lúka, 48°46'21"N, 20°03'41"E, 880 m, 24.vi.2012, 1♂, J. Roháček leg. (SMOC).

Remarks: A subcosmopolitan species known as a pest of carrots (carrot root fly), also developing in various other species of Daucaceae (Shatalkin & Merz 2010; Uffen & Chandler 2010). For detail about its nomenclature and synonymy see Shatalkin & Merz (2010).

*****Chamaepsila (Chamaepsila) strigata* (Collin, 1959) (Fig. 6)**

Material: Muránska planina NP, Stožky gamekeeper's lodge, 48°49'14"N, 19°56'07"E, 870 m, sweeping *Carex* sp. in boggy shore of a pond, 24.vi.2012, 1♀, J. Roháček leg. (SMOC).

Remarks: This is the most surprising finding of Psilidae in the Gemer area. The species was described from a series of specimens collected at Kolašin in Montenegro (Collin 1959) and apparently has not been recorded from elsewhere since the description. Its biology is unknown but the type locality is situated in a montane area (cca 1,000 m a.s.l.). The above female was swept from *Carex* tussocks on a swampy shore of a small pond (Fig. 5). The specimen perfectly agree with the original description. The species must be very close to *Ch. pectoralis* (Meigen, 1826), differing from the latter besides the striking dark upper band on the pleura only by somewhat shorter pilosity of the arista and longer ventral setulae on the fore basitarsus.

***Chamaepsila (Tetrapsila) obscuritarsis* (Loew, 1856)**

Literature: Muráň-Hrdzavá dolina (Martinek 1986), Zádiel (Martinek & Mocek 1995).

Material: Muránska planina NP, Paseky nr. Tisovec, MT, 17.-19.vi.2001, 2♀, L. Vidlička leg. (SMOC).

Remarks: A European species, uncommon in Central Europe but recorded from a number of localities in Slovakia.

***Chyliza (Chyliza) annulipes* Macquart, 1835**

Literature: Muráň-Hrdzavá dolina (Martinek 1986).

Remarks: A rather common Holarctic species associated with forests, ovipositing in wounds on trees with exuded sap and larvae developing in cracks or underneath bark (Lyneborg 1987; Gates et al. 2005).

***Chyliza (Chyliza) nova* Collin, 1944**

Literature: Slavec near Plešivec (Martinek 1986).

Remarks: A European species, with similar biology as the foregoing species (Dengler 1997). It is generally uncommon in Central Europe and also in Slovakia.

***Chyliza (Chyliza) vittata* Meigen, 1826**

Literature: Zádiel (Martinek 1986).

Material: Muránska planina NP, Paseky nr. Tisovec, MT, 13.-20.vii.2001, 1♂, L. Vidlička leg.; Muránska planina NP, Tisovec 2.8 km WSW, Hlboký jarok res., 48°40'17"N, 19°54'27"E, 500 m, sweeping undergrowth of beech forest, 23.vi.2012, 1♂1♀; Muráň-Hrdzavá dolina, sweeping undergrowth of deciduous forest, 9.vi.1984, 3♂2♀, all J. Roháček leg.; same locality, MT, 1.v.-28.vi.2010, 3♂1♀, 28.vi.-26.vii.2010, 2♀, J. Ševčík leg. (SMOC).

Remarks: A European species, rather rare in Central Europe. Its larvae develop in stems and roots of Orchidaceae (see Ivása 1998; Uffen & Chandler 2010) in woodland habitats. The species is rather characteristic of warm slopes of deciduous (beech, hornbeam, oak) forests and seems to be particularly frequent in the Muránska planina NP.

***Loxocera (Loxocera) albiseta* (Schrank, 1803)**

Literature: Tisovec (Martinek 1984, 1986), Plešivec (Martinek 1986).

Remarks: A European species (treated in the genus *Imantimyia* Frey, 1925 by Shatalkin & Merz 2010), rather common in Central Europe, living in marshland habitats and developing in stems of *Juncus* spp. (Juncaceae), see Ivása (1998), Uffen & Chandler (2010).

***Loxocera (Loxocera) aristata* (Panzer, 1801)**

Literature: Slovenský raj-Hrabušice (Martinek 1976, 1986), Plešivec, Štítnik near Plešivec (Martinek, 1986).

Material: Muránska planina NP, Fabova hoľa res., MT, 16.vi.-25.viii.2009, 1♀ J. Ševčík leg.; Polomka 3.7 km W, Bacúška jelšina res., 48°50'30"N, 19°48'17"E, 560 m, sweeping over boggy meadow, 9.ix.2011, 1♀, J. Roháček leg. (SMOC).

Remarks: A common European species, occurring in wetlands, with larvae also living in stem bases of *Juncus* spp. (Uffen & Chandler 2010).

***Psila fimetaria* (Linnaeus, 1761)**

Literature: Muráň-Hrdzavá dolina (Martinek 1986), Štútník near Plešivec, Slavec near Plešivec (Martinek 1986), Gombasek near Plešivec (Martinek 1976), Rožňava, Silica (Martinek 1986), Kečovo (Martinek 1984, 1986), Zádiel (Martinek & Mocek 1995).

Material: Muránska planina NP, Fabova hoľa res., MT, 16.vi.-25.viii.2009, 1♂8♀ J. Ševčík leg.; Muránska planina NP, Tisovec 2.8 km WSW, Hlboký jarok res., 48°40'17"N, 19°54'27"E, 500 m, sweeping undergrowth of beech forest, 23.vi.2012, 2♀; Muráň-Hrdzavá dolina res., sweeping undergrowth of alder forest, 8.vi.1984, 3♀; Muránska planina NP, Poludnica res.-Suchý dol, 48°45'26"N, 20°02'32"E, 480 m, sweeping vegetation along brook, 13.vii.2011, 1♂1♀, J. Roháček leg. (SMOC).

Remarks: A very common European species developing in stems of *Carex* spp. (Cyperaceae), see Ivasa (1998) and Uffen & Chandler (2010).

***Psila merdaria* Collin, 1944**

Literature: Zádiel (Martinek 1984, 1986).

Material: Muráň-Hrdzavá dolina, sweeping undergrowth of alder forest, 8.vi.1984, 1♂1♀, J. Roháček leg.; Muránska planina NP, Fabova hoľa res., MT, 16.vi.-25.viii.2009, 1♀ J. Ševčík leg. (SMOC).

Remarks: A European species, not rare in Central Europe and living in wet places, usually in forests.

***Psilosoma lefebvrei* (Zetterstedt, 1835)**

Literature: Slovenský raj-Smižany (Martinek 1976, 1986).

Material: Muránska planina NP, Fabova hoľa res., MT, 16.vi.-25.viii.2009, 11♀ J. Ševčík leg. (SMOC).

Remarks: A species restricted to North and Central Europe, in the latter predominantly occurring at montane altitudes. Adults occur in larger grasses (e.g. *Calamagrostis* spp.).

Discussion and conclusions

The Gemer fauna of the acalyptrate families Pseudopomyzidae, Micropezidae, Megamerinidae and Psilidae is composed (besides various common and widespread species) of several distinctive elements. First, there are markedly thermophilous species, characteristic either of open lowland, steppe to forest-steppe habitats (*Micropeza brevipennis*, *Neria longiceps*) or of warm deciduous forests (*Megamerina dolium*, *Chyliza vittata*). On the other hand, at higher altitudes and in deep cold valleys and ravines in the montane ranges of the area montane and cold-loving species can also be encountered, e.g. *Calobata petronella*, *Chamaepsila humeralis*, *Psilosoma lefebvrei*. In addition, there is also a typical representative of the saproxylic primeval forest fauna, viz., *Rainieria calceata*. The mass occurrence of *Pseudopomyza atrimana* in two localities in the northern part of the Muránska planina NP (see Roháček 2012) is particularly interesting because the species has formerly been considered very rare in Slovakia (Roháček 1986a). The records of *Cnodacophora stylifera* and *Chamaepsila strigata* are most interesting findings in the Gemer area, the former being very local in the whole of Europe and confined to open wetland habitats, the latter representing first finding in Central Europe because was otherwise only known from the type locality in Montenegro (Collin 1959).

It is apparent that even within this small portion of dipterous fauna the mixture of various faunal elements, so characteristic of the Gemer area, can be demonstrated. Moreover, the presence of species significant from the nature conservation point of view (*Pseudopomyza atrimana*, *Neria longiceps*, *Rainieria calceata*, *Megamerina dolium*), all being treated as vulnerable in the Czech Republic, also confirm the high natural merit of this territory.

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Fauna čeledí Pseudopomyzidae, Micropezidae, Megamerinidae and Psilidae (Diptera) v oblasti Gemeru (střední Slovensko)

Je podán přehled dvoukřídlých čtyř akalyptárních čeledí v Gemerské oblasti (Slovensko), která zahrnuje Národní parky Muránska planina, Slovenský raj a Slovenský kras. Na základě publikovaných údajů a studovaného materiálu je z této oblasti uveden 1 druh čeledi Pseudopomyzidae, 10 druhů čeledi Micropezidae, 1 druh čeledi Megamerinidae a 18 druhů čeledi Psilidae. Každý z těchto druhů je pojednán s informacemi o jeho celkovém rozšíření, faunistice na Slovensku, bionomii a významu pro ochranu přírody. *Pseudopomyza atrimana* (Meigen, 1830) (Pseudopomyzidae), *Cnodacophora stylifera* (Loew, 1870), *Neria longiceps* (Loew, 1870), *Rainieria calceata* (Fallén, 1820) (Micropezidae), *Megamerina dolium* (Fabricius, 1805) (Megamerinidae) a *Chamaepsila strigata* (Collin, 1959) (Psilidae) jsou druhy významné z hlediska ochrany přírody, protože patří k taxonům vázaným na ve střední Evropě ohrožené biotopy. *Chamaepsila strigata*, která je novým druhem pro faunu Slovenska, je zaznamenána poprvé od popisu z Černé Hory a její zjištění v národním parku Muránska planina je tedy prvním nálezem ve střední Evropě. *Cnodacophora stylifera* je poprvé hlášena z Rakouska a podruhé ze Slovenska. Jsou prezentovány nové údaje o biotopech těchto vzácných druhů.

Author's address: Jindřich Roháček, Silesian Museum, Tyršova 1, CZ-746 01 Opava, Czech Republic.
E-mail: rohacek@szmo.cz